Board of Directors Agenda

March 13, 2025

Click link to access the meeting:

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Zoom Meeting ID

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Webinar Features:

Raise Hand	▶	Use the **raise hand** feature every time you wish to make a public comment.
CC	▶	Participants can enable **closed captioning** by clicking the CC icon. You may also view the full transcript and change the font size by clicking 'subtitle settings'. These features are not available via phone.
	▶	This symbol shows you are **muted**, click this icon to unmute your microphone.
	▶	This symbol shows you are currently **unmuted**, click this button to mute your microphone.
	▶	The chat feature should be used by panelists and attendees solely for "housekeeping" matters as comments made through this feature will not be retained as part of the meeting record. See the **Live Verbal Public Comment** for instructions on how to make a public comment.

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1. If you are joining the meeting audio by phone and viewing the meeting on a device, dial the number provided in the 'join audio' phone call tab of the initial pop-up, and enter the Meeting ID (found in the link).
2. If you are joining by phone only, dial: **+1-669-900-9128** or **+1-253-215-8782** and type the meeting ID found in the link, press #. You will have access to the meeting audio, **but will NOT be able to view the PowerPoint presentations.**

Live Verbal Public Comments: Use the 'Raise Hand' icon every time you wish to make a public comment on an item. Raise your hand once the agenda item you wish to comment on has been called. In person public comments will be taken first, virtual attendees will be taken in the order in which they raise their hand. Requests to speak will not be taken after the public comment period ends, unless under the Chair's discretion. General Public Comment, at the beginning of the Board of Directors meeting only, will be limited to five speakers. Additional speakers with general public comments will be heard at the end of the meeting. Two-minutes of time is allotted per speaker, unless otherwise directed by the Chair.

Public Comments Made Via Zoom

1. Click the link found at the top of this instruction page
2. Click the raise hand icon located in the bottom center of the platform
3. The Clerk will announce your name when it is your turn to speak
4. Unmute yourself to speak

Public Comments Made by Phone Only

1. Dial **+1-669-900-9128**
2. Type in the zoom meeting ID found in the link and press #
3. Dial *9 to raise your hand via phone
4. The Clerk will call out the last 4 digits of your phone number to announce you are next to speak
5. Dial *6 to unmute yourself

Written Public Comments (before the meeting): Written public comments will be recorded in the public record and will be provided to MTS Board Members in advance of the meeting. Comments must be emailed or mailed to the Clerk of the Board* by 4:00pm the day prior to the meeting.

Translation Services: Requests for translation services can be made by contacting the Clerk of the Board* at least four working days in advance of the meeting.

In-Person Participation: In-person public comments will be heard first. Following in-person public comments, virtual attendees will be heard in the order in which they raise their hand via the Zoom platform. Speaking time will be limited to two minutes per person, unless specified by the Chairperson. Requests to speak will not be taken after the public comment period ends, unless under the Chair's discretion.

Instructions for providing in-person public comments:

1. Fill out a speaker slip located at the entrance of the Board Room;
2. Submit speaker slip to MTS staff seated at the entrance of the Board Room;
3. When your name is announced, please approach the podium located on the right side of the dais to make your public comments.

Members of the public are permitted to make general public comment at the beginning of the agenda or specific comments referencing items on the agenda during the public comment period. General Public Comment, at the beginning of the Board of Directors meeting only, will be limited to five speakers. Additional speakers with general public comments will be heard at the end of the meeting.

Assistive Listening Devices (ALDs): ALDs are available from the Clerk of the Board* prior to the meeting and are to be returned at the end of the meeting.

Reasonable Accommodations: As required by the Americans with Disabilities Act (ADA), requests for agenda information in an alternative format or to request reasonable accommodations to facilitate meeting participation, please contact the Clerk of the Board* at least two working days prior to the meeting.

***Contact Information:** Contact the Clerk of the Board via email at ClerkoftheBoard@sdmts.com, phone at **(619) 398-9561** or by mail at **1255 Imperial Ave. Suite 1000, San Diego CA 92101.**

Agenda de la Junta de Directores

March 13, 2025

Haga clic en el enlace para acceder a la reunión:

https://www.zoomgov.com/j/1602805839

ID de la reunión en Zoom

Formas de Participar

Computadora: Haga clic en el enlace más arriba. Recibirá instrucciones para operar el navegador de Zoom o la aplicación de Zoom. Una vez que haya iniciado sesión en la reunión, tendrá la opción de participar usando el sistema de audio de su computadora o teléfono.

Funciones del Seminario En Línea:

Levantar la mano	▶	Use la herramienta de **levantar la mano** cada vez que desee hacer un comentario público.
CC	▶	Los participantes pueden habilitar **el subtitulado** haciendo clic en el ícono CC. También puede ver la transcripción completa y cambiar el tamaño de letra haciendo clic en “configuración de subtítulos”. Estas herramientas no están disponibles por teléfono.
	▶	Este símbolo indica que usted se encuentra en **silencio**, haga clic en este ícono para quitar el silenciador de su micrófono.
	▶	Este símbolo indica que su micrófono se encuentra **encendido**. Haga clic en este símbolo para silenciar su micrófono.
	▶	La herramienta de chat deben usarla los panelistas y asistentes únicamente para asuntos “pertinentes a la reunión”, ya que comentarios realizados a través de esta herramienta no se conservarán como parte del registro de la reunión. Consulte el **Comentario público verbal** en vivo para obtener instrucciones sobre cómo hacer un comentario público.

Teléfono Inteligente o Tableta: Descargue la aplicación de Zoom y participe en la reunión haciendo clic en el enlace o usando el ID del seminario web (que se encuentra en el enlace).

Descarga en el App Store

Obténla en Google Play

Teléfono:

1. Si está participando en la reunión mediante audio de su teléfono y viendo la reunión en un dispositivo, marque el número indicado en la pestaña de llamada telefónica “unirse por audio” en la ventana emergente inicial e ingrese el ID de la reunión (que se encuentra en el enlace).
2. Si está participando solo por teléfono, marque: **+1-669-900-9128** o **+1-253-215-8782** e ingrese el ID de la reunión que se encuentra en el enlace, pulse #. Tendrá acceso al audio de la reunión, **pero NO podrá ver las presentaciones en PowerPoint.**

Comentarios Públicos Verbales en Vivo: Use la herramienta “levantar la mano” cada vez que desee hacer un comentario público sobre alguno de los artículos. Levante la mano una vez que el artículo de la agenda sobre el que desea comentar haya sido convocado. Los comentarios públicos en persona se escucharán primero, se escuchará a los asistentes virtuales en el orden en el que levanten la mano. No se aceptarán solicitudes para hablar después de que termine el periodo para hacer comentarios públicos, a menos de que el presidente determine de otra forma a su discreción. Comentarios públicos generales, únicamente al inicio de la reunión de la Junta de Directores, se limitarán a cinco personas que deseen hablar. Las personas adicionales que deseen aportar comentarios públicos generales podrán hacerlo al final de la reunión. Se otorga dos minutos de tiempo por persona que desee hablar, a menos de que el presidente instruya de otra forma. (*Consulte la página 2 para obtener instrucciones sobre cómo hacer un comentario público.*)

Comentarios Públicos a Través de Zoom

1. Haga clic en el enlace que se encuentra en la parte superior de esta página de instrucciones
2. Haga clic en el ícono de levantar la mano en el centro inferior de la plataforma
3. El secretario anunciará su nombre cuando sea su turno de hablar
4. Desactive el silenciador para que pueda hablar

Comentarios Públicos Realizados Únicamente por Teléfono

1. Marque el **+1-669-900-9128**
2. Ingrese el ID de la reunión en Zoom que se encuentra en el enlace y pulse #
3. Marque *9 para levantar la mano por teléfono
4. El secretario indicará los últimos 4 dígitos de su número de teléfono para anunciar que usted será el siguiente en hablar
5. Marque *6 para desactivar el silenciador



Comentarios Públicos por Escrito (Antes de la Reunión): Los comentarios públicos por escrito se registrarán en el registro público y se entregarán a los miembros de la Junta de MTS antes de la reunión. Los comentarios deben enviarse por correo electrónico o postal al secretario de la Junta* antes de las 4:00 p.m. el día anterior a la reunión.



Servicios de Traducción: Pueden solicitarse servicios de traducción comunicándose con el secretario de la Junta* por lo menos cuatro días hábiles antes de la reunión.



Participación en Persona: Los comentarios públicos en persona se escucharán primero. Después de los comentarios públicos en persona, se escuchará a los asistentes virtuales en el orden en el que levanten la mano a través de la plataforma de Zoom. El tiempo para hablar se limitará a dos minutos por persona, a menos de que el presidente especifique de otra forma. No se recibirán solicitudes para hablar después de que termine el periodo para hacer comentarios públicos, a menos de que el presidente determine de otra forma a su discreción.

Instrucciones para brindar comentarios públicos en persona:

1. Llene la boleta para personas que desean hablar que se encuentran en la entrada de la Sala de la Junta.
2. Entregue la boleta para personas que desean hablar al personal de MTS que se encuentra sentado en la entrada de la Sala de la Junta.
3. Cuando anuncien su nombre, por favor, acérquese al podio ubicado en el lado derecho de la tarima para hacer sus comentarios públicos.

Los miembros del público pueden hacer comentarios públicos generales al inicio de la agenda o comentarios específicos que hagan referencia a los puntos de la agenda durante el periodo de comentarios públicos. Los comentarios públicos generales únicamente al inicio de la reunión de la Junta de Directores, se limitarán a cinco personas que deseen hablar. Las personas adicionales que deseen aportar comentarios públicos generales podrán hacerlo al final de la reunión.



Dispositivos de Asistencia Auditiva (ALD, por sus siglas en inglés): Los ALD están disponibles con el secretario de la Junta* antes de la reunión y estos deberán ser devueltos al final de la reunión.



Facilidades Razonables: Según lo requerido por la Ley de Estadounidenses con Discapacidades (ADA, por sus siglas en inglés), para presentar solicitudes de información de la agenda en un formato alternativo o solicitar facilidades razonables para facilitar su participación en la reunión, por favor, comuníquese con el secretario de la Junta* por lo menos dos días hábiles antes de la reunión.



***Información de Contacto:** Comuníquese con el secretario de la Junta por correo electrónico en ClerkoftheBoard@sdmts.com, por teléfono al **(619) 398-9561** o por correo postal en **1255 Imperial Ave. Suite 1000, San Diego CA 92101.**

Metropolitan Transit System

Board of Directors

Agenda

March 13, 2025 at 9:00 a.m.

In-Person Participation: James R. Mills Building, 1255 Imperial Avenue, 10th Floor Board Room, San Diego CA 92101

Teleconference Participation: (669) 254-5252; Webinar ID: 160 280 5839, https://www.zoomgov.com/j/1602805839

NO.	ITEM SUBJECT AND DESCRIPTION	ACTION
1.	**Roll Call**	
2.	**Public Comments** This item is limited to five speakers with two minutes per speaker. Others will be heard after Board Discussion items. If you have a report to present, please give your copies to the Clerk of the Board.	
	CONSENT ITEMS	
3.	**Approval of Minutes** Action would approve the February 13, 2025 Board of Director meeting minutes.	Approve
4.	**CEO Report**	Informational
5.	**Kearny Mesa Transit Center – Property Purchase** Action would 1) Determine that the Kearny Mesa Transit Center project is statutorily and categorically exempt from environmental review under the California Environmental Quality Act pursuant to Public Resources Code sections 21080.25(b)(2), (5), and (8), as well as Title 14 of the California Code Regulations, sections 15301, 15303, and 15332; certify that any construction contract for the project will require use of a skilled and trained workforce consistent with the criteria in Public Resources Code section 21080.25. 2) Create a project in the 2025 Capital Improvement Program (CIP) for the Kearny Mesa Transit Center project (WBSE 3004128201). 3) Transfer $14,000,000 from the Clean Transit Advancement Campus project (WBSE 3004100801) to the Kearny Mesa Transit Center project (WBSE 3004128201). 4) Authorize the Chief Executive Officer (CEO) to execute a Purchase and Sale Agreement for the purchase of the property located at 8949 Clairemont Mesa Boulevard, San Diego, CA 92121 with a purchase price of $13,266,000, and to take all actions necessary to complete due diligence necessary to complete the purchase process.	Approve

6. **Orange Line Variable Message Signs (VMS) Replacements – Contract Amendment** — Approve

Action would authorize the Chief Executive Officer (CEO) to: 1) Approve up to $150,000 contingency for future contract change orders to ensure construction progresses to completion without delay, under MTS Doc. No. PWL393.0-24, with Balfour Beatty Infrastructure, Inc. (Balfour Beatty), for Orange Line VMS replacements; and 2) Ratify PWL393.1-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $54,006.73 to add a 1 double sided VMS for the new Copper Line, add a media converter to each VMS sign, and include VMS signs for the Green Line Platform at the 12th and Imperial Transit Center; and 3) Ratify PWL393.2-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $87,089.87 to rewire power and data for Closed Circuit Television (CCTV) systems located on existing VMS poles. The change order provides funding for modifications to up to 30 CCTV installations.

7. **Orange Line (OL) Phase 1 Construction – Contract Award** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWL409.0-25, to Stacy and Witbeck, Inc. (Stacy and Witbeck), for the OL Phase 1 Construction in the amount of $26,890,732.50 plus 10% contingency.

8. **Pyramid Building Improvements – Work Order Agreement** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA352-AE-27 to MTS Doc No. PWL352.0-22, with HDR Engineering, Inc. (HDR), in the amount of $329,608.51 for the Pyramid Building Improvements design project.

9. **Board Policy No. 59, "Natural Gas and Energy Commodity Hedge Policy" – Policy Revisions** — Approve

Action would approve the proposed revisions to MTS Board Policy No. 59, "Natural Gas and Energy Commodity Hedge Policy".

10. **Purchase of Class A, B, and Z1 Paratransit Vehicles – Contract Award** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute: 1) MTS Doc. B0775.0-25, with Model 1 Commercial Vehicles, Inc. for the purchase of two (2) battery powered Class Z1 Paratransit Vehicles in the amount of $291,539.60. 2) MTS Doc. B0776.0-25, with Model 1 Commercial Vehicles, Inc. for the purchase of ten (10) propane powered Class B Paratransit Vehicles in the amount of $2,112,034.50. 3) MTS Doc. B0777.0-25, with Model 1 Commercial Vehicles, Inc. for the purchase of twenty (20) gas powered Class A Paratransit Vehicles in the amount of $3,167,236.35.

11. **Investment Report – Quarter Ending December 31, 2024** — Informational

12. **12th and Imperial Transit Center Rehabilitation Design Amendment 1 – Work Order Amendment** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute Work Order WOA353-AE-08.01 under MTS Doc No. PWL353.0-22, with Dokken Engineering (Dokken), in the amount of $435,963.92, to provide 30% engineering design services for the 12th and Imperial Transit Center Rehabilitation Design (Amendment 1 to Work Order).

13. ~~**Fire Extinguisher Maintenance and As-Needed Repairs – Contract Award**~~ — ~~Approve~~

~~**Action** would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWG428.0-25, to Fire Technology and Solutions, for the provision of fire extinguisher maintenance and as needed repair services for a period of five (5) years in the amount of $156,485.24.~~

14. **On-Call Job Order Contracting (JOC) Railroad Construction Services – Contract Amendment** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute Amendment No. 4 MTS Doc. No. PWG348.4-22 with Veterans Engineering Services, Inc., (Veterans), a Disabled Veterans Business Enterprise (DVBE), for an increase in capacity to the Railroad Construction Services JOC in the amount of $4,800,000.00.

15. **Broadway & C Street Wheel Counter and Signal Replacement – Contract Award** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute contract MTS Doc No. PWL394.0-24, with Modern Railway Systems, Inc., in the amount of $673,396.00 for the replacement of the existing wheel counters and signaling systems located at Broadway and C Street.

16. **Modernization of Stadium Trolley Station Elevator – Change Order** — Approve

Action would authorize the Chief Executive Officer (CEO) to: 1) Ratify Contract Change Order (CCO) 01 under MTS Doc No. PWG347.0-22 to Work Order MTSJOC347-21.01, with ABC General Contracting Inc. (ABCGC), in the amount of $149,867.29 for the additional cost to install a Sapphire Novec Fire Suppression System in the elevator control room at the Stadium Trolley Station; and 2) Authorize the Chief Executive Officer (CEO) to approve CCO 02 under MTS Doc No. PWG347.0-22, to Work Order MTSJOC347-21.02, with ABCGC, in the amount of $144,022.59 to provide additional elevator revisions and smoke dampers as required by the State Fire Marshal.

17. **Light Rail Vehicle (LRV) Accident Repair Services - Contract Award** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1693.0-25 with Carlos Guzman, Inc. (CG, Inc.), a Disadvantaged Business Enterprise (DBE), for the provision of LRV accident repair services, for five (5) years, in the amount of $28,998,544.20.

18. **Purchase of 24 Class C Propane Powered Medium Duty Mini Buses – Contract Amendment** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0744.1-22 with Model 1 Commercial Vehicles, Inc. (Model 1) in the amount of $153,763.20 to change the seating on twenty-four (24) Class C Propane Powered Medium Duty Mini Buses.

19. **Elevator Maintenance at San Diego State University Transit Center – Operations and Maintenance Agreement Amendment** — Approve

Action would authorize the Chief Executive Officer (CEO) to execute Amendment No. 2 to the Operation and Maintenance Agreement with San Diego State University (SDSU), MTS Doc. No. M6644.2-06, regarding elevator maintenance at the SDSU Transit Center.

20. **Property Insurance Renewal** — Approve

Action would authorize the Chief Executive Officer (CEO) to: 1) Renew the property insurance coverage for the MTS, San Diego Transit Corporation (SDTC), and San Diego Trolley, Inc. (SDTI) with the Public Risk Innovation, Solutions, and Management (PRISM) Property Insurance Program, effective March 31, 2025 through March 31, 2026, with various coverage deductibles of $50,000 (real property, personal property and business interruption), $100,000 (bus fleet), $250,000 (light rail fleet), and a $3,000,000 sublimit on each occurrence subject to a $500,000 deductible for unscheduled infrastructure, for a total not to exceed premium of $5,194,479. 2) Purchase stand-alone Engineered Risk Property insurance coverage for the Mid-Coast bridges with Chubb, effective March 31, 2025, through March 31, 2026, with a $100,000,000 per occurrence property damage sub-limit and a coverage deductible of $1,000,000, for a total not to exceed premium of $290,000.

21. **Excess General Liability (Liability) And Excess Workers' Compensation (Workers' Compensation) Insurance Renewals** — Approve

Action would authorize the Chief Executive Officer (CEO) to purchase a liability insurance program, effective March 31, 2025, that results in a not to exceed premium amount of $4,242,918 (including the State of California surplus lines taxes and fees) based on the coverage structure of $75 million inclusive of a $7.5 million Self Insured Retention (SIR) on Bus and Rail Operations, and a $5 million SIR on public officials' errors and omissions, and employment practices liability.

DISCUSSION ITEMS

22. **Overview of Disadvantaged Business Enterprise (DBE) Program and Revisions to Board Policy No. 26 "DBE Program" (Samantha Leslie)** — Approve
Action would approve revisions to Board Policy No. 26, "DBE Program".

23. **Annual Safety Performance Review and Approval of Updated Agency Safety Plan (Fabeann Soberg and Jared Garcia)** — Approve
Action would approve updates to the Public Transportation Agency Safety Plan (PTASP) in substantially the same format as Attachment A (Agency Safety Plan), Attachment B (Bus Safety Plan), and Attachment C (Rail Safety Plan).

24. **Fiscal Year (FY) 2026 Capital Improvement Program (CIP) (Mike Thompson)** — Approve
Action would 1) Approve the FY 2026 CIP with the estimated federal and non-federal funding levels. As the federal appropriation figures are finalized and/or other project funding sources become available, allow the Chief Executive Officer (CEO) to identify and adjust projects for the adjusted funding levels; and 2) Recommend that the San Diego Association of Governments (SANDAG) Board of Directors approve the submittal of Federal Section 5307, 5337, and 5339 applications for the MTS FY 2026 CIP; and 3) Recommend that the SANDAG Board of Directors approve amendment number 5 of the 2025 Regional Transportation Improvement Program (RTIP) in accordance with the FY 2026 CIP recommendations.

25. **Fiscal Year (FY) 2025 Operating Budget Midyear Amendment (Gordon Meyer)** — Approve
Action would enact Resolution No. 25-01 amending the FY 2025 operating budget for MTS, San Diego Transit Corporation (SDTC), San Diego Trolley, Inc. (SDTI), MTS Contract Services, and the Coronado Ferry.

26. **Transit Operations Insourcing Feasibility Study – Existing Conditions Report (James Gerken and Russ Chisholm with Transportation Management and Design, Inc. and Mike Daney)** — Informational

27. **Fiscal Year (FY) 2025 Mid-Year Performance Monitoring Report (Brent Boyd and Matthew Grace)** — Informational

OTHER ITEMS

28. **Chair, Board Member and Chief Executive Officer's (CEO's) Communications**

29. **Remainder of Public Comments Not on The Agenda**
This item is a continuation of item No. 2 (Public Comment), in the event all speakers who request to comment on item No. 2 are not called. If all Public Comment is accepted during item No. 2, no additional public comment will be accepted under this item.

ADJOURNMENT

30. Next Meeting Date

The next Board of Director's meeting is scheduled for April 17, 2025 at 9:00am.

31. Adjournment

Dalia Gonzalez

From: Karely Serrano <kserrano@midcitycan.org>
Sent: Wednesday, March 12, 2025 2:14 PM
To: MTS Clerk of the Board
Subject: MTS Board Meeting 3/13 Public Comment Submission
Attachments: MTS Public comment.pdf

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.
Hello,

I am submitting a written public comment for the MTS Board meeting being held tomorrow morning (3/13).

With Gratitude,
Karely Serrano
Base Builder, Mid-City CAN
B: (619)272-7582 Ext. 128
C: (619)980-5232
www.midcitycan.org

Public Comment:

My name is Karely Serrano. I work with Mid-City CAN, a nonprofit organization that has advocated for Youth Opportunity Passes for over a decade. I express the concerns of many parents and school officials who are concerned about the burdens of the current verification process. This program has increased youth ridership by allowing youth to seek opportunities without the financial burden on them or their parents.

Access to this program has recently become difficult due to the long verification process. The verification deadline is March 31st, and we are concerned for the hundreds of students who will lose access. This is counterproductive to YOP, as it has already been paid for, and there should be no limits to youth accessing it. Thus, I urge you, members of the board, to make verification a priority and an agenda item for the next board meeting as well as asses the effectivness of this requirment, and seek accommodations for a simpler process.

Thank You.

MINUTES

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM

BOARD OF DIRECTORS

February 13, 2025

[Clerk's note: Except where noted, public, staff and board member comments are paraphrased. The full comment can be heard by reviewing the recording at the MTS website.]

1. Roll Call

Chair Whitburn called the Board meeting to order at 9:04 a.m. A roll call sheet listing Board member attendance is attached as Attachment A.

2. Public Comment

William Keith – A rider made a verbal statement to the Board during the meeting. Keith shared examples of interactions that he felt were unfair and noting that his complaints had not been fully addressed by the Board.

Dorothy Lazenby – A rider made a verbal statement to the Board during the meeting. Lazenby raised concerns about training and accountability of trolley operators and security personnel, poor maintenance of facilities, and a lack of proper customer service, emphasizing the need for improvements to ensure safety and cleanliness for passengers.

CONSENT ITEMS:

3. Approval of Minutes
Action would approve the January 16, 2025 Board of Director meeting minutes.

4. CEO Report

5. Imperial Avenue Division (IAD) High Pile Storage Construction – Work Order Agreement
Action would authorize the Chief Executive Officer (CEO) to execute Work Order MTSJOC324-63 under JOC MTS Doc. No. PWG324.0-21 with ABCGC, in the amount of $408,415.52, for the replacement of high pile storage racks, and improvements to the fire sprinkler system in the IAD RAM building parts storage.

6. Orange Line: Hitachi Switch Machines – Sole Source Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute Contract L1697.0-25 with Hitachi Rail STS USA, Inc. (Hitachi) in the amount of $542,607.45 for the purchase of switch machines.

7. Orange Line Improvement Project: Electrified Electrocodes – Sole Source Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1700.0-25, a sole source award to KB Signaling Operation, LLC (KB Signaling), in the amount of $1,355,932.79 for the purchase of Electrified Electrocodes (specialized track circuit systems).

DRAFT

8. Orange Line Improvement Project: Siemens Signal Instrument Components – Sole Source Contract Award

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1698.0-25, a sole source award to Siemens Mobility, Inc. (Siemens), in the amount of $427,849.39 for the purchase of Siemens signal instrument components.

9. Clarifier Waste Services - Contract Award

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWG418.0-25 with Asbury Environmental Services, dba: World Oil (World Oil) for a five (5) year period in the amount of $381,145.19.

10. Iris Rapid Bus Stop Construction Additional Stop at Westbound Imperial Beach Blvd and 13th Street – Change Order

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWB380.2-24, with Hazard Construction Engineering LLC (Hazard Construction), in the amount of $413,092.00 for the Iris Rapid construction of Rapid 227 bus stop improvements at westbound Imperial Beach Blvd and 13th St.

11. Broadway Rail Replacement – Work Order Agreement

Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. MTSJOC348-17, under MTS Doc. No. PWG348.0-22, with Veterans Engineering Inc. (Veterans), a Disabled Veterans Business Enterprise (DVBE), for the replacement of the outside rail on the westbound track of Broadway and Park Boulevard grade crossing in downtown San Diego in the amount of $395,747.67

12. Operations Budget Status Report for December 2024

13. San Diego Metropolitan Transit System (MTS) Transit Asset Management (TAM) Plan – Fiscal Year (FY) 2025 Update

14. Uninterruptible Power Supply (UPS) On-Site Repair and Support – Contract Amendment

Action would authorize the Chief Executive Officer (CEO) to: 1) Ratify Amendment No. 7 and 8 to MTS Doc. No. G2009.0-14, with Schneider Electric IT Corporation (Schneider), for the addition of South Bay Bus Rapid Transit (BRT) UPS units under service agreement, end-of-life (EOL) battery replacements and a 4-month contract extension in the amount of $117,489.66; and 2) Execute Amendment No. 9 to MTS Doc. No. G2009.0-14, with Schneider, for an additional 4-month maintenance service extension in the amount of $ 62,836.00.

15. Agenda Item Number Reserved

Public Comment

There were no Public Comments.

Board Comment

There were no Board Comments.

Action on Recommended Consent Items

Vice Chair Goble moved to approve Consent Agenda Item Nos. 3 to 15. Board Member Hall seconded the motion, and the vote was 10 to 0 in favor with Board Member McCann, Board Member Montgomery Steppe, Board Member Vaus, Board Member Moreno absent and Board Member Leyba-Gonzalez recusing himself.

DISCUSSION ITEMS (ITEMS TAKEN OUT OF ORDER):

16. San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, with RVK Inc., and Mike Thompson)

Mike Thompson, MTS Deputy Chief Financial Officer and Jeremy Miller, with RVK Inc., presented on SDTC Pension Investment Status. They presented on: investment structure as of 6/30/2024, FY 2024 Performance, long term performance details and the investment summary.

Public Comment

There were no Public Comments.

Board Comment

There were no Board Comments.

Action Taken

No action taken. Informational item only.

17. San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2024 (Anne Harper and Alice Alsberghe with Cheiron Inc., and Mike Thompson)

Mr. Thompson, Anne Harper and Alice Alsberghe with Cheiron Inc. presented on SDTC Employee Retirement Plan's Actuarial Valuation as of July 1, 2024. They outlined: the background plan contributions for Fiscal Year 2025-2026 (based on 2024 Actuarial Valuation), plan history plan projections, and staff's recommendation.

Public Comment

There were no Public Comments.

Board Comment

Board Member Downey asked about the comparison of CalPERS donations for employees who were not included in the retirement plan. She expressed interest in seeing the data side by side during the same agenda. Mr. Thompson explained that the CalPERS valuation plans were typically brought up separately and noted that the most recent valuation plans were published in October for the previous fiscal year. He pointed out that the plans had a lower cost due to a large unfunded liability on their side, and while their returns were lower compared to CalPERS due to a smaller pool of money, the agency maintained a more conservative approach. Mr. Thompson clarified that the overall contribution level was significantly lower than $21 million and confirmed that their unfunded liability was not as high as that of CalPERS. Board Member Downey confirmed that her question was answered.

Action Taken

Board Member Downey moved to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2024 and adopt the pension contribution amount of $21,231,465 for fiscal year 2026. Vice Chair Goble seconded the motion, and the vote was 11 to 0 in favor with Board Member Fernandez, Board Member Montgomery Steppe, Board Member Vaus and Board Member Moreno absent.

18. Comprehensive Operational Analysis (COA), Fare Study & Potential Ballot Measure (Brent Boyd)

Brent Boyd, MTS Director of Planning and Scheduling, presented on COA & Potential Ballot Measure. He outlined: the background, history, timing, goals of the COA, planning Scenarios of the COA, project management, tasks, timeline, alternative revenue sources, potential ballot measure and recommendations, fare study, and staff's recommendation.

Public Comment

There were no Public Comments.

Board Comment

Board Member Bush motioned to approve the Executive Committee's recommendation he emphasized that the board should be involved in determining the scope of work. Ms. Cooney stated that the winner of the procurement would brought to the Board for approval. Board Member Bush expressed a desire to analyze the plan more thoroughly, citing previous involvement in similar projects and the need to understand the reasons behind ridership trends.

Board Member Bush then inquired about the cost of the previous COA, asking if it was mentioned in the report. Mr. Boyd confirmed it was around $350,000 to $400,000. Ms. Cooney cautioned the Board about releasing the Independent Cost Estimate (ICE) amount to ensure a competitive procurement. Board Member Bush also questioned if they were required to select the lowest qualified bid. Claudine Aquino, MTS Manager of Procurement, explained that the proposal evaluation would prioritize technical qualifications first, followed by cost, and that the highest-ranking proposal would win. Ms. Cooney clarified that the criteria for the RFP had already been posted. Ms. Aquino mentioned that the technical and cost criteria would be evaluated separately, she mentioned that they were in the Q&A phase before receiving proposals. Ms. Cooney noted that if the motion to proceed was not approved at today's meeting, they would remove the RFP from the bidding process.

Board Member Bush expressed support for moving forward but noted that he hoped the Board would approve the proposal. He mentioned wanting to understand the criteria better. Board Member Bush also asked about the potential requirement for voter approval if the threshold for lowering rates was adjusted to 55%, to which Ms. Cooney confirmed it would need statewide voter approval. Board Member Bush commented on the recent failure of a statewide ballot measure in 2024, noting that the lack of an effective statewide campaign contributed to its defeat. He emphasized the importance of the 55% threshold for approval, which he found much more achievable than the two-thirds requirement. Drawing from his involvement in previous transit measures, he stressed the need for a strategic approach, being mindful of the political challenges and thresholds involved.

Board Member Elo- Rivera expressed his concerns about making tactical decisions, such as choosing a revenue type, too early in the process. He emphasized that decisions should be based on clear goals and strategies, not prematurely selecting a sales tax. Board Member Elo-Rivera pointed out that making such decisions early could limit the potential coalition and reduce the chances of success. Board Member Elo- Rivera then discussed the possibility of using a progressive fee structure under S.B. 83, highlighting that it could allow MTS to raise significant revenue, potentially exceeding $100 million annually. He argued that such a structure could help avoid inequities seen in flat sales tax models and support a more inclusive coalition. Board Member Elo- Rivera suggested that legislative action could clarify how S.B. 83 could also support MTS's goals of transitioning to zero-emission technology while mitigating pollution. Board Member Elo- Rivera emphasized the need for a methodical approach and the importance of moving together as a board. He stressed the necessity of defining the revenue needed not only to maintain current services but also to meet future goals. He also pointed out the importance of creating a broad coalition to support this effort, noting that past challenges, such as the city's failed stormwater funding initiative, demonstrated the importance of proactive planning. Board Member Elo-Rivera further proposed including partners in labor and operations in the process. Board Member Elo-Rivera concluded by discussing the potential benefits of capital improvements, such as safety enhancements, which could gain public support and strengthen the case for the measure. Ms. Cooney clarified the motion, by suggesting the creation of an ad hoc subcommittee.

Board Member Downey raised a concern about the timing and coordination between MTS and SANDAG, given that both were pursuing sales tax increases for similar transit projects. She asked whether efforts were being made to avoid conflicting initiatives. Board Member Downey noted that the previous attempt to pass a sales tax measure had failed and expressed the hope that this time the outcome would be more successful. Ms. Cooney referenced the Regional Transportation Plan (RTP), which had anticipated MTS pursuing a half-cent sales tax increase for transit funding. She mentioned that the RTP's revenue assumptions had included both MTS and SANDAG pursuing such measures unless changes had been made to the plan since then. Board Member Downey mentioned that she would be receiving an update from SANDAG the following week and did not believe anything had changed regarding their plans. She added that according to previous discussions, MTS was expected to go on the ballot first with its half-cent sales tax increase, followed by SANDAG's initiative.

Board Member Bush restated the motion to include the creation of the ad hoc subcommittee to help streamline the process and keep things moving forward.

Board Member Elo-Rivera confirmed his support for the motion, expressing no concerns about the establishment of the ad hoc committee.

Board Member Foster asked about the status of the Request for Proposal (RFP), considering the newly proposed ad hoc committee. He asked whether the committee could influence the RFP's direction given that it had already been issued. Board Member Foster sought clarification on whether amendments to the RFP could be made and if the committee could provide guidance before proposals were submitted. Karen Landers, MTS General Counsel, explained that the first step would be to review the scope and ensure it aligns with the Board's needs before proposals were due. She emphasized that the committee could provide feedback and make amendments to the scope and criteria to ensure the proposals addressed what the Board required. She clarified that although the Board could not directly be involved in the source selection committee due to procurement concerns, the proposals would ultimately be brought

back to the Board for approval. She recommended that the Board review the scope and amend it before proposals came in to make sure they were more focused on the Board's objectives. Board Member Foster confirmed his understanding of the RFP process and the potential for amendments if needed. Ms. Cooney added that it would be likely that due to timing, the recommendation would be brought to the April Executive Committee. Board Member Foster asked for confirmation regarding the existing RFP, specifically inquiring about the scoring criteria. He wanted to ensure that the criteria were available online, and he confirmed that the RFP included a weighted percentage for cost versus other factors. Ms. Cooney acknowledged that the contract would ultimately return to the full Board for approval, as well as the COA itself, which would also require Board approval. She emphasized that the Board would have multiple opportunities to weigh in on the results.

Chair Whitburn clarified the sequencing process, stating that the ad hoc committee would be created, but the initial review of the RFP would take place at the Executive Committee. He suggested this approach for timing and confirmed that everyone agreed with the motion and process.

Action Taken

Board Member Bush moved to authorize staff to: 1) Pursue a COA, to be completed by November 2026; 2) Begin preliminary efforts on researching the feasibility of placing a transit revenue measure, for the MTS service area only (or parts thereof), on the ballot for the November 2026 general election; 3) Work with SANDAG and NCTD to conduct a fare study regarding potential impacts of a fare increase; and 4) Create Ad Hoc subcommittee related to the COA and Transit Revenue Measure research and efforts. Board Member Elo-Rivera seconded the motion, and the vote was 11 to 0 in favor with Board Member McCann, Board Member Montgomery Steppe, Board Member Vaus and Board Member Moreno absent.

19. Structural Budget Deficit Planning (Gordon Meyer)

Gordon Meyer, MTS Manager of Financial Planning, presented on the Structural Budget Deficit Planning. He presented on: review budget development process, review updated 5-year forecast, discuss scope of fiscal cliff, upcoming challenges, review potential strategies for delaying the fiscal cliff, review recommended action and projected impact.

Public Comment

Cori Schumaker – Representing IBEW 559 made a verbal statement to the Board during the meeting. Schumaker urged the Board Members to avoid delays in transitioning to a zero-emission bus fleet, advocating for annual oversight of the renewal process if the ICT offramp provision was pursued.

Anserio Estrada – Representing San Diego Building Construction Trades Council made a verbal statement to the Board during the meeting. Estrada stated that any pause should be limited to one year to prevent the loss of priorities and investments due to bureaucratic delays.

Board Comment

Board Member Elo-Rivera appreciated the presentation, expressing understanding of the urgency in planning for the worst-case scenario. He asked a question regarding the mix of Compressed Natural Gas (CNG) versus battery electric vehicles, specifically whether it was possible to reduce some CNG purchases while maintaining some battery electric vehicles,

instead of completely scrapping them in the first year. Mr. Wygant responded that the proposal was to forgo purchasing battery electric vehicles in the first year for two reasons: the availability of credits from California Air Resources Board (CARB) and the current fleet's capacity, which did not require additional vehicles if no new service was being added. He clarified that no CNG vehicles would replace battery electric ones in the first year, and the plan was to eventually use credits to purchase battery electric buses for the next group of buses funded later in the spring, while maintaining the existing battery electric buses already in service.

Board Member Elo-Rivera sought further clarification, asking if it was possible to achieve the targeted savings by purchasing fewer battery electric buses, rather than none, while reducing the number of CNG buses being purchased. Mr. Thompson explained that for every battery electric bus purchased, charging infrastructure had to be added. He mentioned that delaying the purchase of these buses also allowed a delay in infrastructure projects, as there were only 80 charging stations being constructed across the three divisions. Mr. Thompson emphasized that adding more buses would require additional infrastructure, and if the purchase of buses couldn't be delayed, the infrastructure couldn't be delayed either, as both were interconnected. He also noted that delaying the purchase of buses contributed to saving money as part of the overall strategy.

Board Member Elo-Rivera asked that if one more battery electric bus was added, additional infrastructure would be required. Ms. Cooney clarified that the savings being seen were due to the cost difference between a CNG bus and a battery electric bus. Board Member Elo-Rivera proposed a rough estimate, suggesting that for every two or three CNG buses, one battery electric bus could be added. He asked if the target could still be met with the purchase of 18 CNG buses and one battery electric bus, clarifying that they were not recommending this approach but seeking a comprehensive understanding of the situation. Mr. Wygant responded that the price difference ranged from $380,000 to $400,000 more for a battery electric bus compared to a CNG bus. Mr. Wygant explained that, while it was possible to save money by purchasing fewer vehicles, this approach could limit the ability to maintain the fleet in a state of good repair. He clarified that CARB regulations allowed for off-ramps and options to avoid forcing decisions that would reduce service levels or the quality of service. Mr. Wygant also noted that the purchasing mandate required 25% battery electric buses for 40-foot buses, with the percentage increasing to 50% after January 1, 2026.

Board Member Elo-Rivera acknowledged that there were multiple variables involved, emphasizing the need for a certain number of buses to maintain the current services, as well as any potential future services. Mr. Wygant confirmed. Ms. Cooney cautioned the Board about retaining CNG buses longer because their emissions profile is higher than a new CNG. Mr. Wygant added that any new CNG buses purchased would need to meet near-zero emissions standards, representing a significant improvement compared to the older CNG buses being pulled from service, which typically had over 500,000 miles, with some reaching up to 750,000 miles after 12 years of use. Board Member Elo-Rivera asked if the purchase of each new CNG bus would result in pulling one older CNG bus off service. Mr. Wygant confirmed. Board Member Elo-Rivera stated that he would offer a modification to staff’s recommendation to include exercising Innovative Clean Transit offramp provisions to maximize short-term flexibility of capital funds while minimizing impacts to state of good repair projects for FY 2026, with MTS staff returning to the Board for approval to extend the provisions if necessary, and the remainder of the motion aligning with staff recommendations.

Board Member Bush asked if the changes would take effect immediately. Mr. Wygant outlined the timeline stating that while the removal of seven buses from the purchasing requirement using credits could happen immediately, they would need to return to the Board for approval before petitioning CARB for a waiver to not buy in 2026. Additionally, he would need to seek annual approval from the Board to petition CARB for waivers in the future. Ms. Cooney added that the immediate result would be a change in the plan to add service in the summer, with scheduling starting without the planned new enhancements. Board Member Bush expressed concern about the proposed motion, stating he was open to strategic cuts but needed more information. He felt some recommended cuts were too broad and not precise enough, particularly regarding the decision to scrap battery electric vehicle purchases. He emphasized the importance of having a clear plan for the transition to electric vehicles. Board Member Bush explained his opposition to the purchase of new CNG buses, as it would delay the transition to zero-emission vehicles, noting that buying new CNG buses would extend the timeline for phasing them out due to their lifespan. He requested staff to further explore the impact on state of good repair and to clarify the emissions benefits of new CNG buses compared to battery electric buses over the long term. Board Member Bush suggested that the motion be delayed by a month to allow more time for staff to identify more targeted cuts, particularly in underperforming areas. He recommended exploring options for enhancing high-performing routes to potentially increase revenue and ridership, stating he was uncomfortable with the current recommendation and wanted to review the transition plan in more detail before voting on the item.

Board Member Hall asked how the agency's Zero Electric Buses (ZEB) compared to other California agencies. Mr. Wygant responded that while he couldn't speak for every transit agency, he emphasized that MTS had been an early adopter, purchasing vehicles before legally required and building advanced infrastructure, including the first semi-autonomous overhead charging system, which became a model for cities like New York and Chicago. He noted that, while other agencies might have a higher percentage of electric buses, their agency was above average and considered a front-runner by CARB staff. Board Member Hall asked if it was likely that the agency would be granted a delay from CARB. Ms. Cooney noted that the CRB Innovative Clean Transit (ICT) Regulation envisioned that they didn’t want any operator to reduce service in order to achieve the transition to battery electric or hydrogen. Mr. Wygant explained that the decision was based on three factors: the fiscal situation preventing continued transition without service cuts, technology limitations preventing longer routes from being fully covered by current zero-emission buses, and grid capacity constraints affecting the supply of electricity or hydrogen.

Board Member Hall asked staff if MTS was not exploring hydrogen because it was not economically viable. Mr. Wygant confirmed and explained that hydrogen technology currently posed significant challenges for MTS, including high operating costs—about three times more than electric or CNG—and a large, required footprint for storage and infrastructure. He noted that while hydrogen presented other challenges, like those faced with battery electric and combustion vehicles, the high costs and space requirements made it an impractical solution for MTS at this time. Board Member Hall urged the Board to refrain from buying additional ZEB vehicles.

Mr. Wygant clarified that the proposal was not to stop spending on ZEB infrastructure completely but to focus on the more expensive and time-consuming infrastructure needed for electric buses. He emphasized that the South Bay phase would continue, with construction of charging infrastructure for up to 30 buses set to begin in the next 60 days. This infrastructure

would support the 13 new buses coming in and provide flexibility. Additionally, Mr. Wygant highlighted the importance of having redundant infrastructure for reliability, ensuring the transition continues without halting operations. Board Member Hall emphasized the importance of maintaining operations, stating that if CARB raised concerns, MTS should address them directly and assertively. He expressed confidence that MTS was either ahead of or on par with other agencies in terms of progress. Mr. Wygant stated that he did not believe MTS would be the only agency seeking an extension from CARB.

Vice Chair Goble noted that there were 25 electric buses in operation and 13 more on the way, bringing the total to 38. He recalled that at another meeting, it was mentioned that 47% of the system's bus routes could be served by an electric bus since the vehicles can be used on routes with a range of approximately 150 miles. He asked how many more buses would be needed in the fleet to reach that 47% target.

Mr. Wygant clarified that the 25 battery electric buses currently in operation, whether 60-foot or 40-foot buses, had an average range of about 135 miles per day. He noted that the next 13 buses would feature an enhanced battery capacity, allowing for a range of approximately 175 miles, which would increase the system's electric vehicle coverage options from 47% to about 65% of MTS's bus routes. However, he pointed out that longer routes, such as Route 235 with a 500-mile daily requirement, remained an outlier, and the transition plan did not expect battery technology to reach that range. Mr. Wygant mentioned the need to incorporate hydrogen buses for such routes and anticipated that, as technology advanced, MTS might need to split routes or adopt a two-vehicle approach for one route.

Vice Chair Goble mentioned that the 25% and 50% purchase requirements could be amended if technology advancements, such as battery range or grid capacity, do not meet expectations. Mr. Wygant explained that the regulation requires an annual review to assess technology and other factors. Starting in January, the regulation would include 60-foot buses and cutaways, with all vehicles purchased needing to meet the 50% zero-emission vehicle (ZEV) requirement, depending on their design and weight. Vice Chair Goble inquired about the cost comparison between ZEVs and CNG buses, specifically asking about both one-time and ongoing costs. Staff explained that the acquisition cost for a ZEV was $380,000 to $400,000 more than a CNG bus and that the charging infrastructure would be a one-time cost.

Vice Chair Goble further requested clarification on the differences in fuel energy costs between ZEVs and CNG, as well as the repair and maintenance costs, and how these factors would impact the operating budget. Mr. Wygant confirmed and reported that the operating and maintenance costs of ZEVs (battery electric) were almost on par with CNG buses, with ZEVs being slightly more affordable in some cases, saving about 10 cents per mile. However, this does not include the total cost of ownership, such as infrastructure or vehicle purchase costs. If hydrogen vehicles were considered, costs would increase significantly. A more detailed ZEV performance update would be provided later in the year. Ms. Cooney clarified that the purpose of the current recommendation was not to debate the transition to zero-emission buses, but rather to delay it by a year to achieve cost savings and gain more time to address the fiscal challenges. She stated that a detailed report on the implementation plan would be presented later, and if the Board wanted to discuss the value of zero-emission technology, that would be the appropriate time. Vice Chair Goble emphasized that the discussion was about the cost of purchasing CNG buses instead of five zero-emission buses (ZEBs), including the one-time costs, infrastructure, and ongoing operations, rather than the technology itself. He also raised a concern about the weight of zero-emission buses compared to CNG buses and their potential

impact on roads and infrastructure. Vice Chair Goble explained that the total axle weight of zero-emission buses is regulated, with a maximum limit of about 4,000 pounds per axle in California. The new development involves shifting batteries to the front axle to balance the weight. Currently, zero-emission buses are about 4,000 to 5,000 pounds heavier than combustion vehicles, and this weight limit also restricts the ability to add more batteries for increased range.

Board Member Downey asked for clarification on the continuation of infrastructure investment for zero-emission buses (ZEBs). She expressed concern that without the proper infrastructure, it would be impossible to add more ZEBs even if additional funds became available in the future. Board Member Downey requested more details on which infrastructure would be included moving forward, particularly as the purchase of new ZEBs would stop. Mr. Wygant explained that for battery electric buses, there were already 12 plug-in chargers across four of the five divisions, with an overhead structure planned. Upon receiving the next 13 vehicles, the fleet would consist of 38 battery electric buses, but there would only be 37 available charging ports. He mentioned ongoing efforts at the IAD division, where a $21 million construction project had been authorized, including pre-construction work completed late the previous year. The project would provide 30 charging ports, offering redundancy, and was expected to take around 18 months to complete. Additionally, the KMD division was moving forward with approximately 28 to 30 charging ports as part of phase one, with all infrastructure still funded and progressing.

Board Member Elo-Rivera sought clarification on whether Board Member Bush was proposing an amendment or simply expressing a preference to delay the action by a month. He was unsure if the request was to delay the entire action or just a specific portion of it.

Board Member Bush expressed openness to working with staff and moving forward with certain components of the plan if possible. However, he stated he would vote no for now because he wanted more analysis, particularly in balancing the purchase of electric vehicles (EVs) and compressed natural gas (CNG) buses with the budget. He appreciated the discussion on the weight of the buses and requested more time to consider the issue, while remaining open to progressing on certain aspects while deferring others.

Board Member Elo-Rivera expressed the importance of providing information to ensure everyone involved feels informed in making decisions. He emphasized the need to balance gathering the necessary information while simultaneously moving forward with certain aspects of the process. Mr. Wygant stated they needed to work with contracts and the original equipment manufacturer (OEM), their current vendor, to finalize the price. He clarified that this was work they would need to do immediately. Ms. Cooney and Mr. Thompson explained that the budget cycle required submitting CIP recommendations to SANDAG next month for approval, along with their plan for budget approval. Staff also plans to bring the FY 25 Operating Budget Amendment to the Board, which would address any necessary service adjustments, particularly for June 2025. They noted that if the Board was considering delaying the ZEB transition, it could result in service reductions. However, if the Board preferred not to reduce transit services, they requested a vote on the current proposal. Board Member Elo-Rivera asked if it was possible to adjust the mix of CNG and battery-electric buses without affecting service, seeking clarification on this point. Ms. Cooney clarified that if adjustments were required to the mix of CNG and battery-electric buses without affecting service, they would consider delaying some CIP state of good repair projects or other options. The current proposal was considered the least disruptive to service operations and customer experience.

Chair Whitburn express support to staff's recommendation with the amendment made by the Board.

Board Member Elo-Rivera acknowledged Board Member Bush's concerns But stated he would proceed with his motion. However, he requested more time next year to assess the impact of including battery-electric vehicles. He expressed frustration about making decisions without all the necessary information but emphasized the importance of making today's vote.

Action Taken

Board Member Elo-Rivera moved to take the following actions as part of building future operational and CIP budgets: 1) Exercise Innovative Clean Transit (ICT) Off-Ramp provisions (delay implementation) to provide maximum flexibility of capital funds in the short-term while minimizing impacts to State of Good Repair (SGR) projects for FY 2026, with MTS staff returning to the Board for approval to exercise Off-Ramp provisions for additional years if needed; 2) Shift flexible funds from the Capital Improvement Program (CIP) to the operating budget beginning in FY 2026 with the following targets by FY: $25 million in FY 2026, $35 million in FY 2027, $50 million in FY 2028 and; 3) Maintain service levels at January 2025 levels: Delay future Trolley service enhancements (7.5-minute Blue Line service) in FY 2026 and beyond and revise the Senate Bill (SB) 125 funding proposal and Delay $22 million in future planned bus service enhancements in FY 2027 and FY 2028 and revise the SB 125 funding proposal. Chair Whitburn seconded the motion, and the vote was 9 in favor (Board Member: Downey, Fernandez, Foster, Mendoza, Leybe-Gonzalez, Dillard, Elo-Rivera, Whitburn and Goble) to 2 opposed (Board Member: Bush and Hall) with Board Member McCann, Board Member Montgomery Steppe, Board Member Vaus and Board Member Moreno absent.

20. Overview of Disadvantaged Business Enterprise (DBE) Program and Revisions to Board Policy No. 26 "DBE Program" (Karen Landers)

The Board deferred this item to the next meeting.

OTHER ITEMS (ITEMS TAKEN OUT OF ORDER):

23. Chair, Board Member and Chief Executive Officer's (CEO's) Communications

There were no Chair, Board Member, CEO communications.

24. Remainder of Public Comments Not on The Agenda

There were no additional public comments.

CLOSED SESSION (ITEMS TAKEN OUT OF ORDER):

The Board convened to Closed Session at 11:34 a.m.

21. Public Comment for Closed Session

There were no public comments.

22. Closed Session – Conference with Legal Counsel – Existing Litigation Pursuant to California Government Code Section 54956.9(d)(1)
San Diego Gas & Electric Company vs. Metropolitan Transit System et al.
(San Diego Superior Court (SDSC) Case No. 37-2021-00006190-CU-EI-CTL and consolidated cases SDSC Case Nos. 37-2021-00007680-CU-EI-CTL and 37-2021-00007619-CU-EI-CTL)

Closed Session Reconvening

The Board reconvened to Open Session at 11:52 a.m.

Karen Landers, General Counsel, reported the following oral report of final actions taken in Closed Session: The Board received a report and gave instructions to legal counsel.

ADJOURNMENT

23. Next Meeting Date

The next regularly scheduled Board meeting is March 13, 2025 at 9 a.m.

24. Adjournment

The meeting was adjourned at 11:52 a.m.

Chairperson
San Diego Metropolitan Transit System

Filed by:

Clerk of the Board
San Diego Metropolitan Transit System

Approved as to form:

General Counsel
San Diego Metropolitan Transit System

Attachment: A. Roll Call Sheet

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS
ROLL CALL

MEETING OF (DATE):	February 13, 2025	CALL TO ORDER (TIME):	9:04 a.m.
RECESS:		RECONVENE:	
CLOSED SESSION:	11:34 a.m.	RECONVENE:	11:52 a.m.
PUBLIC HEARING:		RECONVENE:	
ORDINANCES ADOPTED:		ADJOURN:	11:52 a.m.

JURISDICTION	BOARD MEMBER		ALTERNATE		PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
City of Chula Vista	Fernandez	☒	Preciado	☐	9:04 a.m.	11:34 a.m.
City of Chula Vista	McCann	☒	Preciado	☐	9:18 a.m.	11:34 a.m.
City of Coronado	Downey	☒	Fleming	☐	9:04 a.m.	11:52 a.m.
County of San Diego	Montgomery Steppe	☐	VACANT	☐	ABSENT	ABSENT
City of El Cajon	Goble (Vice-Chair)	☒	Ortiz	☐	9:04 a.m.	11:52 a.m.
City of Imperial Beach	Leyba-Gonzalez	☒	Aguirre	☐	9:04 a.m.	11:34 a.m.
City of La Mesa	Dillard	☒	Arapostathis	☐	9:04 a.m.	11:52 a.m.
City of Lemon Grove	Mendoza	☒	Faiai	☐	9:04 a.m.	11:52 a.m.
City of National City	Bush	☒	Rodriguez	☐	9:04 a.m.	11:52 a.m.
City of Poway	Vaus	☐	De Hoff	☐	ABSENT	ABSENT
City of San Diego	Moreno	☐	Campbell	☐	ABSENT	ABSENT
City of San Diego	Elo-Rivera	☒	LaCava	☐	9:07 a.m.	11:52 a.m.
City of San Diego	Gloria	☐	Foster	☒	9:04 a.m.	11:52 a.m.
City of San Diego	Whitburn (Chair)	☒	Lee	☐	9:04 a.m.	11:52 a.m.
City of Santee	Hall	☒	Koval Minto	☐ ☐	9:04 a.m.	11:52 a.m.

SIGNED BY THE CLERK OF THE BOARD: /S/ Dalia Gonzalez

Agenda Item No. 4

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Chief Executive Officer's (CEO) Report

INFORMATIONAL

In accordance with Board Policy No. 52, "Procurement of Goods and Services", attached are listings of purchase orders (Attachment A), contracts and work orders (Attachment B) that have been approved within the CEO's authority (up to and including $150,000) for the period February 6, 2025 – March 5, 2025.

Also attached are reports for ongoing work for property related flooding of immediate remedial measures for January 22, 2024, a non-competitive contract award under "immediate remedial measures" exception (Attachment D) and a report of relocation benefit payments under Policy 9 (Attachment E).

CEO TRAVEL REPORT (since last Board meeting)

March 11	CalSTA Transit Transformation Task Force	Sacramento, CA

BOARD MEMBER TRAVEL REPORT (since last Board meeting)

N/A

Attachments: A. Purchase Orders under CEO Approval Limit
B. Expense and Revenue Contracts
C. MTS Property Related Flooding: Immediate Remedial Measures for January 22, 2024
D. Report of Non-Competitive Contract Award Under "Immediate Remedial Measures" Emergency – L Street Repairs on Blue Line
E. Report on Relocation Payments pursuant to Board Policy 9 (Relocation Assistance Program)

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4400003247	2/6/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$665.53	$ -	$ -
4400003248	2/6/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$437.44	$ -	$ -
4400003249	2/6/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$374.79	$ -	$ -
4400003250	2/6/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$206.23	$ -	$ -
4400003251	2/10/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$813.45	$ -	$ -
4400003252	2/11/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$144.88	$ -	$ -
4400003253	2/11/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$369.11	$ -	$ -
4400003254	2/11/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$89.12	$ -	$ -
4400003255	2/12/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$177.01	$ -	$ -
4400003256	2/13/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$20.36	$ -	$ -
4400003257	2/13/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$49.93	$ -	$ -
4400003258	2/13/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$214.07	$ -	$ -
4400003259	2/14/2025	Mcmaster-Carr Supply Co		F230-METALS/FERROUS	$512.93	$ -	$ -
4400003260	2/18/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$376.58	$ -	$ -
4400003261	2/19/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$343.25	$ -	$ -
4400003262	2/19/2025	Mcmaster-Carr Supply Co		G140-SHOP SUPPLIES	$254.35	$ -	$ -
4400003263	2/20/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$403.15	$ -	$ -
4400003264	2/20/2025	W.W. Grainger Inc		G270-ELECTRICAL/LIGHTING	$98.06	$ -	$ -
4400003265	2/21/2025	Mcmaster-Carr Supply Co		G270-ELECTRICAL/LIGHTING	$327.16	$ -	$ -
4400003266	2/21/2025	W.W. Grainger Inc		G270-ELECTRICAL/LIGHTING	$486.65	$ -	$ -
4400003267	2/24/2025	Mcmaster-Carr Supply Co		G130-SHOP TOOLS	$139.90	$ -	$ -
4400003268	2/24/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$202.29	$ -	$ -
4400003269	2/24/2025	Mcmaster-Carr Supply Co		M150-PWR SWITCHES/LOCKS	$181.42	$ -	$ -
4400003270	2/24/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$173.95	$ -	$ -
4400003271	2/24/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$1,205.64	$ -	$ -
4400003272	2/26/2025	W.W. Grainger Inc		G270-ELECTRICAL/LIGHTING	$125.42	$ -	$ -
4400003273	2/26/2025	Mcmaster-Carr Supply Co		R230-RAIL/LRV MECHANICAL	$186.60	$ -	$ -
4400003274	2/27/2025	W.W. Grainger Inc		G130-SHOP TOOLS	$2,582.08	$ -	$ -
4400003275	2/27/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$77.04	$ -	$ -
4400003276	2/28/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$197.14	$ -	$ -
4400003277	3/3/2025	W.W. Grainger Inc		G270-ELECTRICAL/LIGHTING	$490.27	$ -	$ -
4400003278	3/3/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$597.10	$ -	$ -
4400003279	3/3/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$758.34	$ -	$ -
4400003280	3/3/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$727.85	$ -	$ -
4400003281	3/3/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$36.38	$ -	$ -
4400003282	3/3/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$388.35	$ -	$ -
4400003283	3/4/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$400.93	$ -	$ -
4400003284	3/4/2025	Mcmaster-Carr Supply Co		G150-FASTENERS	$231.60	$ -	$ -
4500066273	2/6/2025	Transit Holdings Inc		B130-BUS BODY	$76.28	$ -	$ -
4500066274	2/6/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$2,148.80	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066275	2/6/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$305.15	$ -	$ -
4500066276	2/6/2025	Signal Hill Auto Enterprises, Inc.		G180-JANITORIAL SUPPLIES	$904.78	$ -	$ -
4500066277	2/6/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$810.05	$ -	$ -
4500066278	2/6/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$69.56	$ -	$ -
4500066279	2/6/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$3,691.41	$ -	$ -
4500066280	2/6/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$1,599.35	$ -	$ -
4500066281	2/6/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,009.03	$ -	$ -
4500066282	2/6/2025	Transit Holdings Inc		B140-BUS CHASSIS	$6,279.88	$ -	$ -
4500066283	2/6/2025	Signal Hill Auto Enterprises, Inc.		G180-JANITORIAL SUPPLIES	$633.34	$ -	$ -
4500066284	2/6/2025	Prochem Specialty Products Inc	Small Business	G180-JANITORIAL SUPPLIES	$1,718.62	$ -	$ -
4500066285	2/6/2025	Louis Sardo Upholstery Inc		B130-BUS BODY	$1,703.15	$ -	$ -
4500066286	2/6/2025	Neopart Transit LLC		B250-BUS REPAIR PARTS	$951.04	$ -	$ -
4500066287	2/6/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$28,392.59	$ -	$ -
4500066288	2/6/2025	TK Services Inc		G170-LUBRICANTS	$406.25	$ -	$ -
4500066289	2/6/2025	Mohawk Mfg & Supply Co		B140-BUS CHASSIS	$2,641.27	$ -	$ -
4500066290	2/6/2025	Gillig LLC		B120-BUS MECHANICAL PARTS	$3,387.52	$ -	$ -
4500066291	2/6/2025	Muncie Reclamation and Supply Co		B140-BUS CHASSIS	$4,891.27	$ -	$ -
4500066292	2/6/2025	Blue Angel International LLC	Small Business	I110-INFORMATION TECH	$135,551.30	$ -	$ -
4500066293	2/6/2025	Clarran Inc.	DBE	G150-FASTENERS	$866.17	$ -	$ -
4500066294	2/6/2025	R.S. Hughes Co Inc		G190-SAFETY/MED SUPPLIES	$772.66	$ -	$ -
4500066295	2/6/2025	Sportworks Global LLC		B130-BUS BODY	$116.64	$ -	$ -
4500066296	2/6/2025	Mohawk Mfg & Supply Co		B200-BUS PWR TRAIN EQUIP	$110.42	$ -	$ -
4500066297	2/6/2025	San Diego Friction Products, Inc.		G140-SHOP SUPPLIES	$913.84	$ -	$ -
4500066298	2/6/2025	Gillig LLC		B250-BUS REPAIR PARTS	$614.56	$ -	$ -
4500066299	2/6/2025	Kurt Morgan		G200-OFFICE SUPPLIES	$2,160.48	$ -	$ -
4500066300	2/6/2025	R.S. Hughes Co Inc		G140-SHOP SUPPLIES	$1,509.56	$ -	$ -
4500066301	2/6/2025	Luminator Technology Group Global		R120-RAIL/LRV CAR BODY	$5,224.56	$ -	$ -
4500066302	2/6/2025	Brady Industries of California, LLC		G180-JANITORIAL SUPPLIES	$135.54	$ -	$ -
4500066303	2/6/2025	National Carwash Solutions Inc		G160-PAINTS & CHEMICALS	$807.19	$ -	$ -
4500066304	2/6/2025	Freeby Signs		B130-BUS BODY	$403.98	$ -	$ -
4500066305	2/6/2025	Clarran Inc.	DBE	G150-FASTENERS	$33.28	$ -	$ -
4500066306	2/6/2025	Genuine Parts Company Inc		G170-LUBRICANTS	$1,063.31	$ -	$ -
4500066307	2/6/2025	Fastenal Company		G140-SHOP SUPPLIES	$4,418.97	$ -	$ -
4500066308	2/6/2025	Charter Industrial Supply Inc	Small Business	G150-FASTENERS	$1,886.26	$ -	$ -
4500066309	2/6/2025	Vern Rose Inc		G140-SHOP SUPPLIES	$791.78	$ -	$ -
4500066310	2/6/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,176.94	$ -	$ -
4500066311	2/6/2025	Gillig LLC		B160-BUS ELECTRICAL	$4,939.36	$ -	$ -
4500066312	2/6/2025	Southern Counties Lubricants LLC		G170-LUBRICANTS	$2,311.24	$ -	$ -
4500066313	2/6/2025	Muncie Reclamation and Supply Co		B160-BUS ELECTRICAL	$3,089.04	$ -	$ -
4500066314	2/6/2025	Cummins Inc		B250-BUS REPAIR PARTS	$1,394.17	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066315	2/6/2025	Laird Plastics, Inc		M180-STATION ELECTRICAL	$464.94	$ -	$ -
4500066316	2/6/2025	Prudential Overall Supply		G140-SHOP SUPPLIES	$874.45	$ -	$ -
4500066317	2/7/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$1,278.67	$ -	$ -
4500066318	2/7/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$17.67	$ -	$ -
4500066319	2/7/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$448.60	$ -	$ -
4500066320	2/7/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$8.22	$ -	$ -
4500066321	2/7/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$287.83	$ -	$ -
4500066322	2/7/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$11.26	$ -	$ -
4500066323	2/7/2025	Transit Holdings Inc		B140-BUS CHASSIS	$5,032.64	$ -	$ -
4500066324	2/7/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$3,208.36	$ -	$ -
4500066325	2/7/2025	Transit Holdings Inc		B140-BUS CHASSIS	$1,577.30	$ -	$ -
4500066327	2/9/2025	San Diego Compressed Air Power LL		F110-SHOP/BLDG MACHINERY	$22,536.20	$ -	$ -
4500066328	2/10/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$4,669.98	$ -	$ -
4500066329	2/10/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$335.79	$ -	$ -
4500066330	2/10/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$70.62	$ -	$ -
4500066331	2/10/2025	Transit Holdings Inc		B140-BUS CHASSIS	$6,774.63	$ -	$ -
4500066332	2/10/2025	Siemens Mobility, Inc.		R120-RAIL/LRV CAR BODY	$33,779.63	$ -	$ -
4500066333	2/10/2025	Pacific Star Corporation		G180-JANITORIAL SUPPLIES	$58.46	$ -	$ -
4500066334	2/10/2025	Signal Hill Auto Enterprises, Inc.		G180-JANITORIAL SUPPLIES	$1,202.49	$ -	$ -
4500066335	2/10/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$2,816.40	$ -	$ -
4500066336	2/10/2025	Mohawk Mfg & Supply Co		B140-BUS CHASSIS	$216.58	$ -	$ -
4500066337	2/10/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$92.75	$ -	$ -
4500066338	2/10/2025	Transit Holdings Inc		B140-BUS CHASSIS	$2,429.25	$ -	$ -
4500066339	2/10/2025	Parts Authority, LLC		B160-BUS ELECTRICAL	$3,275.06	$ -	$ -
4500066340	2/10/2025	VGP Holdings LLC		B120-BUS MECHANICAL PARTS	$5,052.62	$ -	$ -
4500066341	2/10/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$2,656.09	$ -	$ -
4500066342	2/10/2025	Chula Vista Chamber of Commerce		G260-MEDIA	$700.00	$ -	$ -
4500066343	2/10/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$264.94	$ -	$ -
4500066344	2/10/2025	VGP Holdings LLC		B200-BUS PWR TRAIN EQUIP	$1,647.50	$ -	$ -
4500066345	2/10/2025	Compressed Air Systems		F110-SHOP/BLDG MACHINERY	$477.34	$ -	$ -
4500066346	2/10/2025	Southern Counties Lubricants LLC		G170-LUBRICANTS	$3,474.94	$ -	$ -
4500066347	2/10/2025	San Diego Housing Federation		P280-GENERAL SVC AGRMNTS	$800.00	$ -	$ -
4500066348	2/10/2025	Supreme Oil Co.		A120-AUTO/TRUCK GASOLINE	$15,489.56	$ -	$ -
4500066349	2/10/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$3,187.31	$ -	$ -
4500066350	2/10/2025	Mike Farrar		B130-BUS BODY	$12,283.50	$ -	$ -
4500066351	2/10/2025	Los Angeles Truck Centers, LLC		B250-BUS REPAIR PARTS	$2,974.11	$ -	$ -
4500066352	2/10/2025	Air & Lube Systems Inc	DBE	F110-SHOP/BLDG MACHINERY	$285.10	$ -	$ -
4500066353	2/10/2025	Johnson Health Tech Retail Inc.		F110-SHOP/BLDG MACHINERY	$9,834.62	$ -	$ -
4500066354	2/10/2025	B and H Photo and Electronics		G200-OFFICE SUPPLIES	$118.47	$ -	$ -
4500066355	2/10/2025	Newman Signs, Inc		G230-PRINTED MATERIALS	$4,722.90	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066356	2/10/2025	Dewolf Technologies Inc		I110-INFORMATION TECH	$692.84	$ -	$ -
4500066357	2/10/2025	A-B-CPR & First Aid Training Inc	Small Business	P490-MANAGEMENT TRAINING	$4,543.00	$ -	$ -
4500066358	2/10/2025	Inland Kenworth (US) Inc		B250-BUS REPAIR PARTS	$80.17	$ -	$ -
4500066359	2/10/2025	Home Depot USA Inc		F110-SHOP/BLDG MACHINERY	$1,006.29	$ -	$ -
4500066360	2/10/2025	The Sherwin-Williams Company		G160-PAINTS & CHEMICALS	$762.33	$ -	$ -
4500066361	2/10/2025	Motion Industries, Inc.		B200-BUS PWR TRAIN EQUIP	$276.74	$ -	$ -
4500066362	2/10/2025	Clarran Inc.	DBE	G150-FASTENERS	$98.41	$ -	$ -
4500066363	2/10/2025	W.W. Grainger Inc		M110-SUB STATION	$2,056.48	$ -	$ -
4500066364	2/11/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$9,329.80	$ -	$ -
4500066365	2/11/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$1,591.12	$ -	$ -
4500066366	2/11/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$517.77	$ -	$ -
4500066367	2/11/2025	Romaine Electric Corporation		B160-BUS ELECTRICAL	$7,228.20	$ -	$ -
4500066368	2/11/2025	Transit Innovations LLC		M120-OVRHEAD CATENARY SYS	$2,693.75	$ -	$ -
4500066369	2/11/2025	Siemens Mobility, Inc.		M130-CROSSING MECHANISM	$1,035.37	$ -	$ -
4500066370	2/11/2025	Continental Locks		A140-AUTO/TRUCK REPAIR	$195.00	$ -	$ -
4500066371	2/11/2025	The Carpenter Group		M120-OVRHEAD CATENARY SYS	$1,427.69	$ -	$ -
4500066372	2/11/2025	Knorr Brake Company, LLC		R160-RAIL/LRV ELECTRICAL	$5,327.16	$ -	$ -
4500066374	2/11/2025	MAC-IMPULSE, LLC		M120-OVRHEAD CATENARY SYS	$3,367.19	$ -	$ -
4500066375	2/11/2025	Ace Uniforms LLC	Small Business	G240-UNIFORM PROCUREMENT	$213.79	$ -	$ -
4500066376	2/11/2025	Cummins Inc		B250-BUS REPAIR PARTS	$4,331.39	$ -	$ -
4500066377	2/11/2025	Insight Public Sector, Inc.		I120-INFO TECH, SVCS	$123,118.89	$ -	$ -
4500066378	2/11/2025	Mcmaster-Carr Supply Co		R220-RAIL/LRV TRUCKS	$1,090.77	$ -	$ -
4500066379	2/11/2025	Professional Contractors Supplies		G170-LUBRICANTS	$113.68	$ -	$ -
4500066380	2/11/2025	Winzer Franchise Company		G270-ELECTRICAL/LIGHTING	$176.66	$ -	$ -
4500066381	2/11/2025	Siemens Mobility, Inc.		M130-CROSSING MECHANISM	$1,495.57	$ -	$ -
4500066382	2/11/2025	Western-Cullen-Hayes Inc		M130-CROSSING MECHANISM	$840.45	$ -	$ -
4500066383	2/11/2025	RJ International LLC	DBE	G140-SHOP SUPPLIES	$269.38	$ -	$ -
4500066384	2/11/2025	OneSource Distributors, LLC		M140-WAYSIDE SIGNALS	$93.80	$ -	$ -
4500066385	2/11/2025	Team One Repair Inc		G290-FARE REVENUE EQUIP	$3,929.04	$ -	$ -
4500066386	2/11/2025	ODP Business Solutions, LLC		G220-OFFICE EQUIPMENT	$1,657.18	$ -	$ -
4500066387	2/11/2025	CDW LLC		B150-BUS COMM EQUIP.	$2,022.25	$ -	$ -
4500066388	2/11/2025	Rambuilt Glass LLC		F180-BUILDING MATERIALS	$4,950.00	$ -	$ -
4500066389	2/11/2025	Prochem Specialty Products Inc	Small Business	G180-JANITORIAL SUPPLIES	$1,718.62	$ -	$ -
4500066390	2/11/2025	Waxie's Enterprises, LLC		G140-SHOP SUPPLIES	$171.54	$ -	$ -
4500066391	2/11/2025	Deaf Community Services		P350-OTHER LEGAL	$156.00	$ -	$ -
4500066392	2/11/2025	Gillig LLC		B250-BUS REPAIR PARTS	$1,432.80	$ -	$ -
4500066393	2/11/2025	Fastenal Company		G140-SHOP SUPPLIES	$2,259.66	$ -	$ -
4500066394	2/11/2025	ABC General Contractor, Inc.		C110-GENERAL CONTRACTORS	$6,172.28	$ -	$ -
4500066395	2/11/2025	The Gordian Group, Inc.		C110-GENERAL CONTRACTORS	$108.64	$ -	$ -
4500066396	2/12/2025	Cummins Inc		B120-BUS MECHANICAL PARTS	$264.90	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066397	2/12/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$2,420.47	$ -	$ -
4500066398	2/12/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$4,289.31	$ -	$ -
4500066399	2/12/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$335.23	$ -	$ -
4500066400	2/12/2025	Siemens Mobility, Inc.		M130-CROSSING MECHANISM	$2,439.46	$ -	$ -
4500066401	2/12/2025	Romaine Electric Corporation		M130-CROSSING MECHANISM	$2,564.28	$ -	$ -
4500066402	2/12/2025	Sid Tool Co., Inc.		G130-SHOP TOOLS	$712.36	$ -	$ -
4500066403	2/12/2025	OneSource Distributors, LLC		G140-SHOP SUPPLIES	$3,440.78	$ -	$ -
4500066404	2/12/2025	Home Depot USA Inc		G130-SHOP TOOLS	$3,651.86	$ -	$ -
4500066405	2/12/2025	ODP Business Solutions, LLC		G200-OFFICE SUPPLIES	$68.82	$ -	$ -
4500066406	2/12/2025	Big Belly Solar LLC		F180-BUILDING MATERIALS	$440.18	$ -	$ -
4500066407	2/12/2025	Harbor Diesel & Equipment, Inc		B200-BUS PWR TRAIN EQUIP	$22,193.47	$ -	$ -
4500066408	2/12/2025	Canada Ticket Inc.		G280-FARE MATERIALS	$12,850.16	$ -	$ -
4500066409	2/12/2025	Delaware Electro Industries, Inc.	Small Business	G140-SHOP SUPPLIES	$231.06	$ -	$ -
4500066410	2/13/2025	Cummins Inc		B250-BUS REPAIR PARTS	$264.31	$ -	$ -
4500066411	2/13/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$69.56	$ -	$ -
4500066412	2/13/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$183.58	$ -	$ -
4500066413	2/13/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$41.70	$ -	$ -
4500066414	2/13/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$69.56	$ -	$ -
4500066415	2/13/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$1,388.91	$ -	$ -
4500066416	2/13/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$1,941.25	$ -	$ -
4500066417	2/13/2025	CDW LLC		I110-INFORMATION TECH	$3,936.52	$ -	$ -
4500066418	2/13/2025	Neyenesch Printers Inc	Small Business	G230-PRINTED MATERIALS	$2,823.53	$ -	$ -
4500066419	2/13/2025	Dimensional Silk Screen Inc		G230-PRINTED MATERIALS	$1,519.28	$ -	$ -
4500066421	2/13/2025	CDW LLC		B150-BUS COMM EQUIP.	$4,048.71	$ -	$ -
4500066422	2/13/2025	Siemens Mobility, Inc.		R220-RAIL/LRV TRUCKS	$21,308.64	$ -	$ -
4500066423	2/13/2025	Siemens Mobility, Inc.		R190-RAIL/LRV PANTOGRAPH	$319.37	$ -	$ -
4500066424	2/13/2025	SurveyMonkey Inc.		G260-MEDIA	$4,632.00	$ -	$ -
4500066425	2/13/2025	ON-LINE STAMPCO INC	Small Business	G200-OFFICE SUPPLIES	$34.29	$ -	$ -
4500066426	2/13/2025	Dimensional Silk Screen Inc		G230-PRINTED MATERIALS	$1,690.92	$ -	$ -
4500066427	2/13/2025	California Association of		P450-PERSONNEL SVCS	$290.00	$ -	$ -
4500066428	2/13/2025	Magaldi & Magaldi Inc		B200-BUS PWR TRAIN EQUIP	$889.86	$ -	$ -
4500066429	2/13/2025	Madden Construction Inc		P280-GENERAL SVC AGRMNTS	$589.58	$ -	$ -
4500066430	2/13/2025	Facility Solutions Group, Inc.		M180-STATION ELECTRICAL	$3,762.20	$ -	$ -
4500066431	2/13/2025	CDW LLC		I110-INFORMATION TECH	$3,962.38	$ -	$ -
4500066432	2/13/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$915.98	$ -	$ -
4500066433	2/13/2025	W.W. Grainger Inc		P280-GENERAL SVC AGRMNTS	$784.46	$ -	$ -
4500066434	2/13/2025	Madden Construction Inc		P280-GENERAL SVC AGRMNTS	$595.50	$ -	$ -
4500066435	2/13/2025	Home Depot USA Inc		F110-SHOP/BLDG MACHINERY	$59.22	$ -	$ -
4500066436	2/13/2025	NS Corporation		F110-SHOP/BLDG MACHINERY	$65.08	$ -	$ -
4500066437	2/13/2025	Powerstride Battery Co. Inc.		F110-SHOP/BLDG MACHINERY	$420.14	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066438	2/13/2025	Clarran Inc.	DBE	G150-FASTENERS	$18.32	$ -	$ -
4500066439	2/13/2025	Eclipse Enterprises, Inc.		I110-INFORMATION TECH	$926.63	$ -	$ -
4500066440	2/14/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$715.20	$ -	$ -
4500066441	2/14/2025	711 Print Enterprises Inc		G230-PRINTED MATERIALS	$1,039.42	$ -	$ -
4500066442	2/14/2025	Women's Transportation Seminar		G260-MEDIA	$525.00	$ -	$ -
4500066443	2/14/2025	Data Controls Printworks, Inc.	Small Business	G230-PRINTED MATERIALS	$296.32	$ -	$ -
4500066444	2/14/2025	Dimensional Silk Screen Inc		G230-PRINTED MATERIALS	$1,060.26	$ -	$ -
4500066445	2/14/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$1,866.35	$ -	$ -
4500066446	2/14/2025	RJ International LLC	DBE	G190-SAFETY/MED SUPPLIES	$98.92	$ -	$ -
4500066447	2/14/2025	Airgas Inc		G190-SAFETY/MED SUPPLIES	$1,344.46	$ -	$ -
4500066448	2/14/2025	Home Depot USA Inc		G140-SHOP SUPPLIES	$503.89	$ -	$ -
4500066449	2/14/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$20.79	$ -	$ -
4500066450	2/14/2025	RS Americas, Inc.		R160-RAIL/LRV ELECTRICAL	$441.49	$ -	$ -
4500066451	2/14/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$1,871.24	$ -	$ -
4500066452	2/17/2025	Neopart Transit LLC		B250-BUS REPAIR PARTS	$52.26	$ -	$ -
4500066453	2/17/2025	Cummins Inc		B250-BUS REPAIR PARTS	$2,692.70	$ -	$ -
4500066454	2/17/2025	Siemens Mobility, Inc.		R160-RAIL/LRV ELECTRICAL	$32,953.92	$ -	$ -
4500066455	2/17/2025	AirSupply Tools, Inc		G130-SHOP TOOLS	$295.73	$ -	$ -
4500066456	2/17/2025	Mohawk Mfg & Supply Co		B160-BUS ELECTRICAL	$639.87	$ -	$ -
4500066457	2/17/2025	Muncie Reclamation and Supply Co		B120-BUS MECHANICAL PARTS	$823.95	$ -	$ -
4500066458	2/17/2025	Transit Holdings Inc		B130-BUS BODY	$657.29	$ -	$ -
4500066459	2/17/2025	Tribologik Corporation		G140-SHOP SUPPLIES	$3,332.81	$ -	$ -
4500066460	2/17/2025	Harbor Diesel & Equipment, Inc		B120-BUS MECHANICAL PARTS	$179.09	$ -	$ -
4500066461	2/17/2025	RJ International LLC	DBE	G140-SHOP SUPPLIES	$242.44	$ -	$ -
4500066462	2/17/2025	Waxie's Enterprises, LLC		G140-SHOP SUPPLIES	$258.17	$ -	$ -
4500066463	2/17/2025	SC Commercial, LLC		G170-LUBRICANTS	$4,267.28	$ -	$ -
4500066464	2/17/2025	Airgas Inc		G140-SHOP SUPPLIES	$103.85	$ -	$ -
4500066465	2/17/2025	Mcmaster-Carr Supply Co		B250-BUS REPAIR PARTS	$17.94	$ -	$ -
4500066466	2/17/2025	Harbor Diesel & Equipment, Inc		B120-BUS MECHANICAL PARTS	$407.03	$ -	$ -
4500066467	2/17/2025	R.S. Hughes Co Inc		G140-SHOP SUPPLIES	$68.18	$ -	$ -
4500066468	2/17/2025	Charter Industrial Supply Inc	Small Business	B120-BUS MECHANICAL PARTS	$145.11	$ -	$ -
4500066469	2/17/2025	Clarran Inc.	DBE	G150-FASTENERS	$267.42	$ -	$ -
4500066470	2/17/2025	Allied Refrigeration Inc		B250-BUS REPAIR PARTS	$77.26	$ -	$ -
4500066471	2/17/2025	Prudential Overall Supply		G140-SHOP SUPPLIES	$151.28	$ -	$ -
4500066473	2/18/2025	Muncie Reclamation and Supply Co		B200-BUS PWR TRAIN EQUIP	$17.78	$ -	$ -
4500066474	2/18/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$2,148.80	$ -	$ -
4500066475	2/18/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$1,003.16	$ -	$ -
4500066476	2/18/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$3,805.70	$ -	$ -
4500066477	2/18/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$8,973.42	$ -	$ -
4500066478	2/18/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$654.48	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066479	2/18/2025	Siemens Mobility, Inc.		R220-RAIL/LRV TRUCKS	$19,508.41	$ -	$ -
4500066480	2/18/2025	Transit Holdings Inc		B130-BUS BODY	$203.91	$ -	$ -
4500066481	2/18/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$8,055.89	$ -	$ -
4500066482	2/18/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$5,764.19	$ -	$ -
4500066483	2/18/2025	Parts Authority, LLC		B160-BUS ELECTRICAL	$3,275.06	$ -	$ -
4500066484	2/18/2025	Staples Contract & Commercial LLC		G200-OFFICE SUPPLIES	$94.71	$ -	$ -
4500066485	2/18/2025	Cummins Inc		B140-BUS CHASSIS	$6,667.34	$ -	$ -
4500066486	2/18/2025	RJ International LLC	DBE	G200-OFFICE SUPPLIES	$33.62	$ -	$ -
4500066487	2/18/2025	Home Depot USA Inc		G200-OFFICE SUPPLIES	$107.72	$ -	$ -
4500066488	2/18/2025	Home Depot USA Inc		G130-SHOP TOOLS	$318.65	$ -	$ -
4500066489	2/18/2025	Supreme Oil Co.		A120-AUTO/TRUCK GASOLINE	$10,401.91	$ -	$ -
4500066490	2/18/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$3,267.45	$ -	$ -
4500066491	2/18/2025	Tolar Manufacturing Company Inc		F210-SHELTERS, BUS	$57,484.35	$ -	$ -
4500066492	2/19/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$413.46	$ -	$ -
4500066493	2/19/2025	Cummins Inc		B120-BUS MECHANICAL PARTS	$170.73	$ -	$ -
4500066494	2/19/2025	Mohawk Mfg & Supply Co		B140-BUS CHASSIS	$7.68	$ -	$ -
4500066495	2/19/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$206.73	$ -	$ -
4500066496	2/19/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$4,167.19	$ -	$ -
4500066497	2/19/2025	Transit Holdings Inc		B140-BUS CHASSIS	$98.27	$ -	$ -
4500066498	2/19/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$259.03	$ -	$ -
4500066499	2/19/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$538.15	$ -	$ -
4500066500	2/19/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$4,320.21	$ -	$ -
4500066501	2/19/2025	Transit Holdings Inc		B140-BUS CHASSIS	$1,548.66	$ -	$ -
4500066502	2/19/2025	Interboro Packaging Corporation		G180-JANITORIAL SUPPLIES	$135.44	$ -	$ -
4500066503	2/19/2025	Louis Sardo Upholstery Inc		R200-RAIL/LRV SEATING	$953.76	$ -	$ -
4500066504	2/19/2025	M Power Truck & Diesel		F110-SHOP/BLDG MACHINERY	$93.43	$ -	$ -
4500066505	2/19/2025	Westair Gases and Equipment Inc	Small Business	G140-SHOP SUPPLIES	$258.00	$ -	$ -
4500066506	2/19/2025	Rambuilt Glass LLC		F180-BUILDING MATERIALS	$875.00	$ -	$ -
4500066507	2/19/2025	Arts Lawnmower and Repairs LLC		F190-LANDSCAPING MAT'LS	$1,722.83	$ -	$ -
4500066508	2/19/2025	Rayne - San Diego Inc		C110-GENERAL CONTRACTORS	$2,820.00	$ -	$ -
4500066509	2/19/2025	Home Depot USA Inc		G110-BUS/TROLLEY SIGNAGE	$49.31	$ -	$ -
4500066510	2/19/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$1,508.93	$ -	$ -
4500066511	2/19/2025	Siemens Mobility, Inc.		R120-RAIL/LRV CAR BODY	$1,800.00	$ -	$ -
4500066512	2/19/2025	Charter Industrial Supply Inc	Small Business	R220-RAIL/LRV TRUCKS	$1,729.00	$ -	$ -
4500066513	2/19/2025	Mouser Electronics Inc		R160-RAIL/LRV ELECTRICAL	$463.69	$ -	$ -
4500066514	2/19/2025	Digi-Key Corporation		R160-RAIL/LRV ELECTRICAL	$239.32	$ -	$ -
4500066515	2/19/2025	Arts Lawnmower and Repairs LLC		G130-SHOP TOOLS	$420.06	$ -	$ -
4500066516	2/19/2025	L&W Industries LLC		M130-CROSSING MECHANISM	$580.24	$ -	$ -
4500066517	2/19/2025	Oldcastle Infrastructure		G130-SHOP TOOLS	$247.83	$ -	$ -
4500066518	2/19/2025	Railquip Inc.		F130-VEH HOISTS, JACKS	$4,155.38	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066519	2/19/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$3,545.60	$ -	$ -
4500066520	2/19/2025	OneSource Distributors, LLC		M120-OVRHEAD CATENARY SYS	$3,728.36	$ -	$ -
4500066522	2/19/2025	Team One Repair Inc		G290-FARE REVENUE EQUIP	$399.21	$ -	$ -
4500066523	2/19/2025	Professional Contractors Supplies		G140-SHOP SUPPLIES	$365.72	$ -	$ -
4500066524	2/19/2025	Fastenal Company		R160-RAIL/LRV ELECTRICAL	$578.62	$ -	$ -
4500066525	2/19/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$363.07	$ -	$ -
4500066526	2/19/2025	Jamaica Bearings Co Inc		R220-RAIL/LRV TRUCKS	$48,192.57	$ -	$ -
4500066527	2/19/2025	Annex Warehouse Company, Inc		F120-BUS/LRV PAINT BOOTHS	$694.21	$ -	$ -
4500066528	2/19/2025	PSOMAS		C120-SPECIALTY CONTRACTOR	$123,205.20	$ 43,959.62	$ -
4500066529	2/19/2025	Genuine Parts Company Inc		G140-SHOP SUPPLIES	$132.65	$ -	$ -
4500066530	2/19/2025	Schunk Carbon Technology LLC		R190-RAIL/LRV PANTOGRAPH	$3,720.44	$ -	$ -
4500066531	2/19/2025	Schunk Carbon Technology LLC		R190-RAIL/LRV PANTOGRAPH	$2,556.58	$ -	$ -
4500066532	2/19/2025	Winzer Franchise Company		G150-FASTENERS	$142.68	$ -	$ -
4500066533	2/19/2025	Mike Farrar		B130-BUS BODY	$8,189.00	$ -	$ -
4500066534	2/19/2025	W.W. Grainger Inc		I110-INFORMATION TECH	$2,272.83	$ -	$ -
4500066536	2/20/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$6,734.80	$ -	$ -
4500066537	2/20/2025	Muncie Reclamation and Supply Co		B120-BUS MECHANICAL PARTS	$102.07	$ -	$ -
4500066538	2/20/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$23.49	$ -	$ -
4500066539	2/20/2025	Transit Holdings Inc		B140-BUS CHASSIS	$4,017.20	$ -	$ -
4500066540	2/20/2025	Siemens Mobility, Inc.		R230-RAIL/LRV MECHANICAL	$432.62	$ -	$ -
4500066541	2/20/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$12.50	$ -	$ -
4500066542	2/20/2025	VGP Holdings LLC		B120-BUS MECHANICAL PARTS	$7,955.21	$ -	$ -
4500066543	2/20/2025	Gillig LLC		B250-BUS REPAIR PARTS	$19,382.73	$ -	$ -
4500066544	2/20/2025	Presidio Holdings Inc		I110-INFORMATION TECH	$3,247.84	$ -	$ -
4500066545	2/20/2025	Grah Safe & Lock Inc	Small Business	F110-SHOP/BLDG MACHINERY	$86.44	$ -	$ -
4500066546	2/20/2025	Madden Construction Inc		P280-GENERAL SVC AGRMNTS	$485.63	$ -	$ -
4500066547	2/20/2025	NS Corporation		F110-SHOP/BLDG MACHINERY	$267.37	$ -	$ -
4500066548	2/20/2025	TK Services Inc		B250-BUS REPAIR PARTS	$247.02	$ -	$ -
4500066549	2/20/2025	David L Jennings IV		F110-SHOP/BLDG MACHINERY	$686.10	$ -	$ -
4500066550	2/20/2025	San Diego Community		P540-MAINTENANCE TRAINING	$1,095.28	$ -	$ -
4500066551	2/20/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$499.31	$ -	$ -
4500066552	2/20/2025	Uline Inc		P280-GENERAL SVC AGRMNTS	$4,123.42	$ -	$ -
4500066553	2/20/2025	Powerstride Battery Co. Inc.		F110-SHOP/BLDG MACHINERY	$452.55	$ -	$ -
4500066554	2/20/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$1,067.66	$ -	$ -
4500066555	2/20/2025	Robcar Corporation	Woman Owned Bus	P280-GENERAL SVC AGRMNTS	$2,243.89	$ -	$ -
4500066556	2/20/2025	Lucas,Horsfall,Murphy&Pindroh, LLP		P280-GENERAL SVC AGRMNTS	$3,850.00	$ -	$ -
4500066557	2/20/2025	Lucas,Horsfall,Murphy&Pindroh, LLP		P280-GENERAL SVC AGRMNTS	$3,850.00	$ -	$ -
4500066558	2/20/2025	Cummins Inc		B250-BUS REPAIR PARTS	$1,957.40	$ -	$ -
4500066559	2/20/2025	Gillig LLC		B250-BUS REPAIR PARTS	$97.68	$ -	$ -
4500066560	2/20/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$751.55	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066561	2/20/2025	Home Depot USA Inc		F110-SHOP/BLDG MACHINERY	$289.24	$ -	$ -
4500066562	2/20/2025	Mcmaster-Carr Supply Co		F110-SHOP/BLDG MACHINERY	$80.98	$ -	$ -
4500066563	2/20/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$52.49	$ -	$ -
4500066564	2/20/2025	Daniels Tire Service, Inc		A110-AUTO/TRUCK TIRES	$340.97	$ -	$ -
4500066565	2/20/2025	Pandrol Industries Inc		G130-SHOP TOOLS	$3,123.59	$ -	$ -
4500066566	2/20/2025	Performance Plumbing and		C120-SPECIALTY CONTRACTOR	$550.00	$ -	$ -
4500066567	2/21/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$3,573.42	$ -	$ -
4500066568	2/21/2025	Transit Holdings Inc		B140-BUS CHASSIS	$5,160.70	$ -	$ -
4500066569	2/21/2025	Transit Holdings Inc		B110-BUS HVAC SYSTEMS	$344.80	$ -	$ -
4500066570	2/21/2025	Siemens Mobility, Inc.		R160-RAIL/LRV ELECTRICAL	$139.86	$ -	$ -
4500066571	2/21/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$83.92	$ -	$ -
4500066572	2/21/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$1,949.81	$ -	$ -
4500066573	2/21/2025	Transit Holdings Inc		B140-BUS CHASSIS	$769.34	$ -	$ -
4500066574	2/21/2025	VGP Holdings LLC		B200-BUS PWR TRAIN EQUIP	$3,295.00	$ -	$ -
4500066575	2/21/2025	Southern Counties Lubricants LLC		G170-LUBRICANTS	$4,633.25	$ -	$ -
4500066576	2/21/2025	Annex Warehouse Company, Inc		F120-BUS/LRV PAINT BOOTHS	$7,687.14	$ -	$ -
4500066577	2/21/2025	Muncie Reclamation and Supply Co		B120-BUS MECHANICAL PARTS	$721.69	$ -	$ -
4500066578	2/21/2025	Neopart Transit LLC		B250-BUS REPAIR PARTS	$316.78	$ -	$ -
4500066579	2/21/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,448.11	$ -	$ -
4500066580	2/21/2025	Muncie Reclamation and Supply Co		B160-BUS ELECTRICAL	$7,931.09	$ -	$ -
4500066581	2/21/2025	Mohawk Mfg & Supply Co		B130-BUS BODY	$4,974.31	$ -	$ -
4500066582	2/21/2025	Railroad Component Rebuilds		P130-EQUIP MAINT REPR SVC	$8,175.98	$ -	$ -
4500066583	2/24/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$14.48	$ -	$ -
4500066584	2/24/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$269.07	$ -	$ -
4500066585	2/24/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$7,279.59	$ -	$ -
4500066586	2/24/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$5,165.49	$ -	$ -
4500066587	2/24/2025	Transit Holdings Inc		B140-BUS CHASSIS	$4,852.30	$ -	$ -
4500066588	2/24/2025	Transit Holdings Inc		B110-BUS HVAC SYSTEMS	$1,500.48	$ -	$ -
4500066589	2/24/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$164.42	$ -	$ -
4500066590	2/24/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$1,036.04	$ -	$ -
4500066591	2/24/2025	Costco Wholesale Corporation		G220-OFFICE EQUIPMENT	$2,149.62	$ -	$ -
4500066592	2/24/2025	Cummins Inc		B120-BUS MECHANICAL PARTS	$7,504.76	$ -	$ -
4500066593	2/24/2025	Clarran Inc.	DBE	G200-OFFICE SUPPLIES	$266.89	$ -	$ -
4500066594	2/24/2025	AirSupply Tools, Inc		G150-FASTENERS	$21.19	$ -	$ -
4500066595	2/24/2025	Charter Industrial Supply Inc	Small Business	G150-FASTENERS	$2,887.17	$ -	$ -
4500066596	2/24/2025	Staples Contract & Commercial LLC		G200-OFFICE SUPPLIES	$435.58	$ -	$ -
4500066597	2/24/2025	R.S. Hughes Co Inc		G140-SHOP SUPPLIES	$253.54	$ -	$ -
4500066598	2/24/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$3,175.35	$ -	$ -
4500066599	2/24/2025	Clarran Inc.	DBE	G150-FASTENERS	$297.13	$ -	$ -
4500066600	2/24/2025	Amazon.com Sales, Inc.		I110-INFORMATION TECH	$1,436.88	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066601	2/24/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$2,576.06	$ -	$ -
4500066602	2/24/2025	Supreme Oil Co.		A120-AUTO/TRUCK GASOLINE	$12,493.37	$ -	$ -
4500066603	2/24/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$3,218.13	$ -	$ -
4500066604	2/24/2025	San Diego Friction Products, Inc.		G140-SHOP SUPPLIES	$581.54	$ -	$ -
4500066605	2/24/2025	Gillig LLC		B250-BUS REPAIR PARTS	$2,116.69	$ -	$ -
4500066606	2/24/2025	Mohawk Mfg & Supply Co		B110-BUS HVAC SYSTEMS	$2,308.92	$ -	$ -
4500066607	2/24/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$793.12	$ -	$ -
4500066608	2/24/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$16,080.83	$ -	$ -
4500066609	2/24/2025	OneSource Distributors, LLC		G140-SHOP SUPPLIES	$544.42	$ -	$ -
4500066610	2/24/2025	M Power Truck & Diesel		A130-AUTO/TRUCK DIESEL	$306.17	$ -	$ -
4500066611	2/24/2025	Home Depot USA Inc		F190-LANDSCAPING MAT'LS	$429.92	$ -	$ -
4500066612	2/24/2025	Neyenesch Printers Inc	Small Business	G230-PRINTED MATERIALS	$1,355.72	$ -	$ -
4500066613	2/24/2025	Prestige Flag Mfg Co		G230-PRINTED MATERIALS	$2,155.00	$ -	$ -
4500066614	2/24/2025	Emilia P. Ringpis		G260-MEDIA	$117.00	$ -	$ -
4500066615	2/24/2025	Zemarc Corporation	Small Business	T120-TRACK, LUBRICATORS	$2,260.25	$ -	$ -
4500066616	2/24/2025	Genuine Parts Company Inc		P130-EQUIP MAINT REPR SVC	$154.02	$ -	$ -
4500066618	2/24/2025	Graybar Electric Co Inc		M180-STATION ELECTRICAL	$637.99	$ -	$ -
4500066619	2/24/2025	Jamison Professional Services, LLC	DBE	G170-LUBRICANTS	$298.16	$ -	$ -
4500066620	2/24/2025	American Battery Corporation	Small Business	P280-GENERAL SVC AGRMNTS	$4,776.56	$ -	$ -
4500066621	2/25/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$3,289.39	$ -	$ -
4500066622	2/25/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$1,037.87	$ -	$ -
4500066623	2/25/2025	Mohawk Mfg & Supply Co		B140-BUS CHASSIS	$20.76	$ -	$ -
4500066624	2/25/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$384.26	$ -	$ -
4500066625	2/25/2025	Interboro Packaging Corporation		G180-JANITORIAL SUPPLIES	$135.44	$ -	$ -
4500066626	2/25/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$3,781.90	$ -	$ -
4500066627	2/25/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$747.57	$ -	$ -
4500066628	2/25/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,078.08	$ -	$ -
4500066629	2/25/2025	Bright Market LLC		I110-INFORMATION TECH	$360.00	$ -	$ -
4500066630	2/25/2025	Genfare, LLC		G290-FARE REVENUE EQUIP	$2,726.90	$ -	$ -
4500066631	2/25/2025	Mohawk Mfg & Supply Co		B120-BUS MECHANICAL PARTS	$1,374.35	$ -	$ -
4500066632	2/25/2025	Mouser Electronics Inc		B250-BUS REPAIR PARTS	$623.73	$ -	$ -
4500066633	2/25/2025	Gillig LLC		B250-BUS REPAIR PARTS	$538.54	$ -	$ -
4500066634	2/25/2025	Waxie's Enterprises, LLC		G140-SHOP SUPPLIES	$2,035.22	$ -	$ -
4500066635	2/25/2025	Motion Industries, Inc.		B250-BUS REPAIR PARTS	$400.92	$ -	$ -
4500066636	2/25/2025	Kurt Morgan		G200-OFFICE SUPPLIES	$2,347.67	$ -	$ -
4500066637	2/25/2025	RS Americas, Inc.		P130-EQUIP MAINT REPR SVC	$42.31	$ -	$ -
4500066638	2/25/2025	ABC General Contractor, Inc.		C110-GENERAL CONTRACTORS	$14,501.95	$ -	$ -
4500066639	2/25/2025	The Gordian Group, Inc.		C130-CONSTRUCTION SVCS	$255.23	$ -	$ -
4500066640	2/25/2025	Mid-Eastern Partners		G250-NOVELTIES & AWARDS	$5,684.10	$ -	$ -
4500066641	2/25/2025	Genuine Parts Company Inc		R180-RAIL/LRV LIGHTING	$3,968.87	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066642	2/25/2025	ABC General Contractor, Inc.		C110-GENERAL CONTRACTORS	$9,593.92	$ -	$ 3,972.84
4500066644	2/25/2025	The Gordian Group, Inc.		C130-CONSTRUCTION SVCS	$168.85	$ -	$ -
4500066645	2/25/2025	Midwest Motor Supply Co. Inc		G180-JANITORIAL SUPPLIES	$258.60	$ -	$ -
4500066646	2/25/2025	Jamison Professional Services, LLC	DBE	G170-LUBRICANTS	$1,636.16	$ -	$ -
4500066647	2/25/2025	Facility Solutions Group, Inc.		M180-STATION ELECTRICAL	$461.66	$ -	$ -
4500066648	2/25/2025	Professional Contractors Supplies		G180-JANITORIAL SUPPLIES	$925.53	$ -	$ -
4500066649	2/25/2025	Kojae LLC		P440-CATERING SERVICES	$1,442.50	$ -	$ -
4500066650	2/25/2025	DigitalPro, Inc.		G230-PRINTED MATERIALS	$590.62	$ -	$ -
4500066651	2/25/2025	Gillig LLC		B250-BUS REPAIR PARTS	$420.01	$ -	$ -
4500066652	2/25/2025	Blue House Partners LLC	Small Business	F110-SHOP/BLDG MACHINERY	$2,151.82	$ -	$ -
4500066653	2/25/2025	Home Depot USA Inc		G200-OFFICE SUPPLIES	$193.85	$ -	$ -
4500066654	2/25/2025	Uline Inc		G210-OFFICE FURNITURE	$2,712.30	$ -	$ -
4500066655	2/25/2025	Kurt Morgan		G200-OFFICE SUPPLIES	$1,015.20	$ -	$ -
4500066656	2/26/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$1,299.93	$ -	$ -
4500066657	2/26/2025	Transit Holdings Inc		B140-BUS CHASSIS	$838.37	$ -	$ -
4500066658	2/26/2025	Charter Industrial Supply Inc	Small Business	R220-RAIL/LRV TRUCKS	$3,167.83	$ -	$ -
4500066659	2/26/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$798.29	$ -	$ -
4500066660	2/26/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$1,568.53	$ -	$ -
4500066661	2/26/2025	Home Depot USA Inc		G160-PAINTS & CHEMICALS	$116.05	$ -	$ -
4500066662	2/26/2025	The Carpenter Group		M120-OVRHEAD CATENARY SYS	$1,713.23	$ -	$ -
4500066663	2/26/2025	Siemens Mobility, Inc.		M130-CROSSING MECHANISM	$2,439.46	$ -	$ -
4500066664	2/26/2025	Arizona Machinery LLC		A110-AUTO/TRUCK TIRES	$506.07	$ -	$ -
4500066665	2/26/2025	MAC-IMPULSE, LLC		M120-OVRHEAD CATENARY SYS	$4,040.63	$ -	$ -
4500066666	2/26/2025	ABC General Contractor, Inc.		C130-CONSTRUCTION SVCS	$69,276.84	$ -	$ 27,696.88
4500066667	2/26/2025	Fastenal Company		G130-SHOP TOOLS	$1,537.24	$ -	$ -
4500066668	2/26/2025	Fastenal Company		G140-SHOP SUPPLIES	$4,519.32	$ -	$ -
4500066669	2/26/2025	Arizona Machinery LLC		A110-AUTO/TRUCK TIRES	$410.08	$ -	$ -
4500066670	2/26/2025	San Diego Air Duct Cleaning LLC		P140-MAINTENANCE, HVAC	$2,850.00	$ -	$ -
4500066671	2/27/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$1,495.14	$ -	$ -
4500066672	2/27/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$4,126.84	$ -	$ -
4500066673	2/27/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$1,091.91	$ -	$ -
4500066674	2/27/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$5,482.32	$ -	$ -
4500066675	2/27/2025	Transit Holdings Inc		G140-SHOP SUPPLIES	$51.72	$ -	$ -
4500066676	2/27/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,678.71	$ -	$ -
4500066677	2/27/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$2,679.14	$ -	$ -
4500066678	2/27/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$347.43	$ -	$ -
4500066679	2/27/2025	Transit Holdings Inc		G140-SHOP SUPPLIES	$734.66	$ -	$ -
4500066680	2/27/2025	Mcmaster-Carr Supply Co		B250-BUS REPAIR PARTS	$103.13	$ -	$ -
4500066681	2/27/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$2,090.96	$ -	$ -
4500066682	2/27/2025	Facility Solutions Group, Inc.		M180-STATION ELECTRICAL	$90.51	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066683	2/27/2025	Staples Contract & Commercial LLC		G200-OFFICE SUPPLIES	$2,060.18	$ -	$ -
4500066684	2/27/2025	Home Depot USA Inc		G130-SHOP TOOLS	$405.16	$ -	$ -
4500066685	2/27/2025	Johnson Health Tech Retail Inc.		F110-SHOP/BLDG MACHINERY	$2,899.32	$ -	$ -
4500066686	2/27/2025	Winzer Franchise Company		G270-ELECTRICAL/LIGHTING	$1,061.12	$ -	$ -
4500066687	2/27/2025	RJ International LLC	DBE	G140-SHOP SUPPLIES	$1,444.93	$ -	$ -
4500066688	2/27/2025	Louis Sardo Upholstery Inc		B130-BUS BODY	$2,546.43	$ -	$ -
4500066689	2/27/2025	Genuine Parts Company Inc		R180-RAIL/LRV LIGHTING	$3,968.87	$ -	$ -
4500066690	2/28/2025	Transit Holdings Inc		G290-FARE REVENUE EQUIP	$168.73	$ -	$ -
4500066691	2/28/2025	Transit Holdings Inc		B140-BUS CHASSIS	$51.40	$ -	$ -
4500066692	2/28/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$164.42	$ -	$ -
4500066693	2/28/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$1,506.26	$ -	$ -
4500066694	2/28/2025	Transit Holdings Inc		B130-BUS BODY	$114.43	$ -	$ -
4500066695	2/28/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$76.87	$ -	$ -
4500066696	2/28/2025	Transit Holdings Inc		B130-BUS BODY	$1,953.36	$ -	$ -
4500066697	2/28/2025	RJ International LLC	DBE	G140-SHOP SUPPLIES	$1,074.82	$ -	$ -
4500066698	2/28/2025	Prochem Specialty Products Inc	Small Business	G180-JANITORIAL SUPPLIES	$3,007.58	$ -	$ -
4500066699	2/28/2025	Stafford Environmental Services Inc	DBE	F180-BUILDING MATERIALS	$925.00	$ -	$ -
4500066700	2/28/2025	Linde Gas & Equipment Inc.		G140-SHOP SUPPLIES	$2,664.49	$ -	$ -
4500066701	2/28/2025	Home Depot USA Inc		F180-BUILDING MATERIALS	$574.29	$ -	$ -
4500066702	2/28/2025	Staples Contract & Commercial LLC		G200-OFFICE SUPPLIES	$297.38	$ -	$ -
4500066703	2/28/2025	Muncie Reclamation and Supply Co		B120-BUS MECHANICAL PARTS	$880.37	$ -	$ -
4500066704	2/28/2025	Gillig LLC		B120-BUS MECHANICAL PARTS	$4,692.36	$ -	$ -
4500066705	2/28/2025	Transit Holdings Inc		B160-BUS ELECTRICAL	$3,615.72	$ -	$ -
4500066706	2/28/2025	San Diego Community		P490-MANAGEMENT TRAINING	$46.00	$ -	$ -
4500066707	2/28/2025	Haichris Inc		G200-OFFICE SUPPLIES	$567.86	$ -	$ -
4500066708	2/28/2025	Ace Uniforms LLC	Small Business	C120-SPECIALTY CONTRACTOR	$409.36	$ -	$ -
4500066709	2/28/2025	Alpine Fence Inc.		F190-LANDSCAPING MAT'LS	$2,968.13	$ -	$ -
4500066710	2/28/2025	Alpine Fence Inc.		F190-LANDSCAPING MAT'LS	$1,128.15	$ -	$ -
4500066711	2/28/2025	Shilpark Paint Corporation		G160-PAINTS & CHEMICALS	$372.48	$ -	$ -
4500066712	3/3/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$3,014.42	$ -	$ -
4500066713	3/3/2025	Cummins Inc		B120-BUS MECHANICAL PARTS	$196.63	$ -	$ -
4500066714	3/3/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$1,508.16	$ -	$ -
4500066715	3/3/2025	Transit Holdings Inc		B130-BUS BODY	$1,569.67	$ -	$ -
4500066716	3/3/2025	Facility Solutions Group, Inc.		M180-STATION ELECTRICAL	$581.85	$ -	$ -
4500066717	3/3/2025	Transit Holdings Inc		B140-BUS CHASSIS	$840.61	$ -	$ -
4500066718	3/3/2025	Hanning & Kahl LP		M140-WAYSIDE SIGNALS	$16,039.67	$ -	$ -
4500066719	3/3/2025	MCI Carrillo Inc	Small Business	B250-BUS REPAIR PARTS	$263.25	$ -	$ -
4500066720	3/3/2025	Transit Holdings Inc		B130-BUS BODY	$64.76	$ -	$ -
4500066721	3/3/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$2,106.21	$ -	$ -
4500066722	3/3/2025	Freeby Signs		B130-BUS BODY	$416.46	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066723	3/3/2025	Supreme Oil Co.		A120-AUTO/TRUCK GASOLINE	$12,169.71	$ -	$ -
4500066724	3/3/2025	SC Commercial, LLC		A120-AUTO/TRUCK GASOLINE	$3,174.98	$ -	$ -
4500066725	3/3/2025	Winzer Franchise Company		G150-FASTENERS	$22.63	$ -	$ -
4500066726	3/3/2025	Global Equipment Company	Small Business	F110-SHOP/BLDG MACHINERY	$581.82	$ -	$ -
4500066727	3/3/2025	Staples Contract & Commercial LLC		G200-OFFICE SUPPLIES	$3,782.32	$ -	$ -
4500066728	3/3/2025	Versa Products Inc		G210-OFFICE FURNITURE	$4,776.98	$ -	$ -
4500066729	3/3/2025	Air & Lube Systems Inc	DBE	F110-SHOP/BLDG MACHINERY	$212.38	$ -	$ -
4500066730	3/3/2025	Quality Logo Products, Inc.		G250-NOVELTIES & AWARDS	$2,082.95	$ -	$ -
4500066731	3/4/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$305.15	$ -	$ -
4500066732	3/4/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$115.94	$ -	$ -
4500066733	3/4/2025	Transit Holdings Inc		B130-BUS BODY	$217.14	$ -	$ -
4500066734	3/4/2025	Transit Holdings Inc		B130-BUS BODY	$1,108.51	$ -	$ -
4500066735	3/4/2025	Freeby Signs		B250-BUS REPAIR PARTS	$361.29	$ -	$ -
4500066736	3/4/2025	W.W. Grainger Inc		G140-SHOP SUPPLIES	$264.94	$ -	$ -
4500066737	3/4/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$2,354.80	$ -	$ -
4500066738	3/4/2025	Transit Holdings Inc		B140-BUS CHASSIS	$910.59	$ -	$ -
4500066739	3/4/2025	Clarran Inc.	DBE	G150-FASTENERS	$0.00	$ -	$ -
4500066740	3/4/2025	OneSource Distributors, LLC		P130-EQUIP MAINT REPR SVC	$414.40	$ -	$ -
4500066741	3/4/2025	ABB Inc.		R160-RAIL/LRV ELECTRICAL	$15,715.93	$ -	$ -
4500066742	3/4/2025	Elkhart Brass Manufacturing Co.		R150-RAIL/LRV COMM EQUIP	$87,751.60	$ -	$ -
4500066743	3/4/2025	Gillig LLC		B250-BUS REPAIR PARTS	$390.76	$ -	$ -
4500066744	3/4/2025	VCA Animal Hospitals, Inc.		G120-SECURITY	$730.10	$ -	$ -
4500066745	3/4/2025	Home Depot USA Inc		G200-OFFICE SUPPLIES	$91.59	$ -	$ -
4500066746	3/4/2025	Motorola Solutions Inc		G200-OFFICE SUPPLIES	$242.73	$ -	$ -
4500066747	3/4/2025	San Diego Community		P490-MANAGEMENT TRAINING	$359.32	$ -	$ -
4500066748	3/4/2025	711 Print Enterprises Inc		C120-SPECIALTY CONTRACTOR	$2,692.68	$ -	$ -
4500066749	3/4/2025	AVPM CA 7 LP		G120-SECURITY	$464.64	$ -	$ -
4500066750	3/4/2025	711 Print Enterprises Inc		C120-SPECIALTY CONTRACTOR	$1,658.28	$ -	$ -
4500066751	3/4/2025	Steven R Timme		G230-PRINTED MATERIALS	$192.40	$ -	$ -
4500066752	3/4/2025	Steven R Timme		G230-PRINTED MATERIALS	$623.40	$ -	$ -
4500066753	3/4/2025	Data Controls Printworks, Inc.	Small Business	G230-PRINTED MATERIALS	$474.10	$ -	$ -
4500066754	3/4/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$1,742.05	$ -	$ -
4500066755	3/4/2025	W.W. Grainger Inc		F110-SHOP/BLDG MACHINERY	$46.87	$ -	$ -
4500066756	3/4/2025	Sufian Munir Inc		G220-OFFICE EQUIPMENT	$3,446.38	$ -	$ -
4500066757	3/4/2025	Uline Inc		P280-GENERAL SVC AGRMNTS	$4,777.64	$ -	$ -
4500066758	3/4/2025	W.W. Grainger Inc		F180-BUILDING MATERIALS	$1,845.83	$ -	$ -
4500066759	3/4/2025	Siemens Mobility, Inc.		M130-CROSSING MECHANISM	$11,760.70	$ -	$ -
4500066760	3/5/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$8.51	$ -	$ -
4500066761	3/5/2025	Transit Holdings Inc		B250-BUS REPAIR PARTS	$365.81	$ -	$ -
4500066762	3/5/2025	Parts Authority, LLC		B160-BUS ELECTRICAL	$11,462.71	$ -	$ -

Purchase Orders							
PO Number	PO Date	Name	Prime Business Certification	Material Group	PO Value	DBE Subcontracted Amount	Non DBE Subcontracted Amount
4500066763	3/5/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$712.32	$ -	$ -
4500066764	3/5/2025	Mohawk Mfg & Supply Co		B140-BUS CHASSIS	$7.68	$ -	$ -
4500066765	3/5/2025	Transit Holdings Inc		B200-BUS PWR TRAIN EQUIP	$447.17	$ -	$ -
4500066766	3/5/2025	Transit Holdings Inc		B140-BUS CHASSIS	$2,841.40	$ -	$ -
4500066767	3/5/2025	Cummins Inc		B200-BUS PWR TRAIN EQUIP	$113.00	$ -	$ -
4500066768	3/5/2025	Waxie's Enterprises, LLC		G180-JANITORIAL SUPPLIES	$90.74	$ -	$ -
4500066769	3/5/2025	Transit Holdings Inc		B120-BUS MECHANICAL PARTS	$3,015.71	$ -	$ -
4500066770	3/5/2025	Parts Authority, LLC		B160-BUS ELECTRICAL	$3,602.57	$ -	$ -
4500066771	3/5/2025	Pacific Star Corporation		G180-JANITORIAL SUPPLIES	$87.70	$ -	$ -
4500066772	3/5/2025	Balfour Beatty Infrastructure, Inc		C110-GENERAL CONTRACTORS	$87,089.87	$ -	$ -

EXPENSE CONTRACTS				
Doc #	**Organization**	**Subject**	**Amount**	**Day**
PWL355.0-22WOA-AE-44	PSOMAS	CPD DESIGN	$123,205.20	2/7/2025
G3029.0-25	TOLAR	PURCHASE OF BUS STOP POLE SOLAR LIGHTS	$57,484.35	2/12/2025
PWG324.0-21JOC324-52	ABC CONSTRUCTION	CCO LOCKERS AND BENCHES	$14,501.95	2/13/2025
PWL337.9-21	WCG A JOINT VENTURE	FIELD ORDER RECONCILIATION CCO 41	$120,230.60	2/13/2025
G2009.9-17	SCHNEIDER	EXTEND 4 MONTHS	$62,836.00	2/20/2025
PWG324.0-21JOC324-67	ABCGC	BOARDROOM IT RACK COOLING	$9,593.92	2/24/2025
G2498.0-21WOA-CM27	KLEINFELDER	L ST EMERGENCY REPAIRS	$48,569.81	2/24/2025
G2905.2-24	AXON	DOCKS LEMON GROVE	$8,003.90	2/24/2025
G2948.0-25	BLUE ANGEL INT LLC	COMPUTER REFRESH CONTRACT	$135,551.29	2/26/2025
G2686.2-23	NEYENESCH	ADD FUNDS	$55,303.66	2/28/2025
PWL393.2-24	BALFOUR	VMS INSTALLATION CCO	$87,089.87	2/28/2025
PWG324.0-21JOC324-65	ABCGC	FIRE SPRINKLER UPGRADE IAD KMD	$94,575.25	2/28/2025

REVENUE CONTRACTS AND MOUs				
Doc #	**Organization**	**Subject**	**Amount**	**Day**

** No reported revenue items during the 02/06/25 - 0/05/25 period.

Metropolitan Transit System

DATE: March 13, 2025

TO: Board of Directors

FROM: Sharon Cooney, Chief Executive Officer

SUBJECT: MTS Property Related Flooding: Immediate Remedial Measures for January 22, 2024

Authority

Per MTS's enabling legislation at Public Utilities Code Section 120224.1, and per MTS Board Policy No 52, "Procurement of Goods and Services", Section 52.2 (F) (v):

> Upon determining that immediate remedial measures to avert or alleviate damage to, or to repair or restore damaged or destroyed MTS property are necessary in order to ensure that MTS facilities are available to serve the transportation needs of the general public, and upon determining that compliance with competitive solicitation requirements would result in an impermissible delay, the CEO may authorize the expenditure of money for the direct purchases of goods and services. The CEO, after the expenditure authorized under immediate remedial measures has been made, shall submit to the board a full report explaining the necessity for that action.

Background

On January 22, 2024, there was a significant rain event that resulted in extensive flooding along MTS property. This rain event caused substantial damage to MTS's rail infrastructure, MTS's rail equipment, MTS's operation and administrative buildings, and other MTS real property. This damage impacted MTS's ability to continue some of its programs and services, including operation of a portion of MTS' trolley service. Since providing trolley service is an essential public service, immediate action was necessary to mitigate the damage and bring back full operations to the trolley service. Compliance with MTS's standard competitive bidding requirements would have resulted in an impermissible delay. Therefore, on January 23, 2024, the CEO authorized staff to conduct the necessary work to remediate the damages immediately, without compliance with standard competitive procurement requirements.

Under these emergency remedial measures, the CEO instructed staff to identify contractors to conduct the necessary work, with a focus on contractors that (1) had the necessary expertise and experience for the work in question, and (2) were ready and available to start work as soon as possible and complete the work in an expeditious manner. The following work has been authorized by the CEO to date, with work still on-going. Please note, this list is not the complete list of repairs necessary as a result of the flooding event; the rows in gray have been disclosed as part of the CEO Report in previous Board meetings. This only reflects the work that has been authorized by the CEO to start. Other work is still pending as staff continues to identify the appropriate firms and necessary scope of work to make the repairs. Contractors were selected based on their ability to quickly mobilize and complete work at each location; many of the contractors were doing similar work or had recently done similar work for MTS under a competitively bid contract.

Purchase Order No.	Estimated Cost	Actual Cost	Contract or	Description of Work	Contractor Selection Justification	Projected Competitive Procurement Timeline	Projected	Location
4500060487	$2,500,000	$2,500,000.00	DRS Contracting	Track reconstruction and drainage repair	DRS Contracting Inc. was selected because their sister company Veteran's Engineering Inc. had an	Construction IFB, process of 6 months	Ability to immediately commence	Orange Line: Massachusetts to Euclid
4500060475	$2,500,000	$2,500,000.00	Balfour Beatty	Track reconstruction and drainage repair	MTS turned to Balfour Beatty to authorize them to perform this work on 1/24/24, this was the earliest possible time. They had an existing contract in place with MTS for trackwork in other areas, therefore, they had crews and equipment available for immediate mobilization.	Construction IFB, process of 6 months	Ability to immediately commence services	Orange Line: Massachusetts to Euclid
4500061454	$65,251.97	$86,724.28	PGH Wong	Inspection and construction management for track reconstruction	Firm currently under contract as an on- call consultant for Construction Management (CM) Services	Mini RFP through on-call construction management services agreements, process of 4 months	Ability to immediately commence services	Orange Line: Massachusetts to Euclid
4500060499	$1,500,000	$1,500,000.00	Blue Iron	Shoring	MTS met with 3 shoring contractors. Blue Iron was the only firm that had materials on-hand and could start right away. The other two contractors had a 3-month lead time.	Construction IFB, process of 6 months	Ability to immediately commence services	Orange Line: Near 65th crossing
4500060986	$120,000	$120,000.00	HMS	Overhead catenary system repairs	Firm currently under contract as an on- call consultant for JOC Overhead Catenary System (OCS)	Construction IFB process of 6 months	Ability to immediately commence services	Orange Line: Near 65th
4500060094	$140,570.00	$140,570.00	AECOM	Inspection and construction management for shoring and system/signals	Firm currently under contract as an on- call consultant for CM Services	Mini RFP through on-call CM services agreements, process of 4 months	Ability to immediately commence services	Orange Line: Near 65th
4500059857	$5,961	$5,961.00	Overhead Door Company of Southern	Purchase and install roll up door	Firm specializes in providing roll up door products and services	RFQ process of 1-2 months	Services scheduled to	Pyramid Building, Bay 3
4500060232	$58,800	$58,800.00	National Electrical Testing and Engineering, LLC (NETE)	Testing and repairs prior to regeneration of substations	Previous experience on testing and commissioning of substations for both the Mid Coast and Blue/Green lines.	RFQ process of 1-2 months	Ability to immediately start repairs	Green Line: San Altos Substation
4500062947	$250,000	$257,537.40	Clean Harbor	Trolley Building Pump-out	Personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Ability to immediately commence services	LRV Maintenance Facility (Building C)
4500059608	$27,093	$27,093.10	Badger Day Lighting	Clean-out LRV Maintenance pits	Prompt mobilization and prior work performance	RFQ process of 1-2 months	Ability to immediately start repairs	LRV Maintenance Facility (Building C)
4500060233	$19,668.53	$19,668.53	NMS Management, Inc.	Strip and waxing of Building C Shop Floors for proper sanitation of shop floors	Janitorial expertise, personnel availability, immediate mobilization, and past work performance	RFQ process of 1-2 months	Ability to immediately start repairs	LRV Maintenance Facility (Building C)
4500059669	$14,484.17	$14,484.17	National Business Furniture (NBF)	Replace office furniture for SDTI staff (manager, project coordinator and shop supervisor)	Staff attempted to receive quotes from National Business Furniture, Madison Liquidators and Office Depot, Items are readily available for shipment and assembled, MTS chose NBF	RFQ process of 1-2 months	Ability to immediately ship furniture	LRV Maintenance Facility (Building C)
4500059667	$5,039.04	$5,384.46	National Business Furniture	Replace office furniture for SDTI LRV Director	Staff attempted to receive quotes from National business Furniture, Madison Liquidators and Office Depot, Items are readily available for shipment and assembled, MTS chose NBF	RFQ process of 1-2 months	Ability to immediately ship furniture	LRV Maintenance Facility (Building C)
4500059748	$14,769.07	$14,769.08	Gillig LLC	Purchase exterior mirrors (inventory item) for LRVs that were ripped off/damaged during storm	Staff attempted to attain quotes, received two from Gillig and Siemens. Gillig was the lowest bidder.	RFQ for inventory item, process of 7 days	Ability to immediately ship	LRV Maintenance Facility (Building C)
4500061162	$160,000	$127,697.32	ABCGC	Building A Interior Clean up, Building C Exterior Pressure Washing and Clean up, San Altos Substation Clean up, 65th & Imperial Slope SWPPP and BMP installation to support the shoring contractor at this location, 65th & Imperial fence that was replaced to support the shoring contractor at this location, 54th & Market fence installation near the pedestrian crossing	Personnel availability, immediate mobilization, and past work performance.	Construction IFB, process of 6 months	Ability to immediately commence services.	Building A, Building C. San Altos Substation, 65th & Imperial Slope,65th & Imperial fence, 54th & Market fence.
4500060050	$7,176.00	$7,176.00	World Oil	Perform C2 Clarifier Clean Out due to flood	MTS turned to World Oil to perform this work based on their expertise of normal disposal, past purchase history with MTS, and previous work performance.	RFQ process of 30-60 days	Ability to immediately commence services	LRV Department
4500060078	$12,200.00	$12,200.00	Josephson Werdowatz	Structural analysis of the collapsed section of the roof on the Pyramid building, as well as designs on required repairs are necessary in order to ensure the building is safe for further crews to enter the building for additional repairs and to return the building to full	Based on previous work with MTS, specifically its previous work with MTS on structural improvements to this building in particulate.	RFQ process of 30-60 days	Ability to immediately commence services.	Pyramid Building
4500041657	$12,865.00	$12,865.00	NSH USA Corp.	Wheel truing machine evaluation.	NSH had drawings, technical support, knowledge of operation and past work performance.	RFQ process of 30-60 days	Ability to immediately commence services	LRV Department – Building C

Purchase Order No.	Estimated Cost	Actual Cost	Contract or	Description of Work	Contractor Selection Justification	Projected Competitive Procurement Timeline	Projected	Location
4500060310	$11,801.44	$11,804.44	NMS Management	Cleaning, waxing and sealing of New Vinal floors in A Building, C Building and Yard Tower	NMS Management was identified due to its janitorial expertise, personnel availability, immediate mobilization, and past work performance.	RFQ process of 30-60 days	Ability to immediately commence services	Buildings A and C, and Yard Tower
4500060985	$1,360,874.00	Not yet Finalized	Carlos Guzman	Above-ground Wheel Truing Machine Replacement for LRV Department	Staff learned Carlos Guzman hasd purchased a wheel truing machine that has only been in service for 4 ½ years and offered to sell it to MTS. Delivery of unit is 8-10 weeks compared to purchasing a brand new machine that would cost more and take longer to arrive with a lead time of 18 months from NTP.	IFB 4-6 months plus Lead time of 18 months	Availability of machine with a very short lead time.	LRV maintenance – Building C
4500061382	$109,548.85	$109,548.85	Legend to Kings Fence, Inc	Fencing Repair at Euclid Ave Station to Lemon Grove Station	MTS turned to LTK Fence to authorize them to perform this work. LTK Fence was identified due to its fencing expertise, personnel availability, and immediate mobilization.	Construction IFB, process of 6 months	Ability to immediately commence services	Euclid Ave Station to Lemon Grove Station
4500061099	$1,500,000	$1,408,455.91	DRS Contracting	Grade crossing on Euclid and Euclid Bridge repair	DRS was selected because they are currently mobilized on another project and have crews, equipment and long- lead time materials available for immediate mobilization.	Construction IFB, process of 6 months	Ability to immediately commence services	Euclid and Euclid Bridge
4500060538	$67,500	$67,500.00	Atlas	Trees were damaged during flood	Contractor has an existing on call tree trimming contract in place, personnel availability, immediate mobilization, and past work performance. Delays mean that track and OCS could have been damaged.	RFQ process of 30-60 days	Ability to immediately commence services	Orange Line - Intersection of Massachusetts and 69th
4500059776	$6,854	$8,527.00	Hitachi	Part replacement	Existing MTS contractor for replacement services	RFQ process of 1-2 months	Ability to immediately commence services	Wayside
4500060161	$8,105.29	$8,105.29	Otay Mesa Sales, Inc.	MTS Track department used this equipment for (1) one month to help restore tracks and clean up trash	Identified due to large inventory, machine availability and ability for immediate mobilization	RFQ process of 1-2 months	Ability to immediately commence services	Orange Line – Massachusetts Station
4500061003	$187,680	$158,859.00	BBM Railway Innovations	Lifting Equipment	Sole Source – MACTON provided the lifts that were damaged. BBM bought out MACTON around 2018. BBM supplied similar replacement lifts	Formal IFB, process of 4-6 months	Availability to provide good with a very short lead time.	Trolley – LRV Maintenance
4500063310	$269,012.80	Not yet Finalized	BBM Railway Innovations	Lifting Equipment	Sole Source – MACTON provided the lifts that were damaged. BBM bought out MACTON around 2018. BBM supplied similar replacement lifts	Formal IFB, process of 4-6 months	Availability to provide good with a very short lead time.	Trolley – LRV Maintenance
4500060764	$58,600	Not yet Finalized	Kleinfelder	AE eval of sheet pile shoring	familiarity on the soil vicinity due to the past projects	Mini A&E RFP of 4 month	Ability to immediately commence services	Orange Line - Shoring Wall at 65th Street
4500063115	$1,857,000	Not yet Finalized	Siemens	Repair damaged drive units	Existing MTS contractor for repair services	Formal IFB, process of 4-6 months	Ability to immediately commence services	LRV Department
4500061162	$145,000	$127,697.32	ABGGC	Emergency cleanup and repairs	Existing MTS contractor for JOC services	Formal IFB, process of 4-6 months	Ability to immediately commence services and mobilize equipment and crews	Various locations
4500060841	$5,071.50	$9,561.36	Asbury Environmental Services	Removal of oil from C4/5 In-Floor Hoist Pits	Existing MTS contractor for services	RFQ process of 1-2 months	Ability to immediately commence services	LRV Maintenance – Bldg C
This is an amendment to PO 4500061454	$21,508.31	$21,508.31	PGH Wong	Inspection and construction management for track reconstruction	CM Services	Mini RFP through on-call construction management services agreements, process of 4 months	Ability to immediately commence services	Orange Line: Massachusetts to Euclid
4500065104	$166,133.27	$166,133.27	Jacobs Project Management Co.	CM services for Las Chollas Bridge emergency repair related to the January 2024 flood.	Jacobs is MTS' bridge inspector	Mini RFP through on-call CM services agreements, process of 4 months	Ability to immediately commence services	Las Chollas Bridge
4500062668	$75,900.00	$75,900.00	Baker Electric and Renewables, LLC	Electrical Utility Setup for new Wheeltrue machine	Past work performance, expertise and availability.	Formal IFB, process of 4-6 months	Ability to immediately commence services	LRV Maintenance – Bldg C
4500062733	$25,000.00	$21,151.75	Urban Corps of San Diego	Flood Emergency - Debris cleanup	Existing MTS contractor for debris clean- up services, personnel availability, and quick mobilization.	RFQ process of 1-2 months	Ability to immediately commence services	Various locations

Purchase Order No.	Estimated Cost	Actual Cost	Contract or	Description of Work	Contractor Selection Justification	Projected Competitive Procurement Timeline	Projected	Location
4500063680	$7,800.00	$49,197.14	HJR Equipment Rental, Inc.	Engineering Service Site Visit for Hold Downs	Sole Source - Contractor is original equiment manufacturer (OEM) possess proprietary drawings and specifications needed to engineer hold downs.	RFQ process of 1-2 months	Ability to immediately commence services	LRV Maintenance – Bldg C
PR # 10130086	$439,973.60	Not yet Finalized	ATI Restoration	Emergency Flood Services for Bldg A	Flood restoration expertise, personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Ability to immediately commence services	SDTI Bldg. A
PR # 10132309	$900,002.49	$910,405.76	Balfour Beatty	Las Chollas Bridge Repairs Construction	Knowledge and expertise, personnel availability, immediate mobilization.	Formal IFB, process of 4-6 months	Formal IFB, process of 4-6 months	Las Chollas Bridge
4500064912 (Line 1)	$658,028.79	$639,405.34	Belfor Property Restoration	Flood Services in Building C, Yard Tower, Paint Booth and Boogie Room	Flood restoration expertise, personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Formal IFB, process of 4-6 months	Building C, Yard Tower, Paint Booth and Boogie Room
4500064056	$15,126.70	$15,126.70	JR Bardin	Structural inspection and ongoing construction support during the inspection and repair phases of the Pyramid building.	Was identified due to its previous work with MTS, specifically its previous work with MTS on structural improvements to this building in particular.	Informal would take 30-60 days	Informal would take 30-60 days	Pyramid Building
PR # 10131933; PO: 4500064752	$210,000.00	~~Not yet Finalized~~ $207,581.52	Mott MacDonald	AE Service Las Chollas Bridge Repair	Contractor is already under contract with MTS to prepare engineering plans in response to annual bridge reports so they have familiarity with the bridge.	Mini RFP through on-call construction management services agreements, process of 4 months	Ability to immediately commence services	Las Chollas Bridge
PO:4500064912 (Line 2)	$617,055.31	$617,055.31	Belfor Property Restoration	Reconstruction of Building C, Bogie Building, Paint Booth and Yard Tower after the January 22nd Flood.	Flood restoration expertise, personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Formal IFB, process of 4-6 months	Building C, Yard Tower, Paint Booth, and Boogie Room
PO: 4500064912 (Line 3)	$72,610.55	$72,610.55	Belfor Property Restoration	Inspections, remediations, restorations of Pyramid Building after the January 22nd Flood.	Flood restoration expertise, personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Formal IFB, process of 4-6 months	Pyramid Building
PO: 4500064912 (Line 4)	$88,025.08	$88,025.08	Belfor Property Restoration	Reconstruction of Pyramid Building after the January 22nd Flood.	Flood restoration expertise, personnel availability, immediate mobilization, and past work performance.	Formal IFB, process of 4-6 months	Formal IFB, process of 4-6 months	Pyramid Building
	$16,298,089.76	$12,205,090.24	Total (as of 03/05/2025)					

Metropolitan Transit System

MEMORANDUM

DATE: March 13, 2025

TO: Board of Directors

FROM: Sharon Cooney, Chief Executive Officer

SUBJECT: Report of Non-Competitive Contract Award Under "Immediate Remedial Measures" Emergency – L Street Repairs on Blue Line

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Emergency Contracting & Expenditure Authority:

In part, Cal. Public Utilities Code section 120224.1 and MTS Board Policy No 52, Section (F) (v) states:

> Upon determining that immediate remedial measures to avert or alleviate damage to, or to repair or restore damaged or destroyed MTS property are necessary in order to ensure that MTS facilities are available to serve the transportation needs of the general public, the CEO may authorize the expenditure of money for the direct purchases of goods and services. The CEO, after the expenditure authorized under immediate remedial measures has been made, shall submit to the board a full report explaining the necessity for that action.

This is a report to the Board of an emergency contract and expenditure approved by the CEO.

Background Summary

On November 5, 2024, a Blue Line trolley was struck by an automobile at the L Street crossing in the city of Chula Vista. The collision caused the trolley to derail, damaging track, a crossing mechanism/arm, (2) overhead catenary system (OCS) poles and their foundations, an OCS balance weight assembly, a down guy anchor and its foundation, as well as severing 12 strand signaling fiber optic cables (FOC) and 144 strand MTS-Port-Wyyerd shared FOC.

The accident shutdown trolley service between H Street and Palm Street stations requiring a bus bridge until MTS Maintenance-of-Way (MOW) was able to repair the damaged track, the crossing mechanism/arm, and crane the derailed trolley back onto the track. Trolley service resumed the following morning but remained disrupted/delayed due to the severed signaling FOCs, requiring restrictive operating conditions with red signals in both track directions between H Street and Palomar Street Stations and 7 stop and proceeds (at the H, J, L, Moss, Naples, Palomar, and Anita Street crossings).

Emergency Status

Due to the delayed service on the Blue Line, emergency authorization was granted to proceed immediately with construction management and construction services for the repairs. If left unresolved to pursue competitive procurement methods, such delays would create significant operational challenges, including the need for prolonged and resource-intensive stop and proceeds and potential bus bridge(s).

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San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for nine cities.

Immediate action was critical to address this issue to restore and maintain safe, uninterrupted trolley operations, in order to continue to serve the transportation needs of the public.

Required Actions

To address the urgent need for repairs to the severed FOCs and damaged OCS poles and foundations near the L Street crossing, contracts must be secured promptly for construction management and construction services. These contracts are essential for ensuring the safe and efficient operation of trolley service in this area.

1. Construction Management Contract: Kleinfelder Constructions Services Inc.

- **Emergency Sole-Source Work Order:**
  A sole-source work order was issued to Kleinfelder to ensure construction management services are in place before work begins. A competitive mini-RFP process would take approximately four months, causing unacceptable delays and inefficient/costly operations.
- **Justification for Sole Source:**
  1. System Familiarity: Kleinfelder and their subconsultants have extensive experience with MTS's OCS and signaling systems.
  2. Rapid Mobilization: Kleinfelder can mobilize quickly and execute work orders efficiently under existing contract terms, minimizing delays and costs.
- **Scope of Work:**
  - Contract and task management
  - Conduct inspections to ensure compliance with standards.
  - Address safety concerns and ensure regulatory compliance.
  - Track force account work.

2. Construction Contract: HMS Construction Inc.

- **Emergency Sole Source Time and Material Contract:**
  This time and material contract was issued on an emergency basis to expedite repairs. A standard competitive procurement process would take 4–6 months, causing unacceptable delays. The Job Order Contracting (JOC) method is unsuitable for this emergency repair work due the non-routine nature of the damages and the sequencing required to complete the repairs without further disrupting service.
- **Justification for Sole Source:**
  1. System Familiarity: HMS has extensive experience with MTS's OCS and signaling systems.
  2. Rapid Mobilization: HMS was working on an existing MTS trolley contract and could shift available crews and mobilize quickly, to restore service, minimizing further delays and costs.
- **Scope of Work:**
  1. Replace damaged 12 strand FOCs and splice to existing to restore the track signaling

2. Replace damaged 144 strand FOCs and splice to existing to restore the shared MTS/Port/Wyyerd FOCs for internet/communications/data
3. Provide (2) new OCS foundations and (1) down guy foundation
4. Set (2) new OCS poles on new foundations a
5. Transfer OCS brackets from damaged OCS poles to new OCS poles, attaching and adjusting OCS wiring
6. Set new down guy wire from existing OCS pole to new down guy foundation anchor
7. Set new balance weight assembly on new OCS pole
8. Replace junction box and reroute wiring from damaged OCS pole to new OCS pole
9. Remove (2) damaged OCS poles, demo tops of damaged foundations, and backfill

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Cost Justification

1. Construction Management Contract

Construction management costs will follow the established rates in MTS's work order rotation contract with Kleinfelder. A contract for this work was issued under the CEO's emergency authority on November 6, 2024 for a not to exceed amount of $48,569.81 based on time and materials. The work was completed on December 8, 2024.

2. Construction Contract

In order to restore service, by repairing severed FOCs as soon as possible and ensuring integrity of the OCS by initiating replacement of the damaged OCS poles, this work was completed under time and material. A contract for this work was issued under the CEO's emergency authority on November 6, 2024 for a not to exceed amount of $410,123.74 based on time and materials. The work was completed on December 8, 2024.

Metropolitan Transit System

MEMORANDUM

DATE: February 13, 2025

TO: Board of Directors

FROM: Sharon Cooney, Chief Executive Officer

SUBJECT: Report on Relocation Payments pursuant to Board Policy 9 (Relocation Assistance Program)

State and federal law require that public agencies provide relocation assistance to tenants and property owners when they are displaced because private property is acquired for a public project. MTS Board Policy No. 9 (Relocation Assistance Program) details MTS's obligations under this program, including the types of benefits available to displaced parties. Board Policy 9, Section 2(F) provides:

> Reports to Board. All final relocation payments to owners or occupants for any purpose shall be formally reported to the Board as to amount, rationale, and applicable code or statute as part of the CEO Report.

This report is being submitted pursuant to Section 2(F).

PROJECT: **Clean Transit Advancement Campus (CTAC) Project.** The CTAC is a planned new bus division in southeastern San Diego. MTS has acquired 3 of the 5 parcels and has begun relocating tenants from the acquired parcels. All tenants for the CTAC property are commercial businesses with zero residential relocations. All relocations are being handled by an MTS-contracted relocation specialist, Epic Land Solutions, which complies with MTS Board Policy 9 Relocation Assistance Program, as well as applicable State and Federal relocation law.

PROPERTY: **4506 Federal Boulevard, San Diego, CA acquired by MTS on March 4, ,2024**

TENANT: **Brooke Thompson dba Brooke Paper Scissors**
4506 Federal Boulevard, Suite A, San Diego, CA

RELOCATION PAYMENT: $53,200

RATIONALE: **Lump Sum Payment (in lieu of payments for actual moving, reasonable reestablishment expenses and related expenses).** On December 31, 2024, tenant Brooke Paper Scissors relocated from the CTAC premises and elected to receive the maximum In Lieu Payment lump sum payment for relocation and reestablishment expenses. The regulations allow a lump sum payment of average annual net earnings of the business, not to exceed $53,200. Brooke Paper Scissors was eligible for the maximum payment. MTS issued the check for the In Lieu Payment on February 7, 2025.

APPLICABLE CODE OR STATUTE: In Lieu payment amount calculated pursuant to Cal. Code Reg. Title 25, Section 6100 and 49 Code Federal Regulations section 24.305. In general, the more generous provisions will apply, which in this case is the federal maximum for in lieu payments.

Metropolitan Transit System

Agenda Item No. 5

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Kearny Mesa Transit Center – Property Purchase

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors:

1) Determine that the Kearny Mesa Transit Center project is statutorily and categorically exempt from environmental review under the California Environmental Quality Act pursuant to Public Resources Code sections 21080.25(b)(2), (5), and (8), as well as Title 14 of the California Code Regulations, sections 15301, 15303, and 15332; certify that any construction contract for the project will require use of a skilled and trained workforce consistent with the criteria in Public Resources Code section 21080.25.

2) Create a project in the 2025 Capital Improvement Program (CIP) for the Kearny Mesa Transit Center project (WBSE 3004128201).

3) Transfer $14,000,000 from the Clean Transit Advancement Campus project (WBSE 3004100801) to the Kearny Mesa Transit Center project (WBSE 3004128201).

4) Authorize the Chief Executive Officer (CEO) to execute a Purchase and Sale Agreement (in substantially the same format as Attachment A) for the purchase of the property located at 8949 Clairemont Mesa Boulevard, San Diego, CA 92121 with a purchase price of $13,266,000, and to take all actions necessary to complete due diligence necessary to complete the purchase process.

Budget Impact

The total cost to purchase the property at 8949 Clairemont Mesa Boulevard is estimated to be $13,266,000 plus customary closing costs paid by buyers. Staff estimates that buyer escrow and due diligence costs (e.g., Phase I environmental review) will be approximately $35,000 to $40,000. The additional $700,000 in the proposed CIP budget would provide funding for design and construction costs for short-term transit center improvements that would allow transit service to move to the property pending the design and funding of a longer-term Kearny Mesa Transit Center project.

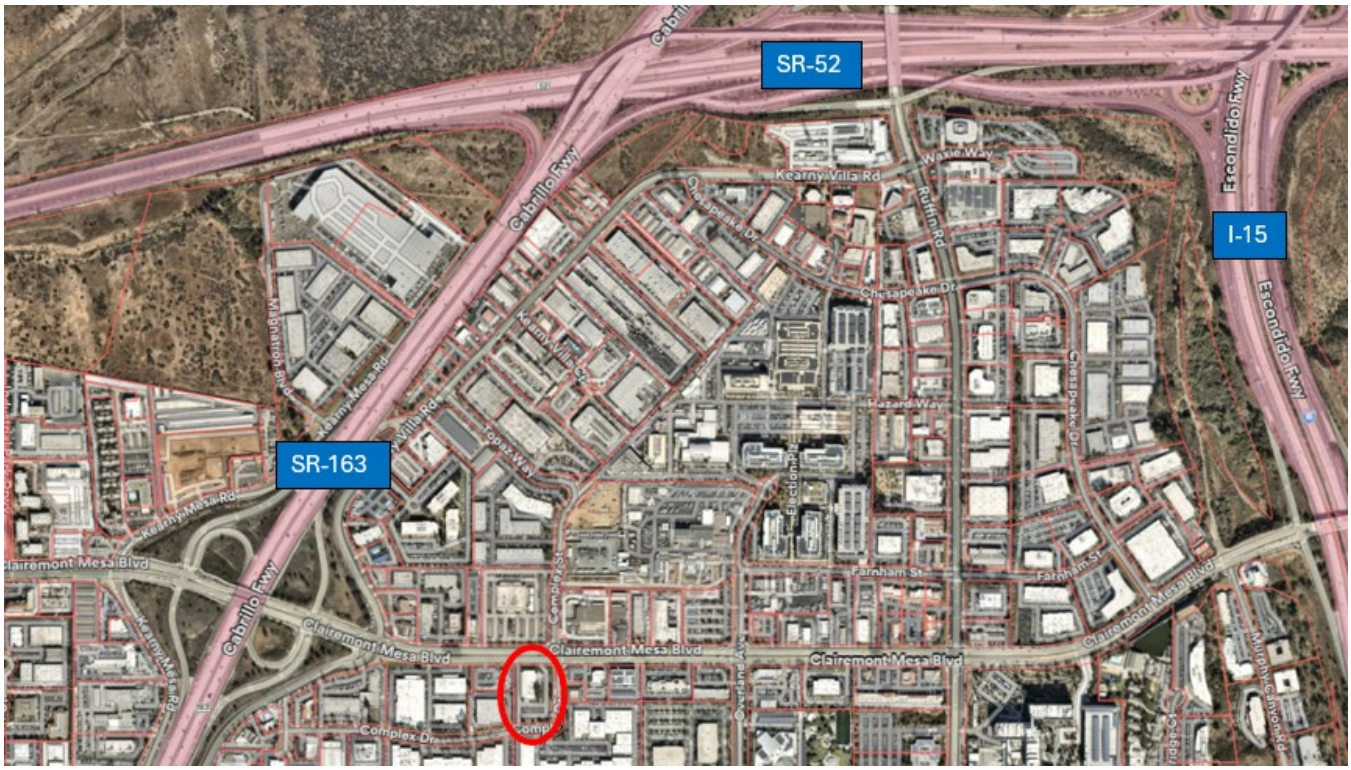
DISCUSSION:

PROPOSED PURCHASE OF 8949 CLAIREMONT MESA BOULEVARD

MTS staff recently identified a 2.05-acre parcel of property in Kearny Mesa (8949 Clairemont Mesa Boulevard) that is vacant. The property includes a 21,400 square foot building that was previously leased to Bank of America for a bank branch. The property was identified as an ideal location for a consolidated Kearny Mesa Transit Center because of its proximity to several MTS street-side bus stops in this area. During a Closed Session discussion on January 16, 2025 (Agenda Item 20), the Board provided real property negotiating instructions and authority to MTS staff related to a potential purchase of this property. Following receipt of those instructions, staff was able to negotiate a proposed purchase of the property within the authority granted by the Board. Today's proposed action would take several steps necessary to formally authorize the purchase of this property for the Kearny Mesa Transit Center project.

KEARNY MESA TRANSIT CENTER PROJECT

The location of the property, at the corner of Clairemont Mesa Boulevard and Complex Drive just east of State Route 163, is across the street from the Kearny Mesa courthouse:



This location is currently served by eight MTS bus routes, including:

Route 20 (Rancho Bernardo Transit Station to Downtown San Diego)
https://www.sdmts.com/sites/default/files/routes/pdf/20.pdf

Route 25 (Kearny Mesa Transit Center to Fashion Valley Transit Center)

https://www.sdmts.com/sites/default/files/routes/pdf/25.pdf

Route 27 (Pacific Beach to Kearny Mesa Transit Center)
https://www.sdmts.com/sites/default/files/routes/pdf/27.pdf

Route 43 (Balboa Avenue Transit Center to Kearny Mesa Transit Center)
https://www.sdmts.com/sites/default/files/routes/pdf/43.pdf

Route 44 (Kearny Mesa to Old Town)
https://www.sdmts.com/sites/default/files/routes/pdf/44.pdf

Route 120 (Kearny Mesa Transit Center Limited Stops to Downtown Limited Stops)
https://www.sdmts.com/sites/default/files/routes/pdf/120.pdf

Route 235 (Rapid Route Downtown San Diego to Escondido Transit Center)
(https://www.sdmts.com/sites/default/files/routes/pdf/235.pdf)

Route 928 (Fashion Valley Transit Center to Kearny Mesa Transit Center)
https://www.sdmts.com/sites/default/files/routes/pdf/928.pdf

Although this location is designated on MTS bus route maps as the “Kearny Mesa Transit Center”, it is not a formal transit center similar to stations operated at Otay Mesa, UTC, or many of MTS’s trolley stations. Instead, the current “transit center” consists of bus stops located on City streets along Clairemont Mesa Boulevard and Complex Drive.



The street environment for this heavy concentration of bus stops is not ideal. Buses compete for space with local traffic and bike lanes, and some passengers have to cross Clairemont Mesa

Boulevard in order to transfer buses. There are also limited amenities available for bus operators who begin or end their routes in this location. With the purchase of the 8949 Clairemont Mesa Boulevard property, these bus stops could be consolidated into a traditional transit center, providing better amenities for passengers and bus operators, and also removing some of the conflicts in the surrounding streets. The project would include typical transit center features such as shelters, benches, ticket vending machines, variable message signs, digital and static information boards, and digital and static advertising displays. There would also be space to expand bus service to this location.

A potential concept for the new Kearny Mesa Transit Center project is as follows:



Staff proposes that the Kearny Mesa Transit Center project be funded with a transfer of funds from the CTAC bus maintenance facility project. The CTAC project is currently in the property acquisition phase and has sufficient funding to complete that phase and to fund some preliminary design concept work. In anticipation of a future construction budget for the full CTAC project of $250 million to $350 million, MTS has begun adding funds to this CIP budget to cover a future local share required to match a potential federal grant for this large-scale project.

Over and above the funds needed for property acquisition and preliminary design concept work, the CTAC CIP budget has an additional $40 million set aside for local share/construction. MTS is still awaiting guidance on the federal government's priorities and discretionary grant programs for infrastructure projects such as CTAC. The change in administrations is anticipated to delay any action on these programs, which will likely extend the timeline for MTS applying for and obtaining federal funding for the CTAC project's construction phase. Transferring $14 million to the Kearny Mesa Transit Center project will allow MTS to provide new passenger amenities and

improve the transit experience in the near term. Because of the anticipated delays in federal grant programs for projects like CTAC, MTS will have sufficient time to replenish these funds in the CTAC project budget in future CIP program years.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

State law recognizes the importance of public transit to help accelerate progress towards California's environmental goals and improve the public health of Californians. The Kearny Mesa Transit Center project would directly support MTS in delivering transit and sustainable transportation projects that significantly enhance service quality, enhance access to transit, reduce pollution and greenhouse gas emissions, reduce automobile use, and improve the safety of our streets. In furtherance of these State policy goals, the project described above is statutorily and categorically exempt from environmental review under CEQA, Public Resources Code section 21000 *et seq*., and Title 14 of the California Code of Regulations, section 15000 *et seq*. ("State CEQA Guidelines").

The Kearny Mesa Transit Center project is statutorily exempt from CEQA review under Public Resources Code section 21080.25, subdivision (b)(2), (5), and (8) as a public project for the institution or increase of bus rapid transit and bus service, including the construction or rehabilitation of stations, terminals, or existing operation facilities, which will be exclusively used by zero-emission, near zero-emission, low oxide of nitrogen engine, compressed natural gas fuel, fuel cell, or hybrid powertrain buses on existing public rights-of-way or existing highway rights-of-way, whether or not the right-of-way is in use for public mass transit; improvements for customer information and wayfinding for transit riders; and the maintenance, repair, relocation, replacement, or removal of any associated utility infrastructure.

MTS would carry out the project and is the lead agency for the project. The project would be located on a site that is wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau. The project would not induce single-occupancy vehicle trips, add additional highway lanes, widen highways, or add physical infrastructure or striping to highways except for minor modifications needed for the efficient and safe movement of transit vehicles, bicycles, or high-occupancy vehicles, such as extended merging lanes, shoulder improvements, or improvements to the roadway within the existing right of way. The project also would not include the addition of any auxiliary lanes and would not require the demolition of affordable housing units.

The project would also be located within MTS's existing public right-of-way in the City of San Diego. Public Resources Code section 21071, subdivision (a)(1) defines an "Urbanized area" as an incorporated city that has a population of at least 100,000 persons. The City of San Diego is an incorporated city that has a population of more than 1 million persons according to the United States Census Bureau. Therefore, the project would be located in an urbanized area within an existing public right-of-way.

In compliance with the statutory exemption criteria in Public Resources Code section 21080.25, subdivision (f), any construction contract awarded for this project will require the use of a skilled and trained workforce or, alternatively, under a project labor agreement. The construction contract for the project would include an enforceable commitment to MTS that the contractor and its subcontractors at every tier will use a skilled and trained workforce to perform all work on the project or a contract that falls within an apprenticeship occupation in the building and construction trades in accordance with Chapter 2.9 (commencing with Section 2600) of Part 1 of

Division 2 of the Public Contract Code. The staff-recommended action on this item includes certification that any construction contract awarded for this project will require the use a skilled and trained workforce consistent with the criteria in Public Resources Code section 21080.25.

In addition, the improvements or modifications to the bank building anticipated for the Kearny Mesa Transit Center project are categorially exempt from CEQA review under State CEQA Guidelines section 15301 (Class 1), which includes minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use, including but not limited to demolition of the existing building on site.

The Kearny Mesa Transit Center project is also categorically exempt from CEQA review under State CEQA Guidelines section 15303 (Class 3), which consists of the construction and location of limited numbers of new, small facilities or structures, installation of small new equipment and facilities in small structures, and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. The project is in an urbanized area and would not include buildings exceeding 10,000 square feet in floor area. The exemption also applies to water main, sewage, electrical, gas and other utility extensions, including street improvements, of reasonable length to serve such construction, as well as accessory structures.

Finally, State CEQA Guidelines section 15332 (Class 32) applies to projects characterized as infill development that is consistent with the applicable general plan designation and policies and zoning designation and regulations; occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses; is on a site with no value as habitat for endangered, rare or threatened species; would not result in any significant effects relating to traffic, noise, air quality or water quality; and is on a site that can be adequately served by all required utilities and public services. The project meets the criteria for infill development. The property is zoned RMX-2 in the City of San Diego. San Diego Municipal Code section 131.0706 states “The purpose and intent of the mixed-use zones is to allow a varied mix of uses that reduce the dependency on automobiles and promote transit accessibility and walkability.” This project directly serves this goal.

None of exceptions to the categorical exemptions in State CEQA Guidelines section 15300.2 applies. The project would not be located in a particularly sensitive environment as the project would be located entirely within developed areas and all impact areas are within disturbed areas of the site. There is no reasonable possibility that the project would have a significant effect on the environment due to unusual circumstances. The cumulative impact of successive projects of the same type in the same place, over time is not significant, as no similar transit facilities of this scale are proposed within the area and the project would continue the existing bus use. The project would not result in any damage to scenic resources within a highway officially designated as a state scenic highway as it would not be located within a designated state scenic highway. The project site is not included on any list complied pursuant to Section 65962.5 of the Government Code. Lastly, the project would not cause a substantial adverse change in the significance of a historical resource.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

On January 15, 2025, the Federal Transit Administration (FTA) found that a purchase of this property by MTS qualified for a “Protective Property Acquisition” categorical exclusion under

NEPA. No federal funds would be used to purchase the property. However, this finding preserves MTS right to complete the NEPA process for the future Kearny Mesa Transit Center project if federal funds are used for the design or construction of the project.

PROPOSED ACTION

Based on the above, staff recommends that the Board of Directors:

1) Determine that the Kearny Mesa Transit Center project is statutorily and categorically exempt from environmental review under the California Environmental Quality Act pursuant to Public Resources Code sections 21080.25(b)(2), (5), and (8), as well as Title 14 of the California Code Regulations, sections 15301, 15303, and 15332; certify that any construction contract for the project will require use of a skilled and trained workforce consistent with the criteria in Public Resources Code section 21080.25.

2) Create a project in the 2025 Capital Improvement Program (CIP) for the Kearny Mesa Transit Center project (WBSE 3004128201).

3) Transfer $14,000,000 from the Clean Transit Advancement Campus project (WBSE 3004100801) to the Kearny Mesa Transit Center project (WBSE 3004128201).

4) Authorize the Chief Executive Officer (CEO) to execute a Purchase and Sale Agreement for the purchase of the property located at 8949 Clairemont Mesa Boulevard, San Diego, CA 92121 with a purchase price of $13,266,000, and to take all actions necessary to complete due diligence necessary to complete the purchase process.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. Draft Purchase and Sale Agreement

PURCHASE AND SALE AGREEMENT AND JOINT ESCROW INSTRUCTIONS

This **PURCHASE AND SALE AGREEMENT AND JOINT ESCROW INSTRUCTIONS** (this "**Agreement**") is entered into as of _____, 2025 (the "**Effective Date**"), by and between the **SAN DIEGO METROPOLITAN TRANSIT SYSTEM**, a California transit district ("**Purchaser**"), and Eva Hum, a married woman as her sole and separate property, as to an undivided 3% interest **[Eva Hum deceased May 2023, estate status (e.g. trustee or executor as party here) being confirmed]**; Debbie C. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Julie J. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Joyce C. Wong, a married woman as her sole and separate property, as to an undivided 3% interest; Angela Wong Preston, a married woman as her sole and separate property, as to an undivided 3% interest; Kylee Hum, Debbie C. Wong, Julie J Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust I dated December 21, 2012, as to an undivided 22.5% interest; Kylee Hum, Debbie C. Wong, Julie J. Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust II dated December 21, 2012, as to an undivided 22.5% interest; Sophia Wong, Trustee of The Joseph Wong Irrevocable Trust dated December 18, 2012 as to an undivided 20% interest; Sophia Wong, Trustee of The Vivian Lim Irrevocable Trust dated December 18, 2012, as to an undivided 20% interest (collectively, the "**Seller**"). Seller and Purchaser are individually referred to herein as a "**Party**," and collectively referred to herein as the "**Parties**."

RECITALS

A. Seller is the owner of certain improved real property located at 8949 Clairemont Mesa Blvd, San Diego, CA 92123, designated as APN No. 369-110-04 (the "**Property**"). The Property is approximately 2.05 acres in size, and is improved with one commercial building, with common parking, circulation, and landscaping. The Property is more particularly described in **Exhibit A** attached hereto and incorporated herein by this reference.

B. Purchaser desires to acquire the Property from Seller for public purposes in its "as-is" condition, and Seller desires to sell the Property to Purchaser, on the terms and conditions set forth in this Agreement.

C. Purchaser currently intends to use the Property for purpose of consolidating existing bus stop locations adjacent to the Property into an integrated transit center with dedicated bus bays, passenger amenities, and transit employee break and restroom facilities to be known as the Kearny Mesa Transit Center.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements contained in this Agreement, and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged by the Parties, Seller and Purchaser hereby agree as follows:

1. **INCORPORATION OF RECITALS AND EXHIBITS**. The Recitals set forth above and the Exhibits attached to this Agreement are each incorporated into the body of this Agreement.

2. **PURCHASE AND SALE**.

2.1 **Agreement to Buy and Sell**. Subject to the terms and conditions set forth herein, Seller hereby agrees to sell the Property to Purchaser, and Purchaser hereby agrees to purchase the Property from Seller. The Property shall include the following:

(a) All of Seller's right, title and interest in and to all rights, privileges, tenements, hereditaments, rights-of-way, easements, licenses, appurtenances, mineral rights, development rights, permits, approvals, air rights, and water and riparian rights belonging or appertaining to the Property or any improvements thereon.

(b) All of Seller's right, title and interest, if any, in and to all buildings, fixtures, structures, parking areas, landscaping and other improvements constructed and located on the Property, including, but not limited to, Seller's right, title and interest in and to any machinery and mechanical equipment (other than personal property), space heaters, heating, ventilation and air conditioning systems and equipment, air lines, plumbing systems, electrical systems and electrical distribution systems (power panels, buss ducting, conduits, disconnects, lighting fixtures), telephone distribution systems (lines, jacks and connections), fire sprinkler systems, security systems, carpets, window coverings, wall coverings, but excluding any such items owned by Existing Tenants or public or private utilities.

(c) All of Seller's interests, if any, in and to personal property, tangible or intangible, including without limitation furniture and fixtures, equipment, appliances, tools, machinery, supplies, building materials, attachments, appliances, fittings, gas and oil burners, automatic stokers, lighting fixtures, doors, cabinets, partitions, mantles, elevators, electric motors, pumps, screens, flag poles, waste disposal or storage equipment, all sprinklers, plumbing, heating, air conditioning, electrical, ventilating, lighting, incinerating, vacuum cleaning, refrigerating and cooling systems, each with its respective furnaces, boilers, engines, motors, dynamos, radiators, pipe, wiring and other apparatus, vaults, safes, fire prevention and extinguishing equipment, carpets, floor coverings, kitchen appliances and antenna, and trade names, trademarks or intellectual property, and to the extent assignable, warranties, guarantees, plans, specifications, architects', engineers', and all other consultants' contracts, reports and all governmental approvals obtained or applied for as of the date of this Agreement relating to the Property or any improvements thereon, to the extent owned by Seller and used exclusively in the operation of the Property, and located at the Property.

2.2 **Purchase Price**. The purchase price for the Property to be paid by Purchaser to Seller (the "**Purchase Price**") is Thirteen Million Two Hundred Sixty-Six Thousand and No/100 Dollars ($13,266,000.00). The Purchase Price will be paid in

immediately available funds to Seller on the Outside Closing Date (defined below) through the Escrow.

2.3 **Initial Deposit**. Purchaser shall deposit into the Escrow the sum of five hundred thousand and No/100 dollars ($500,000.00) as a deposit to be applicable toward the Purchase Price (the "**Initial Deposit**"). The Initial Deposit shall be refundable to Purchaser only if Purchaser terminates or is deemed to have terminated this Agreement on or before the end of the Feasibility Period; provided, however, Seller shall be entitled to retain One Hundred and No/100 Dollars ($100.00) (the "**Independent Consideration**") of the Initial Deposit as consideration for entering into this Agreement. Each reference in this Agreement to the return of the Initial Deposit if Purchaser elects to terminate this Agreement shall exclude the Independent Consideration which shall be paid to Seller.

2.4 **Potential Threat of Condemnation**. Purchaser has the authority to exercise the power of eminent domain to acquire real property which is necessary for Purchaser's use. If Seller would not have voluntarily agreed to sell the Property to Purchaser as provided in this Agreement, Purchaser's staff would have recommended to the Board of Directors of Purchaser that Purchaser, after providing notice to Seller and holding a hearing as required by applicable law, consider adopting a resolution of necessity and thereafter commencing proceedings to acquire the Property by the exercise of its power of eminent domain. Purchaser and Seller acknowledge and agree that the Property is being sold under the threat of condemnation by Purchaser. Upon the request of Seller, Purchaser shall cooperate with Seller in providing additional documentation regarding and consistent with the foregoing, at no out-of-pocket expense to Purchaser.

3. **ESCROW**.

3.1 **Escrow Account**. Purchaser shall open an escrow account (the "**Escrow**") with Chicago Title, Attention: Lynn Graham, 4380 La Jolla Village Drive, Suite 110, San Diego, CA 92122 (the "**Escrow Holder**"). Escrow Holder shall perform all Escrow and title services in connection with this Agreement.

3.2 **Deposit of Agreement**. Within three (3) days after the Effective Date, the Parties will deposit into Escrow a fully executed copy of this Agreement or executed counterparts thereto. The date such fully executed Agreement is received by Escrow Holder will be deemed the "**Opening of Escrow**" and Escrow Holder will give written notice to the Parties of such occurrence. **[NTD: TIMING SUBJECT TO CONFIRMATION OF STATUS OF EVA HUM'S ESTATE]**

4. **PRE-CLOSING REQUIREMENTS**.

4.1 **Condition of Title/Preliminary Report**. Chicago Title (the "**Title Agent**") previously delivered to Purchaser a Preliminary Report for the Property (the "**Preliminary Report**"), which Purchaser has reviewed and approved, except for the Disapproved Exceptions. All existing deeds of trust, mechanic's liens and other financial liens and encumbrances shall be paid off and removed from title concurrently with or prior

to the Closing ("**Disapproved Exceptions**"). The following exceptions are referred to herein as the "**Permitted Exceptions**": (i) exceptions to the Preliminary Report other than the Disapproved Exceptions,(ii) the preprinted standard exceptions in the Title Policy; (iii) non-delinquent real property taxes and special assessments, which are a lien not yet due or payable; (iv) zoning and other regulatory laws and ordinances affecting the Property; (v) all matters shown on a survey; and (vi) matters arising from Purchaser's actions or created by Purchaser or with the written consent of Purchaser.

4.2 **Seller Delivery of Due Diligence Materials**. Seller agrees to provide to Purchaser within five (5) Business Days of the Opening of Escrow, all documentation in the possession or control of Seller, and that can be located by Seller after a reasonable search, that involves the Property and relates to the development or use of the Property or the condition thereof, including, but not limited to, any documentation regarding water, soil, and/or environmental matters.

4.3 **Natural Hazard Disclosure**. Purchaser and Seller acknowledge that Seller is required to disclose if any of the Property lies within the following natural hazard areas or zones: (i) a special flood hazard area designated by the Federal Emergency Management Agency; (ii) an area of potential flooding; (iii) a very high fire hazard severity zone; (iv) a wild land area that may contain substantial forest fire risks and hazards; (v) an earthquake fault or special studies zone; or (vi) a seismic hazard zone. Purchaser acknowledges that Seller has employed the services of an independent natural hazard disclosure company to examine the maps and other information specifically made available to the public by government agencies to report the results of its examination to Purchaser in writing, and such report shall satisfy Seller's obligations of disclosure.

4.4 **Inspection of Property**. Prior to the Close of Escrow, Purchaser, its agents, contractors and employees shall have the right to enter upon the Property for the purpose of continuing to make its inspections, survey the Property, and perform additional environmental site analyses, geotechnical tests, structural engineering studies, surveys, hazardous materials sampling or testing, and other physical testing of the Property at Purchaser's sole risk, cost and expense. Notwithstanding the foregoing, no invasive testing or boring, and no environmental testing other than a Phase I environmental site assessment, shall be done without the prior written consent of Seller. All of such entries upon the Property shall be at reasonable times during normal business hours, and after at least twenty-four (24) hours' prior notice to Seller, and Seller or Seller's agent shall have the right to accompany Purchaser during any activities performed by Purchaser on the Property. At Seller's request, Purchaser shall provide Seller with a copy of the results of any tests and inspections made by Purchaser, at no cost to Seller. If any access, inspection or test disturbs the Property, Purchaser will restore the Property to the substantially the same condition as existed before the access, inspection or test. Purchaser shall defend, indemnify and hold Seller and the Property harmless from and against any and all losses, costs, damages, claims or liabilities, including but not limited to, mechanic's and materialmen's liens, arising out of or in connection with Purchaser's inspection of the Property as allowed pursuant to this Section 4.4. The provisions of this Section 4.4 shall survive the Closing or any earlier termination of this Agreement.

4.5 **Feasibility Condition.** Purchaser shall have until 5:00 p.m. Pacific Standard time on the date sixty (60) days after the Opening of Escrow ("**Feasibility Period**"), to review and approve the state of title and the physical condition, appearance, geological conditions, environmental conditions and any other matters which Purchaser deems material to its decision whether to purchase the Property (collectively, the "**Feasibility Matters**"). The Feasibility Matters shall be deemed not approved and this Feasibility Condition shall not be satisfied unless Seller and Escrow Holder receive, on or before the end of the Feasibility Period, written approval of the Feasibility Matters signed by Purchaser ("**Approval Notice**"). In the event Purchaser fails to deliver the Approval Notice at the end of the Feasibility Period, Purchaser shall be deemed to have disapproved the Feasibility matters, and this Agreement and the Escrow shall terminate automatically. In the event the Approval Notice is not given within the Feasibility Period, Purchaser shall be entitled to a refund of the Initial Deposit as described in Section 2.3.

4.6 **Insurance**. Purchaser shall maintain insurance coverages as described herein, in amounts not less than the minimum limits specified, to protect Seller and Purchaser from any and all claims, damages, liens, stop notices, liabilities, losses, costs and expenses, including without limitation reasonable attorneys' fees, reasonable expert fees and court costs (collectively "**Claims**"), resulting from or related to the access to or inspection of the Property by Purchaser or any of Purchaser's agents, contractors or representatives:

(a) Workers' Compensation and Employer's Liability Insurance in accordance with statutory requirements. Purchaser shall also maintain Employer's Liability coverage in the amount of not less than $1,000,000.00 per accident and per employee for disease.

(b) Commercial General Liability insurance in and amount not less than $2,000,000.00 per occurrence, and twice the aggregate for bodily injury and/or property damage. Purchaser's commercial general liability insurance policy shall provide coverage against all liability of Purchaser or any of Purchaser's agents, contractors or representatives arising out of or in connection with Purchaser's or any of Purchaser's agents', contractors' or representatives' activities related to the Property.

(c) Automobile Liability insurance insuring against liability for damages for bodily injury, death, or damage to property (including loss of use thereof), and occurring in any way related to the use by or on behalf of Purchaser. Such coverage shall be in an amount of not less than $2,000.000.00 combined single limit.

All insurance shall name Seller as an additional insured, shall contain a severability of interest or cross liability clause, and shall be primary for all purposes, and shall contain a waiver of subrogation in favor of Seller. Unless Purchaser is self-insured as described below, certificates of insurance evidencing the coverages and provisions required shall be furnished to Seller on or before the Effective Date, and shall provide that written notice be given to Seller at least thirty (30) days prior to cancellation or reduction of any coverage. In lieu of the insurance required in this Section 4.6, Purchaser may maintain a self-insurance program meeting the requirements of the State of California.

4.7 **Damage and Destruction Prior to Closing**. If prior to Closing the Property is damaged by fire or other casualty, Seller shall reasonably estimate the cost to repair and the time required to complete repairs (both of which shall be supported by independent third-party reports) and will provide Purchaser written notice of Seller's estimate (the "**Casualty Notice**") as soon as reasonably possible after the occurrence of the casualty.

In the event of any Material Damage to or destruction of the Property or any portion thereof prior to Closing, Purchaser may, at its option, terminate this Agreement by delivering written notice to the Seller on or before the expiration of fifteen (15) days after the date Seller delivers the Casualty Notice to Purchaser (and if necessary, the Closing Date shall be extended to give the parties the full fifteen (15) day period to make such election). Upon any such termination, the Initial Deposit and interest earned thereon shall be returned to Purchaser and the parties hereto shall have no further rights or obligations hereunder, other than those that by their terms survive the termination of this Agreement. If Purchaser does not so terminate this Agreement within said fifteen (15) day period, then the parties shall proceed under this Agreement and close on schedule (subject to extension of Outside Closing Date pursuant to Section 5.2 below), and as of Closing, Seller shall assign to Purchaser, without representation or warranty by or recourse against Seller, all of Seller's rights in and to any resulting insurance proceeds (including any rent loss insurance applicable to any period on and after the Closing Date) due Seller as a result of such damage or destruction, and Purchaser shall assume full responsibility for all needed repairs, and Purchaser shall receive a credit at Closing for any deductible amount under such insurance policies. For the purposes of this Agreement, "**Material Damage**" and "**Materially Damaged**" means damage which a general contractor (who shall be acceptable to both parties) estimates will cost in excess of One Million Dollars ($1,000,000) to repair, or for damage which is uninsured if such damage will cost more than Five Hundred Thousand Dollars ($500,000) to repair, or which will take longer than one hundred eighty (180) days to repair.

If the Property is not Materially Damaged, then neither Purchaser nor Seller shall have the right to terminate this Agreement, and Seller shall, as of Closing, assign to Purchaser, without representation or warranty by or recourse against Seller, all of Seller's rights in and to any resulting insurance proceeds (including any rent loss insurance applicable to any period on and after the Closing Date) due Seller as a result of such damage or destruction and Purchaser shall assume full responsibility for all needed repairs, and Purchaser shall receive a credit at Closing for any deductible amount under such insurance policies.

5. CLOSING AND PAYMENT OF PURCHASE PRICE.

5.1 **Closing**. The closing ("**Closing**" or "**Close of Escrow**") will occur no later than ninety (90) days after the Effective Date ("**Outside Closing Date**"). In the event that Closing has not occurred on or prior to the Outside Closing Date, either Party not then in default may, upon five (5) days advance written notice to the other Party, terminate this Agreement and the Escrow. As long as neither Party so elects to terminate this Agreement and the Escrow, Escrow Holder shall close the Escrow as soon as possible. Upon any such termination of this Agreement, neither Party shall have any further rights or obligations hereunder, except for the rights and obligations expressly provided to survive termination of this Agreement, and Seller's retention of the Initial Deposit and the Extension Deposit, if any.

5.2 **Purchaser Extension of Closing.** Purchaser shall have a single option to extend the Outside Closing Date by ninety (90) days by delivering a written notice of extension to Seller and Escrow not less than five (5) days prior to the original Outside Closing Date along with an extension deposit of Fifty Thousand and No/100 Dollars ($50,000.00) (the "**Extension Deposit**"). The Extension Deposit shall not apply to the Purchase Pirce at the Closing and shall be non-refundable to Purchaser for any reason, and shall be paid to Seller if this Agreement does not close for any reason including due to Purchaser's default, except in the event that Purchaser terminates this Agreement due to a Seller default.

5.3 **Escrow Termination.** If this Agreement is terminated pursuant to Sections 4.5: (i) Escrow shall be deemed cancelled and Purchaser and Seller shall execute any cancellation instructions reasonably requested by Escrow Holder within five (5) business days of such request; (ii) within ten (10) Business Days of such termination, Escrow Holder shall return to Purchaser the Initial Deposit subject to Section 2.3; (iii) within ten (10) Business Days of such termination, Purchaser shall return to Seller any documents delivered to Purchaser by Seller under this Agreement in accordance with the provisions of Section 4.2, and (iv) termination of this Agreement and Escrow shall be without prejudice to whatever rights the parties may have against each other in connection with this Agreement that expressly survive such termination.

5.4 **Escrow Cancellation and Title Charges.** If Escrow fails to close due to Seller's default under this Agreement, Seller shall pay all Escrow cancellation and title charges. If Escrow fails to close due to Purchaser's default under this Agreement, Purchaser shall pay all escrow cancellation and title charges and forfeit to Seller the Initial Deposit pursuant to Section 2.3. If Escrow fails to close for any reason other than the foregoing, Purchaser shall pay any Escrow cancellation and title charges. Each party shall promptly sign and deliver to Escrow Holder any Escrow cancellation instructions within five (5) business days of request by Escrow Holder.

5.5 5.6 5.5 **Purchaser's Conditions to Closing**. Purchaser's obligation to purchase the Property is subject to the satisfaction of all of the following conditions or Purchaser's written waiver (in Purchaser's sole discretion) of such conditions on or before the Outside Closing Date:

(a) Seller has deposited into the Escrow a fully executed "Grant Deed" substantially in the form of **Exhibit B** hereof, a "Non-Foreign Affidavit", a "California Certificate" (as defined in Section 5.8 (a) below), and all other documents to be submitted by Seller pursuant to this Agreement, all duly executed by Seller (as appropriate).

(b) Seller's representations and warranties herein are true and correct in all material respects as of the Closing Date.

(c) The Title Company shall be irrevocably committed to issue an Standard CLTA Owner's Title Policy to Purchaser ("**Title Policy**"), insuring title to Purchaser in the full amount of the Purchase Price subject only to the Permitted Exceptions.

(d) Seller has performed all material obligations to be performed by Seller pursuant to this Agreement, and Seller is not in default as of the Closing Date.

(e) Possession of the Property will be delivered to Purchaser immediately upon the Close of Escrow.

(f) There shall be no litigation or administrative proceeding pending, nor to Seller's knowledge shall there be threatened litigation, with respect to the Property as of the Closing.

(g) The Parties shall not have terminated this Agreement as a result of Material Damage to or destruction of the Property pursuant to Section 4.7 hereof.

5.6 **Seller's Conditions to Closing**. The Close of Escrow and Seller's obligation to sell and convey the Property to Purchaser are subject to the satisfaction of the following conditions or Seller's written waiver (in Seller's sole discretion) of such conditions on or before the Outside Closing Date:

(a) Purchaser has submitted the Approval Notice to Escrow and Seller within the Feasibility Period.

(b) Purchaser has deposited into the Escrow the full amount of the Purchase Price, and all other costs required by this Agreement to be paid by Purchaser.

(c) Purchaser has deposited into the Escrow a fully executed Acceptance of Grant Deed, and all other documents to be submitted by Purchaser pursuant to this Agreement, all duly executed by Purchaser (as appropriate).

(d) Purchaser's representations and warranties set forth herein are true and correct in all material respects as of the Closing Date.

(e) Purchaser has performed all material obligations to be performed by Purchaser pursuant to this Agreement on or before the Closing Date.

5.7 **Conveyance of Title**. Seller shall deliver fee simple title to Purchaser at the Closing, subject only to the Permitted Exceptions. The Property shall be conveyed by Seller to Purchaser in an "as is" condition, with no warranty, express or implied, by Seller as to the physical condition of the Property including, but not limited to, the soil, its geology, or the presence of known or unknown faults or Hazardous Substances on, in, under and adjacent to the Property, the air, soil, and groundwater.

5.8 **Deliveries at Closing**.

(a) Deliveries by Seller. Seller shall deposit into the Escrow for delivery to Purchaser at Closing: (i) a grant deed, substantially in the form of **Exhibit B** attached hereto and incorporated herein (the "**Grant Deed**"); (ii) an affidavit or qualifying statement which satisfies the requirements of paragraph 1445 of the Internal Revenue Code of 1986, as amended, and any regulations thereunder (the "**Non-Foreign Affidavit**"); and (iii) a California Franchise Tax Board Form 593-C(the "**California Certificate**").

(b) Deliveries by Purchaser. No less than one (1) business day prior to the Close of Escrow, Purchaser shall deposit into Escrow (i) the acceptance of the Grant Deed, and (ii) immediately available funds in the amount which is equal to the Purchase Price as adjusted by any prorations between the Parties, the Escrow fees and recording fees, and the cost of the Title Policy and endorsements.

(c) Closing. Upon Closing, Escrow Holder shall: (i) record the Grant Deed; (ii) disburse to Seller the Purchase Price, less Seller's share of any property tax prorations and other expenses payable hereunder; (iii) deliver to Purchaser the Non-Foreign Affidavit, the California Certificate, and a conformed copy of the original recorded Grant Deed; (iv) pay any expenses payable through Escrow; (v) distribute to itself the payment of Escrow fees and expenses required hereunder, and (vi) direct the Title Company to issue the Title Policy to Purchaser.

(d) Closing Costs.

(i) Seller will pay:

(A) All costs associated with removing any Disapproved Exceptions;

(B) All costs associated with Seller's attorneys' fees; and

(C) Seller's share of prorations, if applicable.

(ii) Purchaser will pay:

(A) All Escrow and recording fees;

(B) All documentary transfer taxes and all transfer taxes assessed by the City and County of San Diego;

(C) The cost of the Owner's Policy of Title Insurance, an ALTA extended policy of title insurance (if requested by Purchaser) and the cost of any title endorsements which are requested by the Purchaser; and

(D) Purchaser's share of prorations, if applicable.

If, as a result of no fault of Purchaser or Seller, Escrow fails to close, Purchaser shall pay all of Escrow Holder's fees and charges; however, if the transaction fails to close as the result of the default of either party, then such defaulting party shall bear all Escrow Holder's fees and expenses. Purchaser shall bear all costs associated with its due diligence inspections regarding the Property. Except as otherwise expressly stated herein, all other costs and expenses shall be allocated between Purchaser and Seller in accordance with the customary practice of the City and County of San Diego for transactions of this type.

(e) Proration of Taxes. At the Close of Escrow, Seller shall be responsible for a prorated share of property taxes and assessments due through the Close of Escrow. In the event that, prior to the Close of Escrow, Seller has paid the installment of property taxes and assessments applicable to the current period, there shall be no proration of property taxes and assessments, and Seller shall be responsible for applying for a refund of any overpayment of property taxes and assessments as a result of the acquisition of the Property by a public agency. In the event any real property taxes are due and unpaid at the Close of Escrow for any periods prior to the Close of Escrow, Escrow Holder is hereby authorized and instructed to pay such taxes from proceeds due the Seller at the Close of Escrow. At the Close of Escrow, the Purchaser will file a Preliminary Change of Ownership Report and any necessary documentation with the County Assessor-County Clerk-Recorder for the property tax exemption, and shall be responsible for coordinating with Escrow Holder for the payment of any periods occurring from and after the Close of Escrow (if any are due or payable). Seller shall have the right, after the Close of Escrow, to apply for a refund to the County Tax Collector/Assessor outside of Escrow for any overpayments, and if eligible, to receive such refund.

(f) Utility Deposits. Seller will notify all utility companies servicing the Property, if any, of the sale of the Property to Purchaser and will request that such companies send Seller a final bill for the period ending on the last day before the Close of Escrow. Purchaser will notify the utility companies that all utility bills for the period commencing on the Close of Escrow are to be sent to Purchaser. If Seller receives a bill for utilities provided to the Property for the period before the Close of Escrow occurred, Seller shall be responsible to pay the bill.

In the event that any prorations, apportionments or computations made under this Section 5 require final adjustment after the Close of Escrow, and the parties are notified of such adjustments within one hundred eighty (180) days after the Close of Escrow of such adjustment, then the parties hereto shall make the appropriate adjustments promptly

when accurate information becomes available and either party hereto shall be entitled to an adjustment to correct the same. Any corrected adjustment or proration will be paid in cash to the party entitled thereto.

6. REPRESENTATIONS, WARRANTIES AND COVENANTS.

6.1 **Seller's Representations, Warranties and Covenants**. Seller hereby represents, warrants and covenants to Purchaser that the statements below in this Section 6.1 are each true and correct as of the Closing Date provided however, if to Seller's actual knowledge any such statement becomes untrue prior to Closing, Seller will notify Purchaser in writing and Purchaser will have ten (10) days thereafter to determine if Purchaser wishes to proceed with Closing; provided, however, the failure of such representation or warranty to be true shall not constitute a default by the Seller.

(a) Authority. Seller has the full right, capacity, power and authority to enter into and carry out the terms of this Agreement. This Agreement has been duly executed by Seller, and upon delivery to and execution by Purchaser is a valid and binding agreement of Seller. All the instruments, agreements and other documents executed by Seller that are to be delivered to Purchaser at Closing are and at the time of Closing will be duly authorized, executed and delivered by Seller, and will be the valid and binding agreements and obligations of Seller enforceable in accordance with their respective terms.

(b) Encumbrances. To Seller's knowledge, and except as disclosed in the Preliminary Report, (i) Seller has not mortgaged, assigned, pledged, or otherwise conveyed its interest in the Property or any portion thereof, nor entered into any agreement to do so other than this Agreement, and (ii) Seller has not entered into any liens, encumbrances, mortgages, covenants, conditions, reservations, restrictions, or easements affecting the Property. Seller will not alienate, encumber, transfer, mortgage, assign, pledge, or otherwise convey its interest in the Property or any portion thereof prior to the Close of Escrow without Purchaser's prior written consent, as long as this Agreement is in force.

(c) Other Agreements. To Seller's knowledge, Seller has not entered into any agreements affecting the Property that will survive the Close of Escrow, except those which have been disclosed by Seller to Purchaser. Except as disclosed to Purchaser, there are no agreements which will be binding on the Purchaser or the Property after the Close of Escrow which cannot be terminated on thirty (30) days prior written notice.

(d) Leases. There are no current leases over any portion of the Property. Between the Effective Date and the earlier of the Closing or the termination of this Agreement, Seller shall not enter into any new leases of any portion of the Property without Purchaser's prior written consent.

(e) Title. Except as disclosed herein, and in the Preliminary Report, to Seller's knowledge, Seller has granted no unrecorded or undisclosed legal or equitable interest in the Property owned or claimed by anyone other than Seller.

(f) Litigation. To Seller's knowledge, there is no pending or threatened litigation, administrative proceeding or other legal or governmental action with respect to the Property, except for letters received from Purchaser.

(g) Disclosure. To Seller's knowledge, Seller has disclosed all material facts with respect to the Property of which Seller has actual knowledge.

(h) Non-Foreign Person. Seller is not a foreign person as defined in Internal Revenue Code section 1445(f)(3).

The truth and accuracy of each of the representations and warranties, and the performance of all covenants of Seller contained in this Agreement are conditions precedent to Purchaser's obligation to proceed with the Closing hereunder. As used in this Section 6.1, the term "Seller's Knowledge" means the actual current knowledge of Debbie Wong, the Seller's representative having the most knowledge regarding the Property, without any duty of inquiry or investigation. The foregoing representations and warranties shall survive the Close of Escrow for a period of six (6) months after the Close of Escrow ("**Survival Period**") and shall not be deemed merged into the deed upon closing.

6.2 **Purchaser's Representations and Warranties**. In addition to the representations, warranties and covenants of Purchaser contained in other sections of this Agreement, Purchaser hereby represents, warrants and covenants to Seller that the statements below in this Section 6.2 are each true as of the Effective Date, and, if to Purchaser's actual knowledge any such statement becomes untrue prior to Closing, Purchaser shall so notify Seller in writing and Seller shall have ten (10) days thereafter to determine if Seller wishes to proceed with Closing.

(a) Purchaser is a California transit district, in good standing under the laws of the State of California. Purchaser has the full right, capacity, power and authority to enter into and carry out the terms of this Agreement. This Agreement has been duly executed by Purchaser, and upon delivery to and execution by Seller shall be a valid and binding agreement of Purchaser.

(b) Purchaser is not bankrupt or insolvent under any applicable federal or state standard, has not filed for protection or relief under any applicable bankruptcy or creditor protection statute, and has not been threatened by creditors with an involuntary application of any applicable bankruptcy or creditor protection statute.

(c) Purchaser maintains a self-insurance program that satisfies the minimum insurance coverage requirements set forth in Section 4.6 above, and that meets the requirements of the State of California for Purchaser or entities of Purchaser's type, as applicable.

The truth and accuracy of each of the Purchaser's representations and warranties, and the performance of all covenants of Purchaser contained in this Agreement are conditions precedent to Seller's obligation to proceed with the Closing hereunder.

7. **ENVIRONMENTAL OBLIGATIONS**.

7.1 **Seller Responsibilities**. California Health & Safety Code Section 25359.7 requires owners of real property who know, or have reasonable cause to believe, that any release of Hazardous Substances are located on or beneath the real property to provide written notice of same to the buyer of real property. Other applicable laws require Seller to provide certain disclosures regarding natural hazards affecting the Property. Seller shall disclose to Purchaser the actual knowledge Seller has with respect to the deposit of Hazardous Substances on the Property, if any. Seller agrees to make all disclosures required by law within ten (10) days after the Effective Date. Seller's responsibility and obligations of this section are solely limited to Seller's knowledge of, or Seller's reasonable cause to believe, Hazardous Substances that have been stored upon or released upon or under the Property, other than those Hazardous Substances that may be used in the normal course of a commercial office setting. Purchaser acknowledges receipt of (a) that certain Environmental Transaction Screen Report for Union Bank of California by SECOR International Incorporated dated February 7, 2005, and (b) the spreadsheet of the survey of asbestos containing material on the property.

7.2 **As Is Sale**. Notwithstanding anything to the contrary in this Agreement, except for Seller's representations and warranties in Section 6.1 hereof ("**Seller's Warranties**"), this sale is made and will be made without representation, covenant, or warranty of any kind by Seller. As a material part of the consideration for this Agreement, Purchaser agrees to accept the Property on an "as is" and "where is" basis, with all faults, and without any representation or warranty, all of which Seller hereby disclaims, except for Seller's Warranties. Except for Seller's Warranties, no warranty or representation is made by Seller as to fitness for any particular purpose, merchantability, design, quality, condition, operation or income, compliance with drawings or specifications, absence of defects, absence of hazardous or toxic substances, hazardous materials, hazardous wastes, absence of faults, flooding, or compliance with laws and regulations including, without limitation, those relating to health, safety, and the environment. Purchaser acknowledges that it has entered into this Agreement and is purchasing the Property based solely upon Purchaser's inspection and investigation of the Property and all documents related thereto, or its opportunity to do so, including but not limited to the physical, environmental, economic use, compliance, and legal condition of the Property and that Purchaser is not now relying, and will not later rely, upon any representations and warranties made by Seller or anyone acting or claiming to act, by, through or under or on Seller's behalf concerning the Property, except for Seller's Warranties. The provisions of this Section 7.2 shall survive indefinitely any closing or termination of this Agreement.

7.3 **Hazardous Substances**. For purposes of this Agreement, "Hazardous Substances" means all of the following:

(a) Any substance, product, waste or other material of any nature whatsoever which is or becomes defined, listed or regulated as a "hazardous substance", "hazardous material", "hazardous waste", "toxic substance", "solid waste" or similarly defined substance, product, waste or other material pursuant to any Environmental Law (which Environmental Law shall include any and all regulations in the Code of Federal Regulations or any other regulations implemented under the authority of such Environmental Law), including all of the following and their state equivalents or implementing laws: (i) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601, et seq. ("**CERCLA**"); (ii) the Hazardous Materials Transportation Act, 49 U.S.C. §1801, et. seq.; (iii) those substances listed on the United States Department of Transportation Table (49 C.F.R. 172.01 and amendments thereto); (iv) The Resource Conservation and Recovery Act, 42 U.S.C. §6901 et. seq. ("**RCRA**"); (v) the Toxic Substances Control Act, 15 U.S.C. §2601 et. seq.; (vi) the Clean Water Act, 33 U.S.C. §1251 et. seq.; (vii) the Clean Air Act, 42 U.S.C. §7401 et. seq.; and (viii) any other Federal, state or local law, regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic or dangerous waste, substance or material, as now or at any time hereafter in effect; or any substance, product, waste or other material of any nature whatsoever which may give rise to liability under any of the above laws or under any statutory or common law theory based on negligence, trespass, intentional tort, nuisance or strict liability or under any reported decisions of a state or Federal court.

(b) As referenced in any Environmental Law, petroleum, any petroleum by-products, waste oil, crude oil or natural gas;

(c) Any material, waste or substance that is or contains asbestos or polychlorinated biphenyls, or is radioactive, flammable or explosive;

(d) Lead based paint and other forms of lead and heavy metals, mold, grease tanks, waste storage areas, batteries, light bulbs, refrigerators, freezers, appliances, heating and cooling systems, thermostats, electronic devices, electrical switches, gauges, thermometers, aerosol cans, cleaning products, formaldehyde, polyurethane, pressure treated wood containing arsenic, and building materials containing PCBs or volatile organic compounds, and

(e) Any other substance, product, waste or material defined or to be treated or handled as a Hazardous Substance pursuant to the provisions of this Agreement.

7.4 **Environmental Law(s)**. For purposes of this Agreement, "Environmental Law" means all of the following means any federal, state, or local laws, ordinances, rules, regulations, requirements, orders, formal guidelines, or permit conditions, in existence as of the Effective Date of this Agreement or as later enacted, promulgated, issued, modified or adopted, regulating or relating to Hazardous Substances, and all applicable judicial, administrative and regulatory judgments and orders and common law, including those relating to industrial hygiene, public safety, human health, or protection of the environment, or the reporting, licensing, permitting,

use, presence, transfer, treatment, analysis, generation, manufacture, storage, discharge, release, disposal, transportation, investigation or remediation of Hazardous Substances. Environmental Laws shall include, without limitation, all of the laws listed under the definition of Hazardous Substances.

7.5 **RELEASE**. WITHOUT LIMITING THE GENERALITY OF ANY OF THE FOREGOING, PURCHASER ON ITS OWN BEHALF AND ON BEHALF OF ITS AGENTS, MEMBERS, MANAGERS, PARTNERS, EMPLOYEES, REPRESENTATIVES, OFFICERS, DIRECTORS, RELATED AND AFFILIATED ENTITIES, ATTORNEYS, DIRECT OR INDIRECT OWNERS, SHAREHOLDERS, SUCCESSORS AND ASSIGNS (COLLECTIVELY WITH PURCHASER, THE "**PURCHASER PARTIES**") AS OF THE CLOSE OF ESCROW, HEREBY FULLY AND IRREVOCABLY RELEASES SELLER, AND SELLER'S AGENTS, TRUSTEES, MEMBERS, MANAGERS, PARTNERS, EMPLOYEES, REPRESENTATIVES, OFFICERS, DIRECTORS, RELATED AND AFFILIATED ENTITIES, ATTORNEYS, DIRECT OR INDIRECT OWNERS, SHAREHOLDERS, SUCCESSORS AND ASSIGNS (COLLECTIVELY WITH SELLER, THE "**SELLER PARTIES**") FROM ANY AND ALL CLAIMS, WHETHER KNOWN OR UNKNOWN, THAT THE PURCHASER PARTIES MAY HAVE OR HEREAFTER ACQUIRE AGAINST THE SELLER PARTIES ARISING FROM OR RELATED TO ANY MATTER OF ANY NATURE RELATING TO (A) ANY PAST, PRESENT OR FUTURE PRESENCE OR EXISTENCE OF HAZARDOUS MATERIALS ON, UNDER, ABOUT OR IN THE VICINITY OF OR MIGRATING ONTO OR FROM THE PROPERTY (INCLUDING, WITHOUT LIMITATION, IN THE GROUNDWATER UNDERLYING THE PROPERTY) OR ANY PAST, PRESENT OR FUTURE VIOLATIONS OF ANY ENVIRONMENTAL LAWS; (B) THE CONDITION OF THE PROPERTY INCLUDING WITHOUT LIMITATION ANY LATENT OR PATENT CONSTRUCTION DEFECTS, ERRORS OR OMISSIONS, COMPLIANCE WITH LAW, AND ENVIRONMENTAL MATTERS WITHIN, UNDER OR UPON, OR IN THE VICINITY OF THE PROPERTY, (C) ANY STATUTORY OR COMMON LAW RIGHT PURCHASER MAY HAVE TO RECEIVE DISCLOSURES FROM SELLER, INCLUDING, WITHOUT LIMITATION, ANY DISCLOSURES AS TO A PROPERTY'S LOCATION WITHIN AREAS DESIGNATED AS SUBJECT TO FLOODING, FIRE, SEISMIC OR EARTHQUAKE RISKS BY ANY FEDERAL, STATE OR LOCAL ENTITY, THE NEED TO OBTAIN FLOOD INSURANCE, THE CERTIFICATION OF WATER HEATER BRACING AND/OR THE ADVISABILITY OF OBTAINING TITLE INSURANCE, OR (D) ANY OTHER CONDITION OR CIRCUMSTANCE AFFECTING THE PROPERTY, OR THE FINANCIAL VIABILITY, USE OR OPERATION OF ANY PORTION THEREOF. THIS RELEASE INCLUDES CLAIMS OF WHICH PURCHASER IS PRESENTLY UNAWARE OR WHICH PURCHASER DOES NOT PRESENTLY SUSPECT TO EXIST IN ITS FAVOR WHICH, IF KNOWN BY PURCHASER, WOULD MATERIALLY AFFECT PURCHASER'S RELEASE OF THE SELLER PARTIES. IN CONNECTION WITH THE GENERAL RELEASE SET FORTH IN THIS SECTION 7.5, PURCHASER HEREBY ACKNOWLEDGES THAT IT HAS READ AND IS FAMILIAR WITH THE PROVISIONS OF CALIFORNIA CIVIL CODE SECTION 1542 ("**SECTION 1542**"), WHICH IS SET FORTH BELOW:

> "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR

SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY."

BY INITIALING BELOW, PURCHASER HEREBY WAIVES THE PROVISIONS OF SECTION 1542 IN CONNECTION WITH THE MATTERS WHICH ARE THE SUBJECT OF THE FOREGOING WAIVERS AND RELEASES SET FORTH IN THIS SECTION.

_____
Purchaser's Initials

NOTWITHSTANDING THE FOREGOING, SUBJECT TO THE SURVIVAL PERIOD, THE FOREGOING RELEASE SHALL NOT APPLY TO (a) THE VIOLATION OF ANY REPRESENTATIONS, WARRANTIES OR COVENANTS OF SELLER HEREIN THAT HAVE NOT BEEN WAIVED OR DEEMED WAIVED BY PURCHASER PURSUANT TO THE TERMS OF THIS AGREEMENT, OR (b) ANY INTENTIONAL OR WILLFUL MISREPRESENTATION OF MATERIAL FACTS THAT CONSTITUTES COMMON LAW FRAUD UNDER APPLICABLE LAWS. FURTHERMORE, IN THE EVENT THAT PURCHASER TERMINATES THIS AGREEMENT AND RECEIVES A RETURN OF ITS INITIAL DEPOSIT, THE FOREGOING RELEASE SHALL APPLY AND BECOME EFFECTIVE UPON PURCHASER'S RECEIPT OF ITS INITIAL DEPOSIT, INCLUDING, WITHOUT LIMITATION, A RELEASE OF ANY CLAIMS PURCHASER MAY HAVE AGAINST SELLER ARISING OUT OF OR RELATING TO THIS AGREEMENT.

The waivers and releases by Purchaser in this Section shall survive the Close of Escrow, the recordation of the Deed and the Survival Period and shall not be deemed merged into the Deed upon its recordation.

8. **REMEDIES**.

(a) **Seller Default**. In the event of a breach or default under this Agreement by Seller, then, if Seller has not cured such breach within ten (10) days after its receipt of written notice of such breach from Purchaser, if such breach or default occurs prior to Close of Escrow, Purchaser reserves the right to either (a) seek specific performance from Seller, provided that Purchaser files suit for specific performance on or before sixty (60) days following the date upon which Closing was scheduled to have occurred as provided herein, or (b) to do any of the following: (i) to waive the breach or default and proceed to close as provided herein; (ii) to extend the time for performance and the Closing until Seller is able to perform; or (iii) to terminate this Agreement upon written notice to Seller, whereupon Seller shall cause Escrow Holder to return to Purchaser the Initial Deposit and any and all sums placed into the Escrow by Purchaser, and except for the rights and obligations expressly provided to survive termination of this Agreement, neither Party shall have any further obligations or liabilities hereunder.

(b) **Purchaser Default**. IN THE EVENT OF A BREACH OR DEFAULT HEREUNDER BY PURCHASER AND THE CLOSING DOES NOT OCCUR

AS REQUIRED UNDER THIS AGREEMENT DUE TO SUCH DEFAULT, SELLER'S SOLE REMEDY SHALL BE TO RETAIN THE INITIAL DEPOSIT, AND ALL INTEREST ACCRUED THEREON, AS LIQUIDATED DAMAGES. THE PARTIES AGREE THAT IN SUCH INSTANCE, THE INITIAL DEPOSIT AND ALL INTEREST ACCRUED THEREON REPRESENTS A REASONABLE APPROXIMATION OF SELLER'S DAMAGES AND IS NOT INTENDED AS A FORFEITURE OR PENALTY BUT RATHER AN ENFORCEABLE LIQUIDATED DAMAGES PROVISION PURSUANT TO CALIFORNIA CIVIL CODE SECTION 1671, ET SEQ. IN NO EVENT SHALL EITHER PARTY BE ENTITLED TO LOST PROFITS OR CONSEQUENTIAL DAMAGES AS A RESULT OF THE OTHER PARTY'S BREACH OF THIS AGREEMENT. NOTHING TO THE CONTRARY CONTAINED IN THIS SECTION 8(b) SHALL SERVE (A) TO WAIVE OR OTHERWISE LIMIT SELLER'S REMEDIES OR DAMAGES AT LAW OR IN EQUITY FOR CLAIMS OF SELLER AGAINST PURCHASER ARISING OUT OF SECTIONS 4.4 OR HEREOF, OR ARISING OUT OF ANY BREACH OR DEFAULT BY PURCHASER OF ANY OTHER OBLIGATION UNDER THIS AGREEMENT THAT SURVIVES TERMINATION OF THIS AGREEMENT OR SURVIVES THE CLOSING, OR (B) TO WAIVE OR OTHERWISE LIMIT SELLER'S RIGHTS TO OBTAIN FROM PURCHASER ALL COSTS AND EXPENSES OF ENFORCING THIS LIQUIDATED DAMAGE PROVISION, INCLUDING ATTORNEYS' FEES AND EXPERT COSTS AND FEES.

SELLER AND PURCHASER ACKNOWLEDGE THAT THEY HAVE READ AND UNDERSTAND THE PROVISIONS OF THIS SECTION 8 AND BY THEIR INITIALS IMMEDIATELY BELOW AGREE TO BE BOUND BY ITS TERMS.

_____ _____
Purchaser's Initials Seller's Initials (Eva Hum **[BEING CONFIRMED]**)

_____ _____
Sellers' Initials (Debbie C. Wong) Seller's Initials (Julie J. Wong)

_____ _____
Sellers' Initials (Joyce C. Wong) Seller's Initials (Angela Wong Preston)

_____/_____/_____/_____/_____
Sellers' Initials (The Wong Family Irrevocable Trust I)

_____/_____/_____/_____/_____
Sellers' Initials (The Wong Family Irrevocable Trust II)

_____
Sellers' Initials (The Joseph Wong Irrevocable Trust)

_____
Sellers' Initials (The Vivian Lim Irrevocable Trust)

(c) **Limitation of Liability**. Notwithstanding anything in this Agreement to the contrary, (a) the maximum aggregate liability of Seller, and the maximum aggregate amount which may be awarded to and collected by Purchaser (including, without limitation, for any breach of any representation, warranty and/or covenant of Seller) under this Agreement or any of the Other Documents shall, under no circumstances whatsoever, exceed one percent (1%) of the Purchase Price (the "**Cap Amount**"); and (b) Purchaser shall notify Seller in writing of any claim of any breach of any representation, warranty and/or covenant, of Seller under this Agreement or any of the Other Documents within the Survival Period and commence a legal action thereon no less than thirty days after the expiration of the Survival Period; and (c) no claim by Purchaser alleging a breach by Seller of any representation, warranty and/or covenant of Seller contained in this Agreement or any of the Other Documents may be made, and Seller shall not be liable for any judgment in any action based upon any such claim, unless and until such claim, either alone or together with any other claims by Purchaser alleging a breach by Seller of any such representation, warranty and/or covenant, is for an aggregate amount in excess of $25,000.00 (the "**Floor Amount**"), in which event Seller's liability respecting any final judgment concerning such claim or claims shall be for the entire amount thereof, subject to the Cap Amount set forth in clause (a) above; provided, however, that if any such final judgment is for an amount that is less than or equal to the Floor Amount, then Seller shall not have any liability with respect thereto. Purchaser acknowledges and agrees that the limitations provided for in this Section 8(c) are a material part of the consideration provided to Seller in connection with Seller's approval of the terms of this Agreement, and shall survive the termination of this Agreement, the Closing and the expiration of the Survival Period. Purchaser on its own behalf and on behalf of its agents, members, partners, employees, representatives, officers, directors, related and affiliated entities, successors and assigns hereby agrees that in no event or circumstance shall any of the agents, members, partners, employees, representatives, officers, directors, property management company, affiliated or related entities of Seller or Seller's property management company have any personal liability under this Agreement. Seller on its own behalf and on behalf of its agents, members, partners, employees, representatives, related and affiliated entities, successors and assigns hereby agrees that in no event or circumstance shall any of the agents, members, partners, employees, representatives, officers or directors of Purchaser have any personal liability under this Agreement. As used in this Agreement, "**Other Documents**" means all documents executed pursuant to this Agreement or in connection herewith, including, without limitation, the Exhibits attached hereto (in their executed forms) and whether or not such limitation on survival or the limitation on liability set forth in Section 8(c) is expressly set forth, incorporated or referenced in any such Other Document.

(d) **Post-Closing Indemnity.** Purchaser shall indemnify, defend, protect and hold harmless the Seller Parties against any and all third-party claims, disputes, damages and costs (a) arising from events occurring and/or conditions existing after the Close of Escrow, and (b) arising from the Property and any other rights transferred to Purchaser pursuant to this Agreement.

9. **BROKERS**. Purchaser and Seller represent that no real estate brokers have been retained by Parties in the sale of the Property or the negotiation of this Agreement. Purchaser acknowledges that Debbie C. Wong, a party to this Agreement, is a licensed real estate broker, but has not been retained for the sale of the Property by the Seller and will not be paid a commission.

10. **MISCELLANEOUS**.

10.1 **Attorneys' Fees**. If any Party employs counsel to enforce this Agreement, including the commencement of any legal proceeding whatsoever, the prevailing Party shall be entitled to recover its reasonable attorneys' fees and court costs (including service of process costs, filing fees, court and court reporter costs, investigative fees, expert witness fees, and the costs of any bonds, whether taxable or not), and shall include the right to recover such fees and costs incurred in any appeal or efforts to collect or otherwise enforce any judgment in its favor in addition to any other remedy it may obtain or be awarded. Any judgment or final order issued in any legal proceeding shall include reimbursement for all such attorneys' fees and costs.

10.2 **Interpretation**. This Agreement has been negotiated at arm's length, each Party has been represented by independent legal counsel in this transaction, and this Agreement has been reviewed and revised by counsel to each of the Parties. Accordingly, each Party hereby waives any benefit under any rule of law (including Section 1654 of the California Civil Code) or legal decision that would require interpretation of any ambiguities in this Agreement against the drafting Party.

10.3 **Survival**. Except as otherwise provided herein, all indemnities, covenants, representations and warranties contained in this Agreement shall survive Close of Escrow.

10.4 **Assignment**. Absent an express signed written agreement between the Parties to the contrary, neither Seller nor Purchaser may assign its rights or delegate its duties under this Agreement without the express written consent of the other, which consent may be withheld for any reason. No permitted assignment of any of the rights or obligations under this Agreement shall result in a novation or in any other way release the assignor from its obligations under this Agreement.

10.5 **Successors**. Except as provided to the contrary in this Agreement, this Agreement shall be binding on and inure to the benefit of the Parties and their successors and assigns.

10.6 **Governing Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California. Venue for any dispute arising hereunder shall be in the Superior Court of San Diego County for state law actions or the United States District Court, Southern District of California for federal law actions.

10.7 **Integrated Agreement; Modifications**. This Agreement contains all the agreements of the Parties concerning the subject hereof and cannot be amended or modified except by a written instrument executed and delivered by the Parties. There

are no representations, agreements, arrangements or understandings, either oral or written, between or among the Parties hereto relating to the subject matter of this Agreement that are not fully expressed herein. In addition, there are no representations, agreements, arrangements or understandings, either oral or written, between or among the Parties upon which any Party is relying upon in entering this Agreement that are not fully expressed herein. Any modifications to this Agreement must be in writing and signed by Seller and Purchaser.

10.8 **Severability**. If any term or provision of this Agreement is determined to be illegal, unenforceable, or invalid in whole or in part for any reason, such illegal, unenforceable, or invalid provisions or part thereof shall be stricken from this Agreement, and the remainder of this Agreement shall remain in full force and effect unless the invalidated provision materially alters the consideration being exchanged between Seller and the Purchaser. However, if any provision or part thereof of this Agreement is stricken in accordance with the provisions of this Section, but the stricken provision can be replaced with a legal, enforceable and valid provision in keeping with the intent of the Parties as expressed herein, then this Agreement shall remain in full force and effect.

10.9 **Notices**. Any delivery of this Agreement, notice, modification of this Agreement, collateral or additional agreement, demand, disclosure, request, consent, approval, waiver, declaration or other communication that either Party desires or is required to give to the other Party or any other person shall be in writing. Any such communication may be served personally, or by nationally recognized overnight delivery service (e.g., FedEx) which provides a receipt of delivery, or sent by prepaid, first class mail, return receipt requested or certified mail to the Party's address as set forth below:

To Purchaser:	San Diego Metropolitan Transit System 1255 Imperial Avenue #1000 San Diego, CA 92101 Attn: Manager of Real Estate Assets and General Counsel
To Seller:	Debbie Wong 5937 La Jolla Corona Drive La Jolla, CA 92037 <u>with a copy to</u>: CGS3 Law 12750 High Bluff Drive, Suite 250 San Diego, CA 92130 Attn: Steven Otto
To Escrow Holder:	Chicago Title 4380 La Jolla Village Drive, Suite 110 San Diego, CA 92122

Attn: Lynn Graham

Any such communication shall be deemed effective upon personal delivery or on the date of first refusal to accept delivery as reflected on the receipt of delivery or return receipt, as applicable. Any Party may change its address by notice to the other Party. Each Party shall make an ordinary, good faith effort to ensure that it will accept or receive notices that are given in accordance with this section and that any person to be given notice actually receives such notice.

10.10 **Time**. Time is of the essence to the performance of each and every obligation under this Agreement.

10.11 **Days of Week**. If any date for exercise of any right, giving of any notice, or performance of any provision of this Agreement falls on a Saturday, Sunday or legal holiday, the time for performance will be extended to 5:00 p.m. on the next business day.

10.12 **Reasonable Consent and Approval**. Except as otherwise provided in this Agreement, whenever a Party is required or permitted to give its consent or approval under this Agreement, such consent or approval shall not be unreasonably withheld or delayed. If a Party is required or permitted to give its consent or approval in its sole and absolute discretion or if such consent or approval may be unreasonably withheld, such consent or approval may be unreasonably withheld but shall not be unreasonably delayed.

10.13 **Further Assurances**. The Parties shall at their own cost and expense execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to carry out the intent and purposes of this Agreement.

10.14 **Waivers**. Any waiver by any Party shall be in writing and shall not be construed as a continuing waiver. No waiver will be implied from any delay or failure to take action on account of any default by any Party. Consent by any Party to any act or omission by another Party shall not be construed to be a consent to any other subsequent act or omission or to waive the requirement for consent to be obtained in any future or other instance.

10.15 **Signatures/Counterparts**. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any one of such completely executed counterparts shall be sufficient proof of this Agreement. Executed counterparts delivered by electronic transmission (including without limitation Adobe Sign or DocuSign) conclusively evidence a party's execution and delivery of this document, and may be relied upon as originally executed counterparts.

10.16 **Date and Delivery of Agreement**. Notwithstanding anything to the contrary contained in this Agreement, the Parties intend that this Agreement shall be

deemed effective, and delivered for all purposes under this Agreement, and for the calculation of any statutory time periods based on the date an agreement between Parties is effective, executed, or delivered, as of the Effective Date.

10.17 **Representation on Authority of Parties**. Each person signing this Agreement represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Agreement. Each Party represents and warrants to the other that the execution and delivery of the Agreement and the performance of such Party's obligations hereunder have been duly authorized and that the Agreement is a valid and legal agreement binding on such Party and enforceable in accordance with its terms.

10.18 **Purchaser Approvals**. Whenever this Agreement calls for Purchaser approval, consent, extension or waiver, the written approval, consent, or waiver of the Purchaser's Chief Executive Officer, General Counsel, or Chief Financial Officer, shall constitute the approval, consent, extension or waiver of the Purchaser, without further authorization required from the Purchaser's Board of Directors. The Purchaser hereby authorizes the Chief Executive Officer, General Counsel and Chief Financial Officer to sign documents, to deliver any such approvals, consents, or extensions or waivers as are required by this Agreement, and to waive requirements under this Agreement, on behalf of the Purchaser.

10.19 **Exchange**. Purchaser and Seller acknowledge that Seller may desire to structure the transaction evidenced hereby as part of an exchange of properties (i) of like-kind within the contemplation of Section 1031 of the Internal Revenue Code, or (ii) involving condemnation proceeds within the contemplation of Section 1033 of the Internal Revenue Code. Any such exchange of properties is referred to herein as an "**Exchange**". Purchaser agrees to cooperate with Seller in structuring such an Exchange provided that (a) such cooperation shall be without out-of-pocket cost or expense and liability to Purchaser; (b) Seller shall give notice of the proposed structure of the Exchange at least five (5) days prior to the Closing Date; (c) no such Exchange structure shall require Purchaser hold legal or equitable title to any property other than the Property; and (d) no such Exchange or structuring in relation thereto shall delay or operate to postpone the Outside Closing Date or any time periods set forth in this Agreement, nor shall the obligations of any of the parties hereto be modified, amended or assigned as a result of any such Exchange.

[Signature page follows]

IN WITNESS WHEREOF, this Agreement is executed by Purchaser and Seller as of the Effective Date.

Purchaser:

SAN DIEGO METROPOLITAN TRANSIT SYSTEM,
a California public agency

By: _____
Sharon Cooney
Chief Executive Officer

Reviewed as to Form:

_____
General Counsel
San Diego Metropolitan Transit System

Seller:

_____
EVA HUM, a married woman as her sole and separate property, as to an undivided 3% interest; **[BEING CONFIRMED]**

_____
DEBBIE C. WONG, a single woman as her sole and separate property, as to an undivided 3% interest;

_____
JULIE J. WONG, a single woman as her sole and separate property, as to an undivided 3% interest;

_____
JOYCE C. WONG, a married woman as her sole and separate property, as to an undivided 3% interest;

_____
ANGELA WONG PRESTON, a married woman as her sole and separate property, as to an undivided 3% interest;

THE WONG FAMILY IRREVOCABLE TRUST I dated December 21, 2012, as to an undivided 22.5% interest

By: _____
Kylee Hum, Co-Trustee

By: _____
Debbie C. Wong, Co-Trustee

By: _____
Julie J Wong, Co-Trustee

By: _____
Joyce C. Wong, Co-Trustee

By: _____
Angela Wong Preston, Co-Trustee

THE WONG FAMILY IRREVOCABLE TRUST II dated December 21, 2012, as to an undivided 22.5% interest

By: _____
Kylee Hum, Co-Trustee

By: _____
Debbie C. Wong, Co-Trustee

By: _____
Julie J. Wong, Co-Trustee

By: _____
Joyce C Wong, Co-Trustee

By: _____
Angela Wong Preston, Co-Trustee

THE JOSEPH WONG IRREVOCABLE TRUST dated December 18, 2012 as to an undivided 20% interest

By: _____
Sophia Wong, Trustee

THE VIVIAN LIM IRREVOCABLE TRUST
dated December 18, 2012, as to an undivided 20% interest

By: _____
Sophia Wong, Trustee

EXHIBIT A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN DIEGO IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOT 3 OF KEARNY MESA COMPLEX, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7144, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DECEMBER 22, 1971.

APN: 369-110-04-00

EXHIBIT B

Recording Requested by and When Recorded, Return to: San Diego Metropolitan Transit System 1255 Imperial Avenue #1000 San Diego, California 92101 Attn: Manager of Real Estate Assets	

EXEMPT FROM RECORDING FEES PER
GOVERNMENT CODE §§6103, 27383
Exempt from Documentary Transfer Tax
Per Rev. & Tax. Code § 11922
Governmental Agency acquiring title

GRANT DEED

For valuable consideration, receipt of which is hereby acknowledged, as of _____, 2025, the Eva Hum, a married woman as her sole and separate property, as to an undivided 3% interest **[BEING CONFIRMED]**; Debbie C. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Julie J. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Joyce C. Wong, a married woman as her sole and separate property, as to an undivided 3% interest; Angela Wong Preston, a married woman as her sole and separate property, as to an undivided 3% interest; Kylee Hum, Debbie C. Wong, Julie J Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust I dated December 21, 2012, as to an undivided 22.5% interest; Kylee Hum, Debbie C. Wong, Julie J. Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust II dated December 21, 2012, as to an undivided 22.5% interest; Sophia Wong, Trustee of The Joseph Wong Irrevocable Trust dated December 18, 2012 as to an undivided 20% interest; Sophia Wong, Trustee of The Vivian Lim Irrevocable Trust dated December 18, 2012, as to an undivided 20% interest (Collectively, "Grantor"), hereby grants to the SAN DIEGO METROPOLITAN TRANSIT SYSTEM, a California public agency ("Grantee"), all that real property located in the City of San Diego, County of San Diego, State of California and more particularly described in Attachment No. 1 hereto and incorporated in this Grant Deed by this reference.

SUBJECT TO AND TOGETHER WITH:

(a) All general and special real property taxes and assessments, not delinquent;

(b) All covenants, conditions, easements and restrictions and other matters of record in the Office of the County Recorder, San Diego County, California; and

(c) Matters that can be ascertained by a reasonable inspection and/or survey of the Property.

IN WITNESS WHEREOF, Grantor has executed this Grant Deed as of _____, 2025.

[Signature pages follow]

GRANTOR:

_____

EVA HUM, a married woman as her sole and separate property, as to an undivided 3% interest; **[BEING CONFIRMED]**

_____

DEBBIE C. WONG, a single woman as her sole and separate property, as to an undivided 3% interest;

_____

JULIE J. WONG, a single woman as her sole and separate property, as to an undivided 3% interest;

_____

JOYCE C. WONG, a married woman as her sole and separate property, as to an undivided 3% interest;

_____

ANGELA WONG PRESTON, a married woman as her sole and separate property, as to an undivided 3% interest;

THE WONG FAMILY IRREVOCABLE TRUST I dated December 21, 2012, as to an undivided 22.5% interest

By: _____
Kylee Hum, Co-Trustee

By: _____
Debbie C. Wong, Co-Trustee

By: _____
Julie J Wong, Co-Trustee

By: _____
Joyce C. Wong, Co-Trustee

By: _____
Angela Wong Preston, Co-Trustee

THE WONG FAMILY IRREVOCABLE TRUST II dated December 21, 2012, as to an undivided 22.5% interest

By: _____
Kylee Hum, Co-Trustee

By: _____
Debbie C. Wong, Co-Trustee

By: _____
Julie J. Wong, Co-Trustee

By: _____
Joyce C Wong, Co-Trustee

By: _____
Angela Wong Preston, Co-Trustee

THE JOSEPH WONG IRREVOCABLE TRUST dated December 18, 2012 as to an undivided 20% interest

By: _____
Sophia Wong, Trustee

THE VIVIAN LIM IRREVOCABLE TRUST
dated December 18, 2012, as to an undivided 20% interest

By: _____
Sophia Wong, Trustee

Attachment No. 1 to Grant Deed

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SAN DIEGO IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOT 3 OF KEARNY MESA COMPLEX, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7144, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DECEMBER 22, 1971.

APN: 369-110-04-00

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the Grant Deed dated _____, 2025 from Eva Hum, a married woman as her sole and separate property, as to an undivided 3% interest **[BEING CONFIRMED]**; Debbie C. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Julie J. Wong, a single woman as her sole and separate property, as to an undivided 3% interest; Joyce C. Wong, a married woman as her sole and separate property, as to an undivided 3% interest; Angela Wong Preston, a married woman as her sole and separate property, as to an undivided 3% interest; Kylee Hum, Debbie C. Wong, Julie J Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust I dated December 21, 2012, as to an undivided 22.5% interest; Kylee Hum, Debbie C. Wong, Julie J. Wong, Joyce C. Wong, and Angela Wong Preston as co-Trustees of The Wong Family Irrevocable Trust II dated December 21, 2012, as to an undivided 22.5% interest; Sophia Wong, Trustee of The Joseph Wong Irrevocable Trust dated December 18, 2012 as to an undivided 20% interest; Sophia Wong, Trustee of The Vivian Lim Irrevocable Trust dated December 18, 2012, as to an undivided 20% interest (collectively, "**Grantor**") to the SAN DIEGO METROPOLITAN TRANSIT SYSTEM ("**Purchaser**"), is hereby accepted on behalf of the Purchaser by the undersigned officer or agent pursuant to authority conferred by the Board of Directors of Purchaser, and that the Purchaser consents to recordation of the Grant Deed in the official records of the San Diego County Recorder's Office by its duly authorized officer.

Dated:_____, 2025

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

By: _____
Sharon Cooney
Chief Executive Officer

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of San Diego)

On _____, before me, _____,
(insert name and title of the officer)
Notary Public, personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature_____ (Seal)

Metropolitan Transit System

Agenda Item No. 6

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Orange Line Variable Message Signs (VMS) Replacements – Contract Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to:

1) Approve up to $150,000 contingency for future contract change orders to ensure construction progresses to completion without delay, under MTS Doc. No. PWL393.0-24, with Balfour Beatty Infrastructure, Inc. (Balfour Beatty), for Orange Line VMS replacements; and

2) Ratify PWL393.1-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $54,006.73 to add a 1 double sided VMS for the new Copper Line, add a media converter to each VMS sign, and include VMS signs for the Green Line Platform at the 12th and Imperial Transit Center (Attachment A); and

3) Ratify PWL393.2-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $87,089.87 to rewire power and data for Closed Circuit Television (CCTV) systems located on existing VMS poles. The change order provides funding for modifications to up to 30 CCTV installations (Attachment B).

Budget Impact

The total costs of these amendments are estimated to be $141,096.60 and the total contract cost of the services is estimated to be $378,296.60 (inclusive of the total costs for these amendments). The project will be funded by the Capital Improvement Program account 2005119601 – Orange Line – VMS Replacement.

DISCUSSION:

The Orange Line VMS Replacement project includes removing and replacing the existing 88 signs along the 21 Orange Line Trolley stations and installing MTS provided media converters. The original contract included 78 signs. Amendment 1 increased the number to 88 by adding 1

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

sign for the Copper Line and including the Green Line Station at 12th and Imperial to provide a consistent look at the 12th and Imperial Transit Center.

Construction work started at the Arnele Station. While working at Arnele, the contractor discovered that the existing CCTV cameras were receiving power and data from the Daktronics signs. The new signs from Global Displays Solutions (GDS), MTS Doc. No. G2687.0-23 are smaller and connecting the new signs to the CCTV system would void the GDS sign warranty.

To resolve this issue, the CCTV cameras need to be rewired for power and data and relocated to the mast arms on the VMS sign poles. This ensures that both systems operate independently—VMS and CCTV—so if the VMS fails, the CCTV monitoring system remains operational. This additional work requires extra labor hours and materials, including weatherproof boxes and additional wiring for power and data. Amendment 2 provided funding to rewire up to 30 CCTV cameras at a cost of approximately $2,900 per camera.

At the time of drafting this agenda item, the contractor has completed VMS sign installation at 6 of the 21 stations included in the contract. Through the first six stations, 5 cameras were re-wired. Each station has 4 VMS signs and may have up to 4 CCTV cameras that require re-wiring.

The original contract value was $237,000.00 with no contingency. MTS staff relied on the CEO authority of up to $150,000.00 to address any items discovered during construction. The change orders issued under the CEO authority total $141,096.60 and are summarized below:

Item	Purpose	CCO	Contract Total	Remaining CEO Authority
Base Bid	Orange Line VMS Installations		237,200.00	$150,000.00
Amendment 1	Add Copper Line VMS sign, media converters, and 12th and Imperial Green Line station	$54,006.73	291,206.73	$95,993.27
Amendment 2	Rewire power and data to CCTV Cameras at up to 30 locations	$87,089.87	378,296.60	$8,903.40
	Total	**$141,096.60**	**378,296.60**	**$8,903.40**

Working through the remaining stations, the contractor could encounter up to 60 additional cameras to be re-wired, 35 of which would require an additional $101,500 change order to the contractor. The request for additional contract contingency will cover camera re-wiring, beyond the first 30 cameras, new unforeseen items, if encountered, and will allow the contractor to continue work in the field without stopping to wait for board authority for additional contract capacity.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to:

1) Approve up to $150,000 contingency for future contract change orders to ensure construction progresses to completion without delay, under MTS Doc. No. PWL393.0-24, with Balfour Beatty Infrastructure, Inc. (Balfour Beatty), for Orange Line VMS replacements; and

2) Ratify PWL393.1-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $54,006.73 to add a 1 double sided VMS for the new Copper Line, add a media converter to each VMS sign, and include VMS signs for the Green Line Platform at the 12th and Imperial Transit Center (Attachment A); and

3) Ratify PWL393.2-24, with Balfour Beatty, for Orange Line VMS replacements in the amount of $87,089.87 to rewire power and data for Closed Circuit Television (CCTV) systems located on existing VMS poles. The change order provides funding for modifications to up to 30 CCTV installations (Attachment B).

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Ratify MTS Doc No. PWL393.1-24
B. Ratify MTS Doc No. PWL393.2-24

Metropolitan Transit System

CONSTRUCTION CHANGE ORDER

Project Name: VMS Installations for Orange Line and Copper Line
To: San Diego Metropolitan Transit System
From *(Contractor)*: Balfour Beatty
Contract Number: PWL393.0-24

Date: 12/10/2024
Amendment Number 1
MTS CCO Number 1

SUBCONTRACTORS AND OTHER THIRD PARTY CONTRACTORS

Any time there is a change to a Subcontractor or Other Third Party Contractors resubmit Attachment: SUBCONTRACTORS and THIRD PARTY CONTRACTORS. Any change to these forms after bid submittal must be made in accordance with Public Contract Code sections 4100 et seq., as applicable, and as permitted by MTS.

OVERALL DESCRIPTION OF WORK

This CCO is prepared in accordance with and incorporates Section Changes and Extra Work Payment of the Contract Documents and consists of the following:

A. FOR UNIT PRICE CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Bid Item	Quantity	QTY Change	Amount
				Subtotal A:	$ -

B. FOR LUMP SUM CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Amount
CCO 1	Installation of an additional sign for the Copper Line	$ 54,006.73
	Subtotal B:	$ 54,006.73

C. FOR TIME & MATERIALS CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Bid Item	Amount
		Payroll Costs:	
		Equipment Costs	
		Materials Costs	
		Consultant Costs	
		Supplemental Costs	
		Consultant Costs	
		Other - Describe Services	
		Bonds & Insurance total:	
		Contractor Overhead & Profit on Subcontractors:	
		Contractor Overhead & Profit total:	
		Subtotal C:	$ -

Total = (A+B+C)	$ 54,006.73
Original Contract value:	$ 237,200.00
Adjustment by Previous Amendment(s)	$ -
Adjustment by this Change Order	$ 54,006.73
New Contract Amount	**$ 291,206.73**

The Contract Time due to this Change Order will be (Increased or Unchanged):	Increased	by	30	days
Original Completion Date:			**4/7/2025**	
Adjustment to Completion Date by Previous Change Order(s) [Number of Calendar Days]:			**0**	
New Completion Date adjusted by this Change Order:			**5/7/2025**	

Contractor accepts the terms and conditions stated above as full and final settlement of any and all claims arising out of or related to the subject of this Change Order and acknowledges that the compensation (time and cost) set forth herein comprises the total compensation due for the work or change defined in the Change Order, including all impact on any unchanged work. By signing this Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for any acceleration or interruption of schedules, extended overhead costs, delay, and all impact or cumulative impact on all Work under this Contract. The signing of this Change Order acknowledges full mutual accord and satisfaction for the change and that the stated time and/or cost constitute the total equitable adjustment owed the Contractor as a result of the change. The Contractor hereby releases and agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any reasonably foreseeable cause that shall arise out of, or as a result of, this Change Order and/or its impact on the remainder of the Work under the Contract.

C[illegible] — 1/3/2025
Date:

for — 12-30-2024
MTS Chief Executive Officer **Date:**

Follow all applicable procedures and provide all appropriate documentation as required by the Contract Documents.

I. PROJECT DESCRIPTION

The amendment outlines an expanded scope of work in addition to the original VMS sign replacement project for the Orange Line. This updated scope includes the installation of an additional sign for the Copper Line, which became operational on 9/27/2024. Currently, the El Cajon Station has one double-sided sign, with one side serving the Orange Line and the opposite side accommodating the newly added Copper Line. Under the new plan, an additional double-sided sign will be installed exclusively for the Copper Line.

At each station where contractor is installing new VMS signs, the contractor will also install a media converter within the communication boxes. The amendment also requires the installation of Green Line VMS signs at the 12th & Imperial Station as part of the Orange Line system, thereby creating a unified signage system across the entire station rather than multiple separate fixtures for displaying information.

II. SCOPE OF WORK

2.1 Copper Line – Additional Sign:

The objective to incorporate an additional Variable Message Sign (VMS) into the existing infrastructure of the Orange Line at El Cajon Station. This VMS will be exclusively dedicated to displaying information for the Copper Line. The installation must integrate seamlessly with the current design and infrastructure, meeting all relevant construction standards and ensuring clear, accessible information for passengers. Only one double-sided VMS sign is required for this added scope.

Scope of Work:

2.1.1 – rewire all existing cables to make room for adding a new sign and a new mast arm for the new signs.
2.1.2 – Install a new HSS steel tube (mast arm) according to the approved plans and specifications to support the additional sign.
2.1.3 – Install the new double sided VMS sign (with media converter) and complete power and data connections.

2.2 Media Convertors:

a. The contractor will be responsible for installing the media converters before mounting the VMS signs. The media converters will be procured and provided by MTS, and it will be the contractor's responsibility to collect them from the MTS yard. Each sign in this project—totaling 88 signs (inclusive of copper and green additions) —will require one media converter.
b. After the bid, MTS identified that the communication box at each trolley station with new VMS signs must include a media converter. Since each media converter at the VMS signs will require a corresponding media converter in the communication box, the total number of media converters to be installed will be 88.

2.3 Green Line VMS Signs at 12th & Imperial:

Install Green Line VMS signs at an additional four specified locations within the 12th & Imperial Station, incorporating a total of four double-sided signs. The 8 new signs at this location will be installed on existing poles, using existing power and data, and existing mast arms. These signs are being added now to eliminate the need for multiple mobilizations at the 12th and Imperial location and ensure a consistent or unified image for all passengers at the busiest transit center in the MTS network.

III. PERIOD OF PERFORMANCE

This additional scope of work will extend the period of performance by one month, revising the original agreement from NTP + 6 months to NTP + 7 months.

Balfour Beatty

640 E. Arrow Hwy.
La Verne, CA. 91750

Ahmed Al-Janabi
Senior Project Manager - Capital Projects

San Diego Metropolitan Transit System

1255 Imperial Ave., Ste. 1000
San Diego, CA 92101

11-19-2024

Re: VMS Amendment 1

Dear Ahmed,

On behalf of Balfour Beatty Rail, we are pleased to provide herein our proposal in response to the request for a quote for the scope of work as laid out in Amendment 1.

Our proposal is conditioned upon the successful negotiation and agreement to mutually acceptable contract terms and conditions, schedule, and proposal pricing. To the extent that the facts, inclusions, exclusions, and assumptions upon which this proposal is based are not exactly as desired by Client, Contractor reserves the right to revisit/revise as appropriate.

The price for the work, as fully described below is **$54,006.73. The period of performance will be increased by 1 month.**

Breakdown
Labor: $36,982.81
- *Copper Line Sign*
- *Install Media Converters (88 each) (15 minutes per media converter (22 Crew hours))*
- *Green Line*
- *Install Mock Up Sign*

Equipment: $14,141.67
- *Crew Vehicles, Scissor Lifts, Flatbed*

Materials: $1,713.75
- *Brackets*

Other direct costs: $1,168.50
- *Subsistence, Bond*

Scope of work:
2.1 Copper Line – Additional Sign:

1. The objective to incorporate an additional Variable Message Sign (VMS) into the existing infrastructure of the Orange Line at El Cajon Station. This VMS will be exclusively dedicated to displaying information for the Copper Line. The installation must integrate seamlessly with the

Balfour Beatty

current design and infrastructure, meeting all relevant construction standards and ensuring clear, accessible information for passengers. Only one double-sided VMS sign is required for this added scope.

2.1.1 – rewire all existing cables to make room for adding a new sign and a new mast arm for the new signs.

2.1.2 – Install a new HSS steel tube (mast arm) according to the approved plans and specifications to support the additional sign.

2.1.3 – Install the new double sided VMS sign (with media converter) and complete power and data connections.

2.2 Media Convertors:

a. The contractor will be responsible for installing the media converters before mounting the VMS signs. The media converters will be procured and provided by MTS, and it will be the contractor's responsibility to collect them from the MTS yard. Each sign in this project—totaling 88 signs (inclusive of copper and green additions) —will require one media converter.
b. After the bid, MTS identified that the communication box at each trolley station with new VMS signs must include a media converter. Since each media converter at the VMS signs will require a corresponding media converter in the communication box, the total number of media converters to be installed will be 88.

2.3 Green Line VMS Signs at 12th & Imperial:

Install Green Line VMS signs at an additional four specified locations within the 12th & Imperial Station, incorporating a total of four double-sided signs. The 8 new signs at this location will be installed on existing poles, using existing power and data, and existing mast arms. These signs are being added now to eliminate the need for multiple mobilizations at the 12th and Imperial location and ensure a consistent or unified image for all passengers at the busiest transit center in the MTS network.

Invoice Schedule

- The invoice will be sent out in full if the work is done within 30 days. If the work exceeds the 30 days, the invoices will be sent based on percent of work completed.

General Assumptions

General Assumptions

1. Proposal is furnished subject to mutually agreeable terms and conditions, which will include caps on overall liability and delay liability, and as applicable, compliance with Balfour Beatty's Corporate 3rd Party Due Diligence process and procedure
2. This proposal must be accepted in entirety. Generally, individual scope prices do not stand alone.
3. This proposal is valid for 30 days, but we require notification of selected contractor within 7 days of submittal.

Balfour Beatty

4. Client to provide (at no cost to Contractor) adequate compound areas in mutually agreeable locations, adjacent to the project site(s) for Contractors efficient ingress/egress (including access roads), material laydown, office trailers/facilities and parking for Contractor's project equipment and employees.

5. No office will be required for or by client or contractor for this project.

6. Client to provide unimpeded access to the project/right of way, at locations specified in the RFP, including any necessary construction access ramps at differing grade elevations.

7. Hi-rail access pads, if required, to be provided and removed by Client.

8. Client to provide field employee parking throughout the project site, within ¼ mile of the access locations.

9. deleted

10. All submittals to be electronic with one hard copy to follow.

11. This price proposal is subject to a mutually agreeable schedule. Contractor to provide input into the Client's schedule as required.

12. Price is based on receiving a 10% mobilization payment (of contract value) upon mobilization commencement (four equal payments over four consecutive months).

13. deleted

14. deleted

15. Contractor assumes that Client to be responsible for winter/cold weather mitigation, including but not limited to: keeping sub-grade from freezing, thawing sub-grade as required to meet schedule, snow removal, ground heaters, and winter temperature/weather protection (except concrete blankets for Contractor's work).

16. Client to provide hydrant type water supply within the right of way at no cost to the Contractor.

17. Client to provide sufficient time for administrative paperwork, material lead times, etc. Dates shown currently in Client schedule may not be attainable with normal lead times.

18. The specified warranty begins at substantial completion of Contractor's work. Substantial completion will be progressively issued by segment/location, and work type.

19. deleted

20. Any existing structures used to support work must be structurally adequate. Client to provide calculations when necessary.

21. deleted

22. Contractor reserves the right to re-price any bid items that change in quantity more than 15% (up or down).

23. deleted

24. deleted

25. deleted

26. Client will pay invoicing for stored materials.

General Inclusions

1. Final cleanup for Contractor works only.

2. Site specific work plans.

3. Material sales tax

4. Survey for layout

5. deleted

6. Constructability reviews for Contractor's scope to support preconstruction process for

Balfour Beatty

7. Basic BMP

General Exclusions

1. Utility Potholing
2. As-Built Survey
3. Temporary or construction power and water (service installation or usage charges).
4. deleted
5. deleted
6. deleted
7. Access development. Contractor will work with Client on project access.
8. Maintenance of traffic, including police support, road plates, flagging, etc.
9. deleted
10. Track coordination efforts for track outages, work requests, etc.
11. Material expediting due to initially compressed schedule.
12. Any systems or signal work.
13. Stand-by/idle time due to delays by others and/or out of Contractor's control.
14. Hazardous material/substance work. Contractor will not assume generator status for any hazardous materials uncovered and discovered at the project site.
15. Systems safety and security manager.
16. Permits and fees.
17. Dewatering.
19. Rail road flagging and maintenance and protection of pedestrian and vehicular traffic.
20. Repairs of work damaged by other trades.
21. Utility relocations whether known or unknown.
22. Over-excavation for utility conflicts.
23. Pavement or other surface saw-cutting, breaking, demolition.
24. Temporary and permanent signage.
25. Pavement markings.
26. Dust Control (except as required for Contractor's operations).
28. Noise or vibration mitigation (permanent or construction phase).
29. Testing, auditing, inspection fees, water fees, water costs, meters, and electrical utility connections.
30. Traffic control, coring, boring, jacking and hydraulic drilling, drainage, concrete, masonry, asphalt, saw cutting and removal, patching of asphalt and concrete, curb/header, rebar/steel, site furniture, tree well grates and frames, and any removals.
31. Relocations, modifications, repair, restoration, or maintenance of existing Site condition
32. Railroad Flagger
33. EIC

General Exclusions

1. Temporary or construction power and water (service installation or usage charges).
2. Access development. Contractor will work with Client on project access.

Balfour Beatty

3. Maintenance of traffic, including police support, road plates, flagging, etc.
4. Costs associated with parking for field employees throughout the project.
5. Material expediting due to initially compressed schedule.
6. Stand-by/idle time due to delays by others and/or out of Contractor's control.
7. Hazardous material/substance work. Contractor will not assume generator status for any hazardous materials uncovered and discovered at the project site.
8. Permits and fees.
9. Surety bonds. These can be provided, on request, at an additional cost.
10. SWPP creation, implementation or maintenance for any scope.
11. Survey.
12. Trench shoring.
13. Dewatering.
14. Abnormal or extraordinary site and soil conditions, including rock excavation.
15. Railroad flagging and maintenance and protection of pedestrian and vehicular traffic.
16. Repairs of work damaged by other trades.
17. Utility relocations whether known or unknown.
18. Over-excavation for utility conflicts.
19. Pavement or other surface saw-cutting, breaking, demolition, or restoration.
20. Temporary and permanent signage.
21. Pavement markings.
22. Street sweeping.
23. Weed abatement and mowing.
24. Dust Control (except as required for Contractor's operations).

Any work needed outside this scope will be tracked as T&M.

Thank you again for the opportunity to provide you with this proposal. Should you have any questions regarding this please do not hesitate to contact me.

Regards,

X
Balfour Beatty

Type text here

X
MTS

Balfour Beatty

Will Pfeffer
Area Operations Manager
Balfour Beatty Rail
760-475-1401
wpfeffer@balfourbeattyus.com

NAME OF CONTRACTOR: Balfour Beatty Infrastructure
OR SUBCONTRACTOR:
PROJECT NAME: San Diego MTS VMS Installation
WORK SITE / LOCATION: San Diego Orange Line/Green Line/Copper Line

ADDRESS: 640 East Arrow Highway
La Verne, CA 91750
PROJECT LOCATION: San Diego

LABOR RATES: 2023-2024
CHANGE ORDER #: 1
DATE: 12/7/2024

Labor Tracker by Employee

Date	Employee Number	Shift	Per Diem	Employee	Craft	Hours REG	Hours OT	Hours DT	Rate Regular $/HR	Rate Overtime $/HR	Rate Double $/HR	Subtotals Regular	Subtotals Overtime	Subtotals Double	Subtotals
	100	D		Laborer Group 1	LB JM				$ 67.40	$ 87.96	$ 108.51				$ -
	150	D		Laborer Group 5	LB JM				$ 71.88	$ 94.66	$ 117.47				$ -
	300	D		Laborer Foreman	LB FM				$ 75.47	$ 99.39	$ 123.34				$ -
	400	D		Operator	OP JM				$ 91.72	$ 121.18	$ 150.63				$ -
	500	D		Operator Foreman	OP FM				$ 96.31	$ 127.24	$ 158.16				$ -
	600	D		Track Superintendent	GF				$ 121.03	$ 165.03	$ 219.03				$ -
	700	D	$ 480.00	Electrician	IW JM	108			$ 97.94	$ 126.26	$ 158.54	$ 10,577.52			$ 10,577.52
	800	D	$ 240.00	Electrician Foreman	IW FM	50	10		$ 110.30	$ 142.17	$ 178.52	$ 5,514.91	$ 1,421.69		$ 6,936.60
	900	D	$ 240.00	Electrician Superintendent/GF	IF GF	60			$ 122.82	$ 158.08	$ 198.49	$ 7,369.01			$ 7,369.01
	200			Operator	OP JM				$ 138.09	$ 178.00	$ 223.50				$ -

Labor Grand Total $ 24,883.12

Subsistence Tracker

Subsistence Grand Total $ 960.00

Equipment Tracker

Date	Equiment / Vehicle ID	Employee	Equipment Decription	Class	Make	Code	Hours REG	Hours OT	Rate REG Rate	Rate Delay Rate	Rate OT Rate	Subtotals
12/7/24			Pick Up Truck 3/4 Ton, with Hy Rail / Utility Body	TRUCK	T&TT	20-28	108.0		$ 42.49	$ 0.12	$ 0.89	$ 4,588.92
12/7/24			Pick Up Truck 3/4 Ton, with Hy Rail / Utility Body	TRUCK	T&TT	20-28	120.0		$ 47.91	$ 0.12	$ 0.89	$ 5,749.20
12/7/24			Scissor Lift				48.0		$ 40.81	$ 0.10	$ 0.89	$ 1,958.98

Equipment Grand Total $ 12,297.10

Material Tracker

No.	Vendor	Material Description	Units	Unit Price	Subtotals
1	TBD	Misc. Bracket Allowance	1.0	$ 1,351.66	$ 1,351.66
2					$ -
					$ -

Material Subtotal $ 1,351.66
10.25% Tax $ 138.55
Material Grand Total $ 1,490.21

Subcontractor Tracker

No	Subcontractor	Description	Units	Unit Price	Subtotals
1					$ -

Subcontractor's Grand Total $ -

Total Equipment (A)	$	12,297.10
Total Material (B)	$	1,490.21
15.00% Standard Mark-Up Equipment	$	1,844.57
15.00% Standard Mark-Up Material	$	223.54
Total Equipment + Mark-Up	**$**	**14,141.67**
Total Material + Mark-Up	**$**	**1,713.75**
Total Regular Labor (C)	$	23,461.43
29.2% Regular Labor Surcharge	$	6,860.13
Total Premium Labor (D)	$	1,421.69
29.2% Premium Labor Surcharge	$	415.71
Subtotal Regular Labor (C) + Premium Labor (D)	$	24,883.12
Subtotal (C) + (D) + Regular + Premium Surcharges	$	32,158.96
Total Subsistence (E)	$	960.00

Total Other Expense (F):		
Subtotal (C) + (D) + Regular + Premium Surcharges	**$**	**32,158.96**
15.00% Standard Mark-Up	$	4,823.84
Total Labor (C) + (D) + Surcharge + (E) + (F) + M/U	**$**	**37,942.81**
Total Equipment	**$**	**14,141.67**
Total Material	**$**	**1,713.75**
Total Equipment + Materials + Labor	$	53,798.22
Total Subcontractor Costs	$	-
5.00% Mark-Up on Subcontractors	$	-
Total Subcontractors	**$**	**-**
1.01% Bond & Insurance	$	208.50
Grand Total	**$**	**54,006.73**

Metropolitan Transit System

CONSTRUCTION CHANGE ORDER

Project Name: VMS Installations for Orange and Copper Line
To: San Diego Metropolitan Transit System
From *(Contractor)*: Balfour Beatty
Contract Number: PWL393.0-24

Date: 2/3/2025
Amendment Number 2
MTS CCO Number 2

SUBCONTRACTORS AND OTHER THIRD PARTY CONTRACTORS

Any time there is a change to a Subcontractor or Other Third Party Contractors resubmit Attachment: SUBCONTRACTORS and THIRD PARTY CONTRACTORS. Any change to these forms after bid submittal must be made in accordance with Public Contract Code sections 4100 et seq., as applicable, and as permitted by MTS.

OVERALL DESCRIPTION OF WORK

This CCO is prepared in accordance with and incorporates Section Changes and Extra Work Payment of the Contract Documents and consists of the following:

A. FOR UNIT PRICE CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Bid Item	Quantity	QTY Change	Amount
				Subtotal A:	$ -

B. FOR LUMP SUM CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Amount
CCO 2	Modify and install 78 signs, including relocation of 30 poles, disconnect and move camera equipment, cut, pull back and resplice fiber optic cables	$ 87,089.87
	Subtotal B:	$ 87,089.87

C. FOR TIME & MATERIALS CCOS ONLY (AS APPLICABLE)

Contractor REF#	Description	Bid Item	Amount
		Payroll Costs:	
		Equipment Costs	
		Materials Costs	
		Consultant Costs	
		Supplemental Costs	
		Consultant Costs	
		Other - Describe Services	
		Bonds & Insurance total:	
		Contractor Overhead & Profit on Subcontractors:	
		Contractor Overhead & Profit total:	
		Subtotal C:	$ -

Total = (A+B+C)	$ 87,089.87

Original Contract value:	$ 237,200.00
Adjustment by Previous Amendment(s)	$ 54,006.73
Adjustment by this Change Order	$ 87,089.87
New Contract Amount	**$ 378,296.60**

The Contract Time due to this Change Order will be (Increased or Unchanged):	Increased	by	180	days
Original Completion Date:			**4/7/2025**	
Adjustment to Completion Date by Previous Change Order(s) [Number of Calendar Days]:			**30**	
New Completion Date adjusted by this Change Order:			**11/3/2025**	

Contractor accepts the terms and conditions stated above as full and final settlement of any and all claims arising out of or related to the subject of this Change Order and acknowledges that the compensation (time and cost) set forth herein comprises the total compensation due for the work or change defined in the Change Order, including all impact on any unchanged work. By signing this Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for any acceleration or interruption of schedules, extended overhead costs, delay, and all impact or cumulative impact on all Work under this Contract. The signing of this Change Order acknowledges full mutual accord and satisfaction for the change and that the stated time and/or cost constitute the total equitable adjustment owed the Contractor as a result of the change. The Contractor hereby releases and agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any reasonably foreseeable cause that shall arise out of, or as a result of, this Change Order and/or its impact on the remainder of the Work under the Contract.

Contractor **Date:**

MTS Chief Executive Officer **Date:**

Follow all applicable procedures and provide all appropriate documentation as required by the Contract Documents.



Balfour Beatty

640 E. Arrow Hwy.
La Verne, CA. 91750

Ahmed Al-Janabi
Senior Project Manager - Capital Projects

San Diego Metropolitan Transit System

1255 Imperial Ave., Ste. 1000
San Diego, CA 92101

1-23-2025

Re: VMS Potential CCO #2

Dear Ahmed,

On behalf of Balfour Beatty Rail, we are pleased to provide herein our proposal in response to the request for a quote for the scope of work as laid out herein.

Our proposal is conditioned upon the successful negotiation and agreement to mutually acceptable contract terms and conditions, schedule, and proposal pricing. To the extent that the facts, inclusions, exclusions, and assumptions upon which this proposal is based are not exactly as desired by Client, Contractor reserves the right to revisit/revise as appropriate.

The price for the work, as fully described below is $**87,089.87. The period of performance will be increased by 30 Working Days (43 Calendar Days). This is under the assumption that 30 out of the 78 poles will need to be modified.**

Labor: $33,847.13
Equipment: $11,584.76
Material: $9,205.38
Subcontractor: $31,878.00
Bonds/Insurance: $574.59

Total Price per Sign Modification: **$2,903.00**

Background

- The original scope of work for this project was a basic R&R (Remove & Replace), of 78 Double Sided Signs and put back 2 Single-Faced back to back signs on brackets provided by MTS. All cables were to be re-used, with the exception of a couple locations. The drawings provided by MTS also indicated that the poles did not have any external hardware on them (cameras, speakers, audio, etc). During the kick off meetings and pre-job discussion, it was brought up by the Balfour Beatty team that it appeared that some of the cameras might be in conflict with the sign installation. We were told that the camera equipment did not run through the signs, and that it was all external. We were also told that we would not have to move the cameras, and that if we ran into an issue, we should call MTS.
- On the first sign installation we encountered, we discovered that the camera controls ran through

Balfour Beatty

the sign, requiring that this equipment be disconnected and moved out of the sign, and due to the size of the new signs, the existing camera equipment could not fit in the new sign, therefore, external equipment needed to be procured and installed on the existing pole in order to properly relocate all the camera equipment.



- Another impact of this required that the fiber cables be cut and pulled back and respliced inside the sign for the sign and the camera. This required a fiber subcontractor to be brought on board to handle this effort. Incidentally, it was not anticipated that any fiber splicing would be required on this project, since the plans indicated that all fiber cable should be re-used as is. In some cases, even when a sign does not have camera equipment in it, or equipment on it, the fiber still needed to be cut and re-spliced. Therefore, this revision includes splicing for signs which have fiber in them regardless.

General Assumptions

General Assumptions

1. Proposal is furnished subject to mutually agreeable terms and conditions, which will include caps on overall liability and delay liability, and as applicable, compliance with Balfour Beatty's Corporate 3rd Party Due Diligence process and procedure
2. This proposal must be accepted in entirety. Generally, individual scope prices do not stand alone.

3. This proposal is valid for 30 days.

Balfour Beatty

4. Client to provide (at no cost to Contractor) adequate compound areas in mutually agreeable locations, adjacent to the project site(s) for Contractors efficient ingress/egress (including access roads), material laydown, office trailers/facilities and parking for Contractor's project equipment and employees.

5. No office will be required for or by client or contractor for this project.

6. Client to provide unimpeded access to the project/right of way, at locations specified in the RFP, including any necessary construction access ramps at differing grade elevations.

7. Hi-rail access pads, if required, to be provided and removed by Client.

8. Client to provide field employee parking throughout the project site, within ¼ mile of the access locations.

9. deleted

10. All submittals to be electronic with one hard copy to follow.

11. This price proposal is subject to a mutually agreeable schedule. Contractor to provide input into the Client's schedule as required.

General Exclusions

1. Temporary or construction power and water (service installation or usage charges).
2. Access development. Contractor will work with Client on project access.
3. Maintenance of traffic, including police support, road plates, flagging, etc.
4. Costs associated with parking for field employees throughout the project.
5. Material expediting due to initially compressed schedule.
6. Stand-by/idle time due to delays by others and/or out of Contractor's control.
7. Hazardous material/substance work. Contractor will not assume generator status for any hazardous materials uncovered and discovered at the project site.
8. Permits and fees.
9. Surety bonds. These can be provided, on request, at an additional cost.
10. SWPP creation, implementation or maintenance for any scope.
11. Survey.
12. Trench shoring.
13. Dewatering.
14. Abnormal or extraordinary site and soil conditions, including rock excavation.
15. Railroad flagging and maintenance and protection of pedestrian and vehicular traffic.
16. Repairs of work damaged by other trades.
17. Utility relocations whether known or unknown.
18. Over-excavation for utility conflicts.
19. Pavement or other surface saw-cutting, breaking, demolition, or restoration.
20. Temporary and permanent signage.

Balfour Beatty

21. Pavement markings.
22. Street sweeping.
23. Weed abatement and mowing.
24. Dust Control (except as required for Contractor's operations).

Any work needed outside this scope will be tracked as T&M.

Thank you again for the opportunity to provide you with this proposal. Should you have any questions regarding this please do not hesitate to contact me.

Regards,

Balfour Beatty

X_____
MTS

Will Pfeffer
Area Operations Manager
Balfour Beatty Rail
760-475-1401
wpfeffer@balfourbeattyus.com

NAME OF CONTRACTOR: Balfour Beatty Infrastructure
OR SUBCONTRACTOR:
PROJECT NAME: San Diego MTS VMS Installation
WORK SITE / LOCATION: San Diego Orange Line/Copper Line
Camera Modifications

ADDRESS: 640 East Arrow Highway
La Verne, CA 91750
PROJECT LOCATION: San Diego

LABOR RATES: 2024-2025
CHANGE ORDER #: 2
DATE: 1/23/2025

Labor Tracker by Employee

Date	Employee Number	Shift	Per Diem	Employee	Craft	Hours REG	Hours OT	Hours DT	Rate Regular $/HR	Rate Overtime $/HR	Rate Double $/HR	Subtotals Regular	Subtotals Overtime	Subtotals Double	Subtotals
	100	D		Laborer Group 1	LB JM				$ 67.40	$ 87.96	$ 108.51				$ -
	150	D		Laborer Group 5	LB JM				$ 71.88	$ 94.66	$ 117.47				$ -
	300	D		Laborer Foreman	LB FM				$ 75.47	$ 99.39	$ 123.34				$ -
	400	D		Operator	OP JM				$ 91.72	$ 121.18	$ 150.63				$ -
	500	D		Operator Foreman	OP FM				$ 96.31	$ 127.24	$ 158.16				$ -
	600	D		Track Superintendent	GF				$ 121.03	$ 165.03	$ 219.03				$ -
	650	D		Electrician Apprentice	IW APP	130			$ 73.46	$ 110.18	$ 146.91	$ 9,549.15			$ 9,549.15
	700	D	$ 731.25	Electrician	IW JM	130			$ 97.94	$ 126.26	$ 158.54	$ 12,732.20			$ 12,732.20
	800	D		Electrician Foreman	IW FM	0			$ 110.30	$ 142.17	$ 178.52	$ -			$ -
	900	D		Electrician Superintendent/GF	IF GF	0			$ 122.82	$ 158.08	$ 198.49	$ -			$ -
	200			Operator	OP JM				$ 138.09	$ 178.00	$ 223.50				$ -

Labor Grand Total $ 22,281.35

Subsistence Tracker

Subsistence Grand Total $ 731.25

Equipment Tracker

Date	Equiment / Vehicle ID	Employee	Equipment Decription	Class	Make	Code	Hours REG	Hours OT	Rate REG Rate	Rate Delay Rate	Rate OT Rate	Subtotals
1/23/25			Pick Up Truck 3/4 Ton, with Hy Rail / Utility Body	TRUCK	T&TT	20-28	130.0		$ 42.49	$ 0.12	$ 0.89	$ 5,523.70
1/23/25			Scissor Lift				130.0		$ 35.00	$ 0.10	$ 0.89	$ 4,550.00

Equipment Grand Total $ 10,073.70

Material Tracker

No.	Vendor	Material Description	Units	Unit Price	Subtotals
1		Cantex Junction Box	30.0	$ 87.00	$ 2,610.00
2		#4-40 Thread Size, 1/4 in Lg, Steel,	120.0	$ 0.75	$ 90.00
3		Roll of 1" liquidtite conduit	1.0	$ 1,191.37	$ 1,191.37
4		Liquid-Tight Conduit Fitting: Steel/Iron, 1 in	90.0	$ 9.49	$ 854.10
5		Mag Drill & Bits	1.0	$ 2,015.00	$ 2,015.00
6		Misc. Patch cables, connectors, etc.	1.0	$ 500.00	$ 500.00

Material Subtotal $ 7,260.47
10.25% **Tax** $ 744.20
Material Grand Total $ 8,004.67

Subcontractor Tracker

No	Subcontractor	Description	Units	Unit Price	Subtotals
1	Datel	Fiber Splicing	33.0	$ 920.00	$ 30,360.00

Subcontractor's Grand Total $ 30,360.00

Total Equipment (A)	$	10,073.70
Total Material (B)	$	8,004.67
15.00% Standard Mark-Up Equipment	$	1,511.06
15.00% Standard Mark-Up Material	$	1,200.71
Total Equipment + Mark-Up	**$**	**11,584.76**
Total Material + Mark-Up	**$**	**9,205.38**
Total Regular Labor (C)	$	22,281.35
29.2% Regular Labor Surcharge	$	6,515.07
Total Premium Labor (D)	$	-
29.2% Premium Labor Surcharge	$	-
Subtotal Regular Labor (C) + Premium Labor (D)	$	22,281.35
Subtotal (C) + (D) + Regular + Premium Surcharges	$	28,796.42
Total Subsistence (E)	$	731.25

Total Other Expense (F):

Subtotal (C) + (D) + Regular + Premium Surcharges	**$**	**28,796.42**
15.00% Standard Mark-Up	$	4,319.46
Total Labor (C) + (D) + Surcharge + (E) + (F) + M/U	**$**	**33,847.13**

Total Equipment	**$**	**11,584.76**
Total Material	**$**	**9,205.38**
Total Equipment + Materials + Labor	$	54,637.27
Total Subcontractor Costs	$	30,360.00
5.00% Mark-Up on Subcontractors	$	1,518.00
Total Subcontractors	**$**	**31,878.00**
1.01% Bond & Insurance	$	574.59
Grand Total	**$**	**87,089.87**

Metropolitan Transit System

Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Orange Line (OL) Phase 1 Construction – Contract Award

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWL409.0-25 (in substantially the same format as Attachment A), to Stacy and Witbeck, Inc. (Stacy and Witbeck), for the OL Phase 1 Construction in the amount of $26,890,732.50 plus 10% contingency.

Budget Impact

The total contract cost of this contract is estimated to be $26,890,732.50 (plus a 10% contingency of $2,689,073.25 for a total of $29,579,805.75). The project will be funded by the Capital Improvement Program (CIP) account 2005119501 Orange Line Rail Signals – Phase 1.

DISCUSSION:

The Orange Line Phase 1 construction project will upgrade the signaling system between 32nd Commercial Station and Massachusetts Avenue station to the MTS standard signaling system, consistent with the system installed on the Mid-Coast extension. The project will allow the trolleys to operate at higher speeds, travel on the opposite track, reverse run, improve on-time performance, and provide more dependable services. The contractor will install materials that MTS has pre-purchased over the last 11 months.

On October 30, 2024, staff issued an Invitation for Bids (IFB). A total of five (5) bids were received by the deadline of February 6, 2025, and are summarized as follows:

Firm Name	Firm Certification	Bid Amount
Stacy and Witbeck	N/A	$26,890,732.50
Herzog Technologies, Inc.	N/A	$30,922,555.00
RailWorks Track Services, LLC	N/A	$36,349,028.45
Balfour Beatty Infrastructure Inc.	N/A	$45,645,000.00
Mass. Electric Construction Co.	N/A	$52,927,533.50

Based on the bids received, staff determined Stacy and Witbeck to be the lowest responsive, and responsible bidder and deemed their price to be fair and reasonable in comparison with MTS' Independent Cost Estimate (ICE) of $27,974,757.19.

The Contractor will be using the following subcontractors:

SUBCONTRACTOR NAME	FIRM CERTIFICATIONS
AZ Construction Inc. DBA ACE Fence Company	Disadvantaged Business Enterprise (DBE), Small Business (SB), Minority Owned Business (MBE), Woman Owned Business (WBE)
HMS Construction Inc.	N/A

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Doc. No. PWL409.0-25 (in substantially the same format as Attachment A), to Stacy and Witbeck, for the OL Phase 1 Construction in the amount of $26,890,732.50 plus 10% contingency.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olsen, 619.557.4588, mark.olsen@sdmts.com

Attachments: A. Draft Agreement MTS Doc. No. PWL409.0-25
B. Scope of Work/Technical Specifications
C. Bid Form

Metropolitan Transit System

STANDARD CONSTRUCTION AGREEMENT

FOR

MTS DOC. NO. PWL409.0-25

ORANGE LINE (OL) PHASE 1 CONSTRUCTION

THIS AGREEMENT is entered into this _____ day of _____, 2025 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Stacy and Witbeck, Inc. Address: 2800 Harbor Bay Parkway

Alameda (City) CA (State) 94502 (Zip)

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: swisocalest@stacywitbeck.com

Telephone: 310-570-3450

Authorized person to sign contracts Matt Kuzmick (Name) Assistant Secretary (Title)

The specified Contract Documents are part of this Agreement. The Contractor agrees to furnish to MTS services and materials, as follows:

Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the Project as specified in accordance with the Standard Agreement and General Conditions (Exhibit A), Scope of Work, Special Conditions and Attachments (Exhibit B), Bid Price Form (Exhibit C), and Forms (Exhibit E).

SCOPE OF WORK.

Contractor, for and in consideration of the payment to be made to Contractor as hereinafter provided, shall furnish all plant, labor, technical and professional services, supervision, materials and equipment, other than such materials and equipment as may be specified to be furnished by MTS, and perform all operations necessary to complete the Work in strict conformance with the Contract Documents (defined below) for the following public work of improvement:

ORANGE LINE (OL) PHASE 1 CONSTRUCTION

Contractor is an independent contractor and not an agent of MTS. The Contractor and its surety shall be liable to MTS for any damages arising as a result of the Contractor's failure to comply with this obligation.

CONTRACT TIME.

Time is of the essence in the performance of the Work. The Work shall be commenced by the date stated in MTS's Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within **758 calendar days** from the commencement date stated in the Notice to Proceed. By its signature hereunder, Contractor agrees the Contract Time is adequate and reasonable to complete the Work.

CONTRACT PRICE.

MTS shall pay the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of twenty-six million, eight hundred ninety thousand, seven hundred thirty-two dollars and fifty cents ($26,890,732.50). Payment shall be made as set forth in the General Conditions.

PROVISIONS REQUIRED BY LAW.

Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents. The Contractor shall comply with all requirements of the California Labor Code applicable to this Project.

INDEMNIFICATION.

Contractor shall provide indemnification as set forth in the General Conditions.

PREVAILING WAGES.

Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at MTS's Administrative Office or may be obtained online at http://www.dir.ca.gov and which must be posted at the job site.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	STACY AND WITBECK, INC.
By: _____ Sharon Cooney, Chief Executive Officer Approved as to form: By: _____ Karen Landers, General Counsel	By _____ Title: _____

SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 – GENERAL

1.01 REFERENCES

A. References to Articles herein are with respect to the MTS Procurement Document for the Project, including:

1. Information and Instructions of Bidders
2. Standard Construction Agreement and General Conditions
3. Special Conditions
4. Standard Specifications & Special Provisions (Water Pollution and Erosion Control)

B. The latest revisions of the following documents shall be incorporated as reference.

1. Caltrans Standard Specifications (Standard Specifications, Current Edition)
2. Standard Specifications for Public Works Construction (SSPWC, Current Edition)
3. City of San Diego Whitebook (City Standard Specifications, Supplement to SSPWC Current Edition)
4. San Diego Regional Standard Drawings (SDRSD), Current Edition
5. AREMA Manual for Railway Engineering (AREMA Manual), Current Edition
6. AREMA Communications & Signals Manual (C&S Manual), Current Edition
7. AREMA Portfolio of Trackwork Plans, Current Edition
8. Caltrans' California Trenching and Shoring Manual, Current Edition
9. Precast/Prestressed Concrete Institute (PCI) Design Handbook, Current Edition
10. LOSSAN Corridor Engineering Standard Drawings
11. California Public Utilities Commission (CPUC) General Order 164-E

C. Where the SSPWC is referenced, the Contractor shall be responsible for the inclusion of the City Standard Specifications (Whitebook) along with that reference.

1.02 SUMMARY OF WORK

A. A high-level summary of work is provided here. Refer to the technical specifications for additional details.

B. Prequalification

1. This Project required the prequalification of all Contractors and Subcontractors that will perform work in the specialized areas of Railroad Signaling, Overhead Catenary System (OCS), and/or Special Trackwork for the Construction of Orange

Line Train Control Improvements – Phase 1. All Contractors performing Work in these areas shall be on the following lists;

a. Approved Prime Bidders List – Construction of the Orange Line Train Control Improvements – Phase 1.

b. Approved Railroad Signaling Specialty Contractors List – Construction of the Orange Line Train Control Improvements – Phase 1.

c. Approved Overhead Catenary System Specialty Contractors List – Construction of the Orange Line Train Control Improvements – Phase 1

d. Approved Special Trackwork Specialty Contractors List – Construction of the Orange Line Train Control Improvements – Phase 1.

2. As part of prequalification, bidders were required to submit proposed candidates for the following key personnel:

a. Project Manager

b. Construction Superintendent

c. Safety Manager

d. Quality Manager

e. Signal Engineer

f. Superintendent of Overhead Catenary Systems

g. Superintendent of Track

3. Within 14 calendar days of NTP, Contractors shall be required to formally submit key personnel meeting the experience requirements defined in the prequalification document, to MTS for approval. MTS review of the proposed candidate for each position may include an interview by a panel chosen by MTS. Candidates not deemed qualified shall be replaced by the Contractor with alternate candidates, until an acceptable candidate is chosen.

C. The Work to be done includes furnishing all necessary labor, equipment, and materials for:

1. Civil Improvements

a. Modification of 54th Street Pedestrian Crossing per CPUC GO88-B application approval.

b. Modification of 66th Street Pedestrian Crossing per CPUC GO88-B application approval.

c. Modification of 68th Street Pedestrian Crossing per CPUC GO88-B application approval.

2. Special Trackwork

a. Installation of three (3) MTS furnished #11 single crossovers.

b. Conversion of two (2) existing manual #10 crossovers to MTS furnished power operated turnouts. (Existing E304WL and E315WL; Future R2 and R10)

Existing manually operated turnouts are equipped with Switch Circuit Controllers (SWCC) and Electric Switch Locks. The Owner provided Track Switch Conversion Packages consist of new maintenance length stock rails, switch points, bolted heel-block assemblies, pre-plated ties #0 through #12, chairs & anchors and #1 (w/basket), #2 & #3 insulated gauge rods & transit clips. Crossover shall be removed from service, existing switch lock and SWCC retired, switch points, bolted heel-blocks and stock rails removed and #0 through #12 ties & plates removed. Remove ballast 6"-9” below the tie, compact sub-ballast/hard pack, install geotextile fabric and new ballast. Install new ties/plates, stock rails, switch points, chairs & anchors and gauge rods.

25 each, 9' #1 treated hardwood ties are being provided for each turnout to "spot" replace ties deemed necessary by the Engineer.

Special note: *Contractor is required to provide and install 25 each, 9’ #1 treated hardwood ties for each of the two switches at 315A & 315B (Future R10) (50 total). These ties were not ordered by the Owner.*

c. Replacement of six (6) M23 power switch machines and associated special track work with MTS provided material. (Existing E6, E8, and E10; Future R6, R14, and R18)

Existing power operated #10 turnouts at E6 interlocking are equipped with M-23-A switch machines mounted on nonstandard head-block ties and switch plates. The Owner provided Track Switch Upgrade Packages for #10 turnouts consist of new ties and plates #0 through #12, tie/plate, chairs and anchors, #1 (w/basket), #2 & #3 insulated gauge rods & transit clips. Existing power switch machines and associated track materials shall be retired and replaced with new M-23-A machines and associated track materials. Existing #0 through #12 ties and plates shall be removed and replaced with new ties, plates and ballast.

Existing power operated #20 turnouts at E8 and E10 interlockings are equipped with M-23-A switch machines mounted on nonstandard head-block ties and switch plates and push/pull helper rod assemblies. The Owner provided Track Switch Upgrade Packages for #20 turnouts consist of new ties and plates #0 through #13, #1 (w/ basket), #5 (w/ basket), #2, through #4 insulated gauge rod & transit clips. New 10’ #1 treated hardwood ties and plates #3 through #13. Existing power switch machines and associated track materials shall be retired and replaced with new M-23-A machines and associated track materials. Existing #0 through #13 ties and plates shall be removed and replaced with new ties, plates, and ballast.

25 each, 9' #1 treated hardwood ties are being provided for each turnout to "spot" replace ties deemed necessary by the Engineer.

d. Installation of MTS furnished shop bonded insulated joint plugs on tangent and curved track.

e. Removal of existing insulated joints and replacement with rail plugs.

3. Overhead Catenary System (OCS)

a. OCS installation to support three (3) new #11 single crossovers.

b. Modifications to Sectionalization.

4. Railroad Signal and Communications

a. Interlocking and Automatic Block System (ABS) replacement of existing relay logic locations, install and commission vital microprocessor control systems to support bidirectional running.

b. Crossing warning device, train detection system and crossing warning system replacement.

c. CPUC GO-88B improvements at three (3) pedestrian crossings.

d. Installation of twenty-two (22) Owner Furnished train control/crossing instrument enclosures along the right-of-way.

e. Installation of underground infrastructure, vaults and pull boxes.

f. Installation of impedance bonds, associated wiring, and track connections.

g. Modification of existing overhead aerial or underground fiber optic cable to support vital and non-vital applications.

h. Establishment of new or conversion of existing commercial power meter services.

5. Construction Phasing and Handoff Activities

a. Inspection, receipt, handling, transport, storage, installation, testing and commissioning of Owner Furnished Materials. This material is listed in Part 2 herein and is referenced in the Technical Specifications.

b. Participation in Factory Acceptance Testing (FAT) of Owner Furnished Signal Instrument Enclosures for release and delivery of enclosures to Contractor for field installation. Receipt, handling, storage, field installation, testing and commissioning of Signal Instrument Enclosures.

c. Participation in FAT to observe demonstration and testing of Owner Furnished Vital Application Software for release and transmittal of software to Contractor for each Segment signal cutover.

d. Coordination with MTS to finalize Temporary Interface Case #1 and #2 configurations to support phasing of the project in four (4) successive Segments. The division of the work for the Temporary Interface Cases are as follows:

1) During construction, MTS will provide the Contractor with Temporary Interface Case (TIC) Wiring Diagrams that are compatible with the MTS Owner Furnished Software.

2) Contractor shall wire the TICs and connect field wiring.

a) TICs #1 and #2 will not be prewired for their first use. The Contractor shall perform initial wiring and all successive wiring modifications of these cases.

b) Contractor shall provide wire, tags, connectors and consumable materials.

3) Contractor shall install, test and commission the TICs.

a) TICs shall be installed on foundations.

4) Contractor shall remove, salvage and rewire TICs for the next location designated in the construction phasing plan.

a) TIC temporary foundations shall be removed when they are relocated.

5) At the end of this Phase 1 project, temporary Interface Case #2 will remain in service until the Phase 2 project is completed (by Others). Final turnover of temporary Interface Case #1 to MTS shall be delivered with the last wiring and configuration used, with all equipment installed.

e. Construction and cutover of the project in four (4) successive Construction Segments as defined herein.

6. System Signage

a. The following new signage shall be furnished and installed by the Contractor in coordination with and approval of MTS:

1) Begin ABS and End of Block Signs as shown in the Signal Contract Drawings near 32nd and Commercial Station/R311RC and detailed in Drawing GEN_23A.

2) Approach Interlocking Signs (4 total signs per Interlocking as detailed in Drawing GEN_23A) shall be added and/or replaced at the following Interlockings:

a) R2

b) R6

c) R10

d) R12

e) R14

f) R18

b. The following existing signage shall be removed by the Contractor in coordination with and approval of MTS.

1) Near 65th Street, the existing 40 MPH speed sign on normal running Westbound OCS pole at approximately 322+90.

2) Near 68th Street, the existing temporary “R” and “40” MPH speed signs on normal running Westbound OCS pole at approximately 345+40.

c. New sign placements shall be proposed by the Contractor and approved by MTS Operations staff prior to installing any signage in the field.

D. CPUC General Order 164-E and Construction Segments

1. 49 CFR 674 requires a Safety Certification Program to be in place for this Project with the CPUC designated as State oversight. The Orange Line Phase 1 Project has been classified as a Major Project due to its replacement of the existing train control system with more modern technology.

2. A Safety Certification Plan has been submitted to the CPUC which defines the following Segments for construction, testing, and the requirement to receive safety certification for each prior to beginning revenue service. Each Segment transition occurs at an Interlocking location, where an interface can be arranged to accommodate both the existing and new train control technology.

a. Segment 1

1) R311RC – Begin ABS

2) R358RC – Francis Street

3) R396RC – Horton Street

4) R442RC – R2 Interlocking

5) R467RC – R2 Interlocking/ 43rd Street

6) Temporary Interface Case #1

b. Segment 2

1) R480RC – Cut Section

2) R507RC – Intermediate Signal

3) R537RC – Cut Section

4) R552RC – R6 Interlocking

5) R572RC – Existing case modifications (Euclid Avenue)

6) R574RC – R10 Interlocking

7) Temporary Interface Case #2

8) Removal of Temporary Interface Case #1, Segment 1

c. Segment 3

1) R602RC – 54th Street Pedestrian Crossing

2) R617RC – Cut Section

3) R650RC – Merlin Drive

4) R671RC – 60th Street

5) R697RC – R12 Interlocking

6) R719RC – R14 Interlocking

7) Temporary Interface Case #1

8) Removal of Temporary Interface Case #2, Segment 2

d. Segment 4

1) R729RC – 65th Street

2) R738RC – 66th Pedestrian Crossing

3) R769RC – 68th Pedestrian Crossing

4) R782RC – 69th Street

5) R820RC – Cut Section

6) R847RC – R18 Interlocking

7) Temporary Interface Case #2 (Final Condition, Phase 1)

8) Removal of Temporary Interface Case #1, Segment 3

9) Minor modifications to existing cases

3. The Contractor shall support MTS to complete, document and verify Safety Certification Tasks that shall require timely delivery of Contractor led items, including but not limited to integration testing and associated test documentation, dynamic testing, operations/maintenance manual submission, and asbuilt documentation.

4. Each Segment shall receive separate certification and cannot be placed into service without CPUC approval.

1.03 ORDER OF WORK

A. Order of work shall be in accordance with Article 5.7, Construction Sequence, of the Special Conditions and these Technical Specifications. In general, the work shall be constructed in the following order as defined in Article 1.02, Summary of Work, of these Technical Specifications:

1. Segment 1

2. Segment 2

3. Segment 3

4. Segment 4

B. Non-conflicting work in subsequent stages may proceed concurrently with work in preceding stages, provided satisfactory progress is maintained in the preceding stages of construction.

C. Pre-Construction Requirements

1. Water Pollution Control Plan (WPCP)

a. A WPCP shall be developed by the Contractor in accordance with the Standard Specifications & Special Provisions (Water Pollution and Erosion Control) and submitted to MTS for approval.

2. Drug and Alcohol Compliance

a. The Contractor, its employees, subcontractors, and their employees shall comply 49 CFR, Part 655, Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations and 49 CFR Part 40, Procedures for Transportation Workplace Drug and Alcohol Testing Programs.

b. Compliant Drug and Alcohol Plans shall be submitted by the Contractor and each subcontractor for MTS review.

3. Roadway Worker Protection Training

a. Refer to Article 5.10, Roadway Workers Protection, of the Special Conditions for training requirements. Prior to the start of construction and at the Contractor's expense, all personnel entering the MTS Right-Of-Way (ROW), including subcontractors and third parties shall complete MTS Roadway Worker Protection (RWP) training course. Visit the website for information: https://www.sdmts.com/business-center-permits/safety-training. Annual renewals are required for Roadway Worker Protection Safety training should duration of construction exceed the one-year expiration date of any worker continuing to work within the railroad right-of-way. Any new worker, including subcontractors, arriving after start of work and expected to enter the railroad right-of-way shall complete training.

4. Flagging

a. Work performed within 15-feet of the outside rail of a track will require appropriate notification and flagging. All light rail transit flagging shall be provided in accordance with Article 5.11, Flagging, of the Special Conditions. If the Contractor changes the work plans, they shall notify the Engineer and MTS Flagging Coordinator not less than 24 hours prior to the pre-scheduled operation. If the Contractor neglects to notify the MTS Flagging Coordinator within this time frame, all costs for railroad flagmen shall be charged to the Contractor. The Contractor will not be assessed railroad flagging expenses when planned work is not performed due to conditions beyond their control.

5. Site Assessment by Segment

a. Prior to beginning Construction in any Segment, Contractor shall assess site with Engineer during the on-site meetings described under Article 3.02, Site Conditions and Access of these Technical Specifications.

6. Quality Control Plan (QCP)

   a. No later than 10 calendar days after Notice to Proceed, the Contractor shall submit a QCP for review and approval by MTS. The QCP shall identify personnel, procedures, control, instructions, tests, testing frequencies, records, and forms to be used. Construction will be permitted to begin only after acceptance of the QCP. Refer to Article 1.10, Quality Control Plan, herein for requirements.

7. Safety Plan

   a. No later than 10 calendar days after Notice to Proceed, the Contractor shall submit a Safety Plan for review and approval by MTS. Refer to Article 1.11, Safety Plan, herein for requirements.

D. Schedule and Work Plan Requirements

1. This project requires Work over an extended geographic area within the MTS Orange Line Right of Way. It is essential that the Progress Schedule remain updated and be integrated with specific Work Plan submittals identifying locations and Segments as defined in the Contract Documents and Article 1.02, Summary of Work in these Technical Specifications.

2. Refer to Article 1.07, Progress Schedule, in these Technical Specifications for schedule requirements.

3. Refer to Article 1.08, Work Plans, in these Technical Specifications for Work Plan requirements.

E. Work Time Restrictions During Construction and Penalties for Trolley Service Disruption

1. At the end of each MTS approved work period, all railroad infrastructure shall be placed back into service without delaying normal trolley operations. Delay to trolley operations due to railroad infrastructure not being ready for service are subject to Liquidated Damages as described in Article 3.33, Time for Completion and Liquidated Damages, of the General Conditions and Article 5.1, Liquidated Damages, of the Special Conditions.

   a. Liquidated Damage amounts specific to trolley service disruption shall be as follows:

      1) Weekday interruption, $2100 for each increment of delay at 30-minute increments, or any part thereof.

      2) Weekend interruption, $1200 for each increment of delay at 30-minute increments, or any part thereof.

2. All trackwork, excavation between main tracks, Overhead Catenary System (OCS) wirework, aerial fiber installation/modification, and signal related trackwork shall be allowed only during non-revenue periods and weekend Absolute Work Windows (AWW)'s.

3. All Work that fouls or has the potential to foul both tracks shall occur outside of revenue service (during non-revenue service). Weekday non-revenue service on the Westbound and Eastbound tracks are generally as described below:

Station	East Track Clear	Approx. Window in hours(h), minutes(m)	West Track Clear	Approx. Window in hours(h), minutes(m)	Both Tracks Clear	Approx. Window in hours(h), minutes(m)
32nd & Commercial	12:01AM – 4:02AM	4h	1:13AM – 5:06AM	3h50m	1:13AM – 4:00AM	2h45m
47th	12:07AM – 4:04AM	4h	1:10AM – 5:00AM	3h50m	1:10AM – 4:04AM	2h55m
Euclid	12:09AM – 4:06AM	4h	1:08AM – 4:58AM	3h50m	1:08AM – 4:06AM	3h
Encanto/62nd	12:12AM – 4:09AM	4h	1:06AM – 4:55AM	3h50m	1:06AM – 4:09AM	3h
Massachusetts	12:15AM – 4:12AM	4h	1:02AM – 4:52AM	3h50m	1:03AM – 4:12AM	3h10m

4. Work that fouls or has the potential to foul only one track may be performed during single-track operations (where available with the project limits) or during non-revenue service.

   a. Within the project limits, the only section of track that the Contractor may request single track operations to work exclusively on is the westbound track between E6LA and E8RB, while trains operate exclusively on the eastbound track. E6 and E8 interlocking shall be in service as a condition to grant single track operations. Multiple work crews are allowed, but work crews are not permitted to foul the in-service track during single-track operations, as restrictions will not be approved on the in-service track. On-track equipment cannot be used during single track operations.

   b. Single-track operations may be requested only during revenue service periods of operation with 30-minute headways. Single-track operations will not be approved during revenue service periods of operation with 15-minute headways. Refer to MTS' existing Orange Line Schedule (MTS website).

   c. Existing Orange Line 30-minute headways go into effect at the approximate times:

      1) Massachusetts Station – 8:37PM

      2) Encanto/62ND Station – 8:40PM

3) Euclid Station – 8:43PM

4) 47TH Station - 8:45PM

5) 32nd & Commercial Station – 8:49PM

5. San Diego and Imperial Valley (SD&IV) freight movement typically occurs Sunday night, but movement can occur any night of the week. Contractor shall recognize that Work performed shall periodically be interrupted by freight movement.

   a. Typically, freight makes a round trip one night per week. If unable to make return trip within the window, the return trip occurs the following night.

6. During AWW track outages, the OCS shall be powered down beginning 1:45 AM Saturday until 4:00 AM on Monday. All other OCS outages may occur from 1:45 AM to 4:00 AM.

   a. For specific locations, MTS deenergize/reenergize procedures will be complete within 30 minutes after/before the “Both Tracks Clear” time listed within the table in Part 1.03 E3. The Contractor can occupy the track after the last train but before the power has gone down during an AWW with proper clearance from OCS and opposite track.

7. The Contractor shall conform to additional requirements specified in Article 3.19, Maintaining Rail Traffic, of these Technical Specifications.

F. Weekend Absolute Work Windows (AWWs)

1. The Contract Documents outline potential construction phasing utilizing the 11 AWW’s for bidding purposes. Contractor’s schedule and work plans shall propose phasing to complete construction with no more than 11 AWW.

   a. Incentive Payment

      1) Should the Contractor implement a construction approach that reduces the number AWWs while maintaining the schedule milestones, MTS shall issue via Change Order an incentive payment of $50,000 for each eliminated AWW at the time of Substantial Completion.

2. Weekend AWW’s shall be requested a minimum of thirty (30) calendar days in advance of the work requiring the AWW’s. The request shall include the Contractor’s work plan clearly demonstrating, including but not limited to, a detailed schedule, plans showing the work, staging areas, number of personnel and each person’s duties, proof of roadway worker safety training for each person for MTS, plans to protect-in-place existing infrastructure not affected by the Contract Documents, third-party suppliers that may be entering the right-of-way, approval of all related submittals, traffic control plans approved by the City of San Diego, equipment types, and contingency plans to ensure restoration of normal trolley operations at the end of the AWW. The advance notice is no guarantee that a weekend AWW will be granted on the dates requested. If the Contractor cancels an AWW request, MTS shall be notified a minimum of five (5) calendar days prior to the scheduled AWW.

3. The following AWW weekend timeframes have been proposed on a preliminary basis to MTS Operations Staff and found to be acceptable for this Work. NTP + Calendar days are provided to the Contractor as potential timeframes for each AWW to demonstrate a path to complete the work within the Substantial Completion and Contract Completion deadlines defined in Part 1.05. The Contractor shall be responsible to formally propose each AWW weekend with complete work plan documentation to gain MTS formal approval, with or without deviations from what is described herein. The Contractor's delivery of the project shall be closely tracked and monitored through the Project Schedule in Part 1.07. For bidding purposes, the 11 AWW to support construction phasing are as follows:

   a. AWW 1

      1) Timeframe

         a) NTP + 183 calendar days

      2) Orange Line Bus Bridge Limits

         a) Begin Bridge: 12th & Imperial Station

         b) End Bridge: Euclid Station

      3) Major Activities

         a) Installation of new R2 #11 crossover

         b) Installation of new R2 power switch machines and switch point protection

   b. AWW 2

      1) Timeframe

         a) NTP + 213 calendar days

      2) Orange Line Bus Bridge Limits

         a) Begin Bridge: 12th & Imperial Station

         b) End Bridge: Euclid Station

      3) Major Activities

         a) Conversion of hand throw switch machines with electric locks to power switch machines, existing E304 emergency crossover

         b) Installation of switch point protection

         c) Installation of OCS poles at R2

   c. AWW 3

      1) Timeframe

         a) NTP + 243 calendar days

      2) Orange Line Bus Bridge Limits

         a) Begin Bridge: 12th & Imperial Station

         b) End Bridge: Massachusetts Station

3) Major Activities

a) Installation/Replacement of double crossover OCS wire at R2

b) Replacement of existing switch machines at E6/R6 Interlocking

c) Replacement of head block ties at E6/R6 Interlocking

d) Conversion of hand throw switch machines with electric locks to power switch machines, E315 crossover/R10 Interlocking

e) Installation of new switch points and stock rail, E315 crossover/R10

f) Demolition/Construction of civil improvements within track area at 54th Pedestrian Crossing, alerting public to period of closure, between AWW 3 through AWW 9.

d. AWW 4

1) Timeframe

a) NTP + 274 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: 12th & Imperial Station

b) End Bridge: Euclid Station

3) Major Activities

a) Signal and Communications Segment 1 cutover

b) Relocation of Begin ABS to 32nd & Commercial Station

c) R2 Interlocking placed in operation

d) Upgraded crossings at Francis, Horton and 43rd Street

e) Bidirectional operation between 32nd & Commercial Station and 43rd Street

f) Interface Case #1 bridges controls between R467RC ElectroLogIXS and E481RC

e. AWW 5

1) Timeframe

a) NTP + 335 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Massachusetts Station

3) Major Activities

a) Installation of new R12 #11 crossover

b) Installation of new R12 power switch machines and switch point protection

f. AWW 6

1) Timeframe

a) NTP + 365 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: 12th & Imperial Station

b) End Bridge: Massachusetts Station

3) Major Activities

a) Signal and Communications Segment 2 cutover

b) Removal of Interface Case #1

c) R6 Interlocking placed in operation

d) R10 Interlocking placed in operation

e) Bidirectional operation between 32nd & Commercial Station and Euclid Station

f) Interface Case #2 bridges controls between R574RC ElectroLogIXS and E604RC

g. AWW 7

1) Timeframe

a) NTP + 395 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Lemon Grove Station

3) Major Activities

a) Installation of crossover OCS wire at R12

b) Remove switch machines, cut head block ties and long helper assembly ties and install temporary point protection at E8/R14 Interlocking

c) Bond Insulated Joints at E8RA & E8RB.

d) Removal of E716RC/A cases to allow room for new signal enclosure installation

e) Interface Case #1 supports interim crossing functions and switch point protection

f) Demolition/Construction of civil improvements within track areas at 66th Pedestrian Crossing, alerting public to period of closure, AWW 7 through AWW 9.

g) Early conduit installation at R18.

h. AWW 8

1) Timeframe

a) NTP + 426 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Lemon Grove Station

3) Major Activities

a) Installation of new R18 #11 crossover

b) Installation of new R18 power switch machines and switch point protection

c) Upgrade power switch machines, switch layouts and rotary help rod assemblies on existing E10 crossover

d) Installation of new headblock ties, existing E10 crossover

i. AWW 9

1) Timeframe

a) NTP + 456 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Lemon Grove Station

3) Major Activities

a) Installation of crossover OCS wire at R18

b) Place 66th Pedestrian crossing into service and reopen for public use

c) Demolition/Construction of civil improvements within track areas at 68th Pedestrian Crossing, alerting public to period of closure, AWW 9 through AWW 11.

j. AWW 10

1) Timeframe

a) NTP + 487 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Lemon Grove

3) Major Activities

a) Signal and Communications Segment 3 cutover

b) Removal of Interface Case #2

c) R12 Interlocking placed in operation

d) R14 Interlocking placed in operation

e) Place 54th Pedestrian crossing into service and reopen for public use

f) Upgraded crossings at Merlin, 60th and 62nd streets

g) Bidirectional operation between 32nd & Commercial Station and Encanto/62nd Station

h) Interface Case #1 bridges controls between R719RC ElectroLogIXS and E730RC

k. AWW 11

1) Timeframe

a) NTP + 548 calendar days

2) Orange Line Bus Bridge Limits

a) Begin Bridge: Euclid Station

b) End Bridge: Lemon Grove Station

3) Major Activities

a) Signal and Communications Segment 4 cutover

b) Removal of Interface Case #1

c) R18 Interlocking placed in operation

d) Place 68th Pedestrian crossing into service and reopen for public use

e) Upgraded crossings at 65th and 69th streets

f) Bidirectional operation between 32nd & Commercial Station and Massachusetts Station

g) Interface Case #2 bridges controls between R847RC ElectroLogIXS and E884RC

4. The following weekends will not be available for weekend AWW's: Easter, Memorial Day, July 4th, Labor Day, Thanksgiving, Christmas, and New Year's. The Contractor shall also take into consideration that Contractor AWW requests during other events including, but not limited to, ComicCon, Rock N Roll Marathon, Padre Games, and other major events that impact MTS' rail operations may not be granted. The Contractor is advised to check the City of San Diego and San Diego Convention Center websites along with MTS' website for downtown special events that may impact their ability to get an approved AWW or street closure.

a. These weekends are also not available for single tracking.

b. AWWs proposed during Padres home games and ComicCon will not be approved.

c. Work after non-revenue service is acceptable during these weekends, but Contractor shall note that extended service is provided on New Year's Eve and Petco park events when the Padres are out of town.

G. During construction, the Contractor shall provide and install suitable safeguards to protect the underground facilities, including but not limited to, utilities, structures, and system such as storm drains. Safeguards shall conform to Article 3.4, Preservation of Property, of these Technical Specifications. The location, type, size, use, and condition of all underground facilities is unknown. It shall be the Contractor's responsibility to identify and protect all these facilities prior to the work or portion thereof.

H. Application of Best Management Practices (BMPs) shall be required throughout the duration of this project. Attention is directed to Standard Specifications and Special Provisions for Water Pollution and Erosion Control.

1.04 CONTRACTOR FURNISHED WAREHOUSE

A. All material shall be stored in accordance with Article 3.11, Material, of the General Conditions.

B. There is one laydown yard area within the project limits on the MTS right of way that is suitable for the Contractor's use during the project: The upper parking lot at the Massachusetts Avenue Trolley station. The Contractor shall be responsible for security and shall comply with local noise ordinance. The Contractor shall also note that this area will also be where the Owner Furnished Special Trackwork will be stored.

1. The upper parking lot at Massachusetts Avenue Station will be available for the Contractor's use at Notice to Proceed. The Contractor shall assume coordination with MTS will be required to divide the space to also support storage of the Owner Furnished Special Trackwork as received.

2. The upper parking lot at Massachusetts Avenue Station shall be returned to MTS no later than the Project's Substantial Completion date.

C. The Contractor shall lease a warehouse with laydown yard space for the following minimum purposes:

1. Storage of Contractor furnished material and equipment for the project.

2. Receiving and storage of all Segments of Owner Furnished Signal Instrument Enclosures simultaneously.

3. Receiving and storage of all other Owner Furnished Materials.

D. The warehouse shall be located within a twenty-five mile radius of 1255 Imperial Ave; San Diego, CA 92101.

E. If the Contractor does not make the warehouse available at least 30 days after Notice to Proceed, the proposed warehouse availability date shall be shown in the project schedule to demonstrate how all Owner Furnished Material will be supported and cause no delay to the project.

1.05 CONTRACT COMPLETION AND SUBSTANTIAL COMPLETION

A. Contract duration shall be defined as described in Article 3.33, Time for Completion and Liquidated Damages, of the General Conditions.

B. Substantial Completion of all work shall be achieved by NTP + 578 calendar days. The Work covered by Substantial Completion is inclusive of all Work described in the 11 Absolute Work Windows (AWWs) outlined herein.

C. Liquidated damages shall be the amount shown in Article 5.1, Liquidated Damages, of the Special Conditions.

D. Contract close-out shall be completed within six (6) months of Substantial Completion.

E. The Contractor shall complete all Work required by the Contract Documents within **758 calendar days** from the commencement date stated in the Notice to Proceed. This period shall include the time required for completion of the work and all closeout activities.

1.06 SUBMITTAL PROCEDURES

A. All submittals shall conform to the requirements specified herein.

B. Cloud-based Construction Management Software Platform

1. Contractor shall furnish cloud-based Construction Management Software Platform, Procore, or approved equivalent, for management of submittals and project document storage over the life cycle of the Project.

    a. Contractor shall furnish 25 licenses for MTS or MTS representatives use, in addition to the licenses necessary for the Contractor's staff.

2. Submittals shall be provided as PDF electronic files and transmitted through the Construction Management Software Platform. MTS will return a response through the same Platform.

3. At the end of the project and prior to final closeout, the Contractor shall provide a complete electronic backup of all project documents contained within the cloud-based Construction Management Software Platform and submit to MTS.

C. MTS reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

D. Any Work performed without an approved submittal will be done at the Contractor's own risk.

E. Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on the first full working day after MTS receives the submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 21 calendar days for review of each original submittal.
2. Resubmittal Review: Allow 7 calendar days for review of each resubmittal.
3. Submittals received after 2 PM Pacific Standard Time will not be processed until the following working day which will be recorded as the receipt of submittal date.

F. Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using transmittal form. MTS will return, without review, any submittals received from sources other than the Contractor.

1. Transmittal Form: Provide the following information on the transmittal form:

   a. Project name

   b. Date

   c. Source (From:)

   d. Names of Subcontractor, manufacturer, and supplier

   e. Name of Submittal

   f. Submittal purpose and description

   g. Specification Section number and title, reference to required submittal part

   h. Drawing number and detail references, as appropriate. Absence of drawing number will be cause for rejection of submittal.

   i. Transmittal number, unique and numbered consecutively

   j. Submittal and transmittal distribution record

   k. Remarks

   l. Signature of Contractor, confirming that the submittal has been reviewed internally for completeness prior to submission to MTS.

2. On an attached separate sheet, prepared on the Contractor's letterhead, record as necessary relevant information, requests for data, revisions other than those requested by MTS on previous submittals, and deviations from requirements in the Contract Documents.

3. Provide an action sheet with identified areas to permanently record the Contractor's submittal identification, the preparer, and actions taken by MTS.

   a. The identification information shall include:

      1) Project name

      2) Submittal Number

      3) Specification Section title and number

      4) Name of submittal preparer

      5) Date submitted

   b. Upon receipt, MTS will note the following information:

      1) Date received

      2) Name of the MTS reviewer

      3) Date reviewed and returned

      4) Action Designation

a) Submittals reviewed by MTS and returned to the Contractor will be marked with one of the following designations:

i) Approved

ii) Approved as Noted

iii) Revise and Resubmit

iv) Rejected

v) No Action Taken

4. Assemble the complete submittal package into a single file. Name the file with its submittal number or another unique identifier, including revision identifier. The file name shall use a project identifier and the Specification Section number, followed by a decimal point and a sequential number for the item, and another decimal point and zero for the initial submittal (e.g., OLIPC1-344201.001.0). Resubmittals shall increment to represent revision 1, 2, etc. (e.g., OLIPC1-344201.001.1).

5. MTS will review each submittal, make marks to indicate corrections or modifications required, and return it. MTS will complete the action sheet to indicate the action required.

G. Make resubmittals in the same format as the initial submittal.

1. Note the date and content of the previous submittal.

2. Note the date and content of the revision in the label or title block, and clearly indicate the extent of revision on the documents submitted.

3. Resubmit submittals until they are stamped “Approved” or “Approved as Noted” by reviewer.

4. Direct specific attention in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals to revisions other than those requested by MTS on previous submittals.

H. The Contractor is responsible for conformance of all submittals prepared by the Contractor, with all requirements of the Contract Documents.

I. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by MTS’ review of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed MTS in writing of such deviation at the time of the submittal and given written acceptance to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by MTS’ review thereof.

J. Contractor shall review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions.

K. MTS review is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities, or for substantiating instructions for installation which remain the responsibility of the Contractor.

L. Review of a separate item shall not indicate approval of the assembly of which the item is a part.

M. Approval of submittals with deviations shall not relieve the Contractor from responsibility for additional costs of changes required to accommodate such deviations. Deviations included in submittals without prior approval are excepted from review of submittals, whether noted or not on returned copy.

N. Notations by MTS which increase Contract Cost or Contract Time shall be brought to MTS' attention, in writing as a Request for Change, before proceeding with Work.

O. When professional certification of performance criteria of materials, systems, or equipment is required by the Contract Documents, MTS shall be entitled to rely on the accuracy and completeness of such calculations and certifications.

P. Incomplete submittals are not acceptable; they will be considered nonresponsive and will be returned without review.

Q. The Contractor shall not proceed with procurement, manufacture or fabrication of items submitted for review, until such submittals have been designated by MTS as "Approved" or "Approved as Noted." Until submittal items receive such designation by MTS, any costs associated with procurement for these items shall be at the Contractor's risk.

1.07 PROJECT SCHEDULE

A. The Contractor shall submit to the Engineer an initial project schedule conforming to Article 3.8, Schedule, of the General Conditions and the additional requirement defined herein.

B. The Engineer may adjust contract working days for ordered changes that affect the scheduled completion date, in conformance with the provisions in Article 3.35 Changes and Extra Work Payment, of the General Conditions.

C. The Contractor shall submit to the Engineer in an electronic format critical path method (CPM) progress schedules in conformance with these General Requirements.

1. Definitions

a. Activity – A task, event or other project element on a schedule that contributes to completing the project. Activities have a description, start date, finish date, duration and one or more logic ties.

b. Baseline schedule – The initial schedule representing the Contractor's work plan on the first working day of the project.

c. Contract Completion Date – The current extended date for completion of the Contract shown on the weekly statement of working days furnished by the Engineer and in conformance with Article 1.05 herein.

d. Critical Path – The longest continuous chain of activities for the project that has the least amount of total float of all chains. In general, a delay on the critical path will extend the scheduled completion date.

e. Critical Path Method – A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

f. Data Date – The day after the date through which a schedule if current. Everything occurring earlier than the data date is “as-built” and everything on or after the data date is “planned”.

g. Early Completion Time – The difference in time between an early scheduled completion date and the Contract completion date. This can be an exclusive resource for the Contractor.

h. Float – The difference between the earliest and latest allowable start or finish times for an activity.

i. Milestone – Event activity that has zero duration and is typically used to represent the beginning or end of a certain stage of the project.

j. Narrative Report – A document submitted with each schedule that discusses topic related to project progress and scheduling.

k. Near Critical Path – A chain of activities with total float exceeding that of the critical path but having no more than 10 working days of total float.

l. Schedule Completion Date – The planned project finish date shown on the current accepted schedule.

m. MTS Owned Float Activity – The activity documenting time saved on the critical path by actions of MTS. It is the last activity prior to the scheduled completion date. This is for the exclusive use of MTS. The Engineer may use MTS-Owner float to mitigate past, present or future MTS delays by offsetting potential time extensions for contract change orders.

n. Time Impact Analysis – A schedule and narrative report developed specifically to demonstrate what effect a proposed change or delay has on the current scheduled completion date.

o. Total Float – The amount of time that an activity or chain of activities can be delayed before extending the scheduled completion date.

p. Update Schedule – A current schedule developed from the baseline of subsequent schedule through regular monthly review to incorporate as-built progress and any planned changes.

2. General Requirements

a. The Contractor shall submit to the Engineer baseline, monthly update and final update schedules, each consistent in all respects with the time and order of work requirements of the Contract. The project work shall be executed in the sequence indicated on the current accepted schedule.

b. Schedules shall show the order in which the Contractor proposes to carry out the work with logical links between time-scaled work activities, and calculations made using the critical path method to determine the controlling operation or operations. The Contractor is responsible for assuring that all activity sequences are logical and that each schedule shows a coordinated plan for complete performance of the Work.

c. The Contractor shall produce schedules using Primavera 6.0. The Contractor shall furnish network diagrams, narrative reports, tabular reports, and schedule data as parts of each schedule submittal.

d. The schedule shall include the following project detail:

1) Project characteristics or interfaces including those outside entities that could effect time of completion.

a) Required delivery of Owner Furnished Materials

b) CPUC Safety Certification Approval for Operation

2) Project start date, scheduled completion date, and other milestones

a) Mobilization

b) Construction Segments (begin and end dates)

c) Absolute Work Windows

d) Substantial Completion

3) Work performed by the Contractor, subcontractors and suppliers broken down by Segment.

4) Submittal development, delivery, review, and approval, include those from the Contractor, subcontractors and suppliers.

5) Procurement, delivery, installation and testing of materials, plants, and equipment.

6) Testing and settlement periods

7) Utility notification and relocation

8) Erection and removal of falsework and shorting.

9) Acquisition of permits

10) MTS Owned float as the predecessor activity to the scheduled completion date.

11) Demobilization, punchlist and close out activities

e. The number of activities shall be sufficient to assure adequate planning of the project, to permit monitoring and evaluation of progress, and to do an analysis of time impacts.

f. Schedule activities shall include the following:

1) A clear and legible description.

2) Start and finish dates

3) A defined duration

4) One minimum predecessor activity and one successor activity, except for project start and finish milestones.

5) Required constraints

6) Codes for responsibility, stage, work shifts, location and contract pay item numbers.

g. The Engineer may adjust contract working days for ordered changes that affect the schedule completion date. The Contractor shall prepare a time impact analysis to determine the effect of the change and shall include the impacts acceptable to the Engineer in the next updated schedule. Changes that do not affect the controlling operation on the critical path will not be considered as the basis for a time adjustment. Changes that do affect the controlling operation on the critical path will be considered by the Engineer in decreasing time or granting an extension of time for completion of the Contract. Time extensions will only be granted if the total float is absorbed and the schedule completion date is delayed one or more working days because of the ordered change.

h. The Engineer's review and acceptance of schedules shall not waive any contract requirements and shall not relieve the Contractor of any obligation or responsibility for submitting complete and accurate information. Schedules that are rejected shall be corrected by the Contractor and resubmitted to the Engineer within 5 working days of notification by the Engineer. Errors or omissions in schedules shall not relieve the Contractor from finishing all work within the time limit specified for completion of the Contract.

3. Schedule submittal

a. PDF of time scaled network diagrams

b. PDF of a supporting narrative report

c. PDF of CPM software generated tabular report

d. All PDF in 11x17 landscape format

e. Include a title block and timeline on each page

f. Show a continuous flow of information from left to right

4. Narrative Report Contents

a. Work completed during the period

b. Identification of unusual conditions or restrictions regarding labor, equipment, or material;

c. Identification of current critical path, changes to critical path and completion date since the last schedule submittal

d. Description of problem/risk areas

e. Current and anticipated delays

1) Cause of delay

2) Impact of delay on other activities, milestones, and completion dates

3) Corrective action and schedule adjustments to correct the delay

f. Pending Items and status

1) Permits

2) Change orders

3) Time adjustments

4) Noncompliance notices

g. Reasons for an early or late scheduled completion date in comparison to the Contract completion date.

D. Tabular reports shall include the following:

1. Data date

2. Activity number and description

3. Predecessor and successor activity numbers and descriptions

4. Activity codes

5. Scheduled, or actual and remaining durations (work days) for each activity

6. Earliest start (calendar) date
7. Earliest finish (calendar) date
8. Actual start (calendar) date
9. Actual finish (calendar) date
10. Latest start (calendar) date
11. Latest finish (calendar) date
12. Free float (work days)
13. Total float (work days)
14. Percentage of activity complete and remaining duration for incomplete activities.
15. Lags
16. Required constraints

E. Schedule submittals will only be complete when all documents and data have been provided as described herein.

F. Schedule Submittal Frequency

1. Pre-Construction conference shall be held with Contractor's scheduler 10 days after NTP. A draft schedule will be presented at this time.
2. Baseline schedule – submit weekly after the Pre-Construction conference until the Engineer approves the baseline schedule.
3. Updated schedule – submit each month beginning one month after the baseline schedule is accepted.
4. Final Update schedule – submit a final asbuilt schedule within 30 days of the completion of the contract with actual start and finish dates.
5. Time Impact Analysis – submit within 15 working days of receiving written request from the Engineer.

G. Time Impact Analysis

1. The Contractor shall submit a written Time Impact Analysis (TIA) to the Engineer with each request for adjustment of contract time, or when the Contractor or Engineer consider that an approved or anticipated change may impact the critical path or contract progress.

2. The TIA shall illustrate the impacts of each change or delay on the current scheduled completion date or internal milestone, as appropriate. The analysis shall use the accepted schedule that has a data date closest to and prior to the event. If the Engineer determines that the accepted schedule used does not appropriately represent the conditions prior to the event, the accepted schedule shall be updated to the day before the event being analyzed. The TIA shall include an impact schedule developed from incorporating the event into the accepted schedule by adding or deleting activities, or by changing durations or logic of existing activities. If the impact schedule show that incorporating the event modifies the critical path and scheduled completion date of the accepted schedule, the difference between schedule completion dates of the two schedules shall be equal to the adjustment of contract time.

1.08 WORK PLANS

A. Work plans shall be submitted for MTS approval prior to beginning the construction related Work. Submit Work Plans in accordance with Article 1.06, Submittal Procedures of these Technical Specifications. Work plans submittals shall be sequenced and tied to the Contractor's Progress Schedule, allowing for MTS review time of 21 calendar days.

B. Work Plans shall include proposed phasing and laydown area requirements for equipment, material, company vehicles, and personnel vehicles. The work plan shall address all work activity including overhead contact wire, special trackwork, civil improvements, railroad signal and communication improvements, and maintaining rail operations.

C. The work plan shall include, but is not limited to, the following:

3. Location and Segment identification
4. A detailed schedule.
5. Written description and Plans showing the work to be performed.
6. Limits of the work to be performed.
7. Work, testing, and commissioning activities to be performed hour by hour.
8. Planned start and finish times.
9. MTS Operations and Maintenance of Way (MOW) specific requests (OCS power down, single track operation, planned slow orders)
10. MTS Flagging support requested.
11. Staging areas.
12. The number of personnel and each person's duties.
13. Proof of roadway work safety training for each person assigned to work.
14. Name and contact information for those responsible for the work being performed.
15. Name and contact information for the person responsible for the Signal Testing and Documentation.
16. Plans to protect-in-place existing infrastructure not affected by the Contract Documents.

17. Third-party suppliers that may be entering the right-of-way.
18. Approval of all related submittals.
19. Alternate methods of crossing warning whenever an existing automatic crossing warning device is deactivated, altered, or modified to accommodate construction work.
20. Traffic control plans approved by the City of San Diego.
21. List of equipment to be used and standby equipment.
22. Excavation plans for work including foundations, retaining wall construction and conduit trenching detailing depth of excavation.
23. Contingency plans to ensure restoration of normal trolley operations at the end of the shift.

1.09 PERMITS

A. Contractor shall obtain traffic control permit(s) for project traffic control during construction including traffic detours. Contractor shall prepare any traffic control plans required by the City of San Diego based on Contractor's construction scheduling and phasing in accordance with Article 3.11, Temporary Traffic Control, of these Technical Specifications.

B.

1.10 QUALITY CONTROL PLAN (QCP)

A. Purpose

1. The Contractor is responsible for Quality Control (QC) throughout the construction of the project. The QC system shall consist of plans, procedures, and organization necessary to produce a product that complies with the Contract requirements. The system shall cover construction and procurement operations, both onsite and offsite, and shall be keyed to the proposed construction sequence.

B. Content of the QCP

1. The QCP shall include the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers and purchasing agents.

   a. The purpose of the QCP as well as the Contractor's company policy statement regarding QC.

   b. A description of the QC organization including a chart showing lines of authority and acknowledgement that the QC staff shall implement the QCP for all aspects of the Work specified. The Quality Manager on site staffing level shall be proposed as part of the plan for MTS review and approval.

   c. The names, qualifications, duties, responsibilities and authorities of each person assigned a QC function.

d. Procurement control procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requirement test, feature of work to be tested, test frequency and person responsible for each test.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests, including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. Contractor's plan identifying QC activities and testing requirements for all definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section.

2. Acceptance of the QCP

a. Acceptance of the QCP by MTS is required prior to the start of construction. Final acceptance is conditional and will be predicated on satisfactory performance during construction. MTS reserves the right to require the Contractor to make changes to the QCP, including the removal or addition of personnel, or increasing the time for the Quality Manager to be on site, as necessary, to obtain the quality specified.

3. Notification of Changes to the QCP

a. After acceptance of the QCP, the Contractor shall notify MTS, in writing, prior to any proposed change. Proposed changes shall be approved by MTS.

4. Inspection and QC Testing

a. The Contractor shall perform inspection and QC testing to verify that control measures are adequate to provide a product which conforms to contract requirements. A list of all tests to be performed shall be furnished to the Engineer prior to any work beginning. The list shall identify the test name, specification paragraph containing the test requirements, and the personnel responsible for each type of test. The Contractor shall notify the Engineer at least 24 hours in advance of testing.

b. Testing includes but is not limited to: qualification tests, factory tests, installation verification tests, construction material tests, demonstration tests, and pre-operation tests. Contractor's QC testing shall be performed and documented by qualified persons other than those responsible for accomplishing the work being inspected.

c. Procedures shall be developed and implemented by the Contactor covering performance inspection and test activities, including personnel qualification, measuring equipment control, and calibration and status control. Deficiencies during testing and inspection shall be noted on the Contractor's Daily Report and shall be corrected prior to acceptance. Logs of testing and inspection shall be kept by the Contractor and are subject to review by MTS.

d. All tests taken, both passing and failing tests, shall be recorded on the Contractor's Daily Report. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. Items of nonconformance shall be identified and work shall not proceed for that feature of work until corrective action have been approved by MTS.

e. MTS may perform quality assurance (QA) testing with the aid of an independent testing laboratory to verify compliance. QA testing results by MTS, or their representative, shall govern and may require retesting for that feature of work at the Contractor's expense.

f. In-process inspection shall be utilized, in addition to receiving inspection, first article inspection, installation inspection, and final inspection, to evaluate project attributes (such as performance, reliability, etc) and to verify that the project is built in accordance with the project requirements.

g. Source inspection shall be utilized for Contractor procured material.

h. Final acceptance of the project provides for a review of all pertinent records and documents impacting quality, and is performed after all required inspections and testing are completed with acceptable results.

i. Records shall be maintained in the Contractor's project files for the various inspections and tests. Records provide evidence that the product has passed inspection and/or test with defined acceptance criteria. Records shall be submitted to MTS at the completion of the project.

1.11 SAFETY PLAN

A. The Contractor shall comply with all Occupational Safety and Health Administration (OSHA) and Cal/OSHA requirements that apply to the Contactor's operations/applicable work activities for the Project. The Safety Plan shall address at a minimum the following work components:

1. Administrative Requirements
    a. Documents on site
    b. On Site Hazard Warnings and Postings
    c. Recordkeeping
    d. Reports and Notifications
    e. Certifications
2. Aerial Devices and Elevating Work Platform
3. Demolition
4. Injury and Illness Prevention Program
5. Electrical
6. Emergency Medical Services
7. Excavation, Trenches and Earthwork
8. Fall Protection
9. Fire Protection and Prevention
10. First Aid
11. Hazard Communication
12. Heat Illness Prevention
13. Heavy Construction Equipment
14. Housekeeping/Site Cleaning
15. Injury and Illness Prevention Program
16. Laser Equipment
17. Lighting
18. Lock-out/Tag-out Procedures
19. Noise
20. Personal Protective Equipment
21. Qualified Personnel

22. Traffic Control

23. Toilets/Washing Facilities/Sanitation

24. Welding, Cutting or Other Hot Work

25. Work Over or Near Water

26. Workplace Violence Prevention

B. Contractor's Safety Program

1. The Contractor's safety program shall define the Contractor's safety practices and procedures. The Safety Manager on site staffing level shall be proposed for MTS review and approval.

2. The Contractor shall conduct weekly safety meetings (15 minutes minimum)

   a. Discuss observed accident trends and causes.

   b. Plan safety into the work activities.

   c. Identify, discuss and take action to correct workers' safety concerns.

   d. Review emergency procedures with employees.

3. Contains a disciplinary program

4. Contains a policy that prohibits rough or boisterous play and activity, gambling, the use of alcohol or drugs, and the possession of weapons on the construction site.

5. Monitors roadway worker safety, including employee adherence to MTS requirements and training that is current (not expired).

C. Emergency procedures

1. Procedures shall be developed for the following categories:

   a. Fire

   b. Employee injury

   c. Property damage and damage to various utilities

   d. Earthquake

   e. Public demonstrations

   f. Bomb threats

g. Hazardous materials encountered

h. Toxic spills

i. Explosions

j. Vehicular accidents

2. Procedures shall include but are not limited to:

a. Identification of the person responsible for handling an emergency.

b. Establishment of teams for handling each type of emergency.

c. Identification of the person responsible for making emergency calls.

d. Posting a list of emergency numbers, along with information to be transmitted.

3. Update emergency procedures as necessary

4. Following an emergency, the Contractor shall:

a. Stop work

b. Evacuate the area as necessary

c. Notify the Engineer as expediently as possible

d. Secure the area as expediently as possible

e. Provide only those authorized representatives of MTS and specific governmental agencies with an account of the nature of the emergency. Questions from media personnel shall be referred to the Engineer.

PART 2 – PRODUCTS

2.01 OWNER FURNISHED SPECIAL TRACKWORK

A. The following special trackwork is owner furnished (manufactured by Progress Rail). Trackwork will be in loose packages. Rail ends will be left blank (without drilling) for field fitting and field welding. Any additional rail and rail components required to complete the Work as shown on the Contract Documents shall be provided by the Contractor.

1. #11 Left-Hand 115 RE Crossover – Quantity 2
2. #11 Right-Hand 115 RE Crossover – Quantity 1
3. #10 RH 115 RE Solid Heel-Block Track Switch Conversion Package (maintenance length stock rails (39’+), switch points (19’ 6”), bolted heel block assemblies, pre-

plated ties #0 through #12 tie/plate, chairs & anchors, #1 with basket, #2 &3 insulated gauge rods & transit clips) – Quantity 2

4. #10 LH 115 RE Solid Heel-Block Track Switch Conversion Package (maintenance length stock rails (39'+), switch points (19' 6"), bolted heel block assemblies, pre-plated ties #0 through #12 tie/plate, chairs & anchors, #1 with basket, #2 &3 insulated gauge rods & transit clips) – Quantity 2
5. #10 RH 115 RE Track Switch Upgrade Package (new ties and plates #0 through #12, tie/plate, chairs & anchors, #1 w/basket, #2, & #3 insulated gauge rod and transit clips) – Quantity 2
6. #20 LH 115 RE Track Switch Upgrade Package (new ties and plates #0 through #13, #1 & #5 w/basket and #2 through #4 insulated gauge rod and transit clips. – Quantity 2
7. #20 RH 115 RE Track Switch Upgrade Package (new ties and plates #0 through #13, chairs & anchors, #1 & #5 w/basket and #2 through #4 insulated gauge rod and transit clips. – Quantity 2
8. 9' #1 Treated Hardwood Ties – Quantity 200
9. 19' – 6" 115 RE Shop Bonded Insulated Joint Plugs – Quantity 30
10. 39' – 0" 115 RE Shop Bonded Insulated Joint Plugs – Quantity 4

B. Any Owner Furnished Special Track Material that is not utilized by the Contractor for the project shall be returned to MTS at their designated location.

C. Special Track Joint Inspection/Required Testing Upon Receipt

1. The Contractor shall coordinate with MTS to arrange a joint visual inspection at the time of material handoff. At time of handoff, both MTS and the Contractor shall complete a visual inspection and take complete photographs of the Track Material. If damage is found, it shall be documented and photographed by the Contractor and submitted to MTS within one calendar day.
    a. The inspection of the Owner Furnished Special Trackwork will occur at the upper parking lot at Massachusetts Station. There will be shared use with the laydown space if Contractor utilizes this area.
    b. The joint inspection of the special trackwork shall be performed on the material in the condition as shipped from the track manufacturer. MTS will not lay out the material. Contractor shall provide any necessary equipment to complete the inspection to their satisfaction as part of the Owner Furnished Track Material Handoff bid item.
2. Even if the joint inspection takes place for all of the material at one time, a separate Track Material Receipt Acknowledgement Form shall be submitted for each Track location of Work.
3. The Contractor shall complete and submit a Track Material Receipt Acknowledgement Form to take responsibility for the material until project closeout or MTS acceptance.
    a. The Track Material Receipt Acknowledgement Form shall include:

1) Segment/Track Location

2) Date/Time of Joint Inspection

3) Names of joint inspectors (Contractor/MTS)

4) Itemized List of all Track Material Inspected

5) Documentation, including photographs, of any/all exceptions and a proposal of how each open item can be remedied by the Contractor. If there are no exceptions taken, this shall be indicated on the form, stating “No exceptions taken”.

6) Signature of Contractor’s Inspector & Contractor’s Superintendent of Track.

b. The Track Material Receipt Acknowledgement Form shall be submitted to MTS no later than 7 calendar days after the joint inspection is completed.

D. Each insulated joint shall be tested with an insulated joint tester, either S&C Distribution Company Model 344 or an equivalent tester approved by the Engineer. Record test results for each insulated on the respective Track Material Receipt Acknowledgement Form.

2.02 OWNER FURNISHED OVERHEAD CATENARY SYSTEM (OCS) MATERIAL

A. The following OCS material is owner furnished. Any additional OCS components and related components required to complete the Work as shown on the Contract Documents shall be provided by the Contractor.

1. Anchor Bolts and Down Guy
   a. Anchor Bolts Type 4 – Quantity 32
   b. Anchor Bolts Type 7 – Quantity 16
   c. Bearing Plates Type 4 – Quantity 8
   d. Bearing Plates Type 7 – Quantity 4
   e. Down Guy Anchor – Quantity 6
2. 2000A Pole Mounted Disconnect Switch – Quantity 9
3. 2 inch Cantilever Pipe / Schedule 40 Seamless – HDG – Quantity 50
4. OCS Poles
   a. Pole Assembly 203-3, 30ft height, ½ gauge – Quantity 4
   b. Pole Assembly 203-2, 30ft height, 3 gauge – Quantity 8
5. OCS Wire and Guy Strand
   a. 350 kcmil Contact Wire Conductor
      1) Reel 1 – 730ft
      2) Reel 2 – 500ft
      3) Reel 3 – 1142ft

b. 500 Messenger Wire Conductor
   1) Reel 1 – 730ft
   2) Reel 2 – 500ft
   3) Reel 3 – 1142ft
c. 1 Conductor 500 kcmil insulated 2kV type RHH/RHW-2 Cable
   1) Reel 1 – 1500ft
   2) Reel 2 – 1500ft
d. 1/2 inch EHS 1x7 Guy Strand
   1) Reel 1 – 1500ft
   2) Reel 2 – 1500ft
e. 500 MCM Soft Drawn Bare Class-H Rope Lay Super Flex
   1) Reel 1 - 1000ft
f. 4/0 Bare Copper Wire 7 Strand Hard Draw (OCS Ground)
   1) Reel 250ft

6. Stainless Steel Wire Rope (SSWR)
   a. 3/16 inch SSWR Type 316 7x19 – Quantity 900ft
   b. ¼ inch SSWR Type 316 7x19 – Quantity 400ft
   c. 3/8 inch SSWR Type 302 - 304 7x19 – Quantity 300ft
   d. ½ inch SSWR Type 302 – 304 6x25 – Quantity 400ft
7. Strandvise
   a. Eye Type Universal Strandvise – Quantity 80
   b. Insulator Type Universal Strandvise – Quantity 80
   c. Eye Type Universal Strandvise – Quantity 20
8. OCS Assemblies
   a. Assembly 201-1 Cantilever Light Push Off – Quantity 8
   b. Assembly 201-5 Cantilever Light Pull Off – Quantity 10
   c. Assembly 201-8 Cantilever Out of Running Pull Off – Quantity 11
   d. Assembly 205-2B Down Guy Anchor – Quantity 6
   e. Assembly 207-1 Balance Weight Anchor – Quantity 2
   f. Assembly 208-1 Fixed Termination Anchor – Quantity 3
   g. Assembly 209-1A Flexible Hanger – Quantity 200
   h. Assembly 209-1B Flexible Hanger – Quantity 90
   i. Assembly 209-4 Wire Cross – Quantity 10
   j. Assembly 211-3 Full Feeding Jumper – Quantity 10
   k. Assembly 212-1 Single Disconnect Switch – Quantity 9

l. Assembly 216 -1 Section Insulator – Quantity 14

m. Assembly 218-1 Head Guy Bracket – Quantity 4

n. Assembly 218-2 Spreader Bracket – Quantity 3

o. Assembly 218-3 Signal Power Support – Quantity 5

B. OCS Material Deployment Plan

1. The Contractor shall submit a spreadsheet for each location indicating how the Owner Furnished OCS material will be used in the project. Indicate quantities of material for each Segment/OCS Location. This submittal shall be used to determine the Itemized list of materials in preparation for joint inspection requirements of Part C.

C. OCS Material Joint Inspection Upon Receipt

1. The Contractor shall coordinate with MTS to arrange a joint visual inspection at the time of material handoff. At time of handoff, both MTS and the Contractor shall complete a visual inspection and take complete photographs of the OCS Material. If damage is found, it shall be documented and photographed by the Contractor and submitted to MTS within one calendar day.

2. Even if the joint inspection takes place for all of the material at one time, a separate OCS Material Receipt Acknowledgement Form shall be submitted for each OCS location of Work.

3. The Contractor shall complete and submit an OCS Material Receipt Acknowledgement Form to take responsibility for the material until project closeout or MTS acceptance.

a. The OCS Material Receipt Acknowledgement Form shall include:

1) Segment/OCS Location

2) Date/Time of Joint Inspection

3) Names of joint inspectors (Contractor/MTS)

4) Itemized List of all OCS Material inspected and received

5) Exceptions noted (if any, shall include documentation, including photographs of any/all exceptions and a proposal of how each open item can be remedied by the Contractor). If there are no exceptions, state on the form “No Exceptions Noted for all Listed Material”.

6) Signature of Contractor’s Inspector & Contractor’s Superintendent of OCS.

b. The OCS Material Receipt Acknowledgement Form shall be submitted to MTS no later than 7 calendar days after the joint inspection is completed.

D. Any Owner Furnished OCS Material that is not utilized by the Contractor for the project shall be returned to MTS at their designated location.

2.03 OWNER FURNISHED SIGNAL EQUIPMENT

A. The following signal equipment is owner furnished. Any additional components required to complete the Work as shown on the Contract Documents shall be provided by the Contractor.

1. Pre-wired Instrument Enclosures – Quantity 22 (additional detail in Article 2.04 herein)
2. Temporary Interface Cases – Quantity 2 (additional detail in Article 2.04 herein)
3. M-23A Right Hand Switch Machines, Part Number N451600535– Quantity 8
4. M-23A Left Hand Switch Machines, Part Number N451600536 – Quantity 8
5. Switch Junction Boxes, Part Number N349656 – Quantity 16
6. Impedance Bonds, Part Number 000-1667-1-0 – Quantity 40

B. Signal Equipment Joint Inspection Upon Receipt (Article 2.03 Part A Items 3-6 herein)

1. The Contractor shall coordinate with MTS to arrange a joint visual inspection at the time of material handoff. At time of handoff, both MTS and the Contractor shall complete a visual inspection and take complete photographs of the Signal Equipment. If damage is found, it shall be documented and photographed by the Contractor and submitted to MTS within one calendar day.
2. Even if the joint inspection takes place for all of the material at one time, a separate Signal Equipment Receipt Acknowledgement Form shall be submitted for each Signal location of Work.
3. The Contractor shall complete and submit Signal Equipment Material Receipt Acknowledgement Form to take responsibility for the material until project closeout or MTS acceptance.
    a. The Signal Equipment Material Receipt Acknowledgement Form shall include:
        1) Segment/Signal Location
        2) Date/Time of Joint Inspection
        3) Names of joint inspectors (Contractor/MTS)
        4) Itemized List of all Signal Equipment inspected and received
        5) Exceptions noted (if any, shall include documentation, including photographs of any/all exceptions and a proposal of how each open item can be remedied by the Contractor). If there are no exceptions, state on the form “No Exceptions Noted for all Listed Material”.
        6) Signature of Contractor’s Inspector & Contractor’s Signal Engineer.

C. The Signal Equipment Material Receipt Acknowledgement Form shall be submitted to MTS no later than 7 calendar days after the joint inspection is completed.

2.04 OWNER FURNISHED SIGNAL INSTRUMENT ENCLOSURES

A. The following signal instrument enclosures are owner furnished. Each Segment's signal instrument enclosures shall be delivered to the Contractor's warehouse no later than (and possibly prior to) the following dates:

1. Segment 1 – 8/25/25
    a. R311RC – 6'x8' signal enclosure
    b. R358RC – 6'x10' signal enclosure
    c. R396RC – 6'x10' signal enclosure
    d. R442RC - 6'x12' signal enclosure
    e. R467RC - 6'x12' signal enclosure
    f. Temporary Interface Case #1 – 2 door case
2. Segment 2 – 11/24/25
    a. R480RC – 6'x8' signal enclosure
    b. R507RC – 6'x8' signal enclosure
    c. R537RC – 6'x8' signal enclosure
    d. R552RC – 6'x12' signal enclosure
    e. R574RC – 6'x12' signal enclosure
    f. Temporary Interface Case #2 – 2 door case
3. Segment 3 – 2/24/26
    a. R602RC - 4 door case
    b. R617RC – 6'x8' signal enclosure
    c. R650RC – 6'x10' signal enclosure
    d. R671RC – 6'x10' signal enclosure
    e. R697RC – 6'x12' signal enclosure
    f. R719RC – 6'x12' signal enclosure
4. Segment 4 – 5/27/26
    a. R729RC – 6'x10' signal enclosure
    b. R738RC – 6'x10' signal enclosure
    c. R769RC – 6'x10' signal enclosure
    d. R782RC – 6'x10' signal enclosure
    e. R820RC – 6'x8' signal enclosure
    f. R847RC – 6'x12' signal enclosure

B. Joint inspection procedures required for handoff are defined in Section 34 42 13.18 Instrument Enclosures.

2.05 OWNER FURNISHED SIGNAL CABLE

A. The following signal cable is Owner Furnished. Any additional components required shall

be provided by the Contractor.

1. The following cable is Owner Furnished for use in Segments 1 and 2. The cable ordered is sufficient for cable installation in accordance with the Site Specific Layout for each Rail Case Location.

2. Should the Contractor propose alternate conduit installation plans within Segments 1 and 2 that require additional cable beyond what is Owner Furnished, the Contractor shall furnish and install this cable at no additional cost to MTS.

3. After completion of cable installation in Segments 1 and 2, the Contractor shall return any remaining Owner Furnished cable to MTS. When possible this cable shall be returned on the original reels.

4. The Owner Furnished Signal Cable for Segments 1 and 2 are as follows:

    a. 3C#6 Solid Direct Burial/Duct Railroad Signal Cable – Quantity 2 reels, 2000 ft each (4000 ft total)

    b. 5C#6 Solid Direct Burial/Duct Railroad Signal Cable – Quantity 7 reels, 2000 ft each (14000 ft total)

    c. 7C#6 Solid Direct Burial/Duct Railroad Signal Cable – Quantity 4 reels, 2000 ft each (8000 ft total)

    d. 7C#14 Solid Direct Burial/Duct Railroad Signal Cable – Quantity 6 reels, 2000 ft each (12000 ft total)

    e. 12C#14 Solid Direct Burial/Duct Railroad Signal Cable – Quantity 3 reels, 2000 ft each (6000 ft total)

B. Joint inspection procedures required for handoff are defined in Section 34 42 16 Train Control Wire and Cable.

PART 3 – EXECUTION

3.01 MOBILIZATION

A. Mobilization shall, as defined in Article 3.34, Payment, of the General Conditions and conform to Section 10104 of the Public Contract Code.

3.02 SITE CONDITIONS AND ACCESS

A. A baseline conditions assessment shall be made in accordance with Article 5.8, Documentation of Existing Conditions, of the Special Conditions.

B. Prior to beginning Construction in any Segment, Contractor shall arrange a meeting on-site with the Engineer a minimum of one calendar week in advance of the start of construction within that Segment and examine the job-site areas and conditions under which work will be performed. The Contractor shall notify the Engineer in writing, within 48 hours following the on-site meeting, of all discrepancies between the existing site conditions and those shown on the plans. Contractor's failure to provide written notification to the Engineer will indicate that no discrepancies exist.

C. The project site is accessible through public right of way. Where access is limited through public right of way, the Contractor shall make all necessary arrangements, agreements and provide compensation to private property owners if necessary to access the area.

D. Contractor is to maintain access to adjacent properties at all times. Disruption to their business activities shall be kept to a minimum. The Contractor shall communicate in advance with each property owner/tenant affected by its operations prior to the start of work. In addition, the Contractor shall maintain a proactive relationship with the area merchants and inform them weekly of the construction schedule to assure that impacts to their businesses are kept at a minimum throughout the contract period.

3.03 OBSTRUCTIONS

A. Attention is directed to Article 3.6, Existence of Utilities at the Work Site, of the General Conditions.

B. The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions to be taken by the Contractor to protect the health, safety and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: overhead electrical wires; conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit that do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical grounded metal shields or sheaths; underground electrical conductors with potential to ground more than 300 volts; and shallow water laterals.

C. The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation. Regional notification centers include, but are not limited to, the following.

Notification Center	Telephone Number
Underground Service Alert-Southern California (USA)	811 1-800-422-4133
Cable, Pipe & Leak Detection (CPL) (For MTS Facilities)	1-619-873-1530

As MTS facilities are excluded from USA markouts, Contractor shall have all MTS facilities located and marked out by CPL or other approved utility locating subcontractor familiar with MTS facilities.

D. Contractor to verify location and elevation of all exiting utilities by potholing and mark out prior to excavation as necessary. Notifications shall be performed as necessary to complete the improvements without damage to existing facilities. Any work on the underground facilities shall be coordinated with the Engineer. The Contractor shall schedule a utility coordination meeting and contact all attendees a minimum of 48 hours in advance of the meeting date. Meeting attendees shall include the Engineer or Project Manager, the Contractor’s representative, the utility representative (as necessary), and the approved utility locating subcontractor.

3.04 PRESERVATION OF PROPERTY

A. Due care shall be taken to avoid damage or injury to improvements of project facility or adjacent facilities, their utilities, and landscaping features that are not designated for removal as indicated on the plans or in the Technical Specifications. Any damage to the property or adjacent properties incurred due to the operations of the Contractor shall be repaired, replaced, or restored at the Contractor's expense. Repair, replacement, or restoration shall be performed such that facilities damaged will be at the same condition as when the Contractor had entered the site, or as good as required by the specifications accompanying the contract. Additional requirements shall be in compliance with Article 3.29, Protection of Work and Property, of the General Conditions.

3.05 JOB SITE COOPERATION

A. Attention is directed to Article 3.43, Separate Contracts, of the General Conditions.

B. Where required, Contractor shall coordinate efforts with utility agencies for adjustment or relocation of utilities that will affect Contractor's work.

3.06 CONSTRUCTION STAGING AREA

A. No MTS right-of-way or LRT stations shall be used for staging, storage, or laydown areas during the construction period except as shown on the approved Construction Area Work Plan. The Contractor shall be responsible for procuring any onsite or offsite construction staging and laydown area, and shall be responsible for any property rental, permits, security, lighting, fencing, utilities or other temporary measures required to properly utilize the site as a construction staging and laydown area. The Contractor shall accept full responsibility and liability for use of the site during the construction period, and MTS shall not be liable for any claims resulting from Contractor's use of an offsite construction staging and laydown area.

3.07 DEVELOP WATER SUPPLY

A. Developing a water supply and applying watering shall conform to Article 3.21, Compliance with General Construction Permit for Construction Activity Schedule, and Article 3.22, Cleaning Up, of the General Conditions. Existing LRT station water supply system shall not be used for construction purposes.

3.08 DUST CONTROL

A. Dust control shall conform to the requirements of Article 3.29, Protection of Work and Property, in the General Conditions. Control dust resulting from work, inside and outside of work limits. Inside work limits Contractor may use water application, dust palliative, or both. Water usage for dust control shall be such that runoff from work area is minimized and sediment is prevented from entering storm drain systems. Dust control for outside work limits includes preventing buildup of dirt on adjoining travelled ways and covering of material producing dust when hauled. However, the Contractor shall endeavor, whenever possible, to restrict the use of water to control dust due to the current need to conserve water.

3.09 PROJECT APPEARANCE

A. Project Appearance shall conform to the provisions in Article 3.22, Cleaning Up, of the General Conditions. The Contractor shall maintain a neat appearance to the work at all times. Rail, wood ties, fencing, vegetation, concrete and asphalt rubble, and other debris developed during construction operations shall be disposed of concurrently with its removal. No stockpiling of demolition materials or debris will be permitted within the MTS or Public right-of-way. Materials to be relocated shall be neatly stored in a secure area.

3.10 SOUND CONTROL

A. Sound control shall conform to the provisions in Article 3.24, Excessive Noise, of the General Conditions. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise levels. For any night work, the Contractor will be required to obtain a Noise Permit from the City of San Diego or other authority with jurisdiction.

3.11 TEMPORARY TRAFFIC CONTROL

A. GENERAL

1. Temporary Traffic Control, consisting of flagging, maintaining vehicular and pedestrian traffic, supplying, placing, and removing of temporary traffic control devices, application and removal of any temporary traffic striping and pavement markings required, and the replacement of any permanent traffic striping and pavement markings damaged or removed during construction at the locations as shown on the Plans or where designated by the Engineer, shall comply with the provisions in Article 3.16, Traffic Control, of the General Conditions.
2. Roadway flagging as required by City of San Diego traffic control permits to be obtained by the Contractor shall conform to Section 12, Temporary Traffic Control of the Caltrans Standard Specifications. However, payment shall be as specified within these Technical Specifications. All roadway flagging shall be described in detail within the Contractor's related Work Plan.
3. All furnishings shall be reinstalled before the construction of a phase is considered complete and the next construction phase at another area may begin.
4. Any existing permanent striping that is damaged during construction shall be replaced to its original state and layout. The work performed in connection with replacing the striping shall conform to the provisions in Section 32 17 23, Pavement Markings, of the Technical Specifications.

3.12 MAINTAINING VEHICULAR TRAFFIC

A. General

1. The Contractor shall notify all emergency services, transportation companies, or others identified on the plans in compliance with the City of San Diego Street Closure Permits in advance of implementing any construction detour.
2. The Contractor shall maintain all temporary vehicular access facilities in a safe and neat condition from time of installation to time of removal.

B. Parking

1. If parking is to be restricted during construction, the Contractor shall post "tow-away/no parking" signs 24 hours in advance after receiving approval from the Engineer and the City of San Diego Police Department. The sign shall contain "days/hours" information and be posted so as to be visible by the public.

2. Personal vehicles of the Contractor's employees shall not be parked within the railway right-of-way including any section closed to public traffic, except personal vehicles used in lieu of the Contractor's equipment. Said vehicles shall be included in the daily activity report and shall be marked with permanent or temporary name plates identifying contracting firm engaged in the work.

C. Lane/Street Closures

1. A street or lane shall not be closed until the Contractor is ready to prosecute the work with diligence, unless approved otherwise by the City of San Diego. Should the Engineer determine that the work, within a closed street or lane, is not proceeding in a timely manner, the Engineer may order a suspension of work.

2. When lane closures are made for work periods only, at the end of each work period all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder.

3. Whenever traffic lanes or streets are to be closed to public traffic, the Contractor shall close lanes and streets as shown in the current California MUTCD.

4. It shall be the responsibility of the Contractor performing work on a public street, that involves a lane or street closure, to follow the local agency approved traffic control plans. If there is not a local agency approved traffic control plan for work to be performed, the Contractor shall prepare traffic control plans, obtain permits from the local agency, install and maintain the traffic control devices per the approved plan, as may be required to ensure the safe movement of vehicular traffic and bicyclists through and around the work area and provide maximum protection and safety to construction workers.

D. Traffic Lane Widths and Clearances

1. When traffic cones or portable delineators are used to delineate a temporary edge of the traffic lane, the line of cones or portable delineators shall be considered to be the edge of traffic lane; however, the Contractor shall not reduce the width of an existing lane to less than 12 feet without written approval from the governing agencies Traffic Engineering Department.

2. Notifications

a. The Contractor shall notify the following at least five (5) working days in advance of any work on a public street:

City of San Diego Police	619-531-2000
Fire Department	619-533-4300
Traffic Signals	619-527-7500
Trash Pickup	858-694-7000
San Diego Transit	619-238-0100
Underground Service Alert	1-800-422-4133

E. Construction Area Work Plan

1. The Contractor's Work Plan, in accordance with Article 1.08, Work Plans, of these Technical Specifications, shall indicate proposed staging, construction sequencing, laydown areas, detours, lane closures, barricades, traffic control devices, temporary fencing, signage, traffic and pedestrian handling on both public streets and transit properties, and shall include traffic control plans approved by the City of San Diego for any work within the public streets or right of way.

F. Deviations

1. Minor deviations from the requirements of this section which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public vehicular traffic will be better served and the work expedited. Such deviations shall not be executed until the Engineer has approved them in writing. All other modifications shall be made by Contract Change Order.

3.13 MAINTAINING PEDESTRIAN TRAFFIC

A. General

1. The Contractor shall provide and maintain safe pedestrian access to all sidewalks adjacent to the construction area. Work areas, including temporary walkways, shall be delineated with barriers consisting of a top and bottom rail constructed of ¾" pipe and Occupational Safety and Health Administration (OSHA)-type plastic mesh, or equal. Yellow caution tape will not be permitted.

2. The Contractor shall develop a Construction Area Work Plan in accordance with Article 3.12 Maintaining Vehicular Traffic, of these Technical Specifications. The Construction Area Work Plan shall be submitted to the Engineer for review and prepared in accordance with Article 1.08, Work Plans of these Technical Specifications. The Construction Area Work Plan for each phase of work shall show the layout of pedestrian circulation control devices.

3. The Contractor shall maintain all temporary pedestrian access facilities in a safe and neat condition from time of installation to time of removal.

B. Sidewalk Closures and Local Business Impact

1. Where local businesses are impacted by construction activities the Contractor shall be responsible for maintaining pedestrian access to those businesses. "Impact" shall mean: where construction activities impede, redirect, or otherwise cause pedestrian traffic flow to deviate from current or intended flow patterns used to gain access to businesses.

2. The Contractor is required to meet with existing businesses in the area to keep the public fully informed as to the impact to their property and/or business. The Contractor shall communicate with each property owner/tenant impacted by its operations prior to the start of work. In addition, the Contractor shall maintain a proactive relationship with the area merchants and inform them weekly of the construction schedule to assure that impacts to their businesses are kept at a minimum throughout the contract period.

3. Contractor shall construct painted white 4’ x 6’ plywood signs with black lettering indicating ‘Open for Business’ for each business impacted by traffic control. The signs shall be clearly visible and maintained for the duration of construction activities impacting each business. Each business impacted shall receive an individual sign.

4. The Contractor shall coordinate the pedestrian access needs with the construction staging as well as with any adjacent areas that are currently or scheduled for construction by others. The Contractor shall submit, to the Engineer, an initial pedestrian traffic control plan along with the vehicular traffic control plan, and construction area plan.

5. At least one walkway shall be available at all times. If the Contractor's operations require the closure of one walkway, then another walkway shall be provided nearby, off the traveled roadway. For sidewalk closures or work in direct contact with an existing sidewalk, the Contractor shall construct a 6’ chain link fence to protect the limits of the work area with all required hardware, including kick boards. Walkways shall be kept clear of obstructions. Closure signs shall be placed to provide pedestrians clear warning of closure ahead and shall provide clear direction to adjacent routes.

C. Deviations

1. Minor deviations from the requirements of this section which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public pedestrian traffic will be better served and the work expedited. Such deviations shall not be executed until the Engineer has approved them in writing. All other modifications shall be made by Contract Change Order.

3.14 TEMPORARY TRAFFIC CONTROL DEVICES

A. General

1. All temporary traffic control devices shall be furnished by the Contractor.

2. It shall be the responsibility of the Contractor performing work on a public street to install and maintain the temporary traffic control devices as shown on the Plans and as specified, as required to ensure the safe movement of traffic, pedestrians and bicyclists through and around the work area and provide maximum protection and safety to construction workers.

3. The Contractor shall maintain all temporary traffic control devices in a safe and neat condition from the time of installation to the time of removal. If any component of the temporary traffic control devices is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and restore the component to its original location.

4. Equipment, material, or debris shall not be stored or remain in the public right of way without prior acceptance by the Engineer.

B. Signs

1. The Contractor shall erect advance warning signs per the traffic control plans as approved by the governing agency informing the public of the intent to close any street at least five (5) working days in advance of the proposed closure.
2. The Contractor shall provide detour signing to direct traffic along alternate routes during the closure(s) in accordance with the traffic control plans as approved and permitted by the governing agency.
3. No signing is shown on the Plans. All construction area signs shall conform to the signing shown in the latest "California Manual on Uniform Traffic Control Devices."

C. Barricades

1. Pedestrian and vehicular barricades shall be furnished, placed, and maintained at the locations shown on the approved traffic control plans, specified in these Technical Specifications or where designated by the Engineer.
2. Temporary traffic control sign and marker panels shall be installed on barricades in a manner determined by the Engineer at the locations shown on the approved traffic control plans.

D. Steel Plates

1. Whenever traffic is permitted over or adjacent to trenches or other depressions, the Contractor shall furnish and maintain steel plating unless other means of protecting the public and the work are expressly approved by the Engineer.
2. Steel plates used for bridging shall extend 12 in. beyond the edges of trenches.
3. Steel plates shall conform to the following minimum thickness:

	Trench Width	Minimum Plate Thickness
a.	300 mm (12 in.)	13 mm (1/2 in.)
b.	450 mm (18 in.)	19 mm (3/4 in.)
c.	600 mm (2 ft)	22 mm (7/8 in.)
d.	900 mm (3 ft)	25 mm (1 in.)
e.	1.2 m (4 ft)	38 mm (1 ½ in.)

4. Note: For spans greater than 4 ft prepare and submit a structural design to the Engineer for review and made in accordance with Article 1.06, Submittals, of the these Technical Specifications.
5. Trenches shall be adequately shored to support bridging the traffic loads.
6. For speeds of 45 mph or less, temporary paving with cold asphalt concrete shall be used to feather the edges of the plates. A “Rough Road” sign (W33), with black lettering on an orange background shall be used in advance of steel plate bridging in addition with any other required construction signing.

E. Temporary Traffic Striping and Pavement Markings

1. During temporary traffic striping and pavement marking operations, traffic shall be controlled with lane closures, as provided for under these Technical Specifications, or by use of an alternate traffic control plan proposed by the Contractor. The Contractor shall not start traffic striping and pavement marking operations using an alternate plan until they have submitted their plan to the Engineer and have received written approval of said plan.

3.15 CONSTRUCTION AREA LIGHTING

A. All working areas utilized by the Contractor to perform work during the hours of darkness, shall be lighted to conform to the minimum illumination intensities established by the California Division of Industrial Safety Construction Safety Orders.

B. All lighting fixtures shall be mounted and directed in a manner precluding glare to adjacent residences, businesses, approaching traffic, and shall not be directed parallel to the track to avoid interfering with the vision of the train operators and crews. In addition, lighting fixtures shall not obscure any railroad signals.

3.16 TEMPORARY FENCING

A. Where applicable and in accordance with these Technical Specifications, temporary fencing shall be securely anchored and shall only be placed within MTS ROW except where temporary fencing is used for pedestrian traffic control. The Contractor shall submit a temporary fencing as part of their Work Plan for MTS approval prior to the installation of any temporary fencing.

3.17 CONSTRUCTION SURVEYING

A. Construction staking shall be in conformance with Chapter 12 of the Caltrans Surveys Manual, dated November 2012. Legible copies of all construction operations staking sheets shall be provided to Engineer as part of the related Work Plan.

B. All field construction surveying required for accurate location and the construction of the various items of work under the Contract shall be performed and furnished by the Contractor.

C. The Contractor shall be responsible for performing a site verification survey to confirm the existing grades and conditions at the site prior to any grading or construction operations. Any variations shall be brought to the attention of the Engineer.

D. The Contractor shall replace any existing property corner markers, monuments, and local agencies' well monuments disturbed during construction operations in accordance with Article 3.29, Protection of Work and Property, of the General Conditions. These new markers, monuments, and well monuments shall be documented by a record of survey map or corner record prepared in accordance with Section 8771 of the Business and Professions Code and all applicable laws and regulations and filed in the Office of the County Recorder of San Diego County at the Contractor's expense.

E. The Contractor shall be responsible for preparing and filing with the San Diego County surveyor a Corner Record of the references to existing monuments within the area of each street or highway to be reconstructed under this Contract, prior to any reconstruction, as required by Section 8771 of the Business and Professions Code.

3.18 TRACTION POWER SAFETY AND CONVENIENCE OF TROLLEY OPERATIONS

A. Trolley operations utilize overhead 650-volt DC power lines. Except as noted in Article 1.03, Order of Work, of these Technical Specifications, these wires will be energized at all times. Extreme caution shall be exercised when working in the vicinity of these wires. The Contractor shall maintain 10 foot clearance from energized overhead wires when working with equipment.

B. The Contractor shall not allow metal equipment or other items to contact the railroad tracks except when power has been shut off. These tracks act as the negative return for the 650 VDC propulsion current in the overhead wires. Hi-rail vehicles will be allowed if 10 foot clearance from the overhead wires is maintained when energized in the MTS authorized work locations. All Contractor equipment shall be proposed for MTS approval as part of the Contractor's site specific Work Plan.

C. The Contractor shall not shunt (ground) between the rails except when operating equipment necessary for the work with an approved Work Plan. A shunt activates the signaling system, including railroad crossing protection and gates at nearby cross streets.

3.19 MAINTAINING RAIL TRAFFIC

A. General

1. All Contractor work shall be performed with an approved Work Plan and not interfere with normal rail operations.
2. All work involving crossing or work inside the MTS railroad right of way shall be under the control of SDTI.
3. The SDTI dispatcher can be reached at (619) 595-4960
4. Contractor shall not operate construction equipment that will encroach within 15 feet of any track that is being used by LRT vehicles during the respective operating hours without appropriate notification and flagging. Contractor shall not store equipment, tools, and materials within fifteen feet from any operable track.
5. Contractor shall be liable for Liquidated Damages, in the event that transit vehicles are unable to operate normally as a result of the Contractor's operations.
6. A planned "slow order" in a Contractor's approved Work Plan shall not be interpreted as affecting normal trolley operations.
7. MTS Operations Definitions
    a. Slow order: A temporary reduction in the track's speed limit due to a condition left behind by a work crew. The maximum duration for a slow order to remain in place is 48 hours. Contractor shall propose and MTS will evaluate planned slow orders with the goal of limiting revenue service delays to no more than 5 minutes from the publicly posted schedule.
    b. Work zone restriction: A crew working within 10' of the nearest rail. This requires a 10 MPH speed restriction and on-track protection provided by SDTI flag persons. For the purposes of this contract, work zone restrictions are limited to 1500' within the project limits. MTS will allow up to 3 concurrent restrictions, however the cumulative distance of restrictions is limited to 1500' total.

c. Work zone advisory: A crew working within 10-15’ of the nearest rail. This requires no speed restriction, but the crew is accompanied by an SDTI watchperson.

B. Trackwork

1. All work shall take special care to maintain the integrity of operational track sections during other nearby track section construction and/or adjacent non-track elements.

2. It will be required to establish a planned "slow order" when the track is in a condition that prevents normal operating speeds of scheduled transit vehicles or freight trains or when light rail transit vehicles are required to temporarily operate through hand-operated switches.

a. At the conclusion of an AWW, MTS will allow track to be placed back into revenue service without being destressed, resulting in a slow order. This is limited to one continuous mile and shall be resolved within 48 hours.

b. At the conclusion of an AWW, MTS will allow a portion of the rail joints to remain as temporary bolted joint connections until remaining thermite welds can be completed , resulting in a slow order. This is limited to one continuous mile and shall be resolved within 48 hours.

C. Traction Power System Work

1. When requested, MTS will de-energize the traction power system between the hours of 1:45 AM and 4:00 AM. It will take MTS 30 minutes to de-energize and 30 minutes to re-energize the system within the above time. De-energizing the system shall conform to the procedures of MTS (known as the "Red Tag Clearance Procedure”).

2. It will be required to establish a planned "slow order" when the catenary is in a condition that prevents normal operating speeds of scheduled transit vehicles or freight trains.

3. MTS will provide access to adjacent substations when performing testing for the OCS system during AWWs. Contractor shall request substation access as part of the Contractor’s submitted Work Plan for MTS review and approval.

D. Signal System Work

1. The signaling system, including any interfaces, shall be fully tested and placed in service by the end of each work window.

2. All preparatory work shall be done prior to each Segment cutover and shall include, but not be limited to:

a. Installation of all signal block foundations, enclosures, conduit, and block signals (installed and bagged), complete and in-place with cables terminated and gold nuts backed off. Signals that will interfere with the line of sight of existing signals shall not be installed until the “Railway Block Signaling Cut-over” in which the signal will be located.

b. Installation of new insulated joints and impedance bonds complete in-place with temporary bypass bonds where needed to maintain the existing signaling system functioning properly.

c. Installation of, and adjustment of, switch machines on ties, complete with all conduit and cables terminated and gold nuts backed off.

d. Track circuit's "track lead" cabling tested and terminated to rails and terminals with gold nuts backed off inside new signal enclosure.

e. Crossing warning devices and new control system shall be complete in-place, and operational.

f. Fiber optic network communications for the railroad signal system shall be complete in-place and be operational for a consecutive 72 hours.

g. New electrical service complete in-place and energized.

E. Segment Cutover

1. Any cut-over from construction to revenue operation of track, signal, traction power, and catenary work shall be done during an AWW. If extensions to the above times are required to construct the project, Contractor shall submit the request to MTS for such extensions(s) as part of the work plan and schedule submittals. The request shall thoroughly document the activity required, the duration of the extension, the reason for the extension and why it could not otherwise be accommodated. MTS will attempt to honor all such requests; however, MTS reserves the right to reject any or all such requests based upon its evaluation. No adjustment to the Contract Bid prices will be made if any or all requests are rejected.

2. A detailed cutover plan requesting exact dates and times shall be submitted for approval at least thirty (30) working days prior to the requested date. Contractor shall be available to discuss the details of the cutover with MTS and SDTI staff.

3.20 RAILROAD COORDINATION

A. The Contractor must understand the Contractor's right to enter Railroad's right of way is subject to the absolute right of Railroad to cause the Contractor's work on Railroad's right of way to cease if, in the opinion of Railroad, Contractor's activities create a hazard to Railroad's right of way, employees, and operations.

B. Contractor employees are prohibited from positioning themselves, placing material, or positioning machinery on the railroad right-of-way unless under control of railroad flagman at each work location. All workers, equipment, and materials shall be cleared from the track and all equipment shall be held at idle until the train has passed and the flagman has authorized the resumption of work. The minimum clearance distance for workers, material, and equipment shall be at the discretion of the flag person.

3.21 RECORD DRAWINGS

A. Record accurately on one complete set of full size black and white prints denoting variation in work from original drawings. All recorded variations shall be done in red and yellow. Electronic submittal of record drawings shall be subject to MTS approval.

B. During construction, a copy of the plans shall be located in the signal enclosures that accurately depicts the work and existing conditions. Markups shall be shown on record drawings daily or as work is performed. These drawings are subject to inspection at any time.

C. Dimensioning shall be from two permanent points of reference (sidewalks, pavement, curbs, street lights, buildings, centerline of track, etc.). All drafting shall be clearly legible and dimensions shall be no smaller the 0.25 inches in size. Delineation between lines (edge of curb, irrigation line, edge of asphalt, etc.) shall be clearly made by note or line type.

D. Upon acceptance of work of each Segment, Contractor shall submit the complete and final set of record drawings to the Engineer.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

A. No separate measurement shall be made for the requirements of this Section unless otherwise provided for.

B. Mobilization

1. Mobilization shall be measured for payment as a lump sum.

C. Progress Schedule

1. No separate measurement shall be made for Progress Schedule.

D. Work Plans

1. No separate measurement shall be made for Work Plans.

E. Temporary Traffic Control

1. No separate measurement shall be made for Temporary Traffic Control

F. Quality Control Plan

1. No separate measurement shall be made for the Quality Control Plan.

G. Safety Plan

1. No separate measurement shall be made for the Safety Plan.

4.02 PAYMENT

A. No separate payment shall be made for the requirements of this Section unless specifically noted for separate payment as stated herein. Full compensation for complying with the requirements of this section, not otherwise provided for, shall be considered as included in contract prices paid for the various items of work involved, and no additional compensation will be allowed therefore.

B. Mobilization

1. The contract lump sum price paid for “Mobilization” shall be in accordance with Article 3.34, Payment, of the General Conditions.

C. Project Schedule

1. Full compensation for Project Schedule shall be considered included in the contract prices paid for the various related items of work and no separate payment will be made.

D. Temporary Traffic Control

1. Full compensation for Temporary Traffic Control shall be included in the contract price paid per Signal Location Complete, therefore no separate payment will be made.

E. Quality Control Plan

1. Full compensation for the Quality Control Plan shall be included in the contract prices paid for the various related items of work and no separate payment will be made.

F. Safety Plan

1. Full compensation for the Safety Plan shall be included in the contract prices paid for the various related items of work and no separate payment will be made.

END OF SECTION

BID PRICE FORM Rev. 2

ORANGE LINE IMPROVEMENT PROJECT PHASE 1
IFB, MTS DOC. NO. PWL409.0-25

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
	MOBILIZATION/DEMOBILIZATION				
1.	Mobilization (not to exceed 5% total bid)	1	EA	$ 1,344,000.00	$ 1,344,000.00
2.	Demobilization (not to exceed 5% total bid)	1	EA	$ 445,000.00	$ 445,000.00
	SUBTOTAL - Mobilization/Demobilization				$ 1,789,000.00
	CIVIL				
3.	Storm Water Management - Water Pollution and Erosion Control	1	LS	$ 95,000.00	$ 95,000.00
3A	Hauling and disposal of hazardous soil (CAL hazardous with manifest) ALLOWANCE UP TO	500	CY	$ 80.00	$ 40,000.00
3B	Hauling and disposal of hazardous soil (hazardous with manifest) ALLOWANCE UP TO	500	CY	$ 63.00	$ 31,500.00
3C	Import and placement of clean fill to replace exported soils ALLOWANCE UP TO	500	CY	$ 68.00	$ 34,000.00
	54th Street Civil & Pedestrian Crossing Improvements				
4.	Construction Staking and Surveying	1	LS	$ 20,000.00	$ 20,000.00
5.	Permits	1	LS	$ 2,500.00	$ 2,500.00
6.	Traffic and Pedestrain Traffic Control	1	LS	$ 5,000.00	$ 5,000.00
7.	Saw Cut	35	LF	$ 14.00	$ 490.00
8.	Clear and Grub	1	LS	$ 10,000.00	$ 10,000.00
9.	NOT USED				
10.	Remove Chain Link Fence	30	LF	$ 25.00	$ 750.00
11.	Remove AC Paving and Ramps	800	SF	$ 11.00	$ 8,800.00
12.	Remove Miscellaneous Concrete	250	SF	$ 15.50	$ 3,875.00
13.	Concrete Walkways	225	SF	$ 48.50	$ 10,912.50
14.	42" Chain Link Fence (mounted in soil)	60	LF	$ 315.00	$ 18,900.00
15.	42" Chain Link Fence (mounted on concrete)	65	LF	$ 490.00	$ 31,850.00
16.	8' Chain Link Fence	52	LF	$ 325.00	$ 16,900.00
17.	8' Chain Link Gate	1	EA	$ 22,000.00	$ 22,000.00
18.	Custom Warning Device Foundation (south side of crosing)	1	LS	$ 4,600.00	$ 4,600.00
19.	4" Bollards	9	EA	$ 1,125.00	$ 10,125.00
20.	42" Chain Link Gate	1	EA	$ 1,250.00	$ 1,250.00
21.	Signal Case Chain Link Gate	1	EA	$ 1,050.00	$ 1,050.00
22.	Swing Gate	1	EA	$ 11,500.00	$ 11,500.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
23.	Swing Gate with Flanged Bases (south side of crossing)	1	EA	$ 7,600.00	$ 7,600.00
24.	3' Wide x 5' Long Detectable Warning Panel	2	EA	$ 1,300.00	$ 2,600.00
25.	Concrete Crossing Panels	16.25	TF	$ 850.00	$ 13,812.50
26.	AC Crossing Panel Ramps	263	SF	$ 50.00	$ 13,150.00
27.	Signage	1	LS	$ 2,900.00	$ 2,900.00
28.	Walkway Ballast (around warning devices and signal house)	3	CY	$ 3,000.00	$ 9,000.00
	54th Street Civil & Pedestrian Crossing Improvements (TOTAL)				$ 229,565.00
	66th Street Civil & Pedestrian Crossing Improvements				
29.	Construction Staking and Surveying	1	LS	$ 20,000.00	$ 20,000.00
30.	Permits	1	LS	$ 2,500.00	$ 2,500.00
31.	Traffic and Pedestrain Traffic Control	1	LS	$ 5,000.00	$ 5,000.00
32.	Saw Cut	34	LF	$ 30.00	$ 1,020.00
33.	Clear and Grub	1	LS	$ 10,000.00	$ 10,000.00
34.	Fill (Import)	10	CY	$ 950.00	$ 9,500.00
35.	Remove Concrete Crossing Walkways	320	SF	$ 28.00	$ 8,960.00
36.	Remove Ties, Ballast and OTM	98	TF	$ 670.00	$ 65,660.00
37.	CMU Retaining Wall (20'x2.67')	53.4	SF	$ 730.00	$ 38,982.00
38.	Concrete Walkways	492	SF	$ 80.00	$ 39,360.00
39.	Concrete Curb	6	LF	$ 550.00	$ 3,300.00
40.	Concrete Curb and Gutter	16	LF	$ 470.00	$ 7,520.00
41.	42" Chain Link Fence	31	LF	$ 300.00	$ 9,300.00
42.	8' Chain Link Fence	57	LF	$ 325.00	$ 18,525.00
43.	8' Chain Link Gate	1	EA	$ 18,750.00	$ 18,750.00
44.	Walkway Ballast (around warning devices and signal house)	3	CY	$ 3,000.00	$ 9,000.00
45.	36" x 42" Chain Link Gate	1	EA	$ 1,250.00	$ 1,250.00
46.	Tubular Hand Rail	20	LF	$ 550.00	$ 11,000.00
47.	Swing Gate	2	EA	$ 11,500.00	$ 23,000.00
48.	3' Wide x 5' Long Detectable Warning Panel	2	EA	$ 1,300.00	$ 2,600.00
49.	Concrete Crossing Panels	16.25	LF	$ 760.00	$ 12,350.00
50.	AC Crossing Ramps	249	SF	$ 31.00	$ 7,719.00
51.	Signage	1	LS	$ 3,250.00	$ 3,250.00
52.	Recompact Track Subgrade (36'x1'x98')	131	CY	$ 23.00	$ 3,013.00
53.	Ballast	50	CY	$ 255.00	$ 12,750.00
54.	Surface and Line Track	400	TF	$ 135.00	$ 54,000.00
55.	Subballast (36'x6"x98')	66	CY	$ 215.00	$ 14,190.00
56.	Ties 10' (for crossing panels)	20	EA	$ 800.00	$ 16,000.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
57.	Ties 9'	40	EA	$ 1,125.00	$ 45,000.00
	66th Street Civil & Pedestrian Crossing Improvements (TOTAL)				$ 473,499.00
	68th Street Civil & Pedestrian Crossing Improvements				
58.	Construction Staking and Surveying	1	LS	$ 20,000.00	$ 20,000.00
59.	Permits	1	LS	$ 2,500.00	$ 2,500.00
60.	Traffic and Pedestrain Traffic Control	1	LS	$ 5,000.00	$ 5,000.00
61.	Saw Cut	6	LF	$ 230.00	$ 1,380.00
62.	Clear and Grub	1	LS	$ 10,000.00	$ 10,000.00
63.	Fill (Import)	3	CY	$ 1,500.00	$ 4,500.00
64.	Remove Concrete Crossing Walkways	313	SF	$ 20.00	$ 6,260.00
65.	Remove Ties, Ballast and OTM	98	TF	$ 415.00	$ 40,670.00
66.	Remove Timber Retaining Wall	70	SF	$ 24.00	$ 1,680.00
67.	CMU Retaining Wall (20'x2.8')	56	SF	$ 540.00	$ 30,240.00
67A	8" Retaining Wall, Cast-in-place Concrete	6	CY	$ 15,500.00	$ 93,000.00
68.	Concrete Walkways	322	SF	$ 85.00	$ 27,370.00
69.	42" Chain Link Fence	36	LF	$ 280.00	$ 10,080.00
70.	8' Chain Link Fence	47	LF	$ 330.00	$ 15,510.00
71.	8' Chain Link Gate	1	EA	$ 19,000.00	$ 19,000.00
71A	Walkway Ballast (around warning devices and signal house)	3	CY	$ 2,900.00	$ 8,700.00
72.	Tubular Hand Rail	75	LF	$ 530.00	$ 39,750.00
73.	Modified Tubular Hand Rail	4	LF	$ 1,000.00	$ 4,000.00
74.	Swing Gate	2	EA	$ 11,500.00	$ 23,000.00
75.	Swing Gate with Flanged Bases (south side of crossing)	1	EA	$ 7,500.00	$ 7,500.00
76.	3' Wide x 5' Long Detectable Warning Panel	2	EA	$ 1,300.00	$ 2,600.00
77.	Concrete Crossing Panels	16.25	LF	$ 750.00	$ 12,187.50
78.	AC Crossing Ramps	260	SF	$ 28.00	$ 7,280.00
79.	Signage	1	LS	$ 2,900.00	$ 2,900.00
80.	Recompact Track Subgrade (36'x1'x98')	131	CY	$ 26.00	$ 3,406.00
81.	Ballast	50	CY	$ 245.00	$ 12,250.00
82.	Surface and Line Track	400	TF	$ 110.00	$ 44,000.00
83.	Subballast (36'x6"x98')	66	CY	$ 175.00	$ 11,550.00
84.	Ties 10' (for crossing panels)	20	EA	$ 595.00	$ 11,900.00
85.	Ties 9'	40	EA	$ 720.00	$ 28,800.00
	68th Street Civil & Pedestrian Crossing Improvements (TOTAL)				$ 507,013.50
	SUBTOTAL - CIVIL				$ 1,410,577.50
	TRACKWORK				

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
86.	Owner Furnished Track Material Handoff	1	LS	$ 35,000.00	$ 35,000.00
	R2 Crossover				
87.	Construction Staking and Surveying	1	LS	$ 25,000.00	$ 25,000.00
88.	D-75 Ditch	300	LF	$ 145.00	$ 43,500.00
89.	Turnout Assembly and Installation (constrained work-space and access)	1	LS	$ 215,000.00	$ 215,000.00
90.	Remove Track and Ballast	330	TF	$ 360.00	$ 118,800.00
91.	Scarify and Recompact Subgrade 12"	220	CY	$ 23.00	$ 5,060.00
92.	Walkway ballast per General Order 118A	17	CY	$ 1,600.00	$ 27,200.00
93.	Subballast (9' either side of CL, 12" below ballast)	40	CY	$ 300.00	$ 12,000.00
94.	Thermite Welds	12	EA	$ 2,500.00	$ 30,000.00
95.	Resurface Approaches to and through Crossovers	2000	TF	$ 22.00	$ 44,000.00
96.	Destress Track	4000	TF	$ 9.00	$ 36,000.00
97.	Ballast	350	CY	$ 235.00	$ 82,250.00
	R2 Crossover (TOTAL)				$ 638,810.00
	R12 Crossover				
98.	Construction Staking and Surveying	1	LS	$ 25,000.00	$ 25,000.00
99.	Turnout Assembly (constrained work-space and access)	1	LS	$ 200,000.00	$ 200,000.00
100.	Remove Track and Ballast	330	TF	$ 350.00	$ 115,500.00
101.	Scarify and Recompact Subgrade 12"	220	CY	$ 23.00	$ 5,060.00
102.	Walkway ballast per General Order 118A	18	CY	$ 1,500.00	$ 27,000.00
103.	Subballast (9' either side of CL, 12" below ballast)	40	CY	$ 330.00	$ 13,200.00
104.	Thermite Welds	12	EA	$ 2,700.00	$ 32,400.00
105.	Resurface Approaches to and through Crossovers	2000	TF	$ 22.00	$ 44,000.00
106.	Destress Track	4000	TF	$ 18.00	$ 72,000.00
106A	Ballast	350	CY	$ 235.00	$ 82,250.00
	R12 Crossover (TOTAL)				$ 616,410.00
	R18 Crossover				
107.	Construction Staking and Surveying	1	LS	$ 25,000.00	$ 25,000.00
108.	Turnout Assembly (constrained work-space and access)	1	LS	$ 215,000.00	$ 215,000.00
109.	Remove Track and Ballast	330	TF	$ 350.00	$ 115,500.00
110.	Scarify and Recompact Subgrade 12"	220	CY	$ 23.00	$ 5,060.00
111.	Walkway ballast per General Order 118	20	CY	$ 1,300.00	$ 26,000.00
112.	Subballast (9' either side of CL, 12" below ballast)	40	CY	$ 320.00	$ 12,800.00
113.	Thermite Welds	12	EA	$ 3,200.00	$ 38,400.00
114.	Resurface Approaches to Crossover Turnouts	2000	TF	$ 22.00	$ 44,000.00
115.	Destress Track	4000	TF	$ 18.00	$ 72,000.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
116.	Ballast	350	CY	$ 235.00	$ 82,250.00
	R18 Crossover (TOTAL)				$ 636,010.00
	Insulated Joint (New and Removed)				
117.	Insulated Joint (Removal and replacement of track rail, assume 46' replacement)	22	EA	$ 9,000.00	$ 198,000.00
118.	Insulated Joint (19' 6")	30	EA	$ 3,300.00	$ 99,000.00
119.	Insulated Joint (39')	4	EA	$ 4,600.00	$ 18,400.00
119A	Thermite Weld for Insulated Joint	112	EA	$ 2,500.00	$ 280,000.00
	Insulated Joint (New and Removed) (TOTAL)				$ 595,400.00
	Trackwork Associated Switch Machine Conversion or Upgrade				
119B	Trackwork associated w/ conversion of electric lock to power switch machine (R2/E304WL)	2	EA	$ 40,000.00	$ 80,000.00
119C	Walkway ballast per General Order 118 (R2/E304WL)	18	CY	$ 1,400.00	$ 25,200.00
120.	Trackwork associated w/ conversion of electric lock to power switch machine (R10/E315WL)	2	EA	$ 45,000.00	$ 90,000.00
120A	Walkway ballast per General Order 118 (R10/E315WL)	17	CY	$ 1,400.00	$ 23,800.00
121.	Trackwork associated with power switch machine upgrade #10 turnout (R6/E6)	2	EA	$ 40,000.00	$ 80,000.00
121A	Walkway ballast per General Order 118 (R6)	17	CY	$ 1,400.00	$ 23,800.00
122.	Trackwork associated with power switch machine upgrade #20 turnout (R14/E8)	2	EA	$ 40,000.00	$ 80,000.00
122A	Walkway ballast per General Order 118 (R14)	25	CY	$ 1,400.00	$ 35,000.00
122B	Trackwork associated with power switch machine upgrade #20 turnout (R18/E10)	2	EA	$ 57,000.00	$ 114,000.00
122C	Walkway ballast per General Order 118 (R18)	28	CY	$ 1,400.00	$ 39,200.00
	Trackwork Associated Switch Machine Conversion or Upgrade (TOTAL)				$ 591,000.00
	SUBTOTAL - TRACKWORK				$ 3,112,630.00
	OVERHEAD CATENARY SYSTEM (OCS)				
123.	Owner Furnished OCS Material Handoff	1	LS	$ 50,000.00	$ 50,000.00
124.	OCS Pole Foundations (R2, R12, R18)	12	EA	$ 27,000.00	$ 324,000.00
125.	Down Guy Foundations (R2, R12, R18)	6	EA	$ 27,000.00	$ 162,000.00
126.	OCS Poles	12	EA	$ 9,625.00	$ 115,500.00
127.	OCS Modifications R2	1	LS	$ 770,000.00	$ 770,000.00
128.	OCS Modifications R12	1	LS	$ 340,000.00	$ 340,000.00
129.	OCS Modifications 62nd Street Encanto Station	1	LS	$ 265,000.00	$ 265,000.00
130.	OCS Modifications R18	1	LS	$ 705,000.00	$ 705,000.00
	SUBTOTAL - OVERHEAD CATENARY SYSTEM (OCS)				$ 2,731,500.00
	RAIL SIGNALING				
131.	Owner Furnished Signal Material Handoff	1	LS	$ 30,000.00	$ 30,000.00
	Legacy Rail Case and Pole Junction Box Removals (MOVED TO ALTERNATE 6)				

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
132.	NOT USED				
133.	NOT USED				
134.	NOT USED				
135.	NOT USED				
136.	NOT USED				
137.	NOT USED				
138.	NOT USED				
139.	NOT USED				
140.	NOT USED				
141.	NOT USED				
142.	NOT USED				
143.	NOT USED				
144.	NOT USED				
145.	NOT USED				
146.	NOT USED				
147.	NOT USED				
148.	NOT USED				
149.	NOT USED				
150.	NOT USED				
151.	NOT USED				
152.	NOT USED				
153.	NOT USED				
154.	NOT USED				
155.	NOT USED				
156.	NOT USED				
157.	NOT USED				
158.	NOT USED				
159.	NOT USED				
160.	NOT USED				
161.	NOT USED				
162.	NOT USED				
163.	NOT USED				
164.	NOT USED				
165.	NOT USED				
	Legacy Rail Case and Pole Junction Box Removals (TOTAL) ***(MOVED TO ALTERNATE 6)***				
	Signal Locations, New or Modified				

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
166.	R311RC Signal Location Complete - 32nd St. Start of ABS	1	LS	$ 520,000.00	$ 520,000.00
167.	R358RC Signal Location Complete- Francis St. Crossing	1	LS	$ 500,000.00	$ 500,000.00
168.	R396RC Signal Location Complete - Horton St. Crossing	1	LS	$ 595,000.00	$ 595,000.00
169.	R442RC Signal Location Complete - R2 Interlocking	1	LS	$ 940,000.00	$ 940,000.00
170.	R467RC Signal Location Complete - 43rd St. Crossing	1	LS	$ 900,000.00	$ 900,000.00
171.	R480RC Signal Location Complete - Cut Section	1	LS	$ 220,000.00	$ 220,000.00
172.	R507RC Signal Location Complete - Cut Section w/ Int. Sig	1	LS	$ 290,000.00	$ 290,000.00
173.	R537RC Signal Location Complete - Cut Section	1	LS	$ 332,000.00	$ 332,000.00
174.	R552RC Signal Location Complete (R6 interlocking)	1	LS	$ 1,100,000.00	$ 1,100,000.00
175.	R572RC Signal Location Complete (Euclid) Modifications	1	LS	$ 13,000.00	$ 13,000.00
176.	R574RC Signal Location Complete (R10 Interlocking)	1	LS	$ 1,050,000.00	$ 1,050,000.00
177.	R602RC Signal Location Complete - 54th St. Xing	1	LS	$ 470,000.00	$ 470,000.00
178.	R617RC Signal Location Complete - Cut Section	1	LS	$ 235,000.00	$ 235,000.00
179.	R650RC Signal Location Complete - Merlin Dr. Xing	1	LS	$ 570,000.00	$ 570,000.00
180.	R671RC Signal Location Complete 60th St. Xing	1	LS	$ 560,000.00	$ 560,000.00
181.	R697RC Signal Location Complete - (R12 Interlocking) 62nd St. Xing	1	LS	$ 1,600,000.00	$ 1,600,000.00
182.	R719RC Signal Location Complete (R14 Interlocking)	1	LS	$ 900,000.00	$ 900,000.00
183.	R729RC Signal Location Complete - 65th St Xing	1	LS	$ 530,000.00	$ 530,000.00
184.	R738RC Signal Location Complete - 66th St. Xing	1	LS	$ 510,000.00	$ 510,000.00
185.	R769RC Signal Location Complete - 68th St. Xing	1	LS	$ 510,000.00	$ 510,000.00
186.	R782RC Signal Location Complete - 69th St. Xing	1	LS	$ 510,000.00	$ 510,000.00
187.	R820RC Signal Location Complete - Cut Section	1	LS	$ 275,000.00	$ 275,000.00
188.	R847RC Signal Location Complete (R18 Interlocking)	1	LS	$ 1,875,000.00	$ 1,875,000.00
189.	E884RC Case Modifications	1	LS	$ 850.00	$ 850.00
190.	E924RC Case Modifications	1	LS	$ 850.00	$ 850.00
191.	Interface Case (#1 and #2) Installation/Wiring/Removal/Relocation for Segment Phasing	1	LS	$ 340,000.00	$ 340,000.00
	Signal Locations, New or Modified (TOTAL)				$ 15,346,700.00
	Station Communications Case Modifications for CTC				
192.	32nd Street Station Comm Case Modifications for CTC	1	LS	$ 750.00	$ 750.00
193.	47th Street Station Comm Case Modifications for CTC	1	LS	$ 225.00	$ 225.00
194.	Euclid Avenue Station Comm Case Modifications for CTC	1	LS	$ 750.00	$ 750.00
195.	62nd Street Station Comm Case Modifications for CTC	1	LS	$ 750.00	$ 750.00
196.	Massachusetts Avenue Station Comm Case Modifications for CTC	1	LS	$ 240.00	$ 240.00
	Station Communications Case Modifications for CTC (TOTAL)				$ 2,715.00
	SUBTOTAL - RAIL SIGNALING				$ 15,379,415.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
	FIBER OUTSIDE PLANT MODIFICATIONS & TESTING				
197.	R311RC Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 64,000.00	$ 64,000.00
198.	R358RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 50,000.00	$ 50,000.00
199.	R396RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 59,000.00	$ 59,000.00
200.	R442RC (R2) Interlocking Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 68,000.00	$ 68,000.00
201.	R467RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 64,000.00	$ 64,000.00
202.	R480RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 64,000.00	$ 64,000.00
203.	R507RC Fiber Lateral Complete (24 Backbone, 144 Resplice)	1	LS	$ 64,000.00	$ 64,000.00
204.	R537RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 64,000.00	$ 64,000.00
205.	R552RC (R6) Interlocking Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 85,000.00	$ 85,000.00
206.	R574RC (R10) Interlocking Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 85,000.00	$ 85,000.00
207.	R602RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 68,000.00	$ 68,000.00
208.	R617RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 75,000.00	$ 75,000.00
209.	R650RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 75,000.00	$ 75,000.00
210.	R671RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 64,000.00	$ 64,000.00
211.	R697RC (R12) Interlocking Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 66,000.00	$ 66,000.00
212.	R719RC (R14) Interlocking Fiber Lateral Complete (24 & 144 Backbone)	1	LS	$ 75,000.00	$ 75,000.00
213.	R729RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 66,000.00	$ 66,000.00
214.	R738RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 69,000.00	$ 69,000.00
215.	R769RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 69,000.00	$ 69,000.00
216.	R782RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 60,000.00	$ 60,000.00
217.	R820RC Fiber Lateral Complete (24 Backbone)	1	LS	$ 55,000.00	$ 55,000.00
218.	R847RC (R18) Interlocking Fiber Lateral Complete & Fiber Replacement (24 & 144 Backbone)	1	LS	$ 115,000.00	$ 115,000.00
	SUBTOTAL - FIBER OUTSIDE PLANT MODIFICATIONS & TESTING				$ 1,524,000.00
	CONTRACT ALTERNATES				
	ALTERNATE 1 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 1				
219.	Removal of Abandoned Aerial Cables Segment 1	1	LS	$ 51,500.00	$ 51,500.00
	SUBTOTAL ALTERNATE 1 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 1				$ 51,500.00
	ALTERNATE 2 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 2				
220.	Removal of Abandoned Aerial Cables Segment 2	1	LS	$ 69,000.00	$ 69,000.00
	SUBTOTAL ALTERNATE 2 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 2				$ 69,000.00
	ALTERNATE 3- REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 3				
221.	Removal of Abandoned Aerial Cables Segment 3	1	LS	$ 60,500.00	$ 60,500.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
	SUBTOTAL ALTERNATE 3 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 3				$ 60,500.00
	ALTERNATE 4- REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 4				
222.	Removal of Abandoned Aerial Cables Segment 3	1	LS	$ 60,500.00	$ 60,500.00
	SUBTOTAL ALTERNATE 4 - REMOVAL OF ABANDONED AERIAL CABLES SEGMENT 4				$ 60,500.00
	ALTERNATE 5 -RAIL SIGNAL SPARE PARTS				
223.	Western Cullen Hayes Model 3597 Gate Mechanisms	1	EA	$ 6,900.00	$ 6,900.00
224.	12-inch Flashing Light Signal LED lamp units	6	EA	$ 390.00	$ 2,340.00
225.	LED lamp units – RED	10	EA	$ 500.00	$ 5,000.00
226.	LED lamp units – YELLOW	10	EA	$ 500.00	$ 5,000.00
227.	LED lamp units – GREEN	10	EA	$ 500.00	$ 5,000.00
228.	LED lamp units – LUNAR	5	EA	$ 510.00	$ 2,550.00
229.	ElectroLogIXS VLC 9-Slot Chassis	3	EA	$ 7,350.00	$ 22,050.00
230.	ElectroLogIXS Central Display Units (CDU-2)	3	EA	$ 1,700.00	$ 5,100.00
231.	ElectroLogIXS Central Power Supply (CPS-3) Modules	5	EA	$ 1,425.00	$ 7,125.00
232.	ElectroLogIXS Vital Peripheral Master (VPM-3) Modules	5	EA	$ 6,500.00	$ 32,500.00
233.	ElectroLogIXS Communication Input/Output (CIO-1A) Modules	5	EA	$ 1,200.00	$ 6,000.00
234.	ElectroLogIXS Communication Input/Output (CIO-2A) Modules	5	EA	$ 1,200.00	$ 6,000.00
235.	ElectroLogIXS Vital Input/Output (VIO-86S) Modules	15	EA	$ 5,775.00	$ 86,625.00
236.	ElectroLogIXS Vital Lamp Driver (VLD-R16S) Modules	10	EA	$ 4,520.00	$ 45,200.00
237.	ElectroLogIXS Vital Track Interface (VTI-2S) Modules	10	EA	$ 4,175.00	$ 41,750.00
238.	ElectroLogIXS Integrated Crossing Controller (IXC-20S+) w/ Personality Modules	5	EA	$ 5,425.00	$ 27,125.00
239.	Ethernet Switch (RS900)	5	EA	$ 2,075.00	$ 10,375.00
240.	Ethernet Switch (RS910)	3	EA	$ 2,200.00	$ 6,600.00
241.	Electrified Electrocodse (EC^2) E2CODE Configuration A Units Complete with Modules	3	EA	$ 19,000.00	$ 57,000.00
242.	HF-MAX 12V 60AMP Charger	1	EA	$ 2,200.00	$ 2,200.00
243.	HF-MAX 12V 40AMP Charger	1	EA	$ 1,800.00	$ 1,800.00
244.	Wilmore Model 1675-12-24-8 DC/DC 12/24 Converter	3	EA	$ 475.00	$ 1,425.00
245.	Style ST-400-1 Transformer	1	EA	$ 2,350.00	$ 2,350.00
246.	PSO 4000 Crossing Assembly (Siemens PN7A474)	2	EA	$ 10,000.00	$ 20,000.00
247.	PSO 4000 Transmitter Assembly (Siemens PN7A471)	2	EA	$ 3,300.00	$ 6,600.00
248.	PSO 4000 Transceiver Assembly (Siemens PN7A475)	2	EA	$ 5,200.00	$ 10,400.00
249.	20 Amp Crossing Interface Panel (XIP-20B)	5	EA	$ 820.00	$ 4,100.00
250.	Hitachi Rail STS M23-A (N4511600535) right-hand dual control switch machines complete with mounting plates, layouts and associated hardware.	1	EA	$ 42,750.00	$ 42,750.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
251.	Hitachi Rail STS M23-A (N4511600536) left-hand dual control switch machines complete with mounting plates, layouts and associated hardware.	1	EA	$ 42,500.00	$ 42,500.00
252.	Relay - Track PV-250 (2F-2B, 60/100 Hz)	2	EA	$ 6,550.00	$ 13,100.00
253.	PV-250 Base	2	EA	$ 350.00	$ 700.00
254.	Relay - Biased Neutral 6FB 500 ohm B-1 (A62-125)	10	EA	$ 2,150.00	$ 21,500.00
255.	B-1 relay base complete with installation kit, gold test nut, posts, and hardware.	10	EA	$ 170.00	$ 1,700.00
256.	Quest Local Control Panel	2	EA	$ 4,075.00	$ 8,150.00
257.	Vartech Monitors	2	EA	$ 8,425.00	$ 16,850.00
	SUBTOTAL ALTERNATE 5 - RAIL SIGNAL SPARE PARTS				$ 576,365.00
	ALTERNATE 6 -LEGACY SIGNAL CASE AND LEGACY POLE JUNCTION BOX REMOVAL				
258.	Removal of Pole Junction Boxes	18	EA	$ 340.00	$ 6,120.00
259.	E342RC Removal	1	LS	$ 3,625.00	$ 3,625.00
260.	E360RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
261.	E392RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
262.	E427RC Removal	1	LS	$ 3,625.00	$ 3,625.00
263.	E438RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
264.	E468RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
265.	E481RC Removal	1	LS	$ 3,625.00	$ 3,625.00
266.	E509RC Removal	1	LS	$ 3,625.00	$ 3,625.00
267.	E536RC Removal	1	LS	$ 3,625.00	$ 3,625.00
268.	E5RC Removal	1	LS	$ 3,625.00	$ 3,625.00
269.	E574RC Removal	1	LS	$ 3,625.00	$ 3,625.00
270.	E590RC Removal	1	LS	$ 3,625.00	$ 3,625.00
271.	E604RC Removal	1	LS	$ 3,625.00	$ 3,625.00
272.	E613RC Removal	1	LS	$ 3,625.00	$ 3,625.00
273.	E643RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
274.	E654RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
275.	E674RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
276.	E683RC Removal	1	LS	$ 3,625.00	$ 3,625.00
277.	E698RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
278.	E698TWC Removal (330+00)	1	LS	$ 3,625.00	$ 3,625.00
279.	E705RC Removal	1	LS	$ 3,625.00	$ 3,625.00
280.	E730RC/RCX Removal	1	LS	$ 3,625.00	$ 3,625.00
281.	E742RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
282.	E757RC Removal	1	LS	$ 3,625.00	$ 3,625.00

LINE NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
283.	E761RC Removal	1	LS	$ 3,625.00	$ 3,625.00
284.	E770RC Removal	1	LS	$ 3,625.00	$ 3,625.00
285.	E772RC Removal	1	LS	$ 3,625.00	$ 3,625.00
286.	E780RC/RCA Removal	1	LS	$ 3,625.00	$ 3,625.00
287.	E808RC Removal	1	LS	$ 3,625.00	$ 3,625.00
288.	E819RC Removal	1	LS	$ 3,625.00	$ 3,625.00
289.	E838RC (E10) Removal	1	LS	$ 3,625.00	$ 3,625.00
290.	E854RC - 884RCX Removal	1	LS	$ 7,250.00	$ 7,250.00
	SUBTOTAL ALTERNATE 6 - LEGACY SIGNAL CASE AND LEGACY POLE JUNCTION BOX REMOVAL				$ 125,745.00
	Grand Total Basis of Award (Base Plus All Alternates)				*$ 26,890,732.50*

This all-inclusive pricing must include the costs for the bid bond, performance & payment bonds, and insurance. MTS will not pay additional costs, or separate costs for these.

Metropolitan Transit System

Agenda Item No. 8

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Pyramid Building Improvements – Work Order Agreement

RECOMMENDATION:

That the San Diego Metropolitan System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA352-AE-27 to MTS Doc No. PWL352.0-22 (in substantially the same format as Attachment A), with HDR Engineering, Inc. (HDR), in the amount of $329,608.51 for the Pyramid Building Improvements design project.

Budget Impact

The total cost of this contract is estimated to be $329,608.51. The project will be funded by the Capital Improvement Program (CIP) account 2006109401-Pyramid Building Improvements

DISCUSSION:

The MTS owned “Pyramid Building” is located at 1699 Main Street in San Diego and is used for overflow storage, including bus shelters and benches. The building was constructed in the 1960s and needs seismic and structural repairs, fire rated wall repair, fire sprinkler review and improvements, and other minor upgrades to restore to a state of good repair.

In 2019, a survey of the Pyramid Building was conducted by HNTB Corporation, Josephson Werdowatz & Associates, and J.R. Bardin Company. The survey included suggested and necessary structural and fire/life safety improvements. The proposed Pyramid Building Improvements design services in today’s Proposed Action generally consists of developing plans, specifications and estimates to allow for the construction of all necessary structural and fire/life safety improvements.

Procurement for Design Services

On September 15, 2021, MTS issued a solicitation for On-Call Architectural and Engineering (A&E) Design Services by Requesting Statements of Qualifications (RFSQ) from firms with expertise in a variety of A&E design and related consulting services separated into the following three (3) categories:

Category A: Comprehensive/Full Service - Five (5) prime contracts
Category B: Small Business (SB) Set Aside - Three (3) prime contracts awarded to a certified SB or a Disadvantage Business Enterprise (DBE) certified firm, (which is also considered to be a SB)
Category C: Specialty Prime – Up to Five (5) specialty service contracts

As a result of the RFSQ, seven (7) firms were selected to perform various A&E services. For projects requiring A&E Services, work orders are issued to these firms.

On October 3, 2024, MTS issued a Request for Proposals (RFP) to all firms in Categories A and B. On November 8, 2024, MTS received only one (1) proposal from the following A&E firm:

Firm Name	Firm Certification
HDR	None

On November 12, 2024, MTS issued a post-bid survey to ascertain the reasons other firms did not submit a proposal in response to the solicitation. No firms responded to the survey. Thus, staff believed that the scope of services did not contain prohibitive language.

An evaluation panel was comprised of MTS representatives, and the proposals were evaluated based on the following criteria.

Criteria	Points
Project Team	25
Project Team's Capabilities	20
Project Understanding and Approach	40
Schedule	15
Total Possible Score	**100**

On November 26, 2024, the selection committee evaluated the initial proposals and scored as follows:

Ranking	Proposer Name	Total Score
1	HDR	74.67

Furthermore, staff requested clarifications from HDR concerning their technical proposal.

On December 31, 2024, following the receipt of the clarifications from HDR, staff reconvened, and rescored HDR's proposal as follows:

Ranking	Proposer Name	Total Score
1	HDR	78.00

As a result of the evaluations, HDR was deemed to be the most qualified firm to perform the services. HDR's initial proposed amount for the services was $362,010.71. Through negotiations, staff was able to reduce the cost by $32,402.20, an 8.95% savings to MTS. MTS's Independent Cost Estimate (ICE) for the services was $460,456.79. Based on the level of effort and proposed classifications, HDR final cost proposal in the amount of $329,608.51 was determined to be fair and reasonable.

For this project HDR will utilize the following subconsultant(s):

Subconsultant Name	Subconsultant Certification	Subconsultant Amount
Aguirre & Associates	DBE, MBE, and SB	$12,121.18

Therefore, staff recommends that the San Diego Metropolitan System (MTS) Board of Directors authorize the CEO to execute Work Order No. WOA352-AE-27 to MTS Doc No. PWL352.0-22 (in substantially the same format as Attachment A), with HDR, in the amount of $329,608.51 for the Pyramid Building Improvements design project.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. Draft Work Order WOA352-AE-27

Metropolitan Transit System

March 13, 2024

MTS DOC No. PWL352.0-22
Work Order WOA352-AE-27

Mr. Thomas K. Kim
Senior Vice President
HDR Engineering, Inc.
401 B Street, Suite 110
San Diego, CA 92101

Dear Mr. Kim:

Subject: WORK ORDER WOA352-AE-27 TO MTS DOC. NO. PWL352.0-22 FOR DESIGN SERVICES FOR PYRAMID BUILING IMPROVEMENTS

This letter shall serve as our agreement for professional services, Work Order WOA352-AE-27, under the General Engineering Consultant Agreement, MTS Doc. No. PWL352.0-22, as further described below.

SCOPE OF SERVICES

This Work Order shall provide design services for the Pyramid Building for all proposed structural upgrades, fire/life safety upgrades, and any other upgrades in order to bring building into code compliance. Work provided under this Work Order shall be performed in accordance with the attached Scope of Services (Attachment A and A1)

SCHEDULE

The Schedule shall remain in effect for a period of twelve (12) months from the date of the Notice to Proceed (NTP).

PAYMENT

Payment shall be based on actual costs in the amount not to exceed $329,608.51 without prior authorization of MTS.

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Please sign below, and return the document to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect.

Sincerely,

Sharon Cooney
Chief Executive Officer

Accepted:

_____
Thomas K. Kim
HDR Engineering, Inc.

Date:_____

Attachments: Attachment A, Scope of Services
Attachment A1, Consultant's Proposal
Attachment B, Negotiated Fee Proposal

DRAFT

ATTACHMENT A
SCOPE OF SERVICES

DRAFT

TITLE: PYRAMID BUILING IMPROVEMENTS - DESIGN **WOA #:** WOAXXX-AE-27

I. PROJECT DESCRIPTION

The MTS owned “Pyramid Building” is an existing masonry building located at 1699 Main Street in San Diego that MTS currently uses for storage. The structure requires design services including seismic and structural repairs, fire rated wall revisions, fire sprinkler revisions and other minor upgrades in order to be acceptable and compliant with both the San Diego Fire Marshall, as well as the City of San Diego. The building currently has a “S” Occupancy Classification and there is no desire to change it, but due to recent inspections, and reports, it has been determined that there are several elements of the building that require upgrading. Some of these elements that require design include, but aren’t limited to general structural repairs & seismic upgrades (i.e. bracing and masonry ties), repairs and/or replacements to damaged columns, masonry repairs to spalling blocks, fire rated wall revisions between bays 1 & 2, 2 & 3, fire sprinkler revisions, code compliant pedestrian emergency ingress and egress, as well as potential other repairs necessary.

The intent of this Work Order is to provide engineering services to conduct a complete design for all purposed structural upgrades, fire/life safety upgrades, and any other upgrades in order to bring building into code compliance. The Consultant shall provide a full design package including plans, specifications, and estimate. The Consultant shall submit the design package to the City of San Diego Development Services Department (DSD) in order to have a construction permit ready for issuance.

II. SCOPE OF WORK

The scope of work shall consist of the following tasks and deliverables:

Task 1 – Project Management and Coordination

1.1 Provide project management services including the requirements for invoicing, scheduling, monthly project progress reports, and administration of the Consultant’s team.

1.2 Provide project coordination with MTS as well as coordination with other project stakeholders as necessary.

1.3 Arrange and facilitate Project Development Team (PDT) meetings, interagency meetings, field reviews, and other project-related meetings. Consultant shall prepare meeting agendas, meeting minutes, necessary supplemental materials, and meeting sign-in sheets for all meetings.

1.4 Provide coordination and oversight of subconsultant(s) and integration of plans and specifications into submittal packages.

1.5 Provide QA/QC which will be performed on all deliverables. To ensure quality of work and compliance with the Scope of Work, the Consultant shall perform a systematic in-house review of all documents produced prior to submittal. All reviewed documents will have a check box or signature page indicating review has been performed.

1.6 Develop and implement a project schedule to complete the Scope of Work and manage the project to eliminate or minimize supplemental agreements.

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Task 2 – Site Visit, Study Reviews and Design

As a follow up to an incident that occurred in November of 2017, MTS has received correspondence form the City, performed a preliminary planning study, performed a building structural comprehensive review, and performed a fire sprinkler pipe calculation survey (Exhibit A, Pyramid Building Analysis.) The intent is for the consultant to review these previously completed reports and studies, perform a site visit of the building in order to support the design process. The Consultant shall conduct a site visit to observe and understand all necessary seismic, structural, and fire/life safety repairs required relating to the following:

2.1 Structural Columns

2.1.1 Consultant shall perform a review off all interior columns within the building. A number of the structural columns supporting the roof are showing signs of cracking, warping, and damage. Some columns require repairs and some require complete demo and replacement. Consultant shall provide comprehensive assessment and design for column repair, bracing, or full replacement as needed for all columns within the building.

2.2 Fire Rated Separation Walls

2.2.1 Existing fire rated walls between Bays 1 & 2 and 2 & 3, have been penetrated and/or are severely damaged. These fire rated walls need to be patched, repaired, or replaced in order to meet code compliance for fire rated wall separations.

2.3 Fire Sprinkler System

2.3.1 Per the previously conducted site survey, the existing fire sprinkler system was found to be adequate, however, the Fire Marshal at the time of the incident was not convinced the fire sprinkler system was fully functional, adequate, are accurately sized to meet the need of the total building square footage and individual bay square footage. In response, the Fire Marshal opted to take a defensive position in the event of a fire at the building. Consultant shall perform a complete survey of the fire sprinkler system, MTS will provide previous fire sprinkler reports, and provide a design for getting the complete fire sprinkler system up to a level of code compliance. Consultant shall meet with the Fire Marshal, obtain approval on the new fire sprinkler design, and get the building removed from the defensive position.

2.4 Ingress/Egress

2.4.1 Per the previously conducted site survey, some alterations may be necessary to existing pedestrian doors. Consultant shall provide a survey of all ingress and egress and provide a design for all necessary alterations to all building access doors in order to bring them into compliance.

2.5 Seismic Upgrades

2.5.1 Consultant shall analyze existing provided structural/seismic survey to accurately and fully design all repairs necessary to the existing structural and seismic deficiencies present in the structure as listed above in order to get the building up to seismic code compliance for.

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2.6 Report Review

2.6.1 Consultant shall analyze the provided letter from the City of San Diego(Exhibit B), ensuring all issues are corrected as part of this design. Consultant shall analyze the provided planning studies, ensuring all issues are corrected as part of the design.

2.7 Consultant shall provide all necessary coordination with outside agencies and key stakeholders as required for the design. This includes, but is not limited to, the City of San Diego and the San Diego Fire Marshal.

2.8 Consultant shall provide all necessary coordination, submissions, and approvals of the design with the City of San Diego to obtain plan approval for the Contractor to obtain the necessary construction building permit.

2.9 Consultant shall provide all necessary structural and fire surveying for use in the design and permitting of site improvements. Consultant shall review and evaluate information for the proposed work area, including all available information and MTS design guidelines, local jurisdiction requirements.

2.10 Consultant shall conduct a review of all documentation and former structural reports provided by MTS (Exhibit C). Prior reports are to be used as a basis of necessary repairs to bring structure into full compliance or state of reasonable compliance. No additional design or improvements are desired beyond those necessary to reach compliance.

Task 3 – Design Submittal

3.1 Consultant shall prepare a complete specification and design package consisting of, but not limited to the following and as stated above:

3.1.1 Structural improvements to the structural supports and roof of the building including repairs to spalling and damaged CMU blocks.

3.1.2 Fire/ life safety survey and design to improve the structure's standing with San Diego Fire Department.

3.1.3 Potential facility operations and impacts (if any) of various facets of design, i.e. loss of storage space or impacts to operations.

3.1.4 Full design and of the necessary improvements to bring building up to code.

3.1.5 Consultant shall review previous un-permitted construction components in order to determine if they need to be demolished in order to get into code compliance and agreement with the City of San Diego DSD.

3.2 Consultant shall prepare a cost estimate for construction/repairs of design being presented.

3.2.1 Estimate should not only include new construction; it should also include cost to demo/repair of any existing structural or fire services, cap/abandon existing utilities, and patching/repair of concrete/masonry as necessary.

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3.3 Consultant shall prepare a complete set of drawings consisting of, but not limited to the following:

3.3.1 Site plans and details based on any as-built plans, survey and field information gathered.

3.3.2 Demolition plans and details showing the limits and depth of all pavement removals, concrete removals, and any other necessary demolition work with preferred material staging areas. Items to be protected, relocated, or salvaged shall also be clearly identified.

3.3.3 Fire/Life safety plans showing and demo/improvements necessary to existing system to meet code compliance.

3.3.4 Any demolition/improvements to be made to non-load bearing structures and drywall partition walls to achieve code compliance.

3.3.5 Structural plans showing installation and location of all necessary structural repairs or improvements necessary to achieve seismic stability and code compliance.

3.4 Consultant shall prepare technical specifications for the proposed work. The specifications will be submitted to MTS for review at each milestone. Specifications shall be prepared in CSI format. For any standard reference the Caltrans Standard Specifications (current version), San Diego Standard Specifications for Public Works Construction (current version), or San Diego Regional Standard Drawings can be referenced in order to adhere to the City of San Diego requirements as necessary for permitting approval.

3.5 Prepare construction cost estimate. The Consultant will develop a construction cost estimate for the 60%, 90% and 100% CD plan level and submit it to MTS. Current available cost data will be used to develop the Engineer's Estimate.

III. PERIOD OF PERFORMANCE

The period of performance for required services shall be (12) months from the date of the Notice to Proceed.

IV. DELIVERABLES

1. Plans, specifications, and estimates at the 60%, 90% and 100% levels.
2. Construction cost estimate for design being presented.
3. (1) Full size physical set of plans for each milestone (up to 4 total: 60%, 90% and 100%/CD)

V. SCHEDULE OF SERVICES/MILESTONES/DELIVERABLES

A. Tasks Schedule

Task	Begin/End Dates
1. Project Management & Coordination	NTP / Project Completion
2. Initial submittal at 60%	NTP / + 4 months
3. Submittal at 90%	NTP / + 7 months
4. Final 100% submittal and acceptance of plans, estimates, and memos by MTS	NTP / + 10 months

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B. Milestones/Deliverables Schedule

Milestone/Deliverable	Due Date
1. Submittal at 60%	NTP + 3 months
2. Submittal at 90%	NTP + 7 months
3. Final plans, estimate, and summary memos	NTP + 10 months

VI. MATERIALS TO BE PROVIDED BY MTS AND/OR THE OTHER AGENCY

MTS to provide any relevant As-builts and all previous structural reports/reviews.

VII. SPECIAL CONDITIONS

Any condition listed below applies solely to this Work Order and does not otherwise alter the Agreement or other Work Orders.

The San Diego Fire Department has placed the Pyramid Building on a defense list, meaning they will currently make no efforts to save the structure, but that they will defend against the spread of fire to other buildings. Part of this design should also include a full fire/life safety design to bring the building up to code, to get the structure off of the defense only list.

VIII. MTS ACCEPTANCE OF SERVICES:

Contractor shall not be compensated at any time for unauthorized work outside of this Work Order. Contractor shall provide notice to MTS' Project Manager upon 100% completion of this Work Order. Within five (5) business days from receipt of notice of Work Order completion, MTS' Project Manager shall review, for acceptance, the 100% completion notice. If Contractor provides final service(s) or final work product(s) which are found to be unacceptable due to Contractors and/or Contractors subcontractors negligence and thus not 100% complete by MTS' Project Manager, Contractor shall be required to make revisions to said service(s) and/or work product(s) within the Not to Exceed (NTE) Budget. MTS reserves the right to withhold payment associated with this Work Order until the Project Manager provides written acceptance for the 100% final completion notice. Moreover, 100% acceptance and final completion will be based on resolution of comments received to the draft documents and delivery of final documentation which shall incorporate all MTS revisions and comments.

Monthly progress payments shall be based on hours performed for each person/classification identified in the attached Fee Schedule and shall at no time exceed the NTE. Contractor shall only be compensated for actual performance of services and at no time shall be compensated for services for which MTS does not have an accepted deliverable or written proof and MTS acceptance of services performed.

IX. DEFICIENT WORK PRODUCT0

Throughout the construction management and/or implementation phases associated with the services rendered by the Contractor, if MTS finds any work product provided by Contractor to be deficient and the deficiently delays any portion of the project, Contractor shall bear the full burden of their deficient work and shall be responsible for taking all corrective actions to remedy their deficient work product including but not limited to the following:

- Revising provided documents,

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At no time will MTS be required to correct any portion of the Contractors deficient work product and shall bear no costs or burden associated with Contractors deficient performance and/or work product.

X. DELIVERABLE REQUIREMENTS

Contractor will be required to submit any and all documentation required by the Scope of Work. The deliverables furnished shall be of a quality acceptable to MTS. The criteria for acceptance shall be a product of neat appearance, well-organized, and procedurally, technically and grammatically correct. MTS reserves the right to request a change in the format if it doesn't satisfy MTS's needs. All work products will become the property of MTS. MTS reserves the right to disclose any reports or material provided by the Contractor to any third party.

Contractor shall provide with each task, a work plan showing the deliverables schedule as well as other relevant date needed for Contractor's work control, when and as requested by MTS.

Contractor's computer data processing and work processing capabilities and data storage should be compatible with Windows compatible PC's, text files readable in Microsoft Word, and standard and customary electronic storage. Contractor shall maintain backup copies of all data conveyed to MTS.

Contractor shall provide MTS with hard copy or electronic versions of reports and/or other material as requested by MTS.

XI. PRICING

Except where otherwise noted herein, pricing shall be firm and fixed for the duration of the Work Order and any subsequent Change Orders/Amendments to the Work Order. There shall be no escalation of rates or fees allowed.

XII. ADDITIONAL INFORMATION

Recent structural and seismic survey results will be provided.

XIII. PREVAILING WAGE

Prevailing wage rates apply to certain personnel for these services? ☒ Yes ☐ No

Exhibits: A, Pyramid Building Analysis
B, Letter from the City of San Diego
C, Pyramid Building Documentation and Former Structural Reports

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EXHIBIT A
PYRAMID BUILDING ANALYSIS

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PYRAMID BUILDING

BUILDING ANALYSIS
Existing Conditions, Applicable Code Requirements Required/ Recommended Repairs and Preliminary Cost Estimate

For the Metropolitan Transit System
San Diego, CA

Prepared by:

J.R. Bardin Company
4275 Executive Square, Suite 200
San Diego, CA 9037
858-458-5944

November 18, 2020

Pyramid Building

1695 Main St.
San Diego, CA

Building Analysis, including Required/ Recommended Repairs

November 23, 2020

1.0 INTRODUCTION/ SUMMARY

1.1 Overview of the Project/Goals for This Report

The Pyramid Building is currently being used by the Metropolitan Transit System as a warehouse for various equipment and supplies.
The building site is located at 1695 Main Street, San Diego, California
(See Attachment 1.0-A).
As a building which was originally constructed in 1962, and used through the years for perhaps various purposes, e.g., warehousing, the building has aged, with minimal upgrades and marginal maintenance.
While the immediate area surrounding the project site has generally remained in its present condition for years, i.e., primarily light industrial/ commercial, the area to the north and east of the site is currently undergoing a transition from older light industrial/ commercial buildings to low and mid-rise residential buildings/ projects. This transition is a continuation of the transformation of the areas generally south of the main portion of the City of San Diego, starting with the Gaslamp District, during the 1970's.
Since 1962, there has been numerous code changes relative to structural and fire protection requirements. It is our understanding that the San Diego fire department has recently taken the position that they will not fully defend the building against fire, due to certain deficiencies.
Previously, a report was prepared by HNTB for an alternative use of the site, i.e., removing and replacing the building with a new metal building, e.g., a Butler Building. That alternative is very expensive and is subject to current regulations by the City of San Diego and the Coastal Commission. The HNTB report did a good job of describing those standards and requirements.
This report, and the accompanying structural report by Josephson Werdowatz & Associates, Inc. and recent fire sprinkler inspections and recommendations by Schmidt Fire Protection, are primarily intended to address questions as to:

a. What is the present condition of the building, in terms of its overall conditions and the conditions of its various assemblies and components.
b. What repairs would be necessary to: a) bring the building into reasonable, current code compliance in terms of the building's fire and structural assemblies/ components.
c. What additional repairs are recommended to address other conditions, in terms of providing a more functional building and increasing the building's serviceability over time.

1.2 Overall Evaluation of the Existing Building and Required/ Recommended Repairs

Overall, while the Pyramid Building is old it is still in adequate shape where necessary repairs can be performed at a cost which is significantly less than would be the case, if the building is removed and replaced.

From a safety perspective, the two most significant areas of repair are the structural and fire protection repairs.

1.3 Alternative Options

During our work on this matter, a number of potential uses have been discussed, including: a) removing and replacing the building with a new metal building, b) removing a portion of the building, using the space available for parking, etc.

Obviously, those, or other options, are always available to the MTS.

Several key considerations regarding optional building alternatives and use of the site include:

a. The cost of replacing the building is significantly higher than repairing the existing building.
b. Based on the previously referred to HNTB report, any alternative that includes excavations into the existing soils, will probably involve additional costs for the investigation of, and removal of, contaminated soils.
c. As an existing building, the present structure will be treated by the City of San Diego differently than if a new building is proposed, e.g., meeting current codes and requirements for the building's footprint and appearance.

1.4 Report Limitations

While mentioned, in conjunction with the evaluations of the building, this report is not intended as a complete evaluation of the entire MTS site, e.g., use of the remaining site for parking, overall site drainage, which has been a problem in the past, condition of the A.C. pavement, extension of the various utility lines onto the site, through the site and into the building.

Our firm has reviewed the previously prepared report by HNTB Corporation, entitled Alternatives Analysis Memo, MTS Pyramid Building Concept Layout, dated August 8, 2019 and believe that this report adequately described, on a preliminary basis various site conditions.

2.0 GENERAL DESCRIPTION OF THE SITE AND BUILDING

2.1 General Description of the Building and Its Location

In approximately 2012-2015, the Metropolitan Transit System, hereinafter referred to as the "MTS", purchased a warehouse building, and surrounding site, in the area known as the Bario Logan Neighborhood, which is south of the San Diego downtown area and San Diego's baseball stadium known as Petco Park. See Exhibit 2.0-A , Site Location Map.

The warehouse building, which was originally constructed in approximately 1962, is a one story, rectangular building, approximately 90,000 square feet in size. Presently, it is divided into 4 spaces, by full height walls, extending in an east-west direction across the interior floor slab. Openings in those walls provide both personnel and small equipment movement between the spaces.

2.2 Site Description

The site is located at 1695 Main Street, at the corner of Main Street and Sigsbee Street. Key features of the site and areas adjacent to the building are as follows:

a. South Side of Building: Small property set-back area presently covered with crushed rock.
b. East Side of Building: Largely open, A.C. paved lot, primarily providing parking and access to the overhead doors on the east side of the warehouse building.
c. North Side of Building: A.C. paved lot, currently used as a storage area for MTS equipment and materials.
d. West Side of the Building: Essentially a property set-back area, primarily covered by crushed rock. Abandoned rail tracks, presumably used at one time to deliver materials to the warehouse, via large overhead doors along the west side of the building.

See Exhibit 2.0-B, Site Plan

2.3 Building Description

At present, the southern portion of the building is being used for the storage of primarily heavy and "bulky" storage. The northern portion of the building is primarily not being used by MTS. The primary structural systems within the building are original, i.e., reinforced masonry walls and a heavy wood supported roof. The concrete slab interior improvements within the building are a combination of original construction and various renovations within the building. The building does have a fire sprinkler system, which was installed at some point in time.

See Exhibit 2.0-C, Building Floor Plan and 2.0-D, Overall Photographs of the Building.

2.4 Alternative Approaches to the Use of the Project

In the past, the MTS has considered various options for the building and building site, including: a) upgrading the building to today's standards for warehouse space, b) demolishing at least a portion of the building and replacing at least a portion of the building with a metal building and c) demolishing at least a portion of the building, and then using at least a portion of the resulting land space for parking.

2.5 EXHIBITS

2.0-A Project Location - Aerial View
2.0-B Site Plan
2.0-C Building Floor Plan
2.0-D Overall Photographs of the Building



MTS DOC NO. PWL352.0-22, WOA352-AE-18

Att.A, Item 8, 03/13/23
Exhibit 2.0-A

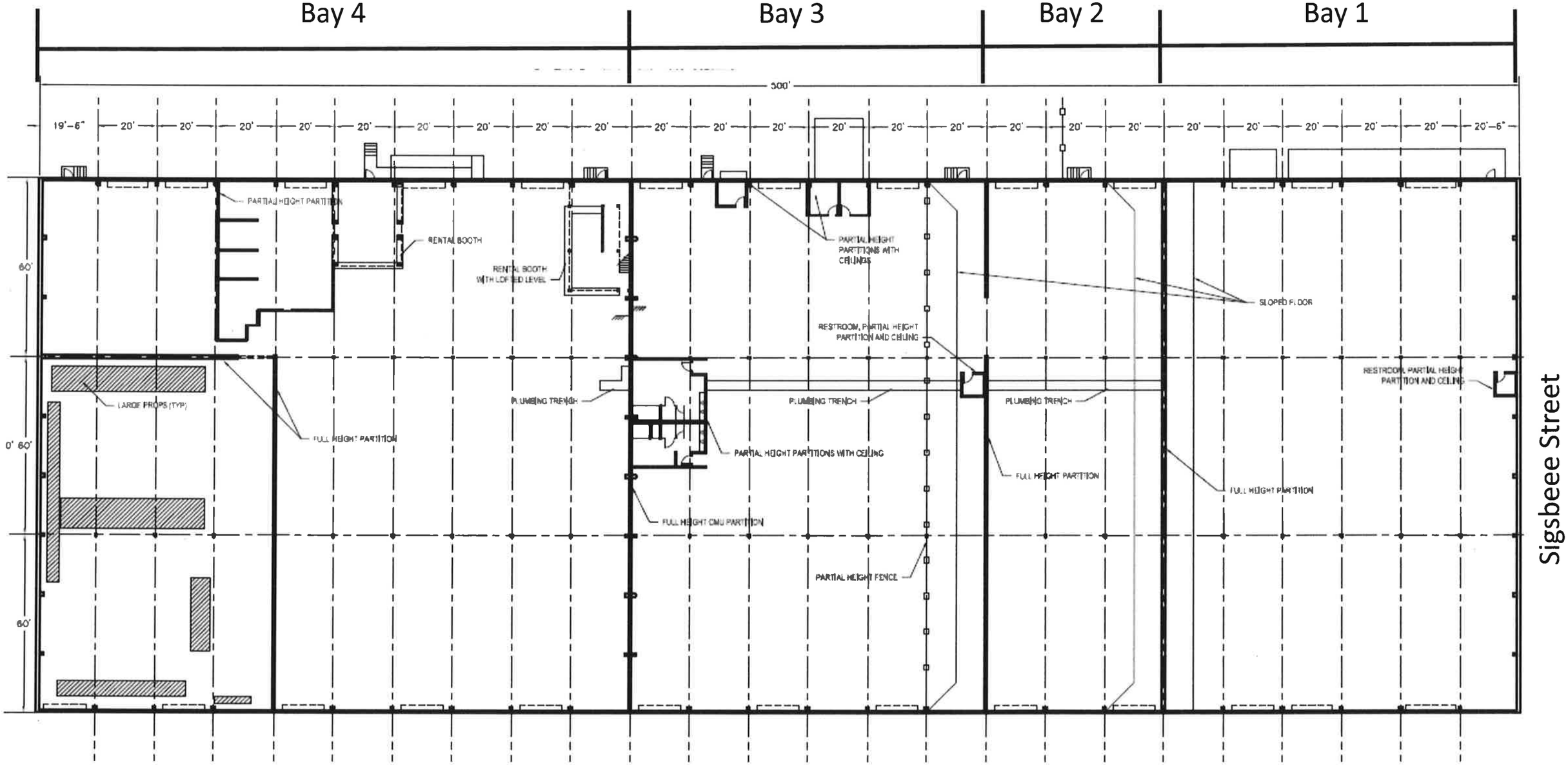


Copied from HNTB Report

MTS DOC NO. PWL352.0-22, WOA352-AE-17

Att.A, Item 8, 03/13/25 Exhibit 2.0-B

Exhibit 2.0-C



Trolley Line (to West)

North

Floor Plan Copied from HNTB Report



MTS DOC NO. PWL352.0-22, WOA352-AE-19

Att. A, Item 8, 03/13/25

2.0-a Overall Aerial View of Building from Main Street and Sigsbee Street



2.0-b Overall Aerial View of Building from Northeast

MTS DOC NO. PWL352.022, WOA352-AE-20

Att.A, Item 8, 03/13/25



2.0-c Building – From Corner of Sigsbee Street and Main Street – East Elevation



2.0-d Building – From Corner of Sigsbee Street and Main Street – South Elevation



2.0-e North Elevation of Building



2.0-f West Elevation of Building

3.0 CODES AND PERMITS

3.1 Zoning

The current zoning classification for the site is as a "CCDC-AWAITS-CCC-APPR". That classification allows Mixed Commercial zoning, including Warehouse and Wholesale

3.2 Jurisdictional Review/ Permitting

If the building were to be removed and a new building constructed on the site, the project would probably be subject to the review process of the City of San Diego Development Services Department, and potentially the Center City Development Corporation.
As stated in the HNTB report, dated August 8, 2019, the projects on MTS property "may be exempt from permitting by the City of San Diego."
However, as discussed in this report, one of the objectives in making repairs to the existing building is to bring the building into reasonable compliance with current codes and standards for structural integrity and fire protection, and to ensure that the San Diego Fire Department will actively respond to a fire within the building.
Accordingly, the latter will probably require both a review of the construction documents for the repairs and inspection of those repairs. The normal procedure for City plan review and inspection would be the submittal of the project for permitting purposes.

3.3 Applicable Building Code

Obviously, the Pyramid Building was constructed, subject to the applicable building code in the 1962 time period.
The current applicable code, e.g., under which the currently recommended repairs would be performed is the 2019 California Building Code, hereinafter also referred to as the 2019 CBC.
While the intent of the repair recommendations will be to conform to the current, applicable code, there may be some items where it may be advantageous to request that the existing construction be "grandfathered in", based on the applicable codes at the time of construction. This is commonly done, particularly where bringing the building components into conformance with current code requirements is either not possible, of not feasible, in terms of the cost of the required work.

3.4 Building Classification, As to Use

For purposes of establishing certain requirements, the present code, and all previous codes since the Pyramid Building was constructed, classify buildings by type and use.
The Pyramid Building will be classified as an S-Occupancy, either an S-1 or S-2. A copy of those classifications is included as Exhibit 3.0-A. The significance of these code designations is further discussed in Section 4.0 of this report.
The significance between the S-1 and S-2 occupancy classifications is primarily related to what can be stored in the building. S-2 designations are more restrictive than S-1 designations. See Exhibit 3.0 - A Storage Group S

Our recommendation is to assume that the building will be classified as a S-1 occupancy, which is not as restrictive, rather than classifying the occupancy as an S-2 occupancy and then having to monitor what items are stored in the building.

3.5 Building Classification, as to Type of Construction

The 2019 CBC, and all other general building codes since the building was constructed, classify buildings according to the type of construction/ materials used in that construction. In particular, these classifications are used to determine specific fire protection requirements. The classifications include Type I, II, III. IV and V. For a general understanding of the classifications, high rise construction is typically Type I and wood framed construction is Type V.

Because the roof framing at the Pyramid Building is wood construction, as discussed in the separately provided report by Josephson Werdowatz, and Associates, Inc., the Pyramid Building will be classified as a Type V construction.

Type V construction is further broken down between:

Type V-A (One Hour)
Type V-B (All Other)

To be classified as a Type V - A construction, materials used in the construction for certain purposes, e.g., structural framing, exit doors, etc. have to be non combustible (as would be the case with the CMU walls), heavy timber (as would be the case with the structural columns) or protected by a fire rated material, e.g., gypsum board.

The ceiling/ roof framing, which is principally wood construction, except for metal connectors, is not protected by a fire rated material, e.g., gypsum board, as confirmed by Josephson Werdowatz and Associates, Inc. From a structural point of view, it would not be possible to add a layer of gypsum board to the underside of the existing ceiling/ roof framing, due to the weight of the added materials.

Accordingly, the Pyramid Building will be classified as a Type V-B (Non Rated) structure. See Exhibit 3.0 - B Fire-Resistance Rating Requirements

3.6 Exhibits

3.0 - A 2019 CBC, Section 311 Description of Uses - Storage Group S
3.0 - B 2019 CBC, Table 601, Fire-Resistance Rating Requirements for Building Elements
3.0 - C 2019 CBC, Table 506.2, Allowable Area Factor

Furniture
Furs
Glues, mucilage, pastes and size
Grains
Horns and combs, other than celluloid
Leather
Linoleum
Lumber
Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8)
Photo engravings
Resilient flooring
Self-service storage facility (mini-storage)
Silks
Soaps
Sugar
Tires, bulk storage of
Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

SECTION 311
STORAGE GROUP S

311.1 Storage Group S. Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage that is not classified as a hazardous occupancy.

311.1.1 Accessory storage spaces. A room or space used for storage purposes that is accessory to another occupancy shall be classified as part of that occupancy.

311.2 Moderate-hazard storage, Group S-1. Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

Aerosol products, Levels 2 and 3
Aircraft hangar (storage and repair)
Bags: cloth, burlap and paper
Bamboos and rattan
Baskets
Belting: canvas and leather
Books and paper in rolls or packs
Boots and shoes
Buttons, including cloth covered, pearl or bone
Cardboard and cardboard boxes
Clothing, woolen wearing apparel
Cordage
Dry boat storage (indoor)

Furniture
Furs
Glues, mucilage, pastes and size
Grains
Horns and combs, other than celluloid
Leather
Linoleum
Lumber
Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8)
Photo engravings
Resilient flooring
Self-service storage facility (mini-storage)
Silks
Soaps
Sugar
Tires, bulk storage of
Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

311.3 Low-hazard storage, Group S-2. Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following:

Asbestos
Beverages up to and including 16-percent alcohol in metal, glass or ceramic containers
Cement in bags
Chalk and crayons
Dairy products in nonwaxed coated paper containers
Dry cell batteries
Electrical coils
Electrical motors
Empty cans
Food products
Foods in noncombustible containers
Fresh fruits and vegetables in nonplastic trays or containers
Frozen foods
Glass
Glass bottles, empty or filled with noncombustible liquids
Gypsum board
Inert pigments
Ivory
Meats
Metal cabinets
Metal desks with plastic tops and trim
Metal parts
Metals
Mirrors
Oil-filled and other types of distribution transformers
Parking garages, open or enclosed
Porcelain and pottery
Stoves
Talc and soapstones
Washers and dryers

INTERNATIONAL CODE COUNCIL

311.3 Low-hazard storage, Group S-2. Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following:

Asbestos
Beverages up to and including 16-percent alcohol in metal, glass or ceramic containers
Cement in bags
Chalk and crayons
Dairy products in nonwaxed coated paper containers
Dry cell batteries
Electrical coils
Electrical motors
Empty cans
Food products
Foods in noncombustible containers
Fresh fruits and vegetables in nonplastic trays or containers
Frozen foods
Glass
Glass bottles, empty or filled with noncombustible liquids
Gypsum board
Inert pigments
Ivory
Meats
Metal cabinets
Metal desks with plastic tops and trim
Metal parts
Metals
Mirrors
Oil-filled and other types of distribution transformers
Parking garages, open or enclosed
Porcelain and pottery
Stoves
Talc and soapstones
Washers and dryers

2019 California Building Code
Occupancy/ Use Classifications

CHAPTER 6

TYPES OF CONSTRUCTION

User note:

About this chapter: Chapter 6 establishes five types of construction in which each building must be categorized. This chapter looks at the ... to which building elements such as building frame, roof, wall ... ding element and its proximity to a lot line, fire resistance of ...

CHAPTER 6

TYPES OF CONSTRUCTION

Pyramid Building is a Type V-B construction, due to the lack of one-hour fire resistance ratings at the roofs.

...ce rating by Table 601, building elements shall com- ... the applicable provisions of Section 703.2. The pro- ... of openings, ducts and air transfer openings in ... elements shall not be required unless required by ...ovisions of this code.

...eption: Noncombustible structural members support- ...olar photovoltaic panels are not required to meet the ...resistance rating for the following:

1. *Photovoltaic panel supported by a structure and having no use underneath. Signs may be provided, as determined by the enforcing agency prohibiting any use underneath including storage.*
2. *Solar photovoltaic (PV) panels supported by noncombustible framing that have sufficient uniformly distrib-*

erected, altered or extended in height or area shall be classified in one of the five construction types defined in Sections 602.2 through 602.5. The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602. Where required to have a fire-

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame[f] (see Section 202)	3[a,b]	2[a,b]	1[b]	0	1[b]	0	HT	1[b]	0
Bearing walls Exterior[e,f] Interior	3 3[a]	2 2[a]	1 1	0 0	2 1	2 0	2 1/HT	1 1	0 0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[d]	0	0	0	0	0	0	See Section 2304.11.2	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 1/2[b]	1[b,c]	1[b,c]	0[c]	1[b,c]	0	HT	1[b,c]	0

For SI: 1 foot = 304.8 mm.

FIRE-RESISTANCE RATING

BUILDING ELEMENT	TYPE V	
	A	B
Primary structural frame[f] (see Section 202)	1[b]	0
Bearing walls Exterior[e,f] Interior	1 1	0 0
Nonbearing walls and partitions Exterior		
Nonbearing walls and partitions Interior[d]	0	0
Floor construction and associated secondary members (see Section 202)	1	0
Roof construction and associated secondary members (see Section 202)	1[b,c]	0

2019 California Building Code
Table 601 Fire Resistance Rating

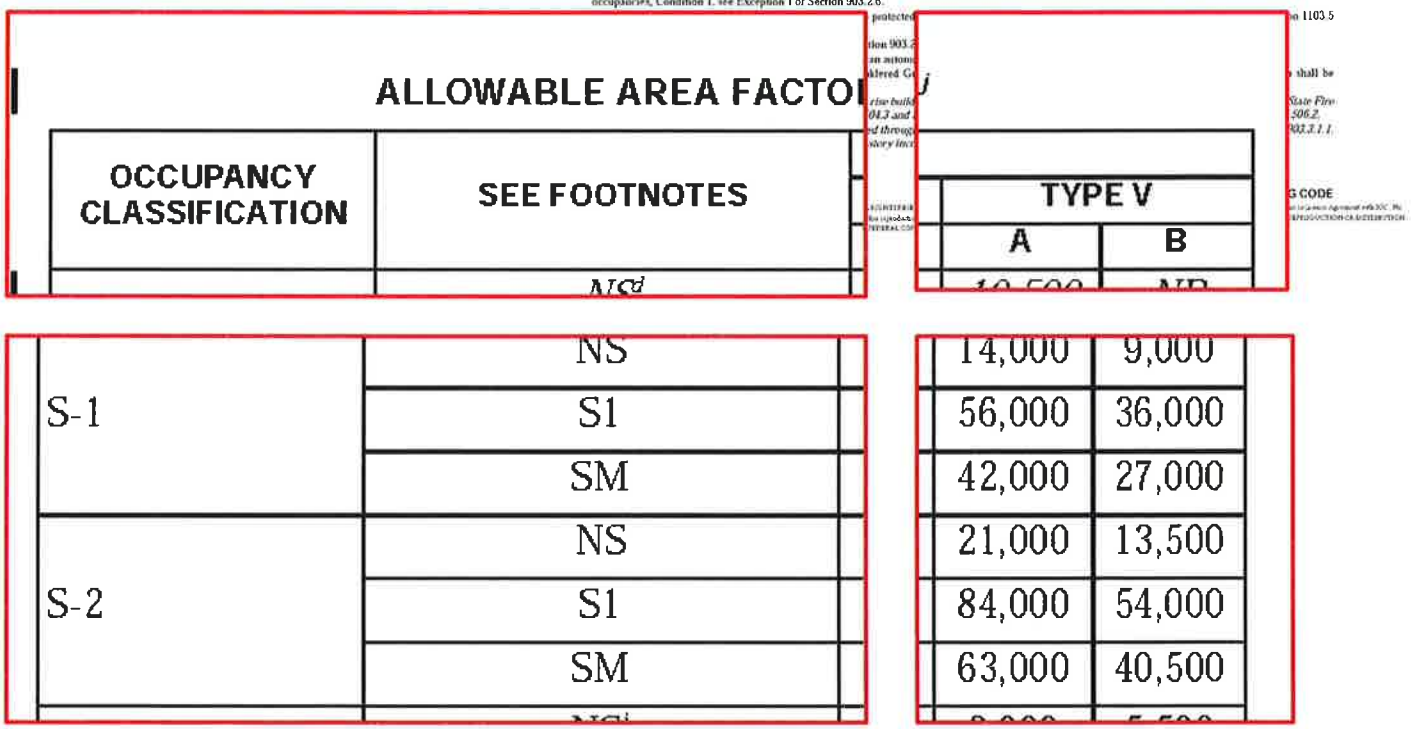
Pyramid Building is Classified as Type V-B construction. The allowable areas for Type B construction without fire sprinklers are as indicated.

GENERAL BUILDING HEIGHTS AND AREAS

TABLE 506.2—continued
ALLOWABLE AREA FACTOR (*A*, = NS, S1, S13R, S13D or SM, as applicable) IN SQUARE FEET[a,b,c]

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
R-2.1[e]	*NS[d]*	*UL*	*55,000*	*19,000*	*NP*	*16,500*	*NP*	*NP*	*10,500*	*NP*
	S13R	*UL*	*55,000*	*19,000*	*NP*	*16,500*	*NP*	*NP*	*10,500*	*NP*
	S1	*UL*	*220,000*	*76,000*	*NP*	*66,000*	*NP*	*72,000*	*42,000*	*NP*
	SM (without height increase)	*UL*	*165,000*	*57,000*	*NP*	*49,500*	*NP*	*54,000*	*31,500*	*NP*
	SM (with height increase)	*UL*	*55,000*	*19,000*	*NP*	*16,500*	*NP*	*NP*	*10,500*	*NP*
R-2.2[e]	*S1*	*UL*	*UL*	*96,000*	*64,000*	*96,000*	*64,000*	*82,000*	*48,000*	*28,000*
	SM (without height increase)	*UL*	*UL*	*72,000*	*48,000*	*72,000*	*48,000*	*61,500*	*36,000*	*21,000*
	SM (with height increase)	*UL*	*UL*	*24,000*	*16,000*	*24,000*	*16,000*	*20,500*	*12,000*	*7,000*
R-3, *R-3.1[e]*	NS[d]	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S13D									
	S13R									
	S1									
	SM									
R-4[e]	NS[d]	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
	S13D									
	S13R									
	S1	UL	UL	96,000	64,000	96,000	64,000	82,000	48,000	28,000
	SM (without height increase)	UL	UL	72,000	48,000	72,000	48,000	61,500	36,000	21,000
	SM (with height increase)	*UL*	*UL*	*24,000*	*16,000*	*24,000*	*16,000*	*20,500*	*12,000*	*7,000*
S-1	NS	UL	48,000	26,000	17,500	26,000	17,500	25,500	14,000	9,000
	S1	UL	192,000	104,000	70,000	104,000	70,000	102,000	56,000	36,000
	SM	UL	144,000	78,000	52,500	78,000	52,500	76,500	42,000	27,000
S-2	NS	UL	79,000	39,000	26,000	39,000	26,000	38,500	21,000	13,500
	S1	UL	316,000	156,000	104,000	156,000	104,000	154,000	84,000	54,000
	SM	UL	237,000	117,000	78,000	117,000	78,000	115,500	63,000	40,500
	NS[d]	UL	35,500	19,000	8,500	14,000	8,500	18,000	[illegible]	[illegible]
U	S1	UL	142,000	76,000	34,000	56,000	34,000	72,000	36,000	22,000
	SM	UL	106,500	57,000	25,500	42,000	25,500	54,000	27,000	16,500

For SI: 1 square foot = 0.0929 m².
UL = Unlimited; NP = Not Permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S1 = Buildings a maximum of one story above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; SM = Buildings two or more stories above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.
a. See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
b. See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
c. New Group H *and all Group I,* occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
d. The NS value is only for use in evaluation of existing building area in accordance with the *California Existing Building Code.*
e. New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies, Condition 1, see Exception 1 of Section 903.2.6.



2019 California Building Code
Table 506.2 Allowable Area Factor

4.0 FIRE PROTECTION

4.1 Overview of the Fire Protection Issues

Our current understanding is that the City of San Diego Fire Department has currently taken the position that they will not enter the Pyramid Building, should a fire start within the building, due to the danger that entry into the building might represent.

The biggest concerns, should a fire start within the building are the following:

a. The wood ceiling/ roof supporting system, which is fully exposed, with no gypsum board ceiling materials on the underside of the wood framing.
b. The currently inadequate area separation walls, between various bays within the building.
c. Certain, specific defective conditions and documentation regarding the fire sprinkler system.

In addition to the above, an additional concern, particularly relative to obtaining a permit for the fire protection repair work described below is the provision of code compliant exits from the building in case of a fire.

4.2 Designations for the Four Distinctive Building Areas

As shown on the Building Floor Plan, Exhibit 4.0-A, there are four (4) distinctive areas within the building. The four areas are presently divided by walls that extend full height from the concrete floors to the underside of the roof structures.

For the purposes of this report, we have included the following designations:

Bay 1: The most southerly area, which fronts onto Sigsbee Street to the south.
Bay 2: Next to, and north of Bay 1. This is the smallest of the bays.
Bay 3: Next to, and north of Bay 2
Bay 4: The most northerly area, at one time occupied by a paint ball operation. This is the largest bay.

4.3 Fire Sprinkler System

Separately, Schmidt Fire Protection has been retained by MTS to: a) perform a five year inspection of the existing fire sprinkler systems, b) update all required fire system documentation/ cards, and c) perform maintenance and repairs to ensure that the fire sprinkler system properly operates and meets the requirements of the City of San Diego.

For the purposes of our report, we have assumed that the above described work has been done and will be acceptable to the City of San Diego.

Seismic Brackets:

An issue brought to our attention by Josephson Werdowatz and Associates, Inc., Structural Engineers, is the lack of, and/or inadequate seismic bracing at the fire sprinkler systems. Obviously, the concerns for seismic bracing relate to the potential that the system could fail to operate properly during, and after, a seismic event.

Repair Recommendation

Our firm recommends that this issue be discussed with Schmidt Fire Protection.

4.4 Summary of the Feasibility of Other Fire Related Repairs

As described below, repairs to the building can be performed, at a reasonable cost to bring the building into reasonable compliance with current fire protection requirements, as stated in the related codes, and adopted by the City of San Diego.

As discussed below, there are a couple of issues, where it would be appropriate to request that the City of San Diego waive certain requirements, based on the fact that the building was constructed in 1962, subject to codes which were adopted at that time.

4.5 Applicable Codes

The primary applicable current codes include the following:

a. 2019 California Building Code (CBC)
b. 2018 NFPA 1: Fire Code (National Fire Protection Association)

4.6 Overview of the 2019 CBC Requirements Regarding Fire Protection

As an overview, the 2019 CBC has specific requirements based on the type of occupancy, type of building construction, building sizes, etc. It also has specific requirements regarding exiting from a building, e.g., as a result of a fire.

In addition, City Building Departments and Fire Departments rely on the NFPA 1: Fire Code, produced by the National Fire Protection Association. This document and others issued by the NFPA essentially represent national standards for fire protection.

4.7 Occupancy/ Use

For purposes of determining certain fire protection requirements, as well as other requirements, the code provides a number of categories for the occupancy/ use of building areas.

The category most appropriate for the Pyramid Building is one of the following:

S-1: Moderate Hazard Storage, e.g., cardboard and cardboard boxes, furniture, lumber, bulk storage of tires, etc.

S-2: Low-Hazard Storage, e.g., electrical motors, metal cabinets, metal parts, etc.

Recommendation: Use of the S-1 category, which is less restrictive. Use of the S-2 category would effectively place greater restrictions regarding what could be stored in the building.

See Exhibit 3.0-A, Section 311 of the 2019 CBC. (In Section 3.0)

4.8 Type of Construction

Because the ceiling/ roof support systems are wood, and not considered as "heavy timber", and because those ceiling/ roof systems are not currently protected by fire rated, gypsum board systems, the existing building has to be categorized as Type V-B construction, aka Type V Non-Rated construction.

4.9 Allowable Areas

The 2019 CBC then provides a table (Table 506.2), which states allowable areas for certain occupancies/ uses, based on the type of construction, as follows:

S-1	A: (One Hour)	14,000 sq. ft.	B: (Non-Rated)	9,000 sq. ft.
S-2:	A: (One Hour)	21,000 sq. ft.	B: (Non-Rated)	13,500 sq. ft.

4.10 Existing Areas (Approximate)

Bay 1 (most southerly)	21,200 sq. ft.
Bay 2	10,500 sq. ft.
Bay 3	19,800 sq. ft.
Bay 4 (most northerly)	35,000 sq. ft.

These areas are approximate, taken off previously provided plans. The actual areas would be field verified, and subject to adjustments based on permissible deductions for items such as the widths of exterior walls and shared interior walls.

Conclusion Based on the Above Two Sections: Bays 1, 3 and 4 are larger than allowed for Type V-B construction, based solely on Table 506.2.

4.11 Fire Sprinklers - Code Approved Waiving or Modification of Certain Fire Protection Requirements

Fortunately, the code allows the waiving or modification of certain code requirements if an approved fire sprinkler system exists or is installed.

One of the options is the ability to increase the allowable areas by 300%, if an approved fire sprinkler option is installed in each bay. Another allowable substitution is related to non-rated and rated construction, as discussed in Section 4.8. Related to the allowable area increases, when a qualified fire sprinkler system is installed, the adjusted, allowable area of each bay increases to the following:

Using this increase, the revised allowable areas would be:

Bay 1	27,000 sq. ft.
Bay 2	27,000 sq. ft.
Bay 3	27,000 sq. ft.
Bay 4	27,000 sq. ft.

4.12 Potential, but not Practical Option Based on Making Repairs to Converting Bay 4 From a Type V-B to a Type V-A Construction

Another option would have been to install gypsum board on the underside of the ceiling/ roof structure, which would allow Bay 4 to be classified as a Type V-A (One Hour) construction. However, Dan Werdowatz, Structural Engineer, has informed our firm that from a structural point of view, the existing structure cannot accept the additional weight of the gypsum board, without significant modifications.

Related to this, the fact that fire sprinklers are installed in Bay 4 could have been used as a means to change the construction type from a Type V- B (non-rated) to Type V-A (one hour rated), except for the fact that sprinklers can only be used as a substitution for one element, e.g., area increase or change of construction type. Since we really need the existence of fire sprinklers to increase the allowable area of Bay 4, we can't use it to change the type of

4.13 Conclusion Regarding the above, Sections 4.11 and 4.12.

With fire sprinklers, Bays 1, 2 and 3 are okay, in terms of areas.

Regarding Bay 4, there are two options:

a. Request that the City of San Diego grant an area exception, based on the age of the structure.

b. Alternatively, it would be possible to install additional walls, effectively increasing the size of Bay 3, and decreasing the size of Bay 4.

Recommendation: First, would be to pursue option (a) with the City of San Diego. Should the City not agree to option (a), pursue option (b).

4.14 Area Separation Walls

4.14.1 General Description and Requirements

Area separation walls are fire rated walls which separate areas within a single structure. Once installed in accordance with specific requirements the areas formed by the area separation walls are technically considered as "separate buildings" with respect to the allowable areas discussed in Sections 4.9 and 4.10 above.

The basic requirements for area separation walls are as follows:

a. They must be two (2 hr.) construction, which can be met with wood studs, two layers of gypsum board and extension of the 2 hr. rated walls at the roof line with either:
   1. An extension of the 2 hr. fire rated wall above the roofline by a min. of 2 ft., or
   2. Installation of one layer of gypsum board, horizontally on the underside of the roof structure for a distance of 5 ft.

4.14.2 Existing Two Hour Wall Conditions/ Recommendations

4.14.2.1 Gypsum Board

There are three existing shear walls.

The area separations between Bay 1 and Bay 2, and between Bay 2 and 3 are wood framed walls, with gypsum board installed on both sides of the walls. The gypsum board has numerous deficiencies including numerous holes and gaps, incorrect, or missing attachments, several areas where 2 layers may have been installed, and incomplete gypsum board assemblies at the rooflines.

The area separation wall between Bays 3 and 4 are constructed with CMU blocks, which easily meets the 2 hour fire requirement.

Repair Recommendation:

Perform the necessary gypsum board repairs to meet the current requirements for two hour wall construction.

4.14.2.2 Two Hour Extension of the Two Hour Walls

Based on a drone flight over the roof area, it appears that there is an extension of the two hour wall between Bays 3 and 4 above the roofline. That extension has not been inspected to confirm its conformance to the current code requirements.

There are no 2 hr. wall extensions, either vertically or horizontally at the Bay 1 to 2 and Bay 3 to 4 walls.

Recommendation:

We would recommend requesting an exception from the City of San Diego on this issue, approving the two hour wall without the extensions.

If not approved, we would recommend installing gypsum board horizontally on the underside of the ceiling/ roof structures, for distances of 5 ft., subject to structural verification that the existing roof can, as is, or with relatively minor modifications "carry" the additional load, both for dead load and seismic purposes.

As a "fall-back" alternative, two hour wall extensions could be constructed above the roof, subject to verification as to additional drainage modifications at the roof surfaces.

4.14.3 Door Openings in the Two Hour Walls

While door openings are allowed in fire rated wall construction, they have to be fire rated. In two hour rated wall construction, those doors should be 1.5 hour rated. They would also have to have automatic closures.

4.14.4 Other Penetrations in the Two Hour Walls

Similarly, any penetration through the Two Hour Walls will have to be fire rated flashings and/or caulking/ sealants.

4.15 Exiting From the Building

4.15.1 Exit Doors

Integral to fire protection are the exiting requirements from the interior of the building in case of a fire.

In a similar manner as the "Allowable Areas" the 2019 CBC, and prior codes dating back to before 1962, establish the number of "qualified/ legal exits" in case of a fire.

Considerations for the number of exits includes the occupancy/ use type, the total areas, corridor distances, etc.

For this project, the primary considerations are: a) the use, i.e., Type S-1, and the areas of each space.

By our firm's analysis/ calculations, one exit is required in Bays 1, 2 and 3, while 2 exits would be required in Bay 4, because of increased area of that space. The placement of the second exit is also guided by the code requirements for separation between the exits.

Finally, the doors themselves have to conform to code requirements, including panic hardware, and approved closures. In essence, the doors have to be openable, from the inside, e.g., by panic hardware, without having to use a key, or operate a conventional door handle/ knob, and then the door has to automatically close, after being opened.

Repair Recommendation - Exit Door:

In consideration for the above, as well as their general condition, our firm recommends replacing the existing four doors and frames with the current fire exiting requirement. For security, those doors can be hooked up to the existing and/ or new security system. Additionally, as will probably be required to meet the current exiting requirements, install a new exit door in either the north or west wall of the building, near the NW corner of the building. Structurally, the new steel lintel will be necessary above the new doorway.

4.15.2 Exit Landings and Stairs

The current door to Bay 1 exits directly onto the adjacent A.C. pavement, and therefore does not need any additional modifications, in terms of the exiting requirements.

Because of the slope of the property to the north, Bays 2, 3, and 4 currently have stairs and landings to their entry doors.

Repair Recommendations:

A further review of the existing landings and rails will be required to determine the extent of modifications required to the landings and stairs.

The above described work should incorporate certain ADA requirements, as also discussed in Section 11.0.

4.16 Exit Signage

Repair Recommendations:

To be in conformance with current standards, it is recommended that required exit signs be added, including illuminated signs within the building.

4.17 Smoke and Fire Detectors

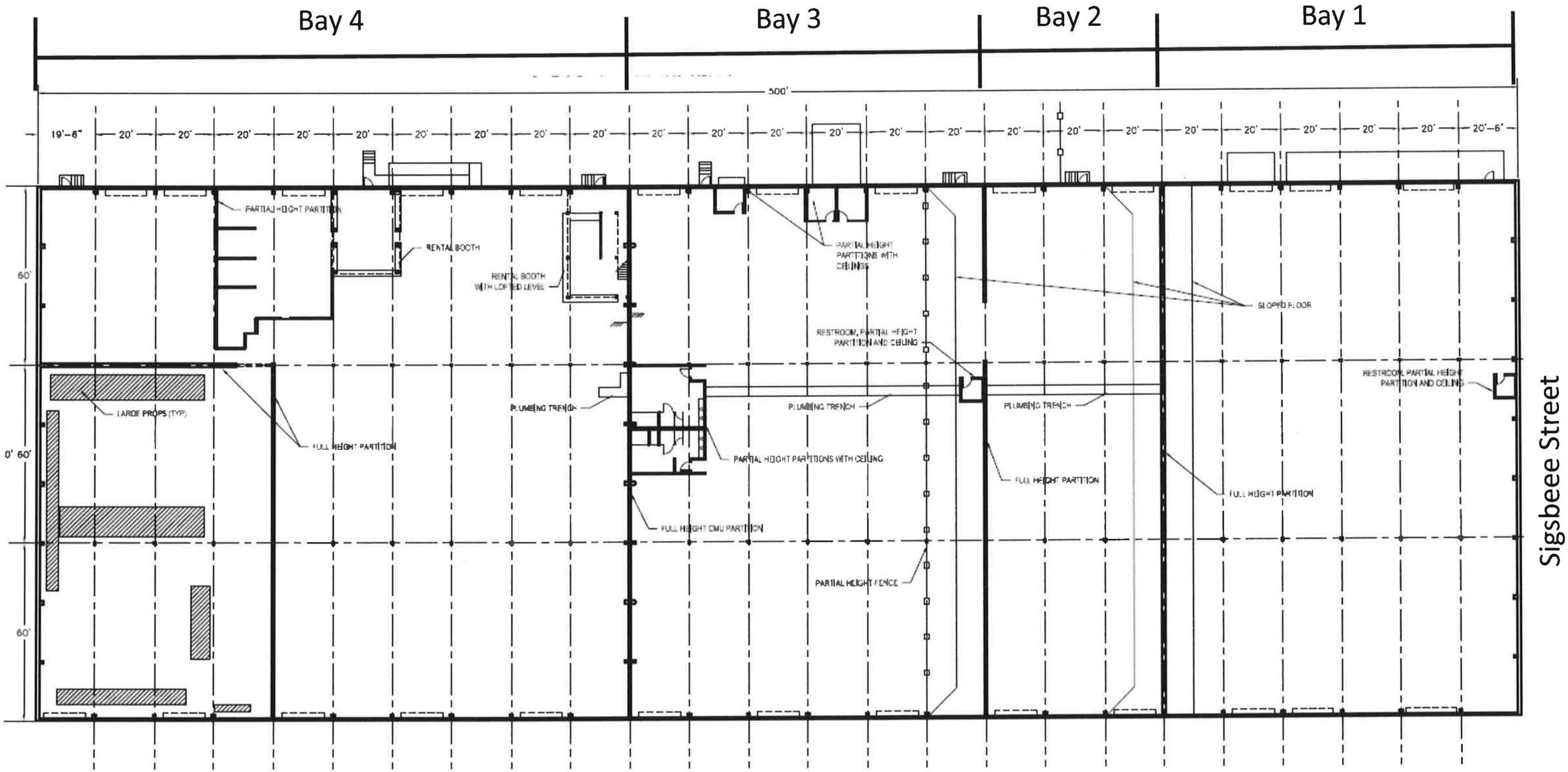
Repair Recommendation:

If not already installed, smoke and fire detection devises, preferably directly wired to an electrical source, should be connected to the existing and/or new security systems.

4.18 Exhibits

3.0 - A Description of "S-1 and S-2" Storage Use Classifications (In Section 3.0)
4.0 - A Building Floor Plan
4.0 - B Photographs of the Existing Conditions

Exhibit 4.0-A



Trolley Line (to West)

North

Floor Plan Copied from HNTB Report



4.0-a Area Separation Wall – Bay 1 and 2



4.0-b Area Separation Wall – Bay 1 and 2



4.0-c Area Separation Wall – Bays 2 and 3



4.0-d Area Separation Wall – Bays 2 and 3



4.0-e Partially Completed Area Separation Wall – Bays 2 and 3



4.0-f CMU Area Separation Wall – Bays 3 and 4



4.0-g Low Curb Between Bays 3 and 4

5.0 ANALYSIS OF THE EXISTING BUILDING SYSTEMS/ COMPONENTS AND RECOMMENDED REPAIRS

The following analysis of the existing building and recommended repairs assumes that the building will continue to be used by MTS for general warehousing and potentially other "low occupancy, operational uses" in the future.

1.0 STRUCTURAL

A separately provided report by Josephson Werdowatz and Associates, Inc., Structural Engineers, dated October 28, 2020, addresses the structural systems associated with the Pyramid Building, including their adequacy and need for repairs.

1.1 Additional Comments Regarding the Structural Report:

Section 3: Masonry Cracking/ Spalling

Particularly at the northwest corner of the building, the discharging of rain water from a roof downspout is contributing to the soils problems beneath the CMU walls at that corner.

Repair Recommendation:

Fill in the existing "hole" created by discharging water from the downspout termination and potential other causes. Modify the A.C. slopes to the north of the structure and/or add horizontal gutter extension that will take rainwater to a point where the slopes of the A.C. pavement will direct the water to the north of the building, away from the foundation.

2.0 INTERIOR CONCRETE SLABS

2.1 Overall Analysis of the Existing Concrete Slabs

The condition of the existing concrete slabs within the structure vary from being in a relatively good condition to being in a relatively poor condition. Given the anticipated usage of the building, i.e., primarily for the warehousing of equipment and supplies, the goal of the interior concrete slab repairs will be to ensure that they are serviceable for their intended purpose, although not aesthetically attractive.

Existing problems relative to the interior concrete slabs include the following:

2.2 Sloping of the Concrete Slabs

a. Subsidence of the concrete slabs at the northern portion of the building, i.e., Bay 4. This condition probably resulted from inadequate compaction of the underlying soils in this area, prior to the construction/ installation of the concrete slabs. It is likely that the majority of the subsidence of the slabs occurred within the first five years after the original installation of the concrete and that the continued subsidence of the slab will be at most minimal.

Repair Recommendation:

Since a majority of the slab subsidence has already occurred, an acceptable repair would be to install a cementitious underlayment over the existing concrete slab to reasonably level out the interior concrete slab. Because of the variable nature of the elevations and slope in the slab, "completely level slab areas" are not possible, without extending the new underlayments further than required for a modest correction of the worst areas of

2.3 Cracks, Within the Concrete Slabs

b. General cracking of the concrete slabs throughout the building. Those cracks vary in size, i.e., from hairline up to approx. 3/8" in width, with varying lengths and frequencies, i.e., areas where the concrete slabs have numerous cracks.
Based on the extent of the cracking, it is apparent that: 1) the slab thicknesses are probably typical of "standard" interior slabs, i.e., not exceeding 5" in thickness, 2) the slabs are at most lightly reinforced with steel, and may, at least in part, be un-reinforced, 3) the slabs were probably placed over substrate soils which were not compacted in a similar manner as is typical for slab construction over the last 20+ years, and 4) the concrete was placed at higher water-to-cement ratios than acceptable today.
See Photographs No's 2.3-a and b.

Repair Recommendations:

a. Epoxy inject slab cracks that exceed 3/32" in width and cracks in areas of obvious moisture migration through cracks.
b. Fill other cracks, less than 3/32" in width, with a durable sealant.
c. At a couple of locations, i.e., locations with numerous cracks, including cracks extending in numerous directions, sawcut out, and remove a portion of the existing concrete slabs. Replace those sections of concrete slabs with new steel reinforced concrete slabs over 4" crushed rock or new non-expansive base materials.

2.4 Moisture Intrusion Through the Concrete Slabs

a. At some locations, particularly in Bay 3, it is obvious that considerable moisture is coming through the slabs, including cracks in those slabs. The evidence includes white efflorescence, indicative of salts, remaining after water/ moisture has evaporated.
b. Key considerations regarding the concrete slabs include the intended use of the building, in terms of storage.
If the building is being used for general storage of equipment and MTS related supplies, the existence of the moisture probably does not represent a significant restriction relative to those usages. Conversely if at some point of time, those uses change to other uses, e.g., storage of smaller items, including items in boxes, and warehouse related offices, at least some of the above described conditions should be repaired.
See Photograph No's 2.4-a and b

Repair Recommendations:

At locations where desired, e.g., at locations where moisture coming up through the concrete slabs could damage the items being stored, perform the following repairs:

a. Scrape the floors to remove paint, drywall mud and other deleterious materials to the below described sealing.
b. Lightly sandblast/ media blast the existing concrete surfaces, as required to achieve a surface which can be penetrated by a penetrating traffic sealant.
c. Apply penetrating sealant over the concrete surfaces.
d. Apply a traffic coating over the concrete surfaces.

3.0 EXTERIOR WALLS

3.1 Description of the Existing Exterior Wall System

The exterior walls of the structure are predominantly, except for roll-up steel doors and individual man-doors, reddish, nominal 8" concrete masonry units, with mortarless head joints.

a. Concrete masonry blocks, generally installed as follows:
   The walls are steel reinforced, and solid grouted, as discussed in a separate report by Josephson Werdowatz and Associates, Inc.
b. Concrete Masonry Pilasters, at least generally at 20 ft. on center.
c. Except for some "painting over" of graffiti, the exterior surfaces of the concrete masonry walls at Bay's 1, 2 and 3 remain their originally installed natural condition, i.e., a reddish color. The exterior surfaces of the concrete masonry walls at Bay 4 have generally been painted grey.
d. On the inside surfaces, there is considerable evidence of the passage of water through the concrete masonry, exterior walls, as evidenced by white efflorescence.

Specific conditions/ problems relative to the exterior concrete masonry walls are as follows:
See Photograph No's 3.1-a through c.
See also, the Structural Report by Josephson Werdowatz and Associates, Inc.

3.2 CMU Walls - Deterioration/ Cracking

See Photograph No's 3.2-a through c.
See the separately provided report by Josephson Werdowatz and Associations, Inc.

3.3 CMU Walls - Water. Moisture Intrusion Through the Walls, Into the Structure

There is considerable evidence of water/ intrusion through the exterior walls, as evidenced by white efflorescence and other water stains on the inside surfaces of the walls.
At some locations, portions of the walls have been painted, with unknown materials, presumably to: a) improve the appearance of the walls, and/or b) as an attempt to stop or minimize the passage of water into the interior of the spaces, or at least the interior surfaces of the exterior walls.

Related to the Issue of Water - Moisture Intrusion:

a. The lack of mortar at the head joints will always allow water to enter into the interior portion of the exterior CMU walls. Stopping the water intrusion into, and through the CMU walls would require the application of an expensive coating over the exterior CMU walls.

b. Once water has entered into the walls, it is preferable that the water/ moisture have a means of evaporation, on both the interior and exterior surfaces of those walls.
c. Particularly on the inside, use of non-breathable paints can "trap" water/ moisture in the exterior CMU walls, which, in turn, can contribute to CMU wall deterioration and further corrosion of the steel reinforcement.
d. At this point, sandblasting or media blasting the exterior CMU wall surfaces, e.g., to remove the existing paint, or graffiti probably does more damage/ harm than good, e.g., the removal of the already damaged, hard surfaces of the CMU blocks, making the CMU blocks more vulnerable to water intrusion.

See Photograph No's 3.3-a through e.

3.4 Exterior Doors

a. Man-Doors, currently located along the eastern wall line

At the eastern side of the building, there are seven (7) existing "man-doors", i.e., doors intended for individuals. The only man-door with "at grade" access is the most southerly door in Bay 1. The other six doors have stairways to the man-doors.

While these doors are functional, they do not meet the current requirements for exiting purposes, as discussed in Section 4.0 Fire Protection. In particular, the doors do not

Repair Recommendation:

Remove and replace the doors, including their frames with doors that meet the code requirements for exiting the structures. Install sensors at the doors, tied into the existing or new security system.

b. Roll-Up Doors

At present, there are 26 roll-up, steel doors, with 13 roll-up doors along the eastern wall line and 13 along the western wall line.

Our firm did not operate the doors to verify their proper operation.

Essentially, the steel doors on the west side of the building serve no other purpose other than filling in what would otherwise be open spaces in the walls. As previously mentioned, at one time, those doors were next to an active rail line. While still in place, the rail line appears to be entirely abandoned.

Repair Recommendation:

Inspect all roll-up doors for proper operation and desired security, e.g., locks. Assume only minor repairs will be necessary.

4.0 ROOFS

4.1 Roofing Membrane

On October 15, 2020, our firm had a drone operator document the existing conditions of the roof, with a drone. Our firm did not perform an actual "roof-top" inspection.

Our firm has not been provided with any documents, describing when the last, obvious re-roofing was performed.

The roofing framing is a "flat" roof, with at least minimal slopes to the surface mounted roof drains. As illustrated in the photographs, there is some localized ponding, which is not unusual for a roof of this size.

The roofing membrane appears to be a tri-ply BUR or APP granular cap sheet membrane. These types of roofing membranes are susceptible to damage, when subjected to long-term water ponding.

As shown in the photographs, the roofing membranes show considerable evidence of deterioration, in terms of their loss of the granular finishes. Over time, this loss of the protective coating will result in premature deterioration of the roofing membranes.

At the fours sides of the roof, short roofing parapets extend above the roof. At the division wall between Internal Spaces 3 and 4, there appears to be an extension of the CMU wall, above the adjacent roof surfaces. This would be consistent with a normal expectation of such an extension, in accordance with the requirements for fire rated area separation walls, as discussed in Section 4.0, Fire Protection.

As observed during their investigation, at least five (5) locations were observed where there is apparent water intrusion through the roofing membrane assemblies.

Repair Recommendations:

After reviewing the locations of apparent water intrusion through the roofing membranes, perform an inspection of the roof, identifying locations and probable causes for the water leakage. Perform appropriate repairs to correct the existing water leakage.

Concurrent with the above, perform additional, localized repairs at existing, or problematic conditions.

See Photograph No's 4.1-a through i.

4.2 Roof Drainage

In general, the primary roof slopes appear, based on the drone photograph images, to be adequate.

Water ponding does occur at the secondary drainage locations, e.g., crickets between surface drains.

Based on the drone photograph images, our firm is not able to comment on the adequacy of the surface versus overflow drains.

5.0 FIRE PROTECTION

See Section 4.0 of this report.

6.0 INTERIOR WALLS, BOTH RATED AND NON-RATED AND FLOORS AND CEILINGS

6.1 Non-Rated Wood Framed Walls, Guardrails and Floors

Within the building, there are a number of partial height wood framed improvements that should, or can, be demolished/ removed. By far the greatest number of locations and scope of work, in terms of the removals, occurs within Bay 4, i.e., the bay previously occupied by the Paint Ball operators.

In particular, stairs and any supported floors above the concrete slab should be considered as very un-safe.

In the other bays, framed walls, e.g., at bathrooms or storage rooms could be removed, if desired to open up the bays for other uses, or left in place, with possible usage for other purposes.

6.2 Removal of the Paint "Balls" from the Walls and Floors

Many of the walls and floors in the former Paint Ball space are moderately to severely covered with paint balls. Many of the affected surfaces will be taken care of when wood framed walls are removed from the space. The following repair recommendation will at least reasonably restore the affected surfaces to a point, where they could be painted, if desired.

6.3 Other "Cosmetic" Improvements

There are numerous other "clean-up" repairs that could be performed, including the removal of abandoned electrical and signal wires and conduits, painting of various surfaces and a general "clean-up".

See Photographs No's 6.3-a through e, related to the above.

Repair Recommendation, Related to the Above:

1. As discussed above, remove and dispose of most of the wood framed structures, cabinets, counters, etc. in Bay 4, i.e., related to the Paint Ball operations.
2. Similarly, if desired to "free-up" additional space, other partial height improvements could be removed.
3. CMU Walls: Scrape off the existing paint balls, to a reasonable degree, i.e., so that the walls are smoother. Apply a coat of "breathing" paint over the affected wall surfaces. Note: A breathing paint is recommended, allowing moisture within the walls to pass through the surfaces.
4. Gypsum Board Surfaces: Scraping is not practical, with gypsum board surfaces. As a reasonable repair, apply a coat of paint over those surfaces.
5 Concrete Floors: Scrape paint balls currently on the floors. While the floors could be coated with a traffic coating, given the current, anticipated use of the space, that is probably not warranted.

7.0 PLUMBING

7.1 Water and Waste Systems to Building

In their report entitled "Pyramid Building Concept", dated August 8, 2020, HNTB discussed the existing water and sewer systems coming into and being delivered to the building. It is beyond the scope of this report to discuss these systems, except to note the HNTB report expressed the opinion that both the incoming water and sewer systems were adequate.

7.2 Bathrooms and Showers

As indicated on Exhibit 2.0-C, Building Floor Plan, there are several existing bathrooms in the building, including one that at one time probably had functioning showers.

a. Bathroom in Bay 1 of the Building (Southernmost section of the building)
This bathroom is large enough to reasonably comply with ADA requirement s.

b. Small bathrooms in Bay 3.
c. Bathroom/ Showers in Bay 3.

At some point in time, it is apparent that the building's use included the need for both a men's and women's locker room/ showers, restrooms. At present, the spaces are only in fair condition. They have probably not been used for some time.

If the building is only going to be used for warehouse purposes, there is no real purpose for such a large space commitment to these locker rooms. Conversely, if the space is not really needed, at this time, it may be advisable to retain this shower space, with relatively minor modifications, with the intent that at some time, if desired, these locker rooms will already exist.

See Photographs No's 7.2-a through d, related to the above.

Repair Recommendation:

As also discussed in Section 11.0 - Handicap Requirements, although our firm does not believe that the building would be subject to ADA requirements, particularly if it remains as a storage facility, out of which no public related services are being performed, it may be prudent to provide one or two ADA compliant bathrooms.

Additionally, it is recommended that a plumber perform an inspection of all of the plumbing and either: a) make repairs to correct code or operational problems, or b) cap off/ or close valves to plumbing fixtures not in service.

7.3 Paint Ball - Partially Completed Plumbing

At some point in time, obviously before they closed, the paint ball tenant started to install plumbing fixtures within their space, including removal of concrete, trenching and installing some piping. The excavations are still open.

Although not known for sure, it is probable that the work described above was done without a permit.

Repair Recommendation:

Remove the piping. Cap off any piping extended into the Paint Ball Space. Fill in the previous excavation with soil or crushed rock, followed by a min. 4.5" concrete slab with steel reinforcement and steel dowels into the existing slab.

8.0 ELECTRICAL/ LIGHTING

The electrical/ lighting systems reflect systems that, at least in part, have probably been installed without permits, and modified a number of times through the years. Within the scope of our work, our firm has not undertaken a methodical review of the electrical/ lighting systems. However, based on our experience with older buildings, we believe that the electrical/ lighting systems include a number of deficiencies, at least in terms of the current electrical codes and standards.

Six conditions that are easily recognized, and identifiable when entering into the 4 bays, and should be corrected as follows:

a. Switches for the Lights
   At present, the switches for the overhead lighting systems are not necessarily adjacent to the entry doors to the 4 bays, or openings in the area separation walls, separating the bays.
   It either takes previous knowledge or "searching" to locate the various switches.
b. Main Service Panels, Disconnects, Power Supply Switches, etc.
   Similarly, given the obvious modifications that the electrical system has undergone over the years, the purpose of various electrical boxes and locations of main service panels, disconnects and power supply switches is not quickly determined, when entering into the various bays.
c. Electrical System Signage
   Related to the above, the identification of various electrical components is inadequate.
d. Code Violations
   As discussed above, it is likely that certain code violations presently exist in the electrical systems, including some which could represent significant safety issues.
e. Abandoned Systems
   To "clean-up" the electrical systems, electrical components related to abandoned systems should be removed.
f. Signage

Repair Recommendations:

a. Perform an investigation of the existing electrical systems, preparing a report of the findings and a plan view layout of where main panels, disconnects and power switches exist. Make recommendations for various repairs.
b. Where located within the interior areas of the bays, extend conduits and electrical wires to new switches, located next to the entries into the bays and openings between the bays.
c. Correct code violations in the existing electrical systems.
d. Remove and/or cap off abandoned electrical systems.
e. Install new signage regarding the electrical systems, e.g. the function/ purpose of various items and signage re: safety, e.g., high voltage.

See Photograph No's 8.0-a and b, related to the above.

9.0 AIR CIRCULATION/ VENTILATION

The existing building does not have any air conditioning system, or an overall air circulation system, e.g., regularly placed ceiling fans. When desired, the primary source of air circulation occurs when individual access doors, located on the exterior of the building, are opened. For the present and anticipated continued use of the building for warehousing of equipment and supply, the present lack of an HVAC or ventilation system is probably adequate.

Should the usage change, e.g., turning a portion of the structure into a distribution center, it would be possible to install localized ventilation or HVAC systems.
Repair Recommendations: None recommended at this time.

10.0 EXTERIOR SITE CONDITIONS

10.1 General

The existing site conditions on all four sides of the building have been described in Section 2.2. An overall analysis of these site conditions is generally beyond the scope of this report. Nonetheless, the following observations and recommendations are being provided, where those conditions have a direct impact on the structure.

10.2 Site Drainage

The existing site drainage conditions are discussed in a prior issued report by HNTB, entitled "Pyramid Building Concept Layout", dated August 8, 2019.
Based on personal observation during a rainstorm, there are several conditions which have direct impacts on the building and the use of the building. These are as follows:

a. The natural slope of the property goes from south to north across the primarily A.C. pavement, to the east of the building. At the east side of the building, there are significant slopes of the pavement away from the building, creating a "drainage swale", in a south to north direction, running the entire length of the building. During a moderate to heavy rainstorm, for cars parked against the eastern side of the building, individuals step out of their cars directly into the drainage swale. On the occasion that I observed this condition, the water was several inches deep, and the width of the water was too great to "jump over".
b. Similarly, during a moderate to heavy rainstorm, getting from the parking lot area, to the east of building, to the building entrances requires walking through several inches of water in the above mentioned drainage swale.

See Photograph No 10.2-a, related to the above.

Repair Recommendation:

a. On a preliminary basis, subject to further investigations, modify some of the existing A.C. pavement grades and install several small, steel bridges over the existing drainage swale.
b. Along the east side of the building, there is one truck loading dock. To serve as a loading dock, there is a concrete surfaced ramp which slopes downward from the parking lot to a roll-up door in the east wall, i.e., providing a sufficient elevation difference so that the level of a truck bed will typically be at about the same elevation as the interior warehouse slab.

See Photograph No 10.2-b, related to the above.

Repair Recommendation:
Subject to further investigations, e.g., location of a storm drain line that is low enough, install a surface drain at the lowest point in the truck access ramp, and extend a drainage line from that drain to a suitable discharge location.

10.3 East Side

a. General Clean-Up/ Repairs

Largely to improve the appearance of the building, there are a number of "clean-up" items that could be performed along the east side of the building, including the following:
Repair Recommendations:

1. The removal of abandoned items, including wiring, conduits, wood elements, etc.
2. "Boxing" around, and over, various items mounted on the walls.

b. Exterior Access Doors and Access to the Doors/ Door Hardware

Repair Recommendations:
In conjunction with the fire protection repair recommendations, the exterior access doors for personnel (man-doors) would likely be replaced. Similarly, the access ramps and stairs would likely be replaced, or at least modified.

c. Painting

Repair Recommendations:
Particularly along the east and south sides of the building, painting would immediately improve the building's appearance, including areas of graffiti, wood surfaces in need of painting, exterior metal doors (if they remain), etc.

See Photograph No's 10.3-a and b, related to the above.

10.4 North Side

To the north of the building is a triangular area, most of which is covered by A. C. pavement. This area is presently being used as an outdoor storage area.
Some A.C. pavement damage has occurred in this area.
Repair Recommendation:
In addition to some general clean-up, repair damaged areas of A.C. pavement, particulalry next to the northern building wall, some of which has resulted from the exiting of rainwater from downspouts placed along the northern building wall.

10.5 West Side (Next to Railroad Lines)

The area to the west of the MTS building is, at least generally covered with crushed rock. Starting approx. 5 ft. from the west building wall, a set of steel railroad tracks has been abandoned. These tracks were obviously used at one time for the delivery of materials/ equipment to the roll-up steel doors located along the building's west wall.
Repair Recommendation:
None, except for some clean-up, e.g., items/ debris left along the building wall.and re-painting over areas of graffiti.

10.6 South Side (Main Street)

A relatively narrow strip of property exists between the south wall of the building and Sigsbee Street. The soil in this area has been covered with crushed rock.

To the east of the MTS site, along Sigsbee St., a concrete sidewalk has been installed. Potentially, that sidewalk might be extended, to the south of the MTS building, connecting to concrete flatwork/ sidewalk related to the Trolley line, to the west of the MTS site.

Repair Recommendation:

None, except for some clean-up, e.g., items/ debris left along the building wall.

11.0 HANDICAP REQUIREMENTS AND PROVISIONS

The current handicap requirements are based on the American Disabilities document, titled Americans with Disabilities Act of 1990 and the Department of Justice document, 2010 Standards for Accessible Design.

These documents outline the requirements for everything from access to buildings, access to restrooms, provisions for the use of restrooms, signage, etc.

It is beyond the scope of this report to discuss, in detail, MTS's requirements for ADA compliance.

However, we will point out several key aspects relative to ADA compliance.

a. Based on its present use, the Pyramid Building is not being used to provide services to the public.
b. The recommended repairs do not represent new construction or an alteration, that is a significant change in the building's floor plan, interior layout of the interior space, or the building's appearance.
c. Certain ADA compliance costs would be disproportional to the overall repair costs, modification of bathrooms that otherwise would only be "cleaned up"

See Photograph No's 11.0-a and b, related to the above.

Overall Recommendations:

Our firm's overall recommendation is to, if requested, request a waiver from the overall ADA requirements.

Specific Repair Recommendations:

Notwithstanding the above, and in consideration of the overall goals of the ADA requirements, at a minimum, our firm recommends the following:

a. Provide ADA compliant access, via direct access at Bay 1 and ramp access to Bays 3 and 4.
b. As required, modify the existing bathrooms in Bays 1 and 3, in accordance with ADA requirements.



2.3-a Cracks in Concrete Slab



2.3-b Close-up of Previous Photo



2.4-a Passage of Water Through Concrete Slab - White Efflorescence



2.4-b Passage of Water Through Concrete Slab – White Efflorescence



3.1-a Exterior CMU Wall – Open Bead Joints



3.1-b Exterior CMU Wall – Open Bead Joints



3.1-c Exterior CMU Wall – Open Bead Joints



3.2-a Damaged CMU Blocks – Northwest Corner of Building



3.2-b Close-up of Previous



3.2-c Deteriorated/ Patched CMU Blocks – East Elevation



3.3-a Water Stained Exterior Wall



3.3-b Water Stained Exterior Wall



3.3-c Water Stained Exterior Wall



3.3-d Water Stained Exterior Wall



3.3-e Water Stained Exterior Wall – Through Painted Surfaces



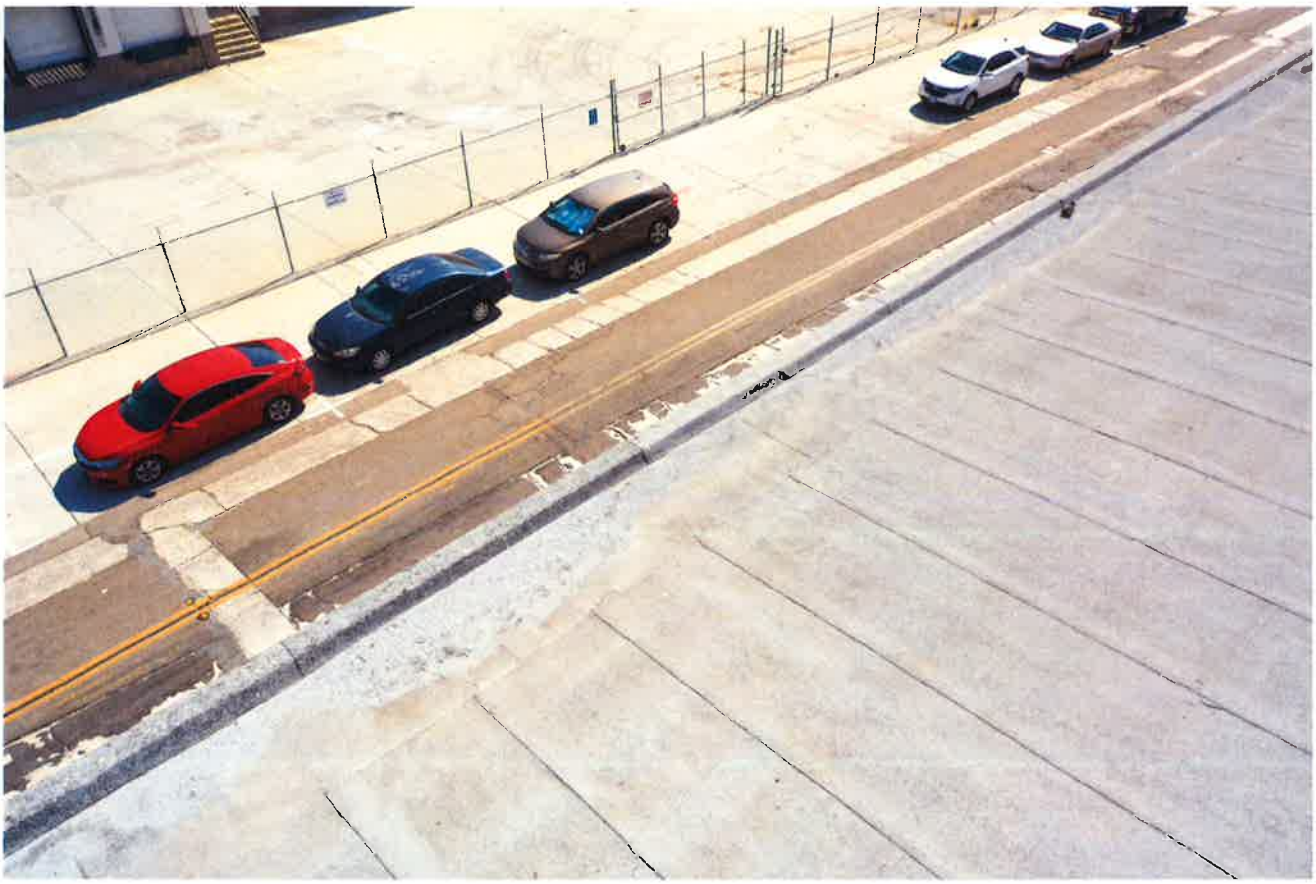
4.1-a Condition of Composition Roof – Missing Granules



4.1-b Condition of Roof at Southern Edge – Loose Roofing Granules



4.1-c Typical Edge Condition – Granular Finish Deposited at Roof Edge/ Drainage Swale



4.1-d Close-up Along Roof Edge – Granular Finish Deposited at Roof Edge/ Drainage Swale



4.1-e Water Ponding on Roof – Northwestern Corner at Roof



4.1-f Water Ponding on Roof – Eastern Edge of Roof



4.1-g Water Ponding at Low Curb/ Roofing Scupper



4.1-h Overview of Roof, Low Curb and Scupper



4.1-I Close-up – Low Curb, Vents and Drain



6.3-a Concession Area – Bay 4



6.3-b Wood Framed Wall – Bay 4



6.3-c Wood Framed Wall – Bay 4



6.3-d Bay 4 – Former Paint Ball Operation



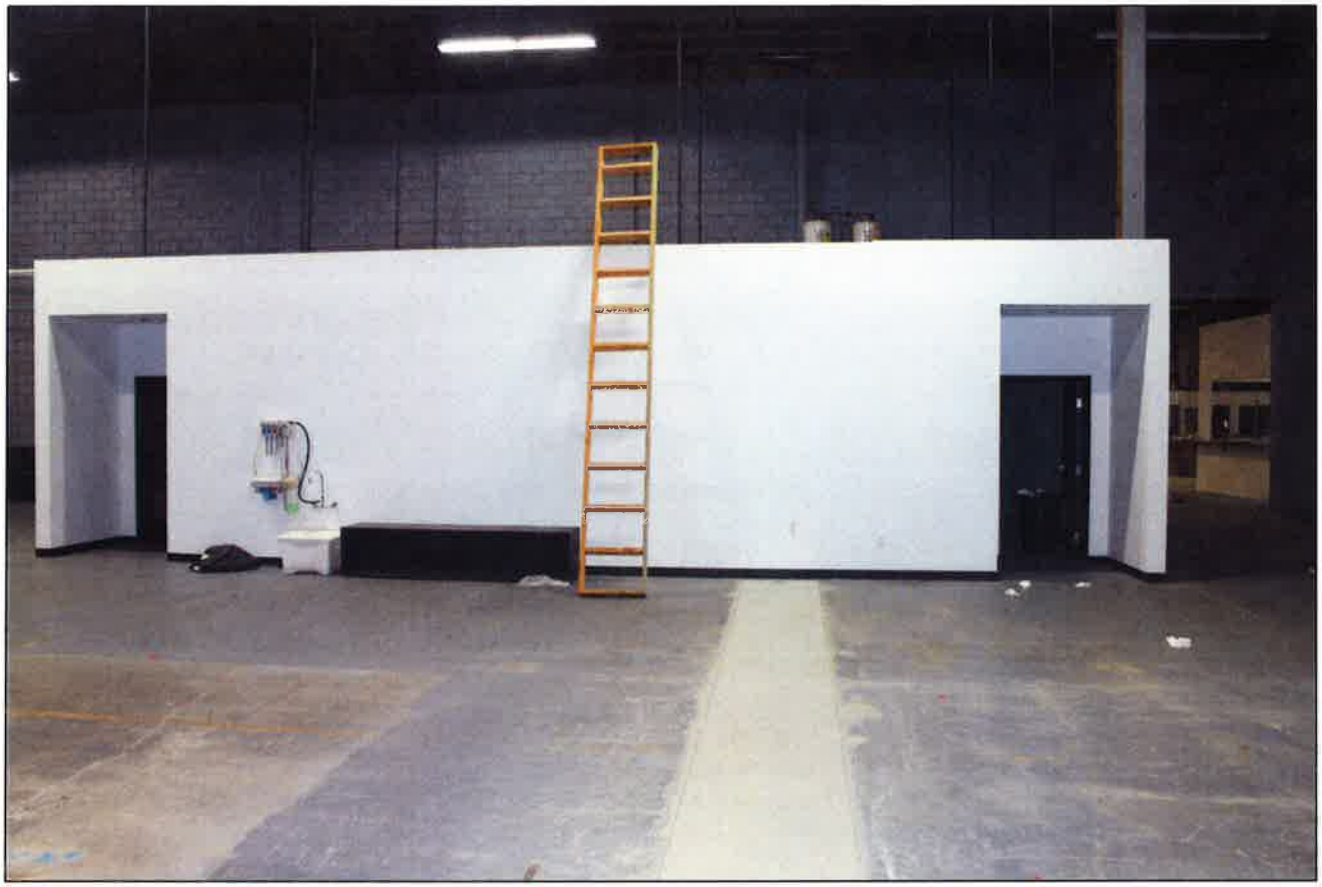
6.3-e Bay 4 – Former Paint Ball Operation



7.2-a Bathroom – Bay 1



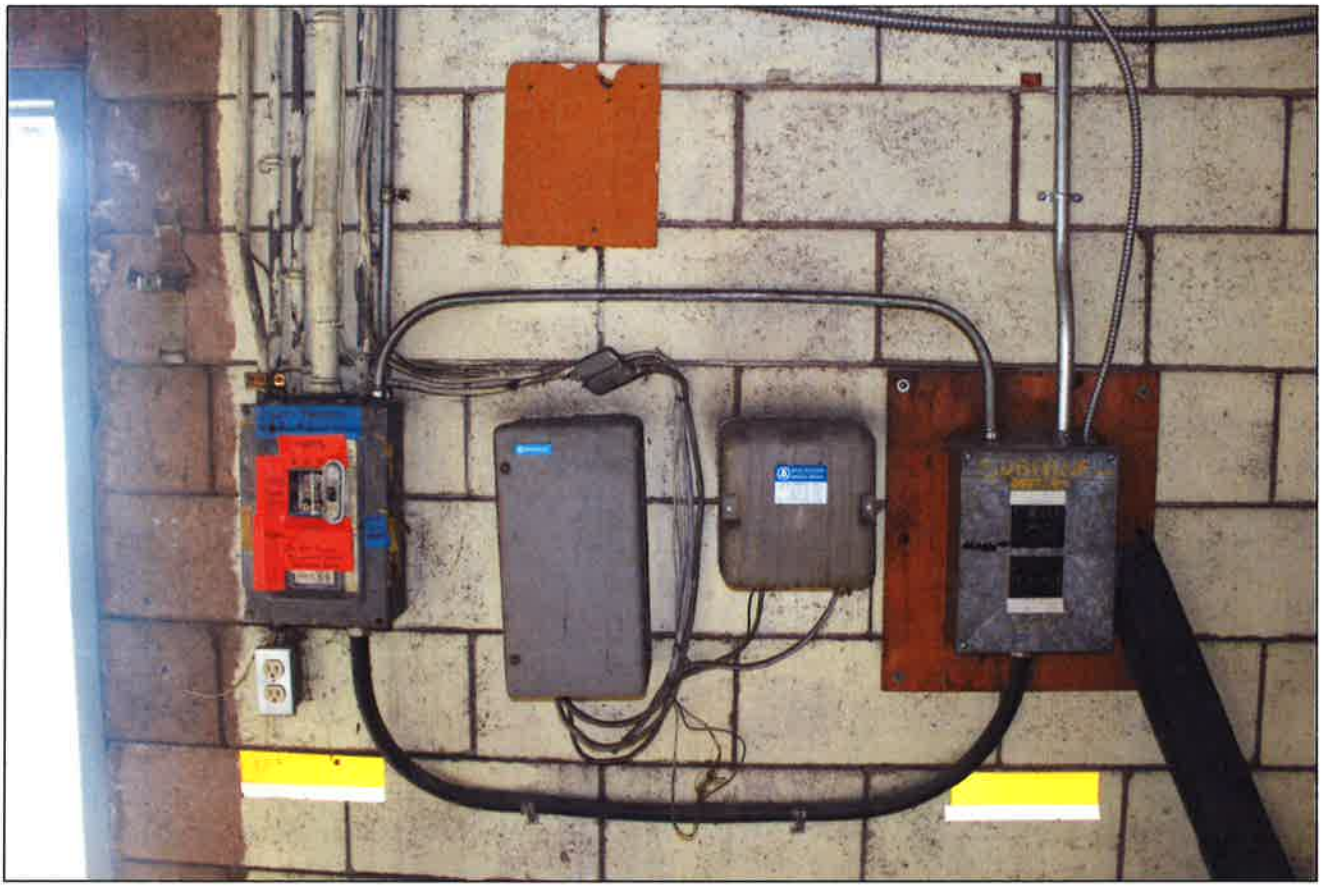
7.2-b Bathroom – Bay 1



7.2-c Bathroom/ Shower – Bay 3



7.2-d Bathroom/ Shower – Bay 3



8.0-a Typical Electrical Boxes and Conduits



8.0-b Unsealed Electrical Penetrations at Fire Rated Gypsum Board Wall



10.2-a Drainage Swale for Parking Lot – Rainwater Fills Truck Ramp and then Continues North in the Swale



10.2-b Truck Access Ramp



10.3-a East Elevation – Bays 3 and 4



10.3-b East Elevation – Stairs and Ramp – Bay 4



11.0-a Ramp to Entry Door – Bay 2



11.0-b Stair to Bay 3

6.0 PRELIMINARY "CONCEPTUAL" COST ESTIMATE

Following is a Preliminary Cost Estimate for certain recommended repairs.
At this stage in the analysis, we are only providing very preliminary cost estimates, recognizing that actual repair recommendations have not been developed which would be necessary for the preparation of a more detailed cost estimate.

Obviously, the MTS may prefer to perform certain repairs, but not others. However, during the review/ permitting process, the City of San Diego may request/ require that certain repairs be performed, including items that have not been included in this report.

No.	Description	Cost Estimate
1.0	**Structural** Based on Josephson Werdowatz's itemization of repairs, including high and medium repairs: 1. Seismic wall anchorage 2. Columns 3. Cracked/ broken CMU 4. Undermined footings	$150,000 - $200,000
2.0	**Interior Concrete Slabs** Subsidence, crack and moisture mitigation repairs. General clean-up of the concrete slabs, e.g., removing paint balls, efflorescence, etc.	$30,000 - $40,000
3.0	**Exterior Walls** Additional repairs/ clean-up, particularly along the east wall, e.g., repairing areas where the surfaces of the CMU walls have deteriorated/ "popped off". Removal of abandoned signage and other items attached to the exterior walls. Cosmetic "boxing" in" certain items, e.g., utilities attached to the exterior walls, to improve the appearance of the building. Exterior painting - partial. Removal of white efflorescence on the inside faces of the exterior CMU walls.	$50,000 - $80,000
4.0	**Roofs** Repairs related to the repair of active leaks through the roofing membrane assemblies.	$10,000 - $15,000

Roofing tune-up repairs, e.g., open, unsealed laps, potential areas of roofing leaks in the next two years, etc.
Based on the existing conditions of the roof membranes, the need for significant repairs or replacement likely within the next 5-8 years.

5.0 Fire Protection — $125,000 - $175,000

Repairs related to the area separation walls, including fire rated doors.
Replacement/ modifications to the existing entry doors. Addition of one additional exit door.
Addition of two hour wall extensions above the rooflines and/or addition of 5 ft. sections of gypsum board to the undersides of the existing, wood framed roof structures.
Repairs/ modifications to the existing, exterior landings, stairs and ramp.

6.0 Interior, Non-Rated, Wood Walls, Floors, Ceilings and Stairways — $50,000 - $75,000

Removal and clean-up of interior wood framed structures, particularly in Bay 4, the previous Paint Ball operation. Patching walls and floors after the removals.
Clean-up at the interior and exterior CMU walls, e.g., removing and/or covering over the paint balls.
Partial interior painting.

7.0 Plumbing — $10,000 - $20,000

Remove partially completed plumbing work in Bay 4. Install a new concrete slab over the partially completed trenches.
Inspect all of the existing plumbing fixtures. Where operational, correct any code or operational deficiencies. Prepare report re:
If the use of plumbing fixtures is not anticipated in the near future, close valves and/ or cap off the water supply systems.

8.0 Electrical — $25,000 - $35,000

Perform an investigation of the existing electrical systems, preparing a report of the findings and a plan view layout of where main panels, disconnects and power switches exist. Make recommendations for various repairs.
Where located within the interior areas of the bays, extend conduits and electrical wires to new switches, located next to the entries into the bays and openings between the bays.
Correct code violations in the existing electrical systems.
Remove and/or cap off abandoned electrical systems.

Install new signage regarding the electrical systems, e.g. the function/purpose of various items and signage re: safety, e.g., high voltage.

9.0 Air Circulation

No repairs included at this time.

10.0 Exterior Site Conditions $25,000 - $35,000

Perform site drainage related repairs at the eastern side of the building to improve the access to the building, e.g., steel walkways over the existing drainage swale.
Install a direct pipe system or exterior sump pump system in the one loading dock ramp.
Correct deficiencies at the existing roof downspout terminations, e.g., filling in eroded A.C. pavement and soil and installing shallow concrete swales to take rainwater away from the exterior building
Perform general site clean-up and patching.

11.0 ADA Related Repairs $20,000 - $35,000

Partial ADA related upgrades, at the bathrooms in Bay No. 1 and 3, and handicap ramp access at Bays 3 and 4.

TOTAL (Average, between cost ranges) **$605,000**

Notes:

1. The above costs include contractor mark-ups, but do not include Architectural and Engineering costs, permit and inspection costs, content moving and relocation costs and a cost for an MTS contingency.
2. As indicated in prior sections, there are numerous variables, which could have a significant impact on the eventual repair costs.

EXHIBIT B
LETTER FROM THE CITY OF SAN DIEGO

DRAFT

MAILED

NOV 16 2017

CODE ENFORCEMENT SECTION

November 16, 2017

NOTICE OF VIOLATION

VIA POSTING, REGULAR MAIL, AND CERTIFIED MAIL RETURN RECIEPT

Location:	**1699 Main Street, 1677 Main Street & 1202 Sigsbee Street**
Assessor's Parcel No.:	**538-210-25-00**
Owner: **Attn:**	San Diego Metropolitan Transit System Timothy E. Allison, P.E. Manager, Real Estate Assets
Address:	1255 Imperial Avenue, Suite 1000 San Diego, CA 92101-7490
Owner: **Address:**	San Diego Metropolitan Transit System 1643 Newton Ave San Diego, CA 92113
Zone:	**Center City Planned District-Mixed Commercial; Coastal Overlay Zone**

A representative of the Code Enforcement Division, Development Services Department conducted an inspection of the above referenced premises on November 13, 2017.

Parcel History:

This property was developed in 1962 with a permit (A54176) to construct a 90,000 square foot "shell" warehouse. Shortly after in 1965, a permit (A15879) was obtained to add "partitions" to the interior of the shell structure. Both permits were satisfied with approvals and inspections by the City of San Diego.

The property remained in that permitted configuration as a warehouse and in 2001 a permit (A102088-01) was obtained to "upgrade existing Storage racks". This permit was obtained by National Steel & Shipbuilding Company (NASSCO) who was the current tenant at the time. The next recorded building permit (22136) was obtained in 2004 by the same tenant to "remove and add partition walls, demo existing restroom rebuild to ADA, Elec, HVAC." Both permits obtained by NASSCO were satisfied with approvals and inspections.

Since then there have been no Building Permits obtained or issued to change the Use or allow the improvements and modifications observed on the **November 13, 2017** inspection by the City of San Diego.

The specific elements in violation include, but may not be limited to, the following:

- The unpermitted change of occupancy from an "S" (Storage) to an A-3 (Assembly-Amusement). Unpermitted uses include a Parkour Gymnasium, Paintball Facility, Mixed Martial Arts facility, Arcade/Gaming center and Cross-Fit facility. The property was not designed or permitted for assembly and entertainment use and lacks the required egress, number of exits, exit door hardware, exit signs, restrooms, fire sprinkler and alarm system, required for these particular occupancies. (SDMC Sec. §129.0113)
- Lack of required emergency egress exits throughout the structure (all Suites). (CBC Sec. 1001.2, 1001.3 and 1007.1.1)
- Lack of adequate exit door hardware and exit signs. (CBC Sec. 1013.1 and 1010.1.10)
- Lack of maintenance and damage to required fire rated separation walls. (CBC Sec. 708.4)
- A structural column has been severely damaged and has compromised the integrity or structural support strength which supports the roof structure. (SDMC Sec. 129.0202 and CBC Sec. 101.4.4)
- Unpermitted areas/locations that impede or do not receive coverage of the fire sprinkler system. (CBC Sec. 901.2 and 903.2)
- Lack of maintenance to the Fire Sprinkler Riser and Fire Alarm System which has resulted in an inoperable Fire Suppression Sprinkler System. (CBC Sec. 901.2)
- Unpermitted construction of a disabled access ramp and elimination of a disabled access lift located at the exterior of the structure. (SDMC SEC. 129.0202)
- Interior improvements and modifications without the benefit of a Building Permit. Unpermitted work includes but is not limited to; The addition of improperly constructed walls, mezzanines, stairs, partitions, restrooms, locker rooms, offices which includes electrical, plumbing and mechanical installations throughout the entire structure. (SDMC Sec. 129.0202, 129.0302, 129.0402(a) and 129.0402(b))
- Illicit discharge of contaminants contributing to storm water pollution. Illicit discharge appears to be coming from the rear of the unpermitted indoor paintball facility. (SDMC Sec. 43.0304)
- Operating a paintball field outdoors without obtaining the necessary permits. Assembly and Entertainment with an Outdoor Use Area requires a Neighborhood Use Permit in this zone. (SDMC Sec. §126.0203 and §156.0308)
- Unpermitted signage (SDMC Sec. §129.0802 and §142.1206)
- Several non-permitted banners are displayed at the property. Banners would not be allowed as permanent signs and cannot be permitted. All banners on the exterior of the building and all banners attached to the chain link fencing must be removed. (SDMC Sec. §142.1206 and §142.1255)

In accordance with the San Diego Municipal Code (SDMC) and the California Building Code (CBC), this is to notify you that the following violation(s) were observed and must be corrected as follows:

Immediately (includes obtaining all required permits):

- Cease unpermitted use and occupancy.
- Replace or repair damaged areas of required fire rated separation walls.
- Repair or replace column which has been severely damaged and has compromised the integrity or structural support strength which supports the roof structure.
- Service and restore Fire Suppression Sprinkler System ensuring full functionality in all parts of the entire building.

By December 20, 2017, you shall:

Obtain required permit(s) to establish legal occupancy and use of the building. Upon issuance of permit(s), Red-Tagged status may be modified to allow entry of construction personnel to perform the work under the permit(s).

OR

Remove all unpermitted improvements and uses to conform with previously-approved configuration and use(s).

The building is currently "Red-Tagged" and will remain so until violations are corrected.

The specific code sections in violation include, but may not be limited to, the following:

SDMC Sec.	Violation Description
121.0202-121.0203	Provides the authority regarding enforcement of the Land Development Code.
121.0302	Requires compliance with the Land Development Code, specifies these violations are not permitted, and provides authority for the abatement of public nuisances.
43.0304	Illicit Discharges (a) Except as provided in San Diego Municipal Code section 43.0305, it is unlawful for any person to cause a *non-storm water discharge* to the *MS4*.

(b) It is unlawful for any person to cause either individually or jointly any discharge into or from the *MS4* that results in or contributes to a violation of the *MS4 permit.*

129.0113 **When a Certificate of Occupancy Is Required**
(a)No *structure* or portion of a *structure* shall be used or occupied, and no change in the existing use or occupancy classification of a *structure* or portion of a *structure* shall be made until the Building Official has issued a Certificate of Occupancy approving the use or occupancy. A Certificate of Occupancy is not required for existing or new detached one and two family dwellings or townhouses as defined in the California Residential Code, and their *accessory structures.*

129.0202 **When a Building Permit Is Required**
(a) No *structure* regulated by Land Development Code shall be erected, constructed, enlarged, altered, repaired, improved, converted, permanently relocated or partially demolished unless a separate Building Permit for each *structure* has first been obtained from the Building Official, except as exempted in Sections 129.0202(b) and 129.0203.

129.0302 **When an Electrical Permit Is Required**
No electrical wiring, device, appliance, or equipment shall be installed within or on any *structure* or *premises* nor shall any alteration, addition, or replacement be made in any existing wiring, device, appliance, or equipment unless an Electrical Permit has been obtained for the work, except as exempted in Section 129.0303..

129.0402(a)(b) **When a Plumbing/Mechanical Permit Is Required**
(a) No plumbing system, or portion of a plumbing system, shall be installed within or on any *structure* or *premises*, nor shall any alteration, addition, or replacement be made in any existing plumbing system unless a Plumbing/Mechanical Permit has been obtained for the work except as exempted in Section

156.0308 **Base District Use Regulations**
(a) Permitted Land Uses
The uses allowed and level of review required in the Centre City Planned District base districts and overlay districts are shown in Table 156-0308-A, below. The "Additional Regulations" column references additional regulations applicable to certain uses, which are found in this Article or in the Land Development Code.

126.0203 **When a Neighborhood Use Permit Is Required**

129.0802 **When a Sign Permit Is Required**
A Sign Permit is required for the installation or alteration of any *sign*, except for those *signs* specifically exempted in Section 129.0803.

142.1206 **Violations of Sign Regulations**
(a) It is unlawful to do the following:
(3) Erect any *sign* on any *premises* contrary to the provisions of this Division.
(b) Violations of any provisions of this division shall be subject to the enforcement provisions of Chapter 12, Article 1. Violations of this division shall be treated as strict liability offenses regardless of intent.

142.1255 **Temporary Secondary Signs in Commercial and Industrial Zones**
(b) Temporary *signs* shall not be permanently installed or affixed to any *sign structure* or building.
(k) Banners, Pennants, Flags, and Streamers
(1) Banners, pennants, flags, streamers, flares, wind-propelled and noise-making devices, and other similar devices shall not be permitted, unless they qualify as one of the following:
(A) Corporate or Institutional Flags Corporate and institutional flags shall be displayed from either freestanding or wall-mounted flagpoles. The flags may not exceed one *sign* for every 100 feet of *street frontage* and may not exceed five flags per *premise*.
(B) Holiday Decorations Holiday decorations shall be removed within 20 calendar days of the passing of the holiday.
(C) Grand Opening Streamers, Temporary Banners, and Pennants Streamers, temporary banners, and pennants identifying the grand opening of a completely new establishment shall be permitted for no more than 60 consecutive calendar days. They shall not be placed within 50 feet of a residentially zoned *premises*. Two temporary banner *signs* shall not exceed one-half of the maximum permitted *sign copy area* for allowable *wall signs*.

CBC Sec.	Violation Description
1001.2	Minimum requirements (Egress)
1001.3	Maintenance (Egress)
1006.2.2	Egress based on use
1013.1	Where Required (exit signs)
1010.1.10	Panic and Fire Exit Hardware
708.4	Continuity (Fire Partitions)
101.4.4	Property Maintenance
901.2	Fire Protection Systems
903.2	Where Required (fire sprinklers)

THIS NOTICE MUST BE SUBMITTED WHEN APPLYING FOR APPROVAL TO DEVELOP AND/OR APPLYING FOR REQUIRED PERMITS.

Engineering and building permits may be applied for at the Development Services Department, 1222 First Avenue, Third floor. Please telephone (619) 446-5000 for general information about getting the required permits.

FAILURE TO COMPLY WITH THIS NOTICE

Failure to comply with this Notice may result in enforcement actions, including but not limited to: administrative abatement, civil penalties, appointment of a receiver, revocation of permits, withholding of future municipal permits, civil injunction, criminal prosecution or referral to the City Attorney's Office.

Be advised that there is a reinspection fee ($264.00 or $295.00) to recover costs for additional inspection services in accordance with San Diego Municipal Code, Section 13.0103. A bill for this service will be mailed to you immediately following the third (3rd) scheduled inspection.

If you have any questions regarding this Notice, please contact **Nick Ferracone, Program Manager, at** nferracone@sandiego.gov **or (619) 557-7992.** For specific questions about steps toward compliance, you can call me at **(619) 619-533-6134.**

Bryan Monaghan
Senior Combination Inspector

NF/BM/mb

cc: File

CED# 239627

This information will be made available in alternative formats upon request.

239627_1699 Main Street, 1677 Main Street & 1202 Sigsbee Street _ced127_B.Monaghan

EXHIBIT C
PYRAMID BUILDING DOCUMENTATION AND FORMER STRUCTURAL REPORTS

DRAFT

October 28, 2020

Elias Belknap
San Diego Metropolitan Transit System
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

Subject: Structural Findings at Pyramid Building, 1695 Main Street, San Diego, CA 92113

Mr. Belknap,

We are pleased to provide the following report, which presents the results of our investigation to date of the above-mentioned building. The purpose of this investigation was to render a professional opinion regarding any significant structural deficiencies in the structure.

This report was prepared based upon the work performed to date and information available to us at the time. The findings of this report are subject to change should more information become available.

We appreciate the opportunity to be of service. Please feel free to call us if you have any questions or require any clarification regarding items that were discussed in this report.

Sincerely,

JOSEPHSON-WERDOWATZ & ASSOCIATES, INC.

Dan R. Werdowatz, S.E.
Principal Structural Engineer



10-28-20

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Background

The building is believed to be built in the early 1960's. It is a large single-story warehouse building. It is constructed with masonry exterior walls and wood framed roof. The gross dimensions are 180 feet x 500 feet (images 1 and 2). There is single masonry partition that divides the building at the 40% mark (200 feet on one side and 300 feet on the other). There are non-structural wood framed walls that further divide the spaces.

Our office visited the site on multiple days in September and October 2020. During one of those visits we used a lift to observe the roof-to-wall connections up close. We also used metal detectors to determine the quantity of reinforcing within the walls and pilasters. The results of our field work is the belief that the wall/pilasters are constructed as follows:

Walls are 8" nominal concrete masonry units (CMU) with mortarless head joints
Wall vertical reinforcing is #5 at 48" on center
Wall horizontal reinforcing is 2#4 at 48" on center
Pilasters are present at all walls at 20 feet on center
Pilasters on the long sides support the main beams (see below)
Pilaster on the short sides do not align with nor directly support roof loading
Pilasters are typically 12" x 16" (not counting wall itself)
Pilasters vertical reinforcing is 4#6
Pilasters horizontal is #2 smooth bar at 24" on center

The roof system is panelized wood-framed constructed as follows:

Roof plywood is 1/2" standard grade sheathing
Roof plywood nailing varies but is typically at 6" on center
Subpurlins are 2x4 (often select structural grade) at 24" on center
Purlins are typically 3x14 at 8'-2¼" on center
Main beams are glued-laminated timbers (glulam) at 20 feet on center
The glulams are 5¼" x 27" at building edges and the 5¼" x 20¼" at the center span
The columns are 9" x 9¾" glulams, are 25' tall, and are at a 20' x 64' spacing
The ledgers are 4x14 (at building short sides) with 5/8" ledger bolts at 48" on center
The ledgers are 4x6 (at building long sides) with 5/8" ledger bolts at 48" on center

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Findings

Based upon our visual observation and the above field determinations, we conducted our work. That work was a multi-stage process where we first performed an evaluation per ASCE 41-17 Seismic Evaluation and Retrofit of Existing Buildings. The primary purpose of that evaluation was to identify key items that would require a more detailed analysis. The deficiencies of this type of building are well-known to experienced engineers but ASCE 41-17 provide a uniform evaluation basis. More detailed seismic analysis was performed in accordance with the 2019 California Building Code and California Existing Building Code.

The result of all the above site observations and seismic evaluations is the following list of structural deficiencies. The following list is ranked in order of most critical to least critical:

ITEM	PRIORITY
1. Seismic Wall Anchorage	High
2. Column Repair	High to Medium (varies by location)
3. Cracked/Broken CMU	Medium to Low (varies by location)
4. Undermined Footing	Medium
5. Water Transmission Through Walls	Low
6. Water Damage at Roof	Low
7. Settled/Cracked Slab	Low

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Background

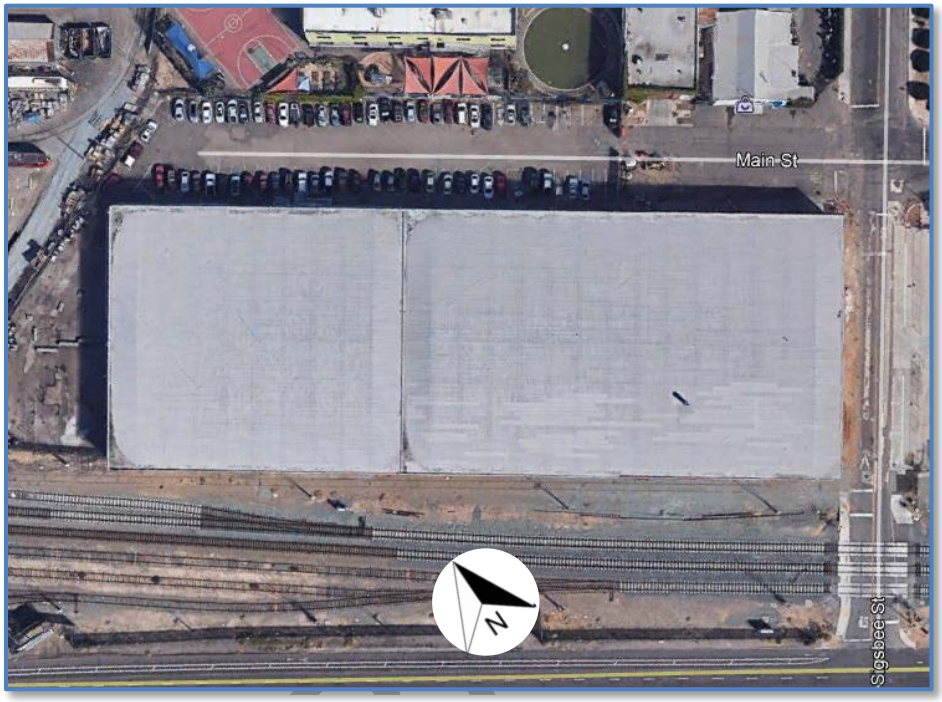


Image 1 – Roof Layout



Image 2 – Exterior View

1. Seismic Wall Anchorage

Discussion:
Seismic wall anchorage addresses the need to prevent separation of the wood roof system from the masonry walls. Past earthquakes have shown catastrophically that poor connections at the walls can allow the walls and roof to separate, causing collapse. This occurs when the earthquake forces "pull" the heavy walls away from the roof structure. Since the time this building was built the understanding of this phenomenon has grown, and each major earthquake has led to tighter restrictions. No seismic anchors or strapping of any kind was observed and the ledger bolts are spaced farther apart than needed. See existing conditions in images 3 and 4 at the building short sides and images 5 and 6 at the long sides.

Recommendation:
It is our recommendation that a series of new hardware connectors be installed as a high priority repair. To provide adequate wall anchorage, hardware is needed that falls into three subcategories:

1.1 Wall Anchorage: Hardware that is attached to threaded rods that pass through the masonry walls with bearing plates. This will include anchors on all exterior walls and also at the interior masonry wall. These anchors will be attached to the existing sub-purlins, purlins, and glulams through the use of what is typically called a "holdown". This will provide a direct wall to roof attachment. Examples of repair hardware can be seen in images 7 and 8.

1.2 Ledger Bolts: Partial depth (not through wall) ledger bolts that are drilled and installed through the existing ledgers at the short sides of the building. This hardware provides added attachment from the existing ledgers to the masonry walls. These bolts might be expansion anchors or epoxied in place.

1.3 Cross Ties: Hardware that provides connection between existing framing (glulams and purlins). This hardware is required to provide cross-building (wall to wall) interconnection. Examples of this are shown in images 9 and 10.

The details of the exact hardware, spacing, and attachment methods can only made during the final design in preparation of repair drawings. That design work is beyond this the scope of this report. Approximate hardware locations are depicted with small red lines on the Conceptual Anchorage Plan (image 11).

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1. Seismic Wall Anchorage



Image 3 – Existing Condition at Short Sides



Image 4 – Existing Condition at Short Sides

1. Seismic Wall Anchorage



Image 5 – Existing Condition at Long Sides



Image 6 – Existing Condition at Long Sides

1. Seismic Wall Anchorage

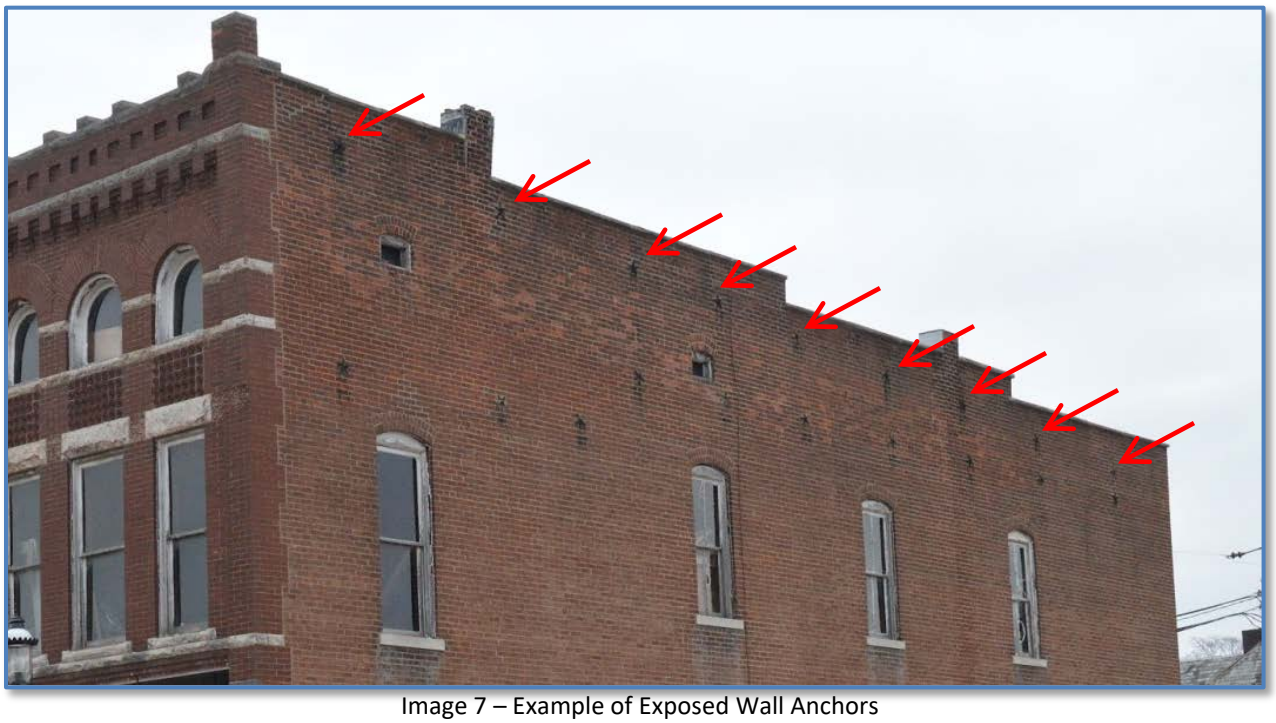


Image 7 – Example of Exposed Wall Anchors

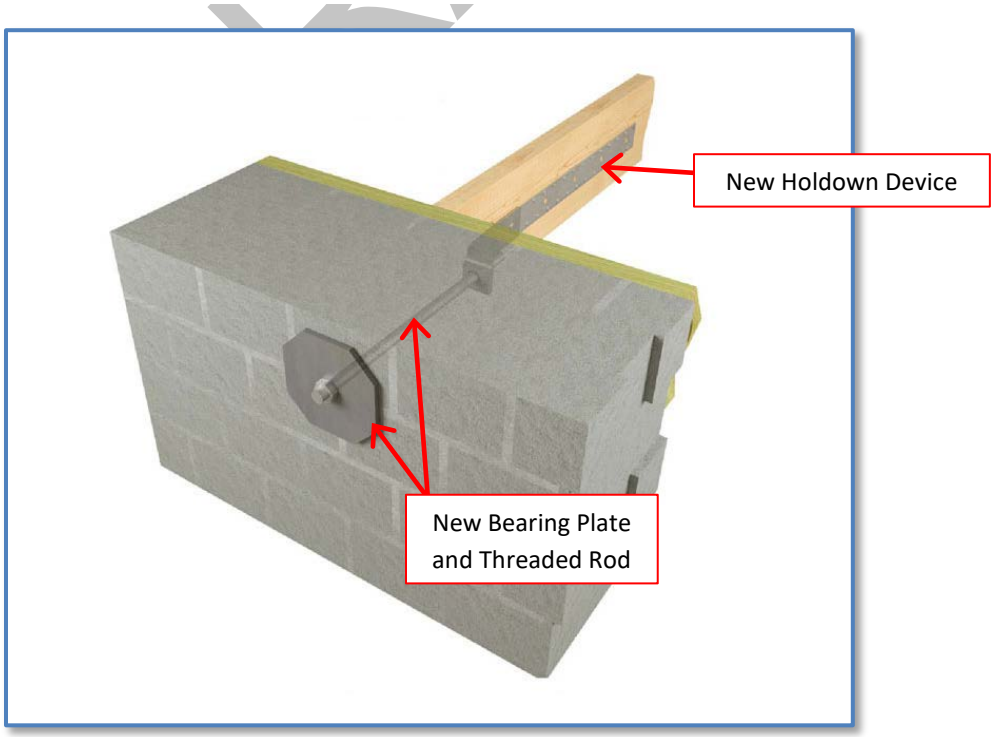


Image 8 - Wall Anchor Schematic

1. Seismic Wall Anchorage

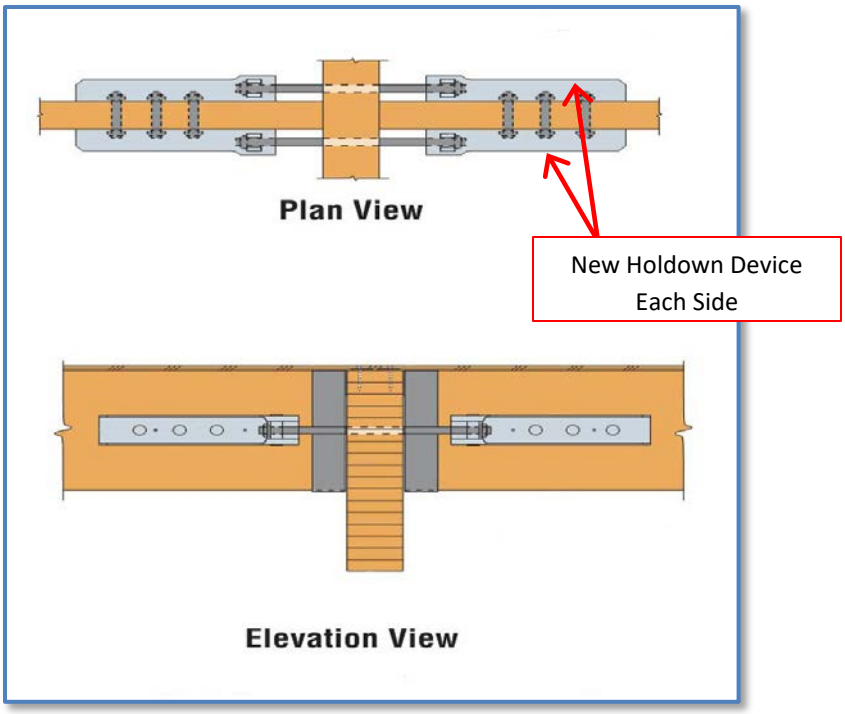


Image 9 – Purlin-to-Purlin Cross Tie Schematic

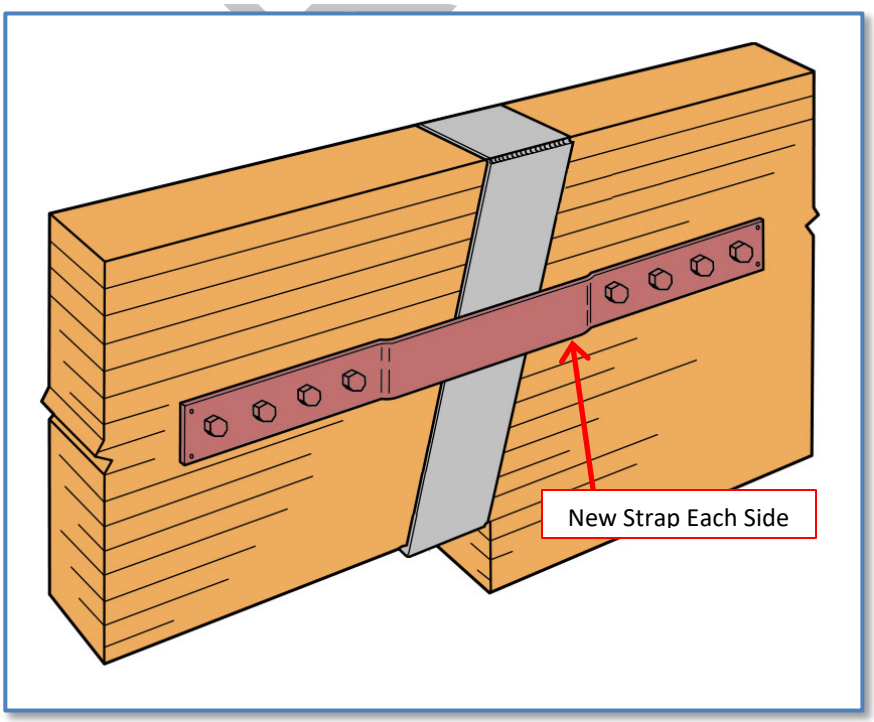


Image 10 – Glulam Beam Cross Tie Schematic

1. Seismic Wall Anchorage

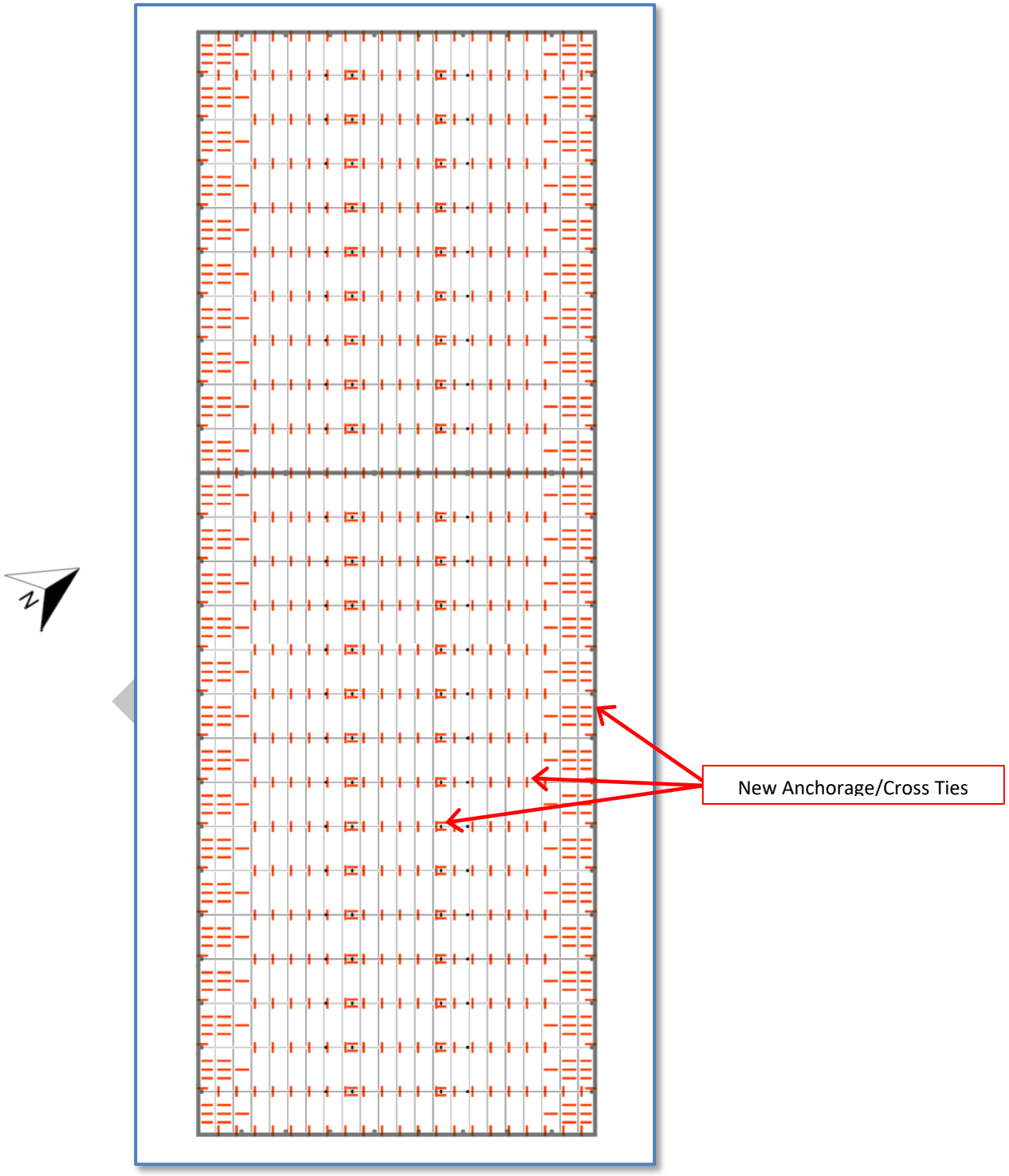


Image 11 – Conceptual Anchorage Plan

2. Damaged Columns

Discussion:
All of the columns in this building are wood glulams and are approximately 25' tall (image 12). The base of each column is anchored to the foundation with a steel column base that was cast into the concrete (image 13).

It is very apparent that the columns have suffered damage in varying amounts from physical impact (presumably forklifts).

2.1 Severe damage (High Priority): The damage at some columns is severe where the column is entirely split apart many feet high (images 14 and 15).

2.2 Broken steel plates/dislocated columns (High Priority): At some locations the column itself is in fair condition but has been driven off the bearing plate which also severed the steel side plates – images 16 and 17).

2.3 Moderate damage (Medium Priority): At some columns there is minor splitting limited to near the base (images 18 and 19).

One column had been scorched by fire but the damage was determined to be shallow (roughly 1/8") and not of structural consequence (images 20 and 21). Over time, there have been various repairs: steel packing straps at image 22 and new foundation anchors at images 23. Many columns suffered some “rounding” of the corners due to abrasion. We have analyzed the stresses in the columns and this rounding is not a structural concern (images 24 and 25).

It should be noted that the bases of 6 columns could be not be fully inspected due to a thick layer of paint-ball material or other obstructions (walls, foam pit, etc images 26 and 27).

Recommendation:
It is our recommendation that a series of repairs be implemented on a column-by-column basis based on the current conditions. The general methodologies are as follows:

2.1 The worst columns should be replaced with new steel columns. See image 28 for repair concept.

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2. Damaged Columns

2.2 Some columns may be repositioned back onto the bearing plate and then re-anchored to the foundation. The re-anchoring would be similar to the existing retrofit at one column (image 29).

2.3 Some columns may be strengthened with steel jackets at the base. See image 30 for repair concept. Some columns need both the jacket and foundation anchor. Note that replacement with a steel column is always an option for an increased cost.

In addition to the above structural repairs, it would be advisable to install column protectors in the spaces that will have forklift and vehicle traffic (image 31). As mentioned above, not all column bases could be inspected. During the overall repair process those column bases should be cleared and then observed by our office to determine what, if any, repair may be needed.

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2. Damaged Columns



Image 12 - Typical Glulam Column

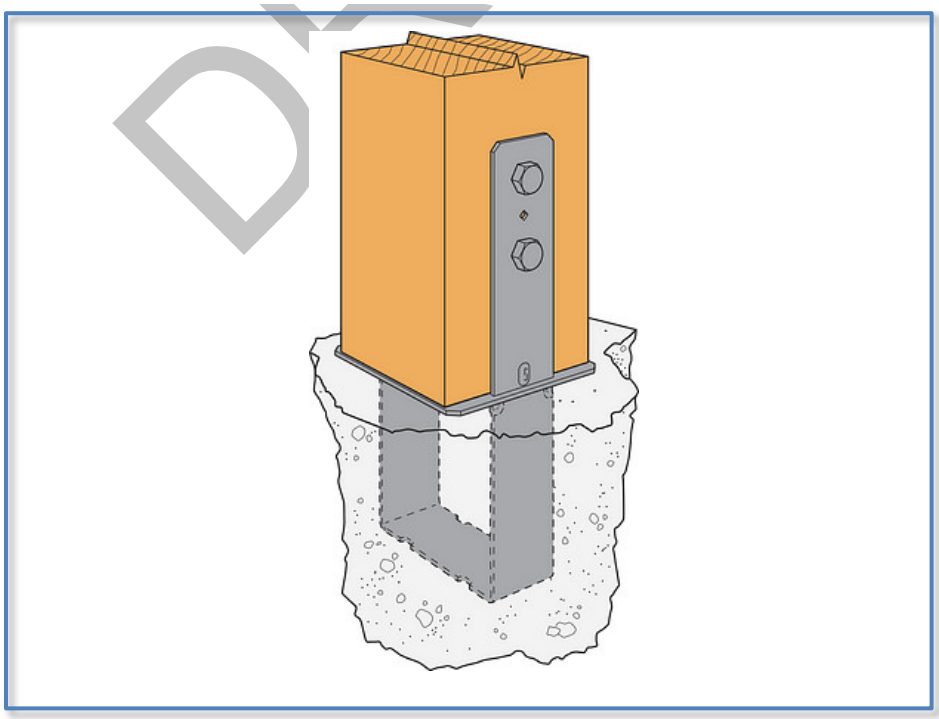


Image 13 – Schematic of Existing Post Bases

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2. Damaged Column



Image 14 – Severe Column Damage



Image 15 – Severe Column Damage

2. Damaged Column



Image 16 – Severed Steel Plate



Image 17 – Dislocated Column with Severed Plate

2. Damaged Column



Image 18 – Minor Column Splitting



Image 19 – Minor Column Splitting

2. Damaged Column



Image 20 – Charred Column



Image 21 – Shallow Char Depth

2. Damaged Column



Image 22 – Packing Strap “Repair”



Image 23 – Retrofit Foundation Anchorage

2. Damaged Column



Image 24 – Column Rounding



Image 25 – Column Rounding

2. Damaged Column



Image 26 – Layer of Material at Column Base

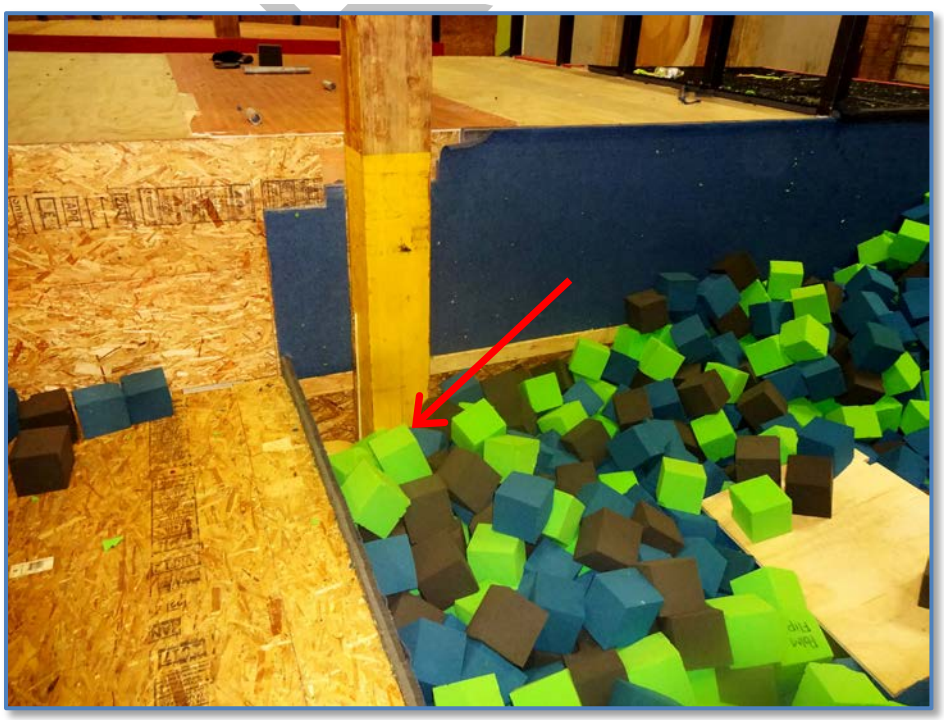


Image 27 – Obstruction

2. Damaged Column

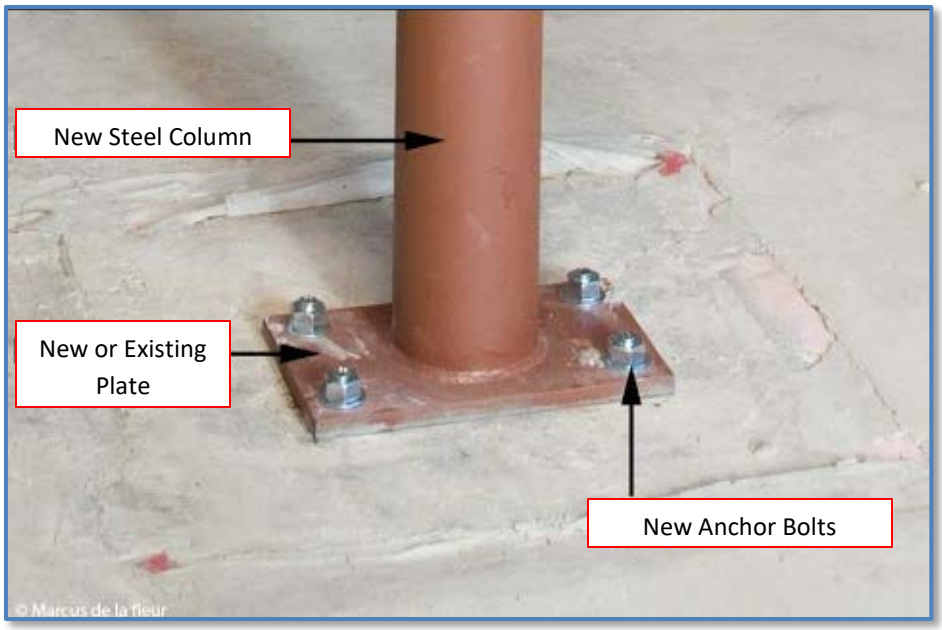


Image 28 – Steel Column Replacement



Image 29 – Retrofit Foundation Anchorage

2. Damaged Column



Image 30 – Column Jacketing



Image 31 – Column Protection

3. Masonry Cracking/Spalling

Discussion:
There are numerous locations with various forms of masonry cracking, spalling, or splitting. At this time, none of these locations have rendered that affected portions of the building to be unsafe. Most of these are maintenance issues and can be addressed now or at some time in the future.

The various locations where the various masonry distress features occur is as follows:

3.1 Spalling/Cracking west corner (Medium Priority). At this single location the corner vertical rebar has significant rusting. This rusting has caused the block shell to spall which further exposes the bar to moisture (images 32 and 33). If unrepaired, this condition will not lead to a building collapse, but it will lead to further deterioration and spalling.

3.2 Spalling of face shell at roll-up door lintels (Medium/Low Priority): The lintel reinforcing is experiencing minor rusting and has caused the block face to detach (images 34 and 35). This detaching in itself is of no consequence but it allows the reinforcing to come into more contact with the weather. While the rusting of the lintel bars currently appears to be minor, long term continued rusting could be harmful.

3.3 Spalling of face shell at loading docks (Low Priority): This was most likely caused by physical abuse from the use of the loading dock. The exposed reinforcing is not structurally critical and this issue is considered primarily cosmetic (images 36 and 37).

3.4 Cracking of the block units within the body of a solid wall (Low Priority): We are uncertain what would cause this condition but it also was not observed in enough quantity to cause structural concern (image 38).

3.5 Spalling of a shallow layer of the block face itself (Low Priority): This is likely due to water intrusion but was not observed in enough quantity to cause structural concern (image 39). Note that this only appear to occur high on the walls and only limited areas where observed from a lift.

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3. Masonry Cracking/Spalling

Recommendation:
As mention above, none of these locations have rendered the affected portions of the building to be unsafe. If left unrepaired, items 3.1 and 3.2 will slowly worsen but may take many years to become structurally unsound. There is the possibility, remote as it might be, that the dislocation of additional pieces of masonry could pose a falling risk to any persons nearby.

At this time, we would recommend that item 3.1 be repaired. We also recommend that item 3.2 be repaired within 5 to 10 years. The repair for 3.1 would include the removal of loose/damaged masonry segments, the cleaning of rusted reinforcing, and then use of high-quality bonding agents and structural mortar to build the masonry back.

The other items (3.3 to 3.5) may also be repaired if desired.

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3. Masonry Cracking/Spalling



Image 32 – Damaged West Corner



Image 33 – Damaged West Corner

3. Masonry Cracking/Spalling



Image 34 – Damaged Lintel



Image 35 – Damaged Lintel

3. Masonry Cracking/Spalling

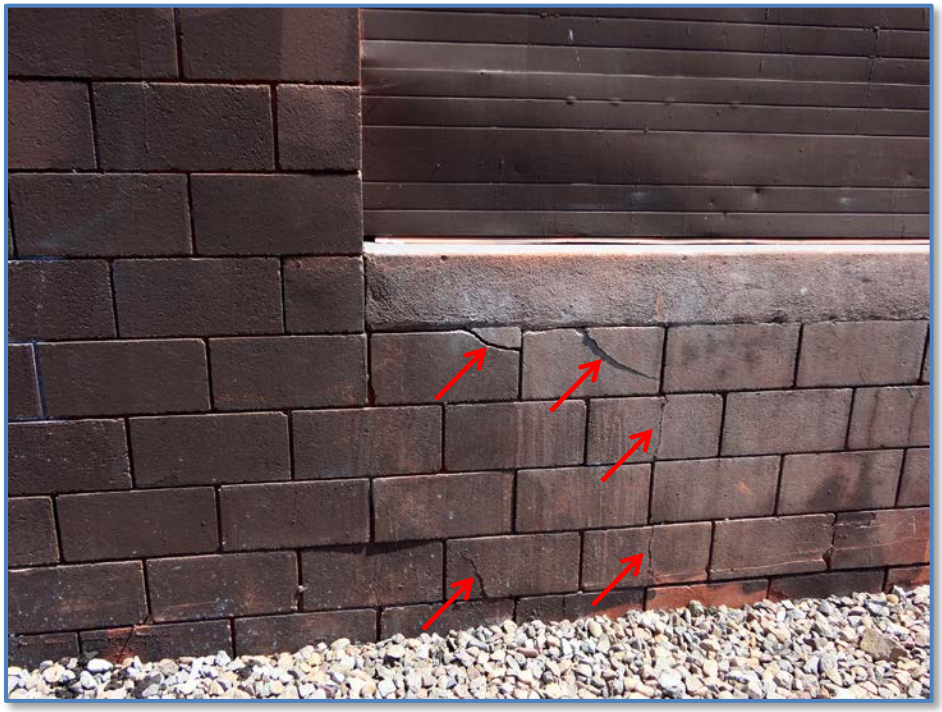


Image 36 – Damage at Loading Dock



Image 37 – Damage at Loading Dock

3. Masonry Cracking/Spalling



Image 38 – Cracked Block



Image 39 – Spalling Block Face

4. Undermined Footing

Description:
At two locations the soil under to exterior footing has been undermined due to erosion. These locations are on the train side (image 40) and west parking lot side (image 41).

Recommendation:
In order to prevent further undermining, we recommend that the locations be backfilled using as much compactive effort as is practical. At the west downspout location, asphalt should be filled in and a concrete splash block be used.

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4. Undermined Footing



Image 40 – Train Side Undermining



Image 41 – West Parking Lot Undermining

5. Water Transmission Through Walls

Description:
The exterior walls are constructed with concrete masonry units (CMU) with mortarless head joints. Block units themselves are typically porous and allow water transmission. The use of mortarless head joints contributes to the ease with which water can pass through the walls. The evidence of this transmission is the large amount of efflorescence on many of the interior wall surfaces (image 42 and 43). Efflorescence is the minerals left behind as moisture evaporates. Efflorescence is not harmful itself but is simply a sign of water transmission.

The question that exists is has this water transmission caused any harm to the reinforcing steel. Without conducting intrusive testing, it is not possible to know with certainty if harm has been done. It is important to note that when reinforcing steel corrodes, it expands dramatically and typically does damage to surrounding concrete and masonry. While localized damage exists at one corner (item 3.1) and at lintels (item 3.2), there is no evidence of widespread corrosion due to water intrusion.

Recommendation:
While we cannot rule out the possibility that some corrosion is taking place, we feel it is unlikely that widespread significant corrosion is occurring. With this in mind, we believe that the efflorescence is simply an eyesore rather than a structural issue.

Although there does not appear to be a structural need to stop water transmission, the building can only benefit from being made more “watertight.” Therefore, if painting of the building exterior is planned, we recommend that the selection of the product(s) be made in consideration of the existence of the mortarless head joints. We do not recommend painting or coating the interior wall surfaces. See the report of John Bardin for more discussion on this topic.

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5. Water Transmission Through Walls

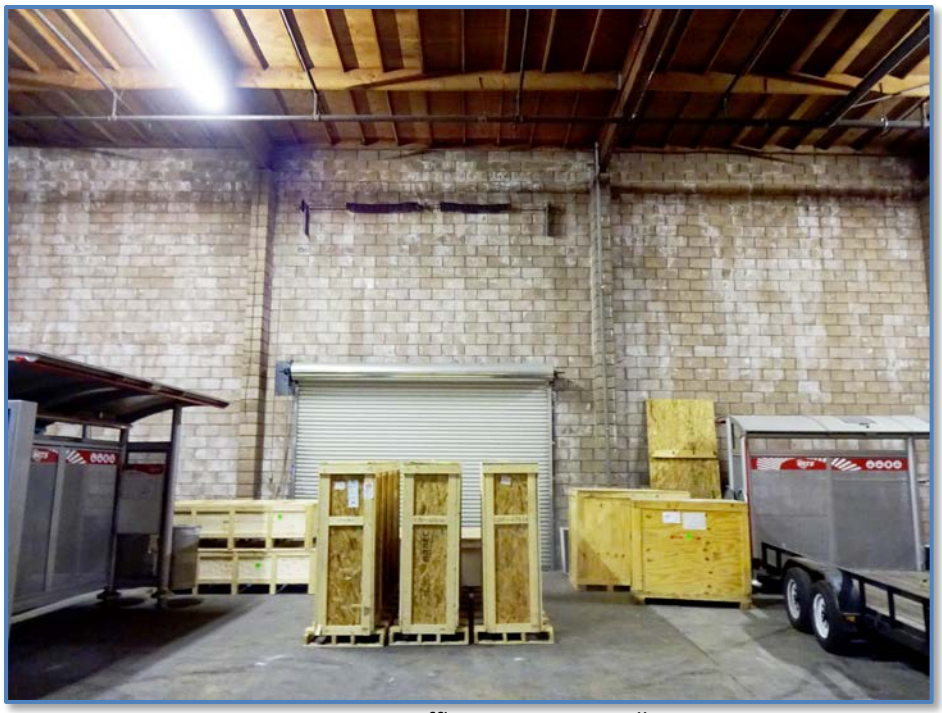


Image 42 – Efflorescence on Walls



Image 43 – Efflorescence on Walls

6. Water Damaged Roof Framing

Description:
Water damaged framing was observed at very limited locations. Since our visit was during a dry summer period, we are unable to comment on whether these locations have active leaks. Further discussion on the function of the roofing will be left to John Bardin.

The water damage is localized and appears to be limited to small quantities of the roof plywood. It does not appear to have affected the framing members themselves (images 44 and 45).

Recommendation:
At this time we do not feel there is a need for any framing repairs. Should the building get re-roofed in the future, we recommend that the roofer be notified of this condition and minor repairs be implemented as needed (such as localized replacing of plywood)

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6. Water Damaged Roof Framing



Image 44 – Past Water Damage



Image 45 – Past Water Damage

7. Settled/Cracked Slab

Description:
At the west end of the building, the slab is cracked and the soil under the slab has settled causing the slab to slope downhill toward the exterior wall (image 46). At these locations, the exterior grade is lower than the interior grade. This fact required backfill to have been placed to support the elevated interior slab. The settling is indicative of poorly compacted backfill under the slab. While this settled/cracked slab is undesirable, there is no structural harm in the present condition.

In addition to the condition above, there are slab cracks at multiple other locations (image 47). While unsightly, a cracked slab-on-grade does not represent a structural deficiency.

Recommendation:
From a structural engineering perspective, there is no harm in the observed conditions. The settled/cracked slab has likely been that way for decades and it is not likely to progress any further. We can, nonetheless, develop repair recommendations if desired.

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7. Settled/Cracked Slab

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Image 46 – Settled/Cracked Slab at West End



Image 47 – Typical Slab Crack

ATTACHMENT A1
CONSULTANT'S PROPOSAL

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PROPOSAL



Metropolitan Transit System

Pyramid Building Improvements - Design
WOAXXX-AE-27

December 2024



Cover Letter

December 11, 2024

Steve Augustyn, Contract Officer
Metropolitan Transit System (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

RE: Pyramid Building Improvements - Design - WOAXXX-AE-27

Dear Steve Augustyn and Members of the Selection Panel:

The HDR Engineering, Inc. (HDR) Team, led by Ryan Boley as Contract Manager and Mark Harper as Work Order Manager, is committed to partnering with MTS to deliver responsive, efficient design solutions that meet project requirements while accommodating the dynamic needs of the Pyramid Building Improvements project. We recognize the necessity of balancing seismic, structural, and fire/life safety upgrades with MTS' goals for continuity and code compliance, and we are uniquely qualified to meet these requirements. Our team offers several key advantages:

Trusted Partner to MTS. Since 2016, HDR has collaborated with MTS on a variety of projects, developing a strong understanding of your system's operational needs and challenges. Ryan and Mark, both deeply connected to San Diego's engineering community, bring invaluable local insight and extensive experience with MTS projects, enabling us to make timely, effective recommendations grounded in practical knowledge of your processes, requirements, and expectations.

Integrated Team with a Depth of In-house Resources. HDR's in-house expertise across critical disciplines, including structural engineering, architecture, seismic analysis, and fire/life safety, ensures streamlined communication and coordination within our team, yielding high-quality, constructible solutions. Our integrated approach gives MTS a local, resource-rich team prepared to deliver cost-effective designs and practical, buildable solutions tailored to your request to address fire/life safety issues meeting minimum code compliance.

Extensive Experience with Seismic Retrofit and Rehabilitation. HDR brings proven expertise in seismic rehabilitation and retrofit across a wide array of sectors, including hospitals, central plants, U.S. Department of Veterans Affairs and Department of Defense facilities, parking structures, and pharmaceutical industry sites. We have conducted peer reviews for seismic retrofit projects on behalf of the U.S. Army Corps of Engineers and the Department of Veterans Affairs. Our experience ranges from targeted retrofits, like those required for the Pyramid Building, to comprehensive seismic upgrades across entire facilities.

Architectural and Code Compliance Expertise. HDR's project portfolio—spanning a variety of sectors—equips our team with extensive experience in code evaluations for architectural compliance, fire/life safety systems, egress, fire separation requirements, and hardware conformance. Our expertise in architectural design and code evaluation, combined with the extensive experience of our internal Fire and Life Safety team—which includes licensed Fire Protection Engineers in the State of California and former California Deputy State Fire Marshals—fosters strong, established relationships with Authorities Having Jurisdiction (AHJ). This enables us to provide essential oversight for fire/life safety systems, along with comprehensive architectural design reviews to deliver high-quality deliverables. Our commitment to design excellence will enhance both regulatory compliance and the building's operational safety and functionality for MTS.

The HDR Team is committed to supporting this project and delivering a design that aligns with MTS' standards for quality and durability. We confirm this proposal shall remain valid for a period of not less than 90 days from the proposal due date and acknowledge receipt of all RFP documents and Q&A distributed via PlanetBids. We welcome the opportunity to discuss our qualifications and approach further. Please feel free to contact Mark Harper at 213.395.7206 or Mark.Harper@hdrinc.com with any questions.

Sincerely,
HDR Engineering, Inc.

Thomas T. Kim, PE (CA, #57374)
Senior Vice President

Ryan Boley, PE (CA, #64880)
Contract Manager

Mark Harper, PE (CA, #54178), SE (CA, #4387)
Work Order Manager

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hdrinc.com
401 B Street, Suite 1110, San Diego, CA 92101
T 619.231.4865 **F** 619.984.3316



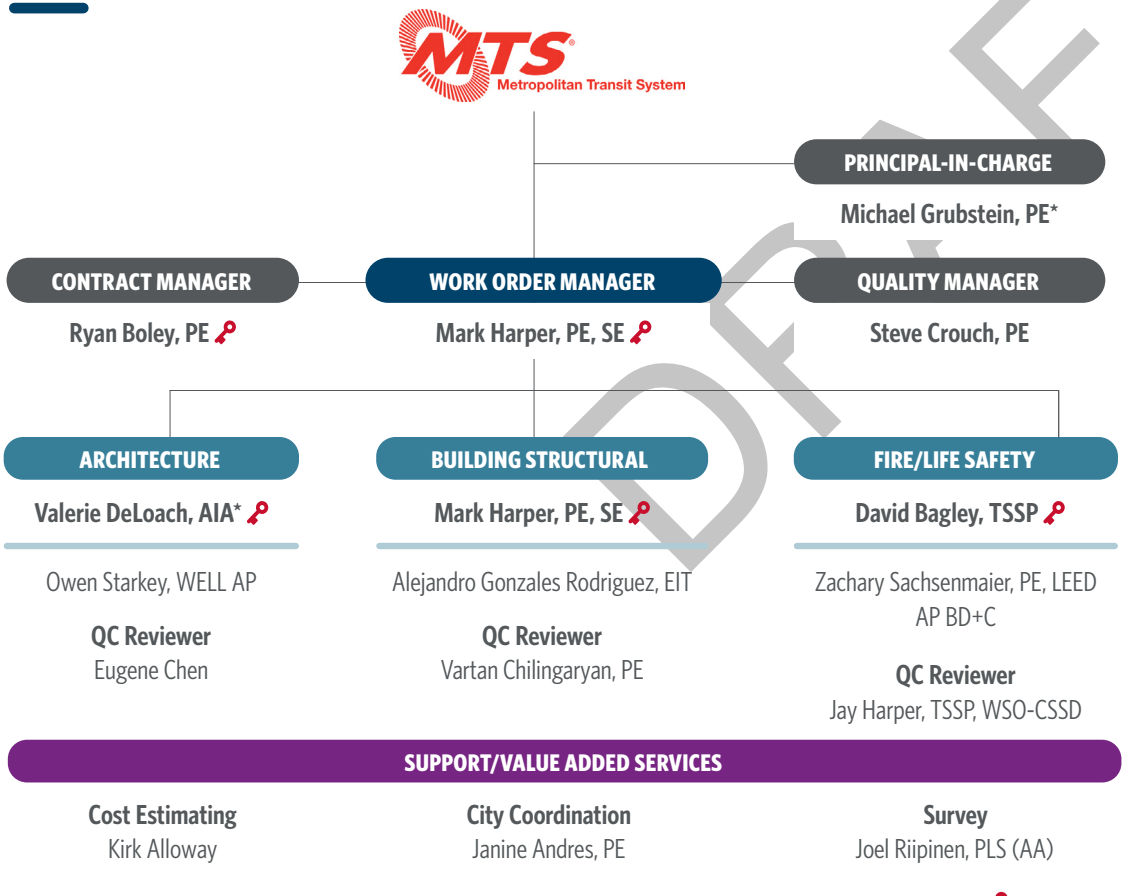
Technical Proposal

1. Project Team

A. Qualifications and Relevant Individual Experience

This project requires a dedicated team with management and technical experience in delivering projects for MTS, providing design services in support of seismic and structural repairs to address necessary upgrades for structural integrity and fire/life safety compliance for the MTS Pyramid Building. Our proposed team, shown below in **Figure 1: Organization Chart,** has the depth of knowledge and resources necessary to efficiently deliver this project, with proven expertise in delivering similar projects locally and nationally.

Figure 1: Organization Chart



Key Personnel
AA: Aguirre & Associates (DBE)
**Registered in state other than CA*

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DEDICATED, QUALIFIED, AND AVAILABLE TEAM

Contract Manager, Ryan Boley, and Work Order Manager, Mark Harper, are ideally suited for this assignment and will be supported by key leads Valerie DeLoach and David Bagley. These key leads as well as the entire project delivery team have been hand-selected due to their specific expertise and direct, relevant experience delivering similar projects. On the following page, we highlight the qualifications and relevant experience of our key personnel. Resumes of key personnel and brief qualifications of support staff are provided as an exhibit at the end of this proposal.

Project Leadership Team Highlights



Ryan Boley, PE | Contract Manager
Brings 25 years of experience with the MTS system to provide invaluable guidance and leadership, focusing on delivery and collaboration



Mark Harper, PE, SE | Work Order Manager
Brings over 30 years of expertise in resilient structural design and seismic analysis for complex transit and institutional projects



Valerie DeLoach, AIA* | Architecture Lead
Leverages 26 years of architectural leadership to drive innovative, cohesive designs that meet project goals on time and within budget



David Bagley, TSSP | Fire/Life Safety Lead
Provides expertise in transit safety compliance and regulatory coordination to ensure the highest standards in safety and security for MTS

B. Unique Qualifications of Key Personnel

We have assembled a team combining the expertise and availability to successfully deliver your Scope of Work on schedule and within budget. Our key personnel bring extensive experience, specialized qualifications, and a strong record of success on similar projects, demonstrating our capacity to meet MTS' goals efficiently and effectively. Below, we provide a snapshot of our key personnel qualifications, including years of experience and similar project experience. Resumes for key personnel are included in the Exhibits section of this proposal, with additional team member resumes available upon request. Starting on the following page, we showcase relevant project highlights underscoring our team's proven performance and commitment.



Ryan Boley, PE | Contract Manager
Years of Experience: 25

Ryan brings significant MTS experience, expertise in project management, and technical oversight on transit projects. **He will leverage his successful partnerships with MTS staff over the past 25 years to provide invaluable guidance and leadership to our team.** His experience includes track and special trackwork design, light rail transit (LRT) and commuter rail station design, street improvements, grade crossings, coordination of bridge design, pavement rehabilitation, traffic control design, bicycle trails, parking lots, retaining walls, storm drains, utility design, and relocations.

SIMILAR PROJECT EXPERIENCE

- MTS, Yard A Ladder Turnouts - Contract Manager/Technical Advisor
- MTS, Yard C Expansion and Feasibility Study - Contract Manager/Technical Advisor
- MTS, KMD Shop Hoists Replacement - Contract Manager
- MTS, Orange Line Track Improvements - Design Project Manager



Valerie DeLoach, AIA | Architecture Lead
Years of Experience: 26

Valerie is a champion for design excellence, working closely with the project designers and engineering team to push boundaries to develop the best outcomes for each project while ensuring all aspects of the planning and design process are successfully achieved. **With her 26 years of industry experience, she directs multidisciplinary design teams to complete complex building projects on time within strict budgetary constraints.** She is responsible for adherence to project goals, budget and schedule, and will be committed from project conception through project completion.

SIMILAR PROJECT EXPERIENCE

- SANDAG, Otay Mesa Port of Entry Commercial Vehicle Enforcement Facility (CVF) - Senior Project Manager
- Orange County Sanitation District, Headquarters Complex - Senior Project Manager
- Cedars-Sinai Medical Center, Biomanufacturing Center - Senior Project Manager



Mark Harper, PE, SE | Work Order Manager/Building Structural Lead
Years of Experience: 33

For over three decades, Mark has been responsible for developing structural systems to meet the architectural design needs of a variety of structures. **He has designed and/or served as the Engineer of Record (EOR) for more than 100 hospitals, schools, and institutional transit and commercial buildings, including multiple O&M facilities.** Mark has experience in seismic analysis/retrofit of existing structures, seismic safety reporting, field observation and investigation, blast design, progressive collapse analysis, client contact/relations, and construction administration.

SIMILAR PROJECT EXPERIENCE

- MTS, KMD Shop Hoists Replacement - Structural EOR/Quality Control Reviewer
- LA Metro, Southeast Gateway Line Maintenance and Storage Facility - Structural Lead
- LOSSAN, Central Coast Layover Facility - Structural EOR
- City of Kansas City, Kansas City Streetcar Maintenance Facility - Structural EOR



David Bagley, TSSP | Fire/Life Safety Lead
Years of Experience: 41

David, a recognized leader in transit safety and security, brings extensive experience in managing MTS rail programs to ensure compliance with local, state, and federal codes. As the 2022 Chair of the California Transit Association's Rail Operations and Regulatory Committee, he facilitated information exchange on regulatory matters between California rail transit agencies and the California Public Utilities Commission (CPUC). He is skilled in developing and administering safety and security management plans and holds certifications as a World Safety Organization Certified Safety & Security Director, a Transit Safety & Security Professional, and a Public Transportation Safety for Rail through USDOT Transportation Safety Institute.

SIMILAR PROJECT EXPERIENCE

- SANDAG/MTS, Mid-Coast Extension - Safety and Security Manager
- SANDAG, San Dieguito to Sorrento Valley Double Track (SDSVDT) Project - Safety and Security Lead
- NCTD, COASTER Convention Center Passenger Platform Project - Safety and Security Specialist

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SIMILAR PERFORMANCE HIGHLIGHTS

MTS, On-Call A&E Design Consulting Services

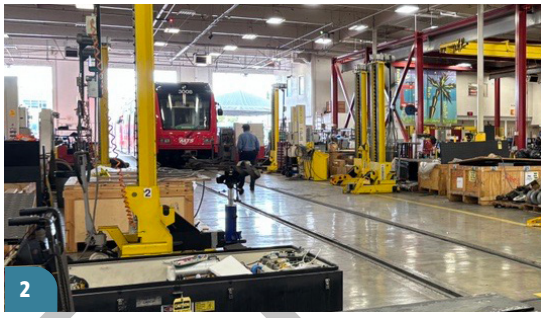
STAFF INVOLVED

Michael Grubstein
Ryan Boley
Mark Harper
Steve Crouch
Alejandro Gonzales Rodriguez
Janine Andres

KEY ELEMENTS

- MTS on-call work orders
- Facility retrofits and improvements
- Foundation analysis and modifications (KMD)
- Phased improvement plans
- Design that minimizes impacts to active maintenance operations
- Collaboration with MTS Engineering and Maintenance of Way (MOW) staffs


1


2


3

HDR is helping MTS achieve its vision of a more accessible and sustainable comprehensive regional system with a team of experts familiar with the current and future needs of MTS' bus and rail system. HDR has successfully delivered or initiated 12 work orders, including building design, facility design, light rail rehabilitation, right-of-way (ROW) management support, and bus electric charging facilities. Specific work orders relevant to this project include:

1. KMD Shop Hoists Replacement: HDR prepared plans, specifications, and construction cost estimates for the phased removal and replacement of 12 existing in-ground vehicle hoists, and provided full-service industrial equipment design and engineering to support this modernization task. The existing shop consists of various multi-hoist lifts that are used for the maintenance of MTS buses. An important component of the design included working with maintenance staff to develop a phasing plan that would minimize impacts to active maintenance operation, while also providing for efficient construction of underground/overhead infrastructure to support existing and future equipment needs.

2. Yard C Expansion and Feasibility Study: HDR provided facility programming, conceptual design, and alternatives analysis for the expansion of Yard C to service and maintain additional light rail vehicles (LRVs). While the original scope only looked to provide storage for new LRVs and to better utilize the newly annexed property adjacent to site, we took a more holistic look at operations across both Yard A and Yard C. We interviewed seven MTS departments to document existing deficiencies and areas of opportunities, all of which necessitated improvements in both administrative and shop spaces. Due to HDR's efforts in identifying phasing considerations, MTS is now better positioned to prioritize and sequence the phasing components based on the ability to gradually secure funds for construction. Overall, this allows MTS to implement their long-term vision and methodically prepare for the eventual procurement of additional LRVs.

3. Zero-Emissions Bus (ZEB) Electric Chargers - Phase I/II: HDR developed plans, specifications, and construction cost estimates for the installation of 12 owner-furnished, contractor-installed electric vehicle supply equipment (EVSE) chargers at four MTS maintenance facilities, under two construction projects. HDR also performed the geotechnical engineering required for the underground work and concrete paving, including testing subgrade compaction, compressive strength, and constituents of concern. HDR collaborated with San Diego Gas & Electric (SDG&E) to provide the necessary upgrades to the electrical service or verify that existing service accommodates the new charging units to support this pilot program. As the implementation of charging infrastructure was a relatively new relationship between MTS and SDG&E, HDR worked closely with the parties to maintain the Phase I implementation schedule to accommodate the initial bus delivery for the Imperial Avenue Division.

In order to verify the chargers were ready and fully functional when MTS' six buses arrived, HDR presented 30 percent (preliminary design), 100 percent (final design), and Issue For Bid (IFB) packages to accelerate the process and complete the design under the originally requested schedule. The combination of our local engineering resources, civil and electrical engineering skills, and experience in heavy-duty electrification projects enabled us to readily understand what was required to meet the needs of MTS.

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Los Angeles County Metropolitan Transportation Authority (LA Metro)

Southeast Gateway Line (SGL) Transit Corridor Advanced Engineering

LA Metro contracted HDR to perform advanced engineering and design for the Initial Operating Segment (IOS) of the Southeast Gateway Line (SGL), a 14.8-mile alignment that proposes to connect a new station in the City of Artesia to a new station platform adjacent to the existing A-Line Slauson Station in the unincorporated community of Florence in Los Angeles County. As part of this IOS, HDR is performing advanced engineering and design for freight relocation, utility adjustments, geotechnical investigations, grade crossings, and light rail transit (LRT) design, among another elements.

The project also includes detailed seismic studies and retrofit concepts of the existing platform A to not only meet current seismic standards but to also seismically resist the new loads from the proposed new pedestrian bridge.

KEY ELEMENTS

- Seismic retrofit
- Exiting and egress compliance
- New construction

STAFF INVOLVED

- Mark Harper
- Steve Crouch
- David Bagley
- Alejandro Gonzales Rodriguez
- Vartan Chilingaryan
- Janine Andres



U.S. Army Corps of Engineers (USACE)

MT Veteran's Affairs Health Care System Medical Center Seismic Upgrade

This project includes seismic upgrade of an existing medical center 261,000 Building Gross Square Feet (BGSF). Both structural seismic retrofit and MEP seismic bracing are required as part of the upgrades. Building 154 requires the most upgrade work, including both structural reinforcement and MEP stabilization as well as architectural components such as suspended ceiling grid. The team will modify or reconstruct approximately 126,000 BGSF in the main hospital buildings (154, 154A, and 150) as necessary. The project will also include construction of a new 80,000-BGSF Acute Inpatient Care Facility as well as a new 480-space parking garage. Upgrades to the Fort Harrison Campus will meet VA Physical Security requirements.

KEY ELEMENTS

- Seismic retrofit
- Fire/life safety upgrades
- Emergency egress

STAFF INVOLVED

- Mark Harper



LA Metro

SGL Maintenance and Storage Facility (MSF)

Traversing through 11 cities and 41 at-grade crossings, the SGL includes nine new LRT stations, a new "infill" transfer station on the existing C Line, 17 new bridges, and a MSF for 80 light rail vehicles. The 160,000 sf MSF building complex includes a three-story office and storage space along with approximately 80,000 sf of LRT service area. The LRT service area includes several maintenance bays that contain below-grade pits, retaining walls, a wheel truing bay, a blowdown bay, and a general service and inspection bay. The service area also includes bays for painting and washing the light rail trains. The pits are designed with cantilevered steel posts to support the train rails. HDR's design provides flexibility to accommodate future operational changes and maintenance needs. The entire complex is designed to meet the 2022 California building code seismic requirements for Risk category II & III buildings.

KEY ELEMENTS

- Seismic design
- Fire/life safety
- Emergency egress

STAFF INVOLVED

- Mark Harper
- Steve Crouch
- Alejandro Gonzales Rodriguez
- Vartan Chilingaryan



San Diego Association of Governments (SANDAG)

Mid-Coast Corridor Transit Project

HDR served as a key partner for the Program Management Support Consultant team on SANDAG's $2.2B Light Rail Transit (LRT) Project. The project extended 3.5 miles from Santa Fe Depot, adding 11.4 miles of new double track from south of the San Diego River to the UTC Transit Center. It included eight bridge crossings, 6.9 miles of at-grade alignment, 4.5 miles of aerial structure, and nine LRT stations. Our team co-located with SANDAG in downtown San Diego to provide support in project management, engineering, safety, project controls, and documentation.

As Safety and Security Manager, our Fire/Life Safety Lead, David Bagley, chaired the Fire Life Safety and Security Committee (FLSSC), working with local authorities (AHJs) to ensure the project met fire/life safety and security standards, aligning with NFPA and local codes. Committee members included MTS' Director of Transit System Security, MTS Facilities Manager, the San Diego Fire Marshal, and San Diego Police.

KEY ELEMENTS

- Fire/life safety
- Collaboration with MTS Engineering and Operations staff
- City of San Diego coordination

STAFF INVOLVED

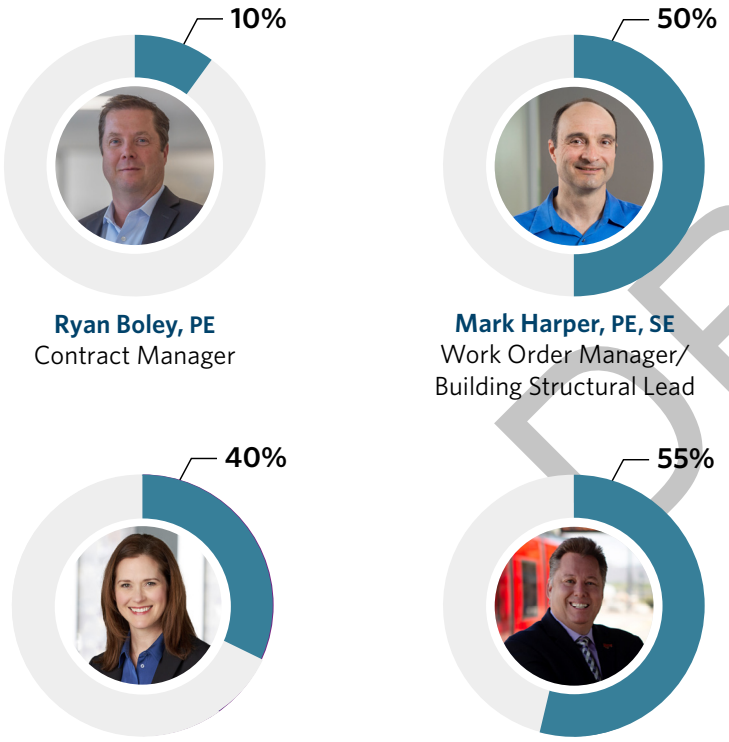
- Ryan Boley
- David Bagley
- Janine Andres

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C. Key Personnel Time Commitment

Selecting the HDR Team provides MTS with an experienced leadership team, local knowledge and expertise, and a depth of resources backed by regional and national subject-matter experts. Each of our proposed team members will be dedicated to the project, with staff at HDR's Downtown San Diego office available to MTS staff, as needed. In **Figure 2: Key Personnel Commitment to MTS** below, we quantify the availability of each key team member at NTP. More information on each individual's current project commitments is provided in **Table 1: Current Assignments and Availability** on page 09. Our proposed team is committed to providing the level of support needed for successful project completion.

Figure 2: Key Personnel Commitment to MTS



Ryan Boley, PE
Contract Manager

Mark Harper, PE, SE
Work Order Manager/
Building Structural Lead

Valerie DeLoach, AIA
Architecture Lead

David Bagley, WSO-CSSD, TSSP
Fire/Life Safety Lead

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>> THE HDR TEAM

Thorough understanding of MTS design requirements through successful partnership on **12 MTS work orders**

Dedicated, integrated, and full-service team with direct experience in seismic, fire/life safety, and architectural services

300+
Transportation staff in Southern California for a **depth of local resources** to draw upon, if needed

Knowledgeable Work Order Manager that brings extensive experience with seismic analysis/retrofit and safety reporting

Experts in **fire/life safety and architecture code compliance**

Extensive experience with **seismic retrofit and rehabilitation**

2. Project Team Capabilities

A. Management, Coordination, and Scheduling Abilities

On-call contracts and associated work orders require extensive coordination, and MTS will benefit from our well-balanced team capable of managing multiple assignments simultaneously. Our Work Order Management Plan (WOMP), shown in the figure to the right, has facilitated the successful delivery of concurrent work orders for many of our clients, including MTS.

WORK ORDER MANAGEMENT PLAN

HDR has demonstrated its ability to work with MTS, local agencies, and critical stakeholders on several successful projects. We strive to avoid surprises by proactively communicating project goals, expectations, scope, schedule, and budget. Our approach to project management is collaborative and seeks to build consensus among stakeholders. For the subject work order, we will develop a WOMP, similar to those used in successful delivery of other MTS projects, but customized to the specific needs and size of this work order request. **Figure 3: Work Order Management Plan** illustrates our four-part WOMP, which includes operations, communication, quality management, and production.

Our proven WOMP provides seamless coordination and project execution to deliver work products on time and within budget. We developed this unique management tool as a company standard on all our projects, including each work order we have delivered for MTS, and have made specific adjustments to focus on MTS practices and requirements. The WOMP is a living internal document used as a communication tool among our Contract Manager, Work Order Manager, and the project team, so that clear expectations and goals are established throughout the project. It is critical that scopes are clearly defined and that both the MTS Project Manager and our HDR Work Order Manager have the same understanding and expectations at the start of the project.

The WOMP will incorporate the following four key plans:

Operations Plan

The Operations Plan will assign the appropriate staff and confirm a clear direction, well-defined deliverables, and full understanding of the scope, process, schedule, budget, and priorities. Project document control and subconsultant management guidelines will be defined. For certain projects, a Risk Assessment Plan will also be developed. This is a living document in the form of a risk register that will identify potential risk items for each phase of the project or task, their probability of occurrence, and mitigation measures to minimize those risks.

Communication Plan

The Communication Plan will establish the internal communication protocol to promptly and efficiently handle project concerns, issues, and direction, resulting in minimized delays and revisions. Our core leadership team will meet on a weekly basis to verify your expectations are met, key action items are addressed, and new action items are assigned a champion and due date. The Communication Plan will be distributed to the entire team and define the roles and responsibilities of each team member.

Quality Management Plan

The Quality Management Plan (QMP) will verify that the project deliverables meet HDR and MTS standards. The QMP will list mandatory management reviews, deliverable reviews, and interdisciplinary technical reviews with dates and identified reviewers.

Production Plan

The Production Plan will outline each team member's responsibilities, procedures for initiating and advancing the work, and timing of preparation of products. Design criteria and CADD standards will be defined.

Figure 3: Work Order Management Plan



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B. Ongoing Projects

The HDR Team is committed to this project. The project's time commitment is not long term in nature, and through work planning efforts between our offices, we will successfully maintain the appropriate workload for our staff, bringing in support from other offices as required for additional depth or expertise.

As shown in **Figure 2: Key Personnel Commitment to MTS** on page 05 and **Table 1: Current Assignments and Availability** on page 09, we have proposed staff with an appropriate level of availability throughout the life of the project. HDR is well positioned to support this project from beginning to end, and the proposed team is committed to providing the level of support needed for successful project completion.

C. Quality Assurance and Quality Control

HDR's QMP is designed to verify that project deliverables meet both HDR and MTS standards and expectations. The Quality Management System at HDR, as illustrated below in **Figure 4: HDR's Quality Process,** is among the highest priorities for all our projects and is implemented through multiple levels of the organization. HDR's Quality Manager, Steve Crouch, will oversee preparation of the overall QMP framework and will monitor and track execution of quality assurance (QA) and quality control (QC) activities. He will make sure our quality procedures are applied and followed on all aspects of project work. Specific QC activities will be assigned to discipline QC reviewers with expertise in the particular project component being checked.

QA and QC are not synonymous: QA is an auditing function, whereas QC is a checking function. Our planned QA and QC procedures for projects will be documented in a worker order-specific QMP that establishes a process for QC checking, correcting, and back-checking all documents, reports, and designs. Our Quality Management Plan also includes extensive use of standard "checklists" for reviews at each project milestone.

QA REVIEW

As the Quality Manager, Steve is also responsible for implementing an overall QA process that produces high-quality products. This process is continuous throughout each project and is prevention-oriented. Steve verifies that we clearly understand project expectations and goals and confirms that we have performed a detailed QC review. This process helps us deliver a quality product that exceeds project expectations.

DETAILED CHECKING REVIEW

Detail checking confirms the accuracy and completeness of information, including calculations, drawings, and spreadsheets, with corrections and changes documented. We conduct CADD work in a shared ProjectWise environment among each discipline and teaming partner, facilitating real-time collaboration. This approach reduces conflicts between disciplines, enhances schedule performance, and prevents late surprises, ultimately keeping the project on track.

QC REVIEW

Independent of the day-to-day team, senior staff members conduct QC reviews to reduce risks by verifying that project deliverables address your requirements. These reviews confirm design compatibility, and drafting services are scrutinized for compliance with CADD requirements.

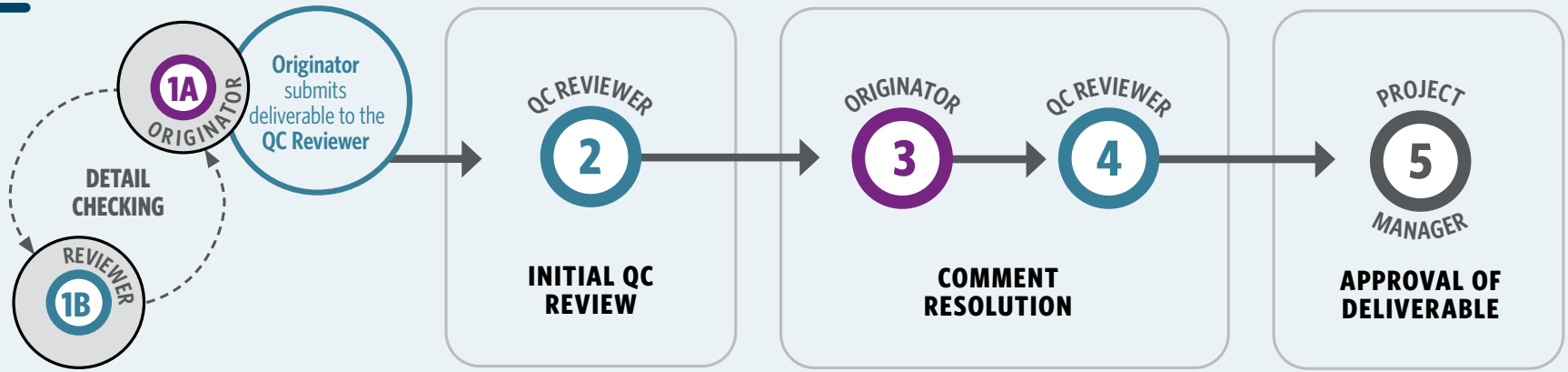
INDEPENDENT DESIGN REVIEW

A designated, qualified HDR staff member not involved in project execution will perform and document independent reviews at agreed-upon project milestones to identify issues and recommend alternatives related to design criteria, use of standard plans, constructability issues, and potential sources of errors and omissions.

Annotated or highlighted originals of MTS' design milestone comments will be returned to MTS with the disposition of all comments in a response/comment matrix.

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Figure 4: HDR's Quality Process



D. Cost Management

Upon Notice to Proceed (NTP), we will implement a process to monitor project budget and schedule within the Operations Plan. Weekly cost sheets, including subconsultant charges, will show labor and indirect costs by task. This information, and a detailed estimate of progress made during each reporting period, will be used to monitor status. We will conduct planned independent management reviews at each submittal milestone to track project progress.

Through weekly internal meetings, our team will constantly reassess project progress to determine if we are within the approved budget and whether the approved schedule is being met. If we find that either one of those indicators is compromised, Mark Harper and our discipline leads will determine the corrective measures and resources necessary to maintain project schedule and deliver the project within the approved budget. If there is a change in scope, we will closely communicate any potential issues with the MTS Project Manager and work together to mitigate impacts.

PROJECT CONTROLS

HDR implements several strategies and tools to help execute the WOMP and track, control, and report cost and percentage completion on a task-by-task basis for all of our projects. These include:

Scheduling

We understand the importance of project schedules and timely delivery and are well versed in both Oracle Primavera software and Microsoft Project to develop resource-loaded Critical Path Method (CPM) schedules. Project schedules adhere to the work order scope, depicting the major milestones and steps necessary to complete each task. Schedules are maintained on a biweekly basis.

Budget and Schedule Control/Reporting

From the beginning of a work order, we work with the MTS Project Manager to develop financial metrics. Weekly cost sheets show direct and indirect costs for each task. This information and a detailed estimate of physical progress during each reporting period will be used to monitor status. A budget management spreadsheet, monthly progress report, and invoice will also submitted to the MTS Project Manager. If there is a need for an amendment, it will first be discussed with the MTS Project Manager and then communicated appropriately with the team to support the implementation of the needed change. HDR will utilize project management dashboards as outlined in **Figure 5: Project Management Dashboard** to the right.

Earned Value

Earned Value Management (EVM) objectively measures project performance and progress. EVM can combine measurements of scope, schedule, and cost in a single integrated system and is notable for its ability to provide accurate forecasts of project performance issues. We have applied this methodology internally on our MTS work orders. This tool assists the Work Order Manager in determining a project's variance of schedule and budget so recovery plans can be developed, if needed.

Scope Control

At times, scope change can be inevitable throughout the course of a project. Reasons may include revisions to the purpose and need, exploring new technologies, a shift in organizational priorities, new legislation and/or regulations, and the impacts of nearby projects. Change management is critical to scope control, and our approach is founded upon proper team communication and documenting updates in the WOMP. In addition, our project management review meetings cover scope evolution and identify ways for our team to mitigate scope changes. Our plan focuses on evaluating the original scope and identifying potential fees that can be redirected to address required scope items without adversely impacting project delivery.

Figure 5: Project Management Dashboard



Powered by Microsoft BI, our PM dashboard is an innovative tool that provides the greatest value to our project managers. Whether starting at the client, contract, or project level, financial information is summarized to provide a useful tool for managing the financial progress of the project. It also accounts for the management and technical reviews performed to track quality assurance and control.

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Invoicing

On a monthly basis, HDR will submit an invoice to reflect actual cost on the work orders and will provide MTS the following to substantiate the validity of the invoice: an invoice coversheet; work order breakdown; budget management spreadsheet; and a progress report. HDR will also ensure that other direct costs (ODC) and subconsultants are in compliance with the master contract.

Risk Assessment

At the start of the work order, we will assess risks by developing a risk register where each item is assessed independently. Subsequently, we analyze the probability versus impact (threat or opportunity) this might have on the project via a standard Excel-based approach with mitigation measures to minimize those risks. We will review the risk register on a monthly basis so appropriate actions are taken to avoid or minimize schedule delays and control budget.

Document Control

We will use ProjectWise for internal document storage. This file-sharing system allows access control and collaboration for the entire project team. Document control procedures are included in HDR's WOMP, which contains the breakdown of subfolders and provides direction regarding where each document should be properly filed. Our entire information technology system is backed up every day so that information is not lost. ProjectWise also handles version control, which becomes critical in the development of reports and specifications.

E. Staff Availability and Commitment

The HDR Team has been strategically organized to provide a depth of resources to support the areas outlined in the RFP's Scope of Work. Key HDR personnel were selected not only on their specialized expertise and relevant experience, but also their availability to mobilize and start work quickly.

Each of our proposed team members will be dedicated to the project, with staff at HDR's Downtown San Diego office available to MTS staff, as needed. As shown previously in **Figure 2: Key Personnel Commitment to MTS** (page 05), and in **Table 1: Current Assignments and Availability** to the right, HDR is well positioned to support this project from beginning to end. The current commitments of all project team members (outlined in the table to the right) were assessed before their selection to serve on the team. These commitments will not hinder their availability to successfully deliver this work orders and provide the responsive communication necessary for project success. Our proposed team is committed to providing the level of support required to successfully deliver the project.

Table 1: Current Assignments and Availability

NAME/ROLE	CURRENT PROJECT ASSIGNMENTS/COMMITMENT	% AVAIL. AT NTP
Ryan Boley, PE 🔑 Contract Manager	SANDAG, San Dieguito to Sorrento Valley Double Track (75%) NCTD, SPRINTER Zero Emissions Program Fleet Strategy (10%)	10%
Mark Harper, PE, SE 🔑 Work Order Manager/Building Structural Lead	Cedars-Sinai, Marina del Rey Replacement Hospital (25%) LA Metro, SGL Maintenance and Storage Facility (25%)	50%
Valerie DeLoach, AIA 🔑 Architecture Lead	SANDAG, Otay Mesa East Port of Entry CVEF (40%) San Diego Zoo Wildlife Alliance, Data Collection and Analysis (10%) Orange County Sanitation District, Headquarters Complex (10%)	40%
David Bagley, TSSP 🔑 Fire/Life Safety Lead	SANDAG/MTS, Mid-Coast Corridor Transit Project (25%) OCTA, OC Streetcar Program Management Consultant (10%) SANDAG, Del Mar Tunnel (10%)	55%
Michael Grubstein, PE* Principal-in-Charge	LA Metro, Link Union Station (30%) SANDAG, Central Mobility Hub (20%)	10%
Steve Crouch, PE Quality Manager	Port of Long Beach, Pier B On-Dock Rail Support Facility (30%) LA Metro, Link Union Station (30%)	25%
Owen Starkey, WELL AP Architecture Support	SANDAG, Otay Mesa East Port of Entry CVEF (60%)	40%
Eugene Chen Architecture QC Review	BART, Elevator Replacement (20%) Cedars Sinai Medical Center, Research Labs (25%) LA Metro, Union Station Platform and Track Reconfiguration (25%)	30%
Alejandro Gonzales Rodriguez, EIT Building Structural Support	LA Metro, SGL Maintenance and Storage Facility (20%) SANDAG, Otay Mesa East Port of Entry CVEF (30%)	40%
Vartan Chilingaryan, PE Building Structural QC Review	LA Metro, SGL Maintenance and Storage Facility (5%) CalEthos, Data Center Design (10%)	10%
Zachary Sachsenmaier, PE, LEED AP BD+C Fire/Life Safety Support	LA Metro, SGL Transit Corridor Advanced Engineering (20%) LA Metro, Link Union Station (10%) Bay Area Rapid Transit (BART), Downtown SF Elevator Project (10%)	60%
Jay Harper, TSSP, WSO-CSSD Fire/Life Safety QC Review	Infrastructure Ontario, Ontario Line (20%) LA Metro, SGL Transit Corridor Advanced Engineering (20%) Omaha Streetcar Authority, Omaha Streetcar (20%)	40%
Kirk Alloway Support Services: Cost Estimating	Metro Transit (MN), Green Line LRT Maintenance Facility (20%) BCDCOG, Lowcountry Rapid Transit O&M Facility (20%)	20%
Janine Andres, PE Support Services: City Coordination	MTS, Broadway Wye Special Track Improvements (40%) SANDAG, San Dieguito to Sorrento Valley Double Track (10%)	50%
Joel Riipinen, PLS (AA) Support Services: Survey	MTS, 12th and Imperial Transit Center Rehabilitation (25%) MTS, Broadway Wye Special Track Improvements (25%)	30%

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3. Project Understanding and Approach



Column Damage



Unpermitted Restroom



Evaluation of Fire Wall and Sprinkler System



Fire Sprinkler System Evaluation and Egress Requirements

A. Demonstrated Knowledge and Staff Abilities to Meet the Scope of Work

The HDR Team is equipped with the expertise and specialized skills to fully address the MTS Pyramid Building Improvements project, leveraging a deep understanding of both MTS' operational needs and the technical challenges involved in bringing this structure into full code compliance. Our team combines seasoned professionals with extensive backgrounds in project management, structural engineering, fire/life safety, and architectural design, each bringing a nuanced understanding of transit facilities and municipal building codes.

Leading our team is Ryan Boley, PE, who draws on over 25 years of successful partnerships with MTS, ensuring seamless coordination and adherence to MTS standards. Mark Harper, PE, SE, our Work Order Manager and Building Structural Lead, brings more than three decades of experience with structural analysis and seismic retrofits. Valerie DeLoach, AIA, guides architectural planning with her commitment to functional, high-quality design. David Bagley, TSSP, our Fire/Life Safety Lead, has a robust record in transit safety management to confirm proposed fire/life safety modifications are compliant.

With a comprehensive approach that includes proactive coordination with the City of San Diego and the AHJs, we are committed to timely, effective communication and collaborative problem-solving. Our team's broad experience in managing and executing similar projects positions us as a capable, reliable partner to MTS, prepared to deliver the necessary engineering services to bring the Pyramid Building into compliance while meeting project requirements.

OUR UNDERSTANDING OF THE PROJECT

The HDR Team understands the history of the Pyramid Building since MTS acquired the property. Based on our previous collaboration with MTS on the planned expansion of Yard C, we recognize that the building's future remains uncertain. The ultimate goal is to support Yard C's expansion, which may involve repurposing or even removing the Pyramid Building to optimize the site for expanded operations. Our team is prepared to align with MTS' evolving needs and objectives, ensuring that any improvements or modifications to the building footprint are strategically planned to accommodate Yard C's expansion.

The MTS Pyramid Building Improvements project involves providing engineering services to evaluate, provide recommendations, and develop modifications to an existing masonry building in San Diego currently used for storage. The modifications are necessary to bring the building into compliance with the minimum San Diego city codes and the San Diego Fire Marshal's requirements. The scope includes seismic and structural repairs, such as reinforcing columns, out-of-plane wall ties and addressing spalling masonry, along with fire/life safety enhancements like fire-rated wall and sprinkler system evaluation and modifications, if needed, and ensuring code-compliant emergency egress and access. HDR will review existing studies, conduct site visits, and provide a full design package, including plans, specifications, and cost estimates. The goal is to prepare the necessary design documents to address current deficiencies, leading to a permit project through the City of San Diego, including identified structural upgrades, fire/life safety requirements, and fire sprinkler requirements for life safety compliance. Depending on City requirements and MTS' desire to keep unpermitted work, it is likely that the majority, if not all, unpermitted work will be demolished and removed from the building.

B. Project Approach

The breadth and depth of the HDR Team's capabilities encompass each of the tasks outlined in the RFP. Our project approach, starting on the following page, is based on committing a proven team you know and trust with the demonstrated ability to deliver your most challenging projects. A key component of our approach is focusing on regular communication with MTS in a manner that fosters teamwork, collaboration, and timely execution. We look forward to carrying our past project experiences with MTS forward, continuing to successfully deliver and improve our process.

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TASK 1: PROJECT MANAGEMENT AND COORDINATION

A successful project requires a strategic approach. At HDR, our approach is built on trust, clearly defined goals, and a shared understanding of the steps needed to achieve them. We have assembled a team tailored to this project, with experts selected to provide precise, effective solutions. During initial negotiations, we will work closely with the MTS Project Manager to confirm the scope and expectations and maintain close collaboration throughout the project to allow for flexibility and accommodate changes.

Through monthly coordination meetings, the HDR Team will work closely with MTS at each stage of the project to review design, schedule, and budget. As the project evolves through each milestone, we will meet with MTS to confirm project direction and address any concerns, making adjustments as needed. Additionally, the HDR Team will hold weekly internal meetings to review project progress, resolve conflicts, and ensure alignment on next steps as detailed in Section 2.D.

At HDR, we hold ourselves accountable. A vital aspect of smart design is quality of work. HDR has a rigorous and robust QMP that is carried out on deliverables prior to each submittal. A detailed check will be performed on all submittals for consistency and accuracy. A quality review by a senior level engineer with expertise in their given field performed prior to each submittal is crucial to identify critical issues. All HDR-reviewed documents will have a signature page indicating a review has been performed. Once a submittal is reviewed by the quality reviewer, our design team will meet to discuss any concerns and, if necessary, coordinate potential solutions with MTS at a subsequent coordination meeting.

TASK 2: SITE VISIT AND STUDY REVIEWS

Site Visits

HDR will conduct site visits as needed to verify existing conditions. The fire sprinkler system presents the greatest unknown regarding documentation requirements. Access to the roof via a man lift or tall ladder will be necessary for our initial site visit.

- **Structural site visits** will be limited to observing and documenting glulam column conditions, base connections, and structural masonry spalling deficiencies, and verifying roof framing as documented in the Josephson Werdowatz & Associates Pyramid Building Report provided in the RFP.
- **Architectural site visits** will document fire separation walls, exiting signage, emergency egress requirements and conditions, and door hardware assessment and condition. We will also assess and document unpermitted bathrooms, as well as other unpermitted building elements to be considered for demolition.
- **Fire sprinkler and fire alarm site visits** will be limited to observing and documenting the basic fire sprinkler system layout and alarm system components and developing recommendations. The initial effort will involve reviewing and identifying the code requirements for the facility based on its occupancy type and determining the necessary fire sprinkler system components according to the facility's square footage. Based on this review, up to two alternatives would be developed to address deficiencies or potential improvements. This process would be completed before meeting with the Fire Marshal. Given the uncertainty of the existing fire sprinkler system requirements needed to satisfy the Fire Marshal and remove the facility from the defense list, we recommend adding an additional separate task. This additional task would be initiated with a separate NTP upon notification from the City of San Diego that a full design would be required.

Study Reviews

Based on our field observation and documentation and review of past studies, reports, and correspondence, HDR will conduct a code review for Type S occupancy to determine the requirements for fire separation walls, exit signage, emergency egress requirements, and door hardware. We will also evaluate the fire sprinkler system and fire alarm system for code compliance.

Fire Marshal Coordination

Once the code review is complete, HDR will meet with City building officials and the City of San Diego Fire Marshal to address unpermitted construction, obtain consensus on code compliance, and outline the path forward to resolve and clear any outstanding violations.

TASK 3: DESIGN SUBMITTAL

Drawing on past experience with the City of San Diego Development Services Department (DSD), the HDR team is well-versed in navigating the submittal process and has developed best practices to limit plan review comments and reduce review time. Meeting with the City at the start of the project will be essential to developing a high-quality submittal that meets DSD standards. This meeting will clarify permit requirements with the City to develop a baseline procedure, determine the cost of our submittal and, most importantly, establish a communication line with the City of San Diego DSD Project Manager.

Our team will also schedule additional site visits as we develop and refine proposed modifications using the provided building analysis report and notice of violation document as our reference. This effort will build from the review of the existing facilities conditions and expectations of the City of San Diego, from the initial meeting noted with the Fire Marshal. This will allow HDR to address the comments with City and obtain their buy-in, thus reducing plan review comments and decreasing the plan review time frame.

Design Elements

HDR will prepare the necessary contract documents and calculations to obtain the required building permit(s) and approvals for the outlined Scope of Work.

- **Structural.** Structural drawings will be prepared showing column locations, roof framing plan, wall elevations documenting damaged CMU, general notes, and structural details for column repairs, masonry repairs, and out-of-plane wall ties.
- **Architectural.** Architectural drawings and details will be prepared showing floor plans with fire separation walls, path of travel, and emergency egress/signage. We will also develop a cover sheet, fire/life safety requirements, and demolition plans for other miscellaneous unpermitted structures. Based on requirements to bring unpermitted bathrooms into compliance, and MTS' preference, HDR will document the anticipated improvements necessary for compliance. If MTS decides not to permit these bathrooms, demolition drawings will be prepared instead.
- **Fire Sprinkler and Fire Alarm.** The fire sprinkler design will be initially limited to a high-level layout of the existing features, as defined in Task 2, to be used for coordination with the San Diego Fire Marshal. If required by the Fire Marshal, HDR will prepare final design for the fire sprinkler system for permit approval. Development of a complete fire sprinkler package, including drawings, calculations, and specifications, as necessary to meet code compliance for this work will be provided under a separate NTP, if required.

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C. Innovative Approaches and Internal Measures for Timely Project Completion

Our team is united by a commitment to act as a true partner to MTS, delivering high-quality work on schedule and adapting flexibly to any unforeseen challenges. We prioritize transparency and communication through weekly internal coordination meetings, biweekly coordination meetings with MTS, and the use of advanced digital communication tools. These tools integrate scope, schedule, resources, and budget details, enabling us to establish a baseline schedule, provide weekly updates, and highlight any variances from the baseline. Our team will monitor progress closely, tracking percent complete, percent expended, and remaining duration on all tasks to keep the project on schedule.

We recognize the importance of early coordination with AHJs, such as the San Diego Fire Marshal and the City of San Diego, to address the Notice of Violation. Given the recent retirement of the previous Fire Marshal, it will be important for our team to meet with the current Fire Marshal to review the document and clarify expectations. We will hold as-needed, documented meetings with the AHJ throughout the project to review fire/life safety requirements and gain consensus on proposed designs. These sessions will ensure continuity and alignment, even if new agency representatives join the project, by providing timely updates. Ultimately, our goal is to address all AHJ comments and questions ahead of City Plan reviews, reducing review cycles and supporting efficient project progression. This collaborative approach includes the stakeholders, including MTS' facilities manager(s), to actively address comments and concerns in an efficient and effective manner.

David Bagley, our Fire/Life Safety Lead, brings extensive experience in coordinating and overseeing similar projects, including the Mid-Coast Corridor Transit Project. David plans to apply these proven strategies on a smaller scale by identifying stakeholders early, establishing a clear understanding of project goals, and facilitating AHJ input and approvals prior to implementation. Having worked with both the City of San Diego and the San Diego Fire Department, David emphasizes the value of engaging AHJs in the review process to extending an opportunity to review, provide input, and provide buy-in on design plans prior to implementation. This collaborative approach has proven successful on previous projects such as the Mid-Coast Corridor Transit Project, the San Dieguito to Sorrento Valley Double Track Project, and the Southeast Gateway Line Projects.

Moreover, meeting with the City of San Diego DSD prior to beginning sheet production for the initial submittal will be critical in anticipating and mitigating schedule impacts. During our preliminary meeting with DSD, we will clarify permit requirements, identify necessary departmental reviews of our deliverables, and determine required documentation. Based on past experience, we anticipate DSD expedited reviews will take 3-4 weeks, so it is important for our team to understand the submittal processes and requirements to limit the number of review cycles while also minimizing the review cost.

Lastly, our team understands that MTS will ultimately be maintaining the Pyramid Building post project completion and is cognizant of the documents and information that MTS will need to have on hand such as dimensioned building plans, fire/life safety plans, and seismic upgrade drawings. Keeping these documents in mind while preparing our deliverables will provide MTS with baseline documents to support future planning of Yard C expansion and modifications.

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4. Schedule

A. Demonstrated Ability to Meet MTS' Schedule

Upon receiving Notice to Proceed (NTP), our team will draft and finalize the project schedule in collaboration with MTS. This process will include setting up biweekly coordination meetings, setting key milestone dates, and identifying any critical items that HDR needs to be aware of to support MTS' internal deadlines (such as funding deadlines, procurement schedules, etc.). Concurrently, our design team will begin reviewing the building analysis report and notice of violation documents provided by MTS, as well as available building as-builts in preparation for our first site visit and evaluation.

Once the team has reviewed this information, we will schedule a site visit with MTS to discuss the notice of violation comments and clarify the requirements necessary to comply with the City of San Diego building codes. The HDR Team will be present to take notes, photographs, and measurements required to develop our documents. Subsequent to that meeting, the team will work diligently to establish meetings with City of San Diego staff, including the Fire Marshal, to understand expectations in addressing current deficiencies to meet minimum code requirements to support the anticipated use of the building.

Based on past experience, the City of San Diego Development Services Department (DSD) expedited reviews typically take 3-4 weeks upon receipt of our submittal package. As such, it will be imperative that we meet with the City of San Diego DSD early to discuss the permit requirements, understand the expected procedure for our submittals, determine the cost of reviews and meet our designated City of San Diego DSD project manager. Identifying the departments that will need to review our documents and meeting the key decision makers will allow us to develop a plan to limit the number of review cycles and minimize potential schedule impacts to the overall project.

In coordination with our City of San Diego submittals, our team will also be submitting 60 percent, 90 percent, and 100 percent plans to MTS, including specs and estimate for MTS review. During the development of each of these deliverables, HDR will meet with MTS in a workshop setting to discuss questions, comments, and concerns. A dedicated MTS review and comment period will be scheduled upon submittal of these deliverables to capture any outstanding comments from MTS.

Once MTS and City of San Diego comments have been received, the HDR Team will address each comment and continue to advance the plans, specifications, and estimate in preparation for a bid-ready package to be delivered at project conclusion. Our team will evaluate all feedback to determine whether the plans can progress or if it is more efficient to pause until all comments are received from the City. Some items such as the structural repairs and seismic upgrades, travel paths and hardware may be advanced with little risk. Others, such as the fire sprinkler system and unpermitted construction, are dependent on the City's comments.

B. Local Resources

HDR is committed to providing MTS with a complete, comprehensive, and locally based team. Our deep bench of local resources and nationwide experts means MTS will always have the right resources to address the needs of each project task. Ryan Boley (Contract Manager), Valerie DeLoach (Architecture Lead), and David Bagley (Fire/Life Safety Lead) are based in our Downtown San Diego office. Mark Harper will be MTS' main point-of-contact, leading this Southern California team ready to deliver efficient, responsive service to MTS. We also have the ability to draw upon additional expertise from other Southern California and national offices to provide specific specialized service needs.

Having the right set of expertise for the job is foremost. Our team has a long history of effective collaboration with national colleagues through virtual collaboration tools, allowing us to seamlessly communicate on project status and design updates. With our proven track record of supporting MTS work orders and our unique expertise and specialized knowledge, the HDR Team brings the expert knowledge and skillset to deliver this project successfully.

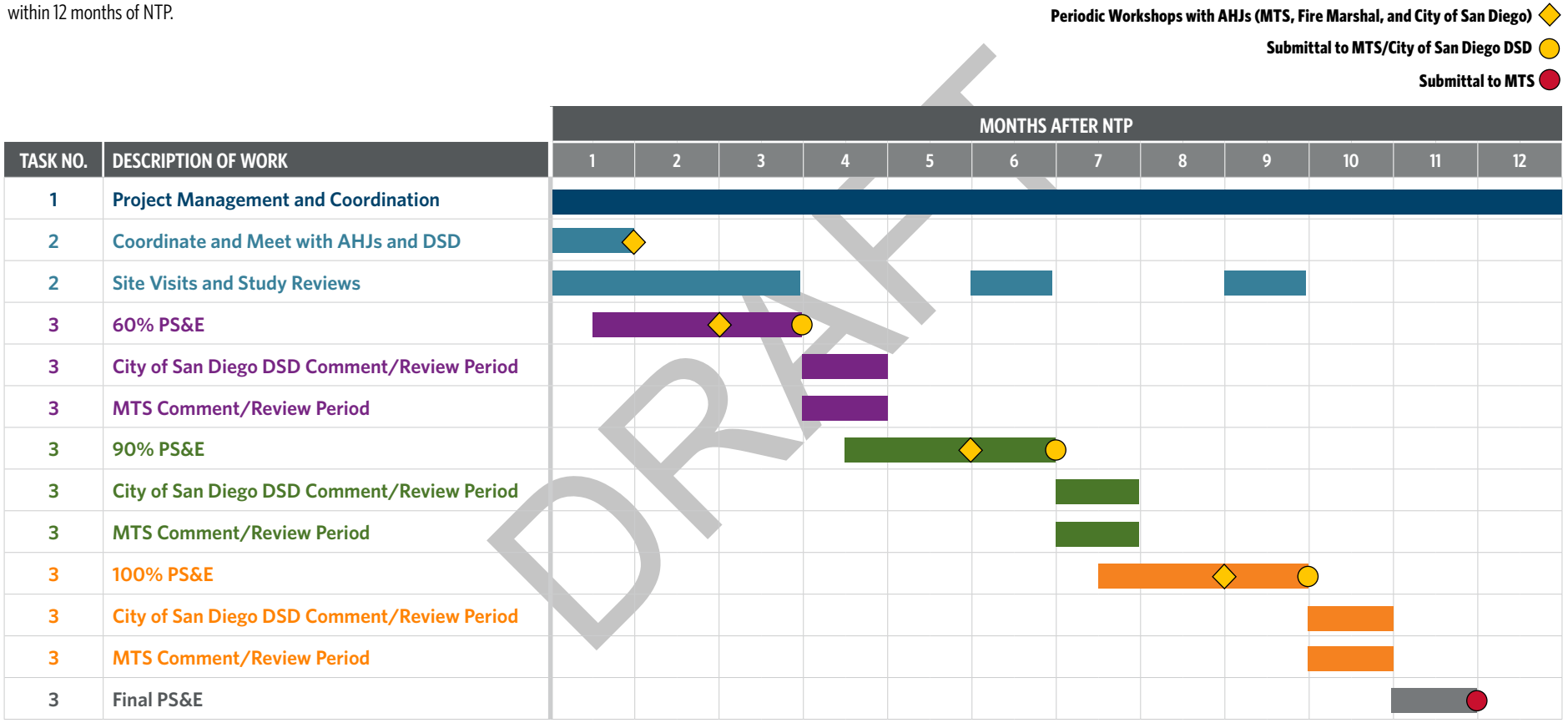


Ryan Boley (Contract Manager), Valerie DeLoach (Architecture Lead), and David Bagley (Fire/Life Safety Lead) are located in HDR's Downtown San Diego office. They will work with Mark Harper (Work Order Manager) to lead our Southern California-based team and tap into additional local and national resources as necessary to keep the project on schedule.

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Figure 6: Project Schedule

HDR has reviewed the schedule provided with the RFP. Our proposed schedule, provided below, incorporates minor modifications that we discussed during the pre-proposal conference, that we believe will best serve the needs of MTS and keep the project on schedule for final delivery within 12 months of NTP.



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5. DBE Subcontractor Utilization Plan

A. DBE Utilization

Although the MTS Disadvantaged Business Enterprise (DBE) program is wholly race-neutral and there are no DBE goals set for this project, HDR understands the importance of engaging and partnering with qualified DBEs that bring value and expertise to MTS and the needs of the contract, in conformance with funding regulations. Through an aggressive outreach program and by tailoring work packages to match the capability and capacity of potential DBE/SB (small business) firms, we work hard to provide opportunities to these business partners.

It takes a well-rounded team to solve local issues and create beneficial solutions. Our approach to DBE utilization includes development, mentoring, outreach, and comprehensive reporting, which enables us to meaningfully contribute to projects and their DBE/SB goals. Our National Small Business and Supplier Diversity Program has been in place for 20 years, and our commitment to DBE/SB participation is demonstrated by many local and national awards.

HDR has included **DBE subcontractor Aguirre & Associates** to provide survey support services on this project. Aguirre & Associates has been successfully delivering land surveying, mapping, and ROW engineering services for projects throughout San Diego County since its founding in 1986. HDR and Aguirre & Associates have collaborated together on many projects, including several for MTS, and have established a great working relationship. We look forward to their support on this project.



HDR's Laura Grams and Lara Paulino published an article detailing opportunities to strengthen local DBE/SBE communities, improve the overall community's economic health, and implement equitable solutions.

MENTORING, TRAINING, & SPECIALIZED OUTSOURCING

In addition to our mentoring under the Caltrans Calmentor Program in Southern California, HDR has taken an active role in setting the pace for a more efficient and structured Mentor-Protégé Program (MPP). This internal initiative has received commendations from our local clients, including SANDAG, LA Metro, City of Los Angeles for LAWA, and Metrolink, to name a few. The goal is to help small and disadvantaged businesses develop their skills in business core competencies, grow their capacity to take on more business, compete more effectively, and develop relationships with other firms for future teaming. We design custom programs for protégés that are tailored to address their core needs for growth. The MPP is also designed to pave the way for our DBE/SB partners to be exposed to some of the latest industry tools and proven processes and techniques, as applicable.

STRONG TRACK RECORD OF MENTORSHIP PROGRAM

Table 2 below highlights a small sampling of our successful MPP initiatives, demonstrating HDR's capability to mentor subconsultants with varying backgrounds. We take pride in the trust and strong relationships we have built with these valued teaming partners.

Table 2: MPP Highlights

SUBCONSULTANT	PERIOD	FORMAT	TRAINING MODULES	LEAD MENTOR
ASLPM	2022-2023	Calmentor	Proposal Management Business Development Marketing Materials	Lorenzo Garrido
Kettler Leweck Engineering	2019	Calmentor	Strategic Planning Proposal Management	Michael Grubstein
CR Associates, Inc.	2015-2016	Calmentor	QA/QC Project Controls Technical Sessions	Ryan Boley
Geo-Advantec, Inc.	2019-2020	City of Los Angeles/ LAWA	Strategic Planning Business Development Marketing Materials	Lara Paulino
Valle & Associates	2019-2020	City of Los Angeles/ LAWA	QA/QC Project Controls Technical Training – BIM	Lara Paulino
Redman Consulting, LLC	2020-Ongoing	Metrolink MPP	QA/QC Technology Updates / GIS Time Management	Robert Yates

6. Cost Proposal

Per the RFP instructions, MTS will issue a request for a detailed cost proposal to the highest ranked firm following proposal evaluations.

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Exhibits:
Key Personnel Resumes
Support Staff Resume Highlights

Key Personnel Resumes



Ryan Boley, PE

Contract Manager

Ryan has expertise in managing teams responsible for preparing preliminary design alternatives, final design, and construction management of major projects, including rail, highway, and public works. He is well versed in MTS, Caltrans, AREMA, Southern California Regional Rail Authority (SCRRA)/Metrolink, American Public Works Association (APWA), "Greenbook," SANDAG, and local jurisdiction standards. His experience includes track and special trackwork design, LRT, commuter rail corridor, station design, street improvements, grade crossings, and coordination of bridge design.

As Contract Manager for MTS' On-Call A&E Design Consulting Services, Ryan works with MTS Project Managers and HDR Work Order Managers to support the delivery of high-quality, successful projects. He will leverage his successful partnerships with MTS staff over the past 25 years to provide invaluable guidance and leadership to our team. Ryan is excited for the opportunity to continue working with MTS in support of delivering transformational transportation solutions to the region.

FIRM
HDR

EDUCATION
BS, Civil Engineering, Utah State University

REGISTRATIONS
PE - Civil, CA #64880

INDUSTRY TENURE
25 years

FIRM TENURE
9 years

AVAILABILITY AT NTP
10%

KEY STRENGTHS

- Experienced Contract Management and Project Leadership
- Established MTS Partnerships
- Depth of Regional Standards Knowledge

RELEVANT PROJECT EXPERIENCE

MTS, Yard A Ladder Turnouts, San Diego, CA. Contract Manager/ Technical Advisor. Ryan managed the overall contract and provided technical expertise as necessary to support the success of the project. The project is the culmination of several necessary improvements to the existing Blue Line and associated trackwork connections to Yard A to facilitate improved operations and to maintain a state of good repair.

MTS, Yard C Expansion and Feasibility Study, San Diego, CA. Contract Manager/Technical Advisor. Ryan managed the overall contract and provided technical expertise as necessary to support the success of the project. The project identified a need to evaluate the current facilities, in and adjacent to Yard C, in support of the expanded equipment and material to operate and maintain, while also providing for future expansion and LRV procurement.

MTS, KMD Shop Hoists Replacement, San Diego, CA. Contract Manager. Ryan managed the overall contract, ensuring adequate staffing and project support to MTS. HDR provided engineering services to prepare design plans, specifications, and construction cost estimates for the phased removal and replacement of the existing lift systems.

MTS, Orange Line Track Improvements, San Diego, CA. Design Project Manager. Ryan was responsible for project management, coordination with subconsultants, oversight of track and civil design (including PS&E), and third-party coordination. The project includes two grade crossing improvements, special trackwork design at two locations, OCS design in support of new special trackwork, and various civil improvements. HDR also provided design support during construction.

MTS, ZEB Electric Chargers - Phase I/II, San Diego, CA. Contract Manager. Ryan provided oversight of the design development team providing final design services for the multi-phase pilot program in support of MTS' implementation of a zero-emission program for its bus operations. HDR developed plans, specifications, and construction cost estimates for the installation of 12 owner-furnished, contractor-installed Electric Vehicle Supply Equipment (EVSE) chargers at four MTS maintenance facilities, under two construction projects. As the implementation of charging infrastructure was a relatively new relationship between MTS and SDG&E, HDR worked closely with the parties to maintain the Phase I implementation schedule to accommodate the initial bus delivery for the Imperial Avenue Division.

MTS, Middletown Double Crossover, San Diego, CA. Design Project Manager. Ryan was responsible for oversight of track and civil design, including drawings, specifications, and estimates to support the implementation of a new double crossover adjacent to the existing Middletown LRT station to improve operational flexibility and maintenance capacity. The project includes the design of a new No. 10 double crossover and track realignment in order to provide more operation flexibility to accommodate special events, maintenance, and unforeseen track outages along the existing Green Line.

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Mark Harper, PE, SE

Work Order Manager/Building Structural Lead

For over three decades, Mark has been responsible for developing structural systems to meet the architectural design needs of a variety of structures. He has designed and/or served Engineer of Record for more than 100 hospitals, schools, and institutional transit and commercial buildings, including multiple O&M facilities. His extensive experience working with a large variety of clients includes seismic analysis/retrofit of existing structures, seismic safety reporting, field observation and investigation, blast design, progressive collapse analysis, client contact/relations, and construction administration. From 1991 - 2021, Mark served as the structural lead for the Huntington Hospital campus, which sits atop the Raymond Fault and generates some of the largest spectral accelerations in California. During that time, he worked on major campus projects, including the Phase II East Tower vertical addition, Phase III West Tower, an emergency department expansion, and multiple other projects.

FIRM
HDR

EDUCATION
BS, Civil Engineering, California State University, Los Angeles

REGISTRATIONS
PE - Civil, CA #54178
PE - Structural, CA #4387

INDUSTRY TENURE
33 years

FIRM TENURE
25 years

AVAILABILITY AT NTP
50%

KEY STRENGTHS

- Extensive Structural Engineering Experience
- Proven Seismic and Safety Expertise
- Client-Focused Leadership

RELEVANT PROJECT EXPERIENCE

MTS, KMD Shop Hoists Replacement, San Diego, CA. Structural EOR/ Quality Control Reviewer. Mark served as the structural EOR and conducted quality reviews for structural design elements. HDR provided engineering services to prepare design plans, specifications, and construction cost estimates for the phased removal and replacement of the existing lift systems.

LA Metro, Southeast Gateway Line (SGL) Maintenance and Storage Facility (MSF), Los Angeles, CA. Structural Lead. Mark is the lead structural engineer for the MSF, which includes an LRT service area with several maintenance bays, below-grade pits, retaining walls, a wheel truing bay, a blowdown bay, and a general service and inspection bay. The pits are designed with cantilevered steel posts to support the train rails. The SGL traverses through 11 cities and includes 41 at-grade crossings, nine new stations, a new station on the existing C Line, and 17 bridges, including three river crossings. The project includes a maintenance and storage facility for 80 light rail vehicles.

City of Kansas City, Kansas City Streetcar Maintenance Facility, Kansas City, MO. Structural EOR. Mark helped in the design of this expansion that adds approximately 6,400 sf to the maintenance facility and includes one repair position, one service and inspection (S&I) position, and an in-ground wheel truing machine. The structure utilizes steel, CMU, precast concrete, structural slab at-grade, and a deep pier foundation system. This fast-paced project moved from Alternatives Analysis to final design in less than 2 years, propelled forward by an active partnership team in the community and HDR's streetcar planners designers and trusted advisers.

LOSSAN, Central Coast Layover Facility, San Luis Obispo Corridor, CA. Structural EOR. Mark is the structural EOR for the new Central Coast Layover Facility. The project will facilitate the maintenance of equipment at the northern terminus of the LOSSAN Rail Corridor. It will allow additional passenger trains to hold overnight, with no impact to operations, and provide the opportunity to hold and service additional train sets.

LA Access Services, Access Services O&M Facility, Lancaster, CA. Structural EOR/Quality Control Reviewer. Mark served as the structural EOR and conducted quality reviews for structural design elements. The project involves the design and construction of a transportation operations and maintenance facility on undeveloped land in the City of Lancaster to serve this on-demand transit provider.

SCRRA/Metrolink, Van Nuys Station, Van Nuys, CA. Structural EOR. Mark helped redesign the existing Metrolink/Amtrak platform from a single track to dual track center platform station. The project consisted of a new platform, new underpass, new canopies, new com house, retaining walls, ramps and stairs.

SBCTA, Redlands Passenger Rail Project (RPRP), San Bernardino County, CA. Structural EOR. Mark was responsible for the design of new canopy structures for multiple stations. This included a vibration mitigation program for historic structures. RPRP implements the combined rail services on the Redlands Subdivision from the Santa Fe Depot to the current end of the rail at the University of Redlands. RPRP will extend the reach of the area's passenger rail options from Los Angeles east to San Bernardino and Redlands.

Cedars-Sinai Medical Center, Marina del Rey Replacement Hospital, Los Angeles, CA. Structural Engineer. This 160-bed replacement acute care hospital provides efficient, flexible, and conversion-ready patient room floor plans to further enhance patient and staff experience. The project also included site and utility upgrades.

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Valerie DeLoach, AIA

Architecture Lead

Valerie is a champion for design excellence, working closely with the project designers and engineering team to push boundaries to develop the best outcomes for each project while ensuring all aspects of the planning and design process are successfully achieved. With her 26 years of industry experience, she directs multidisciplinary design teams to complete complex building projects on time within strict budgetary constraints. She is responsible for adherence to project goals, budget and schedule, and will be committed from project conception through project completion.

FIRM
HDR

EDUCATION
Bachelors, Architecture (Architecture and Urban Design), Auburn University

REGISTRATIONS
Architect -TN #102508

INDUSTRY TENURE
26 years

FIRM TENURE
7 years

AVAILABILITY AT NTP
40%

KEY STRENGTHS

- Architecture Expertise
- Multidisciplinary Team Leadership and Collaboration
- Complex Building Design

RELEVANT PROJECT EXPERIENCE

SANDAG, Design Services for the Otay Mesa East Port of Entry (OME POE) Commercial Vehicle Enforcement Facility (CVEF) and Intelligent Transportation System (ITS), San Diego, CA. Senior Project Manager. SANDAG and the California Department of Transportation (Caltrans) are leading the planning and design efforts for the construction of a new SR 11/OME POE that will bring modern and innovative infrastructure, enhance bi-national mobility, and fuel economic growth on both sides of the border within the San Diego-Tijuana region. HDR has been selected as part of the team to begin the initial phase which will advance the project to the schematic design, up to the 30 percent design completion milestone.

Orange County Sanitation District, Headquarters Complex, Fountain Valley, CA. Senior Project Manager. A 109,000-square-foot facility designed to illustrate OCSD's core values of "honesty, integrity and respect for interactions between employees, the greater public and community." Working closely with OCSD, the design solution engages the public through educational experiences, prioritizes employee well-being and returns value for public investment, all while focusing on precedent-setting, but cost conscious, sustainability goals. The project is on target to achieve LEED Gold and Net Zero Energy Certification. Hybrid mass timber construction combined with expressed steel-braced frames reduces the overall weight of the structure and allows for faster and safer on-site construction.

Cedars-Sinai Medical Center, Biomanufacturing Center, Los Angeles, CA. Senior Project Manager. From showroom to showcasing the latest advances in medicine, the 23,300-square-foot BMC infuses the existing building with new activity and purpose. The project brings new laboratories, clean rooms, and offices into the space.

Confidential Aerospace Client, Existing Office to Lab Building Modernization, El Segundo, CA. Senior Project Manager. Valerie and the HDR team developed programming and design criteria documents to modernize and maximize the occupancy and efficiency of the existing 1960s 90,000-square-foot building nearing the end of its useful life. The renovation of the building will provide state-of-the-art research environments to support the cutting-edge research.

Salk Institute, Joan and Irwin Jacobs Science and Technology Center, East Torrey Pines, CA. Senior Project Manager. This new research building partners with the original Louis Kahn building to reinvigorate the entire campus. The two-story building contains science bisected by a public forum that retains the width of the courtyard of the original Salk Institute. Designed as a linear structure, it integrates scientific research areas with a public forum space mirroring the original courtyard's dimensions, respecting the Salk Institute's iconic geometry while presenting a modern face to the community. This project was a collaboration between WRNS Studio and HDR.

Orange County Sanitation District, PS19-03 Lab Rehabilitation Feasibility Study. Senior Project Manager. HDR provided a comprehensive evaluation of the OCSD Plant No. 1 Laboratory's operational needs which assessed the feasibility of rehabilitating the existing laboratory building vs. replacement. The study results included appropriately detailed cost estimates and life cycle cost analyses for rehabilitation and summarized programmatic level costs for replacement.

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David Bagley, TSSP

Fire/Life Safety Lead

As a recognized leader in transit safety and security, David brings valuable experience to the team from serving as a safety and security professional in the transit and rail industry. During his career, he managed San Diego MTS rail programs to verify compliance with applicable local, state, and federal codes and regulations. He served as the 2022 Chair of California Transit Association's Rail Operations and Regulatory Committee which provides a forum for California rail transit agencies and the CPUC to exchange information concerning rail systems regulatory matters. David is well-versed in planning, developing, and administering comprehensive and effective, safety and security management plans, and agency safety plans.

David is a World Safety Organization Certified Safety & Security Director (WSP-CSSD), a certified Transit Safety & Security Professional (TSSP) through the USDOT Transportation Safety Institute (TSI) and trained in Public Transportation Safety for Rail (PTSCTP) through USDOT TSI. He has also received APTA Rail Safety & Security Excellence Gold Awards in 2018 and 2021.

FIRM
HDR

EDUCATION
Texas A&M National Emergency Response and Recovery Training Center

Rutgers State University National Training Institute

U.S. Department of Homeland Security Emergency Management Institute

REGISTRATIONS
World Safety Organization Certified Safety & Security Director (WSO-CSSD)

Transit Safety & Security Program (TSSP)

INDUSTRY TENURE
41 years

FIRM TENURE
1 year

AVAILABILITY AT NTP
55%

KEY STRENGTHS
- Regulatory Compliance Expertise
- Proven Leadership in Rail Safety
- High-Level Safety Certifications

RELEVANT PROJECT EXPERIENCE

San Diego Association of Governments (SANDAG), San Dieguito to Sorrento Valley Double Track (SDSVDT) Project Design Services and Phase I - Environmental Clearance and Advanced Conceptual Engineering Plans. San Diego, CA. Safety and Security Lead. As part of SANDAG's preliminary engineering and environmental process for the San Diego LOSSAN Rail Realignment Project to address the vulnerability of the rail corridor along the Del Mar Bluffs within the Cities of Del Mar and San Diego, the design team is investigating a series of alignment alternatives, several of which include a tunnel. In order to further refine the potential tunnel alternatives, the project team is considering the emergency egress provisions. To identify the tunnel emergency egress provisions, David is coordinating a series of workshops with stakeholders and local/state fire services/law enforcement with the objective of developing an emergency egress plan for the tunnel alternative and am slated to coordinate with CPUC in relationship to safety and security activities.

SANDAG/MTS, Mid-Coast Extension, San Diego County, CA. Safety and Security Manager. David chaired the FLSSC and the Safety and Security Certification Review Committee. He oversaw and coordinated safety and security certification activities with the California Public Utilities Commission (CPUC)/Federal Transit Administration (FTA). Construction for the project began in fall 2016, and the Trolley extension opened for revenue service on November 21, 2021, on time and on budget. The 11-mile addition to the existing Metropolitan Transit System connects corridor residents with other Trolley lines serving Mission Valley, East County, and South County.

OCTA, Santa Ana/Garden Grove Fixed Guideway (OC Streetcar) Program Management Consultant (PMC) Services, Orange County, CA. Safety and Security Specialist. David is providing technical support in the development and implementation of project-specific Safety and Security Management Plans and certification activities. The OC Streetcar will close a transit gap between Santa Ana and Garden Grove. The 4.1-mile line completes a contiguous transit system through OC, creating vital connections to employment, healthcare and recreation. With plans to connect directly to 18 OCTA bus routes, the streetcar will give users access to high-quality, low-cost transportation that complements existing travel infrastructure.

North County Transit District (NCTD), Coaster Convention Center Passenger Platform Project, San Diego, CA. Safety and Security Specialist. David is providing technical support in safety and security design criteria. HDR will provide final design engineering services and provide pre-construction support services on the BNSF/ NCTD Coaster Convention Center Passenger Platform Project. Project design engineering services includes track and civil engineering, traffic signal design and coordination, city/agency/CPUC coordination, geotechnical engineering, drainage design, architectural and landscape design, structural engineering, construction cost estimating, environmental coordination, storm water pollution prevention plan (SWPPP) development, real estate and right-of-way (ROW) coordination, utility coordination, and overall project management.

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Support Staff Resume Highlights

The HDR Team provides MTS with a depth of experts and technical resources to efficiently deliver this project. Resumes for our support staff members are available upon request; below, we include qualification highlights from their resumes, organized alphabetically by last name.

Table 3: Support Staff Resume Highlights

NAME & ROLE	TENURE (INDUSTRY/FIRM)	EDUCATION	PROFESSIONAL CREDENTIALS	RELEVANT EXPERIENCE
 **Kirk Alloway** Support Services: Cost Estimating	24 years 10 years	BS, Construction Management	-	• NCTD, Maintenance of Way (MOW) Site Assessment • LA Metro, Division 20 Existing Conditions/Technical Studies • LA Metro, Link Union Station
 **Janine Andres, PE** Support Services: City Coordination	10 years 9 years	BS, Civil/Structural Engineering	PE - Civil, CA #94612	• MTS, Broadway Wye Special Track Improvements • MTS, Yard A Ladder Turnouts • MTS, America Plaza Rail Replacement
 **Eugene Chen** Architecture QC Reviewer	28 years 2 years	BA, Architecture	-	• LA Metro, Link Union Station • Cedars-Sinai Medical Center, Pacific Design Center Expansion • Port of Long Beach, Pier B On-Dock Rail Support Facility Program
 **Vartan Chilingaryan, PE** Building Structural QC Reviewer	20 years 20 years	BS, Civil Engineering	PE - Civil, CA, #75639	• LA Metro, SGL Maintenance and Storage Facility • NCTD/BNSF, COASTER Convention Center Platform • City of Kansas City, Kansas City Streetcar Maintenance Facility
 **Steve Crouch, PE** Quality Manager	39 years 12 years	College Coursework, Civil/Structural Engineering	PE - Civil, CA, #59969	• LA Metro, Supplemental Engineering Services for Bus and Rail Facilities • LA Metro, Link Union Station • City of Long Beach, Shoemaker Bridge Replacement
 **Michael Grubstein, PE** Principal-in-Charge	26 years 21 years	BS, Civil Engineering	PE - Civil, NY, #082037-1	• LA Metro, Link Union Station • SANDAG, OME POE Commercial Vehicle Enforcement Facility & ITS • SANDAG, Central Mobility Hub
 **Alejandro Gonzales Rodriguez, EIT** Building Structural Support	6 years 4 years	MS, Structural Engineering BS, Civil Engineering	EIT, CA, #166366	• MTS, KMD Shop Hoists Replacement • LA Metro, SGL Maintenance and Storage Facility • NCTD/BNSF, COASTER Convention Center Platform
 **Jay Harper, TSSP, WSO-CSSD** Fire/Life Safety QC Reviewer	28 years 3 years	BS, Communication Science	Transit Safety and Security Program (TSSP), US CSSD (Transit Rail), WSO, US	• LA Metro, SGL • Metropolitan Transportation Authority, Enhanced Stations Initiatives • TransLink, Safety and Security
 **Joel Riipinen, PLS (AA)** Support Services: Survey	37 years 23 years	Survey Technical Certificate	PLS, CA, #7942	• MTS, Broadway Wye Special Track Improvements • MTS, 12th and Imperial Transit Center Rehabilitation • SANDAG, North Park Mid-City Bike Corridors
 **Zachary Sachsenmaier, PE, LEED AP BD+C** Fire/Life Safety QC Support	23 years 20 years	BS, Mechanical Engineering	LEED AP Building Design + Construction, , US, #10229218 PE - Fire Protection, CA, #1822	• LA Metro, Link Union Station • LA Metro, SGL Transit Corridor Advanced Engineering • Massachusetts Dept. of Transportation, CANA Electrical System Upgrades
 **Owen Starkey, WELL AP** Architecture Support	6 years <1 year	MA, Architecture	WELL Accredited Professional	• SLAC National Accelerator Laboratory, Arrillaga Science Center • Guam Public Health, Training and Laboratory Facility • SANDAG, Otay Mesa POE Commercial Vehicle Enforcement Facility

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401 B Street, Suite 1110
San Diego, CA 92101

hdrinc.com

We practice increased use of sustainable materials and reduction of material use.

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ATTACHMENT B
NEGOTIATED FEE PROPOSAL

DRAFT

Metropolitan Transit System

Agenda Item No. 9

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Board Policy No. 59, "Natural Gas and Energy Commodity Hedge Policy" – Policy Revisions

RECOMMENDATION:

That the MTS Board of Directors approve the proposed revisions to MTS Board Policy No. 59, "Natural Gas and Energy Commodity Hedge Policy" (Attachment A).

Budget Impact

None.

DISCUSSION:

MTS Board Policy No. 59 governs MTS's Natural Gas and Energy Commodity Hedge Policy. This policy allows MTS to purchase energy commodities on the direct market, allowing MTS to better manage its energy costs. It also covers the use of fixed price financial instruments as well as the sale of state and federal energy credits related to the energy commodities that are purchased.

Periodically staff reviews existing board policies to ensure the underlying procedures are compliant with the policy. Staff is proposing clarifications to the policy around the costs that are pass-through from the energy service providers and the ability to use fixed prices on those pass-through costs. Staff also is proposing to remove the section on hedge timing that was causing confusion with the hedge term limits included in the policy.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. Proposed Revisions to MTS Board Policy No. 59

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

Metropolitan Transit System

Policies and Procedures No. 59

Board Approval: ~~11/10/2016~~ 03/13/25

SUBJECT:

NATURAL GAS AND ENERGY COMMODITY HEDGE POLICY

PURPOSE

The purpose of this policy (the "Policy") is to establish guidelines for the execution and management of the Metropolitan Transit System's ("MTS") use of hedging instruments and related transactions in connection with the purchase of natural gas and electrical energy for MTS's transit operations.

Specific objectives of the Policy are as follows:

1. Achieve a high degree of budget certainty in the purchase of natural gas and energy commodities.

2. Maintain a high degree of fuel and energy supply reliability.

3. Ensure no adverse operational impacts.

4. Ensure no adverse impacts on MTS's credit rating.

5. Ensure that all hedging instruments are acquired through competitive bidding with credit-worthy counterparties.

This policy confirms the commitment of MTS management to adhere to sound financial and risk management practices. The Policy shall govern the execution and management of all hedging instruments and activities carried out in connection with natural gas and energy purchases for MTS's transit operations.

59.1 AUTHORIZATIONS AND APPROVALS

The Chief Executive Officer (CEO) and Chief Financial Officer are the designated administrators of the Policy ("Hedge Administrators") and are authorized to execute hedges in accordance with this Policy without further approval of the Board.

59.2 CONDITIONS FOR THE USE OF HEDGING PRODUCTS

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

59.2.1 General Usage

Financial commodity swaps may be used to lock in a fixed price for natural gas and energy commodities in accordance with the conditions and restrictions set forth below. Should MTS elect to purchase gas or electricity from a qualified energy services provider ("ESP"), MTS may accomplish its commodity hedging objectives by converting the price of an ESP -provided energy supply from a variable market price to a fixed price so long as the competitive bidding and other provisions of this Policy are met.

(a) The ESP will also pass through all other local utility charges or California Independent System Operator (CAISO) related changes associated with energy delivery, including, but not limited to: transportation charges; interzonal congestion uplift; intrazonal congestion changes; renewable portfolio standards (RPS) requirements; resource adequacy (RA) requirements; or any other requirement imposed by the CAISO or the California Public Utilities Commission (CPUC). These are not included in any fixed commodity prices.

(b) The ESP can also provide fixed prices for RPS and RA pass through charges, which can be approved at the CEO's discretion.

59.2.2 Maximum Transaction Volume

The maximum aggregate transaction volume for all financial commodity swaps entered into for any budget year shall be equal to the volume of natural gas or energy forecast to be used in connection with the transit fleet during that year. If, at any time prior to or during the fiscal year being hedged, the projected volumes change by more than 10% below or above the amount hedged, additional hedges may be entered into, or termination of existing hedges may be executed in order to account for the change in projected volume.

59.2.3 Hedge Frequency

The number of hedge transactions for any fiscal year shall be no greater than four as determined by the Hedge Administrators except as may be required in response to a change in the volume of fuel or energy projected as provided in Section 59.1 above.

~~59.2.4 Hedge Timing~~

~~Hedging instruments shall be entered into no sooner than 30 months in advance of the first business day of the fiscal year being hedged. All hedges for any fiscal year will be in place in advance of the annual budget submission to the Board of Directors for that fiscal year.~~

59.2.~~5~~4 Hedge Termination

The Hedge Administrators may terminate any and all hedges in whole or in part in response to changes in the projected volume of fuel or energy in

any fiscal year as provided in Section 59.1 above or if required due to any action by the California Public Utilities Commission or the San Diego Gas and Electric Company, which impacts the effectiveness of the hedge. Under no circumstance will hedges be terminated for the sole purpose of generating a profit.

59.2.~~6~~5 Hedge Term

All hedging instruments will be limited in term to 24 months.

59.2.~~7~~6 Prohibited Commodity Swap Features

The MTS will not use commodity swaps that: (i) involve any purpose other than hedging natural gas or energy commodity prices as set forth in this Policy; (ii) lack adequate liquidity to terminate without incurring a significant bid/ask spread; (iii) provide insufficient price transparency to allow reasonable valuation; or (iv) are used as investments.

59.3 HEDGE INSTRUMENT FEATURES

59.3.1 Hedge Agreement

The International Swap and Derivatives Association, Inc. ("ISDA") Master Agreement shall be used as the basis for the documentation of commodity swaps. The swap agreement between the MTS and each counterparty shall include payment, term, security, collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as MTS, in consultation with its legal counsel, and/or hedge advisor deems necessary or desirable.

If MTS takes part in SDG&E's CAT Program for natural gas purchases, or becomes a Direct Access customer for electric energy purchases, the hedging objectives of this policy may be met by execution of an appropriate amendment to the relevant Purchase and Sale Agreement entered into with a qualified ESP.

59.3.2 Commodity Swap Counterparty Credit Criteria

Qualified commodity swap counterparties will be those having, at the time of execution, a general credit rating not lower than "A3" or "A-" by at least two of the nationally recognized rating agencies, unless such party provides a guaranty from a parent or other guarantor rated "A3"or "A-". The nationally recognized rating agencies are Moody's Investors Services, Inc., Standard and Poor's, and Fitch Ratings.

59.3.3 Collateral Requirements

Threshold collateral amounts shall generally be established in accordance with the guidelines set forth below.

Counterparty Credit Rating	Threshold
Aa3/AA- or better	Unlimited
A3/A- to A1/A+	$25 million

Baa1/BBB+	$15 million
Baa2/BBB	$10 million
Baa3/BBB-	$2.5 million

Collateral shall be deposited with a third-party custodian or as mutually agreed upon between MTS and the counterparty. A list of acceptable securities that may be posted as collateral and the valuation of such collateral will be determined and mutually agreed upon during negotiation of the swap agreement with each swap counterparty. Once collateral has been posted, the market value of the collateral shall be determined at least weekly.

59.3.4 Security and Source of Repayment

Commodity swaps will be payable from any lawfully available funds of MTS. Whenever possible, language will be included in the swap agreement specifying that with respect to farebox revenues, swap obligations of the MTS are payable on a basis subordinate to the payment of MTS taxable pension obligation bonds, certificates of participation, or any other obligation secured on a parity therewith.

59.4 SELECTING AND PROCURING COMMODITY SWAPS

59.4.1 Counterparty Selection

Commodity swap counterparties will be selected by the Hedge Administrators consistent with the credit and performance criteria set forth in this Policy.

59.4.2 Competitive Bidding

All hedge instruments will be procured through a competitive bidding process that will provide the lowest commodity price. The nature and timing of the bidding process will be determined by the Hedge Administrators.

59.5 SALE OF ENERGY CREDITS

59.5.1 Energy Credit Sales on Open Market

MTS's use of energy sometimes results in the generation of energy credits such as California Air Resources Board (CARB) Low Carbon Fuel Standard (LCFS) credits, federal Renewable Fuel Standards credits and other existing or future credit programs. The disposition and sale of such credits is often the subject of a formal contract for the purchase of energy commodities (e.g., electric, diesel, gas). However, from time to time, MTS may be in possession of credits that are not the subject of an existing agreement. The market for energy credits fluctuates substantially on a day-to-day, month-to-month and year-to-year basis.

In order to capture the best price in a fluctuating market, the CEO has the authority and discretion to sell unallocated energy credits on the open market.

59.6 MONITORING, REPORTING, AND DISCLOSURE

59.6.1 Quarterly Reporting

The hedge program will be monitored to ensure consistency with this Policy. Annual and quarterly reports will be provided to the MTS Board of Directors in written form which shall include, but not be limited to, the following:

(a) A description of all outstanding commodity swaps, including terms, rates paid and received, and current termination value.

(b) Current counterparty credit ratings.

(c) Collateral required and posted by MTS and each commodity swap counterparty, if any.

(d) Any material event involving outstanding swap agreements, including a default by a commodity swap counterparty, counterparty downgrade, or termination.

(e) Updated projection of the volume of fuel or energy expected to be required for operational purposes and compared to the volume hedged.

(f) Description of any regulatory changes, including changes in the energy-pricing methodology of the ~~California Independent Systems Operator (~~CAISO~~)~~ or changes to San Diego Gas and Electric's hedging practices, which may impact the hedge program.

59.6.2 Disclosure and Financial Reporting

Steps will be taken to ensure that there is full and complete disclosure of all commodity swaps to the Board. With respect to its financial statements, MTS adheres to the guidelines for the financial reporting of commodity swaps as set forth by the Government Accounting Standards Board.

59.6.3 Disclosure of Energy Credit Sales

Any sale of energy credits by the CEO under the authority granted in Section 59.5 shall be reported as part of the monthly Operations Budget Status Report at the next applicable Board of Directors meeting.

The Original Policy Adopted on: ~~ADOPTED:~~ 2/18/2010
Policy Revised on~~REVISED~~: 11/10/~~1016~~2016.
Policy Revised on: 03/13/25.

Metropolitan Transit System

Agenda Item No. 10

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Purchase of Class A, B, and Z1 Paratransit Vehicles – Contract Award

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute:

1) MTS Doc. B0775.0-25 (in substantially the same format as Attachment A), with Model 1 Commercial Vehicles, Inc. for the purchase of two (2) battery powered Class Z1 Paratransit Vehicles in the amount of $291,539.60.

2) MTS Doc. B0776.0-25 (in substantially the same format as Attachment B), with Model 1 Commercial Vehicles, Inc. for the purchase of ten (10) propane powered Class B Paratransit Vehicles in the amount of $2,112,034.50.

3) MTS Doc. B0777.0-25 (in substantially the same format as Attachment C), with Model 1 Commercial Vehicles, Inc. for the purchase of twenty (20) gas powered Class A Paratransit Vehicles in the amount of $3,167,236.35.

Budget Impact

The total cost of all three contracts is estimated to be $5,570,810.45, inclusive of all applicable taxes and fees. This project will be funded by the Capital Improvement Project (CIP) 1001110101- ADA Bus Procurement.

DISCUSSION:

MTS operates Complementary Paratransit Service required by the Americans with Disabilities Act (ADA) for individuals with disabilities who are unable to use fixed route transportation systems. The current fleet of vehicles consists of one hundred and twenty-one (121) Ford E-450 Cutaways, with thirty-two (32) vehicles reaching the end of their useful life. These vehicles will be replaced as part of the Fiscal Year (FY) 2025 Fleet Replacement Plan. This new purchase is for ten (10) propane-powered Class B Paratransit Vehicles, twenty (20) gasoline-powered Class A Paratransit Vehicles, and two (2) battery-powered Class Z1 Paratransit Vehicles. Propane and gasoline powered vehicles will replace current vehicles at the end of their useful life with

vehicles equally matched to our ridership and range demands. Additionally, MTS will be purchasing and piloting two (2) battery-powered Class Z1 vehicles. Through the pilot program, MTS will be analyzing the feasibility and application of the zero emission vehicles for our service needs. Data and performance reviews will assess the advantages, disadvantages, range limitations, reliability and operating cost impacts compared to the current service environment. This information will be used to inform MTS' transition to 100% Zero Emission vehicles in this portion of the fleet.

FTA Circular 4220.1G, Chapter V, Section 4, encourages federal grant recipients to use state and local intergovernmental agreements for procurements of property and services. MTS staff identified an intergovernmental agreement that provides Paratransit vehicles that meet MTS specifications through a California State government purchasing schedule administered by the California Association of Coordinated Transportation (CalACT), RFP No. #20-01. This Purchasing Cooperative allows MTS to select vehicles from a pre-competed menu of choices from different vendors and manufacturers.

CalACT negotiates the purchasing collective on behalf of multiple agencies and is able to obtain pricing that cannot be obtained through single-agency procurements. This pricing is in line with prior proposals from previous procurements for Paratransit vehicles. Therefore, staff deem the costs to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute:

1) MTS Doc. B0775.0-25 (in substantially the same format as Attachment A), with Model 1 Commercial Vehicles, Inc. for the purchase of two (2) battery powered Class Z1 Paratransit Vehicles in the amount of $291,539.60.

2) MTS Doc. B0776.0-25 (in substantially the same format as Attachment B), with Model 1 Commercial Vehicles, Inc. for the purchase of ten (10) propane powered Class B Paratransit Vehicles in the amount of $2,112,034.50.

3) MTS Doc. B0777.0-25 (in substantially the same format as Attachment C), with Model 1 Commercial Vehicles, Inc. for the purchase of twenty (20) gas powered Class A Paratransit Vehicles in the amount of $3,167,236.35.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments:
A. MTS Draft Agreement No. B0775.0-25
B. Cost Proposal B0775.0-25
C. MTS Draft Agreement No. B0776.0-25
D. Cost Proposal B0776.0-25
E. MTS Draft Agreement No. B0777.0-25
F. Cost Proposal B0777.0-25

Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. B0775.0-25

PURCHASE OF TWO (2) CLASS Z1 BATTERY POWERED PARATRANSIT VEHICLES

THIS AGREEMENT is entered into this _____ day of _____, 2025 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Model 1 Commercial Vehicles, Inc.

Address: 9225 Priority Way West Drive Ste. 300

Indianapolis IN 46240
City State Zip

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: jspore@model1.com

Telephone: 425-293-9495

Authorized person to sign contracts: Jason Spore (Name) Transit Bid Manager (Title)

Provide up to two (2) Class Z1 Battery Powered Paratransit Vehicles as specified in the proposal dated February 3, 2025 (attached as Exhibit A), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit B), Signed Forms (Exhibit C).

The contract term is for one (1) year effective April 1, 2025 through March 31, 2026.

MTS and Contractor shall agree to production and delivery schedules in writing upon execution of the Contract.

Vehicle shall be delivered to: Metropolitan Transit System (MTS) c/o First Transit
7490 Copley Park Place
San Diego, CA 92111

The registered owner will be San Diego Metropolitan Transit System (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed $291,539.60, which includes tax, delivery, registration, and California tire fee.

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SAN DIEGO METROPOLITAN TRANSIT SYSTEM	MODEL 1 COMMERCIAL VEHICLES, INC.
By: _____ Sharon Cooney, Chief Executive Officer Approved as to form: By: _____ Karen Landers, General Counsel	By _____ Title: _____

MODEL 1 COMMERCIAL VEHICLES

Creative Bus Sales
The Nation's Largest Bus Dealership

CalACT MBTA RFP #20-01 - Class Z - Quote Sheet *(Rev 2025)*

Vehicle Type:	**Class Z1 - Z-1 E-Transit**	**Date:**	**2/3/2025**
Contact:	**Charles Posejpal**	**Type of Lift:**	☑ Braun ☑ Side ☐ Rear
Agency:	**San Diego MTS**	**Seat Material Level:**	**Level 4**
Address:	**100 16th Street**	**Seat Color:**	**Grey**
City, State, Zip:	**San Diego, CA 92101**	**Floor Color :**	**Grey**
Phone:	**619.235.2648**	**Salesperson Cell:**	**909.549.9398**
E-Mail:	charles.posejpal@sdmts.com	**Salesperson:**	**Steve Chung**
NOTE:	***PER THE PURCHASING COOPERATIVE, PRICING SUBJECT TO CHANGE DUE TO PPI (PRODUCER PRICE INDEX) ESCALATION AND/OR MANUFACTURER PRICE INCREASES. PLEASE CONTACT YOUR SALES REPRESENTATIVE TO CONFIRM QUOTED PRICING IS STILL VALID PRIOR TO ISSUANCE OF PURCHASE ORDER.***		

Quantity:	Description	Price	Ext. Price	ADA
1	Class Z1 - Z-1 E-Transit (Basic) 109" Hiroof EL W3X 148" WB 6+copilot, driver and WC	$101,767.48	$101,767.48	$9,800.00
3	14 - Go-ES Double Foldaway Seat	1,848.60	5,545.80	5,545.80
3	25 - Qstraint Deluxe (8100) credit per set of 4 (In Lieu of specified 360)	Std	Std	
1	27 - Delivery Zone 1	821.60	821.60	821.60
1	72 - Second mobility position (Inc restraints)	677.82	677.82	677.82
1	77 - Front passenger seat delete+ add equipment tower	1,848.60	1,848.60	1,848.60
1	84 - WC Lift installed behind curbside rear axle (Pending Altoona test or concurrence testing is not necessary	9,756.50	9,756.50	9,756.50
	Non-Published Options			
1	San Diego MTS Decals (Estimated)	$3,000.00	3,000.00	3,000.00
1	Amerex EV AVTPLUS5V	$9,995.00	9,995.00	9,995.00
1	Luminator RoadRunner Pro MDVR Per Attached Specifications	$13,733.00	13,733.00	13,733.00
1	68 kwh Ford Battery Pack	-$10,000.00	(10,000.00)	

Class Z - Base Price	$101,767.48	
Published Options	$18,650.32	
Non-Published Options	$16,728.00	
Total	$137,145.80	$28,450.32
Doc Prep Fee	$85.00	
Non-Taxable	$55,178.32	
Taxable Amount	$83,052.48	
Tax Total	$6,436.57	7.750%
Sub-Total	$143,667.37	
CalACT Fee	$2,057.19	
DMV E-File Fee:	$33.00	
DMV Fee	$0.00	*(Estimated)*
Tire Fee	$12.25	
Local Delivery	$0.00	
Total	**$145,769.80**	
Number of Units	2	
Final Total	**$291,539.60**	

The Non-Taxable Amount is the ADA Equipment in the Base and Added as Options

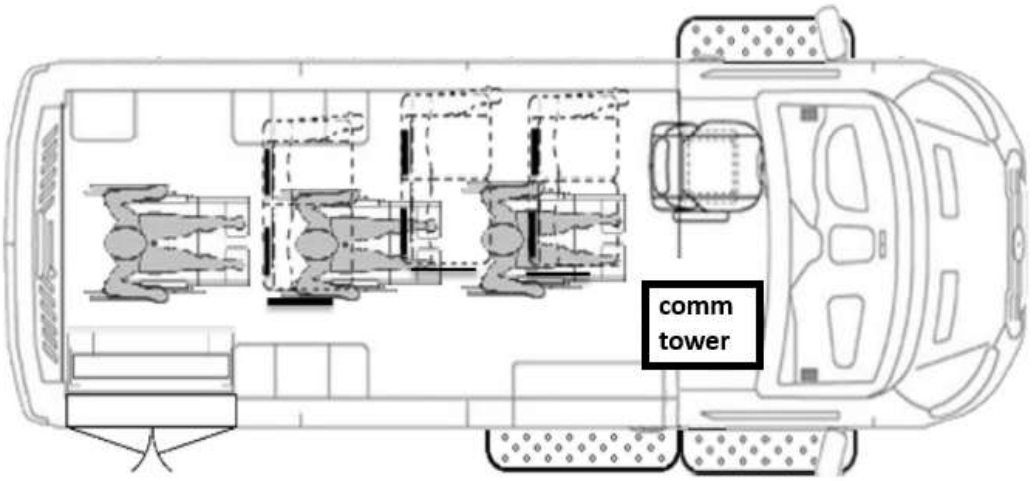
The Taxable Amount Includes the Mobility Rebate of $1,000.00 For Ford Chassis

San Diego* 1400

Purchasing of vehicles requires a CALACT membership, letter of assignment, and payment of procurement fee. If you have any questions, please contact CALACT direct at 916-920-8018



1	1 Wheelchair On 148"-EL Wheel Base - High Roof Cargo Van				
1	AMF Bruns Smartfloor System				
3	2 Passenger GO-ES Forward Facing Fold Away Seat With 3 Point Shoulder Belt - 35" Wide			# CRS Option	
6	Upgrade To Freedman Level 3 Seats, Per Seating Position			Enter Color:	jorden Blue Link
6	Seat Top Mounted Grab Handle	Choose Color:	Black		
3	US Armrest, Black Molded, Available For Aisle Side Seat Only				
2	Add Additional QRT Deluxe Tiedowns, Lap & Shoulder Belt				
3	Retractable Shoulder Harness With Height Adjustment (Each)			Add Ret. Lap Belts ☑	Removeable ☐
1	Tiedown Storage Box, Holds 4 Sets Of M-Series Tiedowns Or 2 Sets Of Retractables				
1	Game Changer - Rear Curb Side Lift Doors				
1	Stainless Steel Assist Pole At Right Entry	Options:			
1	Stainless Steel Assist Pole At Left Entry	Options:			
1	ADA Sign Package - Emergency Exit, No Smoking, Low Clearance, Preferred Seating				
1	Insulate Headliner				
1	Insulate Walls				
1	Insulate Doors				
1	Front End Alignment				
1	Driver Door 8" Stainless Steel Board				
1	Co-Pilot Door 8" Stainless Steel Board				
1	Sliding Door 8" Stainless Steel Board				
1	Safety Kit Includes: 5lb Fire Extinguisher, First Aid Kit, Triangle Reflectors				
1	E-Transit Twin Air Tie-In Heat/Cool Floor Mount - 28K BTU Heat/31K BTU Cool				
3	AMF foldaway mounting.				



LUMINATOR CAMERA SPECIFICATIONS FOR SAN DIEGO MTS

Line	Qty	Model	Description
Mobile Video Equipment			
Recorder			
1	1	RRP-MDVR-24	RoadRunner Pro MDVR 12-channel AHD + 12-channel IPC (PON power supply)
2	1	RRP-MDVRSSD4S	RoadRunner Pro Solid State Drive, 4TB
3	1	RRP-Event	ROADRUNNER PRO PANIC ALARM BUTTON
4	1	009-0544-020	ROADRUNNER PRO RS485 CABLE 20 FT
5	1	009-0541-020	ROADRUNNER PRO GPIO CABLE 20 FT
6	1	RRP-MDVRGPS	RoadRunner Pro GPS Antenna
7	1	RR-UPS-B2	Uninterruptible Power Supply with Battery
8	1	009-0336-003	UPS-B2 Power Cable to RR-PRO
Cameras			
9	1	RRP-IPC-FFC-4.0	IPC Forward Facing Camera, 4.0mm
10	4	RRP-AHD-IDC-2.1	AHD Internal Dome Camera, 2.1mm
11	2	RRP-AHD-CSC-2.8	AHD Curb Side Camera, 2.8mm
12	1	RRP-AHD-BUC-2.2	AHD Backup Camera, 2.2mm
Camera Cabling			
13	1	009-0553-010	AHD AHSL CAMERA CABLE, 10 FT
14	4	009-0553-025	AHD AHSL CAMERA CABLE, 25 FT
15	1	009-0553-035	AHD AHSL CAMERA CABLE, 35 FT
16	1	009-0552-020	IPC AHSL CAMERA CABLE, 20 FT
17	1	009-0600-035	AHD Rear Camera Cabling

AMEREX FIRE SUPPRESSION SYSTEM SPECIFICATIONS FOR SAN DIEGO MTS

Amerex EV AVTPlus 5V SafetyNet Fire Det/Sup Sys & Gas Det 3-Sensors & 3-Nozzles				
Part No.		**Description**		**Qty.**
28096		AVTPlus5V Cyl w/Press Switch		1
10180		V25 Cylinder Bracket Assembly		1
27227		EV Display Panel - SafetyNet		1
16390		Driver Panel - SafetyNet		1
10199		Discharge Fitting Kit		1
10250		Cone Nozzles		3
10780		Nozzle Brackets		3
26620-25		25 FT. Power Connector		1
14088		Thermostat 350 Deg.		3
13983		Hazard/Detection Cable - 10'		1
13982		Hazard/Detection Cable - 6'		1
13981		Hazard/Detection Cable - 3'		1
10178		Distributor, 1-4 Nozzle System		1
14032		Electric Control Head		1
22579		Electric Actuator		1
14053		Manual Actuator Switch		1
14124		Electric Actuator, 20 ft. lead		1
27241		Sensor, Gas EV		1
26619-20		Sensor Cable - 20'		1

Warranty	Miles	Years
Complete Bus	See below	See below
Body Structure	150,000	5
Chassis	36,000	3
Drive Motor	100,000	8
Transmission	N/A	N/A
Air conditioner	36000	3
Lift/Ramp	Unlimited	5
EV Battery	100,000	8
EV Conversion/Installation	N/A - Ford OEM	N/A - Ford OEM
Battery Degradation Warranty	100,000	8
Propulsion Control System	100,000	8
Axles	60,000	5

Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. B0776.0-25

PURCHASE OF TEN (10) CLASS B PROPANE POWERED PARATRANIST VEHICLES

THIS AGREEMENT is entered into this _____ day of _____, 2025 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Model 1 Commercial Vehicles, Inc.

Address: 9225 Priority Way West Drive Ste. 300

Indianapolis IN 46240
City State Zip

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: jspore@model1.com

Telephone: 425-293-9495

Authorized person to sign contracts: Jason Spore (Name) Transit Bid Manager (Title)

Provide up to ten (10) Class B Propane Powered Paratransit Vehicles as specified in the proposal dated February 3, 2025 (attached as Exhibit A), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit B), Signed Forms (Exhibit C).

The contract term is for one (1) year effective April 1, 2025 through March 31, 2026.

MTS and Contractor shall agree to production and delivery schedules in writing upon execution of the Contract.

Vehicle shall be delivered to: Metropolitan Transit System (MTS) c/o First Transit
7490 Copley Park Place
San Diego, CA 92111

The registered owner will be San Diego Metropolitan Transit System (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed $2,112,034.50, which includes tax, delivery, registration, and California tire fee.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	MODEL 1 COMMERCIAL VEHICLES, INC.
By: _____ Sharon Cooney, Chief Executive Officer Approved as to form: By: _____ Karen Landers, General Counsel	By _____ Title: _____

MODEL 1 COMMERCIAL VEHICLES

Creative Bus Sales
The Nation's Largest Bus Dealership

CalACT MBTA RFP #20-01 - Class B - Quote Sheet *(Rev 2022)*

Vehicle Type:	**Class B - Starcraft Bus (Allstar)**	**Date:**	**2/3/2025**
Contact:	**Charles Posejpal**	**Lift Info:**	☑ Braun ☐ Front ☑ Rear
Agency:	**San Diego MTS**	**Seat Material Level:**	**Level 5**
Address:	**100 16th Street**	**Seat Color:**	**Docket 90 Wine**
City, State, Zip:	**San Diego, CA 92101**	**Flooring and Color:**	**Altro Chroma TFCR27MTS**
Phone:	**619.235.2648**	**Salesperson:**	**Steve Chung**
E-Mail:	charles.posejpal@sdmts.com	**Salesperson Cell:**	**909.549.9398**
Delivery:	150 to 180-days from receipt of order (subject to change depending upon CARB certification date of Roush propane system)	**Salesperson E-Mail:**	schung@model1.com
NOTE:	***PER THE PURCHASING COOPERATIVE, PRICING SUBJECT TO CHANGE DUE TO PPI (PRODUCER PRICE INDEX) ESCALATION AND/OR MANUFACTURER PRICE INCREASES. PLEASE CONTACT YOUR SALES REPRESENTATIVE TO CONFIRM QUOTED PRICING IS STILL VALID PRIOR TO ISSUANCE OF PURCHASE ORDER.***		

Quantity:	Description	Price	Ext. Price	ADA
1	Starcraft Bus - Class B - ***(Ford E450 Propane 64G)*** *Subject to CARB certification*	$139,589.00	$139,589.00	$11,790.00
	Published Options			
4	1 - Freedman Foldaway Seat (double)	$2,256.00	$9,024.00	$9,024.00
2	2 - 34"-36" Freedman Flip Seat (featherweight)	$1,820.00	$3,640.00	$3,640.00
8	9 - Credit for seat delete	-$131.00	-$1,048.00	
1	10 - Recaro SHS Drivers Seat (If not standard) BlackVinyl 77850L	$1,292.00	$1,292.00	
1	25 - Raised Flat Floor - (3 Step Entry)	$578.00	$578.00	$578.00
2	28 - Additional Mobility Aid position 8100's (w/tie downs)	$768.00	$1,536.00	$1,536.00
4	31 - Qstraint Deluxe (8100) credit per set of 4	-$109.00	-$436.00	-$436.00
1	42 - Lift Pad Cover	$327.00	$327.00	$327.00
1	64 - Telma Driveline Brake Retarder	$10,197.00	$10,197.00	
1	84 - Roof Vent (Safefleet)	$338.00	$338.00	
1	99 - Amerex Fire Suppression w/Methane Detection	$7,799.00	$7,799.00	
1	102 - Rear Backup Camera and Monitor	Standard	Standard	Standard
1	123 - Delivery Zone 1	$872.00	$872.00	
	Non-Published Options			
1	Chassis Keyed Alike (ignition and driver's door)	$420.00	$420.00	
3	Altro T36T Aluminum step edging w/yellow insert (Each)	$50.00	$150.00	
1	Wheelchair loop compartment under flip seats on rear wall	$695.00	$695.00	
1	Storage Compartment (Front bulkhead carpeted and vented)	$375.00	$375.00	
1	"Tower" Hot Water Heater 60K BTU	$510.00	$510.00	
1	Luminator RoadRunner Pro MDVR Per Attached Specifications	$14,044.00	$14,044.00	
1	Slanted Driver's Modesty Panel for Additional Driver Space	$300.00	$300.00	
1	No tool box / first aid kit / blood borne kit credit	-$200.00	-$200.00	
1	Paint and Decals	$5,000.00	$5,000.00	

NOTE :

PER THE PURCHASING COOPERATIVE, PRICING SUBJECT TO CHANGE DUE TO PPI (PRODUCER PRICE INDEX) ESCALATION AND/OR MANUFACTURER PRICE INCREASES. PLEASE CONTACT YOUR SALES REPRESENTATIVE TO CONFIRM QUOTED PRICING IS STILL VALID PRIOR TO ISSUANCE OF PURCHASE ORDER.

Class B - Base Price	$139,589.00	
Published Options	$34,119.00	
Non-Published Options	$21,294.00	
Total	$195,002.00	$26,459.00
Doc Prep Fee	$85.00	
Non-Taxable	$26,459.00	
Taxable Amount	$169,628.00	
Tax Total	$13,146.17	7.750%
Sub-Total	$208,233.17	
CalACT Fee*	$2,925.03	
DMV E-File Fee:	$33.00	
DMV Fee	$0.00	*(Estimated)*
Tire Fee	$12.25	
Total	**$211,203.45**	
Number of Units	10	
Final Total	**$2,112,034.50**	

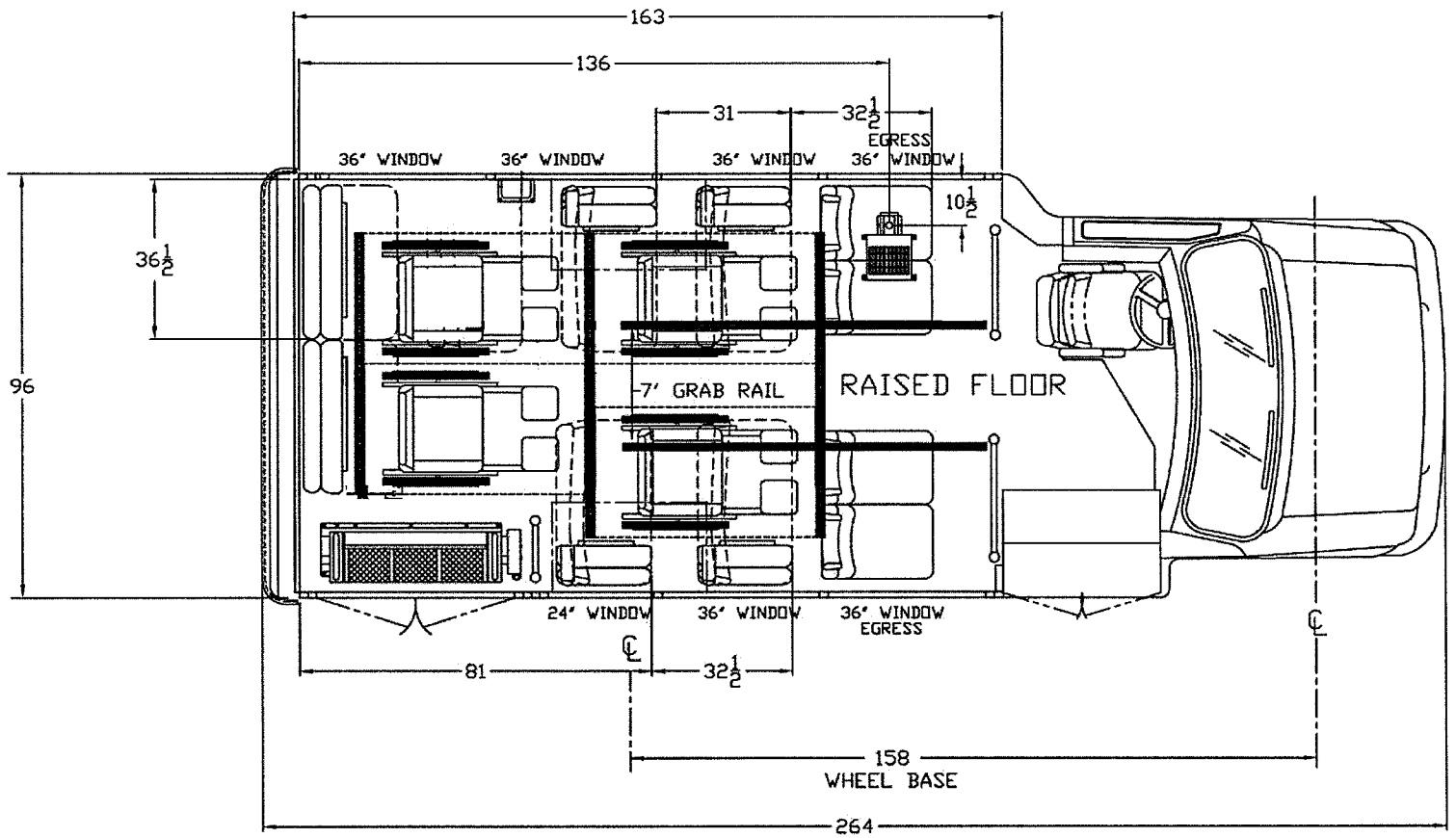
The Non-Taxable Amount is the ADA Equipment in the Base and Added as Options

The Taxable Amount Includes the Mobility Rebate of $1,000.00 For Ford Chassis

San Diego*

*CalACT Fee is capped at $30,000 per purchase order.

Purchasing of vehicles requires a CALACT membership, letter of assignment, and payment of procurement fee. If you have any questions, please contact CALACT direct at 916-920-8018



ENGINEERING APPROVAL
ORDER #:
DRAFTSMAN:
ENGINEER:
DATE APPROVED:

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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED		DATE: 08/15/06
		DFTSN: MDK
WOOD	OTHER	CHKR:
± 1/8"	±1/16"	APRVD:
± 1°	±1/2°	CL CODE:

STARCRAFT AUTOMOTIVE INC.
TRANSIT BUS DIVISION

TITLE 10/2 W/C PASS. 158" WB FORD
SCALE
DWG. No. 82418
DISK No.
SHEET 1 OF 1

LUMINATOR CAMERA SPECIFICATIONS FOR SAN DIEGO MTS

Line	Qty	Model	Description
Mobile Video Equipment Recorder			
1	1	RRP-MDVR-24	RoadRunner Pro MDVR 12-channel AHD + 12-channel IPC (PON power supply)
2	1	RRP-MDVRSSD4S	RoadRunner Pro Solid State Drive, 4TB
3	1	RRP-Event	ROADRUNNER PRO PANIC ALARM BUTTON
4	1	009-0544-020	ROADRUNNER PRO RS485 CABLE 20 FT
5	1	009-0541-020	ROADRUNNER PRO GPIO CABLE 20 FT
6	1	RRP-MDVRGPS	RoadRunner Pro GPS Antenna
7	1	RR-UPS-B2	Uninterruptible Power Supply with Battery
8	1	009-0336-003	UPS-B2 Power Cable to RR-PRO
Cameras			
9	1	RRP-IPC-FFC-4.0	IPC Forward Facing Camera, 4.0mm
10	4	RRP-AHD-IDC-2.1	AHD Internal Dome Camera, 2.1mm
11	3	RRP-AHD-CSC-2.8	AHD Curb Side Camera, 2.8mm
12	1	RRP-AHD-BUC-2.2	AHD Backup Camera, 2.2mm
Camera Cabling			
13	1	009-0553-010	AHD AHSL CAMERA CABLE, 10 FT
14	2	009-0553-025	AHD AHSL CAMERA CABLE, 25 FT
15	3	009-0553-035	AHD AHSL CAMERA CABLE, 35 FT
16	1	009-0552-020	IPC AHSL CAMERA CABLE, 20 FT
17	1	009-0600-035	AHD Rear Camera Cabling
18	1	009-0553-045	AHD AHSL CAMERA CABLE, 45 FT

AMEREX FIRE SUPPRESSION SYSTEM SPECIFICATIONS FOR SAN DIEGO MTS

Amerex SafetyNet Fire Detection/Suppression & Propane Gas Detection System			
Part No.		**Description**	**Qty.**
15591		V25ABC Agent Cyl w/Press Swt	1
10180		V25 Cylinder Bracket Assembly	1
16389		Display Panel - SafetyNet	1
16390		Driver Panel - SafetyNet	1
10199		Discharge Fitting Kit	1
10250		Cone Nozzles	4
10780		Nozzle Brackets	4
26620-25		Lead Power Assembly - 25'	1
14088		Thermostat 350 Deg.	3
13982		Hazard/Detection Cable - 6'	2
13981		Hazard/Detection Cable - 3'	1
10178		Distributor	1
14032		Electric Control Head	1
22579		Electric Actuator	1
14053		Manual Actuator Switch	1
14124		Actuator Lead Assembly - 20'	1
14198		Sensor, GAS AMGaDS III	4
26619-20		Sensor, Cable - 20'	2
26619-35		Sensor, Cable - 35'	2



*Bus photo is not to exact specifications

Class B Standard Build Options

Allstar 22 158" WB E-450 7.3L Premium Gas Engine W/240 Amp Ford Alt	ST	93109		1
SPECIAL INSTRUCTIONS OR NOTES				**1**
SEE BOTTOM OF ORDER FOR WARRANTY		**NOTE**		1
Dealer to Perform 4-Wheel Alignment in California		**NOTE**		1
Dealer to Weigh Each Bus on California Certified Scale		**NOTE**		1
No Tow Vehicle Allowed During Delivery		**NOTE**		1
Ship 4-Corner Weight Sheet with Every Vehicle		**NOTE**		1
Use 250 lbs Per Wheelchair Position		**NOTE**		1
Parts Manual with As-built Electrical Schematics		**NOTE**		1
All Excessories Except Lights, WC Lift & Mobile Radio (If Equipped) Are		**NOTE**		1
Wiring Harnesses Supported Every 24" Maximum		**NOTE**		1
No Butt Connectors Allowed		**NOTE**		1
If Driver Switch Panel is on Engine Cover, Then a Quick Disconnect is Required		**NOTE**		1
Fast Idle: 1500 RPM on Gas - Fast Idle to Engage if Voltage Drops Below 12.5		**NOTE**		1
Install Dome Light With Every Row of Seats, Including WC Position, Must		**NOTE**		1
Ground Engine to Chassis Frame, Body to Chassis Frame, Lift Pump Housing		**NOTE**		1
Hip-To-Knee Spacing 27" Minimum		**NOTE**		1
Seat Track Not Extend More than 6" Past Seats		**NOTE**		1
Undercoat Metal Skirts		**NOTE**		1
Ground to First Step Height Shall Not Exceed 12.5" Unloaded		**NOTE**		1
304SS Required for Entry Grabs and Ceiling Grabs		**NOTE**		1
Ceiling Grab Rails Require Formed Elbows - No End Caps		**NOTE**		1
AC & Heater Hoses Supported Every 24" Minimum		**NOTE**		1
Build Front Driver Storage Compartment as Large as Possible, For Storage of		**NOTE**		1
Install Toolbox Next to Lift if Space Allows		**NOTE**		1
Convex Mirror Must Avoid Sun Visor and Overhead Door		**NOTE**		1
Headlight Aiming Certificate - Ship with Bus		**NOTE**		1
Water Test Certificate - Ship with Bus		**NOTE**		1
Driveline Metal Guards for Each Section of Shaft		**NOTE**		1
All Harnesses Secured to Frame at Maximum of 24"		**NOTE**		1
P-Clamps Added as Deemed Necessary by MBTA Inspector		**NOTE**		1
Batteries Must Be Same Type (No Mismatch) (1 In Tray - 1 Underhood)		**NOTE**		1
Continuous Run Battery Cables		**NOTE**		1
Slide Blocks To Hold Batteries In Place		**NOTE**		1
Floor Track Will Not Be Installed in Any Area not Covered by a Fixed Seat		**NOTE**		1
Operations Manual - Covering Conversion Features as Listed		**NOTE**		1
Parts Book, Operating Instructions, Troubleshooting Guide, Inspection &		**NOTE**		1
SPECIAL BUILD OPTIONS				**1**
Driver Entry Grab Steel Reinforced Plastic - Nutsert Install	ST	99		1
(3) GROUND WIRES TO BE ZERO OUGHT GAUGE, TO BE CONTINUOUS	ST	99		1
Interlock on Entry Door - Must Be in Park to Operate	ST	99		1
ENTRY DOOR HEADER ACCESS PANEL DOOR MUST BE HINGED WITH 2	ST	99		1
Battery Tray: SS Tray & Slides Per Standard Options Below. Must Extend at	ST	99		1
Install Battery Cable Wiring Diagram Inside Battery Access Door	ST	99		1
Decal: Battery Disconnect, Emergency Use Only	ST	99		1
Stainless Steel Battery Hold-Down Hardware	ST	99		1
Add 2nd Heater Line Brass 1/4 Turn Valve	ST	99		1
Decal: "Heater Shut Off Valve" - Install On Street Side Near Valves	ST	99		1
KEYED LOCK ILO THUMB LATCH FOR ELECTRICAL CENTER DOOR	ST	99		1
5/8", 7 Ply AC Marine Grade APA Plywood Floor	ST	99		1
Upgrade Driver Plexi Barrier: Extend to Within 6" of Ceiling	ST	99		1
14 Gauge Galvanized Steel Wheelwells	ST	99		1
Dual Handles on WC Lift Doors	ST	99		1
Flame Block on Bottom of Driver Seat Cushion (N/A on USSC & Recaro)	ST	99		1
Laminated Modesty Panel, Grey Melamine, Each	ST	99		2
Intermotive Break Out Box	ST	99		1
GENERIC PARTS MANUAL ON FLASH DRIVE	ST	99		1
ELECTRICAL SYSTEM				
Intermotive Flex Tech Electrical System	05	STD		1
SIDEWALL / REARWALL / CEILING				



Sidewall: Grey FRP	05	STD		1
Rearwall: Grey Seaspray Fabric	05	STD		1
Driver Area: Grey Padded Vinyl	05	STD		1
FRP on Ceiling, Grey	05	2289		1
Cove Colored Flooring on Sidewall to Seat Track	05	2238		1
FLOORING - WHITE NOSING IS STANDARD				
Altro Meta Storm	05	2248		1
Yellow Step Nosing - Per Step	05	8820		3
CHASSIS				
Front Mud Flap (1), Passenger Side Only **(to be used with Running Board) -** NOT AVAILABLE ON FORD TRANSIT	05	2340		1
Heavy Duty Anti-Slip Aluminum Running Board on Driver Side (Large) (NOT AVAILABLE ON FORD TRANSIT)	05	2623		1
Exterior Mirror Set Remote/Heated w/External LED Strip Turn Signal Ford	05	2825		1
Romeo Rim Rear Bumper w/HawkEye RAS Installed	05	2670		1
Valve Stem Extender Inner Dual Rear Wheel, pair	05	8606		1
ENVIRONMENTAL CONTROL				
TRANS/AIR AIR CONDITIONING SYSTEMS				1
TRANS AIR TA733 SUPER 75,000 BTU, TA73 EVAP, SMC3L COND, 13 CID COMP 7.3L GAS	ST	99		1
USE #16 SUCTION HOSE IN A/C SYSTEM	ST	99		1
HEATERS				1
Hot Water Heater, 35K BTU 3 Speed Low Profile	05	8044		1
MISCELLANEOUS				1
Silicone Heater Hose (for rear unit) w/full ring clamps	05	20090		1
ELECTRICAL				
Stainless Batt.**Tray** w/Std Batt.Box *IS 304 REQUIRED?* **YES**	05	2784		1
Stainless Steel Battery Tray Slides ILO Zinc Plated Slides - Extra Charge	05	2869		1
Rotary Disconnect Switch	05	8790		1
Laminated Wiring Schematic ***AS BUILT*** ON ELECTRICAL PANEL DOOR	05	22101		1
Wiring Diagram "AS BUILT" ON USB Flash Drive		**STD**		**1**
EXTERIOR LIGHTS				
Surface Mount LED Entry Door Exterior Light - STD Choose Optional Below or Special builds	05	STD		1
LED Rear Center Mount Brake Light, **Rectangular**	05	20136		1
LED Mid-Ship Turn / Marker Lights	05	20138		1
Independent **RED** Brake & **AMBER** Turn Signal Lights	05	20139		1
INTERIOR LIGHTS				1
Additional Interior LED Dome Lamp - Each	05	8041		2
AUDIO / VISUAL				1
Jensen JHD36AB AM/FM/CD/Clock Blue Tooth/USB Enabled / 4 SPEAKERS **PA Ready**	05	8830		1
DOORS / HATCH / WINDOWS				
Electric Entry Door is Standard. Add Option #2056 if Manual is Desired				
Passenger Door Electric (standard)	05	20163		1
Passenger Door 36" ROUGH OPENING (STANDARD)	05	2063		1
Exterior Passenger Entrance Door Key	05	8133		1
Solid Window(s) EACH Replace T-Slide(s) Enter Specific Instructions in Row Below	05	20187		1
STREET SIDE REAR		**NOTE**		1
INTERIOR				1
Driver Coat Hook	05	8769		1
LUGGAGE RACK / STORAGE				1
Driver Storage in Cab Overhead with Lock	05	20192		1
PARATRANSIT OPTIONS				1
Double W/C Doors w/ Windows, LED Interior Light, Leaf Spring, LED Exterior Lighting	05	20206		1
IS THE LIFT IN THE FRONT OR REAR OF THE UNIT?				1
BRAUN LIFTS				1
Braun Century NCL917-2 800# Lift (33"x51")	05	8744		1
LIFT FAST IDLE WITH 403 INTERLOCK				1
Intermotive Gateway 508-F Ford E or 517-F Transit Fast Idle with Lift Interlock	05	99		1
Q Straint W.C. Securement Kits, Accessories				1
Q10007 - 4 QRT 360 Retractr Tie Down L track & Q8-6326-A1 Comb-Lap/Shldr	05	8826		2



Q5-7580-4 18" Blue Webbing Loop (each)		05	20250		8
Q5-6327 84" Postural Belt with Padding - Black Webbing		05	20251		1
Q-Straint Belt Cutter (ship loose)		05	8179		1
Miscellaneous Accessories					1
Priority Seating Sign **Required for ADA Compliance**		05	8104		1
Tool Box Wheelchair Belt Storage		05	20257		1
SAFETY OPTIONS					
5 Lb Fire Extinguisher		05	8089		1
16 Unit First Aid Kit		05	8090		1
Body Fluid Kit		05	20264		1
Emergency Triangle Kit		05	8091		1
Back-Up Alarm SAE Type B 107 db(A) Ecco 575		05	2880		1
STANDARD ROSCO STSK4750 BACK-UP CAMERA SYSTEM W/ 7" REARVIEW MONITOR / MIRROR COMBO		**05**	**STD**		**1**
Interior Convex Mirror 6"x9"		05	20276		1
Red Light Over Emergency Exit Ea: **ON:**	**SIDE & REAR EGRESS WINDOWS**	05	8155		3
Yellow "Standee" Line		05	8802		1
GRAB RAIL / STANCHION / PANELS					
Ceiling Grab Rail - Install on **Both Sides**		05	99		1
Left Hand Entry Vertical Grab Rail - 1 1/4"			**STD**		1
1 1/4" Dual Entry Grab Rails Parallel to Entrance Steps (both sides)		05	8130		1
Stanchion and Modesty Panel at Entry Door			**STD**		1
SEATING - DRIVER					1
SHIELD Sport 2.0 Recliner RH Adjustable LeMans Arm, 2 Way Adjustable Lumbar		05	99		1
FREEDMAN SHIELD DRIVER SEAT FABRICS					1
Driver Seat Cover - Level 4 Ice Pinstripe; Mor-Care; Leathermate		05	2043		1
SEATING - PASSENGER					1
STD RIGID SEATS					1
Mid High Double Seat		05	8067		6
PASSENGER SEAT FABRICS					1
Seat Cover - Level 4 Ice Pinstripe; Mor-Care; Leathermate		05	2074		12
SEAT OPTIONS					1
Anti-Vandal Grab Handle, Black Ea **on:**	**ALL SEAT EXCEPT AGINST REAR WALL**	05	2311		12
Black US Armrest - Each - **on:**		05	2077		6
Flame Block Material on Underside of Seat (each)		05	2884		12
SEAT BELTS					1
Seat Belt, Freedman USR Retractable (Per Person)		05	2282		12
Seat Belt Extension, 12" (P/N 56410) FOR USR SEAT BELTS		05	8771		2

The Allstar



Safety. Performance. Durability.

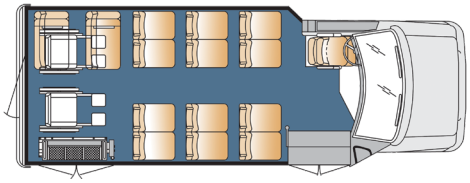
Engineered for safety and designed for comfort, the Starcraft Allstar continues to be one the best-selling shuttle buses in the market. Standard equipment that includes a backup camera for safety and 4-inch low standard floor wheel wells for passenger seating comfort makes the Allstar a great addition to your fleet.

Creative Bus Sales
THE NATION'S LARGEST BUS DEALER SINCE 1980

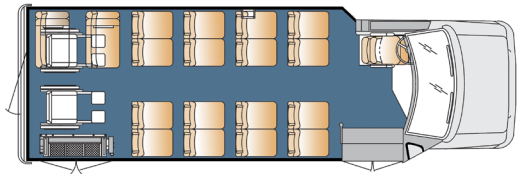
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Meeting America's Transportation Needs
One Customer at a Time

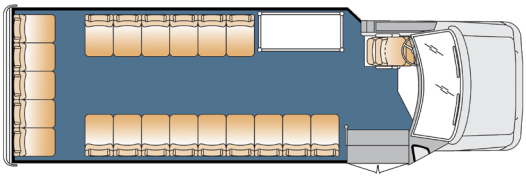
The Allstar



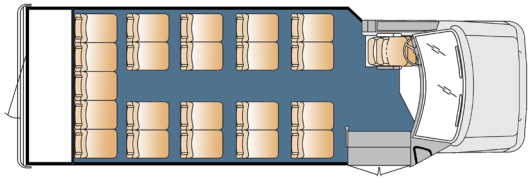
12 Passenger 2 Wheelchair with Foldaway Seats Plus Driver



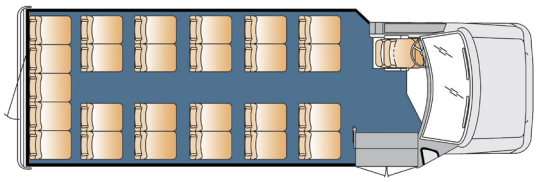
16 Passenger 2 Wheelchair with Foldaway Seats Plus Driver



20 Passenger with Interior Luggage Plus Driver



21 Passenger with Rear Luggage Plus Driver



25 Passenger Plus Driver

ISO 9001 REGISTERED Quality Management System

QVM QUALIFIED VEHICLE MODIFIER

Industry Leading 5-Year/100K Comprehensive Warranty

Standard Exterior Feature Highlights

- Fully welded steel cage construction meeting all applicable FMVSS requirements
- "Starview" drivers visibility window in front of entry door
- Electric actuated passenger entry door with full length glass
- 36" wide x 36" high upper double T-Slider tempered safety glass windows with climate control tint
- Black powder coated steel rear bumper
- Rear mud flaps
- Pre-painted white aluminum sidewall and skirts
- Fiberglass front and rear caps
- One-piece seamless FRP (fiberglass reinforced plastic) roof
- Breakaway rearview mirrors with built-in convex
- Sealed LED stop, tail, and turn signal lights with LED back-up lights
- LED front and rear marker lights
- Exterior graphics package available in three colors (blue, green or burgundy)

Standard Interior Feature Highlights

- 93" interior width
- 80" interior floor to ceiling height with standard floor (raised floor is 75")
- Floor and wall seat track for flexible seating
- Black slip resistant floor covering
- 5/8" exterior grade plywood flooring
- Ceiling and rear wall fabric for sound abatement
- FRP (fiberglass reinforced plastic) sidewalls for ease of cleaning
- White step nosing
- 1.25" left hand vertical passenger assist rail at entry door
- Intermotive FlexTech Electrical System
- LED entry door step well lights
- LED driver and passenger area lighting
- Non-retractable seat belts

Popular Option Highlights

- Stainless steel wheel inserts
- Luggage Storage areas (overhead luggage racks with reading lights, interior luggage racks, rear luggage area)
- Rear emergency door with window(s)
- Passenger area rear heat and air conditioning
- Complete rubber flooring
- Passenger grab rails
- Padded vinyl or cloth walls and ceiling
- Audio and video systems
- Mid back or high back seating
- ADA and FMVSS compliant wheel chair lifts and securement systems
- Fiberglass side walls and skirts

STARCRAFT BUS

Creative Bus Sales 800.326.2877 | CreativeBusSales.com

SUMMARY OF STANDARD WARRANTIES

(Provide complete warranty information and parchment with proposal)

Warranty	Miles	Years	Warranty Details
Body Structure	100,000	5	See attached Warranty Info
Chassis	36,000	3	See attached Warranty Info
Engine	60,000	5	See attached Warranty Info
Transmission	60,000	5	See attached Warranty Info
Air conditioner	Unlimited	2	See attached Warranty Info
Lift/Ramp	Unlimited	5	See attached Warranty Info
EV Battery	N/A	N/A	N/A
EV Conversion/Installation	N/A	N/A	N/A
CNG Warranty (Install and tanks)	N/A	N/A	N/A

Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. B0777.0-25

PURCHASE OF TWENTY (20) CLASS A GAS POWERED PARATRANSIT VEHICLES

THIS AGREEMENT is entered into this _____ day of _____, 2025 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Model 1 Commercial Vehicles, Inc.

Address: 9225 Priority Way West Drive Ste. 300

Indianapolis IN 46240
City State Zip

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: jspore@model1.com

Telephone: 425-293-9495

Authorized person to sign contracts: Jason Spore (Name) Transit Bid Manager (Title)

Provide up to twenty (20) Class A Gas Powered Paratransit Vehicles as specified in the proposal dated February 3, 2025 (attached as Exhibit A), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit B), Signed Forms (Exhibit C).

The contract term is for one (1) year effective April 1, 2025 through March 31, 2026.

MTS and Contractor shall agree to production and delivery schedules in writing upon execution of the Contract.

Vehicle shall be delivered to: Metropolitan Transit System (MTS) c/o First Transit
7490 Copley Park Place
San Diego, CA 92111

The registered owner will be San Diego Metropolitan Transit System (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed $3,167,236.35, which includes tax, delivery, registration, and California tire fee.

DRAFT

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	MODEL 1 COMMERCIAL VEHICLES, INC.
By: _____ Sharon Cooney, Chief Executive Officer Approved as to form: By: _____ Karen Landers, General Counsel	By _____ Title: _____

MODEL1 COMMERCIAL VEHICLES

Creative Bus Sales
The Nation's Largest Bus Dealership

CalACT MBTA RFP #20-01 - Class A - Quote Sheet *(Rev 2024)*

Vehicle Type:	**Class A - Starcraft Bus (Starlite)**	**Date:**	**2/3/2025**
Contact:	**Charles Posejpal**	**Lift Info:**	☑ Braun ☐ Front ☑ Rear
Agency:	**San Diego MTS**	**Seat Material Level:**	**Level 5**
Address:	**100 16th Street**	**Seat Color:**	**Docket 90 Wine**
City, State, Zip:	**San Diego, CA 92101**	**Flooring and Color:**	**Altro Chroma TFCR27MTS**
Phone:	**619.235.2648**	**Salesperson:**	**909.549.9398**
E-Mail:	charles.posejpal@sdmts.com	**Salesperson Cell:**	**Steve Chung**
Delivery:	150 to 180-days from receipt of order	**Salesperson E-Mail:**	schung@model1.com
NOTE:	***PER THE PURCHASING COOPERATIVE, PRICING SUBJECT TO CHANGE DUE TO PPI (PRODUCER PRICE INDEX) ESCALATION AND/OR MANUFACTURER PRICE INCREASES. PLEASE CONTACT YOUR SALES REPRESENTATIVE TO CONFIRM QUOTED PRICING IS STILL VALID PRIOR TO ISSUANCE OF PURCHASE ORDER.***		

Quantity:	Description	Price	Ext. Price	ADA
1	Starcraft Bus - Class A - ***(Ford Transit T350)***	$114,321.00	$114,321.00	$11,790.00
	Published Options			
2	1 - Freedman Foldaway Seat (double)	$2,256.00	$4,512.00	$4,512.00
5	9 - Credit for seat delete	-$131.00	-$655.00	
1	10 - Recaro SHS Drivers Seat - Black Vinyl 77850L	$1,292.00	$1,292.00	
1	26 - Raised Flat Floor - (West Coast Style) 1/2 Step Behind Driver	$578.00	$578.00	$578.00
1	28 - Additional Mobility Aid position 8100's (w/tie downs)	$768.00	$768.00	$768.00
4	37 - Full Length Track (Floor) (Per Foot)	$33.00	$132.00	$132.00
4	38 - Full Length Track (Sidewall) (Per Foot)	$33.00	$132.00	$132.00
1	47 - 2-Way radio prep	$185.00	$185.00	
1	87 - Locking rear door w/alarm (one window)	$529.00	$529.00	
1	98 - Amerex Fire Suppression	$3,439.00	$3,439.00	
1	102 - Rear Backup Camera and Monitor		Standard	Standard
1	123 - Delivery Zone 1	$872.00	$872.00	
	Non-Published Options			
1	Chassis Keyed Alike	$420.00	$420.00	
3	Altro T36T Aluminum step edging w/yellow insert (Each)	$50.00	$150.00	
1	Bus Bars mounted in front bulkhead (3 bars w/15amp circuit each)	$450.00	$450.00	
1	Storage Compartment (Front Bulkhead - Full Width)	$375.00	$375.00	
1	Luminator RoadRunner Pro MDVR Per Attached Specifications	$14,044.00	$14,044.00	
1	Lift - Pad Cover (Full Cover - Braun)	$350.00	$350.00	$350.00
1	Paint and Decals (Estimated Cost)	$5,000.00	$5,000.00	
1	No tool box / first aid kit / blood borne kit	-$200.00	-$200.00	

NOTE:

PER THE PURCHASING COOPERATIVE, PRICING SUBJECT TO CHANGE DUE TO PPI (PRODUCER PRICE INDEX) ESCALATION AND/OR MANUFACTURER PRICE INCREASE. PLEASE CONTACT YOUR SALES REPRESENTATIVE TO CONFIRM QUOTED PRICING IS STILL VALID PRIOR TO ISSUANCE OF PURCHASE ORDER.

Class A - Base Price	$114,321.00	
Published Options	$11,784.00	
Non-Published Options	$20,589.00	
Total	$146,694.00	$18,262.00
Doc Prep Fee	$85.00	
Non-Taxable	$18,262.00	
Taxable Amount	$129,517.00	
Tax Total	$10,037.57	7.750%
Sub-Total	$156,816.57	
CalACT Fee*	$1,500.00	
DMV E-File Fee:	$33.00	
DMV Fee	$0.00	*(Estimated)*
Tire Fee	$12.25	
Total	**$158,361.82**	
Number of Units	20	
Final Total	**$3,167,236.35**	

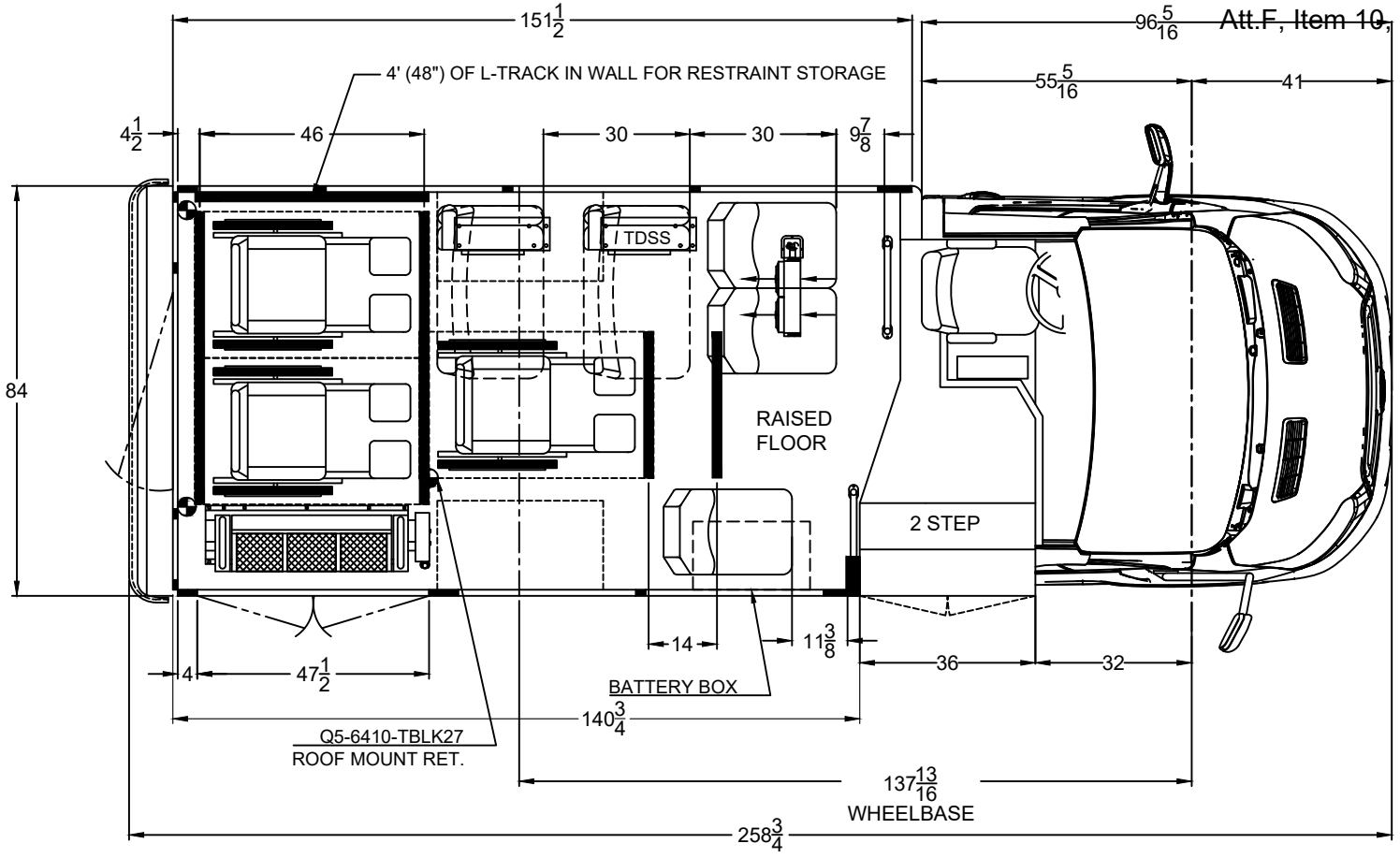
The Non-Taxable Amount is the ADA Equipment in the Base and Added as Options

The Taxable Amount Includes the Mobility Rebate of $1,000.00 For Ford Chassis

San Diego*

*CalACT Fee is capped at $30,000 per purchase order.

Purchasing of vehicles requires a CALACT membership, letter of assignment, and payment of procurement fee. If you have any questions, please contact CALACT direct at 916-920-8018



-RETRACTOR LOCATIONS

NOTE: SHOWN WITH MID HI FREEDMAN SEATS
FORD TRANSIT 11,000 GVWR
THIS FLOOR PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
A WEIGHT ANALYSIS HAS NOT YET BEEN PERFORMED.
FINAL APPROVAL WITH A WEIGHT ANALYSIS IS REQUIRED UPON RECEIPT OF A COMPLETED ORDER WITH ALL OPTIONS SHOWN.
OPTIONAL EQUIPMENT MAY BE SHOWN.
THE SALES ORDER PLACED DICTATES ACTUAL OPTION CONTENT.

DEALER APPROVAL

☐ APPROVED

_____

CUSTOMER SIGNATURE

SCALE IN INCHES 0 12 24 36 48

THIS DRAWING AND THE INFORMATION THEREON ARE THE EXCLUSIVE PROPERTY OF FOREST RIVER BUS, A DIVISION OF FOREST RIVER. IT SHALL NOT BE COPIED OR DUPLICATED IN ANY MANNER, NOR SHALL IT BE SUBMITTED TO OUTSIDE PARTIES FOR EXAMINATION WITHOUT OUR WRITTEN CONCENT. IT IS LOANED FOR USE WITH REFERENCE TO WORK UNDER CONTRACT WITH, OR PROPOSALS SUBMITTED TO FOREST RIVER BUS, A DIVISION OF FOREST RIVER.

REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED

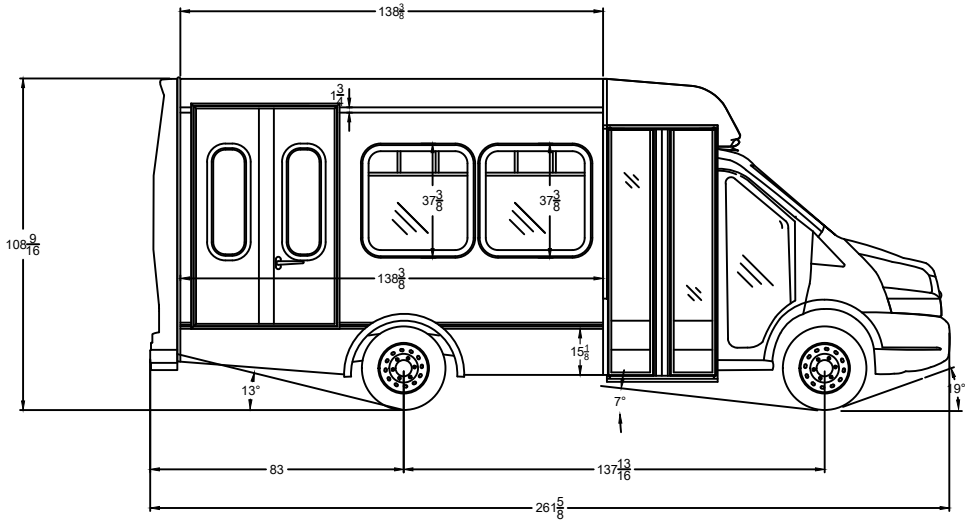
WOOD	OTHER
± 1/8"	± 1/16"
± 1°	± 1/2°

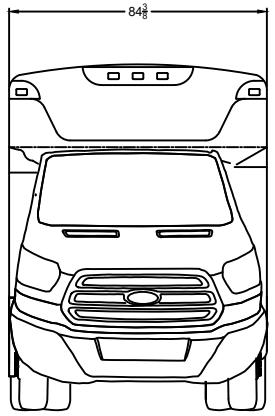
FOREST RIVER BUS

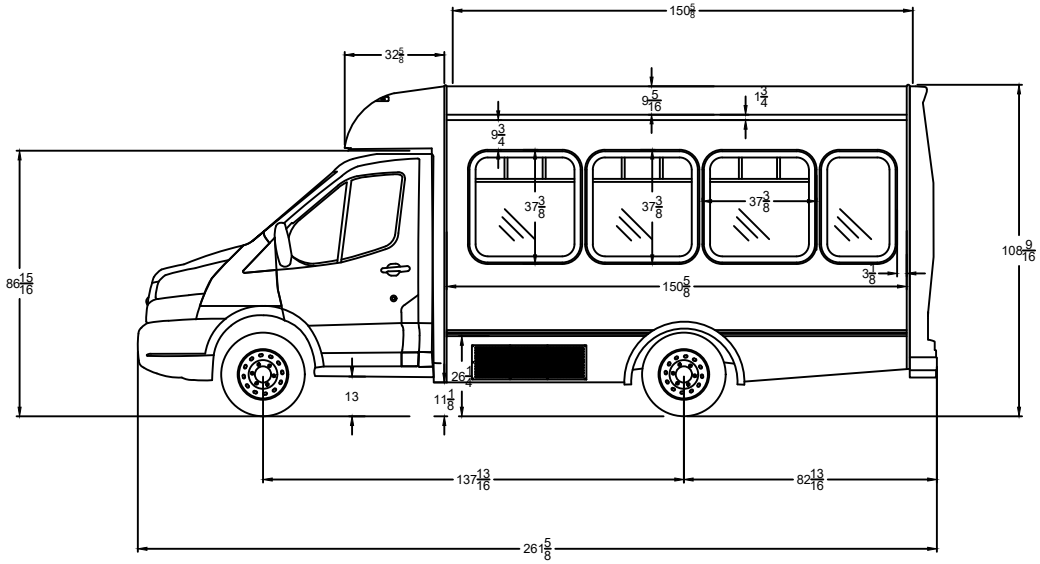
TITLE: 3 3 WC 138" WB MODEL 20

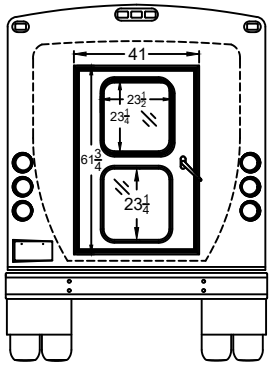
NAME: TOM GERICH DATE: 01/14/25

DWG. No. 3 3 WC 2 DB FOLDS 138 150-1 FRB









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REV. LET.	DESCRIPTION OF CHANGE	BY	CHK	DATE	ECN No.

TOLERANCE UNLESS OTHERWISE SPECIFIED

WOOD	± 1/8"	OTHER	± 1/16"
	± 1°		± 1/2°

FOREST RIVER BUS

TITLE: 138" WB MODEL 20 TRANSIT ELEVATION

DWG: 138 MODEL 20 REAR LIFT

NAME: F-3G DATE: 01/13/25

LUMINATOR CAMERA SPECIFICATIONS FOR SAN DIEGO MTS

Line	Qty	Model	Description
Mobile Video Equipment			
Recorder			
1	1	RRP-MDVR-24	RoadRunner Pro MDVR 12-channel AHD + 12-channel IPC (PON power supply)
2	1	RRP-MDVRSSD4S	RoadRunner Pro Solid State Drive, 4TB
3	1	RRP-Event	ROADRUNNER PRO PANIC ALARM BUTTON
4	1	009-0544-020	ROADRUNNER PRO RS485 CABLE 20 FT
5	1	009-0541-020	ROADRUNNER PRO GPIO CABLE 20 FT
6	1	RRP-MDVRGPS	RoadRunner Pro GPS Antenna
7	1	RR-UPS-B2	Uninterruptible Power Supply with Battery
8	1	009-0336-003	UPS-B2 Power Cable to RR-PRO
Cameras			
9	1	RRP-IPC-FFC-4.0	IPC Forward Facing Camera, 4.0mm
10	4	RRP-AHD-IDC-2.1	AHD Internal Dome Camera, 2.1mm
11	3	RRP-AHD-CSC-2.8	AHD Curb Side Camera, 2.8mm
12	1	RRP-AHD-BUC-2.2	AHD Backup Camera, 2.2mm
Camera Cabling			
13	1	009-0553-010	AHD AHSL CAMERA CABLE, 10 FT
14	2	009-0553-025	AHD AHSL CAMERA CABLE, 25 FT
15	3	009-0553-035	AHD AHSL CAMERA CABLE, 35 FT
16	1	009-0552-020	IPC AHSL CAMERA CABLE, 20 FT
17	1	009-0600-035	AHD Rear Camera Cabling
18	1	009-0553-045	AHD AHSL CAMERA CABLE, 45 FT

AMEREX FIRE SUPPRESSION SYSTEM SPECIFICATIONS FOR SAN DIEGO MTS

Amerex V25ABC Amerex Fire Detection/Suppression System 3-Sensors & 3-Nozzles			
Part No.		**Description**	**Qty.**
15591		V25ABC Agent Cyl w/Press Swt	1
10180		V25 Cylinder Bracket Assembly	1
17311		Panel, Control III Leads Exit Back	1
10199		Discharge Fitting Kit	1
10250		Cone Nozzles	3
10780		Nozzle Brackets	3
26620-25		25 FT. Power Connector	1
14088		Thermostat 350 Deg.	3
13983		Hazard/Detection Cable - 10'	1
13982		Hazard/Detection Cable - 6'	1
13981		Hazard/Detection Cable - 3'	1
10178		Distributor, 1-4 Nozzle System	1
14032		Electric Control Head	1
22579		Electric Actuator	1
14053		Manual Actuator Switch	1
14124		Electric Actuator, 20 ft. lead	1



*Bus photo is not to exact specifications

Class A Standard Build Options

Starlite 20 138" WB Transit350 3.5L EcoBoost Gas Engine W/250 Amp Ford Alt	ST	93108		1
SPECIAL INSTRUCTIONS OR NOTES				**1**
SEE BOTTOM OF ORDER FOR WARRANTY		NOTE		1
Dealer to Perform 4-Wheel Alignment in California		NOTE		1
Dealer to Weigh Each Bus on California Certified Scale		NOTE		1
No Tow Vehicle Allowed During Delivery		NOTE		1
Ship 4-Corner Weight Sheet with Every Vehicle		NOTE		1
Use 250 lbs Per Wheelchair Position		NOTE		1
Parts Manual with As-built Electrical Schematics		NOTE		1
All Excessories Except Lights, WC Lift & Mobile Radio (If Equipped) Are Ignition		NOTE		1
Wiring Harnesses Supported Every 24" Maximum		NOTE		1
No Butt Connectors Allowed		NOTE		1
If Driver Switch Panel is on Engine Cover, Then a Quick Disconnect is Required		NOTE		1
Fast Idle: 1500 RPM on Gas - Fast Idle to Engage if Voltage Drops Below 12.5		NOTE		1
Install Dome Light With Every Row of Seats, Including WC Position, Must		NOTE		1
Ground Engine to Chassis Frame, Body to Chassis Frame, Lift Pump Housing to		NOTE		1
Hip-To-Knee Spacing 27" Minimum		NOTE		1
Seat Track Not Extend More than 6" Past Seats		NOTE		1
Undercoat Metal Skirts		NOTE		1
Ground to First Step Height Shall Not Exceed 12.5" Unloaded		NOTE		1
304SS Required for Entry Grabs and Ceiling Grabs		NOTE		1
Ceiling Grab Rails Require Formed Elbows - No End Caps		NOTE		1
AC & Heater Hoses Supported Every 24" Minimum		NOTE		1
Build Front Driver Storage Compartment as Large as Possible, For Storage of		NOTE		1
Install Toolbox Next to Lift if Space Allows		NOTE		1
Convex Mirror Must Avoid Sun Visor and Overhead Door		NOTE		1
Headlight Aiming Certificate - Ship with Bus		NOTE		1
Water Test Certificate - Ship with Bus		NOTE		1
Driveline Metal Guards for Each Section of Shaft		NOTE		1
All Harnesses Secured to Frame at Maximum of 24"		NOTE		1
P-Clamps Added as Deemed Necessary by MBTA Inspector		NOTE		1
Batteries Must Be Same Type (No Mismatch) (1 In Tray - 1 Underhood)		NOTE		1
Continuous Run Battery Cables		NOTE		1
Slide Blocks To Hold Batteries In Place		NOTE		1
Floor Track Will Not Be Installed in Any Area not Covered by a Fixed Seat		NOTE		1
Operations Manual - Covering Conversion Features as Listed		NOTE		1
Parts Book, Operating Instructions, Troubleshooting Guide, Inspection &		NOTE		1
SPECIAL BUILD OPTIONS				**1**
Driver Entry Grab Steel Reinforced Plastic - Nutsert Install	ST	99		1
(3) GROUND WIRES TO BE ZERO OUGHT GAUGE, TO BE CONTINUOUS	ST	99		1
Interlock on Entry Door - Must Be in Park to Operate	ST	99		1
ENTRY DOOR HEADER ACCESS PANEL DOOR MUST BE HINGED WITH 2	ST	99		1
Battery Tray: SS Tray & Slides Per Standard Options Below. Must Extend at	ST	99		1
Install Battery Cable Wiring Diagram Inside Battery Access Door	ST	99		1
Decal: Battery Disconnect, Emergency Use Only	ST	99		1
Add 2nd Heater Line Brass 1/4 Turn Valve	ST	99		1
Decal: "Heater Shut Off Valve" - Install On Street Side Near Valves	ST	99		1
KEYED LOCK ILO THUMB LATCH FOR ELECTRICAL CENTER DOOR	ST	99		1
5/8", 7 Ply AC Marine Grade APA Plywood Floor	ST	99		1
Upgrade Driver Plexi Barrier: Extend to Within 6" of Ceiling	ST	99		1
14 Gauge Galvanized Steel Wheelwells	ST	99		1
Dual Handles on WC Lift Doors	ST	99		1
Flame Block on Bottom of Driver Seat Cushion (N/A on USSC & Recaro)	ST	99		1
Laminated Modesty Panel, Grey Melamine, Each	ST	99		2
Intermotive Break Out Box	ST	99		1
GENERIC PARTS MANUAL ON FLASH DRIVE	ST	99		1
USE #16 SUCTION HOSE IN A/C SYSTEM	ST	99		1
ELECTRICAL SYSTEM				
Intermotive Flex Tech Electrical System	05	STD		1
SIDEWALL / REARWALL / CEILING				



Sidewall: Grey FRP	05	STD		1
Rearwall: Grey Seaspray Fabric	05	STD		1
Driver Area: Grey Padded Vinyl	05	STD		1
FRP on Ceiling, Grey	05	2289		1
Cove Colored Flooring on Sidewall to Seat Track	05	2238		1
FLOORING - WHITE NOSING IS STANDARD				
Altro Meta Storm	05	2248		1
Yellow Step Nosing - Per Step	05	8820		3
CHASSIS				
Ford Transit Heavy Duty Anti-Slip Aluminum Running Board on Driver Side (Large)	05	2015-7		1
Exterior Mirror Set Remote/Heated w/External LED Strip Turn Signal Ford	05	2825		1
Romeo Rim Rear Bumper w/HawkEye RAS Installed	05	2670		1
Valve Stem Extender Inner Dual Rear Wheel, pair	05	8606		1
ENVIRONMENTAL CONTROL				
TRANS/AIR AIR CONDITIONING SYSTEMS				1
DUAL COMPRESSOR SYSTEMS CEILING MOUNT EVAPORATOR				1
TA712 SUPER 60K - TA71 EVAP - SMC2S COND - 10 C.I.D. COMP				1
TA712 SUPER 10 TRANSIT 3.5 LITRE EcoBoost GAS ENGINE	05	104311		1
HEATERS				1
Hot Water Heater, 35K BTU 3 Speed Low Profile	05	8044		1
MISCELLANEOUS				1
Silicone Heater Hose (for rear unit) w/full ring clamps	05	20090		1
ELECTRICAL				
Rotary Disconnect Switch	05	8790		1
Laminated Wiring Schematic ***AS BUILT*** ON ELECTRICAL PANEL DOOR	05	22101		1
Wiring Diagram "AS BUILT" ON USB Flash Drive		**STD**		**1**
EXTERIOR LIGHTS				
Surface Mount LED Entry Door Exterior Light - STD Choose Optional Below or Special builds	05	STD		1
LED Rear Center Mount Brake Light, **Rectangular**	05	20136		1
LED Mid-Ship Turn / Marker Lights	05	20138		1
Independent **RED** Brake & **AMBER** Turn Signal Lights	05	20139		1
INTERIOR LIGHTS				1
Additional Interior LED Dome Lamp - Each	05	8041		2
AUDIO / VISUAL				1
4 Speakers with Wire to Chassis OEM Radio (if supplied)	05	8822		1
DOORS / HATCH / WINDOWS				
Electric Entry Door is Standard. Add Option #2056 if Manual is Desired				
Passenger Door Electric (standard)	05	20163		1
Passenger Door 36" ROUGH OPENING (STANDARD)	05	2063		1
Exterior Passenger Entrance Door Key	05	8133		1
Solid Window(s) EACH Replace T-Slide(s) Enter Specific Instructions in Row Below	05	20187		1
STREET SIDE REAR		**NOTE**		1
INTERIOR				1
Driver Coat Hook	05	8769		1
LUGGAGE RACK / STORAGE				1
Driver Storage in Cab Overhead with Lock	05	20192		1
PARATRANSIT OPTIONS				1
Double W/C Doors w/ Windows, LED Interior Light, Leaf Spring, LED Exterior Lighting	05	20206		1
IS THE LIFT IN THE FRONT OR REAR OF THE UNIT?				1
BRAUN LIFTS				1
Braun Century NCL917-2 800# Lift (33"x51")	05	8744		1
LIFT FAST IDLE WITH 403 INTERLOCK				1
Intermotive Gateway 508-F Ford E or 517-F Transit Fast Idle with Lift Interlock	05	99		1
Q Straint W.C. Securement Kits, Accessories				1
Q10007 - 4 QRT 360 Retractr Tie Down L track & Q8-6326-A1 Comb-Lap/Shldr	05	8826		2
Q5-7580-4 18" Blue Webbing Loop (each)	05	20250		8
Q5-6327 84" Postural Belt with Padding - Black Webbing	05	20251		1
Q-Straint Belt Cutter (ship loose)	05	8179		1
Miscellaneous Accessories				1



Priority Seating Sign **Required for ADA Compliance**	05	8104		1
Tool Box Wheelchair Belt Storage	05	20257		1
SAFETY OPTIONS				
5 Lb Fire Extinguisher	05	8089		1
16 Unit First Aid Kit	05	8090		1
Body Fluid Kit	05	20264		1
Emergency Triangle Kit	05	8091		1
Back-Up Alarm SAE Type B 107 db(A) Ecco 575	05	2880		1
DO NOT INSTALL STANDARD BACK-UP CAMERA SYSTEM - INSTALL FORD OEM BACK-UP CAMERA SYSTEM INLUCED ON FORD TRANSIT CHASSIS		**NOTE**		**1**
Interior Convex Mirror 6"x9"	05	20276		1
Red Light Over Emergency Exit Ea: **ON:** **SIDE & REAR EGRESS WINDOWS**	05	8155		3
Yellow "Standee" Line	05	8802		1
GRAB RAIL / STANCHION / PANELS				
Ceiling Grab Rail - Install on **Both Sides**	05	99		1
Left Hand Entry Vertical Grab Rail - 1 1/4"		**STD**		1
1 1/4" Dual Entry Grab Rails Parallel to Entrance Steps (both sides)	05	8130		1
Stanchion and Modesty Panel at Entry Door		**STD**		1
SEATING - DRIVER				1
OEM DRIVER'S SEAT ORDERED ON CHASSIS		**NOTE**		**1**
FREEDMAN SHIELD DRIVER SEAT FABRICS				1
Re-Upholster OEM Driver or Co-Pilot (Each)* Fabric Level is Additional To This	06	2373		1
Driver Seat Cover - Level 4 Ice Pinstripe; Mor-Care; Leathermate	05	2043		1
SEATING - PASSENGER				1
STD RIGID SEATS				1
Mid High Double Seat	05	8067		3
Mid High Single Seat	05	8068		2
PASSENGER SEAT FABRICS				1
Seat Cover - Level 4 Ice Pinstripe; Mor-Care; Leathermate	05	2074		8
SEAT OPTIONS				1
Anti-Vandal Grab Handle, Black Ea **on:** **ALL SEAT EXCEPT AGINST REAR WALL**	05	2311		8
Black US Armrest - Each - **on:**	05	2077		5
Flame Block Material on Underside of Seat (each)	05	2884		8
SEAT BELTS				1
Seat Belt, Freedman USR Retractable (Per Person)	05	2282		8
Seat Belt Extension, 12" (P/N 56410) FOR USR SEAT BELTS	05	8771		2

SUMMARY OF STANDARD WARRANTIES

(Provide complete warranty information and parchment with proposal)

Warranty	Miles	Years	Warranty Details
Body Structure	100,000	5	See attached Warranty Info
Chassis	36,000	3	See attached Warranty Info
Engine	60,000	5	See attached Warranty Info
Transmission	60,000	5	See attached Warranty Info
Air conditioner	Unlimited	2	See attached Warranty Info
Lift/Ramp	Unlimited	5	See attached Warranty Info
EV Battery	N/A	N/A	N/A
EV Conversion/Installation	N/A	N/A	N/A
CNG Warranty (Install and tanks)	N/A	N/A	N/A

Metropolitan Transit System

Agenda Item No. 11

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Investment Report – Quarter Ending December 31, 2024

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

Attachment A comprises a report of the San Diego Metropolitan Transit System (MTS) investments as of December 31, 2024. The combined total of all investments has increased quarter to quarter from $459.8M to $460.4M. This $600K increase is primarily attributable to $34.4M in Coronavirus Aid, Relief, and Economic Security Act (CARES) revenue, partially offset by $23.6 million in capital expenditures, as well as normal timing differences between other payments and receipts for both capital and operations.

The first column provides details about investments restricted for Capital Improvement Projects (CIP), SB125 funded operations and PRONTO Stored Value.

The second column, unrestricted investments, reports the working capital for MTS operations allowing payments for employee payroll and vendors' goods and services.

MTS remains in compliance with Board Policy 30 and is able to meet expenditure requirements for a minimum of the next six months as required.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, Mark.Olson@sdmts.com

Attachment: A. Investment Report for the Quarter Ending December 31, 2024

San Diego Metropolitan Transit System
Investment Report
December 31, 2024

Institution / Issuer	Function	Investment Type	Restricted	Unrestricted	Total	Avg. Rate of Return		Benchmark
J.P. Morgan Chase	Operating Funds	Depository Bank	1,217,580	35,476,828	36,694,408	2.13%	*	0.400% WSJ Money Market
U.S. Bank - Retention Trust Account	Restricted for Capital Support	Depository Bank	1,894,956	-	1,894,956	N/A	**	-
Local Agency Investment Fund (LAIF)	Restricted (Stored Value)	Investment Pool	9,644,447	-	9,644,447	4.434%		4.864% S&P US T-Bill 0-3 Mth Index
San Diego County Treasurer's Office	State Grant Funds	Investment Pool	162,858,168	10,239,597	173,097,765	3.830%		4.864% S&P US T-Bill 0-3 Mth Index
Subtotal: Restricted for Capital Support / Stored Value			**174,397,571**	**10,239,597**	**184,637,168**			
Local Agency Investment Fund (LAIF)	Investment of Surplus Funds	Investment Pool	-	73,936,992	73,936,992	4.434%		4.864% S&P US T-Bill 0-3 Mth Index
San Diego County Treasurer's Office	Investment of Surplus Funds	Investment Pool	-	165,128,210	165,128,210	3.830%		4.864% S&P US T-Bill 0-3 Mth Index
Subtotal: Investment Surplus Funds			**-**	**239,065,202**	**239,065,202**			
Grand Total Cash and Investments			**$ 175,615,151**	**$ 284,781,627**	**$ 460,396,778**			

*-The 2.13% is an annual percentage yield on the average daily balance that exceeds $3.5 million
** - Per trust agreements, interest earned on retention accounts are allocated to trust beneficiaries (contractors)

Metropolitan Transit System

Agenda Item No. 12

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

12th and Imperial Transit Center Rehabilitation Design Amendment 1 – Work Order Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order WOA353-AE-08.01 under MTS Doc No. PWL353.0-22 (in substantially the same format as Attachment A), with Dokken Engineering (Dokken), in the amount of $435,963.92, to provide 30% engineering design services for the 12th and Imperial Transit Center Rehabilitation Design (Amendment 1 to Work Order).

Budget Impact

The total cost of this amendment is estimated to be $435,963.92, and the total cost of the work order is $906,809.26 (inclusive of this amendment). The project will be funded by the Capital Improvement Project (CIP) account 3006119801 – 12th and Imperial Transit Center Project.

DISCUSSION:

The 12th and Imperial Transit Center Project will expand the bus transit center at 1255 Imperial Avenue, San Diego into the adjacent “triangle lots” and the street right of way at 13th Street and National Avenue. The project will increase the number of bus bays at MTS’s busiest transit center, incorporate multi-modal hub components, and improve passenger amenities. After construction of the Project, the remainder parcels will be available for a Transit Oriented Development (TOD) project.

On July 18, 2024 (Agenda Items (AI)’s 11 and 25) the MTS Board of Directors approved a design work order to Dokken, WOA353-AE-08, to begin the preliminary design work for the transit center project and authorized the CEO to proceed with negotiations with the San Diego Foundation (SDF) and their lead developer, Cypress Equity Investments (CEI). The design team’s scope of work included defining the geometry and footprint of the transit center, coordination with the development teams of SDF and CEI, defining parcel boundaries for the proposed TOD, creating existing conditions and utility mapping, conduct geotechnical explorations, conduct an existing drainage assessment, and develop and outline for the traffic scoping agreement memo with the City of San Diego.

In January 2025, after consultation with the development team partners, MTS and Dokken finalized the footprint for the transit center rehabilitation project and the parcel boundaries for the proposed remainder parcel. Finalization of the project footprint allows MTS to proceed to the next phase of design for the transit center project.

Work Order and amendments are summarized below:

Work Order No.	Purpose	Amount	Approval Date
WOA353-AE-08	Original Work Order – Preliminary Design	$470,845.34	Board approval on July 18, 2024, AI 11
WOA353-AE-08.01	30% Design	$435,963.92	Today's proposed action
	Total	**$906,809.26**	

Today's proposed action would issue an amendment to the work order agreement to allow Dokken to progress the design to 30% and prepare documents for a preliminary submittal to the City of San Diego. Furthermore, this amendment reallocates $95,232.98 in unspent funds from Tasks 1 and 2 of the original Work Order to Task 4 through 7 in the amendment.

Dokken's proposal is less than MTS' Independent Cost Estimate (ICE) of $542,996.50 and was determined to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO execute Work Order WOA353-AE-08.01 under MTS Doc No. PWL353.0-22 (in substantially the same format as Attachment A), with Dokken, in the amount of $435,963.92. to provide 30% engineering design services for the 12th and Imperial Transit Center Rehabilitation Design Amendment 1.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Draft Work Order Amendment MTS Doc No. WOA353-AE-08.01
B. Expanded 12th & Imperial Transit Center Footprint (as of 2/6/25)

Metropolitan Transit System

March 13, 2025

MTS Doc. No. PWL353.0-22
WOA353-AE-08.01

Mr. John Klemunes, PE
Regional Manager
Dokken Engineering
1450 Frazee Road, Suite 100
San Diego, CA 92108

Dear Mr. Klemunes:

Subject: AMENDMENT NO. 1 TO WORK ORDER WOA353-AE-08, TO MTS DOC. NO. PWL353.0-22, ENGINEERING SERVICES FOR 12TH AND IMPERIAL TRANSIT CENTER REHABILITATION

This letter shall serve as Amendment No. 1 to Work Order WOA353-AE-08, under the General Engineering Consultant Agreement, MTS Doc. No. PWL353.0-22, as further described below.

SCOPE OF SERVICES

This Amendment shall add thirty percent design services to the Scope of Services for the 12th and Imperial Transit Center Rehabilitation project (Attachment A). Furthermore, this Amendment reallocates $95,232.98 in unspent funds from Tasks 1 and 2 of the original Work Order to Task 4 through 7.

SCHEDULE

As a result of this Amendment, the Schedule shall be extended for ninety (90) days from the date of the Amendment execution.

PAYMENT

As a result of this Amendment, payment shall be increased by $435,963.92 (Attachment B). The revised payment amount shall be $906,809.26. Payment shall be based on actual costs, and shall not be exceeded without prior authorization of MTS.

Please sign below, and return the document to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect.

Sincerely,

Sharon Cooney
Chief Executive Officer

Accepted:

John Klemunes, PE
Regional Manager, Dokken Engineering

Date: _____

Attachments: Attachment A, Scope of Services
Attachment B, Negotiated Fee Proposal

ATTACHMENT A
SCOPE OF SERVICES

TITLE: 12th and Imperial Transit Center Rehabilitation **WOA #:** WOA353-AE-08.01

I. PROJECT DESCRIPTION

This scope of work for this Amendment describes the next phase of design and includes development of a Preliminary Review set of plans to submit to the City of San Diego, equal to approximately 30% design. The Consultant shall incorporate comments from the City review into the final 30% package submittal to MTS.

Based on various meeting with MTS, and the developer team, it is assumed that the approved concept to advance incorporates the phase 1 and phase 2 housing developments on one developable pad, located in the northwest corner of the site.

II. SCOPE OF WORK

The scope of work for this Amendment shall consist of the following tasks and deliverables:

Task 1 Project Management

1.1 Project Management

1) Staffing
   a) Consult regularly with MTS management to monitor the consultant team's performance and make adjustments as needed; and
   b) Make staff assignments to meet the needs of the project; and,
   c) Provide, coordinate, and oversee consultant staff assignments;
2) Design Cost Management
   a) Monthly Invoicing - Provide monthly invoicing and a progress report to document the deliverables and level of effort of services reflected in the invoice;
   b) Monitor rate of expenditures to ensure work completion within agreed cost
   c) identify any new or out of scope requests immediately work with MTS project manager to determine appropriate level of effort and path to incorporate, if approved
3) Concept Design Schedule
   a) develop a detailed progress schedule, for MTS concurrence, and manage the design progress in accordance with the schedule
   b) monitor rate of design progress to ensure work completion per the agreed upon schedule
   c) identify schedule changes as issues are identified and work with MTS project manager to determine best path forward
   d) Update schedule as needed

1.2 Stakeholder Coordination

1. MTS Stakeholders: Facilitate and lead bi-weekly meetings with design team and MTS staff from Design NTP through completion of this scope of work, including preparation of agenda and meeting minutes.
2. Site Development Team: Participate in weekly meetings with TOD development team and their designers to ensure the transit rehabilitation project and the TOD project can work together and neither project will adversely affect the other. Review developer prepared meeting minutes to ensure proper documentation of decisions affecting both projects.

Task 4 Additional Studies/Reports

4.1 Plat/Legal Support for Street Vacations

Consultant will prepare new plats and legals to address City of San Diego comments on the 3-street vacation plat/legals, submitted to the City by MTS. Multiple rounds of comment are assumed to be required to obtain City approval.

4.2 Traffic Counts/Analysis

Consultant shall review vendor-provided traffic counts and conduct the following activities to support project traffic analyses:

1. Count Validation and Adjustments: Due to known tampering of equipment during the data collection process, provide quality review of vendor-provided traffic counts to ensure the validity of data for all analysis periods specified in the Traffic Scoping Agreement Memo (Task 2.4).
2. Traffic Signal Warrant Analysis at 14th/Imperial: Complete a traffic signal warrant analysis memo based on Warrants 1, 2, 3, 4 and 8 from the California Manual on Uniform Traffic Control Devices Rev 8 for the intersection of 14th Street and Imperial Avenue.
3. Preliminary CPUC Engagement: Lead up to two preliminary virtual meetings with the California Public Utilities Commission (CPUC) to discuss design constraints and potential approval pathways for rail crossings at Imperial Avenue and 14th Street/National Avenue.

Task 4.2 Deliverables:

1. Draft memo assessing the validity of vendor-provided traffic counts and any recommendations for corrections, including up to two rounds of revision
2. Draft memo summarizing traffic signal warrant analysis for the intersection of 14th Street/Imperial Avenue, including up to two rounds of revision
3. Up to two meetings with CPUC on approval of rail crossings at Imperial Avenue and 14th Street/National Avenue

4.3 Hydraulic Analysis and Studies

Using the existing drainage assessment as the baseline, consultant will develop the following:

1. Hydraulic modeling of storm events
2. Identification of options to mitigate or reduce impacts of storm events
3. Provide recommendations to be shown on the 30% plans and ultimately incorporated into the final design for the project

Task 4.3 Deliverables:

1. Drainage Report
2. Preliminary Post Construction Stormwater Management Plan

4.4 Traffic Scoping Agreement Memo

The transit center rehabilitation project involves combing two MTS owned parcels into one, rerouting National Avenue, modifying two signalized intersections (National and Imperial & 14th, Commercial, National), and converting 14th Street to bi-directional traffic. Due to the large number of changes to the streets and intersections surrounding the project site, extensive coordination with the City of San Diego will be required to obtain permits to proceed with this type of realignment.

Using the outline from the initial scope, the consultant will develop the traffic scoping agreement memo. The traffic scoping agreement memo shall be developed to define the following:

1. Transportation modes to be evaluated with the study
2. Project study area
3. Traffic Count Data (from task 2.2)
4. Study Periods
5. Study Scenarios (existing conditions, opening year, future years)
6. Vehicle Miles Travelled
7. Completed PIF per Appendix A of the City's TSM
8. Conceptual Layout (from task 4)

The traffic scoping agreement memo shall be submitted to the City and the design team shall meet with City Staff to review and confirm requirements for a future LMA report and VMT memo. The future traffic reports and VMT memo are intended to be included in the scope for final design and construction documents for this project.

Task 4.4 Deliverables:

- Traffic Scoping Agreement Memo

4.5 Bus Operations Conceptual Planning

Consultant shall support MTS in evaluating potential bus operations to inform the conceptual design process and the identification of long-term programmatic needs for the transit center. This includes evaluation of two expected operational scenarios for planned bus service: a near-term scenario (opening day) and a long-term scenario (full implementation of SANDAG Regional Plan) across the following elements:

1. Bus Bay Needs: Evaluate bus bay needs considering all planned service in the near-term and long-term scenarios, including total number of bays, bay size, and assignment in the transit center for optimal circulation.
2. Bus Circulation: Develop bus circulation routes in, out, and within the transit center considering all planned service in the near-term and long-term scenarios, including integration with off-site traffic operations concepts being developed in Tasks 4.2 and 4.1.

Task 2.5 Deliverables:

1. Up to 2 meetings with MTS bus operations staff to understand the needs and technical considerations for bus bays and bus circulation.
2. Brief technical memo, tables and/or simple diagrams summarizing proposed bus bay needs, sizes, and assignments in the near- and long-term scenarios

3. Brief technical memo, tables and/or simple diagrams summarizing proposed bus circulation in, out, and within the transit center in the near- and long-term scenarios

4.6 Active Transportation Conceptual Planning

Consultant shall support the conceptual design process for on-site and off-site active transportation needs to include pedestrian, bicycle, and personal electric mobility. This includes evaluation of two expected operational scenarios: a near-term scenario (opening day) and a long-term scenario (full implementation of SANDAG Regional Plan) across the following elements:

1. On-Site Pedestrian Circulation: Support the development and review of optimal pedestrian circulation routes within the transit center, including consideration of bus bay assignments identified in Task 2.5, crossings of driveways and other vehicular conflict points, and connections to off-site active transportation facilities.
2. Off-Site Active Transportation: Provide recommendations for the seamless integration of on-site and off-site active transportation facilities. This includes review and coordination with MTS, City of San Diego, and/or SANDAG staff to understand the latest plans and projects that may affect connectivity.

Task 2.6 Deliverables:

1. Up to 2 meetings with MTS, City of San Diego, and/or SANDAG staff to understand the latest active transportation plans and projects that may affect connectivity to the transit center
2. Brief technical memo, tables and/or simple diagrams summarizing proposed on-site pedestrian circulation routes in the near- and long-term scenarios

Task 5 Preliminary Review Package

5.1 Preliminary Review Package

The City of San Diego has established a preliminary review process to obtain City input on questions which may affect the feasibility of the project. As this project includes changes to traffic flow on adjacent city streets, modifications to the traffic signaling system, and vacation of an existing city street, it is anticipated the project will require a multi-discipline preliminary review following City Information Bulletin 513.

Documents anticipated to be completed and submitted include:

1. Completed Preliminary Review Questionnaire (Form DS-375), including identifying the requested review disciplines, such as DSD Downtown, DSD Drainage and Grades, DSD Engineering, DSD Map Check (if not already completed as part of the street vacation process), DSD Landscape, DSD Planning, DSD Transportation Development, City Fire

To ensure this review package provides sufficient detail for an effective collaboration with the City of San Diego, the content provided shall be at a draft 30 percent level of completion. Only 10 questions are permitted as part of the process. Consultant will rank specific questions and discuss with MTS to prioritize City input.

City fees associated with the review process shall be paid by the design team and reimbursed by MTS.

This task assumes one meeting with the City project manager (on a multi-discipline submittal) to discuss/clarify the results of the preliminary review.

Task 6 Transit Center Geometry and Basis of Design (30%)

The Scope of work for this task includes advancing the transit center transit center geometry to a 30% design level for City of San Diego Review Package submittal. Following the submittal to City of San Diego, the design team will meet with MTS and incorporate input from the City's preliminary review process in the final 30% Submittal to MTS.

6.1 30% Design/Plans

Consultant shall prepare designs/plans to roughly a 30% level to support the City of San Digo Submittal. Anticipated disciplines and sheets include:

1) Existing Conditions/Demolition
2) Civil Improvements/Geometry/Paving
    a) Bus platform
    b) Trolley platform
3) Fire Access Plan
4) Preliminary Grading and Drainage
5) Hardscape/Wayfinding/Amenities
6) Landscape
7) Lighting/Security/Communications
8) OH Bus Charging – preliminary equipment layout/locations
9) Off-Site Improvements
    a) Signal modifications
    b) Street Improvements
10) Misc. Details (as needed).

6.2 Basis of Design

As part of the 30% design submittal, a basis of design document will be prepared to document MTS requirements of the transit center, decisions made during the City process, and document design standards used.

Task 6 Deliverables:

1) 30% Plans
2) Basis of Design Document

Task 7 Engineers Opinion of Probable Cost

Consultant shall prepare an engineer's opinion of probable cost based on the 30% Design developed in task 4. One estimate is anticipated.

7.1 30% Opinion of Probable Construction Cost

Consultant shall prepare civil, traffic and drainage quantities for a preliminary opinion of probable construction cost based on the conceptual scope of work described in Task 4.

Task 5.1 Deliverables:
1) 30% Level Estimate

III. DELIVERABLES

All deliverables will be provided in electronic PDF format. Some hard copy meeting materials may be required; however, the majority of the work product is expected to be in electronic format transmitted digitally.

IV. SCHEDULE OF SERVICES/MILESTONES/DELIVERABLES

Task	Begin/End Dates
1. Project Management	Amendment execution – Completion
2. Additional Studies/Reports	Amendment execution + 90 days
3. COSD Preliminary Review	Amendment execution + 30 days
4. 30% Plans/BOD	Amendment execution + 90 days
5. 30% Engineers Estimate	Amendment execution + 90 days

B. Milestones/Deliverables Schedule

Milestone/Deliverable	Due Date
Weekly coordination meetings with TOD	Ongoing through completion
Submit to COSD	Amendment execution + 30 days
30% Plans and Estimates	Amendment execution + 90 days

ATTACHMENT B
NEGOTIATED FEE PROPOSAL

Work Order Estimate Summary

Total Hours = **936**

Total Costs = **$195,536.01**

Consultant/Subconsultant: **Dokken Engineering**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Contract Manager $ 325.90	Project Manager $ 315.31	Task Manager $ 231.06	Engineer - Principal $ 439.95	Engineer - Senior $ 220.66	Engineer - 3 $ 185.07	Engineer - 2 $ 163.60	Engineer - 1 $ 121.06	Total Hours	Totals
1	**Task 1**	**Project Management**											
1.1	Project Management												
1.1.1	*Staffing (weekly team meetings)*			2		8						10	$2,500.28
1.1.2	*Staff Assignments/resource allocation*			4		16						20	$5,000.56
1.1.3	*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*			4		16						20	$5,000.56
1.1.4	*Schedule*					8						8	$1,848.48
1.2	Stakeholder coordination												
1.2.1	*Meeting with MTS bi-weekly*			2	8	8			8			26	$6,503.32
1.2.2	*Meeting with TOD development team (weekly)*				8	8			4			20	$5,111.24
	Total ODCs for Task 1												
		Subtotals (Hours) =	N/A	12	16	64			12			104	$25,964.44
		Subtotals (Costs) =		$3,910.80	$5,044.96	$14,787.84			$2,220.84			**104**	**$25,964.44**
2	**Task 2**	**Concept Refinement and Optimization**											
2.1	Project Kick-Off Meeting												
2.2	Concept Alternative Layouts (2 layout alternatives)												
2.3	Workshop with MTS (in-person)												
2.4	Development of 30% level plan & Conceptual Estimate based on MTS comments												
	Total ODCs for Task 2												
		Subtotals (Hours) =	N/A										
		Subtotals (Costs) =											
3	**Task 3**	**Initiate Preliminary Design**											
3.1	Survey (basemap creation, field & aerial topography, utility mapping)												
3.2	Geotechnical Evaluation												
3.3	Hydraulic Analysis and Studies												
3.3.1	*Existing Drainage Assessment*												
3.3.2	*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*												
3.4	Traffic Scoping Agreement Memo												
3.4.1	*Traffic Scoping Agreement Memo OUTLINE*												
3.5	Preliminary Review Package												
3.5.1	*Prelimiinary Review Package OUTLINE*												
	Total ODCs for Task 3												
		Subtotals (Hours) =	N/A										
		Subtotals (Costs) =											
4	**Task 4**	**Additional Studies/Reports**											
4.1	Plat/Legal Support for Street Vacations			1		4				8		13	$2,558.94
4.2	Traffic Counts/Analysis					2				4		6	$1,116.52
4.3	Hydraulic Analysis and Studies			2		8		50		100	124	284	$44,904.72
4.4	Traffic Scoping Agreement Memo					8						8	$1,848.48
4.5	Bus Operations Conceptual Planning					4		2		12		18	$3,328.76
4.6	Active Transportation Conceptual Planning					4		2		12		18	$3,328.76
	Total ODCs for Task 4												
		Subtotals (Hours) =	N/A	3		30		54		136	124	347	$57,086.18
		Subtotals (Costs) =		$977.70		$6,931.80		$11,915.64		$22,249.60	$15,011.44	**347**	**$57,086.18**
5	**Task 5**	**Preliminary Review Package**											
5.1	COSD Preliminary Review Package			4	18	20		10	4.5	16	22	95	$19,920.72
	Total ODCs for Task 5		$18,715.13										$18,715.13
		Subtotals (Hours) =	N/A	4	18	20		10	4.5	16	22	95	$38,635.85
		Subtotals (Costs) =	$18,715.13	$1,303.60	$5,675.58	$4,621.20		$2,206.60	$832.82	$2,617.60	$2,663.32	**95**	**$38,635.85**
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**											
6.1	30% Design/Plans			4	40	24		12	40	40	120	280	$50,583.36
6.2	Basis of Design			2	20	8		4	30			64	$15,241.22
	Total ODCs for Task 6												
		Subtotals (Hours) =	N/A	6	60	32		16	70	40	120	344	$65,824.58
		Subtotals (Costs) =		$1,955.40	$18,918.60	$7,393.92		$3,530.56	$12,954.90	$6,544.00	$14,527.20	**344**	**$65,824.58**
7	**Task 7**	**Estimate**											
7.1	30% Estimates			2		8		4	12		20	46	$8,024.96
	Total ODCs for Task 7												
		Subtotals (Hours) =	N/A	2		8		4	12		20	46	$8,024.96
		Subtotals (Costs) =		$651.80		$1,848.48		$882.64	$2,220.84		$2,421.20	**46**	**$8,024.96**
												936	**$195,536.01**
		Totals (Summary) =										**936**	**$195,536.01**
		Total (Hours) =	N/A	27	94	154		84	99	192	286	936	$195,536.01
		Total (Costs) =	$18,715.13	$8,799.30	$29,639.14	$35,583.24		$18,535.44	$18,229.40	$31,411.20	$34,623.16		
		Percentage of Total (Hours) =	N/A	3%	10%	16%		9%	11%	21%	31%		
		Percentage of Total (Costs) =	10%	5%	15%	18%		9%	9%	16%	18%		

Work Order Estimate Summary

Consultant/ Subconsultant: **Dokken Engineering**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1	City of SD Multiple Discipline Review Fee		$6,770.25									1	$6,770.25					**1**	**$6,770.25**
2	Planning Department Hourly Fee		$138.11									8	$1,104.88					**8**	**$1,104.88**
3	Preliminary Review Meeting		$140.00									6	$840.00					**6**	**$840.00**
4	Additional City Fees		$10,000.00									1	$10,000.00					**1**	**$10,000.00**
5																			
6																			
7																			
8																			
9																			
10																			
11																			
				Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =	**$18,715.13**	Subtotal =		Subtotal =		**Totals =**	**$18,715.13**

Work Order Estimate Summary

Consultant/Subconsultant: **Aguirre & Associates**

Total Hours = **98**

Total Costs = **$13,865.36**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Surveyor - Senior	Surveyor - 3	Party Chief	Chainman			Total Hours	Totals
				$ 177.48	$ 122.36	$ 247.22	$ 242.98				
1	**Task 1**	**Project Management**									
1.1	Project Management										
1.1.1	*Staffing (weekly team meetings)*										
1.1.2	*Staff Assignments/resource allocation*										
1.1.3	*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*										
1.1.4	*Schedule*										
1.2	Stakeholder coordination										
1.2.1	*Meeting with MTS bi-weekly*										
1.2.2	*Meeting with TOD development team (weekly)*										
	Total ODCs for Task 1										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
2	**Task 2**	**Concept Refinement and Optimization**									
2.1	Project Kick-Off Meeting										
2.2	Concept Alternative Layouts (2 layout alternatives)										
2.3	Workshop with MTS (in-person)										
2.4	Development of 30% level plan & Conceptual Estimate based on MTS comments										
	Total ODCs for Task 2										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
3	**Task 3**	**Initiate Preliminary Design**									
3.1	Survey (basemap creation, field & aerial topography, utility mapping)										
3.2	Geotechnical Evaluation										
3.3	Hydraulic Analysis and Studies										
3.3.1	*Existing Drainage Assessment*										
3.3.2	*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*										
3.4	Traffic Scoping Agreement Memo										
3.4.1	*Traffic Scoping Agreement Memo OUTLINE*										
3.5	Preliminary Review Package										
3.5.1	*Prelimiinary Review Package OUTLINE*										
	Total ODCs for Task 3										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
4	**Task 4**	**Additional Studies/Reports**									
4.1	Plat/Legal Support for Street Vacations			34	64					98	$13,865.36
4.2	Traffic Counts/Analysis										
4.3	Hydraulic Analysis and Studies										
4.4	Traffic Scoping Agreement Memo										
4.5	Bus Operations Conceptual Planning										
4.6	Active Transportation Conceptual Planning										
	Total ODCs for Task 4										
		Subtotals (Hours) =	N/A	34	64					98	$13,865.36
		Subtotals (Costs) =		$6,034.32	$7,831.04					**98**	**$13,865.36**
5	**Task 5**	**Preliminary Review Package**									
5.1	COSD Preliminary Review Package										
	Total ODCs for Task 5										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**									
6.1	30% Design/Plans										
6.2	Basis of Design										
	Total ODCs for Task 6										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
7	**Task 7**	**Estimate**									
7.1	30% Estimates										
	Total ODCs for Task 7										
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
										98	**$13,865.36**
		Totals (Summary) =								**98**	**$13,865.36**
		Total (Hours) =	N/A	34	64					98	$13,865.36

Work Order Estimate Summary

Consultant/Subconsultant: **Aguirre & Associates**

Total Hours = **98**

Total Costs = **$13,865.36**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Surveyor - Senior	Surveyor - 3	Party Chief	Chainman			Total Hours	Totals
				$ 177.48	$ 122.36	$ 247.22	$ 242.98				
		Total (Costs) =		$6,034.32	$7,831.04						
		Percentage of Total (Hours) =	N/A	35%	65%						
		Percentage of Total (Costs) =		44%	56%						

Work Order Estimate Summary

Consultant/ Subconsultant: **Aguirre & Associates**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
			Subtotal =			Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		**Totals =**	

Work Order Estimate Summary

Consultant/Subconsultant: **KTU&A**

Total Hours = **232**

Total Costs = **$26,724.41**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: B

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Designer - Senior	Designer - 3	Designer - 2	Designer - 1	Admin - 2		Total Hours	Totals
				$ 203.33	$ 148.58	$ 101.11	$ 85.59	$ 60.12			
1	**Task 1**	**Project Management**									
1.1		Project Management									
1.1.1		*Staffing (weekly team meetings)*		1	1					2	$351.91
1.1.2		*Staff Assignments/resource allocation*		1	1					2	$351.91
1.1.3		*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*			2					2	$297.16
1.1.4		*Schedule*									
1.2		Stakeholder coordination									
1.2.1		*Meeting with MTS bi-weekly*			4					4	$594.32
1.2.2		*Meeting with TOD development team (weekly)*									
		Total ODCs for Task 1									
		Subtotals (Hours) =	N/A	2	8					10	$1,595.30
		Subtotals (Costs) =		$406.66	$1,188.64					**10**	**$1,595.30**
2	**Task 2**	**Concept Refinement and Optimization**									
2.1		Project Kick-Off Meeting									
2.2		Concept Alternative Layouts (2 layout alternatives)									
2.3		Workshop with MTS (in-person)									
2.4		Development of 30% level plan & Conceptual Estimate based on MTS comments									
		Total ODCs for Task 2									
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
3	**Task 3**	**Initiate Preliminary Design**									
3.1		Survey (basemap creation, field & aerial topography, utility mapping)									
3.2		Geotechnical Evaluation									
3.3		Hydraulic Analysis and Studies									
3.3.1		*Existing Drainage Assessment*									
3.3.2		*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*									
3.4		Traffic Scoping Agreement Memo									
3.4.1		*Traffic Scoping Agreement Memo OUTLINE*									
3.5		Preliminary Review Package									
3.5.1		*Prelimiinary Review Package OUTLINE*									
		Total ODCs for Task 3									
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
4	**Task 4**	**Additional Studies/Reports**									
4.1		Plat/Legal Support for Street Vacations									
4.2		Traffic Counts/Analysis									
4.3		Hydraulic Analysis and Studies									
4.4		Traffic Scoping Agreement Memo									
4.5		Bus Operations Conceptual Planning									
4.6		Active Transportation Conceptual Planning									
		Total ODCs for Task 4									
		Subtotals (Hours) =	N/A								
		Subtotals (Costs) =									
5	**Task 5**	**Preliminary Review Package**									
5.1		COSD Preliminary Review Package		4	18	31	9			62	$7,392.48
		Total ODCs for Task 5									
		Subtotals (Hours) =	N/A	4	18	31	9			62	$7,392.48
		Subtotals (Costs) =		$813.32	$2,674.44	$3,134.41	$770.31			**62**	**$7,392.48**
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**									
6.1		30% Design/Plans		5	28	73	36			142	$15,639.16
6.2		Basis of Design									
		Total ODCs for Task 6									
		Subtotals (Hours) =	N/A	5	28	73	36			142	$15,639.16
		Subtotals (Costs) =		$1,016.65	$4,160.24	$7,381.03	$3,081.24			**142**	**$15,639.16**
7	**Task 7**	**Estimate**									
7.1		30% Estimates		1	5	8	4			18	$2,097.47
		Total ODCs for Task 7									
		Subtotals (Hours) =	N/A	1	5	8	4			18	$2,097.47
		Subtotals (Costs) =		$203.33	$742.90	$808.88	$342.36			**18**	**$2,097.47**
										232	**$26,724.41**
		Totals (Summary) =								**232**	**$26,724.41**
		Total (Hours) =	N/A	12	59	112	49			232	$26,724.41

Work Order Estimate Summary

Consultant/Subconsultant: **KTU&A**

Total Hours = **232**

Total Costs = **$26,724.41**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Designer - Senior	Designer - 3	Designer - 2	Designer - 1	Admin - 2		Total Hours	Totals
				$ 203.33	$ 148.58	$ 101.11	$ 85.59	$ 60.12			
		Total (Costs) =		$2,439.96	$8,766.22	$11,324.32	$4,193.91				
		Percentage of Total (Hours) =	N/A	5%	25%	48%	21%				
		Percentage of Total (Costs) =		9%	33%	42%	16%				

Work Order Estimate Summary

Consultant/ Subconsultant: **KTU&A**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
				Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		**Totals =**	

Work Order Estimate Summary

Total Hours = **562**

Total Costs = **$119,833.24**

Consultant/Subconsultant: **Parametrix**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: B

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Contract Manager $ 392.27	Project Manager $ 287.23	Project Controls - 3 $ 134.10	Planner - Senior $ 205.71	Planner - 2 $ 128.38	Engineer - 3 $ 148.44	Designer - Senior $ 219.83	Admin - 3 $ 141.65	Total Hours	Totals
1	**Task 1**	**Project Management**											
1.1	Project Management												
1.1.1		*Staffing (weekly team meetings)*											
1.1.2		*Staff Assignments/resource allocation*											
1.1.3		*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*			2	2					2	6	$1,125.96
1.1.4		*Schedule*											
1.2	Stakeholder coordination												
1.2.1		*Meeting with MTS bi-weekly*			12		2					14	$3,858.18
1.2.2		*Meeting with TOD development team (weekly)*											
	Total ODCs for Task 1		$402.00										$402.00
		Subtotals (Hours) =	N/A		14	2	2				2	20	$5,386.14
		Subtotals (Costs) =	$402.00		$4,021.22	$268.20	$411.42				$283.30	**20**	**$5,386.14**
2	**Task 2**	**Concept Refinement and Optimization**											
2.1	Project Kick-Off Meeting												
2.2	Concept Alternative Layouts (2 layout alternatives)												
2.3	Workshop with MTS (in-person)												
2.4	Development of 30% level plan & Conceptual Estimate based on MTS comments												
	Total ODCs for Task 2												
		Subtotals (Hours) =	N/A										
		Subtotals (Costs) =											
3	**Task 3**	**Initiate Preliminary Design**											
3.1	Survey (basemap creation, field & aerial topography, utility mapping)												
3.2	Geotechnical Evaluation												
3.3	Hydraulic Analysis and Studies												
3.3.1		*Existing Drainage Assessment*											
3.3.2		*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*											
3.4	Traffic Scoping Agreement Memo												
3.4.1		*Traffic Scoping Agreement Memo OUTLINE*											
3.5	Preliminary Review Package												
3.5.1		*Preliminary Review Package OUTLINE*											
	Total ODCs for Task 3												
		Subtotals (Hours) =	N/A										
		Subtotals (Costs) =											
4	**Task 4**	**Additional Studies/Reports**											
4.1	Plat/Legal Support for Street Vacations												
4.2	Traffic Counts/Analysis				20		38					58	$13,561.58
4.3	Hydraulic Analysis and Studies												
4.4	Traffic Scoping Agreement Memo				8							8	$2,297.84
4.5	Bus Operations Conceptual Planning				48		12	32				92	$20,363.72
4.6	Active Transportation Conceptual Planning				44			72		8		124	$23,640.12
	Total ODCs for Task 4												
		Subtotals (Hours) =	N/A		120		50	104		8		282	$59,863.26
		Subtotals (Costs) =			$34,467.60		$10,285.50	$13,351.52		$1,758.64		**282**	**$59,863.26**
5	**Task 5**	**Preliminary Review Package**											
5.1	COSD Preliminary Review Package			1	8							9	$2,690.11
	Total ODCs for Task 5												
		Subtotals (Hours) =	N/A	1	8							9	$2,690.11
		Subtotals (Costs) =		$392.27	$2,297.84							**9**	**$2,690.11**
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**											
6.1	30% Design/Plans			2	50				88	72		212	$44,036.52
6.2	Basis of Design												
	Total ODCs for Task 6												
		Subtotals (Hours) =	N/A	2	50				88	72		212	$44,036.52
		Subtotals (Costs) =		$784.54	$14,361.50				$13,062.72	$15,827.76		**212**	**$44,036.52**
7	**Task 7**	**Estimate**											
7.1	30% Estimates			1	8				20	10		39	$7,857.21
	Total ODCs for Task 7												
		Subtotals (Hours) =	N/A	1	8				20	10		39	$7,857.21
		Subtotals (Costs) =		$392.27	$2,297.84				$2,968.80	$2,198.30		**39**	**$7,857.21**
												562	**$119,833.24**
		Totals (Summary) =										**562**	**$119,833.24**
		Total (Hours) =	N/A	4	200	2	52	104	108	90	2	562	$119,833.24
		Total (Costs) =	$402.00	$1,569.08	$57,446.00	$268.20	$10,696.92	$13,351.52	$16,031.52	$19,784.70	$283.30		
		Percentage of Total (Hours) =	N/A	1%	36%	0%	9%	19%	19%	16%	0%		
		Percentage of Total (Costs) =	0%	1%	48%	0%	9%	11%	13%	17%	0%		

Work Order Estimate Summary

Consultant/ Subconsultant: **Parametrix**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1	Mileage	Miles	$0.67	600	$402.00													**600**	**$402.00**
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
				Subtotal =	**$402.00**	Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		**Totals =**	**$402.00**

Work Order Estimate Summary

Consultant/Subconsultant: **VRPA Technologies, Inc.**

Total Hours = **90**

Total Costs = **$15,358.60**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Contract Manager	Project Manager	Project Controls - Senior	Planner - Senior	Planner 3	Engineer - 1	Technician - Senior	Total Hours	Totals
				$ 216.78	$ 221.51	$ 146.05	$ 214.69	$ 144.89	$ 109.04	$ 88.68		
1	**Task 1**	**Project Management**										
1.1	Project Management											
1.1.1	*Staffing (weekly team meetings)*											
1.1.2	*Staff Assignments/resource allocation*											
1.1.3	*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*											
1.1.4	*Schedule*											
1.2	Stakeholder coordination											
1.2.1	*Meeting with MTS bi-weekly*											
1.2.2	*Meeting with TOD development team (weekly)*											
	Total ODCs for Task 1											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
2	**Task 2**	**Concept Refinement and Optimization**										
2.1	Project Kick-Off Meeting											
2.2	Concept Alternative Layouts (2 layout alternatives)											
2.3	Workshop with MTS (in-person)											
2.4	Development of 30% level plan & Conceptual Estimate based on MTS comments											
	Total ODCs for Task 2											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
3	**Task 3**	**Initiate Preliminary Design**										
3.1	Survey (basemap creation, field & aerial topography, utility mapping)											
3.2	Geotechnical Evaluation											
3.3	Hydraulic Analysis and Studies											
3.3.1	*Existing Drainage Assessment*											
3.3.2	*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*											
3.4	Traffic Scoping Agreement Memo											
3.4.1	*Traffic Scoping Agreement Memo OUTLINE*											
3.5	Preliminary Review Package											
3.5.1	*Prelimiinary Review Package OUTLINE*											
	Total ODCs for Task 3											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
4	**Task 4**	**Additional Studies/Reports**										
4.1	Plat/Legal Support for Street Vacations											
4.2	Traffic Counts/Analysis											
4.3	Hydraulic Analysis and Studies											
4.4	Traffic Scoping Agreement Memo			2	40	8		24		16	90	$15,358.60
4.5	Bus Operations Conceptual Planning											
4.6	Active Transportation Conceptual Planning											
	Total ODCs for Task 4											
		Subtotals (Hours) =	N/A	2	40	8		24		16	90	$15,358.60
		Subtotals (Costs) =		$433.56	$8,860.40	$1,168.40		$3,477.36		$1,418.88	**90**	**$15,358.60**
5	**Task 5**	**Preliminary Review Package**										
5.1	COSD Preliminary Review Package											
	Total ODCs for Task 5											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**										
6.1	30% Design/Plans											
6.2	Basis of Design											
	Total ODCs for Task 6											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
7	**Task 7**	**Estimate**										
7.1	30% Estimates											
	Total ODCs for Task 7											
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
											90	**$15,358.60**
		Totals (Summary) =									**90**	**$15,358.60**
		Total (Hours) =	N/A	2	40	8		24		16	90	$15,358.60

Work Order Estimate Summary

Consultant/Subconsultant: **VRPA Technologies, Inc.**

Total Hours = **90**

Total Costs = **$15,358.60**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Contract Manager	Project Manager	Project Controls - Senior	Planner - Senior	Planner 3	Engineer - 1	Technician - Senior	Total Hours	Totals
				$ 216.78	$ 221.51	$ 146.05	$ 214.69	$ 144.89	$ 109.04	$ 88.68		
		Total (Costs) =		$433.56	$8,860.40	$1,168.40		$3,477.36		$1,418.88		
		Percentage of Total (Hours) =	N/A	2%	44%	9%		27%		18%		
		Percentage of Total (Costs) =		3%	58%	8%		23%		9%		

Work Order Estimate Summary

Consultant/ Subconsultant: **VRPA Technologies, Inc.**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
				Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		**Totals =**	

Work Order Estimate Summary

Total Hours = **606**

Total Costs = **$159,879.28**

WSP

12th and Imperial Transit Center Rehabilitation

Attachment: **B**

Item	TASKS/WBS	TASKS/WBS Description	ODCs (See Attachment)	Project Manager $ 334.02	Task Manager $ 244.39	Technical Expert $ 382.07	Engineer - Principal $ 325.40	Engineer - 3 $ 186.91	Engineer - 2 $ 163.43	Project Controls - 2 $ 170.37	Total Hours	Totals
1	**Task 1**	**Project Management**										
1.1		Project Management										
1.1.1		*Staffing (weekly team meetings)*		4							4	$1,336.08
1.1.2		*Staff Assignments/resource allocation*										
1.1.3		*Design Cost Management (Monthly invoices, monitor spending, scope compliance)*		4						6	10	$2,358.30
1.1.4		*Schedule*										
1.2		Stakeholder coordination										
1.2.1		*Meeting with MTS bi-weekly*		4			6				10	$3,288.48
1.2.2		*Meeting with TOD development team (weekly)*										
		Total ODCs for Task 1										
		Subtotals (Hours) =	N/A	12			6			6	24	$6,982.86
		Subtotals (Costs) =		$4,008.24			$1,952.40			$1,022.22	**24**	**$6,982.86**
2	**Task 2**	**Concept Refinement and Optimization**										
2.1		Project Kick-Off Meeting										
2.2		Concept Alternative Layouts (2 layout alternatives)										
2.3		Workshop with MTS (in-person)										
2.4		Development of 30% level plan & Conceptual Estimate based on MTS comments										
		Total ODCs for Task 2										
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
3	**Task 3**	**Initiate Preliminary Design**										
3.1		Survey (basemap creation, field & aerial topography, utility mapping)										
3.2		Geotechnical Evaluation										
3.3		Hydraulic Analysis and Studies										
3.3.1		*Existing Drainage Assessment*										
3.3.2		*Preliminary Stormwater recommendations (peak flow and stormwater BMP requirements per COSD requirements)*										
3.4		Traffic Scoping Agreement Memo										
3.4.1		*Traffic Scoping Agreement Memo OUTLINE*										
3.5		Preliminary Review Package										
3.5.1		*Preliminary Review Package OUTLINE*										
		Total ODCs for Task 3										
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
4	**Task 4**	**Additional Studies/Reports**										
4.1		Plat/Legal Support for Street Vacations										
4.2		Traffic Counts/Analysis										
4.3		Hydraulic Analysis and Studies										
4.4		Traffic Scoping Agreement Memo										
4.5		Bus Operations Conceptual Planning										
4.6		Active Transportation Conceptual Planning										
		Total ODCs for Task 4										
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
5	**Task 5**	**Preliminary Review Package**										
5.1		COSD Preliminary Review Package										
		Total ODCs for Task 5										
		Subtotals (Hours) =	N/A									
		Subtotals (Costs) =										
6	**Task 6**	**Transit Center Geometry and Basis of Design (30%)**										
6.1		30% Design/Plans		26			240	148	98		512	$130,459.34
6.2		Basis of Design										
		Total ODCs for Task 6	$2,167.00									$2,167.00
		Subtotals (Hours) =	N/A	26			240	148	98		512	$132,626.34
		Subtotals (Costs) =	$2,167.00	$8,684.52			$78,096.00	$27,662.68	$16,016.14		**512**	**$132,626.34**
7	**Task 7**	**Estimate**										
7.1		30% Estimates			12	12	30	16			70	$20,270.08
		Total ODCs for Task 7										
		Subtotals (Hours) =	N/A		12	12	30	16			70	$20,270.08
		Subtotals (Costs) =			$2,932.68	$4,584.84	$9,762.00	$2,990.56			**70**	**$20,270.08**
											606	**$159,879.28**
		Totals (Summary) =									**606**	**$159,879.28**
		Total (Hours) =	N/A	38	12	12	276	164	98	6	606	$159,879.28
		Total (Costs) =	$2,167.00	$12,692.76	$2,932.68	$4,584.84	$89,810.40	$30,653.24	$16,016.14	$1,022.22		
		Percentage of Total (Hours) =	N/A		6%	2%	2%	46%	27%	16%	1%	
		Percentage of Total (Costs) =	1%	8%	2%	3%	56%	19%	10%	1%		

Work Order Estimate Summary

Consultant/ Subconsultant: **WSP**

Work Order Title: **12th and Imperial Transit Center Rehabilitation**

Contract No:

Task Order No.

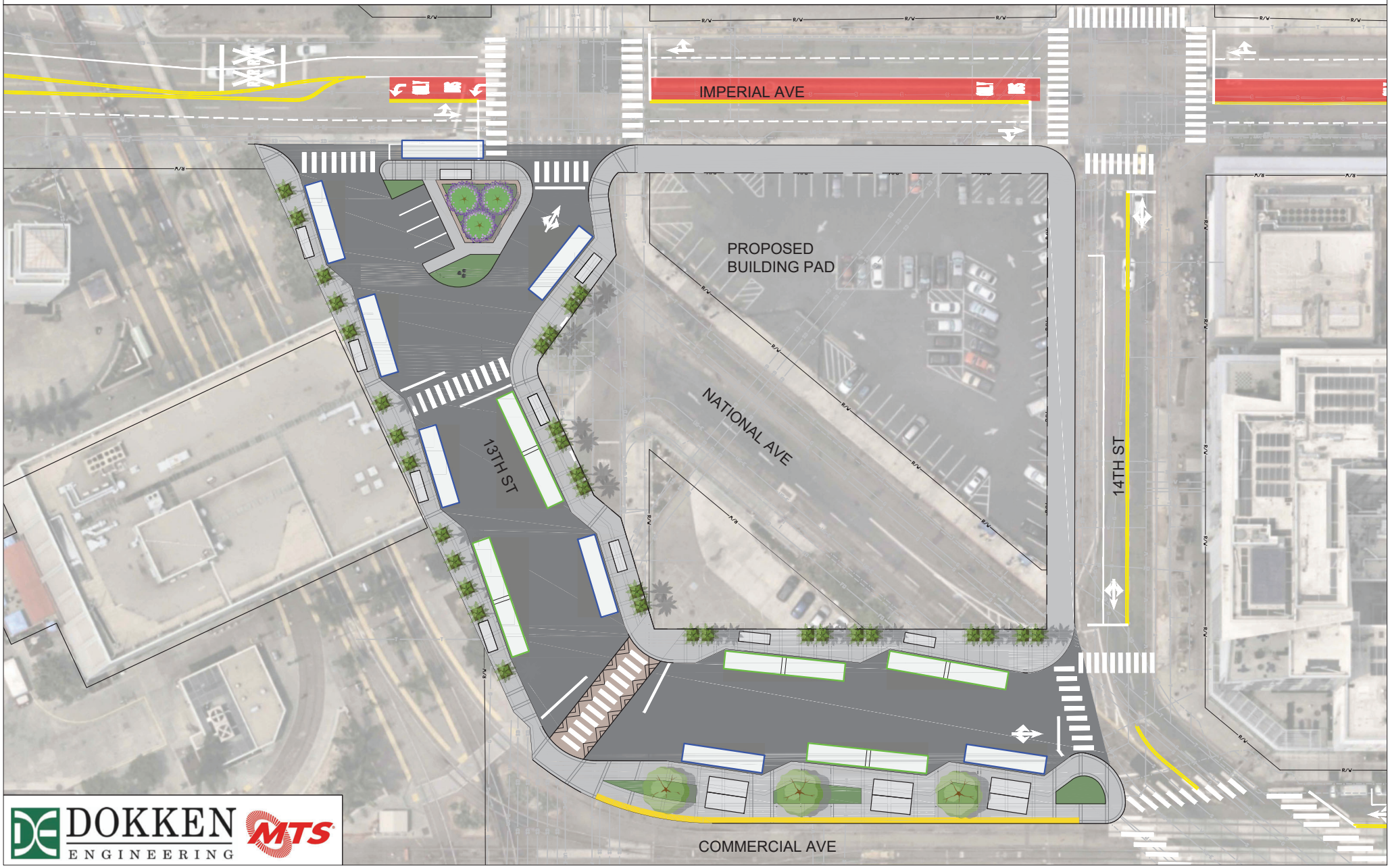
Attachment: **B**

TASKS/WBS (1-5)

ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7		Totals	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1	Airfare	Actual	$700.00											1	$700.00			**1**	**$700.00**
2	Car Rental	Actual	$75.00											2	$150.00			**2**	**$150.00**
3	Hotel	Actual	$350.00											1	$350.00			**1**	**$350.00**
4	Meals & Incidentals	Actual	$80.00											2	$160.00			**2**	**$160.00**
5	Parking	Actual	$20.00											2	$40.00			**2**	**$40.00**
6	Printing/Reprographics	Actual	$3.50											200	$700.00			**200**	**$700.00**
7	Milage	Miles	$0.67											100	$67.00			**100**	**$67.00**
8																			
9																			
10																			
11																			
				Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =		Subtotal =	**$2,167.00**	Subtotal =		**Totals =**	**$2,167.00**

12TH AND IMPERIAL TRANSIT CENTER

02/6/2025



Metropolitan Transit System

Agenda Item No. 13

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Fire Extinguisher Maintenance and As-Needed Repairs – Contract Award

THIS AGENDA ITEM IS WITHDRAWN

Metropolitan Transit System

Agenda Item No. 14

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

On-Call Job Order Contracting (JOC) Railroad Construction Services – Contract Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Amendment No. 4 MTS Doc. No. PWG348.4-22 (in substantially the same format as Attachment A) with Veterans Engineering Services, Inc., (Veterans), a Disabled Veterans Business Enterprise (DVBE), for an increase in capacity to the Railroad Construction Services JOC in the amount of $4,800,000.00.

Budget Impact

The total cost of this amendment is estimated to be $4,800,000.00, and the total contract cost of the services is estimated to be $12,800,000.00 (inclusive of this amendment). The contract will be funded by various MTS accounts. Funding will be included in the budget of each project for which a work order will be issued under this agreement.

DISCUSSION:

Job Order Contracting Method (Background)

JOC is a procurement method under which public agencies may accomplish frequently encountered repairs, maintenance, and construction projects through a single, competitively procured long-term agreement.

The JOC program includes a catalog of pricing for a variety of potential tasks to be performed under the contract that have been pre-priced by the contractor, the Gordian Group. All potential contractors are subject to the pricing within this catalog. Each contractor then includes an adjustment factor, escalating their proposed price from the catalog price, to determine the total cost of the task order. The adjustment factor represents an average percentage increase over the catalog price (i.e. 1.25 adjustment factor represents 25% above the catalog price) for that respective task within the project. In order to select the lowest responsive and responsible bidder, MTS staff compares each contractor's proposed adjustment factor.

MTS's enabling legislation at Public Utilities Code Section 120222 authorizes MTS to use any procurement method authorized for state or local agencies under state or federal law. Certain public entities in California are expressly authorized to use the JOC process within limited parameters. MTS's ability to utilize the JOC contracting process is premised upon the statutory allowance granted to such entities. MTS shares in the same general limitations imposed on the JOC process by this statutory framework. Public Contract Code Section 20128.5 allows the board of supervisors of a county to utilize JOCs up to $3,000,000 annually, adjusted annually to reflect the percent change in the California Consumer Index. Calculations to December 2024 are $6,372,000 annually. MTS maintains internal contract administration guidelines to ensure compliance with the annual maximum in JOC work orders for any given year.

Railroad Construction Services JOC

The JOC contract under consideration includes repair, remodeling or other repetitive work involving railroad construction improvements. This includes, but is not limited to, main Continuous Welded Rail (CWR) track rehabilitation/replacement, grade crossings (pre-cast concrete panels, rubber panels, paved with rubber rail interface) special track work, direct fixation, signal systems, overhead catenary, traction power, and related civil construction improvements work; and all required incidental professional and technical services required for quality control monitoring and testing, shop drawings, safety, environmental, scheduling, traffic control, storm water pollution prevention, geotechnical, surveying, biological, and hazardous/contaminated materials.

On June 16, 2022 (Agenda Item (AI) 12), after a competitive Invitation for Bids (IFB) process, the MTS Board of Directors approved MTS Doc. No. PWG348.0-22 with Veterans to provide job order contracting for railroad construction services with a contract capacity of $4,000,000 and a four year term, including option years (the "Railroad Construction Services JOC").

On March 14, 2024 (AI 12), the MTS Board approved a $4,000,000.00 increase to the Railroad Construction Services JOC to cover anticipated additional construction under this JOC category.

Today's proposed action would authorize an additional $4,800,000 in capacity to the Railroad Construction Services JOC; however, no specific project or spending is authorized. Individual projects/task orders will be processed according to the signature authority set forth in MTS Board Policy No. 41 "Signature Authority" (e.g. task orders under $150,000.00 will be approved by the CEO; task orders over $150,000.00 will require Board approval).

The additional funding is needed because the Railroad Construction Services JOC is nearing its $8,000,000 contract capacity and will not continue to have enough funding to get through the current year and the final option year that expires June 30, 2026. Currently executed work orders total $6,444,640.54 (See Attachment B).

The proposed $4,800,000.00 in additional contract capacity was calculated based on planned MTS Capital Improvement Projects (CIP) projects already allocated to this JOC ($950,000), plus an assessment of the amount of unplanned Railroad Construction JOC category work in 2024 and 2025 (multiple repair projects required because of the January 2024 flood, impacts from City of San Diego water line construction projects, and other emergency repairs). Emergency JOC work orders issued over the previous year included $1.9M on grade crossings, $1.3M in trolley station safety upgrades, and $1.4M on track repairs. This caused MTS to spend more of the contract funds in 2024 than anticipated when the contract total was first established. Based

on these experiences, staff estimates that an additional $3,850,000 in contract capacity should be obtained to allow MTS to expeditiously respond to any unplanned or unforeseen repairs and maintenance needs that arise in 2025 and 2026. If such emergencies or unforeseen work do not arise, then the additional funding would not be spent.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Amendment No. 4 MTS Doc. No. PWG348.4-22 (in substantially the same format as Attachment A) with Veterans, a DVBE, for an increase in capacity to the JOC Railroad Construction Services Contract in the amount of $4,800,000.00.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olsen, 619.557.4588, mark.olsen@sdmts.com

Attachments: A. Draft Amendment PWG348.4-22
B. JOC Work Order History

Metropolitan Transit System

Amendment 4

Effective Date: March 13, 2025 MTS Doc No. PWG348.4-22

On-Call Railroad Construction Services

Veterans Engineering Services
Paul Marshall
Chief Operating Officer
2300 N. Batavia St.
Orange, CA, 92865

This shall serve as Amendment No.4 to the original agreement PWG348.0-22 as further described below.

SCOPE

As a result of this Amendment, there shall be no change to the Scope of Work.

SCHEDULE

There shall be no change to the Schedule as a result of this Amendment. The Schedule shall remain in effect from June 30, 2025 to June 30, 2026.

PAYMENT

The total value of this contract, including this amendment, shall be in the amount of $12,800,000.00 ($4,000,000.00 for the original contract value, plus $4,000,000.00 for amendment 2, and $4,800,000.00 for this amendment 4). This amount shall not be exceeded without prior written approval from MTS.

Please sign and return the copy to the Contract Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copies for your records.

Sincerely,

Sharon Cooney, Chief Executive Officer

Agreed:

Paul Marshall, COO
Veterans Engineering Services

Date:

DRAFT

JOC RAILROAD CONSTRUCTION SERVICES - VETERANS ENGINEERING SERVICE, INC.				$ 8,000,000.00
WORK ORDER #	**WORK EXECUTED? (Y/N)**	**WORK ORDER TITLE**	**WORK ORDER AMOUNT**	**CONTRACT REMAINING BALANCE**
MTSJOC348-01	Y	S85 Slope on Blue Line	$ 1,241,292.37	$ 6,758,707.63
MTSJOC348-01.01	Y	No Cost Time Extension	$ -	$ 6,758,707.63
MTSJOC348-01.02	Y	CCO 02 - Retaining Wall	$ 865,530.74	$ 5,893,176.89
MTSJOC348-01.03	Y	CCO 03	$ 308,522.52	$ 5,584,654.37
MTSJOC348-02	Y	Friars Napa Grade Crossing	$ 24,843.09	$ 5,559,811.28
MTSJOC348-03	Y	Main St Bridge DF Assembly Replaceme	$ 54,355.81	$ 5,505,455.47
MTSJOC348-04	Y	Taylor St IJ Replacement	$ 14,684.69	$ 5,490,770.78
MTSJOC348-05	Y	Rail Welding	$ 146,673.39	$ 5,344,097.39
MTSJOC348-06	N	Main St Bridge DF Replacement II	$ 300,000.00	$ 5,044,097.39
MTSJOC348-07	Y	Mission San Diego Fence Repair	$ 228,001.06	$ 4,816,096.33
MTSJOC348-08	Y	Hollister Slope Repair	$ 34,910.23	$ 4,781,186.10
MTSJOC348-09	Y	Washington St Wall Modification	$ 610,819.97	$ 4,170,366.13
MTSJOC348-10	Y	Fletcher Bridge Connolly Joint Repair	$ 116,177.90	$ 4,054,188.23
MTSJOC348-11	Y	Beyer Slope Repair	$ 123,363.15	$ 3,930,825.08
MTSJOC348-12	Y	4th and C Grade Crossing	$ 924,427.12	$ 3,006,397.96
MTSJOC348-13	Y	El Cajon Platform Replacement	$ 645,778.77	$ 2,360,619.19
MTSJOC348-13.01	Y	CCO 01	$ 78,398.69	$ 2,282,220.50
MTSJOC348-13.02	Y	CCO 02	$ 70,929.55	$ 2,211,290.95
MTSJOC348-14	N	MP 11.25 Sun Kink	$ 26,000.00	$ 2,185,290.95
MTSJOC348-15	Y	66th St. Track Repair	$ 955,931.49	$ 1,229,359.46
MTSJOC348-16	N	East Beyer Blvd Slope Repair	$ 75,000.00	$ 1,154,359.46
MTSJOC348-17	N	Broaway Rail Replacement	$ 395,747.67	$ 758,611.79
MTSJOC348-18	N	7th & C St. Crossing Replacement	$ 925,000.00	$ (166,388.21)
			$ 8,166,388.21	**$ (166,388.21)**

EXECUTED WORK ORDER TOTALS	**$ 6,444,640.54**
Non-Executed Work Order Totals - Pending Final Scope of Work - Estimated Value Only	**$ 1,154,359.46**

Metropolitan Transit System

Agenda Item No. 15

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Broadway & C Street Wheel Counter and Signal Replacement – Contract Award

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute contract MTS Doc No. PWL394.0-24 (in substantially the same format as Attachment A), with Modern Railway Systems, Inc., in the amount of $673,396.00 for the replacement of the existing wheel counters and signaling systems located at Broadway and C Street.

Budget Impact

The total cost of this contact is estimated to be $673,396.00 (Attachment C). This project will be funded by the MTS Capital Improvement Program (CIP) account 2005114501 – Signal Replacement.

DISCUSSION:

This project involves replacing the existing axle counter system provided by Siemens with a new system provided by Frauscher FAdC and replacing the existing Siemens Sicas S7 Vital Logic Controller with an Alstom ElectrologIXS Controller. The project is necessary to ensure safe and efficient movement of trains through the C street interlocking and Broadway Wye.

Due to their limited adoption within the railroad industry, Siemens stopped production on the wheel counter and Sicas S7 Vital Logic Controller that are currently in service at the project location. This equipment has become obsolete and there is no support from Siemens or an alternate supplier for repair parts. The planned replacement Frauscher FAdC Axle Counter System and Alstom ElectrologIXS Controller are both well-known and widely used in the heavy railroad and light rail industries, so there is little concern regarding lack of future support or availability of repair parts, like there was with the previously installed Siemens systems. In addition, the ElectroLogIXS is now the current MTS standard for Vital Signal Processors and has been installed along the 11-mile Blue Line Mid-Coast Extension and is planning for future replacements on other parts of the system.
On November 25, 2024, MTS issued an Invitation for Bids (IFB) seeking a contractor to provide track signaling replacement services (Attachment B).

Three (3) bids were received on January 13, 2025, from the following firms:

Firm	Firm Certification	Grand Total
MTS – Independent Cost Estimate (ICE)		$1,176,903.49
Modern Railway Systems, Inc.	**N/A**	**$673,396.00**
HMS Construction, Inc.	N/A	$1,075,000.00
Balfour Beatty Infrastructure Inc.	N/A	$1,170,420.00

Modern Railway Systems, Inc. has designated subcontractor Bariom, Inc. to perform a portion of the work:

Subcontractor	Firm Certification
Bariom, Inc.	Small Business (Micro)

Based on the bids received, and in comparison, to MTS's ICE at $1,176,903.49, MTS staff determined Modern Railway Systems Inc.'s bid to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Contract No. PWL394.0-24 (in substantially the same format as Attachment A), with Modern Railway Systems, Inc., in the amount of $673,396.00 for the replacement of the existing wheel counters and signaling systems located at Broadway and C Street.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Draft Agreement PWL394.0-24
B. Scope of Work
C. Bid Costs

Metropolitan Transit System

STANDARD CONSTRUCTION AGREEMENT

FOR

MTS DOC. NO. PWL394.0-24

BROADWAY & C STREET WHEEL COUNTER AND SIGNAL REPLACEMENT

THIS AGREEMENT is entered into this _____ day of _____ 2025, in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Modern Railway Systems Address: 8201 Southpark Lane, Suite 200
Littleton, CO 81020

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.) Email: bmartinez@modrailsystems.com

Telephone: (720) 542-3325

Authorized person to sign contracts Ben Martinez (Name) Director of Business Development (Title)

The specified Contract Documents are part of this Agreement. The Contractor agrees to furnish to MTS services and materials, as follows:

Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the Project as specified in accordance with the Standard Agreement and General Conditions (Exhibit A), Scope of Work, Special Conditions and Attachments (Exhibit B), Bid Price Form (Exhibit C) and Forms (Exhibit D).

SCOPE OF WORK.

Contractor, for and in consideration of the payment to be made to Contractor as hereinafter provided, shall furnish all plant, labor, technical and professional services, supervision, materials, and equipment, other than such materials and equipment as may be specified to be furnished by MTS, and perform all operations necessary to complete the Work in strict conformance with the Contract Documents (defined below) for the following public work of improvement:

BROADWAY & C STREET WHEEL COUNTER AND SIGNAL REPLACEMENT

Contractor is an independent contractor and not an agent of MTS. The Contractor and its surety shall be liable to MTS for any damages arising as a result of the Contractor's failure to comply with this obligation.

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

CONTRACT TIME.

Time is of the essence in the performance of the Work. The Work shall be commenced by the date stated in MTS's Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within **60 calendar days from the commencement date stated in the Notice to Proceed.** By its signature hereunder, Contractor agrees the Contract Time is adequate and reasonable to complete the Work.

CONTRACT PRICE.

MTS shall pay the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of six hundred seventy-three thousand, three hundred ninety-six dollars ($673,396.00). Payment shall be made as set forth in the General Conditions.

PROVISIONS REQUIRED BY LAW.

Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents. The Contractor shall comply with all requirements of the California Labor Code applicable to this Project.

INDEMNIFICATION.

Contractor shall provide indemnification as set forth in the General Conditions.

PREVAILING WAGES.

Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at MTS's Administrative Office or may be obtained online at http://www.dir.ca.gov and which must be posted at the job site.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	MODERN RAILWAY SYSTEMS
By: _____	
Sharon Cooney, Chief Executive Officer	**By:** _____
Approved as to form:	
By: _____	**Title:** _____
Karen Landers, General Counsel	

METROPOLITAN TRANSIT SYSTEM

C Street & Broadway Wye Design
1255 Imperial Avenue
San Diego, California 92101
MTS Doc. No. PWL394.0-24

SPECIFICATIONS

Issued for Construction

March 2024

METROPOLITAN TRANSIT SYSTEM

C Street &
Broadway Wye
Design

San Diego, California

Specifications

Issued for
Construction

March, 2024

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344213.13 General Railway Signal Requirements
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344226.13 Signal System Fiber Optic Network

SECTION 260543

UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including MTS C Street & Broadway Wye Design apply to this Section.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. UNDERGROUND GROUND SYSTEM

1. Basis of Measurement: Lump Sum Power/Lighting Cable and Underground Conduit System.
2. Basis of Payment: Include handhole, ducts and accessories required and installation.

1.3 SUMMARY

A. Section Includes:

1. Rigid nonmetallic duct.
2. Duct accessories.
3. Precast concrete handholes.

1.4 DEFINITIONS

A. Direct Buried: Duct or a duct bank that is buried in the ground, without any additional casing materials such as concrete.

B. Duct: A single duct or multiple ducts. Duct may be either installed singly or as component of a duct bank.

C. Duct Bank:

1. Two or more ducts installed in parallel, with or without additional casing materials.
2. Multiple duct banks.

D. GRC: Galvanized rigid (steel) conduit.

E. Trafficways: Locations where vehicular or pedestrian traffic is a normal course of events.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include duct-bank materials, including spacers and miscellaneous components.
2. Include duct, conduits, and their accessories, including elbows, end bells, bends, fittings, and solvent cement.
3. Include accessories for manholes, handholes, boxes.
4. Include underground-line warning tape.
5. Include warning planks.

B. Shop Drawings:

1. Factory-Fabricated Handholes and Boxes Other Than Precast Concrete:

a. Include dimensioned plans, sections, and elevations, and fabrication and installation details.
b. Include duct entry provisions, including locations and duct sizes.
c. Include cover design.
d. Include grounding details.
e. Include dimensioned locations of cable rack inserts, and pulling-in and lifting irons.

1.6 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: For duct and duct bank. Show duct profiles and coordination with other utilities and underground structures.

1. Include plans and sections, drawn to scale, and show bends and locations of expansion fittings.
2. Drawings shall be signed and sealed by a qualified professional engineer.

B. Qualification Data: For professional engineer and testing agency responsible for testing nonconcrete handholes and boxes.

C. Product Certificates: For concrete and steel used in precast concrete handholes, as required by ASTM C858.

D. Source quality-control reports.

E. Field quality-control reports.

1.7 MAINTENANCE MATERIALS SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

B. Furnish cable-support stanchions, arms, insulators, and associated fasteners in quantities equal to 5 percent of quantity of each item installed.

1.8 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.

1.9 FIELD CONDITIONS

A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted under the following conditions, and then only after arranging to provide temporary electrical service according to requirements indicated:

1. Notify Construction Manager no fewer than seven days in advance of proposed interruption of electrical service.
2. Do not proceed with interruption of electrical service without Construction Manager's written permission.

B. Ground Water: Assume ground-water level is at grade level unless a lower water table is noted on Drawings.

C. Ground Water: Assume ground-water level is 36 inches below ground surface unless a higher water table is noted on Drawings.

PART 2 - PRODUCTS

2.1 RIGID NONMETALLIC DUCT

A. Underground Plastic Utilities Duct: Type EPC-40-PVC RNC, complying with NEMA TC 2 and UL 651, with matching fittings complying with NEMA TC 3 by same manufacturer as duct.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ARNCO Corp.
2. Beck Manufacturing.
3. Cantex Inc.
4. CertainTeed Corporation.
5. Condux International, Inc.

6. Crown Line Plastics.
7. ElecSys, Inc.
8. Electri-Flex Company.
9. Endot Industries Inc.
10. IPEX USA LLC.
11. Lamson & Sessions.
12. Manhattan/CDT.
13. National Pipe & Plastics.
14. Opti-Com Manufacturing Network, Inc (OMNI).
15. Spiraduct/AFC Cable Systems, Inc.

C. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.

D. Solvents and Adhesives: As recommended by conduit manufacturer.

2.2 DUCT ACCESSORIES

A. Duct Spacers: Factory-fabricated, rigid, PVC interlocking spacers; sized for type and size of duct with which used and selected to provide minimum duct spacing indicated while supporting duct during concreting or backfilling.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Atkore International (Allied Tube & Conduit).
b. Cantex Inc.
c. Carlon; a brand of Thomas & Betts Corporation.
d. IPEX USA LLC.
e. PenCell Plastics.
f. Underground Devices, Inc.

B. Underground-Line Warning Tape: Comply with requirements for underground-line warning tape specified in Section 260553 "Identification for Electrical Systems."

C. Concrete Warning Planks: Nominal 12 by 24 by 3 inches in size, manufactured from 6000-psi concrete.

1. Color: Red dye added to concrete during batching.
2. Mark each plank with "ELECTRIC" in 2-inch-high, 3/8-inch-deep letters.

2.3 PRECAST CONCRETE HANDHOLES AND BOXES

A. Description: Factory-fabricated, reinforced-concrete, monolithically poured walls and bottom unless open-bottom enclosures are indicated. Frame and cover shall form top of enclosure and shall have load rating consistent with that of handhole or box.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Christy Concrete Products.
2. Elmhurst-Chicago Stone Co.
3. Oldcastle Precast, Inc.
4. Rinker Group, Ltd.
5. Riverton Concrete Products.
6. Utility Concrete Products, LLC.
7. Utility Vault Co.
8. Wausau Tile Inc.

C. Comply with ASTM C858 for design and manufacturing processes.

D. Frame and Cover: Weatherproof cast-iron frame, with cast-iron cover with recessed cover hook eyes and tamper-resistant, captive, cover-securing bolts.

E. Frame and Cover: Weatherproof steel frame, with steel cover with recessed cover hook eyes and tamper-resistant, captive, cover-securing bolts.

F. Frame and Cover: Weatherproof steel frame, with hinged steel access door assembly with tamper-resistant, captive, cover-securing bolts.

1. Cover Hinges: Concealed, with hold-open ratchet assembly.
2. Cover Handle: Recessed.

G. Frame and Cover: Weatherproof aluminum frame with hinged aluminum access door assembly with tamper-resistant, captive, cover-securing bolts.

1. Cover Hinges: Concealed, with hold-open ratchet assembly.
2. Cover Handle: Recessed.

H. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.

I. Cover Legend: Molded lettering, "ELECTRIC."

J. Configuration: Units shall be designed for flush burial and have closed bottom unless otherwise indicated.

K. Joint Sealant: Asphaltic-butyl material with adhesion, cohesion, flexibility, and durability properties necessary to withstand maximum hydrostatic pressures at the installation location with the ground-water level at grade.

L. Knockout Panels: Precast openings in walls, arranged to match dimensions and elevations of approaching duct, plus an additional 12 inches vertically and horizontally to accommodate alignment variations.

1. Center window location.

2. Knockout panels shall be located no less than 6 inches from interior surfaces of walls, floors, or frames and covers of handholes, but close enough to corners to facilitate racking of cables on walls.
3. Knockout panel opening shall have cast-in-place, welded-wire fabric reinforcement for field cutting and bending to tie in to concrete envelopes of duct.
4. Knockout panels shall be framed with at least two additional No. 3 steel reinforcing bars in concrete around each opening.
5. Knockout panels shall be 1-1/2 to 2 inches thick.

M. Duct Entrances in Handhole Walls: Cast end-bell or duct-terminating fitting in wall for each entering duct.

1. Type and size shall match fittings to duct to be terminated.
2. Fittings shall align with elevations of approaching duct and be located near interior corners of handholes to facilitate racking of cable.

N. Handholes 12 inches wide by 24 inches long and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.

2.4 SOURCE QUALITY CONTROL

A. Test and inspect precast concrete utility structures according to ASTM C1037.

B. Nonconcrete Handhole and Pull-Box Prototype Test: Test prototypes of manholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.

1. Tests of materials shall be performed by an independent testing agency.
2. Strength tests of complete boxes and covers shall be by an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
3. Testing machine pressure gages shall have current calibration certification, complying with ISO 9000 and ISO 10012, and traceable to NIST standards.

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate layout and installation of duct, duct bank, manholes, handholes, and boxes with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify Architect if there is a conflict between areas of excavation and existing structures or archaeological sites to remain.

B. Coordinate elevations of duct and duct-bank entrances into manholes, handholes, and boxes with final locations and profiles of duct and duct banks, as determined by coordination with other utilities, underground obstructions, and surface features. Revise

locations and elevations as required to suit field conditions and to ensure that duct and duct bank will drain to manholes and handholes, and as approved by Architect.

3.2 UNDERGROUND DUCT APPLICATION

A. Duct for Electrical Cables More Than 600 V: Type EPC-40-PVC RNC, concrete-encased unless otherwise indicated.

B. Duct for Electrical Feeders 600 V and Less: Type EPC-40-PVC RNC, concrete-encased unless otherwise indicated.

C. Duct for Electrical Feeders 600 V and Less: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.

D. Duct for Electrical Branch Circuits: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.

E. Underground Ducts Crossing Paved Paths, Roadways and Railroads: Type EPC-40 PVC RNC, encased in reinforced concrete.

F. Stub-ups: Concrete-encased RNC.

3.3 UNDERGROUND ENCLOSURE APPLICATION

A. Handholes and Boxes for 600 V and Less:

1. Units in Roadways and Other Deliberate Traffic Paths: Precast concrete. AASHTO HB 17, H-20 structural load rating.
2. Units in Sidewalk and Similar Applications with a Safety Factor for Nondeliberate Loading by Vehicles: Precast concrete, AASHTO HB 17, H-10 structural load rating.
3. Cover design load shall not exceed the design load of the handhole or box.

3.4 EARTHWORK

A. Restoration: Replace area after construction vehicle traffic in immediate area is complete.

B. Restore surface features at areas disturbed by excavation and re-establish original grades unless otherwise indicated. Replace removed sod immediately after backfilling is completed.

C. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching.

D. Cut and patch existing pavement in the path of underground duct, duct bank, and underground structures.

3.5 DUCT AND DUCT-BANK INSTALLATION

A. Where indicated on Drawings, install duct, spacers, and accessories into the duct-bank configuration shown. Duct installation requirements in this Section also apply to duct bank.

B. Install duct according to NEMA TCB 2.

C. Slope: Pitch duct a minimum slope of 1:300 down toward manholes and handholes and away from buildings and equipment. Slope duct from a high point between two manholes, to drain in both directions.

D. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches, both horizontally and vertically, at other locations unless otherwise indicated.

1. Duct shall have maximum of two 90 degree bends or the total of all bends shall be no more 180 degrees between pull points.

E. Joints: Use solvent-cemented joints in duct and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent duct do not lie in same plane.

F. Installation Adjacent to High-Temperature Steam Lines: Where duct is installed parallel to underground steam lines, perform calculations showing the duct will not be subject to environmental temperatures above 40 deg C. Where environmental temperatures are calculated to rise above 40 deg C, and anywhere the duct crosses above an underground steam line, install insulation blankets listed for direct burial to isolate the duct bank from the steam line.

G. End Bell Entrances to Manholes and Concrete and Polymer Concrete Handholes: Use end bells, spaced approximately 10 inches o.c. for 5-inch duct, and vary proportionately for other duct sizes.

1. Begin change from regular spacing to end-bell spacing 10 feet from the end bell, without reducing duct slope and without forming a trap in the line.
2. Expansion and Deflection Fittings: Install an expansion and deflection fitting in each duct in the area of disturbed earth adjacent to manhole or handhole. Install

an expansion fitting near the center of all straight line direct-buried duct with calculated expansion of more than 3/4 inch.

3. Grout end bells into structure walls from both sides to provide watertight entrances.

H. Terminator Entrances to Manholes and Concrete and Polymer Concrete Handholes: Use manufactured, cast-in-place duct terminators, with entrances into structure spaced approximately 6 inches o.c. for 4-inch duct, and vary proportionately for other duct sizes.

1. Begin change from regular spacing to terminator spacing 10 feet from the terminator, without reducing duct line slope and without forming a trap in the line.
2. Expansion and Deflection Fittings: Install an expansion and deflection fitting in each duct in the area of disturbed earth adjacent to manhole or handhole. Install an expansion fitting near the center of all straight line duct with calculated expansion of more than 3/4 inch.

I. Building Wall Penetrations: Make a transition from underground duct to GRC at least 10 feet outside the building wall, without reducing duct line slope away from the building and without forming a trap in the line. Use fittings manufactured for RNC-to-GRC transition. Install GRC penetrations of building walls.

J. Sealing: Provide temporary closure at terminations of duct with pulled cables. Seal spare duct at terminations. Use sealing compound and plugs to withstand at least 15-psig hydrostatic pressure.

K. Pulling Cord: Install 200-lbf-test nylon cord in empty ducts.

L. Direct-Buried Duct and Duct Bank:

1. Width: Excavate trench 12 inches wider than duct on each side.
2. Width: Excavate trench 3 inches wider than duct on each side.
3. Depth: Install top of duct at least 36 inches below finished grade unless otherwise indicated.
4. Set elevation of bottom of duct bank below frost line.
5. Support ducts on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.
6. Spacer Installation: Place spacers close enough to prevent sagging and deforming of duct, with not less than four spacers per 20 feet of duct. Place spacers within 24 inches of duct ends. Stagger spacers approximately 6 inches between tiers. Secure spacers to earth and to ducts to prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
7. Install duct with a minimum of 3 inches between ducts for like services and 6 inches between power and communications duct.

10. Elbows: Install manufactured duct elbows for stub-ups, at building entrances, and at changes of direction in duct direction unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
11. Install manufactured GRC elbows for stub-ups, at building entrances, and at changes of direction in duct.

    a. Couple RNC duct to GRC with adapters designed for this purpose and encase coupling with 3 inches of concrete.
    b. Stub-ups to Outdoor Equipment: Extend concrete-encased GRC horizontally a minimum of 60 inches from edge of base. Install insulated grounding bushings on terminations at equipment.

        1) Stub-ups shall be minimum 4 inches above finished floor and minimum 3 inches from conduit side to edge of slab.

M. Warning Planks: Bury warning planks approximately 12 inches above direct-buried duct, placing them 24 inches o.c. Align planks along the width and along the centerline of duct or duct bank. Provide an additional plank for each 12-inch increment of duct-bank width over a nominal 18 inches. Space additional planks 12 inches apart, horizontally.

N. Underground-Line Warning Tape: Bury conducting underground line specified in Section 260553 "Identification for Electrical Systems" no less than 12 inches above all concrete-encased duct and duct banks and approximately 12 inches below grade. Align tape parallel to and within 3 inches of centerline of duct bank. Provide an additional warning tape for each 12-inch increment of duct-bank width over a nominal 18 inches. Space additional tapes 12 inches apart, horizontally.

3.6 INSTALLATION OF CONCRETE MANHOLES, HANDHOLES, AND BOXES

A. Cast-in-Place Manhole Installation: **Section Omitted**

~~1. Finish interior surfaces with a smooth-troweled finish.~~

~~2. Knockouts for Future Duct Connections: Form and pour concrete knockout panels 1-1/2 to 2 inches thick, arranged as indicated.~~
~~3. Comply with requirements in Section 033000 "Cast-in-Place Concrete" for cast-in-place concrete, formwork, and reinforcement.~~

B. Precast Concrete Handhole and Manhole Installation:

1. Comply with ASTM C891 unless otherwise indicated.
2. Install units level and plumb and with orientation and depth coordinated with connecting duct, to minimize bends and deflections required for proper entrances.
3. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.

C. Elevations:

1. Manhole Roof: Install with rooftop at least 15 inches below finished grade.
2. Manhole Frame: In paved areas and trafficways, set frames flush with finished grade. Set other manhole frames 1 inch above finished grade.
3. Install handholes with bottom below frost line, below grade.
4. Handhole Covers: In paved areas and trafficways, set surface flush with finished grade. Set covers of other handholes 1 inch above finished grade.
5. Where indicated, cast handhole cover frame integrally with handhole structure.

D. Hardware: Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators as required for installation and support of cables and conductors and as indicated.

E. Field-Installed Bolting Anchors in Manholes and Concrete Handholes: Do not drill deeper than 3-7/8 inches for manholes and 2 inches for handholes, for anchor bolts installed in the field. Use a minimum of two anchors for each cable stanchion.

3.7 INSTALLATION OF HANDHOLES AND BOXES OTHER THAN PRECAST CONCRETE

A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting duct, to minimize bends and deflections required for proper entrances. Use box extension if required to match depths of duct, and seal joint between box and extension as recommended by manufacturer.

B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.

C. Elevation: In paved areas and trafficways, set cover flush with finished grade. Set covers of other handholes 1 inch above finished grade.

D. Install handholes and boxes with bottom below frost line, below grade.

E. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in enclosure.

F. Field cut openings for duct according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.8 GROUNDING **Section Omitted**

~~A. Ground underground ducts and utility structures according to Section 260526 "Grounding and Bonding for Electrical Systems."~~

3.9 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

1. Demonstrate capability and compliance with requirements on completion of installation of underground duct, duct bank, and utility structures.
2. Pull solid aluminum or wood test mandrel through duct to prove joint integrity and adequate bend radii, and test for out-of-round duct. Provide a minimum 12-inch-long mandrel equal to duct size minus 1/4 inch. If obstructions are indicated, remove obstructions and retest.
3. Test handhole grounding to ensure electrical continuity of grounding and bonding connections. Measure and report ground resistance as specified in Section 260526 "Grounding and Bonding for Electrical Systems."

B. Correct deficiencies and retest as specified above to demonstrate compliance.

C. Prepare test and inspection reports.

3.10 CLEANING

A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of duct until duct cleaner indicates that duct is clear of dirt and debris. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.

B. Clean internal surfaces of manholes, including sump.

1. Sweep floor, removing dirt and debris.
2. Remove foreign material.

END OF SECTION 260543

SECTION 260553

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including MTS C Street & Broadway Wye Design, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Labels.
2. Bands and tubes.
3. Tapes and stencils.
4. Tags.
5. Signs.
6. Cable ties.
7. Miscellaneous identification products.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for electrical identification products.

B. Samples: For each type of label and sign to illustrate composition, size, colors, lettering style, mounting provisions, and graphic features of identification products.

C. Identification Schedule: For each piece of electrical equipment and electrical system components to be an index of nomenclature for electrical equipment and system components used in identification signs and labels. Use same designations indicated on Drawings.

D. Delegated-Design Submittal: For arc-flash hazard study.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Comply with ASME A13.1 and IEEE C2.

B. Comply with NFPA 70.

C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.

D. Comply with ANSI Z535.4 for safety signs and labels.

E. Comply with NFPA 70E requirements for arc-flash warning labels.

F. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

G. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 COLOR AND LEGEND REQUIREMENTS

A. Raceways and Cables Carrying Circuits at 600 V or Less:

1. Black letters on an orange field.
2. Legend: Indicate voltage.

B. Color-Coding for Phase- and Voltage-Level Identification, 600 V or Less: Use colors listed below for ungrounded feeder and branch-circuit conductors.

1. Color shall be factory applied.
2. Colors for 208/120-V Circuits:

a. Phase A: Black.
b. Phase B: Red.
c. Phase C: Blue.

3. Colors for 240-V Circuits:

a. Phase A: Black.
b. Phase B: Red.

4. Colors for 480/277-V Circuits:

a. Phase A: Brown.
b. Phase B: Orange.
c. Phase C: Yellow.

5. Color for Neutral: White.
6. Color for Equipment Grounds: Green.
7. Colors for Isolated Grounds: Green with two or more yellow stripes.

C. Raceways and Cables Carrying Circuits at More Than 600 V:

1. Black letters on an orange field.
2. Legend: "DANGER - CONCEALED HIGH VOLTAGE WIRING."

D. Warning Label Colors:

1. Identify system voltage with black letters on an orange background.

E. Warning labels and signs shall include, but are not limited to, the following legends:

1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

F. Equipment Identification Labels:

1. Black letters on a white field.

2.3 LABELS

A. Vinyl Wraparound Labels: Preprinted, flexible labels laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing label ends.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Champion America.
c. emedco.
d. Grafoplast Wire Markers.
e. HellermannTyton.
f. LEM Products Inc.
g. Marking Services, Inc.
h. Panduit Corp.
i. Seton Identification Products; a Brady Corporation company.

B. Snap-around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeves, with diameters sized to suit diameters and that stay in place by gripping action.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. Brady Corporation.
    b. HellermannTyton.
    c. Marking Services, Inc.
    d. Panduit Corp.
    e. Seton Identification Products; a Brady Corporation company.

C. Self-Adhesive Wraparound Labels: Preprinted, 3-mil-thick, vinyl flexible label with acrylic pressure-sensitive adhesive.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. A'n D Cable Products.
    b. Brady Corporation.
    c. Brother International Corporation.
    d. emedco.
    e. Grafoplast Wire Markers.
    f. Ideal Industries, Inc.
    g. LEM Products Inc.
    h. Marking Services, Inc.
    i. Panduit Corp.
    j. Seton Identification Products; a Brady Corporation company.

2. Self-Lamination: Clear; UV-, weather- and chemical-resistant; self-laminating, protective shield over the legend. Labels sized such that the clear shield overlaps the entire printed legend.
3. Marker for Labels:

    a. Permanent, waterproof, black ink marker recommended by tag manufacturer.
    b. Machine-printed, permanent, waterproof, black ink recommended by printer manufacturer.

D. Self-Adhesive Labels: Vinyl, thermal, transfer-printed, 3-mil-thick, multicolor, weather- and UV-resistant, pressure-sensitive adhesive labels, configured for intended use and location.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. A'n D Cable Products.
    b. Brady Corporation.
    c. Brother International Corporation.
    d. emedco.
    e. Grafoplast Wire Markers.
    f. HellermannTyton.

g. Ideal Industries, Inc.
h. LEM Products Inc.
i. Marking Services, Inc.
j. Panduit Corp.
k. Seton Identification Products; a Brady Corporation company.

2. Minimum Nominal Size:

a. 1-1/2 by 6 inches for raceway and conductors.
b. 3-1/2 by 5 inches for equipment.
c. As required by authorities having jurisdiction.

2.4 BANDS AND TUBES

A. Snap-around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeves, 2 inches long, with diameters sized to suit diameters and that stay in place by gripping action.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. HellermannTyton.
c. Marking Services, Inc.
d. Panduit Corp.

B. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tubes with machine-printed identification labels, sized to suit diameter and shrunk to fit firmly. Full shrink recovery occurs at a maximum of 200 deg F. Comply with UL 224.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Panduit Corp.

2.5 TAPES AND STENCILS

A. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carlton Industries, LP.
b. Champion America.
c. HellermannTyton.
d. Ideal Industries, Inc.
e. Marking Services, Inc.

f. Panduit Corp.

B. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; not less than 3 mils thick by 1 to 2 inches wide; compounded for outdoor use.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Carlton Industries, LP.
c. emedco.
d. Marking Services, Inc.

C. Tape and Stencil: 4-inch-wide black stripes on 10-inch centers placed diagonally over orange background and are 12 inches wide. Stop stripes at legends.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brimar Industries, Inc.
b. HellermannTyton.
c. LEM Products Inc.
d. Marking Services, Inc.
e. Seton Identification Products; a Brady Corporation company.

D. Underground-Line Warning Tape:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Brimar Industries, Inc.
c. Ideal Industries, Inc.
d. LEM Products Inc.
e. Marking Services, Inc.
f. Reef Industries, Inc.
g. Seton Identification Products; a Brady Corporation company.

2. Tape:

a. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical utility lines.
b. Printing on tape shall be permanent and shall not be damaged by burial operations.
c. Tape material and ink shall be chemically inert and not subject to degradation when exposed to acids, alkalis, and other destructive substances commonly found in soils.

3. Color and Printing:

a. Comply with ANSI Z535.1, ANSI Z535.2, ANSI Z535.3, ANSI Z535.4, and ANSI Z535.5.
b. Inscriptions for Red-Colored Tapes: "ELECTRIC LINE, HIGH VOLTAGE".
c. Inscriptions for Orange-Colored Tapes: "TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE".

4. Tape Type ID:

a. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of the conductive core; bright colored, continuous-printed on one side with the inscription of the utility compounded for direct-burial service.
b. Width: 3 inches.
c. Overall Thickness: 5 mils.
d. Foil Core Thickness: 0.35 mil.
e. Weight: 28 lb/1000 sq. ft.
f. Tensile according to ASTM D882: 70 lbf and 4600 psi.

E. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1 inch.

2.6 TAGS

A. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Carlton Industries, LP.
c. emedco.
d. Marking Services, Inc.
e. Seton Identification Products; a Brady Corporation company.

B. Nonmetallic Preprinted Tags: Polyethylene tags, 0.015 inch thick, color-coded for phase and voltage level, with factory printed permanent designations; punched for use with self-locking cable tie fastener.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Brady Corporation.
b. Carlton Industries, LP.
c. emedco.
d. Grafoplast Wire Markers.
e. LEM Products Inc.
f. Marking Services, Inc.
g. Panduit Corp.

h. Seton Identification Products; a Brady Corporation company.

C. Write-on Tags:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. Brimar Industries, Inc.
   b. Carlton Industries, LP.
   c. LEM Products Inc.
   d. Seton Identification Products; a Brady Corporation company.

2. Polyester Tags: 0.015 inch thick, with corrosion-resistant grommet and cable tie for attachment.
3. Marker for Tags:

   a. Permanent, waterproof, black ink marker recommended by tag manufacturer.
   b. Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.7 SIGNS

A. Baked-Enamel Signs:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. Carlton Industries, LP.
   b. Champion America.
   c. emedco.
   d. Marking Services, Inc.

2. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
3. 1/4-inch grommets in corners for mounting.
4. Nominal Size: 7 by 10 inches.

B. Metal-Backed Butyrate Signs:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. Brady Corporation.
   b. Champion America.
   c. emedco.
   d. Marking Services, Inc.

2. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs, with 0.0396-inch galvanized-steel backing, punched and drilled for fasteners, and with colors, legend, and size required for application.
3. 1/4-inch grommets in corners for mounting.
4. Nominal Size: 10 by 14 inches.

C. Laminated Acrylic or Melamine Plastic Signs:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. Brady Corporation.
   b. Carlton Industries, LP.
   c. emedco.
   d. Marking Services, Inc.

2. Engraved legend.
3. Thickness:

   a. For signs up to 20 sq. in., minimum 1/16 inch thick.
   b. For signs larger than 20 sq. in., 1/8 inch thick.
   c. Engraved legend with white letters on a dark gray background.
   d. Punched or drilled for mechanical fasteners with 1/4-inch grommets in corners for mounting.
   e. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

2.8 CABLE TIES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. HellermannTyton.
2. Ideal Industries, Inc.
3. Marking Services, Inc.
4. Panduit Corp.

B. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.

1. Minimum Width: 3/16 inch.
2. Tensile Strength at 73 Deg F according to ASTM D638: 12,000 psi.
3. Temperature Range: Minus 40 to plus 185 deg F.
4. Color: Black, except where used for color-coding.

C. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.

1. Minimum Width: 3/16 inch.

2. Tensile Strength at 73 Deg F according to ASTM D638: 12,000 psi.
3. Temperature Range: Minus 40 to plus 185 deg F.
4. Color: Black.

2.9 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Retain paint system applicable for surface material and location (exterior or interior).

B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 PREPARATION

A. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

3.2 INSTALLATION

A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.

B. Install identifying devices before installing acoustical ceilings and similar concealment.

C. Verify identity of each item before installing identification products.

D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.

E. Apply identification devices to surfaces that require finish after completing finish work.

F. Install signs with approved legend to facilitate proper identification, operation, and maintenance of electrical systems and connected items.

G. System Identification for Raceways and Cables under 600 V: Identification shall completely encircle cable or conduit. Place identification of two-color markings in contact, side by side.

1. Secure tight to surface of conductor, cable, or raceway.

H. System Identification for Raceways and Cables over 600 V: Identification shall completely encircle cable or conduit. Place adjacent identification of two-color markings in contact, side by side.

1. Secure tight to surface of conductor, cable, or raceway.

I. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.

J. Elevated Components: Increase sizes of labels, signs, and letters to those appropriate for viewing from the floor.

K. Vinyl Wraparound Labels:

1. Secure tight to surface of raceway or cable at a location with high visibility and accessibility.
2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to the location and substrate.

L. Snap-around Labels: Secure tight to surface at a location with high visibility and accessibility.

M. Self-Adhesive Wraparound Labels: Secure tight to surface at a location with high visibility and accessibility.

N. Self-Adhesive Labels:

1. On each item, install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high label; where two lines of text are required, use labels 2 inches high.

O. Snap-around Color-Coding Bands: Secure tight to surface at a location with high visibility and accessibility.

P. Heat-Shrink, Preprinted Tubes: Secure tight to surface at a location with high visibility and accessibility.

Q. Marker Tapes: Secure tight to surface at a location with high visibility and accessibility.

R. Self-Adhesive Vinyl Tape: Secure tight to surface at a location with high visibility and accessibility.

1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.

S. Tape and Stencil: Comply with requirements in painting Sections for surface preparation and paint application.

T. Underground Line Warning Tape:

1. During backfilling of trenches, install continuous underground-line warning tape directly above cable or raceway at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trenc hexceeds 16 inches overall.
2. Limit use of underground-line warning tape to direct-buried cables.
3. Install underground-line warning tape for direct-buried cables and cables in raceways.

U. Laminated Acrylic or Melamine Plastic Signs:

1. Attach signs that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high sign; where two lines of text are required, use labels 2 inches high.

V. Cable Ties: General purpose, for attaching tags, except as listed below:

1. Outdoors: UV-stabilized nylon.
2. In Spaces Handling Environmental Air: Plenum rated.

3.3 IDENTIFICATION SCHEDULE

A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.

B. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, pull points, and locations of high visibility. Identify by system and circuit designation.

C. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use self-adhesive wraparound labels to identify the phase.

1. Locate identification at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.

D. Power-Circuit Conductor Identification, More Than 600 V: For conductors in vaults, pull and junction boxes, manholes, and handholes, use nonmetallic preprinted tags colored and marked to indicate phase, and a separate tag with the circuit designation.

E. Control-Circuit Conductor Identification: For conductors and cables in pull and junction boxes, manholes, and handholes, use self-adhesive labels with the conductor or cable designation, origin, and destination.

F. Auxiliary Electrical Systems Conductor Identification: Self-adhesive vinyl tape that is uniform and consistent with system used by manufacturer for factory-installed connections.

1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.

G. Locations of Underground Lines: Underground-line warning tape for power, lighting, communication, and control wiring and optical-fiber cable.

H. Concealed Raceways and Duct Banks, More Than 600 V, within Buildings: Apply floor marking tape to the following finished surfaces:

1. Floor surface directly above conduits running beneath and within 12 inches of a floor that is in contact with earth or is framed above unexcavated space.
2. Wall surfaces directly external to raceways concealed within wall.
3. Accessible surfaces of concrete envelope around raceways in vertical shafts, exposed in the building, or concealed above suspended ceilings.

I. Instructional Signs: Self-adhesive labels, including the color code for grounded and ungrounded conductors.

J. Equipment Identification Labels:

1. Outdoor Equipment: Laminated acrylic or melamine sign.
2. Equipment to Be Labeled:

a. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be in the form of a self-adhesive, engraved, laminated acrylic or melamine label.
b. Enclosures and electrical cabinets.
c. Switchboards.
d. Transformers: Label that includes tag designation indicated on Drawings for the transformer, feeder, and panelboards or equipment supplied by the secondary.

END OF SECTION 260553

SECTION 262816

ENCLOSED SWITCHES AND CIRCUIT BREAKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including MTS C Street & Broadway Wye Design, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fusible switches.
2. Enclosures.

1.3 DEFINITIONS

A. NC: Normally closed.

B. NO: Normally open.

C. SPDT: Single pole, double throw.

D. DPDT: Double pole, double throw.

1.4 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Enclosed switches and circuit breakers shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

1.5 ACTION SUBMITTALS

A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, accessories, and finishes.

1. Enclosure types and details for types other than NEMA 250, Type 1.
2. Current and voltage ratings.
3. Short-circuit current ratings (interrupting and withstand, as appropriate).
4. Include evidence of NRTL listing for series rating of installed devices.
5. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices, accessories, and auxiliary components.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Field quality-control reports.

1. Test procedures used.
2. Test results that comply with requirements.
3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

C. Manufacturer's field service report.

1.7 QUALITY ASSURANCE

A. Testing Agency Qualifications: Member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.

B. Source Limitations: Obtain enclosed switches and circuit breakers, overcurrent protective devices, components, and accessories, within same product category, from single source from single manufacturer.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

D. Comply with NFPA 70.

1.8 PROJECT CONDITIONS

A. Environmental Limitations: Rate equipment for continuous operation under the following conditions unless otherwise indicated:

1. Ambient Temperature: Not less than minus 22 deg F and not exceeding 104 deg F.
2. Altitude: Not exceeding 6600 feet (2010 m).

1.9 COORDINATION

A. Coordinate layout and installation of switches, circuit breakers, and components with equipment served and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1 FUSIBLE SWITCHES

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Eaton.
2. General Electric Company.
3. Siemens Industry, Inc.
4. Or Equal.

B. Type HD, Heavy Duty, Single Throw, 600-V ac, 1200 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, with clip or bolt pads to accommodate fuses, lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.

C. Accessories:

1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Lugs: Mechanical type, suitable for number, size, and conductor material.
4. Class R Fuse Kit: Provides rejection of other fuses when Class R fuses are specified.

2.2 ENCLOSURES

A. Enclosed Switches and Circuit Breakers: NEMA AB 1, NEMA KS 1, NEMA 250, and UL 50, to comply with environmental conditions at installed location.

1. Hazardous Areas Indicated on Drawings: NEMA 250.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.

B. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

C. Comply with NECA 1.

3.3 IDENTIFICATION

A. Comply with requirements in Section 260553 "Identification for Electrical Systems."

1. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
2. Label each enclosure with engraved metal or laminated-plastic nameplate.

3.4 FIELD QUALITY CONTROL

A. Acceptance Testing Preparation:

1. Test insulation resistance for each enclosed switch and circuit breaker, component, connecting supply, feeder, and control circuit.
2. Test continuity of each circuit.

B. Tests and Inspections:

1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
3. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.

C. Enclosed switches and circuit breakers will be considered defective if they do not pass tests and inspections.

D. Prepare test and inspection reports, including a certified report that identifies enclosed switches and circuit breakers and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

A. Adjust moving parts and operable components to function smoothly and lubricate as recommended by manufacturer.

END OF SECTION 262816

SECTION 344201

TRANSPORTATION SIGNALING AND CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section consists of a general description of the Work, procedures and requirements necessary to the planning, designing, manufacturing, installing, removal, relocation, modification, testing, placing in service and documenting as-built conditions, and warranty support for various signaling, communications and highway-rail grade crossing systems to be provided or altered by the Contractor. The Work shall consist of, but is not limited to:

i. B0016RC: Contractor shall make wiring changes for the changeover to new processor-based interlocking as depicted in the contract drawings.
ii. CSRC: Contractor shall provide and install single width case, cables wheel sensors and equipment as depicted in the contract drawings.

1. The Contract Plans represent a detailed design utilizing systems, components and materials that meet the specifications. The Contractor may provide equivalent systems, components and materials subject to the approval of the Engineer and as specified herein. Any modifications made to meet the functional and safety requirements of this Specification are the Contractor's responsibility and therefore, no additional compensation shall be paid for this Work.
2. The manufacture, delivery, installation, testing and operations of the crossover systems as shown on the Contract Plans and specified in these Specifications.
3. The Contractor supplies all new components for the above systems and completes all work necessary to provide satisfactory performance of a complete, safe and operable signaling system.

B. Section Includes:

1. Transportation Signaling and Control

C. Related Sections:

1. Submittals, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

   a. Section 344213.13 – General Railway Signal Requirements
   b. Section 344213.14 – Route Control Equipment
   c. Section 344213.17 – Track Circuits
   d. Section 344213.18 – Instrument Shelters
   e. Section 344213.19 – Signal System Grounding
   f. Section 344213.20 – Relays
   g. Section 344213.21 – Miscellaneous Signal System Products
   h. Section 344213.27 – Painting and Galvanizing
   i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
   j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
   k. Section 344216 – Train Control Wire and Cable
   l. Section 344219.01 – Vital Logic Controller
   m. Section 344223 – Railway Control Equipment

1.2 REFERENCES

A. Abbreviations and Acronyms

1. AFO – Audio Frequency Overlay
2. AREMA – American Railway Engineering and Maintenance-of-Way Association
3. C&S – Communications and Signals
4. CA MUTCD – California Manual of Uniform Traffic Control Devices
5. CFR – Code of Federal Regulations
6. CPUC – California Public Utility Commission
7. FRA – Federal Railroad Administration
8. G.O. – General Order
9. GRS – ALSTOM Transportation Inc. (formerly known as General Railway Signal Co.)
10. GETS – GE Transportation Systems – Global Signaling
11. MTS – San Diego Metropolitan Transit System
12. NCTD – North County Transit District
13. NEC – National Electrical Code
14. NEMA – National Electrical Manufacturers Association
15. NFPA – National Fire Protection Association
16. SANDAG – San Diego Association of Governments
17. SDTI – San Diego Trolley, Inc.
18. TWC – Train-to-Wayside Communications
19. US&S – Ansaldo STS (formerly known as Union, Switch & Signal)

B. Reference Standards

1. In addition to the Regulations and Code requirements specified in this Section, materials and equipment for the block signaling system and the highway crossing warning shall conform to the latest recommendations of the AREMA Communications and Signals (C&S) Manual and applicable MTS standard circuit plans. The compatibility shall include form, fit and function of block signaling and highway crossing warning systems. Existing circuits, equipment and material shall serve as the basis of design for signal design circuits, equipment and material.
2. California Public Utilities Commission (CPUC), General Orders (G.O.):

    a. G.O. 26-D – Clearances on Railroads and Street Railroads as to Side and Overhead Structures, Parallel Tracks and Crossings
    b. G.O. 52 – Construction and Operation of Power and Communication Lines for the Prevention or Mitigation of Inductive Interference
    c. G.O. 75-D – Regulations Governing Standards for Warning Devices for At-Grade Highway-Rail Crossings
    d. G.O. 88B – Rules for Altering Public Highway-Grade Crossings
    e. G.O. 95 – Overhead Electric Line Construction G.O. 118: Construction, Reconstruction and Maintenance of Walkways and Control of Vegetation
    f. G.O. 118-A – Construction, Reconstruction and Maintenance of Walkways and Control of Vegetation Adjacent to Railroad Tracks
    g. G.O. 128 – Construction of Underground Electric Supply and Communication Systems
    h. G.O. 143-B – Design, Construction and Operation of Light-Rail Transit Systems
    i. G.O. 164-D – Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems

3. Code of Federal Regulations (CFR), Title 49, Transportation:

    a. 49 CFR Part 212 – State Safety Participation Regulations
    b. 49 CFR Part 214 – Railroad Workplace Safety
    c. 49 CFR Part 218 – Railroad Operating Practices
    d. 49 CFR Part 219 – Control of Alcohol and Drug Use
    e. 49 CFR Part 228 – Hours of Service of Railroad Employees
    f. 49 CFR Part 234 – Grade Crossing Safety
    g. 49 CFR Part 236 – Rules, Standards, and Instructions Governing the Installation, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances
    h. The Contractor shall be responsible for adherence to all of the above rules and reporting requirements, including those regulations which require pre-employment drug testing, random drug testing and reporting and tracking hours of service of employees engaged in the installation and testing of signal facilities and the reporting and tracking of employees injured in the performance of work on a railroad.

4. California Department of Transportation (Caltrans):

    a. California Manual on Uniform Traffic Control Devices (CA MUTCD) – California Supplement, Part VIII, Traffic Controls for Highway-Rail Grade Crossings

5. National Fire Protection Association (NFPA)

    a. NFPA 70 – National Electrical Code.

1.3 ADMINISTRATIVE REQUIREMENTS

A. SDTI systems shall be fully operational at all times unless approved by the Engineer.

B. The Contractor shall be represented at all meetings held with the Engineer where construction work may affect signal systems or where signal systems shall be discussed by a Signal Engineer qualified in the design and application of the signal equipment the Contractor proposes for use on this project.

1.4 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein and other Sections within the Specification group 34 42, Transportation Signaling and Control and shall include the following:

1. Plans, procedures, data sheets of proposed material, vital and non-vital application logic, installation details, shop drawings, mechanical drawings, conduit layout drawings, proofs of compliance with applicable standards and any other pertinent data required to fully demonstrate the Contractor's proposed plan for the manufacture, installation, testing and maintenance of the various systems. The Contractor shall provide submittals as indicated in the applicable technical specification section and any proposed design changes.
2. The Contractor shall submit detailed circuit drawings for all modifications to existing systems and temporary interfaces between existing systems and new systems. Separate submittals shall be provided for approval for each phase of the work.
3. The Contractor shall submit detailed Test Plan for all systems a minimum of 60 calendar days in advance of testing. Test Procedures for factory testing or placing any system or subsystem in service, shall be submitted a minimum of 45 calendar days in advance. These Test Procedures shall reflect the latest revisions and changes approved by the Engineer and made as a result of field checks and conditions. The Contractor shall not proceed with the factory or in-service testing until the Test Procedures are approved by the Engineer.

4. The Contractor shall prepare and submit a Systems Construction Sequencing Plan for each location where a system is to be modified, installed, or removed. The Plan shall be submitted 30 calendar days in advance and, as a minimum, contain the following:

    a. A narrative description of the work to be undertaken at the designated location.
    b. A step-by-step sequence of work description which identifies those steps during which the existing system will be disable and a description of what steps will be taken to assure that the signal system will be tested and returned to full operation without causing a delay to any train movement.
    c. An estimate of time to complete the critical steps in the sequence specified in 1.04A.4b.

5. The Contractor shall submit revisions to existing circuit plans using the “Red In” / “Yellow Out” convention to show changes. “Deletions” shall be identified by highlighting the modification with Yellow and “Additions” shall be identified by use of red-colored symbols and text.
6. The Contractor shall submit application logic software reports to the Engineer for approval. Software logic reports for each location shall be submitted in 3-ring binders. Binders shall be clearly marked with crossover, ABS signal, or crossing name and instrument shelter designation.
7. Manufacturers’ warranties, instruction sheets and parts list furnished for materials used in the work, shall be delivered to the Engineer prior to acceptance of the project. All equipment, and material warranties and guarantees shall cover parts and labor for two years from the date the equipment is “placed in service.”
8. After a location is placed in service and before Contract acceptance of the C Street & Broadway Wye Design Project, the Contractor shall submit as-built documentation as follows:

    a. Red line detailed circuit drawings within 3 working days.
    b. Final application logic documentation within 3 working days.
    c. The Contractor shall submit 8 sets of as-built (red line) corrections to the Engineer. In addition, a set shall be placed in each enclosure affected.

9. The Contractor shall submit certified test results for all phases of testing in conjunction with factory and in-service tests.

B. All submittals required within Transportation Signaling and Control shall be signed by the Contractor’s Signal Engineer.

1.5 QUALITY ASSURANCE

A. The Contractor shall be responsible for adherence to all referenced 49 CFR rules and reporting requirements, including those regulations which require pre-employment drug testing, random drug testing and reporting and tracking hours of service of employees engaged in the installation and testing of signal facilities and the reporting and tracking of employees injured in the performance of work on the railroad.

B. The Contractor shall perform and document all tests and inspections in accordance with 49 CFR regulations, the AREMA C&S Manual and these Specifications.

C. All submittals, programming, materials, equipment, manufacturing methods, system installation, testing and construction workmanship specified in the Specifications group Transportation Signaling and Control shall conform to the requirements specified in: Article 1.04 of this Section; Section 344213.28, Block Signaling and Highway Grade Crossing Warning Systems Testing; and various other related Sections contained herein.

D. No circuit or system is considered to have met the requirement of these Specifications for function and safety until it has been properly tested and verified in the field. Any circuit modifications made to meet the functional and safety requirements of this Specification shall be considered as a part of the Contractor's responsibility and therefore no additional compensation will be paid for this Work.

E. Signal Personnel Qualifications:

1. The Contractor shall assign experienced and qualified staff as key Signaling personnel for this Work. The Contractor shall not replace key staff members without prior approval from the Engineer. Key employees of the Contractor engaged in the installation, adjustment and testing of the various systems shall be qualified and have had experience on an operating transit system in the type and level of systems installation and testing work as required herein. At a minimum "key employees" shall include the Contractor's Signal Engineers, Application Software Engineer(s), Signal Supervisor, Construction Foreman and Lead Wire person. Additional experienced personnel shall be provided by the contractor for testing and placing systems in operation. The Contractor shall submit resumes for the "key employees" to the Engineer. The Engineer's decision concerning the candidate's qualifications shall be final. The Contractor shall propose alternate personnel if the original candidate(s) is found to be unacceptable. No signaling related work shall begin prior to the Contractor's "key employees" having been approved by the Engineer.
2. The Contractor's systems construction forces shall work under the supervision and direction of an approved Signal Supervisor. The Contractor's Signal Supervisor shall oversee the installation, adjustment, and testing and commissioning of signal related work. The Contractor's Signal Supervisor shall be within the project limits whenever signal related work or whenever roadway or track construction work is in progress in the vicinity of existing wayside signaling equipment, highway-rail grade crossings and/or cabling.

3. The Contractor's Signal Engineers shall direct and certify the successful completion of all tests on equipment and systems prior to releasing the systems for operation. The Contractor's Signal Engineers are responsible to ensure that all applicable test documentation is completed prior to, or immediately after, in-service testing is completed.
4. The Contractor's proposed Signal Engineers shall demonstrate experience in the philosophy, application and testing requirements of the various systems, including vital railroad signal systems. The Contractor's proposed Signal Engineers shall have at least 5 years of experience in signal testing and commissioning of signal systems. The Contractor's proposed Signal Engineers shall have a minimum of 10 years signal supervisory or management experience on a major transit or commuter system in the United States. The proposed Signal Engineers shall also demonstrate knowledge of the governing CPUC and FRA rules and regulations. This demonstration shall be by interview of the proposed Signal Engineers by the Engineer prior to commencement of any signal related work. The Engineer's decision concerning the candidate's qualifications shall be final. The Contractor shall propose alternate personnel if the original candidate is found to be unacceptable. No signaling related work shall begin prior to the Contractor's Signal Engineer having been approved by the Engineer.
5. The Contractor's proposed Signal Supervisor(s) shall demonstrate knowledge and experience in the installation and maintenance of the various systems to be installed. The proposed Signal Supervisor shall have a minimum of 5 years signal supervisory experience on a major transit or commuter system in the United States. The Contractor's Signal Supervisor shall demonstrate the proper methods and procedures required to adjust, inspect and test the signaling and highway warning systems and subsystems. This demonstration shall be by interview of the proposed Signal Supervisor by the Engineer prior to commencement of any signal related work. The Engineer's decision concerning the candidate's qualifications shall be final. The Contractor shall propose alternate personnel if the original candidate is found to be unacceptable. No signaling related work shall begin prior to the Contractor's Signal Supervisor having been approved by the Engineer.
6. The Contractor's proposed Application Software Engineer(s) shall demonstrate knowledge and experience in the development of safety-critical software on a rail system with the same or greater level of complexity as that being constructed on this project and specified herein. The Contractor shall submit resumes and contact information for a reference(s) that can attest to the applicant's abilities and knowledge. Each reference shall be a signal manager or agency person responsible for signal systems on which the applicant produced safety-critical software for the signaling system. Furthermore, the system for which the software was provided shall have been in revenue service a minimum of 12 months prior to advertisement of this Contract. In addition, the proposed applicant shall:

    a. Have been officially trained by the manufacturer on the solid-state controller systems and the application software to be furnished by the Contractor for this project;
    b. Possess a certificate of completion of software training issued by the manufacturers of the controllers to be used;
    c. Demonstrate past experience programming the logic controller to be furnished by the Contractor as part of the contract and have provided

safety-critical software of the same or greater level of complexity that is required for this project;

d. Demonstrate extensive experience in railroad signaling including design and programming of safety critical applications in conformance with AREMA C&S Manual of Recommended Practices and FRA and CA MUTCD regulatory requirements; and demonstrate a complete understanding of the logic controller hardware to be furnished by the Contractor as part of this contract.

e. This demonstration shall be by interview of the proposed Application Software Engineer(s) by the Engineer prior to commencement of any software development. The Engineer's decision concerning the candidate's qualifications shall be final. The Contractor shall propose alternate personnel if the original candidate(s) is found to be unacceptable.

7. The Contractor shall provide a Field Engineer. The Field Engineer shall maintain signal drawings and test documents. The Field Engineer shall be proficient with CADD and coordinate work with the Contractor's Signal Engineer and Signal Supervisor. SDTI may choose to interview the Field Engineer to verify qualifications and experience. The Field Engineer shall be responsible for the following:

   a. Maintaining up-to-date and current "redline" drawings in the instrument enclosures.
   b. Updating and distributing design files to the Engineer, the Contractor's Signal Engineer and Signal Supervisor within 7 working days of any revision made to the system.
   c. Maintaining and distributing test result documentation for all systems placed in operation.
   d. Coordinating with civil, structural, traction power and communication disciplines to ensure all data shown on signal drawings and incorporated into the CADD files are correct and accurate.

8. All Contractor field personnel must receive safety training that shall include a thorough briefing in the rules of conduct in work areas where moving trains may be present. No work shall be performed on operating systems or appliances without a SDTI representative being present.
9. Any Contractor personnel found to be acting in violation of safety or operating rules and regulations will be barred from the work site.

1.6 SIGNAL CONTRACT PLANS

A. Signal Contract Plans represent a detailed design utilizing systems, components and materials that meet specification requirements. The Contractor may provide equivalent systems, components and materials subject to the approval of the Engineer. The Contractor's written request for changes shall include catalog cuts, specification sheets, operating and maintenance manuals, logic development and compiling software (if applicable), a record of in-service dates and references and other data supporting the Contractor's contention that the system, component or material is equal to the equipment shown on the Contract Plans.

B. The Contractor shall modify the Contract Plans as necessary to provide a complete and operating system as specified in these Specifications and as approved by the Engineer. The Contractor's design shall utilize the symbology, nomenclature and CADD standards depicted in the Contract Plans.

C. The Engineer shall render a decision concerning the alternate systems, components or materials within 15 working days of receiving the Contractor's alternate design submittal. No additional payment shall be made to the Contractor for the alternate design. Construction schedules and contract milestones shall not be modified to offset any delays incurred by the Contractor in conjunction with the alternate design effort. The Contractor shall be responsible to provide calculations for Mean Time Between Failures (MTBF) and Mean Time to Repair (MTTR) for all alternative devices.

1.7 MODIFICATION TO EXISTING DRAWINGS

A. Regardless of accuracy of MTS drawings, the Contractor shall be solely responsible for the correctness of all circuits designed by him/her. The Contractor shall compare actual field condition with drawings provided and make any correction necessary to the drawings prior to designing required interfaces.

1.8 FIELD CONDITIONS

A. Existing signaling systems shall be fully operational at all times unless otherwise approved by the Engineer. The Contractor's work shall not interfere with revenue service operations and maintenance activities. The Contractor shall plan and schedule the Work accordingly and get approval from the Engineer.

B. The Contractor shall be responsible for providing continuous train control (also referred to as Signaling or Signals within these Specifications) and highway-rail grade crossing warning during all phases of construction. At no time shall the work of the Contractor cause delays to train operation, cause an unsafe condition to exist, or reduce the effectiveness or quality of the existing crossing warning systems. The Contractor shall submit, for approval by the Engineer, its proposed plan for providing alternate methods of crossing warning whenever an existing automatic crossing warning device is deactivated, altered, or modified in order to accommodate construction work. Alternate methods shall conform to 49 CFR, Part 234 and all Federal, State, and local ordinances.

C. The Contractor shall protect existing SDTI cabling and, where necessary, relocate existing cabling in order to prevent damage to the cabling during all phases of Work. All relocation shall be approved by the Engineer in advance.

D. The Contractor shall be responsible for the detailed design of temporary interfaces required to support full operation of new and existing systems until such time as the final systems are placed in full and final operation.

E. At no time shall the Contractor take the existing block signaling or highway grade crossing warning system out of service without detailed work plan and prior approval from the Engineer.

1.9 DELIVERY, STORAGE AND HANDLING

A. All material delivery, storage and handling shall conform to the requirements specified herein and in related sections.

PART 2 - PRODUCTS

2.1 LABELING

A. All signaling system components, assemblies and subassemblies shall be appropriately labeled so they may be readily identified as specified herein.

2.2 ENVIRONMENTAL CONDITIONS

A. All materials, equipment, product design, manufacturing methods, system installation, testing and construction workmanship shall conform to the requirements specified in Section 344223, Railway Control Equipment, Part 2.01 Equipment – Environmental Parameters and as recommended in the AREMA C&S Manual.

2.3 APPLICATION LOGIC SOFTWARE, LOGIC CONFIGURATION DEVELOPMENT AND LICENSING

A. The Contractor shall install, test and commission application software for programmable logic controllers,

B. Software shall be provided to the Contractor, any discrepancies or modifications required to the application logic, the contractor shall modify accordingly.

C. Logic configuration shall incorporate the signaling principles referenced in these Specifications and the Contract Plans. Logic configuration shall be streamlined and simple as possible to achieve the desired system performance. Similar locations shall utilize the same base logic configuration, nomenclature and performance criteria. The software shall be user friendly and the control logic shall be configured to enable SDTI signal personnel to modify application logic with ease.

D. The Contractor’s team shall cooperatively work together to provide all services required to develop safety-critical software that fulfills all contract requirements including requirements to ensure that the development, installation, implementation, inspection, testing and commissioning of those products will achieve and maintain an acceptable level of safety in conformance with all AREMA Standards and Regulatory Requirements, including but not limited to, Title 49, Part 236 Subpart H “Standards for Processor-Based Signal and Train Control Systems.”

E. The Contractor shall demonstrate and factory test application logic prior to field deployment. Application logic shall be tested on actual programmable controllers, linked as necessary to other controllers, to clearly simulate each possible movement and resulting reaction. Where temporary interfaces will be required to accommodate construction staging both the permanent application logic software and the temporary interim application logic software tested at the factory and demonstrate proper functionality prior to shipping the application logic software.

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall remove and dispose of instrument enclosures, enclosure contents, TWC equipment, nearside indicators, switch machines, switch rods, and associated equipment hardware as shown on the Contract Plans.

B. The Contractor shall protect in place all existing rail bonding and impedance bonds to ensure proper operation of the signaling and traction power systems.

C. The Contractor shall be responsible for relocation, removal and salvage of existing signal equipment and associated accessories.

D. The Contractor shall be responsible for conduit layout designs for each location. The conduit shall be of such size that the sum of the cross-sectional area of the individual cables shall meet requirements of the latest version of the National Electrical Code (NFPA 70).

E. The Contractor shall perform all work and provide all documentation required to support MTS' certification that the systems furnished and installed are ready for public use in accordance with CPUC and FRA Requirements.

F. The Contractor shall furnish, install and test all items, including cables and interfaces necessary to ensure proper operation of the block signaling and highway grade crossing warning systems.

3.2 CLOSEOUT ACTIVITIES

A. The Contractor shall record the final as-built conditions of the signal and communication systems for each location.

B. Record Drawings

1. Record drawings shall conform to the provisions of Section 3.10 – Shop Drawings, MTS C Street & Broadway Wye Design. The final record drawings (Final Design "AS IN SERVICE" Signal Plans) submitted shall include:

a. An index.
b. Location plans.
c. Detailed wiring diagrams of equipment.
d. Detailed and complete circuit drawings including fiber connections
e. Case layout plans.
f. Cable plans.
g. Conduit installation plans.
h. Shop drawings of equipment.
i. Material list.

1) The materials list shall include details such as equipment supplier's names, physical and website addresses, phone numbers, and email addresses for contacts.

j. GPS coordinates of key equipment/locations as determined by the Engineer.

2. The Contractor shall prepare and submit documentation of as-built software logic for vital processor controllers. Documentation shall include validations made to the software during in service testing and difference reports illustrating changes made.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Transportation and Signaling and Control.

4.2 PAYMENT

A. Full compensation for Transportation and Signal and Control shall be included in the contract price paid per each for various items, therefore no separate payment will be made.

END OF SECTION 344201

SECTION 344213.13

GENERAL RAILWAY SIGNAL REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This section includes furnishing interim and final designs as required for complete and operating train control and highway grade crossing warning systems.

B. Section Includes:

1. General railway signal requirements

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

3. Section 344201 – Transportation Signaling and Control.

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. California Public Utilities Commission (CPUC), General Orders (G.O.):

1. G.O. 75-D – Regulations Governing Standards for Warning Devices for At-Grade Highway-Rail Crossings

C. Code of Federal Regulations (CFR), Title 49, Transportation:

1. 49 CFR Part 234 – Grade Crossing Safety

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein and other Sections within Section 34 42, Transportation Signaling and Control.

1.4 QUALITY ASSURANCE

A. The signal system design shall be functionally consistent to what is currently installed on the San Diego Trolley Inc. (SDTI) system and shall conform to the requirements contained in this contract. It is the Contractor's responsibility to review existing designs and conditions in preparing the bid. San Diego Trolley Inc. will not compensate the Contractor for correcting omissions or errors in the Contractor's design, which are found during the design submittal review or during installation of permanent or temporary signaling system configurations at any stage of the project.

B. The Contractor's design shall be compatible with the existing signaling equipment and properly interface with the existing light rail vehicles system.

C. The Contract Plans shall serve as the standard to be used for the engineering, layouts and the Contractor's interface designs. Any deviations from these requirements shall be submitted to the Engineer for approval.

PART 2 - PRODUCTS

2.1 FAIL-SAFE DESIGN PRINCIPLE

A. As used in these technical specifications, the fail-safe principle shall mean that whenever an equipment failure, human error or failure to act, or adverse environmental condition affects the specified operation of a system involved with the safety of life or property, that system shall revert to a state known to be safe.

B. Failure of a circuit or equipment that results in an indication of a dangerous or restrictive condition, whether or not there is in fact actual danger, shall have met the fail-safe requirements. Conversely, a failure that results in an indication of safe or nonrestrictive condition when, in fact, a dangerous condition may exist, shall not have met the fail-safe requirements.

C. Vital applications, such as detector locking of switches, shall be based on the following principles that permit the attainment of fail-safe operation in all known or discovered failure modes:

1. Closed Loops: Fail-safe circuits shall employ the closed loop principle and shall protect against open circuits, shorts, or any combination thereof.
2. Vital Relays: Relays used in vital circuits.
3. Vital Circuits: All line circuits that energize a vital relay shall be two-wire, double-break circuits and shall be energized from an ungrounded direct current (DC) power supply. Failure of any circuit component or any combination thereof shall not result in unsafe condition.
4. Grounds: Components or wires becoming grounded shall not cause an unsafe condition.
5. Spurious Oscillations: Any amplifier, generator, or device element, active or passive, breaking into spurious oscillations shall not cause an unsafe condition.
6. Filters: Filters used in fail-safe circuits shall be designed to prevent undesired signals from appearing at the filter output at levels that could cause an unsafe condition.

D. Equipment failures and conditions that shall be considered in producing a fail-safe design shall include, but not be limited to:

1. Relays (non-vital): Open coil, fused contacts, high contact resistance, shorted coil, armature sticking, contacts sticking, or broken spring.
2. Relay (vital or safety as defined by the AREMA): Open coil, shorted coil, or high contact resistance.
3. Transformers: Open primary, open secondary, shorted turns, primary-to-secondary shorts, or combinations thereof.
4. Capacitors: Short, open, or leakage.
5. Resistors: Increase or decrease in resistance.
6. Transistors: Short, open, leakage, or loss of Beta.
7. Diodes: Short, open, or reverse leakage.
8. Coils: Open or shorted turns.
9. Loss or degradation of power sources.
10. Appearance of abnormal signal levels, electrical noise levels, frequencies and delays.
11. Effects of electrical interference.
12. Absent or abnormal input signals.
13. Opens or shorts in internal circuitry at inputs and at outputs.
14. Mechanical vibration or shock.
15. Drift or instability of amplifiers, receivers, transmitters, oscillators, switching circuits and power supplies.

16. Deterioration of contacts, connectors, terminals, solder connections, printed circuits, circuit adjusting devices and mechanical devices.

E. Fail-safe equipment proposed for vital signaling applications under this Contract shall have been proven safe with 3 years of successful railroad or transit service operation in the United States of America.

PART 3 - EXECUTION

3.1 GENERAL BLOCK SIGNALING SYSTEM FUNCTIONS

A. The Contractor's design shall satisfy the following block signaling system functional requirements

1. Prevent unsafe switch operation and prevent clearing of signals for opposing or conflicting routes.
2. Provide safe train separation.
3. Assure and maintain safe train operation.
4. Design of circuits and equipment shall be fail-safe.

3.2 AUTOMATIC ROUTE CONTROL

A. The system shall automatically and safely align and lock routes through a signal crossover and control the aspects of signals to indicate that a safe route has been established for train movement through absolute block protection. Absolute signals shall remain normally red until a route has been requested and assigned.

B. Automatic routing shall primarily be accomplished using track occupancy but in special circumstances the Train-to-Wayside Communications (TWC) system shall be utilized.

C. The signaling system shall, at a minimum, satisfy the following sequence of events in establishment and occupancy of a route:

1. Detection of approaching train.
2. Request for clearance through blocks in advance of train.
3. Check that downstream blocks are clear.
4. Check that no opposing or conflicting traffic or Signal Block is in effect.
5. Move, lock and detect switches.
6. Establish traffic locking.
7. Clear signal.

    a. Upon occupancy of the block establish route locking.
    b. Upon clearance of the block by the train, cancel route and traffic locking.
    c. Return crossovers and turnouts to the NORMAL position.

3.3 SIGNAL INDICATORS

A. The signal indicators shall be displayed as follow:

1. RULE - 4.6.4 ASPECT- Horizontal Red INDICATION- Stop. Improper switch alignment or train ahead
2. RULE – 4.6.3 ASPECT- Diagonal Lunar/Diagonal Lunar INDICATION-Proceed, Diverging (Reverse) switch alignment through two adjacent crossovers
3. RULE – 4.6.2 ASPECT- Diagonal Lunar INDICATION-Proceed, Diverging (Reverse) switch alignment
4. RULE – 4.6.1 ASPECT- Vertical Lunar INDICATION-Proceed, Straight (Normal) switch alignment

3.4 ROUTE REQUEST AND CANCEL

A. The signaling system shall allow a Light Rail Vehicle (LRV) operator to cancel and align all routes at the signals from an LRV TWC control console.

B. The signaling system shall incorporate back-up wayside pushbutton control at each signal, which will operate in parallel with the TWC output contacts. Each pushbutton control location shall include an indication light; to indicate the routes are unlocked and available for realignment. The RED LED indication light shall be plainly visible to the operator from the cab when the car is over the TWC loop.

C. Route requests shall be initiated by the means of TWC loops, track occupancy, route request via a push-button control cabinet located in the vicinity of the crossover signal, or Central Control. TWC loops with associated interrogators and output cards shall provide information to crossovers for LRV route selection. Route selection shall be accomplished as follows:

1. The Train-to-Wayside loops shall be located as shown on the Contract Plans.
2. The signal system shall align and lock switches for the route selected if a route has not already been established for the opposing traffic. The stored route shall be processed when opposing traffic clears the crossover.

3.5 SCADA INTERFACE

A. The signaling system shall support remote monitoring of all crossovers and remote route requests through each crossover from Central Control.

3.6 EVENT RECORDER

A. Systems shall record events as determined in the software development session. Event recorders shall be furnished and installed in accordance with Part 3.1.29 of the AREMA C&S Manual.

3.7 TRAIN TO WAYSIDE COMMUNICATIONS EQUIPMENT DESIGN

A. The TWC equipment shall be compatible with the existing car-carried and wayside TWC system. The Contractor shall demonstrate by test that the new TWC equipment is compatible with the existing system. Wayside interrogators transmit a 100 KHz interrogation signal through a loop antenna installed between the rails. On receipt of the interrogation signal, while the car antenna is over a loop, the vehicle-borne transponder responds with a low power signal encoded with a 19-bit message. On validation by the interrogator, the message is passed on to specific electronic application cards in the interrogator, which energize selected output relays or transmits a digital signal to the crossover controller.

3.8 TWC LOOP ANTENNA

A. The TWC loop antenna shall be constructed in a figure “8” pattern, with a support structure affixed directly to the track work in open right-of-way and beneath pavement in paved areas, as shown on the Contract Plans and specified in these Specifications. Each loop antenna shall be connected to:

1. A loop connecting unit, or
2. A tuned filter unit adjacent to the loop as required and via shielded twisted 2 pair #12 AWG conductor to the loop scanner or interrogator. Loop connecting unit or tuned filter unit shall be installed and sealed in accordance with the manufacturer’s recommended installation

3.9 INTERROGATORS

A. Interrogators shall provide the functional information, as required.

1. Interrogators shall be configured with a loop scanner card that is located in an interrogator card slot to avoid cross-talk problems. Interrogators shall not be configured for operation with a stand-alone loop scanner unit. The Contractor shall provide power supplies and slots for 9 application cards.
2. The Contractor’s design shall include serial (RS-232/RS-485) or Ethernet (RJ-45) communication cards where shown on the Contract Plans and programmable decoder cards containing eight programmable outputs for control of desired functions where shown on the Contract Plans. Connect the relay outputs to perform the functions as indicated.

3.10 MANUAL ROUTE REQUEST AND CANCEL SYSTEM FOR CROSSOVERS

A. TWC loops with associated equipment, adjacent to each crossover signal as shown on the Contract Plans, shall allow the operator to cancel and align routes at the signals from the LRV TWC control console. TWC shall initiate an automatic route request based on the TWC input from the light rail vehicle’s TWC signal.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for General Railway Signal Requirements.

4.2 PAYMENT

A. Full compensation for General Railway Signal Requirements shall be considered included in the contract price paid per each various items, therefore no separate payment will be made.

END OF SECTION 344213.13

SECTION 344213.14

ROUTE CONTROL EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This section includes furnishing and installing Train-to-Wayside-Communication (TWC) Equipment and Route Selectors as shown on the Contract Plans.

B. Section Includes:

1. TWC Equipment and Route

Selectors. C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals Manual of Recommended Practice.

B. National Fire Protection Association (NFPA)

1. NFPA 70 – National Electrical Code

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

1.4 QUALITY ASSURANCE

A. The TWC equipment shall be compatible with the existing car-carried and wayside TWC system. The Contractor shall demonstrate by test that the new TWC equipment is compatible with the existing system and the Rockwell Collin's ARINC AIMS platform used in the San Diego Trolley Inc. (SDTI) Operation Control Center (OCC).

PART 2 - PRODUCTS

2.1 MATERIALS

A. Wayside interrogator is currently installed and operational and is to be relocated as part of this project.

B. The loop antenna junction box shall be a Hanning & Kahl HCS-R-FI, Part No. 44 335 006.

C. Each loop antenna shall consist of one turn of insulated, stranded, copper wire suitable for a 30-year life in direct burial wet and dry applications, with a conductor size minimum of #12 AWG. The wire shall meet the requirements of Article 310 of the National Electrical Code. Insulation shall be type RHW, RHH, USE, or XHHW with a thickness of 45 mils.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Loop antennas shall be attached to the ties as shown on the Contract Plans.

B. The Contractor shall setup, configure and test interrogators in accordance with the manufacturer's recommendations.

C. SDTI shall provide coding information for each interrogator.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Route Control Equipment.

4.2 PAYMENT

A. No separate payment will be made for the Work described in this Section, and the compensation for its performance will be incidental to the payment for all associated items of Work with separate pay items that require the Work covered by this section.

END OF SECTION 344213.1

SECTION 344213.17

TRACK CIRCUITS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This section includes furnishing and installing Axle Counters/Wheel Sensors as shown on the Contract Plans.

B. Section Includes:

1. Axle Counters (Wheel Sensors)

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. Product data sheets and Operation and Maintenance manuals for each type of track circuit provided. The Contractor shall place an operation and maintenance manual in each instrument shelter where the track circuit is installed.

1.4 QUALITY ASSURANCE

A. Track circuits shall meet the requirements established by AREMA Communications & Signals (C&S) Manual where the requirements of the AREMA Specifications do not conflict with any requirements of this Section.

1.5 DELIVERY, STORAGE and HANDLING

A. Track circuit component shall be protected against damage during handling and shipment and shall be secured against loss during storage.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Axle Counter/Wheel Sensor Requirements
1. Axle Counter/Wheel Sensor shall be provided for train detection where shown on the contract plans.
2. Axle Counter/Wheel Sensor shall be Frauscher FAdC Axle Counter system including the necessary card modules (AEB, RP COM), RSR180 (wheel sensors), BSI001 (surge protection) meeting manufacturers safety requirements by Frauscher or approved equal.
3. Wheel sensors shall be installed within the existing axle counter rail box or manufacturer recommended boxes
4. The contractor shall coordinate with the manufacturers on the software requirements for the Frauscher FAdC Axle Counter System
5. The Contractor shall make adjustments to the circuit design and hardware components as necessary to adhere to the manufacturer’s specifications restrictions to include.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Track circuitry components shall be installed, adjusted and tested in accordance with the manufacturer's recommendations.

B. Cable conductor size shall meet or exceed the recommendations of the equipment manufacturer.

C. Cable Splining shall be watertight in accordance with the manufacturer's recommendations.

3.2 FIELD TESTS

A. Tests for proper operation and setting of Axle Counter system shall be made in accordance with the manufacturer's specification and manuals.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Frauscher FAdC Axle Counter System.

4.2 PAYMENT

A. Payment for procurement of Frauscher FAdC Axle Counter System and Manufacturer Support shall be included in the contract price paid for "Signal House/Case Complete", therefore no separate payment will be made.

END OF SECTION 344213.17

SECTION 344213.18

INSTRUMENT SHELTERS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This section includes furnishing and installing factory wired equipment shelters as specified herein and as shown on the Contract Plans.

B. Section Includes:

1. Factory wired equipment shelters

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. Code of Federal Regulations (CFR) Title 49, Transportation:

1. 49 CFR Part 236 – Rules, Standards, and Instructions Governing the Installation, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. Shop Drawings showing the proposed size and equipment layout including rack, lighting and convenience outlet arrangement.

C. Shop Drawings of the complete grounding arrangement.

D. Shop Drawings of each instrument and entrance rack, showing the arrangement and description of the mounted equipment and wiring if different from those shown on Contract Plans.

E. Sizes and types of internal wire proposed if different from those shown on Contract Plans.

F. Factory Test Procedures proposed.

G. Installation Test Procedures proposed.

H. Load calculations, indicating sizes of load center panel, voltage drops and all other 240/120 VAC equipment if different than the equipment shown on Contract Plans.

1.4 QUALITY ASSURANCE

A. The factory test of the shelters and the functioning of the equipment contained within each, shall be conducted in accordance with the Contractor's approved Factory Test Procedure.

B. Each shelter will be inspected after it has been installed and any deficiencies shall be corrected by the Contractor. This inspection will be conducted in conformance with the requirements of the Contractor's approved Installation Inspection Procedure.

C. The Contractor shall verify the instrument shelters can be mounted and secured on the structure foundations as shown on the Contract Plans structure sheets. All instrument shelters and installed equipment within shall comply with the earthquake requirements in the San Diego, CA region

1.5 DELIVERY, STORAGE and HANDLING

A. Equipment shipped within shelters shall be properly fastened and braced to prevent damage during transit. Any equipment damaged during transit or prior to in-service operation shall be replaced at no additional cost to MTS.

B. All vital relays, batteries and electronic plug-in modules shall be packaged in separate containers for shipment and not installed until the shelter is set at its final location.

PART 2 - PRODUCTS

2.1 MATERIAL - GENERAL

A. The Contractor shall supply factory wired equipment shelters, as described herein and as shown on the Contract Plans. Shelters shall be complete with all the equipment shown on the Contract Plans. Wiring shall conform to the requirements of the AREMA C&S Manual.

B. Equipment shelters shall be manufactured by P.T.M.W., Siemens Systems, or approved equal.

C. Equipment shelters shall be the same size and layout as shown on the Contract Plans. Unless otherwise shown on the Contract Plans, the minimum signal case equipment shelter depth shall be 24 inches.

D. Houses shall be equipped with an appropriately sized ventilation unit. Cases shall be vented utilizing ventilation openings in the doors unless otherwise approved by the Engineer. The Contractor shall evaluate each case and house for adequate ventilation and modify the design as necessary to ensure inside shelter temperature levels will not exceed 85 percent of the maximum operating temperature level specified for the equipment housed in the shelter.

E. Equipment shelters shall be rain-tight and dust/tight, designed to conform to National Electrical Manufacturers Association (NEMA) 4 specifications, ventilated and shall have hinged doors with three point catch and handle.

F. Equipment shelters shall be constructed of 12-gauge Type 316 stainless steel.. If the Contractor would prefer to use an alternative equivalent AWS welding method to weld the instrument shelters, then the Contractor shall submit the equivalent welding method to the Engineer in writing for approval. In order to be considered to be an equivalent process the alternative AWS welding methods shall: a) conform to an American Welding Society (AWS) standard process, b) result in a quality weld and c) shall result in a weld that will not rust. The Engineer shall be the sole judge as to the quality and suitability of the alternative welding method and the Engineer’s decision shall be final.

G. The instrument shelters shall be complete with moveable shelves and backboard.

H. The equipment shelters shall provide access to underground and aerial cable entrance behind the main terminal rack. Roof and side ventilation openings shall be provided as required for the size of the shelter proposed. Lift rings shall be provided to facilitate the movement of the shelter.

I. In each door, there shall be ventilation openings. The exterior of the ventilation openings shall be hooded to minimize the entrance of precipitation. The doors shall be hinged and equipped with gaskets so that they will provide a dustproof and weatherproof seal. Doors shall be provided with a two-position retaining device to secure the door when open. House doors shall be a minimum width of 32 inches. Doors shall be equipped with a three-point latching system that will allow opening from the inside when lock is applied on the outside.

J. Hinges shall be separate castings, securely fastened to the shelter and door with anti-theft layout. The hinges shall be equipped with stainless steel hinge pins, shall be lubricated by the manufacturer before the case is shipped and shall have grease fittings for later lubrication.

K. Equipment shelters shall be furnished with interior lighting and duplex 120 volt alternating current (AC) power receptacle. Receptacle loads shall be fed from a ground fault interrupt circuit breaker used exclusively for these loads. Signaling logic and appliance power loads shall be fed from separate circuit breakers. Circuit breakers and wiring shall be the size as shown on the Contract Plans unless otherwise approved by the Engineer.

L. Shelters shall be furnished complete with a 120/240 VAC power distribution panel, circuit protective devices and all appurtenances necessary to supply the AC power required at each site.

2.2 EQUIPMENT MOUNTING

A. Equipment shall be mounted in a “logical” arrangement with focus on access needs and “ease of maintenance.”

B. Relay plugboards shall be designed for insertion of removable type contacts. The method of attaching the wires to the removable contacts shall be solderless connections. The plugboard shall be designed so that the removable contact will have a direct connection with the contact and coil prongs. The plugboards shall be in accordance with the applicable sections of AREMA C&S Manual, Part 6.2.2.

C. All wires shall be of sufficient length to permit them to be moved to any contact on the same relay plugboard.

D. The relay plugboards for vital relays shall be equipped with a registration plate to prevent relays of the wrong type, contact arrangement, or operating characteristics from being inserted.

2.3 IDENTIFICATION

A. A white identification number shall be stenciled at the top of the front and rear frames of each rack or panel.

B. There shall be an identifying nameplate for each relay, or other instrument mounted on the rack or panel.

C. The back and front of the relay plugboards shall be equipped with a tag, as specified in Section 344213.20, Relays. This tag shall indicate the nomenclature of the relay.

D. Terminals and both ends of all internal wires shall be identified with a sleeve tag printed with the circuit nomenclatures and terminal designations as shown on the Contract Plans. The information shown on each tag shall be the nomenclature, the near location of wire and the far location of the wire.

2.4 CABLE ENTRANCE TERMINAL BOARDS

A. Furnishing and installing factory wired equipment shelters as described herein and as shown on the Contract Plans.

B. Cable Entrance Terminal Boards shall be made of 3/4 inch, 2-sided, MDO paneling, securely mounted to the shelter and painted with a fire retardant paint.

C. Multiple-unit terminal blocks for wire and cable conductors shall be in accordance with AREMA Signal Drawing 14.1.6. Each binding post shall be furnished with two binding nuts, one clamp nut and three washers.

D. Siemens test terminals shall be provided on all conductors entering shelters.

E. Lightning arrestors shall be provided as shown on the Contract Plans.

F. Binding posts and exposed terminals of other apparatus for circuits exceeding 50 volts or greater (AC or DC) shall be equipped with insulating nuts and sleeves.

G. Cable entrance facilities shall be located as shown on the Contract Plans.

2.5 CABLE ENTRANCE PIPES

A. Cable entrance pipes shall be supplied by the Contractor as specified herein.

2.6 GROUNDING

A. Signal houses shall be fitted with four 48 inch long #6 copper ground wires exothermically welded to the underside of the house at each corner, using Erico CADWELD or approved equivalent. House terminal boards shall be fitted with two 12 ft. long #6 copper ground wires exothermically welded on the rear of frame

approximately 18 inches above the floor. Signal cases shall be fitted with two 48 inch long #6 copper ground wires exothermically welded to underside of the case on each side of the case. Ground wires shall be coiled and secured to enclosure in a manner that prevents damage during shipment.

B. Grounding material shall be supplied by the Contractor and installed as specified herein.

2.7 INTERNAL WIRING

A. Internal wiring shall be in accordance with AREMA C&S Manual Parts 10.4.1 and 10.4.30, unless otherwise specified herein.

B. Minimum wire conductor sizes shall be as shown on the Contract Plans unless otherwise approved by the Engineer.

C. Adhering to minimum wire size specifications does not relieve the Contractor's responsibility of using wire sized large enough to safely and effectively provide power to the circuit it serves.

D. Solderless terminals, for stranded wire, shall be used.

E. Solid terminal strap connectors shall be used for all short terminal jumpers.

2.8 PAINTING

A. The interior including the ceiling, walls, terminal boards and shelves shall be finished with a primer and two coats of white latex enamel paint.

B. All paint shall be fire retardant type.

2.9 OTHER EQUIPMENT

A. Panel Board: Furnish a single-phase, three-wire 120/240 VAC, 60 Hz panel board for each shelter furnished under this Contract. The panel board shall be sized as shown on the Contract Plans.

2.10 SHELTER FOUNDATIONS

A. Shelter foundations shall be pre-cast concrete foundations designed and constructed in accordance with AREMA C&S Manual and the shelter's manufacturer recommendations.

B. The Shelter Foundations shall be designed, stamped and signed by a registered professional California civil or structural engineer. Relay Case foundations shall conform to Part 14.4.11 of the AREMA C&S Manual recommendations. The Contractor's Engineer shall determine the height of the foundation.

C. Where existing improvements such as sidewalks, curbs, gutters, pavement, underlying material, lawns, plants and other improvements are removed, broken, or damaged by the Contractor's operation of installing a new foundation, the contractor shall replace or reconstruct the improvements.

D. All surplus excavation, from whatever source, shall be disposed of in accordance with Section 4.20, "Cleaning Up" of the General Conditions.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The shelters shall be mounted level, plumb and secured on concrete footings as approved by the Engineer. Shims, spacers, or other filler devices shall not be used to level and plumb the shelters.

B. Cable entrance pipes shall be installed through the cable knockout holes provided in the floor of the shelter behind the terminal board. Pipes shall be 4-inch Sch. 40 PVC extending through the knockout holes to a minimum of 18 inches below final grade. Pipes and knockout hole edges shall be filled with a substance designed to prevent entrance of debris, rodents and other pests.

C. The Contractor shall construct an earth pad for each instrument shelter. Pad shall be constructed to facilitate drainage away from the track and the shelter. Refer to Contract Plans for special installations requiring retaining wall or unique conditions. If conditions do not allow placement at the location shown on the Contract Plans then the Contractor shall submit alternate placement for approval of the Engineer.

D. The Contractor shall coordinate all shelter placements with the Engineer. Shelters and associated appurtenances shall be located at the stationing shown on the Contract Plans train control sheets. The Contractor shall refer to the civil drawings of the Contract Plans for exact equipment location information. Shelters shall be identified with 4" letters/numbers per locations shown on the Contract Plans.

E. Shelters shall be grounded as specified herein.

F. Relays shall be installed on the relay plugboards corresponding to the relay nomenclature and identification plate and securely fastened in place with the hardware provided by the relay manufacturer.

G. Batteries shall be installed on battery trays. Battery posts shall be coated with an approved grease and battery connectors shall be securely fastened to the battery posts.

3.2 AC POWER

A. House load center shall be located within the house and sized as shown on the Contract Plans.

3.3 CABLING TO EXISTING EQUIPMENT AND RAILS

A. Existing equipment not specifically shown to be removed or taken “out” in yellow shall be protected in place. The Contractor shall install new conduit, signal cabling and pull boxes from the new Instrument Shelter to the existing equipment and that is to be protected in place. Signal cabling shall conform to the requirements of section 344216, Train Control Wire and Cable.

3.4 TESTING

A. Tests for proper operation shall be made in accordance with Section 344213.28, Block Signaling and Highway Grade Crossing Warning Systems Testing.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. The quantity for Signal House/Case Complete shall be measured for payment for each, completed in place, as shown on the plans.

4.2 PAYMENT

A. The Contract priced paid per each Signal House/Case Complete shall include full compensation for furnishing all labor, materials, tools, equipment, and all incidentals: and for all the work involved in installing the Instrument Shelters, complete in place, including testing, in accordance with the Plans and as directed by the Engineer.

END OF SECTION 344213.18

SECTION 344213.19

SIGNAL SYSTEM GROUNDING

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes furnishing and installing a grounding system for the equipment shelter and all other wayside equipment apparatus, as specified herein and shown on the Contract Plans.

B. Section Includes:

1. Grounding system for the equipment shelter
2. Grounding system for the other wayside equipment apparatus

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. ASTM International (ASTM):

1. ASTM B8 – Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft

C. National Fire Protection Association (NFPA)

1. NFPA 70 – National Electrical Code

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. Schematic Drawings showing the design and detail of the proposed grounding system for the signal equipment proposed to be furnished and installed.

C. Catalog cuts or drawings showing the type of components to be used for the proposed grounding system(s).

D. Installation and Test Procedure proposed for all equipment grounding.

E. Submit test reports to the Engineer upon completion of ground tests that completely describe ground resistance test procedures and test results. Test reports shall be signed by a technician and witnessed by a representative of the Engineer.

1.4 QUALITY ASSURANCE

A. Materials and equipment furnished and installed under this Section shall conform to all applicable state and local ordinances pertaining to electrical power installations and the latest edition of the National Electrical Code (NEC).

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cadweld exothermic connections - Manufactured by Erico Corp.

B. Ground rods shall be manufactured by Copperweld Corp. and shall be copper-clad stainless steel. The rod shall be at least 10 feet in length and at least 3/4 inch diameter.

C. Ground rod clamps shall be manufactured by Copperweld Corp. and shall be made of a cast bronze clamp body, with non-ferrous set screws.

D. Internal ground wire, from the equipment to the ground bus, shall be insulated No. 6 AWG standard copper wire, as specified within Section 344216, Train Control Wire and Cable. Insulated ground wire shall be colored green.

E. A grounding bus of nickel plated hard drawn pure copper shall be provided in the equipment shelters.

F. Bare Ground Wire: Soft drawn copper, Class A or Class B stranded, shall meet the requirements of ASTM B8. Sizing of ground wire shall be in accordance with the NEC, except where sizes specified herein or shown on the Contract Plans are larger than those required by NEC; UL listed, Label A for lightning protection conductors. Grounding cable shall be continuous without joints or splices throughout its length.

G. Bolted Grounding Connectors: Use connectors made of high strength electrical bronze, with silicon bronze clamping bolts and hardware; designed such that bolts, nuts, lock washers and similar hardware which might nick or otherwise damage the ground wire, shall not make direct contact with the ground wire.

H. Ground Leakage Detector as shown on the Contract Plans.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Service equipment, motor frames, switchgear and equipment enclosures, lighting and power panelboards, transformers, raceways, fences and gates, building or structure steel frames, lighting standards, floodlight poles, power/light pull boxes/maintenance holes, shall be grounded as described herein and in accordance with the applicable requirements of the NEC and local codes.

B. The grounding system shall preclude any closed loop grounding arrangements.

C. Ground connection(s) to the track rails or use of the neutral conductors of the AC Power Supply shall not be permitted.

D. Grounding under these specifications will conform to AREMA C&S Manual, Section 11. In cases where these instructions differ, the Engineer will make final decision.

E. Ground wire/cable runs shall be as short and straight as possible and shall not be interrupted by any device.

F. At equipment shelters, four ground rods shall be driven into the ground, at the corners of the structure. The ground rods shall be a minimum of 6 feet apart and shall be driven below ground level. A trench, 12 inches deep, shall be dug between the ground rods. Each of the ground rods shall be electrically connected to the others, using a #6 AWG

bare solid copper wire, exothermically welded, using Erico CADWELD or approved equivalent. Exothermically welded connections shall be coated with epoxy resin. The ground wires shall be placed in the bottom of the trench. The trench shall be backfilled, returning the soils removed during construction of the trench.

G. The shelter's copper ground cables shall be exothermically welded to the ground rods.

H. Ground resistance, as measured by the "Fall-of-Potential" method, shall not exceed 5 ohms.

I. Where flexible conduit is used, a bonding jumper shall be provided.

J. Interior: Equipment Grounding

1. All shelters shall be equipped with a prime ground terminal securely attached electrically to the shelter structure and to the made ground network.
2. Ground connections from lightning arrestors and equipment chassis shall run separately to ground buses in the shelters, as shown on Contract Plans. Ground busses shall be connected to the prime ground with green insulated No. 6 AWG stranded wire.
3. All equipment that is powered by, or switches voltages greater than 35 volts AC or DC shall be properly grounded.
4. All equipment that has conductors that leave the shelter shall be properly grounded.
5. Set up ground leakage detector as described by manufacturer recommended procedures.

3.2 TESTING

A. Ground Resistance Testing:

1. Verify that resistance between ground buses and absolute earth, as measured by the "Fall-Of Potential" or "Clamp-on" test method, does not exceed 5 ohms without benefit of chemical treatment or other artificial means.
2. The Contractor shall submit the test equipment and test procedure to the Engineer prior to conducting the first test.
3. In the presence of the Engineer, test the grounding system by the "Fall-of-Potential" or "Clamp-on" test method to demonstrate that the total ground resistance does not exceed 5 ohms.
4. To meet this resistance requirement, if necessary, bury additional ground rods and Cad-weld the ground rods to the ground wire or cable.
5. Test grounding systems connected to Instrument Shelters, Catenary poles, Sub-panels, Instrument Shelters, Signals, Flashing Light Signals (all types), pull box grounding and all other grounds shown on the Contract Plans.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Signal System Grounding.

4.2 PAYMENT

A. Payment for procurement of Signal System Grounding shall be included in the contract price paid for “Signal House/Case Complete”, therefore no separate payment will be made.

END OF SECTION 344213.19

SECTION 344213.20

RELAYS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes furnishing and installing all required relays and associated relay plugboards. Unless otherwise shown on the Contract Plans, relays shall be the plug-in type. Relays of each type shall be uniform in design and contact assembly.

B. Section Includes:

1. Relays
2. Relay plugboards

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS Construction IMT Double Trac, except as modified herein.

B. Relay specifications, any special mounting or supporting arrangements and contact stacking arrangements, for all relay types to be furnished under this Contract. Include any arc suppression where arc suppression is required.

C. Contract Plans show acceptable relays in use. If the Contractor proposes use of alternate relays not shown and the alternate relays have been approved by the Engineer, the Contractor shall submit manuals with comprehensive descriptions and illustrations of each type of alternate relay provided. The Contractor shall provide four relay manuals, four copies of relay specifications and calibration sheets for each type of alternate relay furnished.

D. Test forms provided by the manufacturer of each vital relay shall be completed for each vital relay furnished under this Contract. Test forms shall conform to all FRA requirements. The use of type written characters shall be used to fill in all information requested on the form.

E. Sample relay identification tag, including method of mounting proposed.

1.4 QUALITY ASSURANCE

A. Vital relays shall meet the requirements of AREMA C&S Manual Part 6.2.1, where the requirements of the AREMA Specifications do not conflict with any requirements specified herein.

B. Factory testing of each relay shall be the manufacturer's standard. Relays removed from existing facilities shall be tested prior to returning to service.

C. Before any relay is used, the Engineer's written acceptance shall be obtained. Acceptance will be based on the test results and the proper completion of the MTS test form.

1.5 DELIVERY, STORAGE AND HANDLING

A. Vital relays shall be shipped separately from the wired racks in which they are to be used. Relays shall be packaged individually, each in a sturdy corrugated cardboard carton with the drawing number of the relay printed on the outside of the carton. Relays shall be stored in a protected area until tested and installed.

2.1 PRODUCTS - GENERAL

A. Relays and equipment specified shall be capable of rated performance through an operating temperature range of minus 40 degrees Fahrenheit to plus 160 degrees Fahrenheit.

B. Relays shall be in dustproof enclosures, except a provision shall be made for ventilation where required, for heat dissipation.

2.2 SIGNALING RELAYS

A. DC Relays:

1. Vital relays shall be plug-in biased neutral type manufactured by Alstom, Ansaldo STS, or Siemens. The Contractor shall use the specific relay type and configuration shown on the Contract Plans, unless approved otherwise by the Engineer.
2. Vital DC relays, unless otherwise shown on the Contract Plans, shall be of the plug-in type and rack-mounted. Relays shall have a transparent dust cover made of a nonflammable composition that will not support combustion.
3. Vital relays, with a nominal operating voltage of 10 to 16 volts, shall be capable of operating continuously without resultant damage, with a minimum voltage range of 7 to 21 volts inclusive, applied to their operating coils.
4. Vital relays shall have a front testing facility to permit de-energizing.
5. Biased neutral vital relays shall be designed so that gravity alone will prevent the armature from picking up if the permanent magnet is de-energized or if no current is applied to the coil, due to interruption of the normal magnetic circuit.
6. All front contacts shall be silver-to-metalized carbon, meeting the requirements of the AREMA C&S Manual Part 6.2.1.
7. When three DC vital relays, suppressed as specified herein, are connected in parallel and operated as a test load from normal working voltage, a vital relay front or back contact that breaks this load shall be capable of at least five million operations at this load without the contact resistance, measured with ten milliamp current, exceeding five ohms.
8. Arc suppression for vital relays shall be built into the relay or into its plugboard.
9. Vital plug-in relays, except vital time-element relays and special application relays shall be equipped with front current testing facilities. Where required by the Engineer and as shown on the Contract Plans, facilities shall be provided to enable the testing of voltage from the front of the relay, without having to remove the relay or remove adjacent relays.
10. Vital relays shall be equipped with a registration plate to prevent relays of the wrong style, contact arrangement, or operating characteristics, from being inserted into the plugboard.

B. Switch Operating Relays:

1. Vital switch operating relays used for control of switch-and-lock movements related to non-embedded switch machines shall meet the same requirements as specified for vital biased neutral relays, except that a minimum of two front-back dependent contacts shall be supplied and contacts shall be heavy-duty metal-to-metal construction.
2. Each contact shall be equipped with a magnetic blow-out feature to effectively interrupt high currents and minimize contact wear. Switch operating relays shall be identical. One normal and one reverse switch operating relay shall be provided for each switch-and-lock movement. Switch operating relays shall be ALSTOM Type B, USS Model PN150BM, or approved equal.
3. Vital switch operating relays used for control of switch-and-lock movements related to the embedded switch machines shall be rated for 208 3-Phase motor control as shown in the contract documents.

C. AC VANE Relays

1. Vital AC relays shall be plug-in type, two element, 60 or 100 Hz, as applicable, vane-type induction relays. Vital AC relays shall be capable of operating continuously and successfully without resultant damage with a minimum voltage range of 100 volts to 135 volts, inclusive, applied to the local winding and with a minimum voltage range of 0.75 volt to 5.0 volts, inclusive, applied to the control winding.
2. Each vital AC relay shall have a minimum of two dependent front-back contacts. Each front contact shall be of the silver-to-metalized carbon type.
3. Vital AC relays shall meet the recommendations established by AREMA Signal Section Specification (part 6.1.35), unless otherwise specified herein, with the exception that these relays shall be plug-in type and therefore shall not have a screened breather and shall not be equipped with binding posts.
4. If power frequency track circuits using matching transformers are supplied, the vital AC relays supplied shall meet the requirements herein above, except that a voltage range of at least 8 volts to 50 volts, inclusive, shall be required for application to the control winding.
5. Vital AC relays shall be manufactured by Ansaldo STS, Alstom, or approved equal.

D. Non-vital Relays

1. Non-vital relays shall be used for indication or non-vital functions only. The Contractor shall use the specific relays shown on the Contract Plans.
2. Non-vital relays shall be DC or AC operated as shown on the Contract Plans.
3. Non-vital relay bases shall contain an octal socket, screw type terminals and be capable of being mounted on DIN rail or screw mounted to a backboard.

E. Identification

1. Facilities shall be included for mounting an approved typed or printed relay name tag for each relay, either on the relay cover or on the relay cabinet front plate, as applicable. The name tag shall be easily replaceable but shall not come off during normal service.

3.1 INSTALLATION

A. The Contractor shall ensure that the relay operating characteristics have not been altered due to damage during shipping procedures.

B. The Contractor shall ensure that all AC and DC power busses are open while installing relays. Busses shall not be reconnected until all relays have been installed.

C. The Contractor shall install and wire the relays as shown on the Contract Plans.

3.2 TESTING

A. All vital relays shall be factory tested and inspected in accordance with AREMA C&S Manual Part 6.4.1 and Part 6.4.5.

B. Test measurements shall be recorded on SDTI prescribed forms.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Relays.

4.2 PAYMENT

A. Payment for procurement of Relays shall be included in the contract price paid for “Signal House/Case Complete”, therefore no separate payment will be made.

END OF SECTION 344213.20

SECTION 344213.21

MISCELLANEOUS SIGNAL SYSTEM PRODUCTS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes furnishing miscellaneous components and products to be used on this Contract and shown on the Contract Plans.

B. Section Includes:

1. Miscellaneous signal system components
2. Miscellaneous signal system products

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. Product Data: Manufacturer's catalog cuts, material descriptions, specifications and other data pertinent to the miscellaneous products required.

C. Samples of solderless terminals conforming to paragraph 2.1 G of this section.

1.4 QUALITY ASSURANCE

A. All miscellaneous components and products used on this Contract shall be:

1. New and free of manufacturing defects.
2. Clearly and permanently labeled with value or type identification.

B. All electrical components shall be rated to operate at power, voltage, current and temperature levels exceeding by 20 percent those that the components will be subject to in service, unless otherwise specified herein.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Signal system terminal blocks shall be in accordance with the applicable requirements of AREMA C&S Manual Part 14.1.5.

B. Signal system terminal binding posts shall be in accordance with the applicable requirements of AREMA C&S Manual Part 14.1.10.

C. Terminal binding posts for communications grade wires shall be in accordance with the AREMA C&S Manual, Part 14.1.2.

D. All terminal posts, located on terminal boards in the wayside cases, signal instrument shelters used to terminate 50V, or greater, AC or DC circuits shall be provided with a protective insulator. The type of insulator shall be individual for each terminal post and shall be fire-resistant.

E. Type 024620-1X insulated test link as manufactured by Siemens, Inc., or approved equal.

F. Lightning arrestors, line filters and equalizers shall conform to the manufacturer's recommendations for the equipment being protected. Lightning arrestors and equalizers shall be mounted on accepted type base and shall be in accordance with AREMA C&S Manual Part 11.3.1.

G. Terminals for wire and cables:

1. All solderless terminals shall be in accordance with the AREMA C&S Manual, Part 14.1.1, unless otherwise specified herein.
2. Terminals shall be of the solderless crimp-on type. Samples of all solderless terminals shall be submitted for approval.
3. All stranded copper wire shall be fitted with an approved type of terminal at all points where the wires are to be terminated on terminal binding posts.
4. The terminating means shall be of four types:

    a. A lug for terminating heavy wires or signal power wires.
    b. A solderless type of terminal as manufactured by Tyco Electronics AMP, under the trade name of "Pre-Insulated Flags" with translucent insulation similar to Catalog No. 322313, or approved equal, for terminating No. 16 and No. 14, American Wire Gauge (AWG) stranded wires.
    c. An AMP Solistrand "Ring Tongue-Flat" terminal, similar to that shown on the AMP Drawing P64044, together with slip-on nylon post insulator, similar to that shown on AMP Drawing P64-0264, or approved equal, for terminating wires larger than No. 14 AWG to a maximum diameter over the insulation of 0.40 inch.
    d. An AMP pre-insulated, diamond grip ring nylon insulated wire terminal shall be used for terminating other stranded wires, No. 20 and No. 18 AWG, having maximum diameter of 0.125 inch. AMP Catalog No. 320554, or approved equal, shall be furnished for No. 8 studs and AMP Catalog No. 320571, or approved equal, shall be furnished for l/4-inch studs.

5. The terminals shall be attached to the ends of the conductor in such a manner that the flexibility of the conductor will not be destroyed and the possibility of breakage at the terminal will be reduced to a minimum.
6. Terminals shall be attached to the wire with a tool made by the manufacturer of the terminal and recommended by the manufacturer for the terminals being furnished.
7. The tool shall be equipped with a ratchet device to ensure proper compression of the terminal, which will not release until proper compression is complete.

H. Tagging for cables, wires and equipment:

1. Except as otherwise specified in this Section, both ends of each cable, each cable wire and all single wires that terminate in the junction boxes, switch mechanisms, signal instrument shelters, on entrance racks, shelter and any equipment of the signal system outside of such locations shall be permanently identified with a tag. Tags shall be installed so that they may be read with a minimum of disturbance of the tags. Each conductor of the cable shall be rung out and identified before applying the tag. The circuit nomenclature, as shown on the Contract Plans or approved shop drawing, shall be placed on the tag along with the "location" or "terminal" designation.

2. Tags for wire and cable identification and for identification of transformers, resistors, reactors and other components shall meet the following requirements and shall be subject to the Engineer's acceptance:

   a. Sleeve Type Tags:

      1) Tags for identifying individual cable conductors and wires within the signal instrument shelters, wayside cases, switch mechanisms, switch layout junction boxes, base of signal junction boxes and similar applications, shall be the sleeve type as manufactured by Raychem Corporation, Thermofit Marker System (TMS), or approved equal. The application of the conductor nomenclature shall be in accordance with the manufacturer's instructions and shall result in a permanently bonded and legible identification.

   b. Flat Plastic Tags:

      1) Tags for identification of vital relay plug boards, individual transformers, resistors, reactors, terminals and other miscellaneous components within the signal instrument shelters, wayside cases and outside terminal cases, shall be the flat plastic laminated type.
      2) These tags shall be 1-1/2 inches long by 1/2-inch-wide. The untreated tag shall be milk white "vinylite," or approved equal.
      3) The identifying nomenclature space shall allow for two rows of lettering and the tag material shall be capable of receiving typed-on characters by conventional means. The height of the lettering shall not be less than 1/8 inch.
      4) After lettering, both the face and back side of the tag shall be covered with a clear plastic coating, "vinylite," or approved equal.

I. Hardware:

1. Mounting hardware exposed to the elements and used for signal equipment, cases, conduit, hangers, brackets, clamps, etc., shall be hot-dip galvanized, except as otherwise noted to use Stainless Steel or approved by the Engineer.

   a. Galvanizing:

      1) The hot-dip process of galvanizing shall be used. All parts shall be picked so that all scale and adhering impurities are removed. The zinc coating shall be of commercially pure zinc and shall be continuous and thorough. It shall not scale, blister, or be removable by any of the processes of handling or installation. The finished surface shall be free from fine line cracks, holes, or other indications of faulty galvanizing. It shall be smooth and free from adhering flux and other impurities. The edges and ends of parts shall be free from lumps and globules. Parts shall be coated with at least two ounces of zinc per square foot of galvanized surface, after all bending, cutting, drilling and final fabrication.
      2) In order to avoid destruction of resilience encountered in the hot-dip process of galvanizing, all lock-washers shall be cadmium plated.

J. Conduit, Pull boxes and Fittings:

1. Conduit shall conform to the requirements of the Contract Drawings
2. Pull boxes shall conform to the requirements of Caltrans Standard Specifications Section 86-2.03.
3. Fittings:

   a. Approved fittings for PVC conduit shall be used.
   b. Fittings for rigid steel conduit shall be of cast malleable iron and shall be protected by hot-dip galvanizing.
   c. Fittings used in conjunction with flexible liquid-tight conduit shall be design for use with such conduit. Fittings shall be galvanized, made of stainless steel, or otherwise constructed to resist rust or corrosion from exposure to salt air.

K. SDTI will provide switch padlocks and signal padlocks. The Contractor shall provide temporary padlocks until such time the equipment is placed in-service.

L. Sealing compound for use in sealing cable entrances shall be in accordance with AREMA C&S Manual Part 15.2.15.

M Omitted.

N. Environmental protection, as hereinafter specified for machine-finished surfaces, threaded rods, nuts and other parts that are susceptible to rusting or corroding, shall be a corrosion preventive compound, NO-OX-IDE No. 90918, or approved equal. The product must have sufficient body to resist weather and rusting for at least 6 months. Two gallons or equivalent weight shall be furnished by the Contractor.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Material and apparatus specified herein shall be installed in accordance with the details of respective technical Sections of these Specifications, manufacturer's recommendations and in accordance with the Contractor's approved installation drawings.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Miscellaneous Signal System Products.

4.2 PAYMENT

A. Payment for procurement of Miscellaneous Signal System Products shall be included in the contract price paid for “Signal House/Case Complete”, therefore no separate payment will be made.

END OF SECTION 344213.21

SECTION 344213.27

PAINTING AND GALVANIZING

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes the painting and galvanizing equipment, hardware and apparatus as specified within these Specifications and as shown on the Contract Plans.

B. Section Includes:

1. Painting
2. Galvanizing

C. Related Sections:

1. Section 344201 – Transportation Signaling and Control
2. Section 344213.18 – Instrument Shelters

1.2 REFERENCE STANDARDS

A. ASTM International (ASTM):

1. ASTM A123 – Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
2. ASTM A143 –Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement
3. ASTM A153 – Zinc Coating (Hot-Dip) on Iron and Steel Hardware
4. ASTM A384 – Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies
5. ASTM A780 – Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
6. ASTM D6386 – Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting

B. California Department of Transportation (Caltrans):

1. California Manual on Uniform Traffic Control Devices (CA MUTCD)

C. Society for Protective Coatings (SSPC)

1. SSPC PA 1 – Shop, Field and Maintenance Painting of Steel
2. SSPC PS Guide 12.00 – Guide to Zinc-Rich Systems
3. SSPC Paint 20 – Zinc Rich Primers IO and O

1.3 QUALITY ASSURANCE

A. Painting:

1. All equipment shall be inspected prior to shipment and upon receipt at the Contractor's storage facility to ensure surfaces are properly painted and galvanized as specified herein.
2. The Contractor shall make repairs or replace items as approved by the Engineer if any surfaces are damaged prior to or during installation with no additional cost to MTS.
3. Comply with the applicable provisions and recommendations of SSPC and AISC for shop painting of structural steel.

B. Galvanizing:

1. Steel and ferrous metal items exposed to moisture, gratings and items as shown on the Contract Plans, shall be galvanized after fabrication by the hot-dip process in accordance with ASTM A123. Weight of the zinc coating shall conform to the requirements specified under "Weight of Coating" in ASTM A123.
2. Safeguarding against steel embrittlement shall conform to the applicable requirements of ASTM A143.
3. Safeguarding against contortion and distortion of steel members shall conform to the applicable requirements of ASTM A384.
4. Shop galvanized metalwork, requiring field welding, which in any manner removes original galvanizing shall be restored by field galvanizing repair in accordance with ASTM A780.
5. Bolts and screws for attachment of galvanized items shall be galvanized in accordance with ASTM A153.
6. Prepare galvanized metal surfaces, to be painted, in accordance with ASTM D6386.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 PAINTING

A. Shop paint miscellaneous metalwork, except for those members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and galvanized surfaces, unless otherwise indicated.

B. Prepare and clean substrates in accordance with the paint manufacturer's written instructions and as specified, for each particular substrate condition:

1. Projections and irregular surfaces shall be ground smooth or removed. Weld accumulations, spatter and slag shall be removed.
2. Remove accessories, cover plates and similar items in place and not to be painted or provide suitable protection from surface preparation and painting operations. Remove such items, if necessary, for the complete painting of the items and adjacent surfaces. Following completion of painting of each space or area, re-install the removed items using workers skilled in the trades involved.
3. Surfaces to be painted shall be cleaned to remove all oil and grease prior to mechanical cleaning. Neutralize welds with a chemical solvent that is compatible with the specified painting systems.
4. Mechanically clean and abrade all prepared surfaces. Abrasive type and size shall be selected to provide the required level of cleanliness while establishing a surface profile recommended by the paint manufacturer. Abrasive material shall be new material, free of contaminants that would interfere with adhesion of the paint. Abraded surfaces shall be vacuumed immediately prior to primer application to remove residual dust. All mechanically cleaned surfaces shall receive a coating of paint within eight hours or before flash rusting can occur. If flash rusting occurs, the surface shall be re-cleaned prior to paint application.

C. Exterior Applications:

1. After fabrication and immediately before shop painting, clean and prepare surfaces as described above.
2. Abrasive blast all steel surfaces to be painted.
3. Re-wipe as necessary and vacuum all surfaces to remove dust immediately prior to paint application.
4. Apply one coat of solvent based, inorganic zinc primer, at 2.5-3.0 mils DFT, in accordance with the applicable sections of SSPC-PA 1 and SSPC-PS Guide 12.00. Materials shall conform to SSPC-Paint 20, Zinc-Rich Primers.

D. Inaccessible Surfaces:

1. For surfaces that shall be inaccessible after assembly or erection, apply a second coat of water based acrylic primer, at 2.0-3.0 mils DFT.

3.2 GALVANIZING

A. Galvanized surfaces that have become damaged from welding, handling, or installation shall be repaired immediately after installation with galvanizing repair material in accordance with, ASTM A780.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Painting and Galvanizing.

4.2 PAYMENT

A. Full compensation for Painting and Galvanizing shall be considered included in the contract price paid per each various item, therefore no separate payment will be made.

END OF SECTION 344213.27

SECTION 344213.28

BLOCK SIGNAL AND HIGHWAY GRADE CROSSING WARNING SYSTEMS

TESTING PART 1 - GENERAL

1.1 SUMMARY

A. Description: The Contractor shall test the block signal and highway crossing warning systems in accordance with the test plan and procedures developed by the Contractor and submitted to and approved by the Engineer.

B. Section Includes:

1. Block Signal and Highway Grade Crossing Warning Systems Testing

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. California Public Utilities Commission (CPUC) General Orders (G.O.):

1. G.O. 75-D – Regulations Governing Standards for Warning Devices for At-Grade Highway-Rail Crossings

C. Code of Federal Regulations (CFR), Title 49, Transportation:

1. 49 CFR Part 234 – Grade Crossing Safety

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. The Contractor shall submit a draft Field Test Procedures for all equipment, systems and subsystems installed, modified, and/or adjusted as a result of the Contractor work a minimum of 120 calendar days prior to the proposed date of the Field Test for Engineer's approval. The Contractor shall submit a final Field Test Procedures a minimum of 60 calendar days prior to the proposed date of the Field Test for Engineer's approval.

C. The Contractor shall submit a Field Test Plan a minimum of 30 calendar days prior to the proposed date of testing for Engineer's approval. A Field Test Plan shall be submitted for each phase of a system or subsystem cutover and placing the system or subsystem in operation.

1.4 QUALITY ASSURANCE

A. Test plan and procedures shall conform with Parts 8.6.1, 8.6.10, 11.1.1, 10.4.30, 12.5.1, 12.5.5, 6.2.1, 6.1.5, 3.3.1, 2.4.1, 2.4.5 and 3.3.5 of the AREMA C&S Manual and the requirements specified herein.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 CALIBRATION OF TEST INSTRUMENTS

A. All instruments or recorders employed in these test programs shall bear a record of calibration against certified standards by the National Institute of Standards and Technology. Such calibrations shall be made at least each 180 calendar days and at such other periods as may be directed by the Engineer. Each test record shall identify the specific instrument employed in the test and the latest date on which it was calibrated, and the calibration expiration date.

3.2 FACTORY ACCEPTANCE TESTS AND INSPECTIONS

A. All systems, subsystems and components forming an integral part of a fail-safe circuit or subsystem shall be completely inspected and tested at the wiring and assembly facility.

B. All components or units, other than those related to fail-safe circuits, may be tested on a sampling basis. An approved number of randomly selected components or units from the manufacturing process shall be tested by the Contractor, beyond the manufacturer's testing process. The Engineer and/or a designated representative may witness such tests to ascertain the adequacy and acceptability of all components and units produced.

C. Each component and unit shall be inspected at its point of manufacture and evidence of this inspection and acceptability shall be indicated on the item where practical.

D. The Contractor shall notify the Engineer in writing, a minimum of 30 working days in advance of each test. When tests are to be conducted continuously as a production line routine, the Engineer shall be notified in writing at least 30 working days in advance of the date of commencing the tests and the expected duration. No testing shall be scheduled until the Engineer has approved the Contractor's proposed FAT Procedures and FAT Plan.

E. All vital relays shall be factory-tested in accordance with the AREMA C&S Manual, Parts 6.2.1 and 6.1.5 and the provisions of these Specifications.

F. Breakdown tests shall be performed in accordance with the requirements as specified herein.

G. All factory installed rack wiring shall be tested as completely as possible before shipment to provide for the continuity of each circuit and the connection of each conductor to the proper terminating point.

H. All wayside signal equipment shall be inspected and tested prior to shipment. All wire, terminal, equipment, cable, relay and rack tagging shall be inspected prior to shipment to insure they agree with the Contractor's design submittals.

I. All signal equipment shall be operationally tested and inspected as a complete functional assembly prior to shipment. The Contractor shall test each function by simulating operating conditions. Where equipment is related to a safety function, each component or subassembly shall be separately inspected and tested.

3.3 FIELD TESTS AND INSPECTIONS

A. The Contractor shall perform pretests in advance of actual testing.

B. The Contractor shall perform all tests required to provide for the proper and safe operation of all signal equipment and to prove the adequacy and acceptability of the total installation.

C. The tests to be performed shall cause each system and subsystem to be sequenced through all required operations and shall include simulated conditions to prove that the installation is in compliance with fail-safe requirements.

D. Prior to operational testing, the Contractor shall check the quality of the installation by visual inspection and by tests of continuity, insulation resistance, resistance of ground connections, vital circuit breakdown and other tests as required.

E. During field testing if any jumpers or special wiring is temporarily added for any reason, it shall be recorded on a log sheet indicating the circuit involved, the placement of the jumper or special wiring, the purpose for the change and when jumpers or special wiring are added and removed. Log sheet entries shall be signed by the Contractor's Signal Engineer and a copy furnished to the Engineer. All jumpers and temporary wiring shall be removed after the completion of the test and the removal noted on the log sheet. Temporary wiring shall be marked so as to be clearly distinguishable from permanent wiring.

F. The Engineer shall receive written notification at least 72 hours prior to each test.

G. No testing shall begin until the Engineer has approved the Contractor proposed Field Test Procedure and Field Test Plan.

3.4 TEST PROCEDURES, TEST PLANS AND TEST RESULTS

A. Test Procedures:

1. Test Procedures shall provide a narrative description of the adjustments, equipment setup and testing requirements for each sub-system and system to be tested.
2. The Test Procedure submittal package shall include drawings, checklists and test forms for recording the results.
3. Test Procedure packages shall be bound individually by location. For example, a separate package shall be submitted for each crossing case and or house where modifications were completed by contractor.

4. If additional tests are required because submitted test results do not comply with the requirements of the specifications, or do not provide adequate information the Contractor shall be required to retest, at no expense to MTS and the retesting is to be documented and submitted to the Engineer for approval as part of the work.
5. Each Test Procedure package submitted shall be signed by the Signal Engineer(s) responsible for directing the test. If the test schedule requires shifts in which multiple Signal Engineers direct testing, each Signal Engineer shall sign the Test Procedure package submitted.

B. Test Plan:

1. The Contractor's Test Plan shall include, but not limited to:

   a. A comprehensive description of the work to be completed prior to beginning in-service testing.
   b. A description of the track limits needed to complete the testing.
   c. Emergency phone numbers.
   d. Location of emergency medical facilities in the immediate area.
   e. Method of Roadway Worker Protection being provided.
   f. Location of job briefing for each shift.
   g. A detailed cutover schedule that includes the activities to be completed and the time allotted for each activity.
   h. Resources, tool and test equipment requirements.
   i. Listing of personnel with duty assignments with respect to duties during cutover and location assignment during testing.
   j. Contingency plan if work is not completed within specified time.
   k. Method of communications (i.e. radio channel to be used, etc.)
   l. Any special considerations.
   m. Rollback procedures due to installation failure.
   n. The Engineer reserves right to request additional information to supplement the data provided by the Contractor if the Engineer does not believe the information submitted is sufficient.

C. Certified Test Reports:

1. Certified Test Reports shall consist of, but not limited to the following forms and checklists as required:

   a. Signal Shelter Inspection Checklist
   b. Local Control Panel Checklist
   c. Test Equipment Calibration form
   d. Battery Voltage Record form
   e. Battery Charger Settings form
   f. Grounds Test form
   g. Insulation Resistance Test form
   h. Vital Relay Test form
   i. Switch Indication Test form
   j. Axle Counter System Test form
   k. TWC Interrogator Settings form
   l. Time Settings Test form
   m. Time Locking Test form
   n. Route Locking Test form
   o. Indication Locking fest form
   p. CTC Control & Indication Bit form

D. The appropriate forms and checklists listed above shall be populated with the location, circuit/device designation, acceptable parameters, etc. and submitted in the Test Procedure package as described in 3.4 A. above.

E. Based upon the results of the first items tested, the Contractor may initiate revisions to the test procedures if approved by the Engineer. Modified test procedures shall be resubmitted to the Engineer for review and shall meet the same submittal requirements indicated unless waived in writing by the Engineer.

F. The test forms and inspection checklist shall include, but shall not be limited to the following information:
   1. Title of test.
   2. Equipment to be tested, including model and serial numbers.
   3. Location and date of test.
   4. Step-by-step test procedure to describe how test should be conducted.
   5. Acceptable parameters.
   6. Test Results with quantified results such as, voltage and/or current readings, time duration, Pass/Fail results and equipment settings. Non-quantified Pass/Fail results shall not be acceptable.
   7. Signature of the Signal Engineer directing and witnessing the test.

G. Test required by 49 CFR Part 234 shall be recorded on a form compliant with that Part. Test forms shall be signed and dated by the responsible individual directing/completing the test. Individuals performing the tests shall be qualified and experienced. The Engineer may at any time request a retest, at no additional cost to MTS, if the Engineer deems the individual that completed the test was not qualified or experienced.

3.5 WIRE AND CABLE TESTS

A. Ground Verification Test. This test shall verify that the ground resistance at each location is less than 5 ohms.

B. Cable Verification Test. This test shall ensure that each exterior cable conductor is correctly installed, has correct nomenclature and is continuous from end to end.

C. Cable Insulation Resistance Test. This test shall ensure that each exterior cable conductor meets the minimum conductor-to-conductor and conductor-to-ground resistance.

D. The Contractor shall test all signal bonds and power bonds, to verify that the resistance across the rail connection is not greater than that specified herein.

3.6 GENERAL LOCATION Tests

A. The Contractor shall perform circuit breakdown tests to ensure all instrument enclosures and connections to field devices are as shown on circuit plans.

B. All metallic wiring shall be tested after installation to ascertain continuity and proper connection according to the circuit plans.

C. Where parallel circuits exist, the Contractor shall test each parallel path independently to verify the continuity of each path.

D. Each function shall be tested as a complete system or subsystem for the correct operation in response to circuit element or contact closure.

E. Equipment operating conditions shall be simulated to verify that circuits operate as designed.

F. Power Verification

1. All fuses shall be removed and all circuit breakers opened to ensure energy is removed from equipment and circuits supplied by the power source.
2. The Contractor shall verify that circuit breaker size and specification compares to that of approved circuit drawings.
3. All energy distribution shall be checked using resistance test instrument approved by the Engineer.
4. The Contractor shall verify that all wire gauges are as called for on approved circuit drawings and that the number of wires on each termination compares with the approved circuit drawings.
5. Check AC power for correct voltage levels and phasing where required.
6. Check all DC power for correct voltage levels.
7. Check and adjust transformer taps where required.
8. Each energy bus shall be tested to all other energy buses to ensure that no shorts, grounds or crosses exist.

9. Check circuit power failure alarms for proper indication to the local control panel, the code system, control office and event recorder.

G. The Contractor shall verify tags for proper nomenclature and terminal location.

H. The Contractor shall ensure all equipment is installed correctly at the location shown on the Contractor's submittals.

3.7 CROSSOVER LOCATION TESTS

- Omitted

3.8 AUDIO FREQUENCY OVERLAY (AFO) TRACK CIRCUITS

A. The Contractor shall perform the following tests and verify the indicated test results:

1. For each track circuit, determine the effectiveness of the filtering. With the transmitter disabled, measure any harmonic noise or crosstalk interference at the receiver to verify compliance with maximum crosstalk level requirements.
2. After adjustment ensure the track circuit is de-energized when shunted with a 0.2 ohm shunt at the receiving end. With the 0.2 ohm shunt removed, the track circuit shall operate normally. Perform the same test with the shunt at the center of the track circuit and again with the shunt placed at the transmitter end.

B. All tests and normal operating parameters shall be recorded for each track circuit and submitted to the Engineer.

3.9 AUDIO FREQUENCY (AF) TRACK CIRCUITS

A. The Contractor shall preform the following tests and verify the indicated test results:
1. For each track circuit, determine the effectiveness of the filtering. With the transmitter disabled, measure any harmonic noise or crosstalk interference at the receiver to verify compliance with the maximum crosstalk level requirements.
2. After adjustment, test track circuits as follows:

a. With a 5 ohm per thousand feet simulate ballast leakage, the track circuit shall de-energize when shunted with a 0.2 ohm shunt at the receiver end. With the 0.2 ohm shunt removed, the track circuit shall operate normally. Perform the same test with the shunt at the center of the track circuit and again with the shunt placed at the transmitter end.
b. After adjustment for proper operation, all track circuits shall be tested with a 0.2 ohm shunt to verify proper operation. Additional manufactures recommended testing shall be adhered to.

3. All test and normal operating parameters shall be recorded for each track circuit and submitted to the Engineer.

3.10 POWER FREQUENCY (AC) TRACK CIRCUITS

A. The Contractor shall preform the following tests and verify the indicated test results:

1. With a three ohm per thousand feet simulated ballast leakage, the track circuit shall de-energize when shunted with a 0.2 ohm shunt at the center of the circuit as well as at the feed and relay ends. With the 0.2 ohm shunt removed, the track circuit shall operate normally.
2. The track circuit shall de-energize when any one of the insulated joints defining the track circuit boundaries is shunted.
3. The track circuit relay shall be de-energized when the feed end or relay end of the circuit is disconnected. The track circuit relay shall also be de-energized when the local reference voltage is de-energized.
4. The normal operating parameters and track circuit leakage shall be recorded and submitted to the Engineer.

3.11 INSULATED JOINTS

- Omitted

3.12 SWITCH APPURTENANCES INSULATION TEST

- Omitted

3.13 SWITCH FOULING CIRCUITS

- Omitted

3.14 EVENT RECORDER

- Omitted

3.15 SIGNAL SYSTEM DEMONSTRATION TESTS

A. Failure of a component, of the signaling system, to successfully complete a test shall be cause for rejection and the Contractor shall adjust the component and repeat the test where possible. Should the equipment fail to perform properly on the re-test, or the equipment is not adjustable, the equipment shall be replaced. The Contractor shall reimburse SDTI for its cost associated with retesting.

B. This test shall be performed by simulating train movements using manual track occupancies to test the overall functioning and safety of the signaling and highway crossing warning systems. The Contractor shall include simulated unusual conditions to determine that the crossover equipment will respond in a safe manner. All of the functions of the complete signaling system shall be exercised, including as a minimum:

1. Detection of all revenue vehicles on signaled mainline tracks.
2. Automatic, local control panels, route selectors, and TWC operations.
3. The elimination of conflict arising from two vehicles simultaneously requesting routing through a particular crossover.
4. Determining that all wayside hardware will be safe for the vehicle prior to permitting any route to be traversed.
5. Automatic or train-to-wayside (TWC) device routing for all routes at terminals.
6. The Contractor shall perform tests required to demonstrate compliance with electromagnetic compatibility criteria.

3.16 DYNAMIC OPERATIONAL TESTS

A. The same functions as specified in Article 3.16 of this Section shall be tested using actual vehicles, including safe braking for only the shortest effective braking distance. SDTI will provide LRVs and the operators, the Contractor shall provide all equipment, wiring and interface for this test.

3.17 REQUIRED CONTRACTOR SUPPORT

A. The Contractor’s Signal Engineer and Application Software Engineer shall be on site for the duration of the testing specified in Article 3.16 of this Section. The Contractor shall also make available, on site, a qualified representative of the signaling system hardware manufacturer, within 48 hours of an initial request by the Engineer, prior to Engineer acceptance of the signaling system. These services shall be at no additional cost to MTS.

B. The Contractor shall make available to the Engineer all staging equipment and material during testing to facilitate replacement of defective equipment.

C. To ensure the time required, to cutover signal systems handling revenue operation, is as short as possible the Contractor shall:

1. Have personnel mobilized not less than one hour prior to the scheduled start of the cutover.
2. Have the Signal Engineer and Application Software Engineer in attendance at the cutover control point.
3. Make allowance for rotating personnel during shift changes.

4. Provide qualified manpower to each location involved in the cutover testing, as required, to adequately complete all required testing and to make adjustments, changes or corrections to the installation to successfully complete the testing.
5. Provide enough qualified personnel to provide replacement personnel on a 12 hour shift basis for the entire length of the cutover. This also applies to the Contractor's Signal Engineer, Application Software Engineer, as required.
6. The Contractor's personnel shall be prepared to make any changes or adjustments to equipment, apparatus or wiring as deemed necessary.
7. The Contractor shall equip personnel with two-way radio units at each location.
8. The Contractor's personnel shall undergo SDTI safety training at the Contractor's expense and observe SDTI Safety Rules while on MTS Property.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Block Signal and Highway Grade Crossing Warning Systems Testing.

4.2 PAYMENT

A. Full compensation for Block Signals and Highway Grade Crossing Warning Systems shall be considered as included in the contract price paid per each various items, therefore no separate payment will be made.

END OF SECTION 344213.28

SECTION 344213.29

ABANDONMENT, DEMOLITION, REMOVAL AND DISPOSAL OF EXISTING SIGNAL SYSTEM FACILITIES

PART 1 - GENERAL

1.1 SUMMARY

A. Description:

1. All facilities identified in yellow “out” on the Contract Plans Train Control plan sheets and described in this Section shall be removed and disposed of by the Contractor as described herein, and in compliance with applicable standards unless directed otherwise by the Engineer.
2. All facilities not identified on the Contract Plans or described in this Section to be removed, shall be protected in place.

B. Section Includes:

1. Abandonment
2. Demolition
3. Removal and Disposal of Existing Signal System Facilities

1. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:
   a. Section 344213.13 – General Railway Signal Requirements
   b. Section 344213.14 – Route Control Equipment
   c. Section 344213.17 – Track Circuits
   d. Section 344213.18 – Instrument Shelters
   e. Section 344213.19 – Signal System Grounding
   f. Section 344213.20 – Relays
   g. Section 344213.21 – Miscellaneous Signal System Products
   h. Section 344213.27 – Painting and Galvanizing
   i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
   j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
   k. Section 344216 – Train Control Wire and Cable
   l. Section 344219.01 – Vital Logic Controller
   m. Section 344223 – Railway Control Equipment

1.2 SUBMITTALS

A. The Contractor shall submit an Abandonment, Demolition, Removal and Disposal of Existing Signal System Facilities Plan related to the existing signal system. The Plan shall be submitted at least 60 calendar days prior to beginning the Work identified in this section of Specifications, work shall not begin until the Engineer has approved the Plan.

1.3 QUALITY ASSURANCE

A. Salvaged equipment and materials shall be protected from theft and damage until such time the materials are delivered and unloaded at the MTS yard.

B. The Contractor shall not damage or destroy this material and shall protect all salvaged material during the demolition and removal work. The Contractor shall not reuse any removed material without the Engineer's written approval.

C. Existing facilities to be salvaged shall be immediately loaded onto trucks and removed to their predetermined salvage location. No stockpiling of said materials shall occur on MTS property without the expressed approval of the Engineer.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 EQUIPMENT TO BE REMOVED AND SALVAGED

A. All equipment identified to be salvaged shall be removed and delivered to MTS for storage and reuse, unless otherwise directed by the Engineer. The Contractor shall contact MTS Assistant Superintendent of Wayside Maintenance to arrange for delivery to a San Diego Trolley Maintenance Facility in San Diego, CA. The Contractor shall contact MTS Assistant Superintendent of Wayside Maintenance a minimum of 5 working days prior to delivering and unloading the materials at the MTS storage facility. The Contractor shall provide a complete log of materials delivered. The Contractor is responsible for providing all necessary equipment to safely unload salvaged materials at the MTS storage facility.

B. The equipment listed below shall be salvaged and delivered to the MTS at a point within 10 miles of the project limits. Material salvaged shall be carefully removed and properly packaged for shipment and storage. All other materials shall become the property of the Contractor and disposed of in accordance with federal, state and local ordinances and as specified in these Specifications.

1. S7 Modules (Including CPUs, I/O Modules, COMs)
2. ACM100 Modules
3. ACM100 Wheel Sensors

C. Items to be protected in place that are damaged during demolition shall be repaired or replaced as directed by the Engineer at no cost to the MTS. Items to be salvaged that are damaged during removal shall be repaired or replaced as directed by the Engineer at no cost to the MTS.

3.2 REMOVE AND DISPOSE OF EXISTING FOUNDATIONS

- Omitted

3.3 EXISTING CASES (RETIRED)

- Omitted

3.4 EXISTING RAIL CONNECTIONS (RETIRED)

A. The Contractor shall remove existing rail connections not required in the final layout in a manner as described below.

1. Where rail connections consist of welded connection to the rail, the Contractor shall grind off the connection completely and grind the weld level with rail surface.

3.5 EXISTING SIGNAL WIRE AND CABLE (RETIRED)

A. Except as may be otherwise shown on the Contract Plans or specified in these Specifications, the Contractor shall remove and dispose of all existing aerial and underground signal wire and cable not required in the temporary or final layout. The Contractor shall remove the wire and cable complete, including all brackets, supporting galvanizing strand wire and fastenings. All existing underground direct buried cable and cable that cannot be pulled out of existing conduit shall be cut at a minimum of 6 inches below the finish grade.

B. All materials removed shall be disposed of by the Contractor as described in this section.

C. To facilitate the work of the final changeover at certain existing pieces of equipment where new cable is to be installed to replace the existing cable, the Contractor shall remove existing cable from the equipment housing and pull it into the equipment housing again, through the door or handhole rather than the regular cable entrance and temporarily reconnect it to the equipment. During this period, which shall be kept to a minimum, the Contractor shall provide ample protection to the material and equipment so as to prevent the entrance of rain, snow, foreign materials of any kind, or anything, which may cause or tend to cause signal interruptions or interferences, or create or tend to create fire hazards. At the time of the final change-over the new cable installed shall be connected to the equipment and the existing cable disconnected and removed.

D. Where cable or wire in duct or conduit is to be removed from service, it shall be removed completely from the conduit or duct and the duct or conduit entrances shall be sealed, all as approved by the Engineer. If the actual movement for withdrawal of the cable cannot be initiated within thirty (30) minutes, after a Coffin Safety-Pull Ratchet Lever Hoist ("come along") exerting a force of up to three thousand (3,000) pounds has been applied and the cable shall not move, the Contractor shall notify the Engineer and request permission to abandon the cable in the conduit or duct. If permission is granted, three (3) feet of cable shall be left protruding from each end of the conduit or duct and the conduit or duct entrances around the abandoned cable shall be sealed. The work described in this paragraph shall be performed only in the presence of the Engineer's representative.

3.6 EXISTING MESSENGER WIRE (RETIRED)

A. The Contractor shall remove all existing messenger wire, except those portions of messenger wire supporting existing cable, which is retained in the temporary or final layout. The Contractor shall remove the messenger wire, including supporting brackets, deadends, insulators, century brackets, hooks, clamps, bolts and other appurtenances.

3.7 EXISTING CONDUIT (RETIRED)

A. The Contractor shall remove existing exposed conduit and pole mounted junction boxes containing cabling related to the existing signaling system that will not be used as part of the final signaling system configuration. The Contractor shall remove the conduit, junction boxes, including all conduit fittings, mounting assemblies and hardware, fastening materials, banding, special brackets and all other appurtenances associated with the signaling system conduit system to a minimum depth of 6 inches below finish grade.

B. Where it may be necessary to remove conduit that is buried in concrete that is to remain in place, the conduit shall be removed to a point below the top of the concrete. The hole shall be filled with concrete and neatly grouted.

C. Where conduits are buried in earth, the conduit shall be removed two feet down from top of grade. The conduits under tracks shall be abandoned.

3.8 EXISTING CONCRETE FOUNDATIONS (RETIRED)

- Omitted

3.9 EXISTING INSULATED JOINTS (RETIRED)

- Omitted

3.10 EXISTING MATERIAL AND EQUIPMENT (RETIRED)

A. The Contractor shall remove no longer used material and equipment from the cases. All relays including bases and other equipment specified for salvage shall be removed, properly packaged and shipped for storage. All other equipment shall be disposed of as specified in these Specifications.

B. The Contractor shall plug all holes left in structures and rail ties resulting from the removal of equipment fasteners and shall paint all steel exposed when equipment is removed.

C. At locations where track cases are to be removed, the Contractor shall remove the rail connections and track leads and abandon the conduit in place unless it interferes with final signal layout or structure, in which case the conduit shall be removed. Where the cases are mounted on the concrete floor by means of expansion bolts, the bolts shall be extracted and the concrete finished to conform with the rest of the structure in a manner approved by the Engineer.

D. Rail connections consisting of steel pins driven into the rail shall be removed by driving the bond pins from the rail. Where rail connections consist of clamps, the Contractor shall remove the clamps.

E. Rail connections connected to a solderless connector, which is fastened by means of nuts to a threaded tapered pin driven into the rail, shall be removed by backing off the nuts on the tapered pin and driving the pin from the rail by using a rail connector starting tool and a three pounds hammer.

F. Welded rail connections shall be removed by grinding off the connection, for 6 AWG and larger cable, otherwise the connection can be removed without grinding. The Contractor shall remove the rail connections completely including wire, conduit, fittings, cast-iron bootleg riser and junction boxes, all as approved by the Engineer.

G. Where existing cable or wire is buried in the ground it shall be cut 6 inches below finish grade and the remaining buried cable shall be abandoned in place unless it interferes with final signal layout or structure. The Contractor shall not leave any portions of the cable above ground.

H. The Contractor shall remove all supporting brackets, dead-ends, insulators, century brackets, hooks, clamps, bolts, unnecessary downguy assemblies and other appurtenances when wire or cable is removed.

I. The Contractor shall remove existing exposed conduit not required in the temporary or final layout, including all conduit fittings, all mounting, banding and fastening materials and special brackets. The Contractor shall fill all holes and paint all surfaces exposed by the removal of the conduit.

J. Where equipment has been removed and conduit stub-up(s) are no longer required and the Engineer determines the existing pavement shall be protected in place, the conduit shall be removed to a point one inch (1 inch) below the top of the concrete. The hole shall be filled with concrete and neatly grouted.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities.

4.2 PAYMENT

A. Full compensation for Abandonment, Demolition, Removal and Disposal of Existing Signal System Facilities shall be considered included in the contract price paid per each various items; therefore no separate payment will be made.

END OF SECTION 344213.29

SECTION
344216

TRAIN CONTROL WIRE AND CABLE

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes furnishing and installing all cable and wire required for signal and signal power system wiring to wayside signals, junction boxes and factory wired mechanisms. Cables shall be furnished and installed as specified herein and as shown on the Contract Plans.

B. Section Includes:

1. Train Control Wire and Cable

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. ASTM International (ASTM):

1. ASTM B3 – Soft or Annealed Copper Wire
2. ASTM B8 – Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
3. ASTM B33 – Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes
4. ASTM D3159 – Modified ETFE-Fluoropolymer Molding and Extrusion Materials

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. Product Data: Manufacturer's catalog cuts, material descriptions and specifications for each type of wire and cable the Contractor proposes for use.

C. Submit the results following tests conducted during manufacturing of all applicable wires and cable:

1. Conductor size and physical characteristics.
2. Insulation HV and IR tests.
3. Physical dimension tests.
4. Special tests on materials in coverings.
5. Final HV, IR and conductor resistance tests on shipping reels.

1.4 QUALITY ASSURANCE

A. Material and workmanship shall be of the highest quality, assuring durability for minimum life expectancy of 40 years. Cables to be furnished and installed shall be suitable for use in the environment to be encountered on a railroad signal system and shall be certified for continuous operation at 75 degrees Celsius, in wet or dry locations, with no conductor failing in continuity or with loss of insulation to cross or ground less than one meg-ohm.

B. Cable manufacturer's qualifications shall be as follows:

1. Past Performance and Experience: Demonstrated previous successful experience in supplying cable to the railway or transit industry for use as vital signal control cables. A list of such installations shall be provided for each cable manufacturer to be considered.
2. Quality Control Program: The manufacture of cables in accordance with the requirements of this Specification shall be accomplished in compliance with a

Quality Control Program that meets the intent of the American National Standard Institute (ANSI)/American Society for Quality (ASQ) Standard C1; general reinstatement provided for in this subparagraph shall apply only to the first replacement or repair of any such item and, in the case of failure of major importance, to the first extension of the said warranty to said affected items.

3. The Engineer shall have the right to make inspections and tests, as necessary, to determine if the cable meets the requirements of this Specification. The Engineer shall have the right to reject cable that is defective in any respect.

1.5 DELIVERY, STORAGE AND HANDLING

A. Shipping, storage and handling shall be in accordance with AREMA C&S Manual, Part 10.4.1 and 10.3.17.

B. During storage and handling, prior to final conductor termination, cable ends shall be sealed to prevent the entrance of moisture.

C. Any instance of damaged cable observed at any time, whether prior to installation, occurring during construction, or discovered by test observation subsequent to installation, shall be immediately called to the Engineer's attention in writing by the Contractor. The method of correction shall be in accordance with the Engineer's written instruction. The Contractor shall promptly repair such damage and re-test the cable per approved procedures and re-submit the results for Engineer's review.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Internal Wire and Cable:

1. Individual cable makeup and conductor sizes shall be as shown on the Contract Plans.
2. Internal wire shall be Okozel type Z manufactured by Okonite Co. or approved equal.
3. Unless otherwise specified herein, internal wire and cable shall conform to AREMA C&S Manual, Part 10.3.14.
4. Conductors shall be soft and annealed copper per ASTM B3 and tin coated in accordance with ASTM B33.
5. Stranded conductors shall be in accordance with ASTM B8, Class B.
6. Signal instrument shelter and case internal wire and cable insulation shall conform to AREMA C&S Manual Part 10.3.24, unless otherwise specified herein and the following requirements:

    a. Insulation shall be modified ethylene tetrafluoroethylene (ETFE) conforming to ASTM D3159, unless otherwise specified.
    b. The minimum insulation rating shall be 600 volts.

7. Wiring within an instrument shelter shall be neatly arranged and laced or enclosed in plastic tubing or raceway; be properly tagged and labeled; and shall have sufficient slack as described in Part 10.4.1 of the AREMA C&S Manual. Stranded conductors shall be terminated with compression type eyelet terminals and installed using compression crimping tool which prevents opening of the handles until the crimp is completed. Solid wire shall be formed in eyelets using a proper eyelet forming tool. In forming the eyes or applying terminals to the ends of wires, the wires shall not be nicked or twisted.

B. External Wire and Cable:

1. General

a. Individual cable makeup and conductor sizes shall be as shown on the Contract Plans.
b. Conductors shall be soft or annealed copper per ASTM B3 and tin coated in accordance with ASTM B33.
c. Stranded conductors shall be in accordance with ASTM B8, Class B.

2. Track Wire

a. Track wire shall be two single conductor No. 6 AWG solid jacketed wires twisted two turns per foot. Track wire shall be Okonite-Okolene manufactured by Okonite Co. or approved equal.
b. Where not otherwise specified herein, track wire shall be underground type that meets the requirements of AREMA C&S Manual, Part 10.3.16. Track wire jacket shall be polyethylene and the insulation shall be ethylene- propylene. Jacket and insulation average thickness shall not be less than the following minimums:

1) Jacket = 60 mil.
2) Insulation = 90 mil.

c. Frauscher Axle Counter cables shall be as specified in Contract Drawings.

3. Cable in Conduit

a. Cable to signals, switches, highway warning devices and express cable between instrument shelters shall be Underground Signal Cable manufactured by Okonite Co. or approved equal. All cable between the shelter and the equipment, including direct burial cable, shall be installed in conduit and pull boxes, except at rail connection points shown on the Contract Plans.
b. Conductors number 6 AWG and greater shall be solid. Conductors number 4 AWG and lessor shall be stranded.
c. Unless otherwise specified herein, direct burial cable shall meet the requirements of AREMA C&S Manual, Part 10.3.17. Cable conductors shall be printed with a number for easy identification of the conductor. Conductor insulation shall be ethylene-propylene rubber and cable jacket shall be made of polyethylene. Jacket and insulation average thickness shall not be less than the following minimums:

i.	3 Conductor No. 6 AWG	Jacket = 95 mil	Insulation = 80mil
ii.	5 Conductor No. 6 AWG	Jacket = 95 mil	Insulation = 80mil
iii.	7 Conductor No. 6 AWG	Jacket = 95 mil	Insulation = 80mil
iv.	7 Conductor No. 9 AWG	Jacket = 80 mil	Insulation = 60mil
v.	7 Conductor No. 14 AWG	Jacket = 95 mil	Insulation = 60mil
vi.	12 Conductor No. 14 AWG	Jacket = 95 mil	Insulation = 60mil

d. Power Cable:

1) Power cable shall be three (3) Conductor No. 2 AWG Armored Underground Signal Cable as manufactured by Okonite CO., Catalog No. 206-11-6130 or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION – CABLES ENTERING INSTRUMENT SHELTERS

A. Exterior cable entering instrument shelters and junction boxes shall have sufficient length to extend to within 6 inches of the top of the instrument shelter and then run down to the applicable terminal post at which it is terminated. Cables shall be neatly arranged and laced or enclosed in plastic tubing or raceway; be properly tagged and labeled; and shall have sufficient slack as described in Part 10.4.1 of the AREMA C&S Manual. Stranded conductors shall be terminated with compression type eyelet terminals and installed using compression crimping tool which prevents opening of the handles until the crimp is completed. Solid wire shall be formed in eyelets using a proper eyelet forming tool. In forming the eyes or applying terminals to the ends of wires, the wires shall not be nicked or twisted.

3.2 UNDERGROUND CABLE INSTALLATION

A. General

1. The installation of wire and cable shall conform to AREMA C&S Manual Parts 10.4.1 and 10.4.30, except as specified herein.
2. Underground cable and track wire shall be routed through conduit and pull boxes between equipment shelters and from equipment shelters to switch apparatus, signal junction boxes, warning device junction boxes, pole junction boxes, track hand holes, meter services and other apparatus. Provide sufficient cable slack in pull boxes for relocation of apparatus up to 5 feet.
3. The Contractor shall provide 48 hours (or two working days) notice to the Engineer prior to installing any cables.
4. Provide sufficient slack in cable conductors at all terminating posts to enable three re-terminations of the conductor, due to broken eyelets without resurfacing or re-pot heading the cable.
5. In certain types of installation, the cable cannot be constrained; therefore, ample cable slack shall be provided for additional flexibility due to vibration of such equipment.
6. Cables shall not be bent to a radius less than manufacturer's recommendation. Sheaves shall be used where necessary during installation to maintain minimum bending radius.
7. Distribution cable runs shall be continuous without splices between cable terminating locations. Express cable runs longer than cable lengths shall be terminated in a junction box, instrument case, or other acceptable shelter.
8. Individual cable conductors shall be identified at each cable termination with plastic tags, as specified in these Specifications. All spare conductors in each cable shall be identified and terminated.
9. Cable entrance openings in equipment enclosures and junction boxes shall be sealed with either compression type fitting or pliable sealing compound after the cable is in place. Sealing compound shall be used to seal the area around cable where the cable emerges from the end of a conduit or pipe. All spare conduits shall be sealed or plugged.
10. Wherever multiple conductor cables are terminated, the outer sheath of the cable shall be carefully removed to a minimum point of 3 inches from the cable entrance. At the end of the cable sheath or covering, two layers of plastic electrical tape shall be applied.
11. All cable conductors shall be terminated in conductor sequence from top to bottom.
12. The pot heading of buried cables shall be applied whenever cable is terminated in signal equipment and such termination is within two feet of the grade level. This neoprene and seal pothead shall be installed in accordance with the manufacturer's instructions.
13. Cables shall not cross one another when they are pulled into a conduit or pipe and care shall be taken not to have the conductors pulled tight or kinked in conduit fittings or boxes. All cables to be installed in a conduit or pipe shall be pulled and installed simultaneously.

B. Special Protection

1. Provide appropriate special protection for cables in areas where the cables are unavoidably exposed to hazardous conditions, such as vibration or sharp corners on equipment. The Contractor shall be responsible for replacing, at no additional cost to MTS, any cable that is installed but subsequently damaged prior to acceptance as a result of the Contractor's failure to provide such special protection.

C. Aerial Installations

1. Aerial cables used in conjunction with contract plans shall so be rated and shall be installed as shown in contract drawings. Aerial Cables shall be lashed to existing messenger wire, if necessary existing cables shall be unlashed and re-lashed with the new cable(s).

3.3 TESTING

A. All installed external cable shall be tested in accordance with the requirements of Section 344213.28, Block Signaling and Highway Grade Crossing Warning Systems Testing and AREMA C&S Manual, Part 10.4.30.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. The quantity for Train Control Wire and Cable shall be measured by each, complete in place, as shown on the plans.

4.2 PAYMENT

A. The contract price paid per each Train Control Wire and Cable shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved to furnish and install train control wire and cable, complete in place, including testing, in accordance with the Plans and as directly by the Engineer.

END OF SECTION 344216

SECTION 344219.01

VITAL LOGIC CONTROLLER

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes furnishing, programming, installing, testing and documenting a vital microprocessor-based controller that provides the functionality as shown on the Contract Plans.

B. Section Includes:

1. Vital Logic Controller

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

B. The following parts of the Code of Federal Regulations (CFR), Title 49, Transportation shall apply:

1. 49 CFR Part 234 – Grade Crossing Safety
2. 49 CFR Part 236 – Rules, Standards, and Instructions Governing the Installation, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. The Contractor shall provide 5 copies of software development instruction and maintenance manuals required to create or modify vital and non-vital application logic for the proposed controller system. The Contractor shall provide 5 copies of the latest version of development, validation, complier and LCP graphics development software.

C. The Contractor shall submit application logic software reports to the Engineer for approval.

D. The Contractor shall submit detailed factory test procedures to the Engineer a minimum of 60 calendar days prior to factory testing.

1.4 QUALITY ASSURANCE

A. The controller shall be programmed and tested in accordance with all applicable requirements of 49 CFR, Part 234, Part 236 and AREMA C&S Manual. The Contractor shall perform operational testing of the equipment in accordance with the requirements specified herein.

1.5 DELIVERY, STORAGE and HANDLING

A. Solid-state modules shall be shipped separately from the wired card cages. Modules shall be packaged individually in a sturdy carton with the type of module printed on the outside of the carton. All materials shall be stored in a protected area until installed.

PART 2 - PRODUCTS

2.1 LOGIC CONTROLLER

A. New logic controllers shall be an ElectroLogIXS Vital Logic Controller as manufactured by ALSTOM or approved equal.

B. The logic controller shall be capable of operating 12/24 VDC vital and non-vital relays. Vital input/output modules shall accommodate a minimum of 8 inputs and 6 outputs from a single module.

C. The software associated with assuring the vitality of the system shall be an inherent part of the basic controller system and shall not be accessible for modification by the user. Changes to the application logic installed in the system shall not require re-verification of the software associated with assuring system vitality. The application logic shall be protected so that it is user modifiable by authorized personnel only.

D. The program compiler used in developing the site-specific application logic software shall be designed to allow the user to construct individual logic equations utilizing “ladder-logic” display elements. Reports generated by the compiler shall provide the user with a complete and detailed description of the system configuration including, but not limited to, module location assignments, internal timer settings, auxiliary input/output assignments, vital lamp output assignments, CTC control and indication bit assignments, electronic track code circuit assignments, data recorder equation selection, remote input/output assignments, and module plug-connector pin assignments.

E. The logic controller shall provide event recording. The event recording shall be designed so that the correct time is maintained when the vital logic and/or code system equipment is reset or powered down. The event recording equipment shall have sufficient storage capacity to store a minimum of 100 train movements, recording user selected status changes along with diagnostically important internal status changes.

F. The logic controller shall interface with Frauscher FAdC Axle Counter System via RP COM card with a serial interface.

G. The failure of an output shall not cause loss of functions not associated with those of the failed module.

H. The logic controller shall operate from a standard 12 VDC signal battery supply. Any special power supply filtering devices required for reliable operation shall be provided as a part of the system.

I. The logic controller shall be furnished with the latest version of the manufacturer’s executive software at the date on which it is placed in service.

2.2 LOCAL CONTROL PANEL

A. The Local Control Panel shall be composed of two components, a local control panel board and a local control panel computer.

B. Local Control Panel Board

1. The local control panel shall be the QLCP-NET with Ethernet port manufactured by QuEST Rail,LLC or approved equal.
2. The local control panel board shall have the ability to communicate via RS-232, RS-485, 2000 Vrms isolated Current Loop and Ethernet, with support for Ansaldo PEER protocol and Alstom LCP protocol.
3. The local control panel board shall contain an integrated power supply compliant with AREMA Wayside Class C requirements.
4. The local control board shall be capable of being configured via a USB port.
5. The local control panel board shall provide 128 physical inputs and 128 physical outputs.
6. The local control panel board shall be capable to be configured as a soft local control panel. The software for building and operating the soft local control panel shall be opened sourced, allowing the client or end user to make modify LCP designs. The software shall not require licensing. The software shall have the ability to program passcodes to protect soft controls.
7. The local control panel board shall be housed in an aluminum enclosure that is rack mountable.

C. Local Control Pan Computer

1. The local control panel computer shall be part number VTPC190R NEMA 4 9U rack mount all-in-one LCD computer manufactured by Vartech Systems, Inc. or approved equal.
2. The local control panel computer shall have a 19” ARMOR touch resistive screen or approved equal where a stylus, finger or glove may be used for operation. The touch shall be waterproof, chemical and scratch resistant, have a hardness of 6.5 Mohs, and allow for over 200 million touches.
3. The local control panel computer shall have a reliability rating of 100,000 MTBF.
4. The local control panel computer shall be equipped with an Intel Celeron 2.0 GHz Quad Core Processor, 2 GB DDR3L-1333 system Memory, 512 Solid State Hard Drive, Window 10 Professional operating system, 12 volts DC isolated power input, an On/Off Button mounted on the front panel and conformal coating of internal electrical boards.

2.2 SIGNAL NETWORKS

A. The following Signal Networks shall be provided with the system:

1. Two dedicated signaling networks shall be provided: a vital signal network and a signal maintenance network. Additionally, a connection to the central control office shall be available at all interlockings.
2. The vital network shall be a closed, protected network for the transmission of vital signal information between signal locations. This shall be a 2-fiber single mode (2SM) fiber optic transmission system. The signal supplier shall provide hardened, industrial communication switches, which provide the interface between the fiber system and the signaling equipment. The interface to the signaling equipment shall be Ethernet. An additional port shall be provided in each signal room, which provides for the ability to access the CPUs and programs in other locations.
3. The maintenance network shall provide for remote access to the VLCs. The signal supplier shall provide hardened, industrial communication switches, which provide the interface between the fiber system and the equipment. The interface to the equipment shall be Ethernet.
4. The interface to the central control office shall be either an RS232 or Ethernet connection provided by the signal equipment. Protocol shall be Genisys.
5. The Contractor shall review the Contract Plans and make any equipment additions, modifications, or adjustments to the networks to ensure efficient and reliable service.

2.3 APPLICATION LOGIC

A. The application logic has been developed outside of this project; modifications required upon testing will be required shall be undertaken by the contractor.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

A. The logic controllers shall be wired and installed as shown on the Contract Plans.

B. Each item shall be protected from damage or loss during handling and shipment. All test and diagnostic equipment shall be provided at least 30 calendar days prior to installation.

C. Each controller unit shall be clearly identified on the packing crate, referencing its intended location.

D. The Contractor shall provide warranty from defects arising from defective parts and workmanship for 1 year from the first date of service.

3.2 TESTING

A. The Contractor shall install and perform all applicable tests in accordance with Section 344213.28, Block Signaling and Highway Grade Crossing Warning Systems Testing to ensure that the logic controller software has been installed and made operational as part of the operating signal system. Verification of such tests made shall be provided to the Engineer.

B. The Contractor shall conduct tests as specified in AREMA C&S Manual Parts 2.4.1 and 7.4.1, to ensure proper operation of the signal system.

C. The Contractor shall conduct tests to ensure that the grade crossing system conforms to 49CFR, Part 234.

3.3 SOFTWARE CONTROL REQUIREMENTS

A. The Contract Documents require the Contractor's Application Software Engineer to conform to all requirements of the MTS Software Control Requirements document and submit all required documentation described in the MTS Software Control Requirements: including but not limited to:

1. At existing Processor Based Signaling locations where software will be updated, a request for all existing locations shall be submitted to the MTS Software Configuration Manager.
2. List of locations where the software will be installed.
3. Not less than 40 working days prior to a system cutover or commissioning of a new line segment, the Contractor's Application Software Engineer shall:
    a. Submit to MTS Software Configuration Control Manager (SCCM) via the Engineer, difference reports that show both the original logic equation(s) and the modified equation(s) for all locations that will contain modified software. Each difference report must include the CRC of the original program and the CRC of the new program;
    b. Submit to MTS SCCM and the Engineer software, difference reports, and logic/hardware printouts files on a DVD clearly marked with the line segment and date;
    c. Submit to MTS SCCM and the Engineer a list of the new locations and/or existing locations where software has been modified with all required submissions to the SCCM;
    d. Submit to MTS SCCM and the Engineer copy of the software that has successfully passed Factory Acceptance Testing (FAT) on a DVD, hard drive, or approved equivalent;
    e. Submit to MTS SCCM and the Engineer logic/hardware printouts of the new and revised programs;
4. A minimum of 5 working days prior to a system cutover or commissioning of a new line segment, the Contractor's Application Software Engineer shall confirm that the SCCB has approved or is expected to approve the SCR prior to the cutover or commissioning of a new line segment.

5. Should the SCCB not take action prior to the planned system cutover or commissioning of a new line segment, then a minimum of 5 working days prior to the planed system cutover or commissioning of a new line segment, the Contractor's Application Software Engineer shall notify the Contractor's management, the Contractor's Signal Engineer, the MTS Systems Engineer, and the Engineer informing them that the planned system cutover or commissioning of a new line segment must be rescheduled since the SCR would not be approved in advance of the cutover or commissioning of the new line segment.
6. The Contractor's Application Software Engineer shall submit difference reports to the SCCM and the Engineer if any modifications are made to the software during or after in-service testing; and
7. Software, logic/hardware printouts, and difference reports shall be submitted to the SCCM on a DVD within 5 working days of placing any software in-service.

B. The Contractor shall follow the Mid-Coast Systems Safety Certification Plan. The MidCoast systems Safety Certification Plan includes Certificates of Conformance to be signed by MTS's SCCB members prior to a system cutover or commissioning of a new line segment.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Vital Logic Controller.

4.2 PAYMENT

A. Payment for procurement of Vital Logic Controller shall be included in the contract price.

END OF SECTION 344219.01

SECTION 344223

RAILWAY CONTROL EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes requirements for Contractor furnished equipment related to all Sections within 34 as required for a complete and operating train control and highway grade crossing warning system.

B. Section Includes:

1. Railway Control Equipment

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein and other sections within Section 34 42, Transportation Signaling and Control.

1.4 QUALITY ASSURANCE

A. All materials and equipment for installation and for interconnection of the various systems shall be fabricated, furnished and installed as shown on the Contract Plans and specified herein. Signaling materials and equipment shall be the products of manufacturers regularly engaged in the production of such material and equipment and shall be the manufacturer's latest design. All "or equal" equipment or materials, not shown on the Contract Plans but proposed by the Contractor, shall have shown proven performance in the United States of America for a minimum of 3 years. Materials and equipment shall be delivered to the jobsite in unbroken packages, reels, or other forms of containers.

B. All materials and equipment provided by the Contractor shall be new. All materials and equipment shall conform to the recommendations of AREMA C&S Manual, except as modified in the Specifications and Contract Plans.

C. Reference to specific equipment and/or manufacturers is intended to establish quality, overall design and fit, subject to compliance with all criteria specifications. Certain equipment shown on the Contract Plans and indicated in the Specification shall be required to ensure compatibility with the existing system. Equipment equal to or exceeding the Specifications and requirements may be used subject to the Engineer's written acceptance. Should alternate equipment be approved, the Contractor shall perform all necessary work to fit the alternate equipment to these Specifications and to revise the Contract Plans at no additional cost to MTS.

PART 2 - PRODUCTS

2.1 EQUIPMENT - ENVIRONMENTAL PARAMETERS

A. All Contractor provided material and equipment shall be fully operable with no impairment resulting from the effect of the environment throughout the range of worst values indicated below. The general operating environment shall be considered to be in coastal atmosphere and in generally sunny weather.
   1. Ambient outdoor temperature range: from negative 40 degrees Celsius to plus 70 degrees Celsius.
   2. Relative humidity range: from 0 to 100 percent.
   3. Maximum rainfall: 4 inches in 24 hours and 1.5 inches in 1 hour.
   4. Maximum wind velocity: 100 miles per hour.
   5. The project is in Seismic Zone 4 earthquake region (earthquake requirements in San Diego, CA region).
   6. Provisions shall be made to assure equipment within the instrument shelters and relay cases is securely anchored or otherwise fastened after the enclosure has been delivered to the job site and installed by the Contractor.
   7. Securing equipment shall not negate the requirements to maintain isolation between ground systems as otherwise called for in these Specifications.
   8. Isokeraunic level: five per year.

2.2 ELECTRICAL AND ELECTRONIC COMPONENTS

A. This Section specifies the requirements for the various electrical and electronic components to be incorporated within the signaling systems.

B. The Contractor shall design fusing of all DC power supplies and circuitry according to the following requirements:

1. Circuit breakers and fuses shall be the correct sideband rating for circuit current interruption and shall protect the electrical equipment and circuits from short-term and long-term overloads.
2. Fuses shall be sized to protect electronics and wire.
3. Fuses shall be in the positive leg of the power supply.
4. Fuses shall be of the nonrenewable indicating type.
5. All branch feeds for a circuit shall be from the same fuse so as to prevent fuse cascading due to branch fusing carrying loads for other circuits.
6. Fuses shall be no smaller than 5 amperes unless otherwise shown on the Contract Plans.
7. Loads shall be divided so that no normal operating current is more than 75 percent of the fuse rating.
8. Fusing shall be functionally oriented to minimize the equipment affected by a blown fuse (i.e., per track, switch control circuits, etc.)
9. Fuse clips shall be constructed to retain their resilience under all installation and service conditions and to ensure a positive contact between the clips and the fuse.

C. Printed Circuit (PC) Cards and Connectors shall be as specified in the following:

1. The PC cards shall be mounted in 19 inch Electronic Industries Alliance (EIA) standard racks unless otherwise specified for in the Specifications or approved by the Engineer.
2. The PC wiring shall be organized so that wires serving the same function shall be connected to the same terminal of PC cards. PC cards containing the same circuitry and programming, where applicable, shall be interchangeable between subsystems.
3. The design and construction of PC cards of the same subsystems shall be the same. Cards of different subsystems shall be of the same design and construction wherever practicable.
4. PC cards shall be of glass epoxy construction. Card material shall meet the requirements of NEMA, Type FR-4. Cards shall have sufficient thickness to permit easy insertion and removal and shall be physically keyed to protect against incorrect interchange. Circuits shall be formed by etching. Conductor material shall be copper and shall be protected from exposure to air.
5. PC cards containing components that may be damaged if a plug connector or plug-in unit is removed while the equipment is energized shall be clearly identified in the equipment maintenance manual. PC Addendum No. 2 cards shall be marked or labeled with a warning note on the individual board, be conspicuously located on the module, or by an alternate means as approved by the Engineer. A means shall be provided to remove power from the module or card file.
6. Components mounted on the PC card, weighing more than 1/2 ounce or with a displacement of more-than 1/2 cubic inch, shall have a mechanical supporting attachment to the card separate from all electrical connections.

7. Stacking or piggybacking of PC sections in order to accomplish changes or modifications to wiring or components on printed circuit cards shall not be allowed.
8. Connectors shall have plating with a minimum thickness of 0.00005 inch.

D. Printed Circuit card files shall be as specified in the following:

1. There shall be not more than one type of card file for each size of PC card. The card file plugboards shall be registered to agree with the registry of the associated PC card. PC cards shall not project beyond the front of the equipment rack when mounted in the card file.
2. Card files shall be installed in dustproof cabinets and protected with dust covers.
3. Insulated cable clamping devices shall be located on the back of the file in such a way that wires terminating in the files shall be installed in a neat and secure bundle, rigidly supported and protected to prevent chafing of insulation. Cabling provision on the file shall permit wires to enter or leave the file from both the right and left sides. Such cabling shall not restrict access to the card file when the rear covers of the card files are removed.

PART 3 - EXECUTION

NOT USED

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Railway Control Equipment.

4.2 PAYMENT

A. Payment for procurement of Railway Control Equipment shall be included in the contract price.

END OF SECTION 344223

SECTION 344223.1

RAILWAY AXLE COUNTER REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes requirements for Contractor furnished equipment related to all Axle Counter installations as required for a complete and operating train control and highway grade crossing warning system.

B. The Frauscher railroad axle counter system shall be designed and installed to accurately count and detect the passage of trains on the specified railway tracks. The system shall meet all necessary standards and regulatory requirements and provide reliable data for train detection and occupancy monitoring.

B. Section Includes:

1. Railway Axle Counters

C. Related Sections:

1. Submittal, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

a. Section 344213.13 – General Railway Signal Requirements
b. Section 344213.14 – Route Control Equipment
c. Section 344213.17 – Track Circuits
d. Section 344213.18 – Instrument Shelters
e. Section 344213.19 – Signal System Grounding
f. Section 344213.20 – Relays
g. Section 344213.21 – Miscellaneous Signal System Products
h. Section 344213.27 – Painting and Galvanizing
i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
k. Section 344216 – Train Control Wire and Cable
l. Section 344219.01 – Vital Logic Controller
m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. American Railway Engineering and Maintenance of Way Association (AREMA):

1. Communications & Signals (C&S) Manual of Recommended Practice

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein and other sections within Section 34 42, Transportation Signaling and Control.
B. As-built drawings and schematics of the installed system shall be submitted upon project completion.
C. The contractor shall furnish proof of compliance with safety and regulatory standards, including certification and test reports.

1.4 QUALITY ASSURANCE

A. All materials and equipment for installation and for interconnection of the various systems shall be fabricated, furnished and installed as shown on the Contract Plans and specified herein. Axle Counter Signaling materials and equipment shall be the products of Frauscher manufacturer and shall be the manufacturer's latest design as per contract drawings.

B. All Frauscher Railway Axle Counters shall be installed, calibrated, and tested under the direct supervision of certified/qualified Frauscher technician(s). All materials and equipment shall conform to the recommendations of AREMA C&S Manual, except as modified in the Specifications and Contract Plans.

C. Reference to specific equipment and/or manufacturers is intended to establish quality, overall design and fit, subject to compliance with all criteria specifications. Certain equipment shown on the Contract Plans and indicated in the Specification shall be required to ensure compatibility with the existing system. Equipment equal to or exceeding the Specifications and requirements may be used subject to the Engineer's written acceptance. Should alternate equipment be approved, the Contractor shall perform all necessary work to fit the alternate equipment to these Specifications and to revise the Contract Plans at no additional cost to MTS.

PART 2 - PRODUCTS

2.1 EQUIPMENT - ENVIRONMENTAL PARAMETERS

A. All Contractor provided material and equipment shall be fully operable with no impairment resulting from the effect of the environment throughout the range of worst values indicated below. The general operating environment shall be considered to be in coastal atmosphere and in generally sunny weather.
   1. Ambient outdoor temperature range: from negative 40 degrees Celsius to plus 70 degrees Celsius.
   2. Relative humidity range: from 0 to 100 percent.
   3. Maximum rainfall: 4 inches in 24 hours and 1.5 inches in 1 hour.
   4. Maximum wind velocity: 100 miles per hour.
   5. The project is in Seismic Zone 4 earthquake region (earthquake requirements in San Diego, CA region).

6. Provisions shall be made to assure equipment within the instrument shelters and relay cases is securely anchored or otherwise fastened after the enclosure has been delivered to the job site and installed by the Contractor as per Frauscher documented specifications when applicable. See Frauscher document D1414-6 and associated Frauscher manufacturer documents for mounting, commissioning, and maintenance needs for all axle counter equipment.

7. Securing equipment shall not negate the requirements to maintain isolation between ground systems as otherwise called for in these Specifications.
8. Isokeraunic level: five per year.

2.2 ELECTRICAL AND ELECTRONIC COMPONENTS

A. This Section specifies the requirements for the various electrical and electronic components to be incorporated within the signaling systems.

B. The Contractor shall design fusing of all DC power supplies and circuitry according to the following requirements:

1. Circuit breakers and fuses shall be the correct sideband rating for circuit current interruption and shall protect the electrical equipment and circuits from short-term and long-term overloads.
2. Fuses shall be sized to protect electronics and wire.
3. Fuses shall be in the positive leg of the power supply.
4. Fuses shall be of the nonrenewable indicating type.
5. All branch feeds for a circuit shall be from the same fuse so as to prevent fuse cascading due to branch fusing carrying loads for other circuits.
6. Fuses shall be no smaller than 5 amperes unless otherwise shown on the Contract Plans.
7. Loads shall be divided so that no normal operating current is more than 75 percent of the fuse rating.
8. Fusing shall be functionally oriented to minimize the equipment affected by a blown fuse (i.e., per track, switch control circuits, etc.)
9. Fuse clips shall be constructed to retain their resilience under all installation and service conditions and to ensure a positive contact between the clips and the fuse.

C. Printed Circuit (PC) Cards and Connectors shall be as specified in the following:

1. The PC cards shall be mounted in 19 inch Electronic Industries Alliance (EIA) standard racks unless otherwise specified for in the Specifications or approved by the Engineer.
2. The PC wiring shall be organized so that wires serving the same function shall be connected to the same terminal of PC cards. PC cards containing the same circuitry and programming, where applicable, shall be interchangeable between subsystems.
3. The design and construction of PC cards of the same subsystems shall be the same. Cards of different subsystems shall be of the same design and construction wherever practicable.
4. PC cards shall be of glass epoxy construction. Card material shall meet the requirements of NEMA, Type FR-4. Cards shall have sufficient thickness to permit easy insertion and removal and shall be physically keyed to protect

against incorrect interchange. Circuits shall be formed by etching. Conductor material shall be copper and shall be protected from exposure to air.

5. PC cards containing components that may be damaged if a plug connector or plug-in unit is removed while the equipment is energized shall be clearly identified in the equipment maintenance manual. PC Addendum No. 2 cards shall be marked or labeled with a warning note on the individual board, be conspicuously located on the module, or by an alternate means as approved by

   the Engineer. A means shall be provided to remove power from the module or card file.
6. Components mounted on the PC card, weighing more than 1/2 ounce or with a displacement of more-than 1/2 cubic inch, shall have a mechanical supporting attachment to the card separate from all electrical connections.

7. Stacking or piggybacking of PC sections in order to accomplish changes or modifications to wiring or components on printed circuit cards shall not be allowed.
8. Connectors shall have plating with a minimum thickness of 0.00005 inch.

D. Printed Circuit card files shall be as specified in the following:

1. There shall be not more than one type of card file for each size of PC card. The card file plugboards shall be registered to agree with the registry of the associated PC card. PC cards shall not project beyond the front of the equipment rack when mounted in the card file.
2. Card files shall be installed in dustproof cabinets and protected with dust covers.
3. Insulated cable clamping devices shall be located on the back of the file in such a way that wires terminating in the files shall be installed in a neat and secure bundle, rigidly supported and protected to prevent chafing of insulation. Cabling provision on the file shall permit wires to enter or leave the file from both the right and left sides. Such cabling shall not restrict access to the card file when the rear covers of the card files are removed.

PART 3 - EXECUTION

NOT USED

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measure will be made for Railway Control Equipment.

4.2 PAYMENT

A. Payment for procurement of Railway Control Equipment shall be included in the contract price.

SECTION 344226.13

SIGNAL SYSTEM FIBER OPTIC NETWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Description: This Section includes installing, splicing, testing and commissioning signal system fiber optic network as described herein and as shown on the Contract Plans.

B. Section Work Includes:

1. Signal System Fiber Optic Network as herein described and shown on the Contract Plans
   a. Connect Single mode fiber optic cable connectors at CSRC and B016RC to the new switches creating the new communication network.

C. Related Sections:

1. Section 3.9 – Submittals, MTS C Street & Broadway Wye Design.
2. Additional Transportation Signaling and Control Specifications below, as applicable:

   a. Section 344213.13 – General Railway Signal Requirements
   b. Section 344213.14 – Route Control Equipment
   c. Section 344213.17 – Track Circuits
   d. Section 344213.18 – Instrument Shelters
   e. Section 344213.19 – Signal System Grounding
   f. Section 344213.20 – Relays
   g. Section 344213.21 – Miscellaneous Signal System Products
   h. Section 344213.27 – Painting and Galvanizing
   i. Section 344213.28 – Block Signaling and Highway Grade Crossing Warning Systems Testing
   j. Section 344213.29 – Abandonment, Demolition, Removal and Disposal of Existing Signal Systems Facilities
   k. Section 344216 – Train Control Wire and Cable
   l. Section 344219.01 – Vital Logic Controller
   m. Section 344223 – Railway Control Equipment

1.2 REFERENCE STANDARDS

A. Telecommunications Industry Association/Electronic Industries Alliance (TIA/EIA)

1. TIA/EIA 455-181, FOTP-181 – Lighting Damage Susceptibility Test for Optic Cables with Metallic Components.
2. TIA-526-7 – OFSTP-7 Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant.
3. TIA-568-B.1-2 – Commercial Building Telecommunications Cabling Standard.
4. TIA-598-C – Color Coding of Fiber Optic Cables.
5. TIA/EIA-606 – Administration Standard for Telecommunications Infrastructure.
6. TIA/EIA 455-B – Standard Test Procedure for Fiber Optic Fiber Cables, Transducers, Sensors. Connecting and Terminating Devices and other Fiber Optic Components.
7. EIA 455-60A – Measurement of Fiber or Cable Length Using an OTDR.
8. EIA 455-61 A, FOTP-61 – Measurement of Fiber or Cable Attenuation Using an OTDR.
9. EIA/TIA 455-3, FOTP-3 – Procedure to Measure Temperature Cycling Effects on Optical Fibers, Optical Cable, and Other Passive Fiber Optic Components.
10. TIA 455-33, FOTP-33-B – Fiber Optic Cable Tensile Loading and Bending Test.
11. TIA/EIA 455-37A, FOTP-37 – Low or High Temperature Bend Test for Fiber Optic Cable EIA 455-60A, FOTP-60 - Measurement of Fiber or Cable Attenuation Using an OTDR.
12. TIA/EIA 455-41 A, FOTP-41 – Compressive Loading Resistance of Fiber Optic Cables.
13. TIA/EIA 455-47B, FOTP-47 – Output Far-Field Radiation Pattern Measurement.
14. TIA 455-78B, FOTP-78B – Optical Fibers: Measurement and Test Procedures – Attenuation.
15. TIA/EIA 455-81 B, FOTP-81 – Compound Flow (Drip) Test for Filled Fiber Optic Cable.
16. TIA 455-82B, FOTP-82 – Fluid Penetration Test for Fluid-Blocked Fiber Optic Cable.
17. TIA/EIA 455-85A, FOTP-85A – Fiber Optic Cable Twist Test.
18. TIA/EIA 455-88, FOTP-88 – Fiber Optic Cable Bend Test
19. TIA 455-91, FOTP-91 – Fiber Optic Cable Twist-Bend Test.
20. TIA 455-104A, FOTP-104 – Fiber Optic Cable Cyclic Flexing Test.
21. TIA/EIA 455-171 A, FOTP-171 – Attenuation by Substitution Measurement – for Short-Length Multimode Graded-Index and Single-Mode Optical Fiber Cable Assemblies.
22. TIA/EIA TSB72 – Centralized Optical cabling Guidelines.

B. American National Standards Institute (ANSI)

1. ANSI/EIA-472 – Generic Specification of Fiber Optic Cables.
2. ANSI/TIA/EIA-455 – Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers and Other Fiber Optic Components.

C. ASTM International (ASTM):

1. ASTM D2239 – Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter
2. ASTM D3035 – Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter

1.3 SUBMITTALS

A. Submittals shall be in accordance with the requirements of MTS C Street & Broadway Wye Design, except as modified herein.

B. The Contractor shall submit for approval the following:

1. Catalog data and manufacturer's data sheets.
2. Samples of cables to be installed by the Contractor.
3. Installation and operational instructions.
   a. Develop a written cable installation plan, procedure and a checkoff list for approval at least 60 calendar days prior for plan and 30 calendar days prior (for procedures) to cable installation. These documents shall be prepared based on the Contractor's review of the conduit plans and field site survey and shall include pulling and installation information for each cable pull. The documents shall include proper approach and step-by-step procedures for feeding cable into conduit, to maintain proper bend radii and to minimize friction. Installation of data and communication cable shall conform to all applicable RUS and TIA/EIA standards.
4. Complete bill of material.
5. Test plan, test procedures and test reports.
6. Documentation about corrective action taken on installed equipment post testing.
7. Warranties, guarantees and instruction sheets.

1.4 QUALITY ASSURANCE

A. All wire and cable manufacturers must be approved by the Engineer. The Contractor shall provide all data required for evaluation and shall make the arrangements for any required demonstrations and tests.

1.5 DELIVERY, STORAGE and HANDLING

A. All cable barrels shall be not less than twenty (20) times the finished cable nominal diameter and shall in no case be less than the minimum bending radius or as recommended by the manufacturer. The following particulars shall be stenciled or painted in a permanent manner on the outside of the flange of each drum. Wherever necessary, the whole of the outside of the flange of the drum shall be painted over to cover all marks having no reference to this Contract.

1. The manufacturer's identification of the cable type and date of manufacture.
2. Gross weight of Reel and Cable.
3. Full description of the cable.
4. Cable identification number that is referenced to the test sheet.
5. Length of Cable.
6. An arrow showing the direction in which the drum should be rolled to gain access to the cable.

B. All ends of the cable shall be sealed to prevent entrance of moisture.

C. Handling – Cable drums shall be complete with close fitting wooden battens to prevent damage to the cable during transit and storage.

D. Cable reels shall be stored with flanges upright, Cable on drums with batten in place shall be stored indoors.

E. Fiber optic cable shall be handled carefully and protected from damage until it is installed in place. Cable shall be delivered on spools or reels and shall be removed by unreeling and not by uncoiling or twisting over the edge of the reel. Cable with dents, flat spots, or other sheath distortions shall not be installed. Two meters of cable at both ends of the cable shall be accessible for testing. Attach permanent label on each reel showing length, cable identification number, cable size, cable type, attenuation, bandwidth and date of manufacture.

F. The Contractor shall inspect cables at time of delivery to the construction site to assure that no damage was done in shipping and that the specified cable was received. Every reel shall be inspected by the Contractor for physical damage such as nails driven into reels to secure shipping blocks, lagging, or reel covering missing and cable and seals missing or damaged. The Contractor shall replace all damaged or rejected cable promptly at no cost.

G. Wires and cables shall be stored at the construction site on solid surfaces that shall adequately support the cable reels, but which shall be well drained and not allow accumulation of liquids, oils, or chemicals.

H. The cable reels shall be aligned and protection provided so as not to allow the reel flanges to damage other reels. Adequate aisles and barricades shall provide accessibility but prevent construction equipment from damaging the cable reels

I. Cable ends shall be resealed promptly when a length is cut from the reel. Cable reels shall be properly handled, i.e., by using a sling and spreader attached to a shaft through the reel hubs, or by cradling both flanges between lift truck forks. The reels shall not be lifted by the top reel flange or dropped from any height. Lift truck forks shall not touch cable surfaces on the reel. Reels shall always be rolled in the direction opposite the cable wind on the reel. Reels shall not be laid flat.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Fiber Optic Cable

1. Cable shall be an all-dielectric, single mode, gel-free fiber optic cable in a loose buffer design, which meets or exceeds the following specifications and conforms to ANSI/EIA-472. Cable shall be designed for direct burial, conduits, ducts and aerial installation and rodent proof. Each fiber shall be distinguishable by means of color-coding in accordance TIA/EIA-598-A. Loose tube design, with 24 individual fibers shall be evenly distributed among the buffer tubes. Fiber optic materials and equipment shall be equal in quality and performance to that manufactured by Corning, Siecor, Lucent, General Cable, Belden, or approved equal.
2. Fiber optic cable shall consist of optical fibers, strength members and jacketing. Materials used within a given cable shall be compatible with all other materials used in the same cable when such materials come into intimate contact. All cable components used shall have no adverse effect on optical transmission or on the mechanical integrity characteristics of the fiber placed in the cable. All materials used shall be non-toxic, non-corrosive and shall present no dermal hazard. Cable shall be manufactured continuous with no factory splices in the fiber. All cable used on this project shall be from one manufacturer.
3. A strength member constructed of Kevlar or glass-reinforced plastic shall be included in the cable. The cable shall contain at least one ripcord.
4. Cable outer jacket shall be polyethylene insulated, low smoke and polyolefin. Cable jacket shall be marked with manufacturer's name, sequential meter or foot markings, date of manufacture and a telecommunication handset symbol, as required by Section 350G of the National Electrical Safety Code (NESC).
5. Optical Specifications

    a. Operational Wavelength: 1,310 nm and 1,550 nm
    b. Optical Attenuation: @ 1,310 nm: 0.4 dB/km
    c. @ 1,550 nm: 0.3 dB/km

6. Mechanical Specifications:

    a. Crush Resistance: 10,000 nm (6.78 pounds/feet)
    b. Minimum Bending Radius: 15 times the cable outside diameter under tension and 10 times the cable outside diameter installed.
    c. Temperature:

        1) Operational: 0 to +70 degrees Celsius
        2) Storage: 0 to +70 degrees Celsius

    d. Humidity: 0 to 100 percent
    e. Tensile Strength:

        1) Installation: 2,700 N (600 lbf)
        2) Static: 600 N (135 lbf)

a) Optical Fibers:

1) Optical fibers shall be single-mode (SM) step index optical glass waveguides with a nominal core diameter of 8 to 9 microns. The fiber shall have a transmission window centered at 1310 nanometer (nm) wavelength. The attenuation at 1310 nanometers shall be 0.5 dB/Km or less. Optical fiber shall be Corning, Lucent or approved equal.
2) Cladding diameter shall be 125 microns plus or minus 3 microns. Core cladding offset shall be less than 1 micron. Minimum tensile strength of the fiber after primary protective coating shall be greater than 50,000 psi. Soften- ing point of the clad material of the optical fiber shall be 1630 degrees Celsius plus or minus 50 degrees Celsius.
3) Optical fiber shall be coated with suitable material to preserve the intrinsic high tensile strength of the glass fiber. Outside diameter of the coated optical fiber shall be 250 plus or minus 15 microns. Coating material shall be readily removable, mechanically or chemically, without damaging the optical fibers when the removal is desired.
4) Optical fibers shall be surrounded with a loose tube buffering for protection from external mechanical and environmental influences. Loose tube buffering shall be color coded for the tube identification. Material of the buffering tube shall be the manufacturer's standard for the particular cable application.

b) Color Coding

1) Primary protective coated SM fibers shall be coated with a color-code coating for individual fiber identification. Maximum outside diameter of color-code coated fiber shall be less than 300 microns.
2) Color coding of optical fibers and loose buffer tube shall conform to EIA/TIA-598, Optical Fiber Cable Color Coding.
3) Color concentrates or inks used to color code the optical fibers and the loose buffer tube shall not be susceptible to migration and chemical reaction with gel filling compound.

c) Strength Members:

1) Strength members shall be integral part of the cable construction. Combined strength of the members shall be sufficient to support the stress of installation and protect the cable in service. Strength members shall be nonmetallic.
2) Cables shall withstand an installation tensile load of not less than 600 pounds force and not less than 200 foot-pounds of continuous tensile load.

d) Cable Jacketing:

1) Cable jacketing for outdoor and aerial installations shall be medium density polyethylene material containing at least 2.6 percent carbon black with only black pigment added for additional coloring. Cable jacketing shall be UV resistant.
2) The cables shall withstand an impact of 1.5 pounds/inch as a minimum and shall have a crush resistance of 300 pounds per square inch as a minimum.

B. Innerduct

1. HDPE innerduct shall comply with ASTM D2447, schedule 80, 2.375" O.D., black with an orange stripe in color, ribbed interior and smooth exterior. Ribbed interior wall shall be lubricated to reduce friction when installing fiber cable.
2. Equivalent material shall meet the minimum requirements of SDR 11 – ASTM D3035 or SIDR 9 – ASTM D2239.
3. HDPE innerduct shall be an extruded coilable tube supplied on reels at a minimum of 5000 feet lengths.
4. HDPE innerduct shall be capped at both ends to prevent any undesirable contaminates from entering conduit.
5. HDPE innerduct shall be supplied with factory installed pull lines.

C. Galvanized Rigid Steel (GRS) Conduit and Accessories

1. GRS conduit shall be steel. Contractor shall provide conduit, couplings, elbows, bends, sealing fittings and nipples conforming to ANSI C80.1 and UL 6, with each length bearing the manufacturer's stamp and UL label.
2. Conduit shall be hot-dip galvanized zinc coating inside and out to provide galvanic corrosion protection.
3. Conduit shall be threaded on both ends, with a threaded coupler attached on one end to allow joining of multiple conduits and a color coded thread protector on the other end to protect threads during handling.
4. All fittings shall be galvanized rigid. This includes but is not limited to couplings, elbows, sweeps, bends and nipples.

D. PVC Conduit and Fittings for electrical application

1. For underground conduit installation parallel to track structure, Contractor shall provide heavy wall, high impact strength, rigid PVC conforming to the requirements of EPC-40-PVC conduit of NEMA TC 2 and fittings for EPC-40-PVC conduit of NEMA TC 3.
2. Conduit and fittings shall be UL 651 listed.

E. Fiber Optic Connectors

1. Single mode fiber optic cable connectors shall be Type SC unless otherwise approved by the Engineer. FO connectors shall match the fiber core and cladding diameters. Product literature on the single-mode FO connectors shall be submitted to the Engineer for approval. The connector housing shall be composite and the alignment ferrule shall be ceramic. FO equipment and cable shall use the same type connectors. Connector insertion loss shall be nominally 0.3 dB and less than 0.5 db.

I. Wire Pulling Lubricant

1. Wire pulling lubricant that is polimer based shall be utilized for fiber cable installation and be compatible with all cable types. The lubricant coefficient of friction shall not cause damage the cable.

J. Serial to Fiber Converter

1. The serial to Fiber converter is required for RS232 CTC information to be transmitted to Central Control. The serial to Fiber convertor shall be a hardened device at crossover signal shelters. A fiber to electrical (copper) Ethernet converter should be installed in the communication cabinets. The serial device shall be the Siemens RS910 or approved equal. The fiber connection in the signal shelter shall be single mode using SC connectors.

K. Fiber to Ethernet Switch

1. The fiber to Ethernet Switch is required for vital and maintenance information to be passed on segregated networks. The fiber to Ethernet switch shall be the Siemens RS900 or approved equal. The switch shall be a hardened device installed in signal shelters.

PART 3 - EXECUTION

3.1 INSTALLATION – GENERAL

A. Underground fiber optic cables shall be installed in flexible, nonmetallic inner duct within the underground ducts. The inner duct may be pulled into underground ducts with the fiber optic cable pre-installed in the inner duct.

B. After conductors have been installed, the ends of conduits terminating in pull boxes, junction boxes, controller cabinets and equipment cases shall be sealed with an approved type of sealing compound.

C. The Contractor shall:

1. Install individual conductors and multiple conductor sheathed cables in conduits, raceways, cable trays, ducts and trenches as indicated to complete the wiring systems.
2. Train cables into final position while observing minimum bending radii. Slack shall be provided at all terminals in an amount sufficient for two re-terminations.
3. Secure and neatly bundle cables inside panel boards, control cabinets and pull boxes with nylon straps.

3.2 CABLE AND INNERDUCT PULLING

A. All requirements apply to both cable and innerduct installation.

B. Cable shall be pulled in strict accordance with manufacturer's recommendations. The Contractor shall submit the manufacturer's installation recommendations to the Engineer for approval a minimum of 30 working days in advance of cable pulling. Before installation of cables in raceway, a suitable wire brush, swab and mandrel shall be pulled through the conduit to remove extraneous matter and to verify that the raceway system is free of obstructions. Wire rope shall not be used to pull cable in non-metallic raceways. Pulling tensions shall be kept below values recommended by manufacturers for both longitudinal tensions and side pressures.

C. The cable pull line tension shall be continuously monitored using dynamometers or load-cell instruments and shall not exceed the maximum tension specified by the cable manufacturer. The mechanical stress placed upon the cable during installation shall be such that the cable is not twisted or stretched.

D. When necessary, the Contractor shall pump out any water that may have accumulated in the pull boxes and manholes and shall provide ventilation to disperse collections of noxious gases. The Contractor shall pull the cables in the presence of the Engineer and shall notify him at least 48 hours in advance of each scheduled pull. If the Contractor observes manufacturing defects in cable being pulled, such cable shall not be pulled.

E. Pulling winches and associated equipment shall be of adequate capacity to assure a steady continuous pull on the cable.

F. Unless ends of pull are within voice or visual range, two-way radios or portable phones shall be used to maintain contact between teams.

G. Cable feeder tubes and nozzles shall be used on all pulls to protect cables and reduce pulling tensions. Cable reels shall be setup in tandem so that cable may be fed into the raceways without changing direction of bend. Supply reels shall be turned while pulling cable to assist in reducing tension. As the cable is unspooled from the reel, it shall be inspected for jacket defects or damage. The cable shall not be kinked or crushed and the minimum bend radius of the cable shall not be exceeded during installation.

H. Cable shall not be pulled unless contaminants and moisture can be sealed out of the cable. Where pulling grips are used, damaged ends shall be removed as soon as cable has been installed. Cable ends shall be sealed with caps at conclusion of pulling. Temporary cable tags shall be attached to the cable as soon as it is pulled.

I. Whenever a cable is cut, the ends shall be sealed by caps and tape to prevent entrance of dirt and moisture before permanent connections are made. Cut ends of cable, whether on reels or in raceways, shall not be allowed to remain exposed.

J. The method may require the cable to be pulled in successive pulls. If the cable is pulled out of a junction box or pull box the cable shall be protected from dirt and moisture by laying the cable on a ground covering.

3.3 SPLICING AND TERMINATION

A. All fiber-optic cable splices shall be by fusion. Splices shall be housed in a splice enclosure and shall be encapsulated with an epoxy, ultraviolet light cured splice encapsulate, or otherwise protected against infiltration of moisture or contaminants. Fiber-optic splices shall be field tested at the time of splicing. Fusion splices shall have less than 0.2 dB loss.

B. All SM optical fibers shall be terminated with Type ST connectors. Such terminations shall be made with “pigtails,” not less than 3 feet in length, cut from factory fabricated and tested cable assemblies having connectors at both ends. The mated pair loss, without rotational optimization, shall not exceed 0.75 dB per mated pair. The pull strength between the connector and the attached fiber shall not be less than 50 pounds force.

C. Termination enclosures shall be sized to accommodate the fiber optic terminations to be made. Sizing shall include sufficient space for service loops to be provided and to accommodate a neat, workmanlike layout of equipment and the bend radii of fibers and cables terminated inside the enclosure. Termination enclosures shall be located as shown in the Contract Plans.

D. In all train control enclosures a 50 foot slack loop shall be provided.

3.4 VERIFICATION

A. The Contractor shall verify that the installation design is correct and adequate for the cables installed. The Contractor shall assure that conduit size, conduit fill, conduit bend radii, manhole spacing, manhole size, raceways, ducts and associated hardware are proper for the intended installation.

3.5 MECHANICAL PROTECTION

A. Where cables leave conduits, the end of the conduit shall be fitted with end bells to prevent damage to the cable.

B. The Contractor shall provide appropriate special protection for cables in areas where the cables are unavoidably exposed to hazardous conditions such vibration or sharp corners on equipment.

3.6 TESTING

A. Fiber Optic Cable:

1. Optical time domain reflectometer (OTDR) tests shall be performed using the FO test procedures of EIA 455-59. An optical time domain reflectometer test shall be performed on all fibers of the fiber optic cable on the reel prior to installation. The OTDR shall be calibrated before conducting any official tests and the Contractor shall submit proof of calibration with test results. Photographs of the traces shall be furnished to the Engineer. An OTDR test shall be performed on all fibers of the fiber optic cable while cables are on the reel before installation and after it is installed. If the OTDR test results show anomalies greater than 1 dB, the fiber optic cable segment will be rejected by the Engineer. The unsatisfactory segments of cable shall be replaced with a new segment of cable. The new segment of cable shall then be tested to demonstrate acceptability. Photographs of the traces as well as charts shall be furnished to the Engineer for each link.
2. Power attenuation test shall be performed at the light wavelength of the transmitter to be used on the circuit being tested. The flux shall be measured at the fiber optic receiver end and shall be compared to the flux injected at the transmitter end. There shall be a jumper added at each end of the circuit under test so that end connector loss shall be validated. Rotational optimization of the connectors will not be permitted. If the circuit loss exceeds the calculated circuit loss by more than 2 dB, the circuit is unsatisfactory and shall be examined to determine the problem. The Engineer shall be notified of the problem and what procedures the Contractor proposes to eliminate the problem. The Contractor shall prepare and submit a report documenting the results of the test for Engineer's approval.
3. Flux Budget/Gain Margin Test. The Contractor shall test and verify that each circuit has a gain margin which exceeds the circuit loss by at least 6 dB. The flux budget is the difference between the transmitter output power and the receiver input power required for signal discrimination when both are expressed in dBm. The flux budget shall be equal to the sum of losses (such as insertion losses, connector and splice losses and transmission losses) plus the gain margin. When a repeater or other signal regenerating device is inserted to extend the length of a fiber optic circuit, both the circuit between the transmitter and the repeater-receiver and the circuit between the repeater-transmitter and the receiver are considered independent fiber optic links for gain margin calculations. The Contractor shall submit all Flux Budget/Gain Margin results for Engineer's approval.
4. The Contractor shall prepare complete documentation of the fiber optic plant as installed. Plant documentation shall include the following information for every fiber, connection and test:

    a. Cable: manufacturer, type, length installed
    b. Fiber: fiber type and size, splice and connection data, losses
    c. Splice and termination points
    d. Connections: types (splice or mechanical), fibers connected, losses
    e. Paths: where the link path goes in every cable
5. The Contractor shall submit electronic copies of the test traces/charts on CDs in the native file format of the software. The Contractor shall also submit one copy of the software used to create traces/charts to enable the Engineer to review the traces/charts. Additionally, the Contractor shall also submit paper copies of all traces/charts for the Engineer's records.

6. Test Equipment

a. OTDR shall conform to the following minimum requirements:

1) Operating wavelengths: 1,300 plus or minus 20 nanometers
2) Attenuation Range (one way): minimum 15dB at 1,300 nm
3) Attenuation Resolution: 0.01 dB
4) Accuracy: 0.5 dB or better

b. OTDRs shall have digital readout capability and shall have a means of providing a permanent record in the form of a strip chart and electronic files for recording on flash-memory, CDs or DVDs.

c. Attenuation Measurement Test Set shall consist of an optical power meter and an optical power source. Attenuation measurement test set shall be in accordance with the applicable National Bureau of Standards (NBS) standards for a stable optical source. Meter may be analog or digital. Measurement test set shall conform to the following minimum requirements:

1) Operating wavelengths: 1,300 plus or minus 20 nanometers
2) Attenuation Range: at least 30 dB at 1,300 nm
3) Attenuation Resolution: 0.01 dB
4) Accuracy: shall be plus or minus 5 percent
5) The optical source shall be capable of coupling sufficient power into the fiber so that the light received at the meter is within the meter detectability limits.

d. Bandwidth Measurement Equipment shall conform to the following minimum requirements:

1) Operating wavelengths: 1,300 plus or minus 20 nanometers
2) Bandwidth range: Minimum 1000 megahertz
3) Bandwidth Resolution: 1 megahertz
4) Accuracy: Plus or minus 0.5 megahertz
5) Measurement Method: Swept Frequency

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. The quantity for Fiber Modifications shall be measured as a lump sum, complete in place, as shown on the plans.

4.2 PAYMENT

A. The contract price paid for Fiber Modifications shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved to furnish and install the Fiber Modifications, complete in place, including testing, in accordance with the Plans and as directed by the Engineer.

END OF SECTION 344226.13

Broadway & C St Wheel Counter & Signal Replacement PWL394.0-24				Modern Railway Systems	
No.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	General Conditions and Requirements	1	LS	$ 7,161.00	$ 7,161.00
2	01 71 23 - Mobilization	1	LS	$ 67,003.00	$ 67,003.00
3	01 71 23 - Construction Staking and Survey	1	LS	$ -	$ -
4	01 57 23 - Temporary Storm Water Pollution Control	1	LS	$ 1,512.00	$ 1,512.00
26.1	26 05 43 - Underground Ducts and Raceways for Electrical Systems	1	LS	$ -	$ -
26.2	26 05 53 - Identification for Electrical Systems	1	LS	$ -	$ -
26.3	26 28 16 - Enclosed Switches and Circuit Breakers	1	LS	$ -	$ -
34.01	34 42 01 - Transportation and Signaling Control	1	LS	$ -	$ -
34.02	34 42 13.13 - General Railway Signal Requirements	1	LS	$ -	$ -
34.03	34 42 13.14 - Route Control Equipment	1	LS	$ -	$ -
34.04	34 42 13.15 - Battery and Charging Equipment	1	LS	$ -	$ -
34.05	34 42 13.17 - Track Circuits	8	EA	$ 16,416.00	$ 131,328.00
34.06	34 42 13.18 - Instrument Shelters	1	EA	$ 59,965.00	$ 59,965.00
34.07	34 42 13.19 - Signal System Grounding	1	LS	$ 452.00	$ 452.00
34.08	34 42 13.20 - Relays	1	EA	$ 2,957.00	$ 2,957.00
34.09	34 42 13.27 - Painting and Galzanizing	1	LS	$ -	$ -
34.10	34 42 13.28 - Block Signal and Hihgway Grade Crossing Warning Systems Testing	1	LS	$ 52,257.00	$ 52,257.00
34.11	34 42 13.29 - Abandonment, Demo, Removal, and Disposal of Existing Signal System	1	LS	$ 26,898.00	$ 26,898.00
34.12	34 42 16 - Train Control Wire and Cable	1	LS	$ 50,409.00	$ 50,409.00
34.13	34 42 19.01 - Virtal Logic Controller	2	EA	$ 103,613.00	$ 207,226.00
34.14	34 42 23 - Railway Control Equipment	1	LS	$ 44,252.00	$ 44,252.00
34.15	34 42 23.1 - Railway Axle Counter Requirements	1	LS	$ -	$ -
34.16	34 422 26.13 - Signal System Fiber Optic Network	1	ls	$ 21,976.00	$ 21,976.00

Overall total **$ 673,396.00**

Metropolitan Transit System

Agenda Item No. 16

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Modernization of Stadium Trolley Station Elevator – Change Order

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to:

1) Ratify Contract Change Order (CCO) 01 under MTS Doc No. PWG347.0-22 to Work Order MTSJOC347-21.01 (Attachment A), with ABC General Contracting Inc. (ABCGC), in the amount of $149,867.29 for the additional cost to install a Sapphire Novec Fire Suppression System in the elevator control room at the Stadium Trolley Station; and

2) Authorize the Chief Executive Officer (CEO) to approve CCO 02 under MTS Doc No. PWG347.0-22, to Work Order MTSJOC347-21.02 (in substantially the same format as Attachment B), with ABCGC, in the amount of $144,022.59 to provide additional elevator revisions and smoke dampers as required by the State Fire Marshal.

Budget Impact

The total cost of these CCOs is estimated to be $293,889.88. The total cost of this contract is estimated to be $590,452.41 (inclusive of the total cost for CCO 1 and CCO 2). Under separate MTS Doc No. L1282.0-16, with The Gordian Group, MTS will pay a 1.76% JOC software license fee for CCO 02 in the amount of $2,534.80. This project is funded by San Diego Trolley Inc. (SDTI) Facilities Operating Budget account 380016 - 536500.

DISCUSSION:

On July 27, 2023 (Agenda Item (AI) 16), the MTS Board of Directors authorized an agreement with ABCGC for the modernization of the elevator at the Stadium Trolley Station. The elevator was beyond its life expectancy and the operating equipment required replacement. During the course of construction, it was determined by the State Fire Marshal that a fire suppression system was required in the elevator machine room and elevator pits due to lack of an existing system and was not anticipated in the original contract.

CCO 1
A dry chemical Sapphire Novec Fire Suppression system was the only viable option as there are no water supply lines near the station. ABCGC was able to install this dry chemical system under MTSJOC347-21.01 for a total cost of $149,867.29.

CCO 2
Upon completion of the installation of the dry chemical system, the State Fire Marshal had further concerns, and required the equipment room door to be replaced, new disconnect and wiring, new electrical distribution, new pit lighting, new electrical GFIs, new smoke dampers, exhaust fans, and fire alarm relays. This miscellaneous work was done under MTSJOC347-21.02 for a total cost of $144,022.59.

CCO 02 includes the cost to install the additional miscellaneous equipment required by the State Fire Marshal.

Today's Proposed Action:

Total Work Order Costs	Amount	Date
Original Work Order	$296,562.53	7/27/23 (AI 16)
CCO 01	$149,867.29	Approved Under CEO's Authority; Ratify under Today's Proposed Action
CCO 02	$144,022.59	3/13/25 (Today's Proposed Action)
TOTALS	**$590,452.41**	

Therefore, the staff recommends that the MTS Board of Directors:

1) Ratify CCO 01 under MTS Doc No. PWG347.0-22 to Work Order MTSJOC347-21.01 (Attachment A), with ABCGC, in the amount of $149,867.29 for the additional cost to install a Sapphire Novec Fire Suppression System in the elevator control room at the Stadium Trolley Station; and

2) Authorize the CEO to approve CCO 02 under MTS Doc No. PWG347.0-22 to Work Order MTSJOC347-21.02 (in substantially the same format as Attachment B) with ABCGC, in the amount of $144,022.59 to provide additional elevator revisions and smoke dampers as required by the State Fire Marshal.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olsen, 619.557.4588, mark.olsen@sdmts.com

Attachments: A. CCO 1 MTS Doc. No. MTSJOC347-21-01
B. Draft CCO 2 MTS Doc. No. MTSJOC347-21.02

Metropolitan Transit System

CONSTRUCTION CHANGE ORDER

Project Name: Sapphire Novec 1230 Fire Suppression System **Date:** 10/31/23

To: MTS **Contract Number:** MTSJOC347-21

From *(Contractor)*: ABC General Contractor, Inc. **CCO Number:** 01

Description of Work **Fieldwork Directive Issued:**

This CCO is prepared in accordance with and incorporates Section Changes and Extra Work of the Contract Documents and consists of: as part of the Elevator Modernization Project at the MTS Stadium Trolley Station, installation and testing of the Ansul Sapphire Novec 1230 Fire Suppression System for the electrical and communications/server rooms connected to the elevator is necessary to ensure compliance with fire code and Fire Marshall requirements for the safe operation and monitoring of the elevator as there is no fire suppression system in the electrical and communications/server room currently. There will be no additional time added to the Work Order as a result of this Change Order. However, this Change Order corrects the period of performance provided in the original Scope of Work from 60 calendar days to 184 calendar days to align with the Limited Notice to Proceed issued on September 22, 2023. The project completion date of February 14, 2024 remains the same.

A. Contractor Cost Proposal

CCO 01	$ 149,867.29	
	$ 149,867.29	**Subtotal A:** $ 149,867.29

B. Subcontractors Costs

		Subtotal B: $ -

C. Contractor Credits

		Subtotal C: $ -
	Total = (A + B + C)	Total: $ 149,867.29

Original Contract value:		**$ 296,562.53**
Adjustment by Change Order No. X through Change Order X (if applicable)		**$ -**
Adjustment by this Change Order		**$ 149,867.29**
New Contract Amount	Total:	**$ 446,429.82**

The Contract Time due to this Change Order will be: ☑ Increased ☐ Decreased ☐ Unchanged **by 124 days**

Original Completion Date:	**10/13/23**
Adjustment by Change Order No. X through Change Order X (if applicable)	**0**
Adjustment by this Change Order	**124**
New Completion Date	**2/14/24**

Milestones Affected: None.

T. DB	11/30/2023	Sharon Cooney	11/29/2023
Contractor	**Date:**	**MTS Chief Executive Officer**	**Date:**

Follow all applicable procedures and provide all appropriate documentation as required by the Contract Documents.

EXHIBIT A
(Scope of Work)

Detailed Scope of Work
Job Order Contract

Date: 6/20/2023

To:
Dave Czubernat
Project Manager
ABC Construction, Inc.
3120 National Ave
San Diego, Ca 92113
Phone: (619) 239-3428
Fax: (619) 239-6614

From:
Thang Nguyen
Sr. Project Manager
San Diego Metropolitan Transit System
1255 Imperial Ave, Suite 900
San Diego, CA 92101
Phone: (619) 557-4560

Project: MTSJOC347-21

MTS Work Order Number: TBD

Title: Modernization of Stadium Elevator

Location: Stadium Elevator

Railroad Protective: ☐ **Yes** ☒ **No**

Detailed Scope of Work

The Contractor shall complete the construction of this project in its entirety and shall provide all labor, materials, equipment, and traffic control, procuring all materials and performing all other work necessary to complete the work in accordance with the Detailed Scope of Work.
This work consists of the followings:
Johnson Controls Fire Protection will provide the following:
1. Provide and install (2) Ansul Sapphire Clean Agent Systems.
2. Provide and install releasing capacity for (2) NOVEC 1230 systems in the spaces listed above. The systems will be monitored and controlled by (1) Simplex suppression releasing control system. The panel will be networked to the existing MTS fire alarm network, via single-mode fibers provided by MTS. Each system includes the following:
a. one (1) horn/strobe
b. one (1) strobe
c. two (2) smoke detectors
d. one (1) manual pull station
e. one (1) abort station
f. one (1) monitor/reset modules
g. one (1) suppression release device
h. one (1) manual release station
3. Acceptance testing with AHJ.
4. Provide a control module at each of the two-existing supply/exhaust fans.
5. Install boxes, wire and installation of devices.
6. Dedicated 120VAC circuit from existing spare circuit breaker.
7. Termination of all devices.
8. 12-month warranty on all parts and labor.
9. Programming of Sapphire Releasing Panel.
10. Provide Design and CAD resources to create a submittal to the California State Fire Marshal.
11. Training.

Traffic Control:
It is the Contractor's responsibility to barricade the work area and to prevent pedestrians from entering the job site.

Submittals:
Work Schedule, materials submittal

Work Windows:
Monday-Friday from 6 AM to 4 PM

Durations:
60 calendar days

EXHIBIT B
(Cost Breakdown)

Price Proposal Detail Report

By Division

Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Division		Install Total	NPP Total	Demo Total	Division Total
01	General Requirements	$17,197.58	$0.00	$0.00	$17,197.58
21	Fire Suppression	$61,915.81	$0.00	$0.00	$61,915.81
23	Heating, Ventilating, And Air-Conditioning (HVAC)	$26,695.78	$0.00	$0.00	$26,695.78
26	Electrical	$20,193.25	$0.00	$0.00	$20,193.25
28	Electronic Safety And Security	$23,864.87	$0.00	$0.00	$23,864.87
Line Count: 43				**Proposal Total:**	**$149,867.29**

The Percentage of Non Pre-Priced on this Proposal: 0.0%

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division

Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

01 General Requirements **$17,197.58**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
1	012220000082	Project Manager	Installation	107.00	$150.00	HR	1.0715	$17,197.58
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Modified, 2.0 Accepted***	**Demo:**	0.000000	$0.00	HR	1.0715	$0.00

Includes Labor Yes **Includes Equipment No** **Includes Materials No**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Provide Design and CAD resources to create a submittal to the California State Fire Mar-shall. New fire alarm devices to meet current code

Item Note:

Total: $17,197.58

21 Fire Suppression **$61,915.81**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
2	210130910006	Inspection, WC, Wet Chemical	Installation	14.00	$105.78	EA	1.0715	$1,586.81
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials No**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $1,586.81

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
3	210130910010	Hydrostatic Testing, All Sizes, All Agents	Installation	24.00	$32.55	EA	1.0715	$837.06
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials No**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: See CSI section 23 05 93 00 0046 for testing existing piping systems.

Total: $837.06

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

4	210130910011	Disarm/Arm System	Installation	3.00	$56.96	EA	1.0715	$183.10
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials No**

Owner Comments: *V:1.2-why are there 3 tanks instead of 2?*

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $183.10

5	212216000006	80 LB, Empty Tank And Valve Assembly, Sapphire® Fire Suppression Systems (Ansul 570637)	Installation	3.00	$1,687.56	EA	1.0715	$5,424.66
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$66.78	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: 41 to 80 LB tank capacity. Excludes Sapphire agent.

Total: $5,424.66

6	212216000012	Sapphire Agent. Fire Protection Fluid, Factory Filled (Novec 1230)	Installation	720.00	$36.78	LB	1.0715	$28,375.03
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$133.54	LB	1.0715	$0.00

Includes Labor No **Includes Equipment No** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: Add to empty tank cost.

Total: $28,375.03

7	212216000016	1" Drilled Brass Nozzle, 180 Degree, Sapphire® Fire Suppression System (Ansul 570517)	Installation	8.00	$150.50	EA	1.0715	$1,290.09
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$11.13	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $1,290.09

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

8	212216000023	1-1/4" Drilled Brass Nozzle, 360 Degree, Sapphire® Fire Suppression System (Ansul 570605)	Installation	14.00	$156.65	EA	1.0715	$2,349.91
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$11.13	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $2,349.91

9	212216000027	7/16-20 To 1/4" NPT, Male Actuation Elbow, Sapphire® Fire Suppression System (Ansul 31810)	Installation	22.00	$12.10	EA	1.0715	$285.23
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$3.34	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $285.23

10	212216000030	16" Actuation Hose, Sapphire® Fire Suppression System (Ansul 73597)	Installation	3.00	$43.80	EA	1.0715	$140.80
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$9.97	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Owner Comments: *V:1.2-why are there 3 tank instead of 2?*

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $140.80

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

11	212216000034	Pneumatic Actuator Shipping Assembly, Sapphire® Fire Suppression System (Ansul 570537)	Installation	3.00	$266.77	EA	1.0715	$857.53
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$89.03	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Owner Comments: *V:1.2-why are there 3 tank instead of 2?*

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $857.53

12	212216000039	Warning Plate for Use Inside Room, Sapphire® Fire Suppression Systems (Ansul 570581)	Installation	3.00	$47.30	EA	1.0715	$152.05
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$11.13	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Owner Comments: *V:1.2-why are there 3 tank instead of 2?*

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $152.05

13	212216000043	Tank Bracket Assembly For 850 LB Tanks, Sapphire® Fire Suppression Systems (Ansul 570336)	Installation	3.00	$151.54	EA	1.0715	$487.13
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$33.38	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $487.13

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

14	212216000046	2" Manifold Check Valve, Sapphire® Fire Suppression Systems (Ansul 570568)	Installation	3.00	$519.31	EA	1.0715	$1,669.32
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$60.81	EA	1.0715	$0.00
		Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**						

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$1,669.32**

15	212216000049	2" Flexible Discharge Hose, Sapphire® Fire Suppression Systems (Ansul 570538)	Installation	3.00	$437.13	EA	1.0715	$1,405.15
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$22.26	EA	1.0715	$0.00
		Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**						

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$1,405.15**

16	212216000054	2" Single-Tank Swivel Adaptor, Sapphire® Fire Suppression Systems (Ansul 570558)	Installation	3.00	$73.20	EA	1.0715	$235.30
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$15.58	EA	1.0715	$0.00
		Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**						

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$235.30**

17	212216000058	Cylinder Low Pressure Switch, Sapphire® Fire Suppression Systems (Ansul 570585)	Installation	3.00	$147.44	EA	1.0715	$473.95
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$44.51	EA	1.0715	$0.00
		Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**						

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$473.95**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division

Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

18	212216000063	Liquid Level Indicator For 390 LB And 850 LB Tanks, Sapphire® Fire Suppression Systems (Ansul 570278)	Installation	2.00	$582.75	EA	1.0715	$1,248.83
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$15.58	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$1,248.83**

19	212216000071	3" Recharge Fill Adaptor Assembly, Sapphire® Fire Suppression Systems (Ansul 69891)	Installation	2.00	$304.81	EA	1.0715	$653.21
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$66.78	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$653.21**

20	212216000076	Bonnet Assembly, Sapphire® Fire Suppression Systems (Ansul 570543)	Installation	2.00	$285.22	EA	1.0715	$611.23
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$89.03	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total:	**$611.23**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

21	212216000078	1" Valve Assembly, Sapphire® Fire Suppression Systems (Ansul 570535)	Installation	2.00	$1,516.61	EA	1.0715	$3,250.10
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$89.03	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $3,250.10

22	212316000066	3" NPT Mechanical Cable Operated Gas Shut-off Valve	Installation	2.00	$830.91	EA	1.0715	$1,780.64
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$68.82	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $1,780.64

23	212316000067	Pneumatic Release (Single Unit)	Installation	2.00	$342.02	EA	1.0715	$732.95
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$21.72	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $732.95

24	212316000077	Manual Reset Relay	Installation	2.00	$446.03	EA	1.0715	$955.84
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$89.47	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $955.84

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

25	212316000133	3" Electrical Gas Valve, Kitchen Fire Suppression Systems (Pyro-Chem 17643)	Installation	2.00	$1,166.32	EA	1.0715	$2,499.42
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$68.73	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$2,499.42**

26	212316000143	24 Volt DC, System Circuit Monitor/Gas Valve Reset Relay, Kitchen Fire Suppression Systems (Pyro-Chem 550303)	Installation	1.00	$423.53	EA	1.0715	$453.81
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$54.75	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$453.81**

27	212316000193	Relay Control Panel For AC Solenoid Valves (Asco 108D90C)	Installation	1.00	$1,572.27	EA	1.0715	$1,684.69
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$195.86	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$1,684.69**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division

Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

28	212316000194	Relay Control Panel For DC Solenoid Valves (Asco 108D10C)	Installation	1.00	$1,621.28	EA	1.0715	$1,737.20
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$195.86	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$1,737.20**
29	212316000195	Master Control Station For Relay Control Panel For DC Solenoid Valves (Asco 216C89)	Installation	1.00	$517.75	EA	1.0715	$554.77
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$44.51	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$554.77**
23 Heating, Ventilating, And Air-Conditioning (HVAC)								**$26,695.78**
Record #	**CSI Number**	**Description**	**Type**	**Quantity**	**Unit Price**	**UOM**	**Factor**	**Line Total**
30	230923530006	EMCS System Software Programming And Graphics Programming	Installation	120.00	$207.62	HR	1.0715	$26,695.78
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Modified, 2.0 Accepted***	**Demo:**	0.000000	$0.00	HR	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials No**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

							Total:	**$26,695.78**
26 Electrical								**$20,193.25**
Record #	**CSI Number**	**Description**	**Type**	**Quantity**	**Unit Price**	**UOM**	**Factor**	**Line Total**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

31	260126000005	Primary Injection Breaker NETA Electrical Testing	Installation	4.00	$525.00	EA	1.0715	$2,250.15
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment No Includes Materials No						
							Total:	**$2,250.15**
32	260126000006	Primary Injection Breaker NETA Electrical Testing	Installation	4.00	$700.00	EA	1.0715	$3,000.20
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment No Includes Materials No						
							Total:	**$3,000.20**
33	260126000007	Primary And Secondary Injection Low Voltage Air Circuit Breaker NETA Electrical Testing	Installation	7.00	$1,050.00	EA	1.0715	$7,875.53
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment No Includes Materials No						
							Total:	**$7,875.53**
34	260126000007	Primary And Secondary Injection Low Voltage Air Circuit Breaker NETA Electrical Testing	Installation	4.00	$1,050.00	EA	1.0715	$4,500.30
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$0.00	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment No Includes Materials No						
							Total:	**$4,500.30**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division

Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

35	260519160014	#14 AWG,Type THHN-THWN, 600 Volt, Copper, Single Solid Cable, Installed In Conduit	Installation	3.00	$427.59	MLF	1.0715	$1,374.49
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$174.99	MLF	1.0715	$0.00
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						
							Total:	**$1,374.49**
36	260533130595	1/2" Electrical Metallic Tubing (EMT) Conduit	Installation	300.00	$3.71	LF	1.0715	$1,192.58
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$1.29	LF	1.0715	$0.00
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						
							Total:	**$1,192.58**

28 Electronic Safety And Security **$23,864.87**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
37	284621170412	4100ES NDU With VCC Includes The First Bay Equipment Described For The NDU And A Second Bay Assembly With Separate: Master Controller For Voice Functions, Network Interface (Select Media Card Separately), And A Standard SPS With 250 Point IDNet Channel; And 3, 3 A Class A/B NACs Capable Of SmartSync Two-Wire Operation, 120 V Input (Simplex 4100-9142)	Installation	1.00	$6,428.01	EA	1.0715	$6,887.61
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$394.79	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $6,887.61

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

38	284621170413	Up To 127 Points, IDNet Module, (Simplex 4100-3104)	Installation	1.00	$2,698.36	EA	1.0715	$2,891.29
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$394.79	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: Add-on module.

Total: $2,891.29

39	284621170415	Expansion Power Supply, 3 NACs, 120 Volt AC (Simplex 4100-5101)	Installation	1.00	$1,295.23	EA	1.0715	$1,387.84
Accepted		***History: 1.1 Added, 1.2 Accepted, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$98.69	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: Add-on module.

Total: $1,387.84

40	284621170420	3 Bay Backbox With Glass Door And Dress Panel (Simplex 2975 -9443)	Installation	2.00	$1,889.12	EA	1.0715	$4,048.38
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$78.96	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note: 24" x 56" beige backbox.

Total: $4,048.38

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $149,867.29
Approved Date: October 30, 2023

Job Order: MTSJOC347-21.01

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

41	284621170425	240 Volt AC Fire Alarm Control Panel With Door, Cabinet, Power Supply/Battery Charger, IDNet Interface, 4 NACs, 2 Programmable Auxiliary Relays, And External N2 Communications Interface (Simplex 4010-9201)	Installation	2.00	$3,803.43	EA	1.0715	$8,150.75
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$394.79	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $8,150.75

42	284621170486	Red With White “FIRE” Lettering, TrueAlert Addressable Electronic Horn (Simplex 4901-9850)	Installation	2.00	$98.08	EA	1.0715	$210.19
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$29.61	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $210.19

43	284621170490	110Cd, Wall Mounted Horn Strobe, Red (Simplex 4903-9427)	Installation	2.00	$134.77	EA	1.0715	$288.81
Accepted		***History: 1.1 Added, 1.2 Modified, 1.3 Accepted, 2.0 Accepted***	**Demo:**	0.000000	$29.61	EA	1.0715	$0.00

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Item Note:

Total: $288.81

Proposal Total: $149,867.29

Div **The Percentage of Non Pre-Priced on this Proposal: 0.0%**

** Includes Price Changes due to Construction Task Catalog update*

EXHIBIT C
(Subcontractor Listing)

San Diego Metropolitan Transit System
1255 Imperial Ave
San Diego, CA 92101

Subcontractor Report

Date: 10/31/2023

Job Order Contracting

Contract #: PWG324.0-21
Job Order #: MTSJOC347-21.01
Job Order Title: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System
Job Order Value: $149,867.29
Location: Qualcomm
Contractor: ABC General Inc.
Subcontractor: JOHNSON CONTROLS FIRE PROTECTION LP

Subcontractor Name	License Number	Describe Nature of Work (Trade)	Certifications	Subcontractor Total	%
JOHNSON CONTROLS FIRE PROTECTION LP 3568 RUFFIN ROAD SOUTH, SAN DIEGO, CA 92123		Mechanical		$133,567.00	89.12%

Summary

Certification Name	Value	%
	$133,567.00	89.12%
Total	**$133,567.00**	**89.12%**

Metropolitan Transit System

CONSTRUCTION CHANGE ORDER

Project Name: Modernization of Stadium Elevator **Date:** 2/13/25

To: San Diego Metropolitan Transit System **Contract Number:** MTSJOC347-21

From *(Contractor)*: ABG General Contractor **CCO Number:** 02

Description of Work **Fieldwork Directive Issued:** 6/17/2024

This CCO is prepared in accordance with and incorporates Section Changes and Extra Work of the Contract Documents and consists of:
Equipment room door to replacment, new disconnect and wiring, new electrical distribution, new pit lighting, new electrical GFIs, new smoke dampers, exhaust fans, and fire alarm relays.

A. Contractor Cost Proposal

CCO 01	$ 149,867.29	
CCO 02	$ 144,022.59	
	$ 293,889.88	**Subtotal A:** $ 293,889.88

B. Subcontractors Costs

	$ -	
		Subtotal B: $ -

C. Contractor Credits

		Subtotal C: $ -
	Total = (A + B + C)	Total: $ 293,889.88

Original Contract value:		**$ 296,562.53**
Adjustment by Change Order No. 0 through Change Order 1 (if applicable)		**$ 149,867.29**
Adjustment by this Change Order		**$ 144,022.59**
New Contract Amount	Total:	**$ 590,452.41**

The Contract Time due to this Change Order will be: ☑ Increased ☐ Decreased ☐ Unchanged **by 349 days**

Original Completion Date:	**10/13/23**
Adjustment by Change Order No. 0 through Change Order 1 (if applicable)	**124**
Adjustment by this Change Order	**349**
New Completion Date	**1/28/25**

Milestones Affected: None

Contractor **Date:** **MTS Chief Executive Officer** **Date:**

Follow all applicable procedures and provide all appropriate documentation as required by the Contract Documents.

EXHIBIT A
(Scope of Work)

San Diego Metropolitan Transit System
1255 Imperial Ave
San Diego, California 92101

Final Scope of Work

Date: 2/12/2025

Job Order Contracting

To: **From:**

Contract No:	PWG347.0-21
Job Order No:	MTSJOC347-21.02
Job Order Title:	Stadium Modernization - Sapphire Novec 1230 Fire Suppression System
Location:	Qualcomm 9449 Friars Road San Diego, CA 92108
Brief Scope of Work:	

The following items detail the scope of work as discussed at the site. All requirements necessary to accomplish the items set forth below shall be considered part of this scope of work.

Provide materials and labor to replace door leading into mechanical room from the MTS Storage room.

Provide materials and labor for electrical repairs at elevator machine room

1. New disconnect, conduit, wire, fuses (Main feed)
2. New auxiliary contact, contact wire
3. New disconnect, conduit wire, fuses (Cab light)
4. New machine room GFI's
5. New conduit and junction boxes for low voltage/cat6
6. New machine room lighting
7. New pit lighting and conduit
8. New pit GFI

Provide materials and labor for 2 Smoke Fire Dampers

1. Safe off and remove existing exhaust fans.
2. Provide and install new 16x16 and 8x8 smoke fire dampers.
3. Provide angle and fire caulking around new fire dampers.
4. Reconnect existing exhaust fans to new fire dampers.
5. Install Exhaust Fan
6. Provide materials and labor for new dedicated circuits to Smoke Fire
7. Damper at elevator machine room.
8. New disconnect switch and conduit to each SFD
9. New wire and circuit from (E) panel board
10. Centrally located J box for fire alarm relay interconnection

Provide as needed supervision for Kone during Modernization of Elevator

All job orders include the labor, equipment, and material costs for a complete and in-place installation, unless otherwise noted.

EXHIBIT B
(Cost Breakdown)

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Division		Install Total	NPP Total	Demo Total	Division Total
01	General Requirements	$63,060.26	$0.00	$0.00	$63,060.26
05	Metals	$577.32	$0.00	$0.00	$577.32
07	Thermal And Moisture Protection	$401.88	$0.00	$0.00	$401.88
21	Fire Suppression	$14,145.70	$0.00	$0.00	$14,145.70
23	Heating, Ventilating, And Air-Conditioning (HVAC)	$7,775.12	$0.00	$364.67	$8,139.79
26	Electrical	$51,103.55	$0.00	$6,594.09	$57,697.64
	Total:	**$137,063.83**	**$0.00**	**$6,958.76**	**$144,022.59**

Line Count: 31 **Proposal Total: $144,022.59**

The Percentage of Non Pre-Priced on this Proposal: 0.0%

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

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01 General Requirements — **$63,060.26**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
1	012220000010	Electrician	Install	16.00	$78.27	HR	1.0715	$1,341.86

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment No** **Includes Materials No**

User Note: Investigate existing non working exhaust fans for new Dampeners

Item Note: For tasks not included in the Construction Task Catalog® and as directed by owner only.

Total:	**$1,341.86**
Division 01 General Requirements Total:	**$1,341.86**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
2	012220000082	Project Manager	Install	384.00	$150.00	HR	1.0715	$61,718.40

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment No** **Includes Materials No**

Total:	**$61,718.40**
Division 01 General Requirements Total:	**$61,718.40**

05 Metals — **$577.32**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
3	050519000086	1/2" Diameter x 5-1/2" Length, Hot Dipped Galvanized Steel, Wedge Anchor Expansion Bolt	Install	24.00	$22.45	EA	1.0715	$577.32
			Demo:	24.00	$0.00	EA	1.0715	$0.00

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Total:	**$577.32**
Division 05 Metals Total:	**$577.32**

07 Thermal And Moisture Protection — **$401.88**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
4	078413190002	1" Diameter Hole With 1/2" Pipe, Sealed With Intumescent Firestop Sealant (3M CP 25WB +)	Install	21.00	$17.86	EA	1.0715	$401.88

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Total:	**$401.88**
Division 07 Thermal And Moisture Protection Total:	**$401.88**

21 Fire Suppression **$14,145.70**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
5	212216000023	1-1/4" Drilled Brass Nozzle, 360 Degree, Sapphire® Fire Suppression System (Ansul 570605)	Install	14.00	$156.65	EA	1.0715	$2,349.91

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Total:	**$2,349.91**
Division 21 Fire Suppression Total:	**$2,349.91**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
6	212216000027	7/16-20 To 1/4" NPT, Male Actuation Elbow, Sapphire® Fire Suppression System (Ansul 31810)	Install	22.00	$12.10	EA	1.0715	$285.23

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Total:	**$285.23**
Division 21 Fire Suppression Total:	**$285.23**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
7	212216000076	Bonnet Assembly, Sapphire® Fire Suppression Systems (Ansul 570543)	Install	6.00	$285.22	EA	1.0715	$1,833.68

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Total:	**$1,833.68**
Division 21 Fire Suppression Total:	**$1,833.68**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
8	212216000078	1" Valve Assembly, Sapphire® Fire Suppression Systems (Ansul 570535)	Install	4.00	$1,516.61	EA	1.0715	$6,500.19

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Total:	**$6,500.19**
Division 21 Fire Suppression Total:	**$6,500.19**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
9	212316000143	24 Volt DC, System Circuit Monitor/Gas Valve Reset Relay, Kitchen Fire Suppression Systems (Pyro-Chem 550303)	Install	7.00	$423.53	EA	1.0715	$3,176.69

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

User Note: Per Johnson Controls Fire Protection LP Quote Dated October 18, 2023

Total:	**$3,176.69**
Division 21 Fire Suppression Total:	**$3,176.69**
23 Heating, Ventilating, And Air-Conditioning (HVAC)	**$8,139.79**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
10	233423000036	3/4 HP, 3,646 CFM At 1/4" Static Pressure, Belt Drive, Aluminum, Centrifugal Sidewall Exhauster	Install	2.00	$2,224.23	EA	1.0715	$4,766.52
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	2.00	$116.78	EA	1.0715	$250.26
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 1 16x16
1 8x8

Total: $5,016.78

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
11	233423000036	For Solid State Speed Control, Add **MOD: 0545**		2.00	$119.77		1.0715	$256.67
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

Total: $256.67

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
12	233423000036	For Backdraft Damper, Add **MOD: 0575**		2.00	$185.41		1.0715	$397.33
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

Total: $397.33

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
13	233423000036	For Damper Motor, Add **MOD: 0576**		2.00	$276.30		1.0715	$592.11
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

Total: $592.11

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

14	233423000036	For Interior Wall Grill, Add	MOD: 0581	2.00	$224.75	1.0715	$481.64

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Total:	**$481.64**
Division 23 Heating, Ventilating, And Air-Conditioning (HVAC) Total:	**$6,744.53**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
15	235113160007	8" Round Flue Shutter Draft Control Damper	Install	1.00	$492.94	EA	1.0715	$528.19
			Demo:	1.00	$46.40	EA	1.0715	$49.72

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Total:	**$577.91**
Division 23 Heating, Ventilating, And Air-Conditioning (HVAC) Total:	**$577.91**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
16	235113160011	16" Round Flue Shutter Draft Control Damper	Install	1.00	$702.44	EA	1.0715	$752.66
			Demo:	1.00	$60.37	EA	1.0715	$64.69

Accepted

History: 1.1 Added, 2.0 Accepted

Includes Labor Yes **Includes Equipment Yes** **Includes Materials Yes**

Total:	**$817.35**
Division 23 Heating, Ventilating, And Air-Conditioning (HVAC) Total:	**$817.35**
26 Electrical	**$57,697.64**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
17	260519160270	#12 AWG, Type THHN-THWN, 600 Volt, Copper, Single Stranded Cable, Installed In Conduit	Install	0.45	$530.05	MLF	1.0715	$255.58
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	0.45	$137.86	MLF	1.0715	$66.47
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 150' 12
250' 12
50' of 18

Total:	**$322.05**
Division 26 Electrical Total:	**$322.05**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
18	260529000167	1/2", One Hole Steel Conduit Strap	Install	12.00	$2.90	EA	1.0715	$37.29
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	12.00	$0.00	EA	1.0715	$0.00
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

Total:	**$37.29**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
19	260529000167	For Installation On Concrete (Includes Drilling And Fastener), Add **MOD: 0109**		12.00	$0.73		1.0715	$9.39
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor Yes Includes Equipment No Includes Materials Yes						

Total:	**$9.39**
Division 26 Electrical Total:	**$46.68**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
20	260533130005	1/2" Electrical Metallic Tubing (EMT) Conduit Assembly With 4 #12 Copper THHN And 1 #12 Copper Insulated Grounding Conductor	Install	12.00	$691.08	CLF	1.0715	$8,885.91
Accepted		***History: 1.1 Added, 2.0 Accepted***	**Demo:**	12.00	$206.50	CLF	1.0715	$2,655.18
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: #12THHN

Item Note: Includes conduit, set screw connectors, set screw couplings, straps, wire as indicated. Not for use where detail is available.

Total:	**$11,541.09**
Division 26 Electrical Total:	**$11,541.09**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
21	260533130037	1/2" Rigid Galvanized Steel (RGS) Conduit Assembly With 2 #8 Copper THHN And 1 #10 Copper Insulated Grounding Conductor	Install	6.00	$875.04	CLF	1.0715	$5,625.63
Accepted		***History: 1.1 Added, 2.0 Accepted***	**Demo:**	6.00	$223.29	CLF	1.0715	$1,435.53
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: #18THHN 1 1/2"

Item Note: Includes conduit, terminations, straps, wire as indicated. Not for use where detail is available.

Total:	**$7,061.16**
Division 26 Electrical Total:	**$7,061.16**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
22	260533130595	1/2" Electrical Metallic Tubing (EMT) Conduit	Install	250.00	$3.71	LF	1.0715	$993.82
Accepted		***History: 1.1 Added, 2.0 Accepted***	**Demo:**	250.00	$1.29	LF	1.0715	$345.56
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

Total:	**$1,339.38**
Division 26 Electrical Total:	**$1,339.38**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
23	260533130711	1-1/2" Intermediate Metal Conduit (IMC) 90 Degree Elbow	Install	3.00	$55.21	EA	1.0715	$177.47
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	3.00	$14.49	EA	1.0715	$46.58
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 1.5"EMT 90

Total:	**$224.05**
Division 26 Electrical Total:	**$224.05**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
24	262419000622	600 Amp, Fusible Main Disconnect Section	Install	2.00	$14,220.68	EA	1.0715	$30,474.92
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	2.00	$765.09	EA	1.0715	$1,639.59
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: New Disconnect switch and conduit to each SFD

Total:	**$32,114.51**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
25	262419000622	For 800 Amperes, Tin Plated Copper Bus, Add **MOD: 0224**		2.00	$182.00		1.0715	$390.03
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor No Includes Equipment No Includes Materials Yes						

Total:	**$390.03**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
26	262419000622	For NEMA 12, Add **MOD: 0227**		2.00	$245.00		1.0715	$525.04
Accepted		*History: 1.1 Added, 2.0 Accepted*						
		Includes Labor No Includes Equipment No Includes Materials Yes						

Total:	**$525.04**
Division 26 Electrical Total:	**$33,029.58**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
27	262726000009	20 Amperes, 1 Gang, GFI, Duplex Receptacle Assembly	Install	3.00	$82.17	EA	1.0715	$264.14
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	3.00	$30.00	EA	1.0715	$96.44
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 20A WP/TR GFI

Total:	**$360.58**
Division 26 Electrical Total:	**$360.58**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
28	262813000095	15 Amp, 600 Volt AC, 200 kAmp I.R., Class J Bolted Fuse	Install	1.00	$37.20	EA	1.0715	$39.86
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	1.00	$5.92	EA	1.0715	$6.34
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 15A RK fuse

Total:	**$46.20**
Division 26 Electrical Total:	**$46.20**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
29	262813000105	80 Amp, 600 Volt AC, 200 kAmp I.R., Class J Bolted Fuse	Install	6.00	$95.84	EA	1.0715	$616.16
Accepted		*History: 1.1 Added, 2.0 Accepted*	Demo:	6.00	$11.85	EA	1.0715	$76.18
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: 600v80A fuse

Total:	**$692.34**
Division 26 Electrical Total:	**$692.34**

** Includes Price Changes due to Construction Task Catalog update*

Price Proposal Detail Report

By Division
Version: 2.0
Approved
Proposal Value: $144,022.59
Approved Date: February 12, 2025

Job Order: MTSJOC347-21.02

Job Order Name: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Location: Qualcomm 9449 Friars Road San Diego, CA 92108

Contractor: ABC General Inc.
Contract Number: PWG324.0-21
Contract Name: JOC Building and Facilities Construction Services. - Option 2

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
30	262913130384	Auxiliary Interlock, Factory Modification Reduced Voltage Auto Transformer Starter, 240 - 600 Volt, 3 Phase, Pilot Device	Install	2.00	$84.02	EA	1.0715	$180.05
Accepted		***History: 1.1 Added, 2.0 Accepted***	**Demo:**	2.00	$0.00	EA	1.0715	$0.00
		Includes Labor No Includes Equipment No Includes Materials Yes						

User Note: Interlock Auxiliary kit

Total:	**$180.05**
Division 26 Electrical Total:	**$180.05**

Record #	CSI Number	Description	Type	Quantity	Unit Price	UOM	Factor	Line Total
31	265619000245	4' Long, 5,200 Lumens, 40 Watt, Vapor Tight Dimmable LED Fixture (Sylvania VAPOR1B/040UNVD840/48EC/ GR/D)	Install	8.00	$306.61	EA	1.0715	$2,628.26
Accepted		***History: 1.1 Added, 2.0 Accepted***	**Demo:**	8.00	$26.39	EA	1.0715	$226.22
		Includes Labor Yes Includes Equipment Yes Includes Materials Yes						

User Note: Vapor tight 4' LED strip light (NEMA4)

Total:	**$2,854.48**
Division 26 Electrical Total:	**$2,854.48**
Proposal Total:	**$144,022.59**
The Percentage of Non Pre-Priced on this Proposal:	**0.0%**

Div

** Includes Price Changes due to Construction Task Catalog update*

EXHIBIT C
(Subcontractor Listing)

San Diego Metropolitan Transit System
1255 Imperial Ave
San Diego, CA 92101

Subcontractor Report

Date: 2/12/2025

Job Order Contracting

Contract #: PWG324.0-21

Job Order #: MTSJOC347-21.02

Job Order Title: Stadium Modernization - Sapphire Novec 1230 Fire Suppression System

Job Order Value: $144,022.59

Location: Qualcomm

Contractor: ABC General Inc.

Subcontractor:

Subcontractor Name	License Number	Describe Nature of Work (Trade)	Certifications	Subcontractor Total	Participation %

Summary

Certification Name	Value	% Subcontracted
Total		**0.00%**

Metropolitan Transit System

Agenda Item No. 17

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Light Rail Vehicle (LRV) Accident Repair Services - Contract Award

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1693.0-25 (in substantially the same format as Attachment A) with Carlos Guzman, Inc. (CG, Inc.), a Disadvantaged Business Enterprise (DBE), for the provision of LRV accident repair services, for five (5) years, in the amount of $28,998,544.20.

Budget Impact

The total value of this contract is estimated to be $28,998,544.20. This will be funded by the San Diego Trolley, Inc. (SDTI) - LRV Maintenance Operating Budget Account 350016-536100. The table below reflects the estimated annual costs:

Contract Term	Total Amount
Year 1 (April 22, 2025, to April 21, 2026)	$5,277,051.60
Year 2 (April 22, 2026, to April 21, 2027)	$5,540,156.76
Year 3 (April 22, 2027, to April 21, 2028)	$5,800,452.36
Year 4 (April 22, 2028, to April 21, 2029)	$6,057,073.44
Year 5 (April 22, 2029, to April 21, 2030)	$6,323,810.04
Grand Total	**$28,998,544.20**

DISCUSSION:

MTS operates a fleet of one hundred sixty-nine (169) LRVs and two (2) Historic Streetcars to provide public transportation throughout San Diego County. Occasionally, vehicles are involved in accidents which result in damage to the LRV side body panels or the aluminum passenger doors. On some occasions, major damage occurs to the frame of the vehicle requiring more extensive metal work. The fleet is also regularly subjected to damages resulting from acts of vandalism, environmental conditions, road damages, age and wear and tear.

In order to maintain the LRV fleet in a state of good repair. MTS is seeking the services of an experienced and qualified firm that will provide ongoing accident, vandalism repair and body

refurbishment services to its fleet of LRVs and Historic Streetcars. The Contractor, at a minimum, must have ten (10) years of experience applying DuPont/Axalta IMRON products, or approved equal, in the rail, aviation or heavy equipment refinishing industry. A multi-year contract will reduce the time vehicles are out-of-service and streamline the vehicle repair process resulting from an accident. The contract is based on a firm-fixed labor rate and material costs which will be valid throughout the term of the contract.

MTS Policy No. 52 *Procurement of Goods and Services* requires a formal competitive process for procurements and service contracts over $150,000.00. On December 15, 2024, MTS notified 73 prospective proposers with a Request for Proposal (RFP).

On January 14, 2025, a single proposal from CG, Inc. was received in response to the RFP. A post bid survey was issued on January 23, 2025, via PlanetBids to all prospective proposers who downloaded the RFP but didn't submit a proposal. MTS did not receive any responses from the post bid survey. Therefore, MTS determined that competition was adequate and that neither the RFP nor MTS' procurement processes played a role in their decision not to propose. Staff proceeded with CG Inc.'s proposal and deemed them to be a responsive and responsible proposer.

An evaluation committee consisting of representatives from Finance, LRV Maintenance, and Facilities departments met on February 5, 2025, and scored the proposal based on the following evaluation criteria:

Evaluation Criteria	Total Possible Points
Qualifications of the Firm	30
Staffing, Organization, and Management Plan	20
Work Plan	25
Cost and Price	25
Total	**100**

The table below represents the initial score and ranking:

Proposer Name	Initial Cost	Technical Score	Cost Score	Total Score (Maximum total score: 100)	Ranking
CG, Inc.	$28,988,544.20	64.00	25.00	89.00	1

After the initial evaluations, the committee requested a Best and Final Offer (BAFO) from CG, Inc. on February 6, 2025. In response, the Proposer remained with their initial cost proposal.

In addition, the MTS evaluation panel was satisfied with the past performance and quality of work that CG, Inc. provided to MTS under the previous and current MTS contracts. Based on the MTS Independent Cost Estimate (ICE) ($30,844,944.00), past purchase history and a cost/price analysis, CG, Inc.'s offer was determined to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. L1693.0-25 (in substantially the same format as Attachments A) with CG, Inc. a

DBE, for the provision of LRV accident repair services, for five (5) years in the amount of $28,998,544.20.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. L1693.0-25
B. Scope of Work
C. Cost Proposal Form

Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. L1693.0-25

LIGHT RAIL VEHICLES (LRV) ACCIDENT REPAIR SERVICES

THIS AGREEMENT is entered into this _____ day of _____, 2025 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Carlos Guzman, Inc. dba CG, Inc.

Address: 1619 E. Creston Ave.

Signal Hill CA 90755
City State Zip

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: johndg@cginc-usa.com

Telephone: (702) 401-2996

Authorized person to sign contracts John Guzman (Name) Chief Operating Officer (Title)

The Contractor agrees to provide services as specified in the conformed Scope of Work/Technical Specification (Exhibit A), Contractor's Cost/Pricing Form (Exhibit B), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit C), Federal Requirements (Exhibit D), and Forms (Exhibit E).

The contract term is for five (5) years effective April 22, 2025 through April 21, 2030.

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed $28,998,544.20 without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CARLOS GUZMAN, INC. dba CG, INC.
By: _____ Sharon Cooney, Chief Executive Officer	By _____
Approved as to form:	
By: _____ Karen Landers, General Counsel	Title: _____

DRAFT

SCOPE OF WORK/TECHNICAL SPECIFICATIONS

5.1 GENERAL

Contractor shall provide accident, vandalism repair and body refurbishment services to San Diego Trolley Inc., (SDTl's) fleet of Light Rail Vehicles (LRVs) and Historic Streetcars.

MTS is seeking to award a five (5) year accident, vandalism repair and body refurbishment services contract to a qualified firm.

i. SDTI operates a fleet of one hundred sixty-nine (169) LRVs and two (2) Historic Streetcars to provide public transportation throughout San Diego County.
ii. Occasionally, some of these vehicles are involved in accidents. Most accidents result in minor damage to the LRV side body or to the cab front comprised mostly of FRP (Fiberglass Reinforced Plastic) panels or the aluminum passenger doors. On some occasions, major damage occurs to the frame of the vehicle requiring more extensive metal work.
iii. In addition to accident damage, these vehicles also encounter road damage and vandalism related damage inside and outside of the vehicle. The types of road damage and vandalism include damage from rock strikes causing dents and/or chipped paint, spray painted graffiti inside and out of the car body and scratched and/or etched graffiti on the painted surfaces of the car body. Interior surfaces such as flooring, seat frames and paneling may also be damaged.
iv. Decal or vehicle wrap installation is also periodically required on newly received rolling stock or to replace worn or damaged decals, for special events or for special marketing campaigns. Application and removal of these SDTI furnished decals will be part of the scope of work for this project.
v. Detailing and finish maintenance may be required. This work to include finish detail work to maintain the finish and to preparation for special events.
vi. SDTI has over one hundred sixty-nine (169) LRVs and two (2) Historic Streetcars that have been painted with the Axalta lmron Elite (EB Quality) paint system. The SDTI fleet must be consistent in finish quality and have no deviations in the color or to the glossy finishes. SDTI requires using Axalta lmron Elite (EB Quality), or an approved equal, for all its paint and coating materials to insure a consistent product and appearance of the fleet. Contractor shall provide all materials and supplies to complete repair work. This material shall include all Primer, Paints, Clear Coats, and other finishing products as well as all consumable items such as masking materials and preparatory products. These materials costs shall be included in the proposer’s fixed monthly cost.

5.2 CONTRACTOR EXPERIENCE AND QUALIFICATIONS

The MTS fleet requires very specific application techniques to ensure finish quality is of the best standard and is cohesive throughout the fleet. The successful contractor shall have a minimum of ten (10) years of experience applying DuPont / Axalta IMRON products or approved equal in the rail, aviation or heavy equipment refinishing industry and has provided documentation substantiating that experience. Employees of Contractor involved in the actual painting process shall maintain certifications of completion of a Commercial Fleet Training course or other trade school courses that are superior or equal to the DuPont / Axalta course.

Contractor must also have a minimum 10 years of experience providing accident and structural repair in the Rail, Aviation or Heavy Equipment industries and provide documentation substantiating that experience.

5.3 DEFINITIONS

APCD	San Diego County Air Pollution Control District
ASTM	American Standard Test Method
CAL OSHA	California Occupational Safety and Health Administration
CARB	California Air Resources Board
CPUC	California Public Utilities Commission
OFT	Dry Film Thickness
EPA	Federal Environmental Protection Agency
GPM	Gallons per Minute
HazMat	Hazardous Materials
HVAC	Heating, Ventilation, Air Conditioning
LRV	Light Rail Vehicle
MSDS	Material Safety Data Sheet
MTS	San Diego Metropolitan Transit System
OSHA	Occupational and Health Administration
PSI	Pounds per Square Inch
QA	Quality Assurance
SDFD	San Diego Fire Department
SMC	Spun-Melt-Spun
WFT	Wet Film Thickness

5.4 SCOPE OF SERVICES

The LRVs and Streetcars to be maintained under this contract shall include up to 171 rail vehicles during the term of this agreement consisting of the following models:

i. Fleet

A. Eleven (11) Siemens Model S70, 90 foot (Built 2004/2005)
B. Sixty-Five (65) Siemens Model S70 Ultra Short, 80 foot (Built 2012-2014)
C. Ninety-Two (92) Siemens Model S700, 80 foot (Built 2018-2024)
D. One (1) Siemens Model U2, 80 foot (Built 1980)
E. Two (2) Historic Streetcars, St. Louis Car Co. (Built 1946-1948)

ii. Description of Services

Contractor shall provide paint, body, and structural repair services to the SDTI rail vehicle fleet as defined above at the SDTI Paint and Body Shop Facility located at 1535 Newton Ave in San Diego, CA. Damage to the fleet as a result of accident, vandalism, road damage, abuse, environmental factors, age and general wear and tear shall be repaired or refurbished under the scope of this agreement.

Contractor shall be required to complete full body and interior and exterior finish restoration of two complete vehicles monthly (average 2-week project duration). All damages and defects to the interior and exterior of the vehicle body due to vandalism, wear, collision, and environmental factors shall be repaired and refinished. 24 such refinishes required annually.

Work shall consist of all necessary activities and processes required to restore the vehicle interior and exterior body finish to “like new” condition.

Additionally, MTS may schedule smaller spot repair jobs due to vandalism or damage incurred or finish detail services as needed. Historically these projects average 2-4 monthly. (1-3 day project duration)

Contractor shall also repair LRVs that are involved in accidents or collisions. These will be scheduled as needed. These vehicles may also be scheduled in place of a finish restoration project, if so, warranted due to the condition of the rest of the vehicle. Most of these accidents consist of fiberglass, paint and metalwork, bracketry, and minor frame repairs. These repairs are within the scope of this agreement and average 8-10 LRVs annually. Contractor shall also provide all needed engineering review and services as needed to complete a job.

In the rare occurrence that an LRV sustains MAJOR structural damages wherein the structural integrity of the vehicle frame is suspect or in the case that Vintage rolling stock with Major Structural refurbishment is needed would not be a part of this base contract scope. Project may either be bid separately or negotiated cost with the contractor at the discretion of the MTS project manager.

Special Requirements

If any roof repair is necessary, the Contractor and an LRV management representative will inspect the rooftop for any indications of metal corrosion or rust under the equipment. If corrosion or rust is present, the MTS will remove the equipment so the contractor may complete repairs. Contractor will inform LRV management if any rooftop repair requires the cutting and welding of the rooftop panels. MTS employees will remove any interior panels or wiring behind or below the areas of repair before any rooftop repairs have begun.

Rusted areas will require removal of rust by grinding bubbled metal and visible holes. Weld new metal (Corten steel) where needed and grind welded area. An industry-certified licensed welder shall complete all welding with Corten metal. Welder credentials to be approved by the MTS PM prior to start of repair. Remove all debris and clean. Follow the recommended Axalta procedure for surfacing and priming.

Refinishing operations will require that the contractor remove all existing paint and the existing primer down to the body filler level on steel and aluminum surfaces or to the substrate level on FRP (Fiberglass Reinforced Plastic and Fiberglass surfaces. If visible cracks are observed in the body filler or the substrate, consult with Project Manager for direction. Further removal of body filler may be necessary until all cracks are removed.

If welding is required an industry-certified, licensed welder shall complete all welding with Corten Steel. Remove all dents, cracks, and surface irregularities. Dents deeper than maximum body filler thickness recommended by Axalta should be pulled or the metal section around it must be cut out and a new section welded in its place.

Contractor must have an excellent understanding of industry standards pertaining to the repair of rail vehicles.

a. Axalta OEM/Fleet Finishes Procedure

MTS does not maintain to be an expert in refinishing operations. As such MTS requires the Contractor to have expertise and knowledge of Axalta Fleet Finishes Product Application procedures for the various products specified by the MTS for this project. The resulting finish must meet MTS standards set forth for this contract with the expectation of minimum 10-year service life.

A detailed work plan and application procedure for each of the following products shall be provided by the bidder along with their proposal for application to Corten Steel and Fiberglass Reinforced Plastic Substrates. NOTE: this is a list of common coatings used on the MTS fleets. This is not a comprehensive list and is subject to change. This list is provided to evaluate Contractor's understanding and experience level with these coating materials.

b. Imron Elite EB Quality

Red	L6049 EB
Black	L0001 EB
Grey	L1908 EB
Imron voe Clearcoat	8821S
Primer Sealer Corlar 921S / 923S	

iii. Acceptance Standard for Paint Finish Quality

MTS maintains the following acceptance standards of finish:

a. Orange Peel

The MTS standard acceptable level of 'orange peel' on a finished LRV is eight (8) or higher on a scale of one (1) to ten (10) as defined by ACT Laboratories, Inc. (273 Industrial Drive, Hillsdale, MI 49242). A finished LRV containing orange peel level of less than eight (8) will be rejected. ACT provides sets of panels with graduated degrees of orange peel (flow) from rough to smooth. These panels are prepared at the request of several major automotive manufacturers for use by their suppliers in evaluating the appearance of painted parts using a consistent, known standard. Master Sets are held as standards for reproducing new sets. The Master Sets are reviewed by representatives of the auto companies, and the orange peel rating verified as appropriate. All panels are painted in black color. THESE PANELS ARE VISUAL STANDARDS ONLY.) Successful contractor shall maintain a set of these panels at the work site for use in evaluating work performed.

b. Gloss Requirements

The MTS standard acceptable level of gloss on a finished surface is eighty-five (85) or better measured at a sixty (60) degree angle (ASTM D523 Standard). A finished LRV with a gloss level of less than eighty-five (85) will be rejected.

c. Gloss Definitions

- Gloss ASTM D523

- Specular Gloss ASTM D523

iv. Quality Inspections

a. Shall be conducted at random on all jobs.

b. Inspection criteria as follows may be used for all high visibility exterior body panels. Failure to meet these requirements may prohibit acceptance.

c. Hardness ASTM D 3363 2H or according to coating manufacturer requirement.

d. Adhesion (Scratch Test) ASTM D3359 >3A / 3B Classification using Intertape LA-26 or PA-280630 (51596) adhesion tape. Equivalents with adhesion greater than or equal to PA-280630 can be used.

e. Adhesion (Knife Peel) ASTM D 6677 Rating greater than eight.

f. Solvent Resistance ASTM D 5402 50 Double rubs.

g. Adhesion (Pull Test) ASTM D 4541 400 psi.

h. Other Notes

Axalta's recommended DFT of these products is 1.8-2.2 mils. The required WFT gauge measurements of this material shall range from 3.6-4.4 mils. The LRV shall be inspected using a wet film gauge in inconspicuous areas to the required wet film thickness. The MTS QA Inspector will determine the ideal inconspicuous locations that allow for measurement but DO NOT impact the visible exterior surface.

NOTE: This clearcoat product may require polishing to obtain a smooth finish. The clearcoat film must achieve a DFT of 1.8-2.2 mils after any sanding or polishing is completed. If sanding or polishing is expected, then additional millage may be required at the time of clearcoat application.

v. SDS Requirements

Some items used in this contract may be considered hazardous. The Contractor shall provide SDS for each item used in the performance of services, where applicable, to the MTS Environmental Health and Safety Manager. Said SDS sheets shall be provided prior to commencement of services. The MTS Environmental Health and Safety Manager PM shall approve prior to their use under this Agreement.

Upon award Contractor shall provide PDFs of SDS with each submittal, for chemicals that MTS employees may be exposed to. Contractor shall ensure all available SDS are provided to MTS and kept up to date throughout the duration of the contract.

All products used by the Contractor on MTS premises, and their application, shall be guaranteed for safe use around humans.

Contractor shall be responsible for the applications of all materials, equipment and/or chemicals as to ensure said items in no way contaminate the facilities, structures, environment, agriculture, water ways, or pose real or perceived harm to personnel, food and equipment, buildings, and MTS operations.

The services shall be performed by Contractor in a manner which does not impact the use or performance of any of the facilities, structures, and/or LRV fleet.

It is the Contractor's responsibility to ensure that its employees are trained and adhere to all MTS policies and procedures. These procedures are not intended to replace or modify any existing requirements of any local, state, or federal agency. The Contractor remains responsible for all adherence to MTS, Local, State, and Federal safety requirements, as applicable, while performing all services described herein.

vi. Hazardous Waste Disposal

All hazardous material/paper/cans/paint mixing cups/etc. shall be put into a HazMat container and disposed of by a qualified EPA/HazMat approved disposal company selected by MTS. The contractor shall notify the MTS project manager or their designee when Hazardous material is ready for disposal with information describing types and quantities of waste. The MTS will arrange for pick up and disposal. Storage of hazardous waste shall be done in accordance with all local regulations. Disposal numbers and backlog documents for a period of three (3) years are required. Daily Log Sheets of material, as outlined by the EPA/APCD, shall be present at the proposed facility for instant inspection and an updated SDS shall be provided upon request.

Filters must be changed periodically by the contractor based on airflow allowances and paint facility usage. All filters for the paint booth shall be supplied by MTS.

vii. Equipment Cleaning

Spray guns shall be cleaned as needed per usage. Cleaning solution shall be reused and strained for maximum efficiency. All solids shall be emptied into a separate container supplied by the Contractor and disposed of by a qualified hazardous waste facility selected by the Contractor. Record of disposal must be kept on site for three (3) years. Copies of all disposal records shall be forwarded to LRV management. The Contractor will be responsible for the cost of disposal of the cleaning solution.

viii. Supervisor/LRV Coordination

A daily work log must be kept in order to update the MTS PM or LRV Supervisor upon any inspection. All LRV placements and facility transfers must be coordinated with LRV Shift Supervisor for maximum work efficiency. LRV department requires at least two (2) hours' notice of LRV movement in and out of the facility. LRV movement within the paint facility requires at least two (2) hours' notice.

5.5 FACILITY WORK LOCATION

MTS has a 190-foot-long Paint and Body preparation facility in the rail maintenance yard located at 1535 Newton Avenue, San Diego, CA 92113. The Contractor will be required to use this facility for the painting and bodywork associated with this project. The paint and body preparation

facility houses all required filtering and exhaust mechanisms and is equipped with compressed air and temperature control equipment. The Contractor shall supply additional spraying equipment such as paint guns, air hoses, body refinishing tools, scaffolding, fall protection, etc. as required for car body refinishing and repairs.

5.6 CONTRACTOR RESPONSIBILITIES AT THE MTS FACILITY

The Contractor shall be responsible for replacing all facility filters, (provided by MTS) both inside and outside of the facility as needed. Routine cleaning of the spraying equipment and the paint facility will be Contractor's responsibility. The Contractor will not be charged for normal wear and tear of MTS equipment used on this project; however, any breakdown or damage of MTS equipment due to contractor misuse (such as bypassing, modifying or overloading electrical circuits, compressed air supply, facility space heaters, etc.) or neglect (failure to replace air filters) will be repaired by MTS at the Contractor's cost.

Contractor will keep abreast of any changes in environmental regulations pertaining to the operation of the paint and body preparation facility. Contractor will notify the MTS Project Manager or designee (MTS PM) in writing of any regulatory changes with a detailed summary of necessary equipment, supplies or procedures and their associated costs that must be implemented with the change.

Contractor will not use the paint and body preparation facility for work on non-MTS owned or sponsored material or equipment. Contractor will not store any material such as automotive parts or other equipment, paint, or paint preparation products unrelated to MTS owned or sponsored equipment in the facility.

Contractor will not sub-contract out any work; all work must be completed by the prime contractor, and only subcontractors included in the approved proposal and contract.

All employees of the Contractor shall comply with MTS regulations and California Public Utilities Commission (CPUC) rail safety rules and regulations as contained in CPUC General Order 172 for the duration of this contract. A training session outlining rail safety rules and regulations will be given by MTS at no charge to the Contractor and its employees before work any work begins.

Contractor employees are also subject to CPUC rules and regulations pertaining to the use of portable electronic devices while in or on SDTI yards, grounds and stations (http://www.cpuc.ca.gov/).

Contractor is solely responsible for the provision of painting equipment, tools, or personal protective equipment for use by its employees during the contract; MTS will not be held liable for any missing tools or equipment.

5.7 LABOR AND SUPERVISION

The Contractor shall always provide sufficient labor to carry out the service properly and shall ensure that competent workers who are skilled in the type of work required are employed.

The Contractor shall ensure that supervision is always provided while any work under this contract is being performed. If, in the judgment of MTS, any person is incompetent, disorderly, or found to be violating CPUC or MTS safety rules and regulations, the Contractor shall promptly remove and replace such person from the work for the duration of the contract.

5.8 LRV AVAILABILITY AND CONTRACTOR RESPONSE

All LRVs are inspected daily by the LRV Maintenance Department. When accident or vandalism damage is discovered, internal reports are generated. The open report will prompt a call from the MTS PM to the Contractor to initiate a repair action. The sequence of events leading to the completion of the repair work is listed below:

i. Call initiation to the Contractor for inspection of the damaged vehicle. The maximum response time by the Contractor to meet and inspect damaged vehicle is twenty-four (24) hours from the time the initial report call was placed.

ii. The time to complete the repair will be dependent on the extent of the damage and should be provided as an estimate for approval by the MTS PM prior to starting work.

iii. The size of the MTS fleet and the standards to which the vehicle finishes are maintained require daily scheduling of work. Expected scheduling of work shall include at a minimum two full finish restoration project vehicles monthly to repair all wear, vandalism road damages and finish defects. Of these restoration jobs only, a single vehicle will be provided at a given time. Additionally, MTS may schedule smaller spot repair jobs as needed, detail jobs. Historically these smaller jobs average 2-4 monthly. Accident repairs will be scheduled on an as needed basis and repair efforts often varies based on the severity of the damage incurred. In most cases an accident may replace one of the restoration jobs.

5.9 ENVIRONMENTAL AND SAFETY REGULATIONS

MTS or government regulatory agencies will inspect the facility for proper operation and compliance with environmental and safety regulations regularly. These inspections may be held without any prior notification to Contractor. As part of the inspection, the Contractor's compliance with Federal Environmental Protection Agency (EPA), California Air Resources Board (CARB), San Diego Air Pollution Control District (APCD), San Diego Fire Department (SDFD) and MTS regulations will be monitored.

Any issues found will be addressed with the Contractor for immediate resolution within the time period mandated by the regulatory agency. Any violation of OSHA, CAL OSHA, SDFD or MTS safety and fire regulations may cause an immediate cessation of work until resolved by the Contractor and cleared by the appropriate agency. Contractor will bear the sole responsibility for keeping itself informed of any changes to environmental laws or regulations. The Contractor will be thoroughly familiar with APCD regulations as they pertain to refinishing operations, as well as all local, state, and federal regulations relative to hazardous waste, storm water runoff, fire safety, and air pollution. The Contractor is expected to comply with all regulatory requirements. If MTS is cited and/or fined due to Contractor's non-compliance with any regulation or failure to comply to written violations, the amount of fine will be deducted from the next payment due to the Contractor. At its sole determination MTS may consider such non-compliance of any rule or written violation a material breach of this agreement and all other agreements relative to the use of the paint facility by the Contractor and may immediately terminate these agreements.

MTS will provide disposal service for hazardous waste generated by refinishing operations apart from equipment cleaning waste. The Contractor will collect the material and deposit in Hazardous Material (HazMat) containers provided by MTS and inform LRV management when

the material is ready for pick-up by a hazardous waste disposal service. Equipment cleaning waste shall be disposed of by the Contractor in accordance with local and state requirements.

The paints and products provided by MTS meet the requirements of APCD rule 67.20.1. In the event that any existing or future Federal, California State or San Diego City and County environmental regulations preclude the use of the MTS supplied Axalta products or other Imron Paint System products, Contractor will consult with Imron for a suitable substitute and advise the MTS PM in writing of any possible substitute products. All replacement products must be fully documented by Contractor.

5.10 WARRANTY AND SUPPORT

The Contractor shall provide a written ten (10) year warranty from the date of acceptance on any repairs and its application from fading, peeling, or cracking under normal use.

Rust repair or body repairs by Contractor shall be warranted for five (5) years against the reoccurrence of rust or cracking of body filler in the repaired areas.

Fabricated parts shall be warrantied for two (2) years from the date of installation against manufacturing defects and faulty installation if such installation is performed by the Contractor.

5.11 PAYMENT TERMS

Unless otherwise stated in the specifications or bid forms, one hundred (100%) of the contract price for each unit or units of material or equipment furnished and delivered under these specifications, will be paid to the Contractor within thirty (30) days after delivery to and acceptance by MTS, as herein provided, and after the statements covering the unit or units have been presented to MTS by the Contractor. Payment terms less than ten (10) days from acceptance will not be considered. ***Advanced Payment is Not Allowable.***

5.12 INVOICING AND LABOR DOCUMENTATION

Invoices must be sent to the MTS Accounting Department, via email at ap@sdmts.com. All invoices must have the Purchase Order and contract number clearly displayed to ensure timely payment. MTS will not pay on packing slips, receiving documents, delivery documents, or other similar documents. Invoices must be submitted for payment.

In addition to other MTS invoice documentation requirements that may be discussed elsewhere in the Contract, invoices to MTS for payment of services must also include the following items, either documented on the invoice itself or as attachments thereto:

i. Work order authorization from MTS showing approval to begin work.
ii. Complete documentation of all labor hours used on the project, by job title and time expended for each project.

At invoicing, materials/supplies cost shall be a fixed monthly cost.

Failure to submit all required documentation with the relevant invoices will result in rejection of such invoices by MTS and delay payment.

5.13 MTS USAGE HISTORY

See ATT 2

5.14 INVOICES

Invoices must be sent to the MTS Accounting Department, via email, at ap@sdmts.com. All invoices must have the Purchase Order and contract number clearly displayed to ensure timely payment. MTS will not pay on packing slips, receiving documents, delivery documents, or other similar documents. Invoices must be submitted for payment.

Payment terms shall be net 30 days from invoice date.

Contractors must also indicate if any of the invoiced amount(s) is for service or work provided by a subcontractor and indicate the amount that will be paid to the subcontractor. Contractors must also comply with the prompt payment requirements in the *Prompt Progress Payments* section of the Standard Conditions.

5.15 [NOT APPLICABLE] CONTRACTOR'S INFORMATION SECURITY RESPONSIBILITIES

5.16 BUY AMERICA

This scope of work may trigger Buy America and/or Build America Buy America requirements, which apply to construction materials, manufactured products, rolling stock, iron and steel. The below list of definitions and examples is not exhaustive and is only to be used as illustrative and a guidance tool for Contractor compliance.

5.16.1 CONSTRUCTION MATERIALS

A. Per Infrastructure Investment and Jobs Act (IIJA) Sec. 70912 (2)(C), all construction materials must be manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

B. "Construction materials" **includes** an article, material, or supply that is or consists primarily of:
   i. non-ferrous metals;
   ii. plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
   iii. glass (including optic glass);
   iv. lumber; or
   v. drywall.
      - Exception: "Construction Materials" **does not include** an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

C. According to the Office of Management and Budget (OMB) Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure M-22-11, April 18, 2022, a Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or

affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computers.

5.16.2 MANUFACTURED PRODUCT

Per IIJA Section 70912 (2)(B), all manufactured products used in the project must be produced in the United States. Examples for manufactured products provided per Appendix A to 49 CFR 661.3 include: Infrastructure projects not made primarily of steel or iron, including structures (terminals, depots, garages, and bus shelters), ties and ballast; contact rail not made primarily of steel or iron; fare collection systems; computers; information systems; security systems; data processing systems; and mobile lifts, hoists, and elevators.

5.16.3 [NOT APPLICABLE] ROLLING STOCK

5.16.4 IRON OR STEEL

Per IIJA Section 70912 (2)(A), all iron and steel used in the project must be produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Examples of iron and steel provided per Appendix A to 49 CFR 661.3 include: Items made primarily of steel or iron such as structures, bridges, and track work, including running rail, contact rail, and turnouts.

5.17 SAFETY DATA SHEETS (SDS)

Upon award, Contractors shall email the SDS for materials/ chemicals that will be used or stored at the construction site during the duration of the project, attention Ngan Nguyen, MTS Environmental Health and Safety Specialist at Ngan.Nguyen@sdmts.com for review or comment if needed. The Contractor shall notify the MTS Environmental Health and Safety Specialist if there are changes or updates to the SDS during the term of the contract to ensure the MTS recordkeeping is kept updated throughout the contract.

5.18 NO RIGHT TO POST SIGNS

The Contractor shall not post or otherwise affix signs, decals or other media on MTS property or equipment, except as required to maintain safety during the course of repair or maintenance work. No permanent signs, decals, or other media may be installed without MTS's express written permission.

5.19 [NOT APPLICABLE] REPLACEMENT PARTS

5.20 [NOT APPLICABLE] DELIVERY AND ACCEPTANCE

5.21 [NOT APPLICABLE] EXPEDITING

5.22 [NOT APPLICABLE] ACQUISITION OF ROLLING STOCK

L1693.0-25 Cost Form

Year	Description	Labor Monthly Cost	Monthly Cost Materials	Total Monthly Costs
Year 1	Contractor shall provide a fixed monthly rate to adequately staff and operate the MTS LRV Paint and Body Facility as detailed in this scope of work. This fixed monthly rate shall be inclusive of all costs required to operate, to include but not limited to the cost of labor, equipment, travel/transportation, insurance, overhead, profit and all other related costs including preparation and refinishing materials necessary to meet the work requirements described.	$ 392,534.00	$ 47,220.30	$ 439,754.30
Year 2	Contractor shall provide a fixed monthly rate to adequately staff and operate the MTS LRV Paint and Body Facility as detailed in this scope of work. This fixed monthly rate shall be inclusive of all costs required to operate, to include but not limited to the cost of labor, equipment, travel/transportation, insurance, overhead, profit and all other related costs including preparation and refinishing materials necessary to meet the work requirements described.	$ 410,784.00	$ 50,895.73	$ 461,679.73
Year 3	Contractor shall provide a fixed monthly rate to adequately staff and operate the MTS LRV Paint and Body Facility as detailed in this scope of work. This fixed monthly rate shall be inclusive of all costs required to operate, to include but not limited to the cost of labor, equipment, travel/transportation, insurance, overhead, profit and all other related costs including preparation and refinishing materials necessary to meet the work requirements described.	$ 428,584.00	$ 54,787.03	$ 483,371.03
Year 4	Contractor shall provide a fixed monthly rate to adequately staff and operate the MTS LRV Paint and Body Facility as detailed in this scope of work. This fixed monthly rate shall be inclusive of all costs required to operate, to include but not limited to the cost of labor, equipment, travel/transportation, insurance, overhead, profit and all other related costs including preparation and refinishing materials necessary to meet the work requirements described.	$ 445,784.00	$ 58,972.12	$ 504,756.12
Year 5	Contractor shall provide a fixed monthly rate to adequately staff and operate the MTS LRV Paint and Body Facility as detailed in this scope of work. This fixed monthly rate shall be inclusive of all costs required to operate, to include but not limited to the cost of labor, equipment, travel/transportation, insurance, overhead, profit and all other related costs including preparation and refinishing materials necessary to meet the work requirements described.	$ 463,534.00	$ 63,450.17	$ 526,984.17

YEAR 1: $439,754.30 x 12 = $5,277,051.60

YEAR 2: $461,679.73 x 12 = $5,540,156.76

YEAR 3: $483,371.03 x 12 = $5,800,452.36

YEAR 4: $504,756.12 x 12 = $6,057,073.44

YEAR 5: $526,984.17 x 12 = $6,323,810.04

GRAND TOTAL: $28,998,544.20

Metropolitan Transit System

Agenda Item No. 18

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Purchase of 24 Class C Propane Powered Medium Duty Mini Buses – Contract Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0744.1-22 (in substantially the same format as Attachment A) with Model 1 Commercial Vehicles, Inc. (Model 1) in the amount of $153,763.20 to change the seating on twenty-four (24) Class C Propane Powered Medium Duty Mini Buses.

Budget Impact

The total cost of this amendment is estimated to be $153,763.20 (inclusive of 7.75% CA sales tax), and the total cost of the contract is estimated to be $5,182,123.44 (inclusive this amendment). This project is funded by the Capital Improvement Project (CIP) account 1001111601-Mini Bus Replacement.

DISCUSSION:

On April 14, 2022 (Agenda Item (AI) 16), the MTS Board approved MTS Doc. No. B0744.0-22 with Model 1 for the purchase of up to eighteen (18) propane powered Class E Mini Buses in the amount of $4,465,915.38; and the transfer of $2.6 million from project 1001110101- FY20 American with Disabilities Act (ADA) Bus Procurement to project 1001111601 - FY22 Mini Bus Replacement to support the procurement of these Mini Buses.

On February 16, 2023 (AI 6), the MTS Board approved the revision to MTS Doc. No. B0744.0-22 with Model 1 Commercial and instead purchased up to twenty-four (24) Class C Propane Powered Medium Duty Mini Buses in the total amount of $5,028,360.24.

The fleet of twenty-four (24) buses was delivered and accepted by MTS in Fall 2024. However, to perform proper mobility device securement, MTS is requesting changes to the fleet. The last row of street-side passenger seats will need to be removed, and foldaway seats will be installed to give the operators a more accessible path to the securement tracks.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. B0744.1-22 (in substantially the same format as Attachment A) with Model 1 in the amount of $153,763.20 to change the seating on twenty-four (24) Class C Propane Powered Medium Duty Mini Buses.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Draft Amendment B0744.1-22
B. Cost Proposal

Metropolitan Transit System

Amendment 1

March 13, 2025 MTS Doc No. B0744.1-22

PURCHASE OF 24 CLASS C PROPANE POWERED MEDIUM DUTY MINI BUSES

Model 1 Commercial Vehicles, Inc.
Jason Spore
Transit Bid Manager
14740 Ramona Avenue
Chino, CA 91710

This shall serve as Amendment No.1 to the original agreement B0744.0-22 as further described below.

SCOPE

This amendment shall authorize the removal of the last row of street-side passenger seats and installation of foldaway seats on bus fleet 3401-3424 in accordance with Attachment A, Cost Proposal; and exercise Option Year 1.

SCHEDULE

Option Year 1 shall be effective from March 1, 2025 through February 28, 2026.

PAYMENT

This contract amendment shall authorize additional costs not to exceed $153,763.20 ($6,406.80 per bus x 24 buses). The total value of this contract including this amendment shall be in the amount of $5,182,123.44. This amount shall not be exceeded without prior written approval from MTS.

Please sign and return the copy to the Contract Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copies for your records.

Sincerely,

Sharon Cooney, Chief Executive Officer

Agreed:

Jason Spore, Transit Bid Manager
Model 1 Commercial Vehicles, Inc.

Date: _____

Attachment: A: Cost Proposal

DRAFT

MODEL 1

(888) 633-8380 | MODEL1.COM

MODEL 1 COMMERCIAL VEHICLES
14740 Ramona Ave.
Chino, CA, 91710

February 19, 2025

Mr. Charles Posejpal
Manager of Paratransit and Minibus
San Diego Metropolitan Transit System
100 16th St.
San Diego, CA 92101-7490

Re: Cost proposal from Model 1 / Creative Bus Sales for Foldaway Seat Installation

Charles,

Please see our cost proposal below for the installation of seats on your buses.

- (1) Double Foldaway Seat: $2256.00
- (1) Double Foldaway Seat: $2256.00
- Labor to remove current seats and install double foldaway seats: $1500.00
- Sales Tax @ 8.75% for parts only ($4512): $394.80
- Total Cost per Bus: $6,406.80

Foldaway seats will be covered in Docket 90 to match MTS current fleet:
Seats will also be equipped with USR Seat Belts, Grab Handles, and TDSS for restraint storage.

Seats will be installed at Model 1 / Creative Bus Sales facility in Chino, California.
We ask that MTS provide transportation of the vehicles to our facility for the installation of the seats.

Lead time for seats is 10 to 12-weeks from receipt of purchase order.
Installation will be scheduled based upon MTS availability of vehicles.

Thank you.

Steve Chung
Regional Vice President of Sales
Cell 909.549.9394
schung@model1.com

Setting the example the industry follows

Metropolitan Transit System

Agenda Item No. 19

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Elevator Maintenance at San Diego State University Transit Center – Operations and Maintenance Agreement Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Amendment No. 2 to the Operation and Maintenance Agreement with San Diego State University (SDSU), MTS Doc. No. M6644.2-06 (in substantially the same format as Attachment A), regarding elevator maintenance at the SDSU Transit Center.

Budget Impact

The budget impact is anticipated to be approximately $520 per month for regular maintenance activities ($6,240 annually), with costs escalating approximately 4% each year.

DISCUSSION:

On June 30, 2006, San Diego Metropolitan Transit System (MTS) and San Diego State University (SDSU) executed an Operations and Maintenance Agreement (O&M Agreement) related to the operation and maintenance for the Mission Valley East light rail transit extension's new transit center on the SDSU campus.

As part of the Mission Valley East project, four elevators were constructed to provide Americans with Disabilities Act (ADA) access between the underground trolley station and the SDSU campus. MTS and SDSU have worked collaboratively to safely and efficiently operate the trolley station at the center of SDSU's campus. Because SDSU has elevators throughout the campus, and because many of the users of the trolley station elevators are SDSU students, employees, or visitors, SDSU and MTS agreed that SDSU would be the lead for elevator maintenance and emergency service calls at the trolley station. This allowed MTS to benefit from SDSU's existing elevator maintenance agreement and the proximity of elevator maintenance personnel who are already on campus. This arrangement has worked well for MTS and SDSU.

As part of recent discussions with SDSU, the responsibility of the elevator maintenance has been re-examined. Since 2006, in addition to being responsible for elevator maintenance

services and emergency responses, SDSU has paid the full costs of this maintenance (approximately $1,040 per month or $12,480 per year) and incidental repair costs that arise.

In staff discussions between MTS and SDSU, it was determined that the intent of the O&M Agreement provisions assigning trolley station elevator maintenance responsibility to SDSU was to facilitate prompt and cost-effective elevator maintenance and emergency responses. It was not intended to shift the full cost and burden of the station elevators to SDSU. SDSU has requested that the O&M Agreement be modified to specify that while SDSU will be responsible for completing any elevator maintenance, MTS will reimburse SDSU for 50% of such costs. Staff believes this is a fair and equitable resolution to this cost sharing/burden issue.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact:

Attachment. A. Draft Amendment M6644.2-06 to SDSU Operating and Maintenance Agreement

Amendment No. 2 to OPERATION AND MAINTENANCE AGREEMENT FOR THE MISSION VALLEY EAST LIGHT RAIL TRANSIT EXTENSION, LIGHT RAIL TRANSIT STATION AND BUS CENTER AT SAN DIEGO STATE UNIVERSITY

This Amendment No. 2 (Amendment 2) to the Operation and Maintenance Agreement for the Mission Valley East Light Rail Transit Extension, Light Rail Transit (LRT) Station and Bus Center at San Diego State University (SDSU LRT O&M Agreement) is entered into as of _____, _____ between The Trustees of the California State University, by and through San Diego State University (SDSU), and the San Diego Metropolitan Transit Development Board, also known as the San Diego Metropolitan Transit System (MTS) (collectively referred to herein as the "Parties").

RECITALS

A. Between 1999 and 2005, MTS constructed the Mission Valley East LRT Extension Project (Project), which included a 5.6-mile extension of the MTS Green Line from the Mission San Diego Station to Grossmont Center. The Project constructed four new trolley stations: Grantville, SDSU, Alvarado Medical Center, and 70th Street and connected this east-west trolley route from Old Town Transit Center to Santee.

B. The Parties entered into the SDSU LRT O&M Agreement on June 30, 2006 to establish each party's respective rights and duties related to the operation, maintenance and security for the LRT Extension, LRT Station and Bus Transit Center at SDSU, and SDSU's utilization of MTS's prior bus transit center.

C. As part of the Project, MTS constructed four elevators to provide Americans with Disabilities Act (ADA) access to the LRT Station at SDSU.

D. Article 6(a) and (b) of the SDSU LRT O&M Agreement govern the respective maintenance obligations of MTS and SDSU as it related to the LRT Station and Bus Transit Center at SDSU.

E. By this Amendment 2, the Parties desire to clarify and amend the responsibilities under the SDSU LRT O&M Agreement as it relates to the LRT Station Elevators defined below.

AGREEMENT

Notwithstanding anything in the SDSU LRT O&M Agreement to the contrary, the Parties agree as follows:

1. LRT Station Elevators.

a. Pursuant to Article 6(a), MTS has the sole and exclusive responsibility to maintain, clean, and keep in good condition various improvements, including the glass walls of the elevator structures at the LRT Station. Nothing in this Amendment 2 is intended to modify MTS's obligations under Article 6(a).

b. Pursuant to Article 6(b), SDSU has the sole and exclusive responsibility to clean, maintain, and keep in good operating condition the elevator mechanical structures at the LRT Station (LRT Station Elevators). The parties agree that SDSU agrees to assume this

obligation to improve service response times and benefit SDSU campus visitors and MTS LRT Station patrons because of the proximity of SDSU's on-campus elevator maintenance employees and contractors to the LRT Station. By this Amendment 2, MTS acknowledges the benefit provided by SDSU maintenance of the LRT Station Elevators and agrees to reimburse SDSU for certain LRT Station Elevator maintenance costs as set forth in Paragraph 1(c) below.

c. Effective April 1, 2025, MTS agrees to reimburse SDSU for fifty percent (50%) of the reasonable costs to maintain the LRT Station Elevators pursuant to Article 6(b). This does not include major repair or replacement projects nor repairs caused by misuse or abuse. For example, as of the date of this Amendment 2, the estimated third-party maintenance contract cost for the LRT Station Elevators is $1,040/month. Under this Paragraph 1(c), MTS's cost share would be $520/month. On an annual basis, MTS and SDSU shall mutually agree to an estimated budget for the costs subject to reimbursement under this Paragraph 1(c). Any costs shared under this Amendment 2 shall be based on SDSU's competitively bid contract for campus-wide elevator maintenance, unless otherwise agreed in writing by MTS. SDSU shall invoice MTS, in arrears, for its share of the LRT Station Elevator maintenance costs every 6 months. Invoices shall be accompanied by supporting documentation showing expenses paid by SDSU and the 50% cost share allocation to MTS under this Amendment 2. All undisputed invoices shall be paid by MTS within thirty (30) days of receipt and payments should reference CRS #77661 to ensure proper application of the payment. Invoices should be remitted to:

Rolando Montes
SDTI Director of Rail Facilities
San Diego Metropolitan Transit System (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101
AP@sdmts.com; Rolando.Montes@sdmts.com

2. Term. This Amendment shall be coterminous with the SDSU LRT O&M Agreement; provided, however, that either party may terminate this Amendment and the obligations set forth in Paragraph 1, by providing the other party with at least 90 days written notice.

3. All other terms of the SDSU LRT O&M Agreement shall remain in full force and effect.

DRAFT

IN WITNESS WHEREOF, The Trustees of the California State University, by and through San Diego State University (SDSU), and the San Diego Metropolitan Transit Development Board have executed this Amendment No. 2 to the SDSU LRT O&M Agreement

SAN DIEGO STATE UNIVERSITY	SAN DIEGO METROPOLITAN TRANSIT DEVELOPMENT BOARD
By:_____ Eric Hansen AVP - Business Operations	By:_____ Sharon Cooney Chief Executive Officer
Date: _____	Date: _____
Approved as to form:	Approved as to form:
By:_____ Office of the General Counsel for the California State University	By:_____ Karen Landers MTS General Counsel

DRAFT

Metropolitan Transit System

Agenda Item No. 20

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Property Insurance Renewal

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to:

1. Renew the property insurance coverage for the MTS, San Diego Transit Corporation (SDTC), and San Diego Trolley, Inc. (SDTI) with the Public Risk Innovation, Solutions, and Management (PRISM) Property Insurance Program, effective March 31, 2025 through March 31, 2026, with various coverage deductibles of $50,000 (real property, personal property and business interruption), $100,000 (bus fleet), $250,000 (light rail fleet), and a $3,000,000 sublimit on each occurrence subject to a $500,000 deductible for unscheduled infrastructure, for a total not to exceed premium of $5,194,479.

2. Purchase stand-alone Engineered Risk Property insurance coverage for the Mid-Coast bridges with Chubb, effective March 31, 2025, through March 31, 2026, with a $100,000,000 per occurrence property damage sub-limit and a coverage deductible of $1,000,000, for a total not to exceed premium of $290,000.

Budget Impact

Property Insurance (Prism):

The preliminary renewal premium would not exceed $5,194,479 which represents an up to $934,491 combined possible increase over last year's actual premium of $4,259,988. The premium is anticipated to be charged against the budgets of MTS ($214,000), SDTC ($1,242,000), and SDTI ($3,738,479). The premium would be split between fiscal years 2025 and 2026 as follows:

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

PROPERTY PREMIUM ESTIMATED FISCAL YEAR SPLIT			
Policy Period: 03/31/25 - 03/31/26			
Agency	FY 25	FY 26	Total Premium
MTS	$53,500	$160,500	$214,000
SDTC	$310,500	$931,500	$1,242,000
SDTI	$934,620	$2,803,859	$3,738,479
TOTAL	$1,298,620	$3,895,859	$5,194,479

Mid-Coast Bridges – Standalone Policy (Chubb):

The preliminary renewal premium would not exceed $290,000 and charged against the SDTI budget. The premium would be split between Fiscal Year (FY) 2025 and 2026 as follows:

PROPERTY PREMIUM ESTIMATED FISCAL YEAR (FY) SPLIT			
Policy Period: 03/31/25 – 03/31/26			
Agency	FY 25	FY 26	Total Premium
SDTI	$72,501	$217,499	$290,000

DISCUSSION:

Property Insurance (Prism):

MTS's current property insurance policy will expire on March 31, 2025. This line of coverage insures against physical damage, vandalism and theft caused to the real and personal property of MTS, SDTC, and SDTI, which together includes over $2.3 billion in total insured values. Business Interruption coverage is also included in this policy. The coverage is obtained through the PRISM, which is a joint-powers insurance authority of 354 public entity members. Of this number, approximately 120 members participate in the property insurance program. SDTC has been insured through this group since 1993. The other MTS agencies became insured with PRISM in 1997.

PRISM provides a complex layering of multiple insurance carriers, including both domestic and international insurers. Due to the size of its membership, PRISM has tremendous premium purchasing power. Special form perils coverage provides risk protection on most perils (including terrorism) and causes of loss unless specifically excluded by the policy. Some of the perils excluded from MTS' program include earthquake, wear and tear, pollution, war risk, employee fraud, nuclear radiation, and loss to unscheduled landscaping, money, or watercraft. These exclusions do not include every peril or property specifically excluded; however, they are examples of the types of losses that would not be covered.

The proposed renewal policy carries an all-risk limit of $600 million, which applies to perils for any one occurrence. Under the proposed renewal, the following occurrence-based deductibles would apply: (1) $50,000 for real property, personal property & business interruption; (2) $100,000 for buses; (3) $250,000 for light rail vehicles; and (4) $3,000,000 sublimit on each occurrence subject to a $500,000 deductible for unscheduled infrastructure. Loss valuation is generally calculated on a replacement cost basis. Total Insured Values (TIV) are up 3% mostly due to trending. TIV is subject to change as there are several property appraisals pending approval.

Since the latter part of Calendar Year (CY) 2019, the property market has experienced significant hardening resulting in considerable premium increases to all property insurance buyers in both the public and private sectors. While we saw some market improvement in 2024, the Southern California fires in early 2025 have left some uncertainty while the market determines the actual insured impact. The magnitude of the fires has had an impact on the overall property market and on this year's renewal pricing. We believe that this impact on pricing will be contained within the not to exceed renewal premium being presented. As the PRISM program negotiations are finalized up until the end of March 2025, we are hopeful that the final premium will be reduced. Despite any potential increase, MTS still saves premium dollars and is afforded lower deductibles overall by insuring its property through PRISM than it would on a stand-alone basis.

Mid-Coast Bridges – Standalone Policy (Chubb):

MTS staff attempted to add the twelve bridges that have been constructed as part of the Mid-Coast project to the property program with PRISM last year. PRISM declined to provide coverage for the new bridges/guideways, stating bridges are now outside of their underwriting guidelines. They have been willing to continue covering the bridges that have historically been covered under the Program but are not able to add new bridge exposure. In order to honor the insurance language in the federal TIFIA loan agreement for the Mid-Coast project, staff worked with our broker, Alliant Insurance Services, to secure options to cover these bridges on a standalone basis outside of the PRISM Program. Coverage was placed with Chubb (Illinois Union Insurance Company) effective 11/01/2023 – 3/31/2025.

The policy provides "all-risk" property coverage, with certain perils specifically excluded by the policy. Some of the perils excluded under this policy include earthquake, corrosion, decay, normal settling, shrinking, faulty workmanship and error, omission or deficiency in design, pollution, war risk, and nuclear radiation. These perils listed do not include every peril or property specifically excluded; however, they are examples of the types of losses that would not be covered. Terrorism Risk Insurance Act (TRIA) is available for purchase and included in the quoted premium.

The policy carries an all-risk limit of $100 million, which applies to perils for any one occurrence. Under the policy, the following occurrence-based deductible would apply: $1 million for real property.

MTS and its entities have traditionally elected not to purchase optional earthquake coverage as the terms and conditions primarily support real estate damage caused by an earthquake event with high deductibles. The coverage would not support the majority of MTS's infrastructure and guideways.

Therefore, staff recommends that the MTS Board of Directors Authorize the Chief Executive Officer (CEO) to:

1. Renew the property insurance coverage for the MTS, SDTC, and SDTI with the PRISM Property Insurance Program, effective March 31, 2025, through March 31, 2026, with various coverage deductibles of $50,000 (real property, personal property and business interruption), $100,000 (bus fleet), $250,000 (light rail fleet), and a $3,000,000 sublimit each occurrence subject to a $500,00,000 deductible for unscheduled infrastructure, for a total not to exceed premium of $5,194,479.00

2. Purchase stand-alone Engineered Risk Property insurance coverage for the Mid-Coast bridges with Chubb, effective March 31, 2025, through March 31, 2026, with a $100,000,000 per occurrence property damage sub-limit and a coverage deductible of $1,000,000, for a total not to exceed premium of $290,000.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Metropolitan Transit System

Agenda Item No. 21

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Excess General Liability (Liability) And Excess Workers' Compensation (Workers' Compensation) Insurance Renewals

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to purchase a liability insurance program, effective March 31, 2025, that results in a not to exceed premium amount of $4,242,918 (including the State of California surplus lines taxes and fees) based on the coverage structure of $75 million inclusive of a $7.5 million Self Insured Retention (SIR) on Bus and Rail Operations, and a $5 million SIR on public officials' errors and omissions, and employment practices liability.

Budget Impact

The contract cost of this insurance programs is estimated to be $4,242,918 (through March 30, 2026), including applicable taxes and fees. This represents a 16.75% increase compared to the approved Liability program cost for March 30, 2024 to March 30, 2025.

The coverage will be funded by the operating budgets of MTS, San Diego Transit Corporation (SDTC), San Diego Trolley, Inc. (SDTI), and San Diego & Arizona Eastern Railroad (SD&AE). The approximate annual breakdown of insurance cost between MTS cost centers is noted within the table below:

EXCESS LIABILITY INSURANCE PREMIUM COST ALLOCATION					
AGENCY	MTS 633010-562210	SDTC 633014-562210	SDTI 633016-562210	SD&AE 771017-562210	TOTAL
Excess Liability	$509,150	$1,888,099	$1,803,240	$42,429	$4,242,918

DISCUSSION:

Each year MTS purchases insurance to protect against various risks. Today's proposed action addresses MTS insurance policies for Liability. MTS's current Liability insurance program was approved on March 14, 2024 (AI 18), and was for a policy period of March 31, 2024 to March 30, 2025.

The nature of the insurance market and negotiations for new policies is such that insurance companies and their underwriters generally will not provide renewal quotations until shortly before the renewal date. Often, final negotiations are not wrapped up until the final weeks (or days) before a new program commences. Staff has been in extensive discussions with MTS insurance brokers, Alliant, over the past several months as they have engaged with our underwriters over the cost and structure of a new program.

Excess General Liability – Current Program

MTS' Liability insurance policy covers various areas of potential risk to MTS and its wholly owned entities (SDTC, SDTI, and SD&AE). Primarily, this includes bodily injury, property damage and other damage claims that are inherent in Bus and Rail Operations. Historically, MTS' insurance coverage has been structured so that MTS is directly responsible for a self-insured layer (the "SIR"), the amount of which has varied over the years based on insurance market conditions and our own independent actuarial projections of the ultimate expected cost in the retained layer. Only if a lawsuit or claim exceeds, or is reasonably expected to exceed the SIR, does MTS' excess liability coverage step in. MTS currently keeps a self-insurance reserve amount in its annual operating budget specifically to partially cover claims that fall within the insurance retention amounts but exceed the annual budget of the Risk Department. Where anticipated, the Risk Department budget includes sufficient funds to pay known and possible claims. The MTS Risk Department internally manages and resolves liability claims, either directly or by overseeing litigation handled by outside counsel. Pursuant to Board Policy No. 51 requires Board approval of any liability claim settlement over $50,000.

Coverage limits and retentions have varied over the years based on insurance market conditions, third party requirements, and perceptions of a reasonable maximum foreseeable loss.

Currently, MTS purchases $75 million in insurance limits, inclusive of its $7.5 million retention, for its operations for Bus, Light Rail, and general liability, and a $5 million retention for public officials' errors and omissions and employment practices liability. No single insurer will provide such limits given the nature of the risk involved, so coverage is purchased in a "layered and quota share" arrangement with numerous insurers both domestic and abroad participating in the program. The total limit is intended to adhere to the requirements set by MTS' Shared Use Agreement with North County Transit District (NCTD) and Burlington Northern Santa Fe (BNSF) Railway, which governs the shared light and heavy Rail Operations on the railroad right-of-way between Santa Fe Depot and Oceanside. Under that agreement, MTS is required to maintain at least a $75 million (retention plus limits purchased) limit. NCTD and BNSF are required to maintain much higher limits ($295 million and $200 million respectively as of 2023) based on the difference in perceived risk between MTS Rail Operations and NCTD, Amtrak and BNSF heavy rail operations.

While MTS is under no obligation to carry a specific limit of coverage for its Bus Operations (or other) operational activities; historically, it has carried the same limits of coverage as Rail, for the sake of consistency, and as it has been financially efficient to do so.

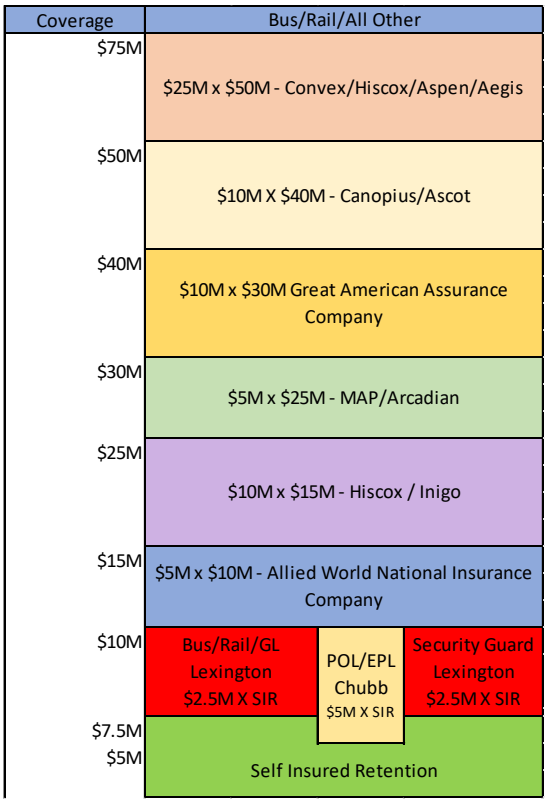
The Excess Insurance Market for Transit Risks

Rates for the excess liability coverage are generally based on a combination of passenger counts, revenue miles, operating revenue, construction costs, loss history, SIR, and current market conditions.

Beginning in 2020, unfavorable insurance market conditions (catastrophic weather-related losses and extreme jury verdicts) began causing widespread disruptions in the availability of commercial insurance. For MTS and other public transit agencies, the difficult market conditions had been felt most notably in the Liability market. Recently, demand for limits of coverage have outstripped supply relative to past market cycles, and prices increased accordingly. Specific loss activity of MTS also put pressure on rates.

For our 2025 renewal, our insurance broker, Alliant, is seeking various options for limits and retentions to combat expected price increases and potential narrowing of the terms and conditions of coverage. For 2024, an unusual amount of difficulty was faced as our long-term lead insurer, MunichRE, citing the litigious environment in California and likelihood of adverse verdicts in the public entity space, decided to not offer renewal terms. While this year's renewal is not shaping up to be as difficult as last year, relatively challenging conditions persist within the overall liability market, contributing to an adverse environment for insurance placement. After considering available options, MTS staff is recommending a Liability program that retains the essential coverage elements of the expiring program through a combination of insurers attaching at a $7.5 million SIR for Bus, Rail, and premises liability and $5 million SIR for public officials' errors and omissions and employment practices liability.

The program limits of $75 million inclusive of MTS SIRs is achieved through a combination of both domestic and international insurers. The chart reflects a draft of the placement structure, reflecting likely participation by insurer for our renewal program. Alliant continues to organize the final placement to maximize pricing efficiencies and coverage benefits to MTS, and thus the final placement may vary somewhat to reflect this.



Therefore, staff recommends that the MTS Board of Directors authorize the CEO to purchase a Liability insurance program, effective March 31, 2025, that results in a not to exceed amount of $4,242,918 (including the State of California surplus lines taxes and fees) based on the coverage structure of $75 million inclusive of a $7.5 million SIR on Bus and Rail Operations and a $5 million SIR for public officials' errors and omissions and employment practices liability.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Metropolitan Transit System

Agenda Item No. 22

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Overview of Disadvantaged Business Enterprise (DBE) Program and Revisions to Board Policy No. 26 “DBE Program” (Samantha Leslie)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors approve revisions to Board Policy No. 26, “DBE Program” (Attachment B).

Budget Impact

None with this action.

DISCUSSION:

As a Federal Transit Administration (FTA) grantee, MTS complies with the federal regulations set forth in 49 CFR Part 26 regarding participation by DBEs in the U.S. Department of Transportation (DOT) Program.

I. Goals of MTS’s DBE Program

The goals of MTS’s race-neutral DBE program are:

1. to ensure nondiscrimination in the award and administration of DOT-assisted contracts;
2. to create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
3. to ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. to ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
5. to help remove barriers to the participation of DBEs in DOT-assisted contracts;
6. to assist the development of firms that can compete successfully in the marketplace outside of the DBE program; and
7. to provide appropriate flexibility to recipients of federal financial assistance in establishing and providing opportunities for DBEs.

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

II. MTS's DBE Triennial Overall Goal for FFY 2022-2024

The DBE regulations require MTS to prepare a DBE Triennial Overall Goal. The DBE Triennial Overall Goal is established upon the number of ready, willing, and able DBE contractors within MTS's geographic market area that are available to bid on MTS's federally assisted procurements (excludes transit vehicle procurements).

For FFY 2022-2024 (October 1, 2021 to September 30, 2024), MTS's aspirational DBE Overall Goal is **6.3%** on federally funded contracts. Please note, MTS recently adopted its aspirational DBE Overall Goal on federally funded contracts for FFY 2025-2027 (October 1, 2024 to September 30, 2027), of **5.6%,** which will be the goal used for future Semiannual DBE Reports (See MTS Board of Directors July 18, 2024 Meeting Agenda Item No. 5 for further information on MTS's FFY 2025-2027 DBE Overall Goal Methodology).

III. Participation by certified DBEs

For purposes of reporting DBE participation to the FTA, MTS may only count participation by certified DBE contractors. In order to be certified as a DBE through the California Unified Certification Program, contractors must:

(1) have a majority owner who is **socially and economically disadvantaged** (Native Americans, Black Americans, Hispanic Americans, Asian-Pacific Americans, Subcontinent Asian Americans, Women and any additional groups whose members are designated as socially and economically disadvantaged by the U.S. Small Business Administration (SBA)) are currently presumed to be socially and economically disadvantaged by the DOT);

(2) the majority owner must have a personal net worth of less than **$2,047,000**; and

(3) the business must be a **small business** and, for *most* types of businesses, have average annual gross receipts less than **$30,720,000**.

Per DOT DBE Regulations, MTS *may not* count participation from non-DBE certified firms towards achievement of its DBE Triennial Overall Goal. This includes non-DBE certified firms such as minority owned businesses (MBE), disabled veteran owned businesses (DVBE), women owned businesses (WBE), small businesses (SB), lesbian gay bisexual transgender owned businesses (LGBTBE), persons with disabilities businesses (PDBE). Nonetheless, MTS encourages participation from, conducts outreach to, and tracks awards to these firms on contracts, no matter the funding source.

IV. Race-Neutral Outreach Measures to Increase DBE and SBE Participation

A race-neutral DBE program means that there are no DBE contract specific goals and no advantages provided to interested DBE contractors when submitting bids or proposals. Successful bidders are chosen using race-neutral means, generally through a low-bid or best-value procurement process.

To increase DBE participation on MTS's federally assisted procurements, as well as SBE participation on all MTS's contracts, MTS conducts outreach to DBEs and SBEs in an effort to

inform them of upcoming MTS procurements. The following are some of the race-neutral measures MTS has implemented:

1. outreach to new vendors to provide the benefits of DBE, MBE, DVBE, WBE, SB, PDBE and/or LGBTBE certification and what qualifications are necessary to become certified, as some may already qualify;

2. outreach to vendors requesting that they register on PlanetBids so they can receive automatic notification of upcoming MTS procurements;

3. for small purchase procurements in which MTS must seek out three (3) bids, MTS aims to advertise more of these procurement on PlanetBids so as to increase the potential of DBEs, and SBEs learning of the procurement, if such a contractor is available to perform the work;

4. for small purchase procurements in which MTS must seek out three (3) bids, seeking at least one (1) of those bids from a DBE or SBE, if available; and

5. attend and actively promote small business conferences and programs to alert DBEs and SBEs of upcoming MTS contracting opportunities and to educate about MTS's DBE program.

MTS also continued to attend San Diego Public Agency Consortium (PAC) bi-monthly meetings, as well as the Local Small Business Council bi-monthly meetings, virtually. At these meetings, public agencies discuss upcoming planned outreach events amongst the members and best practices regarding their agency's DBE and SB programs.

V. Federally Funded Procurements

Only contracts awarded and paid by MTS using federal funds (or a portion of federal funds) are reported to the FTA per DOT DBE Regulations. MTS generally reserves federal funds for transit vehicle procurements, transit facility improvements, state-of-good-repair vehicle or system preventative maintenance projects, and contracted fixed route and paratransit bus services. MTS generally uses local and state funds for administrative costs and other expenses (e.g. marketing, land management, office supplies).

VI. Summary of Achievement Toward Meeting MTS's DBE Triennial Overall Goal

While the specific DBE participation rate for each six (6) month reporting period may fluctuate, the goal of the MTS DBE program is to achieve the 6.3% DBE Triennial Overall Goal as an average for the FFY 2022-2024 triennial period. MTS has **achieved** its DBE Triennial Overall Goal of 6.3% for FFY 2022-2024. MTS achieved **18.94%** DBE participation for FFY 2022-2024, as shown below in Table 4. MTS's DBE and other non-DBE certified firm participation rates using local funds is shown in Attachment A.

Table 4: DBE Achievement for FFY 2022-2024

DBE Achievement for FFY 2022-2024				
FFY	**Reporting Period**	**Total Federal Awarded**	**Total DBE Awarded**	**DBE %**
FFY 2022	Oct 1 21 to Mar 31 22	$7,843,315.85	$234,599.40	**2.99%**
FFY 2022	April 1 22 to Sept 30 22	$6,977,851.08	$92,523.71	**1.33%**
FFY 2023	Oct 1 22 to Mar 31 23	$17,806,277.45	$7,965,351.88	**44.73%**
FFY 2023	April 1 23 to Sept 30 23	$9,630,377.28	$2,237,323.28	**23.23%**
FFY 2024	Oct 1 23 to Mar 31 24	$11,394,054.87	$240,626.03	**2.11%**
FFY 2024	April 1 24 to Sept 30 24	$3,624,621.11	$75,249.65	**2.08%**
TOTAL		**$57,276,497.64**	**$10,845,673.95**	**18.94%**
Achievement Toward Meeting FFY 2022-2024 DBE Triennial Overall Goal of 6.3% (FFY 2022-2024 Total DBE Awarded ÷ FFY 2022-2024 Total Fed Awarded)		**18.94%** Achieved 18.94% towards DBE Overall Triennial Goal of 6.3%		

VII. DBE Program – Revisions to Board Policy No. 26

MTS Board Policy No. 26 outlines how MTS implements the DOT's DBE Regulations. MTS's DBE Program includes: MTS's objectives towards utilization of DBEs and other small businesses; the staff person responsible for the DBE Program implementation; how MTS aims to increase DBE and other small businesses participation on its DOT-assisted contracts; and how MTS ensures its prime contractors and subcontractors are complying with MTS's DBE Program.

One such DOT requirement is ensuring agencies proactively monitor, oversee and as necessary enforce, prime contractors and subcontractors prompt payment and return of retainage to subcontractors and lower-tier subcontractors on federally funded contracts. MTS recently developed a new workflow within its enterprise resource management program to confirm prompt payment of subcontractors when reviewing applicable contractor invoices. The proposed revisions to MTS Board Policy No. 26 reflect this new review process and clarify the requirements relating to prompt payment and return of retainage to subcontractors.

In addition to MTS's requirements to conduct outreach to DBE firms, MTS is also required to foster SB participation and, where possible, consider MBE, WBE, DVBE and Department of Labor (DOL) labor surplus area firms. MTS's current practice includes outreach to DBE, SB, MBE, WBE, DVBE, LGBTBE, PDBE and other firms. Outreach examples include sharing resources that can provide technical and financial assistance, including these certified firms on solicitation lists, and encouraging prime contractors to work with these firms when identifying subcontractor opportunities. MTS Board Policy No. 26 had not previously included a description

of this expanded outreach. The proposed revisions to MTS Board Policy No. 26 reflect this current practice an.

Therefore, it is staff's recommendation that the MTS Board of Directors approve revisions to Board Policy No. 26, Disadvantaged Business Enterprise Program (Attachment B).

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. History of Semi-Annual Reports – Local funds only
B. Proposed Revisions to MTS Board Policy No. 26 (shown in red-line track changes)

Local Funds Only - MTS History of DBE and non-DBE Semi Annual Reports

Local Funds Only - Contract Awards/Commitments*						
	REPORTING PERIOD	Total Local $$	Local DBE $$	Local DBE %	Local SB, MBE, WBE, DVBE, PDBE, LGBTBE $	LOCAL SBE %
FFY22	**Oct 1 21 to Mar 31 22**	$ 50,231,313.03	$ 402,757.30	0.80%	$ 6,146,959.85	12.24%
	Apr 1 22 to Sept 30 22	$ 38,373,261.41	$ 578,277.48	1.51%	$ 1,579,353.28	4.12%
FFY23	**Oct 1 22 to Mar 31 23**	$ 49,559,489.62	$ 2,475,511.14	5.00%	$ 11,191,143.88	22.58%
	Apr 1 23 to Sept 30 23	$ 44,168,855.19	$ 3,209,262.05	7.27%	$ 1,082,280.00	2.45%
FFY24	**Oct 1 23 to Mar 31 24**	$ 66,492,646.87	$ 4,005,458.08	6.02%	$ 6,478,136.51	9.74%
	Apr 1 24 to Sept 30 24	$ 70,024,422.21	$ 6,873,810.28	9.82%	$ 3,693,438.85	5.27%
FFY22-24	**Oct 1, 2021 thru Sept 30, 2024 (6 semi-annual reports *IN PROGRESS*)**	**$ 318,849,988.33**	**$ 17,545,076.33**	**5.50%**	**$ 30,171,312.37**	**9.46%**

***Transit Vehicle Procurements (buses, trolleys) from Transit Vehicle Manufacturers (TVM) are not included in this Report per DOT DBE Regulations. TVMs have their own DBE Program, Goals and Reporting requirements. Inventory procurements are also not included. Only at time an inventory item is issued from store room will the federal/local breakdown be known, not at the time of purchase. ***

****In FY17, MTS began using the U.S. Small Business Administration Database, which provides a listing of Small Businesses. This Database tracks firms in which revenues and/or number of employees do not exceed the North American Industry Classifcation System (NAICS) code's small business size standards, which is used to determine whether a DBE is a small business or not.****

Metropolitan Transit System

Policies and Procedures No. 26

Board Approval: ~~6/20/2024~~3/13/2025

SUBJECT:

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

PURPOSE:

To provide a program to ensure nondiscrimination in the award and administration of federally-assisted contracts and create a level playing field on which disadvantaged business enterprises (DBEs) can compete fairly for those contracts.

POLICY:

26.1 POLICY STATEMENT AND PROGRAM OBJECTIVES

Policy Statement/Objectives (49 CFR § 26.3, § 26.7, § 26.21, § 26.23)

San Diego Metropolitan Transit System (MTS) has established and adopted a DBE program in accordance with regulations of the U.S. Department of Transportation (DOT), Title 49, Code of Federal Regulations, Part 26 "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs (49 CFR Part 26)." MTS has received Federal financial assistance from the DOT and as a condition of receiving this assistance, MTS has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of MTS to ensure that DBEs as defined in 49 CFR Part 26 have an equal opportunity to receive and participate in MTS's DOT-assisted contracts. It is also our policy to:

1. Ensure nondiscrimination in the award and administration of all MTS contracts and subcontracts;

2. Create a level playing field by which DBEs can compete for and perform in MTS's DOT-assisted contracts;

3. Ensure that the MTS DBE Program is narrowly tailored in accordance with applicable law and current legal standards, including the Ninth Circuit Ruling in *Western States Paving vs. Washington State Department of Transportation*;

4. Ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;

5. Help remove procurement and contracting barriers, which impede DBE participation in MTS DOT-assisted contracts;

6. Monitor and enforce contractors' compliance in meeting established goal objectives and program requirements;

7. Assist in the development of DBEs and Small Businesses to increase their ability to compete successfully in the market place outside the DBE Program; and

8. Ensure MTS contractors and subcontractors take all necessary and reasonable steps to comply with these policy objectives.

As evidence of MTS's commitment to pursue these policy objectives, the Chief Executive Officer has designated Deputy General Counsel as the DBE Liaison Officer (DBELO). In this capacity, the DBELO is responsible for implementing all aspects of the DBE program. The DBELO has direct access to the Chief Executive Officer for DBE-related matters. Implementation of the DBE program is accorded the same priority as compliance with all other legal obligations incurred by MTS in its financial assistance agreements with DOT. MTS will disseminate this policy statement (See Exhibit A) to all of the departments of our organization through its intranet. Additionally, MTS will distribute this policy statement to DBE and non-DBE business communities that perform or are interested in performing work on MTS projects through its website. Through such efforts, MTS will ensure DOT-assisted contracting and procurement related processes promote equity in access, consideration and opportunity for DBEs and other small businesses in response to requirements set forth under 49 CFR Part 26, DOT Directives and Final Rules.

26.2 APPLICABILITY (49 CFR § 26.3, § 26.21)

MTS is a direct recipient of federal funds from the DOT and considered a Federal Transit Administration (FTA) Tier I recipient, as defined at 49 CFR §26.5. As a condition of Federal financial assistance, MTS is required to submit for approval to the DOT Operating Administration from which it receives the majority of its funding, a DBE Program developed in accordance with federal regulations published under 49 CFR Part 26 and subsequent guidance. This DBE Program sets forth the policies and procedures to be implemented by MTS to ensure that DBEs have an equitable opportunity to participate in DOT-assisted contracting opportunities.

In direct response to these regulatory requirements, MTS hereby establishes a DBE Program, which will:

1. Comply with federal regulations and financial assistance agreements;
2. Meet legal standards for narrow-tailoring requirements;
3. Ensure nondiscrimination in the award of DOT-assisted contracts; and
4. Reaffirm MTS's commitment to fairness and the principles of equal opportunity.

In conformance with 49 CFR Part 26, MTS will continue to carry out its DBE Program until all DOT funds have been expended.

MTS additionally complies with the California Department of Transportation's (Caltrans') DBE Program on projects on which it is a sub-recipient of federal funds through Caltrans.

MTS will advise all applicable DOT Operating Administrations of any significant updates and/or changes to this DBE Program.

26.3 DEFINITION OF TERMS (49 CFR § 26.5)

Race-Conscious Measure or Program: A program or portion thereof that focuses specifically on assisting only DBEs, including minority and women-owned DBEs, by the development and inclusion of participation goals or Good-Faith Effort activities.

Race-Neutral Measure or Program: A program or portion thereof that assists all small businesses, including DBEs, regardless of ownership status, in successfully participating in MTS's procurement program. For the purposes of the DBE Program, "race-neutral' includes gender-neutrality.

Any other term used in this DBE Program shall have the meaning set forth in 49 CFR Part 26.

26.4 RESPONSIBILITIES FOR DBE PROGRAM IMPLEMENTATION

A. DBE Liaison Officer (49 CFR § 26.25)

MTS has designated the following individual as the DBELO:

Deputy General Counsel
San Diego Metropolitan Transit System
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101
Telephone: (619) 557-4539; Fax: (619) 814-1559
E-mail: DBEProgram@sdmts.com

In this capacity, the DBELO is responsible for implementing all aspects ofthe DBE Program and ensuring that MTS complies with all provisions of 49 CFR Part 26 and subsequent DOT-issued directives and final rules. The DBELO has direct, independent access to the MTS Chief Executive Officer concerning DBE Program matters. The DBELO has sufficient support personnel who devote a portion of their time to implement the Program. The DBELO is responsible for developing, implementing and monitoring the DBE Program, in coordination with other appropriate officials.

The DBELO's and/or designee's duties include, but are not limited to, the following activities:

1. Gathers and reports statistical data and other information as required by the DBE Program, including preparation of

semiannual DBE reports and related analysis for submission to the applicable DOT Operating Administration.

2. Reviews applicable contracts, purchase requisitions, advertisements, boilerplate language specifications and other related documentation specific to implementing applicable DBE requirements.

3. Consults with all affected departments in developing overall DBE goals.

4. Ensures that bid notices and requests for proposals are made available to DBEs in a timely manner.

5. Reviews DOT-assisted contracts and procurements for purposes of applying applicable race-neutral measures.

6. Analyzes MTS's progress towards meeting overall DBE goals by monitoring individual contract DBE attainments.

7. Ensures that pre-bid meetings inform potential bidders and/or offerors regarding MTS's DBE Program.

8. Advises the Chief Executive Officer and/or the MTS Board on DBE matters and achievements.

9. Assesses DBE participation eligibility towards MTS's overall DBE goal.

Additionally, the DBELO and/or designee is charged with implementing the race-neutral measures listed in this DBE Program document.

B. Reconsideration Official (49 CFR § 26.53)

Should MTS implement a race-conscious component to this DBE Program, the DBE Program will be amended to provide the procedures for the administrative reconsideration process and to specify MTS's Reconsideration Official.

26.5 ADMINISTRATIVE REQUIREMENTS

A. Non-Discrimination Requirements (49 CFR § 26.7)

MTS will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR Part 26 on the basis of race, color, sex, or national origin.

In administering its DBE program, MTS will not, directly or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the DBE program with respect to individuals of a particular race, color, sex, or national origin.

B. Federal Financial Assistance Agreement Assurance (49 CFR § 26.13 {a})

MTS will sign the following assurance as a condition of financial assistance agreements with the DOT, and which is hereby made applicable to all of MTS's DOT-assisted contracts:

"MTS shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any U.S. DOTassisted contract or in the administration of its DBE Program or the requirements of 49 CFR Part 26. MTS shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of U.S. DOTassisted contracts. MTS's DBE Program, as required by 49 CFR Part 26 and as approved by U.S. DOT, is incorporated by reference in this agreement. Implementation of this Program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to MTS of its failure to carry out its approved program, the Department may impose sanctions as provided under 49 CFR Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.)."

C. DBE Financial Institutions (49 CFR § 26.27)

It is the policy of MTS to investigate the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in the community, to make reasonable efforts to utilize these institutions, as available, and to encourage prime contractors on MTS's DOT-assisted contracts to make use of these institutions.

~~The Federal Reserve Board compiles data on financial institutions that participate in the Department of the Treasury's Minority Bank Deposit Program.~~ When MTS competitively procures financial services, MTS will notify any identified ~~minority and women-owned~~ financial institutions owned by socially and economically disadvantaged individuals in MTS's geographic market area of the upcoming procurement. Through MTS's website and MTS's contract solicitations, MTS will also encourage contractors to use the services of ~~minority and women-owned~~ financial institutions owned by socially and economically disadvantaged individuals identified from the listings. One example resource that may be used includes the ~~T~~the Federal Reserve Board, which ~~-~~compiles data on financial institutions that participate in the Department of the Treasury's Minority ~~Bank-~~Depository Institution Program. The Internet address of this listing is http://www.federalreserve.gov/releases/mob/.

D. DBE Directory (49 CFR § 26.31)

MTS refers interested parties to the California Unified Certification Program (CUCP) Database of Certified DBE Firms (DBE Directory) to assist in identifying certified DBEs. The DBE Directory is published at https://dot.ca.gov/programs/civil-rights/dbe.

E. Overconcentration (49 CFR § 26.33)

MTS has not identified any types of work that have a burdensome overconcentration of DBE participation. However, should MTS determine that overconcentration exists in a work classification, MTS will obtain the approval of the concerned DOT Operating Administration of its determination and the measures devised to address it. Once these measures are approved, they will become part of MTS's DBE Program.

F. Business Development Programs (49 CFR § 26.35)

MTS has not established a business development program. The DBELO will continually evaluate the need and assess whether MTS should establish a Business Development Program and/or a Mentor Protege Program. If MTS establishes either program, the program will be guided by the applicable Appendix of 49 CFR Part 26 and approved by the cognizant DOT Operating Administration before being implemented.

G. Fostering Small Business Participation (49 CFR § 26.39)

MTS will structure contracting requirements to facilitate competition by small business concern~~s~~ by advising the contracting community of the benefits of becoming SB certified, the eligibility requirements to become certified as a SB, and the online directory of certified SBs, found at the U.S. Small Business Administration (SBA) website (www.sba.gov).

~~California Department of General Services (DGS) website: https://caleprocure.ca.gov/pages/PublicSearch/supplier-search.aspx.~~

MTS may also implement a Small Business Set Aside (i.e. competition among only small businesses) on certain contracts. The MTS Procurement Manager or designee shall consider whether there is a reasonable expectation of obtaining offers from three (3) or more responsible small business concerns that are competitive in terms of market prices, quality, and delivery before applying a Small Business Set Aside to a procurement. MTS will define a small business as a business that meets the definition of small business concern set out in 49 CFR § 26.5. A certified DBE will be presumed eligible to participate in a small business set aside, as all certified DBEs must meet the definition of a small business concern. To avoid program fraud, MTS will verify eligibility of a firm to participate in a small business set aside.

MTS may also utilize the race-neutral outreach measures identified at Secion 26.6 (D) of this Policy to foster participation from small business concerns.

H. Expanded Outreach to Additional Certified Firms (2 CFR § 200.321)

As appropriate and/or as required by the terms of a grant or funding award, MTS will further expand outreach measures to other certified firms, which includes, but is not limited to, minority owned businesses (MBE), women owned businesses (WBE), disabled veteran owned businesses (DVBE), veteran owned businesses (WBE), persons with

disabilities owned businesses (PDBE), lesbian gay bisexual and transgender owned businesses (LGBTBE), small businesses (SB), HUBZone small businesses; and/or labor surplus area businesses. This may include, but is not limited to, one or more of the following:

1) Including these business types on solicitation lists;
2) Soliciting these business types whenever they are deemed eligible as potential sources;
3) Dividing procurement transaction into separate procurement to permit maximum participation by these business types;
4) Establishing delivery schedules that encourage participation by these business types;
5) Utilizing organizations such as SBA and Minority Business Development Agency of the Department of Commerce; and/or
6) Requiring a contractor under an applicable grant or funding award to apply 2 CFR 200.321.

In addition, the following certification resources and databases may be used and shared with interested firms:

1) U.S. SBA website: https://www.sba.gov/;

2) California Department of General Services (DGS) website: https://caleprocure.ca.gov/pages/PublicSearch/supplier-search.aspx.; and

3) California Public Utilities Commission (CPUC) website: https://www.cpuc.ca.gov/about-cpuc/divisions/news-and-public-information-office/business-and-community-outreach/supplier-diversity-program.

26.6 DETERMINING, MEETING, AND COUNTING DBE PARTICIPATION TOWARDS THE OVERALL DBE GOAL (49 CFR § 26.45; § 26.51; § 26.55)

MTS is currently operating a strictly race-neutral DBE Program in accordance with DOT guidance following the *Western States Paving* decision of the 9th Circuit Court of Appeals. Should MTS incorporate a race-conscious DBE Program in the future, the breakout of estimated race-neutral and race-conscious participation in MTS's DBE goal will be updated.

As MTS is currently operating a strictly race-neutral DBE Program, contract goals are not applicable to MTS procurements. Should MTS, at a future date, incorporate a race-conscious component to its DBE Program, it will then use contract goals to meet any portion of the overall goal MTS does not project being able to meet using race-neutral means. As required by *Western States Paving*, if MTS incorporates a race-concious DBE Progam, MTS will gather evidence to determine if discrimination in the transportation contracting industry is present. MTS will make a determination at that time what type of evidence gathering is appropriate, based on DBE regulations and case law.

A. Methodology for Setting Overall DBE Goals (49 CFR § 26.45; 26.49)

In accordance with § 26.45(e)(3), and with FTA approval, MTS will establish an overall program goal on a triennial basis. The overall program goal will represent the amount of DOT-assisted funds MTS anticipates expending on DBE firms over three years, and will be presented as a percentage of the total DOTassistance received.

The overall program goal will be developed in accordance with the 2-step process specified in § 26.45 (c) & (d). The first step is to determine the goal "base figure" based on the relative availability of DBEs in ,MTS's market area. The second step is to adjust the goal "base figure" from Step 1 so that it reflects as accurately as possible the DBE participation MTS would expect in the absence of discrimination based on past participation, a disparity study and/or information about barriers to DBE participation. Annual projections on DBE participation during each fiscal year will be developed as specified by § 26.45 (e)(3)(iii).

Additionally, MTS will provide for public participation in establishing an overall program goal. MTS will publish a notice of the proposed overall program goal on MTS's website and a newspaper of general circulation, informing the public that the proposed goal and its rationale are available for inspection and comment.

Additionally, MTS will consult with minority, women's and general contractor groups, community organizations, and other officials or organizations to solicit information concerning the availability of disadvantaged and non-disadvantaged businesses, the effects of discrimination on opportunities for DBEs, and MTS's efforts to establish a level playing field for the participation of DBEs.

MTS will submit the overall program goal to DOT in accordance with § 26.45 (f)(2). The overall goal submission to DOT will include a summary of information and comments received during this public comment/participation process and any MTS responses.

MTS will begin using our overall goal on October 1 of each year, unless we have received other instructions from DOT. If we establish a goal on a project basis, we will begin using our goal by the time of the first solicitation for a DOT-assisted contract for the project.

B. Shortfall Analysis and Corrective Action Plan (49 CFR § 26.47)

If at the end of each year, awards/commitments are less than the applicable overall goal, MTS will analyze the reasons for the shortfall and establish specific steps that may enable MTS to meet its overall goal in the next year. MTS will submit its Shortfall Analysis and Corrective Action Plan to the FTA by December 29 for any applicable year.

C. Transit Vehicle Manufacturers (TVM) Certifications (49 CFR § 26.49)

In accordance with § 26.49, MTS will not include TVM vehicle procurements in its overall goal calculation or semiannual reports. MTS will require each TVM, as a condition of being authorized to bid or propose on DOT-assisted transit vehicle procurements, to certify that it has complied with the requirements of this section. Only TVMs listed on FTA's list of eligible TVMs or that have a submitted goal methodology that has been approved by the FTA or has not been disapproved at the time of solicitation, are eligible to bid on MTS's transit vehicle procurements. Alternatively, MTS may, at its discretion and with DOT approval, establish project-specific goals for DBE participation in the procurement of transit vehicles in lieu of the TVM complying with this element of the program. Within 30 calendar days of making a contract award to a TVM, MTS will submit notice to the FTA regarding the name of the TVM successful bidder and the total dollar value (including the federal share if so requested) of the contract. MTS will also submit additional notifications if options are exercised in subsequent years.

D. Race-Neutral Measures (49 CFR § 26.51)

MTS will implement the following race-neutral measures which are aimed at increasing DBE and other small business concern participation.

1. MTS will hold and/or participate in conferences, which include a networking component to promote teaming opportunities between prospective prime contractors and the DBE and Small Business contracting community. MTS will also actively promote the Small Business conferences, programs, and support services offered by other agencies that have established DBE and Small Business Programs.

2. MTS will provide assistance in overcoming limitations such as inability to obtain bonding or financing or sharing resources regarding technical assistance. Specifically, MTS will, through its website, refer the DBE and Small Business contracting community to the U.S. ~~Small Business Administration~~SBA ~~Bonding Assistance Program and~~, Minority Business Development Agency of the Department of Commerce, Procurement Technical Assistance Centers, and San Diego Small Business Development Center.

3. MTS will solicit DBEs and other small business participation by carrying out information on specific contract opportunities. Specifically, MTS will: ensure the inclusion of DBEs and other small businesses on MTS's mailing lists of bidders and/or MTS's e-procurement web based vendor list; make available to prime contractors information on how to view a listing of potential DBE and other small business subcontractors; and provide contracting information in languages other than English, where appropriate and upon request.

4. MTS will advise its contracting community of the benefits of becoming DBE certified, the eligibility requirements to become

certified as a DBE, and the online directory of certified DBEs, found at the CUCP website: https://dot.ca.gov/programs/civil-rights/dbe.

E. Use of Set-Asides or Quotas (49 CFR § 26.43)

Except as otherwise provided for in Section 26.5(G) (i.e. small business set aside), MTS shall not permit the use of quotas for DBEs on DOT-assisted contracts in accordance with 49 CFR Part 26. Further, MTS shall not set aside contracts for DBEs on DOT-assisted contracts subject to the regulatory provisions, except in limited and extreme circumstances where no other method could be reasonably expected to redress egregious instances of discrimination.

~~F.~~ Counting DBE Participation (49 CFR
F. § 26.55)

MTS will count DBE participation toward overall goals as provided in 49 CFR Part 26.55.

MTS will count the value of the work actually performed by the DBE. MTS will not count the participation of a DBE subcontract toward a contractor's final compliance with its DBE obligations on a contract until the amount being counted has actually been paid to the DBE subcontractor.

MTS will count the dollar value of work performed by DBE if currently certified at the time of execution of the contract. MTS will not count the dollar value of work performed under a contract if the DBE is no longer certified.

G. Commercially Useful Function (49 CFR §26.55)

MTS will count expenditures to a DBE firm if the DBE is performing a commercially useful function on that contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved, and as futher described at §26.55.

1. Construction / Maintenance Services

MTS will count the entire amount of that portion of a construction / maintenance contract that is performed by the DBE's own forces, including the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except if supplies and equipment is purchased or leases from the prime contractor or its affiliate to a DBE subcontractor in which labor costs will only be counted).

2. Bona Fide Services

MTS will count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, provided MTS determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services. If services are of a broker, packger or manufacturer representative nature, only the fees or commissions will be counted.

3. Subcontracted Work

When a DBE firm subcontracts part of the work of its contract to another firm, the value of the subcontracted work will be counted only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm will not be counted.

4. Joint Venture

When a DBE performs as a participant in a joint venture, MTS will count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces.

5. Trucking

When a DBE owns and operates trucking services, MTS will count the entire amount awarded to the DBE firm if it is responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract. When a DBE firm leases trucks from another DBE firm, including an owner-operator who is certified as a DBE, MTS will count the total value of the transportation services the lessee DBE provides on the contract.

6. Materials and Supplies

MTS will determine the amount of credit awarded to a DBE firm for the provisions of materials and supplies (e.g., whether a firm is acting as a manufacturer, regular dealer, distributor, or a transaction facilitator) on a contract by contract basis. MTS’s system to determine compliance with 49 CFR Section 26.55 will include review of Bidder List responses and/or direct contact by email or phone to determine whether each DBE supplier has the demonstrated capacity to perform a commercially useful function prior to its participation.

If the materials or supplies are obtained from a DBE manufacturer, MTS will count 100 percent of the cost of the materials or supplies.

If the materials or supplies are purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies (including transportation costs.

If the materials or supplies are purchased from a DBE distributor that neither maintains sufficient inventory nor uses its own distribution

equipment for the products in question, MTS will count 40 percent of the cost of materials or supplies (including transportation costs).

With respect to materials or supplies purchased from a DBE that is neither a manufacturer, a regular dealer, nor a distributor, MTS will count the entire amount of fees or commissions charged that is deemed to be reasonable, including transportation charges for the delivery of materials or supplies. MTS will not count any portion of the cost of the materials and supplies themselves.

26.7 REQUIRED CONTRACT PROVISIONS AND ENFORCEMENT

A. Contractor's Assurance Clause Regarding Non-Discrimination (49 CFR § 26.13)

MTS will include a clause in its DOT-assisted contracts that complies with 49 CFR 26.13 and will state, in substantially the same language: *"The contractor or subcontractor shall not discriminate on the basis* of *race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements* of *Title 49, CFR, Part 26 in the award and administration of MTS's U.S. DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as MTS deems appropriate, which may include, but is not limited to: (1) Withholding monthly progress payments; (2) Assessing sanctions; (3) Liquidated damages; and/or (4) Disqualifying the contractor from future bidding as non-responsible. Contractor shall be required to include this clause in its subcontracts.*"

B. Prompt Payment Provisions (49 CFR § 26.29)

The DBE Program found at 49 CFR Part 26 requires that any delay or postponement of payment over 30 calendar days from the prime contractor to any subcontractor, or from subcontractor to any lower-tier subcontractor, for work performed pursuant to their agreements may take place only for good cause and with MTS's prior written approval.

1. Prompt Progress Payments to Subcontractors

In accordance with 49 CFR 26.29, MTS will include a contract clause that will require the prime contractor to pay each subcontractor participating on the contract for satisfactory completion of accepted work no later than 30 calendar days on DOT assisted contracts, or 7 calendar days if a ~~construction~~ public works contract as required by state law, from the receipt of each payment the prime contractor receives from MTS. Any subcontractor will also be required to pay any lower-tier subcontractors no later than 30 calendar days, or 7 calendar days if a ~~construction~~ public works contract as required by state law, from the receipt of each payment from the prime contractor. Any delay or postponement of payment over 30 calendar days may occur only for good cause following written approval of MTS. This

clause applies to both DBE and non-DBE subcontractors. MTS will also require that the Prime Contractor include this clause in its subcontracts and lower-tier subcontracts related to the performance of a DOT assisted contract.

2. Payment of Retention Withheld from Subcontractor

When MTS declines to hold retainage from prime contractors, in accordance with 49 CFR 26.29, MTS will include a contract clause requiring prime contractors to make prompt and full payment of any retainage kept by prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Subcontractors will also be required to make prompt and full payment of any retainage kept by subcontractor to any lower-tier subcontractors within 30 days after the lower-tier subcontractor's work is satisfactorly completed.

When MTS elects to hold retainage from the prime contractor, MTS will provide prompt and regular incremental acceptances of portions of the work on each contract and pay retainage to the prime contractor based on these acceptances. Further,

~~I~~in accordance with 49 CFR 26.29, MTS will include a contract clause that will require the prime contractor to make prompt and full payment of any retainage owed to subcontractors, for satisfactory completion of the subcontractors work, within 30 calendar days on DOT assisted contracts, or seven (7) calendar days if a ~~construction~~ public works contract as required by state law, ~~after subcontractor's work has been satisfactorily completed~~after MTS's payment to prime contractor. Subcontractors will also be required to make prompt and full payment of any retainage owed to any lower-tier subcontractors, for satisfactory completion of the lower-tier subcontractors work, no later than 30 calendar days, or 7 calendar days if a ~~construction~~ public works contract as required by state law, from the receipt of ~~each~~ payment from the prime contractor. Any delay or postponement of payment over 30 calendar days may occur only for good cause following written approval of MTS. This clause applies to both DBE and non-DBE subcontractors. MTS will also require that the p~~P~~rime c~~C~~ontractor include this clause in its subcontracts and lower-tier subcontracts related to the performance of a DOT assisted contract.

26.8 DBE CERTIFICATION STANDARDS (49 CFR § 26.61-3 26.73; § 26.81; § 26.83a)

As a non-certifying member of the CUCP, MTS will accept DBE certifications from certifying member agencies of the CUCP.

For more information about the certification process or to apply for certification, firms should visit the CUCP website at: https://dot.ca.gov/programs/civil-rights/dbe.

26.9 RECORD KEEPING AND MONITORING (49 CFR § 26.11, §29.29, § 26.37)

A. Bidders List (49 CFR § 26.11)

MTS will obtain bidder list information consisting of all firms bidding on prime contracts and subcontracts on MTS's DOT-assisted projects/contracts. MTS will enter this data in the DOT's designated system as prescribed at 49 CFR § 26.11. The following information will be included in the bidders list:

1. Firm Name;
2. Full Address (including zip code);
3. Year ~~B~~business was established / years in business;
4. Status as a DBE or non-DBE
   ~~4.~~a. As appropriate and as required by 40 CFR 33.501, MTS may also request status of other certifications, such as MBE and WBE);
5. North American Industry Classification System (NAICS) code for the type of Work bidding on;
6. Race and gender of firm's majority owner; and
7. Annual Range of Gross Receipts.

B. Reporting to DOT (49 CFR § 26.11)

MTS will submit to the applicable DOT Operating Administration the "Uniform Report of DBE Awards or Commitments and Payments" semiannually on June 1 and December 1 of each year, as required. The June 1 report will include DBE activity from October 1 through March 31. The December 1 report will include DBE activity from April 1 through September 30. This report presents a summary of DOT-assisted prime contracts and subcontracts that are: awarded or committed to; open; and completed during the applicable reporting period.

Upon request, MTS will compile and submit ad-hoc DBE contract award and progress reports for DOT-assisted projects. Furthermore, MTS will continue to provide reports relative to MTS's DBE Program, as directed. These reports will provide DBE participation information on MTS's race-neutral and gender-neutral contracts on all DOT assisted procurement activities.

C. Information, Confidentiality, Cooperation (49 CFR § 26.109)

MTS will safeguard from disclosure to third parties information that may reasonably be regarded as confidential business information, consistent with Federal Freedom of Information and Privacy Acts (5 U.S.C. 552 and 552a), California Public Records Act (Government Code § 6250 et seq) state, and local law. Notwithstanding the preceding provision, MTS will not release any information that may reasonably be construed as confidential business information to any third party (other than DOT) without the written consent of the firm that submitted the information.

D. Monitoring and Enforcement Mechanisms (49 CFR § 26.29, 26.37)

MTS will implement appropriate mechanisms to ensure compliance with 49 CFR Part 26 requirements by all program participants (e.g., applying legal and contract remedies available under Federal, state and local law).

1. Monitoring Work Committed to DBE

   MTS's DBE Program will include a monitoring and enforcement mechanism to ensure that work committed to DBE prime or DBE subcontractors are actually performed by DBEs. This will include a written verification by MTS that contract records have been reviewed and work sites have been monitored to ensure the counting of each DBE's participation is consistent with its function on the contract and that the work is actually performed by the DBE.

2. Running Tally

   MTS will use a running tally that provides for a frequent comparison of cumulative DBE awards/commitments to DOT-assisted prime contract awards to determine whether current race-neutral measures are projected to be sufficient to meet MTS's overall goal, on an annual basis. MTS utilizes a report within its enterprise resource program that tallies all cumulative DBE awards/commitments to DOT assisted prime contracts to show DBE participation utiliziation. MTS will run this report monthly and will identify whether adjustments to its race-neutral measures may be necessary.

3. Termination or Substitution of DBE subcontractors

   Should MTS implement a race-conscious component to this DBE Program, MTS will require the prime contractor to notify and receive consent from MTS whenever a DBE subcontractor is terminated or substituted.

4. Monitoring Prompt Payments and Return of Retainage to DBE and Non-DBE subcontractors

   MTS proactively oversees prompt payments and return of retainage to subcontractors and lower-tier subcontractors over the course of any DOT- assisted contract. Such monitoring activities will be accomplished through the following methods: a contract clause in each federally assisted contract that the prime contractor must provide subcontractor payment information to MTS ~~monthly~~at time of invoicing, at project closeout, and as otherwise requested~~,~~, as well as a contract clause that requires prime contractors and subcontractors to maintain records of payments to non-DBE and DBE subcontractors and lower-tier subcontractors, for a minimum of three (3) years. In addition, MTS reviews contract payments to subcontractors and lower-tier subcontractors ~~monthly~~ when in receipt of invoices and at contract close out by

requesting prime provide subcontractor payment information. Lastly, MTS may use a ~~monthly~~ prompt payment certification form that requires prime contractor and/or subcontractor to certify prompt payments were made to subcontractor or lower-tier subcontactor, as required by the contract.

5. Prompt Payment Dispute Resolution

The obligations of prompt payment and release of retainage does not arise if there is a legitimate dispute over a subcontractor's or lower-tier subcontractor's performance. Subcontractor should first attempt to work with the prime contractor regarding whether subcontractor's work has been satisfactorily performed. If a dispute remains as to whether work has been satisfactorily completed for purposes of prompt payment requirements, notice should be given to the DBELO to take further action. Steps to resolve dispute may include, but are not limited to, conducting a meeting between prime contractor, subcontractor, and MTS project manager to review whether subcontractor work was completed in accordance with contract, plans and specifcations.

6. Prompt Payment Complaints

Complaints by subcontractors or lower-tier subcontractors regarding prompt payment should first be directed to the prime contractor and their payment bond surety, if applicable. If affected subcontractor needs assistance in communicating with the prime contractor regarding payment or is unable to resolve payment discrepancies with prime, subcontractor should contact DBELO in writing to initiate the complaint. The complaint should identify specifics regarding the subcontract payment language, items of work in question, and the subcontractor's attempts to obtain payment from the prime contractor and payment bond surety, if applicable.

Upon receipt of a subcontractor's written complaint that contains the above described information, DBELO will contact prime contractor directly, advising them of MTS's receipt of a prompt payment complaint, of prime contractor's responsibility to work with the subcontractor to resolve the dispute and potential enforcement action, as further described in Section 26.9 (D)(5) of this Board Policy. If after notice to the prime there is still no timely and meaningful action by the prime to resolve prompt payment disputes, affected subcontractor may refer the complaint to the responsible FTA contact.

7. Enforcement Action for Noncompliance of Prompt Payment and Return of Retainage

MTS will include a contract clause in its DOT- assisted contracts that any violation of prompt payment requirements, as defined in Section 26.27 (B) of this Board Policy, shall subject the violating prime contractor or subcontractor to: prime contractor not being

reimbursed for work performed by subcontractors unless and until the prime contractor ensures that the subcontractors are promptly paid for the work they have satisfactorily completed, contract termination and/or other remedy as deemed appropriate by MTS. If a ~~construction~~ public works project, then also the sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code and Sections 7201 and 7107 of California Public Contract Code may apply.

8. Enforcement Action for False, Fraudulent or Dishonest Conduct

MTS will bring to the attention of the DOT any false, fraudulent, or dishonest conduct in connection with the program, so that DOT can take the steps provided in § 26.107 (e.g., referral to the Department of Justice for criminal prosecution, referral to the DOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules).

9. Procurement Protests Alleging Noncompliance with DBE Regulations

MTS Board Policy No. 52 “Procurement of Goods and Services”, Section 52.7, describes MTS’s procurement protest procedures. If there is a procurement protest alleging noncompliance with DBE regulations on a DOT assisted project, the MTS Procurement Manager will notify the DBELO of the allegation. The DBELO or its designee will investigate and provide findings to the MTS Procurement Manager. The MTS Procurement Manager will respond to the procurement protest accordingly.

Additional DBE Documents (Available from DBELO upon request)

A. DBE Program Regulations
B. DBE Program Organizational Chart
C. Listing of DBE Financial Institutions located within MTS’s geographic market area
D. MTS Goal Setting Methodology
E. Uniform Report of DBE Awards or Commitments and Payments
F. DBE Program Related Third-Party Contractor Clauses and Forms

Original Policy approved on 12/6/84.
Policy revised on 4/28/88.
Policy revised on 4/25/91.
Policy revised on 1/26/95.
Policy revised on 10/16/97.
Policy revised on 8/12/99.
Policy revised on 8/10/00.
Policy revised on 9/27/01.
Policy revised on 7/25/02.
Policy revised on 3/11/04.
Policy revised on 7/22/04.
Policy revised on 2/16/12.
Policy revised on 7/16/15.
Policy revised on 7/26/18.

Policy revised on 7/25/19
Policy revised on 10/14/21
Policy revised on 6/20/2024
Policy revised on 3/13/2025

Attachments: Exhibit A – DBE Policy Statement

Exhibit A – MTS Board Policy No. 26

DBE POLICY STATEMENT

San Diego Metropolitan Transit System (MTS) has established and adopted a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), Title 49, Code of Federal Regulations, Part 26 "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs (49 CFR Part 26)." MTS has received Federal financial assistance from the Department of Transportation, and as a condition of receiving this assistance, MTS has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of MTS to ensure that DBEs as defined in 49 CFR Part 26 have an equal opportunity to receive and participate in MTS's DOT-assisted contracts.

It is also MTS policy to:

1. Ensure nondiscrimination in the award and administration of all MTS contracts and subcontracts;

2. Create a level playing field by which DBEs can compete for and perform in MTS's DOT-assisted contracts;

3. Ensure that the MTS DBE Program is narrowly tailored in accordance with applicable law and current legal standards, including the Ninth Circuit Ruling in *Western States Paving vs. Washington State Department of Transportation*;

4. Ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;

5. Help remove procurement and contracting barriers, which impede DBE participation in MTS DOT-assisted contracts;

6. Monitor and enforce contractors' compliance in meeting established goal objectives and program requirements;

7. Assist in the development of DBEs and Small Businesses to increase their ability to compete successfully in the market place outside the DBE Program; and

8. Ensure MTS contractors and subcontractors take all necessary and reasonable steps to comply with these policy objectives.

MTS has designated Deputy General Counsel as the DBE Liaison Officer (DBELO). In this capacity, the DBELO is responsible for implementing all aspects of the DBE program.

This signed and dated policy statement expresses MTS's commitment to pursuing the objectives of the DBE Program.

_____ _____

Sharon Cooney Date
Chief Executive Officer

Metropolitan Transit System

Disadvantaged Business Enterprise (DBE) Program Overview and Proposed Revisions to Board Policy No. 26 “DBE Program”

Board of Directors

DBE Regulations

- If a Federal Transit Administration (FTA) grant recipient, required to comply with 49 CFR 26:
  - Develop a DBE Program (MTS Board Policy No. 26)
  - Conduct Outreach Measures to DBE and other SB concerns
  - Establish a Triennial Overall DBE Goal
  - Report DBE Achievement Semi-Annually
  - Shortfall Analysis if not meeting Overall Goal in FY
- Goals of FTA DBE Program are to create a more level playing field

DBE Program

- MTS DBE Program (See MTS Board Policy no. 26) includes how MTS aims to comply with each FTA DBE requirement in 49 CFR Part 26:
  - DBE Liaison Officer
  - Race-neutral program
  - Contract provisions
  - Monitoring
  - Enforcement
  - Outreach Measures

Certified DBE

- DBE Eligibility Requirements:
  - Socially and Economically Disadvantaged (minority member or woman);
  - Majority Owner Personal Net Worth of Less than $2,047,000;
  - Small Business per U.S. SBA size standards; and
  - Average annual gross receipts of less than $30,720,000, for most businesses.

DBE Firms – Federally Funded Contracts

- NMS Management – Janitorial Services
- Aguirre & Associates - Surveying
- Carlos Guzman – Non-Rev. Vehicle Repairs
- B&B Diversified Materials; and Air & Lube Systems – Transportation equip. wholesaler
- Pridestaff; and Lawton Co. – Temp. staffing
- Singh Group - Landscaping
- FRS Environmental - Parts washer tank cleaning services
- Advanced Rail Innovations - Electrical

DBE Firms - Pictures

Carlos Guzman (top left);

NMS Management (top right);

Air & Lube Systems (lower left); and

Aguirre & Associates (lower right)



Other Certified Firms

- FTA requires outreach to not just DBEs. Must also conduct outreach to:
  - Small Business concerns (required by 49 CFR 26.39)
  - Where possible, also required to consider participation from Small Businesses (SB), Minority Owned Businesses (MBE), Women Owned Businesses (WBE), Veteran Owned Businesses (VBE), and Labor Surplus Area Firms (required by 2 CFR 200.321)
- MTS also tracks participation from:
    - Disabled Veteran Businesses (DVBE), Lesbian Gay Bisexual Transgender Business (LGBTBE), and Persons with Disabilities Business (PDBE)
- MTS uses various certification databases to identify and record

MBE/WBE/SB/DVBE Firms – Federally Funded Contracts

- Paradigm Mechanical Corp (WBE) – HVAC maintenance
- Veterans Engineering (DVBE) – JOC / rail
- Quality Sprayers (DVBE) – weed abatement
- Ninyo & Moore (MBE) – Geotechnical / Environmental
- Ocean Blue Environmental (MBE)
- Morrison Metalweld (SB)
- Ace Uniforms (SB)

Outreach Measures

- Attend and promote DBE & SB Workshops
- Email Contractors re benefits of PlanetBids registration; More procurements on PlanetBids
- Email Contractors on benefits of DBE, MBE, SB, LGBT, WBE, DVBE, PDBE certification and using these firms for subcontract opportunities
- For small procurements requiring 3 quotes, seek 1 from DBE or other SB firm, if available
- Direct notice of procurements to DBE
- Small Business Set Asides

Federally Funded Contracts

- Transit Vehicle Procurements
  - Per FTA requirements, excluded from goal/reports
- Preventative Maintenance
- Vehicle Repairs
- Facility and Asset Repairs
- Contract Services
  - First Transit (complementary paratransit and minibus operator),
  - Transdev (fixed route operator)

Overall Triennial Goal

- Methodology for creating new Overall Goal:
  - determine a base figure of the relative availability of DBEs to all firms (DBE and non-DBE) available to bid or propose on MTS's FTA-assisted contracts;
  - adjust the base figure to reflect circumstances that may impact relative availability of DBE firms; and
  - Seek feedback on goal from minority, women and other local community organizations.
- Previous Triennial Goal was 6.3% for FFY22-24
- Current Triennial Goal is 5.6% for FFY25-27
  - Approved at 7/18/2024 MTS Board Meeting

Semi-Annual Report

- Report includes all federally funded expense contracts awarded, open and completed within the applicable reporting period
  - Includes: Sole sources, single bids, execution of option years
- % DBE Achievement = Federal DBE $ / Total Federal $
- Submit to FTA semi-annually
- Report to Board semi-annually

Shortfall Analysis and Corrective Action Plan

If shortfall in any given fiscal year:

- Identify reasons for shortfall
- Identify current outreach measures and their effectiveness
- Identify corrective actions that aim to increase effectiveness of outreach measures

Submit to FTA in any applicable fiscal year

Report to Board in any applicable fiscal year

Recent FTA Triennial DBE Results

DBE Achievement for FFY 2022-2024

FFY	Reporting Period	Total Federal Awarded	Total DBE Awarded	DBE %
FFY 2022	Oct 1 21 to Mar 31 22	$7,843,315.85	$234,599.40	2.99%
FFY 2022	April 1 22 to Sept 30 22	$6,977,851.08	$92,523.71	1.33%
FFY 2023	Oct 1 22 to Mar 31 23	$17,806,277.45	$7,965,351.88	44.73%
FFY 2023	April 1 23 to Sept 30 23	$9,630,377.28	$2,237,323.28	23.23%
FFY 2024	Oct 1 23 to Mar 31 24	$11,394,054.87	$240,626.03	2.11%
FFY 2024	April 1 24 to Sept 30 24	$3,624,621.11	$75,249.65	2.08%
TOTAL		**$57,276,497.64**	**$10,845,673.95**	**18.94%**
Achievement Toward Meeting FFY 2022-2024 DBE Triennial Overall Goal of 6.3% **(FFY 2022-2024 Total DBE Awarded ÷ FFY 2022-2024 Total Fed Awarded)**		18.94% Achieved 18.94% towards DBE Overall Triennial Goal of 6.3%		

Upcoming

- MTS will be reviewing the following:
  - Review more federally funded procurements to determine if establishing a small business set aside would be successful
  - How to better highlight the benefits of DBE and SB working on MTS's large construction projects
  - How best to strongly encourage prime contractors to identify use of DBE and other certified subcontractors
  - Implementation of new workflow of prompt payment monitoring of subcontractors

Proposed Revisions to Board Policy No. 26

- MTS required per 49 CFR 26.29 to monitor Contractor compliance with prompt payment and return of retainage
  - Proposed revisions make clarifications to how MTS's new workflow to monitor prompt payment of subcontractors will be performed
- MTS conducts outreach to many non-DBE certified firms. However, current MTS DBE Program does not expressly state how we comply with 2 CFR 200.321, and 40 CFR 33.501 if in receipt of EPA grant funds
  - Proposed revisions will expressly state that MTS complies with these provisions regarding conducting outreach and considering participation from non-DBE firms

Staff Recommendation

That the MTS Board of Directors approve the proposed revisions to MTS Board Policy No. 26 “DBE Program”

Metropolitan Transit System

Agenda Item No. 23

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Annual Safety Performance Review and Approval of Updated Agency Safety Plan (Fabeann Soberg and Jared Garcia)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors approve updates to the Public Transportation Agency Safety Plan (PTASP) in substantially the same format as Attachment A (Agency Safety Plan), Attachment B (Bus Safety Plan), and Attachment C (Rail Safety Plan).

Budget Impact

None.

DISCUSSION:

On July 19, 2018, the Federal Transit Administration (FTA) published Final Rule (49 CFR Part 673), which required public transportation agencies who receive Federal funding to establish and implement a comprehensive Public Transportation Agency Safety Plan (PTASP). Public transportation agencies were required to complete the PTASP by July 20, 2021. On July 30, 2020 (Agenda Item (AI) 26), the MTS Board of Directors approved the MTS Agency Safety Plan, which is separated into three parts: Overall Agency Safety Plan, Bus Safety Plan, and Rail Safety Plan.

On November 15, 2021, President Biden signed into law the Bipartisan Infrastructure Law. The Bipartisan Infrastructure Law amended FTA's safety program at 49 U.S.C. § 5329(d) which revised the PTASP requirements. On April 9, 2024, the FTA published an updated version of the PTASP regulation. New requirements include: the adoption of 7 additional performance measures (Collision Rate, Pedestrian Collision Rate, Vehicular Collision Rate, Transit Worker Fatality Rate, Transit Worker Injury Rate, Assaults on Transit Workers, Rate of Assaults on Transit Workers); procedures addressing safety committee structure, pay, operation, and dispute resolution; and adoption of a risk reduction program addressing transit worker assaults.

49 CFR Part 673 requires transit agencies to review the PTASP and corresponding safety performance annually. In addition, updates to the PTASP must be approved by the Board of Directors.

Staff will provide an annual update to the board on safety performance, as required by the PTASP regulations.

The MTS PTASP plans have been updated to comply with the new requirements. (See Attachments A to C.) The updates include the following category of changes:

1. The Seven performance measures outlined in National Safety Plan have been added;

2. Details regarding the Safety Committee operations have been added, including work schedules, pay, decision making, and dispute resolution;

3. Adds a requirement that the CEO notify the MTS Board in writing if recommendations by the Safety Committee are not implemented (§ 673.25(d)(6)); and

4. Adopts Transit Worker Assault Risk Reduction Program(s).

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. Agency Safety Plan
B. Bus Safety Plan
C. Rail Safety Plan

Metropolitan Transit System

Agency Safety Plan

(Public Transportation Agency Plan pursuant to 49 CFR 673)

SAN DIEGO METROPLITAN TRANSIT SYSTEM
SAN DIEGO TROLLEY, INC.
SAN DIEGO TRANSIT CORP.



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MTS Agency Safety Plan
Approvals

The approvals for the 2025 MTS Agency Safety Plan are as follows:

I. Approval by the Accountable Executive for the MTS Agency:

_____ _____
Sharon Cooney Date
Chief Executive Officer
San Diego Metropolitan Transit System

II. Approval by the MTS Board of Directors:

_____ _____
Stephen Whitburn Date
Chair of the Board of Directors
San Diego Metropolitan Transit System

MTS Agency Safety Plan
Overview

On July 19, 2018, Federal Transit Administration (FTA) published the Public Transportation Agency Safety Plan (PTASP) Final Rule (49 C.F.R. Part 673), which requires certain operators of public transportation systems that receive Federal financial assistance (49 U.S.C. § 5307) to develop a PTASP.

The PTASP Final Rule intends to improve public transportation safety by implementing an approach that provides an effective and proactive way to manage safety risks. Transit agencies must develop and implement safety plans that establish processes and procedures to the support the implementation of Safety Management System (SMS). SMS is a comprehensive, collaborative approach to managing safety and addressing safety risks.

Specifically, the PTASP Final Rule requires the following minimum standards to be included in safety plans: the identification, assessment, and mitigation of risks and strategies to minimize exposure to hazards, a safety training program, safety performance targets, and a process and timeline for conducting an annual review and update of the safety plan.

The following MTS Agency Safety Plan has been developed to comply with the PTASP Final Rule.

MTS Agency Safety Plan
SMS Policy Statement

The San Diego Metropolitan Transit System (MTS) has established this SMS Policy Statement to emphasize its overall commitment to the safety of our passengers, our operators, our staff and the general public. This SMS Policy Statement provides direction for MTS's safety program, which applies to every facet of MTS operations.

The management of safety is MTS's highest priority. MTS is committed to safety throughout the entire organization, from the Board of Directors to the front line employees.

MTS will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources to achieve the highest level of safety performance and meeting established standards. MTS is committed to developing, implementing, maintaining, and constantly improving our processes. As evidence of our commitment to safety, every MTS policy shall be guided by and every employee shall perform their duties in furtherance of the following safety goals:

- Supporting safety through the provision of appropriate resources that fosters a safety culture
- Integrating the management of safety among the primary responsibilities of all managers and employees;
- Clearly defining managers and employees' responsibilities in relation to the performance of our SMS;
- Conducting hazard identification and evaluating safety risks, which includes an employee safety reporting program, in order to eliminate or mitigate safety risks;
- Ensuring that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- Complying with, and wherever possible exceeding, legislative and regulatory requirements and standards;
- Ensuring that sufficiently skilled and trained employees are available to implement safety management processes;
- Ensuring that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are assigned only tasks for which they are adequately trained;
- Establishing and measuring our safety performance against realistic and data-driven safety performance indicators and safety performance targets;

- Continually improving our safety performance by ensuring appropriate safety management action is taken and is effective; and
- Ensuring externally supplied systems and services that support our operations are delivered to meet our safety performance standards.
- A Joint Safety Committee for each mode (Rail and Bus), consisting of an equal number of frontline transit workers and management representatives from key transit service functions, such as operations and maintenance. These committees will approve updates and changes to the Public Transportation Agency Safety Plan (PTASP) for each mode, and address safety risk mitigations identified and recommended by the committee.

Sharon Cooney Chief Executive Officer San Diego Metropolitan Transit System	Stephen Whitburn Chair of Board of Directors San Diego Metropolitan Transit System
Date	Date

MTS Agency Safety Plan
Safety Responsibilities – Description

Each MTS employee is required to carry out specific safety responsibilities consistent with their position. Safety does not begin and end with MTS' front-line employees. All levels of management are accountable for the delivery of safe transit service and safe work environments. Employees must have a clear definition of their individual responsibilities relative to the Safety Management System (SMS). The information provided below describes the safety responsibilities of employees and the applicable reporting structure.

Position:	MTS Agency Safety Plan Designations:	Reports to:	SMS Responsibilities:
Board of Directors		General Public	Approves the SMS Policy Statement and Agency Safety Plan; Promotes the Safety Management Policy Objectives to External Stakeholders and the General Public; and Provides Overall Accountabilitiy of and Support to Chief Executive Officer for Addressing the Objectives of the SMS Policy.

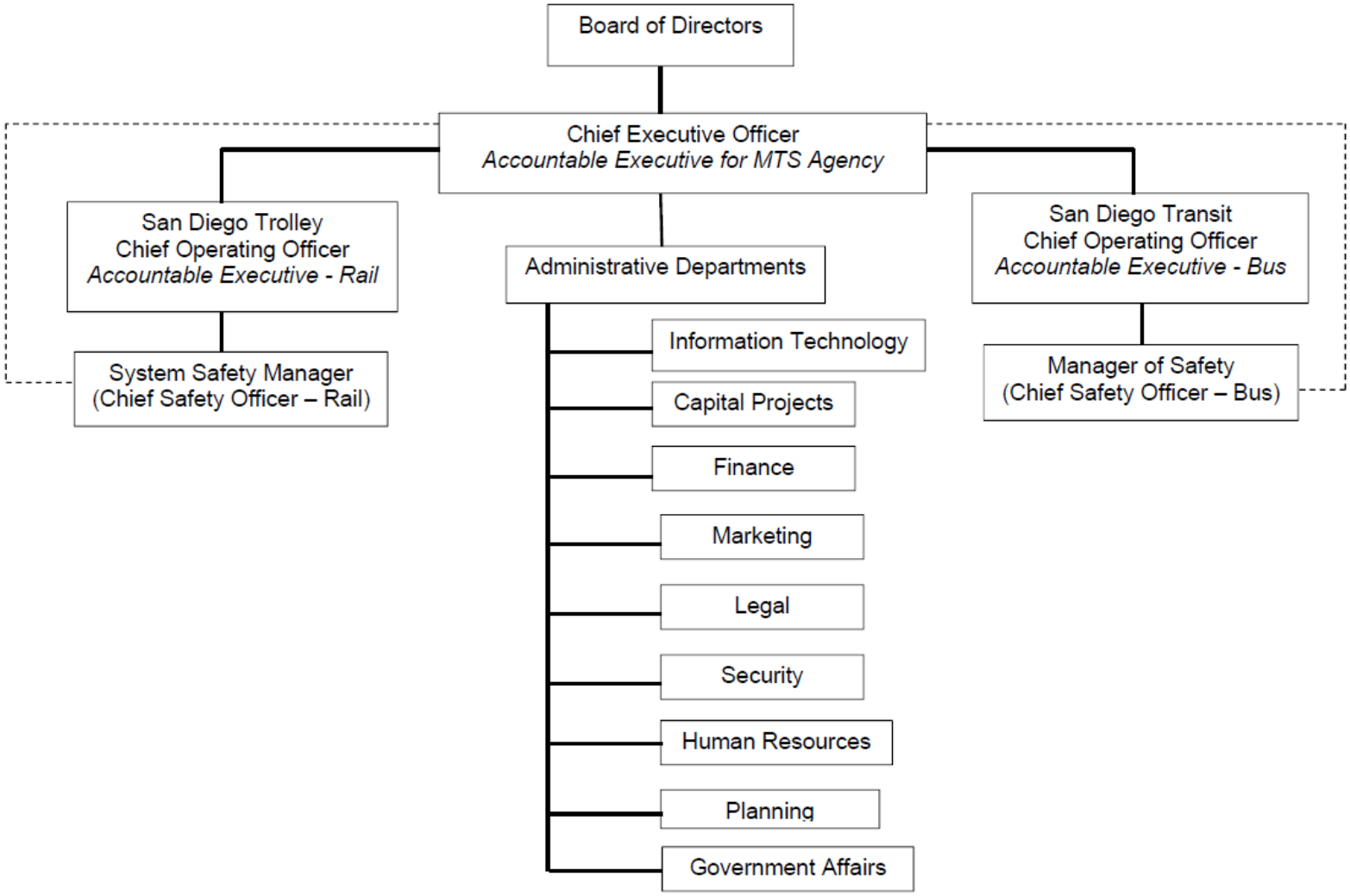
Position:	MTS Agency Safety Plan Designations:	Reports to:	SMS Responsibilities:
Chief Executive Officer	Board of Directors Designates the Chief Executive Officer as the **Accountable Executive for the MTS Agency**	Board of Directors	Develops and Upholds Safety Objectives; Ensures Safety Objectives are Prioritized in Budget Planning Process and Allocation of Resources; Directs the Capital and Financial Resources Needed to Maintain the Agency Safety Plan; Informs and Educates the Board of Directors on Implementation of Safety Objectives and Identification of Significant Safety Risks; Promotes the SMS Policy and a Positive Safety Culture throughout the Agency; and Retains the Ultimate Responsibility for the Performance of SMS and Approves the MTS Agency Safety Plan.
General Counsel		Chief Executive Officer; and Board of Directors	Advises and Recommends Actions to Reduce Legal Risks and Liabilities; Oversees Risk, Workers' Compensation and Insurance.
Chief Operating Officer of Transit	Chief Executivie Officer designates the Chief Operating Officer of Transit as the **Accountable Executive for Transit**	Chief Executive Officer	Manages Day to Day Operations and Maintenance for Transit; Directs the Implementation of SMS for Transit; Establishes SMS as a Core Value for Transit; and Evaluates the Performance of SMS for Transit.

Position:	MTS Agency Safety Plan Designations:	Reports to:	SMS Responsibilities:
Chief Operating Officer of Trolley	Chief Executive Officer designates the Chief Operating Officer of Trolley as the **Accountable Executive for Trolley**	Chief Executive Officer	Manages Day to Day Operations and Maintenance for Trolley; Directs the Implementation of SMS for Trolley; Establishes SMS as a Core Value for Trolley; and Evaluates the Performance of SMS for Trolley.
Safety Manager of Bus	Chief Executive Officer designates the System Safety Manager of Bus as the **Chief Safety Officer for Bus**	Chief Operating Officer – Transit; and Chief Executive Officer as necessary	Coordinates Implementation and Operation of SMS for Bus.
Safety Manager of Trolley	Chief Executive Officer designates the Safety Manager of Trolley as the **Chief Safety Officer for Trolley**	Chief Operating Officer – Trolley; and Chief Executive Officer as necessary	Coordinates Implementation and Operation of SMS for Trolley.
Chief Financial Officer		Chief Executive Officer	Oversees Budgeting and Procurement of All Goods and Services Necessary for Implementation of Safety Objectives.
Director of Planning		Chief Executive Officer	Oversees Internal Planning Efforts and Coordinates with External Stakeholders to Ensure Safety Concerns are Addressed in Design and Location of Facility and Transit Amenities.
Director of Transit Enforcement/Security		Chief Executive Officer	Oversees Security and Law Enforcement Efforts In Preparation for and in Response to Safety and Security Incidents.
Director of Human Resources and Labor Relations		Chief Executive Officer	Oversees the Hiring and Employment of Qualified Employees that Demonstrate Safety Effectiveness.

Position:	MTS Agency Safety Plan Designations:	Reports to:	SMS Responsibilities:
Director of Capital Projects		Chief Executive Officer	Oversees Implementation of Design and Construction Projects to Address Identified Safety Action Items.
Director of Marketing and Communications		Chief Executive Officer	Oversees the Communication and Distribution of Information Regarding Safety and Security Practices to the Agency and the Public.
Director of Planning		Chief Executive Officer	Oversees Internal Planning Efforts and Coordinates with External Stakeholders to Ensure Safety Concerns are Addressed in Design and Location of Facility and Transit Amenities.
Manager of Government Affairs		Chief Exeuctive Officer	Oversees the Legislative and Lobbying Efforts to Facilitate with Identified Safety Goals.
Director of Information Technology		Chief Executive Officer	Oversees the Management of Technology and Computer Systems that Support SMS.
Environmental Health and Safety Specialist		Chief Operating Officer – Transit and Chief Operating Officer – Trolley, as applicable	Oversees Compliance with Environmental and Occupational Health and Safety Regulations.
Operations and Maintenance		Chief Operating Officer – Transit or Chief Operating Officer – Trolley, as applicable	Adheres to Policies and Procedures on Established Safety Goals, Responsibilities, and Objectives; and Reports Safety Hazards and Concerns to Management.
Administration		Applicable Management	Supports the Agency's Mission in Achieving a Safe Operating Environment; and Reports Safety Hazards and Concerns to Management.

Safety Responsibilities – Organization Chart

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
MTS AGENCY SAFETY PLAN (PTASP)
ORGANIZATIONAL CHART



MTS Agency Safety Plan
SMS Documentation and Records

MTS's SMS is supported by further policies and procedures developed by the Departments responsible for the management of safety. MTS's Agency Safety Plan is organized by mode, which include bus and light rail service. Bus service is operated directly through the San Diego Transit Corporation (SDTC), as well as through contracts with private operators. Light rail service is operated directly through San Diego Trolley, Inc. (SDTI). The Bus Agency Safety Plan and Rail Agency Safety Plan comply with the objectives and goals of the SMS Policy Statement and are readily available and communicated throughout MTS. The following framework is documented within the Bus Safety Plan and the Rail Safety Plan:

I. **Safety Management System (SMS) Policy**
- Safety Performance Goals and Objectives
- Organizational Structure and the Specific Employee Responsibilities for Safety
- Employee Safety Reporting Program
- Coordination with both External Organizations and other Internal Departments to Manage Emergencies and other Public Safety Incidents

II. **Safety Risk Management**
- Safety Hazard Identification
- Safety Risk Assessment
- Safety Risk Mitigation

III. **Safety Assurance**
- Developing Safety Performance Targets
- Monitoring and Measuring Safety Performance
- Managing Changes In Operations
- Continuously Improving Processes

IV. **Safety Promotion**
- Communicating Safety Performance on Hazards and Safety Risks Relevant to an Employees' Roles and Responsibilities
- Establishing a Comprehensive Safety Training Program for MTS Employees and Contractors Directly Responsible for the Management of Safety

The Chief Executive Officer will annually review the MTS Agency Safety Plan and the corresponding Policies and Procedures implementing the SMS and update as necessary. The Board of Directors will approve the MTS Agency Safety Plan on an annual basis, if updates. The MTS Agency Safety Plan will be maintained for a minimum of three (3) years after approval.

Attachments

I. Rail Agency Safety Plan

- Rail Joint Safety Committee Plan
- Transit Worker Assault Risk Reduction Plan

II. Bus Agency Safety Plan

- San Diego Transit Corp. (SDTC) Safety Plan
- Private Contractor Transdev Safety Plan
- Private Contractor First Transit Safety Plan
- Transit Worker Assault Risk Reduction Plan

III. Infectious Disease Preparedness and Response Plan (COVID-19 Prevention Program)

Metropolitan Transit System

Bus Safety Plan

San Diego Transit Corp

(Public Transportation Agency Plan pursuant to 49 CFR 673)







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Acronyms

ADA	Americans with Disabilities Act
Caltrans	California Department of Transportation
CBA	Collective Bargaining Agreements
CEO	Chief Executive Officer
CHP	California Highway Patrol
COO	Chief Operating Officer
CSO	Chief Safety Officer
EH&S	Environmental Health and Safety
EPN	Employer Pull Notice
KPI	Key Performance Indicators
NTD	National Transit Database
OEM	Original Equipment Manufacturer
PIP	Performance Incentive Program
PPE	Personal Protective Equipment
PUC	Public Utilities Commission
SANDAG	San Diego Association of Governments
SOS	Service Operations Supervisor
SPT	Safety Performance Targets
SRC	Safety Review Committee

1 Bus Agency Safety Plan Overview

1.1 Agency Information

The purpose of this Bus Agency Safety Plan discusses how safety is managed for San Diego Metropolitan Transit System (MTS) directly operated fixed route bus transportation services. The Agency Safety Plan addresses all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan.

MTS is a California transit district that operates multiple modes of transit: light rail transit (Rail) and fixed route/ADA complementary paratransit bus operations (Transit). The agency has three major divisions: Administration, Rail and Transit[1]. The MTS Chief Executive Officer (CEO) is responsible for managing all aspects of the agency, with direction from the Board of Directors. Because of the distinct differences in operations, MTS has prepared a Safety Plan for each individual division: Rail and Transit. This is MTS's Bus Agency Safety Plan (Table 1).

Table 1: Agency Information

Agency Information	
Transit Agency Name	MTS
Transit Agency Address	1255 Imperial Ave Suite 1000, San Diego, CA 92101
Name and Title of Accountable Executive	Sharon Cooney, Chief Executive Officer (CEO)
Name of Chief Safety Officer (CSO) or Safety Management System (SMS) Executive	Jared Garcia, Manager of Safety
Modes of Service Covered By This Plan	Directly Operated Fixed Route Bus
List Of All Funding Types:	5307, 5337, 5339
Mode(s) of Service Provided by the Transit Agency (Directly Operated or Contracted Service)	Directly Operated Light Rail, Directly Operated Fixed Route Bus, Contracted Fixed Route Bus, Contracted Commuter

[1] Historically, the Bus division was run by a separate entity, San Diego Transit Corporation (SDTC). SDTC is a wholly-owned subsidiary of MTS. While some operations continue under the SDTC entity (e.g., legacy property ownership or agreements), in practical terms it is operated as the Bus division of MTS.

	Bus, Contracted Paratransit, Contracted Paratransit Taxi
Does the agency provide transit services on behalf of another transit agency or entity?	No
Description of Arrangement(s)	N/A

MTS operates in southern San Diego County with a fleet of approximately 800 buses. MTS operates Rapid Express, Rapid, Express, Urban Frequent, Urban Standard, Community Circulator, Rural and ADA complementary paratransit. Service is directly operated by SDTC and operated by private contractors, First Transit and Transdev (Table 2).

Table 2: Services Operated

Service Types Operated By Each Entity			
Service Type	**MTS/SDTC**	**First Transit**	**Transdev**
Fixed Route	X		X
Commuter			X
Rural			X
Fixed Route Mini		X	
Paratransit / Taxi		X	

MTS Bus operates over a 716 square-mile service area, with a combined population of more than two million people within the cities of San Diego, Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, National City, Lemon Grove, Poway and Santee, as well as the County of San Diego. Service is provided seven days a week on most routes. Routes serve approximately 4,200 bus stops.

MTS Bus has five bus fleet operating divisions, all of which include operations, maintenance and fueling functions: Imperial Avenue Division (IAD); Kearny Mesa Division (KMD); South Bay Bus Maintenance Facility (SBMF); East County Bus Maintenance Facility (ECBMF); and Copley Park Maintenance Facility (CPMF). IAD and KMD are operated by SDTC. SBMF and ECBMF are operated by private contractor Transdev. CPMF is operated by private contractor First Transit.

Service began in 1886 as the San Diego Streetcar Company. Over the years, this and several other entities were merged into the San Diego Electric Railway (later, the San Diego Transit Corporation (SDTC)). The City of San Diego purchased SDTC from private ownership in 1967, and transferred it to the Metropolitan Transit Development Board (MTDB) in 1985. In 2002, Senate Bill 1703 merged MTDB's planning, financial programming, project development and construction functions into the region's metropolitan planning organization, the San Diego Association of Governments (SANDAG). In 2005, MTDB changed its name to the San Diego Metropolitan Transit System (MTS). The MTS Board of Directors is composed of

members representing the cities of San Diego, Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, National City, Lemon Grove, Poway and Santee, and the County of San Diego.

1.2 Bus Agency Safety Plan Approvals

The Bus Agency Safety Plan has been approved by the Safety Committee, the Accountable Executive, and the MTS Board of Directors (Table 3).

Table 3: Bus Agency Safety Plan Approvals

Bus Agency Safety Plan Approvals		
Name of Entity That Drafted This Plan	San Diego Metropolitan Transit System	
Safety Committee Approval	Signature of Chief Safety Officer	Date of Approval
	Jared Garcia	1/16/2025
Accountable Executive Signature	Signature of Accountable Executive	Date of Signature
		3/13/2025
Approval by the MTS Board of Directors	Signature of Chairperson of the MTS Board of Directors	Date of Approval
		3/13/2025
Certification of Compliance	Name of Individual/Entity That Certified This Plan	Date of Certification
		3/13/2025

1.3 Annual Review, Update, and Safety Performance Assessment

1.3.1 Annual Review of the Bus Agency Safety Plan

At a minimum, this plan will be reviewed and updated annually during the month of January by the Chief Safety Officer. Proposed changes are reviewed by the Safety Committee, Accountable Executive, Executive Management and Key Staff. The Safety Committee will review and approve any changes to this plan before being sent to the Accountable Executive. The Accountable Executive will then review and approve any changes, sign the updated plan, and then forward the plan to the Board of Directors for final review and approval. Updates to this plan may be made when there are:

- Changes to: safety performance targets, safety management policy, safety risk management, safety assurance, and safety promotion;
- Changes to: the Accountable Executive, COO, or CSO;
- Significant changes to service delivery;
- Significant changes to the organizational structure;
- New process/procedures are introduced that impact safety;
- Changes to available resources or priorities that support SMS; and
- Changes required by the Federal Transit Administration (FTA), California Public Utilities Commission (CPUC), California Department of Transportation (Caltrans), San Diego Association of Governments (SANDAG), etc. or other similar oversight agency.

1.3.2 Annual Safety Performance Assessment

MTS conducts an annual safety performance assessment in conjunction with the annual review. This assessment includes a review of the prior year's performance involving the Safety Performance Targets, Key Performance Indicators, and applicable Performance Incentive Program (PIP) goals. The assessment may also include reviewing identified safety deficiencies, or other areas involving safety performance.

Updates made to the Bus Agency Safety Plan will be documented (Table 4).

Table 4: Version Number and Update History of Transit Safety Plan

Version Number and Update History of Bus Agency Safety Plan			
Version Number	Section/Pages Affected	Reason for Change	Date
1.0	All	N/A	July 2020
1.0	All	Annual Review	January 2021
1.0	All	Annual Review	January 2022
2.0	All	Bipartisan Infrastructure Law	February 2023
2.0	All	Annual Review	January 2024
3.0	All	FTA Requirements	January 2025

1.4 Documentation and Recordkeeping

This Bus Agency Safety Plan and documents related to this plan will be maintained for three (3) years after date of creation and be made available upon request by the FTA or other applicable agency having jurisdiction.

2 Safety Performance Targets

2.1 Safety Performance Targets

As required by 49 CFR 673.11(a) (3), this Bus Agency Safety Plan must include performance targets associated with revenue service that are based on the safety performance measures established under the National Public Transportation Safety Plan.

MTS performance targets are calculated using a 3-year rolling average of the data submitted to the National Transit Database (NTD). The safety performance targets are evaluated for each calendar year (January 1 – December 31).

2.2 Safety Performance Target Measures & Definitions

Table 5: Safety Performance Targets

Safety Performance Measures	
Performance Measure	Description
1a - Major Events	This includes all safety and security major events as defined by the NTD.
1b - Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
1.1 - Collision Rate (new)	This includes all collisions reported to the NTD, divided by VRM.
1.11 - Pedestrian Collision Rate (new)	This includes all collisions “with a person,” as defined by the NTD, divided by VRM.
1.1.2 - Vehicular Collision Rate (new)	This includes all collisions “with a motor vehicle,” as defined by the NTD, divided by VRM.
2a - Fatalities	This includes all fatalities as defined by the NTD.
2b - Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
2.1 Transit Worker Fatality Rate (new)	This includes all transit worker fatalities as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
3a - Injuries	This includes all injuries as defined by the NTD.
3b - Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
3.1 Transit Worker Injury Rate (new)	This includes all transit worker injuries as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
4a - Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD.
4b - Rate of Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD, divided by VRM.
5 - System Reliability	This includes Major Mechanical System failures as defined by the NTD.

Definitions are based on 49 CFR 673, the National Public Transportation Safety Plan, or the current National Transit Database (NTD) Reporting Guide.

Assault on a Transit Worker - A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with,

disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

Fatality – Death confirmed within 30 days of the event (including suicides). Fatalities that occur because of illnesses or other natural causes (including individuals who are found deceased) are not reportable.

Injury -any harm to persons as a result of an event that requires immediate medical attention away from the scene.

Safety Event –an unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

System Reliability - mean distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

2.3 Safety Performance Target Coordination

Safety Performance Targets are made available to state of California including the Public Utilities Commission (CPUC), Caltrans, and the San Diego Association of Governments (SANDAG), MTS's Metropolitan Planning Organization (MPO), to aid in the planning process. Coordination with these agencies, in the selection of safety performance targets is accomplished to the maximum extent practicable. MTS officially transmits its targets in writing to the State and MPO following the annual review and certification. This transmission will take place in February of each year.

	State Entity Name	Date Transmitted
Targets Transmitted to the State[2]	California Public Utilities Commission (CPUC)	See Footnote 2
	California Department of Transportation (Caltrans)	See Footnote 2
Targets Transmitted to the MPO	**MPO Name**	**Date Transmitted**
	San Diego Association of Governments (SANDAG)	7/7/2020

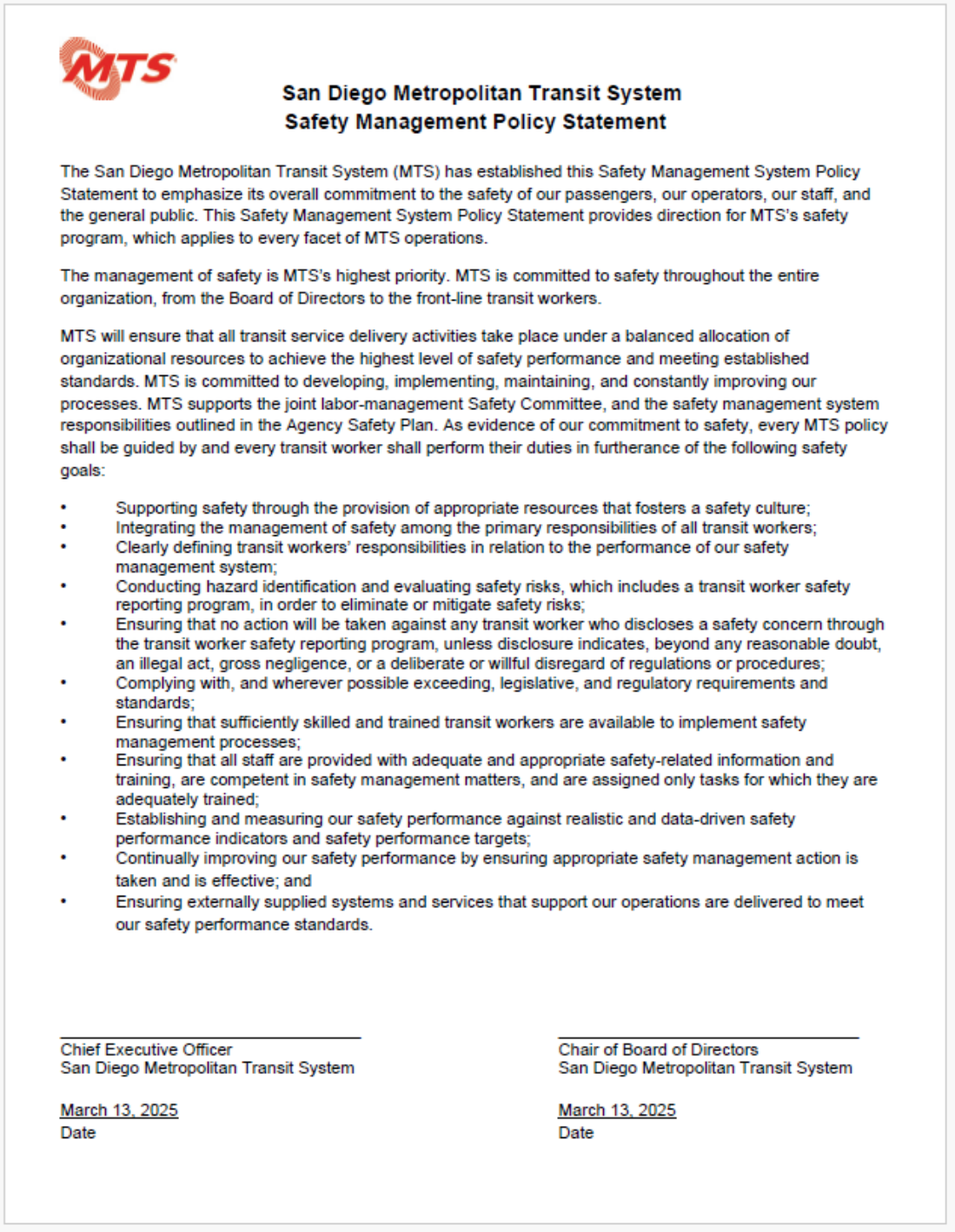
[2] Although MTS has offered to share Bus Safety Performance Targets with CPUC and Caltrans, both have stated it is not necessary to send Bus Safety Performance Targets for their review. As required per 49 CFR 673.15, MTS will coordinate and share Bus Safety Performance Targets with state entities to the maximum extent practicable.

3 Safety Management Policy

3.1 Safety Management Policy Statement

The Safety Management Policy Statement, signed by the Accountable Executive and approved by the MTS Board of Directors, establishes the agency's safety objectives, and documents the organizational authorities, accountabilities, and responsibilities (Figure 1).

Figure 1: Safety Management Policy Statement



San Diego Metropolitan Transit System
Safety Management Policy Statement

The San Diego Metropolitan Transit System (MTS) has established this Safety Management System Policy Statement to emphasize its overall commitment to the safety of our passengers, our operators, our staff, and the general public. This Safety Management System Policy Statement provides direction for MTS's safety program, which applies to every facet of MTS operations.

The management of safety is MTS's highest priority. MTS is committed to safety throughout the entire organization, from the Board of Directors to the front-line transit workers.

MTS will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources to achieve the highest level of safety performance and meeting established standards. MTS is committed to developing, implementing, maintaining, and constantly improving our processes. MTS supports the joint labor-management Safety Committee, and the safety management system responsibilities outlined in the Agency Safety Plan. As evidence of our commitment to safety, every MTS policy shall be guided by and every transit worker shall perform their duties in furtherance of the following safety goals:

- Supporting safety through the provision of appropriate resources that fosters a safety culture;
- Integrating the management of safety among the primary responsibilities of all transit workers;
- Clearly defining transit workers' responsibilities in relation to the performance of our safety management system;
- Conducting hazard identification and evaluating safety risks, which includes a transit worker safety reporting program, in order to eliminate or mitigate safety risks;
- Ensuring that no action will be taken against any transit worker who discloses a safety concern through the transit worker safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- Complying with, and wherever possible exceeding, legislative, and regulatory requirements and standards;
- Ensuring that sufficiently skilled and trained transit workers are available to implement safety management processes;
- Ensuring that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are assigned only tasks for which they are adequately trained;
- Establishing and measuring our safety performance against realistic and data-driven safety performance indicators and safety performance targets;
- Continually improving our safety performance by ensuring appropriate safety management action is taken and is effective; and
- Ensuring externally supplied systems and services that support our operations are delivered to meet our safety performance standards.

Chief Executive Officer
San Diego Metropolitan Transit System

March 13, 2025
Date

Chair of Board of Directors
San Diego Metropolitan Transit System

March 13, 2025
Date

3.2 Goals

MTS Transit Services is committed to providing the safest transportation possible for our employees, customers, the citizens of San Diego, and the communities we serve. We will:

- Provide and maintain a safe and healthy working environment
- Provide a safe and courteous transit system
- Follow best practices that will safeguard employees, customers, and persons interacting with transit property and equipment

Accidents are the result of unsafe acts committed by people and the existence of hazards or unsafe conditions, both of which are controllable and must be prevented to the maximum extent practicable in order to achieve MTS' commitment.

Our Safety Policy and our commitment to safety are at all times guided by the following principles:

- Safety is the responsibility of each and every employee
- Management has the responsibility to train all employees to work safely and to assure all employees work in a safe manner
- Preventing accidents, injuries, and incidents is good business
- Operating risks, hazards, and exposures can be safeguarded with active and effective safety practices
- Injuries and occupational illnesses can be prevented

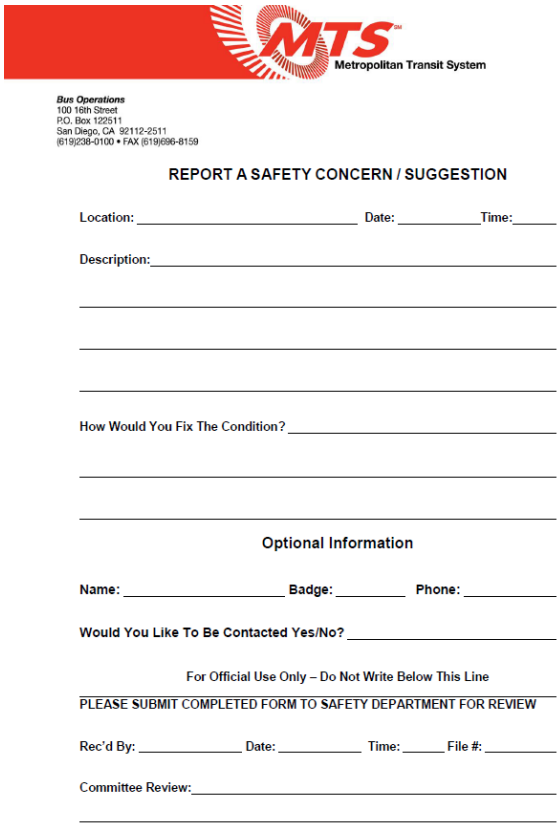
3.3 Employee Reporting Program

Employees and contractors (transit workers) are empowered to report safety concerns, including assaults on transit workers, hazards, unsafe conditions, near misses, and unsafe acts to management. No action will be taken against an employee/contractor through the reporting program as long as the report or act was not illegal, negligent, willful, or a violation of company policy/procedure. Employees have multiple means of communicating their concerns which include:

- Verbally to their direct supervisor or other member of management;
- By use of phone/radio;
- Through their union representative;
- Completing an anonymous online form via the intranet (Figure 2); and
- Through the Employee Safety Committee.

Hazards that cannot be adequately mitigated at the time of reporting are reported to the CSO and entered into the risk registry database for further assessment and mitigation (see Safety Risk Management).

Figure 2: Sample Online Reporting Form



Metropolitan Transit System

Bus Operations
100 16th Street
P.O. Box 122511
San Diego, CA 92112-2511
(619)238-0100 • FAX (619)696-8159

REPORT A SAFETY CONCERN / SUGGESTION

Location: _____ Date: _____Time:_____

Description:_____

_____

_____

_____

How Would You Fix The Condition? _____

_____

_____

Optional Information

Name: _____ Badge: _____ Phone: _____

Would You Like To Be Contacted Yes/No? _____

For Official Use Only – Do Not Write Below This Line

PLEASE SUBMIT COMPLETED FORM TO SAFETY DEPARTMENT FOR REVIEW

Rec'd By: _____ Date: _____ Time: _____ File #: _____

Committee Review:_____

_____

3.4 Safety Management Policy Communication

The Safety Management Policy Statement is communicated to all employees and contractors throughout the organization including: employees, managers, executives and the Board of Directors. This policy is communicated through:

- Employee Handbooks;
- Bulletin Boards;
- Newsletters; and
- Company Intranet.

3.5 Authorities, Accountabilities, and Responsibilities

3.5.1 Board of Directors

The Board of Directors (Board) is responsible for setting policy for MTS, including Transit Services. The Board is required to approve the ASP initial document and all updates. At its regular meetings, the Board receives periodic safety briefings from Bus Operations. The Board has delegated agency management to the CEO, subject to various adopted Board policies and legal requirements**.**

3.5.2 Accountable Executive

The Board of Directors has designated the CEO as the Accountable Executive for the Agency. The Accountable Executive has ultimate responsibility for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout the Agency. These responsibilities include:

- Establishing, implementing, and promoting the Safety Policy Statement;
- Authority over financial and human resources;
- Authority over all activities and operations;
- Authority over final risk assessment ranking;
- Authority over final mitigation(s) of hazards/unsafe conditions;
- Briefing the Board of Directors; and
- Responsibility for carrying out the Transit Asset Management (TAM) Plan.

The CEO has delegated the authority and the day-to-day responsibilities of the agency safety plan for Transit Services to the Chief Operating Officer (COO) of Transit Services.

3.5.3 Chief Operating Officer (COO)

The COO reports directly to the CEO and is responsible for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout Transit Services. These responsibilities include:

- Implementing, and promoting the Safety Policy Statement;
- Authority over financial and human resources within Transit Services;
- Authority over all activities and operations within Transit Services;
- Authority over the risk assessment ranking within Transit Services;
- Authority over final mitigation(s) of hazards/unsafe conditions within Transit Service; and

- Briefing the Board of Directors on SMS related activities within Transit Services, as requested by the CEO.

The COO will support and encourage an open dialogue between the Chief Safety Officer and the CEO.

3.5.4 Chief Safety Officer

The Chief Safety Officer (CSO) is the Manager of Safety for Transit Services. The CSO has a dual reporting role with the COO and the CEO. As necessary to implement the Bus Agency Safety Plan and discuss relevant issues, the CSO has a duty and a right to report directly to and consult with the CEO. The CSO has independent and direct access to the CEO as needed regarding all safety related issues. The CSO has regularly scheduled safety briefings with the CEO and COO. The CSO also reports to the COO on a day-to-day basis. The CSO is responsible for:

- Developing and maintaining SMS programs including the Bus Agency Safety Plan;
- Managing the Employee Reporting Program;
- Performing analysis of incidents, trends, and causes and making recommendations to reduce or eliminate the potential for recurrence;
- Assisting other departments with the development of training programs and procedures;
- Managing the review and analysis of all accidents, incidents, and safety events to determine preventability and any other causal or contributing factors;
- Providing monitoring and follow-up with employees after preventable accidents;
- Serving as the Chair of the Employee Safety Committee;
- Coordinating with external emergency response agencies, including police, fire, and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Transit Services emergency preparedness plans; and
- Managing the Department of Motor Vehicles (DMV) Pull Notice Program and assuring all licenses, permits and certifications are in compliance.

3.5.5 Other Agency Leadership, Executive Management and Key Staff

3.5.5.1 Director of Fleet and Facility Maintenance

The Director of Fleet and Facility Maintenance directly reports to the COO and is responsible for:

- Directing, organizing, developing, and planning all directly operated bus and facility maintenance functions;
- Providing oversight, contract compliance and support for all of MTS's contracted service fleet and facility maintenance operations;
- Directing, coordinating, and supervising the development, implementation and administration of capital plans and contracts for fleet replacement, as well as service contracts providing maintenance for all MTS bus facilities and fleets;
- Overseeing the administration of applicable Collective Bargaining Agreement (CBA);
- Overseeing maintenance employee training, including the apprenticeship program; and
- Providing expertise and advice regarding staffing decisions in Fleet and Facilities, including recommendations for hiring, promotion and termination; evaluation and the implementation of discipline and other remedial measures.

3.5.5.2 Director of Transportation

The Director of Transportation directly reports to the COO and is responsible for:

- Organizing, developing, planning, and directing all of San Diego Transit's transportation functions;
- Overseeing the development and management of all transportation employee training programs, including new employee and drivers training, refresher courses, safety-related training, and all required safety/certifications/licensing; providing expertise for the development and coordination of new training programs.
- Overseeing the management of both Radio/Communications and Service Operations Supervisor teams, including developing standard operating procedures, setting expectations for professional interactions with customers and other employees. Guiding opportunities to improve supervisor skillsets through training, mentoring and professional development;

- Overseeing the administration of applicable CBA; and
- Providing expertise and advice regarding staffing decisions in Transportation Department, including recommendations for hiring, promotion and termination and the implementation of discipline and other remedial measures.

3.5.5.3 Director of Contract Operations and Passenger Facilities

The Director of Contract Operations and Passenger Facilities directly reports to the COO and is responsible for:

- Providing day-to-day oversight of contractor compliance with the agency safety plan;
- Providing contract oversight of the Agency's multi-year transit operations contracts;
- Monitoring ongoing facility maintenance activities dictated by Agency service contracts;
- Planning, directing, coordinating, and reviewing Contract Services' staff;
- Assisting with transportation activities and coordinating schedules, projects and programs as needed to ensure Contract Service quality and continuity with Agency goals and objectives;
- Overseeing the coordination of bus stop maintenance and other transit amenities, including administration of various vendor contracts;
- Working with appropriate staff to develop fleet capital replacement program; and
- Supporting Finance Department staff on discretionary and programmed grants applications.

3.5.5.4 Manager of Paratransit and Mini Bus

The Manager of Paratransit and Mini Bus directly reports to the Legal department and is responsible for:

- Providing day-to-day oversight of contractor compliance with the agency safety plan;
- Organizing, developing, planning and directing all of MTS' Paratransit and Mini Bus functions and ensuring alignment of these functions with the goals and critical business outcomes of MTS;
- Ensuring the MTS ADA Paratransit Program is in full compliance with ADA regulations with respect to operations, client certification, call center operations and revenue service;

- Managing the fixed route “Mini Bus” program and overseeing the operations and management contract between MTS and the service provider(s); and
- Preparing operating and capital budgets, monitoring service performance, conducting community outreach, representing MTS on advocacy and transportation committees, and evaluating existing and proposed transit services.

3.5.5.5 Environmental Health & Safety Specialist

The Environmental Health & Safety Specialist reports directly to the Legal department and is responsible for:

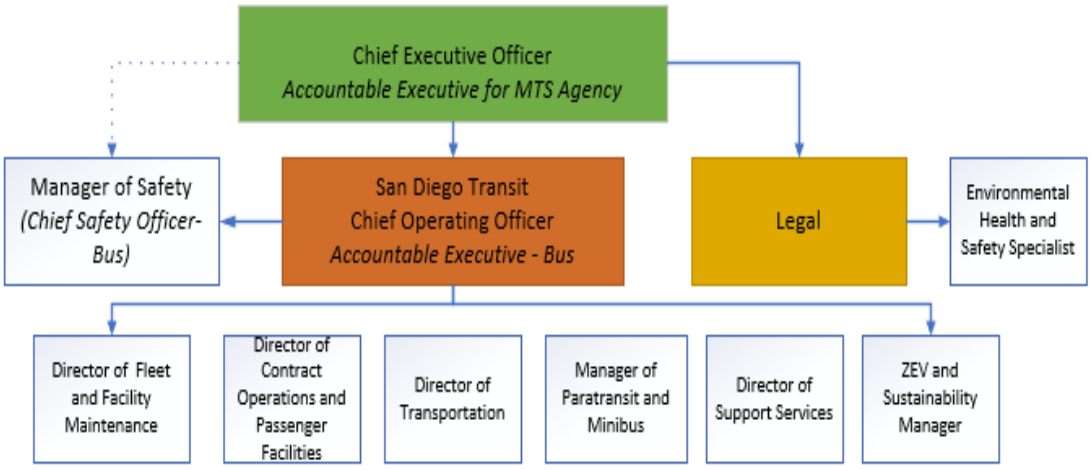
- Developing, implementing, and overseeing Environmental Health and Safety policies and procedures;
- Developing, coordinating, and participating in industrial hygiene and environmental safety programs;
- Developing comprehensive environmental and occupational safety and health inspection checklists and protocols, conducting inspections of facilities, and escorting regulatory inspectors during inspections;
- Interfacing with government agencies to maintain regulatory compliance with Federal, State, regional, and local environmental laws and regulations by preparing permit applications and renewal documents and negotiating permit conditions and developing corrective action plans; and
- Reviewing and approving chemical products used in relation to environmental and industrial hygiene impacts.

3.6 Contract-Operations Oversight

Various MTS employees are charged with oversight of contractors as it relates to safety and other matters. Such responsibilities are noted where applicable. In addition, each of the contractor safety plans (See Appendices) also describe oversight functions.

4 Organization Chart

Figure 3: Organization Chart



5 Meetings

5.1 CEO Safety Briefings

The CEO, COO, and CSO meet on a regular basis to review and discuss safety performance. These topics include but are not limited to:

- Accidents & Injuries
- Hazard mitigation strategies
- Training activities
- Policy & Procedures
- Committee meetings
- Contract management
- Project updates

5.2 Transit Services Executive Staff Meetings

The CSO and other agency leadership within Transit Services meet together on a weekly basis with the COO to review and discuss updates from each department. These topics include but are not limited to:

- Accidents & Injuries
- Hazard mitigation strategies
- Training activities
- Policy & Procedures
- Committee meetings

- Contract management
- Project updates

5.3 Transit Services Safety Committee

The purpose of the Safety Committee is to: create, improve, promote, and maintain a heightened safety culture within the organization; inform, educate and influence employees through awareness campaigns and training activities designed to prevent and reduce accidents and injuries; and to provide a forum for employees to actively participate in safety programs that address and resolve safety issues in a timely manner.

The Safety Committee is also responsible for, at a minimum: (1) identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment; (2) identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; (3) identifying safety deficiencies for purposes of continuous improvement; and (4) setting Safety Performance Targets (SPTs) for safety risk reduction programs.

The Bipartisan Infrastructure Law requires the Safety Committee to approve an agency’s Agency Safety Plan (ASP) and any updates to the ASP. This approval must occur before the agency’s Board of Directors approves the ASP or update. All members of the Safety Committee may suggest changes to the ASP. Members must provide their suggested changes in writing to the Chief Safety Officer, so they can be distributed to all members of the Safety Committee prior to the next regularly scheduled meeting. All members in attendance of the monthly meeting will be given an equal opportunity to discuss proposed revisions prior to approval. In the event that any member(s) object to proposed changes of the plan, the objection will be included in this plan and reviewed with the Accountable Executive and Board of Directors prior to final approval.

The Safety Committee is comprised of representatives from both bargaining units (ATU, IBEW) as well as management representatives from the Maintenance, Safety, Security, and Transportation Departments. The Safety Committee is a joint labor-management committee that is comprised of an equal number of employee representatives and management representatives, compliant with 49 CFR 679.19, and the Bipartisan Infrastructure Law, § 5329(d)(5).

The Safety Committee is Chaired by the Manager of Safety (CSO). Frontline employee representatives are selected by the labor organization(s) that represents the plurality of the agency’s frontline workforce employed by the agency or a contractor, to the extent labor organizations represent the frontline workforce. Members receive training based on their job title and responsibilities. Training requirements for employees are covered in the Competencies and Training section of this plan.

Members will be compensated for participation in the safety committee in accordance with all applicable state and federal laws and existing collective bargaining agreements. Members are not expected to attend meetings that are scheduled during vacations or on regular days off. If a member chooses to attend a meeting on their day off/vacation, attendance is voluntary. Members can send an alternate on their behalf with their union leadership approval. Members must work their regularly scheduled shift before/after committee meetings. Attendance to the meetings cannot cause employees to exceed maximum working or driving regulations. Management will provide reasonable time for all members to be relieved of their regular duties while attending committee meetings. Frontline IBEW representatives must work either the day shift or the first swing shift to attend committee meetings. Employees working the first swing shift have the option of their choice for being paid overtime for attendance or being permitted to end their shift after 8 hours of working time.

The Safety Committee primarily meets monthly on the third Thursday of each month at 2:00 pm at the IAD Executive Conference Room. Members can attend the meeting in person, or via conference call (virtual). Agendas are developed by the chair. The meeting minutes will be recorded and maintained by the committee recorder (Safety Specialist). Agendas, and minutes will be emailed to committee members and posted on the intranet. The Safety Committee will access technical experts, including other transit workers, to serve in an advisory capacity by mutual agreement.

The Safety Committee will reach decisions based on consensus. Decisions will be recorded by the Committee Recorder (Safety Specialist) and included in the minutes. The safety committee will try and resolve all disputes internally which may include the COO of Transit Services. The safety committee will not designate the Accountable Executive to resolve any disputes within the Safety Committee. As a last resort, the Safety Committee will utilize the grievance and arbitration process outlined in existing collective bargaining agreements to resolve any disputes.

The Safety Committee will primarily coordinate and communicate with the transit agency's Board of Directors and the Accountable Executive, through the Manager of Safety. Additionally, all members have the ability to individually communicate with the Accountable Executive and the Board of Directors at their discretion.

5.4 Risk Department Meetings

Agency leadership within Transit Services meets with the Risk Department on a quarterly basis. These topics include but are not limited to:

- Open & recently closed claims
- Workers comp claims
- Litigation updates

- Hazard mitigation strategies
- Training activities
- Policy & Procedures

5.5 Emergency Preparedness and Response

5.5.1 Employee Training

Employees receive varying levels of emergency response training during the initial onboarding process depending on job position. Employees also receive applicable refresher training throughout the year through training programs and topics outlined in the Safety Promotion and Safety Communication sections of this document. Topics covered for emergency training include:

- Accident/Injury reporting
- Inspection protocols
- Passenger evacuations
- Road calls/Breakdowns
- Fire suppression
- Spill prevention, control, and countermeasures (SPCC)
- Hazardous waste, operations, and emergency response (HAZWOPER)
- Conflict resolution and de-escalation techniques
- CPR/AED

5.5.2 Emergency Responder Training & Coordination

Transit Services participates in external agency emergency trainings and exercises whenever requested/invited by local municipal, county, state, or federal entities. These events include emergency events specific to the transit system as well as supporting other agencies with available resources (vehicles) to aid in external emergency response. Typical training events and exercises include:

- Vehicle familiarization
- Bus hijacking/SWAT
- Rescue/heavy lift extraction
- Homeland Security canine training
- Community based evacuations & temporary shelter
- Tabletop exercises

5.5.3 Vehicle Safety Equipment

Fixed route buses are equipped with the following safety features to reduce to the likelihood/severity of an emergency:

- Two way radio
- GPS tracking
- Security cameras
- Discreet panic button
- Fire extinguisher
- Engine fire detection & suppression system (excludes battery electric buses)
- Interlock device(s)
- Fuel leak detection alarm (CNG buses only)
- Emergency exit windows & roof hatches
- Low air pressure alarm

6 Safety Risk Management

Safety Risk Management is a decision making process that involves the identification, evaluation, and mitigation of hazards and unsafe conditions throughout the system. Hazards are to be eliminated or mitigated to lowest practical level with consideration given to financial and operational constraints. Transit Services utilizes a decentralized process where each department is responsible for managing the hazards that exist within their department.

6.1 Safety Hazard Identification

All employees are responsible for identifying and reporting hazards and unsafe conditions to their immediate supervisor/manager. The supervisor/manager is responsible for the initial evaluation and mitigation of a reported hazard. If the supervisor/manager is unable to eliminate the hazard or effectively mitigate the hazard to an acceptable level, the hazard must be reported to the CSO. The CSO is responsible for documenting the reported hazard.

Hazards are generally identified through:

- Employee Reporting Program;
- Employee Safety Committee;
- Routine inspections;
- Training activities;
- Direct observation by supervisors, managers, and/or safety personnel;
- Accident and incident investigations;
- Customer Service reports;
- Daily operations activity reports;
- Safety data analysis;

- Audits;
- Data and info provided by FTA or other oversight authority;
- Design/Planning process for capital projects;
- Procurement of goods and services; and
- New service implementation.

6.2 Safety Risk Assessment

The CSO is responsible for assessing safety risks. Analyzing hazards is subjective. Two reasonable people could assess the same hazard and determine a different probability or severity of an unfavorable outcome. Hazards are analyzed using the probability/severity matrix within this section (Table 6, Table 7, Table 8, and Table 9). The criteria listed in the severity and probability charts are intended to be guidelines only. Each hazard is unique. Therefore, in addition to the severity and probability charts, the CSO should also consider common sense, similar prior/existing hazards, historical data, and their professional experience when conducting the assessment. Hazards that are “unacceptable,” “undesirable,” or “acceptable with review by management” are entered into the Risk Register by the CSO. Hazards that are “acceptable without review” are not required to be entered into the Risk Register. The CSO is responsible for informing the Accountable Executive of the MTS Agency of any hazard that is “unacceptable” or “undesirable.”

Table 5: Severity

Severity		
Description	**Category**	**Criteria (worst likely credible outcome)**
Catastrophic	**1**	Could likely result in death, permanent total disability, severe property damage or irreversible environmental damage.
Critical	**2**	Could likely result in permanent partial disability, injuries or occupational illness that may result in hospitalization, or reversible significant property/environmental damage.
Marginal	**3**	Could likely result in injury or occupational illness resulting in one or more lost work days(s), reversible moderate property/environmental damage.
Negligible	**4**	Could likely result in injury or illness not resulting in a lost work day, minimal property/environmental impact.

Table 6: Likelihood

Likelihood		
Description	**Level**	**Specific Individual Item (Example of Frequency)**
Frequent	**A**	Likely to occur frequently or continuously. (Weekly, 100K miles)
Probable	**B**	Likely to occur several times. (Monthly, 1 million miles)
Occasional	**C**	Likely to occur sometime. (Yearly, 10 million miles)
Remote	**D**	Unlikely but reasonable or possible to occur. (Decade, 100 million miles)
Improbable	**E**	So unlikely, it can be assumed occurrence may not be experienced.
Eliminated	**F**	This level is used when potential hazards are identified and later eliminated.

Table 7: Hazard Assessment Matrix

Hazard Assessment Matrix				
	1 - Catastrophic	**2 - Critical**	**3 - Marginal**	**4 - Negligible**
A - Frequent	**1A**	**2A**	**3A**	**4A**
B - Probable	**1B**	**2B**	**3B**	**4B**
C - Occasional	**1C**	**2C**	**3C**	**4C**
D - Remote	**1D**	**2D**	**3D**	**4D**
E - Improbable	**1E**	**2E**	**3E**	**4E**
F - Eliminated	**N/A**	**N/A**	**N/A**	**N/A**

Table 8: Acceptability Levels

Acceptability Levels

High	**Unacceptable**
Serious	**Undesirable** with management decision
Medium	**Acceptable** with review by management
Low	**Acceptable** without review

6.3 Safety Risk Mitigation

After a risk assessment has been conducted, the CSO will identify parties responsible for mitigating the hazard. The responsible parties are generally department heads, those most knowledgeable about the hazard (subject matter experts), or those with the most adequate resources to mitigate the hazard.

The following are common methods and processes responsible parties typically use to mitigate hazards:

- Eliminate hazards by repair/replacement;
- Eliminate hazards through design/change of service;
- Incorporate engineered features or devices;
- Provide warning devices, signage and alarms;
- Establish written policy and procedures to address the hazard;
- Implement training activities;
- Use of personal protective equipment (PPE); and
- Communication of hazard with employees, passengers, and general public.

Responsible parties are required to update the CSO on mitigation progress in a timely manner. The CSO is then responsible for updating the Accountable Executive and the Risk Registry in Industry Safe. The Risk Registry is reviewed quarterly by the Accountable Executive, CSO, and responsible parties. The Accountable Executive has the ultimate authority when deciding mitigations and the final assessment of a hazard. Hazards that remain at an unacceptable/undesirable level will continue to be monitored and revisited during the annual budget and capital improvement process.

7 Safety Assurance

7.1 Safety Performance Monitoring and Measurement

MTS has established several activities to monitor operations and maintenance for compliance with procedures. These processes are also used to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. Non-compliance with procedures is generally addressed through

counseling, training, and other management oversight activities. Insufficient procedures are addressed through safety risk management activities.

Supervisors are responsible for upholding established policies and procedures covered in documents such as CBAs, employee handbooks, training manuals, bulletins, memos, California Vehicle Code sections, etc. Supervisors typically utilize direct observations, job briefings, facility inspections, radio communications, and investigations to determine compliance. Employees who are not compliant with these procedures may receive in-person counseling, written observation letters, re-training, and/or progressive discipline depending on the severity of the event and the employee's work record.

7.1.1 Investigations

All employees are required to immediately report safety related events to their direct supervisor or the Bus Control Center/radio room and complete a written accident/incident report. The Supervisor on duty is responsible for ensuring the appropriate response to the scene (dependent on available resources) and determining if a drug and alcohol test is required.

A Service Operations Supervisor (SOS) should be sent to the scene to investigate whenever a person is injured/claiming injury or there is a collision involving a bus or other mass transit vehicle. The SOS will gather statements from persons involved/witnesses, collect insurance and other contact information, take photos of the scene, etc., and complete a written report.

Following the event, the Transportation Service Quality Specialist will collect video from the bus camera system and facility camera system if available. The video is generally stored in either the camera system server or a shared network drive and preserved for at least one year after the event and may be stored longer as dependent on available storage space. The CSO will collect and review all information and forward all written materials to the Risk Department and/or the Safety Review Committee (SRC).

The SRC is responsible for reviewing events involving: vehicle collisions, claims of injury, wheelchair ramp use, and certain braking events. The SRC is chaired by the CSO and also includes a member from the Training Department and a member from the Transportation Department. The SRC meets weekly and reviews all available information to determine preventability and any other causal or contributing factors. The CSO informs applicable management and other involved employees of the SRC's findings.

The CSO is responsible for entering safety related information in MTS's Enterprise Resource Program (SAP) for tracking purposes and data analysis. The CSO is responsible for entering hazards that require management review and/or a decision by management (High/Serious/Medium risk levels) in Industry Safe for tracking the mitigation of hazards. The CSO is also responsible for

reporting this data to the Accountable Executive on a monthly basis. The CSO is also responsible for reporting applicable required information to the National Transit Database (NTD) on a monthly basis.

7.1.2 Drug & Alcohol Program

MTS is a drug and alcohol-free workplace and has an established drug and alcohol policy that is compliant with 49 CFR parts 40 and 655. Every employee receives training upon initial hiring. Supervisor/mangers receive two hours of additional training every two years that includes a minimum of 60 minutes on the effects of drug use and 60 minutes of training on the effects alcohol use and the agency policy. Drug and alcohol testing is conducted under the following circumstances:

- Pre-Employment;
- Reasonable Suspicion;
- Post-Accident;
- Random;
- Assuming Safety Sensitive Duties; and
- Return to Duty / Follow-Up

7.1.3 Driving Hours and On-Duty Time

Bus operators' schedules are assigned on a daily basis by an Operations Supervisor. The Operations Supervisor checks hours of service before scheduling upcoming work days. The following records for all bus operators are generated, tracked, and stored in the system:

- The scheduled assignment of all drivers including regular work days, day off work, overtime, vacations, holidays, absences, outside employment hours;
- The time the driver reports for duty each day;
- The time the driver is released from duty each day;
- The total number of hours the driver is on duty each day;
- The total scheduled driving time each day;
- The delay time at the end of each work piece; and
- The total time for the preceding seven days for drivers used for the first time or intermittently.

Title 13 of the California Code of Regulations subsection 1212 and 1212.5 establish the following limits on commercial bus operating hours:

- Drivers must have at least 8 hours off between work shifts;

- Maximum 10 hours driving time per day;
- Maximum 15 hours of on duty time; and
- Maximum 80 hours of on duty time for any consecutive 8 days.

In addition to state law, the applicable CBA establishes the following limits on scheduling and work hours:

- Drivers have at least 10 hours off between bid-in and scheduled work shifts; and
- Scheduled on-duty/spread work day limited to 12.5 hours.

7.1.4 DMV Pull Notice

MTS enrolls all employees in the California Employer Pull Notice (EPN) program. The program is required for all commercial drivers as a means for employers to electronically verify and monitor driving records. Employees are enrolled upon hire and removed upon termination. Records indicate license type, expiration date, special certificates, endorsements, restrictions. Notices are also sent annually and when there is a change to license status including a ticket, accident, or suspension. MTS uses a web based software solution company to manage the EPN program.

The CSO is responsible for monitoring the records of all commercial drivers and union employees. The CSO is responsible for notifying each department of status changes to the employee's eligibility to operate a bus or other vehicle. Each department is responsible for notifying the employee in their department of status changes, collecting documentation, and preventing them from operating a vehicle if they are not eligible to drive.

The Human Resources Department is responsible for checking a prospective employee's three (3) year driving record during the application and interview process. The Human Resources Department is responsible for monitoring the records of all management employees who do not have a commercial license.

The California Highway Patrol (CHP) performs an audit of the EPN program during the annual terminal inspection.

7.1.5 Customer Complaint Investigation

Customer complaints are managed overall by Support Services Department. Customers can submit a complaint by mail, in-person at MTS's administrative through the call center, through the MTS website or through MTS's mobile application.
All customer's comments or complaints are entered into the Customer Review Module in SAP. The comments then investigated by the responsible department. Investigation measures may include interviewing staff and/or collecting video if

appropriate. Final resolution is handled by department managers. The findings of the investigation are then entered into the Customer Review Module.

7.1.6 Ride Checker Program

MTS has two (2) anonymous part-time employees that conduct both directed and random rides that monitor a driver's performance while in revenue service. The ride checker completes a four-page "Ride Monitor Observation Listing" report for each ride. The report includes both yes/no questions and comment fields for various categories (Table 10).

Table 9: Ride Monitor Observation Listing

Ride Monitor Observation Listing		
Employee Information	Safety Observations	Bus Stop
Operator Appearance	Speed & Clearance	Turning Intersections
Departure / Arrival	ADA Compliance	Customer Service
Fare Collection	Railroad Crossing	Bus Appearance

The report is verified by the Support Services Analyst and emailed to a management distribution group. The Division Managers are responsible for final resolution of the reports.

7.1.7 Vehicle Pre-Trip Inspections

Pre-trip inspections are conducted in accordance with State and Federal law. Pre-trip inspections are completed by bus operators in the bus yard before the bus goes into revenue service. The pre-trip inspections also occur when bus operators make a relief on the road (excluding air brake test).

7.1.8 Vehicle Preventative Maintenance

Preventative maintenance and inspection is carried out at a minimum in accordance with the Original Equipment Manufacturer (OEM) recommendations. This process occurs based on miles and varies in the complexity based on the mileage interval. Inspections include:

- Brake inspection;
- Lube and oil filter;
- General inspection;
- Wheelchair ramp;
- Air conditioner;
- Electrical;

- Cooling;
- Compressed Natural Gas (CNG) and fire suppression;
- Farebox;
- Transmission; and
- Differential and diaphragms.

All inspections are documented and kept for the life of the vehicle. Specific details on the preventative maintenance program are explained further in the Maintenance Manual that is maintained by the Maintenance Department. The California Highway Patrol (CHP) conducts an independent audit of the preventative maintenance program annually.

7.1.9 Internal Safety Reporting Programs

The CSO routinely reviews safety data from various sources including: employee safety reports, safety meetings, the employee reporting program, customer service complaints, OSHA logs, and other safety communication channels that track safety performance information. The CSO will review and assess the data, conduct further investigations, and use established safety risk management process as needed to ensure safety risk mitigations are effective.

7.2 Management of Change

Changes that may introduce new hazards or impact the agency's safety performance are assessed through various processes. These changes include but are not limited to:

- Procurement of new goods/equipment;
- Changes to route design and special event detours;
- Operations/Maintenance procedure changes;
- Introduction of new technology;
- New regulatory requirements;
- Changes to operating environment including city/regional planning;
- Design and construction of capital projects; and
- Organizational changes.

If management determines that a change may impact safety performance, the proposed change should be evaluated using the Safety Risk Management Process, which includes hazard identification, risk assessment, and risk mitigation. Any change that may introduce new hazards to the system should include the safety department. Please refer to the Safety Risk Management section of this document or contact a member of the safety department for more information regarding this process. If the safety department is not consulted and engaged during the decision making process of the change, the project manager or individual who is

approving/implementing the change is responsible for ensuring adequate safety risk management is conducted prior to making any changes.

7.3 Continuous Improvement

MTS establishes Safety Performance Targets, Key Performance Indicators and PIP goals annually. These goals are tracked and reported on a monthly and annual basis. The CSO meets with the CEO, COO, executive management, and other key staff regularly to review and evaluate the agency's performance. Any identified deficiencies are addressed with a plan, under the direction of the Accountable Executive or their designee.

8 Safety Promotion

8.1 Safety Communication

Management promotes and communicates safety performance throughout the entire organization. This communication includes information on hazards and safety risk relevant to employees' roles and responsibilities. Employees are also informed of safety actions that are taken in response to reports submitted through the safety reporting program. The methods of communication include but are not limited to:

- Training Activities;
- Safety Committee;
- Meetings;
- Handbooks;
- Policies;
- Memos;
- Bulletins;
- Newsletters;
- Company Intranet;
- Job Briefings; and
- Department Information Monitors.

8.2 Competencies and Training

8.2.1 Chief Safety Officer Training Program

The CSO participates in the Voluntary Bus Safety Certification Program as outlined in 49 CFR Part 672. This training includes the following courses:

- SMS Awareness;
- SMS Safety Assurance;
- SMS Principles For Transit;
- Transit Bus System Safety;

- Fundamentals of Bus Collision Investigation; and
- Effectively Managing Transit Emergencies.

The CSO training also includes:

- Drug and Alcohol;
- Harassment Prevention; and
- Management Development

8.2.2 Servicer Training Program

All servicers complete a comprehensive training program. This program includes passing a written and behind the wheel test for a commercial driver license. Other major topics covered in the training program include: Code of Safe Practices, CNG fueling procedures, electric bus charging, bloodborne pathogen control program, Spill Prevention & Control Program (SPCC), and Maintenance Department policies and procedures.

Servicer refresher training includes but is not limited to:

- Toolbox training sessions;
- SPCC refresher training;
- Behind the wheel evaluations; and
- Preventable Accident remediation
- De-escalation training

8.2.3 Mechanic Apprenticeship Program

All mechanics complete a three (3) to four (4) year (depending on specialty) state certified apprenticeship program. The training starts with 40 days of in-house classroom instruction followed by on-the-job training with a mentor throughout the program. Apprentices must also complete nine (9) required college courses through Miramar Community College. In addition to the apprentice program, mechanics also receive the training program outlined in the servicer training program. Mechanics also receive Hazardous Waste Operations and Emergency Response (HAZWOPER) training as well as forklift certification.

Mechanic refresher training includes but is not limited to:

- Toolbox training sessions;
- SPCC annual refresher training;
- HAZWOPER annual refresher training;
- Forklift recertification every 3 years;
- Behind the wheel evaluations;

- Preventable accident remediation;
- De-escalation training;

8.2.4 Foreman and Maintenance Managers

Foreman and Maintenance Managers training includes, but is not limited to, the following:

- Drug and Alcohol;
- Harassment Prevention;
- Management Development;
- Toolbox training sessions;
- SPCC;
- HAZWOPER;
- Forklift recertification;
- Behind the wheel evaluations;
- De-escalation training;
- Preventable accident remediation; and
- Cardiopulmonary Resuscitation (CPR).

8.2.5 Bus Operator Training Program

All bus operators complete a nine (9) week training program prior to operating a bus in revenue service on their own. The training program is comprised of both classroom and behind the wheel driving. Operators are required to receive and maintain a class B commercial driving license, with a passenger and air brake endorsement. Operators are also required to have a valid medical certificate and Verification of Transit Training (VTT) certificate. Training topics includes, but are not limited to, the following:

- Bus operation and defensive driving;
- Destination signs;
- Radio communication;
- Customer service;
- ADA;
- Emergency procedures; and
- Route training.

Bus Operator refresher training includes, but is not limited to, the following:

- VTT annual training;

- Accident remediation;
- Defensive driving;
- Conflict resolution;
- Policy and procedures; and
- Behind the wheel evaluations.

8.2.6 Transportation Supervisors and Managers

Supervisors and Transportation Managers training includes, but is not limited to, the following:

- Drug and Alcohol;
- Harassment Prevention;
- Management Development;
- VTT;
- De-escalation training;
- CPR; and
- Preventable accident remediation.

Metropolitan Transit System

APPENDIX A

Bus Safety Plan

(Public Transportation Agency Plan pursuant to 49 CFR 673)

transdev
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MTS Contract-Operator at South Bay Maintenance Facility (SBMF) and East County Maintenance Facility (ECMF)



APPENDIX A

TRANSDEV BUS SAFETY PLAN

Contract Operations at

East County Maintenance Facility

and

South Bay Maintenance Facility

1 Bus Agency Safety Plan Overview

1.1 Agency Information

This Bus Agency Safety Plan discusses how safety is managed for Transdev, in operating the fixed route contract for the San Diego Metropolitan Transit System (MTS). The Agency Safety Plan addresses all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan.

Transdev operates Fixed-Route Urban, Local, Express, Rural and Bus Rapid Transit (BRT) bus services in the San Diego Metropolitan Transit System (MTS) service area of San Diego. Services are provided under a contract agreement, to operate Fixed-Route service from the South Bay Division and East County Division, which operate a combined fleet of approximately 332 buses on approximately 56 Routes.

Table 1: Agency Information

Agency Information	
Transit Agency Name	MTS
Transit Agency Address	1255 Imperial Ave Suite 1000, San Diego, CA 92101
Name and Title of Accountable Executive	Sharon Cooney, Chief Executive Officer (CEO)
Name of Chief Safety Officer (CSO) or Safety Management System (SMS) Executive	Jared Garcia, Manager of Safety
Modes of Service Covered by This Plan	Contracted Fixed Route Bus
List Of All Funding Types:	5307, 5337, 5339
Mode(s) of Service Provided by the Transit Agency (Directly Operated or Contracted Service)	Contracted Fixed Route Bus
Does the agency provide transit services on behalf of another transit agency or entity?	No
Description of Arrangement(s)	N/A

1.2 Bus Agency Safety Plan Approvals

The Bus Agency Safety Plan has been approved by the Accountable Executive and the MTS Board of Directors (Table 2).

Table 2: Bus Agency Safety Plan Approvals

Bus Agency Safety Plan Approvals		
Name of Entity That Drafted This Plan	San Diego Metropolitan Transit System	
Safety Committee Approval	Signature of Chief Safety Officer	Date of Approval
	Jared Garcia	1/16/2025
Accountable Executive Signature	Signature of Accountable Executive	Date of Signature
		3/13/2025
Approval by the MTS Board of Directors	Signature of Chairperson of the MTS Board of Directors	Date of Approval
		3/13/2025
Certification of Compliance	Name of Individual/Entity That Certified This Plan	Date of Certification
		3/13/2025

1.3 Annual Review, Update, and Safety Performance Assessment

1.3.1 Annual Review of the Bus Agency Safety Plan

This plan will be reviewed and updated annually during the month of January by the Chief Safety Officer. Proposed changes are reviewed with the Accountable Executive, Executive Management and Key Staff. The Accountable Executive will review and approve any changes, sign the updated plan, and then forward the plan to the Board of Directors for final review and approval. Updates to this plan may be made when there are:

- Changes to: safety performance targets, safety management policy, safety risk management, safety assurance, and safety promotion;
- Changes to: The Accountable Executive, COO, or CSO;
- Significant changes to service delivery;
- Significant changes to the organizational structure;
- New process/procedures are introduced that impact safety;
- Changes to available resources or priorities that support SMS; and
- Changes required by the Federal Transit Administration (FTA), California Public Utilities Commission (CPUC), California Department of Transportation (Caltrans), San Diego Association of Governments (SANDAG), etc. or other similar oversight agency.

1.3.2 Annual Safety Performance Assessment

MTS conducts an annual safety performance assessment in conjunction with the annual review. This assessment includes a review of the prior year's performance involving the Safety Performance Targets, Key Performance Indicators and applicable Performance Incentive Program (PIP) goals. The assessment may also include reviewing identified safety deficiencies, or other areas involving safety performance.

Updates made to the Bus Agency Safety Plan will be documented (Table 3).

Table 3: Version Number and Update History of Transit Safety Plan

Version Number and Update History of Bus Agency Safety Plan			
Version Number	Section/Pages Affected	Reason for Change	Date Issued
1.0	All pages are original version	First Official version of Safety Plan	7/30/2020
1.0	All	Annual Review	January 2021
1.0	All	Annual Review	January 2022
2.0	Sections 3, 4, 7	Bipartisan Infrastructure Law	February 2023
2.0	All	Annual Review	January 2024
3.0	Sections3, 4	FTA Requirements	January 2025

1.4 Documentation and Recordkeeping

This Bus Agency Safety Plan and documents related to this plan will be maintained for three (3) years after date of creation and be made available upon request by the FTA or other applicable agency having jurisdiction.

2 Safety Performance Targets

2.1 Safety Performance Targets

As required by 49 CFR 673.11(a) (3), this Bus Agency Safety Plan must include performance targets associated with revenue service that are based on the safety performance measures established under the National Public Transportation Safety Plan.

MTS may adjust performance targets over time, as data is collected and as SMS implementation matures. MTS performance targets are calculated using a 3-year rolling average of the data submitted to the National Transit Database (NTD) (Table 4). The safety performance targets are evaluated for each calendar year (January 1 – December 31).

2.2 Safety Performance Target Definitions

Definitions are based on 49 CFR 673, the National Public Transportation Safety Plan, or the current National Transit Database (NTD) Reporting Guide.

Assault on a Transit Worker - A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

Fatality – Death confirmed within 30 days of the event (including suicides). Fatalities that occur because of illnesses or other natural causes (including individuals who are found deceased) are not reportable.

Injury -any harm to persons as a result of an event that requires immediate medical attention away from the scene.

Safety Event –an unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

System Reliability - mean distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

Safety Performance Measures	
Performance Measure	**Description**
1a - Major Events	This includes all safety and security major events as defined by the NTD.
1b - Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
1.1 - Collision Rate (new)	This includes all collisions reported to the NTD, divided by VRM.
1.11 - Pedestrian Collision Rate (new)	This includes all collisions “with a person,” as defined by the NTD, divided by VRM.
1.1.2 - Vehicular Collision Rate (new)	This includes all collisions “with a motor vehicle,” as defined by the NTD, divided by VRM.
2a - Fatalities	This includes all fatalities as defined by the NTD.
2b - Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
2.1 Transit Worker Fatality Rate (new)	This includes all transit worker fatalities as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
3a - Injuries	This includes all injuries as defined by the NTD.
3b - Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
3.1 Transit Worker Injury Rate (new)	This includes all transit worker injuries as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
4a - Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD.
4b - Rate of Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD, divided by VRM.
5 - System Reliability	This includes Major Mechanical System failures as defined by the NTD.

2.3 Safety Performance Target Coordination

Safety Performance Targets are made available to state of California including the Public Utilities Commission (CPUC), Caltrans, and the San Diego Association of Governments (SANDAG), MTS's Metropolitan Planning Organization (MPO), to aid in the planning process. Coordination with these agencies, in the selection of safety performance targets is accomplished to the maximum extent practicable. MTS officially transmits its targets in writing to the State and MPO following the annual review and certification. This transmission will take place in February of each year.

	State Entity Name	Date Transmitted
Targets Transmitted to the State[1]	California Public Utilities Commission (CPUC)	See Footnote 1
	California Department of Transportation (Caltrans)	See Footnote 1
Targets Transmitted to the MPO	**MPO Name**	**Date Transmitted**
	San Diego Association of Governments (SANDAG)	7/7/2020

3 Safety Management Policy

3.1 Safety Management Policy Statement

The Safety Management Policy Statement, signed by the Accountable Executive and approved by the MTS Board of Directors, establishes the agency's safety objectives, and documents the organizational authorities, accountabilities and responsibilities
(Figure 1).

[1] Although MTS has offered to share Bus Safety Performance Targets with CPUC and Caltrans, both have stated it is not necessary to send Bus Safety Performance Targets for their review. As required per 49 CFR 673.15, MTS will coordinate and share Bus Safety Performance Targets with state entities to the maximum extent practicable

Figure 1: Safety Management Policy Statement



San Diego Metropolitan Transit System
Safety Management Policy Statement

The San Diego Metropolitan Transit System (MTS) has established this Safety Management System Policy Statement to emphasize its overall commitment to the safety of our passengers, our operators, our staff, and the general public. This Safety Management System Policy Statement provides direction for MTS's safety program, which applies to every facet of MTS operations.

The management of safety is MTS's highest priority. MTS is committed to safety throughout the entire organization, from the Board of Directors to the front-line transit workers.

MTS will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources to achieve the highest level of safety performance and meeting established standards. MTS is committed to developing, implementing, maintaining, and constantly improving our processes. MTS supports the joint labor-management Safety Committee, and the safety management system responsibilities outlined in the Agency Safety Plan. As evidence of our commitment to safety, every MTS policy shall be guided by and every transit worker shall perform their duties in furtherance of the following safety goals:

- Supporting safety through the provision of appropriate resources that fosters a safety culture;
- Integrating the management of safety among the primary responsibilities of all transit workers;
- Clearly defining transit workers' responsibilities in relation to the performance of our safety management system;
- Conducting hazard identification and evaluating safety risks, which includes a transit worker safety reporting program, in order to eliminate or mitigate safety risks;
- Ensuring that no action will be taken against any transit worker who discloses a safety concern through the transit worker safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- Complying with, and wherever possible exceeding, legislative, and regulatory requirements and standards;
- Ensuring that sufficiently skilled and trained transit workers are available to implement safety management processes;
- Ensuring that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are assigned only tasks for which they are adequately trained;
- Establishing and measuring our safety performance against realistic and data-driven safety performance indicators and safety performance targets;
- Continually improving our safety performance by ensuring appropriate safety management action is taken and is effective; and
- Ensuring externally supplied systems and services that support our operations are delivered to meet our safety performance standards.

_____
Chief Executive Officer
San Diego Metropolitan Transit System

March 13, 2025
Date

_____
Chair of Board of Directors
San Diego Metropolitan Transit System

March 13, 2025
Date

transdev
the mobility company

SAFETY FIRST
Our Daily Priority at Transdev

Across each of our 18 countries, Transdev always places Safety First. This commitment is present every day in all the ways we ensure the health, safety and security of our teams, passengers, and the communities we serve.

Here in the U.S., I want to emphasize safety should serve as our guiding principle and top priority in all policies, procedures, and daily practices. Our goal is to ensure that every day is a Perfect Safety Day – a day with no preventable accidents or injuries.

The prevention of accidents, injuries, unsafe incidents, and illness is the responsibility of every Transdev employee. All employees of every level are expected to lead by example and

- **Provide, foster, and deliver a safe and healthy working environment**
- **Abide by all safety policies, rules, and regulations**
- **Expect and insist upon a total commitment to safety from fellow employees**
- **Immediately raise safety concerns to their supervisor or safety representative**

I am counting on every member of the Transdev team to ensure we view all decisions through the lens of safety and we always consider **Safety First.** Thank you for your strong daily focus on our shared health, safety, and security.



Laura Hendricks
CEO, Transdev U.S.

Laura J. Hendricks

SAFETY FIRST!

MAKE TODAY A PERFECT SAFETY DAY

OUR PURPOSE:
We empower freedom to move everyday thanks to safe, reliable and innovative solutions that serve the common good.

3.2 Goals

Transdev, on behalf of MTS Transit Services, is committed to providing the safest transportation possible for our employees, customers, the citizens of San Diego, and the communities we serve. We will:

- Provide and maintain a safe and healthy working environment
- Provide a safe and courteous transit system
- Follow best practices that will safeguard employees, customers, and persons interacting with transit property and equipment

Accidents are the result of unsafe acts committed by people and the existence of hazards or unsafe conditions, both of which are controllable and must be prevented to the maximum extent practicable in order to achieve Transdev's and MTS' commitment.

Our Safety Policy and our commitment to safety are at all times guided by the following principles:

- Safety is the responsibility of each and every employee
- Management has the responsibility to train all employees to work safely and to assure all employees work in a safe manner
- Preventing accidents, injuries, and incidents is good business
- Operating risks, hazards, and exposures can be safeguarded with active and effective safety practices
- Injuries and occupational illnesses can be prevented

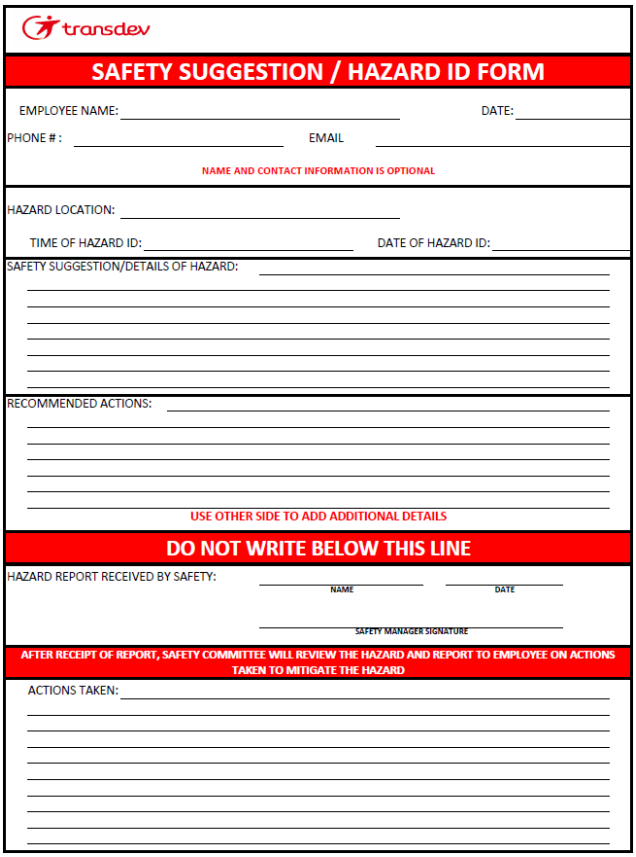
3.3 Employee Reporting Program

Employees and contractors are empowered to report safety hazards, unsafe conditions, and near misses to management. No action will be taken against an employee through the reporting program as long as the report or act was not illegal, negligent, willful, or a violation of company policy/procedure. Employees have multiple means of communicating their concerns which include:

- Verbally to their direct supervisor or other member of management;
- By use of phone/radio;
- Through their union representative;
- Completing an anonymous paper form and
- Through the Employee Safety Committee.

Hazards that cannot be adequately mitigated at the time of reporting are reported to the CSO and entered into a software database (Industry Safe or equivalent) for further assessment and mitigation (see Safety Risk Management).

Figure 2: Sample Paper Reporting Form



transdev

SAFETY SUGGESTION / HAZARD ID FORM

EMPLOYEE NAME: _____ DATE: _____

PHONE # : _____ EMAIL _____

NAME AND CONTACT INFORMATION IS OPTIONAL

HAZARD LOCATION: _____

TIME OF HAZARD ID: _____ DATE OF HAZARD ID: _____

SAFETY SUGGESTION/DETAILS OF HAZARD: _____

RECOMMENDED ACTIONS: _____

USE OTHER SIDE TO ADD ADDITIONAL DETAILS

DO NOT WRITE BELOW THIS LINE

HAZARD REPORT RECEIVED BY SAFETY: _____ NAME _____ DATE

_____ SAFETY MANAGER SIGNATURE

AFTER RECEIPT OF REPORT, SAFETY COMMITTEE WILL REVIEW THE HAZARD AND REPORT TO EMPLOYEE ON ACTIONS TAKEN TO MITIGATE THE HAZARD

ACTIONS TAKEN: _____

3.4 Safety Management Policy Communication

The Safety Management Policy Statement is communicated to all employees and contractors throughout the organization including: employees, managers, executives and the Board of Directors. This policy is communicated through:

- Employee Handbooks;
- Bulletin Boards;
- Newsletters; and
- Company Intranet

3.5 Authorities, Accountabilities, and Responsibilities

3.5.1 Board of Directors

The Board of Directors (Board) is responsible for setting policy for MTS, including Transit Services. The Board is required to approve the ASP initial document and all updates. At its regular meetings, the Board receives periodic safety briefings from Bus Operations. The Board has delegated agency management to the CEO, subject to various adopted Board policies and legal requirements.

3.5.2 Accountable Executive

The Board of Directors has designated the CEO as the Accountable Executive for the Agency. The Accountable Executive has ultimate responsibility for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout the Agency. These responsibilities include:

- Establishing, implementing, and promoting the Safety Policy Statement;
- Authority over financial and human resources;
- Authority over all activities and operations;
- Authority over final risk assessment ranking;
- Authority over final mitigation(s) of hazards/unsafe conditions;
- Briefing the Board of Directors; and
- Responsibility for carrying out the Transit Asset Management (TAM) Plan.

The CEO has delegated the authority and the day-to-day responsibilities of the agency safety plan for Transit Services to the Chief Operating Officer (COO) of Transit Services.

3.5.3 Chief Operating Officer (COO)

The COO reports directly to the CEO and is responsible for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout Transit Services. These responsibilities include:

- Implementing, and promoting the Safety Policy Statement;
- Authority over financial and human resources within Transit Services;
- Authority over all activities and operations within Transit Services;
- Authority over the risk assessment ranking within Transit Services;
- Authority over final mitigation(s) of hazards/unsafe conditions within Transit Service; and
- Briefing the Board of Directors on SMS related activities within Transit Services, as requested by the CEO.

The COO will support and encourage an open dialogue between the Chief Safety Officer and the CEO.

3.5.4 Chief Safety Officer

The Chief Safety Officer (CSO) is the Manager of Safety for Transit Services. The CSO has a dual reporting role with the COO and the CEO. As necessary to implement the Bus Agency Safety Plan and discuss relevant issues, the CSO has a duty and a right to report directly to and consult with the CEO. The CSO has independent and direct access to the CEO as needed regarding all safety related

issues. The CSO has regularly scheduled safety briefings with the CEO and COO. The CSO also reports to the COO on a day-to-day basis. The CSO is responsible for:

- Developing and maintaining SMS programs including the Bus Agency Safety Plan;
- Managing the Employee Reporting Program;
- Performing analysis of incidents, trends, and causes and making recommendations to reduce or eliminate the potential for recurrence;
- Assisting other departments with the development of training programs and procedures;
- Managing the review and analysis of all accidents, incidents and safety events to determine preventability and any other causal or contributing factors;
- Providing monitoring and follow-up with employees after preventable accidents;
- Serving as the Chair of the Employee Safety Committee;
- Coordinating with external emergency response agencies, including police, fire and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Transit Services emergency preparedness plans; and
- Managing the Department of Motor Vehicles (DMV) Pull Notice Program and assuring all licenses, permits and certifications are in compliance.

3.5.5 Other Agency Leadership, Executive Management and Key Staff

3.5.5.1 Manager of Contract Operations and Passenger Facilities

The Manager of Contract Operations and Passenger Facilities directly reports to the COO and is responsible for:

- Providing day-to-day oversight of contractor compliance with the agency safety plan;
- Providing contract oversight of the Agency’s multi-year transit operations contracts;
- Monitoring ongoing facility maintenance activities dictated by Agency service contracts;
- Planning, directing, coordinating and reviewing Contract Services’ staff;
- Assisting with transportation activities and coordinating schedules, projects and programs as needed to ensure Contract Service quality and continuity with Agency goals and objectives;
- Overseeing the coordination of bus stop maintenance and other transit amenities, including administration of various vendor contracts;
- Working with appropriate staff to develop fleet capital replacement program; and

- Supporting Finance Department staff on discretionary and programmed grants applications.

3.5.5.2 Transit Operations Specialists

Transit Operations Specialists directly report to the Manager of Contract Operations and Passenger Facilities and are responsible for overseeing the MTS Bus Operations and BRT contract at East County and South bay Divisions. Transit Operations Specialists are responsible for overseeing Contractors efforts in:

- Implementing, promoting and monitoring compliance of the Safety Plan;
- Mitigation(s) of hazards/unsafe conditions within East County and South bay Contract Service Divisions;
- Analysis of incidents, trends, and causes, as well as recommendations to reduce or eliminate the potential for recurrence;
- Post-accident review and reporting;
- Coordinating with external emergency response agencies, including police, fire and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Contractor's Transit Services emergency preparedness plans; and
- Providing monthly progress reports, as well as statistical and analytical support data.

3.5.5.3 Transdev Leadership, Executive Management and Key Staff

3.5.5.3.1 General Manager

The General Manager is Transdev's Top Executive for East County and South Bay Contract Service Divisions. Transdev's General Manager is responsible for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout the East County and South Bay Contract Service Divisions. These responsibilities include:

- Establishing, implementing, and promoting MTS' and Transdev's Safety Policy Statement;
- Authority over Transdev's financial and human resources;
- Authority over all of Transdev's activities and operations;
- Authority over Transdev's final risk assessment ranking;
- Authority over Transdev's final mitigation(s) of hazards/unsafe conditions; and
- Briefing the Manager of Contract Operations and Passenger Facilities.

The General Manager has delegated the authority and the day-to-day responsibilities of the Transdev agency safety plan to the East County and South Bay Division Managers.

3.5.5.3.2 East County and South Bay Division Managers

The East County and South Bay Division Managers directly report to the General Manager, and are responsible for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout East County and South Bay Contract Service Divisions. These responsibilities include:

- Directly overseeing and managing the MTS contract at East County and South bay Contract Service Divisions.
- Implementing, and promoting the Transdev Safety Policy Statement;
- Authority over financial and human resources within East County and South bay Contract Service Divisions.
- Authority over all activities and operations within East County and South bay Contract Service Divisions.
- Authority over the risk assessment ranking within East County and South bay Contract Service Divisions.
- Authority over final mitigation(s) of hazards/unsafe conditions within East County and South bay Contract Service Divisions; and
- Briefing the CSO and the Manager of Contract Operations and Passenger Facilities.

3.5.5.3.3 Director of Safety

The Director of Safety of East County and South Bay Contract Service Divisions is the designated Safety representative for Transdev. The Director of Safety directly reports to the General Manager, but is responsible for providing routine updates directly to the CSO of MTS and Administrative Staff overseeing the Transdev Contract. As necessary to implement the Transdev's Bus Agency Safety Plan and discuss relevant issues, the Director of Safety has a duty and a right to report directly to and consult with the General Manager. The Director of Safety has independent and direct access to the General Manager and MTS and Administrative Staff overseeing the Transdev Contract, as needed regarding all safety related issues. The Director of Safety has regularly scheduled safety briefings with the General Manager and MTS and Administrative Staff overseeing the Transdev Contract. The Director of Safety also reports to the General Manager on a day-to-day basis. The Director of Safety is responsible for:

- Developing and maintaining SMS programs including Transdev's Bus Agency Safety Plan;
- Managing Transdev's Employee Reporting Program;
- Performing analysis of Transdev's incidents, trends, and causes and making recommendations to reduce or eliminate the potential for recurrence;
- Assisting Transdev's other departments with the development of training programs and procedures;
- Managing the review and analysis of all Transdev's accidents, incidents and safety events, to determine preventability and any other causal or contributing factors;
- Providing monitoring and follow-up with Transdev's employees after preventable accidents;
- Serving as the Chair of Transdev's Employee Safety Committee;
- Coordinating with external emergency response agencies, including police, fire and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Transdev's emergency preparedness plans; and
- Managing Transdev's Department of Motor Vehicles (DMV) Pull Notice Program and assuring all licenses, permits and certifications are in compliance.

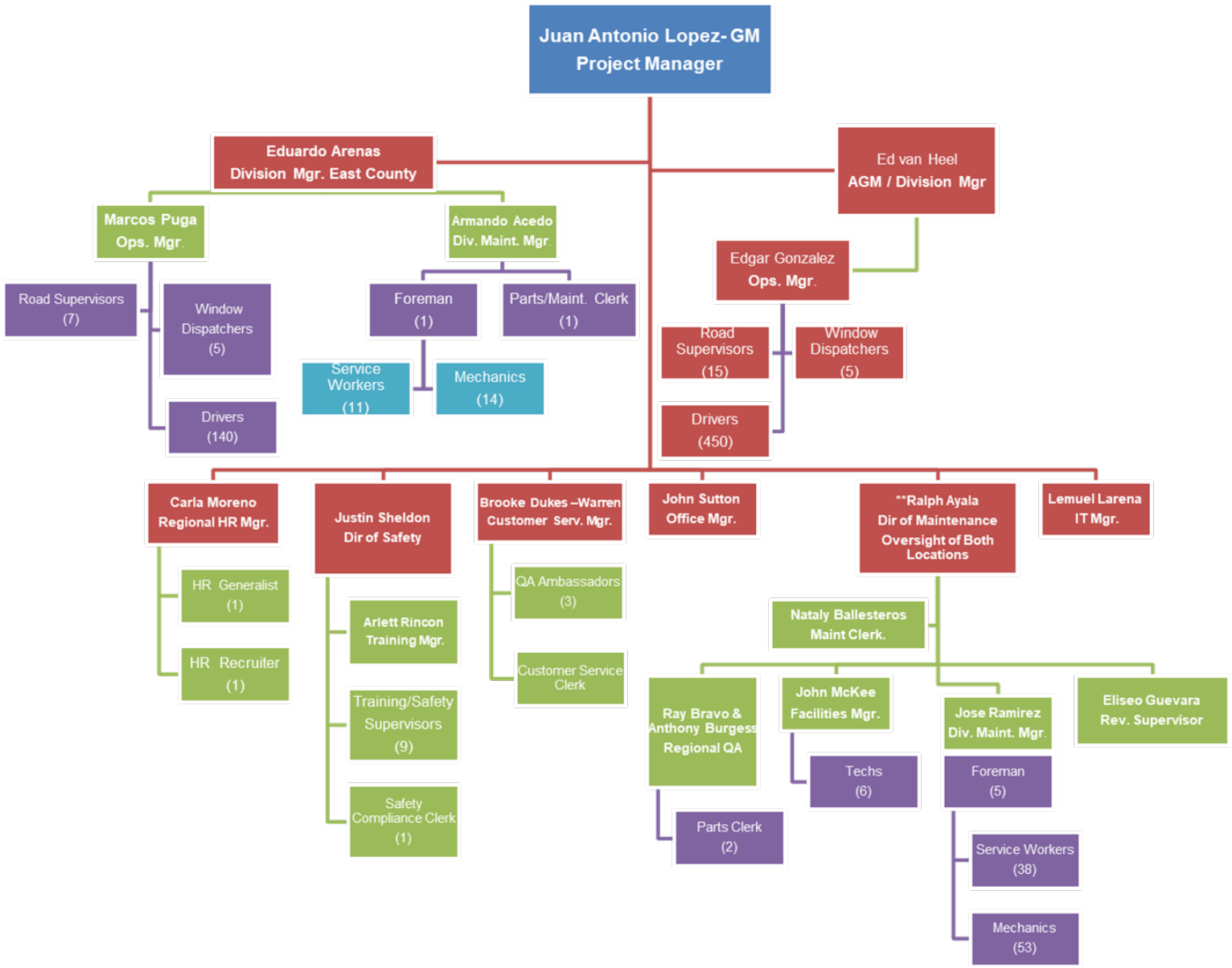
3.5.5.3.4 Director of Maintenance

The Director of Maintenance directly reports to the General Manager and is responsible for:

- Directing, organizing, developing and planning all Transdev's directly operated bus and facility maintenance functions;
- Providing oversight, contract compliance and support for all of Transdev's contracted service fleet and facility maintenance operations;
- Directing, coordinating and supervising the development, implementation and administration of capital plans and contracts for Transdev's fleet replacement, as well as service contracts providing maintenance for all Transdev's bus facilities and fleets;
- Overseeing the administration of applicable Transdev's Collective Bargaining Agreement (CBA);
- Overseeing Transdev's maintenance employee training, including the mentoring program; and
- Providing expertise and advice regarding Transdev's staffing decisions in Fleet and Facilities, including recommendations for hiring, promotion and termination; evaluation and the implementation of discipline and other remedial measures.

4 Organization Chart

Figure 3: Organization Chart



5 Meetings

5.1 CEO Safety Briefings

The CEO, COO, and CSO meet on a regular basis to review and discuss monthly safety performance. These topics include but are not limited to:

- Accidents & Injuries
- Hazard mitigation strategies
- Training activities
- Policy & Procedures
- Committee meetings
- Contract management
- Project updates

5.2 Transit Services Executive Staff Meetings

The CSO and other agency leadership within Transit Services meet together on a weekly basis with the COO to review and discuss updates from each department. These topics include but are not limited to:

- Accidents & Injuries
- Hazard mitigation strategies
- Training activities
- Policy & Procedures
- Committee meetings
- Contract management
- Project updates

5.3 COO Meetings with Contract Services and Transdev Leadership

The COO, CSO, and Manager of Contract Operations and Passenger Facilities meet on a monthly basis with Transdev Leadership to review and discuss updates regarding safety performance, safety risk management, safety assurance, and safety promotion. These topics include but are not limited to:

- Accidents & Injuries
- Existing hazards and mitigation techniques
- Training activities
- Policy & Procedures
- Committee meetings
- KPI goals
- Contract management
- Project updates
- Staffing levels

5.4 Transdev and MTS Contract Services Management Staff Meetings

The Director of Safety and Training and other leadership within Transdev's Executive Management Staff, meet together on a monthly basis with the Manager of

Contract Operations and Passenger Facilities as well as other leadership within Contract Services to review and discuss updates from each department. These topics include but are not limited to:

- Accidents & Injuries
- Hazard mitigation strategies
- Training activities
- Policy & Procedures
- Committee meetings
- Contract management
- Project updates
- KPI goals

5.5 Transdev's Employee Safety Committee

Transdev's Employee Safety Committee meets monthly and is comprised of representatives from both bargaining units (ATU, IBT), MTS Contract Services Management Staff, as well as contractor's management representatives from the Maintenance, Safety, and Operations Departments. The purpose of the safety committee is to: (1) identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment; (2) identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and (3) identifying safety deficiencies for purposes of continuous improvement.

5.6 Transdev's Accident/Injury Review Meetings

Transdev Management meets with the Transdev's National Safety Director and/or Regional Vice President a weekly basis. Topics include but are not limited to:

- Workplace Injuries
- Preventable Accidents
- Hazard mitigation strategies
- Training activities
- Policies & Procedures

5.7 Regional Safety Meetings

Transdev Management meets with Transdev's National Safety Director on a Bi-weekly basis. Topics include but are not limited to:

  - Open & recently closed claims
- Workplace injury claims

  - Hazard mitigation strategies

- Training activities
- Policy & Procedures
- DriveCam Performance
- KPI reviews

5.8 Emergency Preparedness and Response

5.8.1 Employee Training

Employees receive varying levels of emergency response training during the initial onboarding process depending on job position. Employees also receive applicable refresher training throughout the year through training programs and topics outlined in the Safety Promotion and Safety Communication sections of this document. Topics covered for emergency training include:

- Accident/Injury reporting
- Inspection protocols
- Passenger evacuations
- Road calls/Breakdowns
- Fire suppression
- Spill prevention, control and countermeasures (SPCC)
- Hazardous waste, operations, and emergency response (HAZWOPER)
- Conflict resolution and de-escalation techniques

5.8.2 Emergency Responder Training & Coordination

Transit Services participates in external agency emergency trainings and exercises whenever requested/invited by local municipal, county, state, or federal entities. These events include emergency events specific to the transit system as well as supporting other agencies with available resources (vehicles) to aid in external emergency response. Typical training events and exercises include:

- Vehicle familiarization
- Bus hijacking/SWAT
- Rescue/heavy lift extraction
- Homeland Security canine training
- Community based evacuations & temporary shelter
- Tabletop exercises

5.8.3 Vehicle Safety Equipment

Fixed route buses are equipped with the following safety features to reduce to the likelihood/severity of an emergency:

- Two-way radio
- GPS tracking

- Security cameras
- Discreet panic button
- Fire extinguisher
- Engine fire detection & suppression system (excludes battery electric buses)
- Interlock device(s)
- Fuel leak detection alarm (CNG buses only)
- Emergency exit windows & roof hatches
- Low air pressure alarm

6 Safety Risk Management

Safety Risk Management is a decision-making process that involves the identification, evaluation, and mitigation of hazards and unsafe conditions throughout the system. Hazards are to be eliminated or mitigated to lowest practical level with consideration given to financial and operational constraints. Transdev utilizes a decentralized process where each department is responsible for managing the hazards that exist within their department.

6.1 Safety Hazard Identification

All Transdev employees are responsible for identifying and reporting hazards and unsafe conditions to their immediate supervisor/manager. The supervisor/manager is responsible for the initial evaluation and mitigation of a reported hazard. If the supervisor/manager is unable to eliminate the hazard or effectively mitigate the hazard to an acceptable level, the hazard must be reported to the Director of Safety and Training. The Director of Safety and Training is responsible for documenting the reported hazard.

Hazards are generally identified through:

- Employee Reporting Program;
- Employee Safety Committee;
- Routine inspections;
- Training activities;
- Direct observation by supervisors, managers and/or safety personnel;
- Accident and incident investigations;
- Customer Service reports;
- Daily operations activity reports;
- Safety data analysis;
- Audits;
- Data and info provided by FTA or other oversight authority;
- Design/Planning process for capital projects;
- Procurement of goods and services; and
- New service implementation

6.2 Safety Risk Assessment

The Director of Safety is responsible for assessing safety risks. Analyzing hazards is subjective. Two reasonable people could assess the same hazard and determine a different probability or severity of an unfavorable outcome. Hazards are analyzed using the probability/severity matrix within this section (Table 5, Table 6, Table 7, and Table 8). The criteria listed in the severity and probability charts are intended to be guidelines only. Each hazard is unique; therefore, in addition to the severity and probability charts, the Director of Safety should also consider common sense, similar prior/existing hazards, historical data, and their professional experience when conducting the assessment. Hazards that are “unacceptable”, “undesirable”, or “acceptable with review by management” are entered into the Risk Register by the Director of Safety. Hazards that are “acceptable without review” are not required to be entered into the Risk Register. The Director of Safety is responsible for informing the General Manager, and Transdev’s Accountable Executive of any hazard that is “unacceptable” or “undesirable.”

Table 4: Severity

Severity		
Description	**Category**	**Criteria (worst likely credible outcome)**
Catastrophic	**1**	Could likely result in death, permanent total disability, severe property damage or irreversible environmental damage.
Critical	**2**	Could likely result in permanent partial disability, injuries or occupational illness that may result in hospitalization, or reversible significant property/environmental damage.
Marginal	**3**	Could likely result in injury or occupational illness resulting in one or more lost work days(s), reversible moderate property/environmental damage.
Negligible	**4**	Could likely result in injury or illness not resulting in a lost work day, minimal property/environmental impact.

Table 5: Likelihood

Likelihood		
Description	**Level**	**Specific Individual Item (Example of Frequency)**
Frequent	**A**	Likely to occur frequently or continuously. (Weekly, 100K miles)
Probable	**B**	Likely to occur several times. (Monthly, 1 million miles)
Occasional	**C**	Likely to occur sometime. (Yearly, 10 million miles)
Remote	**D**	Unlikely but reasonable or possible to occur. (Decade, 100 million miles)
Improbable	**E**	So unlikely, it can be assumed occurrence may not be experienced.
Eliminated	**F**	This level is used when potential hazards are identified and later eliminated.

Table 6: Hazard Assessment Matrix

Hazard Assessment Matrix				
	1 - Catastrophic	**2 - Critical**	**3 - Marginal**	**4 - Negligible**
A - Frequent	**1A**	**2A**	**3A**	**4A**
B - Probable	**1B**	**2B**	**3B**	**4B**
C - Occasional	**1C**	**2C**	**3C**	**4C**
D - Remote	**1D**	**2D**	**3D**	**4D**
E - Improbable	**1E**	**2E**	**3E**	**4E**
F - Eliminated	**N/A**	**N/A**	**N/A**	**N/A**

Table 7: Acceptability Levels

Acceptability Levels	
High	**Unacceptable**
Serious	**Undesirable** with management decision
Medium	**Acceptable** with review by management
Low	**Acceptable** without review

6.3 Safety Risk Mitigation

After a risk assessment has been conducted, the Director of Safety will identify parties responsible for mitigating the hazard. The responsible parties are generally department heads, those most knowledgeable about the hazard (subject matter experts), or those with the most adequate resources to mitigate the hazard.

The following are common methods and processes responsible parties typically use to mitigate hazards:

- Eliminate hazards by repair/replacement;
- Eliminate hazards through design/change of service;
- Incorporate engineered features or devices;
- Provide warning devices, signage and alarms;
- Establish written policy and procedures to address the hazard;
- Implement training activities;
- Use of personal protective equipment (PPE); and
- Communication of hazard with employees, passengers, and general public.

Responsible parties are required to update the Director of Safety. The Director of Safety is then responsible for updating Leadership within Transdev as well as recording the mitigation progress in the Risk Registry in Industry Safe. The Risk Registry is reviewed at the monthly COO Meetings with Contract Services and Transdev Leadership. The MTS Accountable Executive has the ultimate authority when deciding mitigations and the final assessment of a hazard. Hazards that remain at an unacceptable/undesirable level will continue to be monitored and revisited during the annual budget and capital improvement process.

7 Safety Assurance

7.1 Safety Performance Monitoring and Measurement

MTS and Transdev have established several activities to monitor operations and maintenance for compliance with procedures. These processes are also used to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. Non-compliance with procedures is generally addressed through counseling, training, and other management oversight activities. Insufficient procedures are addressed through safety risk management activities.

Transdev Management and Supervisors are responsible for upholding established policies and procedures covered in documents such as CBAs, employee handbooks, training manuals, bulletins, memos, California Vehicle Code sections, etc. Supervisors/Managers typically utilize direct observations, job briefings, facility inspections, radio communications, and investigations to determine compliance. Employees who are not compliant with these procedures may receive in-person counseling, written observation letters, re-training, and/or progressive discipline depending on the severity of the event and the employee's work record.

7.1.1 Investigations

All employees are required to immediately report safety related events to their direct supervisor or the Bus Control Center/Radio room and complete a written accident/incident report. The Transdev Manager on duty is responsible for ensuring the appropriate response to the scene (dependent on available resources) and determining if a drug and alcohol test is required.

A Road Supervisor (RS) should be sent to the scene to investigate whenever a person is injured/claiming injury or there is a collision involving a bus or other mass transit vehicle. The RS will gather statements from persons involved/witnesses, collect insurance and other contact information, take photos of the scene, etc., and complete a written report.

Following the event, the Quality Assurance Supervisors will collect video from the bus camera system and facility camera system if available. The video is generally stored in either the camera system server or a shared network drive and preserved for at least one year after the event and may be stored longer as dependent on available storage space. The Director of Safety will collect and review all information and forward all written materials to Transdev's Risk Department and/or Transdev's Safety Team).

Transdev's Safety Team is responsible for reviewing events involving: vehicle collisions, claims of injury, wheelchair ramp use, and certain braking events. The Safety Team is chaired by the Director of Safety and also includes members from the Training Department and members from the Safety Department. The Safety Team meets regularly and reviews all available information to determine

preventability and any other causal or contributing factors. The Director of Safety informs applicable management and other involved employees of the Safety Team's findings.

The Director of Safety is responsible for ensuring all safety related information is entered in MTS's TransTrack Manager for tracking purposes and data analysis. The Director of Safety is also responsible for reporting all safety related data (entered into TransTrack Manager) to the General Manager, MTS Administrative Staff overseeing the Transdev Contract, and Transdev's Accountable Executive on a monthly basis. MTS Administrative Staff overseeing the Transdev Contract will provide a summary of the data to the COO on a monthly basis. The CSO is responsible for reporting applicable required information to the National Transit Database (NTD) on a monthly basis.

7.1.2 Drug & Alcohol Program

Transdev is a drug and alcohol-free workplace and has an established drug and alcohol policy that is compliant with 49 CFR parts 40 and 655. Every employee receives initial training upon hire. Supervisors/mangers shall receive two hours of training that includes a minimum of 60 minutes of training on the physical, behavioral, and performance indicators of probable drug use and at least 60 minutes of training on the physical, behavioral, speech, and performance indicators of probable alcohol misuse and the agency policy. Drug and alcohol testing is conducted under the following circumstances:

- Pre-Employment;
- Reasonable Suspicion;
- Post-Accident;
- Random;
- Assuming Safety Sensitive Duties; and
- Return to Duty / Follow-Up.

7.1.3 Driving Hours and On-Duty Time

Bus operators' schedules are assigned on a daily basis by an Operations Manager. The Operations Manager checks hours of service before scheduling upcoming workdays. The following records for all bus operators are generated, tracked, and stored in the system:

- The scheduled assignment of all drivers including regular workdays, day off work, overtime, vacations, holidays, absences, outside employment hours;
- The time the driver reports for duty each day;
- The time the driver is released from duty each day;
- The total number of hours the driver is on duty each day;
- The total scheduled driving time each day;

- The delay time at the end of each work piece; and
- The total time for the preceding seven days for drivers used for the first time or intermittently

Title 13 of the California Code of Regulations subsection 1212 and 1212.5 establish the following limits on commercial bus operating hours:

- Operators must have at least 8 hours off between work shifts;
- Maximum 10 hours driving time per day;
- Maximum 15 hours of on duty time; and
- Maximum 60 hours on-duty in 7 consecutive days, or 70 hours on-duty in 8 consecutive days.

In addition to state law, the applicable CBA establishes the following limits on scheduling and work hours:

- Drivers have at least 10 hours off between bid-in and scheduled work shifts; and
- Scheduled on-duty/spread work day limited to 12.5 hours.

7.1.4 DMV Pull Notice

Transdev enrolls all employees in the California Employer Pull Notice (EPN) program. The program is required for all commercial drivers as a means for employers to electronically verify and monitor driving records. Employees are enrolled upon hire and removed upon termination. Records indicate license type, expiration date, special certificates, endorsements, restrictions. Notices are also sent annually and when there is a change to license status including a ticket, accident, or suspension. MTS uses a web-based software solution company to manage the EPN program.

The Director of Safety is responsible for monitoring the records of all Transdev commercial drivers and union employees. The Director of Safety is responsible for notifying each department of status changes to the employee's eligibility to operate a bus or other vehicle. Each department is responsible for notifying the employee in their department of status changes, collecting documentation, and preventing them from operating a vehicle if they are not eligible to drive.

Transdev's Human Resources Department is responsible for checking a prospective employee's three (3) year driving record during the application and interview process. Transdev's Human Resources Department is responsible for monitoring the records of all management employees who do not have a commercial license.

The California Highway Patrol (CHP) performs an audit of t Transdev's EPN program during the annual terminal inspection.

7.1.5 Customer Complaint Investigation

Customer complaints are managed overall by Support Services Department. Customers can submit a complaint by mail, in-person at MTS's and Transdev's administrative offices, through the call center, through the MTS website or through MTS's mobile application. All customer's comments or complaints are entered into the Customer Review Module in SAP. The comments then investigated by the responsible department. Investigation measures may include interviewing staff and/or collecting video if appropriate. Final resolution is handled by department managers. The findings of the investigation are then entered into the Customer Review Module.

7.1.6 Operator Evaluation

Transdev's Behind the Wheel Trainers (BTWs), Road Supervisors (RS), Safety Supervisors and Managers conduct both directed and random ride evaluations that monitor a driver's performance while in revenue service. New drivers shall receive an on-board in-service evaluation check within 30 days, 60 days and again within 90 days of completion of training. The above-mentioned staff members complete Transdev's SF-1 Driver Skills Evaluation and Refresher Training Form for each ride. The report includes; Satisfactory, Unsatisfactory, or N/A check boxes and comment fields for various categories (Table 9).

Table 8: Operator Evaluation Categories

Operator Evaluation Categories		
Pre-Trip/Post Inspection	Equipment Usage	General
Intersections	Railroad Crossing	Communicate
Backing	Leave Room	Look Ahead
Look Around	Other	

The report is verified by the Safety Supervisor and/or The Director of Safety, and emailed to the Employee's direct Supervisor for appropriate disciplinary action if deemed necessary. Coaching and/or retraining is conducted by the Safety and Training Department. The Division Managers are responsible for final resolution of the reports

7.1.7 Vehicle Pre-Trip Inspections

Pre-trip inspections are conducted in accordance with State and Federal law. Pre-trip inspections are completed by bus operators in the bus yard before the

bus goes into revenue service. The pre-trip inspections also occur when bus operators make a relief on the road (excluding air brake test).

7.1.8 Vehicle Preventative Maintenance

Preventative maintenance and inspection is carried out at a minimum in accordance with the Original Equipment Manufacturer (OEM) recommendations. This process occurs based on miles and varies in the complexity based on the mileage interval. Inspections include:

- Brake inspection;
- Lube and oil filter;
- General inspection;
- Wheelchair ramp;
- Air conditioner;
- Electrical;
- Cooling;
- Compressed Natural Gas (CNG) and fire suppression;
- Farebox;
- Transmission; and
- Differential and diaphragms

All inspections are documented and kept for the life of the vehicle. Specific details on the preventative maintenance program are explained further in the Maintenance Manual that is maintained by the Maintenance Department. The California Highway Patrol (CHP) conducts an independent audit of the preventative maintenance program annually.

7.1.9 Internal Safety Reporting Programs

The Director of Safety routinely reviews safety data from various sources including: employee safety reports, safety meetings, the employee reporting program, customer service complaints, OSHA logs, and other safety communication channels that track safety performance information. The Director of Safety will review and assess the data, conduct further investigations, and use established safety risk management process as needed to ensure safety risk mitigations are effective.

7.1.10 Infectious Disease Control

Transdev monitors, implements, and updates strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions, consistent with current guidelines of the Centers for Disease Control and Prevention or a State health authority, to minimize exposure to infectious diseases. In addition, Transdev also adheres to the guidance MTS' agency Infectious Disease Control and Prevention Plan.

7.2 Management of Change

Changes that may introduce new hazards or impact the agency's safety performance are assessed through various processes. These changes include but are not limited to:

- Procurement of new goods/equipment;
- Changes to route design and special event detours;
- Operations/Maintenance procedure changes;
- Introduction of new technology;
- New regulatory requirements;
- Changes to operating environment including city/regional planning;
- Design and construction of capital projects; and
- Organizational changes

If management determines that a change may impact safety performance, the proposed change should be evaluated using the Safety Risk Management Process, which includes hazard identification, risk assessment, and risk mitigation. Any change that may introduce new hazards to the system should include the safety department. Please refer to the Safety Risk Management section of this document or contact a member of the safety department for more information regarding this process. If the safety department is not consulted and engaged during the decision-making process of the change, the project manager or individual who is approving/implementing the change is responsible for ensuring adequate safety risk management is conducted prior to making any changes.

7.3 Continuous Improvement

MTS establishes Safety Performance Targets, Key Performance Indicators and PIP goals annually. These goals are tracked and reported on a monthly and annual basis. The CSO meets with the CEO, COO, executive management and other key staff regularly to review and evaluate the agency's performance. Any identified deficiencies are addressed with a plan, under the direction of the Accountable Executive or their designee.

8 Safety Promotion

8.1 Safety Communication

Management promotes and communicates safety performance throughout the entire organization. This communication includes information on hazards and safety risk relevant to employees' roles and responsibilities. Employees are also informed of safety actions that are taken in response to reports submitted through the safety reporting program. The methods of communication include but are not limited to:

- Training Activities;

- Safety Committee;
- Meetings;
- Handbooks;
- Policies;
- Memos;
- Bulletins;
- Newsletters;
- Company Intranet;
- Job Briefings; and
- Department Information Monitors

8.2 Competencies and Training

8.2.1 Director of Safety - Training Program

The Director of Safety and Training participates in the Voluntary Bus Safety Certification Program as outlined in 49 CFR Part 672. This training includes the following courses:

- SMS Awareness;
- SMS Safety Assurance;
- SMS Principles for Transit;
- Transit Bus System Safety;
- Fundamentals of Bus Collision Investigation; and
- Effectively Managing Transit Emergencies.

The Director of Safety also includes:

- Drug and Alcohol;
- Harassment Prevention; and
- Management Development

8.2.2 Servicer Training Program

All servicers complete a comprehensive training program. This program includes: Code of Safe Practices, CNG fueling procedures, electric bus charging, bloodborne pathogen control program, Spill Prevention & Control Program (SPCC), and Maintenance Department policies and procedures.

Servicer refresher training includes but is not limited to:

- SPCC annual refresher training
- Injury Illness prevention Program
- Maintenance Safety Handbook
- Blood borne Pathogen Program
- CNG Policies and Procedures

- OSHA Training
- Hazardous Energies Lockout/Tagout
- Haz-Com Globally harmonized system
- Behind the wheel evaluations
- Preventable accident remediation

8.2.3 Mechanic Training Program

All mechanics complete an Initial 48 hours of in-house classroom training to be completed in 4 to 5 weeks, followed by 1 to 1 ½ months of on-the-job training with a mentor depending on each Mechanics previous level experience and skill set. In addition to the above mentioned, mechanics also receive the training program outlined in the servicer training program. Mechanics also receive Hazardous Waste Operations and Emergency Response (Haz-Com GHS)) training as well as forklift certification.

Mechanic refresher training includes but is not limited to:

- SPCC annual refresher training
- Injury Illness prevention Program
- Maintenance Safety Handbook
- Blood borne Pathogen Program
- CNG Policies and Procedures
- OSHA Training
- Hazardous Energies Lockout/Tagout
- Haz-Com Globally harmonized system
- Forklift recertification every 3 years
- Behind the wheel evaluations
- Preventable accident remediation
- De-escalation Training

8.2.4 Foreman and Maintenance Managers

Foreman and Maintenance Managers training includes, but is not limited to, the following:

- Drug and Alcohol;
- Harassment Prevention;
- Management Development;
- Toolbox training sessions;
- SPCC;
- HAZWOPER;
- Forklift recertification;
- Behind the wheel evaluations; and
- Preventable accident remediation.

- De-escalation Training

8.2.5 Bus Operator Training Program

All bus operators complete a 176-hour training program prior to operating a bus in revenue service on their own. The training program is comprised of both classroom and behind the wheel driving. Operators are required to receive and maintain a class B commercial driving license, with a passenger and air brake endorsement. Operators are also required to have a valid medical certificate and Verification of Transit Training (VTT) certificate. Training topics includes, but are not limited to, the following:

- Bus operation and defensive driving;
- Destination signs;
- Radio communication;
- Customer service;
- ADA;
- Emergency procedures; and
- Route training

Bus Operator refresher training includes, but is not limited to, the following:

- VTT annual training;
- Accident remediation;
- Defensive driving;
- Conflict resolution;
- Policy and procedures; and
- Behind the wheel evaluations

8.2.6 Supervisors and Managers

Supervisors and Managers training includes, but is not limited to, the following:

- Drug and Alcohol;
- Harassment Prevention;
- Management Development; and
- Preventable accident remediation

Metropolitan Transit System

APPENDIX B

Bus Safety Plan
(Public Transportation Agency Plan pursuant to 49 CFR 673)

First Transit

MTS Contract-Operator at Copley Park Maintenance Facility (CPMF)





First Transit Agency Safety Plan

1. Transit Agency Information

Transit Agency Name	San Diego Metropolitan Transit System (MTS)			
Transit Agency Address	1255 Imperial Ave Suite 1000, San Diego CA. 92101-7490			
Name and Title of Accountable Executive	Sharon Cooney, CEO MTS			
Name of Chief Safety Officer or SMS Executive	Jared Garcia, Manager of Safety MTS			
Mode(s) of Service Covered by This Plan	Contracted Fixed Route Bus, Contracted Paratransit, Contracted Paratransit Taxi		**List All FTA Funding Types (e.g., 5307, 5310, 5311)**	5307, 5310, 5337, 5339
Mode(s) of Service Provided by the Transit Agency (Directly operated or contracted service)	Directly Operated Light Rail, Directly Operated Fixed Route Bus, Contracted Fixed Route Bus, Contracted Commuter Bus, Contracted Paratransit, Contracted Paratransit Taxi			
Does the agency provide transit services on behalf of another transit agency or entity?	Yes	No **X**	**Description of Arrangement(s)**	
Name and Address of Transit Agency(ies) or Entity(ies) for Which Service Is Provided	San Diego Metropoliton Transit System 1255 Imperial Ave Suite 1000 San Diego CA 92101			

2. Plan Development, Approval, and Updates

Name of Entity That Drafted This Plan *(Location Code)*	**First Transit: *55826***	
Safety Committee Approval	**Signature of Chief Safety Officer**	**Date of Approval**
	Jared Garcia	1/16/2025
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
		3/13/2025
Approval by the Board of Directors or an Equivalent Authority	**Signature of Board of Directors**	**Date of Approval**
		3/13/2025
Certification of Compliance	**Name of Individual/Entity That Certified This Plan**	**Date of Certification**
		3/13/2025

Version Number and Updates

Record the complete history of successive versions of this plan.

Version Number	Section/Pages Affected	Reason for Change	Date
1.0	All pages are original version	First Official version of Safety Plan	7/30/2020
1.0	All	Annual Review	January 2021
1.0	All	Annual Review	January 2022
2.0	Sections 3, 4, 7	Bipartisan Infrastructure Law	February 2023
2.0	All	Annual Review	January 2024
3.0	Sections3, 4	FTA Requirements	January 2025

Annual Review and Update of the Public Transportation Agency Safety Plan

Describe the process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

This plan will be reviewed and updated annually during the month of January by the Chief Safety Officer. Proposed changes are reviewed with the Accountable Executive, Executive Management and Key Staff. The Accountable Executive will review and approve any changes, sign the updated plan, and then forward the plan to the Board of Directors for final review and approval. Updates to this plan may be made when there are:

- Changes to: safety performance targets, safety management policy, safety risk management, safety assurance, and safety promotion;
- Changes to: The Accountable Executive, COO, or CSO;
- Significant changes to service delivery;
- Significant changes to the organizational structure;
- New process/procedures are introduced that impact safety;
- Changes to available resources or priorities that support SMS; and
- Changes required by the Federal Transit Administration (FTA), California Public Utilities Commission (CPUC), California Department of Transportation (Caltrans), San Diego Association of Governments (SANDAG), etc. or other similar oversight agency.

MTS conducts an annual safety performance assessment in conjunction with the annual review. This assessment includes a review of the prior year's performance involving the Safety Performance Targets, Key Performance Indicators and applicable Performance Incentive Program (PIP) goals. The assessment may also include reviewing identified safety deficiencies, or other areas involving safety performance.

Updates made to the Bus Agency Safety Plan will be documented in the version number and updates of this plan.

At First Transit, review of safety practices is an ongoing process, not one limited to scheduled reviews. As policies/procedures and training techniques change throughout the year they are updated and communicated throughout the organization. All changes are reviewed and approved by the Senior Director of Safety and the Vice President of Safety – First Transit.

Prior to the beginning of each fiscal year, First Transit's Safety Plan is reviewed by Executive management and revised based on the safety data collected and analyzed, and changes to policies and procedures made throughout the year. The revised plan is then disseminated to San Diego location for implementation.

3. Safety Performance Targets

Safety Performance Targets

Specify performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. (Evaluated per calendar year.)

MTS may adjust performance targets over time, as data is collected and as SMS implementation matures. MTS performance targets are calculated using a 3-year rolling average of the data submitted to the National Transit Database (NTD). The safety performance targets are evaluated for each calendar year (January 1 – December 31).

Definitions
Definitions are based on the NTD Safety and Security Policy Manual.

Assault on a Transit Worker: A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with,
disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

Fatality – Death confirmed within 30 days of the event (including suicides). Fatalities that occur because of illnesses or other natural causes (including individuals who are found deceased) are not reportable.

Injury - Any damage or harm to persons that requires immediate medical attention away from the scene because of a reportable event must be reported as an injury. MTS reports each person transported away from the scene for medical attention as an injury, whether or not the person appears to be injured.

Safety Events – Collisions that meet NTD thresholds for injuries, fatalities, property damage, or evacuation; vehicle towed from the scene involving a transit revenue vehicle; fires; hazardous materials spills, acts of God; evacuations for life safety reasons; other safety events listed in NTD policy manual.

System Reliability - mean distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

Safety Performance Measures	
Performance Measure	**Description**
1a - Major Events	This includes all safety and security major events as defined by the NTD.
1b - Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
1.1 - Collision Rate (new)	This includes all collisions reported to the NTD, divided by VRM.
1.11 - Pedestrian Collision Rate (new)	This includes all collisions “with a person,” as defined by the NTD, divided by VRM.
1.1.2 - Vehicular Collision Rate (new)	This includes all collisions “with a motor vehicle,” as defined by the NTD, divided by VRM.
2a - Fatalities	This includes all fatalities as defined by the NTD.
2b - Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
2.1 Transit Worker Fatality Rate (new)	This includes all transit worker fatalities as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
3a - Injuries	This includes all injuries as defined by the NTD.
3b - Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
3.1 Transit Worker Injury Rate (new)	This includes all transit worker injuries as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
4a - Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD.
4b - Rate of Assaults on Transit Workers (new)	This includes all assaults on transit workers as defined by the NTD, divided by VRM.
5 - System Reliability	This includes Major Mechanical System failures as defined by the NTD.

Safety Performance Target Coordination

Describe the coordination with the State and Metropolitan Planning Organization(s) (MPO) in the selection of State and MPO safety performance targets.

Safety Performance Targets are made available to state of California including the Public Utilities Commission (CPUC), Caltrans, and the San Diego Association of Governments (SANDAG), MTS's Metropolitan Planning Organization (MPO), to aid in the planning process. Coordination with these agencies, in the selection of safety performance targets is accomplished to the maximum extent practicable. MTS officially transmits its targets in writing to the State and MPO following the annual review and certification. This transmission will take place in February of each year.

	State Entity Name	Date Targets Transmitted
Targets Transmitted to the State[1]	California Public Utilities Commission (CPUC)	See Footnote 1
	California Department of Transportation (Caltrans)	See Footnote 1
Targets Transmitted to the Metropolitan Planning Organization(s)	**Metropolitan Planning Organization Name**	**Date Targets Transmitted**
	San Diego Association of Governments (SANDAG)	7/7/2020

[1] Although MTS has offered to share Bus Safety Performance Targets with CPUC and Caltrans, both have stated it is not necessary to send Bus Safety Performance Targets for their review. As required per 49 CFR 673.15, MTS will coordinate and share Bus Safety Performance Targets with state entities to the maximum extent practicable

4. Safety Management Policy

San Diego Metropolitan Transit System
Safety Management Policy Statement

The San Diego Metropolitan Transit System (MTS) has established this Safety Management System Policy Statement to emphasize its overall commitment to the safety of our passengers, our operators, our staff, and the general public. This Safety Management System Policy Statement provides direction for MTS's safety program, which applies to every facet of MTS operations.

The management of safety is MTS's highest priority. MTS is committed to safety throughout the entire organization, from the Board of Directors to the front-line transit workers.

MTS will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources to achieve the highest level of safety performance and meeting established standards. MTS is committed to developing, implementing, maintaining, and constantly improving our processes. MTS supports the joint labor-management Safety Committee, and the safety management system responsibilities outlined in the Agency Safety Plan. As evidence of our commitment to safety, every MTS policy shall be guided by and every transit worker shall perform their duties in furtherance of the following safety goals:

- Supporting safety through the provision of appropriate resources that fosters a safety culture;
- Integrating the management of safety among the primary responsibilities of all transit workers;
- Clearly defining transit workers' responsibilities in relation to the performance of our safety management system;
- Conducting hazard identification and evaluating safety risks, which includes a transit worker safety reporting program, in order to eliminate or mitigate safety risks;
- Ensuring that no action will be taken against any transit worker who discloses a safety concern through the transit worker safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- Complying with, and wherever possible exceeding, legislative, and regulatory requirements and standards;
- Ensuring that sufficiently skilled and trained transit workers are available to implement safety management processes;
- Ensuring that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are assigned only tasks for which they are adequately trained;
- Establishing and measuring our safety performance against realistic and data-driven safety performance indicators and safety performance targets;
- Continually improving our safety performance by ensuring appropriate safety management action is taken and is effective; and
- Ensuring externally supplied systems and services that support our operations are delivered to meet our safety performance standards.

Chief Executive Officer
San Diego Metropolitan Transit System

March 13, 2025
Date

Chair of Board of Directors
San Diego Metropolitan Transit System

March 13, 2025
Date

At First Transit, safety is more than a policy statement. Management believes that working safely promotes quality, productivity, and profitability. Prevention of collisions and personal injuries is of critical importance to everyone. Management is committed to providing a safe workplace, the proper training, protective equipment, and a work environment conducive to safe practices and policies.

All employees are required to perform their duties safely and with concern for the safety of our passengers, other employees and the public. **First Transit will not perform any service, nor transport or use a product, unless it can be done safely.**

First Transit employs a company-wide safety concept, **"BeSafe"**. The main purpose of BeSafe is to reduce collisions and injuries by increasing the communications between employees and managers about safety related issues. As part of this process, employees of all levels are encouraged to initiate reports of any near miss, route and security hazards, or any unsafe condition. When a report about a safety or security concern is filed, it is investigated, which includes follow-up with the reporting employee regarding the resolution of the report.

First Transit will not retaliate against nor impose any other form of retribution on any employee because of his or her good faith reporting of a safety issue/concern, another person's suspected violation of Company policies or guidelines, or any alleged violations of federal, state or local laws.

To ensure that each employee understands and performs their job functions in the BeSafe manner, the **BeSafe Handbook**, is issued to each employee and sized to fit in the safety lanyard or vest, which each employee must wear while on duty.

The **BeSafe Principles** provide the basic truths and fundamentals about working safely in our workplace and on our vehicles. All First Transit employees are expected to adopt these principles and put them into practice. Together a safe work environment is created, free from injury to each other and our passengers.

The motto for the BeSafe Principles is: **"Think Safe, Act Safe, BeSafe."** This motto is each employee's instruction to work safely at all times.

If an employee feels they cannot perform a task safely, they don't perform the task. The employee has been trained and encouraged to stop work and immediately advise management of issues preventing them from working safely and what would be required to perform the task safely.

The BeSafe Principles include:

- **Prevent injury to myself and others.**
  - Be aware of any hazardous condition or practice that may cause injury to people, damage to property, or the environment.
  - Use the BeSafe Handbook to record and report.
- **Perform all necessary safety checks and risk assessments of the work area and job to be performed before any work begins.**
  - Speak to management **before** work is started if unsure of the required safety and risk assessments.
- **Follow all safety procedures, signs and instructions.**
  - If these are not understood, speak to management before work begins.

- **Keep work area clean and tidy at all times.**
  - Untidy areas could cause injury to the employee or their colleagues and waste time and energy.
- **Wear protective clothing and equipment (PPE) as required.**
  - Keep PPE in good working order, wear it correctly and ask for a replacement if it becomes damaged or unfit for use.
- **Use only the correct tools and equipment authorized and trained to use for the job.**
  - Check that they are in good condition before use and use them safely.
- **Only adjust and repair any piece of work equipment trained on and authorized to do so.**
  - Never modify any equipment that changes the designed use of the equipment or alters a safety feature.
- **Assess any load and capability to move it before lifting.**
  - Get help with any heavy or awkward items and follow the correct lifting techniques.
- **Report all injuries, incidents and near misses to management.**
  - Seek help immediately and first aid (if necessary).
- **Tell management of any suggestions to prevent injuries in the workplace**
  - Note suggestions made and discuss with management.

Safety Management Policy Communication

Describe how the safety management policy is communicated throughout the agency's organization. Include dates where applicable.

Communication of Local Safety Concerns

The Location Safety Manager is at the center of the local safety communication process and is responsible for compiling safety reports to include the following:

- Accident and injury data for previous month
- Security incident data
- Safety and security audit data and recommendations
- Safety Solutions Team (SST) meeting minutes
- BeSafe near miss and hazard reporting

This person reports directly to the Location General Manager (LGM) and routinely meets formally with the LGM, one-on-one, to provide updates on safety issues, safety priorities, and hazard management. The Location Safety Manager (LSM) also meets informally with the LGM to provide updates on safety issues on an as-needed basis.

The Location Safety Manager also participates in the Safety Solutions Team (SST) meetings to discuss safety priorities, safety issues, and hazard management, and to communicate safety-related information across all departments.

- The LSM and the LGM have the authority to correct or suspend work for conditions determined to be unsafe, or pose a hazard to customers, employees, contractor employees, the general public, or endangers the safe passage of vehicles, until the unsafe condition or hazard can be mitigated or corrected.

The Region Safety Managers also conduct regular internal reviews of local operations. They are to ensure that each location is audited at least every two to three years, with high risk locations audited annually for compliance using the risk-based **Location Safety Review.**

Location Safety Review	
Category	**Description**
Scope of Safety Reviews	First Transit locations are selected based upon risk-based criterion. Individual locations receive a review every 2-3 years
Risk-Based Selection Criterion	Locations selected based on declining 3-year reviews; sites with new location managers; high collision/injury Accident Frequency Rate (AFR); prior year failing score
Review Format	More narrow and focused audit template which includes a balance of compliance assurance as well as location-specific risks and safety performance.
Findings and Follow-Up	Action plans are developed in conjunction with location staff and use a red/yellow/blue/green method to prioritize. All action items are entered, and incomplete action items are tracked within the **Safety Toolbox**. **Strong** **Highly Effective** **Some Improvement Needed** **Much Improvement Needed**
Escalation Process	Items requiring escalation to Senior Director of Safety/Vice President of Safety – First Transit remain intact. Through the use of Safety Toolbox, unresolved actions are designed to escalate to the Location General Manager/Region Safety Manager.
Visibility	Review results and action items are routinely shared with the Location General Manager/Region Safety Manager/Executive Management. This is augmented by the escalation process for unresolved action items as noted above.

Corporate Communication of Safety Concerns

Executive Safety Meetings are routinely held where each department discusses their concerns and progress in the area of safety and safety related concerns. Recommendations are considered, and necessary changes implemented. All complaints by departments are addressed immediately.

Minutes from the Executive Safety meeting are distributed to and posted at each location. Action items are addressed at the following meeting.

Executive safety meetings are conducted in the following formats.

First Group Executive Safety Committee (ESC)

- Consists of President, COO, and Safety Vice President of each operating group
- Discussions include safety performance, trend analysis, program oversight

First Group Safety Council

- Consists of Vice Presidents of Safety for all operating divisions
- Discussions include safety performance, trend analysis, and safety oversight

First Group America Safety Council

- Consists of Safety Senior Directors and Safety Vice Presidents
- Discussions include safety performance, trend analysis, best practices, and program oversight

Performance Review Management (PRM)

- Consists of Senior Region Vice Presidents, Region Vice Presidents, Region Directors of Operations, Region Director of Maintenance, Region Directors of Safety and Region Safety Managers
- Discussions include regions safety performance

Safety Advisory Committee

- Consists of a sampling of Location General Managers, Region Directors of Operations, Region Safety Directors and Region and Local Safety Managers
- Discussions include review of policy and procedures, training, and safety awareness

Authorities, Accountabilities, and Responsibilities	
Board of Directors	The Board of Directors (Board) is responsible for setting policy for MTS, including Transit Services. The Board is required to approve the ASP initial document and all updates. At its regular meetings, the Board receives periodic safety briefings from Bus Operations. The Board has delegated agency management to the CEO, subject to various adopted Board policies and legal requirements**.**
Accountable Executive	The Board of Directors has designated the CEO as the Accountable Executive for the Agency. The Accountable Executive has ultimate responsibility for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout the Agency. These responsibilities include: • Establishing, implementing, and promoting the Safety Policy Statement; • Authority over financial and human resources; • Authority over all activities and operations; • Authority over final risk assessment ranking; • Authority over final mitigation(s) of hazards/unsafe conditions; • Briefing the Board of Directors; and • Responsibility for carrying out the Transit Asset Management (TAM) Plan. The CEO has delegated the authority and the day-to-day responsibilities of the agency safety plan for Transit Services to the Chief Operating Officer (COO) of Transit Services. The COO reports directly to the CEO and is responsible for ensuring that SMS is effectively implemented and that action is taken, as necessary, to address substandard performance throughout Transit Services. These responsibilities include: • Implementing, and promoting the Safety Policy Statement; • Authority over financial and human resources within Transit Services; • Authority over all activities and operations within Transit Services; • Authority over the risk assessment ranking within Transit Services; • Authority over final mitigation(s) of hazards/unsafe conditions within Transit Service; and • Briefing the Board of Directors on SMS related activities within Transit Services, as requested by the CEO. The COO will support and encourage an open dialogue between the Chief Safety Officer and the CEO.
Chief Safety Officer or SMS Executive	The **Chief Safety Officer (CSO)** is the **Manager of Safety for Transit Services**. The CSO has a dual reporting role with the COO and the CEO. As necessary to implement the Bus Agency Safety Plan and discuss relevant issues, the CSO has a duty and a right to report directly to and consult with the CEO. The CSO has independent and direct access to the CEO

	as needed regarding all safety related issues. The CSO has regularly scheduled safety briefings with the CEO and COO. The CSO also reports to the COO on a day-to-day basis. The CSO is responsible for: • Developing and maintaining SMS programs including the Bus Agency Safety Plan; • Managing the Employee Reporting Program; • Performing analysis of incidents, trends, and causes and making recommendations to reduce or eliminate the potential for recurrence; • Assisting other departments with the development of training programs and procedures; • Managing the review and analysis of all accidents, incidents and safety events to determine preventability and any other causal or contributing factors; • Providing monitoring and follow-up with employees after preventable accidents; • Serving as the Chair of the Employee Safety Committee; • Coordinating with external emergency response agencies, including police, fire and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Transit Services emergency preparedness plans; and • Managing the Department of Motor Vehicles (DMV) Pull Notice Program and assuring all licenses, permits and certifications are in compliance.
MTS Executive Management Leadership and Key Staff	**Manager of Paratransit and Mini Bus** The Manager of Paratransit and Mini Bus directly reports to the COO and is responsible for: • Organizing, developing, planning and directing all of MTS' Paratransit and Mini Bus functions and ensuring alignment of these functions with the goals and critical business outcomes of MTS • Manages the MTS Americans with Disabilities Act ("ADA") Paratransit program, and ensures full compliance with ADA regulations with respect to operations, client certification, call center operations and revenue service. • Manages the fixed route "Mini Bus" program and oversees the operations and management contract between MTS and the service provider(s). • Prepares operating and capital budgets, monitors service performance, conducts community outreach, represents MTS on disabled advocacy and transportation committees, and evaluates existing and proposed transit services. • Serves as the primary contact for paratransit and minibus service and consultant contracts. **Supervisor of Paratransit and Minibus** The Supervisor of Paratransit and Minibus directly report to the Manager of Paratransit and Minibus and is responsible for overseeing the MTS Fixed Route Minibus and Paratransit contract at the Copley Park Division. The Supervisor of Paratransit and Minibus is responsible for overseeing Contractors efforts in:

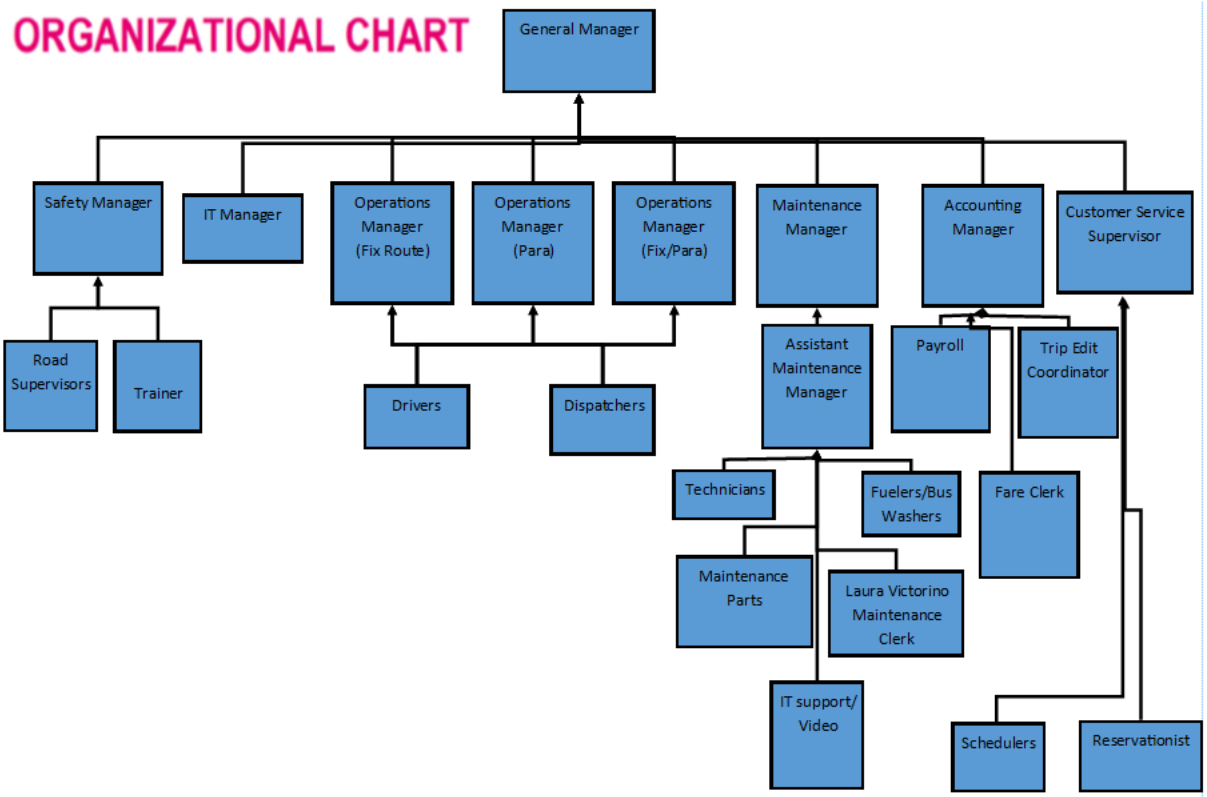
	• Implementing, promoting and monitoring compliance of the Safety Plan; • Mitigation(s) of hazards/unsafe conditions within the Copley Park Division; • Analysis of incidents, trends, and causes, as well as recommendations to reduce or eliminate the potential for recurrence; • Post-accident review and reporting; • Coordinating with external emergency response agencies, including police, fire and emergency management agencies, regarding emergency response training, familiarization and review of emergency occurrences and Contractor's Transit Services emergency preparedness plans; and • Providing monthly progress reports, as well as statistical and analytical support data
First Transit Executive Management Leadership and Key Staff	<u>Region Staff</u> • Senior Vice President: Works closely with the region staff to ensure quality service at the location. He ensures that the location adheres closely to First Transit's safety mission and vision. • Region Vice President: is responsible for making certain all region management members to maintain quality service and client satisfaction. He provides direction and assistance to location managers, including P&L, budgets, and personnel He is responsible for hiring and training new managers at the location. • Region Director of Operations: is responsible for overseeing daily operations, system performance, location safety, budget preperation, and location staffing levels. • Region Safety Manager: The Region Safety Manager ensures management services are provided according to policies, as well as maintaining quality and client satisfaction, and that the location has the current safety programs in place. • Region Director of Maintenance: provides oversight, technical assistance, training, and "best practices" for the location. <u>Location Staff</u> • General Manager: Participates fully with the client to ensure the operation is running effectively and acts as mediator when safety related problems arise. The GM is also responsible for ensuring implementation of the National Safety Program. • Operations Manager/Assistant General Manager: Supervises the day-to-day operations of Access, MiniBus and the SVCC operations. Other important roles include team building, training, client relations, and employee relations. • Safety Manager: The SM routinely is in contact with the operation and is responsible for ensuring their locations have the current safety programs in place; auditing local safety efforts; reviewing all accident and injury claims; reviewing safety statistics; and coordinating corporate assets to address specific deficiencies found on the local level. • Accounting Manager: Rresponsible for financial oversight such as budgeting, accounting and payroll. Implements policies and procedures related to accounting, budgeting, payroll and fare collection.

- IT Manager: Reviews drivers' pre- and post-trip inspections from the night before, looking for technological issues. Responsible for all IT-related functions including setting up new user accounts, maintaining fare box technology, maintaining Apollo technology and installations on new vehicles, and system trouble-shooting.

- Maintenance Manager: Provides oversight of maintenance functions, carefully motitring maintenance standards, departmental efficiencies, an maintenance training programs. He ensures that all scheduled and unscheduled vehicle repairs and general maintenance at the facility are completed on time.

- Operations Manager Paratransit: Responsible for instituting new policies and procedures to ensure safe, cost effective, on-time performance of the Access operation. The Operations Manager Paratransit is also the point of contact for the investigation and documentation of customer complaints for MTS Access.

- Operations Manager Fixed-route: Manages the day-to-day operations of MTS MiniBus/SVCC, instituting new approaches and procedures to ensure safe, cost-effective, and on-time performance of the MiniBus/SVCC operations.



Additional Accountability

(Local Staff Responsibility)

To ensure safety responsibility and accountability throughout the organization from local operations to corporate management, First Transit uses the following **Safety Responsibility and Task Matrix**. Responsibilities are assigned at the local level.

The responsibilities and tasks are assigned to Maintenance, Operations, or Human Resources and the responsible person for each is identified for each First Transit location.

This process ensures that the pertinent safety items are covered, and that each person knows his or her areas of responsibility.

Safety Responsibility and Task Matrix					
Responsibilities and Tasks	**OPS**	**MNT**	**HR**	**OTHER**	**Responsible Personnel**
Establish annual safety objectives for submission to the GM at the beginning of each fiscal year				x	Safety Manager
Submit a report on the safety performance at the end of each fiscal period				x	Safety Manager
Submit the following: period operations and safety data; accident and incident reports; and site safety review results				x	Safety Manager
The GM or their designee has the authority to direct that work or conditions have been determined to be unsafe or pose a hazard to customers, employees, contractor employees, the general public, or endangers the safe passage of buses be suspended or restricted until the unsafe condition or hazard can be mitigated or corrected	x				Operations Manager
Management of system safety, occupational health and safety, accident and incident investigation,				x	Safety Manager

		environmental protection and monitoring the implementation of the Safety Management System (SMS) Program Plan						
		Review of all safety aspects of departmental procedures including: First Transit policies/instructions; Standard Operating Procedures; HR policies; safety and health policies	x	x	x	x	All Managers	
		SMS Review and Modification				x	Safety Manager	
		Safety Solutions Team Meetings	x			x	Operations and Safety	
		Daily Safety & Health Walkthrough	x			x	Operations and Safety	
		Safety related reports to external agencies				x	Safety Manager	
		Near miss and route hazard report investigations	x			x	Operations and Safety	
		Investigation of safety related trends				x	Safety Manager	
		Coordination with United States and State Departments of Labor and Occupational Safety and Health Administration (OSHA)				x	Safety Manager	
		Environmental Management Oversight				x	Safety Manager	
		Hazard Management Process		x		x	Operations and Safety	
		Managing Safety Validation of Change Process				x	Safety Manager	
		Safety Data Reporting				x	Safety Manager	
		Investigations				x	Safety Manager	
		Advise to update SOPs, Rules, and Emergency Plans				x	Safety Manager	
		Emergency Response	x	x	x	x	All Managers	

Fire Protection	x	x	x	x	All Managers
Shop Safety Hazardous Tools Inspections		x			Maintenance
Review Vehicle Maintenance and Failure Data		x			Maintenance
Perform Vehicle Maintenance Inspections/Audits		x			Maintenance
Training, Certification, Review, and Audit		x		x	Maintenance and Safety
Personal Protective Equipment Review		x		x	Maintenance and Safety
Hazardous Materials Management		x		x	Maintenance and Safety
Drug and Alcohol Abuse Program				x	Safety Manager
Procurement				x	Safety Manager

Meetings & Oversight	
CEO Safety Briefings	The CEO, COO, and CSO meet on a regular basis to review and discuss monthly safety performance. These topics include but are not limited to: • Accidents & Injuries • Hazard mitigation strategies • Training activities • Policy & Procedures • Committee meetings • Contract management • Project updates
Transit Services Executive Staff Meetings	The CSO and other agency leadership within Transit Services meet together on a weekly basis with the COO to review and discuss updates from each department. These topics include but are not limited to: • Accidents & Injuries • Hazard mitigation strategies • Training activities • Policy & Procedures • Committee meetings • Contract management • Project updates

COO Meetings with Contract Services and First Transit Leadership	The COO, CSO, and Manager of Paratransit and Minibus meet on a quarterly basis with First Transit Leadership to review and discuss updates regarding safety performance, safety risk management, safety assurance, and safety promotion. These topics include but are not limited to: • Accidents & Injuries • Existing hazards and mitigation techniques • Training activities • Policy & Procedures • Committee meetings • KPI goals • Contract management • Project updates • Staffing levels
First Transit and MTS Contract Services Management Staff Meetings	The Director of Safety and Training and other leadership within First Transit's Executive Management Staff, meet together on a monthly basis with the Manager of Paratransit and Minibus as well as other leadership within Contract Services to review and discuss updates from each department. These topics include but are not limited to: • Accidents & Injuries • Hazard mitigation strategies • Training activities • Policy & Procedures • Committee meetings • Contract management • Project updates • KPI goals
First Transit's Safety Solution Team (SST) Meeting	First Transit's Safety Solution Team is a joint labor-management committee that is comprised of an equal number of employee representatives and management representatives, compliant with the Bipartisan Infrastructure Law, § 5329(d)(5). The Bipartisan Infrastructure Law requires the Safety Committee to approve an agency's Agency Safety Plan (ASP) and any updates to the ASP. This approval must occur before the agency's Board of Directors approves the ASP or update. Frontline employee representatives are selected by the labor organization(s) that represents the plurality of the agency's frontline workforce employed by the agency or a contractor, to the extent labor organizations represent the frontline workforce. The Safety Committee also is responsible for, at a minimum: (1) identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment; (2) identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and (3) identifying safety deficiencies for purposes of continuous improvement. First Transit's Safety Solution Team meets on the 2nd Thursday of each month. The team representatives are from Maintenance, Safety, Trainer, Operations Departments, Road Supervisors, Call Center, drivers and General Manager. The purpose of the SST is to: create, improve, promote and maintain a heightened safety culture within the organization; inform, educate and influence employees through awareness campaigns and training activities

	designed to prevent and reduce accidents and injuries; and to provide a forum for employees to actively participate in safety programs that address and resolve safety issues in a timely manner.
First Transit's Claims Review Meetings	First Transit Local and Regional team meet on a monthly basis. Topics include but are not limited to: • Open & recently closed claims • Workers comp claims • Litigation updates • Hazard mitigation strategies • Training activities • Policy & Procedures • Review trends • Create resolutions • Create action plans
Regional Safety Meetings	First Transit Management meets with First Transit Regional Managers on a monthly basis. Topics include but are not limited to: • Open claims • Workers comp claims • Hazard mitigation strategies • Training activities • Policy & Procedures • Review trends and resolutions • Touch Points

Employee Safety Reporting Program

Describe the process and protections for employees to report safety conditions to senior management. Describe employee behaviors that may result in disciplinary action (and therefore, are excluded from protection).

First Transit is committed to conducting business with honesty and integrity. Employees are encouraged to speak up and raise questions and concerns promptly about any situation that may violate our safety protocols, policies and procedures, the laws, rules, and regulations that govern our business operations.

Employees are expected to tell others when witnessing unsafe work practices or conditions. When employees are not comfortable discussing these unsafe conditions with fellow employees, they are encouraged to discuss the situation with management or report it in writing.



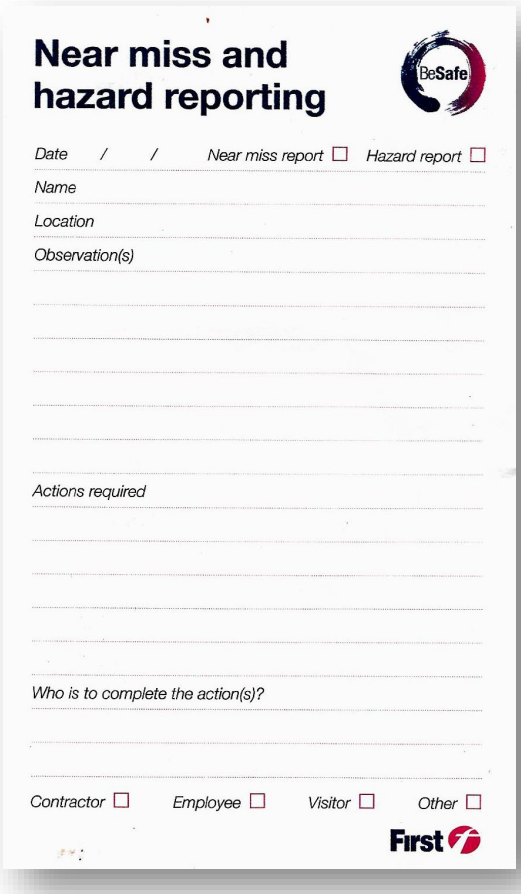
However, where the matter is more serious, or the employee feels that management has not addressed the concern, or they are not comfortable reporting to their immediate manager, they can report it to the next level manager, or the Region Safety Manager or Human Resources Manager. Employees may also directly file a written or verbal complaint by calling the confidential Ethics and Compliance Toll-free Hotline at 1.877.3CALLFG, (1.877.322.5534); contacting the Hotline intake site at ethicsfirst.ethicspoint.com; or emailing Compliance@firstgroup.com.

Retaliation against anyone who, in good faith, reports observations of unsafe or illegal activities; or who cooperates in any investigation of such report, is strictly prohibited and is not tolerated, regardless of the outcome of the complaint.

In other words, employees are protected for speaking up in good faith under this Policy. Any manager, or co-worker who retaliates against a complaining employee or anyone involved in an investigation of a complaint is subject to discipline and/or termination.

Managers are charged with assuring that they and their staff comply with the whistleblower protections and that no retaliation occurs because of a reported safety related issue.

Reporting Options



Near Miss and Hazard Reporting

In the interest of employee and passenger safety, each First Transit employee is issued a **"Near Miss and Hazard Reporting"** pad for documenting and reporting safety, route, and security concerns; and is encouraged to report any near miss incidents and hazards.

If an employee is involved in a near miss or determines something they see to be a hazard, we ask for their help in reporting the event so we all may learn the lessons from it and perhaps prevent a collision or injury from occurring in the future.

Near miss: An event you witnessed where no harm was caused, but there was the potential to cause injury or ill health; a dangerous occurrence

Hazard: Anything that may cause harm in the near future

If the safety or security hazard requires immediate attention, dispatch is notified immediately. If immediate attention is not required, the employee is encouraged to submit the information to management by the end of their workday. Our managers then initiate conversations with employees about their observations of both safe and unsafe behaviors.

The employee's contribution to the cause of the injury or collision is considered in disciplinary action, up to and including termination. If after analysis it has been determined that the incident resulted from an overt decision, disciplinary action is indicated. If not, then the appropriate counseling and/or training is indicated.

SOP #806 – Near Miss & Hazard Reporting describes the reporting process

Threatening or Suspicious Activity

First Transit encourages anyone who sees, hears, or learns of any conduct or statement that seems threatening or suspicious, and/or any weapons on company premises or in company vehicles, to immediately report such conduct or statement, either to his/her Supervisor or Manager, to the Human Resources Department, FirstGroup America Security, and/or to the confidential Ethics and Compliance Hotline at 1.877.3CALLFG, (1.877.322.5534), contact the Hotline intake site at ethicsfirst.ethicspoint.com, or email Compliance@firstgroup.com.

If there is an immediate risk or imminent threat of violence, serious harm, or life-threatening conduct, employees should immediately call 911, local police, or other law enforcement.

Open-Door Policy

A workplace where employees are treated with respect and one that is responsive to their concerns is important to each of us. At First Transit, we recognize that employees may have suggestions for improving our workplace, as well as complaints about the workplace. We feel that the most satisfactory solution to a job-related problem or concern is usually reached through a prompt discussion with an employee's manager. Each employee is encouraged to do so.

If the matter cannot be resolved with one's immediate manager, the employee may:

- Speak with their Location General Manager or Region Safety Manager who will attempt to facilitate a solution.
- If an employee is unable to resolve the matter through the management chain of command in their location, the employee may choose to speak directly to anyone in division management or Human Resources.

First Transit's Open-Door Policy also allows employees to voice their concerns anonymously.

- If an employee would like to submit an anonymous concern, they may contact the Ethics and Compliance Toll-free Hotline at 1.877.3CALLFG, (1.877.322.5534), contacting the Hotline intake site at ethicsfirst.ethicspoint.com, or emailing Compliance@firstgroup.com.

This Open-Door Policy applies to every employee not covered by a collective bargaining agreement. It also extends to contractors and subcontractors.

In situations involving discrimination or harassment, employees should follow the Complaint Procedure described in the Discrimination, Harassment and Retaliation Reporting Procedure section of their First Transit Employee Handbook without fear of reprisal and should not follow this Open-Door Policy complaint process.

In situations requiring immediate attention, an employee may bypass the chain of command, which begins with his or her manager, and contact any level of management or Human Resources directly, without fear of reprisal, and without the need to follow this Open-Door Policy complaint process.

- This may be done in person, by direct contact, phone call, letter, or email message or by utilizing the Ethics and Compliance Hotline. The Ethics and Compliance Hotline can be reached by calling 1.877.3CALLFG, (1.877.322.5534) or emailing Compliance@firstgroup.com.

Accidents/Incidents

First Transit finds accidents and incidents to be a very serious matter and a valuable learning opportunity to improve safety. **SOP #700 – Accident & Safety Data Acquisition and Reporting**, and the supporting **SOP's, 700a – Auto and General Liability Claim Form; 700b – Courtesy Card; 700c – Operator Incident Report**; ensure that the appropriate actions happen at the scene for the safety and security of First Transit passengers and employees; and that the appropriate data is collected to evaluate the incident, determine preventability and any other causal or contributing factors; and develop actions to limit or eliminate the possibility of the incident occurring in the future.

Accidents

Operators are to report all accidents and collisions to Dispatch immediately upon occurrence. When reporting to Dispatch, the employee must state that he or she is reporting an accident and then answer any questions asked by Dispatch.

Additionally, **SOP #700c – Operator Incident Report** and **SOP #700a – Auto & General Liability Claim Form**, must be completed by the Operator involved and location management for accidents, possible claims of accidents, damage to equipment, injury and possible injury not later than one hour after completion of shift on the day of occurrence. Any vehicle defects that may have contributed to an accident shall be included in the report. To help ensure that this deadline is met, employees are paid to complete the form.

Employees who fail to report an accident may be subject to disciplinary action up to and including termination.

Employees must provide transit management with any additional accident information immediately upon request.

Incidents

Incidents with passengers involving slips and falls on or near the vehicle, fights, police action, or removal of a passenger, must be reported to Dispatch immediately; and require a **SOP #700a – Auto & General Liability Claim Form** to be completed by management before going off duty for the workday.

All other incidents and occurrences out of the norm, no matter how slight, are to be reported to Dispatch upon return to the yard.

The following are examples of incidents that must be reported:

- Broken or cracked windows from unknown causes,
- Cut seats,
- Service delays,
- Passing up passengers,
- Insufficient or excessive running time in schedule,
- Overloads, etc.

If in doubt, immediately contact Dispatch.

Operators Witnessing an Accident shall notify Dispatch immediately, even though their vehicle may not be involved.

Required Courtesy Cards

In the event of an accident or an incident, Operators must distribute **SOP #700b – Courtesy Cards** then retrieve as many as possible from passengers and persons in the immediate area of the accident or incident who may have witnessed the event.

Duty to Report Wrongdoing

First Transit is committed to investigating all good faith claims of wrongdoing so that corrective action may be taken. To that purpose, First Transit encourages any employee, contractor or vendor to report wrongdoing or illegal acts to location management so long as they are not believed to be involved in the fraud, waste or abuse being reported. Management within First Transit ensures the matter is reported to Group Security and First Transit will investigate and take appropriate steps to correct the wrongdoing or potential violation.

Alternatively, reports may be made anonymously using the FGA Ethics & Compliance line at 1.877.3CALLFG, (1.877.322.5534) or by emailing Compliance@firstgroup.com. You may also contact the Healthcare Compliance Officer directly.

Self-Reporting

Self-reporting is also encouraged. Anyone who reports his/her own violation will receive due consideration regarding disciplinary action that may be taken.

Duty to Report Law Enforcement Actions

Employees are required to report any arrests, indictments or convictions to their immediate manager or Human Resources immediately, but no later than prior to the next scheduled work shift, to the extent permitted by applicable law. If the circumstances and the offense charged, in our judgment, present a potential risk to the safety and/or security of our customers, employees, premises and/or property, such events may result in disciplinary or other appropriate action to the extent permitted by applicable law.

Operators and safety sensitive employees are required to report all Driving Under the Influence (DUI) or Driving While Intoxicated (DWI) related charges, vehicular collisions, and any moving violation citations received in any vehicle immediately if possible, but no later than prior to their next scheduled work shift, consistent with applicable law.

Possible Disciplinary Actions

First Transit uses a tiered approach to determine possible disciplinary actions. Infractions that lead to disciplinary action are categorized into four categories;

- Class 1 – Dischargeable Offenses, the most serious and unacceptable behavior
- Class 2 – Serious violations of the First Transit performance code
- Class 3 – Secondary violations of the First Transit performance code
- Class 4 – Lesser violations of the First Transit performance code that may result in disciplinary action depending on the circumstances or repeated violations

Applying Disciplinary Actions

Although employment may be terminated at-will by either the employee or First Transit at any time in accordance with applicable law, without following any formal system of discipline or warning, First Transit may exercise discretion to utilize forms of discipline that are less severe than termination.

Whenever an employee is subject to discipline, the employee's work record, including violations occurring in the relevant time period, is reviewed before determining penalty. The chart below describes how disciplinary actions are applied.

Class of Infraction	Discharge	Suspension	Written Warning
1	1st Offense	----------	----------
2	2nd Offense*	1st Offense	----------
3	3rd Offense*	2nd Offense*	1st Offense
4	4th Offense*	3rd Offense*	1st & 2nd Offense*

*Within 12 months of first offense, 36 months for safety

Additionally, First Transit may use the following criteria to determine discipline specific to any type of traffic violation or preventable accident.

Major Offenses	Action
One violation	Discharge

Serious Violations	Action
One violation	Written warning
Two violations within any 36-month period	Discharge

Moving Violations	Action
Two violations within any 36-month period	Three-day Suspension
Three violations within any 36-month period	Discharge
Two violations within any 12-month period	Discharge

Preventable Vehicle Accidents	Action
One preventable accident	Written warning
Two preventable accidents within any 36-month period	Five-day Suspension
Three preventable accidents within any 36-month period	Discharge
Two preventable accidents within any 12-month period	Discharge

Details of First Transit's reporting requirements, infractions of company policy, and disciplinary actions that may be taken are described in more detail in the **First Transit Employee Handbook.**

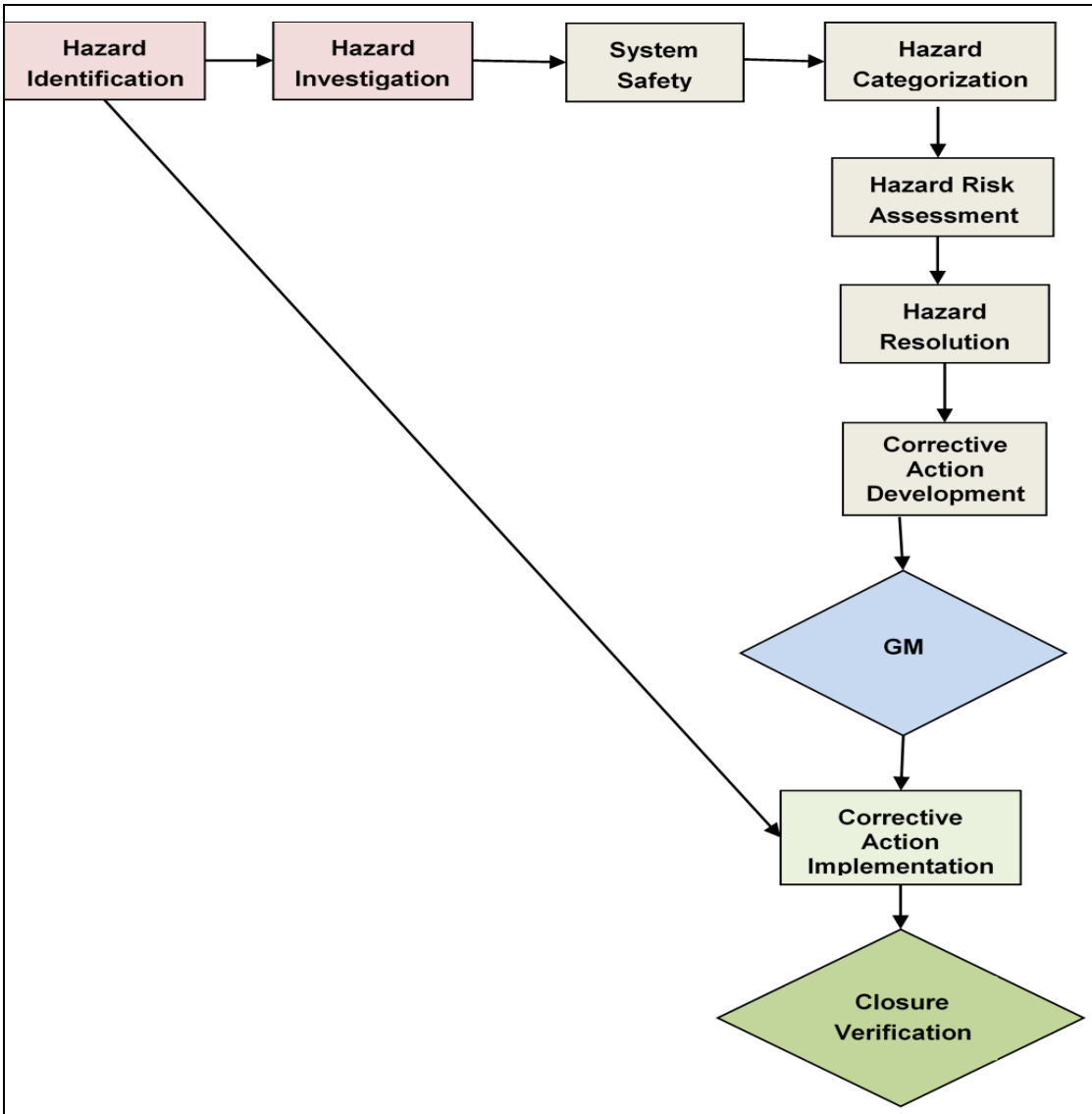
5. Safety Risk Management

Safety Risk Management Process

Describe the Safety Risk Management process, including:

- *Safety Hazard Identification: The methods or processes to identify hazards and consequences of the hazards*
- *Safety Risk Assessment: The methods or processes to assess the safety risks associated with identified safety hazards*
- *Safety Risk Mitigation: The methods or processes to identify mitigations or strategies necessary as a result of safety risk assessment*

Safety management is at the core of everything done at First Transit. All employees are responsible for performing their jobs in a safe manner, which includes identifying safety risks and participating in developing and implementing effective mitigation techniques. The process for managing hazards, from identification through corrective action and closure, is illustrated by the following flowchart.



As described earlier, a corporate structure exists to address all safety concerns. To ensure safety at the local levels, each location is required to form a Safety Solutions Team (SST), Accident Review Committee (ARC), and a Local Client Liaison Committee. To ensure consistency at each location, **SOP's #803; #803a; #803b Safety Solutions Team**, and **SOP #702 – Accident Review Committee** describe the procedures which are to be followed in creating and operating a Safety Solutions Team and Accident Review Committee.

These groups are responsible for reviewing safety related accidents and incidents to determine culpability; identify the causes associated with each event; and develop mitigation measures to reduce the risk of the events occurring in the future. Having these groups at each location provides a way for employees to report safety risks in a timely manner and to teams that understand the conditions associated with each specific location. Additionally, the opportunity exists for more timely, appropriate, and effective mitigation measures.

Several tools are used by the Region Safety Managers, Region Safety Directors and the Senior Director of Safety to monitor the local risks and risk management. Among them are Safety Data Reports which outline the monthly and Year to Date safety performance statistics. Also used is a Target & Goal Worksheet to track and analyze the data collected and to target reactive and proactive performance improvement measures.

Safety Hazard Identification

This process is a vital component in First Transit's efforts to reduce safety risks and improve overall delivery of service. Safety Hazard Identification data from internal sources such as employee reporting, customer feedback, maintenance records; and external sources such as the Federal Transit Administration and local oversight authority is used to implement immediate corrective actions and to proactively identify hazards and potential consequences before they cause future accidents or incidents.

The objective of hazard identification is to identify those conditions that can cause an accident or create an unsafe condition and determine possible consequences if the unsafe condition is not corrected. First Transit routinely analyzes records from our operation and external sources as they become available to identify accident causation based on history. Current traffic conditions are periodically analyzed, and management inspection of established prevention processes are routinely performed.

First Transit also takes an additional proactive step with its **SOP #208 – Safety Validation of Change** to identify hazards and consequences **PRIOR** to implementing any changes to operations.

First Transit relies on employees to assist in the hazard identification and resolution process. Working with the location safety personnel and through a structured process, employees help:

- Identify Critical Factors in Mitigation of safety risk
- Develop and Recommend an Action Plan
- Implement Action Plan
- Measure Performance Against Safety Objectives
- Monitor the Process
- Modify the Process
- Secure Outside Assistance (when needed)
- Audit for Compliance

Several tools exist for hazard identification. Among them are:

- **SOP #802 and #802a - Daily Safety & Health Walkthrough and Checklist**
  - A routine safety and health check walkthrough to promptly identify hazardous conditions at our facilities and notify employees of the hazards identified and mitigation measures to help protect them from personal injury.
- **SOP #804 - Positive Check-In Procedures & Reasonable Suspicion**
  - Positive Check-In procedures are to ensure our operators reporting to work are fit-for-duty.
- **SOP #900 – Facility Hazard Recognition Manual**
  - This Hazard Recognition Manual is intended to be a tool for recognizing potential hazards that may be present at First Transit facilities. Although it does not represent all conditions that could exist, the photos and narrative provide:
    - A reference guide for conducting safety inspections at a facility, and
    - A training document to educate and train employees to conduct effective safety inspections.
- **Vehicle Maintenance Risk Assessment**
  - All employees who perform maintenance and repairs to vehicles within transit centers and bus yards or on road calls complete a risk assessment using **SOP #503a – Vehicle Maintenance Risk Assessment Form** prior to performing any work on a vehicle.
  - The Risk Assessment process, **SOP #503 – Vehicle Maintenance Risk Assessment**, requires employees about to perform a maintenance task to confirm they possess the training, skills, knowledge, abilities, tools, and equipment to safely perform the task at hand. The assessment includes determining the following.
    - Are You Properly Trained to Perform the Task?
    - If Task Requires Lifting, Are Lifts Secured, Are Jack Stands Used Correctly?
    - Are You Wearing the Appropriate Personal Protective Equipment (PPE)?

        - Have You Performed the Proper Lock-Out/Tag-Out (LOTO) procedures?
        - Are You Aware of the Potential Risks of Performing this Repair?
    - If the answer is “NO” to any of the above assessments the technician is to immediately contact their manager.
- **Pre-Survey Job Hazard Analysis**
    - Prior to beginning a job hazard analysis, a pre-survey of the working conditions, using **SOP #503b – Pre-Survey Job Hazard Analysis Form**, under which the job is performed is conducted to evaluate the general conditions. A few of the potential hazards being considered include:
        1. Are there tripping hazards in the job vicinity?
        2. Is the lighting adequate for work conditions?
        3. Are there explosive hazards associated with the job?
        4. Are there electrical hazards associated with the job?
        5. Are tools associated with the job in good condition?
        6. Is the noise level excessive (below 85-dba)?
- **Facility Parking Risk Management Assessment**
    - Inadequate turning areas, blind corners, uneven walking surfaces can all cause collisions or employee injury in parking areas. **SOP #501 - Facility Parking Risk Assessment** will help identify and prevent these types of collisions for both buses and personal vehicles.
    - The Location Manager must ensure compliance with all provisions of this SOP.
    - The risk of each facility is assessed as follows:
        - Annually
        - Unscheduled – Whenever a significant vehicle collision or a pedestrian strike occurs in the bus yard or on company premises
        - Start-up locations – Before operating out of the new location.
        - **SOP #501a – Facility Parking Risk Assessment Guide**, and
        - **SOP #501b – Facility Parking Risk Assessment Form** are tools to help with this assessment.

Accident/Incident Hazard Identification

Procedures exist and are followed regarding resolution of accidents and incidents and capturing data. Although this information is used proactively, First Transit takes advantage of these opportunities to determine which, if any hazards existed that may have contributed to the accident or incident and develop mitigation measures to reduce the risk of a recurrence.

There are five (5) main areas reviewed in this Hazard Identification process:

1. **Environment**
    a. Weather
    b. Road Surface Condition
    c. Visibility
2. **Transit Service Characteristics and Agency Policies**
    a. Incentives for Safe Driving
    b. Equipment Maintenance Policies
    c. Stop Intervals
    d. Route Design
    e. Driver Scheduling
    f. Passenger Demand Schedules
3. **Operator**
    a. Experience
    b. Physical Ability
    c. Personality
    d. Psychological Condition

e. Physical Condition

4. **Road Layout**
   a. Width
   b. Speed Limit
   c. Geometric Design
   d. Traffic Volume
   e. Capacity
   f. Parking
   g. Adjacent Lane Use
   h. Street Lighting
   i. Pedestrian Volume

5. **Hazard Identification – Accident Prevention/Resolution**
   1st: Identify the Hazard
   2nd: Remove the Hazard
   3rd: When the Hazard cannot be removed, Train for the Hazard as a "known condition"

- **On-Board Video Technology**
  - **SOP #704 – On-Board Video Technology** provides a summary of the on-board video system and Company standards that all First Transit employees must follow when operating a company or customer vehicle equipped with onboard video technology.
  - This technology is a valuable resource and another tool that helps First Transit instill positive driving behaviors by providing opportunities to view recorded driving events, driver history and company trends.
  - The goal of this in-cab camera technology is to proactively identify unsafe behaviors and improve those identified behaviors through coaching, retraining and, if necessary, disciplinary measures in accordance with the provisions of the Employee Handbook and applicable Collective Bargaining Agreements.

Information learned from this identification process is used to improve training and reduce or eliminate the underlying causes.

Safety Risk Assessment

Once the hazard has been identified, they are categorized into the following severity levels. The categorization of hazards is consistent with risk-based criteria for severity; it reflects the principle that not all hazards pose an equal amount of risk to personal safety.

Category 1 – Catastrophic: operating conditions are such that human error, design deficiencies, element, subsystem or component failure, or procedural deficiencies may cause death or major system loss.

Category 2 – Critical: operating conditions are such that human error, subsystem or component failure, or procedural deficiencies may cause severe injury, severe occupational illness, or major system damage.

Category 3 – Marginal: operating conditions are such that they may result in minor injury, occupational illness or system damage and are such that human error, subsystem or component failures.

Category 4 – Negligible: operating conditions are such that human error, subsystem, or component failure or procedural deficiencies will result in less than minor injury, occupational illness, or system damage.

The next step in assessing the hazard is to determine the probability of it occurring. Probability is determined based on the analysis of transit system operating experience, evaluation of First Transit safety data, the analysis of reliability and failure data, and/or from historical safety data from other passenger bus systems. The following chart describes the probability categories.

Likelihood Per FTA review guidance of Occurrence of a Hazard			
Description	**Probability Level**	**Frequency for Specific Item**	**Selected Frequency for Fleet or Inventory**
Frequent	A	Likely to occur frequently	Continuously experienced
Probable	B	Will occur several times in the life of the item	Will occur frequently in the system
Occasional	C	Likely to occur sometime in the life of an item	Will occur several times in the system
Remote	D	Unlikely but possible to occur in life of an item	Unlikely but can be expected to occur
Improbable	E	So unlikely, it can be assumed occurrence may not be experienced	Unlikely to occur but possible

Identified hazards are placed into the following Risk Assessment Matrix to enable the decision makers to understand the amount of risk involved in accepting the hazard in relation to the cost (schedule, cost, operations) to reduce the hazard to an acceptable level.

Hazard Frequency	**Severity Category 1**	**Severity Category 2**	**Severity Category 3**	**Severity Category 4**
Frequent (A)	1A	2A	3A	4A
Probable (B)	1B	2B	3B	4B
Occasional (C)	1C	2C	3C	4C
Remote (D)	1D	2D	3D	4D
Improbable (E)	1E	2E	3E	4E

Based on company policy and the analysis of historical data, MTS and First Transit has made the following determinations regarding risk acceptance.

Hazard Risk Index	**Criteria by Index**
1A, 1B, 1C, 2A, 2B, 3A	Unacceptable
1D, 2C, 2D, 3B, 3C	Undesirable (Management decision)
1E, 2E, 3D, 3E, 4A, 4B	Acceptable with Management Review
4C, 4D, 4E	Acceptable without Management Review

Safety Risk Mitigation

Mitigation Determination

After the assessment has been completed, the follow-up actions will be implemented as follows.

- **Unacceptable:** The hazard must be mitigated in the most expedient manner possible before normal service may resume. Interim corrective action may be required to mitigate the hazard to an acceptable level while the permanent resolution is in development.
- **Undesirable:** A hazard at this level of risk must be mitigated unless the Location General Manager and Location Safety Manager issue a documented decision to manage the hazard until resources are available for full mitigation.
- **Acceptable with review:** The Location General Manager and Location Safety Manager must determine if the hazard is adequately controlled or mitigated as is.
- **Acceptable without review:** The hazard does not need to be reviewed by the management team and does not require further mitigation or control.

Hazard Resolution

Safety hazard resolution or mitigation consists of reducing the risk to the lowest practical level. Not all safety risks can be eliminated completely. Resolution of hazards will utilize the results of the risk assessment process. The objectives of the hazard resolution process are to:

1. Identify areas where hazard resolution requires a change in the system design, installation of safety devices or development of special procedures.
2. Verify that hazards involving interfaces between two or more systems have been resolved.
3. Verify that the resolution of a hazard in one system does not create a new hazard in another system.

The SST, who was identified earlier in this plan as the team responsible for local safety review, uses the following methodologies to assure that system safety objectives are implemented through design and operations, and hazards are eliminated or controlled:

1. Design to eliminate or minimize hazard severity. To the extent permitted by cost and practicality, identified hazards are eliminated or controlled by the design of equipment, systems and facilities
2. Hazards that cannot reasonably be eliminated or controlled through design are controlled to the extent practicable to an acceptable level through the use of fixed, automatic, or other protective safety design features or devices.
3. Provisions are made for periodic functional checks of safety devices and training for employees to ensure that system safety objectives are met.
4. When design and safety devices cannot reasonably nor effectively eliminate or control an identified hazard, safety warning devices are used (to the extent practicable) to alert persons to the hazard.
5. Where it is impossible to reasonably eliminate or adequately control a hazard through design or the use of safety and warning devices, procedures and training are used to control the hazard.
6. Precautionary notation is standardized, and safety-critical issues require training and certification of personnel.

Mitigation of Safety Risk Management and Tracking

Resolution of identified hazards are managed by the Location General Manager and/or the Location Safety Manager. The mitigation of safety risk process is managed through the **"Safety Toolbox"**, which is an online tool used by management, from Road Supervisors to Executive Management, to record the occurrence of safety-related events, review safety critical data, and track corrective actions as necessary.

The Safety Toolbox is a powerful tool to help understand the work area's safety environment. This includes:

- Understanding and improving observations of safety critical behaviors
- Reviewing recorded debriefs to ensure that the "BeSafe" process is in place and working.
- Reviewing findings from BeSafe tours and determine if tasks/actions have been closed out

The Safety Toolbox includes information regarding:

- BeSafe (BeSafe Debriefs, BeSafe Tours, BeSafe Touchpoints)
  - Debrief meetings conducted in order to assure quality.
  - Safety Critical Behavior is the main focus of touchpoints; and shared and discussed during debrief meetings.
- Contacts (e.g. Near Misses, Hazard reports, Commendation, Safety Issue)
  - **Near Misses.** Reporting an event that occurred and could have caused injury.
  - **Hazard Reports.** Reporting an event that occurred and could have caused injury.
  - **Commendation.** A report of commendable safety actions/conduct performed by a colleague within the business.
  - **Safety issues.** A report on any safety issue that has a specific cause – i.e. maintenance, housekeeping, environment and behavior etc.
- Safety Leadership Activities (e.g. Participate in safety meetings, risk assessment, section observation)
  - **Participation in a Safety meeting.** Actively leading or participating in the location in-service safety meeting.
  - **Intersection observation or risk assessment.** Risk assessment or driver observations conducted at nearby intersections, and delivery of positive reinforcement or coaching as indicated.
  - **Rail section observation or risk assessment.** Risk assessment or driver observations conducted at rail crossing(s), and delivery of positive reinforcement or coaching as indicated.
  - **Planned general inspections.** A systematic inspection where a location is forewarned.
  - **High interest driver.** A report of a driver's performance that has indicated a level of risk taking through observations, review scores, and skills evaluations.

Additional documentation, such as corrective action plans, are developed for those hazards requiring complex and multifaceted resolutions.
First Transit will provide MTS a monthly update on Safety Performance Goals, Collision and Passenger Injury Trends and updates of any Critical Events occurring during the month.

6. Safety Assurance

Safety Performance Monitoring and Measurement
Describe activities to monitor operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.

As discussed in Section 1 of this plan, First Transit employs a Resident Management Team at each operation location. This team consists of a Location General Manager and a Location Safety Manager, who oversee the safety of the operation.

Additionally, each location employs Street Supervisors, Dispatchers, and Instructors; all of whom are responsible for oversight of the daily operations and training. All safety risks identified are reported to the Location General Manager and Location Safety Manager. Any risks that can be addressed immediately are corrected but still reported. Each location also establishes a Safety Solutions Team (SST), described in Section 5: Safety Risk Management of this plan, which uses the following methodologies to ensure a proactive approach to safety at each location.

- Routine hazard management
- Accident and incident investigation
- Safety data collection and analysis
- Routine internal safety audits
- Facility, equipment, systems and vehicle inspections

- Routine proficiency checks for all vehicle operators and maintenance employees
- Compliance evaluations including onsite inspections
- Regularly communicating safety and hazard data to all employees

A higher level of oversight is conducted by Region management, which includes the Region Safety Manager, Region Safety Director, Region Maintenance Director, and the Region Vice President. From this level, any identified risks and mitigations are shared with other Region local operations as a proactive means to reduce risks.

The last "local level" review comes from the Vice President of Safety and the Vice President of Maintenance. These are corporate level positions that share the identified risks and mitigations throughout the organization as a proactive means to reduce risks. Additionally, the Vice President of Safety and Vice President of Maintenance assist executive level management in using this information to impact operational and budget decisions.

Describe activities to conduct investigations of safety events to identify causal factors.

First Transit has a "zero" tolerance for preventable injuries and collisions. Elimination of preventable injuries and collisions is our number one goal.

Any injury, collision or incident that occurs is investigated to determine preventability or non-preventability. Investigations include all instances in which:

- a vehicle was damaged
- a vehicle leaves the traveled roadway
- a passenger is injured or
- an employee is injured

SOP #700-Accident & Safety Data Acquisition describes the data collection process including

- Defining the Event & What to Do
- Accidents – Defining the Accident
- "Five Cardinal Rules That Apply to an Accident"
- Operator Responsibility
- Dispatcher on Duty Accident Investigation Responsibility

SOP #700 also describes the Operators and the Dispatchers responsibilities for protecting the customers and managing the scene.

The groups described in **SOP #702 – Accident Review Committee** (ARC), and **SOP #803 – Safety Solutions Team** (SST), review the data collected to determine if the accident/incident was preventable or non-preventable,(ARC); and identify measures to reduce the risk of the accident/incident occurring in the future (SST).

Describe activities to monitor information reported through internal safety reporting programs.

The Location Safety Manager (LSM) and/or Location General Manager (LGM) routinely reviews all location safety and hazard data, which includes searching for repetitive events that might have safety implications. When accident/incident reports and statistics indicate repetitive accidents/incidents, the LSM and LGM investigate to determine the root cause.

The following chart describes how the hazard data flows and is monitored by First Transit; from each operating location, to Region management, to corporate and parent company management.

Information Collected Daily	Location	Third Party Data Collected	Risk Dept	Safety Dept	Location	MTS
Collisions/ Injuries/ Workers Comp	Incident Occurs, claim report created, then sent to Third Party Data Collector via website, phone, fax.	Report received from Location.	Information from Third Party Data Collector created as weekly report then sent to Region Safety.	Weekly reports are reviewed and distributed for weekly management oversight conference calls.	Review data with Senior Region Leadership during weekly teleconference.	MTS Administrative Staff overseeing the First Transit Contract meeting with First Transit Management on a monthly basis; MTS Administrative Staff will provide a summary of the data to the COO on a monthly basis; The CSO is responsible for reporting applicable required information to the National Transit Database (NTD) on a monthly basis
	Risk Dept	**Shared Services Dept**	**Region Safety Managers**	**Shared Safety Services Dept**		
Collisions/ Injuries/ Workers Comp	Send all raw risk data gathered from weekly reports to the Shared Safety Services Dept.	Reorganizes raw data regionally then distributes to Region Safety Dept.	Review period data and distribute to locations.	Develops company, region, and location specific performance measures and distributes through Target & Goal Spreadsheet.		

Period Data Analysis								
	Shared Services Dept	**UK**	**Safety Dept**	**First Group Executive Safety Committee (ESC)**	**First Group Safety Council**	**First Group America Safety Council**	**Performance Review Management (PRM)**	**Safety Advisory Committee**
Collisions/ Injuries/ Workers Comp	Final reports sent to UK and Directors of Safety for each business group.	Processes data; analyzes; creates reports; categorizes risk factors; and gathers commentary from First Group companies for trend analysis.	Processes data; analyzes; creates reports; categorizes risk factors; and creates commentary for trend analysis.	This committee consists of President, COO, and Safety Vice President of each operating group. Discussions include safety performance, trend analysis, program oversight.	This committee consists of Vice Presidents of Safety for all operating divisions. Discussions include safety performance, trend analysis, and safety oversight.	This committee consists of Safety Senior Directors and Safety Vice Presidents. Discussions include safety performance, trend analysis, best practices, and program oversight.	This review consists of Senior Region Vice Presidents, Region Vice Presidents, Region Directors of Operations, and Region Safety Managers. Discussions include regions safety performance.	This committee consists of Location General Managers, Region Directors of Operations, and Region and Local Safety Managers. Discussions include review of policy and procedures, training, and safety awareness.

Management of Change

Describe the process for identifying and assessing changes that may introduce new hazards or impact safety performance.

First Transit employs a proactive process, **SOP #208 – Safety Validation of Change**, that addresses the procedures to be followed to evaluate the risk of any changes proposed at all levels of the organization. The overall purpose of this process is to provide assurance that any proposed changes which impact operations will not increase safety risk; or where additional risk is identified, that controls are put in place **prior to the changes being implemented**.

Changes to organizational structure; the nature or extent of operations; or to facility or equipment assets; as well as mergers and acquisitions of new businesses are proactively managed through this process to avoid introducing or increasing safety risks.

- The resources required to complete the validation process, in terms of people, finance and materials is included in this validation process.
- The allocation of responsibilities considers the competence of the individuals that are required to carry out the safety validation roles.
- All employees who may be affected by the proposed changes are consulted as part of the process.

The extent and scope of safety validation applied to any change proposal is proportional to the risks (safety, operational, and other risks) associated with its introduction. *(For example, a major change, such as a reorganization of Region Executive roles and responsibilities or start-up of a large new bus operation, requires a more rigorous safety validation than a minor change.)*

In the case of smaller, less complex or well understood changes, the safety validation of change process may be implemented as part of normal operations, using existing organizational arrangements and meeting structures to deliver the required level of assurance.

The process is generally described in the following chart.

Safety Validation of Change Process			
Main Steps	Key Activities	Checklists & Guidance	Completed By
1. Identify Proposal for Change	• Raise change proposal (including Capital Expenditure Approval) • Inform relevant functional Director(s) and Manager(s)	• Complete **SOP #208a – Safety Validation of Change Form**, Section A1	Change proposer

2. Determine Classification of Change Significance	• Classify level of safety validation required • Ensure the extent and scope of validation is proportional to the level of risk	• Complete **SOP #208a – Safety Validation of Change Form**, Section A2	**Category A:** Group Safety Director **Category B:** Divisional head of Safety **Category C:** Location head of Safety
3. Allocate Roles & Responsibilities	• Formally allocate change sponsor and change authorizer • Identify other required resources and roles for consultation	• Complete **SOP #208a – Safety Validation of Change Form**, Section A3	Change proposer (with guidance)
Submit Change Proposal Form			Change proposer
Decide whether safety validation should proceed			Change proposer
4. Prepare Safety Validation of Change Case	• Prepare safety validation documentation • Complete risk assessment of proposed change • Submit for review • Revise and finalize documentation	• Complete risk assessment and document findings • Complete Safety Validation of Change as described in **SOP #208 – Safety Validation of Change** • Complete **SOP #208a – Safety Validation of Change Form**	Change proposer
Submit Safety Validation Checklist with supporting documentation			Change proposer
Approve and Implement, or Reject Change			Change authorizer (or delegated representative)
5. Monitoring and Review	• Monitor implementation of change and safety performance • Review performance process	• Check compliance as part of Region Safety Monitoring • Review effectiveness of the process as part of Region oversight	Location Safety Manager Corporate Safety Management Vice President of Safety - First Transit

Changes proposed at the Corporate level typically have an impact on the Region and Local levels. To ensure the risks associated with any change consider all levels of the organization, each level must complete **SOP #208 – Safety Validation of Change** as part of the process to ensure specific safety concerns have been identified and addressed.

Similarly, changes proposed at the Region level will typically have an impact on the Local level. Consequently, the Local level must also complete **SOP #208 – Safety Validation of Change** as part of the process to ensure specific safety concerns have been identified and addressed.

Additional responsibilities in the Safety Validation of Change process include:

- The Region Safety Management team provides safety expertise/support to those carrying out the safety validation.
- The Senior Director of Safety:
    - Reviews and approves each Region's safety validation of change process
    - Decides on the level of safety validation required (consulting with other functional heads as necessary) for Category A changes
    - Is consulted on any Category B change proposal
    - Provides safety expertise/support to Region Safety Managers and Vice President of Safety – First Transit during safety validation activities as required.
    - Provides safety expertise/support to those carrying out the safety validation for Category A changes.

An electronic log of all proposed changes, whether approved or not, are maintained by the Region Safety Director.

Communication of changes to policies/procedures regarding safety issues comes from Executive Leadership. This information is then carried down through the Vice President of Safety – First Transit, Senior Director of Safety, Region Safety Directors, Region Safety Managers. Location General Managers, Location Safety Managers, and employees. Notification to the client is communicated through the Location General Manager.

Continuous Improvement

Describe the process for assessing safety performance. Describe the process for developing and carrying out plans to address identified safety deficiencies.

The process described previously in this section for monitoring safety data incorporates continuous improvement. As safety risk is identified, then reported on, a determination is made as to whether the risk can be mitigated immediately or requires more time and resources.

Risk mitigations that can address the safety concerns immediately are carried out but still reported. The reporting of these concerns includes the mitigation steps that have been taken. Monitoring of the risk continues to ensure that the mitigation strategy is effective.

Section 5 of this plan, Safety Risk Management, describes the risk assessment and mitigation procedures used that determine how to proceed with improvement strategies that require more time and resources. Which improvement strategies to implement for longer term issues is based on severity and probability of risk occurrence. Additionally, safety hazard identification data is used to implement immediate corrective actions and to proactively identify hazards before they cause future accidents or incidents.

The objective of hazard identification is to distinguish those conditions that can cause an accident or create an unsafe condition. First Transit routinely analyzes records from our operation to identify accident causation

based on history. Current traffic conditions are periodically analyzed, and management inspections of established prevention processes are routinely performed.

The Risk/Safety Data Flow Chart previously described in this section, illustrates how this information is shared throughout the organization.

7. Safety Promotion

Competencies and Training

Describe the safety training program for all agency employees and contractors directly responsible for safety.

The education and training process at First Transit is a highly regimented and professionally developed program built around a curriculum featuring learning opportunities in two major domains:

- Knowledge (education)
- Skills (training)

Various delivery mechanisms such as classroom, multimedia presentations, closed course, observation and behind-the-wheel skills building are used to support the learning process. Learning is evaluated through written quizzes, driving tests and customer service skills evaluations.

Driver Instructors

Successful new operator training starts with selecting and certifying good instructors.

1. **Classroom Instructor:**

   The classroom instructor is responsible for facilitating the classroom portion of New Operator Training. Classroom training requires the development of lesson plans.

2. **Behind-the-Wheel Instructor:**

   The Behind-the-Wheel (BTW) Instructor is responsible for conducting closed course exercises and behind the wheel instruction. The New Operator Training program consists of instructional DVDs, which are accompanied by facilitator guides and participant study guides. The BTW Instructor uses the Operator Proficiency Workbook to document each trainee's progress.

   **New Instructor Candidates can obtain certification as both a Classroom Instructor and a Behind-the-Wheel Instructor.*

3. **Master:**

   The Master Instructor, along with the Regional Director of Safety and Region Safety Manager(s), is responsible for training the Safety Supervisors. The Master Instructor is also responsible for the certification programs for Behind-the-Wheel and Classroom Instructors and the ongoing Train-the-Trainer workshops.

Training the Instructor is a process by which a Certified Instructor works with the selected New Instructor Candidate. During this time, the Certified Instructor conducts a review of all state laws, First Transit policies and procedures, local policies, and client-specified programs and requirements.

The Certified Instructor also provides a review of the Behind-the-Wheel Manual, Classroom Manual, and all First Transit video-based courses.

In addition to the above training, the New Instructor Candidate must complete the Instructor Development Curriculum, which includes the following three self-directed courses:

1. How to Train
2. Coaching the Adult Learner

3. Learning Basics

There are three types of Instructor Certification:

1. Temporary
2. Certified
3. Master

1. Temporary (Silver)

Temporary certificates are issued at the local level. A temporary certificate is issued to a New Instructor Candidate upon successful completion of the New Instructor training program at his or her location, conducted by a certified trainer at that location. Certificates are issued throughout the year prior to the annual Train-the-Trainer program.

Temporary certificates are valid for one year, and one year only, from the date of issue. Temporary certification is accompanied by silver achievement emblems for Classroom, BTW or both.

To continue in the program, a New Instructor must obtain Gold Certification.

2. Certified (Gold)

The Certified Instructor certificate is issued to a New Instructor who has successfully completed the annual Train-the-Trainer program, conducted by a Master Trainer. The annual Train-the-Trainer program combines all elements of the temporary certification, with the exception of the classroom evaluation. At the annual Train-the-Trainer program, Classroom Instructor Candidates are required to develop a lesson plan and give a presentation.

Prior to attending the annual Train-the-Trainer program, all New Instructors must complete the “Safety Leadership” course and pass the final exam with a grade of 90% or above.

The Senior Director of Safety is the only person authorized to approve and issue a Certified Instructor certificate with gold achievement emblems for Classroom, BTW, or both.

3. Master

The Master Instructor Certification program ensures that First Transit Policies and Procedures are correctly implemented throughout the company.

Master Instructor Certification is required for all area safety managers and above.

The Master Instructor:

- Provides support to the Location General Manager and the Region Safety Manager,
- Is involved with training new Safety and Training Supervisors, and re-training current Safety and Training Supervisors if required,
- Conducts the annual Train-the-Trainer program for BTW and Classroom Instructor Certification
- Conducts Safety and Training audits in the region and reports the findings to the Region Safety Manager, if required.

Employee Training

Training employees to assess risks and recognize and avoid hazards in the workplace is critical to the overall safety of the workplace. Every First Transit employee is trained in **“BeSafe”** and **“Safe Work Methods”**, which are described later in this section.

“BeSafe” is our company-wide approach to safety management. This program takes our safety performance to the next level through behavioral change. “BeSafe” is inclusive, collaborative and focuses on recognizing and acknowledging safe behavior and actions through positive reinforcement such as debriefs, tours, and touchpoints. All employees are trained in the principles of “BeSafe”

The “BeSafe” concept is described in the following brochure.



Near miss and hazard reporting

In the interest of keeping you, your colleagues and our passengers safe, it's your responsibility to report any near miss incidents and hazards.

Please record these in the 'Near miss and hazard reporting' pad and hand it in to the nearest supervisor / manager.

Near miss:
An event you witnessed where no harm was caused, but there was the potential to cause injury or ill health – a dangerous occurrence.

Hazard:
Anything that may cause harm in the near future.

Personal emergency details

In an emergency, please be aware of the following:

Name
Home Tel. No.
Mobile Tel. No.
Emergency contact No.
Blood type
Allergies
Medical condition(s)

Please inform your HR department of any medical conditions that might prevent you from doing your job safely.

Work environment

A positive, safe environment is important to our passengers, our staff and our business.

If you are concerned about anything at work, aware of a security issue or have suspicions about anything from bullying to fraud – report it.

If it is an emergency
Tell the police. Then, tell your manager.

If it is not an emergency
Tell your manager or Group Security, or use the confidential hotline or ethics portal.

Confidential hotline
UK 0808 234 5291
North America 877-322-5534
Greyhound Operations Support Center 800-487-6996
Panama 000-000-000-0000
India 000-000-000-0000

Make a report
www.ethicsfirst.ethicspoint.com

BeSafe

My Handbook

First

Be Safe What is it?

Be Safe is our Group-wide safety commitment, taking our safety performance to the next level through behavioural change.

It builds on our compliance with existing policies and safety management systems. Be Safe, whilst not ignoring unsafe acts, harnesses the power achieved where positive behaviour and habits are shown and recognised.

Be Safe is inclusive, collaborative and focuses on recognising and acknowledging safe behaviour and actions through positive reinforcement.

Be Safe Our objectives

Be Safe has three clear objectives:

1. To make progress on our way to “Zero Harm”.
2. To make safety a personal core value through behaviour change.
3. To improve business performance.

Everyone in FirstGroup takes ownership for safety in the workplace and encourages colleagues to do the same.

We have a personal stake in safety for ourselves, our colleagues and our customers.

By sharing the right attitude, skills and knowledge we will create the best safety environment to achieve our objectives and Be Safe.

Be Safe principles

These principles all support our Group value of being Dedicated to Safety.

Knowledge
Our greatest efforts will be directed at the key safety behaviours that will help reduce incidents.

Recognition
Whilst not ignoring actions that undermine safety, the focus will be on acknowledging colleagues “doing it right” and positively reinforcing these actions.

Openness
Regular positive coaching interactions, or “touchpoints” will take place and communication at “debriefs” will be open and honest.

Learning
Reporting of incidents and near misses will be seen as learning opportunities to continuously improve work place safety.

Courage
We are all empowered to accept responsibility for our own safety and the safety of our colleagues and customers. If you assess something to be unsafe, you should have the courage to stop and find a safer way of doing things.

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First Transit’s **“Safe Work Methods”** is designed to educate employees on how to identify conditions and actions posing risks to their well-being and that of their coworkers. This training is to be used:

1. In training new hire employees
2. In leading supervisors in identifying root causes of workplace injuries
3. In retraining injured workers so that re-occurrences are avoided
4. To supplement First Transit’s First Occupational Rehabilitation Management (F.O.R.M.) light duty and return to work management program, in controlling workers compensation losses

The “Safe Work Methods” training curriculum includes:

- **New Hire Training**
  New hire training is designed to educate the new employee to the hazards commonly found in the transportation environments including in vehicle maintenance shops, bus yards, fuel islands, wash bays, and office environments. The program also makes employees aware of injuries that can result from physical activities such as entering and exiting vehicles, assisting persons with disabilities, and handling mobility devices.
    - PPE program including requirements for appropriate
        - Safety eyewear
        - Safety footwear

        - Safety hand wear
        - Hi-Vis vests
        - Disposal contaminated materials
    - Risk Assessment and Injury Avoidance
        - Walking & Climbing
        - Lifting, Carrying, Holding, and Lowering Objects
        - Pushing, Pulling, & Twisting
        - Burns, Scalds
        - Exposed Fluids, Chemicals, Smoke
        - Cuts, Punctures, Abrasions, Lacerations
        - Mobility Device Lifts/Ramps

1. Requirements for Operator Training

Applicants are required to successfully complete a comprehensive training program prior to transporting passengers. Trainees are continually evaluated and tested throughout the training program. Trainees who do not demonstrate the required level of proficiency are provided additional training or are removed from training. The Operator training program combines instructor-led sessions, video instruction, facilitated discussion, and opportunities for the trainees to practice what they have learned. Training topics include:

Classroom Training
The first part of Operator training at First Transit, classroom training, begins the process of instilling the safety culture into each Operator. Helping the student Operators understand the importance of keeping themselves and each passenger safe; and their responsibilities in maintaining a safe environment, is a theme integrated throughout.

- **Unit 1 - Introduction**
    - Welcome and Introduction
    - Title VI Civil Rights Act 1964
    - Employee Handbook
    - BeSafe - Making Safety Personal
    - Hazardous Communication
    - Bloodborne Pathogens
- **Unit II - Fundamentals**
    - Safe Work Methods
    - Basics of Safety
    - Managing Emergencies
    - Security Awareness
    - Map Reading
    - Communication Devices
    - Navigation and Fare Policies
    - Smith System
- **Unit III - The Operator**
    - Drug and Alcohol Awareness
    - Distracted Driving
    - Fatigue and Sleep Apnea Awareness
- **Unit IV - Transporting Passengers with Disabilities**
    - Transporting Passengers with Disabilities
    - Interacting with Passengers
    - Diffusing Conflict
    - Passenger Care While Loading and Unloading
    - Mobility Aids and Devices
- **Unit V - Driving Fundamentals**
    - Driving Fundamentals I
    - Driving Fundamentals II

- Roadway Types
- Railroad Crossings

Behind-the-Wheel Training
Behind-the-Wheel training is conducted in three phases. Since most people coming to work as a Bus Operator have not been exposed to driving the types of vehicle used at First Transit, the first part of behind-the-wheel training takes place on a closed course. This provides the opportunity for the Instructors to evaluate the skill levels of each employee; and gives each employee the opportunity to make and learn from their mistakes in a safe environment.

The next phase of Behind-the-Wheel training takes place on the road, but in a controlled manner. During the road phase of the training, each student Operator works one-on-one with a First Transit Instructor. The road work begins with the basics; intersections, service stops, and backing. The next advanced stage of the road work addresses roadways, highway driving, and continues the instruction on intersections and service stops. The “Smith Driving System” principles are incorporated throughout the entire Behind-the-Wheel training phase.

- **Closed Course (Group Work)**
  - Vehicle Orientation
    - Pre-Trip Inspection
    - Seat Adjustment
    - Mirror Adjustment
    - Braking, Accelerating, and Transmission
    - Wheelchair Securement
  - Reference Points
    - Lane Position
    - Right Side / Left Side
    - Backing Point
    - Forward Stop
    - Pivot Points
    - Turning Points
  - Vehicle Control
    - Straight in Lane
    - Left Turn
    - Right Turn
    - Lane Changing - Moving Right or Left
- **One on One Instruction Behind the Wheel**
  - **Basic Road Work**
    - “Smith System”
    - Intersections
    - Service Stops
    - Backing
- **Advanced Road Work**
  - “Smith System” Commentary Driving
  - Roadways
  - Expressway / Highway Driving
  - Intersections
  - Service Stops
- **Final Evaluation**
  Upon completion of the training program, before an Operator can be placed into service, they must successfully demonstrate their mastery of the skills and practices learned during the training program.
- **Cadet Training**
  Once a new Operator has been placed into service there is period of observation where an experienced Operator, Instructor, or Supervisor periodically rides-along to ensure the skills

learned in training have successfully transferred to providing service. This includes the securement and transportation of a person with a disability.

2. Requirements for Maintenance Training

Maintenance personnel are trained in shop safety, OSHA standards, and vehicle maintenance, in addition to receiving training in driving techniques and safety. Trainees are continually evaluated and tested throughout the training program. Trainees who do not demonstrate the required level of proficiency are provided additional training or are removed from training.

Maintenance training includes:

- Introduction to First Transit policies & procedures
- Injury prevention and risk assessment
- Substance Abuse Policy
- Defensive Driving
- “Smith System”
- NTI - Security Awareness Warning Signs
- Shop Safety Handbook
- Maintenance Lift Safety
- Driver Vehicle Inspection (DVI) Procedures
- SafeWork Methods
- Wheel Torque Specifications
- Workplace Violence
- OSHA (R-T-K / SDS / PPE Training)
- De-escalation training

Servicer Training Program

All servicers complete a comprehensive training program. This program includes passing a written and behind the wheel test for a commercial driver license. Other major topics covered in the training program include: Code of Safe Practices, LPG fueling procedures, electric bus charging, bloodborne pathogen control program, Spill Prevention & Control Program (SPCC), Maintenance Dept. policies & procedures.

Servicer refresher training includes but is not limited to:

- Weekly during toolbox safety flyers
- SPCC annual refresher training
- Hazard Communication Training
- Behind the wheel evaluations
- Preventable Accident remediation

Mechanic

All mechanics hired are to be ASE certified with two years of maintenance work experience, mechanics also receive the training program outlined in the servicer training program. Mechanics also receive Hazardous Waste Operations and Emergency Response (HAZWOPER) training as well as forklift certification before operating.

Mechanic refresher training includes but is not limited to:

- Weekly during toolbox safety flyers
- SPCC annual refresher training
- Hazard Communication Training

- Forklift recertification every 3 years (if operating)
- Behind the wheel evaluations
- Preventable accident remediation

Foreman and Maintenance Managers

Foreman and Maintenance Managers training includes but is not limited to:

- Drug and Alcohol
- Harassment Prevention
- Management Development
- Toolbox training sessions
- SPCC
- HAZWOPER
- Forklift recertification
- Behind the wheel evaluations
- Preventable accident remediation

3. Requirements for Staff Training

Staff personnel are trained in Safety Leadership and "BeSafe" (described in item #1)

- **Safety Leadership**

  This is an interactive CD-ROM course consisting of 5 CD's and leaders guides which are designed to educate all levels of First Transit management on the behaviors surrounding accidents. Every level of management takes the course and successfully pass an online test, found on the Safety Resource Center (SRC), with a passing grade of 90% or better.

  The course outline is as follows:

  - Safety Leadership
    - Accidents
    - Behavior
    - Leadership
  - Supervisor Development
    - The Role of the Supervisor
    - Communication
    - Building Trust
    - Conflict Resolution
    - Performance Management
    - Decisions
- **Additional Safety Training**
  - Drug and Alcohol
  - Supervisor's Report of Reasonable Suspicion
  - Code of Conduct
  - Customer Service
  - De-escalation training
  - OSHA Requirements
  - Hazard Abatement FORM – CA Only
  - TSI – Introduction to Paratransit
  - TSI – Vehicle Operations
  - TSI – Managing Emergencies
  - TSI – Customer Relations

- SMS – First Transit Safety Policy
- SMS – First Be Safe Principles
- SMS – Be Safe
- SMS – Personal Protective Equipment
- SMS – Parking
- SMS – Personal Safety
- SMS – Risk Assessment
- SMS – Prevention of Workplace Violence

4. Requirements for Continuing Training and Evaluations

First Transit provides ongoing employee training and evaluations.

The objective of ongoing evaluations is met through a broad spectrum of regularly scheduled management activities including:

- road observations,
- ride along evaluations, and
- daily safety contacts.

Where evaluations and observations identify unsafe acts or conditions, retraining is provided to improve skill levels in accordance with corporate standards.

In addition to First Transit's formal employee training program, the following safety training is also conducted.

Safety Meetings

- Twelve (12) safety meetings are issued to the locations annually with required topics identified by the location and region safety management
- Each meeting is to be a minimum of one (1) hour in length unless otherwise required by state, client or local regulations
- A required topic along with a safety campaign including posters and DVD is sent to each location for presentation to all employees
- Attendance is a condition of employment and is mandatory for all Operators, Management, Operational staff, and Maintenance personnel. *(Unless stated otherwise in the CBA.)*
  - Failure to attend all meetings will result in disciplinary actions up to and including termination.
- Client/Contract requirements may require safety meetings to be conducted on a more frequent basis than the First Transit minimum standards

Retraining

First Transit has a "zero" tolerance for preventable injuries and collisions, elimination of preventable injuries and collisions is our number one goal.

An employee involved in a preventable injury or collision is placed on administrative leave pending completion of the investigation and completion of any required retraining.

Safety Communication

Describe processes and activities to communicate safety and safety performance information throughout the organization.

Safety Awareness Programs

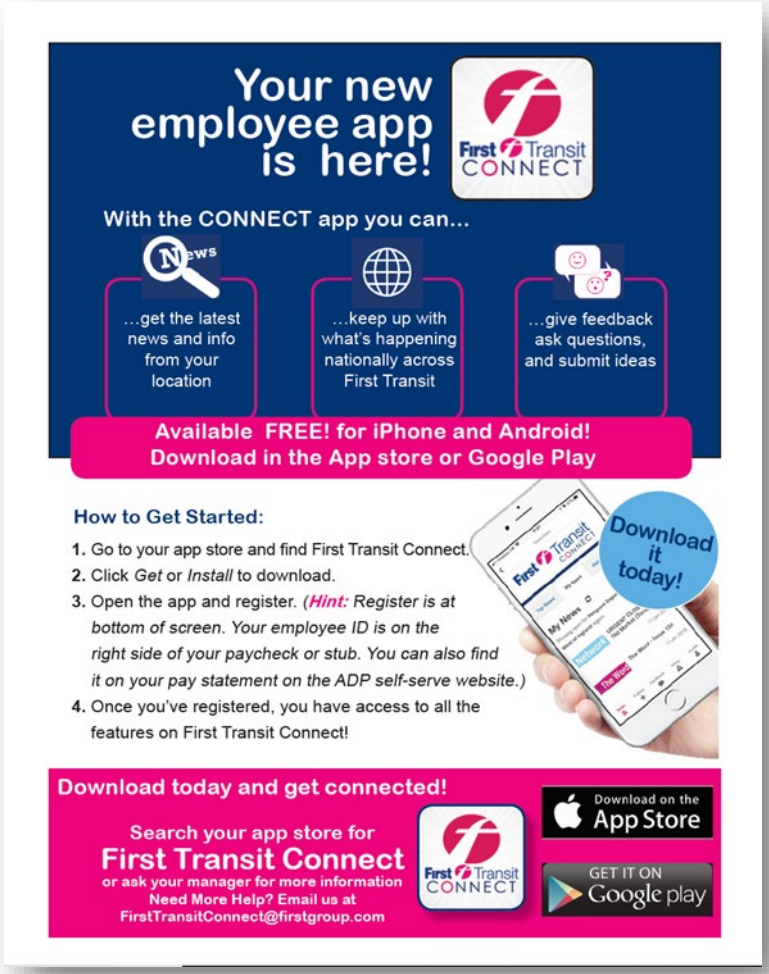
Establishing and maintaining a culture that demands safe behavior at all times is at the core of First Transit's safety plan. This is done, in part, by providing a regular flow of positive information and recognizing those who are performing safely.

This is where our **"BeSafe"** program provides the structure and foundation for communicating safety messages and inspiring safe job performance at all levels. "BeSafe" takes safety to a more personal level. It is a company-wide commitment to safety, with the objective of continuous improvement by making safety a personal goal and incorporating behavioral change as a mitigation measure.

"BeSafe" focuses on positive change through routine personal "touchpoints" and coaching interactions between front-line employees and management. To reinforce the touchpoints, discussions and feedback sessions are conducted as needed.

This program inspires safe behavior among employees at all levels by;

- Generating system-wide participation in safety issues through positive reinforcement
- Encouraging all employees to "take ownership" for safety results
- Communicating safety policies, procedures and processes
- Engaging executives and managers at all levels, encouraging their active participation in safety management and communication
- Sharing safety results at the individual, project, region and national levels by celebrating success stories
    - **Individual Motivators – Individual Achievement Awards:** The "cultural carrot" to help affect individual safety improvement through the use of personal recognition awards. Currently established safety awards for First Transit employees are:
        - Annual Safe Driver Awards
        - Safety Solutions Team Recognition
- **A Safety Leadership Group - The Safety Solution Team (SST):** Four to 10 location teammates dedicated to making safety "top-of-mind" by identifying and resolving safety issues.
    - SST
        - Review the safety concerns they have worked on and improvements that have been implemented
        - Record and distribute SST meeting minutes
    - GM
        - Review "Daily Safety & Health Walkthrough"
    - GM and SST
        - Recognize individuals who have earned years of safe driving
        - Pins and Certificates
        - Include bullets from SST Meeting minutes
- **A Communication Tool:** "First Transit Connect" employee app, a peer to peer safety communication tool offering safety tips, best practices, recognition, offering ideas on "What Works", Safety Happenings, and Safety Pep Rallies


Your new employee app is here!
First Transit CONNECT
With the CONNECT app you can...
...get the latest news and info from your location
...keep up with what's happening nationally across First Transit
...give feedback ask questions, and submit ideas
Available FREE! for iPhone and Android!
Download in the App store or Google Play
How to Get Started:
1. Go to your app store and find First Transit Connect.
2. Click Get or Install to download.
3. Open the app and register. (Hint: Register is at bottom of screen. Your employee ID is on the right side of your paycheck or stub. You can also find it on your pay statement on the ADP self-serve website.)
4. Once you've registered, you have access to all the features on First Transit Connect!
Download it today!
Download today and get connected!
Search your app store for
First Transit Connect
or ask your manager for more information
Need More Help? Email us at
FirstTransitConnect@firstgroup.com
Download on the App Store
GET IT ON Google play

Additional Information

Supporting Documentation

Include or reference documentation used to implement and carry out the Safety Plan that are not included elsewhere in this Plan.

Numerous standard operating procedures (SOP's), in addition to those mentioned in this plan, have been developed and incorporated into the operating practices at each First Transit location.

The SOP's have been designed to create operational consistency, increase awareness of risks and hazards, and provide easily duplicated processes for identifying and mitigating the risks associated with providing transit service. Some of those SOP's are as follows.

- High Interest Driver SOP's #206; #206a; #206b; #206c: #206d
- SOP #207 - Railroad Crossing Assessment
- SOP #502 – Sub-Contractors Working on Company Property
- Fire Prevention Plan SOP's #504; #504a; #504b; #504c; #504d
- Winter Safety – Snow Removal Action Plan SOP's #505; #505a; #505b; #505c
- Vehicle Fueling Spill Control SOP's #506; #506a; #506b; #506c; #506d
- SOP #507 - Pedestrian Visibility and Movement on Company Property
- SOP # 508 - Service Truck & Service Vehicle Visibility
- Emergency Action Plan SOP's #806; #806a; #806b; #806c; #806d
- First Transit Shop Safety Handbook
- Safety & Security Planning Manual
- MTS Infectious Disease Control and Prevention Plan

List of Acronyms Used in the Safety Plan

Acronym	Word or Phrase
ARC	Accident Review Committee
BTW	Behind-the-Wheel
DOT	Department of Transportation
DUI	Driving Under the Influence
DWI	Driving While Intoxicated
ESC	Executive Safety Committee
FGA	First Group America
F.O.R.M.	First Occupational Rehabilitation Management
FTA	Federal Transit Administration
HR	Human Resources
LGM	General Manager
LOTO	Lock-Out/Tag-Out
LSM	Location Safety Manager
MNT	Maintenance
OPS	Operations
OSHA	Occupational Safety & Health Administration
PPE	Personal Protective Equipment
PRM	Performance Review Management
SMS	Safety Management System
SOP	Standard Operating Procedure
SRC	Safety Resource Center
SST	Safety Solutions Team
UK	United Kingdom
VP	Vice President

Metropolitan Transit System

Bus Safety Performance Assessment







AI No. XX, 3/13/2025

SAFETY PERFORMANCE ANNUAL REVIEW



Board of Directors Meeting
March 13, 2025

Bus Performance Targets

- Prior goal was to improve upon 3-year baseline (2018-2020)
- Bipartisan Infrastructure Law (BIL) changed to 3-year rolling average, CY 2021 - CY 2023
- Performance targets do not consider crimes, fault, or preventability
- All rates are based on vehicle revenue miles
- 24.2 million revenue miles travelled in CY 2024 for all bus modes

Performance Targets – Fatalities CY 2024

Mode	Total			Rate		
	*Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	0	1.3	0	0	0.015	0
Fixed (Transdev)	0	0.3	0	0	0.003	0
Fixed Total	**0**	**1.7**	**0**	**0**	**0.008**	**0**
Paratransit (First)	**0**	**0**	**0**	**0**	**0**	**0**

Fatality - Death confirmed within 30 days of the event (including suicides).

Rate per 100,000 vehicle revenue miles.

*Baseline total was aspirational goal

Performance Targets – Major Events CY 2024

Mode	Total			Rate		
	Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	21.3	23	27	0.22	0.25	0.29
Fixed (Transdev)	18.3	19.3	24	0.17	0.18	0.21
Fixed Total	**39.7**	**42.3**	**51**	**0.19**	**0.21**	**0.24**
Paratransit (First)	**2.7**	**2.3**	**1**	**0.07**	**0.09**	**0.03**

Major Event – Previously called "Safety Event." Changed due to updated National Safety Plan.

All safety and security events defined by the NTD. Collisions that meet NTD thresholds for injuries, fatalities, property damage; vehicle towed.

Rate per 100,000 vehicle revenue miles.

Performance Targets – Injuries CY 2024

Mode	Total			Rate		
	Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	56.3	39.3	46	0.58	0.43	0.50
Fixed (Transdev)	57.3	44.7	54	0.52	0.41	0.46
Fixed Total	**113.7**	**84**	**100**	**0.55**	**0.42**	**0.48**
Paratransit (First)	**2.7**	**4**	**4**	**0.07**	**0.16**	**0.12**

Injury - Any damage or harm to persons that requires immediate medical attention away from the scene because of a reportable event must be reported as an injury, whether or not the person appears to be injured.

Rate per 100,000 vehicle revenue miles.

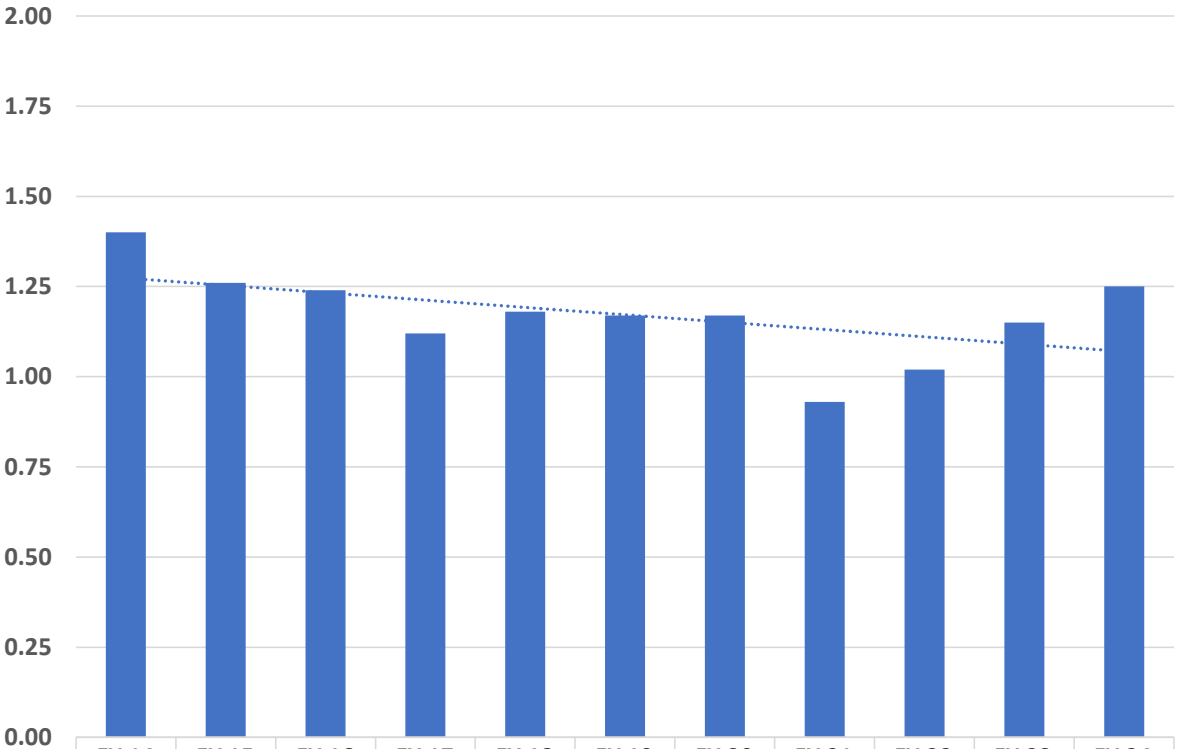
Performance Targets – System Reliability CY 2024

Mode	Rate		
	*Baseline Avg CY 18 -20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	4,700	6,612	6,985
Fixed (Transdev)	6,000	6,760	4,963
Fixed Total	**5,600**	**6,691**	**5,687**
Paratransit (First)	**32,000**	**46,003**	**51,411**

System Reliability - Distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

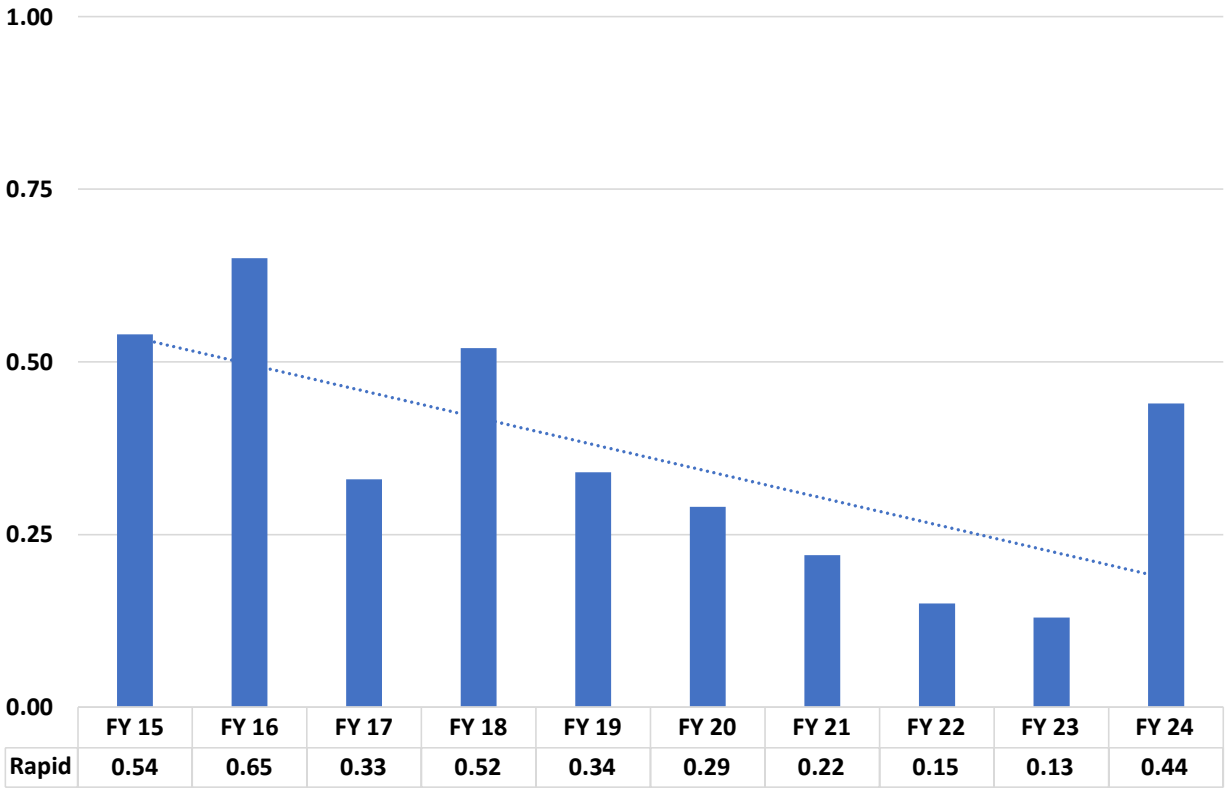
* Rounded to nearest hundred miles.

Fixed Route Preventable Accidents - KPI



	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Route	1.4	1.26	1.24	1.12	1.18	1.17	1.17	0.93	1.02	1.15	1.25

Rapid Preventable Accidents – PIP Goal



	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rapid	0.54	0.65	0.33	0.52	0.34	0.29	0.22	0.15	0.13	0.44

Metropolitan Transit System

Transit Worker Assault Risk Reduction Program



2024

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Purpose

The purpose of the MTS Bus Transit Worker Assault Risk Reduction Program is to outline current policies, procedures, training, best practices, and equipment used to reduce both the likelihood and severity of assaults on transit workers in compliance with 49 CFR 673.25. This risk reduction program applies to MTS Bus employees also referred to as San Diego Transit Corporation (SDTC).

Safety Risk Reduction Program Requirements (49 CFR 673.25)

Federal requirements of the risk reduction program are prescribed in 49 CFR 673 (d) Safety risk mitigation.

(1) A transit agency must establish methods or processes to identify safety risk mitigations or strategies necessary as a result of the transit agency's safety risk assessment to reduce the likelihood and severity of the potential consequences. For large urbanized area providers, these methods or processes must address the role of the transit agency's Safety Committee.

(2) A transit agency must consider, as a source for safety risk mitigation:

(i) Guidance provided by an oversight authority, if applicable, and FTA; and

(ii) Guidelines to prevent or control exposure to infectious diseases provided by the CDC or a State health authority.

(3) When identifying safety risk mitigations for the safety risk reduction program related to vehicular and pedestrian safety events involving transit vehicles, including to address a missed safety performance target set by the Safety Committee under § 673.19(d)(2), each large urbanized area provider and its Safety Committee must consider mitigations to reduce visibility impairments for transit vehicle operators that contribute to accidents, including retrofits to vehicles in revenue service and specifications for future procurements that reduce visibility impairments.

(4) When identifying safety risk mitigations for the safety risk reduction program related to assaults on transit workers, including to address a missed safety performance target set by the Safety Committee under § 673.19(d)(2), each large urbanized area provider and its Safety Committee must consider deployment of assault mitigation infrastructure and technology on transit vehicles and in transit

facilities. Assault mitigation infrastructure and technology includes barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators.

(5) When a large urbanized area provider's Safety Committee, as part of the transit agency's safety risk reduction program, identifies and recommends under § 673.19(c)(6) safety risk mitigations, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment conducted under § 673.25(c), the transit agency must include or incorporate by reference these safety risk mitigations in its ASP pursuant to § 673.11(a)(7)(iv).

(6) When a large urbanized area provider's Safety Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the Accountable Executive decides not to implement the safety risk mitigation, the Accountable Executive must prepare a written statement explaining their decision, pursuant to recordkeeping requirements at § 673.31. The Accountable Executive must submit and present this explanation to the transit agency's Safety Committee and Board of Directors or equivalent entity. (a) Each large urbanized area provider must establish a safety risk reduction program for transit operations to improve safety performance by reducing the number and rate of assaults on transit workers.

Federal Transit Administration General Directive No. 24-1 Required Actions Regarding Assaults on Transit Workers

Each transit agency that is required to have an Agency Safety Plan (ASP) under the Public Transportation Agency Safety Plans (PTASP) Final Rule (49 CFR part 673) must use the Safety Risk Management (SRM) processes required by 49 CFR § 673.25(c) and documented in its ASP to conduct a safety risk assessment related to assaults on transit workers on the public transportation system it operates unless the agency has conducted a safety risk assessment related to assaults on transit workers in the twelve months preceding the date of issuance of this General Directive. Each transit agency must use the SRM processes required by 49 CFR § 673.25(d) and documented in its ASP to identify safety risk mitigations or strategies necessary as a result of the agency’s safety risk assessment to reduce the likelihood and severity of the potential consequences. The joint labor-management Safety Committee of each transit agency serving an urbanized area with a population of 200,000 or more (large urbanized area) is responsible for identifying and recommending safety risk mitigations to reduce the likelihood and severity of consequences identified through the agency’s safety risk assessment per 49 U.S.C. 5329(d)(5). Each covered transit agency must also provide information to FTA on how it is assessing, mitigating, and monitoring the safety risk associated with assaults on transit workers.

General Directive and Required Actions: As authorized by 49 U.S.C. 5329(f)(2), 49 CFR § 670.25, and Office of Management and Budget Control Number 2132-0580, FTA directs each transit agency that is required to have an ASP under the PTASP Final Rule at 49 CFR part 673 to take the following actions within 90 days of the publication of this General Directive in the Federal Register: (a) Conduct a Safety Risk Assessment, (b) Identify Safety Risk Mitigations, (c) Submit Required Information to FTA.

Safety Risk Assessment

FTA General Directive 24-1 requires transit agencies to conduct a safety risk assessment. A safety risk assessment is a safety management system (SMS) process that evaluates hazards by assessing the

severity and likelihood of the hazard and then assigning a risk rating. Once a risk rating has been determined, potential mitigations are identified, implemented, and evaluated.

Table 1 Severity

Severity		
Description	**Category**	**Criteria (worst likely credible outcome)**
Catastrophic	**1**	Result in death, or permanent total disability.
Critical	**2**	Could likely result in permanent partial disability, injuries or occupational illness that result in hospitalization.
Moderate	**3**	Could likely result in injury or occupational illness resulting in immediate medical attention away from the scene or resulting in one or more lost workday(s).
Marginal	4	Could likely result in injury or occupational illness resulting in no immediate medical attention away from the scene or lost workdays.
Negligible	5	Could likely not result in injury or occupational illness, not resulting in any lost work time.

Table 2 Likelihood

Likelihood		
Description	**Level**	**Specific Individual Item (Example of Frequency)**
Continuous	**A**	Likely to occur continuously. (Daily)
Frequent	**B**	Likely to occur frequently. (Weekly)
Probable	**C**	Likely to occur regularly. (Monthly)
Occasional	**D**	Likely to occur occasionally. (Yearly)
Remote	**E**	Unlikely but reasonable or possible to occur. (Decade)

Table 3 Hazard Assessment Matrix

Hazard Assessment Matrix					
	1 - Catastrophic	**2 - Critical**	**3 - Moderate**	**4 - Marginal**	**5 - Negligible**
A - Continuous	**1A**	**2A**	**3A**	**4A**	**5A**
B - Frequent	**1B**	**2B**	**3B**	**4B**	**5B**
C - Probable	**1C**	**2C**	**3C**	**4C**	**5C**
D - Occasional	**1D**	**2D**	**3D**	**4D**	**5D**
E - Remote	**1E**	**2E**	**3E**	**4E**	**5E**

Table 4 Acceptability Levels

Acceptability Levels	
High	**Unacceptable**
Serious	**Undesirable** with management decision
Medium	**Acceptable** with review by management
Low	**Acceptable** without review

Table 5 NTD Reportable Transit Worker Assaults

NTD Reportable Assaults on Transit Workers					
Month	**Major Assaults**	**Non-Major Physical Assaults on Operators**	**Non-Major Non-Physical Assaults on Operators**	**Non-Major Physical Assaults on Other Transit Workers**	**Non-Major Non-Physical Assaults on Other Transit Workers**
Apr 2023		1			
May 2023		2			
Jun 2023		3		1	
Jul 2023		2			
Aug 2023		2			
Sep 2023		2			
Oct 2023		0			
Nov 2023		0			
Dec 2023		0			
Jan 2024		0			
Feb 2024		2			
Mar 2024		1			
Apr 2024		0	1		
May 2024		2			
Jun 2024		3			
Jul 2024		0			
Aug 2024	1	0			
Sep 2024		1			
Oct 2024		1			
Totals	**1**	**21**	**1**	**1**	**0**

To conduct the safety risk assessment, agency staff including the safety committee reviewed data submitted to the National Transit Database (NTD). The NTD began collecting increased transit worker assault data beginning in April 2023. The NTD reportable transit worker assaults show that bus operators experienced all of the assaults except one. The assaults were generally physical and the majority did not result in injury or require immediate medical attention. There was one major assault that resulted in immediate medical attention and hospitalization.

Identified Safety Risk Mitigations

The following mitigations have been identified as strategies to be used to reduce the likelihood and/or severity of transit worker assaults:

- Laws Protecting Transit Workers
- Training
- Policies & Procedures
- Equipment
- Security Staff
- Assault Tracking & Reporting
- Employee Support

Bipartisan Infrastructure Law (BIL) Definitions

Transit Worker

Any employee, contractor, or volunteer working on behalf of the transit agency.

Assault

A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

State Laws Protecting Transit Workers

CA Pen. Code § 241.3:

When an assault (an unlawful attempt, coupled with a present ability, to commit a violent injury on the person of another) is committed against any person on the property of, or on a motor vehicle of, a public transportation provider, the offense shall be punished by a fine not to exceed two thousand dollars ($2,000), or by imprisonment in a county jail not to exceed one year, or by both the fine and imprisonment. As used in this section, “public transportation provider” means a publicly or privately owned entity that operates, for the transportation of persons for hire, a bus, taxicab, streetcar, cable car, trackless trolley, or other motor vehicle, including a vehicle operated on stationary rails or on a track or rail suspended in air, or that operates a schoolbus. As used in this section, “on the property of” means the entire station where public transportation is available, including the parking lot reserved for the public who utilize the transportation system.

CA Pen. Code § 243.3:

When a battery (any willful and unlawful use of force or violence upon the person of another) is committed against the person of an operator, driver, or passenger on a bus, taxicab, streetcar, cable car, trackless trolley, or other motor vehicle, including a vehicle operated on stationary rails or on a track or rail suspended in the air, used for the transportation of persons for hire, or against a school bus driver, or against the person of a station agent or ticket agent for the entity providing the transportation, and

the person who commits the offense knows or reasonably should know that the victim, in the case of an operator, driver, or agent, is engaged in the performance of his or her duties, or is a passenger the offense shall be punished by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not exceeding one year, or by both that fine and imprisonment. If an injury is inflicted on that victim, the offense shall be punished by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not exceeding one year or in the state prison for 16 months, or two or three years, or by both that fine and imprisonment.

Bus Operator Training

Customer Service Skills:

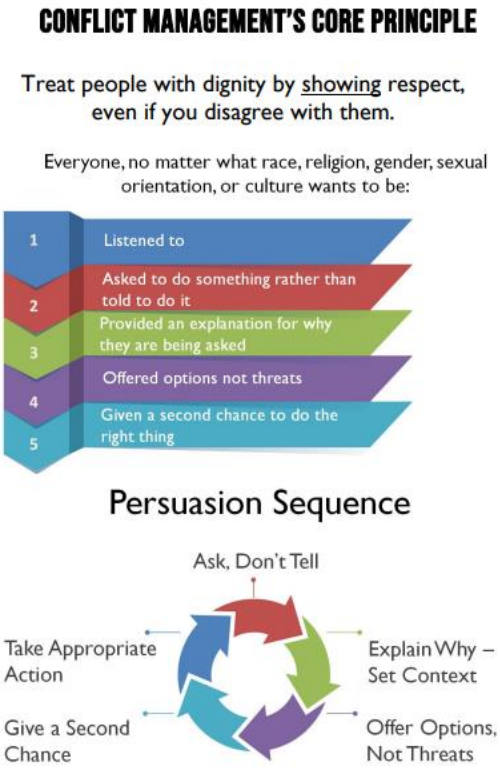
All bus operators complete a 9-week training program prior to going into individual revenue service. During this time, employees are taught various aspects of providing good customer service skills to all passengers. This includes:

- Welcome passengers with a smile and/or greeting
- Make eye contact with passengers as they board
- Take the opportunity to inform boarding passengers of any possible delays or detours
- Let passengers know through actions and attitudes that they are important and welcome on the bus
- Listen to passengers and try to understand the problem, complaint or compliment
- Ask appropriate questions for clarification
- Offer empathy, courtesy, and patience- and a solution if possible
- Don’t blame others
- Don’t ignore the passengers
- Thank passengers for riding with you
- Use courtesy to build rapport with your passengers

De-Escalation / Conflict Resolution Skills:

Throughout the day, bus operators are likely to encounter people and situations that can be difficult to address without some degree of conflict. These include coping with passengers who eat or drink on the bus, those who refuse to pay the full fare, passengers who play loud music or talk loudly on cell phones, those who annoy other passengers; those who use obscene or abusive language, etc. In order to safely address these types of issues, bus operators are taught to:

- Treat people with dignity by showing respect, even if you disagree with them.
- Always give the passenger an “out.”
- Never give the passenger an ultimatum- offer a compromise.
- Never imply that a passenger is stupid.
- Give passengers options and allow them to make the decision.
- Persuasion sequence: Ask don’t tell, Explain why-set context, Offer options-not threats, Give a second chance





Maintenance Employee Training

All front-line maintenance employees receive assault prevention and de-escalation training. This training program was developed using the framework from the National Transit Institute's Assault Awareness and Prevention course. The course covers the definition of assault, the different phases of emotions that could lead to an assault, showing respect to someone else, the rules of engagement when threatened, how to report an assault in the workplace, and getting help after an assault has occurred. The training

also includes scenarios a maintenance employee may encounter on the job. This includes: Interacting with passengers upset about a vehicle breakdown, answering passenger questions while at a transit center, engaging individuals who may be trespassing in unauthorized areas, encountering a sleeping passenger inside a bus on the bus lot.

Inform Not Enforce Procedures:

Bus Operators are not required to enforce company policy. Bus Operators are only required to politely and calmly inform the passenger of the policy or course of action needed. In the event a passenger continues to argue or escalate the situation, bus operators are taught to:

- Allow the passenger to board the bus and take a seat.
- Call radio dispatch for direction or assistance. Secure the bus and open the doors if necessary.
- If a situation or passenger's behavior jeopardizes safety, secure the bus and contact radio for assistance. Strive to keep calm and avoid calling attention to the passenger or situation.

Bus Operator's Manual Policies

Section 3.15

Personal Conduct: Fighting is prohibited at any time while on duty and/or on MTS property. Operators must do everything reasonable to de-escalate a potential situation. Operators need to be selective of the words they use and not engage in offensive or sarcastic speech. Use good judgment and appropriate language when dealing with unruly passengers. Do not insist upon the full compliance of rules to the point of conflict. Operators are advised not to leave their seat to pursue any individual for the purpose of confrontation. By law, Operators may defend themselves provided they use no more force than necessary to carry out their defense. It is recommended that any actions taken in defense will be done from the Operator's seat compartment. Operators should open all doors and allow the offender and/or passengers to exit in the event of a confrontation.

Section 3.16

Requirement to Exhibit Courtesy: Courtesy is defined as being considerate and polite towards others. Once safety is achieved, the focus should be on courtesy. Look at each level of consideration and remember that the courtesy extended to those at the highest level should be the same as that given to those at other levels. In other words, treat each passenger as if they are the most important person in the world because, in a sense, they are. if a passenger complains when an operator attempts to enforce MTS Bus rules, the operator should explain that the rule is company policy and is intended to promote good order on the bus. If the passenger continues to object, the operator should suggest that the passenger contact Customer Service for greater clarification.

Section 4.16

Restraint of Passengers: In no case should you resort to physical means to enforce rules, nor should you restrain a person against their will by means of closing the bus doors. Please request assistance from the

Communications Supervisor and a Supervisor and/or a law enforcement officer will respond. Passengers must not be detained on the bus nor are they to be restrained from leaving the bus under any circumstances. Secure the bus, open all doors and allow everyone to exit.

Section 4.17

Ejection of Passengers: Removal of a passenger will be authorized as a last resort. In each case, first ask the offending party to stop the offensive conduct. If they refuse, ask them to leave the bus. If they refuse, call the Communications Supervisor. Do not take any physical action against a passenger, unless it is obvious that a threat to your safety or a threat to the safety of your passenger(s) exists. Remain in your seat at all times. If you are attacked, you have the right to defend yourself, but you are never to be the aggressor. When the attacker leaves the bus, close the doors and call the Communications Supervisor for further instructions.

Section 4.5

Alighting Passengers: Encourage all passengers to leave the bus via the rear exit door. Using the front door to load and the rear door to exit will help you to maintain your schedule. Please recognize that many senior citizens feel safer sitting in the front and will wish to use the front door to exit. Please allow them this small courtesy.

Section 9.4

Disturbances on MTS Buses or Property: MTS Bus will not tolerate the use of hurtful, hateful or profane language by our employees at any time. You must never engage in a hostile, profane or disrespectful verbal confrontation with anyone. In a similar manner, we will not tolerate any threat of physical violence, whether spoken, written, inferred or implied. These acts are strictly prohibited in the workplace which we define as all MTS property (Divisions, facilities, garages, stations, buses, support vehicles). Any assault by an employee upon passenger, motorist, any third party, a fellow employee, supervisor and/or a manager, either on or off duty is subject to immediate termination. As an employee of MTS Bus, you have a limited right to defend yourself from a direct physical attack when you have good cause to believe that you may be harmed or injured. You must exercise your best judgment when involved in such a situation and only use that degree of force necessary to subdue the attack and restore order; otherwise, it may be found that you were acting outside the scope of your employment, and you may incur personal liability. The identification, apprehension, prosecution and conviction of parties committing violent acts and creating disturbances on buses is highly desirable. Every effort should be made to report such incidents to the Communications Supervisor as soon as possible. You should also secure names of all witnesses. Assaults and batteries on bus operators can be prosecuted. In the event that an assault occurs on the bus, immediately notify the Communications Supervisor and ask for law enforcement assistance. Do not attempt to apprehend the assailant; that is the responsibility of law enforcement officers. When a suspect is apprehended, the victim has the right to make a private person’s arrest for the violation. This will require the victim to complete an arrest by private persons form provided by the arresting officer. The suspect may be taken to jail, or the suspect may be issued a citation and released at the scene. You must complete an MTS Bus Incident Report prior to going off shift and include complete details of the incident documented in chronological order to establish the elements of the crime and determine the severity of the charges.

Section 10.8

Resolving Fare Disputes: Operators are required to make a reasonable attempt to collect fares and enforce the fare policy equally and fairly with each passenger. Operators are required to politely inform them once to comply with the fare policy. When requesting compliance, the Operator should keep in mind their safety and that of the other passengers as well as maintaining revenue service. If the passenger does not or cannot comply, do not pursue the matter any further and record the fare as a No Pay.

Bus Equipment

Driver barriers

All 40 and 60-foot fixed route buses are equipped with the AROWGuard Driver Protection System. The AROWGuard Slide System is a fixed door that incorporates a sliding two piece glass system. The system has a steel base on the lower portion and uses laminated tempered glass with an anti-glare coating on the top portion. This design allows the driver to adjust the sliding glass into multiple positions, similar to the driver's window.



Camera Systems

All buses are equipped with modern camera systems that cover both the inside and outside of the vehicle. All 40 and 60-foot fixed route buses have at least 8 total cameras and have 2 cameras that cover the driver area from different angles. Each camera system is equipped with a hard drive recorder that stores video for approximately 7-10 days. Video footage from the hard drive can be wirelessly downloaded to a remote server where the footage can then be preserved for up to one year. Video footage that requires long-term preservation can be saved on the agency's shared network. MTS has also started upgrading the existing camera system in order to access live video feed via cellular service in the event of an emergency.



Passenger Awareness Display

The passenger awareness display is a 9-inch monitor that is mounted above the bus operator seat that shows a live security camera feed of passengers as the board the bus and are standing at the farebox. The intent of the display is for passengers to see themselves on the monitor and to understand that there is visual proof of any crime that could occur while onboard the vehicle. MTS began installing a passenger awareness display on all new fixed-route bus purchases starting in 2020. To date, approximately 25 percent of the fixed-route fleet are equipped with this device.



Fleet Communication and Management System

MTS buses are equipped with a fleet management system that is actively managed by an Operations Supervisor 24 hours every day. This system includes:

1. Computer Assisted Dispatch (CAD) capabilities,

2. Real-time vehicle tracking via Global Positioning System (GPS) using satellites that poll vehicle locations every 15-seconds,
3. Wireless data communications, and
4. Automated Vehicle Location (AVL) map and data displays

Panic "Code Blue" Emergency Alarm Button

All buses are equipped with a hidden button next to the bus operator's seat that immediately notifies the on-duty operations supervisor of an emergency that may prevent the bus operator from visibly using the two-way radio. Once this button is pushed, a hidden microphone inside the bus is activated, and additional resources are dispatched to respond to the vehicle.

Vehicle Signage

All buses have signage inside the vehicle informing passengers they are being recorded and criminal acts will be prosecuted.



Security Bus Enforcement Support Team (BEST)

The Bus Enforcement Support Team (BEST) is a security group that includes two teams and a supervisor dedicated to bus service. The teams regularly sweep bus stops and respond to requests occurring onboard buses to handle disruptive passengers, fare evasion, and any other high priority incidents.



Assault Tracking & Reporting

Internal Database

MTS developed an internal tracking database to track all assaults on transit workers. The database tracks basic operational information including the date, time, location, employee ID etc., as well as law enforcement status including the case number, charges filed, prosecution, trial, and sentencing. The information on the database is used to assist with allocating security resources throughout the system as well as facilitating the prosecution of crimes against transit workers.

National Transit Database (NTD)

MTS reports all applicable transit worker assaults to the National Transit Database (NTD) on a monthly basis. This includes both major events (injury requiring medical treatment) and minor events (non-injury). These assaults are reported for each mode of transportation and include both physical and non-physical assaults.

Transit Worker Support Post Assault

Optional Change of Assignment

Following an assault, bus operators can request to have their regular assignment changed to another route/time of day, in order to reduce the likelihood, the employee will encounter the assailant in the future. Management does not require the employee change their work assignment, but does support an employee if they request the change.

Workers Comp Waiting Period

California has a 3-day waiting period before workers compensation benefits are paid for injuries sustained on the job. MTS waives the 3-day waiting period when the injury was the result of being assaulted while on duty.

Employee Assistance Program

MTS offers an Employee Assistance Program (EAP) which allows transit workers to receive free confidential professional counseling/therapy sessions. These sessions are available 24 hours a day, 7 days a week and can be conducted face to face, via tele-video or chat therapy. Counselors can help with a wide range of issues including: Anxiety, depression, stress management, grief, self-esteem, family relationship support, etc.



Infectious Disease Preparedness and Response Plan (COVID-19 Prevention Program)









Version 4.0, January 2025

Metropolitan Transit System

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1 INTRODUCTION

The Infectious Disease Preparedness and Response Plan was developed to document current best practices that are utilized by MTS to effectively limit the spread of viruses, and other types of potentially infectious materials throughout the transit system. The objectives of the plan are:

- Reduce the potential spread of viruses, infectious diseases or related illnesses throughout the transit system
- Educate and protect employees, customers, and business partners
- Maintain essential business activities
- Describe actions to effectively manage future infectious diseases if needed
- Establish and implement an effective written COVID-19 Prevention Program (CPP) pursuant to the Emergency Temporary Standards in place for COVID-19, California Code of Regulations (CCR), Title 8, section 3205(c)

A pandemic will affect many business functions due to several factors including but not limited to employee absenteeism, shortage of supplies, health department restrictions on public gatherings, and reduced ridership.

MTS has developed this Plan based on current infection prevention and hygiene best practices. It focuses on the need to implement engineering, administrative, work practice controls, and personal protective equipment (PPE). This written plan draws on the best information available from:

- World Health Organization (WHO)
- Center for Disease Control (CDC)
- Occupational Safety and Health Administration (OSHA)
- American Public Transit Association (APTA)
- California Department of Public Health (CDPH)
- San Diego County Public Health Service

It is recognized that advice on infection prevention will change over time as new information becomes available. MTS will continue working with these agencies to obtain the latest information as well alter its operations, policies and procedures to follow current requirements imposed by federal, state and local entities. MTS will update the Plan to address additional specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of SARS-CoV-2 (i.e., compared to other influenza viruses) as needed.

1.1 EMPLOYEE ACCESS TO THE PLAN

The Plan is always available electronically to all employees during working hours, from the MTS intranet, Environmental Health and Safety page.

Paper copies can be printed from the intranet, and are also available upon request, for examination and copying, to all employees, external agencies (or their respective designees).

When a division head or supervisor receives a request from an employee's designated representative, or external agency to review this Plan, the division head or supervisor shall provide the requested document (s) at no cost to the requesting party.

2 ACRONYMS

APTA	American Public Transit Association
CDC	Center for Disease Control
CDPH	California Department of Public Health
MTS	San Diego Metropolitan Transit System
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
WHO	World Health Organization

3 RESPONSIBILITIES

MTS will be guided based upon the threat levels identified by the WHO, CDC, as well as other Federal, State and local health agencies.

In San Diego County, the Public Health Services Department has responsibility for health issues and has the authority to implement public activity restrictions if needed. Since each pandemic is unique, MTS will coordinate with Public Health to identify and confirm appropriate actions for dealing with public health issues concerning infectious diseases, such as COVID-19, to help protect employees and the riding public.

Each MTS employee is required to carry out specific responsibilities consistent with their position. All levels of management are accountable for the implementation of this Plan within their respective work areas. The information provided below describes the position and responsibilities of that position.

Position	**Plan Responsibilities**
All MTS Employees	Adhere to established training, policies and procedures. Participate in the identification and evaluation of hazards. Report symptoms, potential exposures or positive test results to Human Resources and their immediate supervisor. Practice good personal hygiene, social distancing, and donning of PPE. Protect and respect individuals Health Insurance Portability and Accountability Act (HIPAA) rights.
Department Directors, Managers, and Supervisors	Implement and maintain the Plan in their assigned work areas. Provide adequate, usable, department-appropriate informational material about business-essential job functions and worker health and safety, including proper hygiene practices and the use of workplace controls (i.e. PPE).

	Ensure employees receive answers to questions about the program in a language they understand. Conduct contact tracing for employees within their department and notify employees of potential exposure.
Chief Executive Officer	Uphold accountability across all departments within the agency. Allocate available capital and financial resources needed to maintain the plan. Promote a positive safety culture throughout the agency. Communicate with the Board of Directors. Maintain communication with other government agencies to obtain the latest information and/or guidelines. Lobby local, State and Federal entities for additional resources. Retain the ultimate responsibility for the management of this plan.
Chief Financial Officer	Oversees all agency financial revenues and expenses, ensures financial compliance with contractual terms, financial forecasting and budgeting, and the procurement of all goods (including PPE and cleaning resources) and services necessary for implementation of the Plan.
Chief Operating Officer (COO) of Rail	Manage day to day operations and maintenance for Rail. Direct the implementation of this plan for Rail. Evaluate the performance of this plan for Rail. Establish core roles and responsibilities to ensure business continuity;

	Make the decision to limit or shut down service when absence rates or other factors threaten safety or business continuity.
Chief Operating Officer (COO) of Transit	Manage day to day operations and maintenance for Transit. Direct the implementation of this plan for Transit. Evaluate the performance of this plan for Transit. Establish core roles and responsibilities to ensure business continuity. Make the decision to limit or shut down service when absence rates or other factors threaten safety or business continuity.
General Counsel	Interpret applicability of existing laws, regulations, emergency orders, etc., to ensure agency policies and practices are in compliance. Oversees Risk and Workers' Compensation Department.
Human Resources	Maintain personnel medical records including vaccination and testing status. Develop, implement, adjust, and communicate workplace sick leave, attendance, healthcare, return to work, and remote work policies and protections. These include: Employer or government-sponsored leave benefits employees may be entitled to receive when sick or required to quarantine, for example Families First Coronavirus Response Act (FFCRA) etc. Actively encourage sick employees to stay home if the condition warrants it; Ensure that sick leave policies are flexible and consistent with public health guidance and that employees are aware of these policies so they are more likely to stay home when required/needed.

	Respond to workers' concerns about sick leave, and other related issues that may arise. Work with insurance companies providing employee health benefits and state and local health agencies to provide information to employees about medical care in the event of an infectious disease outbreak.
Information Technology (IT) Department	Oversees the management of technology and computer systems that support the Plan; Establish infrastructure to support employees that have been approved for working remotely; Make web-based/VPN access available to allow secure network access from home if necessary; Set up a system to facilitate virtual conferences for Board and other meetings.
Marketing Department	Oversees the communication and distribution of information internally and externally as it relates to the Plan.
Planning Department	Oversees internal planning efforts and coordinates with external stakeholders to ensure safety concerns, as they relate to the Plan, are addressed in design and location of transit amenities. Evaluates service levels and develops service modification relative to needs, safety concerns, policies and resources. Identify essential bus routes, if reduction of service levels is needed to maintain continuity of operations.
Safety Department	Develop, maintain, and update this plan as needed. Respond to workers' concerns about safety and/or hazards. Assist departments within the agency to provide adequate, usable, department-appropriate informational material about business-essential job functions and worker health and safety, including proper hygiene practices and the use of workplace controls (i.e. PPE).

	Review safety data sheets (SDS) for new chemical product requests as necessary, with guidance from appropriate regulatory agencies.
Supply Chain and Operations	Establish and maintain communication with key vendors and contractors for continuous services and supplies. Increase min/max stock to ensure PPE and cleaning supplies can meet increased demand. Establish mechanism to procure any needed PPE in large quantities on an emergency basis with very short time frames (1-2 days). Ensure timely and accurate delivery of good purchased, and work with vendors to expedite deliveries when possible. Distribute PPE to departments as requested and maintain proper inventory levels to ensure continuity of supply. Communicate with Department Directors/Managers when items are on backorder and/or supplies are low in stock.

4 INFECTION PREVENTION MEASURES

Safety professionals use a framework called the “hierarchy of controls” to select ways of controlling workplace hazards (**Figure 1**). The best way to control a hazard is to systematically remove it from the workplace, rather than relying on workers to reduce their exposure. During a pandemic, or infectious disease outbreak, it may not be possible to eliminate the hazard. Protection measures from most effective to least effective are: Elimination, Substitution, Engineering, Administrative, and PPE.

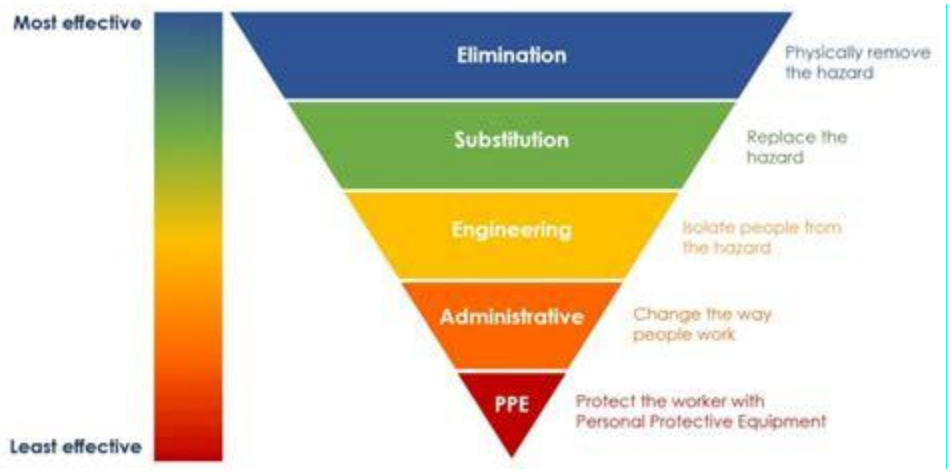


Figure 1: Hierarchy of Controls

There are advantages and disadvantages to each type of control measure when considering the ease of implementation, effectiveness, and cost. In most cases, a combination of control measures will be necessary to protect workers from exposure to a virus or infectious disease.

Engineering controls involve isolating employees from work-related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behavior.

Administrative controls change the way people interact, depend on compliance of the correct procedure by workers, and are best when combined with other controls. Administrative controls include safe work practices. Safe work practices are procedures used to reduce the duration, frequency, or intensity of exposure to a hazard.

While engineering and administrative controls are considered more effective in minimizing exposure to viruses and infectious diseases, PPE may also be needed to prevent certain

exposures. Correctly using PPE can help prevent some exposures, however it should not take the place of other prevention strategies.

4.1 CLEANING AND DISINFECTING PROTOCOLS

Cleaning with products containing soap or detergent reduces germs on surfaces by removing contaminants and decreases risk of infection from surfaces. Routine cleaning for high-touch surfaces should be done to the maximum extent practicable. Once surfaces have been cleaned, they should be disinfected using a product from EPA List N: https://www.epa.gov/coronavirus/about-list-n-disinfectants-coronavirus-covid-19-0 when supply is available. The manufacturer's instructions should be followed for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE). Diluted household bleach solutions (5 tablespoons per gallon of water), or alcohol solutions with at least 70% alcohol may also be used when appropriate for some surfaces. Approved sanitizing wipes may also be used on high touch surfaces when practical.

At a minimum, thorough cleaning on high traffic areas and high touch surfaces within buildings, transit centers and in vehicles should be performed daily. These areas include shared office spaces and work areas, break rooms, restrooms, stairways, elevators, etc. High touch surfaces in these areas include but is not limited to:

- Doorknobs and handles
- Handrails and grab bars
- Elevator and door buttons
- Seats and benches
- Kiosks, touch screens, timecard machines, etc.
- Copiers and printers
- Keyboards and mice
- Telephones and microphones
- Breakroom tables and microwaves
- Shared tools and equipment
- Bathroom surfaces

Vehicles should be thoroughly cleaned daily using approved products that are known to be effective against viruses and other pathogens. Additional mid-day cleaning of vehicles may be necessary depending on conditions such as positive test rates within the community and cleaning staff availability. Bus/Train Operator areas should be wiped

down with approved sanitizing wipes at the beginning and ending of each shift in addition to daily cleaning.

4.2 PERSONAL HYGIENE

Promoting good personal hygiene is an essential element of reducing the risk of virus transmission. Promoting good personal hygiene includes but is not limited to:

- Providing adequate hand washing stations for employees throughout the system.
- Using alcohol-based hand sanitizer with greater than 60% ethanol or 70% isopropanol as active ingredients when hand washing is not practical.
- Wearing/removing gloves as a supplement to hand washing for tasks such as handling commonly touched items, or when hand washing is not practical.
- Operators should wear gloves before, and sanitize their hands after assisting passengers using a wheelchair or other mobility device.
- Requiring regular hand washing or use of alcohol-based hand sanitizer after using the restroom, after removal of gloves, or prior to meal/smoking breaks.
- Washing hands when they are visibly soiled and after removing any PPE.
- Encouraging respiratory etiquette, including covering coughs and sneezes.
- Discouraging employees from using other workers' phones, desks, offices, or other work tools and equipment, when practical.
- Instructing employees not to share unwashed dishes, drinking glasses, cups or eating utensils.
- Providing hand washing stations for the public at transit centers where practical.

4.3 PHYSICAL BARRIERS

Physical barriers are typically transparent materials such as glass or plexiglass used to reduce the spread of aerosol droplets from coughs and/or sneezes. These barriers are generally used in work areas with high traffic volume or when social distancing may not be practical. The following includes but is not limited to locations that may warrant a physical barrier:

- Check-in counters or kiosks
- Health screening locations (temperature checks, COVID testing)
- Bus Operator area near farebox
- Lobby, reception, and Transit Store areas between employees and the public
- Workstations or cubicles that are less than 6 feet between workers
- Storeroom counter between general employees and clerks

- Any practical location where individuals are unable to physically distance

4.4 SOCIAL DISTANCING

Social distancing is a strategy to reduce virus transmission by physically separating individuals from one another. Social distancing should be a minimum of 6-feet when practicable. The following includes but is not limited to measures that may be taken to promote social distancing:

- Install floor markings, signs, arrows, etc. that inform individuals preferred path of travel and standing/sitting locations.
- When practicable, maintain normal service levels, add service, or use larger vehicles to enable passengers to distance from each other while onboard.
- Reduce onboard maximum occupancy to support physical distancing.
- Communicate the updated ridership practices and any changes to the frequency of service timetables to the public.
- Request passengers to avoid standing or sitting within six feet of operators, including moving the standee line aft where appropriate.
- Encourage passengers to purchase tickets through electronic or cashless ticketing system (Pronto App) to limit time at farebox.
- Permit rear door boarding for buses not yet equipped with physical (germ) barriers or as needed.
- Allow/encourage passengers to verbally request a stop to avoid having to touch the stop request signal.
- Utilize single passenger trips for ADA passengers on Access.
- Conduct fare checks at station platforms instead of inside vehicles.
- Limit public access to MTS non-revenue facilities, and lobbies.
- Reconfigure, or restrict indoor common areas.
- Limit number of occupants indoors for training or other purposes.
- Increase distance between tables/chairs in breakrooms to separate employees and discourage congregating during breaks.
- Where possible, create outdoor break areas for employees with shade/rain covers and seating.

4.5 FACE COVERINGS

Face covering means a surgical mask, a medical procedure mask, a respirator worn voluntarily, or a tightly woven fabric or non-woven material of at least two layers that

completely covers the nose and mouth and is secured to the head with ties, ear loops, or elastic bands that go behind the head or ears. Gaiters may be worn as long as there are at least two layers of fabric, or it is folded to make two layers. A face covering is a solid piece of material without vents, slits, visible holes, or punctures, and must fit snugly over the nose, mouth, and chin with no large gaps on the outside of the face. A face covering does not include a scarf, ski mask, balaclava, bandana, turtleneck, collar, or single layer of fabric.

Employees may be required to wear clean, undamaged face coverings and ensure they are properly worn over the nose and mouth in various situations depending on current requirements issued by Federal, State, or local authorities. Some conditions that may require individuals to wear a face covering include but is not limited to:

- When conducting personal health screenings
- When inside a public transit vehicle or at a public transit station
- When indoors in common work areas, meeting rooms, hallways, elevators, etc.
- When outdoors and less than six feet away from another person
- When unvaccinated

The following may be exceptions to the use of face coverings:

- While actively eating or drinking, provided employees are at least six feet apart.
- When use of a face covering would affect the safe operation of a vehicle and/or equipment.
- Employees who cannot wear face coverings due to a medical or mental health condition or disability, or who are hearing-impaired or communicating with a hearing-impaired person. Upon request, employees may ask for alternatives to be considered by contacting Human Resources. Reasonable modifications will be made on a case-by-case basis as required by law.

Additionally, employees may wear a face covering at their discretion as long as it is appropriate for the business environment and does not interfere with the safe operation of a vehicle or other equipment. Retaliation for the optional use of a face covering regardless of vaccination status is illegal.

4.6 ALTERNATIVE AND REMOTE WORK

Minimizing personal contact among workers, clients, and customers by replacing face-to-face interactions with virtual communications should be utilized when practicable. The following includes but is not limited to alternative work suggestions:

- Limit customers' and the public's access to the worksite, or restrict access to only certain workplace areas, where appropriate.
- Temporarily suspend in person ADA eligibility evaluations.
- Discontinue nonessential travel to locations with ongoing COVID-19 outbreaks.
- Replace in-person meetings with conference calls/virtual meetings (Zoom, WebEx, Teams, etc.)
- Stagger employee working hours and breaks, in compliance with wage and hour regulations, to promote physical distancing protocols.
- Relocate business activities outdoors when practical
- Permit remote work for administrative and management staff

4.7 PERSONAL PROTECTIVE EQUIPMENT (PPE)

While engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE may also be needed to reduce chance of exposure. PPE is considered the last line of defense and should not take the place of other prevention strategies. Examples of PPE include: gloves, goggles, face shields, or face masks. Recommendations for PPE specific to occupations or job tasks may change depending on job type, job location, updated risk assessments for workers, and new information on PPE effectiveness in preventing the spread of COVID-19 or other viruses.

All types of PPE must be:

- Selected based upon the hazard to the worker,
- Properly fitted,
- Consistently and properly worn when required,
- Regularly inspected, maintained, and replaced, as necessary, and
- Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.

4.8 PERSONAL HEALTH SCREENINGS

MTS may ask employees to evaluate their health before reporting to work. Health screenings may include non-contact temperature checks, virus testing, or reporting of symptoms associated with being ill such as fever, cough, sore throat, body ache, etc. All health screenings shall be provided to employees at no cost. Screeners should avoid close contact with employees by using physical barriers when practical. Both screeners and employees should wear face coverings during the screening. Employees who

exhibit symptoms or other signs of infection must be immediately removed from the workplace and sent for professional medical testing/evaluation before being permitted to return to the workplace.

4.9 AIR QUALITY

Managing indoor air quality can be complex. Indoor air quality can be affected by several variables that cannot always be easily controlled or changed. HVAC design, availability of fresh air, ambient temperatures, and humidity, can all affect indoor air quality. Generally speaking, indoor air quality can be improved through the following methods:

- Reduce/remove source(s) of airborne viruses
    - Reduce number of occupants that may be sick/contagious
    - Use masks/face coverings to reduce amount of virus going into air
- Reduce/remove amount of airborne virus through improved filtration
    - Increase MERV rating on air filters to highest practical level without negatively impacting HVAC system(s)
    - Increase scheduled replacement/cleaning of air filters
- Reduce/remove amount of airborne virus through introduction of fresh air
    - Open doors/windows assuming this doesn't increase safety/security risk
    - Adjust HVAC controls to increase outdoor air intake if configurable

5 TRAINING AND COMMUNICATION

Training staff and riders on how to manage and mitigate risks associated with infectious disease is essential. Management works proactively and transparently with labor leadership to ensure employees participate in the identification and evaluation of hazards. This process is primarily conducted through the employee safety committee. Policies and procedures will be communicated as they are developed and are tailored to the education level and language of the intended audience.

5.1 INTERNAL TRAINING & COMMUNICATIONS

MTS uses the following media to communicate and train individuals within the organization:

- Emails
- Bulletin boards
- Text messages
- Virtual and in-person training sessions
- Company intranet

Under the Emergency Temporary Standards (ETS), Cal OSHA requires the following training topics be provided to all employees:

- Policies and procedures to protect employees from COVID-19 hazards and how to participate in the identification and evaluation of those hazards.
- Information regarding COVID-19-related benefits, either from the employer or from federal, state or local government, that may be available to employees impacted by COVID-19. Information on COVID-19 benefits, such as paid sick leave and workers' compensation benefits, is posted on the Department of Industrial Relations' Coronavirus Resources webpage.
- COVID-19 is an infectious disease that can be spread through the air when an infectious person talks or vocalizes, sneezes, coughs or exhales; that COVID-19 may be transmitted when a person touches a contaminated object and then touches their eyes, nose or mouth, although that is less common; and that an infectious person may show no symptoms.
- Proper use of face coverings and the fact that face coverings are not respiratory protective equipment.
- The conditions under which face coverings must be worn at the workplace.
- That employees can request face coverings from the employer at no cost to the employee and can wear them at work regardless of vaccination status, without fear of retaliation.

- That respirators such as N95s are more effective at preventing COVID-19, an airborne disease.
- The employer's policies for providing respirators, and the right of employees who are not fully vaccinated to request a respirator for voluntary use, without fear of retaliation and at no cost to employees.
- When respirators are provided for voluntary use, how to properly wear them and perform a seal check, and the fact that facial hair interferes with a seal.
- The importance of frequent hand washing for at least 20 seconds and use of hand sanitizer when handwashing facilities are not available.
- The symptoms of COVID-19 and the importance of not coming to work and of getting tested if an employee has symptoms.
- Information about the employer's COVID-19 policies; how to access COVID-19 testing and vaccination; and the fact that vaccination is effective at preventing COVID-19, protecting against both transmission and serious illness or death.

Temporary or contract workers at MTS facilities are also trained in prevention policies and have necessary PPE. These responsibilities are discussed ahead of time with the contractor or organization supplying contract workers.

5.2 EXTERNAL TRAINING & COMMUNICATIONS

MTS created the Clean Ride Campaign to inform and educate the public on new requirements and prevention measures when using the transit system. MTS uses the following media to communicate the Clean Ride Campaign externally:

- Website
- Digital ads
- Social media
- Local radio and television
- Flyers and ad cards inside vehicles

Messaging topics to inform and educate the public includes but is not limited to:

- Changes in policies
- Precautionary measures the agency is taking.
- Do not ride if you have any indication that you might be ill or have been exposed to an infectious disease; if riding transit is your only way to get help, wear a mask, cough into your elbow, and minimize touching surfaces with your hands.
- Use public transit for essential trips only.
- Wear a cloth mask or facial covering.
- Socially distance from other customers when practical.

- Limit interactions with employees and respect their need to distance from passengers.
- If the vehicle is full, consider taking the next vehicle.
- Encourage passengers to carry alcohol-based hand sanitizer and/or alcohol-based wipes for disinfection of frequently touched surfaces
- Use of contactless fare
- Communicate boarding considerations such as “rear door boarding” on buses

6 REPORTING PROCEDURES

All employees are responsible for promptly reporting to management when they are sick, experiencing flu-like symptoms, or have had a close contact to someone who has tested positive for COVID-19 or other infectious virus. Employees can report symptoms, possible close contacts and hazards without fear of reprisal. Human Resources will provide information regarding COVID-19-related benefits to which the employee may be entitled under applicable federal, state, or local laws. This includes any benefits available under legally mandated sick and vaccination leave, if applicable, workers' compensation law, local governmental requirements, the employer's own leave policies, leave guaranteed by contract, etc.

7 CONTACT TRACING

Following notice of a sick individual, management will conduct an interview(s) with the affected person(s) to determine if there are additional close contacts within the workplace. “Close contact” means being within six feet of a COVID-19 case for a cumulative total of 15 minutes or greater in any 24-hour period within or overlapping with the infectious period, regardless of the use of face coverings, unless close contact is defined by regulation or order of the CDPH. If so, the CDPH definition shall apply. If additional employees are determined to have potentially been exposed or had close contact, MTS will notify employees in writing as soon as possible and no later than within one business day. MTS may require employees who have had such an exposure, seek medical treatment and/or testing. Testing will be conducted at no cost to the employee and conducted during normal working hours (when possible). MTS will require employees and contractors to adhere to applicable isolation and quarantine requirements mandated by Federal, State, or local health agencies. Confidentiality will be maintained and the identity of those affected will not be disclosed to other employees in accordance with HIPPA regulations. Following the notification of employees, Management will investigate the exposure and evaluate workplace conditions to ensure potential hazards are properly mitigated.

8 RETURN TO WORK PROCEDURES FOR CLOSE CONTACT AND POSITIVE TEST

The following return to work criteria shall apply to COVID-19 cases and close contact exposures. Contact MTS Human Resources for any questions related to return to work procedures.

8.1 CLOSE CONTACT FULLY-VACCINATED EMPLOYEES

Employees who are fully vaccinated and have received a booster dose or are vaccinated and not yet eligible for a booster shot, may continue to work following exposure if they are not experiencing symptoms. It is recommended, but not required, that the exposed employee test five days after the most-recent exposure. Following the most recent exposure, the employee must wear a well-fitting N-95 mask or other appropriate face covering and maintain six feet of distance from other at the workplace for fourteen days.

8.2 CLOSE CONTACT UNVACCINATED EMPLOYEES

Unvaccinated employees (including those who have tested positive for COVID-19 within the last 90 days) who have not completed their vaccine series and/or are booster eligible but have not received a booster shot, must quarantine for five days following their most-recent exposure. On the fifth day of quarantine, they should take a COVID-19 rapid test, and may return to work if the results are negative and they have no symptoms. The employee must wear a well-fitting N-95 mask or other appropriate face covering and maintain a six feet distance from others at the workplace for fourteen days.

This applies regardless of whether an employee has previously been excluded or other precautions were taken in response to an employee's close contact or membership in an exposed group. If an order to isolate, quarantine, or exclude an employee is issued by a local or state health official, the employee shall not return to work until the period of isolation or quarantine is completed or the order is lifted.

8.3 EMPLOYEES WHO HAVE TESTED POSITIVE

Employees who have tested positive may return to work if they take and pass a COVID-19 test with the specimen collected five or more days after the initial positive test **and** their symptoms are resolving **and** no fever is present.

If the employee returns to work, they must wear a well-fitting N-95 mask, or other appropriate face covering for a minimum of ten days after the initial positive test.

Employees who continue to test positive, or unable to test between days five and ten, may return to work after day ten if no fever is present and symptoms are resolving.

8.4 COVID-19 PROCEDURE UPDATES JANUARY 26, 2024

Metropolitan Transit System

Memorandum

DATE: January 26, 2024

TO: All Employees

FROM: Brendan R. Shannon, Director of Human Resources

SUBJECT: COVID-19 Procedure Updates

Over the last several years, MTS's response to COVID-19 has adapted as regulatory guidance and best practices have evolved. Recently, the California Department of Public Health issued a Public Health Order and updated its COVID-19 isolation and testing guidance. In accordance with these changes, MTS's COVID-19 isolation and exclusion procedures will be revised as follows:

- **Employees are no longer required to isolate for five (5) days**. Instead, symptomatic COVID-19 cases should isolate for a minimum of 24 hours from symptom onset.
- **Employees with symptoms who test positive for COVID-19 may return to work after 24 hours have passed with no fever, without the use of fever-reducing medications, so long as their symptoms are mild and improving.**
- **Employees who test positive for COVID-19 but do not have symptoms do not need to isolate**. If symptoms develop, the above criteria will apply.

Masking:

Masking guidance has not changed. While indoors, all individuals with confirmed COVID-19 cases must wear a well-fitted mask for ten (10) days following symptom onset, or, for asymptomatic cases, ten days following a COVID-19 positive test. Employees may remove their mask sooner than 10 days if they have two sequential negative tests at least one day apart. It is recommended that employees who have been in close contact with an infected person wear a mask for ten (10) days from the date of their most recent exposure. If symptoms develop, the isolation policy detailed above will apply. MTS will continue to make N-95 masks available to all employees and all employees are allowed and encouraged to wear masks or facial coverings even when not required by policy. Each department or "potentially exposed group" will continue to send memos to employees informing them of possible or known exposures in the workplace.

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San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for nine cities.



Testing:

Unless there is an outbreak, the California Department of Public Health no longer recommends testing for all close contacts. Testing is now recommended only for those with new COVID-19 symptoms, and close contacts who are at higher risk of severe disease or who have contact with people who are at higher risk of severe disease. MTS maintains a supply of rapid COVID-19 tests in each of the Agency's storerooms and will make rapid tests available to employees as required by Cal-OSHA regulations (e.g., if an outbreak is declared at an MTS facility). Contact your department head if you would like to request a test. Employees are encouraged to keep a supply of rapid COVID-19 tests in their homes. All health insurance offered through MTS provides free rapid COVID-19 tests, and/or reimburses participants for rapid tests they purchase. Members can call the customer service number on the back of your insurance card for further details.

Please contact Julie Seely, Human Resources Specialist, or me if you have any questions regarding our updated COVID-19 procedure.

cc: All Agency Bulletin Boards
COVID-19 Web Pages
Text to All Employees

COVID-19 Procedure Updates – 1/26/24
Page **2** of **2**

9 RESPONDING TO VEHICLE AND FACILITY EXPOSURES

For all vehicle and facility considerations below, cleaning and disinfection shall be done using appropriate disinfectants approved by the EPA for effectiveness against the infectious disease. For example, EPA's "List N" identifies appropriate disinfectants for use against SARS-CoV-2. PPE, and other instructions required by the manufacturer of the disinfectant shall also be implemented.

9.1 VEHICLE CONSIDERATIONS

The following protocol is for cleaning and disinfecting a vehicle after a person with a virus or infectious disease was known to be in the space:

- Use appropriate lockout procedures to ensure nobody occupies/uses the vehicle while quarantined, such as placing caution/warning signs on or inside the vehicle.
- Park the vehicle in a secured designated area.
- Leave the engine running with HVAC turned on at maximum fan speed.
- Open windows and vehicle doors, if possible.
- Personnel wearing appropriate PPE (mask, gloves, etc.) can enter the vehicle for cleaning/disinfection after a minimum of 30 minutes of having the doors and/or windows open with the HVAC fan running.

9.2 FACILITY AND BUILDING CONSIDERATIONS

The following protocol is for cleaning and disinfecting areas of a facility/building after a person with a virus or infectious disease was known to be in the space:

- Use appropriate lockout procedures to ensure nobody occupies/uses the space while quarantined, such as placing caution/warning signs in the area.
- Consider factors such as the size of the room and the ventilation system design (including flowrate [air changes per hour] and location of supply and exhaust vents) when deciding how long to close off rooms or areas before beginning disinfection.
- Open windows and doors to outside areas if practicable.
- Once an appropriate amount of time has passed based on current guidance/regulations from the CDC, health department, etc., cleaning personnel wearing appropriate PPE (mask, gloves, etc.) can enter to disinfect surfaces.

10 CONTINUITY OF OPERATIONS AND RESTORING MASS TRANSIT SERVICE

10.1 TRACKING EXPENSES

MTS manages financial forecasts, inventory management and PPE stock levels using SAP. Special charge codes should be set up in the accounting module to track infectious disease-related operating and capital expenses, for:

- Reimbursement under federal grant funding such as the CARES Act;
- Documenting where a waiver of FTA regulatory requirements may be required to ensure reimbursement of expended funds; or
- Documenting damages related to infectious disease outbreaks such as COVID-19, that may be eligible if future FEMA grant opportunities become available.

10.2 LONG-TERM FINANCIAL CONSIDERATIONS

MTS will adapt its financial forecasts based on the availability of emergency funding streams such as the federal CARES Act funding for the COVID-19 pandemic. Typically, MTS maintains a healthy 12.5% reserve balance of its operating budget with the intention of bridging any financial gap during periods of unbalanced budgets, until such time as the agency is again financially sustainable.

If the agency is impacted by any infectious disease outbreak, pandemic, financial crisis or other interruption in operation, MTS has this contingency to provide continuity of operations whilst developing strategies to bring recurring revenues in alignment with recurring expenses. Once a recurring revenue stream can be improved or recurring expenses are reduced, reserves will then be replenished back up to 12.5% to maintain long term sustainable operations.

10.3 SUPPLY CHAIN RESILIENCY

The Storeroom Operations department works collaboratively to identify all PPE supplies, cleaning products, and disinfectants for the agency, to provide adequate supplies to employees and then establish sustainable inventory levels. Dedicated staff reviews all PPE materials required twice per week with the intent to ensure PPE materials are in adequate supply to prevent inventory falling below a level where they are unavailable to employees. MTS forecasts all PPE usage against the existing inventory, consumption

projections and lead time forecasts, and develops strategies for replenishment of these materials to ensure adequate supplies.

The supply chain for PPE is anticipated to be strained when there is a mass need for these types of supplies during an infectious disease outbreak. The PPE inventory at MTS will be maintained at significantly higher levels than previous to the COVID-19 pandemic, in anticipation of future supply chain breaks which would impact work tasks that rely on specific PPE.

10.4 DRIVER SHORTAGE

When Bus operators are not available to cover scheduled service due to strike, sick-out, major incident, or other driver shortage. Follow these steps to cover/cancel service:

1. Use SDTC Staff
    a. Use Voluntary Day Off operators
        i. Use all operators with Will Works
        ii. Use the beggar's list to call in day-off operators without Will Works
    b. Use Mandatory Call Back clause in union contract where practicable
    c. Once all union staff has been assigned/refused work, fill in with qualified SDTC supervisors and management
        i. Ensure with Safety Manager that all supervisors and managers are in the DMV Pull Notice program and that all certifications are current (health certificate, VTT, and license)
2. Use contracted operations staff
    a. Work with the Manager of South Bay and East County operations and the Manager of Paratransit and Minibus to find driver/supervisor availability, if any, to cover SDTC-operated routes.
        i. Ensure with each contractor that all employees covering service are in the DMV Pull Notice program and that all certifications are current (health certificate, VTT, and license)
3. Cancel service
    a. Review routes with peak trippers and cancel trippers
    b. Cancel short lines of routes where the full line is served by some blocks
    c. Cancel some blocks on routes with the most blocks, keeping a minimum level of service
    d. Cancel limited stop routes which have local routes covering all stops
    e. Cancel entire routes based on lowest average daily ridership to highest average daily ridership

When availability of bus operators increases, return services back to normal operation in reverse order.

11 RECORDKEEPING

Recordkeeping must be kept confidential in accordance with HIPAA rules and regulations unless disclosure is required or permitted by law. Records will be maintained by the Human Resources Department. MTS will report information about COVID-19 and other applicable health related cases and outbreaks at the workplace to the local health department whenever required by law. MTS will provide any related information requested by the local health department. MTS will report all information to the local health department as required by Labor Code section 6409.6.

12 PLAN REVIEW

This plan should be reviewed annually and updated when necessary.

Version No.	Issue Date	Reviewer Name and Title
1	March 2021	Natalie Osborn, EHS Specialist
2	June 2022	Jared Garcia, Manager of Safety
3	January 2024	Jared Garcia, Manager of Safety
4	January 2025	Jared Garcia, Manager of Safety

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Metropolitan Transit System

Rail Safety Plan

San Diego Trolley, Inc.

(Public Transportation Agency Plan pursuant to 49 CFR 673)



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1.0 SAFETY MANAGEMENT POLICY

POLICY STATEMENT

The San Diego Metropolitan Transit System (MTS) has established this Safety Management System Policy Statement to emphasize its overall commitment to the safety of its passengers, operators, staff, and the general public. This Safety Management System Policy Statement provides direction for MTS's safety program, which applies to every facet of MTS operation.

The management of safety is MTS's highest priority. MTS is committed to safety throughout the entire organization, from the Board of Directors to the frontline employees. MTS will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources to achieve the highest level of safety performance and meeting established standards. MTS is committed to developing, implementing, maintaining, and constantly improving its processes.

As evidence of MTS's commitment to safety, every MTS policy shall be guided by, and every employee shall perform their duties in furtherance of the following safety goals and objectives:

1. Supporting safety through the provision of appropriate resources that fosters a safety culture.

2. Integrating the management of safety among the primary responsibilities of all managers and employees.

3. Clearly defining managers' and employees' responsibilities in relation to the performance of MTS's safety management system.

4. Conducting hazard identification and evaluating safety risks, which includes an employee safety reporting program, in order to eliminate or mitigate safety risks.

5. Ensuring that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures.

6. Complying with, and wherever possible exceeding, legislative and regulatory requirements and standards.

7. Ensuring that sufficiently skilled and trained employees are available to implement safety management processes.

8. Ensuring that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are assigned only tasks for which they are adequately trained.

9. Establishing and measuring MTS's safety performance against realistic and data-driven safety performance indicators and safety performance targets.

10. Continually improving MTS's safety performance by ensuring appropriate safety management action is taken and is effective; and

11. Ensuring externally supplied systems and services that support MTS's operations are delivered to meet its safety performance standards.

12. A Joint Safety Committee consists of an equal number of frontline transit workers and management representatives from key transit service functions, such as operations and maintenance. This committee will approve updates and changes to the Public Transportation Agency Safety Plan (PTASP) and address safety risk mitigations identified and recommended by the committee.

_____ Date: _____
Chief Executive Officer - MTS

_____ Date: _____
Chairperson of MTS Board of Directors

_____ Date: _____
Chief Operations Officer - MTS Rail

+

1.1 AUTHORITY, PURPOSE, GOALS AND OBJECTIVES

MTS is a California transit district that operates multiple modes of transit: light rail transit (Rail) and fixed route/ADA complementary paratransit bus operations (Transit). The agency has three major divisions: Administration, Rail[1] and Transit. The MTS Chief Executive Officer (CEO) is responsible for managing all aspects of the agency, with direction from the Board of Directors. Because of the distinct differences in operations, MTS has prepared a Safety Plan for each individual division: Rail and Transit. This is MTS's Rail Agency Safety Plan.

San Diego Trolley, Inc. (SDTI) is a wholly owned subsidiary of San Diego Metropolitan Transit System (MTS), with administrative offices located at 1255 Imperial Avenue, Suite 1000, San Diego California 92101. The SDTI System Safety Manager, reporting directly to the Chief Operating Officer-Rail (COO-Rail) and the CEO as necessary, is empowered to develop and administer a comprehensive Public Transportation Agency Safety Plan (ASP) for rail transportation within San Diego Trolley, Inc. (SDTI). It is the duty of all employees to cooperate with, and provide information to, the System Safety Manager with respect to safety-related matters. All employees and any outside contractor agencies or organizations working on SDTI property must fully comply with the orders set forth in the ASP. The program applies to:

- Design, construction, inspection, testing, start-up, operation, and maintenance activities that affect the SDTI system
- Fixed facilities, vehicles, and system equipment

The MTS Board of Directors has designated the CEO as the Accountable Executive for the MTS Agency. The CEO designated the COO-Rail as the Accountable Executive for Rail. The Accountable Executive for Rail is responsible for the following:

- Approving the ASP and any updates
- Implementing and maintaining the Safety Management System (SMS)
- Making decisions over the human and capital resources needed to develop and maintain the SDTI's Transit Asset Management Plan
- Having the ability to make budgetary, operational and capital program decisions to address safety and asset management concerns
- Relying on outputs of SMS processes and activities to ensure that SDTI's strategic planning is informed and transparent with regard to the role of safety in decision-making
- Ensuring that action is taken to address substandard performance in the agency's SMS

The Accountable Executive the MTS Agency (CEO) has designated the System Safety Manager as the Chief Safety Officer (CSO). The System Safety Manager is an adequately trained individual with responsibility for safety who reports directly to the Accountable Executive (COO-Rail). The System Safety Manager is responsible for day-

[1] Historically, the Rail division was run by a separate entity, San Diego Trolley, Inc. (SDTI). SDTI is a wholly-owned subsidiary of MTS. While some operations continue under the SDTI entity (e.g. legacy property ownership or agreements), in practical terms it is operated as the Rail division of MTS.

to-day implementation and operation of the agency's SMS and does not serve in other operational or maintenance capacities.

SDTI supports the development and growth of its internal SMS processes. To this end, SDTI conducted a gap analysis of the agency's SMS activities (April 2017). This analysis has been instrumental in implementing SMS throughout SDTI.
This ASP has been developed in accordance with Safety Management System principles, as defined by the FTA. It has been prepared in accordance with guidelines established by the American Public Transportation Association Rail Transit Safety Management System Guide (2016), the Federal Transit Administration (FTA) Moving Ahead for Progress in the 21st Century Act (2012), the FTA requirements for Agency Safety Plans under 49 Code of Federal Regulations (CFR) Part 673, Bipartisan Infrastructure Law (2021) and the California Public Utilities Commission (CPUC) General Order 164-F (2018). The CPUC is designated as the State Safety Oversight Agency (SSOA) and must review and approve the MTS Agency Safety Plan. The CPUC's SSOA Program was approved and certified by the FTA in accordance with the requirements of Federal Public Transportation Safety Law 49 U.S.C 5329 (e) and FTA's SSO regulation 49 CFR Part 674 on October 23, 2018.

This plan has also been prepared in a manner prescribed by the State of California Occupational Safety and Health Administration (Cal/OSHA) and mandated by California Labor Code (Section 6401.7).

The System Safety Manager administers the ASP on a day-to-day basis with specific tasks monitored by appropriate management personnel. All SDTI, MTS, and SANDAG project-implementation staffs are, as applicable, responsible for undertaking the relevant safety efforts described in this plan.

1.1.1 Purpose and Scope

The ASP provides a formal and documented plan wherein safety goals, objectives, responsibilities, and procedures are established and monitored to ensure compliance with state and federal regulatory requirements, as well as to ensure the agency observes industry best practices in all areas of the operation.

The ASP encompasses all rail system elements of SDTI, including employees, contractors, and relationships with external agencies. All departments involved in safety tasks should have a clear definition of their individual responsibilities relative to the SMS. The relationship of the safety unit to operations should be clearly defined.

SDTI has established safety as a core value, where top management are tasked with overseeing the establishment of organizational factors necessary to achieve improved safety and to lead others in the effective implementation of SMS principles within SDTI.

The FTA's definition of SMS is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices and policies for managing risks and hazards.

The purpose of the SDTI SMS is to provide a comprehensive, collaborative approach that brings management and labor together to build a safety program. SMS builds upon SDTI's existing safety programs to provide the means to accomplish the following:

- Control safety risk better
- Detect and correct safety problems earlier
- Share and analyze safety data more effectively
- Measure safety performance more carefully

There are four components to SDTI's Safety Management System:

1. Safety Management Policy
2. Safety Risk Management
3. Safety Assurance
4. Safety Promotion

1.1.2 Goals

The overall goal of the SDTI Safety Management System is to experience continuous improvement in safety performance. To accomplish this, SDTI will identify, eliminate, minimize and/or control safety hazards and their attendant operational risks by establishing control requirements, lines of authority, and levels of responsibility and methods of documentation for the organization. Safety is SDTI's top priority in alignment with SDTI's mission. Top management's role is to ensure that these safety goals and safety policies are implemented within SDTI.

It is the goal of SDTI's ASP to ensure that all employees, patrons, and the public are provided the safest environment possible while on the SDTI system and within its facilities. Additionally, SDTI through the ASP:

- promotes the philosophy of safety to all employees, patrons, and contract personnel
- provides a method of implementing goals and objectives relating to safety
- provides a method for recommending appropriate corrective action to mitigate potential hazards and maintain oversight to ensure safety remains at the optimum level
- promotes and maintains safety and training programs mandated by federal and state regulatory agencies and required to implement the SMS
- maximizes the safety of future operations by affecting the design and procurement processes

1.1.3 Objectives

The ASP objectives provide a mechanism to ensure the ASP goals are attainable, provide a method of measuring the safety program effectiveness and support the goal of continuous improvement in safety performance. The ASP objectives are:

1. Safety shall be the first consideration during SDTI involvement in system design, construction, and operation
2. Safety hazards are identified and either eliminated, mitigated or controlled throughout the life cycle of the system
3. Verify that all aspects of the operation adhere to SDTI safety policies and procedures, and state and federal regulatory requirements
4. Meet or exceed industry safety requirements in rail operations and maintenance
5. Meet or exceed SDTI performance targets for safety and state of good repair
6. Investigate all major incidents/Safety Event by identifying and documenting primary causes, contributing factors, and implementing corrective action to prevent a recurrence, and verifying implementation through configuration management procedures
7. Evaluate the implications of all proposed modifications prior to implementation as they relate to safety
8. Maintain association with federal, state, and local agencies to obtain safety-related agreement permits, and approvals where applicable

1.1.4 Policies

The following policies are set forth to attain the ASP objectives:

- All phases of construction activity under SDTI's influence require the highest safety standards and practices for major public works projects. The public shall not be exposed to extraordinary safety hazards.
- Operational systems shall meet all safety-related codes and regulations issued by appropriate federal, state, and local authorities.
- Health and safety provisions for SDTI passengers and personnel shall be equal to, or exceed those required by federal, state, and local regulatory authorities.
- Goals and objectives shall be considered throughout all phases of the operation and maintenance of the SDTI system.
- Annual internal safety audits shall be conducted to ensure compliance with the ASP. Recommendations shall be implemented following configuration management procedures.
- Department Directors and Managers shall ensure distribution of the ASP to all personnel directly responsible for meeting its goals, carrying out its objectives, and enforcing its policies.

1.2 SAFETY ACCOUNTABILITIES AND RESPONSIBILITIES

1.2.1 System Description

1.2.1.1 History

The Metropolitan Transit Development Board (MTDB), created by state law (Mills, SB 101) in 1975, was empowered to design, engineer, and build fixed-guideway facilities within San Diego County. MTDB created the SDTI in August

1980 as a wholly owned subsidiary responsible for operation and maintenance of the LRT system.

Effective January 1, 2003, SB 1703, the San Diego Regional Transportation Consolidation Act, directed consolidation of two main functions among SANDAG, MTDB (San Diego Metropolitan Transit System) and the North County Transit District (NCTD): (1) planning and programming, and (2) engineering and construction. Planning, design, and construction of the LRT system is coordinated with SDTI management and in compliance with the MTS LRT design criteria. SANDAG engineering staff administers regional construction contracts for, and under the direction of, the MTS Board and executive staff. MTS contractors and MTS staff administers local and minor improvement projects.

1.2.1.2 Scope of Services

The SDTI system spans 65 track miles in length and is serviced by the Blue Line, the Orange Line, the Green Line, the Silver Line and Copper Line.

BLUE LINE
Revenue service for the Blue Line began on July 26, 1981. The Mid-Coast extension of the Blue Line, which spans 10.9 miles and includes 9 stations, opened on November 21, 2021. This extension connects the Old Town Transit Center to La Jolla Village, the University of California San Diego campus, and Westfield UTC Mall. The Blue Line extends a total of 30 miles, starting from the San Ysidro station at the International Border to the University Town Center. Of this total, 1.4 miles (from C Street & India to 12th & Imperial) operate on city streets, while 14 miles (from 12th & Imperial to San Ysidro) run on a semi-exclusive right-of-way. The Blue Line comprises 32 stations, sharing 6 stations with the Orange and Silver Lines downtown and five with the Green Line. The Blue Line operates across four jurisdictions: San Diego, National City, Chula Vista, and an unincorporated area of San Diego County.

ORANGE LINE
Revenue service on the first phase of the Orange Line, which runs from Imperial Transfer to Euclid Station, began on March 23, 1986. The line was extended to El Cajon in 1989 and to Santee in 1995. In April 2018, both terminals of the Orange Line were changed. Currently, the Orange Line extends 17.7 miles from the Courthouse Station in downtown San Diego to Arnele Avenue Station in El Cajon. Out of the total 17.7 miles, 3.1 miles (from C Street & India to Commercial & 32nd) are operated on city streets, while 14.6 miles run on a semi-exclusive right-of-way from 32nd and Commercial to Arnele Avenue. The Orange Line consists of 19 stations, sharing five with the Blue and Silver Lines downtown and five with the Green Line (one in downtown and three in East County). It operates through four jurisdictions: the cities of San Diego, Lemon Grove, La Mesa, and El Cajon.

GREEN LINE
Revenue service began on the Green Line on July 10, 2005. The Green Line extends 19 miles from the 12th & Imperial along the bayside to Old Town Transit Center through Mission Valley to Ela Cajon Transit Center, including a 0.7-mile subway tunnel under San Diego State University (SDSU). The Green Line

comprises 24 stations, sharing three with the Orange Line in East County, five with the Blue Line, and four with the Silver Line downtown. The Green Line operates through four jurisdictions: San Diego, La Mesa, and El Cajon.

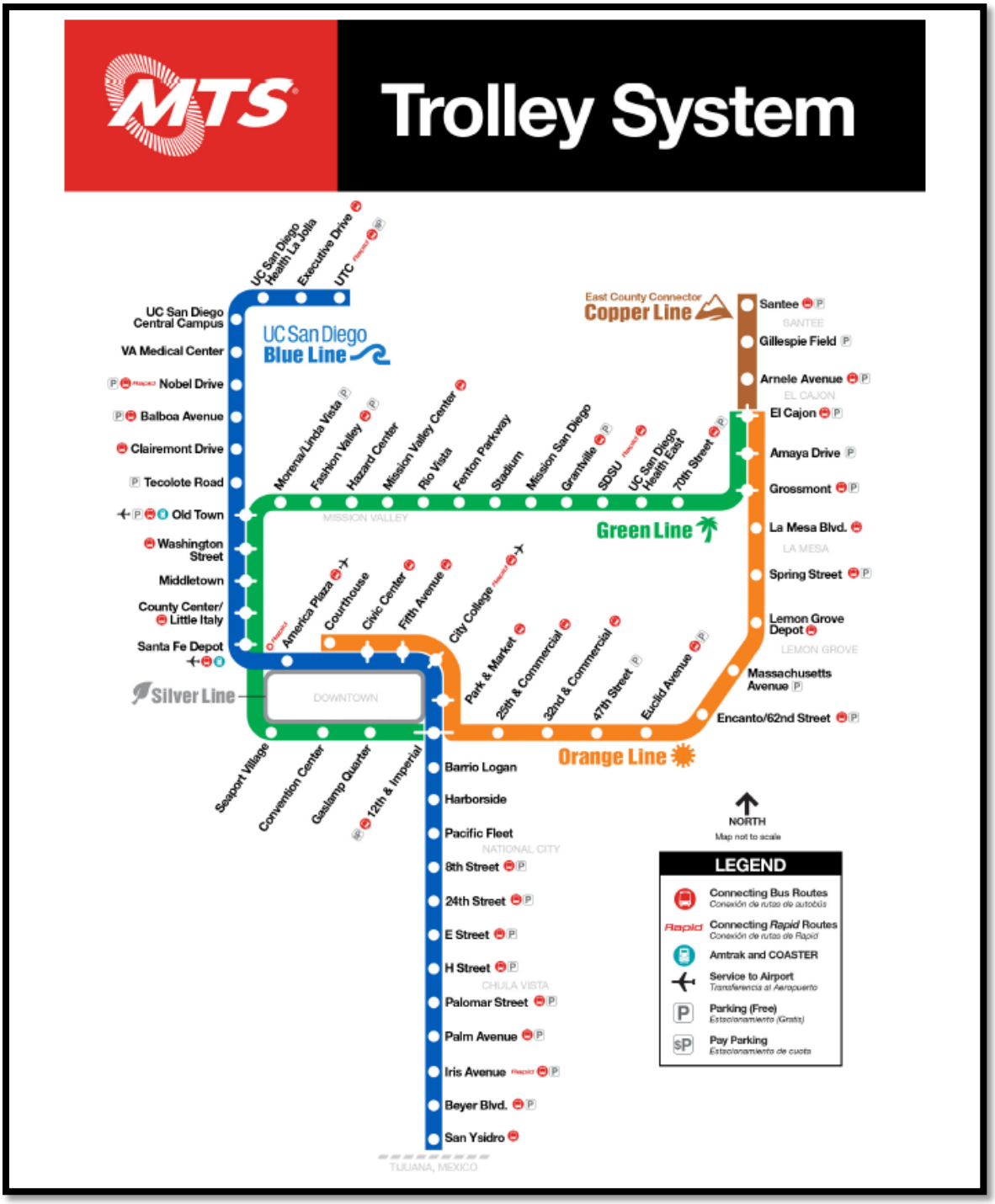


Figure 1: SDTI System Map

Copper Line

Revenue service on the Copper Line began on August 29, 2024. This line spans 3.58 miles and features two tracks between El Cajon and Gillespie Field, along with one track connecting Gillespie Field and Santee. The Copper Line includes four stations, one shared with the Green Line and the Orange Line. It operates across two jurisdictions: El Cajon and Santee.

SILVER LINE

Revenue service on the Silver Line began in August 2011. The Silver Line is a 2.7-mile loop in downtown San Diego along Harbor Drive, C Street, and Park Blvd, completing its loop at 12th & Imperial, and is hosted to restored 1940's era Presidential Conference Committee (PCC) streetcars. The Silver Line is comprised of nine stations, sharing six with both the Blue and Orange Lines, and three with the Green Line.



Figure 2: Silver Line Map

1.2.1.3 Rail Fixed Guideway

Trains operate on-site in segments of the system that do not have automatic block signals and are primarily in non-exclusive right-of-way. Maximum speeds vary between 25mph (in the downtown area) to 55mph. Trains are governed by automatic block signaling (ABS) on semi exclusive right-of-way. The ABS system consists of a series of consecutive blocks of defined track limits equipped with interlocked wayside signal circuits that monitor the status and control movements of key elements of the signaling system and ensure the safe movement of light rail and freight trains.

1.2.1.4 Traction Power Substations

SDTI trains are electrically propelled using high-voltage DC power, which is fed via an overhead catenary system (OCS) from traction power substations located along the right-of-way. Isolated OCS sections can be de-energized by opening appropriate circuit breakers in the substations or via pole-mounted sectionalizing switches. SDTI utilizes seventy (70) substation locations throughout the system. These substations are equipped with a rotating blue trouble light that indicates a malfunction associated with the substation. When observed, a Train Operator reports the trouble light to the Operations Control Center, Line Supervisor, or

maintenance crew. Only trained and qualified employees may remove power in emergencies.

1.2.1.5 Overhead Contact System

A power distribution system known as an Overhead Contact System (OCS) provides electrical power to the LRVs. The minimum contact wire height above the top of the rail in areas of light rail vehicle usage is nineteen feet, except in exclusive and semi exclusive right-of-way. The CPUC granted an exemption to General Order 95 (Overhead Electric Line Construction) and allowed the minimum contact wire height above the top of the joint-usage track rail reduced to 22 feet. The contact wire profile is as low as 14 feet Gillespie Field and Lindbergh Field Airport glide paths; Grape, Hawthorn, and 70th Streets; Morena Boulevard; and San Diego State University tunnels). Segments of track throughout the downtown area (C Street, Park Boulevard, Commercial Street, Harbor Drive and in the Yard) have fixed-termination OCS where operating speeds are lower. In all other areas of the right-of-way, a constant-tension catenary system allows for higher operating speeds.

1.2.1.6 Stations

SDTI has sixty-two barrier-free passenger stations that provide circulation between street, bus/auto connections, and platform/track areas. There are fifty-one stations outside the "Centre City" zone shown on MTS System map. Many stations outside the Centre City zone have adjacent parking, pick-up/drop-off zones, and bus pull-in areas to accommodate patrons. All stations are equipped with a public address system to notify patrons of service changes. Key stations are equipped with changeable message signs that display the same information, which broadcasts over the public address system.

1.2.1.7 Light Rail Vehicles

The SDTI fleet currently consists of Light Rail Vehicles (LRVs) manufactured by the Siemens Corporation and Presidential Conference Committee cars (PCC) manufactured by the St. Louis Car Company (reference Figure 3: SDTI Fleet). LRVs have a dual articulated center and operating cabs on each end. There is no access between LRVs when coupled. Safety features include a fire extinguisher, a mobile radio equipped with a silent alarm button mounted in each operating cab, a passenger emergency intercom system, a fail-safe system to prevent movement of the train in the event doors are not fully closed, and an onboard CCTV system. A Train Operator (T/O), who performs all operational functions, controls trains manually.

Figure 3: SDTI Fleet

Model:	U2	SD-7	SD-8	SD-9	SD-10	PCC
Fleet Size:	1	11	65	45	47	2
Length:	80 feet	90 feet	80 feet	80 feet	80 feet	45 feet
Weight:	40 tons	48 tons	40 tons	40 tons	40 tons	25 tons
Max Speed:	50 mph	55 mph	55 mph	55 mph	55 mph	25 mph

1.3 ORGANIZATIONAL STRUCTURE

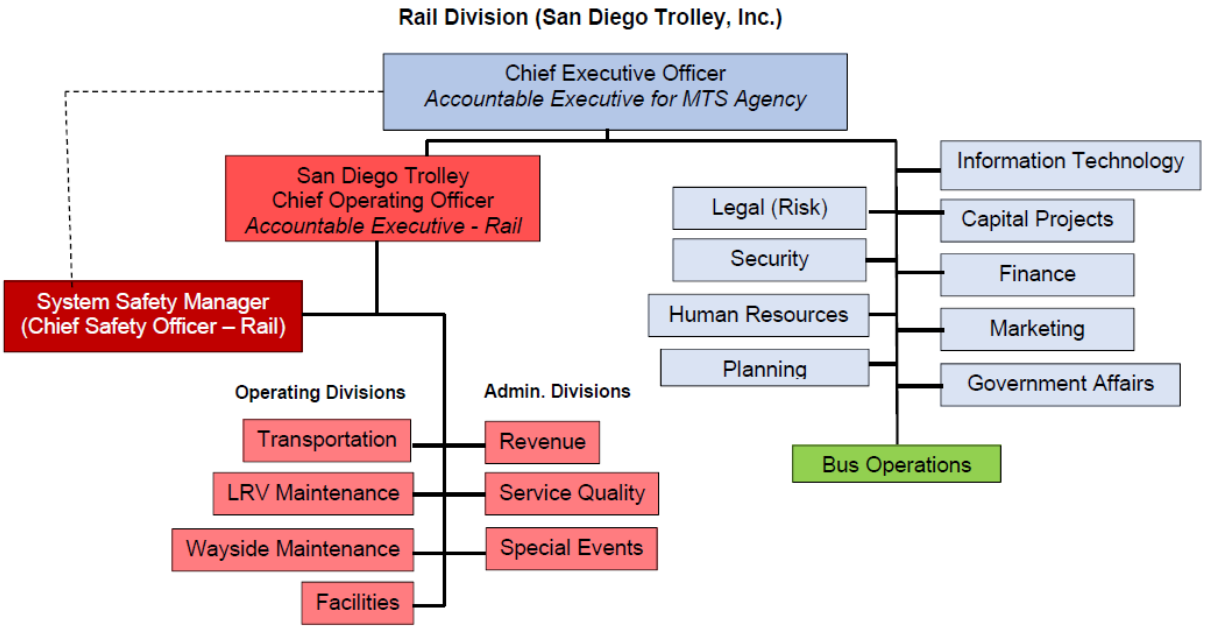


Figure 4: Organization Chart for MTS Rail Transit Operations

MTS has three (3) major divisions: Administration, Rail and Transit. The MTS CEO is responsible for managing all aspects of the agency, with direction from the Board of Directors. The CEO has designated the COO-Rail to manage Rail operations.

The COO-Rail reports to the MTS CEO. For the Rail division, administrative and operational functions consist of departments directed by the COO-Rail. The administrative functions are responsible for the daily management of system-support requirements provided by the Facilities, Revenue (fare vending machine maintenance and collection/processing), Engineering, Purchasing, Stores, Claims Administration, and Accounting Departments. The operational functions consist of the Transportation, Light Rail Vehicle (LRV) Maintenance, and Wayside Departments. The Superintendents of these sub departments are responsible for establishing and implementing the ASP safety requirements.

1.3.1 Board of Directors

The Board of Directors is responsible for setting policy for SDTI. They are required to approve the ASP initial document and all updates. The Board of Directors receives periodic safety briefings from SDTI.

1.3.2 Accountable Executive

The Accountable Executive of the MTS Agency is the CEO who has ultimate responsibility for safety within the MTS organization. The MTS CEO designated the COO of Rail (SDTI) as the Accountable Executive for Rail.

The Accountable Executive- Rail is responsible for establishing and implementing the Safety Management System for Rail operations. The COO-Rail directs and provides support for all rail operations functions and is responsible for decisions regarding safety risks. The COO-Rail will elevate relevant safety discussions to the CEO's attention. The COO-Rail will support and encourage an open dialogue between the System Safety Manager (CSO) and the CEO.

1.3.3 System Safety Manager/Chief Safety Officer (CSO)

The System Safety Manager (CSO) is responsible for managing the SMS on a day-to-day basis. The System Safety Manager oversees safety within SDTI and provides technical support to the CEO and COO-Rail, and to the Board of Directors regarding safety. The System Safety Manager is responsible for the chairing safety committees; providing safety input to operations, procedures, rules and training; internal audits; /incidents/ Safety Event/near-miss investigations and reporting; safety input for major extensions and rehabilitations of the transit system; and hazard analyses.

The CSO must be adequately trained and is responsible for ensuring compliance with requirements as set forth in 49 CFR 672, which provides minimum training requirements to enhance the proficiency of transit safety oversight professionals. This training shall meet the requirement as outlined in Appendix A to 49 CFR 672 and include the required annual refresher training. The CSO must be enrolled in the 49 CFR Part 672 – Public Transportation Safety Certification Training Program (PTSCTP) and must complete the training within the three (3) year prescribed timeframe.

The CSO reports to the COO- Rail. The CSO works with the COO-Rail to implement the Agency Safety Plan.

The CSO has a dual reporting role with the COO-Rail and the CEO. As necessary to implement the Safety Plan and discuss relevant issues, the CSO has a duty and right to report directly to and consult with the CEO. The CSO will have direct access to the CEO at all times regarding all safety related issues.

1.3.4 Facilities Department

The Director of Rail Facilities reports directly to the COO-Rail. The Facilities Manager is responsible for the maintenance and operation of all fixed facilities and equipment, including all trolley stations, shelters, canopies, signage, equipment, parking lots, landscaping, related right-of-way maintenance and all irrigation systems. Scheduled weekly maintenance includes maintenance of stations, facilities/buildings and grounds, as well as vehicle inspections. Bimonthly maintenance is performed on the LRV car wash and sludge/drain system and stations and facilities maintenance is conducted annually and as needed. In accordance with SMS principles, a supervisor ensures that corrective actions are implemented and closed out in a timely manner and reviews inspection and trouble reports. The Director of Rail Facilities writes specifications, initiates, monitors contract maintenance services, and ensures that all designated facilities are maintained in a safe, operational, and presentable state.

1.3.5 Revenue Department

The Lead Revenue Maintenance Supervisor and the Revenue Operations Manager report directly to the COO of Rail and the Fare Systems Administrator. The Fare Systems Administrator is responsible for overseeing revenue administration, reporting, and management functions. Both the Lead Revenue Maintenance Supervisor and the Revenue Operations Manager are tasked with managing the Ticket Vending Machine (TVM) revenue collection and recovery process. Their responsibilities also include ensuring the security, maintenance, and accuracy of fare collection equipment, as well as revenue accounting, analysis, auditing, and reporting functions. They coordinate armored transport and banking activities in accordance with MTS policies. Additionally, the Fare Systems Administrator implements policies and procedures to guarantee that revenues are handled safely and securely. This role involves researching, analyzing, and monitoring all phases of the fare collection process, along with developing findings and making appropriate recommendations.

1.3.6 Stores Department

The Manager of Inventory Operations reports to the Director of Supply Chain & Operations and is responsible for all MTS warehouses, including departments within SDTI, SDTC (bus operations) and MTS administration.

All warehouse personnel are responsible for the management of functions associated in ensuring the availability, upkeep and distribution of all items stored in each warehouse that include but not limited to maintenance spares, tooling, consumable and commercial items. In addition, the warehouse is also responsible for the management of disposals across inventory and company assets.

Included in the Manager Inventory Operations role is the establishment of strategic direction and tactical delivery for the department. The Manager will work alongside safety and environmental departments to facilitate and ensure a safe and risk-free environment for each employee. In delivering exceptional performance, each warehouse employee will be adequately trained to attain a high level of understanding across the role of a storekeeper and to provide exceptional customer service through the efficient discharge of their duties.

1.3.7 Engineering Department

The Director of Capital Projects reports directly to the CEO and is responsible for the coordination of all engineering and construction activities of the organization. The Director of Capital Projects provides regular updates to the COO-Rail.

1.3.8 Transportation Department

The Director of Rail Transportation reports directly to the COO-Rail. The Director of Rail Transportation is responsible for the operational planning and overall supervision of all employees involved in the transportation discipline of SDTI, including mainline and yard service and the operation of all trains in accordance with the approved timetables. The Director of Rail Transportation is also in close and continuing association with the initial and subsequent installation, testing and

preoperational system check-out of various systems comprising the light rail system and must be sufficiently knowledgeable and experienced to render timely and effective assistance in establishing and coordinating applicable operating and safety procedures. The Director of Rail Transportation is responsible for promulgating operating rules, regulations and related procedures, as well as the enforcement of safety policies and the review of problem areas to determine the need for changes to improve operating and safety procedures. The Director of Rail Transportation ensures that contingency plans are up-to-date and readily available in the event of an emergency, including incidents/ Safety Events and system delays in general. The Director of Rail Transportation ensures that properly trained personnel and appropriate equipment are available to respond on a timely basis to rectify the problem(s) and restore normal operations.

Both SDTI and San Diego & Imperial Valley Railroad (SD&IV) trains operate under the authority of the Operations Control Center (OCC). The OCC is staffed twenty-four hours a day, seven days a week and provides twenty-four-hour emergency response for SDTI employees and local emergency-response agencies. An integrated fire management panel monitors/controls the emergency ventilation system and traction power emergency trip switches in the event of a fire or other emergency within the tunnel or platform areas integrated within the SDSU Station. Ventilation of the tunnels and station platform are also controlled through a computer program in the OCC interfaced with high-powered reversible fans and air dampers throughout the underground structure. A trespasser intrusion system will also activate an alarm at the OCC if a person or other detectible object smaller than an LRV enters a tunnel segment at either the station platform or the portal entrance from either end. The MTS Transit Security emergency contact number is posted on public information signs and passenger timetables for public knowledge.

The primary functions established for the OCC Facility and personnel are:

- Provide for the safety and security of SDTI personnel and passengers
- Maintain system-wide supervisory control by monitoring train operations and facilities that support the system
- Document incidents that result in system delays, injuries, or damages
- Maintain detailed reports on operational status items and reported defects
- Create unusual occurrence reports and various daily statistical summaries for dissemination
- Supervise personnel, direct operations, and maintain established service levels
- Execute corrective actions to optimize service levels and minimize adverse system-wide impact
- Monitor fire management panel and remain conversant with the emergency ventilation operation panel and trespasser intrusion system

The Controller on duty is responsible for all operational activities and must ensure that train movements (mainline and within yard limits) and any work performed on or about SDTI property is conducted in accordance with all safety requirements mandated by the CPUC, the FRA, and SDTI policies and procedures. Controllers also monitor SDSU tunnels via CCTV.

Train movements are controlled through:

- Speed restrictions, slow orders, and advisories printed daily on an Operating Clearance Form
- Verbal train orders communicated over a two-way radio system

All SDTI personnel and contractors working on the property perform their duties in a safe manner in accordance with written instructions and are verified through:

- Verbal two-way radio communications
- Field oversight (Line Supervisors and Employee-in-Charge/Flag person who inform the Controller of personnel adherence and progress)
- Operating clearances

In addition, train movements on signalized track are governed by automatic block signals (ABS). Special operations are conducted on an as-required basis for construction or maintenance needs. Authorization for special operations must receive approval from the Director of Rail Transportation.

1.3.9 Wayside Maintenance Department

The Director of Rail Wayside Maintenance reports directly to the COO-Rail. The Director of Rail Wayside Maintenance coordinates with subordinate staff and other department superintendents and managers to handle elements associated with the administration and maintenance responsibilities of the Wayside Division of the Maintenance Department. The Director of Rail Wayside Maintenance is responsible for directing, planning and scheduling inspections, maintenance and repairs of traction power, signals and switches, crossing gates, guideway structures, pumping stations, lighting and station electrical service and component devices (PA system, message signs, etc.).

The Maintenance-of-Way Department is responsible for the maintenance and repair of wayside equipment, including signals, grade-crossing protection, traction power, switches, track and substructures, as well as SDTI back-up generators. Wayside Department staff includes Shift Supervisors, Track Supervisors, Electro Mechanics, Linemen, Assistant Linemen, and Track Maintenance Personnel.

Shift Supervisor Responsibilities

Shift Supervisors' responsibilities include the following activities:

- Ensure that work site areas have safety and hazardous material inspections performed within required time frame
- Conduct and document scheduled safety meetings held with employees
- Ensure safety inspections and safety maintenance cycles performed on equipment and specialized facilities are appropriately scheduled and documented
- Verify that personal protective equipment (PPE) is available and in good working order

- Ensure that employees under their control follow the established safe-work practices and use the required personal protective equipment
- Confirm that the Hazard Communication Program Plan and MSDS binders are available to all maintenance employees
- Monitor personnel and verify that safety training was conducted, and tasks are performed safely
- Ensure that all affected personnel receive training to ensure the component is used in a safe manner when a new process, procedure, chemical, or piece of equipment is introduced into the workplace
- Assure proper forms are completed prior to the personnel's tour of work begins

1.3.10 Light Rail Vehicle (LRV) Maintenance Department

The Director of LRV Maintenance reports directly to the COO-Rail. The Director of LRV Maintenance establishes, implements, and monitors new or revised policies and guidelines for the LRV Maintenance Department. The Director of LRV Maintenance administers policies and programs, and plans, coordinates, schedules, and implements these into day-to-day activities as they relate to the efficient operation and maintenance of light rail vehicles. The Director of Rail LRV Maintenance ensures that all light rail vehicle maintenance meets regulatory agencies and internal standards, with special consideration given to the safety of patrons and employees. The Director of Rail LRV Maintenance supervises the enforcement of safety policies for all LRV Maintenance work areas.

- Ensure monthly work area safety inspections and weekly hazard material (hazmat) inspections are performed and documented on checklists
- Conduct and document scheduled monthly safety meetings with employees
- Ensure the performance and documentation of safety inspections and safety maintenance cycles of vehicles and equipment meet schedule requirements
- Verify that personal protective equipment (PPE) is available, in good working order, and used in compliance with established safety practices
- Ensure that the Hazard Communication Program Plan and Safety Data Sheets (SDS) are available to all LRV Maintenance employees for review upon request
- Monitor that employees perform assigned task(s) in a safe manner
- Ensure that training on proper use and operation of any new processes, procedures, chemicals, or equipment, including necessary safety precautions, is conducted

The LRV Maintenance Department is responsible for the maintenance, repair, and cleaning of all Light Rail Vehicles. Personnel include LRV Supervisors, Electro Mechanics, Linemen, and Assistant Linemen.

<u>LRV Supervisor Responsibilities</u>

- Ensure monthly work area safety inspections and weekly hazard material (hazmat) inspections are performed and documented on checklists

- Conduct and document scheduled monthly safety meetings with employees
- Ensure the performance and documentation of safety inspections and safety maintenance cycles of vehicles and equipment meet schedule requirements
- Verify that personal protective equipment (PPE) is available, in good working order, and used in compliance with established safety practices
- Ensure that the Hazard Communication Program Plan and Safety Data Sheets (SDS) are available to all LRV maintenance employees for review upon request
- Monitor that employees perform assigned task(s) in a safe manner
- Ensure that training on proper use and operation of any new processes, procedures, chemicals, or equipment, including necessary safety precautions, is conducted

1.3.11 Risk Department

The Manager of Risk and Claims reports directly to the General Counsel. The General Counsel reports directly to the CEO and the MTS Board of Directors as necessary. The Manager of Risk and Claims directs and manages the liability claims and workers' compensation functions of MTS and ensures that all claims and workers' compensation activities are properly processed and reported in accordance with state and federal regulations. The Manager of Risk and Claims manages and tracks claims and incidents, evaluates mitigation and insurance strategies, and facilitates the annual placement of MTS's excess liability, excess workers' compensation property, crime, and fiduciary liability insurance. The Manager of Risk and Claims coordinates activities, policies, and procedures with third-party administrators and insurance brokers on contract and insurance issues.

1.3.12 Transit Enforcement Department

The MTS Chief of Police/Director of Transit Security and Passenger Safety reports directly to the CEO. This department is staffed through contracted services and in-house Code Compliance Inspectors (CCIs). The Transit Enforcement Department conducts ongoing Security Risk Analyses for the system to maintain a secure environment for passengers, employees and facilities through identification of emerging significant security risks and to formulate solutions and mitigations.

1.3.13 Transit Asset Management (TAM) Program Manager

The MTS TAM Program Manager reports directly to the Deputy Chief Financial Officer. The Deputy Chief Financial Officer reports directly to the CFO. The TAM Program Manager is responsible for developing and coordinating new Transit Asset Management policies, data collection and FTA TAM reporting for bus and rail. The TAM Program Manager is also responsible for the agency's Capital Improvement Program and Capital budget.

1.4 INTEGRATION WITH PUBLIC SAFETY AND EMERGENCY MANAGEMENT

The System Safety Manager, in conjunction with representatives from Transit Enforcement and other departments are responsible for coordinating all rail system-wide emergency response planning. Prior to opening new segments of the rail system, training sessions and familiarization exercises are conducted for all emergency-response agencies in the new segment.

SDTI's progressive exercise program has the commitment of internal staff and emergency-response agencies to utilize a building block approach in which training and activities focus on specific capabilities in a cycle of escalating complexity. This program allows the collective community to achieve and maintain competency in executing the transportation and local-emergency response plans. MTS has a Continuity of Operations Plan to ensure that critical functions continue following an emergency.

SDTI's emergency-response policies and procedures are reviewed annually and updated as needed. The System Safety Manager is responsible for coordinating this review and producing updated policies and procedures with input from SDTI staff.

1.4.1 Exercises and Drills

The Safety and Transit Enforcement Departments organize major emergency response drills and exercises that simulate terrorist activities and catastrophic incidents requiring multijurisdictional response. These aid the agency in assessing and validating policies, plans, procedures, training, equipment, assumptions, and interagency agreements. MTS uses the Homeland Security Exercise and Evaluation Program (HSEEP) as it provides a standardized policy, methodology, and terminology for exercise design, development, execution, evaluation, and improvement planning.

Emergency drills are held periodically and are scenario based when identifying locations on the system. Prior to any drill, meetings with external agencies regarding the emergency-management program are held. The FTA provides funding to SDTI to develop and conduct major drills. Typical drills may include mass casualties, fires, derailments, active shooters, or suspicious devices. Drills are designed to exercise competency in emergency situations.

Following a drill, a post-drill debriefing is convened with representatives from all participating agencies to review the performance of the drill and to identify lessons learned. These findings are documented in drill reports or after-action reports and matrices. The post-drill briefing comments are included in a final summary report to management that includes areas needing fire and life-safety improvements and corrective actions. The SDTI Safety and Security Departments track corrective actions to resolution.

1.4.2 Internal Emergency Training

MTS's emergency preparedness program focuses on staff development and training using drills and exercises to assess current practices and procedures. MTS hosts US Department of Transportation (USDOT) Transportation Safety Institute (TSI) and National Transit Institute (NTI) courses and encourages staff participation to the extent possible and appropriate. As necessary, MTS also partners with contractors to facilitate advanced training, exercises, and drills. All emergency-response procedures are found in the Operating Rules and Standard Operating Procedures Manual and in the MTS Emergency Management Plan. These procedures are included in the Transportation Department's Standard Operating Procedures Manual. These documents are distributed to employees as they are updated. The following situations are addressed in the above-referenced documents:

- Emergency occurrences
- Emergency shuttle bus service
- Operation of LRV silent alarm
- Earthquake emergency procedures
- Hazardous materials
- Emergency radio calls
- Emergency call list
- Fire on a train
- Derailment
- Hijacking
- Passenger emergency alarm
- Civil unrest
- Sick person on or near SDTI property
- Collisions and Safety Events
- Emergency removal of power
- Fire on or near track
- Bomb threat
- Criminal incidents
- SDSU fire management panel, emergency ventilation operation panel, and trespasser intrusion system

1.4.3 Emergency Responder Familiarization

SDTI performs safety training with personnel from emergency-response agencies within jurisdictions through which the trolley operates. First responder personnel, such as fire and law enforcement, from the County of San Diego and the cities of San Diego, La Mesa, El Cajon, Santee, National City, and Chula Vista are provided with basic information of the SDTI system, equipment, and operations during the training provided by the System Safety Manager and the Transportation Training Department. Function-specific training and exercises are also provided, including:

- Active shooter/tubular assault/sniper (SWAT)
- Heavy lift/extraction (fire departments, urban search and rescue)
- San Diego State University familiarization (fire departments in proximity to the university)

- Field canine enforcement (US Customs and Border Patrol)

This training is available year-round to these agencies, and annual participation is encouraged. Additionally, Maintenance-of-Way Department personnel provide San Diego Fire Department with on-site orientation for unique stations, such as San Diego State University.

1.4.4 Fire Protection

All fire protection systems are verified for conformance with fire protection requirements through the use of emergency drills, inspections, incident Safety Event investigations, and routine testing of fire protection and fire-suppression systems.

1.5 SMS DOCUMENTATION AND RECORDS

1.5.1 Annual Plan Review

The ASP is assessed annually and updated to include corrections and modifications. The System Safety Manager is responsible for coordinating review and revisions.

1.5.2 Revisions and Change Control

Updates to the ASP include changes to operating procedures or environment, or procedures, instructions, or rules affecting safety. These changes are made by the System Safety Manager. The methods and procedures contained in the ASP are applicable to all phases of the rail transit system: planning, design, construction, inspection, preoperational testing, start-up, and revenue service.

1.5.3 Responsible Parties

The System Safety Manager is responsible for initiating and developing the ASP in cooperation with SDTI departments, and MTS and SANDAG project implementation staff, as applicable, with oversight by the CPUC. All changes are approved by the COO-Rail, CEO, and the Board of Directors. Existing SMS processes and procedures are evaluated and modified as necessary in the ASP update.

The current version of the ASP is available to all employees and contractors via the MTS Intranet. The System Safety Officer issues a bulletin to all employees when updates are available.

1.5.4 Regulatory Oversight and Acknowledgement

SDTI will submit its initial Public Transportation Agency Safety Plan (ASP) to the CPUC for review and approval (in accordance with the requirements of CPUC General Order 164-F) before the FTA's July 20, 2020, deadline for submittal of the agency's ASP. SDTI incorporated CPUC comments and issue the revised

ASP for CPUC approval. After receiving CPUC approval of the ASP, CPUC/SDTI will submit the ASP to the FTA in compliance with 49 CFR Part 673, so that The FTA's Certification and Assurance process could be completed on or before the FTA established deadline.

The revised ASP is submitted annually on or before February 15th to meet requirements set forth by the CPUC in GO 164-F. The System Safety Manager is responsible for notifying the CPUC representative of any changes or modifications to the ASP or any significant safety issues. The CPUC representative is responsible for reviewing the ASP to ensure the plan meets the requirements of GO 164-F. All CPUC recommendations to enhance or modify changes in the ASP will be considered and the ASP will be revised accordingly.

1.5.5 Plan Implementation

The ASP focuses on the activities that are required to provide a high level of safety. The ASP elements include the long-term approach to implement Safety Management Systems within SDTI. The ASP also delineates activities to be performed by the Safety Committee to ensure its involvement on a continuing basis.

This ASP outlines the methods to assure that safety is an integral and continuous part of planning, specification, design, test operation, construction, procurement, and disposal activities of rail transit systems. The ASP complies with all state and federal laws and mandates by systematically monitoring all phases of the operation.

MTS has an intranet that includes information on various functions within the agency including safety. A sample page from the Rail Safety Intranet is shown in Figure 5. The MTS Rail Safety Intranet contains a description of policies and procedures that apply to the Safety Management System, including the Safety Management Policy. The intranet is the prime method of communication of how updates or revisions to the Safety Management Policy are communicated to employees.

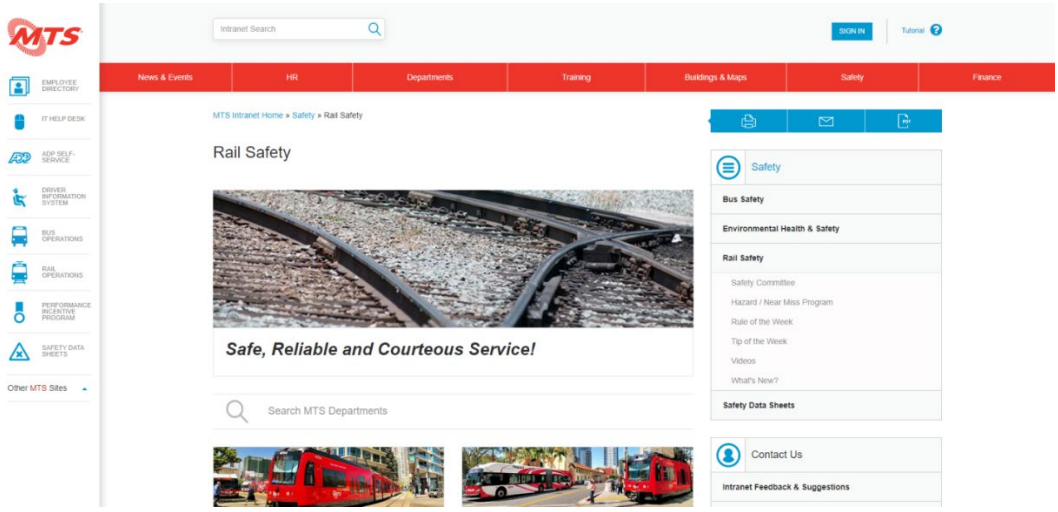


Figure 5: MTS Safety Intranet Page 1

1.5.6 Program Administration

The System Safety Manager has the functional authority, under direction of the COO-Rail, to ensure all employees comply with the ASP and that all operations and maintenance related functions are performed with the intent to conform to safety requirements, including:

- Analysis of rules, procedures, and practices to ensure adequate hazard control including employee safety reporting systems
- Participation in design reviews and planning sessions to ensure that safety concerns and issues are addressed and resolved
- Collection and dissemination of applicable information/practices from other transit properties
- Investigation of serious incidents or Safety Events and assigning responsibility, when applicable, for the purpose of retraining and/or disciplinary action
- Periodic safety inspections
- Determination of cause and recommendation of corrective action to prevent recurrence
- Verification of implementation and effectiveness of corrective action
- Emergency-response agency interface on safety-related matters, including familiarization sessions with SDTI equipment/facilities
- Participation on internal committees (Major Incident Review Committee, Derailment Committee, etc.)
- Interface with NTSB, CPUC, Cal/OSHA, FTA, FRA, and other regulatory agencies

When unsafe conditions or practices exist, the System Safety Manager has the authority, granted by the COO-Rail, to immediately order such conditions corrected or unsafe practices halted. This includes the interruption of revenue service if conditions warrant. The System Safety Manager reviews and evaluates the ASP for program effectiveness. This includes ensuring all departments comply with elements contained herein, adding or deleting work tasks commensurate with the project(s) schedule and budget, and delegating responsibilities, accordingly.

1.5.7 Current Operational Systems

Verification of compliance with SDTI, manufacturer, federal, state, and local requirements is accomplished through:

- Review of incident Safety Event reports
- Performance to established safety goals and safety performance targets
- Investigations of cause and corrective action when appropriate
- Inspection of facilities and equipment
- Management procedures
- Review of operating procedures
- Review of safety rules
- Review of emergency drills

- Occupational safety and health inspections
- Inspection and testing of fire protection equipment

1.5.8 Safety Committee

The Safety Committee is made up of both hourly and supervisory personnel from each of the departments within SDTI. The committees' primary function is to act as a communication channel on safety-related matters between employees and upper management and to provide a forum to discuss issues which impact safety.

Safety Committee members solicit recommendations from employees of their respective departments regarding proposed improvements to enhance safety in the work environment. The Safety Committee discusses, evaluates, and determines if such recommendations are practical and require follow-up. Any suggestions that require fund expenditure is referred to the appropriate department head who, in turn, advises the COO-Rail whether the recommendation should be acted upon. Recommendations are reviewed for possible implementation and the Safety Committee is advised of the decision reached by the COO-Rail. Safety Committee meeting minutes are distributed and posted on all SDTI Bulletin Boards.

In accordance with the requirements of the Bipartisan Infrastructure Law, the Safety Committee will consist of members from the Joint Safety Committee, union-selected frontline voting members, and an equal number of management representatives. These individuals will approve the Agency Safety Plan (ASP) and any updates. The Director of Human Resources will work with the unions representing rail employees to identify the union-selected frontline representatives who will participate in the voting process. The voting members will also review risk-based mitigations and strategies to reduce the likelihood and severity of consequences identified through the agency's risk assessment. This includes assessing methods that may be ineffective or inappropriate and identifying safety deficiencies for continuous improvement. Additionally, the committee will focus on strategies to decrease the number and rate of Safety Events, injuries, and assaults on transit workers, drawing insights from MTS Rail incidents and data from the National Transit Database (NTD).

1.5.9 Monthly CEO Safety Briefing

Every month the System Safety Manager provides a rail safety briefing to the SDTI CEO. Topics include but are not limited to Safety Events, outside inspections, recent CPUC activity, training, Safety Committee meetings, Rail Operation and Regulatory (ROAR) Committee, major projects, regular duties, right-of-way, security, and any high-level safety risks and/or safety meetings that have been conducted or are ongoing. In addition, on a case-by-case basis, the CEO will meet with the CSO to discuss individual incidents, policies, or other concerns and programs related to safety.

1.5.10 Weekly Executive Safety Briefing

Every week the System Safety Manager provides a rail safety briefing to the MTS COO-Rail. Topics include, but are not limited to:

- CPUC activity
- Safety Committee update
- Incident Safety Event investigative follow-up

1.5.11 General Awareness Program

SDTI, in cooperation with SANDAG, may develop and conduct safety-awareness programs for local schools, community groups, and the media. These programs increase public awareness of issues related to safety on the system.

1.5.12 Incentive and Correctional Programs

A safety award program and an employee excellence award program has been established to reward employees annually based on safe behavior, Safety Event-free operation, personal injuries, and attendance. Award recipients are invited to a public ceremony.

1.5.13 Documentation and Retention of SMS Documentation

The documents required to implement the SMS program are maintained within MTS for a period of no less than four years. The SMS documents contain record of revision as applicable and are maintained within individual department record systems.

During the course of developing the SMS there may be additional processes and procedures required that are not included or referenced in the ASP. The processes and procedures will be further developed by the responsible parties designated within the agency with the involvement and participation of representatives assigned to the safety department. As applicable new SMS policies and procedures will be included or referenced in the revised ASP during the annual review.

Upon request the CPUC, FTA, and other Federal entities will have access to review any SMS documentation that is maintained MTS.

2.0 SAFETY RISK MANAGEMENT

Safety is integrated into design, specification preparation, equipment selection, construction, procedures, and operations. The Safety Risk Management process is intended to verify that identified hazards have been satisfactorily documented, tracked, and resolved through a risk mitigation and resolution process. Hazards are continually identified during the development of a project and during ongoing rail operations. As specified in a project's safety and security certification plan (see Section 3.2.2), SDTI, MTS, and SANDAG project implementation staff (under the direction of SDTI and CPUC), as applicable, apply methods of hazard identification, assessment, and resolution to minimize or eliminate Safety events and injuries. The Safety Risk Management process also applies to SDTI's existing operations and maintenance procedures, changes to the existing SDTI rail public transportation system, new operations of service to the public, new operations or maintenance procedures, and any organizational changes.



Figure 6: Safety Risk Management Process

SDTI, MTS, and SANDAG project staffs, as applicable, work to identify areas and situations prone to a high frequency of incidents and Safety Events through existing system inspections and evaluation, reviewing trends, comparative analysis, and evaluating available data. Safety analyses are part of a formalized process to identify, eliminate, and/or control hazards. Safety analyses provide for:

- Identification of hazards
- Assessment of the severity and probability of occurrence of the hazard
- Timely awareness of hazards for those who must resolve them
- Traceability and control of hazards through all phases of a system's life cycle

Analysis results assist team members in understanding the causes of occurrences and ensure appropriate corrective action. Variables determined as significant contributing factors to the frequency of incidents become a focal point for review and evaluation to determine appropriate corrective action.

Safety Risk Management is performed using a decentralized process. Hazards are assessed and evaluated by the operating departments (transportation and maintenance) with assistance from the System Safety Manager.

The Safety Risk Management process feeds into the Safety Assurance process so that safety risk mitigations are evaluated for effectiveness over time. Feedback between the two processes is essential to ensure that risk mitigation does not introduce additional hazards. MTS uses safety data acquisition to monitor what occurs within the system. If the hazard reoccurs, then the mitigation will be adjusted.

2.1 SAFETY HAZARD IDENTIFICATION

2.1.1 Hazard Identification

Defining the physical and functional characteristics of a project creates the foundation of the hazard identification process. These characteristics are presented in terms of the major elements that comprise the project, such as personnel, facilities, systems, equipment, procedures, the public, and the environment. The perceived hazards are identified using several techniques, including the following:

- Historical hazard or Safety Events data
- Operational experience and lessons learned
- Identification of credible hazard scenarios
- Checklists of potential hazards
- Hazard analyses
- Employee Safety Reporting System
- Data provided by the FTA
- Data provided by the CPUC
- Input from vendors, suppliers, and subcontractors
- Input from project staff and engineering/construction consultants
- Other methods as appropriate.

Identified hazards are tracked in the Hazard Management Master File (an Excel database). Information collected includes the following:

- Date reported
- Reported by
- Form completed
- Reported to
- Hazard description
- Severity
- Probability
- Responsible party

- Potential mitigation(s)
- Final mitigation(s)
- Risk score after mitigation
- Completed by
- Completion date

2.1.2 Safety Risk Assessment

A hazard analysis should be performed on all facility modifications and new construction projects. Hazard analysis is a risk assessment of the safety and security of a project with regard to known hazards. The purpose of hazard analysis is to assess the severity and probability of the risk associated with each identified hazard. Severity and probability generally are determined based on qualitative rather than quantitative analyses. The results and conclusions of the analyses of identified hazards, assessed in terms of severity or consequence and the probability of occurrence, are presented by the responsible party in accordance with standard methods (such as MIL-STD-882D, MTS ASP, FTA Hazard Analysis Guidelines, and 49 Code of Federal Regulations Part) and as specified in contract documents.

To classify the assessment, hazards identified in formal hazard analyses receive a classification based on the definitions that follow. Unacceptable and undesirable hazards are mitigated to an acceptable level by one or more of the above-described methods.

Hazards identified in the Hazard Management Master File also receive a classification based on the definitions that follow.

2.2 SAFETY RISK MITIGATION

Hazard assessments determine whether assuming some or all of the risk associated with a particular hazard is acceptable and whether corrective action is called for. Hazard assessment involves hazard severity, hazard probability, and risk assessment. The following definitions are used to establish Hazard Severity and the Probability of Occurrence. The Risk Assessment Matrix is used to categorize hazards as acceptable, acceptable with certain conditions applied, undesirable, or unacceptable.

2.2.1 Hazard Evaluation

Hazard severity is a subjective measure of the worst credible mishap expected to result from human error, environmental conditions, design inadequacies, subsystem or component failure or malfunction, and/or procedural deficiencies. The categories of hazards are as follows:

Table 1: Hazard Severity

CATEGORY	DESCRIPTION
1. Catastrophic	Death or system loss
2. Critical	Severe injury, severe occupational illness, or major system damage
3. Marginal	Minor injury, minor occupational illness, or minor system damage
4. Negligible	So small or of so little consequence that it requires little to no attention

Hazard probability is the likelihood that a specific hazard will occur during the planned life expectancy of the system element, subsystem, or component described subjectively in potential occurrences per unit of time, events, population, items, or activity. The Hazard Probability in Table 2 is derived from research, analysis, or evaluation of historical data.

Table 2: Hazard Probability

DESCRIPTION	LEVEL	LIKELIHOOD	EXAMPLE OF FREQUENCY
Frequent	A	Continuously experienced	One or more times per week during a four week period
Probable	B	Occurs or may occur often	One or more times per month during a four month period
Occasional	C	Will likely occur several times during the system's lifecycle	One or more times per year on an annual basis
Remote	D	Potential to occur during the system's lifecycle	Once per decade
Improbable	E	Is unlikely to occur, but possible	Less frequently than once per decade

After hazard severity and probability are determined, associated risks are assessed by project implementation staff and the Safety & Security Review Committee (see Section 3.2.2.7). A risk assessment determines the level of risk associated with a hazard. It enables understanding the risk in relation to the costs (in dollars or operational impact) that may be incurred. The Risk Assessment Matrix in Table 3 identifies the risk assessment based on hazard severity and probability.

Table 3: Risk Assessment Matrix

FREQUENCY OF OCCURRENCE	CATASTROPHIC (1)	CRITICAL (2)	MARGINAL (3)	NEGLIGIBLE (4)
Frequent (A)	**1A**	**2A**	**3A**	**4A**
Probable (B)	**1B**	**2B**	**3B**	**4B**
Occasional (C)	**1C**	**2C**	**3C**	**4C**
Remote (D)	**1D**	**2D**	**3D**	**4D**
Improbable (E)	**1E**	**2E**	**3E**	**4E**

Table 4 relays the criticality of implementing corrective measures to reduce the hazard to an acceptable level. Projects use this index to prioritize hazardous conditions and to focus resources on the most serious hazards requiring resolution.

Table 4: Criticality Index

RISK INDEX	CRITERIA	CORRECTIVE ACTION
1A, 1B, 1C 2A, 2B, 3A	Unacceptable	Hazard cannot remain as is; must be mitigated.
1D, 2C, 2D, 3B, 3C	Undesirable – decision required	The hazard should be mitigated, if at all possible, within fiscal constraints. This level of risk must involve a documented decision by executive management, and it may be mitigated at a later time.
1E, 2E, 3D, 3E, 4A, 4B	Acceptable - with review	The Safety & Security Review Committee must determine if the hazard may remain.
4C, 4D, 4E	Acceptable - without review	The hazard may remain.

2.2.2 Hazard Mitigation

The Hazard Resolution and Control process involves the analysis and corrective action(s) taken to reduce the risk of an identified hazard to the lowest practical level. The order of precedence, which follows, are used for satisfying system safety requirements and resolving identified hazards.

Design for Minimum Risk	Design new facilities and equipment to eliminate hazards. If an identified hazard cannot be eliminated, reduce its associated risks to an acceptable level through the design selection.
Incorporate Safety Devices	If an identified hazard cannot be eliminated or its associated risk cannot be reduced through design selection, reduce that risk to an acceptable level by using protective safety features or devices. Provide, and issue procedures for, periodic inspection and functional checks of safety devices.
Provide Warning Devices	When neither design nor safety devices can effectively eliminate identified hazards or reduce risk to an acceptable level, use warning devices to detect the condition and produce an adequate warning signal to alert individuals to the hazard. Standardized warning devices minimize the probability of persons reacting incorrectly to these warnings.
Develop Special Procedures	When it is impossible or impractical to eliminate hazards through design selection or adequately reduce associated risks through safety or warning devices, then use approved procedures and special training programs. Procedures may include the use of personal protective equipment. Precautionary notations and warning signs must be standardized. Employees who perform safety-critical tasks require certification of proficiency and periodic recertification.

Typically, hazards are controlled by more than one corrective method. The use of warning, caution, and other forms of written advisories alone to control Category I (Catastrophic) and Category II (Critical) hazards will be carefully reviewed to ensure that no other additional measures are possible.

If a new light rail extension or capital improvement project is determined not to contain significant hazards, the SANDAG Project Director may request a determination of “no significant potential for hazard” for the segment(s) from the COO-Rail. The COO-Rail may approve or deny the request.

Hazards identified by employees are tracked in the Hazard Management spreadsheet. Proposed mitigations are discussed in monthly Safety Committee meetings and documented in meeting minutes. The minutes posted on the agency intranet provide feedback on hazard mitigation and strategy.

2.3 HAZARD NOTIFICATION TO CPUC

If the System Safety Manager determines that an unacceptable hazardous condition exists (according to the Criticality Index), the System Safety Manager will notify the CPUC staff within two hours as required by GO164-F. The System Safety Manager or designee maintains a hazard tracking spreadsheet that identifies the hazard, status of hazard (open or closed), recommendations for corrective action, person or department responsible for corrective actions, and scheduled date of completion. The System Safety Manager is responsible for tracking open status items to resolution as required by GO164-F.

MTS will also submit any CAPs developed to minimize, mitigate, control, correct, or eliminate the identified risks and hazards. The CAPs will include description, immediate mitigation (if needed), origin of hazard, the proposed actions, permanent hazard resolution, or temporary mitigation if necessary, the responsible individual or department, and the schedule for implementing those actions for the identified hazard, including date the hazard was identified and closed, and hazard resolution verification/follow-up activities, all in accordance with Commission GO 164-F, Section 9.

3.0 SAFETY ASSURANCE

Safety assurance ensures that MTS implements appropriate and effective mitigations and monitors the safety performance of SDTI. Safety assurance also helps assess changes to see if the changes affect the safety of operations.

Safety assurance includes three subcomponents:

1. Safety Performance Monitoring and Measurement
2. Management of Change
3. Continuous Improvement

3.1 SAFETY PERFORMANCE MONITORING AND MEASUREMENT

There are many ways that SDTI monitors safety performance including:

- Monitor service delivery activities
- Monitor employee safety reporting programs
- Monitor operations and maintenance data
- Conduct safety audits, studies, reviews and inspections
- Conduct safety investigations
- Conduct safety surveys
- Evaluate data and information from external agencies

The FTA, in the National Transportation Safety Plan, has established safety performance, criteria and state of good repair standards that all transit agencies must meet. This Agency Safety Plan includes safety performance objectives that meet or exceed the required safety performance criteria and state of good repair standards. The Trolley is the best.

SDTI currently produces many forms of indicators that get reported to levels within MTS and SDTI and also to the CPUC and the FTA. In accordance with the requirements of the FTA's National Public Transportation Safety Plan. The Bipartisan Infrastructure Law of 2021 requires transit agencies to develop a risk reduction program to improve safety by reducing the number and rates of Safety Events, injuries and assaults on transit workers based on data submitted to the National Transit Database (NTD). SDTI risk reduction program addresses safety performance in the following Five categories:

- Fatalities: the total number of reportable fatalities and rate per total unlinked passenger trips by mode
- Injuries: the total number of reportable injuries and rate per total unlinked passenger trips by mode
- Safety Events: the total number of reportable events and rate per total vehicle miles by mode
- System Reliability: mean distance between failures by mode
- Transit Worker Assaults

SDTI's monitoring and assessment programs enable the agency to identify any safety risk mitigations that are ineffective, inappropriate or have not been implemented as originally intended. The System Safety Manager works with the appropriate departments

to reassess and document inadequate safety risk mitigations. New proposed mitigations are discussed with the Accountable Executive and implemented. The System Safety Manger informs the CPUC of these actions.

3.1.1 Safety Performance Measurement

3.1.1.1 Safety Performance Measure: Fatalities

SDTI is committed to reducing the number of fatalities to zero and partners with community outreach efforts to attain this goal. The calendar year (CY) performance target for total fatalities and total fatalities rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average. A National Transit Database (NTD) reportable fatality is a death due to collision (including suicides), derailment, fire, hazardous material spill, acts of God, system or personal security event (including suicides), or other safety event. An NTD reportable fatality does not include fatalities that occur because of illnesses or other natural causes (including individuals who are found deceased).

3.1.1.2 Safety Performance Measure: Injuries

Any harm to persons that requires immediate medical attention away from the scene because of a reportable event is considered to be a reportable injury. SDTI reports to the National Transit Database (NTD) anytime a person is transported away from the scene for medical attention as an injury, whether or not the person appears to be injured.

In addition to injuries requiring transport from the scene, injuries defined as serious are automatically reportable. Individuals with serious injuries may or may not have been transported away from the scene for medical attention. A serious injury is one that:

- Requires hospitalization for more than 48 hours within 7 days of the event
- Results in a fracture of any bone (except simple fractures of fingers, toes, or nose)
- Causes severe hemorrhages, or nerve, muscle, or tendon damage;
- Involves an internal organ
- Involves second- or third-degree burns, or any burns affecting more than five percent of the body surface

The CY performance target for total number of injuries and injury rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average.

3.1.1.3 Safety Performance Measure: Transit Worker Assaults

Assault on a transit worker is defined as an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

3.1.1.4 Safety Performance Measure: Safety Events

The safety events measure captures events meeting NTD reporting thresholds occurring on SDTI right-of-way or infrastructure, at a revenue or maintenance facility, rail yard, during the performance of maintenance activities or involving a transit revenue vehicle. The NTD reporting thresholds include fatalities, injuries requiring immediate medical attention away from the scene, derailment, substantial damage, and evacuation for life safety reasons.

The CY performance target for total number of safety events and safety events rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average.

3.1.1.5 Safety Performance Measure: System Reliability

The system reliability measure expresses the relationship between safety and asset condition. The rate of vehicle failures in service, defined as mean distance between major mechanical failures, is measured as vehicle revenue miles operated divided by the number of major mechanical failures. SDTI continues to invest and plan for a highly reliable, safe operation of its public transportation system. As SDTI introduces new vehicles, there is a burn-in period for the vehicles that may result in a decrease of reliability. As such, SDTI will strive to maintain current system reliability targets during this time period.

The CY performance target for system reliability rate is to achieve a reduction compared to the previous three calendar years' average. SDTI system reliability targets are calculated using a three-year average of the mean distance between failures per 100,000 revenue miles.

3.1.1.6 Safety Performance Measure: Other

SDTI also develops specific performance targets for individual functional areas, including various departments within the agency (administration, facilities, LRV maintenance, maintenance of wayside, track, rail operations, transportation, safety, environmental health).

These include, but are not limited to:

- Safety related rule infractions
- Roadway worker protection violations
- Workplace inspection findings
- Near miss report frequency

- Employees attending safety meetings

SDTI also produces an emergency brake log.

These indicators and targets are developed jointly with safety working with each involved department and with the approval of the Accountable Executive of Rail. These performance targets and indicators are included in weekly COO Rail briefings by the Safety Department and in monthly CEO safety briefings, as well as to relevant members of the Board of Directors.

3.1.1.7 Safety and State of Good Repair

The State of Good Repair (SoGR) standards are defined by the National Safety Program and National Transit Asset Management (TAM) System, found in 49 CFR Part 625. These set forth conditions when safety risk analysis must be performed on capital assets such as equipment, rolling stock, infrastructure, and facilities. SDTI documents safety performance objectives in the TAM plan based on this definition and makes informed investments in order to strive for a SoGR for all assets.

3.1.2 Annual Safety Performance Report and Coordination with Stakeholders

SDTI disseminates and makes available safety performance targets to the FTA, CPUC, SANDAG (MPO) and other stakeholders to aid in the planning process. SDTI coordinates safety performance targets with stakeholders to the maximum extent practicable to assist with the selection of safety performance targets.

3.1.3 Safety Data Acquisition and Analysis

3.1.3.1 Safety Data Analysis

The System Safety Manager analyzes data to assist in maintaining a safe work environment for all employees. Analysis of data may result in a recommendation for corrective action. The principal approach used in achieving ASP goals and objectives are accomplished by charging all SDTI personnel with safety and the implications of their decisions. SDTI uses a proactive approach that stresses review of systems and the proposal of modifications to these systems from a safety perspective before losses occur. The ASP also requires employees to examine the affect that their actions may have on safety of other interrelated systems. All personnel are responsible for ensuring that safety-related tasks meet and are in compliance with the guidelines set forth in the ASP.

All SDTI personnel are responsible for working safely and following established rules, procedures, policies, and safe-work practices. The intent of this section is to provide a description of ASP responsibilities that, when fulfilled, will assist SDTI’s efforts in achieving optimal safety. Specific procedures and responsibilities are listed in procedure manuals, rule books, plans, program manuals, policies, and other controlling documents. Each SDTI department is

responsible for implementing and maintaining the procedures of the ASP pertaining to that department.

Personal Injuries

Personal injury reports are completed by Line Supervisors or Controllers and submitted to the System Safety Manager for inclusion in the Personal Injury Master Database.

The following elements of every injury are tracked:

- Date
- Line segment
- Location and location type
- Individual type (passenger, employee, trespasser, other)
- Area(s) injured
- Action (means of injury)
- If the injured party was transported
- If there was a fatality
- Train operator involved, if applicable, for evaluating potential trends with operating style

Personal injury reports are collected for on-train Safety Events, such as fall on start/stop, boarding/alighting, etc.; in transit facility Safety Events including slips, trips, and falls; along with collision reports; and in nonrevenue facility Safety Events, such as on the right-of-way or on SDTI property (maintenance facilities or yard).

Accidents/Incidents

If an LRV collides with vehicles, people, or objects, Safety Event reports are completed by a Line Supervisor. Safety Event investigation information is discussed in detail in Section 3.1.2. As with personal injuries, collision reports are submitted to the System Safety Manager to be entered into the Master Safety Event Database.

The following elements of every incident are tracked to the extent possible based on available information:

- Date and time
- Train operator
- Location
- Incident type
- Highway user (auto, motorcycle, bicycle, pedestrian, other)
- Position (red light, stop sign, left turn, stopped and then proceeded, did not stop, around/through gate, fouling tracks, intentional, into path, coupler related, other)
- Circumstance (highway user struck train, train struck highway user)
- Risk assessment
- Number of injured parties or fatalities

- Video locator
- Line segment
- Direction (eastbound, westbound)
- Consist of (LRV #s)
- Primary involved (generally lead) LRV and cost of repairs
- Secondary involved LRV, if applicable, and cost of repairs
- CPUC crossing number
- Geolocations (latitude, longitude)
- Fiscal year
- Investigating supervisor
- Weather conditions (clear, rainy, fog, windy, dry, wet, slick)
- Visibility (dawn, daylight, dusk, dark, streetlights)
- Traffic control/protection (traffic signal, control zone, crossing gates, stop sign)
- Horn(s) used (LRV horn, federal horn, or no time for horn)
- Brake (dynamic, emergency, no time for brake)
- LRV lights (auxiliary, bright, dim)
- Designated and estimated speeds
- System check
- Operator 10-58
- Fire suppression
- Passenger evacuation
- 2+ injured on train
- Transported for treatment
- Regulatory reporting (CPUC, FRA, FTA/NTD)
- Days since last Safety Event

Emergency Brake Applications

When an emergency brake application occurs, it is logged by Central Control. As with Safety Events/incidents, emergency brake application logs are submitted to the System Safety Manager to be entered into the Emergency Brake Log Master Database. The following elements of every application are tracked to the extent possible based on available information:

- Date and time
- Train operator involved, if applicable, for evaluating potential trends with operating style
- Train #
- Line segment
- Direction (eastbound, westbound)
- Consist of (LRV #s)
- Geolocations (latitude, longitude)
- Highway user (auto, bicycle, pedestrian, child, animal, object, other)
- Reason (red light, stop sign, left turn, stopped and then proceeded, did not stop, around/through gate, fouling tracks, intentional, into path, coupler rider or similar, penalty)

This information is evaluated to determine trends in location, cause, and train operator. This information may also be used in Safety Event reviews.

Comparisons of Monthly, Annual, and Historic Safety Event Rates

A monthly Safety Event summary is distributed to management personnel and posted on company bulletin boards. Annual and historic statistics including cause, location, and highway user, are posted on company bulletin boards and used internally. This information is also available in map form (thermal, by type, maps).

Near-Miss and Hazardous Conditions

SDTI Rules and Instructions for Employees require all employees to report hazards to their supervisor or employee-in-charge (whether they were involved in, or observed, the event or condition) on the same day or as soon as practicable. Employees should report these on the Hazard/Near-Miss Form. The supervisor or employee-in-charge will attempt to immediately correct any hazard that is within their ability to affect. The System Safety Manager, in conjunction with the appropriate department head(s), conducts a subsequent investigation. All incidents are tracked for analysis and identification of trends.

Near-miss reporting allows employees an opportunity to report near-miss incidents involving employees or contractors working along the right-of-way. This program is for all employees, particularly operations personnel. Reports of near-miss incidents and other safety concerns allow management to identify, evaluate, correct, or avoid hazardous conditions, procedures, or equipment that may adversely affect the safety of all employees.

Risk Based Inspection (RBI) Program

CPUC's RBI requirements and protocols established in accordance with Special Directive 22-25 requirements are contained in the RTSB Program Standard in Section 1.5.0 – Inspection of Rail Transit Agencies and Section 1.6.0 – Record Reviews, collection, and Analysis.

MTS acknowledges the Commission's authority for developing the RBI processes and procedures in Sections 1.5.0 and 1.6.0 and will incorporate these requirements as the required RBI procedure applicable in California into our Agency Safety Plan.

MTS complies with the authority of the CPUC by providing timely responses, data requests, records requests, and assistance while on MTS property. MTS works in partnership with the CPUC on Safety Certification, Event Reports, System Modifications, and construction consultations. MTS recognizes CPUC's authority outlined in the Public Utilities Code and other state laws, and all MTS employees are required to comply with CPUC representatives performing regulatory oversight in accordance with those laws.

3.1.3.2 Incident/Safety Event Notification, Investigation, and Reporting

When notifications are necessary, the following information should be included:

a. The time and date of the Safety Event/
b. The location of the Safety Event/incident, including the Commission highway-rail grade-crossing number, if applicable
c. The number of fatalities and/or injuries
d. The rail transit vehicles involved in the Safety Event/incident, if any
e. The factor that makes the incident/Safety Event immediately reportable
f. Narrative description of the Safety Event/incident, as known at the time of reporting; and
g. The emergency-response organizations at the scene of the Safety Event/incident
h. Description of the service impact

3.1.3.2.1 SDTI Notifications

Transportation Department Standard Operating Procedure (SOP) 108.10, Emergency Call List identifies all personnel that are notified. The System Safety Manager shall be notified immediately by the Operations Control Center Supervisor or designee of all rail Safety Event/incidents. The System Safety Manager responds and investigates Safety Events/incidents whenever practicable in accordance with SDTI Safety Event investigation procedures.

3.1.3.2.2 Safety Event, Derailment, Power Failure, Serious Injury, Fatality

In the event of a train Safety Event, derailment, or long-term power failures resulting in major service loss, serious personal injury or fatality, SDTI or SD&IV related, the following notifications must be made immediately:

1. MTS CEO (only be made for those incidents involving significant property damage or fatal injuries, or as directed by the COO-Rail or Director of Rail Transportation)
2. COO-Rail
3. Director of Rail Transportation
4. Director of LRV Maintenance
5. Director of Wayside Maintenance
6. Manager of Rail Transportation
7. Manager of LRV Maintenance
8. Manager of Wayside Maintenance
9. System Safety Manager
10. Central Control Supervisor
11. Director of Transit Security & Passenger Safety
12. Assistant Central Control Supervisor
13. MTS Risk Management

3.1.3.2.3 Minor Safety Event/Injury

When Safety Event or injury is of a minor nature and occurs after normal business hours or on weekends, the same notifications must be made, but discretion must be used as to the time such calls are made.

3.1.3.2.4 Regulatory Notifications

The following identifies the thresholds that incidents must meet to be reported to regulatory agencies.

California Public Utilities Commission

CPUC staff is notified within two hours of rail Safety Events that meet the immediately reportable thresholds, as defined in GO 164-F Section 7.2 as follows:

a. A fatality (occurring at the scene or within 30 calendar days following the Safety Event)
b. Two or more injuries
c.
d. A derailment of any rail transit vehicle at any location, at any time, whatever the cause
e. Collision between two rail transit vehicles
f. Evacuation for life and safety reasons
g. Unintended train movement
h. Criminal actions that result in fatalities or injuries such as homicides and assaults

Federal Transit Administration/Federal Railroad Administration

The Federal Transit Administration (FTA) requires concurrent notification for all immediately reportable Safety Events as outlined in GO 164-F Section 7.4.

The Federal Railroad Administration (FRA) is notified within two hours of rail Safety Events that occur on joint or shared use segments and meet the established criteria as follows:

a. An incident that results in a fatality or fatalities
b. Causes serious injury to a number of people
c. Results in a major disruption to SDTI service
d. A threat that may cause injury to patrons or destruction of facilities

The FTA Region IX office and FRA Region VII headquarters must also be notified using the above criteria as well as any other Safety Event that could impact transit and/or generate public or media attention.

National Transportation Safety Board

Train Safety Events and incidents meeting the following established criteria must be reported within two hours:

- Fatalities or injuries of a critical nature (requiring hospitalization) or two (2) or more employees or passengers
- Fatalities at grade crossing (trespassers not included)
- Evacuation of passengers resulting from an onboard fire or other hazardous condition that would require the dispatching of a fire-suppression unit to mitigate

3.1.3.2.5 Incident Investigations

The incident investigation and review process will involve the following, as appropriate:

- Interviews and questioning of persons directly or indirectly involved in the Safety Event
- Visual examinations, measurements, and test of light rail vehicle, track, switches, signals, and other similar items
- Operational reenactments simulating conditions that applied when the Safety Event happened
- Review of results of drug and alcohol tests
- Examination of employee training, certification, and re-certification records
- Assessment of employee hours of service records
- Review of light rail vehicle maintenance records
- Examination of wayside equipment maintenance records
- Evaluation of Train Operator and Controller communication recordings
- Review of light rail vehicle and wayside data/event recorder logs
- Examination of operating rules, general notices, procedures, and bulletins
- Review of law enforcement and coroner reports, including reports of similar Safety Events

3.1.3.2.6 Securing Evidence for Investigation

Standard Operating Procedure (SOP) 106.11: Safety Event Investigations Involving LRV/Auto or LRV/Pedestrian identifies the duties and responsibilities when an Safety Event occurs as follows:

- Train Operator distributes witness cards and makes an initial effort to identify other individuals, either onboard or in immediate proximity, who may have witnessed the incident.

- After arrival at the scene, the Line Supervisor should arrange to mark the point of impact (POI), uncontrolled point of rest (POR) of the train and other party, photograph property damage of all vehicles or fixed structures involved; the license plate of any non-trolley vehicle involved, and any other relevant items. The Supervisor should arrange to obtain the Train Operator’s name and employee number, and other information as

may be helpful in completing an appropriate Safety Event report, i.e., direction of travel, train and car numbers, speed at time of Safety Event, etc. In all cases, the Line Supervisor will complete an internal Safety Event report using the above information.

In order to maintain the preservation and integrity of evidence, the Line Supervisor should include the following methods of collection:

- Photography
- Interview of personnel and witnesses
- employees
- Measurements and drawings
- Debris collection
- Drug test for involved

3.1.3.2.7 Causative Factors

The following causative factors are evaluated at the scene:

- Equipment and infrastructure
- Human factors
- Weather conditions
- Geography
- Position and status of signals
- Switches
- Annunciators
- Track wheels
- Emergency brakes
- Sand
- Point of rest of involved vehicle

3.1.3.2.8 Minor Property Damage (No Injuries)

Law enforcement, as normal procedure, will not generally respond to a noninjury Safety Event. They are, however, notified. This notification is reflected on the Unusual Occurrence Report. Law enforcement should be requested if the collision involves a government vehicle, a hit-and-run incident, if the driver appears to be intoxicated, or if injuries are reported.

3.1.3.2.9 Minor Injuries

In collisions involving minor injuries to the occupants or pedestrians and/or property damage only, the Line Supervisor arriving at the scene represents SDTI in the exchange of information between the involved parties and ensures that any statements regarding the collision are recorded in written form from all involved parties or witnesses.

If law enforcement has not arrived by the time all pertinent information is obtained, the Line Supervisor has authority to release the train. If law enforcement personnel arrive after this time, the Line Supervisor represents SDTI by providing or exchanging any additional information.

3.1.3.2.10 Moderate or Severe Injuries

In collisions involving moderate or severe injuries, responding law enforcement may conduct full Safety Event investigations or file incident reports. The responding Line Supervisor prepares a detailed Safety Event report regardless of the actions of law enforcement but takes all steps necessary to work in unison with responding agencies in the exchange of information, and respects potential crime scenes as under authority of law enforcement.

3.1.3.2.11 California Public Utilities Commission Participation in Investigations

The CPUC has primary responsibility within the State of California for oversight of SDTI Safety Event investigations and the System Safety Manager is the primary contact for the CPUC-designated representative assigned SDTI. The System Safety Manager is responsible for providing CPUC staff an opportunity to participate to the fullest extent possible in all aspects of the Safety Event investigation, including providing advanced notification of interviews, inspections, examinations, tests, and meetings with consultants, review boards, etc. to review and analyze Safety Event-related information.
In the event that the CPUC produces an investigation report, SDTI will review the report and identify any areas of dissent and agrees to provide a response to the CPUC within prescribed timelines as defined in GO 164-F.

3.1.3.2.12 Reviews

The System Safety Manager is responsible for ensuring that the following activities are performed. When reviewing an Safety Event that resulted in a fatality or serious injury, notice shall be given to the CPUC whenever an Safety Event investigation team or panel is convened to perform interviews, inspections, examinations, or tests to determine the cause of the Safety Event. The investigation shall be documented in a written report that identifies the most probable cause and any contributing causes of the Safety Event or unacceptable hazardous condition. The report shall also contain or reference a corrective action plan and schedule to prevent a recurrence of the Safety Event or to mitigate the unacceptable hazardous condition.

3.1.3.2.13 Safety Event Review Committee

In an attempt to minimize Safety Events, SDTI conducts post-Safety Event debriefings with each Train Operator involved in an LRV/auto Safety Event or LRV/pedestrian Safety Event. Safety concerns and defensive driving techniques are reinforced through discussion of individual train-handling techniques, physical characteristics/increase of Safety Events at the location, and previous Safety Events involving the Train Operator. The Safety Event Review Committee typically consists of two Train Operators, one Supervisor, a Transportation Training Supervisor or designee, and the System Safety Manager. This review provides an avenue by which the Safety Event Review Committee and involved Train Operator learn how similar types of incidents may be avoided. Employees found to have violated specific safety rules may be subject to disciplinary measures assessed by the Director of Rail Transportation.

3.1.3.2.14 Major Incident Review Committee

In the event of any unusual occurrence resulting in significant property damage, such as a derailment, significant injuries, or impact to system operations, the Major Incident Review Committee (MIRC) examines the evidence, determines the cause, and evaluates the response by SDTI. Chaired by the System Safety Manager, MIRC members may include personnel from any relevant departments. The Committee examines the effectiveness of current methods to prevent or minimize the potential of a recurrence and, if necessary, recommendations are made on the modification of policies, procedures, or equipment maintenance and operation. If the extent of the Safety Event requires the expertise of outside consultants, a review board, such as American Public Transit Association (APTA), may be called upon to perform the Safety Event review on behalf of SDTI.

3.1.3.2.15 Reports and Documentation

The System Safety Manager is responsible for conducting investigations and preparing investigation reports.

California Public Utilities Commission Reporting

SDTI investigates, on behalf of the CPUC, all reportable Safety Events involving a rail transit vehicle or taking place on rail transit-controlled property. SDTI submits written Safety Event reports on forms prescribed by the CPUC within 30 calendar days after the last day of the month in which the Safety Event occurred. The Safety Department produces one of two different types of reports for CPUC reportable Safety Events, an investigative report or a 60-Day Minor Incident Report. These reports contain findings of the investigation, the most probable cause of the Safety Event, contributing factors, and recommendations for corrective action to prevent a recurrence of the Safety Event. As part of an agreement made by the CPUC and the ROAR Committee in Fall 2007, which was documented in the ROAR Committee Meeting minutes, the Table 5: CPUC Incident Reporting Thresholds was established to identify which of the above two reports will be submitted based on the incident thresholds.

The CPUC has primary responsibility for oversight of the design, engineering, construction, and operation of fixed guideway systems within the state of California. State-mandated rules and regulations which are applicable to safety-related matters are contained in GOs 22-B, 26-D, 33-B, 72-B, 75-D, 88-B, 95, 108, 110, 118, 127, 128, 135, 143-B, 161, 164-F, 172 and 175. SDTI rail segments with shared- or joint-use heavy rail operation and rail segments with light rail-exclusive usage each have a set of general orders applicable to their unique operational characteristics. The System Safety Manager is responsible for confirming that staffs who work on the SDTI system are familiar with all applicable GOs.

Table 5: CPUC Incident Reporting Thresholds

Investigative Report	Event Report
• Fatality (including suicides) • Serious injury to one or more people (does not include persons onboard the train). Serious injury is any injury or illness that requires inpatient hospitalization for a period in excess of 48 hours for other than medical observation, loss of any member of the body, or serious degree of permanent disfigurement. • Substantial Damage • Mainline derailment • Mainline collision between rail vehicles • Evacuation due to life safety	• Non-serious injury to one or more people requiring or requesting transport for medical attention away from the scene • Collision minor/no injury • Yard collisions

SDTI also submits a Form V (Monthly Service Record, Safety Event, Hazard, and Corrective Action Summary Report) regardless of the number of reportable Safety Events or unacceptable hazardous conditions. These reports are provided to the CPUC representative. The System Safety Manager reports to the CPUC representative.

If an Safety Event is ruled as "suicide" or "attempted suicide," the investigation report shall identify this based upon the review of the Train Operator's report, witness statements, law enforcement reports, and/or coroner’s reports.

If an MIRC is convened to investigate the Safety Event, all team members including CPUC staff shall receive a copy of the final report in draft form. In cases where disagreement exists between team members regarding any aspect of the report, the System Safety Manager exercises ultimate authority. The final report is a Safety Department document.

A corrective action plan is also submitted to the CPUC office for Safety Events that require a recommendation other than internal defensive-driving reinstruction. Corrective actions from Safety Events, MIRC committee meetings, and investigations are confidential and kept with the Safety Department files.

If an Safety Event investigation takes longer than 60 days, status reports will be submitted to the CPUC each month. The first status report is due 60 days after the rail Safety Event.

If the final investigative report is acceptable to the CPUC a formal letter is issued approving the report as consistent with best industry investigation procedures

and in furtherance of the public's interest in system safety and security. If it not acceptable, the CPUC shall identify within six months from the date of the submittal, the areas in the report requiring correction. If SDTI does not agree with the rejection, the CPUC shall either conduct its own investigation, or communicate its disagreement with the findings of the Safety Event investigation to SDTI. The CPUC will then meet with SDTI in an effort to reach a mutually agreed upon solution. If a mutually agreed upon solution is not reached, SDTI's report and the CPUC's statement of disagreement shall be filed with the CPUC.

No investigation report or recommendation of the CPUC or other investigation report of SDTI's that is filed with the CPUC shall be admissible as evidence in any action for damages based on or arising out of matters covered therein pursuant to Public Utilities Code Section 315.

Federal Railroad Administration Reporting

The Statement of Agency Policy, 49 CFR 42526 and 42529, dated July 10, 2000, requires that rail transit agencies report Safety Events that meet reporting thresholds that occur on shared- or joint-use heavy-rail segments be reported. These reports are submitted by the System Safety Manager.

Table 6: FRA Reporting Thresholds

Form 6180.56	Annual Report of Employee Hours Worked and Casualties By State • Submitted every year with the December submission
Form 6180.55	Railroad Injury and Illness Summary • Submitted each month even if there were no reportable Safety Events/incidents during the month
Form 6180.57	Highway-Rail Grade Crossing /Incident/ Safety Event Report • Train Safety Events on crossings and corridors shared with heavy rail operations under the jurisdiction of the Federal Railroad Administration
Form 6180.55a	Railroad Injury and Illness Summary (continuation sheet) • Completed for each injury reported on Form 6180.57
Form 6180.54	Rail Equipment Safety Event/Incident Report • Should damage to MTS equipment, track, or other property exceed the FRA damage threshold, Form 6180.54 must also be submitted. The calculation of damage includes labor costs and all other costs to repair or replace in-kind, damaged on-track equipment, signals, track, track structures, or roadbed. Reportable damage does not include the cost of clearing a wreck; however, additional damage to the above-listed items caused while clearing the wreck is to be included in the damage estimate.
NOTE:	All signed forms shall be emailed to RSISAIREPORTS@dot.gov

National Transit Database Reporting

The National Transit Database (NTD) records transit-related Safety and Security data and incidents that meet certain thresholds. These reports are submitted within 30 days by the System Safety Manager through the NTD reporting website based on the following criteria:

1. A personal injury that is not a serious injury;
2. One or more injuries requiring medical transportation away from the event; and
3. Damage to facilities, equipment, rolling stock or infrastructure that disrupts the operations of a rail transit agency.

Table 7: NTD Quick Reporting Reference Guide (CY 2024)

2025 NTD Safety & Security Quick Reference Guide – Rail Mode Reporting

Reportable Event: A safety or security event occurring on transit right-of-way or infrastructure, at a transit revenue facility, at a maintenance facility or rail yard, during a transit related maintenance activity, or involving a transit revenue vehicle. *Excluded from this event reporting requirement are events that occur off transit property where affected persons, vehicles, or objects come to rest on transit property after the event; OSHA events in administrative buildings; deaths that are a result of illness or other natural causes; other events, including collisions that occur while traveling to or from a transit-related maintenance activity; and collisions involving a supervisor car or other transit service vehicle operating on public roads.*

AR and CR modes report only Major Security events and Non-major assaults on transit workers.

S&S-40 Major Event Report	S&S-50 Non-Major Monthly Summary
MAJOR THRESHOLDS An event meeting the reportable event definition AND meeting *one or more* of the following reporting thresholds: • A fatality confirmed within 30 days (including suicide) • An injury requiring transport away from the scene for medical attention for one or more persons (partial exception in the case of Other Safety Events) • Serious injury (may not involve transport from the scene) • Substantial property damage (including towing any vehicle for disabling damage) • An evacuation for life safety or to the rail right-of-way • Runaway train • Rail transit vehicle collision occurring at a grade crossing or intersection • Rail transit vehicle collision with an individual • Collision with another rail vehicle (revenue or non-revenue) • A mainline or yard derailment of revenue or non-revenue vehicle *Reports are due within 30 days of the date of the event.*	**NON-MAJOR THRESHOLDS** Assault on a transit worker with no injury. Other Safety single-injury incidents meeting the reportable event definition that **ARE NOT** a result of a collision, derailment, evacuation, major security event, hazmat spill, Act of God; and non-major fire. **Non-Major Assaults on Transit Workers:** • Non-injury (no transport) • Intent to endanger the safety of any individual • With reckless disregard for the safety of human life **Other Safety Incident** (CR mode excluded) • **Single injury** event requiring transport away from the scene for medical attention. **Fire** (CR mode excluded) • Required suppression but **does not** meet a major incident reporting threshold. *Reports due by the end of the following month*
Event Types	**Event Types/Examples**
Safety Events • **Collision** (incl. suicide/attempted suicide/assault involving transit vehicle contact) • **Derailment** (mainline or yard) • **Fire** • Hazardous material spill (requires *specialized* clean-up) • **Acts of God** (nature) • **Other Safety Events** (two injuries and/or another threshold) **System Security Events** • Arson • Bomb threat/bombing • Burglary / vandalism • Chemical/biological/radiological/nuclear release • Cyber security event • Hijacking • Sabotage • Suspicious package • Other security event (shots fired, projectiles, etc.) **Personal Security Events** • Assault (no transit vehicle contact) • Homicide (no transit vehicle contact) • Suicide or attempted suicide (no transit vehicle contact) • Robbery • Larceny/theft • Motor vehicle theft • Rape • Other personal security events (e.g., perpetrator tased)	**Non-Major Assaults on Transit Workers** ***Includes both Physical and Non-Physical Assaults*** • Threat of violence • Verbal assault/harassment • Spitting or striking • Interference with transit worker's duties **Other Safety Incidents** (CR & AR modes excluded) Single Injury due to: • Slip/trip • Fall o Including people making contact with a non-moving transit vehicle • Injury to maintenance worker • Boarding/alighting a vehicle • Abrupt or evasive transit vehicle maneuvers • Mobility device (e.g., wheelchair) securement issues • Stairs/elevator/escalator injury Excludes individuals transported for mental health evaluation unrelated to a reportable event due to declarations of self-harm, solely for intoxication, drug overdose or exposure to the elements.. **Fire** (CR & AR modes excluded) • Requires suppression but no major threshold is met o Small fire on right-of-way o Small fire in a transit station

Reportable incidents include events that occur in transit centers or parking lots of transit centers. Incidents occurring in the maintenance department of a transit agency or related to maintenance activities are excluded from the reportable incident category, as are incidents involving an on-duty transit vehicle operator not engaged in directly performing his/her operator duties.

3.1.4 Infrastructure Maintenance and Inspection

3.1.4.1 Facilities and Equipment Inspections

The Facilities Department is responsible for the maintenance and cleaning of fixed facilities, including stations, parking areas, irrigation, weed control, and exterior cleaning of nonrevenue vehicles. Scheduled weekly maintenance includes maintenance of stations, facilities/buildings and grounds, as well as vehicle inspections. Bimonthly maintenance is performed on the LRV car wash and sludge/drain system, and stations and facilities maintenance are conducted annually and as needed. A Supervisor ensures that corrective actions are implemented and closed out in a timely manner and reviews inspection and trouble reports. On-site facilities are inspected monthly for unsafe and unhealthy conditions and are documented utilizing building inspection checklists. The results of these inspections are reported to the appropriate department so that the condition can be corrected and/or operational changes can be made.

3.1.4.2 Maintenance Inspection Program

Wayside Maintenance Department

Preventive maintenance is performed for both track and signals in accordance with FRA Regulations, Part 213 for Track, FRA Part 234 for Grade Crossing and FRA Part 236 for Signals. SDTI internal Standard Operating Procedures schedule maintenance for other equipment not covered by FRA rules, such as traction power substations, OCS, overpasses, bridges, and tunnels.

The inspection interval is time-based, and nonrevenue vehicles are scheduled by mileage. A list of Wayside scheduled maintenance programs designed to examine both the safety and efficiency of the operating equipment follows:

DAILY	WEEKLY
• Station lighting • Rights-of-way • Maintenance facilities • Non-revenue vehicles	• Track (twice weekly) • Track bonds • Street switches • SDSU emergency lighting/walkway for tunnel • SDSU tunnel structure integrity (completed during track inspections)

MONTHLY	QUARTERLY
• Switch inspections per FRA rules • Gates and crossing protection equipment • FRA inspections: 103, 104, 107	• SDSU wet standpipes (under maintenance contract with Simplex/Grinnell)

ANNUALLY	5-YEAR
• OCS, trees and shrubs for interference with overhead wires and pedestrian walkways, FRA inspections: 106, 108, 109 • Preventive maintenance for portable equipment and rail-bound maintenance equipment, with recertification provided bi-annually by a designated contractor. • Emergency vent fans • Sump pumps • SDSU underground phones • Annual bridge inspections by a designated contractor • Bi-Annual Substations Maintenance	• Overpasses, bridges and tunnels

3.1.5 Vehicle Maintenance, Inspection, and Repair

3.1.5.1 LRV Scheduled Maintenance

Scheduled maintenance is performed periodically on the basis of time intervals, mileage intervals, and manufacturer's specifications. Each inspection targets a specific area along with a visual check of all subsystems to ensure nothing is overlooked. A list of LRV scheduled maintenance programs that are designed to examine both the safety and efficiency of the operating equipment follows:

U2
• Daily Inspection • Daily Cleaning Procedures for LRVs • 6 Month Inspection • Annual Inspection • 6 Month Oil Change

SD-7/SD-8/SD-9/SD-10	PCC
• Daily Inspection • 7.5K Inspection • 15K Inspection • 30K Inspection • 60K Inspection • Annual Inspection • 6 Month Oil Change	• Bi-Annual Inspection

3.2 MANAGEMENT OF CHANGE

3.2.1 Configuration Management

System modifications are carefully evaluated and considered from concept to design and implementation to determine how the change might affect the safety of the system. MTS, SDTI, and SANDAG staffs, as applicable, working under the direction of SDTI, evaluate the proposed modification for its potential to create additional hazards or to reduce the effectiveness of existing hazard controls. MTS, SDTI, and SANDAG staffs, as applicable, coordinate the integration of new equipment, system expansion, modification, and system rehabilitation from the design and procurement effort through construction, inspection, testing, and start-up. GO-164-F requires a Safety Certification Plan be developed and submitted to the CPUC for review and approval during the project preliminary design phase. The Safety Certification Plan purpose is to ensure extensions, and the new capital and new capital projects are reviewed for compliance with safety requirements and to ensure the system satisfies operational readiness to enter revenue service.

3.2.1.1 Regional Project Implementation

Regional Projects are administered by SANDAG project implementation staff under the direction of SDTI, MTS, and SANDAG management. The SANDAG project implementation team develops contract documents (plans and specifications) and organizes review meetings with SDTI, SANDAG, consultants, and other agency staff, as needed. The project is constructed in accordance with the contract documents and contract change orders, and contract work built by the contractors is tested and inspected.

3.2.1.2 Change Control

The purpose of configuration management is to establish standard procedures and policy for the control of changes to transit systems and facilities. The configuration management process is applied to any changes or modifications to the system that may affect operational safety. The process is followed for creation of construction plans and specifications, specification and procurement of vehicles and components, and contract change orders. The SANDAG project engineer shall solicit input from SDTI staff during the scoping, design, and construction phases of a project. The SANDAG project engineer is responsible for carefully reviewing and coordinating SDTI input and shall evaluate all possible impacts to the system before recommending a project scope and design to the COO-Rail for approval.

Modifications to safety critical subsystems like tracks, structures, grade crossings, or vehicles must be designed by professional engineers and then managed by professional construction managers. Once construction is complete and safety certification is verified, revenue operation may start. Any changed conditions are recorded on as-built documents then addressed in operations and maintenance manuals, procedures, and by training.

The process establishes and documents the authority needed to make configuration changes, the process for incorporating these changes in all appropriate documentation, and the process for ensuring that all necessary business units are aware of such changes. A systematic and comprehensive review and approval process will occur before changes are made.

Configuration Management ensures that:

- The primary and secondary impacts of all system changes are adequately addressed during the scoping phase of a project or procurement
- A careful, systematic, and comprehensive review and approval occur during the design and construction phase of a project or procurement
- Revision records are maintained with the document
- Only the latest approved document is distributed
- The completed modifications are properly incorporated into the existing system

Thorough configuration records and controls are in effect to ensure that an audit trail exists, tracking the current facility or equipment configuration back to its inception, and that only the current approved set of documents is released for construction and operations. All completed documentation concerning changes or updates of as-built documents are maintained and/or filed at the SANDAG engineering offices, as applicable.

3.2.1.3 New Systems

SDTI staff will review project design documents (plans and specifications, failure and critical analysis reports), equipment submittals, test procedures and reports, operations and maintenance manuals, and other related documents as needed. An inspection of the finished system ensures compliance with all SDTI, manufacturer, federal, state, and local requirements.

3.2.2 Safety and Security Certification Process

The Safety Certification Program verifies that safety-related requirements are incorporated into rail transit projects. The goal is to verify that safety standards are met or exceeded in the design, construction, and start-up of these projects. SANDAG self-certifies regional SDTI rail transit projects, subject to the safety oversight of the CPUC. The CPUC requirements for safety certification are identified in General Order 164-F, which SDTI adheres to. The SANDAG Director of Engineering and Construction is responsible for overseeing the activities of the safety certification plan as applied to regional SDTI rail transit projects. A safety certification plan identifies all project elements considered safety-critical that must be verified prior to incorporation into the system.

3.2.2.1 Purpose of Safety and Security Certification

The purpose of the safety certification process is to:

- Identify the processes to verify and document that the design, construction, and installation of facilities, systems, and equipment are in compliance with design criteria, conformed contract specifications, and applicable safety and security requirements
- Hazards are identified, analyzed, and resolved
- Contractor training and operations and maintenance manuals are provided to SDTI staff
- Rules and procedures are written
- Operations personnel are trained in rules and procedures
- Emergency services personnel are trained on rail systems and facilities
- Emergency drills are conducted
- Safety and security documentation is properly maintained

3.2.2.2 Goals of Safety and Security Certification

The goals of the safety certification process are that:

- All SANDAG rail transit projects meet or exceed acceptable safety levels
- Verification of safety standards are documented
- A consistent manner to certify projects is established and followed

3.2.2.3 Objectives of Safety and Security Certification

Safety certification covers the design, construction, testing, training, and operational safety and security of the following:

- System Safety: Elimination, minimization, or control of potential hazards to patrons, the general public, employees, contractors, and property to the most practical level through effective use of available design, engineering, and/or procedural measures
- Fire/Life Safety: Elimination, minimization, or control of potential hazards to patrons, employees, emergency response personnel, property, and the general public caused by fire, smoke, explosion, or resulting panic to the most practical level through effective use of available design, engineering, and/or procedural measures
- Occupational Safety: Elimination, minimization, or control of potential hazards to employees, contractors, and emergency response personnel to the most practical level through effective use of available design, engineering, and/or procedural measures during revenue service
- System Security: Elimination, minimization, or control of potential security threats and vulnerabilities to patrons, the general public, contractors, and property to the most practical level through the effective use of available design, engineering, and/or procedural measures

3.2.2.4 Elements of Safety and Security Certification

Safety certification verifies that safety-critical subsystems, plans, procedures, and training programs are reviewed for compliance with safety requirements prior to the start of revenue service.

- The safety features required by the technical specifications are properly included in the finished product(s)
- Subsystems are tested and inspected to verify that the safety features perform as the design intended
- The hazard identification analysis and resolution process is performed
- Plans, procedures, and training programs are developed, reviewed, and implemented prior to the start of revenue service
- Responsible program participants verify that the above are completed to document a traceable history of the safety certification process
- Security certification coordination for maintenance elements and major capital projects is included in the safety certification process as it pertains to those facilities

3.2.2.5 Safety and Security Certification Process

As applicable, SANDAG is responsible for self-certifying and has overall responsibility for the safe and dependable design, construction, and pre-revenue operation of safety-critical projects. The following steps typically comprise the safety certification process:

Step 1: Identify certifiable elements
Step 2: Develop safety and security design criteria
Step 3: Develop and complete design criteria conformance checklist
Step 4: Perform construction specification conformance
Step 5: Identify additional safety and security test requirements
Step 6: Perform testing and validation in support of safety certification
Step 7: Manage integrated tests for safety certification
Step 8: Manage open items in the safety certification program
Step 9: Verify operational readiness
Step 10: Conduct final determination of project readiness and issue a Safety Certification Verification Report

If complications arise that render a safety-critical system element incomplete or temporarily unavailable, the deficiency can be mitigated by establishing operating restrictions, general notices or bulletins are issued to all affected departments. Compliance with the general notice or bulletin dealing with an exception is monitored constantly to ensure compliance.

3.2.2.6 Safety and Security Certification Verification Report

The final step of safety certification before a new project, modified system, equipment, or facility may enter revenue service is the preparation of the Safety Certification Verification Report (SCVR). The SCVR provides an executive summary of certifiable elements prior to revenue service. The SCVR includes safety certification letters documenting signature sign-off by department heads and the COO-Rail. The SCVR provides documentation as follows:

- Design and construction reviews
- Certificates of safety compliance
- Testing
- Plans, rules, and procedures
- Emergency drills (if necessary)
- Maintenance training
- Operations training
- Operations and maintenance manuals
- Hazard identification and resolution
- Audits
- Security certification
- Exceptions list

The SCVR is transmitted by the CEO to the CPUC Rail Safety Division Director at least 21 days prior to revenue service requesting final authority to approve the project for revenue service. An approval letter from the CPUC is required prior to commencement of revenue service.

3.2.2.7 Roles and Responsibilities

SDTI Participation

SDTI and SANDAG, as applicable, are responsible for ensuring the design review process for new equipment, system expansion, and system modifications comply with the requirements specified under the Configuration Management Plan, and any hazards associated with system expansions or modifications are included in the hazard identification analysis and resolution process.

SDTI staff's participation in the project implementation phases of planning, design, construction, and start-up and testing is required to ensure the system is designed and constructed in compliance with the operational and maintenance needs.

Chief Executive Officer

The MTS CEO will provide input and direction during project implementation.

Chief Operating Officer-Rail

The SDTI COO-Rail will be a member of the Rail Activation Committee and may chair a pre-revenue operations subcommittee.

Director of Rail Transportation

The SDTI Director of Rail Transportation, under direction of the COO-Rail, will provide input on operating plans, train timetables, train-consist configurations, fleet and equipment need, operational characteristics, and other operational requirements.

Director of Rail Wayside Maintenance

The SDTI Director of Rail Wayside Maintenance, under direction of the COO-Rail, will provide input to the project team on wayside and system maintenance issues.

Director of Rail LRV Maintenance

The SDTI Director of Rail LRV Maintenance, under direction of the COO-Rail, will provide input to the project team on vehicle issues.

MTS Chief of Police

The MTS Chief of Police manages the MTS Transit Enforcement Department. The Chief of Police, with Transit Enforcement Department staff as needed, will coordinate closely and participate in the Safety and Security Review and Fire Life Safety and Security Committees with emphasis on operational and construction security issues.

System Safety Manager

The SDTI System Safety Manager coordinates closely with the COO-Rail and may chair the Safety and Security Review and Fire Life Safety and Security Committees, as appropriate.

Safety and Security Certification Committees

Multiple committees may be established in support of project certification programs, including the Safety & Security Review and the Fire Life Safety & Security Committees. Membership on these committees may change as the projects enter different phases.

Safety and Security Review Committee

The Safety and Security Review Committee (SSRC) is a multidisciplinary working group that serves as a high-level committee to address all safety and security issues for projects. This committee oversees the implementation of each project’s Safety and Security Certification Plan.

Fire/Life Safety and Security Committee

The Fire/Life Safety and Security Committee (FLSSC) membership consists of SANDAG and MTS staff, along with representatives from fire, police, emergency services, and local building code agencies. The FLSCC is to review requirements that relate to fire life safety and obtain concurrence from local authorities having jurisdiction that the proposed designs meet code requirements. The FLSSC also reviews security requirements.

CPUC Participation

CPUC GO 164-F requires that the Safety Certification Plan be developed and submitted to the CPUC for review and approval during the preliminary design phase of major projects. The CPUC formally approves the Safety Certification Plan prior to the project final engineering phase.

3.3 CONTINUOUS IMPROVEMENT

MTS is committed to evaluating the effectiveness of its procedures for operations and maintenance. Various methods are routinely used to perform this assessment including, but not limited to the following: internal safety reviews, employee performance observation reports, efficiency testing. Additionally, external safety reviews are periodically conducted by established federal, state and local oversight agencies.

3.3.1 Safety Assessment

3.3.1.1 Internal Safety Management Reviews

Annual internal safety audits are conducted by the System Safety Manager and agency staff (reviewers) to ensure that compliance is maintained, and objectives are met. If the System Safety Manager is responsible for the audit checklist under review, agency staff independent of the safety function will complete the checklist. Additionally, reviewers must be independent from the first line of supervision responsible for the checklist under review. Internal safety audits required by the FTA Oversight Rule 49 CFR Part 674 for Fixed Guideway Systems are witnessed by a CPUC-designated representative. Should there be a disagreement on findings, the responsible party and reviewers will meet with the COO-Rail. If no resolution can be reached by the COO-Rail, then the internal auditor and CEO will review and issue a final determination. The System Safety Manager provides monthly progress reports to the CPUC-designated representative on the status of the open items/recommendations, as well as to the COO-Rail for review and comment on the status of recommendations and corrective actions.

Table 8: Process for Conducting Reviews

	Task	Deadlines (no later than)
1	Ensure checklist reference sheets are up to date	Prior to next step
2	Notify reviewers and CPUC of audit checklists and audit dates via memo and meeting invitation	30 days prior to beginning of audit
3	Complete audit of checklists	December 31 of audit year
4	Review findings of each checklist reviewed with COO-Rail and responsible departments. Draft corrective action plan, if necessary.	January 31 of following year
5	Submit final internal safety audit including findings and corrective action plan, to CPUC	February 15 of following year

The CPUC also conducts periodic safety audits. Audits may include review of equipment, procedures and programs, inspection of documents and records relative to operations and maintenance and tracking and resolving open defects during inspections.

Results from the annual internal safety audit are documented in a report submitted to the CPUC annually by February 15 as required by 49 CFR Part 674 and GO 164-F. This annual audit includes elements scheduled on a rotation to ensure that all twenty-one elements are completed during the three-year cycle. This schedule is included with the Internal Safety Audit Report.
The report summarizes the results of the internal safety audit. Any deficiencies or instances of noncompliance are brought to the attention of the responsible department by the System Safety Manager. During this discussion, a corrective action plan (CAP) is created, and it is determined that any disagreement or discrepancy found is resolved. The correction action plan contains the identification of the required action needed to minimize, control, correct or eliminate the identified risk and hazard; the schedule for taking these actions and identifies responsible party. Documentation of corrective action progress and resolution is given to the System Safety Manager by each department for review and final closure. The System Safety Manager is responsible for tracking all corrective actions to completion and submits progress reports monthly to the CPUC.

3.3.1.2 External Safety Management Resources

A compliance safety management review is available when it is determined that verification of compliance to policies, plans, procedures, milestones, or other predetermined requirements need to be made. These compliance safety management reviews indicate whether requirements are met (yes or no) or partial compliance.

Peer reviews are a valuable resource to SDTI for assessing all aspects of transit operations and functions. Highly experienced rail transit personnel who are selected on the basis of their subject matter expertise conduct the peer reviews on-site. Through the benefits of on-site interviews of SDTI staff and review of relevant documents, the peer review panel concludes its review with a summary of observations and recommendations as needed.

DEPARTMENTS SUBJECT TO REVIEW

	Task	2022	2023	2024	2025
1	Policy Statement			2024	
2	Purpose, Goals, and Objectives			2024	
3	RTA Management Structure			2024	
4	Interdepartmental/Interagency Coordination		2023		
5	Plan Implementation, Plan Review, and Modification		2023		
6	Hazard Management Program		2023		
7	Safety Certification Process (SANDAG)	2022			2025
8	Safety Data Acquisition	2022			2025
9	Incident Notification, Investigation, and Reporting		2023		
10	Emergency Management Program		2023		
11	Internal Safety and Security Audit Program			2024	
12	Rules Compliance	2022			2025
13	Facilities and Maintenance Inspections			2024	
14	Maintenance Audit and Inspection Program			2024	
15	Training and Certification Program	2022			2025
16	Configuration Management Process (SANDAG)		2023		
17	Compliance with Local, State and Federal Safety Requirements			2024	
18	Hazardous Materials Program		2023		
19	Drug and Alcohol Program			2024	
20	Procurement (SANDAG)	2022			2025
21	PED Random Monitoring Program		2023		
22	Roadway Worker Protection Program		2023		
23	Security (five elements over three years)				
	S-1: Identify Policies, Goals and Objectives		2023		
	S-2: Process for Management of Threat Vulnerabilities		2023		
	S-3: Identification Concepts for Passenger and Employee Security			2024	
	S-4: Process for Internal Security Audits	2022			2025
	S-5: Process for Generating Security Plans	2022			2025
	S-6 Process for notifying, investigating and reporting security breaches			2024	

1	Policy Statement	Safety
2	Purpose, Goals, and Objectives	Safety
3	RTA Management Structure	Safety
4	Interdepartmental/Interagency Coordination	Safety
5	Plan Implementation, Plan Review, and Modification	Safety
6	Hazard Management Program	Safety
7	Safety Certification Process	SANDAG Project Management
8	Safety Data Acquisition	Safety
9	Incident Notification, Investigation, and Reporting	Safety
10	Emergency Management Program	Safety
11	Internal Safety and Security Audit Program	Safety
12	Rules Compliance	Transportation LRV Maintenance Wayside Maintenance Facilities
13	Facilities and Maintenance Inspections	Facilities LRV Maintenance Wayside Maintenance
14	Maintenance Audit and Inspection Program	Wayside Maintenance
15	Training and Certification Program	Transportation LRV Maintenance Wayside Maintenance Facilities
16	Configuration Management Process	SANDAG Project Management
17	Compliance with Local, State, and Federal Safety Requirements	Safety
18	Hazardous Materials Program	Safety
19	Drug and Alcohol Program	Human Resources
20	Procurement	SANDAG/MTS Procurement
21	CPUC G.O. 172: Personal Electronic Device Prohibitions/In Cab Cameras	Transportation LRV Maintenance Wayside Maintenance Facilities
22	CPUC G.O. 175-A: Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems	Transportation LRV Maintenance Wayside Maintenance Facilities
23	Security (five elements over three years) S-1: Identify Policies, Goals and Objectives S-2: Process for Management of Threat Vulnerabilities S-3: Identification Concepts for Passenger and Employee Security S-4: Process for Internal Security Audits S-5: Process for Generating Security Plans	Security
	S-6: Process for notifying, investigating, and reporting security breaches	

ISA Master Schedule based on GO 164-F requirements effective January 16, 2025

3.3.1.3 External Safety Management

Compliance safety management review focuses on verification of compliance to policies, plans, procedures, milestones, or other predetermined requirements. These compliance safety management reviews indicate whether requirements are met (yes or no) or partial compliance.

Peer reviews are a valuable resource to SDTI for assessing all aspects of transit operations and functions. Highly experienced rail transit personnel who are selected on the basis of their subject matter expertise conduct the peer reviews on-site. Through the benefits of on-site interviews of SDTI staff and review of relevant documents, the peer review panel concludes its review with a summary of observations and recommendations.

3.3.1.4 Safety Culture Assessment

It is important for SDTI to continually assess its effectiveness on overall safety. Since safety culture is not “visible,” assessment is not simple. Types of assessment instruments may include the following:

- Surveys of employee attitudes, opinions, and perceptions
- Written questionnaires
- Face-to-face interviews
- Focus group interviews
- Ability of the organization to focus on long term performance
- How SDTI handles conflicts
- How SDTI views errors and mistakes
- Ability of the organization to focus on improving safety defenses instead of assigning blame
- SDTI’s proactive stance toward safety

4.0 SAFETY PROMOTION

Safety promotion has two subcomponents:

1. Safety Communication
2. Competencies and Training

Safety promotion provides increased safety awareness through safety training and communications. This process helps employees have the skills needed to perform their job safely and to have shared ownership of MTS's safety program. Management commitment is demonstrated through visibility of safety throughout MTS.

4.1 SAFETY COMMUNICATION

An effective SMS includes a positive safety culture where there is a two-way feedback loop between frontline employees and management about safety information. This communication fosters an environment where hazards and safety risks are routinely discussed, and employees feel encouraged to report safety concerns. Management commitment is essential to ensure an effective SMS.

SDTI uses the intranet to communicate safety activities and events throughout the agency including updates to critical documents, such as the Public Transportation Agency Safety Plan. SDTI also uses bulletins communicating safety activities and events. These bulletins are placed on display boards throughout the SDTI workplace.

4.1.1 Workplace Safety Programs

4.1.1.1 Industrial /Occupational Safety Program

SDTI has developed and implemented an Injury and Illness Prevention Program (IIPP) to maintain a self and healthful workplace for employees. The IIPP Manual includes the following:

- Management Commitment/Assignment of Responsibilities
- Safety Communications
- Hazard Assessment and Control
- Safety Event Investigation
- Safety Planning, Rules, and Work Procedures
- Safety and Health Training

SDTI's IIP is designed to have input from employees and coordination with labor unions and their local representatives. Contractors are also required to conform to industrial and occupational safety program requirements.

4.1.1.2 Exposure Control Plan for Bloodborne Pathogens and Infectious Materials

MTS's policy is to provide safe working conditions and a safe work environment for all of its employees. The written Exposure Control Plan (Plan) is designed to minimize occupational exposure to blood and other potentially infectious materials. The Plan is located for employees to review on the MTS Intranet.

The written Plan was prepared to meet 8 CCR Section 5193 and 29 CFR 1910.1030.

4.1.1.3 Fitness for Duty Program

SDTI is committed to ensuring that employees and contractor personnel are fit for duty. Many factors can affect their overall fitness, including drugs and alcohol, fatigue, prescription drugs, and cognitive distractions.

4.1.1.4 Drug and Alcohol Program

MTS is committed to a drug- and alcohol-free workplace. All MTS employees are issued and acknowledge receipt (signature to employee file in the Human Resources Department) of the MTS Drug and Alcohol Policy. All guidelines of this policy are prepared according to 49 CFR Parts 653, 654, and 655; Drug-Free Workplace Act, effective August 1, 2001. Policy application is monitored and recorded by the Human Resources Manager, including physical examinations and post-Safety Event test results. Violation of the policy subjects the employee to immediate termination from SDTI.

4.1.1.5 Fatigue Program

Fatigue can contribute to hazardous operations. SDTI has implemented countermeasures to manage this risk potential. These measures include the following:

- Hours of service rules
- Medical evaluations for sleeping disorders
- Awareness training for employees and contractors

4.1.1.6 Medical Monitoring Program

MTS has medical standards that apply to safety sensitive positions which include pre-employment medical examinations and periodic examinations to identify any physical or mental deterioration of employees below thresholds established for safe performance of their duties.

4.1.1.7 Critical Incident Follow-up- Post Traumatic Stress

After significant incidents, such as major Safety Events, SDTI offers involves employee's referral to the Employee Assistance Program (EAP).

After-action reports are prepared that include the following elements:

- Review interagency relationships to minimize interagency misunderstandings
- Ensure that a formal review of problems encountered is performed
- Learn from innovations developed during incidents
- Aid personnel in coping with the stresses of complex traumatic events

Transit personnel and emergency responders often face emotional trauma from serious incidents (post-traumatic stress disorder [PTSD]). SDTI provides access to health professionals to help counteract PTSD.

4.1.1.8 Cognitive Distraction and Attentional Error

Cognitive distraction refers to an employee or contractor taking his or her mind off the job. One major cause of cognitive distraction is the increased use of personal electronic devices, such as cell phones. SDTI has implemented a zero tolerance for cell phone use while on the job except in designated areas on SDTI property (see section 4.2.5).

4.1.2 Procurement

SANDAG/MTS procurement staff is responsible for planning, solicitation, award, administration, and documentation of contracts. SANDAG/MTS uses procurement procedures that reflect applicable state and local laws and regulations and, when applicable, federal law. All procurements and contracts must be approved in accordance with SANDAG/MTS Board Policies and delegation of authority. All completed documentation is kept on-file at SANDAG/MTS offices concerning procurements and policies.

SANDAG/MTS engineering staff is responsible for ensuring the material supplied conforms to procurement specifications. Per policy and procedures set forth in the Configuration Management Plan product submittals, design drawings, and change orders must be reviewed and approved. Through the efforts of SANDAG/MTS construction management contractors, inspection and quality-assurance measures are implemented to ensure unacceptable material is rejected and discarded.

All employees, agents, and contractors who are permitted to work on SDTI property must adhere to the provisions required by the MTS Agency Safety Plan.

The Safety Data Sheet (SDS) Program has established specific procedures for the acquisition and dissemination of information regarding hazardous materials. All operations and maintenance departments must meet applicable state, federal, and local regulations for the proper labeling, storage, handling, and disposal of hazardous materials, including documentation and recordkeeping requirements.

SDTI Stores Department procedures regarding procurement include:

- Procurement process complies with established procedures for evaluating materials and products for use by SDTI
- Safety Data Sheet requirements are met and copies maintained for all materials and that the materials undergo an evaluation by the Industrial Hygiene and Environmental Safety Section prior to use
- Develop, maintain, and utilize a list of hazardous materials and equipment; enforce procurement restrictions and other procurement procedures
- Follow safety procedures related to hazardous substance acquisition, handling, labeling, storage, disposal, and recordkeeping

4.1.3 Hazardous Materials Program

Procedures are in place to control hazards associated with procurement, storage, transfer, use, and disposal of hazardous substances. These procedures also address recordkeeping and reporting requirements. Hazardous Material Plans are developed for each facility and comply with 40 CFR 372 and SARA Title III Section 313.

The Hazard Communication standards orientation includes training and/or information on:

- OSHA Hazard Communication Standards
- Material Safety Data Sheets (MSDS)
- Physical health effects of hazardous materials used at SDTI
- Steps that SDTI has applied to minimize exposure to these materials
- Methods to determine presence or release of hazardous chemicals
- Emergency procedures for exposure to hazardous chemicals

4.1.4 Public Safety Programs

SDTI provides ongoing passenger and public safety programs to rail transit patrons and the general public. This outreach affects all aspects of the agency. During rail extensions, SANDAG provides outreach during all phases of the project starting with design and culminating in revenue service operations. MTS outreach programs include rail operations and major rail rehabilitation projects.

4.2 COMPETENCIES AND TRAINING

There are many different kinds of training involved in safety promotion. They include the following:

- Training of the Board of Directors on its role in transit safety during regular scheduled Board of Directors meeting
- Training of all employees on their role and responsibilities as they relate to safety performance

- Development of safety competencies at the frontline employee level: formal training on the contents of an effective employee safety reporting system
- At safety management level, training should develop safety data management competencies, how to analyze safety data, extract information from safety data, and turn safety information into safety intelligence

MTS has a very progressive agency-wide training program. All new employees are given safety training, which includes an overview of SMS. Many of the MTS employees have taken safety courses (including SMS) from the FTA's Transportation Safety Institute (TSI). MTS has hosted many TSI classes to enable more MTS employees to attend. Several MTS employees are also TSI instructors.

Safety Events, incidents, and near misses are used in training to educate personnel on how to prevent future occurrences.

4.2.1 Rules and Procedures Review

MTS identifies operating and maintenance procedures that affect safety. These operating and maintenance rules and procedures that affect safety are reviewed for their effectiveness, and MTS determines when they would require updates or revisions.

4.2.1.1 Rules and Instructions for Employees

Rules and Instructions for Employees establishes the rules of personal conduct, instructions in the safe operation of trains, signals and interlocking, special operations, electric power systems, and general communications. The Human Resources Manager issues the rulebook to all employees who certify by signed receipt that they have received a copy that they agree to comply with the provisions therein and understand that their failure to comply with such provisions may subject the employee to disciplinary action, up to and including discharge.

4.2.1.2 Standard Operating Procedures

Standard Operating Procedures (SOPs) are issued to employees in each department on an as-needed basis. SOPs cover specific guidelines and instructions on how to perform related duties with the intent to ensure operational and maintenance safety. Departments that are affected by the same procedures are identified on the SOP distribution list. The department heads are responsible for issuing and updating their department's SOPs and distributing to employees within their department.

4.2.1.3 Compliance with Operating and Maintenance Rules and Procedures

The System Safety Manager has the functional authority, under direction of the COO-Rail, to ensure that all employees comply with the ASP and that all operations and maintenance-related functions are performed with the intent to provide safety duties.

Line Supervisors conduct efficiency testing to document inspections of train operator performance. An efficiency test is an inspection of employee performance that is unobserved, unannounced, and unexpected by the train operator. An efficiency test is completed on each train operator every quarter. The efficiency testing program is administered by the System Safety Manager. The supervision and tracking of the efficiency testing program is carried out by Transportation Department training staff.

Line and Construction Safety Supervisors also conduct work-site inspections to verify that the work sites and employees are in compliance with the Roadway Worker Protection Program. A representative sample is monitored and logged by the Central Control Supervisor or designee as well as reviewed when there is a derailment, collision, complaint against an operator, report of noncompliance with personal electronic device policy, security events, or to augment efficiency testing or any other event deemed necessary.

4.2.2 Training and Certification Programs

MTS provides agency-wide safety training programs to all employees. All new employees are given safety training, which includes an overview of Safety Management Systems. In addition, MTS sponsors ongoing Transportation Safety Institute (TSI) safety and security training courses to be held either on site in San Diego or, alternatively, sponsors employees to take TSI training at other locations.

4.2.2.1 Transportation Department Training

The Training Supervisor is responsible for all aspects of training within the department and interdepartmental training for on-track and roadway worker operating qualifications. The Training Supervisor develops programs, conducts classroom/field training for many job classifications, and is responsible for instructional activities for Supervisors, Train Operators, Flagpersons, and LRV Maintenance and Maintenance-of-Way personnel.

The Training Supervisor is responsible for the development of training requirements, initial instruction of new employees, and follow-up training and recertification. The Training Supervisor maintains employee records relative to training sessions, safety-related and defensive operating programs, Safety Event investigation, field exercises and public/customer relations as well as emergency procedures pertaining to a variety of scenarios.
The Transportation Standard Operating Procedures issued to employees include all departmental operating procedures (including safety and emergency procedures) as well as the Rules and Instructions for Employees Handbook. Train Operators and Supervisors (control, yard, and line) are required to demonstrate qualifications on these procedures during initial training. Additionally, training and recertification is required for each Train Operator and Supervisor biennially (after initial qualification) to ensure their current understanding of all safety-related matters and procedures. The System Safety Manager reviews the recertification programs to verify compliance with regulatory requirements.

Train Operators

The 440-hour initial training and biennial 24-hour recertification programs include classroom training, field exercises, and written and practical examinations pertaining to:

- Defensive driving/accident prevention
- Passenger sensitivity
- De-escalation
- LRV troubleshooting technique
- Emergency situation instruction
- Roadway worker safety

Supervisors

The 120-hour initial training and biennial 16-hour recertification programs include:

- Safety Event investigation
- De-escalation
- Equipment operation and troubleshooting
- Emergency situations instruction
- Administrative policy
- Roadway worker safety

Controllers

The 320-hour Controller training and recertification programs include orientation with the Wayside Maintenance, Track, and Security, as well as:

- System failure recovery techniques
- Manual block operations and instructions
- Interdepartmental and interagency communications
- Risk management
- De-escalation
- Safety Event investigation
- Equipment operation and troubleshooting
- Emergency situations instruction
- Administrative policy
- Roadway worker safety

4.2.2.2 Wayside Maintenance Department Training

New employees are instructed on company policies, safety rules, safety programs, and emergency procedures. Each maintainer is registered with the State of California to participate in a four-year Apprenticeship Program. Under this program, personnel must complete college-level training in electricity and electronics and participate in on-the-job and in-house training classes before becoming Journeyperson certified. New personnel with experience that demonstrate their knowledge of subject have the option of taking apprenticeship program (AP) examinations. If the new employee is successful in passing all required AP examinations, they qualify to be a Lineman.

Maintenance training is conducted continually. Track personnel participate in the "Track Training Program II" administered by the Railway Educational Bureau of Omaha, Nebraska and supported by SDTI. Qualification is required for main line operation of hi-rail track and rail-bound maintenance equipment. Qualification is required for main line operation of hi-rail track equipment with recertification provided biennially. Roadway Worker Protection Program qualification is required for Wayside Maintenance and Track Department employees with annual recertification.

Safety Meetings conducted by Supervisors cover a variety of subjects that relate to specific job duties such as:

- Hazardous material disposal
- State right-to-know laws
- Electrical safety
- Defensive driving
- De-escalation

As part of their daily routine, Shift Supervisors will observe workers' actions to:

- Identify potential hazards and initiate corrective action
- Look for unsafe work habits or improper use of equipment
- Ensure that safety equipment is properly and appropriately used

4.2.2.3 LRV Maintenance Training

The LRV Training Supervisors as well as the LRV Supervisors are responsible for providing employee orientation and training and verifying performance of required safety program activities during their shift. In addition, each maintainer is registered with the State of California to participate in a four-year Apprenticeship Program. Under this program, an employee must complete college-level training in electricity and electronics and go through on-the-job and in-house training classes before finally receiving certification as a Journeyperson by the State of California. All LRV Maintainers are certified on:

- Yard operation of LRVs (limited qualification)
- OSHA forklift operation
- Hazardous communication/blood-borne pathogens
- De-escalation

Biweekly and Toolbox Meeting safety meetings conducted by Shift Supervisors cover topics including:

- Hazardous materials disposal
- Electrical safety
- Shop power red tag/blue flag procedures
- Preventive maintenance for re-rail equipment
- Yard and shop safety
- Safe working habits, ergonomics, and PPE

4.2.2.4 Revenue Department Training

Safety is a vital element in the Revenue Department training program. Revenue Collector/Processors must be alert to the threat of armed robbery, and they are potentially subject to injuries from carrying and lifting heavy coin vaults. Job duties may require driving on congested highways, city streets, and pedestrian-active parking areas. Each employee is issued a company handbook that includes all safety instructions. New employees in the Revenue department are registered with the State of California to participate in a four-year Apprenticeship Program. Maintainers in the program must receive college-level training in electricity and electronics, participate in on-the-job and in-house training classes, de-escalation and pass all requirements before obtaining Journeyperson certification. Individual and group safety meetings are held on a monthly basis within the Revenue Department.

4.2.2.5 Facilities Department Training

New employees are instructed on the Rules and Instructions for Employees Handbook, company policies, safety programs, Drug and Alcohol Policy, Hazard Communication Program, and emergency procedures. Roadway Worker Protection Program qualification is required for Wayside Maintenance and Track Department employees, with annual recertification.

Toolbox meetings conducted by Shift Supervisors cover topics including:

- State right-to-know laws
- Proper use and disposal of cleaning chemicals, pesticides, and other hazardous materials
- Forklift and man-lift operating safety
- Power tool safety
- Hazard communication
- De-escalation

4.2.2.6 Board of Directors Safety Training

In accordance with FTA requirements, MTS has developed a safety presentation for the Board of Directors. This presentation explains the principles of Safety Management Systems and the role of the Board of Directors in the review and approval of the Public Transportation Agency Safety Plan.

4.2.2.7 Emergency Services Training

The purpose of this program is to familiarize San Diego-area emergency-response personnel and other organizations with the operating characteristics of the San Diego Trolley system and equipment.

Key training elements covered include but are not limited to:

- Brief Introduction to SDTI
- Roadway/Main Line and Yard Safety
- Traction Power
- Electrical Safety
- Communication with OCC or SDTI
- Railroad Response Protocol
- Cell phone usage on SDTI property
- Front Line Supervisor Identification
- Vehicle Familiarization
- Vehicle Access

The expectation of this exposure to SDTI's environment and procedures is to generate knowledge and awareness among personnel in emergency response agencies and to mitigate the risk of potential dangers to responding personnel, SDTI employees, and its patrons.

4.2.3 Roadway Worker Protection

It is SDTI's mission to provide safe, reliable, and courteous service. The Safety Department is responsible for compliance with federal, state, and local regulatory requirements.

4.2.3.1 Roadway Worker Protection Plan

A roadway worker is any person who is fouling or has the potential to foul the track, including an employee of a railroad or a contractor to a railroad whose duties include inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities, or roadway machinery on or near track or with the potential of fouling a track.

Employees, contractors and other non-railroad employees who perform work fouling any track or occupying the right-of-way must attend roadway worker safety training and maintain a copy of the Roadway Worker Protection Plan at the work site. It is the responsibility of SDTI to:

- Properly train every roadway worker.
- Guarantee each employee the right to challenge, in good faith, whether the on-track safety procedures to be applied at a work site comply with the Roadway Worker Protection Plan and SDTI Rules and Instructions for Employees.
- Follow proper procedures to resolve challenges promptly and equitably.

4.2.3.2 Roadway Worker Safety Program Management

Under the direction of the Director of Rail Transportation, the development, revision, and scheduling of initial roadway worker training and recertification will be the responsibility of the Transportation Department Training Supervisor and are conducted in compliance with Section 1.3 of the SDTI Rules and Instructions for Employees and the Roadway Worker Protection Plan. All classroom training modules will be conducted by the Transportation Department Training Supervisor or their designee. Program outline and individual modules will include the date of last revision.

4.2.3.3 Roadway Worker Safety Training

Recertification is conducted annually for all roadway workers and biennially for employees who may interface with roadway workers, including train operators, controllers, and supervisors. This training covers, but is not limited to:

- Identification of the right-of-way and the limits in which roadway worker protection (RWP) is required
- Recognition of railroad tracks and understanding of the space surrounding them
- Hazards associated with working on or near railroad tracks, including review of on-track safety rules and procedures
- Hazard/near-miss program and reporting procedures
- Understanding of hazards through a representative field setting
- The functions and responsibilities of various persons involved with on-track safety procedures
- Proper compliance with on-track safety instructions given by person responsible for on-track safety
- Train approach warning signals given by watchperson/lookout and the proper procedures upon receiving a train approach warning

The safety card issued by SDTI upon completion of roadway worker safety training must be carried at all times while on SDTI property or railroad right-of-way. Additionally, numbered RWP stickers issued by SDTI to contractor employees upon completion of roadway worker safety training must be visible on each roadway worker’s hard hat while on SDTI property or railroad right-of-way. Roadway worker training records are maintained for a minimum of three years within employee’s department or with the contracted third-party training provider in the case of contractors.

Federal and state government agencies are involved with the safe design, construction, maintenance, and operation of the SDTI system. The System Safety Manager, under the direction of the COO-Rail, is the primary contact person for all matters concerning safety at SDTI.

4.2.4 Contractor Safety Program

SANDAG contracts work for regional rail construction and capital improvement projects. The contractor personnel are not directly under the jurisdiction of SDTI but follow the requirements specified in SANDAG bid documents as to the roles and responsibilities of contractors. A SANDAG project engineer is responsible for providing scope of work orientation to the contractor in pre-bid meetings. All contractor personnel are instructed on the Roadway Worker Protection Program, which identifies responsibilities and restrictions on or near the right-of-way. Contractor training records are maintained by the MTS Right-of-Way Engineer. Contractor personnel are not allowed to enter the right-of-way until a right-of-entry permit is submitted to the Director of Rail Transportation for notice of intent to enter the right-of-way, location of work, equipment used on right-of-way, and nature of work. The Director of Rail Transportation reviews and approves all requests. SANDAG must coordinate any contractor work performed on the right-of-way that may impact revenue operations with MTS.

4.2.5 Personal Electronic Device Use

SDTI maintains a zero-tolerance policy, which prohibits the use of personal electronic devices (PEDs). This policy is in accordance with the requirements of CPUC General Order 172, Section 5. The policy mitigates the use of PEDs by employees and contractor personnel responsible for operating or controlling revenue and nonrevenue vehicles or performing work on or near the SDTI right-of-way.

SDTI Rule 1.4.9 (Restrictions on Use of Personal Cell Phones) and Standard Operating Procedure 101.27 (Use of Personal Electronic Devices While On-Duty) provides instructions and outlines policy regarding the use of PEDs. One incident of noncompliance with the established rules and procedures will result in employee termination.

SDTI uses a video-based monitoring system in the operating cabs and other areas of each LRV. This system supplements the random monitoring and enforcement of its operating rules, policies, and procedures, including those that govern the use of electronic devices in compliance with General Order 172. A representative sample is monitored and logged by Central Control Supervisor or designee as well as reviewed when there is a derailment, collision, complaint against the operator, a report of noncompliance with personal electronic device policy, security events, to augment efficiency testing, or any other event deemed necessary. The video-based enforcement and monitoring log will be maintained for a period of three (3) years.

5.0 ABBREVIATIONS AND DEFINITIONS

ACCEPTABLE RISK	A determination made that the probability of an incident or scenario occurring is unlikely and the severity of its consequence is negligible.
ACCOUNTABLE EXECUTIVE	Single, identifiable person who has the ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a transit agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control and direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329 (d) and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.
Assault on transit worker	A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with reckless disregard for safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker
CDC	Centers for Disease Control and Prevention of the United States Department of Health and Human Services
CHIEF SAFETY OFFICER	An adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer.
CONTRACTOR	An entity that performs tasks required by this part on behalf of the oversight or rail transit agency.
CORRECTIVE ACTION PLAN	A plan developed by the rail transit agency that describes the actions the rail transit agency will take to minimize, control, correct, and/or eliminate hazards. Further, it includes the schedule for implementing for those actions.
EVENT	Any accident, incident or occurrence.
FTA	Federal Transit Administration, an operating administration within the United States Department of Transportation.
HAZARD	Any real or potential condition that can cause injury, illness or death; damage to or loss of the facilities, equipment, rolling stock or infrastructure of a public transportation system; or damage to the environment.

HIGHWAY RAIL GRADE CROSSING	(1) a location where a public highway, road, or street, or a private roadway, including associated sidewalks, crosses one or more railroad tracks at grade; or (2) a location where a pathway is dedicated for the use of non-vehicular traffic, including pedestrians, bicyclists, and others, that is not associated with a public highway, road, or street, or a private roadway, crosses one or more railroad tracks at grade.
HIGHWAY USER	Automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, or any other mode of surface transportation motorized and un-motorized.
INCIDENT	An event that involves any of the following: a personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency
INDIVIDUAL	A passenger, employee, contractor, other rail transit facility worker, pedestrian, trespasser, or any other person on RTA property.
INVESTIGATION	The process of determining the causal and contributing factors of ant, incident or hazard, for the purpose of preventing recurrence and mitigating risk.
JOINT SAFETY COMMITTEE	Union labor-selected frontline voting members of an equal number of management representatives responsible for approving the ASP and any updates to the ASP.
LIGHT RAIL VEHICLE (LRV)	The rail transit agency's rolling stock, including, but not limited to passenger and maintenance vehicles.
NATIONAL PUBLIC TRANSPORTATION SAFETY PLAN	The plan to improve the safety of all public transportation systems that receive federal financial assistance under 49 U.S.C. Chapter 53.
OCCURRENCE	An event without any personal injury in which any damage to facilities, equipment, rolling stock or infrastructure does not disrupt the operations of a transit agency.
PASSENGER	A person who is onboard or in the process of boarding or alighting from a rail transit vehicle.
PERFORMANCE TARGET	Quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the FTA.
PROGRAM STANDARD	A written document developed and adopted by the oversight agency, that describes the policies, objectives,

	responsibilities, and procedures used to provide rail transit agency safety and security oversight.
PROPERTY	Property that is used by SDTI and may be owned, leased, or maintained by SDTI.
PUBLIC TRANSPORTATION AGENCY SAFETY PLAN (ASP)	Documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and 49 CFR 673.
RAIL FIXED GUIDEWAY SYSTEM	As determined by FTA, any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that: (1) Is not regulated by the FRA (2) Is included in FTA's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); or (3) Has submitted documentation to FTA indicating its intent to be included in FTA's calculation of fixed guideway route miles to receive funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).
RAIL TRANSIT AGENCY (RTA)	An entity that operates a rail fixed guideway system.
RISK	Composite of predicted severity and likelihood of the potential effect of a hazard.
RISK MITIGATION	A method or methods to eliminate or reduce the effects of hazards.
SAFETY ASSURANCE	Processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.
SAFETY EVENT	An unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.
SAFETY MANAGEMENT POLICY	A transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

SAFETY MANAGEMENT SYSTEM (SMS)	Formal, top-down organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices and policies for managing risks and hazards.
SAFETY MANAGEMENT SYSTEM EXECUTIVE	Chief Safety Officer or equivalent.
SAFETY PERFORMANCE TARGET	A performance target related to safety management activities.
SAFETY PROMOTION	Combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.
SAFETY RISK ASSESSMENT	Formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.
SAFETY RISK MANAGEMENT	Process within a transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing and mitigating safety risk.
SANDAG	San Diego Association of Governments.
SERIOUS INJURY	Any injury which (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes or noses); (3) causes a severe hemorrhage, nerve, muscle or tendon damage; involves an internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.
STATE	A state of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.
STATE OF GOOD REPAIR	Condition in which a capital asset is able to operate at a full level of performance.
STATE SAFETY OVERSIGHT AGENCY	An agency established by a state that meets the requirements and performs the functions specified by 49 U.S.C. 5329 (e) and the regulations set forth in 49 CFR part 674.
TRANSIT AGENCY	Operator of a public transportation system.

TRANSIT ASSET MANAGEMENT PLAN	Strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation as required by 49 U.S.C. 5326 and 49 CFR part 625.
UNACCEPTABLE RISK	A determination made that a condition or hazard that will inevitably promote Safety Events continuously or frequently with critical or catastrophic effects.

6.0 REVISION TABLE

Revision No.	Issue Date
0	July 2020 (First Issue)
1	January 2022 - Section 1.2.1 System Description: Mid-Coast Extension (Revenue Service November 2021)
2	January 2023 – Included all requirements of Bipartisan Infrastructure of Law (2021): Joint labor/management Committee, de-escalation training, Infectious Diseases Exposure Plan, trending based on 3-year rolling average of NTD data, risk reduction programs for reducing Safety Events, and transit worker assaults.
3	January 2025 - Section 1.2.1 System Description: Copper Line (Revenue Service September 2024) April 2024 – Included all 49 CFR 673 changes: Joint Safety Committee membership, responsibilities and procedures. Revised Safety Management Policy Statement to include Joint Safety Committee Transit Worker Assault Risk Reduction Program Risk Based Inspection Program (RBI)

7.0 REGULATORY REFERENCE DOCUMENTS

Document Reference Number	Title
49 CFR 42526 and 42529	Statement of Agency Policy Requires That Rail Transit Agencies Report Safety Events Which Meet Reporting Thresholds That Occur on Shared- Or Joint-Use Heavy Rail Segments Be Reported
49 USC 5329 (b)	Reports of Safety Events on Railroads
49 CFR 670	National Public Transportation Safety Plan
49 CFR Part 672	Public Transportation Safety Certification Training Program
49 CFR Part 673	Public Transportation Agency Safety Plan
49 CFR Part 674	State Safety Oversight Program
General Order 22-B	Regulations Governing Reports of Safety Events on Railroads
General Order 26-D	Clearances on Railroads and Street Railroads with Reference to Side and Overhead Structures, Parallel Tracks, Crossings of Public Roads, Highways, and Streets
General Order 33-B	Construction, Reconstruction, Maintenance and Operation of Interlocking Plants at Crossings, Junctions, Drawbridges, in Yards and at Sidings of Railroads and Street Railroads
General Order 72-B	Construction and Maintenance of Crossings at Grade of Railroads with Public Streets, Roads and Highways
General Order 75-D	Standards for Warning Devices for At-Grade Highway-Rail Crossings
General Order 88-B	Rules for Altering Public Highway-Rail Crossings
General Order 95	Overhead electric line construction
General Order 108	Filing of Railroad Operating Department Rules
General Order 110	Radio Communications in Railroad Operations
General Order 118-A	Construction, Reconstruction and Maintenance of Walkways and Control, of Vegetation Adjacent to Railroad Tracks
General Order 127	Maintenance and Operation of Automatic Train Control Systems-Rapid Transit Systems
General Order 128	Construction or Underground Electric Supply and Communication Systems
General Order 135	Occupancy of Public Grade Crossings by Railroads
General Order 143-B	Design, Construction and Operation of Light Rail Transit systems
General Order 161	Transportation of Hazardous Materials by Rail
General Order 164-F	State Safety Oversight of Rail Fixed Guideway Systems
General Order 172	Use of Personal Electronic Devices by Employees Of Rail Transit Agencies And Rail Fixed Guideway Systems
General Order 175-A	Roadway Worker Protection Provided by Rail Transit Agencies and Rail Fixed Guideway Systems
CPCU Program Standards Procedures Manual	Safety and Security Oversight of Rail Fixed Guideway System

APPENDIX A:

APPROVAL OF PTASP BY JOINT SAFETY COMMITTEE

Metropolitan Transit System

Via Email

SDTI Joint Safety Committee

On January 28, 2025, the Joint Safety Committee (JSC) convened to review the updated requirements of the Public Transportation Agency Safety Plan (PTASP) as specified in Part 673, which was issued in April 2024. This review included the Joint Safety Committee's Rules and Guidelines, as well as the Transit Worker Assault Risk Reduction Program. The JSC has approved the 2025 Version 3 of the PTASP, which is attached. MTS will present this plan to our Board of Directors for formal approval of the 2025 Version 3 PTASP.

The 2025 Version 3 Public Transportation Agency Plan has been approved as recorded below.

Joint Safety Committee
Management Committee Members

Fabeann Soberg, JSC Chair – Management

Joint Safety Committee
Labor Committee Members

Joshua Martin, JSC Co-Chair – Labor

Enclosure: 2025 Version 3 PTASP
Joint Safety Committee Meeting Notes

cc: Sharon Cooney, Chief Executive Officer
Brian Riley, Chief Operating Officer, MTS Rail Division
Joey Bigornia, CPUC Representative

1255 Imperial Avenue, Suite 1000, San Diego, CA 92101-7490 • (619) 231-1466 • sdmts.com

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for nine cities.

APPENDIX B:

Joint Safety Committee Meeting Minutes

Joint Labor Safety Committee Meeting Minutes

Date and Time: Tuesday, January 28, 2025, at 1:00PM (JSC)
Location: MTS 8th Floor Conference Room - 1255 Imperial Avenue, San Diego, CA

Management Committee Members

Fabeann Soberg, Chair	System Safety Management
Edward Graham	Director of Transportation
Rolando Montes	Director of Facilities
Aaron Pitt	Manger of Special Operations

Union Committee Members

Joshua Martin, Co-Chair	Code Compliance Inspector
Timothy Mapp	Construction Safety Flagperson
Brandon Watson	Train Operator
Edward Perry	LRV Electromechanic

DISCUSSION SUMMARY

The following summarizes the highlights of the information presented and topics of discussion during the Joint Safety Committee meeting.

1. Introductions
2. The meeting was called to order by Committee Chair Fabeann Soberg, a sign-in sheet was circulated, and attendees introduced themselves by name, title, and union they were representing.
3. Reviewed Public Transportation Agency Safety Plan (PTASP) 2025 Version 3
4. Reviewed Joint Safety Committee Plan with the formal rules and guidelines of the committee.
5. Reviewed MTS Trolley Transit Worker Assault Risk Reduction Program
6. Brandon Watson requested security be station at America Plaza, Civic Center, and Courthouse Stations for morning pull out trains.
7. The attached signature page confirms approval of the 2025 PTASP Version 3 by Joint Labor Safety Committee.

This summary was:
Prepared by Fabeann Soberg, Committee Chair

Enc: PTASP- Approval Letter by the Committee
2025 PTASP Version 3

APPENDIX C:

SAFETY PERFORMANCE MEASURES AND TARGETS

Appendix C:

Safety Performance Measures and Targets

SDTI currently produces many forms of indicators that get reported to levels within MTS and SDTI and also to the CPUC and the FTA. SDTI safety performance measures are established requirements per the FTA's National Public Transportation Safety Plan. The Bipartisan Infrastructure Law of 2021 requires transit agencies to develop a risk reduction program to improve safety by reducing the number and rates of accidents, injuries, and assaults on transit workers based on data submitted to the National Transit Database (NTD) by identifying targets that are specific, measurable, attainable, relevant, and time-bound (SMART). These measures will be evaluated using a three-year rolling CY average based on data submitted to NTD data to achieve a reduction compared to the previous three CY averages. SDTI risk reduction program addresses safety performance targets in the following Five categories:

Fatalities: the total number of reportable fatalities and rate per total vehicle revenue miles by mode.

Injuries: the total number of reportable injuries and rate per total vehicle revenue miles by mode.

Major Events: the total number of reportable events and rate per total vehicle revenue miles by mode.

System Reliability: mean distance between major mechanical failures between major mechanical failures by mode.

Transit Worker Assaults: Not required to set target until MTS has reported three years of data to NTD.

Safety Performance Measures 2022-2024	Targets
Fatalities	≤ 4.7
Fatalities Rate Per 100,000 Revenue Miles	≤ 0.12
Injuries	≤ 66
Injuries Rate Per 100,000 Revenue Miles	≤ 1.57 Reduction
Major Events	≤ 2.25
Major Events Rate Per 100,000 Revenue Miles	≤ 95 Reduction
System Reliability	≥ 12,692,339
System Reliability Rate Per 100,000 Revenue Miles	≥ 16,946 Increase in System Reliability
Emergency Brake	≤ 451
Emergency Brake Rate Per 100,000 Revenue Miles	≤ 10.65 Reduction

APPENDIX D:

Transit Worker Assault Risk Reduction Plan

Metropolitan Transit System

Transit Worker Assault Risk Reduction Program

2024



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Purpose

The purpose of the MTS Trolley Transit Worker Assault Risk Reduction Program is to outline current policies, procedures, training, best practices, and equipment used to reduce both the likelihood and severity of assaults on transit workers in compliance with 49 CFR 673.20.

Safety Risk Reduction Program Requirements (49 CFR 673.20)

(a) Each large, urbanized area provider must establish a safety risk reduction program for transit operations to improve safety performance by reducing the number and rate of assaults on transit workers.

(1) The safety risk reduction program must, at a minimum, address the reduction and mitigation of assaults on transit workers that includes consideration of safety risk mitigations consistent with § 673.20(a)(3) and implementation of safety risk mitigations consistent with § 673.20(a)(4).

(3) When carrying out the safety risk mitigation process under § 673.25(d) for risk relating to assaults on transit workers, each large, urbanized area provider must consider deployment of assault mitigation infrastructure and technology on transit vehicles.

(4) When a Safety Committee recommends safety mitigations it has determined would reduce assaults on transit workers and injuries to transit workers based on a safety risk analysis conducted under § 673.25(c), the transit agency must implement one or more of those mitigations to reduce risk to an acceptable level, unless the Accountable Executive determines the mitigation will not improve the agency's overall safety performance.

Bipartisan Infrastructure Law (BIL) Definitions

Transit Worker

Any employee, contractor, or volunteer working on behalf of the transit agency.

Assault

A circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

State Laws Protecting Transit Workers

CA Pen. Code § 241.3:

When an assault (an unlawful attempt, coupled with a present ability, to commit a violent injury on the person of another) is committed against any person on the property of, or on a motor vehicle of, a public transportation provider, the offense shall be punished by a fine not to exceed two thousand dollars ($2,000), or by imprisonment in a county jail not to exceed one year, or by both the fine and imprisonment. As used in this section, "public transportation provider" means a publicly or privately owned entity that operates, for the transportation of persons for hire, a bus, taxicab, streetcar, cable car, trackless trolley, or other motor vehicle, including a vehicle operated on stationary rails or on a

track or rail suspended in air, or that operates a school bus. As used in this section, “on the property of” means the entire station where public transportation is available, including the parking lot reserved for the public who utilize the transportation system.

CA Pen. Code § 243.3:

When a battery (any willful and unlawful use of force or violence upon the person of another) is committed against the person of an operator, driver, or passenger on a bus, taxicab, streetcar, cable car, trackless trolley, or other motor vehicle, including a vehicle operated on stationary rails or on a track or rail suspended in the air, used for the transportation of persons for hire, or against a school bus driver, or against the person of a station agent or ticket agent for the entity providing the transportation, and the person who commits the offense knows or reasonably should know that the victim, in the case of an operator, driver, or agent, is engaged in the performance of his or her duties, or is a passenger the offense shall be punished by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not exceeding one year, or by both that fine and imprisonment. If an injury is inflicted on that victim, the offense shall be punished by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not exceeding one year or in the state prison for 16 months, or two or three years, or by both that fine and imprisonment.

Train Operator Training

Customer Service Skills:

All train operators complete an 11-week training program before going into individual revenue service. During this time, employees are taught various aspects of providing good customer service skills to all passengers. This includes:

- Take the opportunity to inform boarding passengers of any possible delays or detours
- Offer empathy, courtesy, and patience- and a solution if possible
- Maintain a calm and soft yet firm voice
- Avoid using your title or authority
- Do not offer lengthy explanations or excuses

De-Escalation / Conflict Resolution Skills:

Throughout the day, Train Operators and other Trolley employees are likely to encounter people and situations that can be difficult to address without some degree of conflict. These include passengers who are intoxicated, passengers who play loud music, passengers who bring unauthorized items onto the trolley (i.e. shopping carts); those who use obscene or abusive language, etc. To safely address these types of issues, Train Operators are taught to:

- Treat people with dignity by showing respect, even if you disagree with them
- Keep your distance from passengers
- Observe and report any aggressive behavior
- Enforcement of Agency Policy falls under the purvey of the Security Department

Inform Not Enforce Procedures:

Train Operators and other trolley employees are not required to enforce agency policy. Trolley employees are only required to observe and report. Enforcement of agency policy falls under the purvey of the Security Department. In the event a passenger continues to argue or escalate the situation, Train Operators are taught to:

- Call Central Control for direction or assistance. Remain in the cab or leave the area if necessary.
- If a situation or passenger's behavior jeopardizes safety, secure the train and contact Central Control for assistance. Strive to keep calm and avoid calling attention to the passenger or situation.
- If a passenger refuses to deboard an out-of-service train, operators must return to the cab and notify Central Control. Security will remove the individual once the trolley returns to the yard.

Maintenance Employee Training

All front-line maintenance employees: Maintenance of Way (MOW), Flagpersons, Facilities workers and NMS employees receive de-escalation training. This includes interacting with passengers upset about a vehicle breakdown, answering passenger questions while at a transit center, engaging individuals who may be trespassing in unauthorized areas, encountering a sleeping passenger inside the trolley when the trolley is going out of service or being cleaned at a terminal, etc. Maintenance employees are taught to:

- Leave the area if an individual seems threatening or aggressive
- Report the situation immediately
- Station duties can be postponed if a threatening individual is occupying the platform or surrounding area



Train Operator's Manual Policies

Rule 1.4.2 Employees must treat all passengers and other employees with courtesy; avoid arguments and exercise patience, forbearance and self-control under all conditions. They must be attentive and helpful without being impertinent or offensive.

6.8.1 If there is a disturbance on a train, Train Operator must notify the Controller and, if necessary, request security or police.

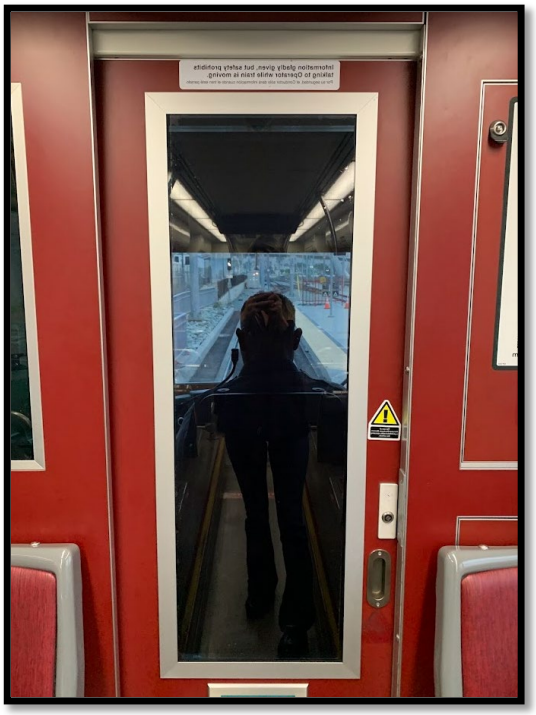
6.8.2 Train Operators should avoid becoming directly involved unless it becomes necessary for the safety of other passengers.

6.8.3 Train Operators must notify the Controller when the disturbance has been cleared.

6.9 Disturbance at a Station: Train Operators observing a disturbance at a station must report it to the Controller and, if necessary, request security or police. Train Operator must make every effort to avoid risk to themselves, passengers or equipment**.**

Light Rail Vehicle Equipment

All light rail vehicle operating cabs are secured with a door lock. A company issued key must be used to enter the cab. The center panel of the door is glass, allowing the train operator to see passenger activity.



Emergency Silent Alarm

Each Light Rail Vehicle (LRV) has a Silent Emergency Alarm on both operating ends. The Train Operator can activate it by pressing a hidden pushbutton. This triggers a visual and audible alert at Central Control, indicating which LRV activated the alarm. When the alarm is triggered, a hidden microphone in the cab turns on, and the cab radio speaker is silenced to ensure private communication for Central Control.



Camera Systems

All Light Rail Vehicles (LRVs) are equipped with modern camera systems that monitor the vehicle's interior and exterior. Each LRV has twelve cameras, one focused on the operating cab. These camera systems include hard drive recorders that store video footage for 10 days. The recorded video can be wirelessly downloaded to a remote server, which can be preserved for up to one year. For long-term storage, footage can be saved on the agency's shared network, ensuring security and accessibility.



Fleet Communication and Management System

The LRVs are equipped with a fleet management system that is an actively manage by Operations Central Control. This system includes:

1. Real-time vehicle tracking via Global Positioning System (GPS)
2. Wireless data communications
3. Automated Vehicle Location (AVL) map and data displays

The Operations Control Center (OCC) is staffed twenty-four hours a day, seven days a week, and provides twenty-four-hour service to passengers and employees. The primary functions established for the OCC Facility and personnel are to provide for the safety and security of SDTI personnel and passengers, notify all emergency agencies for situations on the SDTI system requiring emergency response, maintain system-wide supervisory control by monitoring train operations and facilities that support the system, and to document incidents that result in system delays, injuries, or damages.

Radio

In addition to the in-cab radio, all Train Operators and field maintenance personal are issued handheld radios at the beginning of each shift. Radios are used to communicate with Central Control regarding routine duties or in case of an emergency.



Passenger Safety Team

The Transit Security Passenger Safety Department is staffed with MTS Code Compliance Inspectors (CCIs) and contracted security personnel. The Transit Enforcement Department Passenger Safety Team

is made up of four CCIs, one CCI Supervisor. The team is deployed throughout the system based on the data analyst intel conducts ongoing security risk analyses and meets with safety staff monthly to maintain a secure environment for passengers, employees, and facilities by identifying emerging significant security risks and formulating solutions and mitigations. Transit Security regularly sweep LRV and respond to requests occurring onboard trains to handle disruptive passengers and any other high priority incidents. Transit Team collaborates with local law enforcement for fare saturations to remove fare evaders and conduct warrant checks.



Assault Tracking & Reporting

Internal Database

MTS developed an internal tracking database to track all assaults on transit workers. The database tracks basic operational information including the date, time, location, employee ID etc., as well as law enforcement status including the case number, charges filed, prosecution, trial, and sentencing. The information on the database is used to assist with allocating security resources throughout the system as well as facilitating the prosecution of crimes against transit workers.

National Transit Database (NTD)

MTS reports all applicable transit worker assaults to the National Transit Database (NTD) monthly. This includes both major events (injury requiring medical treatment) and minor events (non-injury). These assaults are reported for each mode of transportation and include both physical and non-physical assaults.

Reporting

When an employee is assaulted on property or while on-duty the following information must be collected and submitted to the Operational and Crime Data Analyst:

i. Employee Name and ID
ii. Incident Location
iii. Video footage

iv. Description of Injuries to Employee
v. Suspect Information
vi. Notification to Security or San Diego Police Department and completion of any reports

Transit Worker Support Post Assault

Workers Comp Waiting Period

California has a 3-day waiting period before workers' compensation benefits are paid for injuries sustained on the job. MTS waives the 3-day waiting period when the injury was the result of being assaulted while on duty.

Employee Assistance Program

MTS offers an Employee Assistance Program (EAP) which allows transit workers to receive free confidential professional counseling/therapy sessions. These sessions are available 24 hours a day, 7 days a week, and can be conducted face to face, via tele-video or chat therapy. Counselors can help with a wide range of issues including Anxiety, depression, stress management, grief, self-esteem, family relationship support, etc.



APPENDIX E:

MTS Rail Joint Safety Committee Plan

MTS Rail Joint Safety Committee Plan



Revision Log

Revision No.	Prepared by	Date (mm-dd-yyyy)	Comment
1	Fabeann Soberg	01-28-2025	Final Approved Draft

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1.0 PURPOSE

A. To define the roles, conduct and responsibilities of the Metropolitan Transit System (MTS RAIL) Joint Safety Committee.
B. To identify eliminations and/or mitigations for identified hazards using risk-based decision making and ensure the effectiveness of safety policies and procedures that apply to MTS RAIL.
C. To meet the requirement of Bipartisan Infrastructure Law on the Public Transportation Agency Safety Plan 49 U.S.C. 5329d, including but not limited to reviewing and approving changes to the PTASP.

2.0 AUTHORITY

A. Title 49 CFR Part 673 - Public Transportation Agency Safety Plan
B. Tile 49 U.S.C § 5329 - Public Transportation Safety Program
C. MTS RAIL's Public Transportation Agency Safety Plan (PTASP)

3.0 PROCEDURES

3.1 Scope

To establish and administer the statutorily required Safety Committee that is jointly comprised of an equal number of management and union members. The committee will identify risk-based corrective measures needed to eliminate or control recognized safety and health hazards to transit operations and workforce, annually review and approve MTS RAIL's Public Transportation Agency Safety Plan, set annual safety performance targets for the safety risk reduction program, and other work that the committee might decide.

3.2 Safety Committee Members

A. The safety committee at a minimum will:
1. Be convened by a joint labor-management process.
2. Consist of an equal number of:
• Frontline employee representatives, selected by a labor organization representing the plurality of the frontline workforce employed by the recipient

or, if applicable, a contractor to the recipient, to the extent frontline employees are represented by labor organizations; and

- Management representatives

B. Six (4) Management representatives will be present:
   1. Director of Transportation
   2. Director of Facilities
   3. Manager of Special Operations
   4. System Safety Manager of Rail (Chair)

C. Six (4) Frontline Union representatives will be present. Members participating in their capacity as union members will suffer no loss in compensation for time spent in Committee meetings.

D. Alternates or designees can attend meetings when scheduling conflicts occur.

E. Subject matter experts, including other transit workers, may be invited to serve in an advisory capacity as needed.

F. All members of the committee will complete the MTS Rail Joint Safety Committee Training.

3.3 Joint Safety Committee Meetings

A. The Committee will meet quarterly beginning on March 13, 2025. Additional meetings can be scheduled, if necessary.
   1. Meetings will be rescheduled to the next available date under emergency conditions.

B. The Committee will use the meetings to establish and review performance targets for the safety risk reduction program using a 3-year rolling average of the data submitted by MTS RAIL to the national transit database (NTD) required by § 673.11(a)(7)(iii).

C. Topics of discussion will include:
   1. Safety deficiencies that may affect MTS RAIL personnel physical, mental, or psychological state.
   2. Identification of risk-based mitigation/recommendations necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment.
   3. Identification of mitigations or strategies that may be ineffective, inappropriate, or not implemented as intended.

4. Methods to reduce numbers and rates of accidents, injuries, and assaults on transit workers based on MTS RAIL incidents and the NTD database.

D. Committee Meeting Agenda/Minutes

1. Meeting agenda will be attached to the meeting invite.
2. Discussion during the meeting shall be tracked in the Committee meeting minutes and processed.
3. Meeting minutes will be sent out as soon as possible following each meeting.
4. Meeting minutes will be maintained by the System Safety Department for recordkeeping.

4.0 RESPONSIBILITIES

4.1 System Safety Department is responsible for:

A. Preparing and maintaining the agenda and the meeting minutes that will document action to be taken, attendance, discussion points, and votes, when required.

1. Actions are to be tracked and discussed in subsequent meetings until final resolution.

B. Scheduling safety committee in accordance with 3.3.A, above, with the meeting location, time, and date.

C. When the Committee has come to a majority vote on issues requiring Board/COO notification, this communication with the Board of Directors or the COO from the Safety Committee will be delivered by a memo from the Chief Safety Officer.

4.2 Committee representatives are responsible for:

A. Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through the transit agency's safety risk assessment, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

B. Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

C. Identifying safety deficiencies for purposes of continuous improvement as required at § 673.27(d), including any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

D. Receive, study, and act upon the complaints of employees concerning their health and safety during their assigned work.

E. Reviewing accidents and quarterly accident statistics to provide insights and suggestions upon how accidents may be prevented from reoccurring.

F. Analyzing transit workers' risks of suffering assaults within MTS RAIL and recommending mitigation strategies including infrastructure improvements which would reduce assaults on and injuries to workers.

G. Reviewing and approving, on a schedule that meets any deadlines imposed by the Federal Transit Administration or any other government entity, changes to the PTASP.

4.4 Committee Review and Approval of MTS RAIL's PTASP:

The Chief Safety Officer shall annually review the PTASP for required changes. If revisions are required, the revised PTASP will be submitted to the Joint Safety Committee for review. After review, the Joint Safety Committee will approve the PTASP plan by majority vote. Once the PTASP has been approved by the Committee, the safety plan will be officially approved per section 3.3 of the PTASP and then submitted to the CPUC.

5.0 DECISION MAKING

The Committee will make decisions by majority vote. A quorum of eight (8) members must be present for the Committee to make a decision. Votes will be recorded as Yes, No, or Abstain. Votes will be individually recorded unless the vote is unanimous. Votes will be recorded in the meeting minutes. Should safety committee members reach impasse on an issue within their purview as prescribed by the Federal Transit Administration's Final Rule and Regulations (April 11, 2024), the parties shall proceed to a binding neutral third-party arbitration process.

6.0 INSPECTION AND INFORMATION ACCESS

6.1 Joint Safety Inspections

The Committee shall have the right to perform inspections of MTS RAIL facilities and vehicles for the investigation of safety hazards and following any accident or other safety or security incident that falls under the scope of committee responsibilities no later than forty-eight (48) hours after the accident or incident concludes.

6.2 Information Access

The Committee will have access to all documents, electronically stored information, and other records that are held or maintained either by management or by the Union and that are reasonably relevant to the Committee's work. This provision will not require management or the Union to disclose any information that is to remain confidential by law or under the collective bargaining agreement between management and the Unions.

7.0 DISPUTE RESOLUTION

Disputes regarding the meaning and or interpretation of this Joint Safety Committee plan will be subject to the grievance and arbitration procedure contained in the collective bargaining agreement between the parties. If a dispute goes to arbitration under that procedure, management and the Union will accept the earliest mutually agreeable arbitration date and will ask the arbitrator to render a decision within thirty (30) days of the close of the arbitration hearing.

8.0 SAFETY RISK REDUCTION PROGRAM MITIGATIONS

§673.11(7)(iv) SAFETY RISK MITIGATIONS INDENTIFIED AND RECOMMENDED BY THE JOINT SAFETY COMMITTEE AS DESCRIBED IN §673.25(d)(5)

When the joint safety committee identifies and recommends safety risk mitigations relating to vehicular and pedestrian safety events involving transit vehicles §673.11(7)(i) or assaults on transit workers §673.11(7)(ii) based on a safety risk assessment, these safety risk mitigations will be listed in the joint safety committee meeting minutes appendix.

When the Safety Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the COO of Rail decides not to implement the

safety risk mitigation, the COO of Rail must prepare a written statement explaining their decision, pursuant to recordkeeping requirements at §673.31. The General Manager must submit and present this explanation to the transit agency's Joint Safety Committee and Board of Directors.

APPENDIX F:

MTS BOARD MEETING MINUTES & FINAL BOARD AGENDA
(March 13, 2025)

APPENDIX G:

APPROVAL OF PTASP VERSION 3 BY MTS BOARD OF DIRECTORS
(March 13, 2025)

Metropolitan Transit System

Annual Safety Performance Review and Approval of Updated Agency Safety Plan

Board of Directors

Trolley

Public Transportation Agency Safety Plan (PTASP)

- 49 CFR 673 - Public Transportation Agency Safety Plan (PTASP)
- Effective Date: July 19, 2019 - Compliance Extended to July 20, 2021
- MTS Board of Directors approved the PTASP on July 30, 2020
- **MTS (SDTI) PTASP January 2025 Revision 3: Includes the PTASP requirements from 49 CFR Part 673, issued in April 2024, outlining the rules and guidelines established by the Joint Labor/Management Committee, as well as the Transit Worker Assault Risk Reduction Program and additional safety performance measures, which is based on a three-year rolling average of National Transit Database (NTD) data.**



This rules apply to: Recipients or sub-recipients of financial assistance under 49 U.S.C. § 5307 that operate a public transportation system

Federal Transit Administration

New Safety Performance Measures

General Safety Performance Measures	
1a: Major Events	2.1: Transit Worker Fatality Rate (NEW)
1b: Major Event Rate	3a: Injuries
1.1: Collision Rate (NEW)	3b: Injury Rate
1.1.1: Pedestrian Collision Rate (NEW)	3.1: Transit Worker Injury Rate (NEW)
1.1.1: Vehicular Collision Rate (NEW)	4a: Assaults on Transit Workers (NEW)
2a: Fatalities	4b: Rate of Assaults on Transit Workers (NEW)
2b: Fatality Rate	5: System Reliability

(NEW) – not required to set target until MTS has reported three years of data to the NTD for the corresponding performance measure.

Safety Performance Measures

3.1.1.3 Safety Performance Measure: Major Events

- The CY performance target for total number of safety events and safety events rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average.

YEAR RANGE	TARGET	3- Year Average
2017-2019	Established Base Line	4.65
2018-2020	< 4.65	3.62
2019-2021	< 3.62	3.32
2020-2022	< 3.32	2.75
2021-2023	<2.75	2.39
2022-2024	<2.39	2.25

Safety Performance Measures

3.1.1.1 Safety Performance Measure: Fatalities

- FTA formula (Fatalities/VRM x 100,000) = Rate per 100,000 miles
- The calendar year (CY) performance target for total fatalities and total fatalities rate per 100,000 revenue miles is to achieve a reduction compared to the previous three Calendar Year average.

YEAR RANGE	TARGET	3- Year Average
2017-2019	Established Base Line	0.12
2018-2020	< 0.12	0.11
2019-2021	<0.11	0.08
2020-2022	< 0.08	0.08
2021-2023	< 0.08	0.11
2022-2024	<0.11	0.12

Safety Performance Measures

3.1.1.2 Safety Performance Measure: Injuries

- The CY performance target for total number of injuries and injury rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average.

YEAR RANGE	TARGET	3- Year Average
2017-2019	Established Base Line	3.47
2018-2020	< 3.47	3.14
2019-2021	< 3.14	2.90
2020-2022	< 2.90	2.20
2021-2023	< 2.20	1.77
2022-2024	<1.77	1.57

Safety Performance Measures

3.1.1.4 Safety Performance Measure: System Reliability

- The CY performance target for system reliability rate is to achieve a reduction compared to the previous three calendar years' average. SDTI system reliability targets are calculated using a three-year average of the mean distance of train operations between failures.

YEAR RANGE	TARGET	3- Year Average
2017-2019	Establish Base Line	10,259
2018-2020	>10,259	11,530
2019-2021	>11,530	13,463
2020-2022	> 13,463	14,156
2021-2023	> 14,156	16,194
2022-2024	> 16,194	16,946

Safety Performance Measures

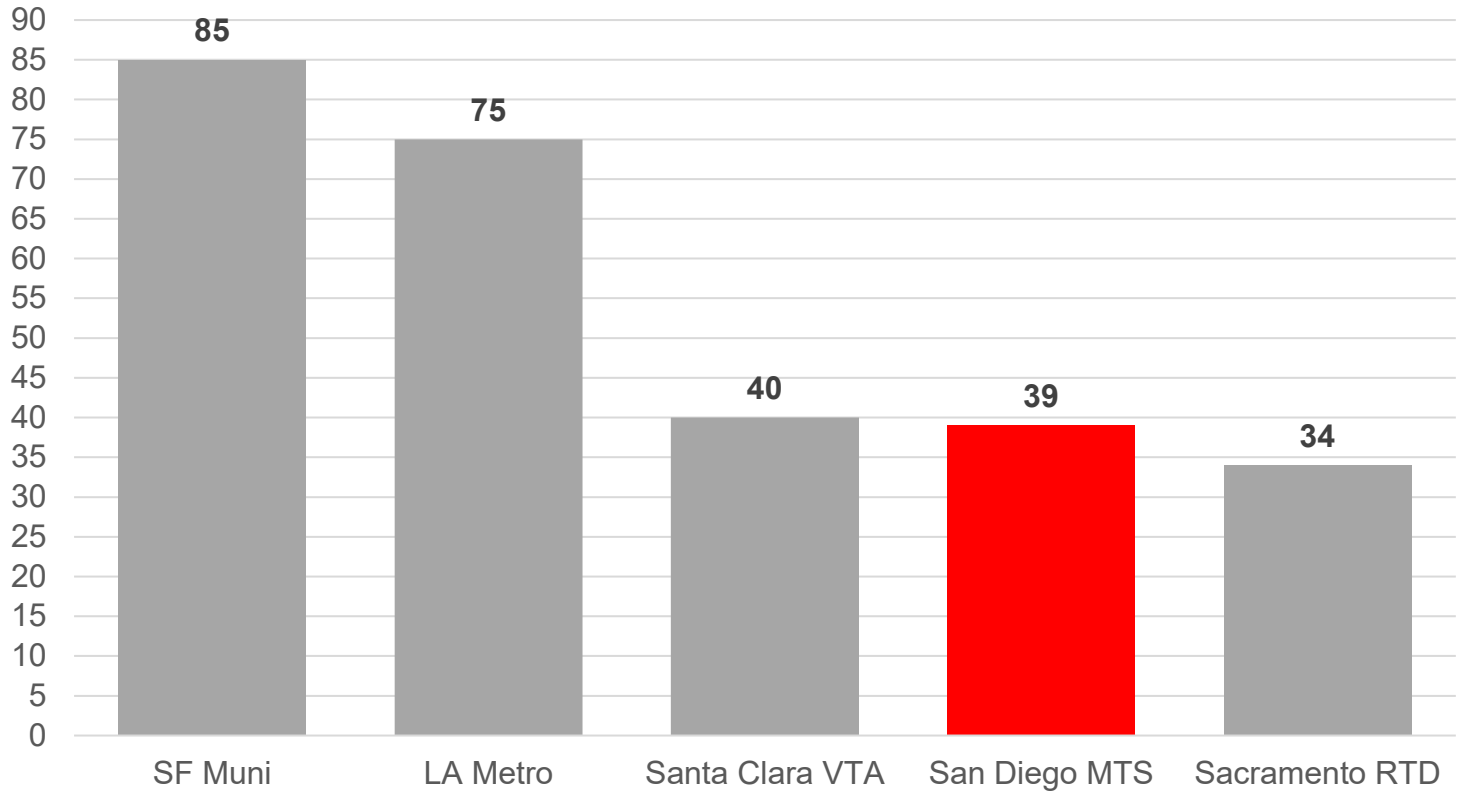
3.1.1.5 Safety Performance Measure: Other

- Emergency Brake Log - The CY performance target for total number of “Emergency Brake Applications” rate per 100,000 revenue miles is to achieve a reduction compared to the previous three CY average.

YEAR RANGE	TARGET	3- Year Average
2017-2019	Establish Base Line	11.51
2018-2020	<11.51	11.19
2019-2021	<11.19	11.01
2020-2022	<11.01	11.06
2021-2023	<11.06	10.70
2022-2024	<10.70	10.65

Statewide Rail Accidents

CY 2024



FTA Transportation Safety Institute (TSI)

MTS hosted the TSI Transit Safety and Security Audit Course, attended by employees from peer agencies and MTS employees from the Light Rail Vehicle Maintenance, Transportation, Maintenance of Wayside, and Track Departments.

This course teaches transit professionals how to prepare for and conduct a simulated safety audit of operational processes to verify safety performance. Participants learned the expectations for planning and conducting audits, reporting results, and maintaining records.





2024 California Public Utilities Commission (CPUC) Triennial Audit

The Commission's General Order (GO) 164-F and the Federal Transit Administration (FTA) regulations state that the State Safety Oversight Agency (SSOA) must conduct an in-person Safety and Security Review of the Metropolitan Transit System every three years.

CPUC staff inspects and reviews MTS's design, construction, operation, maintenance, and administration to assess compliance with its Public Transportation Agency Safety Plan (PTASP) safety procedures.

California Public Utilities Commission

2024 Internal Safety & Security Audit (ISSA)

Eight elements were reviewed based on 49 CFR Part 673 requirements for the PTASP, MTS System Security Plan, and General Order 164-F.

The elements reviewed from the Safety and Security Master Audit Schedule included the following:

- Checklist 01: Policy Statement
- Checklist 02: Purpose, Goals, and Objectives
- Checklist 03: Management Structure
- Checklist 11: Internal Safety and Security Audit Program
- Checklist 13: Facilities and Maintenance Inspections
- Checklist 14: Maintenance Audit and Inspection Program
- Checklist 19: Drug and Alcohol Program
- Checklist S-3: Identification Concepts for Passenger and Employee Security
- Checklist S-6: The Process for Notifying, Investigating, and Reporting Security Breaches

Train Operator Safety Awards

MTS honored 119 Train Operators for their years of accident-free service. Among them, four Train Operators were recognized for over 30 years of accident-free service



Bus

Bus Performance Measures

- Prior goal was to improve upon 3-year baseline (2018-2020)
- Bipartisan Infrastructure Law (BIL) changed to 3-year rolling average, CY 2021 - CY 2023
- Performance targets do not consider crimes, fault, or preventability
- All rates are based on vehicle revenue miles
- 24.2 million revenue miles travelled in CY 2024 for all bus modes

Performance Measure – Fatalities

Mode	Total			Rate		
	*Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	0	1.3	0	0	0.015	0
Fixed (Transdev)	0	0.3	0	0	0.003	0
Fixed Total	**0**	**1.7**	**0**	**0**	**0.008**	**0**
Paratransit (First)	**0**	**0**	**0**	**0**	**0**	**0**

Fatality - Death confirmed within 30 days of the event (including suicides).

Rate per 100,000 vehicle revenue miles.

*Baseline total was aspirational goal.

Performance Measure – Major Events

Mode	Total			Rate		
	Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	21.3	23	27	0.22	0.25	0.29
Fixed (Transdev)	18.3	19.3	24	0.17	0.18	0.21
Fixed Total	**39.7**	**42.3**	**51**	**0.19**	**0.21**	**0.24**
Paratransit (First)	**2.7**	**2.3**	**1**	**0.07**	**0.09**	**0.03**

Major Event – Previously called “Safety Event.” Changed due to updated National Safety Plan.

All safety and security events defined by the NTD. Collisions that meet NTD thresholds for injuries, fatalities, property damage; vehicle towed.

Rate per 100,000 vehicle revenue miles.

Performance Measure – Injuries

Mode	Total			Rate		
	Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024	Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	56.3	39.3	46	0.58	0.43	0.50
Fixed (Transdev)	57.3	44.7	54	0.52	0.41	0.46
Fixed Total	**113.7**	**84**	**100**	**0.55**	**0.42**	**0.48**
Paratransit (First)	**2.7**	**4**	**4**	**0.07**	**0.16**	**0.12**

Injury - Any damage or harm to persons that requires immediate medical attention away from the scene because of a reportable event must be reported as an injury, whether or not the person appears to be injured.

Rate per 100,000 vehicle revenue miles.

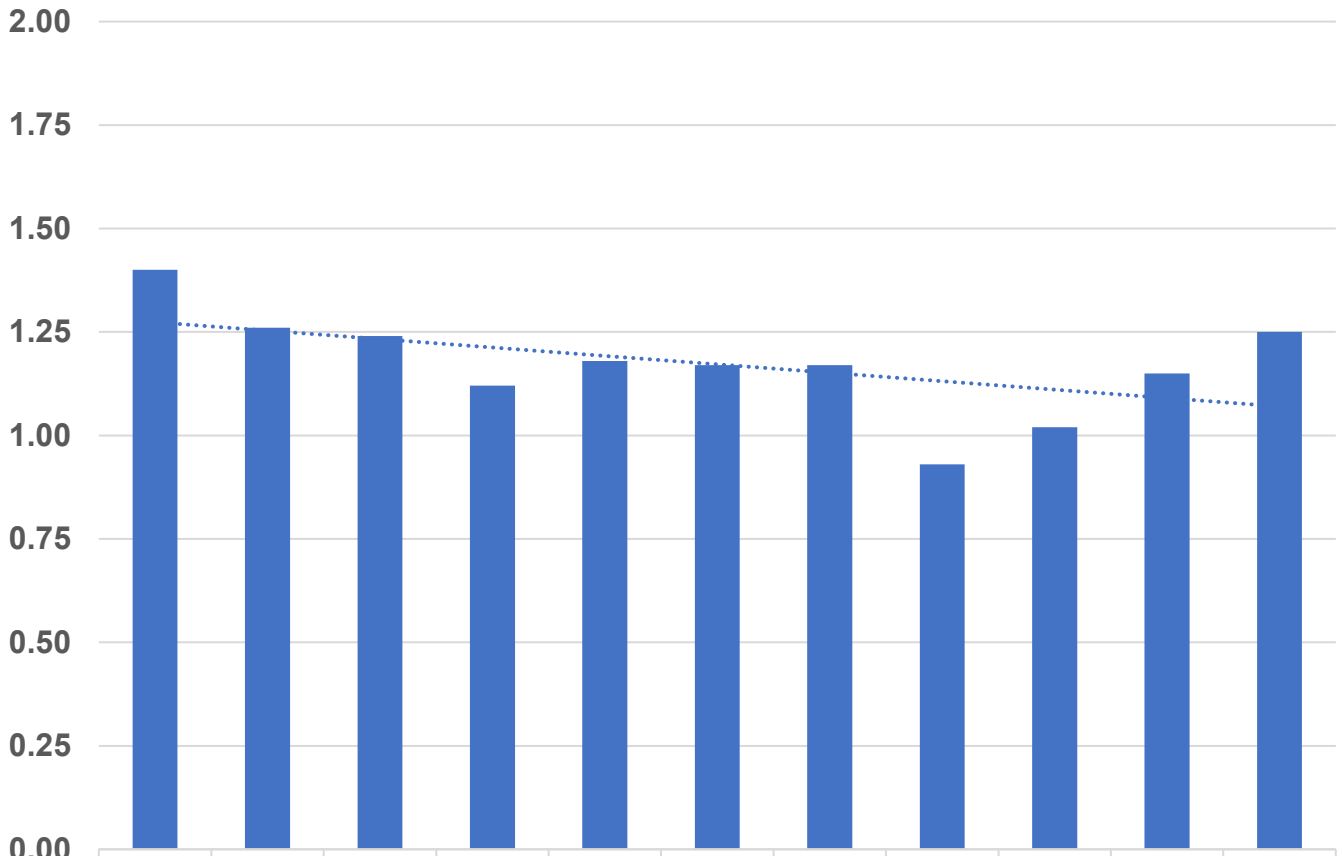
Performance Measure – System Reliability

Mode	Rate		
	*Baseline Avg CY 18 - 20	3 - Year Avg CY 21 -23	CY 2024
Fixed (MTS)	4,700	6,612	6,985
Fixed (Transdev)	6,000	6,760	4,963
Fixed Total	**5,600**	**6,691**	**5,687**
Paratransit (First)	**32,000**	**46,003**	**51,411**

System Reliability - Distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures.

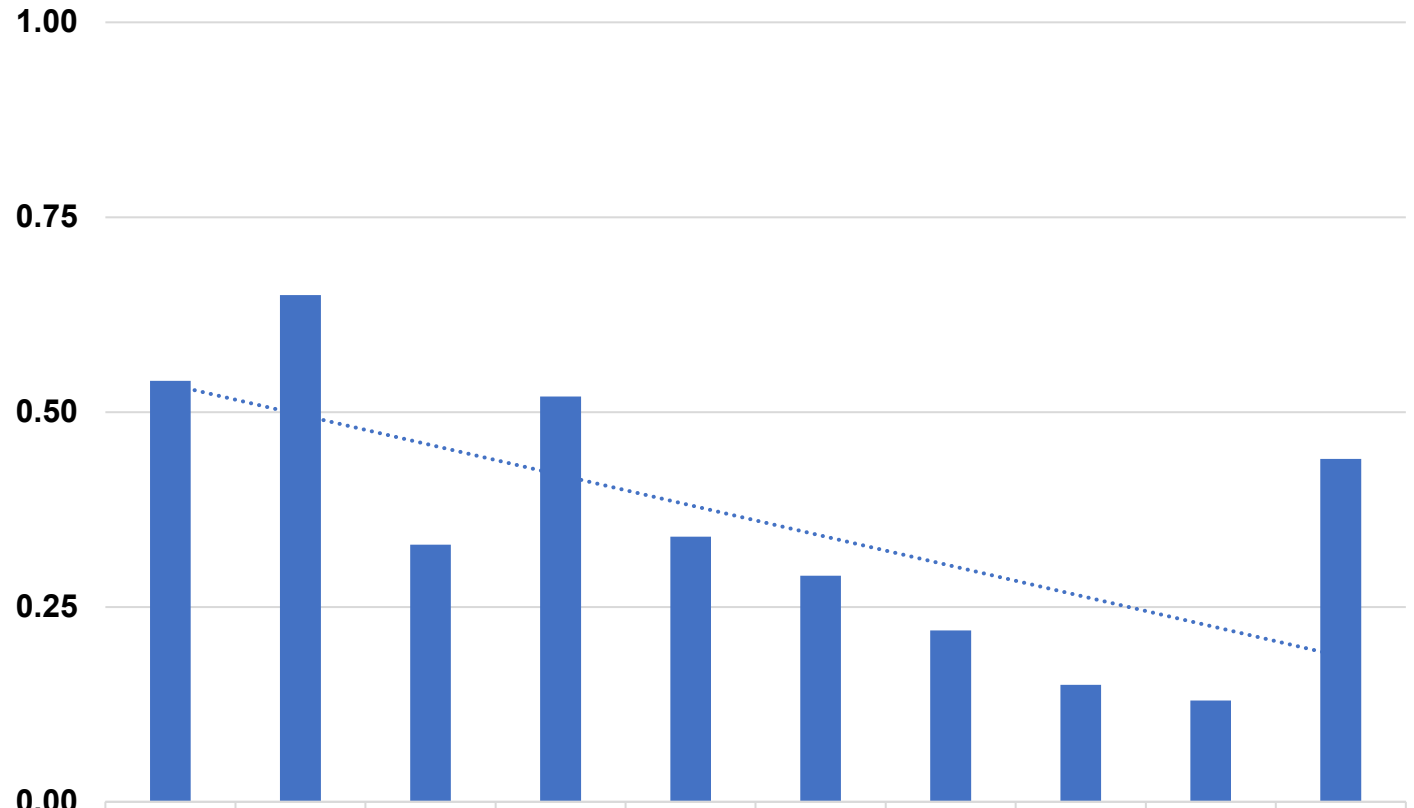
* Rounded to nearest hundred miles.

Fixed Route Preventable Accidents



	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Route	1.4	1.26	1.24	1.12	1.18	1.17	1.17	0.93	1.02	1.15	1.25

Rapid Preventable Accidents



	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rapid	0.54	0.65	0.33	0.52	0.34	0.29	0.22	0.15	0.13	0.44

CHP Annual Terminal Inspections

- Vehicle inspection and repair history
- Commercial licensing and medical exams
- Training records, driving hours, drug & alcohol testing
- All 5 terminals successfully passed their inspection

Bus – Employee Safety & Service Awards



MILLION MILE AWARDS

14 (10 prior year)

The National Safety Council's award recognizes Bus Operators who have driven 25,000 hours without a preventable accident.

SAFE DRIVER AWARDS

275 (277 prior year)

Bus Operators who have driven the entire year without a preventable accident and missed fewer than 15 days from work.





MAINTENANCE SAFETY AWARDS

125 (122 prior year)

Recognizes staff who have had no preventable accidents, unsafe acts, or chargeable property damage incidents; and no disciplinary actions pertaining to safety or property damage.

SUPPORT SERVICES AWARDS

22 (25 prior year)

Recognizes staff who have had no valid customer complaints, no discipline, including suspension or letters of reprimand, and have received at least one valid customer compliment.



Updates to Agency Safety Plan

- Adds 7 performance measures outlined in National Safety Plan
- Details Safety Committee operation including work schedules, pay, decision making, and dispute resolution
- Requires CEO to notify BOD in writing if recommendations by the Safety Committee are not implemented (§ 673.25(d)(6))
- Adopts Transit Worker Assault Risk Reduction Program(s)

Agency Safety Plan Review & Approval Process



Staff Recommendation

That the San Diego Metropolitan Transit System (MTS) Board of Directors approve updates to the Public Transportation Agency Safety Plan (PTASP)

Metropolitan Transit System

Agenda Item No. 24

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Fiscal Year (FY) 2026 Capital Improvement Program (CIP) (Mike Thompson)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) MTS Board of Directors:

1) Approve the FY 2026 CIP with the estimated federal and non-federal funding levels (Attachments A and B). As the federal appropriation figures are finalized and/or other project funding sources become available, allow the Chief Executive Officer (CEO) to identify and adjust projects for the adjusted funding levels; and

2) Recommend that the San Diego Association of Governments (SANDAG) Board of Directors approve the submittal of Federal Section 5307, 5337, and 5339 applications for the MTS FY 2026 CIP (shown in Attachment A); and

3) Recommend that the SANDAG Board of Directors approve amendment number 5 of the 2025 Regional Transportation Improvement Program (RTIP) in accordance with the FY 2026 CIP recommendations.

Budget Impact

The total estimated funding for FY 2026 is $265.0 million (Attachment A). After the utilization of $70.0 million in preventative maintenance, $6.4 million for Americans with Disabilities Act (ADA) Operations (funding the FY 2025 operating budget), funding for SANDAG planning studies totaling $0.3 million and $25.0 million transferred to the Operating Budget, $163.3 million is available for capital projects.

Executive Committee Recommendation

At its date meeting, the Executive Committee voted 6 to 0 in favor (with Board Members: Fernandez, Dillard, Hall, Elo-Rivera, Whitburn and Goble) and Board Member Montgomery Steppe absent, to recommend that the Board of Directors approve the staff recommendation.

DISCUSSION:

The creation of the annual CIP and operating budgets involves a multifaceted decision-making process that impacts the agency's assets and the ability to keep these assets in a State of Good Repair (SGR). This requires a delicate balance between funding capital and operations to effectively and safely provide transit services for the region. In accordance with Board Policy 65 - Transit Asset Management (TAM) Policy, MTS maintains both a TAM plan and a 20-year CIP forecast to facilitate these decision-making processes. On a yearly basis, the CIP is constructed under this framework, subject to the funding that is available in the current year.

Development of the MTS FY 2026 CIP

The CIP process began in September 2024 with the "call for projects". The recommended CIP assumes funding of $70.0 million for preventative maintenance, $6.4 million for ADA Operations, and $0.3 million in SANDAG planning studies. Available CIP funding was also reduced by $25.0 million which will be utilized in the Operating Budget per Board direction. The remaining submitted projects compete for the balance of available funding. For FY 2026, there is $163.3 million in available federal, state, and local funding sources, which are detailed below.

Federal Funding

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law, reauthorizing surface transportation programs through Federal FY (FFY) 2026. The legislation establishes the legal authority to commence and continue Federal Transit Administration (FTA) programs. Each reauthorization amends the Federal Transit Laws codified in 49 USC Chapter 53.

The reauthorization provides for the following funding streams MTS commonly receives:

- 5307 Urban Area Formula Grants for capital improvements and preventative maintenance
- 5311 Formula Grants for Rural Areas for capital improvements and to supplement operating costs
- 5337 SGR Funding for capital improvements and preventative maintenance
- 5339 Bus and Bus Facilities Funding for capital improvements

The FY 2026 MTS CIP (Attachments A and B) will serve as the basis for the federal formula grant applications. The FTA requires the submission of grant applications to obligate annual appropriations under Sections 5307, 5337, and 5339. The funding levels for each section (as indicated in Attachment A) this year are based on the actual apportionments published for the region.

As the region's Metropolitan Planning Organization (MPO), SANDAG apportions the 5307, 5337, and 5339 formula funds between MTS and the North County Transit District (NCTD) based on service area populations. Prior to the apportionments, SANDAG deducts funds from Section 5307 for funding the region's vanpool program. MTS receives approximately 70 percent while NCTD receives approximately 30 percent of these federal formula funds.

Section 5307 Urbanized Area Formula Program is a block grant program in which each urbanized area with over 50,000 in population receives financial assistance to provide public transit. The formula for determining each metropolitan area's share of funds is based on an

urbanized area's population, population density, levels of existing fixed-guideway service, and levels of existing bus service and ridership. The Section 5307 program is designed to meet routine capital needs and may not be used for operating assistance. However, the Transportation Equity Act for the 21st Century (TEA-21) expanded the definition of capital to include preventative maintenance, thereby, in effect, mitigating the relative lack of federal assistance for operations. In addition to the expanded definition of capital, the Section 5307 Urbanized Area Formula Program also allows for a maximum of 10 percent maximum of the allocation to support operations of ADA complementary paratransit service.

For FFY 2025, the estimated allocation for the MTS Section 5307 program is $64.0 million, which will be matched with local funds of $16.0 million. This program would provide an estimated $80.0 million to fund MTS's FY 2026 CIP.

Section 5337 is a formula-based SGR program dedicated to repairing and upgrading the nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy vehicle lanes, including Bus Rapid Transit (BRT). Section 5337 includes funding previously provided through section 5309 Fixed Guideway Rail Modernization Formula Program. Projects are limited to replacement and rehabilitation, or capital projects required to maintain public transportation systems in a SGR.

Section 5337 SGR funds are allocated on a formula basis to rail systems that have been in operation for at least eight years. For FFY 2025, the Section 5337 funds MTS allocation estimate is $47.4 million and will be matched with local funds of $11.8 million. The program will provide an estimated $59.2 million to fund MTS's FY 2026 CIP.

Section 5339 funding provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. For FFY 2025, the Section 5339 funds MTS allocation estimate is $4.3 million and will be matched with local funds of $1.1 million. The program will provide an estimated $5.4 million to fund MTS's FY 2026 CIP.

The FTA funding is structured on a reimbursement basis (after expenses are incurred). Local funding (Transportation Development Act (TDA)/ State Transit Assistance (STA) /TransNet) is scheduled at the beginning of each fiscal year and received on a monthly or quarterly basis. In many situations, local funds are received before expenses are incurred.

Local Match

The local match for CIP projects will come from the pooled transit finances for the MTS region. While it is likely that the actual funds used would be TDA funds, final decisions on the matching source would be made during the FY 2026 CIP implementation process to maximize the availability and flexibility of funding.

STA

MTS receives STA funding from the Public Transportation Act, which derives its revenue from the state sales tax on diesel fuels. This funding was augmented by the Road Repair and Accountability Act of 2017, or Senate Bill 1 (SB1), which was signed by the Governor on April 28, 2017. For FY 2026, the estimated STA funding is $33.5 million, of which $22.2 million is planned in CIP with the remaining $11.3 million planned for the operating budget.

MTS also receives a separate STA allocation for SGR program funding from SB1, which is funded from a portion of a new transportation improvement fee on vehicle registration. Receipts for FY 2024-25 will provide $5.8 million to MTS's FY 2026 CIP.

California Cap-and-Trade Revenue

Since 2014, the State of California Budget has provided $11.0 billion to the Greenhouse Gas Reduction Fund (GHGRF) from Cap-and-Trade auction proceeds to support existing and pilot programs that will reduce Greenhouse Gas (GHG) emissions and benefit disadvantaged communities. Transit operators are eligible recipients for several of the programs that will be funded by the GHGRF, most of which are competitive.

Senate Bill (SB) 125 amended the Budget Act of 2023 to appropriate $4 billion of General Funds to the Transit and Intercity Rail Capital Program (TIRCP) over the next two fiscal years. SB125 also establishes a $1.1 billion Zero-Emission Transit Capital Program (ZETCP) over the next four fiscal years. MTS is estimated to receive approximately $29 million over the next four fiscal years.

TIRCP also has competitive grant awards every other year. Over the last few years, MTS has received several of these competitive grant awards. In FY 2022, MTS was awarded a total of $33.5 million for Orange Line Rail Signals, Orange Line Variable Message Sign, Imperial Ave Transit Center, and Kearny Mesa Division Battery Electric Bus (BEB) Charging Infrastructure project. In FY2023, MTS was awarded a total of $60.4M for Orange Line Track Improvement Part 2 and Electrification of Kearny Mesa Division. In FY 2026 CIP, $42.0 million is budgeted.

The Low Carbon Transit Operations Program (LCTOP) has $192 million in total funding that will be distributed by the same formula as STA funding. MTS's allocation for FY 2023-24 was $8.7 million. Based on the current Zero-Emission Bus (ZEB) rollout plan, the entire amount will be budgeted in MTS's FY 2026 CIP.

Other Revenue

Alternative fuel credits are issued by the IRS to MTS for utilizing compressed natural gas to power its vehicles. This rebate program has expired and then reauthorized multiple times over the years, most recently being extended through the calendar year 2024. MTS has included $3.6 million in revenues for the calendar year 2023 in the FY 2026 CIP.

$10.4 million of other one-time funding has also been included in the FY 2026 CIP. This balance includes transfers from older closed capital projects and proceeds from land sales.

$3.9 million from the Federal EPA Community Change Grant that was awarded to MTS in FY2025 for bus procurement.

Project Selection

A meeting of the Capital Projects Review Committee (CPRC) was held to review the project list and to develop a CIP recommendation for FY 2026. In accordance with the Capital Projects Selection Process, the CPRC is comprised of representatives from MTS Bus, MTS Rail, MTS

Administration, and SANDAG. Each CPRC member was responsible for submitting the capital requests for its division or agency. The CPRC reviewed and approved the prioritization of those capital requests.

The capital project list (Attachment B) represents the five-year, unconstrained need for the MTS operators, 98 projects with total requests of $1.4 billion. Each MTS agency submitted its capital project requests in priority order, and the lists were consolidated for review by the CPRC. The CPRC reviewed the projects in the context of their impact on operations and determined the most critical projects to fund this year. The remaining projects were deferred; however, it is recognized that the continued deferral of some projects could have negative impacts on system infrastructure in future years. The list of projects is also subject to an analysis based on social equity principles (Attachment E). This process assures that the benefits and burdens of transit investment are shared equitably throughout the MTS service area. A series of maps are used to detail the results of this analysis.

FY 2026 CIP Funded Projects

Of the $163.3 million available after preventative maintenance and SANDAG planning studies, $53.9 million (or 33 percent) has been dedicated to Revenue Vehicle replacement for the ongoing upkeep of the MTS fleet of service vehicles; $6.0 million (or 4 percent) has been dedicated to Facility & Construction projects; $85.4 million (or 52 percent) has been dedicated to Rail Infrastructure projects; $7.2 million (or 4 percent) has been dedicated to Other Equipment & Installations; and another $10.8 million (or 17 percent) dedicated to Major Initiatives projects.

The table below is a summary of the CPRC recommendations, the major categories that are proposed to be funded, and the percentage of total available funding.

Capital Project Categories	Funding ($000s)	% of Total
Bus Revenue Vehicles	$ 53,906	33%
Facility & Construction Projects	6,026	4%
Rail Infrastructure	85,410	52%
Other Equipment & Installation	7,212	4%
Other Initiatives	10,787	7%
Grand Total	**$ 163,341**	

A full listing of projects with respective funding levels is available in Attachment B, and brief descriptions are included in Attachment C. A couple of projects of note:

- Bus Procurement – Funding of $53.9 million for the replacement of fifty 40’ Compressed Natural Gas (CNG) buses in accordance with the MTS Transit Fleet Plan. As discussed with the Board at the February 2025 meeting, per the Innovative Clean Transit regulation, MTS would be required to purchase thirteen 40” BEB, 25% of that order, but MTS will request to use 13 of the 25 early adoption credits MTS has to satisfy the purchasing requirement for this year.

- Orange Line Improvement Project Phases 1 and 2 – A total of $54.0 million in funding is being allocated to these two projects in this CIP. This major project will upgrade the stations, track, signals, and electrification along the Orange Line of the trolley.

- Zero Emission Bus (ZEB) Overhead Charging Infrastructure – A total of $9.8 million in funding is being allocated to facilitate the transition to BEB. This includes funding of $6.1 million for the construction of the Southbay Division backup power system for the recently constructed overhead charging infrastructure.

Five-Year Capital Program Projections

Attachment D summarizes a high-level look at the five-year capital program. The federal 5307 and 5337 funding levels are projected by SANDAG to be flat through FY 2030 resulting in a decrease in recurring revenue projections year by year. Added to that is $99.3 million in already identified non-recurring revenues, resulting in a total revenue projection for CIP of $624.1 million. Total project needs over the five-year term are projected to be $1.4 billion, which exceeds the projected revenue available for CIP. Projected deficits from FY 2026 to FY 2030 total $748.8 million. The ratio of total funding to total capital needs over the five-year term is projected at 45.5%.

Therefore, the staff recommends that the MTS Board of Directors to:

1) Approve the FY 2026 CIP with the estimated federal and non-federal funding levels (Attachments A and B). As the federal appropriation figures are finalized and/or other project funding sources become available, allow the CEO to identify and adjust projects for the adjusted funding levels; and

2) Recommend that the SANDAG Board of Directors approve the submittal of Federal Section 5307, 5337, and 5339 applications for the MTS FY 2026 CIP (shown in Attachment A); and

3) Recommend that the SANDAG Board of Directors approve amendment number 5 of the 2025 RTIP in accordance with the FY 2026 CIP recommendations.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. FY 2026 Funding Sources
B. FY 2026 CIP List
C. FY 2026 Funded Project Descriptions
D. Funding Compared to Capital Needs for FY 2026 – 2030
E. FY 2026 Capital Improvement Program Title VI/Environmental Justice Analysis

San Diego Metropolitan Transit System
Capital Improvement Program - Funding Sources ($000s)
Fiscal Year 2026

Funding Description		Total
Federal FFY25 - 5307 Funding Estimate	$	63,996
Federal FFY25 - 5337 Funding Estimate		47,439
Federal FFY25 - 5339 Funding Estimate		4,272
California Transportation Development Act (TDA)		52,726
California State Transit Assistance (STA)		22,200
California State of Good Repair (SGR)		5,816
California Cap and Trade (TIRCP)		42,000
California Cap and Trade (LCTOP)		8,658
Other Funds		17,930
Total Available Funding	**$**	**265,037**
Preventive Maintenance - Federal 5307	$	(30,000)
Preventive Maintenance - Federal 5337		(40,000)
ADA Operation - Federal 5307		(6,400)
SANDAG Planning Study - Local Match		(297)
Total Preventative Maintenance/SANDAG Planning	**$**	**(76,696)**
Funding Shift to Operations (TDA)	$	(25,000)
Total Other Adjustments	**$**	**(25,000)**
Available Funding for Capital Program	**$**	**163,341**

San Diego Metropolitan Transit System
Capital Improvement Program – Project List by Category ($000s)
Fiscal Year 2026 – 2030

State of Good Repair Projects

Bus Revenue Vehicles

Annual vehicle replacement for a fleet of 40-foot, 60-foot Articulated, ADA Minibus, Fixed Route Minibus, and Commuter Express buses. The fleet replacement plan also incorporates the Zero Emission Bus Transition plan originally approved by the MTS Board of Directors in September 2020.

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Bus Procurement - FY26	$ 53,906	$ -	$ 70,000	$ 60,000	$ 62,000	$ 70,000	$ 315,906
Subtotal	**$ 53,906**	**$ -**	**$ 70,000**	**$ 60,000**	**$ 62,000**	**$ 70,000**	**$ 315,906**

Rail Revenue Vehicles

Annual vehicle replacement for a fleet of light rail vehicles.

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - SD7 LRV Replacement	$ -	$ -	$ 10,566	$ 10,566	$ 10,566	$ 10,566	$ 42,264
Rail Ops - SD8 LRV Replacement	-	-	-	-	-	26,000	26,000
Subtotal	**$ -**	**$ -**	**$ 10,566**	**$ 10,566**	**$ 10,566**	**$ 36,566**	**$ 68,264**

Facility & Construction Projects

Facilities refer to the structures that enclose or support maintenance, operations, and administrative functions at the Rail division in downtown San Diego and the five bus maintenance facilities throughout San Diego County. Facilities also house specialized equipment that supports the operations and maintenance of the vehicles (for example, fueling and wash facilities).

Facilities also refer to the structures that enclose or support spaces for passengers. Passenger facilities are usually focused around spaces for pedestrian movement or waiting areas. Stations provide shelter for employees and customers, and facilities provide shelter for employees, revenue vehicles, and power systems.

Bus Operations

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Copley Park Division New Admin Building	$ 1,824	$ -	$ -	$ -	$ -	$ -	$ 1,824
Bus Ops - Kearney Mesa & Imperial Avenue Division Roof Hatch Replacements	452	-	-	-	-	-	452
Bus Ops - Kearney Mesa Division Elevator Rehabilitation	-	599	-	-	-	-	599
Bus Ops - Kearney Mesa Division Service Lane and Brake Pit Roof Replacement	-	195	-	-	-	-	195
Bus Ops - Copley Park Division Upgrades	-	-	8,030	250	-	-	8,280
Bus Ops - Imperial Avenue Division Upgrades	-	-	1,400	7,500	5,450	-	14,350
Bus Ops - Kearney Mesa Division Upgrades	-	-	650	750	-	-	1,400
Bus Ops - Southbay Maintenance Facility Upgrades	-	-	300	-	-	-	300
Bus Ops - East County Division Upgrades	-	-	-	150	-	-	150
Subtotal	**$ 2,276**	**$ 794**	**$ 10,380**	**$ 8,650**	**$ 5,450**	**$ -**	**$ 27,550**

Rail Operations

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - Yard Tower & Paint Booth Upgrade	$ -	$ -	$ 1,600	$ 400	$ -	$ -	$ 2,000
Rail Ops - Yard Tower Roof Replacement	-	-	1,200	-	-	-	1,200
Rail Ops - Yard Tower interior upgrades	-	-	400	-	-	-	400
Rail Ops - Building A Roof Replacement	-	-	1,200	-	-	-	1,200
Rail Ops - Building A Rollup Door Replacement	-	-	350	350	-	-	700
Rail Ops - Building C Roof Replacement	-	-	-	2,000	-	-	2,000
Rail Ops - Paint Booth Roof Replacement	-	-	-	400	-	-	400
Rail Ops - Paint Booth Blowers	-	-	-	-	175	-	175
Subtotal	**$ -**	**$ -**	**$ 4,750**	**$ 3,150**	**$ 175**	**$ -**	**$ 8,075**

Passenger Facilities

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - Elevator Modernization	$ 2,500	$ -	$ 1,500	$ 350	$ 2,500	$ -	$ 6,850
Rail Ops - Washington Pedestrian Enhancements	1,250	-	-	-	-	-	1,250
Rail Ops - Second Elevator at Stadium Station	-	2,500	-	-	-	-	2,500
Rail Ops - Stadium Station Platform	-	2,500	-	-	-	-	2,500
Rail Ops - Fashion Valley Elevator Replacement	-	-	-	350	2,500	-	2,850
Rail Ops - Morena Linda Vista Shelter Replacement	-	-	-	-	-	650	650
Rail Ops - SDSU Underground Station	-	-	-	-	-	2,200	2,200
Rail Ops - Rio Vista Platform Construction	-	-	3,000	-	-	-	3,000
Subtotal	**$ 3,750**	**$ 5,000**	**$ 4,500**	**$ 700**	**$ 5,000**	**$ 2,850**	**$ 21,800**

Rail Infrastructure

This category refers to the structural elements that allow for the movement of MTS's LRVs. These assets are broadly categorized into track elements, guideway elements comprising the track right-of-way, grade crossings, and the electrical infrastructure.

Track

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - Fence Replacement	$ 400	$ -	$ 350	$ 350	$ 350	$ 350	$ 1,800
Rail Ops - Grade Crossing Replacement	3,850	-	4,243	4,055	4,028	4,710	20,886
Rail Ops - Special Trackwork Replacement	3,835	-	3,300	-	1,750	1,200	10,085
Rail Ops - Beyer Blvd Track and Slope	1,850	-	-	-	-	-	1,850
Rail Ops - Station Trackway Replacement	1,975	-	1,500	100	1,200	1,300	6,075
Rail Ops - Drainage Improvements	800	-	3,750	5,350	4,500	1,000	15,400
Rail Ops - Street Trackage Pavement Replacement	-	-	3,000	1,500	3,000	6,000	13,500
Rail Ops - Rail Replacement	-	-	-	-	250	800	1,050
Rail Ops - OL Improvement Project Phase 1	12,000	-	-	-	-	-	12,000
Rail Ops - OL Improvement Project Phase 2	42,000	-	42,000	-	-	-	84,000
Rail Ops - 65th Street Retaining Wall	1,600	-	-	-	-	-	1,600
Subtotal	**$ 68,310**	**$ -**	**$ 58,143**	**$ 11,355**	**$ 15,078**	**$ 15,360**	**$ 168,246**

Maintenance of Wayside (MOW)

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - Signal Replacement	$ 500	$ -	$ 1,500	$ 2,000	$ -	$ 685	$ 4,685
Rail Ops - A-yard Catenary Replacement	-	1,000	1,000	2,000	-	-	4,000
Rail Ops - Sicas S7 System Wide Replacement - BL	-	-	3,500	2,000	2,000	2,000	9,500
Rail Ops - Sicas S7 System Wide Replacement	-	-	6,000	6,000	6,000	6,000	24,000
Rail Ops - Grade Crossing Warning System	-	-	-	-	300	2,300	2,600
Rail Ops - Substation Replacement	13,000	-	16,000	16,000	16,000	8,000	69,000
Rail Ops - Downtown Parallel Feeder Cable - Phase 1&2	800	-	5,000	5,000	5,000	5,000	20,800
Rail Ops - AC Switchgear Replacement	500	-	-	-	-	-	500
Rail Ops - Overhead Catenary System (OCS)	300	-	-	-	1,500	10,000	11,800
Rail Ops - Substation Siemens 1st Gen Monitoring Devices	1,500	-	5,000	-	-	-	6,500
Rail Ops - Yard Switch Automation	500	-	-	-	-	-	500
Rail Ops - Substation Replacement Design	-	3,000	500	-	-	-	3,500
Subtotal	**$ 17,100**	**$ 4,000**	**$ 38,500**	**$ 33,000**	**$ 30,800**	**$ 33,985**	**$ 157,385**

Other Equipment & Installations

This category includes any equipment replacement, including things such as service vehicles for Bus and Rail Operations, maintenance equipment, cleaning equipment, and major rehabilitation components for light rail vehicles.

This category also includes a diverse set of systems that support core operational functions and have software and hardware that need to be refreshed on a periodic basis. All of these systems are critical to transit operations, providing financial information, communications, network connectivity, revenue collection, security, customer service, and safety controls.

Operations

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Kearney Mesa & Imperial Avenue Division Vacuum Equipment Replacement	$ 284	$ -	$ -	$ -	$ -	$ -	$ 284
Bus Ops - All Division ZEB Rolling Scaffold	212	-	-	-	-	-	212
Bus Ops - Southbay Maintenance Facility 3620 Building Exhaust Fan Replacement	-	109	-	-	-	-	109
Bus Ops - RTMS & Hastus Upgrades	-	-	750	2,100	-	300	3,150
Rail Ops - HVAC Replacement	200	-	100	100	100	100	600
Rail Ops - Station Cleaning Equipment	150	-	100	100	100	100	550
Rail Ops - System Wide UPS and Batteries Replacement	-	-	-	-	200	-	200
Rail Ops - On-Track Equipment Replacement	625	-	-	-	-	650	1,275
Rail Ops - C Building Crane Upgrade	500	-	5,000	-	-	-	5,500
Admin - Trolley Station Network Communication Equipment	400	-	600	800	950	950	3,700
Admin - Signal & Track Inspection Solution Implementation	275	-	-	-	-	-	275
Admin - Bus Yard Wireless Network Equipment	-	-	400	400	400	400	1,600
Admin - BRT Station Network Replacement	-	-	300	-	-	300	600
Admin - Rail Yard Management System	-	-	290	-	-	-	290
Admin - Bus Operations Paperless Shop Implementation	-	-	225	-	-	-	225
Admin - Davra System Enhancements	-	-	-	600	-	600	1,200
Admin - Southbay and East County Garage Genfare Lane Refresh	-	-	-	-	-	600	600
Admin - Variable Message System Modernization Project	-	-	-	-	-	2,214	2,214
Admin - Miscellaneous Capital	1,064	781	-	2,000	-	2,000	5,845
Subtotal	**$ 3,710**	**$ 890**	**$ 7,765**	**$ 6,100**	**$ 1,750**	**$ 8,214**	**$ 28,429**

Administration

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Admin - PRONTO Mobile App Enhancement	$ 1,100	$ -	$ -	$ -	$ -	$ -	$ 1,100
Admin - ERP System Upgrade	1,000	-	1,000	-	-	-	2,000
Admin - Network Communication Equipment Replacement	500	-	600	600	800	950	3,450
Admin - MTS Data Storage Replacement	300	-	540	170	155	45	1,210
Admin - Operation Control Center UPS Replacement	200	-	-	-	-	-	200
Admin - Security Records Management System & Computer Aided Dispatch	402	-	604	-	-	-	1,006
Admin - Comprehensive Regional Parking Solution	-	-	1,000	1,000	-	-	2,000
Admin - MTS Server Refresh	-	-	800	800	800	800	3,200
Admin - Boardroom and Executive Room Upgrade	-	-	-	-	-	500	500
Admin - Fare System Analysis: Refresh vs Replace	-	-	-	-	763	-	763
Admin - System Sign Upgrades	-	-	3,500	3,500	3,500	3,500	14,000
Admin - Trolley Onboard Monitors - Systemwide	-	-	2,000	2,000	-	-	4,000
Admin - Transit Enforcement Office Expansion	-	-	200	2,000	2,000	2,000	6,200
Admin - Copier Replacement	-	-	-	200	340	140	680
Subtotal	**$ 3,502**	**$ -**	**$ 10,244**	**$ 10,270**	**$ 8,358**	**$ 7,935**	**$ 40,309**

Other Initiatives

Innovative Clean Transit

This category includes the necessary infrastructure to enable the fueling of the future Zero Emission Bus (ZEB) fleet. It includes things like overhead charging infrastructure at all existing divisions, backup generators, batteries for storage, and solar panels on the overhead gantry. It also includes the cost of a new division to help facilitate the conversion to ZEBs.

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Southbay Maintenance Facility BEB Charging Phase II - Construction	$ -	$ 16,783	$ 36,783	$ 20,000	$ -	$ -	$ 73,566
Bus Ops - Southbay Maintenance Facility Backup Power Charging Infrastructure	6,068	-	-	-	-	-	$ 6,068
Bus Ops - Imperial Avenue Division BEB Charging Infrastructure	2,110	-	-	-	-	-	$ 2,110
Bus Ops - East County Division BEB Charging Phase I - Design	1,609	-	-	-	-	-	$ 1,609
Bus Ops - New Transit Facility (CTAC)	-	50,000	50,000	50,000	50,000	40,000	$ 240,000
Bus Ops - BEB Infrastructure All Divisions	-	-	35,165	2,505	17,051	68,000	$ 122,721
Subtotal	**$ 9,787**	**$ 66,783**	**$ 121,948**	**$ 72,505**	**$ 67,051**	**$ 108,000**	**$ 446,074**

Other Initiatives

This category includes a variety of projects that do not relate to the state of good repair needs of the existing system. It includes projects necessary to expand or enhance the services that MTS provides to the region.

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total	
Admin - Kearny Mesa Transit Center	$ -	$ -	$ 2,000	$ 10,000	$ 10,000	$ -	$ 22,000	Other Equipment & Installation - Ops
Admin - Transit Amenity Improvement	1,000	-	1,000	1,000	1,000	1,000	5,000	Other Equipment & Installation - Ops
Admin - Bus Stop Shelters	-	-	1,200	1,200	1,300	1,300	5,000	Other Equipment & Installation - Ops
Admin - ADA Bus Stop Improvements	-	-	500	600	700	-	1,800	Other Equipment & Installation - Ops
Admin - El Cajon Transit Center Bus Improvements	-	-	500	500	12,000	-	13,000	Other Equipment & Installation - Ops
Admin - Social Equity Listening Tour	-	-	-	2,000	-	-	2,000	Other Equipment & Installation - Ops
Admin - San Ysidro Transit Center Planning & Design	-	-	15,000	15,000	-	-	30,000	Other Equipment & Installation - Ops
Admin - Southwestern Rapid	-	-	1,000	5,000	6,000	-	12,000	Other Equipment & Installation - Ops
Subtotal	**$ 1,000**	**$ -**	**$ 21,200**	**$ 35,300**	**$ 31,000**	**$ 2,300**	**$ 90,800**	

Five-year summary

State of Good Repair Categories	FY 2026 Funded	FY 2026 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Revenue Vehicles	$ 53,906	$ -	$ 70,000	$ 60,000	$ 62,000	$ 70,000	$ 315,906
Rail Revenue Vehicles	-	-	10,566	10,566	10,566	36,566	68,264
Facility & Construction Projects - Bus	2,276	794	10,380	8,650	5,450	-	27,550
Facility & Construction Projects - Rail	-	-	4,750	3,150	175	-	8,075
Facility & Construction Projects - Pass.	3,750	5,000	4,500	700	5,000	2,850	21,800
Rail Infrastructure - Track	68,310	-	58,143	11,355	15,078	15,360	168,246
Rail Infrastructure - MOW	17,100	4,000	38,500	33,000	30,800	33,985	157,385
Other Equipment & Installation - Ops	3,710	890	7,765	6,100	1,750	8,214	28,429
Other Equipment & Installation - Admin	3,502	-	10,244	10,270	8,358	7,935	40,309
Subtotal	**$ 152,554**	**$ 10,684**	**$ 214,848**	**$ 143,791**	**$ 139,177**	**$ 174,910**	**$ 835,964**
Other Initiatives							
Innovative Clean Transit	9,787	66,783	121,948	72,505	67,051	108,000	446,074
Other Initiatives	1,000	-	21,200	35,300	31,000	2,300	90,800
Subtotal	**$ 10,787**	**$ 66,783**	**$ 143,148**	**$ 107,805**	**$ 98,051**	**$ 110,300**	**$ 536,874**
Grand Total	**$ 163,341**	**$ 77,467**	**$ 357,996**	**$ 251,596**	**$ 237,228**	**$ 285,210**	**$1,372,838**

Glossary of Acronyms:

Acronym	Description	Acronym	Description
ABS	Automatic Block Signaling	LRV	Light Rail Vehicle or trolley
AHSC	Affordable Housing and Sustainable Communities	OH	Overhead
ARINC	Aeronautical Radio INC	OL	Orange Line
BEB	Battery Electric Bus	RAM	Revenue and Maintenance Building at IAD
CCTV	Closed Circuit Television	RTMS	Regional Transportation Management System
CNG	Compressed Natural Gas	SAP	Enterprise resource planning system used by MTS
CPC	Centralized Protection and Control	SBMF	South Bay Maintenance Facility (Chula Vista)
CPD	Copley Park Division (Kearny Mesa)	SD100	Light Rail Vehicles (2000 Series)
ECD	East County Division (El Cajon)	SD7	Light Rail Vehicles (3000 Series)
HVAC	Heating, Ventilation, and Air Conditioning	SD8	Light Rail Vehicles (4000 Series)
IAD	Imperial Avenue Division (Downtown)	SDIV	San Diego & Imperial Valley (old rail line)
IMT	Imperial Ave Transit Center	SDTI	San Diego Trolley
IVR	Interactive Voice Response	UPS	Uninterruptible Power Supply
KMD	Kearny Mesa Division	VMS	Variable Message Sign
LIDAR	Light Detection and Ranging	ZEB	Zero Emission Bus

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
CAPITAL BUDGET - INDIVIDUAL PROJECT DESCRIPTION FOR FISCAL YEAR 2026 (in 000's)
ATTACHMENT C

The Capital Improvement Program includes improvements and replacement projects related to MTS, SDTC, and SDTI Capital Assets. The projects below are funded with Federal funds where indicated and are matched with the required amount of local funds. The projects listed are implemented by the project manager of the coinciding agency and monitored by MTS administration.

Form ID	Title	FY26 Budget	Federal	State/Local	Other
1000	Bus Ops - Bus Procurement - FY26	53,906	35,774	3,659	14,473
	Fiscal Year 2026 Bus Procurement				
2377	Bus Ops - Southbay Maintenance Facility Backup Power Charging Infrastructure	6,068	-	6,068	-
	Southbay Maintenance Facility Backup Power Charging Infrastructure				
2375	Bus Ops - Imperial Avenue Division BEB Charging Infrastructure	2,110	-	2,110	-
	Imperial Avenue Division BEB Charging Infrastructure				
2386	Bus Ops - Copley Park Division New Admin Building	1,824	-	1,824	-
	Copley Park Division New Admin Building				
2380	Bus Ops - East County Division BEB Charging Phase I - Design	1,609	-	1,609	-
	East County Division BEB Charging Phase I - Design				
2396	Bus Ops - Kearney Mesa & Imperial Avenue Division Roof Hatch Replacements and Fall Protection	452	-	452	-
	Kearney Mesa & Imperial Avenue Division Roof Hatch Replacements and Fall Protection				
2374	Bus Ops - Kearney Mesa & Imperial Avenue Division Vacuum Equipment Replacement	284	-	284	-
	Kearney Mesa & Imperial Avenue Division Vacuum Equipment Replacement				
2373	Bus Ops - All Division ZEB Rolling Scaffold	212	-	212	-
	Procurement of ZEB Rolling Scaffold for All Division				
2354	Rail Ops - Elevator Modernization	2,500	-	2,500	-
	Elevator Modernization				
2387	Rail Ops - Washington Pedestrian Enhancements	1,250	-	1,250	-
	Washington Pedestrian Enhancements				
2384	Rail Ops - HVAC Replacement	200	-	200	-
	HVAC Replacement				
2356	Rail Ops - Station Cleaning Equipment	150	-	150	-
	Station Cleaning Equipment Replacement				
2352	Rail Ops - Fence Replacement	400	-	400	-
	Fence Replacement				
2342	Rail Ops - Signal Replacement	500	-	500	-
	Signal Replacement at 12th/Imperial and Commercial Street				
2330	Rail Ops - Grade Crossing Replacement	3,850	-	3,850	-
	Grade Crossing Replacement				
2332	Rail Ops - Special Trackwork Replacement	3,835	-	3,835	-
	Special Trackwork Replacement				
2397	Rail Ops - Beyer Blvd Track and Slope	1,850	-	1,850	-
	Beyer Blvd Track and Slope Improvement				
2334	Rail Ops - On-Track Equipment Replacement	625	-	625	-
	On-Track Equipment Replacement				
2331	Rail Ops - Station Trackway Replacement	1,975	-	1,975	-
	Station Trackway Replacement				
2329	Rail Ops - Drainage Improvements	800	-	800	-
	Drainage Improvements				
2337	Rail Ops - Substation Replacement	13,000	7,439	5,561	-

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
CAPITAL BUDGET - INDIVIDUAL PROJECT DESCRIPTION FOR FISCAL YEAR 2026 (in 000's)
ATTACHMENT C

The Capital Improvement Program includes improvements and replacement projects related to MTS, SDTC, and SDTI Capital Assets. The projects below are funded with Federal funds where indicated and are matched with the required amount of local funds. The projects listed are implemented by the project manager of the coinciding agency and monitored by MTS administration.

Form ID	Title	FY26 Budget	Federal	State/Local	Other
	Substation Replacement				
2340	Rail Ops - OL Improvement Project Phase 1	12,000	-	12,000	-
	Orange Line Improvement Project Phase 1				
2341	Rail Ops - OL Improvement Project Phase 2	42,000	-	-	42,000
	Orange Line Improvement Project Phase 2				
2345	Rail Ops - Downtown Parallel Feeder Cable - Phase 1&2	800	-	800	-
	Downtown Parallel Feeder Cable Replacement - Phase 1&2				
1002	Rail Ops - AC Switchgear Replacement	500	-	500	-
	AC Switchgear Replacement				
2346	Rail Ops - Overhead Catenary System (OCS)	300	-	300	-
	Overhead Catenary System (OCS) Upgrade				
2339	Rail Ops - Substation Siemens 1st Gen Monitoring Devices	1,500	-	1,500	-
	Substation Siemens 1st Gen Monitoring Devices				
2351	Rail Ops - Yard Switch Automation	500	-	500	-
	Yard Switch Automation				
2447	Rail Ops - C Building Crane Upgrade	500	-	500	-
	C Building Crane Upgrade				
1003	Rail Ops - 65th Street Retaining Wall	1,600	-	1,600	-
	65th Street Retaining Wall Improvement				
2327	Admin - PRONTO Mobile App Enhancement	1,100	-	1,100	-
	PRONTO Mobile App Enhancement				
2420	Admin - ERP System Upgrade	1,000	-	1,000	-
	ERP System Upgrade				
2423	Admin - Network Communication Equipment Replacement	500	-	500	-
	Network Communication Equipment Replacement				
2424	Admin - Trolley Station Network Communication Equipment	400	-	400	-
	Trolley Station Network Communication Equipment Replacement				
2411	Admin - MTS Data Storage Replacement	300	-	300	-
	MTS Data Storage Replacement				
2406	Admin - Signal & Track Inspection Solution Implementation	275	-	275	-
	Signal & Track Inspection Solution Implementation				
2422	Admin - Operation Control Center UPS Replacement	200	-	200	-
	Operation Control Center UPS Replacement				
2408	Admin - Security Records Management System & Computer Aided Dispatch	402	-	402	-
	Security Records Management System & Computer Aided Dispatch				
1004	Admin - Transit Amenity Improvement	1,000	-	1,000	-
	Transit Amenity Improvement				
1005	Admin - Miscellaneous Capital	1,064	-	1,064	-
	Miscellaneous Capital				
	Totals	**163,341**	**43,213**	**63,654**	**56,473**

San Diego Metropolitan Transit System
Funding Compared to Capital Needs ($000s)
Fiscal Years 2026-2030

	Proposed FY26	Projected FY27	Projected FY28	Projected FY29	Projected FY30	Total FY26 to FY30
Total Revenues						
Recurring Dedicated CIP Revenues	$ 205,107	$ 204,601	$ 208,067	$ 209,533	$ 210,998	$ 1,038,305
Other Non Recurring Revenues	59,930	20,000	9,685	9,685	-	99,302
Total Capital Revenues	$ 265,037	$ 224,601	$ 217,752	$ 219,218	$ 210,998	$ 1,137,607
Less: "Off the Top" Expenses						
SANDAG Planning Studies	$ (297)	$ (303)	$ (309)	$ (316)	$ (322)	$ (1,546)
Funding Shift to Operations	(25,000)	(35,000)	(50,000)			(110,000)
ADA Operations	(6,400)	(6,397)	(6,395)	(6,392)	(6,389)	(31,973)
Preventative Maintenance	(70,000)	(72,000)	(74,000)	(76,000)	(78,000)	(370,000)
Total "Off The Top" Expenses	$ (101,696)	$ (113,700)	$ (130,704)	$ (82,708)	$ (84,712)	$ (513,519)
Adjusted Available CIP Revenues	**$ 163,341**	**$ 110,901**	**$ 87,049**	**$ 136,511**	**$ 126,286**	**$ 624,088**
Project Needs						
State of Good Repair	$ 164,238	$ 236,048	$ 179,091	$ 170,177	$ 177,210	$ 926,764
Other Initiatives	76,570	121,948	72,505	67,051	108,000	446,074
Total Project Needs	**$ 240,808**	**$ 357,996**	**$ 251,596**	**$ 237,228**	**$ 285,210**	**$ 1,372,838**
Total Deficit	**$ (77,467)**	**$ (247,094)**	**$ (164,547)**	**$ (100,718)**	**$ (158,924)**	**$ (748,750)**
% of Funding / Needs	67.8%	31.0%	34.6%	57.5%	44.3%	45.5%
Accumulated Deficit	$ (77,467)	$ (324,562)	$ (489,109)	$ (589,827)	$ (748,750)	

Metropolitan Transit System

MEMORANDUM

DATE: February 20, 2025

TO: Eric Cheng, Transit Asset Management (TAM) Program Manager

FROM: Brent Boyd, Director of Planning & Scheduling

SUBJECT: FY 2026 CAPITAL IMPROVEMENT PROGRAM TITLE VI/EJ ANALYSIS

FTA guidance on compliance with Title VI and Environmental Justice requirements was issued in 2012. Given the requirement to analyze projects and proposals for burdens, benefits, and disproportionate impacts for low-income and minority communities, the analysis detailed below was made of the projects proposed for funding in MTS' FY 2026 Capital Improvement Program (CIP). Please keep this information for your files.

ANALYSIS METHODOLOGY

MTS' Title VI analysis for an annual CIP is conducted as a whole to determine if the capital investment strategy introduces a disparate impact or disproportionate burden throughout the MTS service area relative to the average population value for the MTS service area, consistent with the methodology approved by the MTS Board of Directors for service change analyses. Population statistics are drawn from the most recent broad-based federal population survey with relevant data available, in this instance the 2021 American Community Survey (ACS) five-year sample.

A disparate impact is found when there is a difference in adverse effects between minority and non-minority populations such that: the adversely affected population is 10 percent or greater minority by percentage of total population than the total MTS service area average; or, the benefitting population is 10 percent or more non-minority (by percentage of total MTS service area population) than the total MTS service area average. For example, if the total MTS service area average is 55% minority, then a proposed capital improvement program that adversely affects a population that is 65% minority or greater would be defined as a disparate impact. If MTS chooses to implement a capital improvement program despite a finding of a disparate impact, MTS may only do so if there is a substantial justification for the program in its current form, and there are no alternatives that would have a less disparate impact and still accomplish the goals of the program.

A disproportionate burden is found when there is a difference in adverse effects between low-income and non-low-income populations such that: the adversely affected population is 10 percent or more "low-income" (by percentage of total MTS service area population) than the total MTS service area average; or, the benefitting population is 10 percent or greater "non-low-income" by percentage of total population than the total MTS service area average. (For the purpose of Title VI equity analyses, MTS considers a person low-income if they live in a household with income under 200% of the federal

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for nine cities.

poverty rate.) For example, if the total MTS service area average is 20% “low-income,” then a proposed capital improvement program that benefits a population that is 90% or greater “non-low-income” would be defined as a disproportionate burden. If MTS chooses to implement a capital investment program despite a finding of disproportionate burden, MTS may only do so if steps are taken to avoid or minimize impacts where practicable, and MTS provides a description of alternatives available to affected low-income populations.

REGIONAL BENEFIT/BURDEN PROJECTS

Of all of the projects proposed for funding, those in Table 1 were determined to have a regional impact that would not be specific to any one or few locations in our jurisdiction. These are primarily vehicle replacements or rehabilitation, vehicle equipment, system-wide amenities, fare system, and information technology projects. Since the vehicles are distributed throughout MTS’ service area, and the technology projects are deployed system-wide, there was no further analysis of these projects for the purpose of this Title VI/EJ evaluation. The Transit Amenity Improvement Project is meant to improve transit amenities system-wide.

Table 1. Regional Benefit/Burden Projects

	Form ID	Division	Project Name	Location	FY 2026 Funded
1	1000	SDTC	Bus Procurement - FY26		$53,905,836
2	1005	MTS Admin	Transit Amenity Improvement		$1,000,000
3	2327	MTS Admin	PRONTO Mobile App Enhancement		$1,100,000
4	2332	SDTI	Special Trackwork Replacement		$3,835,000
5	2334	SDTI	On-Track Equipment Replacement		$625,000
6	2342	SDTI	Signal Replacement		$500,000
7	2345	SDTI	Downtown Parallel Feeder Cable - Phase 1&2		$800,000
8	2356	SDTI	Station Cleaning Equipment		$150,000
9	2406	MTS Admin	Signal & Track Inspection Solution Implementation		$275,000
10	2420	MTS Admin	ERP System Upgrade		$1,000,000
11	2423	MTS Admin	Network Communication Equipment Replacement		$500,000

Additionally, MTS maintains a Miscellaneous Capital budget for emergency and unforeseen needs that may arise during the year. As details for any projects funded by Miscellaneous Capital are identified, MTS will conduct any required equity analyses, including conducting appropriate inclusive public engagement to ensure the voices of populations protected by Title VI and associated regulations are heard.

Table 1A. Future Projects with No Specific Site Identified

	Form ID	Division	Project Name	Location	FY 2026 Funded
1	1006	MTS Admin	Miscellaneous Capital		$1,063,659

REPAIR/REPLACE PROJECTS AT EXISTING MTS FACILITIES

The remaining projects are mostly maintenance projects and equipment for MTS facilities, infrastructure, or right-of-way. They repair or replace capital inventory that has reached the end of its useful life. The projects in Table 2 would occur at existing MTS bus or rail operating divisions or facilities, in areas inaccessible to the general public. Therefore, no benefits or burdens for the community or riders were identified.

Table 2. Repair/Replace Projects at Existing MTS Facilities

	Form ID	Division	Project Name	Location	FY 2026 Funded
1	2346	SDTI	Overhead Catenary System (OCS)	SDTI	$300,000
2	2351	SDTI	Yard Switch Automation	SDTI	$500,000
3	2373	SDTC	All Division ZEB Rolling Scaffold	All Bus Divisions	$212,000
4	2374	SDTC	Kearny Mesa & Imperial Avenue Division Vacuum Equipment Replacement	IAD/KMD	$284,000
5	2375	SDTC	Imperial Avenue Division BEB Charging Infrastructure	IAD	$2,110,000
6	2377	SDTC	South Bay Maintenance Facility Backup Power Charging Infrastructure	SBD	$6,068,000
7	2380	SDTC	East County Division BEB Charging Phase I - Design	ECD	$1,609,000
8	2384	SDTI	HVAC Replacement	SDTI	$200,000
9	2386	SDTC	Copley Park Division New Admin Building	CPD	$1,824,000
10	2396	SDTC	Kearny Mesa & Imperial Avenue Division Roof Hatch Replacements and Fall Protection	IAD/KMD	$452,000
11	2408	MTS Admin	Security Records Management System & Computer Aided Dispatch	MILLS	$402,400
12	2411	MTS Admin	MTS Data Storage Replacement	MILLS	$300,000
13	2422	MTS Admin	Operation Control Center UPS Replacement	SDTI	$200,000
14	2447	SDTI	C Building Crane Upgrade	SDTI	$500,000

IAD=Imperial Avenue Division; KMD=Kearny Mesa Division; SBD=South Bay Division; ECD=East County Division; CPD=Copley Park Division; SDTI=San Diego Trolley Facilities; MILLS = Administrative Headquarters

EXTERNAL REPAIR/REPLACE PROJECTS WITH NEGLIGIBLE IMPACTS

The projects in Table 3 are repairs or replacements of existing infrastructure or right-of-way, but occur throughout the community beyond our operating division facilities. The completion of these projects will enhance reliability and extend the life of the capital assets, but the projects themselves will have little or no direct impact on the community or riders, other than minor, temporary construction work. These are primarily maintenance-of-way/state-of-good repair projects and information technology upgrades. Therefore, they have also been identified as having no specific and substantive burden or benefit.

Table 3. External Repair/Replace Projects with Negligible Impacts

	Form ID	Division	Project Name	Location	FY 2026 Funded
1	1002	SDTI	AC Switchgear Replacement	43rd Street TPSS	$500,000
2	2337	SDTI	Substation Replacement	A Yard, C Yard, Sweetwater, Dairy Mart, and Fletcher Parkway TPSS	$13,000,000
3	2339	SDTI	Substation Siemens 1st Gen Monitoring Devices	Grantville, SDSU Tunnel, Baltimore Junction TPSS	$1,500,000
4	2424	MTS Admin	Trolley Station Network Communication Equipment	All Trolley Stations	$400,000

EXTERNAL REPAIR/REPLACE PROJECTS WITH NET BENEFIT

The proposed FY 2026 CIP projects in Table 4 are determined to be a **net benefit** to the communities in which they are located, as they improve the accessibility, condition, security, and/or aesthetics of facilities or areas commonly used by or accessible to the public. A map of these projects is shown in Attachment A.

RESULTS

An analysis of the projects with a perceived net benefit listed in Table 4 below was conducted using Geographic Information Systems (GIS) and census block group data. All projects were mapped to determine how the percentages and populations of low-income and minority communities affected by the proposed CIP projects compared to percentages and populations of low-income and minority communities in the entire MTS jurisdiction.

Data for the census block groups in which the proposed CIP projects are located was compared to data for the entire MTS jurisdiction. Comparisons were made for both the number of census block groups and the population of those census block groups. The low-income and minority percentages for the affected census block groups were compared to the percentages for the entire MTS jurisdiction. The maps and datasheets for the analyses are attached.

The results showed a benefit for a larger percentage of minority and low-income populations than for the overall MTS jurisdiction. While only 54% of census tracts that benefited had higher minority population than the rest of the service area, compared to 59% overall, the three other statistics showed net positive benefits to low-income and minority populations:

- Minority Population: 68.9% (compared to system-wide average of 57.6%)
- Low-Income Population: 71.4% (compared to system-wide average of 39%)
- Low-Income Census Tracts: 35.3% (compared to system-wide average of 25.1%)

Since all projects were determined to either have no substantive locational impact or to have a net positive impact, there were no burdens found for low-income or minority populations, nor any disproportionate benefit for non-minority or non-low-income populations.

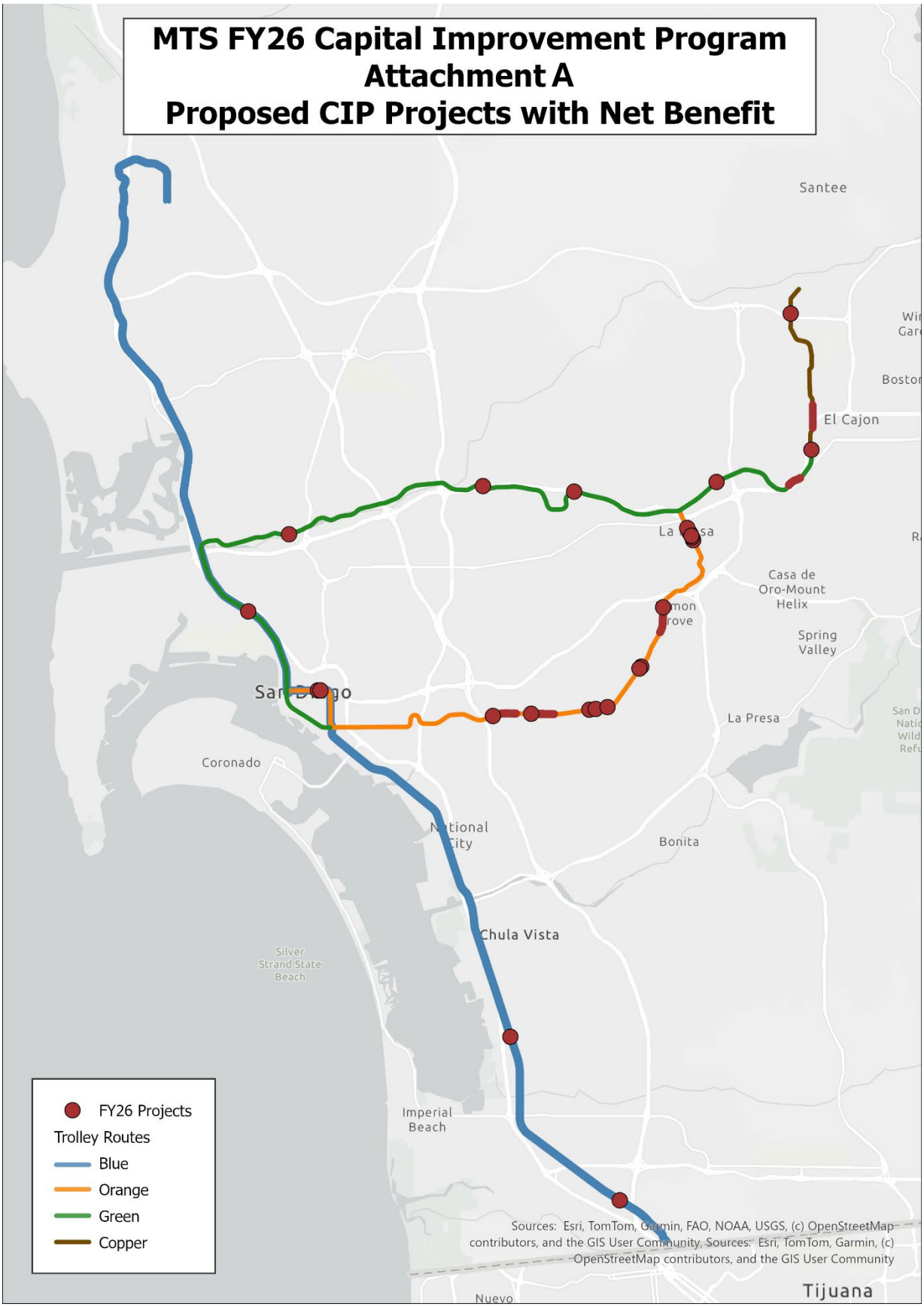
Table 4. External Repair/Replace Projects with a Net Benefit

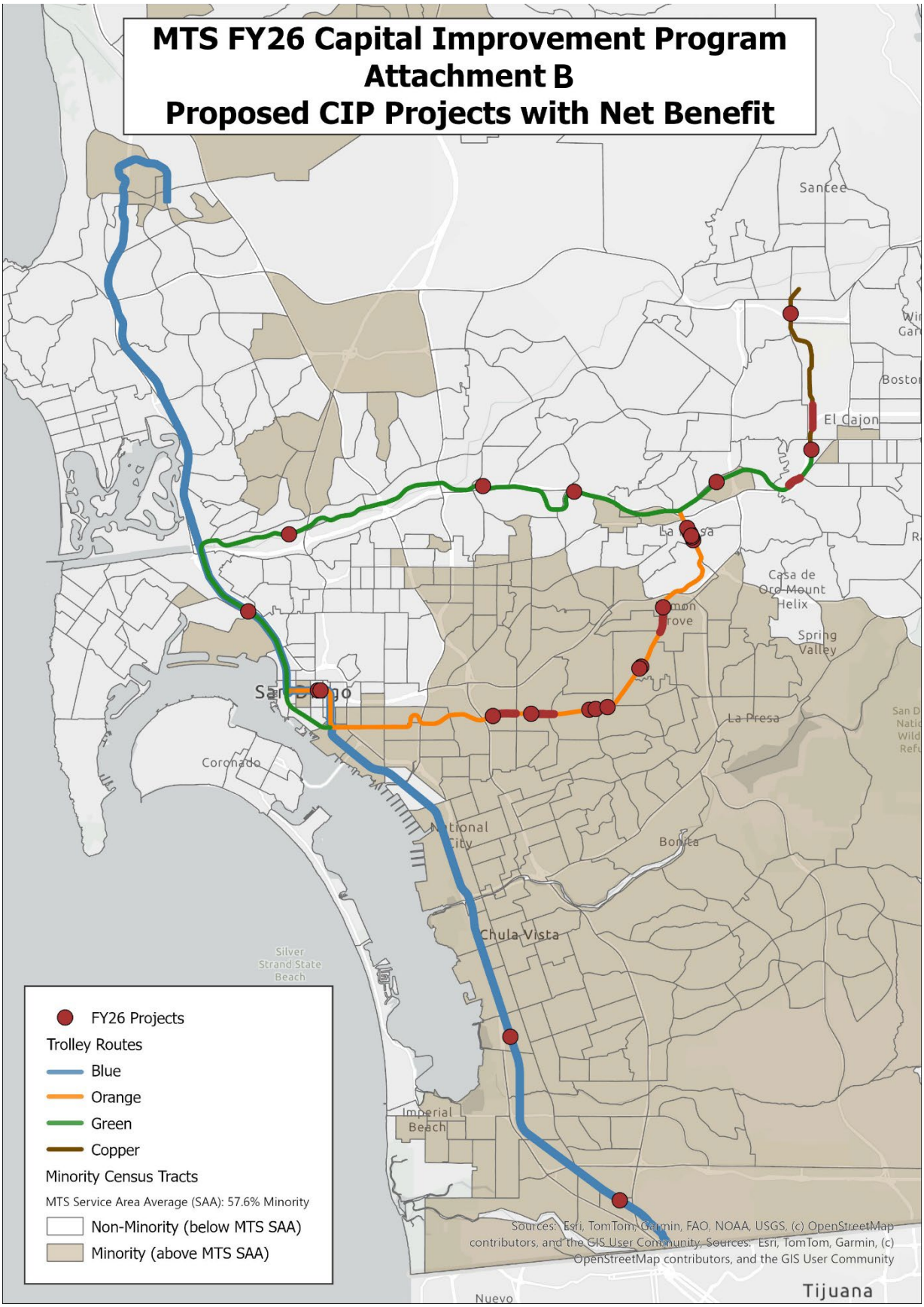
	Form ID	Division	Project Name	Location	FY 2026 Funded
1	1003	SDTI	65th Street Retaining Wall	6500 Imperial Avenue San Diego, CA	$1,600,000
2	2329	SDTI	Drainage Improvements	Mass Ave @ Orange Line & Alvarado Creek @ Green Line	$800,000
3	2330	SDTI	Grade Crossing Replacement	Downtown San Diego: 7th & C, 8th & C Chula Vista: Naples @ Blue Line El Cajon: Airport Vista @ Copper Line	$3,850,000
4	2331	SDTI	Station Trackway Replacement	47th Street Station	$1,975,000
5	2340	SDTI	OL Improvement Project Phase 1	Orange Line: 54th Street, 66th Street, and 68th Street grade crossings	$12,000,000
6	2341	SDTI	OL Improvement Project Phase 2	Orange Line: *Grade crossing replacements:* University Avenue Allison Avenue La Mesa Blvd Lemon Avenue Broadway (LG) *Station track replacement with ped crossings:* Mass Avenue La Mesa Blvd El Cajon Transit Center	$42,000,000
7	2352	SDTI	Fence Replacement	Orange Line: 47th to Euclid, 54th to Merlin; and Palm to Broadway Orange/Green Lines: Grossmont Summit & along Marshall Avenue	$400,000
8	2354	SDTI	Elevator Modernization	Fashion Valley, Grossmont, and Grantville Stations	$2,500,000
9	2387	SDTI	Washington Pedestrian Enhancements	Washington Street Station	$1,250,000
10	2397	SDTI	Beyer Blvd Track and Slope	South of Beyer Blvd Station; Blue Line	$1,850,000

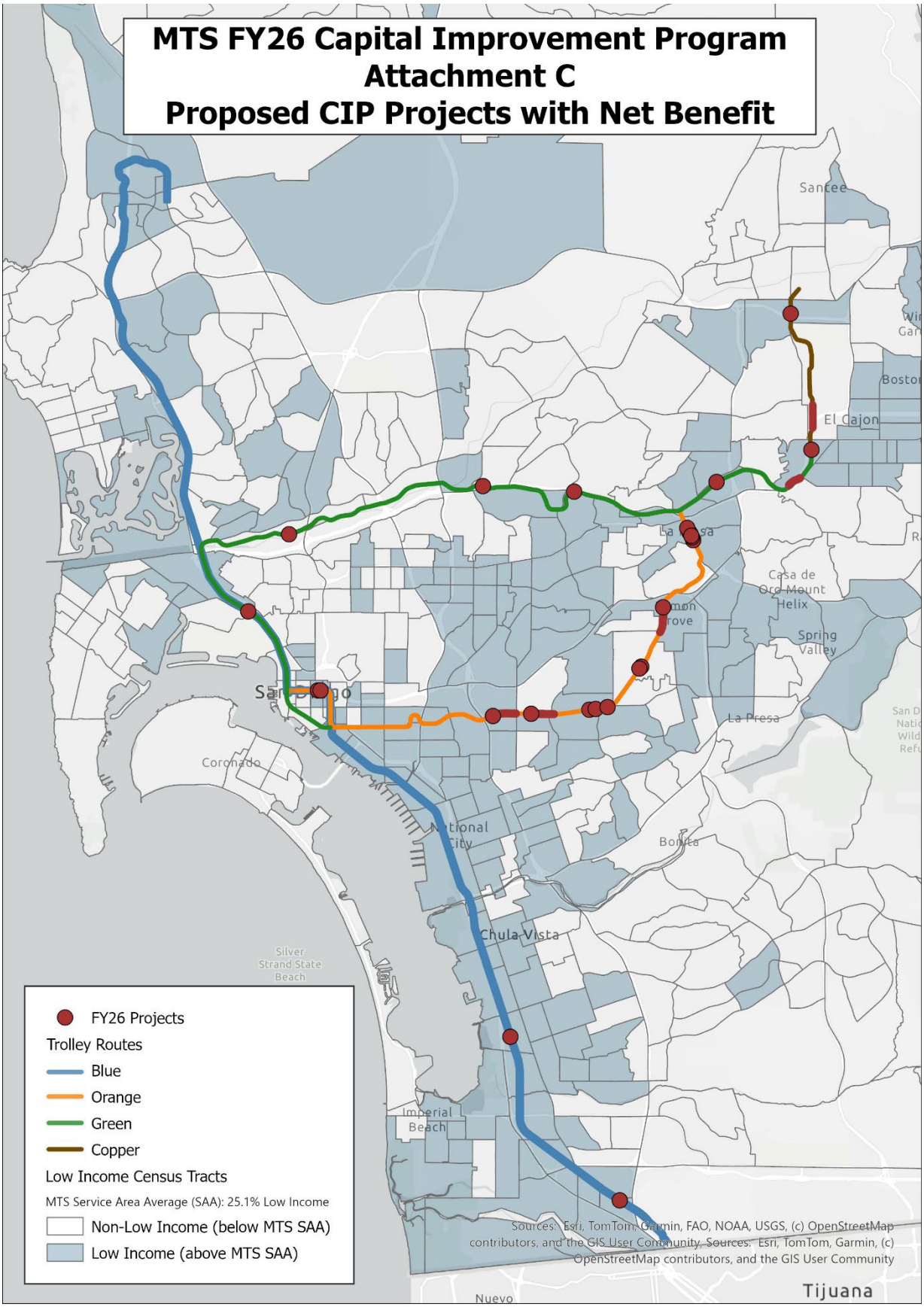
Attachments: Analysis of Proposed CIP External Repair/Replace Projects with a Net Benefit

Attachment A: Map of Projects
Attachment B: Map of Projects Overlaid with Minority Census Tracts
Attachment C: Map of Projects Overlaid with Low-Income Census Tracts
Attachment D: Statistical Analysis for Projects

cc: Sharon Cooney, Mike Thompson


MTS FY26 Capital Improvement Program
Attachment A
Proposed CIP Projects with Net Benefit
Santee
El Cajon
Casa de
Oro-Mount
Helix
Spring
Valley
La Presa
Coronado
Bonita
Chula Vista
Silver
Strand State
Beach
Imperial
Beach
Tijuana
FY26 Projects
Trolley Routes
Blue
Orange
Green
Copper
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, TomTom, Garmin, (c) OpenStreetMap contributors, and the GIS User Community


MTS FY26 Capital Improvement Program
Attachment B
Proposed CIP Projects with Net Benefit
Santee
El Cajon
Casa de Oro-Mount Helix
Spring Valley
La Presa
Coronado
Bonita
Chula Vista
Imperial Beach
Tijuana
Nuevo
FY26 Projects
Trolley Routes
Blue
Orange
Green
Copper
Minority Census Tracts
MTS Service Area Average (SAA): 57.6% Minority
Non-Minority (below MTS SAA)
Minority (above MTS SAA)
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, TomTom, Garmin, (c) OpenStreetMap contributors, and the GIS User Community


MTS FY26 Capital Improvement Program
Attachment C
Proposed CIP Projects with Net Benefit
Sancee
El Cajon
Casa de Oro-Mount Helix
Spring Valley
La Presa
Coronado
Bonita
Chula Vista
Imperial Beach
Tijuana
Nuevo
Silver Strand State Beach
FY26 Projects
Trolley Routes
Blue
Orange
Green
Copper
Low Income Census Tracts
MTS Service Area Average (SAA): 25.1% Low Income
Non-Low Income (below MTS SAA)
Low Income (above MTS SAA)
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, TomTom, Garmin, (c) OpenStreetMap contributors, and the GIS User Community

Attachment D: Proposed CIP Projects with a Net Benefit **MTS FY 26 Capital Improvement Program**

FormID	Project Name	Total Census Tract	Tract Population - Income Surveys	Low-Income Population	% Low Income	# of Tracts with Higher Percentage of Low-Income Than SAA	% of Tracts with Higher Percentage of Low-Income Than SAA	Tract Population - Race & Ethnicity Surveys	Minority Population	% Minority	# of Tracts with Higher Percentage of Minority Than SAA	% of Tracts with Higher Percentage of Minority Than SAA
-	**MTS Service Area Average (SAA)**	**577**	**2,370,598**	**594,013**	**25.1%**	**217**	**39.00%**	**2,431,024**	**1,399,454**	**57.60%**	**341**	**59.1%**
2354	Elevator Modernization	3	9,123	1,978	21.7%	1	33.33%	9,202	4,563	49.59%	1	33.3%
2387	Washington Pedestrian Enhancements	1	3,577	1,476	41.3%	1	100.00%	3,588	1,784	49.72%	0	0.0%
2330	Grade Crossing Replacement	4	13,035	4,287	32.9%	4	100.00%	13,144	6,891	52.43%	1	25.0%
2397	Beyer Blvd Track and Slope	1	5,342	2,899	54.3%	1	100.00%	5,372	5,293	98.53%	1	100.0%
2331	Station Trackway Replacement	2	7,918	4,648	58.7%	2	100.00%	7,918	7,317	92.41%	2	100.0%
2340	OL Improvement Project Phase 1	5	26,256	9,050	34.5%	4	80.00%	26,741	24,555	91.83%	5	100.0%
2341	OL Improvement Project Phase 2	8	34,759	9,736	28.0%	5	62.50%	35,153	20,571	58.52%	3	37.5%
1003	65th Street Retaining Wall	2	9,320	3,560	38.2%	2	100.00%	9,356	8,712	93.12%	2	100.0%
2329	Drainage Improvements	3	17,538	6,883	39.2%	1	33.33%	20,104	11,454	56.97%	2	66.7%
2352	Fence Replacement	9	39,311	14,656	37.3%	6	66.67%	39,862	31,914	80.06%	7	77.8%
FY26 Program Total		28	121,017	42,774	35.3%	20	71.43%	124,606	84,589	67.89%	15	53.6%

FY 2026 Capital Improvement Program (CIP)

Board of Directors

Capital Funding Levels - Proposed FY 2026

- Recurring revenues
  - Revenues shared between capital and operations
  - Federal formula revenues
  - Transportation Development Act (TDA)
    - Funding shifts to Operations: $25M in FY26, $35M in FY27, $50M in FY28
  - State Transit Assistance (STA)
  - Low Carbon Transit Operations Program (LCTOP)
- Nonrecurring revenues
  - Revenues that are one-time in nature, including competitive grant programs
  - Transit Intercity Rail Capital Program (TIRCP)
  - Senate Bill 125 (SB 125)
    - TIRCP formula funding over two years potentially
  - Other one-time funding, prior year carryovers, and transfers from closed projects

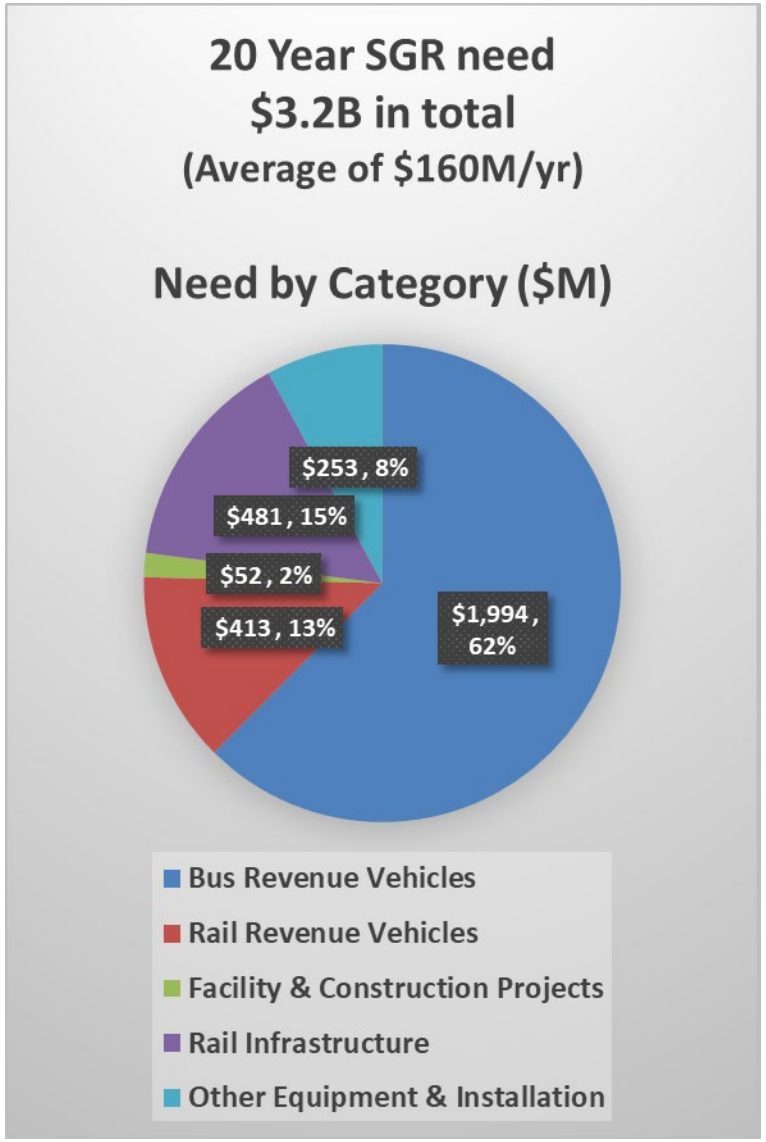
Capital Funding Levels – Proposed FY 2026 ($000s)

	Funding Description		Amount	
	Gross Federal Funding (Sections 5307, 5337, 5339)	$ 115,707		
	Preventive Maintenance in Operating Budget	(76,400)		
	Net Federal Funding in CIP		$	39,307
	Transportation Development Act (TDA)	$ 52,726		
	Funding Shift to Operations	(25,000)		
	Net TDA Funding in CIP			27,726
	California State Transit Assistance (STA)			22,200
	California STA State of Good Repair			5,816
	California Cap and Trade Formula (LCTOP)			8,658
*	California Cap and Trade Discretionary (TIRCP)			42,000
*	Other			17,634
	Available Funding for Capital Program		**$**	**163,341**
	* Non-recurring funding totals:		$	59,634

Other funding includes IRS alternative fuel credits, transfers from closed projects, carryovers, and other discretionary grant programs

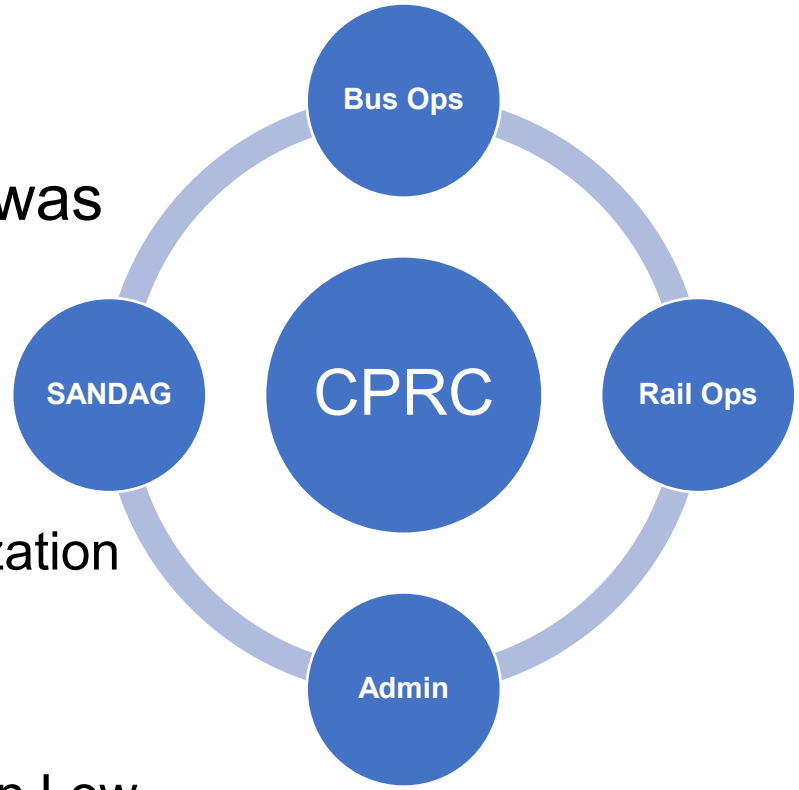
Development of the FY 2026 CIP: Guiding Principles

- Board Policy 65 - Transit Asset Management
  - MTS is committed to effectively manage its transit assets and maintain its system in a State of Good Repair (SGR) to support safe, efficient, and reliable transit services across the organization
  - MTS required to comply with applicable maintenance regulations of the Federal Transit Administration, Federal Railroad Administration, and the California Public Utilities Commission
  - Base capital project prioritization and other asset management decisions on asset criticality, condition, performance, available funding, safety considerations, and on the evaluation of alternatives that consider full lifecycle benefits, costs, and risks



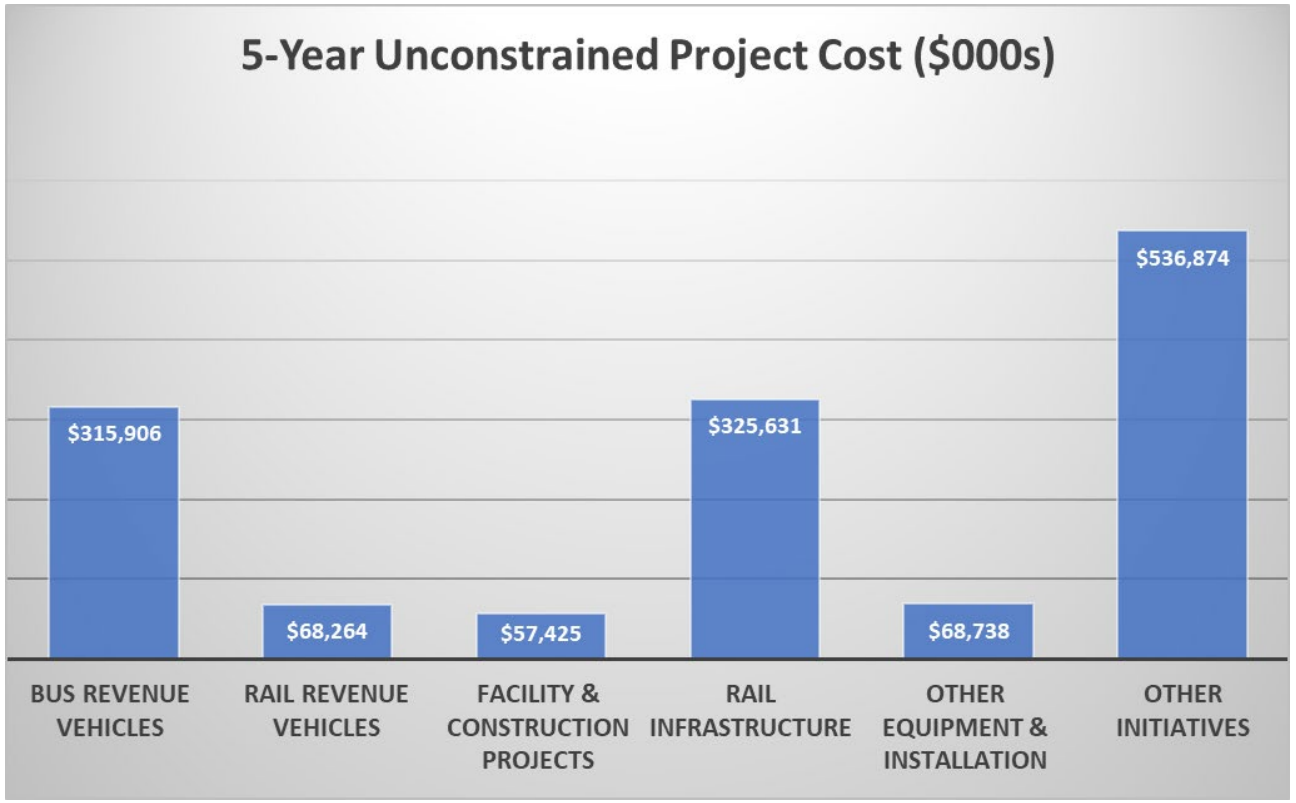
Development of the FY 2026 CIP

- Process began in September 2024 with call for projects
  - Each department submits:
    - Update to their departmental **20-year CIP forecast**
    - Project requests for the next 5 fiscal years
    - Departmental prioritization
  - Consolidated project list is prepared
- Capital Projects Review Committee (CPRC) meeting was held to discuss the priority project list
  - Each Committee member responsible for discussing their prioritized capital requests for the group it serves
  - Projects with safety and/or operational needs are priority 1
  - The Committee reviewed and the CEO approved the prioritization of the capital requests
    - All priority 1 projects were funded
  - The project list is also subject to an analysis based on social equity principles and there was no disproportionate impact on Low Income/Minority populations (Title VI)



FY 2026-30 CIP – Unconstrained Project List ($000s)

- 5-year unconstrained project list
  - Totals need of $1.4B
    - Summary by category in the table ->
  - Ongoing state of good repair requirements
    - Makes up $836M (61%) of overall need
    - $384M for Revenue Vehicles
      - Including the transition plan to ZEBs
  - Other initiatives of $537M include:
    - ZEB charging infrastructure at all five bus facilities
    - Clean Transit Advancement Campus - new bus maintenance facility
    - Future Transit Center projects



Capital Project Summary
Proposed Fiscal Year 2026 ($000s)

- $240.8M in total requests
  - 49 total projects
- $163.3M in available funding
  - Able to fund 68% of requests
- Projects funded
  - 93% of funding towards State of Good Repair
  - 40 projects funded
    - Listed in Attachment B
    - Short project descriptions also included in Attachment C

Capital Project Categories	Funding ($000s)
Bus Revenue Vehicles	$ 53,906
Facility & Construction Projects	6,026
Rail Infrastructure	85,410
Other Equipment & Installation	7,212
Other Initiatives	10,787
Grand Total	**$ 163,341**

FY 2026 CIP Project Highlights – Bus Revenue Vehicles

- Bus Fleet Replacement
  - Fleet Plan for scheduled replacement
    - Importance of fleet replacement to keep operations efficient and cost effective
    - Annual goal = Buses in Fleet by type divided by the useful life
  - Vehicles in fleet:

	Buses in Fleet	Useful Life (Years)	Cost per Bus ($000s)
40 ft.	439	12	$ 796
40 ft. BEB	26	12	$ 1,158
60 ft. Artics	130	12	$ 1,311
60 ft. Artics BEB	13	12	$ 1,884
Commuter Express	24	12	$ 1,095
Minibuses	40	7	$ 342
ADA Minibuses	107	7	$ 210
ADA Vans	14	5	$ 53
Total	**793**		





FY 2026 CIP Project Highlights – Bus Revenue Vehicles

- Fleet Replacement Funding
  - $53.9M funded for FY 2026
    - Goal is to fund similar amount each year to smooth out years with larger purchases
    - Plan to purchase:
      - 50 40-ft buses
        - With Board-approved utilization of ZEB credits for FY26, CNG vehicle procurement
  - Funding by year ($000s):

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Bus Procurement - FY25	$ 53,906	$ -	$ 70,000	$ 60,000	$ 62,000	$ 70,000	$ 315,906
Subtotal	**$ 53,906**	**$ -**	**$ 70,000**	**$ 60,000**	**$ 62,000**	**$ 70,000**	**$ 315,906**

FY 2026 CIP Project Highlights – Rail Revenue Vehicles

- Light Rail Vehicle (LRV) Fleet Replacement
  - 168 vehicles in fleet
  - 25-year useful life
  - Will receive last new SD10s in 2025
    - Replacing the SD100 LRVs



Light Rail Vehicles by Series				
Series	#s	Count	In Service	Replacement
SD7	3000s	11	2004	2029-2034
SD8	4000s	65	2011-2013	2036-2038
SD9	5001-5045	45	2019-2020	2044-2045
SD10	5046-5092	47	2021-2025	2046-2050

FY 2026 CIP Project Highlights – Rail Revenue Vehicles

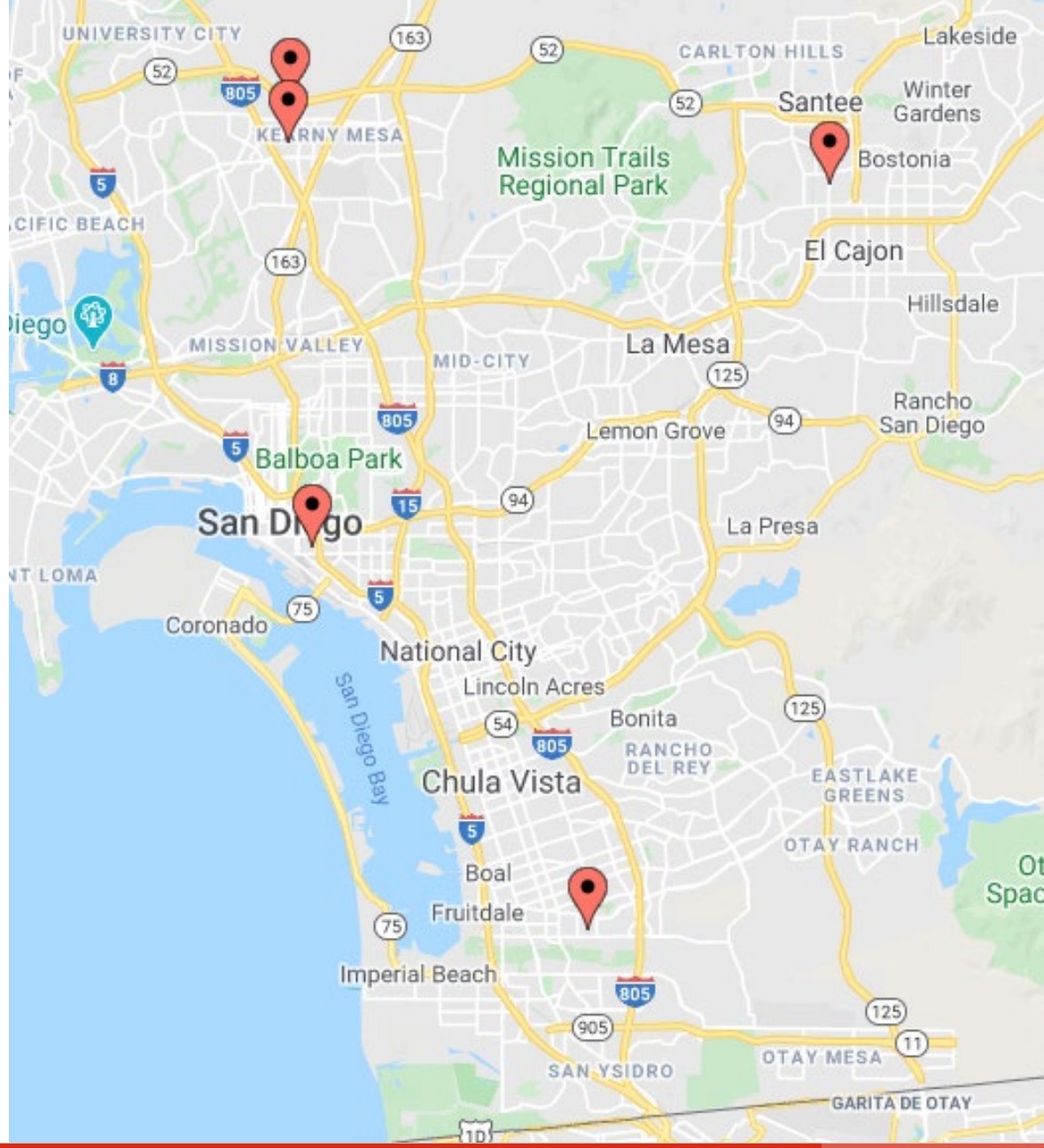
- Fleet Replacement Funding
  - Completing SD100 Replacement
    - Funded from 2015-2025
    - $211M in total, over $4M per LRV
    - No additional funding required in FY 2026
  - Need to begin saving for SD7 replacements in FY 2027
  - Within 5-year period also need to begin saving for the SD8 replacements

  - LRV funding by year ($000s):

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Ops - SD7 LRV Replacement	$ -	$ -	$ 10,566	$ 10,566	$ 10,566	$ 10,566	$ 42,264
Rail Ops - SD8 LRV Replacement	-	-	-	-	-	26,000	26,000
Subtotal	**$ -**	**$ -**	**$ 10,566**	**$ 10,566**	**$ 10,566**	**$ 36,566**	**$ 68,264**

FY 2026 CIP – Facility & Construction Projects

- Operating Facilities
  - Each facility includes maintenance building, admin building(s), fueling facilities, yard, etc.
    - Trolley yard & Buildings A, B & C
    - Imperial Avenue Division
    - Kearny Mesa Division
    - South Bay Bus Maintenance Facility
    - East County Bus Maintenance Facility
    - Copley Park Division
  - Passenger Facilities
    - 68 major passenger facilities
    - Each Transit Center/Station may include amenities such as shelters, benches, parking lots and elevators



FY 2026 CIP - Facility & Construction Projects

- 8 projects submitted for FY 2026
  - 4 projects funded, 4 not funded
  - $6.0M funding allocated in total
    - Example pictured: Washington Street Pedestrian Enhancements
  - Full project lists in Attachment B



- Funding by year ($000s):

State of Good Repair Categories	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Facility & Construction Projects - Bus	$ 2,276	$ 794	$ 10,380	$ 8,650	$ 5,450	$ -	$ 27,550
Facility & Construction Projects - Rail	-	-	4,750	3,150	175	-	8,075
Facility & Construction Projects - Pass.	3,750	5,000	4,500	700	5,000	2,850	21,800
Subtotal	**$ 6,026**	**$ 5,794**	**$ 19,630**	**$ 12,500**	**$ 10,625**	**$ 2,850**	**$ 57,425**

FY 2026 CIP - Rail Infrastructure Projects

- Large capital investment in Rail Infrastructure
  - Nearly $5B in total system assets
  - Requires significant upkeep
- Rail Infrastructure projects
  - Track - directly related to the physical rail
    - Rail and ties
    - Special track work (crossovers, diamonds, frogs, etc.)
    - Grade Crossings (Frances St pictures to the right)
  - Maintenance of Wayside (MOW)
    - Bridges / Elevated track
    - Drainage / Track right of way
    - Electrification - Catenary and Substations
    - Signaling





FY 2026 CIP - Rail Infrastructure Projects

- 18 projects submitted for FY 2026
  - 16 projects funded, 2 not funded
  - $85.4M total
    - Includes $64.0M towards the Orange Line Improvement Projects
    - Example pictured: Substation replacement
  - Full project lists in Attachment B



- Funding by year ($000s):

State of Good Repair Categories	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Rail Infrastructure - Track	$ 68,310	$ -	$ 58,143	$ 11,355	$ 15,078	$ 15,360	$ 168,246
Rail Infrastructure - MOW	17,100	4,000	38,500	33,000	30,800	33,985	157,385
Subtotal	**$ 85,410**	**$ 4,000**	**$ 96,643**	**$ 44,355**	**$ 45,878**	**$ 49,345**	**$ 325,631**

FY 2026 CIP - Other Equipment & Installation Projects

- 15 projects submitted for FY 2026
  - Maintenance/cleaning equipment for Bus and Rail
  - IT infrastructure/systems/network
    - Example pictured: Data Storage Replacements
  - 14 funded, 1 not funded
  - Full project lists in Attachment B



- Totals by year ($000s):

State of Good Repair Categories	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Other Equipment & Installation - Ops	$ 3,710	$ 890	$ 7,765	$ 6,100	$ 1,750	$ 8,214	$ 28,429
Other Equipment & Installation - Admin	3,502	-	10,244	10,270	8,358	7,935	40,309
Subtotal	**$ 7,212**	**$ 890**	**$ 18,009**	**$ 16,370**	**$ 10,108**	**$ 16,149**	**$ 68,738**

FY 2026 CIP – Five Year Forecast - SGR ($000s)

State of Good Repair Categories	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Revenue Vehicles	$ 53,906	$ -	$ 70,000	$ 60,000	$ 62,000	$ 70,000	$ 315,906
Rail Revenue Vehicles	-	-	10,566	10,566	10,566	36,566	68,264
Facility & Construction Projects - Bus	2,276	794	10,380	8,650	5,450	-	27,550
Facility & Construction Projects - Rail	-	-	4,750	3,150	175	-	8,075
Facility & Construction Projects - Pass.	3,750	5,000	4,500	700	5,000	2,850	21,800
Rail Infrastructure - Track	68,310	-	58,143	11,355	15,078	15,360	168,246
Rail Infrastructure - MOW	17,100	4,000	38,500	33,000	30,800	33,985	157,385
Other Equipment & Installation - Ops	3,710	890	7,765	6,100	1,750	8,214	28,429
Other Equipment & Installation - Admin	3,502	-	10,244	10,270	8,358	7,935	40,309
Subtotal	**$ 152,554**	**$ 10,684**	**$ 214,848**	**$ 143,791**	**$ 139,177**	**$ 174,910**	**$ 835,964**

- FY 2026 Funding of $152.6M for State of Good Repair projects
  - SGR alone averages over $167M per year over this five year period
  - $524M in recurring revenue streams forecasted for the next five years
    - After $110M shifts from Capital to Operations for FY 2026-2028

FY 2026 CIP – Other Initiatives

- Innovative Clean Transit Infrastructure
  - Ongoing compliance with current CA regulations
    - Includes the proposed Clean Transit Advancement Campus (Division 6)
    - Overhead charging infrastructure at each existing division with incremental phases
  - Totals by year ($000s):



Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Bus Ops - Southbay Maintenance Facility BEB Charging Phase II	$ -	$ 16,783	$ 36,783	$ 20,000	$ -	$ -	$ 73,566
Bus Ops - Southbay Maintenance Facility Backup Power Charging Infra.	6,068	-	-	-	-	-	6,068
Bus Ops - Imperial Avenue Division BEB Charging Infrastructure	2,110	-	-	-	-	-	2,110
Bus Ops - East County Division BEB Charging Phase I - Design	1,609	-	-	-	-	-	1,609
Bus Ops - New Transit Facility (CTAC)	-	50,000	50,000	50,000	50,000	40,000	240,000
Bus Ops - BEB Infrastructure All Divisions	-	-	35,165	2,505	17,051	68,000	122,721
Subtotal	**$ 9,787**	**$ 66,783**	**$ 121,948**	**$ 72,505**	**$ 67,051**	**$ 108,000**	**$ 446,074**

FY 2026 CIP – Other Initiatives

- 1 project submitted for FY 2026
  - 1 project funded
    - Transit Amenity Improvement project funded in advance of new policy being developed

- Totals by year ($000s):

Project Name	FY 2026 Funded	FY26 Unfunded	FY 2027	FY 2028	FY 2029	FY 2030	5 Year Total
Admin - Transit Amenity Improvements	$ 1,000	$ -	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 5,000
Admin - San Ysidro Transit Center Planning & Design	-	-	15,000	15,000	-	-	30,000
Admin - Southwestern Rapid	-	-	1,000	5,000	6,000	-	12,000
Admin - Bus Stop Shelters	-	-	1,200	1,200	1,300	1,300	5,000
Admin - ADA Bus Stop Improvements	-	-	500	600	700	-	1,800
Admin - El Cajon Transit Center Bus Improvements	-	-	500	500	12,000	-	13,000
Admin - Social Equity Listening Tour	-	-	-	2,000	-	-	2,000
Admin - Kearny Mesa Transit Center	-	-	2,000	10,000	10,000	-	22,000
Subtotal	**$ 1,000**	**$ -**	**$ 21,200**	**$ 35,300**	**$ 31,000**	**$ 2,300**	**$ 90,800**

FY 2026 CIP – Other Notes

- Projects with dedicated funding:
  - Orange Line Improvement Project ($42M funded in total)
    - TIRCP $42M
  - Bus Procurement ($53.9M in total)
    - LCTOP $8.6M
    - Federal EPA Community Change Grant $3.9M

- Passenger Amenity Projects:

Project Name	FY 2026 ($000s)
Funded Projects:	
Rail Ops - Elevator Modernization	2,500
Rail Ops - Washington Pedestrian Enhancements	1,250
Admin - PRONTO Mobile App Enhancement	1,100
Admin - Transit Amenity Improvement	1,000
Subtotal	**$ 5,850**
Un-funded Projects:	
Rail Ops - Second Elevator at Stadium Station	2,500
Rail Ops - Stadium Station Platform	2,500
Subtotal	**$ 5,000**

FY 2026 CIP – Five Year Summary ($000s)

	Proposed FY26	Projected FY27	Projected FY28	Projected FY29	Projected FY30	Total FY26 to FY30
State of Good Repair	$ 163,238	$ 214,848	$ 143,791	$ 139,177	$ 174,910	$ 835,964
Other Initiatives	77,570	143,148	107,805	98,051	110,300	536,874
Total Project Needs	**$ 240,808**	**$ 357,996**	**$ 251,596**	**$ 237,228**	**$ 285,210**	**$ 1,372,838**
Available CIP Revenues	**$ 163,341**	**$ 110,901**	**$ 87,049**	**$ 136,511**	**$ 126,286**	**$ 624,088**
Total Deficit	**$ (77,467)**	**$(247,094)**	**$(164,547)**	**$(100,718)**	**$(158,924)**	**$ (748,750)**
% of Funding / Needs	67.8%	31.0%	34.6%	57.5%	44.3%	**45.5%**
Accumulated Deficit	**$ (77,467)**	**$(324,562)**	**$(489,109)**	**$(589,827)**	**$(748,750)**	

Staff Recommendation: FY 2026 CIP

That the Board of Directors:

1. Approve the fiscal year 2026 Capital Improvement Program (CIP) with the estimated federal and nonfederal funding levels (Attachments A and B). As the federal appropriation figures are finalized and/or other project funding sources become available, allow the Chief Executive Officer (CEO) to identify and adjust projects for the adjusted funding levels;
2. Recommend that the San Diego Association of Governments (SANDAG) Board of Directors approve the submittal of Federal Section 5307, 5337 and 5339 applications for the MTS fiscal year 2026 CIP (shown in Attachment A);
3. Recommend that the SANDAG Board of Directors approve amendment number 5 of the 2025 Regional Transportation Improvement Program (RTIP) in accordance with the fiscal year 2026 CIP recommendations.

Metropolitan Transit System

Agenda Item No. 25

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Fiscal Year (FY) 2025 Operating Budget Midyear Amendment (Gordon Meyer)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) MTS Board of Directors enact Resolution No. 25-01 (Attachment B) amending the FY 2025 operating budget for MTS, San Diego Transit Corporation (SDTC), San Diego Trolley, Inc. (SDTI), MTS Contract Services, and the Coronado Ferry.

Budget Impact

The action will amend the FY 2025 operating budget.

Executive Committee Recommendation

At its date meeting, the Executive Committee voted 5 to 0 in favor (with Board Members: Fernandez, Hall, Elo-Rivera, Whitburn and Goble), Board Member Montgomery Steppe and Board Member Dillard absent, to recommend that the Board of Directors approve the staff recommendation.

DISCUSSION:

The FY 2025 operating budget was approved on June 20, 2024. Based on new information and additional evaluation of expenses and revenues for the year, staff has developed the midyear amendment, which will amend the FY 2025 operating budget for MTS, SDTC, SDTI, MTS Contract Services, and the Coronado Ferry.

Combined MTS FY 2025 Midyear Adjustments

Revenues: In total, consolidated revenues are decreasing by $35,000 (-0.0%).

Passenger Revenue: Passenger revenues were unfavorable to budget by $755,000 (-1.9%) over the first six months of the fiscal year, primarily due to a lower average fare versus the original budget. The original budget assumed an average fare of $0.98 and the average fare through December was $0.93, representing a -3.2% unfavorable variance. Changes to the fare enforcement policy began on February 1, 2025, and results have been positive so far, with an

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

estimated increase in average fare of $0.11 based on preliminary data. Due to this trend, the average fare assumed in the FY 2025 amended budget remaining at $0.98, 5.6% higher than the year-to-date average fare of $0.93. Ridership is currently trending 1.4% higher versus budget, primarily due to ridership exceeding budgeted levels by an average of 389,000 passengers (14.0%) per month during July through October. However, ridership in November and December missed budget by an average of 502,000 passengers (-7.2%) each month. The revised ridership forecast for FY 2025 is 81.3 million passengers, an increase of 667,000 passengers (0.8%) over the original budget. The amended budget ridership projection represents growth of 5.6 million passengers (7.4%) over prior year actual ridership whereas the original budget had assumed 6.5% growth. Year to date ridership has averaged 9.1% over last year so far; however, the passenger levels in the amended budget reflect more conservative growth in the second half of the year due to lower ridership in November and December. Based on the current ridership and average fare trends, passenger revenue is projected to be $79,851,000 in the FY 2025 amended budget, an increase of $925,000 (1.2%) versus the original budget.

Other Operating Revenue: Other operating revenue is projected to increase by $1,894,000 (5.7%) versus the original FY 2025 budget. This is primarily due to projected increases in energy credit revenue, advertising revenue, and interest revenue. Energy credit revenue is expected to increase by $1.1 million in the amended budget, primarily due to favorable federal Renewable Identification Numbers (RINs) energy credit prices. RINs prices have been trading at an average of $2.97 per credit, versus the original budget of $2.50 per credit. The impact of these high prices has more than offset the unfavorable impact of lackluster Low Carbon Fuel Standards (LCFS) prices, which have averaged $64.43 per credit versus $70.00 included in the original budget. The amended budget includes price targets of $2.30 for RINs and $70.00 for LCFS for the remainder of the year. The amended budget also assumes the sale of 38,000 LCFS credits in the second half of the year at $70 per credit, which is contributing toward the projected increase as well. Advertising revenue is projected to increase by $901,000 (16.4%), primarily due to a projected increase of $862,000 in revenue generated by the Gaslamp Station digital sign. The original budget assumed the Minimum Advertising Guarantee (MAG) of $653,000 because this was the first year of the contract with no historical data to base assumptions on; however, monthly revenue reports indicate that MTS is on pace to generate over $1.5 million in this first year of operating the new sign. Interest income is projected to be $9,613,000 in the amended budget, an increase of $888,000 over the original budget. Interest rates and cash balances have remained higher than assumptions in the original budget.

Subsidy Revenue: Subsidy revenue, in total, is projected to increase by $3,662,000 (1.2%).

MTS receives a variety of recurring federal revenues (Federal Transit Administration (FTA) Sections 5307, 5337, 5339, 5311, etc.) for preventive maintenance, paratransit operations, rural operations, and capital projects. Recurring federal revenues are expected to increase by $4,597,000 (6.3%) from the original budget, primarily due to increasing the allocation of Section 5307 and Section 5337 formula funding for preventive maintenance. These formula funds are shared between the capital budget and operations, and the amount allocated to the operating budget depends on projected allowable preventive maintenance expenses. Preventive maintenance activities are one of the few allowable operating expenses for these formula funds, and MTS historically maximizes the use of preventive maintenance funds in the operating budget. Maximining the amount for preventive maintenance funding in the operating budget improves cash flow and allows for faster grant close-out since these funds can be drawn at the

end of the fiscal year based on eligible operating expenses, versus capital projects which are typically completed over multiple years. The increase in preventive maintenance funds does not reflect an increase in overall federal formula funds, but rather an increase in the amount being allocated to the operating budget. The increase in federal preventive maintenance funds is being partially offset by a reduction of $491,000 in Section 5311/5311(f) rural operations funding, which was reduced to reflect anticipated reimbursement based on net expenses and available stimulus funds administered through these programs.
On March 27, 2020, President Trump signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which provided $25 billion to the transit industry nationwide. MTS was allocated $220 million in CARES Act funding over multiple fiscal years to supplement lost revenues and increased expenses related to the pandemic. On March 11, 2021, President Biden signed the American Rescue Plan (ARP) Act into law, providing $140 million in additional stimulus funding for MTS. In total, MTS has been allocated $360 million in federal stimulus funds which have been used to fund structural deficits in the operating budget thus far. MTS recently submitted its final drawdown for the remaining stimulus funds based on December expenses, meaning there will be no additional stimulus available going forward. The original FY 2025 budget included $47.0 million of federal stimulus. The amount in the FY 2025 amended budget is increasing by $394,000 to reflect then exact balance of stimulus funds available and drawn in FY 2025.

Transportation Development Act (TDA) revenue in the operating budget is decreasing by $2,616,000 (-2.8%). TDA is one-quarter of a percent of the 7.75% sales tax in the region and is apportioned by the San Diego Association of Governments (SANDAG). TDA funds both the operating and capital budget. SANDAG provided an updated forecast in January 2025 with a projected -1.9% decrease in TDA revenue available for the region versus their original forecast for FY 2025. TDA receipts continue to lag original forecasts, with significant decreases in future fiscal years projected as well. The decrease in available regional TDA amounts to a $2,616,000 (-1.9%) decrease in TDA available for MTS in FY 2025. This decrease is being reflected solely in the operating budget to avoid reducing TDA in the FY 2025 capital budget which was adopted last year. Therefore, the decrease in TDA reflects a -2.8% reduction in TDA in the amended operating budget.

TransNet revenue is expected to decrease by $2,660,000 (-3.5%). TransNet is a one-half cent local sales tax revenue distributed to MTS both on a formula basis as well as through direct reimbursement for TransNet funded services such as Bus Rapid Transit (BRT) operations and the Mid-Coast extension. As with TDA, Transnet cash receipts have lagged original forecasts and SANDAG is now projecting a decrease of -2.4% versus their original forecast for FY 2025. Furthermore, the original MTS operating budget used a higher growth assumption based on a third-party forecast provided by Avenu, a consulting group that produces independent sales tax forecasts for SANDAG. The FY 2025 amended budget assumes SANDAG's recent forecast for Transnet formula funds, reflecting a $2,286,000 (-5.4%) decrease in the amended budget for the formula share of TransNet. TransNet provided as direct reimbursement for BRT services and Mid-Coast is expected to decrease by $374,000 (-1.1%), based on projected decreases in net subsidy needed to fully fund these services.

State Transit Assistance (STA) is a state sales tax revenue derived from the sales tax on diesel fuel and apportioned by the state. STA is primarily used to fund the capital budget due to its volatile history; however, a portion is used to fund operations. The original FY 2025 budget included an overall projection of $39.0 million, with $27.1 million being allocated to the Capital

Improvement Program (CIP) and the remaining $11.3 million to operations. The Governor's January proposed budget includes $33.9 million in total STA for MTS, a reduction of $5.1 million (-13.0%) overall. The decrease in total STA funds is being applied solely to the operating budget to keep the capital budget fully funded. Therefore, STA in the operating budget is projected at $6,247,000 in the FY 2025 amended budget, a decrease of $5,053,000 (-44.7%).

State revenue is expected to increase by $9,000,000 in the amended budget. State revenue includes the addition of Senate Bill 125 (SB 125) Transit and Intercity Rail Capital Program (TIRCP) funds. SB 125, approved by the Governor on July 10, 2023, guides the distribution of $4 billion in General Fund through the TIRCP on a population-based formula to regional transportation planning agencies, which can use the funds for either capital or operations. MTS is expected to receive $237.3 million in SB 125 TIRCP funds over the next four years, with $211.3 million planned for the operating budget and the remainder going toward the Orange Line Modernization capital project. The original budget assumed that MTS did not receive any SB 125 funding because the availability of these funds was uncertain as the state faced its own challenges balancing its budget. The initial payment to transit agencies was delayed almost six months past the originally planned disbursement date but was ultimately received in September 2024. The FY 2025 amended budget includes the addition of $9,000,000 in SB 125 revenue to fund security enhancements, Iris Rapid (Route 227) operations, Route 910 Overnight Express operations, and trolley service enhancements (move to 15-minute service on entire trolley system).

Other local funds are projected to remain at the original budget figure of $4,310,000. Other local funds include *Fastrak* toll revenue provided by SANDAG, reimbursement from UCSD for operating the Route 201 and 202 shuttle service, and smaller revenue streams provided by the City of San Diego and the North County Transit District through ancillary agreements.

Reserves: For Hire Vehicle Administration (FHVA) and San Diego & Arizona Eastern (SD&AE) are self-funded entities who must balance their operating expenses with operating revenues or their contingency reserve revenue. FHVA is projected to use $44,000 of its reserve balance in the FY 2025 amended budget, as expenses are expected to exceed revenues. SD&AE is projected to add $70,000 to its reserve, as revenues are expected to exceed expenses.

In FY 2023, the Board of Directors approved the creation of the operating deficit reserve. This allowed MTS to draw federal stimulus funds based on maximum allowable expenses, versus only drawing the amount needed to cover the annual structural deficit. Excess stimulus funds were then contributed to the operating deficit reserve where they can be used in future fiscal years for addressing structural deficits. The original FY 2025 operating budget included the projected usage of $31.7 million of operating deficit reserve funds to balance the operating budget. The amended budget projects using $25.2 million, a reduction of $6.5 million (-20.6%). The decrease in the projected reserve usage is due projected non-reserve revenues increasing more than expenses in the FY 2025 amended budget.

Expenses: Total consolidated operating expenses are projected to decrease by $35,000 (-0.0%) from the original budget.

Personnel: Personnel-related expenses are decreasing by $50,000 (-0.0%). Wages are projected to increase by $250,000 (0.2%). Wages within Bus Operations are projected to increase $1,787,000 (3.5%) primarily due to significant pay raises for ATU and IBEW members

included in the new collective bargaining agreements that became effective January 2025. These wage increases are being partially offset by decreases in wages within Administration and Trolley operations. Administration wages are decreasing $630,000 (-2.5%) due to slower than anticipated hiring of the 47 additional security positions that were approved by the Board last year. Trolley operations wages are being reduced to reflect lower flagging wages based on current trends. The original budget included additional flagging wages to reflect new positions that were approved in FY 2024; however, hiring of those additional employees is not expected to start until the end of FY 2025 in anticipation of the Orange Line Modernization project. The FY 2025 amended budget also reflects a decrease in wages due to elimination of the annual performance incentive payment (PIP) bonus program for management employees. The PIP program has been paused indefinitely as MTS faces a significant structural deficit. Fringe expenses are projected to decrease by $301,000 (-0.4%) in the amended budget. Within fringe expenses, healthcare costs are decreasing $1.0 million (-4.7%) and pension costs are decreasing by $540,000 (-1.6%). These decreases are being partially offset by a reduction in flagging cost reimbursements of $795,000 (-33.3%) and an increase of $497,000 (10.4%) in worker's compensation costs.

Outside Services: Total outside services are projected to increase by $1,970,000 (1.2%). Within outside services, contracted security costs are decreasing by $221,000 (-1.5%), repair and maintenance services are decreasing $565,000 (-4.7%), engine and transmission repair costs are increasing $461,000 (63.9%), and other outside services costs are increasing by $1,852,000 (7.2%). Other outside services are primarily increasing due to including additional budget for CCTV maintenance and replacements, emergency repair work in the track maintenance department, radio purchases within the security department (budgeted in FY 2024 but paid in FY 2025), and including $400,000 for the insourcing feasibility study for contracted bus operations. Outside services also include purchased transportation costs, which reflect Transdev contract expenses for both fixed route and paratransit bus services. Overall purchased transportation costs are projected to increase $443,000 (0.4%) in the amended budget. Fixed route purchased transportation costs are projected to increase $825,000 (0.9%). This is primarily due to including budget for the new Route 910 Overnight Express which operates out of the South Bay division, as well as increasing budget for East County services, which were under-estimated in the original budget. Overall, contracted fixed route bus service levels are projected to stay flat compared to the original budget with no major changes to service anticipated at this time. Paratransit purchased transportation costs, which fluctuate with demand for the service, are decreasing $376,000 (-2.0%) overall, based on lower demand versus the original budget.

Materials and Supplies: Staff projects materials and supplies expenses to decrease by $727,000 (-3.5%) versus the original budget. This is primarily due to removing $830,000 from the operating budget for upgrading the ticket vending machine credit card modules. This project was originally planned for FY 2025 but has been postponed until FY 2026.

Energy: Energy expenses are projected to decrease by $1,661,000 (-3.3%) in total. Within energy, CNG expenses are projected to decrease by $1,513,000 (-10.1%), primarily due to the commodity rate being lower than budget. Commodity rates for electricity have also been favorable in FY 2025, resulting in lower electricity costs in the first half of the year versus budget. However, electricity consumption in the amended budget is increasing to account for the trolley service enhancements that went into effect in January 2025. Traction power electricity costs are projected to increase $153,000 (0.6%) to account for the additional service,

while also reflecting the favorable commodity rates in the first half of the year.

Risk Management: Risk management costs are decreasing by $697,000 (-6.2%), primarily due to a projected decrease of $550,000 in liability claim payouts and $150,000 reduction in risk related legal expenses.

General and Administrative. General and administrative costs are projected to increase by $643,000 (9.4%). This is primarily due to purchasing handheld fare validators for the security department, increasing the budget for credit card fees related to the fare system based on current trend, and increasing the budget for the Mill's building rent expenses.

Debt Service: There are no debt service costs in the FY 2025 original or amended operating budget as the pension obligation bonds were fully paid off in FY 2024.

Vehicle/Facility Leases. Vehicle/facility leases are expected to increase by $487,000 (28.5%), primarily due to higher Non-Revenue Vehicle (NRV) lease costs. NRV lease expenses are increasing due to increasing the fleet size, higher leasing costs, and multiple lease vehicles required upfront purchases of after-market equipment. Furthermore, the resale value of used lease vehicles at the end of their leasing term has been lower than prior years, providing a lower offset to lease prices.

Net income: The increase in revenues and expenses results in a balanced budget.

Therefore, staff recommends that the MTS Board of Directors enact Resolution No. 25-01 (Attachment B) amending the FY 2025 operating budget for MTS, SDTC, SDTI, MTS Contract Services, and the Coronado Ferry.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachments: A. FY 2025 Amended Budget Book
B. Resolution 25-01

Fiscal Year 2025

Amended Budget

Metropolitan Transit System

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SAN DIEGO METROPOLITAN TRANSIT SYSTEM
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SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 2.01

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	72,403,501	78,925,492	79,850,726	925,234	1.2%
OTHER OPERATING REVENUE	34,505,395	33,203,791	35,098,213	1,894,422	5.7%
TOTAL OPERATING REVENUES	**106,908,896**	**112,129,283**	**114,948,939**	**2,819,656**	**2.5%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	339,947,127	304,453,658	308,115,777	3,662,119	1.2%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	(30,504,844)	31,642,170	25,125,699	(6,516,471)	-20.6%
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	(30,504,844)	31,642,170	25,125,699	(6,516,471)	-20.6%
TOTAL NON OPERATING REVENUE	**309,442,282**	**336,095,828**	**333,241,476**	**(2,854,351)**	**-0.8%**
TOTAL COMBINED REVENUES	**416,351,179**	**448,225,111**	**448,190,416**	**(34,695)**	**0.0%**
OPERATING EXPENSES					
LABOR EXPENSES	105,297,103	116,854,175	117,104,634	250,459	0.2%
FRINGE EXPENSES	71,585,490	79,076,225	78,775,506	(300,719)	-0.4%
TOTAL PERSONNEL EXPENSES	**176,882,593**	**195,930,399**	**195,880,140**	**(50,259)**	**0.0%**
SECURITY EXPENSES	13,678,073	14,889,236	14,667,881	(221,355)	-1.5%
REPAIR/MAINTENANCE SERVICES	13,119,522	12,075,538	11,510,694	(564,844)	-4.7%
ENGINE AND TRANSMISSION REBUILD	1,223,377	721,500	1,182,750	461,250	63.9%
OTHER OUTSIDE SERVICES	22,163,426	25,851,012	27,703,371	1,852,359	7.2%
PURCHASED TRANSPORTATION	101,919,151	108,266,242	108,709,174	442,932	0.4%
TOTAL OUTSIDE SERVICES	**152,103,549**	**161,803,528**	**163,773,870**	**1,970,341**	**1.2%**
LUBRICANTS	435,638	524,020	476,020	(48,000)	-9.2%
TIRES	1,296,191	1,343,700	1,363,500	19,800	1.5%
OTHER MATERIALS AND SUPPLIES	16,877,101	18,713,402	18,014,749	(698,653)	-3.7%
TOTAL MATERIALS AND SUPPLIES	**18,608,930**	**20,581,122**	**19,854,269**	**(726,853)**	**-3.5%**
GAS/DIESEL/PROPANE	2,685,693	3,270,964	2,982,755	(288,209)	-8.8%
CNG	13,387,053	14,995,219	13,481,895	(1,513,324)	-10.1%
TRACTION POWER	22,504,905	25,439,902	25,592,612	152,710	0.6%
UTILITIES	5,911,332	6,348,917	6,336,699	(12,218)	-0.2%
TOTAL ENERGY	**44,488,982**	**50,055,002**	**48,393,961**	**(1,661,041)**	**-3.3%**
RISK MANAGEMENT	**8,122,036**	**11,335,218**	**10,637,984**	**(697,234)**	**-6.2%**
GENERAL AND ADMINISTRATIVE	**5,986,321**	**6,813,088**	**7,456,581**	**643,493**	**9.4%**
DEBT SERVICE	**36,327**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**1,705,779**	**1,706,754**	**2,193,611**	**486,857**	**28.5%**
TOTAL OPERATING EXPENSES	**407,934,516**	**448,225,111**	**448,190,416**	**(34,695)**	**0.0%**
NET OPERATING SUBSIDY	**(301,025,620)**	**(336,095,828)**	**(333,241,476)**	**(2,854,351)**	**-0.8%**
OVERHEAD ALLOCATION	**(0)**	**(0)**	**(0)**	**0**	**0.0%**
ADJUSTED NET OPERATING SUBSIDY	**(301,025,620)**	**(336,095,828)**	**(333,241,476)**	**(2,854,351)**	**-0.8%**
TOTAL REVENUES LESS TOTAL EXPENSES	**8,416,663**	**0**	**0**	**0**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS BUDGET
FISCAL YEAR 2025
SECTION 2.02

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	72,403,501	78,925,492	79,850,726	925,234	1.2%
OTHER OPERATING REVENUE	3,000,970	1,113,064	1,108,695	(4,369)	-0.4%
TOTAL OPERATING REVENUES	**75,404,471**	**80,038,556**	**80,959,421**	**920,865**	**1.2%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	292,506,213	300,340,934	300,872,552	531,618	0.2%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	31,686,240	25,151,191	(6,535,048)	-20.6%
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	31,686,240	25,151,191	(6,535,048)	-20.6%
TOTAL NON OPERATING REVENUE	**292,506,213**	**332,027,174**	**326,023,744**	**(6,003,431)**	**-1.8%**
TOTAL COMBINED REVENUES	**367,910,684**	**412,065,731**	**406,983,165**	**(5,082,566)**	**-1.2%**
OPERATING EXPENSES					
LABOR EXPENSES	84,512,654	91,672,392	92,580,875	908,483	1.0%
FRINGE EXPENSES	62,298,488	68,743,126	68,434,593	(308,533)	-0.4%
TOTAL PERSONNEL EXPENSES	**146,811,142**	**160,415,518**	**161,015,468**	**599,950**	**0.4%**
SECURITY EXPENSES	1,193,339	1,251,481	1,239,810	(11,671)	-0.9%
REPAIR/MAINTENANCE SERVICES	12,899,037	11,872,538	11,246,294	(626,244)	-5.3%
ENGINE AND TRANSMISSION REBUILD	1,223,377	721,500	1,182,750	461,250	63.9%
OTHER OUTSIDE SERVICES	7,495,020	9,655,685	10,762,942	1,107,257	11.5%
PURCHASED TRANSPORTATION	101,919,151	108,266,242	108,709,174	442,932	0.4%
TOTAL OUTSIDE SERVICES	**124,729,923**	**131,767,446**	**133,140,970**	**1,373,524**	**1.0%**
LUBRICANTS	435,638	524,020	476,020	(48,000)	-9.2%
TIRES	1,296,191	1,343,700	1,363,500	19,800	1.5%
OTHER MATERIALS AND SUPPLIES	16,835,323	18,653,270	17,964,426	(688,844)	-3.7%
TOTAL MATERIALS AND SUPPLIES	**18,567,152**	**20,520,990**	**19,803,946**	**(717,044)**	**-3.5%**
GAS/DIESEL/PROPANE	2,458,948	2,982,364	2,727,055	(255,309)	-8.6%
CNG	13,387,053	14,995,219	13,481,895	(1,513,324)	-10.1%
TRACTION POWER	22,504,905	25,439,902	25,592,612	152,710	0.6%
UTILITIES	4,890,027	5,310,004	5,274,921	(35,083)	-0.7%
TOTAL ENERGY	**43,240,932**	**48,727,489**	**47,076,483**	**(1,651,006)**	**-3.4%**
RISK MANAGEMENT	**7,397,817**	**9,972,326**	**9,533,443**	**(438,883)**	**-4.4%**
GENERAL AND ADMINISTRATIVE	**1,022,936**	**1,385,671**	**1,480,171**	**94,500**	**6.8%**
DEBT SERVICE	**36,327**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**1,319,807**	**1,373,421**	**1,720,955**	**347,534**	**25.3%**
TOTAL OPERATING EXPENSES	**343,126,035**	**374,162,861**	**373,771,436**	**(391,425)**	**-0.1%**
NET OPERATING SUBSIDY	**(267,721,565)**	**(294,124,304)**	**(292,812,014)**	**(1,312,290)**	**-0.4%**
OVERHEAD ALLOCATION	**(27,018,000)**	**(37,902,870)**	**(33,211,729)**	**4,691,140**	**-12.4%**
ADJUSTED NET OPERATING SUBSIDY	**(294,739,564)**	**(332,027,174)**	**(326,023,744)**	**(6,003,430)**	**-1.8%**
TOTAL REVENUES LESS TOTAL EXPENSES	**(2,233,351)**	**0**	**-**	**0**	**-100.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
ADMINISTRATIVE BUDGET
FISCAL YEAR 2025
SECTION 2.03

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	-	-	-	-	-
OTHER OPERATING REVENUE	30,491,772	31,100,727	32,977,748	1,877,021	6.0%
TOTAL OPERATING REVENUES	**30,491,772**	**31,100,727**	**32,977,748**	**1,877,021**	**6.0%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	47,440,913	4,112,724	7,243,225	3,130,501	76.1%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	(30,182,046)	-	-	-	-
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	(30,182,046)	-	-	-	-
TOTAL NON OPERATING REVENUE	**17,258,868**	**4,112,724**	**7,243,225**	**3,130,501**	**76.1%**
TOTAL COMBINED REVENUES	**47,750,639**	**35,213,451**	**40,220,973**	**5,007,522**	**14.2%**
OPERATING EXPENSES					
LABOR EXPENSES	20,424,712	24,736,598	24,106,759	(629,839)	-2.5%
FRINGE EXPENSES	9,079,160	10,097,669	10,115,573	17,904	0.2%
TOTAL PERSONNEL EXPENSES	**29,503,872**	**34,834,267**	**34,222,332**	**(611,935)**	**-1.8%**
SECURITY EXPENSES	12,484,734	13,637,755	13,428,071	(209,684)	-1.5%
REPAIR/MAINTENANCE SERVICES	218,335	198,000	259,400	61,400	31.0%
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	14,656,463	16,138,027	16,811,953	673,926	4.2%
PURCHASED TRANSPORTATION	-	-	-	-	-
TOTAL OUTSIDE SERVICES	**27,359,532**	**29,973,782**	**30,499,424**	**525,642**	**1.8%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	41,291	59,632	49,823	(9,809)	-16.4%
TOTAL MATERIALS AND SUPPLIES	**41,291**	**59,632**	**49,823**	**(9,809)**	**-16.4%**
GAS/DIESEL/PROPANE	221,917	279,600	249,700	(29,900)	-10.7%
CNG	-	-	-	-	-
TRACTION POWER	-	-	-	-	-
UTILITIES	1,021,305	1,038,913	1,061,778	22,865	2.2%
TOTAL ENERGY	**1,243,222**	**1,318,513**	**1,311,478**	**(7,035)**	**-0.5%**
RISK MANAGEMENT	**674,374**	**1,264,292**	**997,514**	**(266,778)**	**-21.1%**
GENERAL AND ADMINISTRATIVE	**4,905,354**	**5,355,753**	**5,899,346**	**543,593**	**10.1%**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**379,051**	**327,333**	**452,052**	**124,719**	**38.1%**
TOTAL OPERATING EXPENSES	**64,106,695**	**73,133,572**	**73,431,969**	**298,397**	**0.4%**
NET OPERATING SUBSIDY	**(33,614,924)**	**(42,032,845)**	**(40,454,221)**	**(1,578,624)**	**-3.8%**
OVERHEAD ALLOCATION	**27,006,070**	**37,920,122**	**33,210,996**	**(4,709,126)**	**-12.4%**
ADJUSTED NET OPERATING SUBSIDY	**(6,608,854)**	**(4,112,724)**	**(7,243,225)**	**3,130,501**	**76.1%**
TOTAL REVENUES LESS TOTAL EXPENSES	**10,650,014**	**(0)**	**-**	**(0)**	**-100.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OTHER ACTIVITIES BUDGET
FISCAL YEAR 2025
SECTION 2.04

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	-	-	-	-	-
OTHER OPERATING REVENUE	1,012,654	990,000	1,011,770	21,770	2.2%
TOTAL OPERATING REVENUES	**1,012,654**	**990,000**	**1,011,770**	**21,770**	**2.2%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	-	-	-	-	-
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	(322,799)	(44,070)	(25,492)	18,578	-42.2%
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	(322,799)	(44,070)	(25,492)	18,578	-42.2%
TOTAL NON OPERATING REVENUE	**(322,799)**	**(44,070)**	**(25,492)**	**18,578**	**-42.2%**
TOTAL COMBINED REVENUES	**689,855**	**945,930**	**986,278**	**40,348**	**4.3%**
OPERATING EXPENSES					
LABOR EXPENSES	359,737	445,185	417,000	(28,185)	-6.3%
FRINGE EXPENSES	207,843	235,429	225,340	(10,089)	-4.3%
TOTAL PERSONNEL EXPENSES	**567,580**	**680,614**	**642,340**	**(38,274)**	**-5.6%**
SECURITY EXPENSES	-	-	-	-	-
REPAIR/MAINTENANCE SERVICES	2,150	5,000	5,000	-	0.0%
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	11,944	57,300	128,476	71,176	124.2%
PURCHASED TRANSPORTATION	-	-	-	-	-
TOTAL OUTSIDE SERVICES	**14,094**	**62,300**	**133,476**	**71,176**	**114.2%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	486	500	500	-	0.0%
TOTAL MATERIALS AND SUPPLIES	**486**	**500**	**500**	**-**	**0.0%**
GAS/DIESEL/PROPANE	4,828	9,000	6,000	(3,000)	-33.3%
CNG	-	-	-	-	-
TRACTION POWER	-	-	-	-	-
UTILITIES	-	-	-	-	-
TOTAL ENERGY	**4,828**	**9,000**	**6,000**	**(3,000)**	**-33.3%**
RISK MANAGEMENT	**49,845**	**98,600**	**107,027**	**8,427**	**8.5%**
GENERAL AND ADMINISTRATIVE	**58,031**	**71,664**	**77,064**	**5,400**	**7.5%**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**6,921**	**6,000**	**20,604**	**14,604**	**243.4%**
TOTAL OPERATING EXPENSES	**701,785**	**928,678**	**987,011**	**58,333**	**6.3%**
NET OPERATING SUBSIDY	**310,869**	**61,322**	**24,759**	**36,563**	**-59.6%**
OVERHEAD ALLOCATION	**11,930**	**(17,252)**	**733**		**-104.3%**
ADJUSTED NET OPERATING SUBSIDY	**322,799**	**44,070**	**25,492**	**18,578**	**-42.2%**
TOTAL REVENUES LESS TOTAL EXPENSES	**0**	**0**	**0**	**0**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUS OPERATIONS BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.02

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	19,675,153	21,238,954	20,535,179	(703,776)	-3.3%
OTHER OPERATING REVENUE	116,763	50,000	50,000	-	0.0%
TOTAL OPERATING REVENUES	**19,791,916**	**21,288,954**	**20,585,179**	**(703,776)**	**-3.3%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	93,369,739	93,539,349	97,724,781	4,185,431	4.5%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	14,686,240	8,151,191	(6,535,048)	-44.5%
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	14,686,240	8,151,191	(6,535,048)	-44.5%
TOTAL NON OPERATING REVENUE	**93,369,739**	**108,225,589**	**105,875,972**	**(2,349,617)**	**-2.2%**
TOTAL COMBINED REVENUES	**113,161,655**	**129,514,543**	**126,461,151**	**(3,053,393)**	**-2.4%**
OPERATING EXPENSES					
LABOR EXPENSES	47,076,206	50,594,435	52,381,191	1,786,756	3.5%
FRINGE EXPENSES	44,372,252	48,453,243	46,672,805	(1,780,438)	-3.7%
TOTAL PERSONNEL EXPENSES	**91,448,457**	**99,047,679**	**99,053,996**	**6,317**	**0.0%**
SECURITY EXPENSES	-	-	-	-	-
REPAIR/MAINTENANCE SERVICES	922,273	1,060,294	952,628	(107,666)	-10.2%
ENGINE AND TRANSMISSION REBUILD	237,602	229,500	260,000	30,500	13.3%
OTHER OUTSIDE SERVICES	1,234,371	1,344,445	1,842,636	498,191	37.1%
PURCHASED TRANSPORTATION	-	-	-	-	-
TOTAL OUTSIDE SERVICES	**2,394,246**	**2,634,239**	**3,055,264**	**421,025**	**16.0%**
LUBRICANTS	127,910	145,000	203,000	58,000	40.0%
TIRES	1,280,400	1,321,700	1,341,500	19,800	1.5%
OTHER MATERIALS AND SUPPLIES	6,267,042	6,218,694	6,181,379	(37,315)	-0.6%
TOTAL MATERIALS AND SUPPLIES	**7,675,352**	**7,685,394**	**7,725,879**	**40,485**	**0.5%**
GAS/DIESEL/PROPANE	255,113	445,581	251,300	(194,281)	-43.6%
CNG	6,695,259	7,449,189	6,929,112	(520,077)	-7.0%
TRACTION POWER	103,644	120,624	121,000	376	0.3%
UTILITIES	750,053	862,350	862,700	350	0.0%
TOTAL ENERGY	**7,804,068**	**8,877,744**	**8,164,112**	**(713,632)**	**-8.0%**
RISK MANAGEMENT	**3,222,810**	**4,186,718**	**3,654,594**	**(532,124)**	**-12.7%**
GENERAL AND ADMINISTRATIVE	**476,367**	**826,551**	**839,302**	**12,751**	**1.5%**
DEBT SERVICE	**36,327**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**423,405**	**407,500**	**553,747**	**146,247**	**35.9%**
TOTAL OPERATING EXPENSES	**113,481,032**	**123,665,825**	**123,046,894**	**(618,931)**	**-0.5%**
NET OPERATING SUBSIDY	**(93,689,116)**	**(102,376,870)**	**(102,461,715)**	**84,845**	**0.1%**
OVERHEAD ALLOCATION	**(1,525,621)**	**(5,848,719)**	**(3,414,256)**	**2,434,463**	**-41.6%**
ADJUSTED NET OPERATING SUBSIDY	**(95,214,737)**	**(108,225,589)**	**(105,875,971)**	**(2,349,618)**	**-2.2%**
TOTAL REVENUES LESS TOTAL EXPENSES	**(1,844,998)**	**(0)**	**0**	**(0)**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
RAIL OPERATIONS BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.03

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	29,880,848	32,652,847	33,792,403	1,139,556	3.5%
OTHER OPERATING REVENUE	2,884,206	1,063,064	1,058,695	(4,369)	-0.4%
TOTAL OPERATING REVENUES	**32,765,055**	**33,715,911**	**34,851,098**	**1,135,187**	**3.4%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	101,490,927	102,193,535	99,222,741	(2,970,794)	-2.9%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	17,000,000	17,000,000	-	0.0%
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	17,000,000	17,000,000	-	0.0%
TOTAL NON OPERATING REVENUE	**101,490,927**	**119,193,535**	**116,222,741**	**(2,970,794)**	**-2.5%**
TOTAL COMBINED REVENUES	**134,255,982**	**152,909,446**	**151,073,839**	**(1,835,607)**	**-1.2%**
OPERATING EXPENSES					
LABOR EXPENSES	36,920,907	40,527,957	39,612,484	(915,473)	-2.3%
FRINGE EXPENSES	17,510,349	19,695,419	21,120,573	1,425,154	7.2%
TOTAL PERSONNEL EXPENSES	**54,431,256**	**60,223,376**	**60,733,057**	**509,681**	**0.8%**
SECURITY EXPENSES	204,199	217,981	215,000	(2,981)	-1.4%
REPAIR/MAINTENANCE SERVICES	11,908,141	10,737,244	10,229,466	(507,778)	-4.7%
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	2,986,913	3,975,472	4,675,805	700,333	17.6%
PURCHASED TRANSPORTATION	-	-	-	-	-
TOTAL OUTSIDE SERVICES	**15,099,253**	**14,930,697**	**15,120,271**	**189,574**	**1.3%**
LUBRICANTS	307,728	379,020	273,020	(106,000)	-28.0%
TIRES	15,791	22,000	22,000	-	0.0%
OTHER MATERIALS AND SUPPLIES	10,471,451	12,378,884	11,652,067	(726,817)	-5.9%
TOTAL MATERIALS AND SUPPLIES	**10,794,971**	**12,779,904**	**11,947,087**	**(832,817)**	**-6.5%**
GAS/DIESEL/PROPANE	508,599	529,000	533,865	4,865	0.9%
CNG	-	-	-	-	-
TRACTION POWER	22,208,926	25,000,649	25,195,612	194,963	0.8%
UTILITIES	3,291,191	3,488,256	3,506,156	17,900	0.5%
TOTAL ENERGY	**26,008,716**	**29,017,905**	**29,235,633**	**217,728**	**0.8%**
RISK MANAGEMENT	**4,160,007**	**5,770,558**	**5,863,849**	**93,291**	**1.6%**
GENERAL AND ADMINISTRATIVE	**506,388**	**535,246**	**620,049**	**84,803**	**15.8%**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**543,121**	**601,843**	**734,388**	**132,545**	**22.0%**
TOTAL OPERATING EXPENSES	**111,543,711**	**123,859,528**	**124,254,334**	**394,806**	**0.3%**
NET OPERATING SUBSIDY	**(78,778,657)**	**(90,143,618)**	**(89,403,236)**	**(740,381)**	**-0.8%**
OVERHEAD ALLOCATION	**(23,108,136)**	**(29,049,917)**	**(26,819,506)**	**2,230,411**	**-7.7%**
ADJUSTED NET OPERATING SUBSIDY	**(101,886,792)**	**(119,193,534)**	**(116,222,742)**	**(2,970,793)**	**-2.5%**
TOTAL REVENUES LESS TOTAL EXPENSES	**(395,865)**	**1**	**(0)**	**1**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
CONTRACTED BUS OPERATIONS - FIXED ROUTE BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.04

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	21,403,676	23,398,149	23,920,158	522,008	2.2%
OTHER OPERATING REVENUE	-	-	-	-	-
TOTAL OPERATING REVENUES	**21,403,676**	**23,398,149**	**23,920,158**	**522,008**	**2.2%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	79,350,157	83,151,484	82,942,826	(208,658)	-0.3%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	-	-	-	-
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	-	-	-	-
TOTAL NON OPERATING REVENUE	**79,350,157**	**83,151,484**	**82,942,826**	**(208,658)**	**-0.3%**
TOTAL COMBINED REVENUES	**100,753,832**	**106,549,633**	**106,862,983**	**313,350**	**0.3%**
OPERATING EXPENSES					
LABOR EXPENSES	416,668	434,000	449,200	15,200	3.5%
FRINGE EXPENSES	381,974	229,627	273,100	43,473	18.9%
TOTAL PERSONNEL EXPENSES	**798,643**	**663,627**	**722,300**	**58,673**	**8.8%**
SECURITY EXPENSES	989,140	1,033,500	1,024,810	(8,690)	-0.8%
REPAIR/MAINTENANCE SERVICES	68,623	75,000	64,200	(10,800)	-14.4%
ENGINE AND TRANSMISSION REBUILD	985,774	492,000	922,750	430,750	87.6%
OTHER OUTSIDE SERVICES	2,234,808	2,982,214	2,883,841	(98,373)	-3.3%
PURCHASED TRANSPORTATION	85,030,794	89,257,430	90,082,570	825,140	0.9%
TOTAL OUTSIDE SERVICES	**89,309,139**	**93,840,144**	**94,978,171**	**1,138,027**	**1.2%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	96,829	55,692	130,980	75,288	135.2%
TOTAL MATERIALS AND SUPPLIES	**96,829**	**55,692**	**130,980**	**75,288**	**135.2%**
GAS/DIESEL/PROPANE	722,041	674,283	711,242	36,959	5.5%
CNG	6,691,794	7,546,030	6,552,783	(993,247)	-13.2%
TRACTION POWER	192,335	318,629	276,000	(42,629)	-13.4%
UTILITIES	848,782	959,398	906,065	(53,333)	-5.6%
TOTAL ENERGY	**8,454,953**	**9,498,340**	**8,446,090**	**(1,052,250)**	**-11.1%**
RISK MANAGEMENT	**-**	**-**	**-**	**-**	**-**
GENERAL AND ADMINISTRATIVE	**5,694**	**12,300**	**9,555**	**(2,745)**	**-22.3%**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**10,757**	**21,078**	**89,820**	**68,742**	**326.1%**
TOTAL OPERATING EXPENSES	**98,676,016**	**104,091,182**	**104,376,916**	**285,734**	**0.3%**
NET OPERATING SUBSIDY	**(77,272,340)**	**(80,693,032)**	**(80,456,758)**	**(236,274)**	**-0.3%**
OVERHEAD ALLOCATION	**(2,070,305)**	**(2,458,452)**	**(2,486,067)**	**(27,615)**	**1.1%**
ADJUSTED NET OPERATING SUBSIDY	**(79,342,645)**	**(83,151,484)**	**(82,942,826)**	**(208,659)**	**-0.3%**
TOTAL REVENUES LESS TOTAL EXPENSES	**7,511**	**(0)**	**(0)**	**(0)**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
CONTRACTED BUS OPERATIONS - PARA TRANSIT BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.05

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	1,443,824	1,635,542	1,602,987	(32,555)	-2.0%
OTHER OPERATING REVENUE	-	-	-	-	-
TOTAL OPERATING REVENUES	**1,443,824**	**1,635,542**	**1,602,987**	**(32,555)**	**-2.0%**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	17,777,370	20,601,707	20,143,540	(458,167)	-2.2%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	-	-	-	-
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	-	-	-	-
TOTAL NON OPERATING REVENUE	**17,777,370**	**20,601,707**	**20,143,540**	**(458,167)**	**-2.2%**
TOTAL COMBINED REVENUES	**19,221,194**	**22,237,249**	**21,746,527**	**(490,722)**	**-2.2%**
OPERATING EXPENSES					
LABOR EXPENSES	98,874	116,000	138,000	22,000	19.0%
FRINGE EXPENSES	75,231	71,142	80,000	8,858	12.5%
TOTAL PERSONNEL EXPENSES	**174,105**	**187,142**	**218,000**	**30,858**	**16.5%**
SECURITY EXPENSES	-	-	-	-	-
REPAIR/MAINTENANCE SERVICES	-	-	-	-	-
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	802,901	1,112,500	1,124,186	11,686	1.1%
PURCHASED TRANSPORTATION	16,565,044	18,688,701	18,312,528	(376,173)	-2.0%
TOTAL OUTSIDE SERVICES	**17,367,945**	**19,801,201**	**19,436,714**	**(364,487)**	**-1.8%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	-	-	-	-	-
TOTAL MATERIALS AND SUPPLIES	**-**	**-**	**-**	**-**	**-**
GAS/DIESEL/PROPANE	973,194	1,333,499	1,230,648	(102,851)	-7.7%
CNG	-	-	-	-	-
TRACTION POWER	-	-	-	-	-
UTILITIES	-	-	-	-	-
TOTAL ENERGY	**973,194**	**1,333,499**	**1,230,648**	**(102,851)**	**-7.7%**
RISK MANAGEMENT	**15,000**	**15,050**	**15,000**	**(50)**	**-0.3%**
GENERAL AND ADMINISTRATIVE	**34,487**	**11,574**	**11,265**	**(309)**	**-2.7%**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**342,524**	**343,000**	**343,000**	**-**	**0.0%**
TOTAL OPERATING EXPENSES	**18,907,256**	**21,691,467**	**21,254,627**	**(436,840)**	**-2.0%**
NET OPERATING SUBSIDY	**(17,463,431)**	**(20,055,925)**	**(19,651,640)**	**(404,285)**	**-2.0%**
OVERHEAD ALLOCATION	**(313,938)**	**(545,782)**	**(491,900)**	**53,882**	**-9.9%**
ADJUSTED NET OPERATING SUBSIDY	**(17,777,369)**	**(20,601,707)**	**(20,143,540)**	**(458,167)**	**-2.2%**
TOTAL REVENUES LESS TOTAL EXPENSES	**1**	**(0)**	**0**	**(0)**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
CORONADO FERRY BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.06

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	-	-	-	-	-
OTHER OPERATING REVENUE	-	-	-	-	-
TOTAL OPERATING REVENUES	**-**	**-**	**-**	**-**	**-**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	323,313	320,110	314,076	(6,035)	-1.9%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	-	-	-	-
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	-	-	-	-
TOTAL NON OPERATING REVENUE	**323,313**	**320,110**	**314,076**	**(6,035)**	**-1.9%**
TOTAL COMBINED REVENUES	**323,313**	**320,110**	**314,076**	**(6,035)**	**-1.9%**
OPERATING EXPENSES					
LABOR EXPENSES	-	-	-	-	-
FRINGE EXPENSES	-	-	-	-	-
TOTAL PERSONNEL EXPENSES	**-**	**-**	**-**	**-**	**-**
SECURITY EXPENSES	-	-	-	-	-
REPAIR/MAINTENANCE SERVICES	-	-	-	-	-
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	-	-	-	-	-
PURCHASED TRANSPORTATION	323,313	320,110	314,076	(6,035)	-1.9%
TOTAL OUTSIDE SERVICES	**323,313**	**320,110**	**314,076**	**(6,035)**	**-1.9%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	-	-	-	-	-
TOTAL MATERIALS AND SUPPLIES	**-**	**-**	**-**	**-**	**-**
GAS/DIESEL/PROPANE	-	-	-	-	-
CNG	-	-	-	-	-
TRACTION POWER	-	-	-	-	-
UTILITIES	-	-	-	-	-
TOTAL ENERGY	**-**	**-**	**-**	**-**	**-**
RISK MANAGEMENT	**-**	**-**	**-**	**-**	**-**
GENERAL AND ADMINISTRATIVE	**-**	**-**	**-**	**-**	**-**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**-**	**-**	**-**	**-**	**-**
TOTAL OPERATING EXPENSES	**323,313**	**320,110**	**314,076**	**(6,035)**	**-1.9%**
NET OPERATING SUBSIDY	**(323,313)**	**(320,110)**	**(314,076)**	**(6,035)**	**-1.9%**
OVERHEAD ALLOCATION	**-**	**-**	**-**	**-**	**-**
ADJUSTED NET OPERATING SUBSIDY	**(323,313)**	**(320,110)**	**(314,076)**	**(6,035)**	**-1.9%**
TOTAL REVENUES LESS TOTAL EXPENSES	**-**	**-**	**-**	**-**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
ADMINISTRATIVE PASS THROUGH BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 4.07

	ACTUAL FY24	ORIGINAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE BUDGET/ AMENDED	% CHANGE BUDGET/ AMENDED
OPERATING REVENUE					
PASSENGER REVENUE	-	-	-	-	-
OTHER OPERATING REVENUE	-	-	-	-	-
TOTAL OPERATING REVENUES	**-**	**-**	**-**	**-**	**-**
NON OPERATING REVENUE					
TOTAL SUBSIDY REVENUE	194,708	534,749	524,589	(10,160)	-1.9%
OTHER NON OPERATING REVENUE					
RESERVE REVENUE	-	-	-	-	-
OTHER INCOME	-	-	-	-	-
TOTAL OTHER NON OPERATING REVENUE	-	-	-	-	-
TOTAL NON OPERATING REVENUE	**194,708**	**534,749**	**524,589**	**(10,160)**	**-1.9%**
TOTAL COMBINED REVENUES	**194,708**	**534,749**	**524,589**	**(10,160)**	**-1.9%**
OPERATING EXPENSES					
LABOR EXPENSES	-	-	-	-	-
FRINGE EXPENSES	(41,319)	293,695	288,115	(5,580)	-1.9%
TOTAL PERSONNEL EXPENSES	**(41,319)**	**293,695**	**288,115**	**(5,580)**	**-1.9%**
SECURITY EXPENSES	-	-	-	-	-
REPAIR/MAINTENANCE SERVICES	-	-	-	-	-
ENGINE AND TRANSMISSION REBUILD	-	-	-	-	-
OTHER OUTSIDE SERVICES	236,027	241,054	236,474	(4,580)	-1.9%
PURCHASED TRANSPORTATION	-	-	-	-	-
TOTAL OUTSIDE SERVICES	**236,027**	**241,054**	**236,474**	**(4,580)**	**-1.9%**
LUBRICANTS	-	-	-	-	-
TIRES	-	-	-	-	-
OTHER MATERIALS AND SUPPLIES	-	-	-	-	-
TOTAL MATERIALS AND SUPPLIES	**-**	**-**	**-**	**-**	**-**
GAS/DIESEL/PROPANE	-	-	-	-	-
CNG	-	-	-	-	-
TRACTION POWER	-	-	-	-	-
UTILITIES	-	-	-	-	-
TOTAL ENERGY	**-**	**-**	**-**	**-**	**-**
RISK MANAGEMENT	**-**	**-**	**-**	**-**	**-**
GENERAL AND ADMINISTRATIVE	**-**	**-**	**-**	**-**	**-**
DEBT SERVICE	**-**	**-**	**-**	**-**	**-**
VEHICLE / FACILITY LEASE	**-**	**-**	**-**	**-**	**-**
TOTAL OPERATING EXPENSES	**194,708**	**534,749**	**524,589**	**(10,160)**	**-1.9%**
NET OPERATING SUBSIDY	**(194,708)**	**(534,749)**	**(524,589)**	**(10,160)**	**-1.9%**
OVERHEAD ALLOCATION	**-**	**-**	**-**	**-**	**-**
ADJUSTED NET OPERATING SUBSIDY	**(194,708)**	**(534,749)**	**(524,589)**	**(10,160)**	**-1.9%**
TOTAL REVENUES LESS TOTAL EXPENSES	**-**	**-**	**-**	**-**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
REVENUE BUDGET SUMMARY
FISCAL YEAR 2025
SECTION 3.02

	ACTUAL FY24	ORIGINIAL BUDGET FY25	AMENDED BUDGET FY25	$ CHANGE AMENDED/ ORIGINAL	% CHANGE AMENDED/ ORIGINAL
OPERATING REVENUE					
PASSENGER REVENUE	72,403,501	78,925,492	79,850,726	925,234	1.2%
OTHER INCOME	34,505,395	33,203,791	35,098,213	1,894,422	5.7%
TOTAL OPERATING REVENUE	106,908,896	112,129,283	114,948,939	2,819,656	2.5%
NON OPERATING REVENUE					
SUBSIDY REVENUE					
FEDERAL REVENUE	70,140,685	73,122,820	77,719,613	4,596,792	6.3%
FEDERAL REVENUE - CARES/ARP	85,000,000	47,000,000	47,394,233	394,233	0.8%
TRANSPORTATION DEVELOPMENT ACT (TDA)	92,972,439	92,809,842	90,194,289	(2,615,553)	-2.8%
STATE TRANSIT ASSISTANCE (STA)	10,088,619	11,300,000	6,246,579	(5,053,421)	-44.7%
STATE REVENUE - OTHER	4,521,334	0	9,000,000	9,000,000	-
TRANSNET	72,661,543	75,911,313	73,251,381	(2,659,932)	-3.5%
OTHER LOCAL SUBSIDIES	4,562,507	4,309,683	4,309,683	0	0.0%
TOTAL SUBSIDY REVENUE	339,947,127	304,453,658	308,115,777	3,662,120	1.2%
OTHER REVENUE					
OTHER FUNDS	-	-	-	0	-
RESERVES REVENUE	(30,505,035)	31,642,170	25,125,699	(6,516,471)	-20.6%
TOTAL OTHER REVENUE	(30,505,035)	31,642,170	25,125,699	(6,516,471)	-20.6%
TOTAL NON OPERATING REVENUE	309,442,092	336,095,827	333,241,476	(2,854,351)	-0.8%
GRAND TOTAL REVENUES	**416,350,988**	**448,225,111**	**448,190,416**	**(34,695)**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
NON OPERATING FUNDING SOURCES BY ACTIVITY
FISCAL YEAR 2025
SECTION 9.01

	Federal	TDA	STA	State - Other	TransNet	Other Local	Other Non Operating	Reserves/ Carryovers	Total
SDTC	37,310,327	11,435,993	6,246,579	-	39,542,200	3,189,683	-	8,151,191	105,875,972
SDTI	51,776,605	22,584,263	-	679,119	24,182,754	-	-	17,000,000	116,222,741
MCS 801 - South Central	20,803,570	24,151,770	-	333,758	-	-	-	-	45,289,098
MCS 802 - South Bay BRT	-	664,082	-	-	4,776,165	-	-	-	5,440,247
MCS 803 - South Bay Iris Rapid	-	-	-	5,000,000	-	-	-	-	5,000,000
MCS 820 - East County	3,270,468	11,393,581	-	-	-	-	-	-	14,664,050
MCS 825 - Rural	420,000	611,358	-	-	-	-	-	-	1,031,358
MCS 830 - Commuter Express	-	602,524	-	-	-	1,000,000	-	-	1,602,524
MCS 831 - Murphy Canyon	-	-	-	-	-	-	-	-	-
MCS 835 - Central Routes 961-965	1,339,152	4,944,914	-	-	-	-	-	-	6,284,066
MCS 840 - Regional Transit Center Maintenance	-	587,733	-	-	-	-	-	-	587,733
MCS 841 - Iris Rapid Transit Center Maintenance	-	-	-	-	-	-	-	-	-
MCS 845 - BRT Superloop	-	-	-	-	402,488	-	-	-	402,488
MCS 846 - I15 Transit Center Maintenance	-	-	-	-	1,163,132	-	-	-	1,163,132
MCS 847 - Mid City Transit Center Maintenance	-	-	-	-	343,837	-	-	-	343,837
MCS 848 - South Bay BRT Transit Center Maintenance	-	-	-	-	1,134,292	-	-	-	1,134,292
MCS 850 - ADA Access	6,399,613	11,720,923	-	-	1,244,522	120,000	-	-	19,485,057
MCS 856 - ADA Certification	-	658,483	-	-	-	-	-	-	658,483
MCS 875 - Coaster Connection	-	-	-	-	-	-	-	-	-
Coronado Ferry	-	314,076	-	-	-	-	-	-	314,076
Administrative Pass Thru	-	524,589	-	-	-	-	-	-	524,589
Subtotal Operations	121,319,735	90,194,289	6,246,579	6,012,877	72,789,390	4,309,683	-	25,151,191	326,023,744
FHV Administration	-	-	-	-	-	-	-	44,193	44,193
SD&AE	-	-	-	-	-	-	-	(69,685)	(69,685)
Subtotal Other Activities	-	-	-	-	-	-	-	(25,492)	(25,492)
Administrative	3,794,111	-	-	2,987,123	461,991	-	-	-	7,243,225
Grand Total	125,113,846	90,194,289	6,246,579	9,000,000	73,251,381	4,309,683	0	25,125,699	333,241,477

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
NON OPERATING FUNDING SOURCES BY ACTIVITY
FISCAL YEAR 2025
SECTION 9.02

	FTA 5307 Preventative Maintenance	FTA 5307 CARES/ARP Act	Federal Other	FTA 5311/ 5311(f) Rural	TDA Article 4.0	TDA Article 4.5 ADA
SDTC	21,500,000	15,810,327	-	-	11,435,993	-
SDTI	38,500,000	12,576,605	700,000	-	22,584,263	-
MCS 801 - South Central	10,000,000	10,803,570	-	-	24,151,770	-
MCS 802 - South Bay BRT	-	-	-	-	664,082	-
MCS 803 - South Bay Iris Rapid	-	-	-	-	-	-
MCS 820 - East County	-	3,270,468	-	-	11,393,581	-
MCS 825 - Rural	-	-	-	420,000	611,358	-
MCS 830 - Commuter Express	-	-	-	-	-	-
MCS 835 - Central Routes 961-965	-	1,139,152	-	200,000	4,944,914	-
MCS 840 - Regional Transit Center Maintenance	-	-	-	-	587,733	-
MCS 841 - Iris Rapid Transit Center Maintenance	-	-	-	-	-	-
MCS 845 - BRT Superloop	-	-	-	-	-	-
MCS 846 - I15 Transit Center Maintenance	-	-	-	-	-	-
MCS 847 - Mid City Transit Center Maintenance	-	-	-	-	-	-
MCS 848 - South Bay BRT Transit Center Maintenance	-	-	-	-	-	-
MCS 850 - ADA Access	6,399,613	-	-	-	5,729,357	5,991,566
MCS 856 - ADA Certification	-	-	-	-	-	658,483
MCS 875 - Coaster Connection	-	-	-	-	-	-
Coronado Ferry	-	-	-	-	-	-
Administrative Pass Thru	-	-	-	-	524,589	-
Subtotal Operations	76,399,613	43,600,122	700,000	620,000	82,627,640	6,650,049
FHV Administration	-	-	-	-	-	-
SD&AE	-	-	-	-	-	-
Subtotal Other Activities	-	-	-	-	-	-
Administrative	-	3,794,111	-	-	-	-
Grand Total	76,399,613	47,394,233	700,000	620,000	82,627,640	6,650,049

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
NON OPERATING FUNDING SOURCES BY ACTIVITY
FISCAL YEAR 2025
SECTION 9.02

	TDA Article 8.0	STA Formula	TIRCP	Medical	TransNet Operating	TransNet Access ADA	TransNet Other
SDTC	-	6,246,579	-	-	24,610,894	-	14,931,305
SDTI	-	-	679,119	-	14,337,726	-	9,845,028
MCS 801 - South Central	-	-	333,758	-	-	-	-
MCS 802 - South Bay BRT	-	-	-	-	-	-	4,776,165
MCS 803 - South Bay Iris Rapid	-	-	5,000,000	-	-	-	-
MCS 820 - East County	-	-	-	-	-	-	-
MCS 825 - Rural	-	-	-	-	-	-	-
MCS 830 - Commuter Express	602,524	-	-	-	-	-	-
MCS 835 - Central Routes 961-965	-	-	-	-	-	-	-
MCS 840 - Regional Transit Center Maintenance	-	-	-	-	-	-	-
MCS 841 - Iris Rapid Transit Center Maintenance	-	-	-	-	-	-	-
MCS 845 - BRT Superloop	-	-	-	-	-	-	402,488
MCS 846 - I15 Transit Center Maintenance	-	-	-	-	-	-	1,163,132
MCS 847 - Mid City Transit Center Maintenance	-	-	-	-	-	-	343,837
MCS 848 - South Bay BRT Transit Center Maintenance	-	-	-	-	-	-	1,134,292
MCS 850 - ADA Access	-	-	-	-	-	1,180,602	63,920
MCS 856 - ADA Certification	-	-	-	-	-	-	-
MCS 875 - Coaster Connection	-	-	-	-	-	-	-
Coronado Ferry	314,076	-	-	-	-	-	-
Administrative Pass Thru	-	-	-	-	-	-	-
Subtotal Operations	916,600	6,246,579	6,012,877	-	38,948,620	1,180,602	32,660,168
FHV Administration	-	-	-	-	-	-	-
SD&AE	-	-	-	-	-	-	-
Subtotal Other Activities	-	-	-	-	-	-	-
Administrative	-	-	2,987,123	-	-	-	461,991
Grand Total	916,600	6,246,579	9,000,000	0	38,948,620	1,180,602	33,122,159

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
NON OPERATING FUNDING SOURCES BY ACTIVITY
FISCAL YEAR 2025
SECTION 9.02

	City of San Diego	SANDAG FasTrak	Other Local	Reserves/ Carryovers	Total
SDTC	-	2,500,000	689,683	8,151,191	105,875,972
SDTI	-	-	-	17,000,000	116,222,741
MCS 801 - South Central	-	-	-	-	45,289,098
MCS 802 - South Bay BRT	-	-	-	-	5,440,247
MCS 803 - South Bay Iris Rapid	-	-	-	-	5,000,000
MCS 820 - East County	-	-	-	-	14,664,050
MCS 825 - Rural	-	-	-	-	1,031,358
MCS 830 - Commuter Express	-	1,000,000	-	-	1,602,524
MCS 835 - Central Routes 961-965	-	-	-	-	6,284,066
MCS 840 - Regional Transit Center Maintenance	-	-	-	-	587,733
MCS 841 - Iris Rapid Transit Center Maintenance	-	-	-	-	-
MCS 845 - BRT Superloop	-	-	-	-	402,488
MCS 846 - I15 Transit Center Maintenance	-	-	-	-	1,163,132
MCS 847 - Mid City Transit Center Maintenance	-	-	-	-	343,837
MCS 848 - South Bay BRT Transit Center Maintenance	-	-	-	-	1,134,292
MCS 850 - ADA Access	120,000	-	-	-	19,485,057
MCS 856 - ADA Certification	-	-	-	-	658,483
MCS 875 - Coaster Connection	-	-	-	-	-
Coronado Ferry	-	-	-	-	314,076
Administrative Pass Thru	-	-	-	-	524,589
Subtotal Operations	120,000	3,500,000	689,683	25,151,191	326,023,744
FHV Administration	-	-	-	44,193	44,193
SD&AE	-	-	-	(69,685)	(69,685)
Subtotal Other Activities	-	-	-	(25,492)	(25,492)
Administrative	-	-	-	-	7,243,225
Grand Total	120,000	3,500,000	689,683	25,125,699	333,241,477

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
POSITION INFORMATION (SUMMARY FORMAT)
FISCAL YEAR 2025 AMENDED BUDGET
SECTION 10.03

	Original Budget FY 2025	Position Shifts	Net Positons Requiring Funding Adjs	Amended FY 2025	Frozen Positions
	FTE's	FTE's	FTE's	FTE's	FTE's
MTS Administration					
BOD ADMINISTRATION	2.0	0.0	0.0	2.0	0.0
CAPITAL PROJECTS	10.0	0.5	0.0	10.5	0.0
COMPASS CARD	0.0	0.0	0.0	0.0	0.0
EXECUTIVE	5.0	0.0	0.0	5.0	0.0
FARE SYSTEM	14.5	0.0	0.0	14.5	0.0
FINANCE	23.5	0.0	2.0	25.5	0.0
HUMAN RESOURCES	19.0	0.0	0.0	19.0	0.0
INFORMATION SECURITY	3.0	0.0	0.0	3.0	0.0
INFORMATION TECHNOLOGY	32.0	0.0	0.0	32.0	0.0
LEGAL	3.0	1.5	0.0	4.5	0.0
MARKETING	11.0	0.0	0.0	11.0	0.0
PLANNING	9.5	0.0	0.0	9.5	0.0
PROCUREMENT	16.0	0.0	0.0	16.0	0.0
RIGHT OF WAY	2.0	0.0	0.0	2.0	0.0
RISK	4.0	0.0	0.0	4.0	0.0
SECURITY	139.0	0.0	0.0	139.0	0.0
STORES (ADMIN)	2.0	0.0	0.0	2.0	0.0
STORES (BUS)	13.0	0.0	0.0	13.0	0.0
STORES (RAIL)	7.0	0.0	0.0	7.0	0.0
TELEPHONE INFORMATION SERVICES	17.0	0.0	0.0	17.0	0.0
TRANSIT STORES	8.0	0.0	0.0	8.0	0.0
Subtotal MTS Administration	**340.5**	**2.0**	**2.0**	**344.5**	**0.0**
Bus Operations					
CONTRACT SERVICES	8.5	0.0	0.0	8.5	0.0
EXECUTIVE (BUS)	3.5	-1.5	0.0	2.0	0.0
MAINTENANCE	189.0	0.0	0.0	189.0	0.0
MAINTENANCE-FACILITY	5.0	0.0	0.0	5.0	0.0
PASSENGER SERVICES	8.0	1.0	0.0	9.0	0.0
REVENUE (BUS)	6.0	0.0	0.0	6.0	0.0
SAFETY	2.0	0.0	0.0	2.0	0.0
TRAINING	11.0	0.0	0.0	11.0	0.0
TRANSPORTATION (BUS)	609.0	0.0	-28.0	581.0	0.0
Subtotal Bus Operations	**842.0**	**-0.5**	**-28.0**	**813.5**	**0.0**
Rail Operations					
EXECUTIVE (RAIL)	4.5	-0.5	0.0	4.0	0.0
FACILITIES	81.0	0.0	0.0	81.0	0.0
LIGHT RAIL VEHICLES	107.0	0.0	0.0	107.0	0.0
MAINTENANCE OF WAYSIDE	46.0	0.0	0.0	46.0	0.0
PASSENGER SUPPORT (RAIL)	23.5	-1.0	0.0	22.5	0.0
REVENUE (RAIL)	20.0	0.0	0.0	20.0	0.0
REVENUE OPERATIONS (RAIL)	13.0	0.0	0.0	13.0	0.0
TRACK	22.0	0.0	0.0	22.0	0.0
TRANSPORTATION (RAIL)	282.2	0.0	0.0	282.2	0.0
Subtotal Rail Operations	**599.2**	**-1.5**	**0.0**	**597.7**	**0.0**
Other MTS Operations					
FHV ADMINISTRATION	7.0	0.0	0.0	7.0	0.0
Subtotal Other MTS Operations	**7.0**	**0.0**	**0.0**	**7.0**	**0.0**
Grand Total	**1,788.7**	**0.0**	**-26.0**	**1,762.7**	**0.0**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
POSITION INFORMATION (DETAILED POSITION FORMAT)
FISCAL YEAR 2025 AMENDED BUDGET
SECTION 10.04

	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
MTS Administration						
BOD ADMINISTRATION						
Exec Asst GC/Asst Board Clrk	8	1.0	0.0	0.0	1.0	0.0
Internal Auditor	12	1.0	0.0	0.0	1.0	0.0
BOD ADMINISTRATION TOTAL		2.0	0.0	0.0	2.0	0.0
CAPITAL PROJECTS						
Administrative Assistant	2	1.0	-1.0	0.0	0.0	0.0
Director of Capital Projects	17	1.0	0.0	0.0	1.0	0.0
Engineering Intern	0	0.0	0.5	0.0	0.5	0.0
Project Engineer	12	2.0	0.0	0.0	2.0	0.0
Project Manager	13	2.0	0.0	0.0	2.0	0.0
Regulatory Liaison&Permit Asst	7	0.0	1.0	0.0	1.0	0.0
Senior Project Manager	14	3.0	0.0	0.0	3.0	0.0
Sr. Project Manager - Rail Sys	14	1.0	0.0	0.0	1.0	0.0
CAPITAL PROJECTS TOTAL		10.0	0.5	0.0	10.5	0.0
COMPASS CARD						
COMPASS CARD TOTAL		0.0	0.0	0.0	0.0	0.0
EXECUTIVE						
Chief Executive Officer		1.0	0.0	0.0	1.0	0.0
Exec Asst/Clerk of the Board	9	1.0	0.0	0.0	1.0	0.0
Grants Administrator	9	1.0	0.0	0.0	1.0	0.0
Grants Analyst	8	1.0	0.0	0.0	1.0	0.0
Manager of Government Affairs	13	1.0	0.0	0.0	1.0	0.0
EXECUTIVE TOTAL		5.0	0.0	0.0	5.0	0.0
FARE SYSTEM						
Call/Service Center Rep (FT)	1	4.0	0.0	0.0	4.0	0.0
Call/Service Center Rep (PT)	1	1.5	0.0	0.0	1.5	0.0
Director of Fare Technology &	14	1.0	0.0	0.0	1.0	0.0
Fare Systems Administrator	9	1.0	0.0	0.0	1.0	0.0
Mgr of PRONTO & Passenger Supp	9	1.0	0.0	0.0	1.0	0.0
Service Center Specialist (FT)	2	5.0	0.0	0.0	5.0	0.0
Supervisor of Pronto Support	7	1.0	0.0	0.0	1.0	0.0
FARE SYSTEM TOTAL		14.5	0.0	0.0	14.5	0.0
FINANCE						
Chief Financial Officer	20	1.0	0.0	0.0	1.0	0.0
Accounting Assistant	3	3.0	0.0	0.0	3.0	0.0
Accounting Manager	12	1.0	0.0	0.0	1.0	0.0
Accounting Supervisor	9	0.0	0.0	1.0	1.0	0.0
Assistant Controller	13	0.0	1.0	0.0	1.0	0.0
Controller	17	1.0	0.0	0.0	1.0	0.0
Deputy Chief Financial Officer	18	1.0	0.0	0.0	1.0	0.0
Executive Assistant (CFO)	8	1.0	0.0	0.0	1.0	0.0
Finance Intern	1	0.5	0.0	0.0	0.5	0.0
Financial Analyst	9	2.0	-1.0	0.0	1.0	0.0
Manager of Financial Planning	13	1.0	0.0	0.0	1.0	0.0
Payroll Coordinator	7	3.0	0.0	0.0	3.0	0.0
Payroll Manager	12	1.0	0.0	0.0	1.0	0.0
Payroll Supervisor	10	1.0	0.0	0.0	1.0	0.0
Senior Accountant	10	2.0	-2.0	0.0	0.0	0.0
Senior Financial Analyst	10	0.0	1.0	0.0	1.0	0.0
Staff Accountant I	7	2.0	0.0	0.0	2.0	0.0
Staff Accountant II	8	2.0	1.0	1.0	4.0	0.0
Transit Asset Mgmt Program Mgr	11	1.0	0.0	0.0	1.0	0.0
FINANCE TOTAL		23.5	0.0	2.0	25.5	0.0

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
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	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
HUMAN RESOURCES						
Benefits & Comp Analyst	10	3.0	0.0	0.0	3.0	0.0
Chief Human Resources Officer	19	1.0	0.0	0.0	1.0	0.0
Director of Human Resources	16	1.0	0.0	0.0	1.0	0.0
Human Resources Assistant	3	3.0	-1.0	0.0	2.0	0.0
Human Resources Specialist	6	1.0	2.0	0.0	3.0	0.0
Leadership Dev Specialist	12	1.0	0.0	0.0	1.0	0.0
Manager of Benefits & Comp	13	1.0	0.0	0.0	1.0	0.0
Manager of Talent Acquisition	13	1.0	0.0	0.0	1.0	0.0
Office Support Coordinator	2	1.0	0.0	0.0	1.0	0.0
Senior Human Resources Analyst	11	1.0	0.0	0.0	1.0	0.0
Talent Acquisition Specialist	10	5.0	-1.0	0.0	4.0	0.0
HUMAN RESOURCES TOTAL		19.0	0.0	0.0	19.0	0.0
INFORMATION SECURITY						
Info Security & Intel Eng	12	2.0	0.0	0.0	2.0	0.0
Information Security Manager	14	1.0	0.0	0.0	1.0	0.0
INFORMATION SECURITY TOTAL		3.0	0.0	0.0	3.0	0.0
INFORMATION TECHNOLOGY						
Business Systems Analyst (SAP)	13	1.0	0.0	0.0	1.0	0.0
Chief Information Officer	19	1.0	0.0	0.0	1.0	0.0
Database Administrator	13	1.0	-1.0	0.0	0.0	0.0
ETL Developer	13	1.0	-1.0	0.0	0.0	0.0
Executive Assistant (CIO)	8	1.0	0.0	0.0	1.0	0.0
IT Development Manager	14	1.0	0.0	0.0	1.0	0.0
IT Enterprise Architect (IoT)	13	1.0	0.0	0.0	1.0	0.0
IT Operations Manager	14	1.0	0.0	0.0	1.0	0.0
IT Support Specialist	7	4.0	0.0	0.0	4.0	0.0
Network Engineer I	10	2.0	0.0	0.0	2.0	0.0
Network Engineer II	11	2.0	0.0	0.0	2.0	0.0
Network Engineer III	12	1.0	0.0	0.0	1.0	0.0
Network Operations Manager	14	1.0	0.0	0.0	1.0	0.0
Project Administrator	8	1.0	0.0	0.0	1.0	0.0
Report Development Analyst	10	1.0	0.0	0.0	1.0	0.0
SAP Software Developer	13	0.0	1.0	0.0	1.0	0.0
Senior Systems Administrator	12	3.0	0.0	0.0	3.0	0.0
Service Desk Supervisor	10	1.0	0.0	0.0	1.0	0.0
Software Developer	13	3.0	0.0	0.0	3.0	0.0
Sr Data Warehouse Engineer	13	0.0	1.0	0.0	1.0	0.0
Systems Administrator	11	4.0	0.0	0.0	4.0	0.0
Technical Project Manager	13	1.0	0.0	0.0	1.0	0.0
INFORMATION TECHNOLOGY TOTAL		32.0	0.0	0.0	32.0	0.0
LEGAL						
General Counsel	19	1.0	0.0	0.0	1.0	0.0
Deputy General Counsel	15	1.0	0.0	0.0	1.0	0.0
Env Health & Safety Manager	13	0.0	1.0	0.0	1.0	0.0
Envi Health & Safety Intern	1	0.0	0.5	0.0	0.5	0.0
Staff Attorney	13	1.0	0.0	0.0	1.0	0.0
LEGAL TOTAL		3.0	1.5	0.0	4.5	0.0
MARKETING						
Dir Marketing & Communications	16	1.0	0.0	0.0	1.0	0.0
Community Engagement Specialis	8	1.0	0.0	0.0	1.0	0.0
Creative Design Manager	11	1.0	0.0	0.0	1.0	0.0
Digital Content Developer	8	1.0	0.0	0.0	1.0	0.0
Graphic Designer	7	2.0	0.0	0.0	2.0	0.0
Marketing Assistant	2	1.0	-1.0	0.0	0.0	0.0
Marketing Coordinator	OLD	0.0	1.0	0.0	1.0	0.0

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	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
Mgr of Marketing & Communicati	12	1.0	0.0	0.0	1.0	0.0
Multimedia Designer	8	1.0	0.0	0.0	1.0	0.0
Public Relations Specialist	10	1.0	0.0	0.0	1.0	0.0
Social Media Coordinator	3	1.0	0.0	0.0	1.0	0.0
MARKETING TOTAL		11.0	0.0	0.0	11.0	0.0

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PLANNING						
Assoc Transportation Planner	8	3.0	-2.0	0.0	1.0	0.0
Dir of Planning & Scheduling	15	1.0	0.0	0.0	1.0	0.0
Manager of Scheduling	13	1.0	0.0	0.0	1.0	0.0
Planning Intern	1	0.5	0.0	0.0	0.5	0.0
Senior Scheduler	8	2.0	0.0	0.0	2.0	0.0
Senior Transportation Planner	10	1.0	1.0	0.0	2.0	0.0
Transit Services Data Analyst	8	1.0	1.0	0.0	2.0	0.0
PLANNING TOTAL		9.5	0.0	0.0	9.5	0.0
PROCUREMENT						
Manager of Procurement	13	1.0	0.0	0.0	1.0	0.0
Buyer	7	1.0	0.0	0.0	1.0	0.0
Contract Specialist	7	1.0	0.0	0.0	1.0	0.0
Contracts Administrator	9	1.0	0.0	0.0	1.0	0.0
Director of Supply Chain & Ops	15	1.0	0.0	0.0	1.0	0.0
Principal Contract Admin	11	1.0	0.0	0.0	1.0	0.0
Procurement Specialist	10	9.0	0.0	0.0	9.0	0.0
Senior Procurement Specialist	11	1.0	0.0	0.0	1.0	0.0
PROCUREMENT TOTAL		16.0	0.0	0.0	16.0	0.0
RIGHT OF WAY						
Manager of Real Estate Assets	14	1.0	0.0	0.0	1.0	0.0
Right of Way Permit Coord	9	1.0	0.0	0.0	1.0	0.0
RIGHT OF WAY TOTAL		2.0	0.0	0.0	2.0	0.0
RISK						
Claims Specialist	7	1.0	0.0	0.0	1.0	0.0
Liability Claims Supervisor	10	1.0	0.0	0.0	1.0	0.0
Manager of Risk and Claims	13	1.0	0.0	0.0	1.0	0.0
Workers' Compensation Analyst	8	1.0	0.0	0.0	1.0	0.0
RISK TOTAL		4.0	0.0	0.0	4.0	0.0
SECURITY						
Asst Mgr of Field Operations	10	2.0	-1.0	0.0	1.0	0.0
Clerk Typist/Data Entry TSS	BU	3.0	-1.0	0.0	2.0	0.0
Code Compl Insp-Canine Handler	BU	3.0	0.0	0.0	3.0	0.0
Code Compliance Inspector	BU	95.0	0.0	0.0	95.0	0.0
Code Compliance Investigator	10	0.0	1.0	0.0	1.0	0.0
Code Compliance Supervisor	8	20.0	0.0	0.0	20.0	0.0
Code Compliance Train Sup (MC)	9	1.0	0.0	0.0	1.0	0.0
Dep Dir of Transit Sec & Pass	13	1.0	0.0	0.0	1.0	0.0
Dir of Transit Security & Pass	17	1.0	0.0	0.0	1.0	0.0
Dispatch Sup - Transit Enf	8	2.0	0.0	0.0	2.0	0.0
Dispatcher - Transit Enf	BU	5.0	0.0	0.0	5.0	0.0
Mgr of Ops-Transit Sec & Pass	11	1.0	0.0	0.0	1.0	0.0
Operational and Crime Data Ana	8	1.0	0.0	0.0	1.0	0.0
Professional Standards Manager	10	1.0	0.0	0.0	1.0	0.0
Records Manager	10	1.0	0.0	0.0	1.0	0.0
Records Specialist	7	1.0	1.0	0.0	2.0	0.0
Security Systems Administrator	9	1.0	0.0	0.0	1.0	0.0
SECURITY TOTAL		139.0	0.0	0.0	139.0	0.0
STORES (ADMIN)						
Inventory Planning and Forecas	9	1.0	0.0	0.0	1.0	0.0
Manager of Inventory Ops	12	1.0	0.0	0.0	1.0	0.0
STORES (ADMIN) TOTAL		2.0	0.0	0.0	2.0	0.0

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STORES (BUS)						
Storeroom Clerks - IAD	BU	5.0	0.0	0.0	5.0	0.0
Storeroom Clerks - KMD	BU	6.0	0.0	0.0	6.0	0.0
Supervisor of Warehouse Ops	8	2.0	0.0	0.0	2.0	0.0
STORES (BUS) TOTAL		13.0	0.0	0.0	13.0	0.0
STORES (RAIL)						
Storekeeper	BU	6.0	0.0	0.0	6.0	0.0
Supervisor of Warehouse Ops	8	1.0	0.0	0.0	1.0	0.0
STORES (RAIL) TOTAL		7.0	0.0	0.0	7.0	0.0
TELEPHONE INFORMATION SERVICES						
Asst Supvr of Info & Trip Plan	7	1.0	0.0	0.0	1.0	0.0
Info & Trip Planning Supvr	8	1.0	0.0	0.0	1.0	0.0
Info and Trip Planning Clerk	BU	15.0	0.0	0.0	15.0	0.0
TELEPHONE INFORMATION SERVICES TO		17.0	0.0	0.0	17.0	0.0
TRANSIT STORES						
Transit Store Supervisor	7	1.0	0.0	0.0	1.0	0.0
Asst Transit Store Supervisor	7	1.0	0.0	0.0	1.0	0.0
Senior Transit Store Clerk	BU	1.0	0.0	0.0	1.0	0.0
Transit Store Clerk	BU	5.0	0.0	0.0	5.0	0.0
TRANSIT STORES TOTAL		8.0	0.0	0.0	8.0	0.0
Subtotal MTS Administration		**340.5**	**2.0**	**2.0**	**344.5**	**0.0**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
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	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
Bus Operations						
CONTRACT SERVICES						
Director of Contract Services	15	1.0	0.0	0.0	1.0	0.0
Contract Operations Administra	6	1.0	0.0	0.0	1.0	0.0
Intern - Transit Services	0	0.5	0.0	0.0	0.5	0.0
Mgr of Paratransit & Mini Bus	13	1.0	0.0	0.0	1.0	0.0
Passenger Facilities Coord.	2	2.0	0.0	0.0	2.0	0.0
Sr Contract Operations Adminis	9	1.0	0.0	0.0	1.0	0.0
Supervisor of Para-Transit	7	1.0	0.0	0.0	1.0	0.0
Supvr of Passenger Facilities	10	1.0	0.0	0.0	1.0	0.0
CONTRACT SERVICES TOTAL		8.5	0.0	0.0	8.5	0.0
EXECUTIVE (BUS)						
Chief Op Officer-Transit Servs	20	1.0	0.0	0.0	1.0	0.0
Env Health & Safety Manager	13	1.0	-1.0	0.0	0.0	0.0
Envi Health & Safety Intern	1	0.5	-0.5	0.0	0.0	0.0
Executive Assistant (COO Bus)	8	1.0	0.0	0.0	1.0	0.0
EXECUTIVE (BUS) TOTAL		3.5	-1.5	0.0	2.0	0.0
MAINTENANCE						
Admin Asst II - Maintenance	3	1.0	0.0	0.0	1.0	0.0
Administrative Assistant - Mai	2	1.0	0.0	0.0	1.0	0.0
Body Shop Apprentice I - KMD	BU	1.0	0.0	0.0	1.0	0.0
Body Shop Apprentice II - KMD	BU	2.0	0.0	0.0	2.0	0.0
Bus Maintenance Trainer	11	1.0	0.0	0.0	1.0	0.0
Communications Tech - IAD	BU	2.0	0.0	0.0	2.0	0.0
Dir of Fleet & Facility Maint	16	1.0	0.0	0.0	1.0	0.0
Division Manager (Maint) - IAD	13	1.0	0.0	0.0	1.0	0.0
Division Manager (Maint) - KMD	13	1.0	0.0	0.0	1.0	0.0
Electronics Apprentice I - IAD	BU	0.0	2.0	0.0	2.0	0.0
Foreman - IAD	11	9.0	0.0	0.0	9.0	0.0
Foreman - KMD	11	7.0	0.0	0.0	7.0	0.0
Maintenance Analyst	7	1.0	0.0	0.0	1.0	0.0
Mechanic A - IAD	BU	20.0	0.0	0.0	20.0	0.0
Mechanic A - KMD	BU	26.0	0.0	0.0	26.0	0.0
Mechanic Apprentice I - IAD	BU	8.0	0.0	0.0	8.0	0.0
Mechanic Apprentice I - KMD	BU	11.0	-2.0	0.0	9.0	0.0
Mechanic Apprentice II - IAD	BU	3.0	0.0	0.0	3.0	0.0
Mechanic Apprentice II - KMD	BU	2.0	0.0	0.0	2.0	0.0
Mechanic C - IAD	BU	17.0	0.0	0.0	17.0	0.0
Mechanic C - KMD	BU	9.0	0.0	0.0	9.0	0.0
Quality Assurance Inspector	10	1.0	0.0	0.0	1.0	0.0
Quality Assurance Supervisor	11	1.0	0.0	0.0	1.0	0.0
Servicer A - IAD	BU	48.0	0.0	0.0	48.0	0.0
Servicer A - KMD	BU	12.0	0.0	0.0	12.0	0.0
Sign Truck Operator	BU	1.0	0.0	0.0	1.0	0.0
Sup of Maintenance Training	12	1.0	0.0	0.0	1.0	0.0
ZEV and Sustainability Manager	13	1.0	0.0	0.0	1.0	0.0
MAINTENANCE TOTAL		189.0	0.0	0.0	189.0	0.0

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MAINTENANCE-FACILITY						
Bldng Maint Apprentice - IAD	BU	2.0	0.0	0.0	2.0	0.0
Facilities Supervisor - Bus	7	1.0	0.0	0.0	1.0	0.0
Mechanic A - Facilities - IAD	BU	2.0	0.0	0.0	2.0	0.0
MAINTENANCE-FACILITY TOTAL		5.0	0.0	0.0	5.0	0.0
PASSENGER SERVICES						
Customer Service Supervisor	6	2.0	0.0	0.0	2.0	0.0
Asst Passenger Support Sup	5	0.0	1.0	0.0	1.0	0.0
Director of Support Services	14	1.0	0.0	0.0	1.0	0.0
Operations Asst - Ride Checker	0	1.0	0.0	0.0	1.0	0.0
Passenger Support Supervisor	7	1.0	0.0	0.0	1.0	0.0
Support Services Analyst	6	1.0	0.0	0.0	1.0	0.0
Support Services Coordinator	2	2.0	0.0	0.0	2.0	0.0
PASSENGER SERVICES TOTAL		8.0	1.0	0.0	9.0	0.0
REVENUE (BUS)						
Asst Rev Technicians - IAD	BU	2.0	0.0	0.0	2.0	0.0
Asst Rev Technicians - KMD	BU	1.0	0.0	0.0	1.0	0.0
Revenue Technicians - IAD	BU	2.0	0.0	0.0	2.0	0.0
Revenue Technicians - KMD	BU	1.0	0.0	0.0	1.0	0.0
REVENUE (BUS) TOTAL		6.0	0.0	0.0	6.0	0.0
SAFETY						
Manager of Safety (Bus)	13	1.0	0.0	0.0	1.0	0.0
Transit Safety Specialist	9	1.0	0.0	0.0	1.0	0.0
SAFETY TOTAL		2.0	0.0	0.0	2.0	0.0
TRAINING						
Bus Op Training Instructor	8	8.0	0.0	0.0	8.0	0.0
Manager of Training (Transp)	11	1.0	0.0	0.0	1.0	0.0
Training Administrator	5	1.0	0.0	0.0	1.0	0.0
Training Development Specialis	8	1.0	0.0	0.0	1.0	0.0
TRAINING TOTAL		11.0	0.0	0.0	11.0	0.0
TRANSPORTATION (BUS)						
Director of Transportation	17	1.0	0.0	0.0	1.0	0.0
Admin Asst II - Operations	3	1.0	0.0	0.0	1.0	0.0
Bus Operators - F/T	BU	565.0	0.0	-28.0	537.0	0.0
Comm/Ops Supv-Dispatch IAD	10	8.0	0.0	0.0	8.0	0.0
Comm/Ops Supv-Radio	10	8.0	0.0	0.0	8.0	0.0
Dispatch Clerk	BU	4.0	0.0	0.0	4.0	0.0
Dispatch Clerk - KMD	BU	2.0	0.0	0.0	2.0	0.0
Manager of Service Operations	12	1.0	0.0	0.0	1.0	0.0
Manager of Transp Comm & Tech	12	1.0	0.0	0.0	1.0	0.0
Service Operations Supervisor	10	14.0	0.0	0.0	14.0	0.0
Trans Div Manager - IAD	13	1.0	0.0	0.0	1.0	0.0
Trans Div Manager - KMD	13	1.0	0.0	0.0	1.0	0.0
Transp Comm & Technology Supvr	11	1.0	0.0	0.0	1.0	0.0
Transp Service Quality Spec	7	1.0	0.0	0.0	1.0	0.0
TRANSPORTATION (BUS) TOTAL		609.0	0.0	-28.0	581.0	0.0
Subtotal Bus Operations		**842.0**	**-0.5**	**-28.0**	**813.5**	**0.0**

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Rail Operations						
EXECUTIVE (RAIL)						
Chief Operating Officer (Rail)	20	1.0	0.0	0.0	1.0	0.0
Engineering Intern	0	0.5	-0.5	0.0	0.0	0.0
Manager of Special Operations	12	1.0	0.0	0.0	1.0	0.0
System Safety Manager (Rail)	13	1.0	0.0	0.0	1.0	0.0
System Safety Specialist	10	1.0	0.0	0.0	1.0	0.0
EXECUTIVE (RAIL) TOTAL		4.5	-0.5	0.0	4.0	0.0
FACILITIES						
Admin Asst II - Facilities	3	1.0	0.0	0.0	1.0	0.0
Director of Rail Facilities	16	1.0	0.0	0.0	1.0	0.0
Facilities Supervisor	7	6.0	0.0	0.0	6.0	0.0
Manager of Rail Facilities	11	1.0	0.0	0.0	1.0	0.0
Serviceperson	BU	72.0	0.0	0.0	72.0	0.0
FACILITIES TOTAL		81.0	0.0	0.0	81.0	0.0
LIGHT RAIL VEHICLES						
Assistant Training Sup - LRV	11	1.0	0.0	0.0	1.0	0.0
Clerk Typist/Data Entry LRV	BU	2.0	0.0	0.0	2.0	0.0
Director of LRV Maintenance	16	1.0	0.0	0.0	1.0	0.0
LRV Asst Lineman	BU	23.0	4.0	0.0	27.0	0.0
LRV Electromechanic	BU	47.0	1.0	0.0	48.0	0.0
LRV Lineman	BU	19.0	-5.0	0.0	14.0	0.0
LRV Maint Supervisor	11	10.0	0.0	0.0	10.0	0.0
LRV Project Cordinator/Analyst	10	1.0	0.0	0.0	1.0	0.0
Maintenance Analyst (LRV)	6	1.0	0.0	0.0	1.0	0.0
Manager of LRV Maintenance	13	1.0	0.0	0.0	1.0	0.0
Training Supervisor - LRV	12	1.0	0.0	0.0	1.0	0.0
LIGHT RAIL VEHICLES TOTAL		107.0	0.0	0.0	107.0	0.0
MAINTENANCE OF WAYSIDE						
Asst Training Supervisor - MOW	11	1.0	0.0	0.0	1.0	0.0
Director of MOW	16	1.0	0.0	0.0	1.0	0.0
Manager of MOW	13	1.0	0.0	0.0	1.0	0.0
MOW Contracts & Budget Analyst	9	1.0	0.0	0.0	1.0	0.0
Training Supervisor - MOW	12	1.0	0.0	0.0	1.0	0.0
Wayside Assistant Lineman	BU	11.0	2.0	0.0	13.0	0.0
Wayside Electromechanic	BU	17.0	-2.0	0.0	15.0	0.0
Wayside Lineman	BU	8.0	0.0	0.0	8.0	0.0
Wayside Maintenance Supervisor	11	5.0	0.0	0.0	5.0	0.0
MAINTENANCE OF WAYSIDE TOTAL		46.0	0.0	0.0	46.0	0.0
PASSENGER SUPPORT (RAIL)						
Lead Passenger Support Rep	2	2.0	-0.5	0.0	1.5	0.0
Passenger Support Rep	1	21.5	-0.5	0.0	21.0	0.0
PASSENGER SUPPORT (RAIL) TOTAL		23.5	-1.0	0.0	22.5	0.0

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
POSITION INFORMATION (DETAILED POSITION FORMAT)
FISCAL YEAR 2025 AMENDED BUDGET
SECTION 10.04

	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
REVENUE (RAIL)						
Lead Revenue Maint Supervisor	12	1.0	0.0	0.0	1.0	0.0
Revenue Maintainer I	BU	4.0	-1.0	0.0	3.0	0.0
Revenue Maintainer II	BU	5.0	-2.0	0.0	3.0	0.0
Revenue Maintainer III	BU	9.0	3.0	0.0	12.0	0.0
Revenue Maintenance Supervisor	11	1.0	0.0	0.0	1.0	0.0
REVENUE (RAIL) TOTAL		20.0	0.0	0.0	20.0	0.0
REVENUE OPERATIONS (RAIL)						
Collector / Processor	BU	8.0	0.0	0.0	8.0	0.0
Revenue Analyst (Rail)	7	1.0	0.0	0.0	1.0	0.0
Revenue Operations Assistant	1	1.0	0.0	0.0	1.0	0.0
Revenue Operations Manager	10	1.0	0.0	0.0	1.0	0.0
Ridership Surveyor	BU	2.0	0.0	0.0	2.0	0.0
REVENUE OPERATIONS (RAIL) TOTAL		13.0	0.0	0.0	13.0	0.0
TRACK						
Manager of Track and Structure	12	1.0	0.0	0.0	1.0	0.0
Track Supervisor	11	2.0	0.0	0.0	2.0	0.0
Trackperson	BU	14.0	2.0	0.0	16.0	0.0
Trackperson Equip Op	BU	5.0	-2.0	0.0	3.0	0.0
TRACK TOTAL		22.0	0.0	0.0	22.0	0.0
TRANSPORTATION (RAIL)						
Assignments Supervisor	10	5.0	0.0	0.0	5.0	0.0
Central Control Info Rep	7	1.0	0.0	0.0	1.0	0.0
Central Control Supervisor	11	2.0	0.0	0.0	2.0	0.0
Construction Safety Flagperson	PT	42.5	0.0	0.0	42.5	0.0
Construction Safety Supervisor	7	4.0	0.0	0.0	4.0	0.0
Dir of Rail Transportation	17	1.0	0.0	0.0	1.0	0.0
Lead Transportation Sup	11	1.0	0.0	0.0	1.0	0.0
Manager of Rail Transportation	13	1.0	0.0	0.0	1.0	0.0
Train Operator	BU	137.0	0.0	0.0	137.0	0.0
Train Operator - PT	BU	52.7	0.0	0.0	52.7	0.0
Training Supervisor - Trans	11	3.0	0.0	0.0	3.0	0.0
Transportation Controller	10	16.0	0.0	0.0	16.0	0.0
Transportation Supervisor	10	16.0	0.0	0.0	16.0	0.0
TRANSPORTATION (RAIL) TOTAL		282.2	0.0	0.0	282.2	0.0
Subtotal Rail Operations		**599.2**	**-1.5**	**0.0**	**597.7**	**0.0**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
POSITION INFORMATION (DETAILED POSITION FORMAT)
FISCAL YEAR 2025 AMENDED BUDGET
SECTION 10.04

	Salary Grade	Original Budget FY 2025 (FTE's)	Position Shifts (FTE's)	Net Positons Requiring Funding Adjs (FTE's)	Amended FY 2025 (FTE's)	Frozen Positions (FTE's)
Other MTS Operations						
FHV ADMINISTRATION						
For-Hire Vehicle Administratio	11	1.0	0.0	0.0	1.0	0.0
Regulatory Analyst	7	1.0	0.0	0.0	1.0	0.0
Regulatory Assistant	7	1.0	0.0	0.0	1.0	0.0
Regulatory Inspector	3	3.0	0.0	0.0	3.0	0.0
Regulatory Supervisor	8	1.0	0.0	0.0	1.0	0.0
FHV ADMINISTRATION TOTAL		7.0	0.0	0.0	7.0	0.0
Subtotal Other MTS Operations		**7.0**	**0.0**	**0.0**	**7.0**	**0.0**
Grand Total		**1,788.7**	**0.0**	**-26.0**	**1,762.7**	**0.0**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

Resolution No. 25-01

Resolution Approving Amendments to FY 2025 Budget

WHEREAS, the San Diego Metropolitan Transit System (MTS) Board of Directors adopted Resolution No. 24-6 on June 20, 2024, approving the fiscal year (FY) 2025 budgets for MTS, San Diego Transit Corporation, San Diego Trolley, Inc., MTS Contract Services, and Coronado Ferry;

NOW THEREFORE, BE IT RESOLVED, by the MTS Board of Directors, hereinafter "Board," as follows:

1. That the changes to the FY 2025 Operating Budget, per the proposed attached Budget Amendments are approved.

PASSED AND ADOPTED, by the Board of Directors this 13TH day of March , 2025 by the following vote:

AYES:

NAYS:

ABSENT:

ABSTAINING:

Chairperson
San Diego Metropolitan Transit System

Filed by:

Clerk of the Board
San Diego Metropolitan Transit System

Approved as to form:

General Counsel
San Diego Metropolitan Transit System

Metropolitan Transit System

FY 2025 Operating Budget Amendment

Board of Directors

Fiscal Year 2025 Operating Budget
Executive Summary

- Amended Operating Budget Presented to Executive Committee on 3/6/25
  - Full presentation details include as an appendix
  - High level summary being presented to the Board

- Major themes
  - Passenger levels and Fare Revenue growth expected
  - Other Operating Revenues projected to increase
  - Sales tax revenues declining (TDA, STA, TransNet)
  - SB-125 projects and revenues have been added
  - Operating Expenses in total consistent with the original budget

Fiscal Year 2025 Operating Budget
Revenue Summary ($000s)

	FY 2025 Budget	FY 2025 Amended	Var.	Var. %
Passenger Revenue	$ 78,925	$ 79,851	$ 925	1.2%
Other Operating Revenue	33,204	35,098	1,894	5.7%
Total Operating Revenue	**$ 112,129**	**$ 114,949**	**$ 2,820**	**2.5%**
Federal	$ 73,123	$ 77,720	$ 4,597	6.3%
Federal Stimulus Funds	$ 47,000	$ 47,394	394	0.8%
TDA	92,810	90,194	(2,616)	-2.8%
TransNet Formula	42,415	40,129	(2,285)	-5.4%
TransNet Operating	33,497	33,122	(374)	-1.1%
STA	11,300	6,247	(5,053)	-44.7%
SB 125 TIRCP	-	9,000	9,000	0.0%
Other	4,310	4,310	-	0.0%
Total Subsidy	**$ 304,454**	**$ 308,116**	**$ 3,662**	**1.2%**
Reserves	$ 31,642	$ 25,126	$ (6,516)	-
Total Revenue	**$ 448,225**	**$ 448,190**	**$ (35)**	**0.0%**

Reserves include Operating Deficit Reserve as well as reserves for SD&AE and FHV Administration

Fiscal Year 2025 Operating Budget
Expenses Summary ($000s)

	FY 2025 Budget	FY 2025 Amended	Var.	Var. %
Personnel Expenses	$ 195,930	$ 195,880	$ (50)	0.0%
Purchased Transportation	108,266	108,709	443	0.4%
Outside Services	53,537	55,065	1,527	2.9%
Materials and Supplies	20,581	19,854	(727)	-3.5%
Energy	50,055	48,394	(1,661)	-3.3%
Risk Management	11,335	10,638	(697)	-6.2%
Other	8,520	9,650	1,130	13.3%
Total Expenses	**$ 448,225**	**$ 448,190**	**$ (35)**	**0.0%**

Fiscal Year 2025 Operating Budget
Consolidated Revenues less Expenses ($000s)

	FY 2025 Budget	FY 2025 Amended	Var.	Var. %
Operating Revenues	$ 112,129	$ 114,949	$ 2,820	2.5%
Recurring Subsidy	257,454	251,722	(5,732)	-2.2%
Total Recurring Revenues	**$ 369,583**	**$ 366,670**	**$ (2,912)**	**-0.8%**
Total Expenses	**448,225**	**448,190**	**$ (35)**	**0.0%**
Structural Deficit	**$ (78,642)**	**$ (81,520)**	**$ (2,878)**	**-3.7%**
Reserves	31,642	25,126	(6,516)	20.6%
Federal Stimulus	47,000	47,394	394	-0.8%
SB-125 Funding	-	9,000	9,000	
Revenues Less Expenses	**$ -**	**$ -**	**$ -**	

- Structural deficit of $81.5M
- Balanced with non-recurring stimulus funds, reserves and SB-125
- Fiscal cliff still projected in early FY 2029 (with shifts from capital approved in prior meeting)

Fiscal Year 2025-2026 Operating Budget
Budget Development Calendar

Date	Meeting	Review Points
3/6/2025	Executive Committee	FY25 Operating Midyear Amendment, FY26 Capital Improvement Program (CIP)
3/13/2025	Board of Directors	FY25 Operating Midyear Amendment, FY26 CIP
4/10/2025	Executive Committee	Initial FY26 Operating Forecast (Revenues, Expenses, Policy Issues, Operational Issues)
4/17/2025	Board of Directors	Initial FY26 Operating Forecast (Revenues, Expenses, Policy Issues, Operational Issues)
5/8/2025	Executive Committee	FY26 Draft Operating Budget: Updates to Revenues and Expenses, Budget Closure, Five Year Forecast
5/15/2025	Public Hearing	FY26 Operating Budget Public Hearing and Board Adoption

Staff Recommendation

That the San Diego Metropolitan Transit System (MTS) Board of Directors enact Resolution No. 25-01 (Attachment B) amending the FY 2025 operating budget for MTS, San Diego Transit Corporation (SDTC), San Diego Trolley, Inc. (SDTI), MTS Contract Services, and the Coronado Ferry

Metropolitan Transit System

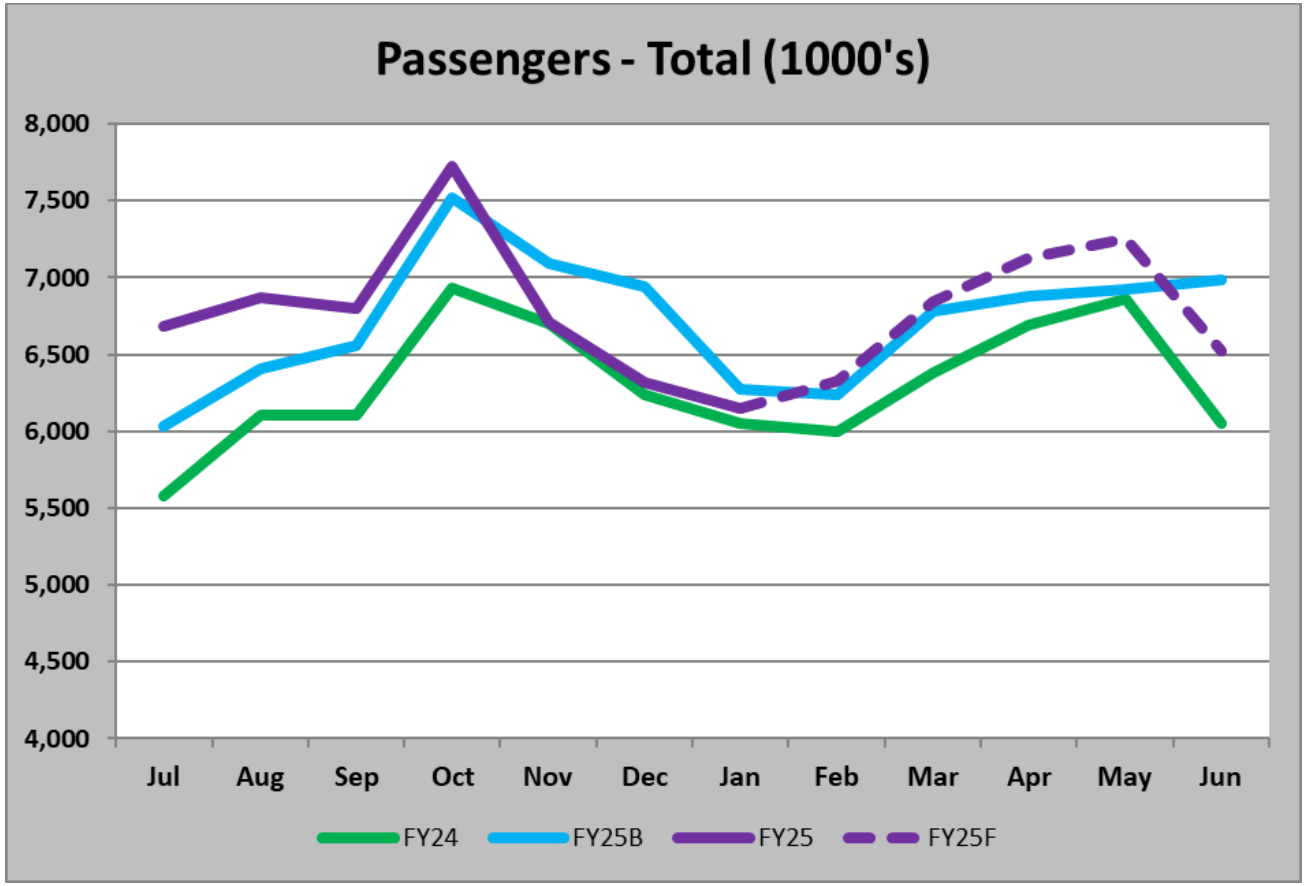
FY 2025 Operating Budget Amendment

Appendix

Board of Directors

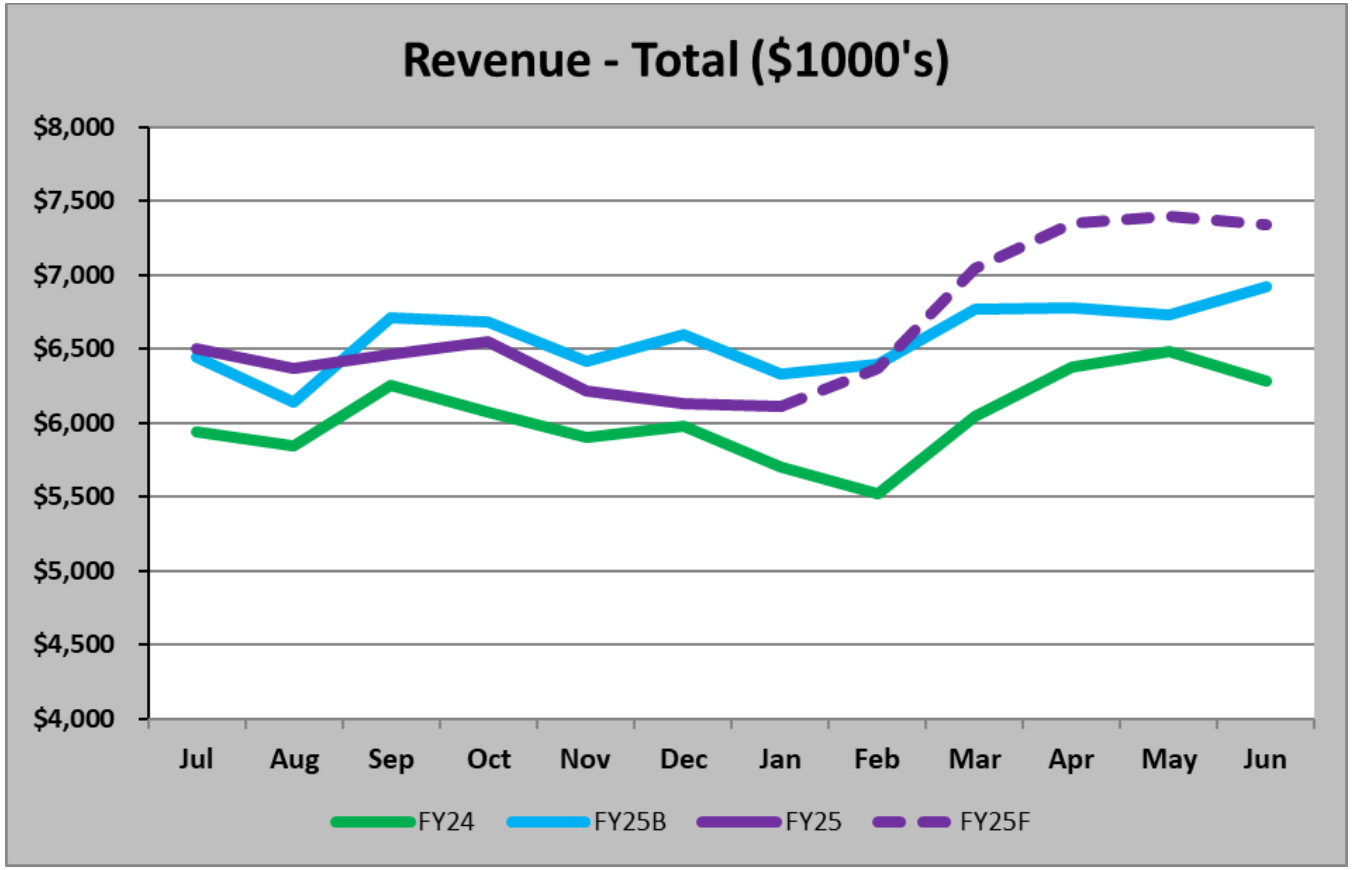
Fiscal Year 2025 Operating Budget
Revenue Assumptions - Passenger Levels

- Ridership update
  - 80.6M passengers projected in original budget
  - Budget target was 6.5% over prior year actual ridership
    - Actual ridership 9.1% YoY through December
    - Strong July through October
    - November/December only 1.5% growth over last year
  - Now projecting 81.3M passengers
    - 667K (0.8%) increase in ridership
    - Represents 7.4% YoY growth



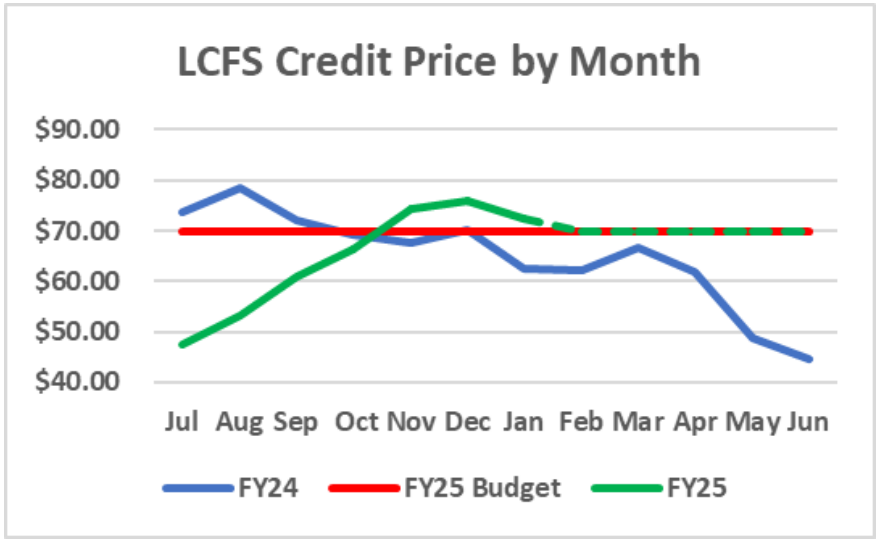
Fiscal Year 2025 Operating Budget
Revenue Assumptions - Passenger Revenue

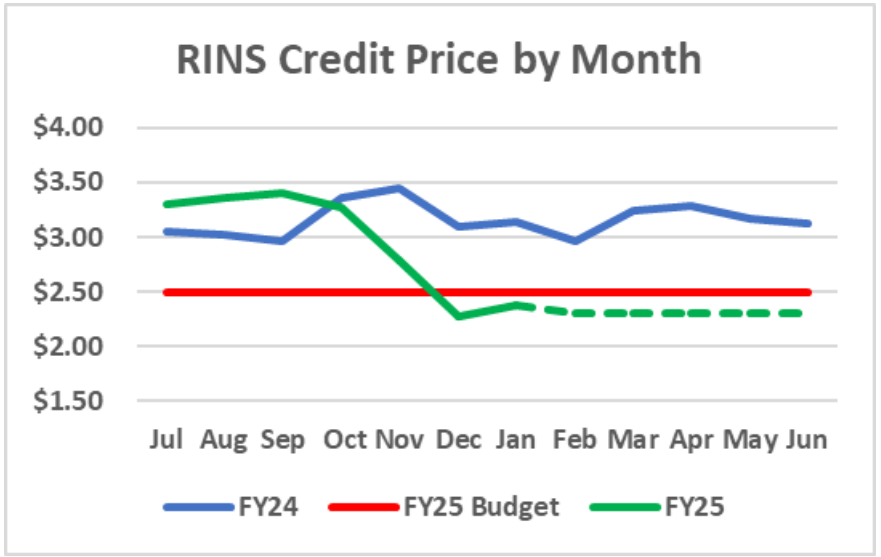
- Passenger Revenue
  - Original budget of $78.9M
    - 9.0% over prior year actual
  - $755K (-1.9%) unfavorable to budget through December
    - Average fare -3.2% below budget ($0.93 vs. $0.98)
    - Fare enforcement began Feb. 1st
      - Strong results so far
    - Assuming $0.98 average fare in new forecast
  - Amended budget: $79.9M
    - Increase of $925K (1.2%) versus original budget
    - Represents 10.3% YoY growth



Fiscal Year 2025 Operating Budget
Revenue Assumptions – Other Revenue

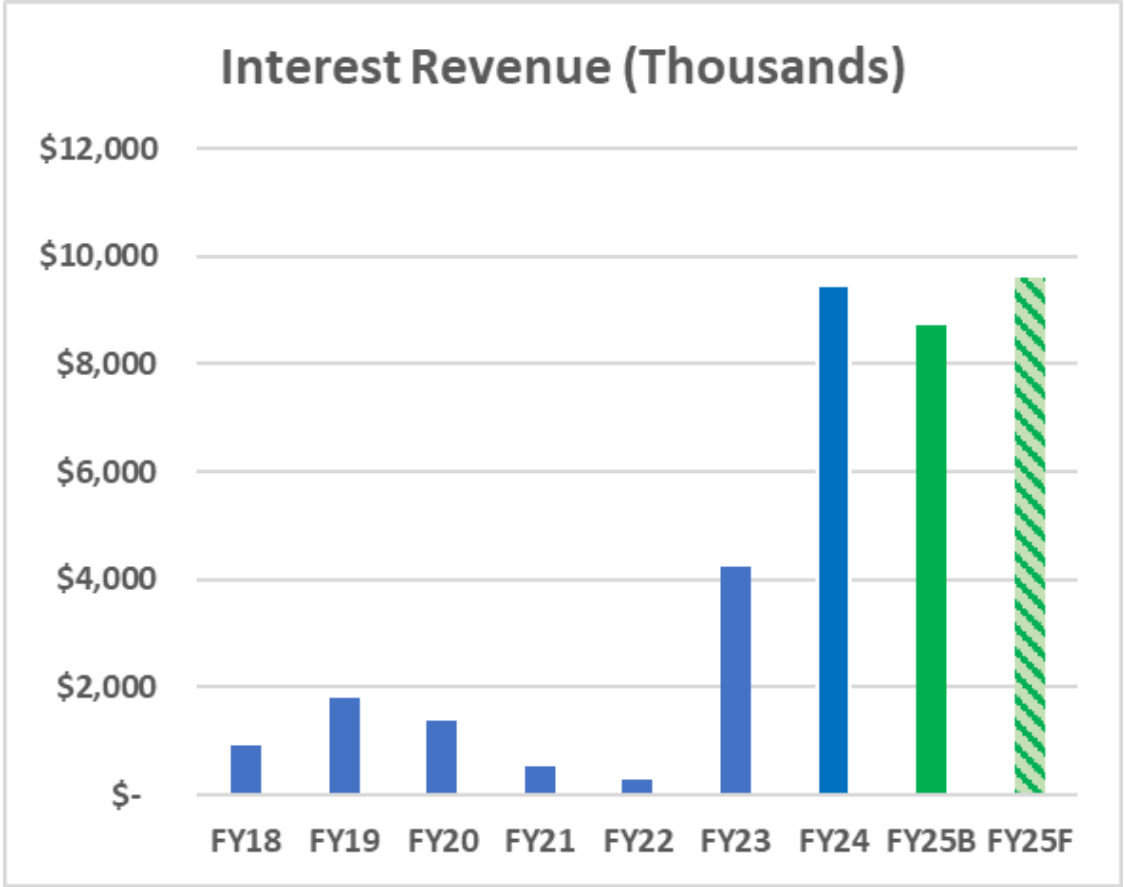
- Energy Credits
  - LCFS and RINs programs
    - Generate credits based on consumption of RNG, electricity, and propane
    - Credits sold in market – generate $8M annual revenue on average
  - LCFS credit price
    - Budget: $70.00
    - YTD: $64.43
    - Amended Budget: $66.75 ($70 for remaining months)
  - RINs price
    - Budget: $2.50
    - YTD: $2.97
    - Amended Budget: $2.69 ($2.30 for remaining months)
  - Amended budget: Increasing $1.1M (12.5%)
    - Also reflects planned sale of 38,000 LCFS credits





Fiscal Year 2025 Operating Budget
Revenue Assumptions – Other Revenue

- Interest Revenue
  - Original budget of $8.7M
  - Average cash balance: $60-70M
    - FY23: $144M
    - FY24: $218M
    - FY25: $214M projected
      - Stimulus draws
      - Higher FTA formula funds
      - Stored value (fare system)
  - Fed interest rate still high at 4.25%-4.50%
  - Amended budget of $9.6M, increase of $888K (10.2%)
    - Will decline over time as interest rates decrease and reserve funds are used



Fiscal Year 2025 Operating Budget
Revenue Assumptions – Other Revenue

- Advertising
  - Vehicles - decreasing $591K
  - Digital kiosks - increasing $656K
  - Gaslamp Sign - increasing $862K
  - Increasing $901K (16.4%) in total
- Real Estate Related Revenues
  - Grantville lease revenue decrease due to declining occupancy
  - CTAC parcel lessees declining
  - Decreasing $540K (-10.5%)
- Other Revenue increasing $1.9 million in total (5.7%)

Other Operating Revenue				
Category ($000s)	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Energy Credits	$ 8,838	$ 9,945	$ 1,107	12.5%
Advertising	5,484	6,385	901	16.4%
Real Estate Related Revenues	5,125	4,585	(540)	-10.5%
Interest	8,725	9,613	888	10.2%
Other	5,032	4,570	(462)	-9.2%
Total	**$ 33,204**	**$ 35,098**	**$ 1,894**	**5.7%**

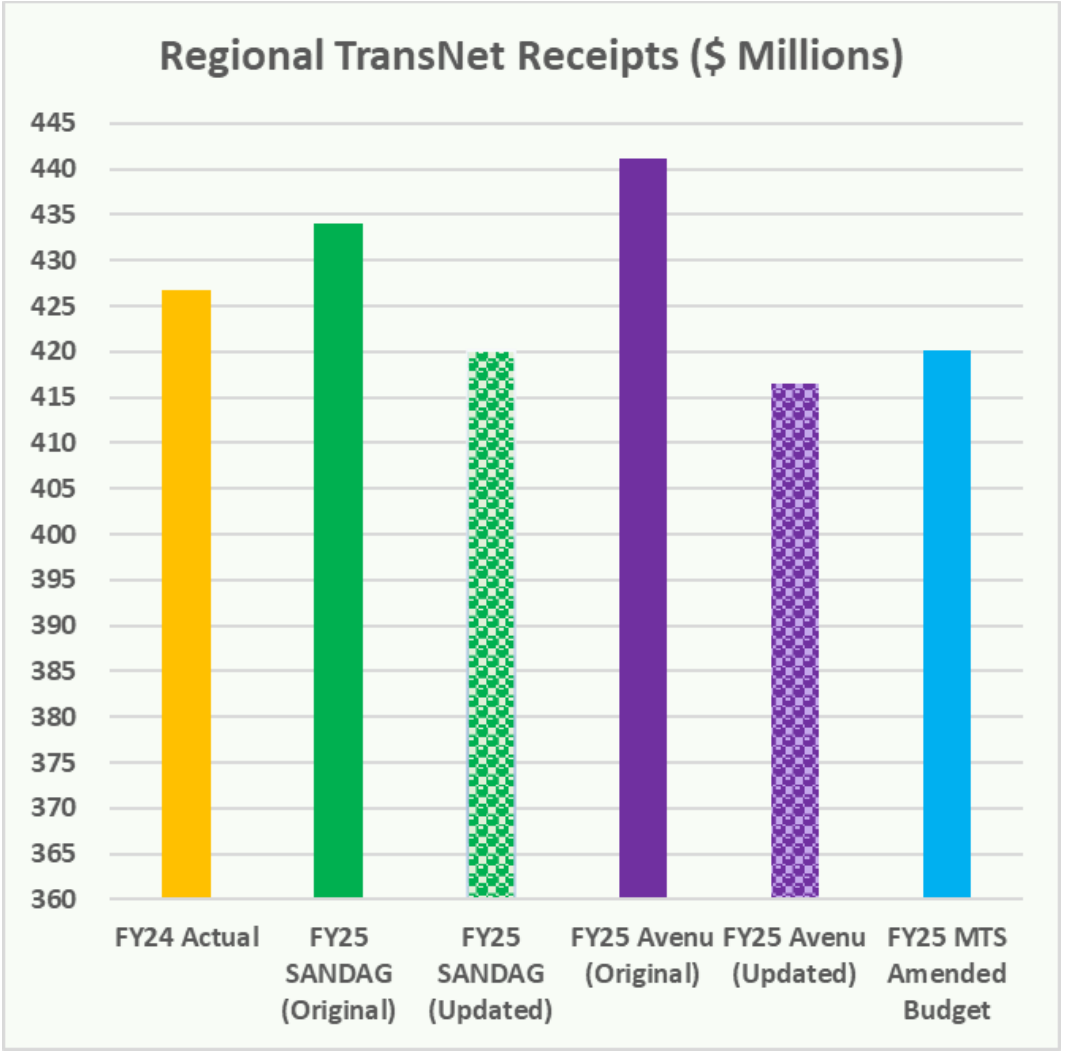
Fiscal Year 2025 Operating Budget
Revenue Assumptions – Federal Revenues

- Federal Formula Funding
  - MTS receives variety of revenues from Federal Transit Administration (FTA)
    - Legislation in place through 9/30/2026
      - 5307: Urban Area Formula funding
      - 5337: State of Good Repair funding
      - 5339: Bus and Bus Facilities funding
  - Funding can be used for Capital or Operating Budgets for Preventive Maintenance (PM)
    - Funding received on a reimbursement basis, after costs are incurred
    - MTS seeks to maximize the amount for PM for cash flow and grant administration benefits
    - Swap with TDA to preserve Capital share
  - Increasing PM in amended budget by $5.0M ($70.0M in total)

Fiscal Year 2025 Operating Budget
Revenue Assumptions - Sales Tax Revenues

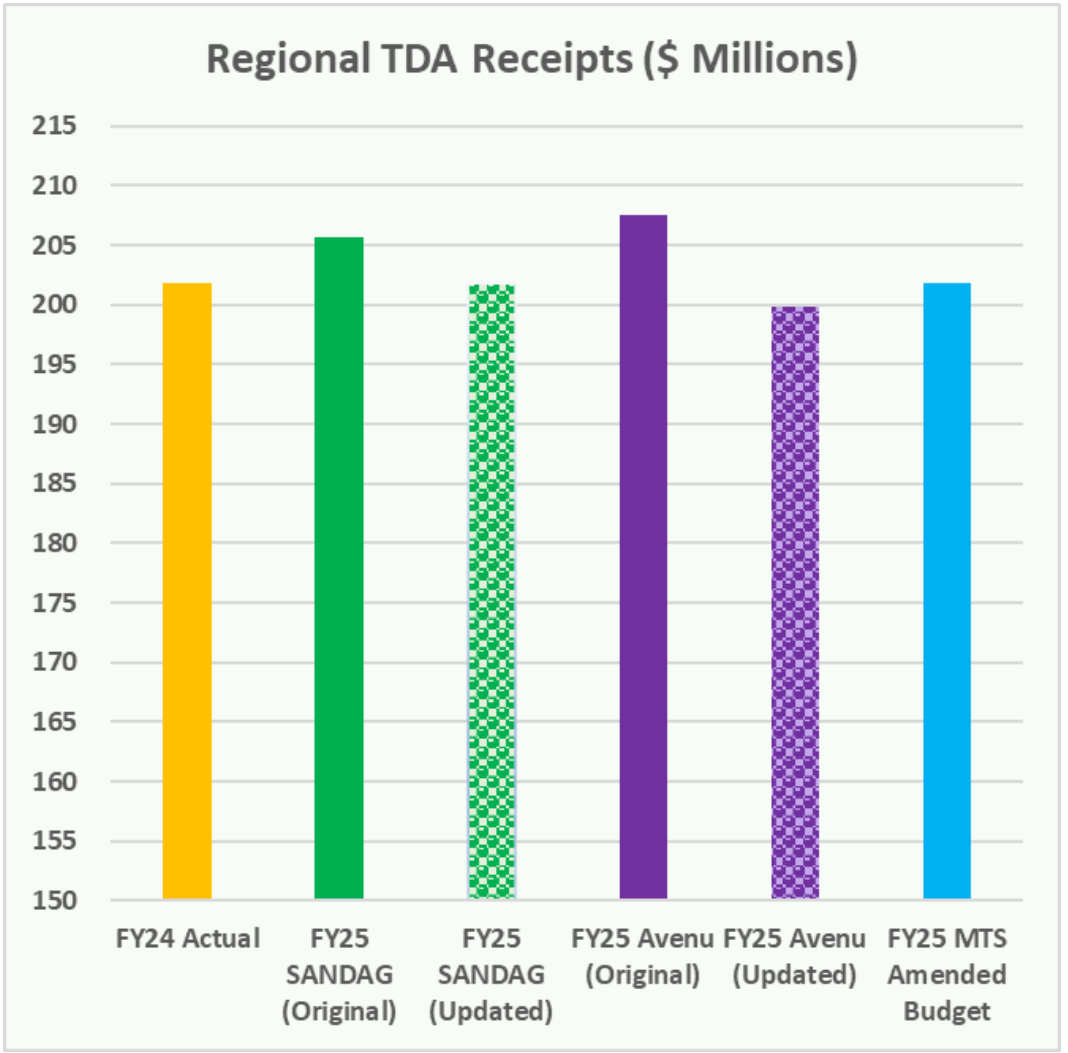
- TransNet formula funding
  - Used Avenu forecast of $441.1M for original budget
    - MTS share of $47.9M
  - Cash receipts have lagged original forecasts
  - Updated forecasts (January):
    - SANDAG: $420.1M (-4.8% below original budget)
    - Avenu: $416.5M (-5.6% below original budget)
  - Amended budget based on SANDAG forecast
    - MTS share of $45.6M
  - TransNet formula revenue decreasing $2.3M (-5.4%)

- TransNet Operating Reimbursement
  - TransNet funds net cost of BRT and Mid-Coast
  - Decrease of $374K (-1.1%) in amended budget



Fiscal Year 2025 Operating Budget
Revenue Assumptions - Sales Tax Revenues

- Transportation Development Act (TDA)
  - Claim process determines MTS revenue
    - MTS submits a claim based on the SANDAG budget
    - County receives the cash, reserve balances over/under amounts from budget to actual
  - Used Avenu forecast of $207.5M for original budget
    - MTS share of $134.5M
    - $92.8M to operating budget, remainder to capital
  - Updated forecasts (January):
    - SANDAG: $201.8M (-2.8% below original budget)
    - Avenu: $199.9M (-3.7% below original budget)
  - Amended budget based on SANDAG forecast
    - MTS share of $131.9M
      - $90.2M to operating budget, capital unchanged
  - TDA in amended budget decreasing $2.6M (-2.8%)
    - Requires amendment to claim



Fiscal Year 2025 Operating Budget
Revenue Assumptions - State Transit Assistance (STA)

- State Transit Assistance (STA)
  - State sales tax on diesel fuel
    - Distributed based on population and agency revenue formulas
    - Two distributions, regular STA and State of Good Repair
  - FY 2025 budget based off State Controllers Office January 2024 projection of MTS apportionment: $39.0M
    - Funding included in both Capital and Operating Budgets
  - Updated forecast: $33.9 million, decrease of $5.1 million
    - Based on January 2025 Governor's budget proposal
      - The actual amount will be determined by the State budget amendment
    - Decreasing amount in operating budget by $5.1M to keep capital budget whole

Fiscal Year 2025 Operating Budget
Revenue Assumptions – Senate Bill (SB) 125

- Senate Bill (SB) 125 Funding
  - $4 billion in state funding distributed to transit agencies through TIRCP program
    - Distribution based on population
    - Funds operations or capital, but must meet criteria for increasing service, preventing service reductions, reducing GHGs, serving disadvantaged communities, etc.
  - $237.3 million planned for MTS over multiple fiscal years
  - Original budget assumed we did not receive any SB125 funding after initial payment was delayed (1st payment received in September 2024)
  - Including $9.0 million in FY25 amended budget:
    - $3.0M for security enhancements
    - $5.0M for Iris Rapid (Route 227) operations
    - $334K for Overnight Express (Route 910) operations
    - $679K for Trolley service enhancements (15-minute service across entire system)

Fiscal Year 2025 Operating Budget
Expense Assumptions - Personnel

- Wages
  - Admin wages decreasing $630K (-2.5%)
    - 47 new security positions approved in FY 2024
      - 34 Code Compliance Inspectors (CCIs) added to budget (95 CCIs in total)
        - Hiring has been slower than anticipated in original budget
        - 86 active CCIs in January 2025
        - $532K reduction in Security wages due to slower hiring
    - Eliminated PIP bonus program for management employees indefinitely
      - 1.0% bonus pool assumed in original budget
      - $400K reduction across agency
  - Bus Ops wages increasing $1.8M (3.5%)
    - New collective bargaining agreements with ATU/IBEW effective January 1, 2025
    - Wage increases range from 7.0% to 12.6% for covered employees (operators/maintenance)
    - Position table updated to reflect 537 operators (inclusive of 20 training FTEs)
      - Hiring target is 28 less than previous target, based on service levels
      - Actively recruiting bus operators, as current level is below target

Fiscal Year 2025 Operating Budget
Expense Assumptions - Personnel

- Wages
  - Trolley Operations wages decreasing $915K (-2.3%)
    - Added 15 Construction Safety Flagpersons to budget last year (7.5 FTEs)
      - Won't hire until end of year in preparation for Orange Line Modernization project
      - $755K reduction to flagging wages
    - $119K decrease from elimination of PIP bonuses for Trolley management
  - Wages increasing $250K (0.2%) in total

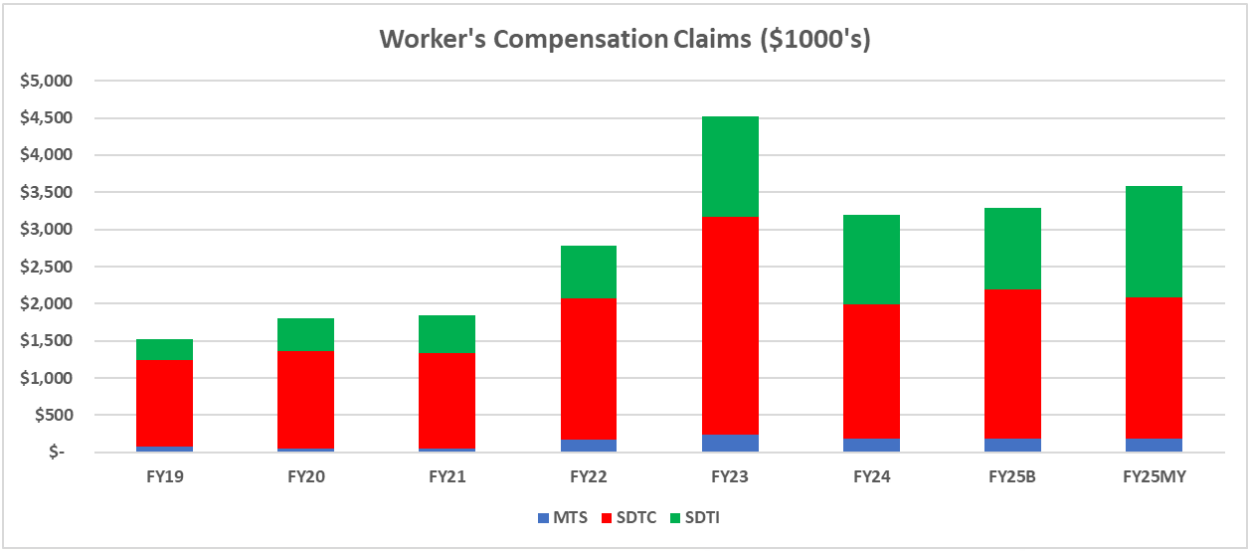
Wages				
Category	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Administration	$ 24,737	$ 24,107	$ (630)	-2.5%
Bus Operations	50,594	52,381	$ 1,787	3.5%
Trolley Operations	40,528	39,612	$ (915)	-2.3%
Contracted Services	550	587	$ 37	6.8%
Other Activities	445	417	$ (28)	-6.3%
Total	**$ 116,854**	**$ 117,105**	**$ 250**	**0.2%**

Position Table Changes			
Position	Positions	FTEs	Board Approved?
Administration			
Staff Accountant II	1	1.0	Y
Accounting Supervisor	1	1.0	Y
Bus Operations			
Bus Operators - F/T	-28	-28.0	NA
Total Changes			
FY25 Amendment	**-26**	**-26.0**	

Fiscal Year 2025 Operating Budget
Expense Assumptions - Personnel

- Fringe
  - Pension
    - SDTC defined contribution plan costs
  - Healthcare
    - Employee share increasing $1.0M
      - Reflects new CBAs
  - Worker's Compensation
    - Claim payments increasing $300K
    - Outside services increasing $290K
  - Other
    - Cost recovery decreasing $795K

Fringe Expenses				
Category ($000s)	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Pension	$ 32,901	$ 32,362	$ (540)	-1.6%
Healthcare	21,439	20,423	$ (1,016)	-4.7%
Paid Absences	15,104	14,774	$ (331)	-2.2%
Worker's Compensation	4,757	5,254	$ 497	10.4%
Other	4,874	5,963	$ 1,089	22.3%
Total	**$ 79,076**	**$ 78,776**	**$ (301)**	**-0.4%**



Fiscal Year 2025 Operating Budget
Expense Assumptions - Outside Services

- Outside Services
  - Repair & Maintenance
    - Tie replacement and bridge repairs
  - Engines/Transmissions
    - Unfavorable experience in first half of year
  - Other Services
    - CCTV maintenance/replacement ($458K)
    - KMD Stucco Replacement ($307K)
    - Emergency track repairs ($425K)
    - Radio purchases for security ($266K)
    - Insourcing study ($400K)
  - Purchased Transportation
    - Adding Route 910 Overnight Express
    - Remainder of service levels staying flat

Outside Services				
Category ($000s)	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Security	$ 14,889	$ 14,668	$ (221)	-1.5%
Repair & Maint.	$ 12,076	$ 11,511	$ (565)	-4.7%
Engines/Trans.	$ 722	$ 1,183	$ 461	63.9%
Other Services	$ 25,851	$ 27,703	$ 1,852	7.2%
Purchased Trans.	107,946	108,395	$ 449	0.4%
Total	**$ 161,483**	**$ 163,460**	**$ 1,976**	**1.2%**

Purchased Transportation				
Category ($000s)	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Transdev - Fixed	$ 89,257	$ 90,083	$ 825	0.9%
Transdev - Para	18,689	18,313	$ (376)	-2.0%
Total	**$ 107,946**	**$ 108,395**	**$ 449**	**0.4%**

Fiscal Year 2025 Operating Budget
Expense Assumptions - Energy

- Energy
  - Compressed Natural Gas (CNG)
    - Continue to see favorable commodity rates
    - Rate per therm forecasts:
      - Original budget: $1.52
      - Amended budget: $1.30 (-14.6% decrease)
    - Consumption increasing 5.5% from original
    - CNG expenses decreasing $1.5M (-10.1%)
  - Electricity
    - Favorable commodity rates
    - Rate per kwH:
      - Original budget: $0.403
      - Amended budget: $0.377 (-6.5% decrease)
    - Consumption increasing 7.7% (trolley service)
    - Electricity expenses increasing $101K (0.3%)

Energy				
Category ($000s)	**FY 2025 Adopted**	**FY 2025 Amended**	**Var.**	**Var. %**
Electricity	$ 30,237	$ 30,338	$ 101	0.3%
CNG	14,995	13,482	$ (1,513)	-10.1%
Gas/Propane	3,091	2,780	$ (311)	-10.1%
Other	1,732	1,794	$ 62	3.6%
Total	**$ 50,055**	**$ 48,394**	**$ (1,661)**	**-3.3%**

Fiscal Year 2025 Operating Budget
Expense Assumptions – Other

- Other
  - Materials & Supplies
    - TVM credit card module upgrade project moved to FY 2026
  - Risk Management
    - Liability claim payouts decreasing $550K
    - Risk-related legal expenses decreasing $150K
  - General & Administrative
    - Handheld fare validators for open payment ($222K)
    - Credit card fees for fare system increasing $235K
    - Mill's Building Rent increasing $231K
  - Vehicle/Facility Leases
    - Non-revenue vehicle (NRV) leases

Other Expenses				
Category ($000s)	FY 2025 Adopted	FY 2025 Amended	Var.	Var. %
Materials & Supplies	$ 20,581	$ 19,854	$ (727)	-3.5%
Risk Management	11,335	10,638	$ (697)	-6.2%
General & Administration	6,813	7,457	$ 643	9.4%
Vehicle/Facility Leases	1,707	2,194	$ 487	28.5%
Total	**$ 40,436**	**$ 40,142**	**$ (294)**	**-0.7%**

Agenda Item No. 26

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Transit Operations Insourcing Feasibility Study – Existing Conditions Report (James Gerken and Russ Chisholm with Transportation Management and Design, Inc. and Mike Daney)

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

On July 18, 2024 (Agenda Item (AI) 16), the Board of Directors authorized the Chief Executive Officer (CEO) to execute a contract with Transportation Management and Design, Inc. (TMD) to perform a Transit Operations Insourcing Feasibility Study. This eighteen-month study aims to determine the feasibility of bringing current contract-operated fixed bus routes, minibus transit, and paratransit services in-house, so that all functions are performed by MTS employees. The final goal of this study is to provide the MTS Board of Directors with a clear picture of the steps, advantages, disadvantages, efficiencies, challenges, and cost impacts to migrate the current contracted operated services into the directly operated services portfolio of bus services. At the September 12, 2024 Board of Directors meeting, TMD provided an overview of the Transit Operations Insourcing Feasibility Study, including project team details, key focus areas of the study, work plan and study timeline.

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

The project is divided into four phases: Existing Conditions, Operational & Administrative Concept Plan, Implementation Transition Strategy & Schedule, and Cost Implications & Impacts Analysis. The first phase of the study, the Existing Conditions Report, provides a baseline understanding and overview of both MTS-operated and contractor-operated transit services, highlighting key findings and differences in how each operating unit conducts business for MTS and our riders. TMD and MTS staff will provide a report on Existing Conditions.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. MTS Insourcing Feasibility Study – Existing Conditions Report



MTS Insourcing Feasibility Study
Existing Conditions Report
February 2025

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List of Acronyms

ADA	Americans with Disabilities Act [of 1990]
ATU	Amalgamated Transit Union
AVL	Automatic Vehicle Location
BEB	Battery Electric Bus
BOC	Bus Operations Control
CAD	Computer-Aided Dispatch
CDL	Commercial Driver's License
CNG	Compressed Natural Gas
COO	Chief Operating Officer
COOP	Continuity of Operations Plan
CRM	Customer Relationship Management
DCU	Driver Control Unit
EAM	Enterprise Asset Management
ECD	[MTS] East County Division
FTA	Federal Transit Administration
FTE	Full-Time Equivalent [Employee]
FY	Fiscal Year
GTFS	General Transit Feed Specification
HR	Human Resources
IAD	[MTS] Imperial Avenue Division
IBEW	International Brotherhood of Electrical Workers
IT	Information Technology
KMD	[MTS] Kearny Mesa Division
KPI	Key Performance Indicator
LDs	Liquidated Damages
LEA	Local Education Agency
MDBF	Mean Distance Between Failures
MOU	Memorandum of Understanding
MTDB	Metropolitan Transit Development Board
MTS	[San Diego] Metropolitan Transit System
NCTD	North County Transit District
NLRA	National Labor Relations Act [of 1935]
NTD	National Transit Database

List of Acronyms – Continued

O&M	Operating and Maintenance
OTP	On-Time Performance
PERB	[California] Public Employment Relations Board
PODP	[Transdev's] Professional Operator Development Program
RTA	Ron Turley Associates
RTMS	Regional Transit Management System
SBD	[MTS] South Bay Division
SD&AE	San Diego & Arizona Eastern [Railway Corporation]
SDTC	San Diego Transit Corporation
SMCS	[California] State Mediation and Conciliation Service
TAM	Transit Asset Management
TDA	[California] Transportation Development Act [of 1971]
VDS	Visual Dispatch System
VTT	[California DMV's] Verification of Transit Training
ZEB	Zero-Emission Bus

1. Executive Summary

1.1 Project Overview

The Metropolitan Transit System (MTS) Insourcing Feasibility Study seeks to understand the feasibility of insourcing current contract-operated fixed bus route and minibus transit and paratransit services, i.e. bringing them 'in house,' with all functions performed by MTS employees. This wide-ranging study is intended to provide the MTS Board of Directors with a clear and holistic picture of what it would take, what it will cost, and any impediments associated with converting any of the services. It is important to note that this study is not providing a singular recommendation or set of recommendations to MTS and its Board regarding insourcing. The intention is to provide clarity on the feasibility of insourcing and develop a road map for the different insourcing options should MTS pursue this in the future. The study is examining fixed route bus transit, MTS Access paratransit, and MTS's fixed route minibus service. The MTS Trolley rail system is already operated in-house and is not part of this study.

The project began with an Existing Conditions review, to develop a baseline understanding of both the MTS-operated and contractor-operated transit services and identify any key differences in the way either entity conducts business. The key findings from this report will help to inform the subsequent phases of the study which are outlined below.

- Phase 1: Existing Conditions
- Phase 2: Operational & Administrative Concept Plan
- Phase 3: Implementation Transition Strategy & Schedule
- Phase 4: Cost Implications & Impacts Analysis

1.2 Key Findings

This Existing Condition report provides an overview of key aspects of the MTS bus service operated in-house (San Diego Transit Corporation) and by Transdev, as well as the MTS Access paratransit and fixed route minibus services. Insourcing of any of the three contract-operated services will require significant administrative staff time and likely incur additional costs for MTS. Key findings for consideration include:

- There are a **significant number of collective bargaining agreements** (CBAs) and associated unions across the operating and maintenance job titles and divisions. Consolidating, converting, or transitioning employee bargaining units may necessitate additional effort, especially where contract terms and wages differ between entities (i.e., between MTS employees and a Transdev-employed bargaining unit).
- The **wage scales for represented Transdev employees are lower** than their MTS counterparts, even when performing an identical function or job with the same responsibilities.
- **Maintenance staff training is significantly different between MTS and Transdev.** MTS uses a state apprenticeship program to bring in staff at an entry level. It trains mechanics and supports their ongoing professional development with additional training and mentorship. Transdev hires mechanics with existing heavy vehicle maintenance experience at Mechanic A and Mechanic C levels without specific

supplemental training on transit buses. Ensuring common training and skills at each mechanic level (A, B, C) will require extra effort, especially where contract terms and wages differ between entities (i.e., between MTS employees and a Transdev-employed bargaining unit).

- **Fixed route operating costs are much lower for Transdev** on a unit cost basis (per revenue hour and per revenue mile) than MTS, due to lower wages, shared administrative resources across the corporation, and other factors. This means that it will be more expensive for MTS to operate the same service currently delivered by Transdev.
- Transdev's **administrative costs** for its San Diego operation, based upon shared resources and national corporate participation, **are not entirely comparable with MTS**. This limits comparability between the two organizations in terms of administrative costs and staffing levels.
- **Fixed route bus services operated in-house versus outsourced are generally similar in character between MTS and Transdev**. MTS's diligent oversight of the fixed route contract operations and stated goal of providing seamless service that is indistinguishable for most customers (in terms of whether they are riding an MTS-operated or Transdev-operated bus) reduces operational barriers to insourcing fixed route services.
- **Paratransit and minibus are uniquely provided by Transdev**. The Access paratransit operation has some unique positions and expertise that MTS does not currently have among its current workforce.

1.3 Next Steps

Utilizing the information learned in the Existing Conditions analysis, the next step in the Insourcing Feasibility Study is to develop the Operational & Administrative Concept Plan. This document will identify the challenges, opportunities, and advantages associated with each of the four scenarios and include a summary of the impacts by organizational area or function to help guide MTS decision making. Following that, the team will develop the Implementation Transition Strategy & Schedule. This document will include a detailed implementation plan for each scenario, with strategies that consider all previously identified opportunities and challenges. The last component of the Insourcing Feasibility Study will be the Cost Implications & Impacts Analysis. This phase will include a multi-year cost projection for each scenario, outlining the changes to employee positions, functions, policies and procedures, along with any known financial risks. These cost projections will be situated relative to contract expirations and identified implementation timelines with contingencies.

2. Introduction

2.1 Report Overview and Purpose

2.1.1 REPORT PROCESS

The Existing Conditions review and analysis began with initial meetings with MTS operations and contract management leadership to better understand project objectives, employee and stakeholder concerns and viewpoints, and key challenges related to insourcing for consideration. This was followed by a data and information request and acquisition phase and extensive review of documents received. As noted below,

this was supplemented with interviews and informational meetings with MTS and Transdev employees and union representatives and on-site visits to the operating divisions. Using the information gleaned throughout this process, the project team developed this Existing Conditions Report in coordination with MTS staff.

Data Sources

Data and information utilized in this report that was not publicly available was provided by MTS and Transdev employees. This includes documents, contracts and agreements, and quantitative datasets within the organizational areas reviewed in this report.

In addition to data and document review, the project team conducted informational interviews with MTS and Transdev employees (as well as local union representatives) to better understand current practices and procedures at the two organizations and the differences between them.

- In October 2024, the team held two days of on-site visits to tour the four fixed route operating divisions and conduct interviews. Questions for the interviewees were focused on current practices, staffing, challenges, and other areas with potential insourcing implications. At each division, the team met with the following departments: Management, Contract Services, Information Technology (IT), Human Resources, Training, Operations, and Fleet and Facility Maintenance. Similar questions were asked to ensure a proper comparison between divisions and between MTS and Transdev as a whole.
- In November, the project team met with the staff at the Copley Park Division for paratransit and minibus-specific discussions. By engaging with employees from various functional areas, the team was able to identify both common themes and department-specific insights, which will inform the subsequent analysis and recommendations.
- The team also met virtually during November and December with each of the potentially impacted MTS and Transdev labor union locals providing a platform for commentary and questions.
- Finally, the team met virtually with each member of the MTS Contract Services team in January 2025 to provide a discussion forum for additional commentary and observations.

A list of in-person and virtual interviews and informational meetings conducted with MTS and Transdev employees and union representatives can be found in the Appendix in Section 6.1.

2.1.2 PROJECT SCHEDULE

The project began in August 2024 with a planned 18-month timeline and is scheduled to conclude in early 2026. As each phase of the project progresses, MTS staff and the consultant team will provide updates to the MTS Board to keep them apprised of project findings and seek their input on key challenges and opportunities associated with the four scenarios. The initial project schedule is shown in *Figure 2-1*.

Figure 2-1: Project Schedule

☑ **Board Update and Discussion**

Aug 2024	Sep 2024 ☑	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025 ☑	Mar 2025	Apr 2025	May 2025 ☑	Jun 2025	Jul 2025	Aug 2025	Sep 2025 ☑	Oct 2025	Nov 2025	Dec 2025	Jan 2026 ☑
Project Start	Existing Conditions																
					Operational/Admin. Concept Plan												
								Implementation Strategy									
												Final Cost Implications/Impacts					Final Plan

2.1.3 SCENARIOS UNDER CONSIDERATION

This study will consider four overarching scenarios for the future of MTS's fixed route, paratransit, and minibus operations. Broadly speaking, these four scenarios encompass the options available to MTS. However, there will be nuances and strategies among the first three scenarios that may lead to sub-options or variants of the scenarios. The future phases of this project will develop concept plans and implementation strategies for each scenario and will illuminate key decision points or options available to MTS should the agency advance a preferred scenario.

Table 2-1: Insourcing Scenarios Summary

Insourced Services	Fixed Route	Minibus	Paratransit
Scenario 1	X	X	X
Scenario 2	X	X	
Scenario 3			X
Scenario 4			

Scenario 1: Insource all contract operations (fixed route, minibus, and paratransit)

Under this scenario, all MTS-branded services would be directly operated with no contracting. All operations, maintenance, and other functional areas currently performed by contractor employees would be assumed by direct employees of MTS.

Scenario 2: Insource contract-operated fixed route and minibus services only

Under this scenario, fixed route bus services currently operated by Transdev out of the South Bay and East County divisions would be insourced, along with the minibus services operated by Transdev out of Copley Park.

Scenario 3: Insource paratransit operations only

Under this scenario, only the MTS Access paratransit service would be insourced. The current contract-operated fixed route bus and minibus services would remain with a contractor.

Scenario 4: No change from present (Do Nothing)

Under this scenario, MTS would continue to operate fixed route service as currently. The fixed route bus operations at the South Bay and East County divisions, as well as paratransit and minibus operations at Copley Park Division, would remain contracted.

2.2 Summary of Current MTS Organization

MTS is the public transit agency for the City of San Diego and surrounding communities in San Diego County to the south and east, including the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, and Santee, and rural areas of East County. A California public benefit corporation, the organization began as the Metropolitan Transit Development Board (MTDB) in 1975 and was renamed Metropolitan Transit System (MTS) in 2005. MTS includes several wholly owned subsidiary public benefit corporations:

- San Diego Transit Corporation (SDTC), which manages and operates the in-house bus services
- San Diego Trolley, Inc. (SDTI), which operates the Trolley light rail system
- San Diego & Arizona Eastern (SD&AE) Railway Company, which encompasses four lines and 108 miles of rail right-of-way used by SDTI and private freight and passenger excursion operators

MTS is governed by a 15-member Board of Directors and receives funding from various federal, state, and local sources. The primary sources are the California Transportation Development Act (TDA), Federal Transit Administration (Sections 5307, 5337, and 5339), TransNet funds (local sales tax measure), and passenger fares.

Functions and services performed by MTS employees include those of its Administration Department (Finance, Planning & Scheduling, Legal, Marketing, Human Resources, et al.), operation and maintenance of the Trolley system, and operation and maintenance of a portion of the fixed route bus system. The remainder of the fixed route bus system as well as MTS Access paratransit and fixed route minibus services are operated and maintained by a contractor (currently Transdev). Organizationally, all bus, minibus, and paratransit services are under the SDTC umbrella, which is led by a Chief Operating Officer of Transit Services. Within this department are all of the operations and maintenance functions of the MTS-operated bus services as well as management of the contract services. See Figure 2-2 for the MTS departmental organization chart and Figure 2-3 for the SDTC organization chart.

Figure 2-2: MTS Departmental Organization Chart

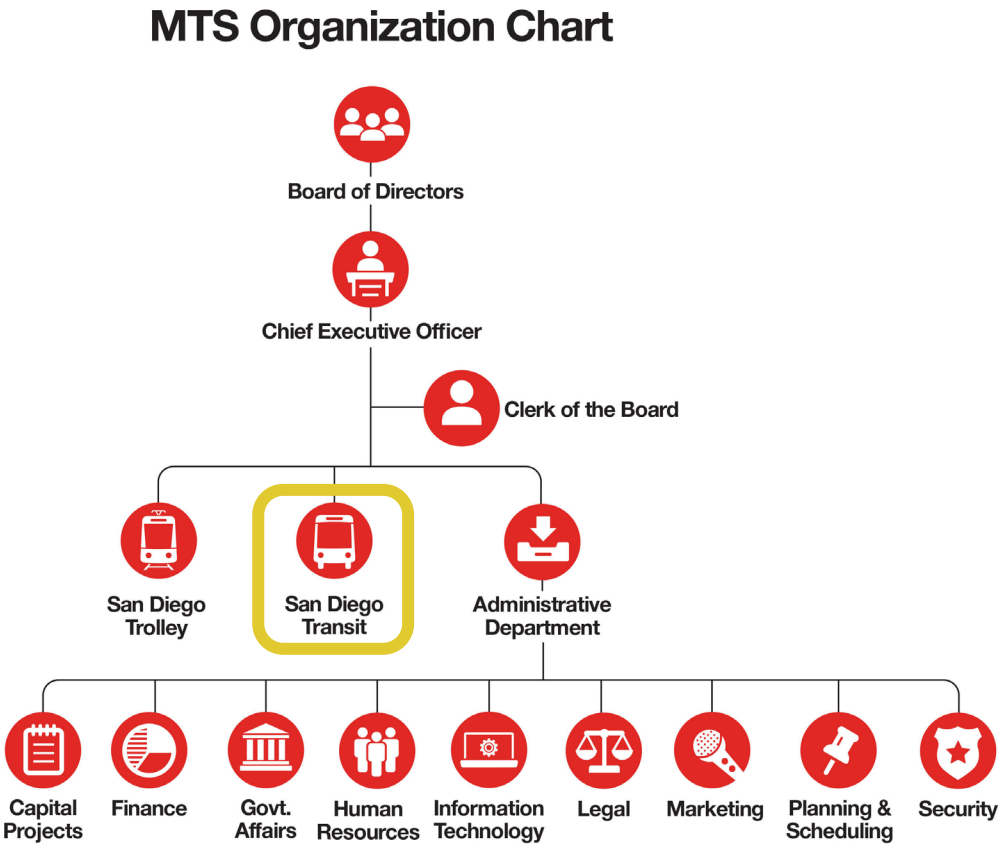
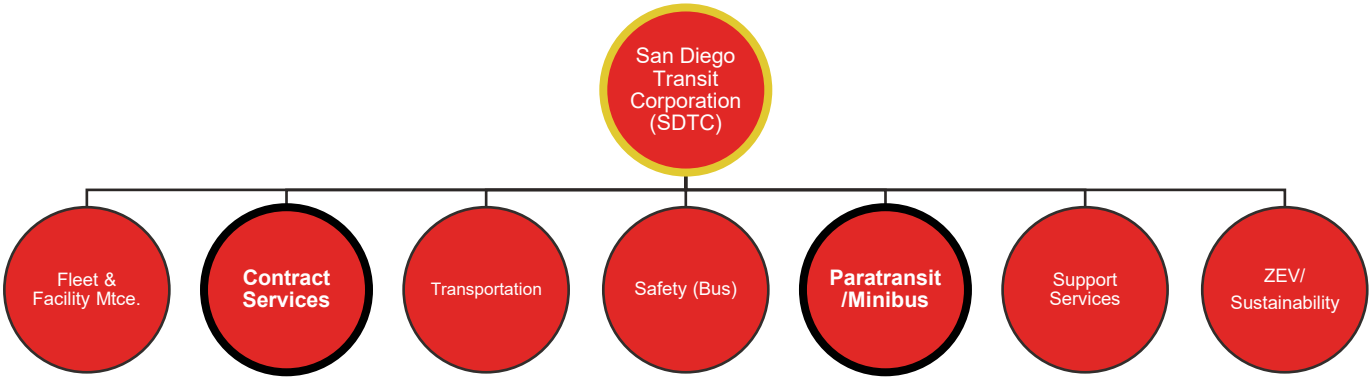


Figure 2-3: SDTC Organization Chart



2.3 Current Service Overview

MTS's fixed route bus services are operated out of one of the four divisions. These include local bus routes operating in the urban and suburban portions of the MTS service area, Rapid and Rapid Express BRT-style routes, and a small number of rural service routes offering limited service to far eastern and southeastern San Diego County. Of the 86 routes, 26 are operated out of the two MTS divisions while the remaining 60 are based at the two Transdev-operated facilities. (See *Figure 2-4.*) In addition to these fixed route services, MTS

also provides 14 minibus fixed routes using smaller vehicles operated under the service contract with Transdev.

MTS's share of the fixed route services (local bus, Rapid/Rapid Express, rural service, and minibus) represents 43.5% of the scheduled revenue miles and 41.4% of the scheduled revenue hours each week. See *Table 2-2, Table 2-3*, and *Table 2-4* for a breakdown of the routes assigned to the MTS and Transdev divisions and the share of weekly revenue miles and hours operating out of them. MTS Access, the ADA complementary paratransit service, is also operated under contract with Transdev and rounds out the MTS rubber-tired transit services. Both the minibus and Access services operate from the MTS-owned Copley Park division. The MTS Trolley system comprises four light rail lines and is a critical component of the regional public mobility landscape but is not a part of this study.

Figure 2-4: MTS Routes by Division Assignment

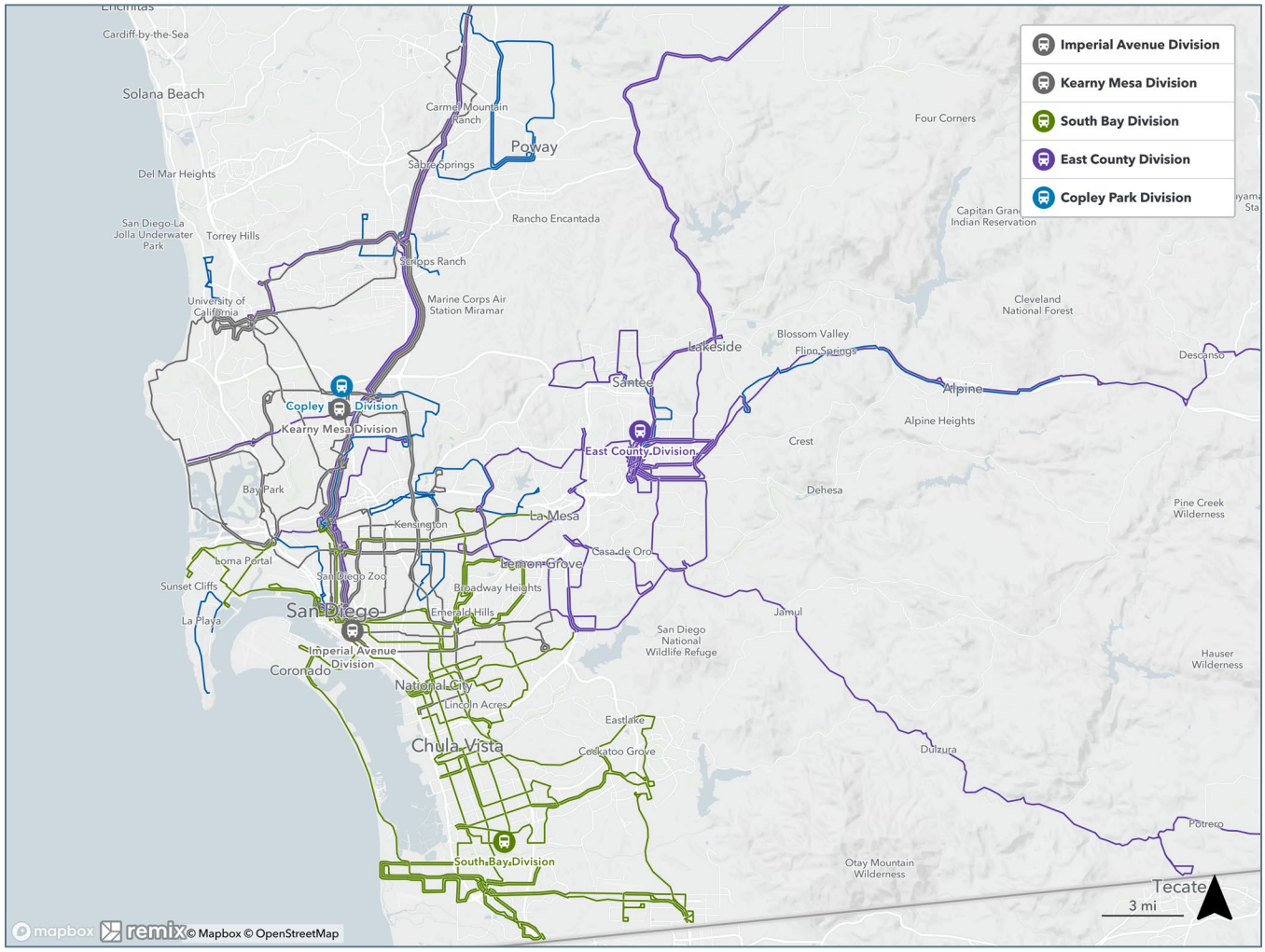


Table 2-2: Weekday Route Count by Service Tier and Division (September 2024)

Service Tier	MTS	Transdev		
	IAD/KMD	South Bay	East County	Copley Park
Local Bus	20	32	20	--
Rapid/Rapid Express	6	2	2	--
Rural Service	--	--	4	--
Minibus	--	--	--	14
Total	26	34	26	14

Table 2-3: Share of Fixed Route Weekly Revenue Miles by Tier and Division (September 2024)

Service Tier	MTS	Transdev		
	IAD/KMD	South Bay	East County	Copley Park
Local Bus	30.9%	33.6%	9.8%	-
Rapid/Rapid Exp.	12.6%	6.8%	1.0%	-
Rural Service	-	-	1.1%	-
Minibus	-	-	-	4.4%
Total	43.5%	40.3%	11.8%	4.4%

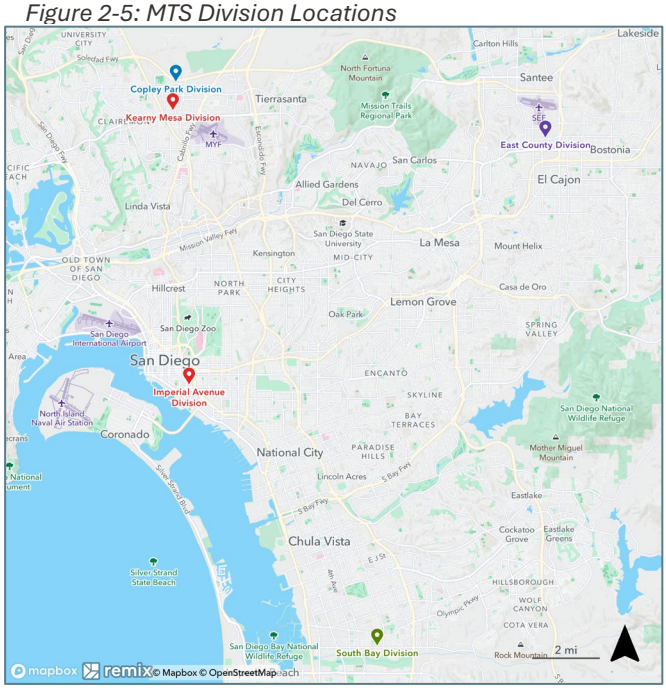
Table 2-4: Share of Fixed Route Weekly Revenue Hours by Tier and Division (September 2024)

Service Tier	MTS	Transdev		
	IAD/KMD	South Bay	East County	Copley Park
Local Bus	31.9%	38.5%	11.2%	-
Rapid/Rapid Exp.	9.5%	3.9%	0.4%	-
Rural Service	-	-	0.5%	-
Minibus	-	-	-	4.1%
Total	41.4%	42.5%	12.1%	4.1%

2.4 Operations/Maintenance Facilities Overview

The Greater San Diego County area is served by four MTS fixed bus route facilities and one paratransit/minibus bus facility that store, dispatch, service, and perform light- and heavy-duty vehicle maintenance. These facilities are:

Figure 2-5: MTS Division Locations



- Imperial Avenue Division (IAD) – Imperial Avenue and 16th Street in Downtown San Diego *(MTS operated)*
- Kearny Mesa Division (KMD) – Ruffner Street and Opportunity Road in the Kearny Mesa community of San Diego *(MTS operated)*
- South Bay Division (SBD) – Main Street in the City of Chula Vista *(Transdev operated)*
- East County Division (ECD) Vernon Way in the City of El Cajon *(Transdev operated)*
- Copley Park Division (CPD) – Copley Park Place between Convoy Street and Ruffner Street in Kearny Mesa *(Transdev operated)*

The first two fixed route bus facilities (IAD and KMD) are owned and fully operated by MTS with MTS staffing. The second two fixed route bus facilities (SBD and ECD) are owned by MTS, but are fully operated by Transdev under a service contract with MTS. The final facility (CPD) is also owned by MTS and operated by Transdev (originally by First Transit) under a paratransit/minibus contract. This section will highlight the features of each facility.

Future note: In 2022, the MTS Board of Directors approved the site selection of an additional bus operations and maintenance facility – the MTS Clean Transit Advancement Campus (CTAC), which will support the move to a fully zero emissions bus fleet. Future construction and opening dates are dependent on the bus fleet transition and the availability of funding.

2.4.1 IMPERIAL AVENUE DIVISION (IAD)

Figure 2-6: IAD Service Lanes



This division is the oldest in the MTS system and was part of the acquisition of the San Diego Transit Corporation by MTDB in 1986. It has a capacity of 160 buses and currently serves a fleet of 137 CNG-powered buses, of which 93 are 40-foot and 44 are 60-foot articulated buses, plus a pilot fleet of seven 40-foot battery electric buses (BEB).

All bus storage is in a large, uncovered parking area consistent with the climate of southern California. In addition, there is a separate fully enclosed maintenance facility with 14 bus bays to accommodate both 40-foot and 60-foot buses. Total building size is 44,000 square feet and the total property size is 8.2 acres.

There is also space reserved for non-revenue vehicles including cars for service supervision and remote bus operator reliefs, employee parking, as well as maintenance trucks. Daily vehicle servicing (fare collection, wash, and CNG fueling) is conducted in an adjacent separate structure with three bays. A service pit for brake inspection is located adjacent to the service bays. A ChargePoint plug-in facility with two stations to support the current battery electric bus pilot program is provided.

Figure 2-7: IAD Bus Staging Area



This facility also serves as the administrative office for MTS bus service (SDTC) including Safety and Training, Transportation, and Maintenance. Additionally, the Bus Command Center, which monitors and controls all bus service (both MTS and Transdev provided) is housed there with two consoles staffed by MTS supervisory staff and three consoles staffed by Transdev supervisory staff.

2.4.2 KEARNY MESA DIVISION (KMD)

This division is the second oldest in the MTS system, opening in 1989. It has a capacity for 145 buses and currently serves a fleet of 113 CNG-powered buses, of which 68 are 40-foot and 45 are 60-foot articulated buses, plus a pilot fleet of two 40-foot battery electric buses.

Figure 2-8: KMD Body Shop



All bus storage is in a large, uncovered parking area consistent with the climate of southern California. In addition, there is a separate fully enclosed maintenance facility with 20 bus bays to accommodate both 40-foot and 60-foot buses and the primary paint and body shop for the MTS system. Total building size is 64,800 square feet and total property size is 7.4 acres.

There is also space reserved for non-revenue vehicles including cars for service supervision and remote bus operator reliefs, employee parking, as well as maintenance trucks. Daily vehicle servicing (fare collection and wash) is conducted in an adjacent separate structure with three bays. A service pit for brake inspection is located adjacent to the service bays. A ChargePoint plug-in facility with two stations to support the current battery electric bus pilot program is provided.

2.4.3 SOUTH BAY DIVISION (SBD)

Figure 2-9: SBD Main Entrance



This bus facility is the second newest, opening in November 2014. It is owned by MTS, but operated by Transdev under a fixed route service contract with MTS. It has capacity for 256 buses and currently serves a fleet of 242 CNG-powered buses, of which 215 are 40-foot and 27 are 60-foot articulated buses, plus a pilot fleet of two 40-foot and twelve 60-foot battery electric buses.

All bus storage is in a large, uncovered parking area consistent with the climate of southern California. In addition, there is a separate fully enclosed 48,000-square-foot maintenance facility with 14 bus bays and a 14,000-square-foot administration and operations building. Total building size is approximately 91,000 sq ft. Total property size is 10.6 acres.

This is also the facility where the initial MTS fleet of battery electric buses are charged daily. In 2023, MTS opened a large network of automated overhead charging pantographs with five lanes accommodating up to 24 buses supporting both 40-foot and 60-foot buses. It was constructed to allow for easy expansion in the future.

Figure 2-10: SBD BEB Charging Area



Source: TMD

There is also space reserved for non-revenue vehicles including cars for service supervision and remote bus operator reliefs, employee parking, as well as maintenance trucks. Daily servicing (fare collection and wash) is conducted in an adjacent separate structure with three bays. A service pit for brake inspection is located adjacent to the service bays. MTS, in accordance with their service contract with Transdev, conducts routine audits of the assigned fleet and facility and support equipment.

2.4.4 EAST COUNTY DIVISION (ECD)

This facility is the newest in the MTS system, opening in October 2016 with a LEED Silver certification. It is owned by MTS, but operated by Transdev under a fixed route service contract with MTS. It has a capacity of 120 buses and currently serves a fleet of 87 CNG-powered buses, of which 63 are 40-foot, and 24 are 45-foot over-the-road Rapid buses plus a pilot fleet of two 40-foot BEBs.

All bus storage is in a large, uncovered parking area consistent with the climate of southern California. The total building size is approximately 44,800 square feet. There is a separate fully enclosed maintenance facility with nine bus bays to accommodate both 40-foot and 45-foot buses. Total property size is 5.5 acres.

Figure 2-11: ECD Facility and Bus Entrance



Source: Google Maps

There is also space reserved for non-revenue vehicles including cars for service supervision and remote bus operator reliefs, employee parking, as well as maintenance trucks. Daily vehicle servicing (fare collection and wash) is conducted in an adjacent separate structure with three bays. A service pit for brake inspection is located adjacent to the service bays. All buses are fueled or charged, serviced, maintained, and parked on-site at ECD, except for overnight and weekend vehicle parking for buses serving the rural routes. For these rural routes, MTS currently has agreements with the County of San Diego at two rural public works yards. One is located in Borrego Springs, and the other is in Jacumba. MTS also owns a small parcel to park rural buses operating Route 894 in Campo.

MTS, in accordance with their service contract with Transdev, conducts routine audits of the assigned fleet and facility and support equipment.

2.4.5 COPLEY PARK DIVISION (CPD)

This facility serves both paratransit and minibus operations throughout the MTS service area. It has capacity for 208 buses and currently serves a fleet of 173 vehicles. These include 121 paratransit and 31 minibus vehicles, and 21 non-revenue vehicles. Vehicles are predominately propane fueled. There is a fully enclosed maintenance facility with four bus bays. Total building size is nearly 18,600 sq ft and the total property size is 3 acres.

Figure 2-12: CPD Facility



Source: TMD

All bus storage is in a large, uncovered parking area consistent with the climate of southern California. There is also space reserved for non-revenue vehicles including cars for service supervision and bus operator reliefs, employee parking, as well as a maintenance truck. All buses are fueled, serviced, maintained, and parked on-site at CPD. MTS, in accordance with their service contract with Transdev, conducts routine audits of the assigned fleet and facility and support equipment.

Figure 2-13: CPD Maintenance Bays



Source: TMD

3. Comparative Review – Fixed Route

3.1 Introduction

This section details key aspects of the MTS fixed route services and provides a comparison between the MTS-operated and contract-operated services where applicable.

3.2 Summary of Current Transdev Contract

MTS's contracted fixed route services are operated by Transdev. The current contract commenced on January 1, 2021, for a 6½ year period expiring June 30, 2027. The contract includes two, two-year options at MTS's discretion, for a potential contract length of 10.5 years (expiring June 30 in 2029 or 2031).

This section provides an overview of key elements of the contract and its provisions. Additional details are found in the Appendix in Section 6.2.

3.2.1 CONTINUITY OF OPERATIONS PLAN

MTS requires Transdev to have a Continuity of Operations Plan (COOP). The COOP is a plan to quickly restore essential functions after an emergency. MTS defines the process for approving the initial COOP, periodic reviews of the COOP, and revisions to the COOP. People with the authority to revise the COOP are also required to be identified. Per the contract, the COOP should be a living document updated as lessons are learned and new information is gained.

3.2.2 DIVISION OF RESPONSIBILITIES

The following sections list the contractor and MTS responsibilities as described in the contract. Those enumerated as contractor responsibilities would revert to MTS under the fixed route insourcing scenarios.

Contractor Responsibilities

Transdev's responsibilities include, but are not limited to:

1. Meeting all operations, maintenance, and administrative requirements described in the final negotiated agreement with MTS.
2. Complete operation and management of MTS fixed-route transit services described in the Agreement as outlined in the Scope of Services, System Operating Standards and Requirements, and all attachments.
3. Providing facility maintenance including, but not limited to, above-ground Diesel fuel tank monitoring, general CNG station monitoring, Electric Charging stations monitoring, building and utility repairs and upkeep, yard and building cleaning, and landscaping services and maintaining LEED Certifications per the U.S. Green Building Council (USGBC). No major tenant improvements will be required of the Contractor.
4. Providing fuel for all non-revenue vehicles, including, but not limited to, driver relief vehicles, supervisor vehicles, service trucks, bus stop trucks, and administrative vehicles.

5. Maintaining all vehicles and related equipment provided by MTS or otherwise used to fulfill the agreement, including revenue and non-revenue vehicles, wheelchair lifts and ramps, and maintenance equipment.
6. Maintaining sufficient parts, materials, and supplies inventories for the operation and required equipment maintenance.
7. Providing all personnel with the necessary management, operations, and maintenance expertise to operate the system.
8. Conducting all operational and maintenance training and supervision.
9. Monitoring and managing all Contractor fare and fare media collection, vaulting, storing, pick-up coordination, security, and accounting.
10. Providing, as needed, driver restrooms and break facilities.
11. Providing all personnel administration, including hiring, training, supervising, evaluating, promoting, and terminating employees and collective bargaining negotiations. By state law, the contractor will also prepare and implement an Injury and Illness Prevention Program, as required by the California Occupational Safety and Health Administration (OSHA). The contractor will be required to comply with state and federal laws and requirements related explicitly to labor issues and other applicable laws.
12. Assisting MTS with system marketing efforts, tours, and special events.
13. Hiring, scheduling, and dispatching drivers and vehicles, including driver run cutting and assignments.
14. Provide MTS with a monthly invoice that details all expenditures and statistical reporting requirements as determined by MTS.
15. Preparing all operating and financial reports on time and in the prescribed MTS formats.
16. Post temporary bus stop information, including A-frames and temporary signs, in case of temporary bus stop closure or damage.
17. Pricing for providing bus stop signs, stop maintenance, and station power washing cleanings. The Contractor shall supply labor and materials for the bus stop program.
18. Negotiating, executing, and overseeing all subcontracts for equipment, personnel, or services as required to fulfill the prime contract, including obtaining MTS's prior written approval for all such contracts.
19. Assisting with community and MTS public relations, including providing upper-level management staff to attend MTS Board or Board subcommittee meetings as requested, at least 12 formal staff meetings with MTS staff per year, and other informal meetings, as required.
20. Manage MTS-provided RTMS radio systems, including general troubleshooting, minor maintenance, removing and/or installing equipment into new, expansion, or replacement vehicles, and signing radio operating agreements with a radio communication service designated by MTS. MTS will be responsible for warranty and major repairs, defined as $100 or greater.
21. Providing all equipment, including but not limited to driver relief vehicles, supervisors' vehicles, and computer equipment.
22. Providing all necessary office and staff furniture and equipment not already provided by MTS.

MTS Responsibilities

MTS's responsibilities include:

1. Establishing operations and maintenance requirements for the Contractor.
2. Supplying transit buses, facilities, and related equipment as specified herein.
3. Provide CNG fuel, and electric utility for revenue vehicles, CNG fueling stations, or other alternative fuel (e.g., Hydrogen fuel cell buses) and fueling infrastructure.
4. Providing electrical, gas, water, and phone utilities for each operating division (excluding cell phones).
5. Supplying property and basic structures, as well as facilities for maintenance, operations, and vehicle storage facilities.
6. Providing ongoing service planning and route timetable scheduling, including schedule headways/blocking.
7. Establishing fare policies and fare structure.
8. Performing overall marketing of the services, including printing public timetables and "Take One" notices.
9. Payments should be provided to the Contractor per the Agreement.
10. Contract administration and contractor performance monitoring under the Agreement.
11. Complete and submit National Transit Database Annual Reporting requirements using Contractor data submittals.
12. Determining compliance with Agreement requirements and assessing performance bonuses, liquidated damages, and assessments, as specified.
13. Provision of permanent bus transit centers, bus stop shelters, benches, and other bus stop amenities. Bus stops, poles, and signs are currently in existence.
14. Providing complete RTMS and other radio communication systems, warranty repairs, and major repairs and replacements, defined as $100 or greater in cost.
15. Providing all equipment as identified in the contract.
16. Provide and maintain Voice over Internet Protocol (VoIP) network phones, warranty, and service fees and support.
17. Provide at a minimum three (3) RTMS radio supervisors and (1) one radio manager workstations at MTS's Imperial Avenue Division (IAD).
18. Providing regional telephone information, customer service, and trip planning.

3.2.3 SYSTEM OPERATING STANDARDS AND REQUIREMENTS

The contract includes 45 operating standards and requirements.

A general requirement states that the contractor is required to operate the system in compliance with MTS operating policies, as well as local, state, and federal laws and regulations applicable to this service. Another requirement states the services that the contractor must provide:

> "The contractor's services hereunder shall include, but shall not be limited to, the following: day-to-day operation of the service, including executive and administrative management; providing non-revenue vehicles as specified; employment, supervision, and training of all

> personnel to proficiency (including drivers, dispatchers, supervisors, clerks, and maintenance personnel); providing for backup/extra board drivers who will be immediately available in the absence of regular drivers; maintenance and repair of equipment; managing component warranty and tracking system; negotiation and administration of subcontracts; assisting MTS in public relations and promotions, preparation of budgets, analyses, and reports of financial and other matters pertaining to the system operation; clerical, statistical, and bookkeeping services as required in the agreement, and other work may be necessary to comply with the requirements contained herein."

More specific standards and requirements from the contract are listed in the Appendix in Section 6.2. In both the structure of the fixed route Transdev contract and MTS's daily management and oversight of it, there is a strong focus on ensuring the Transdev-service is analogous to the MTS-operated service in terms of service delivery quality, reliability, and meeting customer expectations.

3.2.4 REQUIRED PERSONNEL

The contract specifies overall management (covering both divisions) and division-specific management positions. These contractually-obliged positions and their full-time equivalent (FTE) quantities are listed below.

Overall management positions include:

- San Diego General Manager (1 FTE)
- Maintenance Director (1 FTE)
- Senior Manager of Human Resources (HR) (1 FTE)
- Safety Manager (1 FTE)
- Training Manager (1 FTE)
- Building and Facilities Maintenance Manager (1 FTE)
- Local Customer Service Manager (1 FTE)
- Manager of Quality of Service and Radio Communication (1 FTE)
- Revenue Manager/Supervisor (1 FTE)
- Maintenance Quality Assurance and Maintenance Training Managers (2 FTEs)

Division-specific management positions include:

- South Bay and East County Division Managers (2 FTEs)
- South Bay and East County Division Maintenance Managers (2 FTEs)

The Contractor is responsible for developing staffing plans for approval by MTS and adhering to those plans subject to liquidated damages if a position goes unfilled for 30 days. Positions include:

- Road Supervisors
- Dispatchers
- Radio Communication Personnel
- Maintenance Foremen (on-site, on duty 24/7)

- Mechanics
- Servicers/Cleaners
- Maintenance Parts Technicians
- Facilities Maintenance Staff
- Vehicle Operators
- Clerical/Administrative Staff
- Maintenance/Administrative Staff
- Quality Assurance Ambassadors
- Quality Assurance Supervisors (Video)
- Information and Technology (IT) Staffing
- Other positions deemed necessary to meet all requirements spelled out in the contract

3.2.5 MAINTENANCE REQUIREMENTS

The contract is very specific about maintaining revenue and non-revenue vehicles and operating and maintenance facilities to ensure they are consistent with and meet overall MTS standards as noted in *Section 3.2.2 Division of Responsibilities* above.

3.2.6 TRAINING REQUIREMENTS

Based on interviews with both MTS and contractor staff the training for vehicle operators and mechanics is noticeably different. However, the contract is very specific about minimum requirements for training hours and topics for various positions.

3.2.7 PERFORMANCE BONUSES & ASSESSMENTS

This contract specifies a range of performance bonuses and assessments. Performance bonuses are defined as financial rewards for meeting or exceeding specific performance goals set by MTS, and assessments are financial withholdings to recoup monetary loss caused by poor performance in specific areas by the Contractor. In addition to the five bonuses and assessments described below, the contract includes 31 specific liquidated damages, summarized in the following section.

Completed Trips Incentive Bonus or Assessment: Completed trip incentive bonuses or restitutions (if any) are not cumulative and are computed monthly and added or deleted from each monthly payment.

A Vehicle Trip is considered incomplete when any of the following occurs:[1]

1. The Vehicle Trip does not operate at all
2. The vehicle Trip leaves the originating terminal timepoint in excess of 50% of the route's scheduled headway
3. The Vehicle Trip is operating so late that the next scheduled Vehicle Trip catches up to it at any point along a bus route

[1] One Vehicle Trip is defined in the contract as one round-trip by a bus on a loop route and one one-way trip between terminals on a line route.

4. The Vehicle Trip misses any of the bus stops along the scheduled route

Incomplete Vehicle Trips due to unusual traffic conditions or other factors beyond the control of the Contractor may be excused. MTS Contract Managers shall determine which factors are reasonably beyond the Contractor's control. The Contract Managers' decision will be final and binding.

The following bonus or assessment will be assessed to the Contractor by MTS (amounts are invoiced for the month in which the bonus/assessment is calculated):

Table 3-1: Completed Trips Bonus/Assessment

Completed Trips Bonus/Assessment		
Percent (%) Completed	Bonus	Assessment
99.960% or higher	$10,000	----
99.860% - 99.959%[2]	$5,000	----
99.730% - 99.859% (Neutral) [2]	----	----
99.650% - 99.729%	----	($5,000)
99.500% - 99.649%	----	($7,500)
99.400% - 99.499%	----	($10,000)
99.300% - 99.399%	----	($15,000)
99.299% or lower	----	($30,000)

On-Time Performance (OTP): The contract requires that buses shall safely arrive at all designated time points between one minute before and 5 minutes after the scheduled arrival. Buses shall not depart earlier than the scheduled departure time. Buses are technically on time between 0 min and 0 seconds to 4 minutes and 59 seconds after the scheduled departure time. Buses late by 5 minutes and 0 seconds or more are considered late or "Cold." Buses departing even one second or more early from the scheduled departure time are considered early or "Hot."

There are two OTP bonus opportunities: one is bus operator-based, and the other is system-based. Both measures are consistent with MTS's Key Performance Indicator (KPI) goals, which are established annually.

[2] Corrected from "99.860% - 99.95**0**% and "99.7**2**0% - 99.859%" in original contract.

Table 3-2: Operator OTP Bonus

Operator On-Time Performance Bonus	
% of Drivers with OTP Under 70%	**Bonus**
10.0% or more	$0
8.00% – 9.99%	$2,500
7.00% - 7.99%	$5,000
6.00% - 6.99%	$7,500
5.00% - 5.99%	$10,000
4.00% - 4.99%	$12,500
3.99% or fewer	$15,000
Note: Only operators who pass through 100 or more timepoints qualify towards the total result.	

Table 3-3: Systemwide OTP Bonus/Assessment

Systemwide On-Time Performance Bonus/Assessment		
Systemwide OTP Range	**Bonus**	**Assessment**
88.00% or better	$7,500	
86.00% - 87.99%	$5,000	
85.00% - 85.99%	$2,500	
84.00% - 84.99% (Neutral)	-----	-----
81.00% - 83.99%		($7,500)
80.99% or lower		($10,000)

MTS will calculate all bonuses and assessments and award them the following month, along with the other bonuses and assessments discussed in this section.

Mean Distance Between Failures (MDBF): The MDBF performance measurement is defined as total fleet miles divided by total reportable Major and Other (combined) mechanical failures, as strictly defined by the federal National Transit Database (NTD) reporting manual instructions. The MTS monthly goal for combined MDBF is 9,000 or higher. Bonuses or assessments will be applied each month for performance above or below this requirement, as shown in the performance matrix below in *Table 3-4*. The MDBF performance measurement number is calculated by combining South Bay and East County data for total miles and mechanical failures and arriving at one combined number for both yards.

Table 3-4: MDBF Bonus/Assessment

Mean Distance Between Failures (MDBF) Bonus/Assessment		
MDBF (miles)	Bonus	**Assessment**
10,000 or above	$10,000	
9,000 – 9,999	$5,000	
8,000 – 8,999 (Neutral)	----	----
7,000 – 7,999		($5,000)
6,999 or lower		($10,000)

Safety Performance Measurement, Preventable Accidents: This performance indicator is for the number of preventable accidents per 100,000 total fleet (odometer) miles operated. Determining preventability for each accident is the Contractor's responsibility, but MTS reserves the right to request a change to these determinations for reporting purposes, where necessary. Preventable accidents include accidents that were the fault of any Contractor employee, not just bus operators/drivers. Although accidents involving non-revenue vehicles are tracked and reported, they are not considered under this performance measure. Only incidents involving a revenue vehicle (in or out of service) are considered for this performance incentive. MTS applies the following bonus or assessment (amounts are invoiced for the month the bonus/assessment is used.

Table 3-5: Preventable Accidents Bonus/Assessment

Preventable Accidents per 100,000 Miles Bonus/Assessment		
Preventable Accidents per 100k Miles	**Bonus**	**Assessment**
0.90 or lower	$20,000	
0.91 – 1.10	$10,000	
1.11 – 1.20 (Neutral)	----	----
1.21 – 1.60		($5,000)
1.61 or higher		($10,000)

Customer Service Performance Measurement: Driver-Related Complaints: MTS requires the contractor to "continuously maintain a very high level of customer service." MTS receives and processes all complaints for this service and determine which complaints are driver-related. The Contractor then forwards all directly received complaints to MTS for processing through the MTS customer service database as soon as they are received. Complaints that are determined to be invalid, not valid, or greatly exaggerated (as determined via video review) will be removed from the database by MTS staff. The total number of Driver-related complaints are tallied at month-end and divided by the total number of riders for the month. This performance measurement indicator is for the total number of driver-related complaints per 100,000 riders. MTS applies the following bonus or assessment (amounts are invoiced for the month the bonus/assessment is applied).

Table 3-6: Driver-related Complaints Bonus/Assessment

Driver-related Complaints per 100,000 Riders		
Complaints per 100k Riders	**Bonus**	**Assessment**
5.99 or lower	$10,000	
6.00 - 6.99	$5,000	
7.00 – 7.99 (Neutral)	----	----
8.00 – 8.99		($5,000)
9.00 or higher		($10,000)

Failure to Achieve Reliability: MTS, at its sole discretion, may take further action to enforce assessments, up to and including termination of the contract, if the Contractor's performance falls under the Assessment range of any of the above performance measurements for three consecutive months.

3.2.8 LIQUIDATED DAMAGES (LDS)

A standard of service contracts is to assess liquidated damages (LDs) since it is often difficult to assign a reasonable dollar value to the actual damages that may result from the contractor's failure to perform to the standards of the contract. Therefore, the contractor's liability should be limited to and fixed at an agreed amount identified in the contract. The Transdev contract includes 31 LDs, which are deducted automatically by the MTS from the contractor's invoices. The decision of the MTS Chief Operating Officer (COO) or designated MTS Contract Manager is final with respect to any assessment of LDs. The MTS COO, or his/her designated MTS Contract Manager, may rely on information supplied by the Contractor, by the public, or by staff, as well as by other means, in determining the application of LDs.

The full list of LDs and their penalties can be found in *Table 6-1* in the Appendix. These include items related to service delivery and quality/reliability, driver training and uniforms, and vehicle and facility maintenance standards.

3.2.9 BUS STOP MAINTENANCE SPECIFICATIONS

The contractor is responsible for maintaining MTS-designated bus stops and transit centers. The contract includes but does not limit the type of maintenance provided. MTS generates the work orders for maintenance work, and the contractor is expected to respond to emergency work orders within 24 hours. The response time for non-emergency work orders is also specified in the contract based on the nature of the work involved.

3.2.10 OPERATING FACILITIES AND FACILITY MAINTENANCE

The contractor is responsible for maintaining the SBD and ECD operating and maintenance facilities that they operate out of. MTS built and owns the facilities and assumes specific responsibilities, including:

- Conduct environmental studies, as necessary.
- Conduct a quarterly facility inspection.

- Conduct property appraisals, negotiations and all legal requirements related to property acquisition.
- Coordinate with the City of Chula Vista, South Bay Division, and the City of El Cajon, East County Division, regarding future site development.
- Establish a long-term facility plan, including engineering and construction management of improvements.
- Review and approve any improvements to be performed by the Contractor.
- Pay all required property taxes (via reimbursement to the Contractor for Contractor payments).
- Maintain the facility in compliance with the deferral NPDES program and the Industrial Activities Storm Water General Permit (No Exposure Certification).
- Pay the annual Storm Water Pollution Prevention Plan fees as a pass-through expense. (The Contractor directly pays the fees and test costs, and MTS reimburses the Contractor.)
- Pay expenses exceeding the amount specified per year in the contract for significant repairs and/or facility improvement costs associated with maintaining the facility as good as condition received. These expenses are above and beyond the Contractor's everyday maintenance responsibilities.
- Provide Contractor heavy-duty portable bus lifts and in-ground and parallelogram lifts that are incorporated within the facilities.
- Conduct capital projects at the facilities in coordination with the Contractor to upgrade or repair facilities.
- The gas detection system's major components, outside of routine replacement items, will be paid for by MTS as a pass-through expense. Any replacement of parts related to the diesel tank monitoring system shall also be MTS's responsibility as a pass-through expense.
- Provide a building video surveillance system covering several areas of the lot, maintenance shops, and key critical areas of the site.
- Provide the Contractor with a VOIP phone system.
- Pay all facility utility bills as follows:
    - SBMF & ECMF electricity and gas for all administration and maintenance buildings and facilities.
    - Responsible for paying all utilities associated with fueling or energizing revenue vehicles.

The Contractor facility responsibilities include:

- Provide property and facility insurance for sites owned by MTS.
- Arrange for and pay for a refuse disposal service, including refuse removal and recycling.
- Comply with San Diego County and the State of California's requirements for handling waste and cleaning out waste clarifiers.
- Maintain and provide preventative maintenance services (PMI) for all facilities.
- Elevator maintenance and compliance with all state and federal requirements while operating and maintaining elevators and obtaining all required permits.

- Provide maintenance for vehicle lifts and contract with a third party for annual inspections.
- Inspect and maintain fire extinguishers
- Preventive maintenance of photovoltaic solar energy panels and contract with a third party for inspections.
- Provide both SBD and ECD janitorial services (in-house or contracted to a third party).
- Sweeping of paved areas and steam cleaning of maintenance bays and bus parking areas.
- Fire safety, CNG gas detection monitoring, and diesel fuel monitoring system testing and permits.
- Implement Storm Water Pollution Prevention Plan
- Develop and implement a Spill Prevention Plan and have it certified as required by the appropriate local and state agencies.
- Maintenance and testing of standby generator systems for buildings, including obtaining and updating permits as required.
- In case of a system failure or shutdown, the Contractor shall immediately contact Trillium and notify MTS. The contractor must follow callout service guidelines for all emergency and non-emergency service interruptions.

The contract also specifies responsibilities relating to construction and repairs that will occur during the life of the contract. Major repairs and facility improvements approved by MTS in advance shall be covered up to the following aggregate amounts (for SBD and ECD) in the remaining years (including option years) of the contract.

Base Year 4:	July 1, 2024 – June 30, 2025	$80,000
Base Year 5:	July 1, 2025 – June 30, 2026	$82,000
Base Year 6:	July 1, 2026 – June 30, 2027	$84,000
Option I, Year 1 (Year 7):	July 1, 2027 – June 30, 2028	$86,000
Option I, Year 2 (Year 8):	July 1, 2028 – June 30, 2029	$88,000
Option II Year 1 (Year 9):	July 1, 2029 – June 30, 2030	$90,000
Option II, Year 2 (Year 10):	July 1, 2030 – June 30, 2031	$92,000

At the end of each Fiscal Year (FY), the contractor and MTS conduct a formal accounting for both East County Division and South Bay Division, reviewing all advance approvals, documented costs, and repairs.

If this contract creates a possessory interest subject to property taxation and if the Contractor is subject to the payment of taxes levied on such interest, the Contractor shall pay all such possessory interest taxes. If the Contractor pays taxes before delinquency, MTS will reimburse the Contractor for such expense identified as a pass-through expense. If the Contractor fails to pay taxes prior to delinquency, the Contractor will not be reimbursed by MTS for any taxes. MTS tracks utility use and invoices monthly to ensure the efficient use of MTS-paid commodities.

MTS and the Contractor pay various utility bills as follows:

Table 3-7: MTS vs. Contractor Utility Responsibilities at SBD and ECD

Division	Item	Area	Responsibility
South Bay Division	Electric/Gas (SDG&E)	Buildings 3610/3620, 3650, and 3650A, and CNG Stations	MTS
	Water (Sweetwater Authority)	Buildings 3610, 3620, 3650, and 3650A, and Irrigation meters	MTS
	Sewer (City of Chula Vista)	Buildings 3610, 3620, 3650, and 3650A	MTS
	VoIP/Fiber Telecom	Sitewide	MTS
	Cable/TV	Sitewide	Contractor
	Internet Services (Excluding MTS IT services)	Sitewide	Contractor
East County Division	Electric/Gas (SDG&E)	544 Vernon Way and CNG Stations	MTS
	Water/Sewer (Helix Water District)	Sitewide	MTS
	VoIP/Fiber Telecom	Sitewide	MTS
	Cable/TV	Sitewide	Contractor
	Internet Services (Excluding MTS IT services)	Sitewide	Contractor

3.2.11 ADVANCED TECHNOLOGIES / INFORMATION SYSTEMS (IT)

As stated in the contract, MTS has invested in various hardware and software systems that the Contractor will be required to use and maintain. The contract acknowledges that over the six to 10-year length of the contract, significant changes to hardware and software will occur. Likewise, federal, state, and local requirements will change, and the technology must keep current to provide accurate data for reporting to these entities. The Contractor is required to provide necessary and routine monitoring of all designated MTS hardware and software systems and provide first-line administrative support under the direction of MTS staff. MTS may require the Contractor to use and maintain systems that are not otherwise mentioned in the contract. The contractor will not be responsible for any additional costs beyond what has been proposed for these types of unknown systems in the future.

The Contractor is responsible for moving technical equipment between vehicles upon MTS request, including all wiring and hardware. Examples include Camera systems, RTMS systems, and revenue equipment (DCUs, fareboxes, validators, etc.). These activities would mostly happen during transfers from retired to new vehicles, but there may be cases where this is required infrequently for other unforeseen events.

The Contractor assumes liability for moving, repairing, and/or replacing any piece of equipment and hardware on any MTS bus or on MTS property damaged by the Contractor or its subcontractors. The

contractor is responsible, at all times, for keeping appropriate inventory records and for reporting losses or theft of MTS equipment and hardware to MTS as soon as the Contractor becomes aware of the loss or theft.

MTS requires that the contractor provide dedicated IT professional(s) (either employees or subcontractors) who are available locally (within San Diego County) to maintain systems and software 24/7 to support MTS in the case of a failure in any system or application that is deemed to be of such importance as to cause a shutdown of MTS operations. MTS reserves the right to interview prospective candidates or subcontractors for roles in the Contractor's IT Group concerning MTS systems, equipment, or software.

The contract further specifies the skills essential that IT employees or subcontractors must possess, minimum response times for specific incidents, specific hardware and software deployed, and maintenance requirements.

3.2.12 DATA COLLECTION AND REPORTING REQUIREMENTS

The contract details routine Contractor reporting requirements and data collection responsibilities. It further specifies that the Contractor follows all guidelines related to all local, state, and federal reporting requirements. The contract also indicates that some reporting requirements will change over the contract's life and that the Contractor is subject to any changes in reporting requirements by MTS.

3.2.13 CONTRACT AMENDMENTS

Since ratification of the current fixed route services contract in December 2020, there have been five approved amendments. Details of each are below.

Amendment #1

This amendment authorized the contractor's request for a new division manager for ECD, created a new HR generalist position in ECD to help with driver recruitment, and increased the salaries of two of the contractor's managers for long-term retention. This amendment was ratified on January 6, 2022. This was essentially a cost-neutral amendment as the new ECD Division Manager had a lower salary than the previous ECD Division Manager, with the savings being related to the new position and increases in wages for the other positions. It should be noted that this amendment occurred during the first six months of the Contract and when driver shortages were acute at MTS and across the rest of the transit industry.

Amendment #2

In this amendment, executed February 24, 2023, MTS approved a $2.00 per hour wage increase for drivers in response to the challenge of hiring and retaining drivers that occurred as the country was recovering from the COVID-19 pandemic. The impact of this amendment was an increase in the overall contract value by $21,439,684 from the original ten-year total of $911,362,781 to $932,802,465. The actual increase in years three through six is higher, offset by lower-than-budgeted expenses in years one and two.

Amendment #3

This amendment, executed June 7, 2023, corrected Amendment #2. The language in Amendment #2 did not reflect the impact on the option years, although the total dollar amount did reflect the ten-year contract value. Amendment #3 did not impact the overall Board-approved contract amount of $932,802,465.

Amendment #4

In this amendment, dated June 15, 2023, and executed on June 22, MTS authorized an additional amount not to exceed $1,000,000 to facilitate addressing a labor dispute contingent upon bus services being restored no later than June 23, 2023. The total contract value increased to $933,802,465.

Amendment #5

This amendment, approved by the MTS Board on December 14, 2023, and executed on January 3, 2024, authorized an additional $439,946 for additional wages and benefits for ECD Bus Operators and SBD Road Supervisors represented by ATU Local 1309, effective July 1, 2023.

Additionally, in October 2024, the MTS Board approved additional funds for the Transdev fixed route and paratransit/minibus contracts, up to $1,365,000 annually, for future wage increases in represented employee CBAs.

3.3 Third-Party Contracts

3.3.1 OVERVIEW

MTS does not allow its contractors for fixed route, paratransit, and minibus services to outsource any specific functions they are contracted to provide. However, they do allow contracting to provide support functions. In some cases, MTS has agreements that can be used for both MTS in-house operations and outsourced operations.

3.3.2 MAJOR ENGINE AND TRANSMISSION AND REBUILD

MTS has agreements with firms that do engine and transmission overhauls and may direct the contractor (in this case Transdev) to use one of these companies. If the contractor chooses another provider, it must obtain written approval from MTS.

3.3.3 VEHICLE FUELING

MTS has an agreement with a firm to operate and maintain (O&M) the CNG fueling stations at SBD and ECD. While the contractor's employees fuel buses, all other responsibilities, including operating and maintaining the fueling stations, are subject to the O&M agreement.

MTS also has an agreement with a firm responsible for operations, maintenance, and capital improvements of vehicle electric charging stations.

3.3.4 FACILITIES MAINTENANCE

MTS has approximately 25 agreements with various firms to provide various maintenance and cleaning functions at SBD and ECB and at BRT stations, transit centers, and bus stops.

3.3.5 ADVANCED TECHNOLOGY/INFORMATION SYSTEMS (IT)

The contractor(s) can use third-party contracts instead of its employees for various IT functions. The agreement requires MTS approval for both IT staff positions and third-party contracts.

3.3.6 AMERICANS WITH DISABILITIES ACT (ADA) CERTIFICATION

MTS entered an eight-year agreement with MTM Transit LLC to provide ADA certification services. This agreement is in effect until November 30, 2030.

3.4 Capital Assets

FTA regulations require transit agencies to comply with mandated reporting requirements for the management of major transit assets. MTS maintains an asset inventory that includes vehicles, facilities, and facility equipment used in the delivery of transit service. The asset inventory list is a major element of the MTS Transit Asset Management (TAM) plan. The FTA defines these assets within the inventory as all capital assets a provider owns, except equipment with an acquisition value under $50,000 that is not a service vehicle.

The Asset Inventory Module data elements are contained in the following forms to be submitted annually:

- Transit Asset Management Facilities Inventory (A-15)
- Transit Way Mileage (A-20)
- Revenue Vehicle Inventory (A-30)
- Service Vehicle Inventory (A-35)

The MTS TAM Plan outlines the overall asset management approach in a manner consistent with internally developed policy and current federal regulations. The TAM plan also sets the direction for establishing and maintaining transit asset management strategies and plans achievable with available funds.

The primary asset classes maintained in the TAM inventory relevant to this project are Vehicles, Facilities/Stations, and Systems. The systems inventory, consisting of software and hardware for operational, maintenance and financial/administrative systems, will be discussed in greater detail in a separate section under Information technology. This will include systems owned and operated by MTS and Transdev.

Within each asset class there are different asset categories monitored as follows:

1. Revenue vehicles: Bus (and Rail)
2. Non-Revenue vehicles: Operations, Maintenance and Administrative
3. Facilities/Stations: Maintenance facilities, Transit centers, shelters/benches and administrative buildings

MTS Bus Operations are a consolidation of services operated by San Diego Transit Corporation (SDTC) and MTS Contracted Services. These entities operate and maintain a fleet of 761 buses, all of which use environmentally friendly compressed natural gas (CNG) or battery electric propulsion with the exception of the gasoline- and propane-powered fleet of minibuses and cutaway vans. Bus operations are supported by five vehicle maintenance facilities all owned by MTS: Imperial Avenue (MTS operated), Kearny Mesa (MTS operated), South Bay (Transdev operated), East County (Transdev operated), and Copley Park (Transdev operated). Each facility includes a maintenance building, administrative building, cleaning and fueling facilities, storage yard, and maintenance equipment which is used to support overall operations.

Revenue Fleet

All revenue vehicles and bus maintenance facilities are owned by MTS. The Transdev contract agreement language incorporates the following language regarding MTS assets and vendor responsibility: "the contractor shall maintain MTS-owned equipment and other assets utilized in providing services to MTS, in good condition and in such locations and configurations as to be readily identifiable and transferable back to MTS or its designees in accordance with the provisions of this agreement."

As of May 2024, MTS owned a total fleet of 761 passenger vehicles. A breakdown of these vehicle types and their assigned locations is shown in *Table 3-8*.

Table 3-8: MTS Revenue Fleet by Type and Assignment

Vehicle Type	Total	IAD	KMD	SBD	ECD	CPD
40-Foot Transit Bus (CNG)	439	93	68	215	63	
40-Foot Transit Bus (BEB)	13	7	2	2	2	
45-Foot Over-the-Road Bus (CNG)	24				24	
60-Foot Articulated Transit Bus (CNG)	116	44	45	27		
60-Foot Articulated Transit Bus (BEB)	12			12		
Minibus (Propane)	31					31
Cutaway Van (Propane)	106					106
Cutaway Van (Gasoline)	14					14

Non-Revenue Fleet

Non-Revenue Vehicle counts:

- Automobiles: 2
- Trucks and other Rubber Tire Vehicles: 22

The non-revenue vehicle count does not include 160 MTS-leased vehicles primarily utilized by staff of the agency across various support functions. A smaller portion of this leased vehicle fleet is assigned to bus and rail operation functions. These vehicles are leased through Enterprise, an arrangement MTS started 10 years ago which has proven to provide a lower cost of ownership relative to owning these vehicles outright. In accordance with Federal Transit Administration (FTA) instructions, MTS Transit Asset Management Plan leased vehicles are not included since they are not reported to the National Transit Database (NTD).

These non-revenue vehicles include:

- Supervisory and pool vehicles
- Maintenance vehicles
- Security vehicles
- Other administrative vehicles

MTS also has specialized maintenance vehicles across the agency. These vehicles typically have a longer useful life, and due to their specialized nature, make direct purchase a lower cost of ownership. These vehicles include:

- Bus service trucks
- Flatbed trucks

3.4.1 FACILITIES

This category refers to the structures that enclose or support maintenance, operations, administration, and spaces for passengers. Facilities also house specialized equipment that supports the operations and maintenance of the vehicles (for example, fueling and wash facilities).

Maintenance workspaces must accommodate vehicle movement within and around buildings, industrial workflow, and storage. Service facilities may include industrial workspaces similar to maintenance facilities, storage areas, and office spaces.

Passenger facilities are usually focused around spaces for pedestrian movement or waiting areas. Stations provide shelter for employees and customers, and facilities provide shelter for employees, revenue vehicles, and power systems. Stations and passenger facilities are particularly important because they directly impact on the customer experience.

Each of these facilities is owned by MTS. These facility types are described in greater detail below:

- General Purpose Maintenance Facility/Depot – This asset category refers to the five bus maintenance facilities: Imperial Avenue, Kearny Mesa, South Bay, East County and Copley Park. These include the structures used to maintain bus revenue vehicles (for example, heavy duty buses, over-the-road coaches, and paratransit buses), plus operations offices, administrative facilities, operations central control, and central warehouses. Each of these facilities also includes a large yard to store the vehicles when not in service.
- Vehicle Fueling Facility – This asset category refers to specialized fueling stations at the bus maintenance facilities for each fuel type utilized at MTS or its contractor.
- Stations – This asset category refers to structures intended primarily for passengers' use, including bus transfer facilities, rail stations (both elevated and at grade), and customer service facilities.
- Administrative Offices – This asset category refers to stand-alone administrative facilities. This includes the MTS corporate offices in the Mills Building, and the Taxicab Administration building.

Each facility type listed above also encompasses a wide variety of subsystems required for that facility to function appropriately. These subsystems or sub-categories include assets such as:

- Substructure
- Shell
- Interiors
- Conveyance (Elevators and Escalators)
- Plumbing

- HVAC
- Fire Protection
- Electrical
- Equipment (for Administrative and Maintenance Facilities)
- Fare Collection (for Passenger and Parking Facilities)

MTS tracks assets at this subsystem level to ensure the entire facility is kept in a state of good repair.

Transdev responsibilities under the fixed route contract agreement covers the maintenance of all vehicles and related equipment provided by MTS, facility maintenance functions including building and utility repairs, CNG station/electric charging station/above ground diesel tank monitoring and other yard/building housekeeping. No major tenant improvements are the responsibility of Transdev. In addition, Transdev's contract with MTS reflects budget allocations for bus stop maintenance (including signage) as well as managing MTS provided radio systems equipment.

3.5 Finance and Accounting

This section provides an overview of current budgeted positions for finance and accounting at MTS and Transdev and current operating cost metrics (FY2025) for in-house and contract-operated fixed route transit as well and paratransit and minibus.

Staffing

MTS is currently budgeted for 23.5 positions in the CFO unit, including 10 positions with accounting titles, four payroll-related positions, and 8.5 positions for Contract Services monitoring and administration, per the MTS FY 2025 Budget Book. Transdev has one payroll position in its HR unit with no accounting titles for financial reporting within the San Diego operation. These functions are handled according to interviews with contractor staff, after initial local Transdev preparation, at the regional or national level by Transdev corporate staff. Note that MTS contract requirements for reporting requires Transdev to generate and distribute numerous reports that have financial implications regarding contract amounts. These finance-oriented reports, which must be sent to MTS from Transdev no later than the 8th day of the following calendar month, include but are not limited to the following:

- Signed monthly invoice
- General Pass-Through expenses
- Employee expanded pay hours by service type
- Bonus or Penalty
- Revenue Service Mile per hour Escalator/De-Escalator Monthly Calculation

Insourcing of any of the contract services will result in additional financial and accounting workload for MTS employees, which may require an increase in budgeted positions and additional hiring. Conversely, with insourcing would come a reduction in Contract Services monitoring and administration requirements if more or all services are operated in-house. However, given the likely need for additional positions in other

departments under the insourcing scenarios, it may be possible to reallocate some or all of the Contract Services positions and transition staff to new roles.

Operating Costs

A comparison of key cost metrics from the proposed FY 2025 budget is shown in Table 3-9. On the fixed route side, the total costs on a unit cost basis per revenue hour and per revenue mile are significantly lower for Transdev as compared to MTS. This is due to corporate economies of scale with Transdev, lower wages and benefits than MTS, and other factors. Even if the unit costs for in-house fixed route services remained the same under an insourcing scenario (which may be unlikely given the additional functions that would be taken on in-house), there would be a significant cost increase to insourcing fixed route bus service.

Table 3-9: FY2025 Budget Data

FY2025 Budget	MTS Bus (SDTC)	Transdev	
		Fixed Route/Minibus	Paratransit
Passenger Revenue	$21,238,954	$23,398,149	$1,635,542
Passengers per Revenue Hour	22.68	16.81	2.04
Farebox Recovery Rate	17.2%	22.5%	7.5%
Operating Subsidy per Passenger	$5.20	$4.45	$57.37
Total Operating Expenses	$123,665,825	$104,091,181	$21,691,467
Annual Revenue Miles	9,148,475	11,733,477	3,855,929
Total Annual Miles	10,405,466	13,748,027	4,726,604
Revenue Miles as % of Total Miles	87.9%	85.3%	81.6%
Revenue Hours	792,826	1,111,887	178,138
Total Hours	838,765	1,183,430	238,315
Revenue Hours as % of Total Hours	94.5%	94.0%	74.7%
Total Cost per Revenue Mile[3]	$13.52	$8.87	$5.63
Total Cost per Revenue Hour[3]	$155.98	$93.62	$121.80

Fare Collection Processes

The fixed route contract requires the Contractor to probe and vault each bus daily at the South Bay Division, and at least twice per week at the East County Division. Fares collected at the South Bay facility are transported by armored vehicle to the bank five days per week, unless otherwise determined by MTS. Fares collected at the East County facility are transported by armored vehicle to the bank twice per week. MTS requires that the Contractor hire and/or procure its own Armored Transport revenue collection services directly. Rural service is unique in that most vehicles are parked overnight at satellite location miles from the ECD. Fareboxes are probed and vaulted whenever a rural bus returns to the ECD facilities. The Transdev contract requires staffing for all revenue-related positions as specified in Section B.5 (Key Personnel and

[3] SDTC costs per revenue hour and mile do not include recently-ratified wage and benefit increases in the 2025 ATU and IBEW contracts.

Staffing Plan) of the contract. At a minimum, MTS requires a dedicated Revenue Manager/Supervisor who is accountable for revenue systems oversight. This individual is required to work directly with MTS on an on-going basis.

3.6 Procurement

3.6.1 OVERVIEW

Procurement is one area where there is a significant difference between how the public and private sectors acquire goods and services. In the public sector, contracts are awarded through a competitive bidding process. This helps select the best supplier for the job and get the best value. In the private sector, contracts are usually awarded through a negotiation process. This gives organizations more flexibility to negotiate terms and conditions that are more favorable to them.

The specific factors that differ between the public and private sectors include:

- **Legal requirements**: The public sector is subject to laws and regulations governing procurement, while the private sector has more flexibility.
- **Cost management**: The public sector may have stricter cost constraints due to government budgets. However, the private sector also considers costs to achieve profit targets.
- **Technology**: The private sector may prioritize profitability and technology, while the public sector may have other factors driving procurement decisions, such as a more extensive stakeholder base and transparency requirements.
- **Regulatory Framework and Compliance:** Public sector procurement is heavily regulated. Governments impose stringent rules and procedures to ensure accountability, prevent corruption, and promote fair competition. These regulations often include detailed documentation, bidding processes, and compliance with local, national, and international laws. While private-sector procurement also adheres to rules and regulations, the level of oversight is typically less stringent than in the public sector. Private companies have more flexibility to streamline processes and make quick decisions, although they must still adhere to ethical standards and corporate governance principles. Public sector procurement also adds specific % requirements for utilizing disadvantaged, women, and minority-owned businesses for many procurements, and this aspect may be emphasized to a greater degree than private sector procurements. The Minority, Women-Owned Business Enterprise, and Service-Disabled Veteran-Owned Business (M/WBE/SDVOB) Program applies State guidelines. The Disadvantaged Business Enterprise (DBE) Program applies federal guidelines to provide eligible firms with these procurement opportunities.

3.6.2 MTS

There are three methods for procuring goods and services:

Informal Solicitation

When buying goods and services for under $10,000, MTS will often contact vendors for bids by telephone or email rather than advertise. They maintain Bidders Lists and use other sources to locate qualified suppliers.

Invitation for Bid (IFB)

An IFB is used to obtain bids when a contract is competitively bid. Vendors submit bids that are opened in a public meeting at the location, date, and time specified in the IFB. The contract is awarded to the qualified vendor submitting the lowest bid. IFBs are usually for goods or trade services like computer hardware and construction. IFBs over $100,000 are advertised; suppliers on the Bidders List may be notified by mail or telephone.

Request for Proposal (RFP)

MTS will issue an RFP for proposals when a contract is competitively negotiated. A selection committee evaluates the proposals and, based on the selection criteria outlined in the RFP, negotiates with proposers before making a selection and awarding a contract. RFPs are typically for professional services (economic consulting, systems design, management services, architectural and engineering services) and major equipment purchases such as rolling stock.

3.6.3 TRANSDEV

Transdev Criteria for Selecting Vendors

Transdev develops a list of approved vendors who will be invited to participate in a competitive bid process. Vendor selection will be based on, but not limited to, their definition of value. The key components of value include:

- Unit Cost
- Quality
- Total Cost of Ownership
- Service
- Sustainability

Transdev's policy is to award contracts and purchase orders fairly and equitably, consistent with corporate policy, and not to discriminate against any business enterprise, including any owned or operated by women, minority group members, service-disabled veterans, or historically underutilized businesses.

MTS has two primary organizational units to handle procurement and warehouse functions. The Procurement unit is comprised of 16 FTE positions in the FY2025 budget and handles both bus and rail operations supply requirements. This includes procurement specialists, buyers and contract administrators. In addition, a separate organizational unit, Stores, budgets a total of 13 positions (11 storeroom clerks between IAD and KMD and two supervisors) for the Bus operation. This is augmented by two other positions handling inventory planning and forecasting and overall management of the inventory function.

By contrast, the Transdev organization chart reflects a total of three Parts Clerks (two at ECD and one at SBD) as dedicated procurement/inventory budget positions. Presumably, Transdev maintenance personnel based in the San Diego operation are also involved in the entire supply chain process, but like the

arrangement in the area of finance and accounting, it can be inferred that procurement and inventory functions have significant involvement from Transdev regional and national corporate staff.

3.7 Legal

This section summarizes the current legal landscape and obligations participants may have that can impose significant impacts on the potential insourcing of services.

3.7.1 FEDERAL PUBLIC TRANSPORTATION PROTECTIONS

Section 13(c) of the Federal Transit Act[4] requires, as a precondition to any federal financial assistance, that a recipient transit agency provide "fair and equitable" arrangements to protect impacted employees. These protective arrangements must cover six areas:

1. The preservation of rights, privileges and benefits under existing collective bargaining agreements
2. The continuation of collective bargaining rights
3. The protection of individual employees against a worsening of their pensions related to employment
4. Assurances of continued employment to employees of acquired public transportation systems
5. Assurances of priority of employment of employees whose employment is ended or who are laid off
6. Paid training or retraining

The Department of Labor is tasked with certifying that such protective arrangements are in place prior to the issuance of certain federal financial assistance.

The obligations required by Section 13(c) protective arrangements are often implicated when a recipient transit agency contracts out work that had previously been performed by its own employees, especially when the reason for contracting out is to reduce personnel costs. While Section 13(c) obligations can also be implicated when insourcing work that had been previously been contracted out, the risk that a protected area is impacted may be less, because such an action may be less likely to reduce personnel costs. Regardless, there may still be an obligation to recognize existing collective bargaining arrangements and relationships.

A transit agency that violates a protective arrangement may be subject to an order that it cease and desist. In addition, the Department of Labor may effectively block future federal financial assistance until the agency comes into compliance with the protective arrangement.

3.7.2 COLLECTIVE BARGAINING PROCESS

MTS's labor relations are governed by its enabling statute and, in particular, Public Utilities Code sections 120500-120509. MTS's enabling statute gives the State Mediation and Conciliation Service (SMCS), now a subdivision of the California Public Employment Relations Board (PERB), the authority authorized to investigate and resolve questions concerning representation, such as whether a proposed bargaining unit[5]

[4] Section 13(c) is now codified at 49 USC section 5333(b).
[5] A bargaining unit that shares a common interest and are represented by a single employee or labor organization.

is appropriate and whether a majority of employees in that unit desire to be represented for collective bargaining purposes by a particular union. Disputes over SMCS's exercise of that authority can be appealed up the ladder to PERB. When exercising its authority, SMCS is to be guided by federal labor law. Likewise, when deciding disputes over the exercise of that authority, PERB is tasked with applying relevant federal labor law and practice.

As a private sector employer, Transdev's labor relations are governed by the National Labor Relations Act (NLRA) of 1935, as amended. Both MTS's enabling statute and Transdev's jurisdiction under the NLRA, as amended, provide similar obligations. In fact, as noted above, when applying and interpreting MTS's obligations, SCMS and PERB are instructed to look to federal labor law (i.e., the NLRA as amended) for guidance. These obligations included duties to recognize a union if a majority of employees in the bargaining unit desire that representation, honoring and protecting employees statutory rights to engage in protected collective and union activities, and a duty to bargain in good faith with the recognized representative of a bargaining unit. With regard to the duty to recognize a union, a successor employer that assumes the operations of a prior business may have a duty to recognize the union that had previously represented those employees under certain circumstances.

3.7.3 PENSIONS/RETIREMENT PLANS

Both federal and state law significantly regulate and protect employee pension and retirement plans, especially when employee rights under those plans are vested. In addition, the California Public Employees' Retirement law imposes additional obligations on those public agencies that contract with CalPERS for retirement benefits. While MTS employees represented by ATU Local 1309 and Teamsters Local 465 are currently not subject any MTS contract with CalPERS, CalPERS may argue that employees hired after the insourcing of service may be subject to that contract.

MTS employees represented by ATU Local 1309 who were hired on or before November 1, 2012, are covered by a 2% at 55 defined benefit plan. As of October 30, 2024, a total of 141 ATU employees in Local 1309 were covered by the MTS defined benefit plan. 95% or 134 of this total were Bus Operators. ATU represented employees hired after November 1, 2012, are covered by a 401(a) defined contribution plan in which MTS currently contributes 6% of straight time wages and matches 100% of the first 2% of wages contributed by the employee. These employees are not covered by any contract for retirement benefits between MTS and CalPERS. As of October 30, 2024, there are currently 367 employees represented in the defined contribution plan, 352 (96%) of whom are bus operators.

MTS employees represented by IBEW Local 465 (Maintenance Department) who were hired on or before April 28, 2011, are covered by a similar 2% at 55 defined benefit plan.[6] A total of 38 IBEW Local 465 employees were covered under the defined benefit plan, two-thirds of this total are in the Mechanic A and Mechanic C titles.[7] And Employees hired after April 28, 2011, are likewise covered by a similar 401(a) defined contribution plan. The employees are also not covered by any contract for retirement benefits between MTS

[6] One difference between the two MTS defined benefit plans is that the ATU plan caps benefits at 60%, while the IBEW plan caps benefits at 70%.
[7] As of October 30, 2024 data provided by MTS.

and CalPERS. MTS also participates in FICA (Social Security). As of October 30, 2024, there were 133 IBEW-represented employees enrolled in the defined contribution plan, 88 (66%) of whom were in either the Mechanic A or Servicer A titles.

Transdev employees receive retirement benefits through various programs and plans, depending on the terms of their respective collective bargaining agreements. These benefits range from no retirement plan outlined in the collective bargaining agreement, 401(k) plans with voluntary employee contributions that may also include matching employer contributions, to participation in a Teamsters pension trust fund[8], as well as Social Security deductions and contributions.

3.8 Labor & Collective Bargaining Units/Agreements

3.8.1 OVERVIEW

This section summarizes the current status of labor relations among the various parties involved in providing fixed route services. This includes the various collective bargaining units for represented MTS and Transdev employees, which employee or labor organization (i.e. union) represents each unit, whether an existing collective bargaining agreement or memorandum of understanding (MOU) with that union exists, and the term of that agreement. Additionally, this section provides a comparison of the current terms and conditions of employment of represented employees performing that work, including applicable disciplinary procedures, for each title between MTS and Transdev and the different divisions.

As shown in *Table 3-10,* bus operations, maintenance, and supervision workers employed by MTS and Transdev are represented by three unions with four local branches, under nine different collective bargaining agreements (CBA). These three unions are the Amalgamated Transit Union (ATU), the International Brotherhood of Electrical Workers (IBEW), and Teamsters. While specific union representation and CBA terms vary between divisions in some cases, it is also important to note that MTS-employed supervisors and dispatchers are non-represented.

The SDTC fixed route operators, dispatchers, clerks, student operators, part-time operators, and information clerks are represented by ATU Local 1309. The collective bargaining agreement between SDTC and ATU runs from January 1, 2025, through December 31, 2027. The SDTC fixed route employees in its Maintenance Department are represented by IBEW Local 465, with an agreement that runs from January 1, 2025, through December 31, 2027.

Employees hired for fixed route services operating out of the South Bay Division by Transdev are represented in three separate bargaining units by either ATU Local 1309 or Teamsters Local 683. ATU represents non-supervisory dispatchers and road supervisors in a single bargaining unit, with an agreement that is set to expire on June 30, 2026. The Teamsters represent employees in the two other bargaining units. The unit of

[8] Some of the Teamsters bargaining units require employer contributions into the pension trust fund and allow employees to also voluntarily participation in a 401(k) plan.

drivers has a contract that will expire on December 31, 2025. And the mechanics and service workers are in a unit with a contract that expired on December 31, 2023.

Employees hired for fixed route services operating out of the El Cajon Division by Transdev are represented in three separate bargaining units by either ATU Local 1309 or Teamsters Local 683. ATU represents drivers in a single bargaining unit, with an agreement that is set to expire on June 30, 2026. The Teamster represents employees in the two other bargaining units. The unit of mechanics and service workers have a contract that will expire on June 30, 2025. And the road supervisors and dispatchers are in unit with a contract that previously expired on May 31, 2024.

Table 3-10: Union Representation by Division and Job Classification

Org.	Division	Union (& Local)	Bargaining Unit	Term of CBA/MOU
MTS	IAD/KMD	ATU (Local 1309)	Operators, Dispatchers, Clerks, Student Operators, Part-Time Operators, and Information Clerks	1/1/2025 – 12/31/2027[9]
		IBEW (Local 465)	Maintenance Employees	1/1/2025 – 12/31/2027[9]
		Not Represented	Supervisors	--
Transdev	South Bay	ATU (Local 1309)	Road Supervisors and Non-Supervisory Dispatchers	7/1/2023 - 6/30/2026
		Teamsters (Local 683)	Operators	1/1/2023 - 12/31/2025
			Mechanics and Service Workers	1/1/2020 - **12/31/2023** (*Expired*)
	East County	ATU (Local 1309)	Operators	7/1/2023 - 6/30/2026
		Teamsters (Local 683)	Mechanics and Service Workers	7/1/2022 - 6/30/2025
			Road Supervisors and Dispatchers	5/31/2021 - **5/31/2024** (*Expired*)
	Copley Park	ATU (Local 1309)	Dispatchers, Schedulers, Office Clerks, and Road Supervisors	5/21/2021 - 5/20/2025
		Teamsters (Local 542)	Drivers, Technicians (Maintenance), Utility Workers, and Reservationists	6/26/2023 - 3/31/2026

[9] New contracts ratified by MTS Board in December 2024.

3.8.2 KEY DIFFERENCES/CONSIDERATIONS BY JOB TITLE

This section summarizes key similarities and differences between MTS and Transdev employees by job title for the various bargaining units. The summaries in *Table 3-11*,*Table* 3-12, and *Table* 3-13 focus on the three job titles or employee groups most central to the insourcing question: bus operators, supervisors and dispatchers, and maintenance staff. Some of these employees' bargaining units can include other titles that are not discussed below.

Table 3-11: MTS vs. Transdev CBAs: Operators

Bus Operators			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Union Representation	ATU 1309	Teamsters 683	ATU 1309
Current Contract Duration	1/1/2025 - 12/31/2027	1/1/2023 - 12/31/2025	7/1/2023 - 6/30/2026
Wages	• Hired *after* 12/16/2021: $27.13-$36.63 (Rates effective 12/29/2024 – 6/27/2026) • Hired *before* 12/16/21: Same top pay of $36.63, but different progression (e.g., reaching top pay after 91 months, vs. 67 for more recent hires)	$21.08 - $29.00	$20.60 - $28.00
Vacation	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours • Accrued on pro rata basis. Unused vacation is cashed out at the end of each vacation year.	• After 1 year: 72 hours • After 2 years: 112 hours • After 3 years: 120 hours • After 7 years: 160 hours • After 10 years: 200 hours • After 15 years: 220 hours • After 20 years: 240 hours • After 25 years: 280 hours • PTO may be cashed out under certain circumstances.	• Year 1: 40 hours • Years 2-4: 80 hours • Years 5-9: 120 hours • Years 10+: 160 hours

Bus Operators			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**

Sick Leave	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
	• Annual accrual increases with years of service:
	  ○ After 2 years: 24 hours
	  ○ After 3 years: 40 hours
	  ○ After 4 years: 48 hours
	  ○ After 5 years: 56 hours
	  ○ After 6 years: 64 hours
	• Sick leave accrual is capped at 600 hours/75 days, with additional days paid back at 50%.
	• Sick leave may be cashed out upon retirement, up to a maximum of 600 hours.
		• Employees awarded 40 hours of earned sick leave on July 1 each year, as frontloaded PTO balance.
		• Employees may use up to 40 hours paid sick leave each year, deducted from PTO balance. No separate sick leave balance.
		• Unused sick leave carries over to next year.
		• Employee will not be compensated for unused Earned Sick Leave upon the employee's termination, resignation, retirement. or other separation from employment.
			• Employees awarded 40 hours on hire date anniversary each year. Employees may use up to 40 hours paid sick leave each year.
			• Up to 60 hours of unused sick leave carries over to next year.
			• Maximum balance of 100 hours

Bus Operators			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Bereavement Leave/Jury Duty	• Bereavement Leave: Up to 5 days off with either 2 or 4 of them paid, based on nature of relationship, for full-time operators; 4 paid half-days for part-time operators with up to one additional unpaid day • Jury Duty: All time served on jury duty, and employees have 10 hours off upon completion of jury duty before returning to work.	• Bereavement: 4 paid days off; 5 total days off; consecutive or non-consecutive • Jury Duty: 15 working days paid	• Bereavement: 3 paid days off; 4 days off if funeral is more than 250 miles from employee's home • Jury Duty: 10 working days paid
Holidays	• Eight hours of holiday pay for up to 12 holidays, depending on the employee's years of service. ○ 0-3 years: 6 holidays ○ 3-5 years: 9 holidays ○ 5+ years: 12 holidays • Work performed on the following holidays to be paid at time and one-half: New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day	6 holidays converted to PTO	8 hours holiday pay on 7 enumerated holidays.
Death Benefit	Employee death benefit of $15,000.	$30,000 life insurance policy	$20,000 life insurance policy
Trainer Pay	$2.00/hour additional	$1.50/hour additional	Not in contract.
Uniforms	Up to $250 uniform credit.	• Supplied by Transdev. • Employee responsible for normal cleaning. • Transdev to replace or provide cleaning if damaged or soiled beyond normal use.	Provided by Transdev, plus $170 annual uniform credit. Cleaning by employee.
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	Passes for employee, spouse, and dependents.	Passes for employee, spouse, and dependents.

Bus Operators			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Retirement	• Defined benefit plan for employees hired on or before November 1, 2012. • 401(a) defined contribution plan for employees hired after November 1, 2012 • SDTC also participates in FICA.	• 401(k) plan • Hourly employer contribution to Teamsters trust fund.	ATU National Pension Plan: Employees may defer up to 20% of compensation, but not to exceed Plan's deferral limitations. 401(k) plan: Transdev will match half of employee's contribution, up to 3% of annual compensation (*i.e.* 3% employee contribution with 1.5% employer match)
Guarantee Hours	8 hrs daily/40 hrs weekly	8 hours/day for 5 days or 10 hours/day for 4 days	8 hours/day for 5 days or 10 hours/day for 4 days
Overtime	• Overtime for hours worked over 40 in a work week. • Paid and unpaid leave time does not count as hours worked for overtime purposes.	• Overtime for hours worked in excess of 40 in a work week. • 5/8 Schedule: Overtime for hours worked over 8 per day • 4/10 schedule: Overtime for hours worked over 10 per day	In accordance with California law (Overtime for hours worked over 40 in a work week)
Consecutive Days Off	Yes	Minimum of 75% of runs have consecutive days off	Minimum of 75% of runs have consecutive days off
Road Reliefs	Yes, by bus or car	Yes, by bus or car	Yes, by bus or car
Report and Clear Time	15 minutes report, 10 minutes clear	15 minutes report, 5 minutes clear	15 minutes report, 5 minutes clear
Run and Time Requirements	• Trippers: max 20% of weekly service hours • Straight runs: min 65% • Day Runs: min 60% Straight • Split Runs: 12-hour Spread max 15%; balance of Split Runs max 11-hr Spread; no 3-piece Split Runs • Extra Board operators restricted to a max of 1 unpaid split	• Straight Runs min 80% • Split Run with spread greater than 2.5 hours add 1 hour pay with maximum of 4 hours	70% Straight Runs 1 hr unpaid Meal period; 10 min paid Rest every 4 hrs Split Runs 12-hour Spread max 50%; balance of Split Runs max 13-hr Spread

Bus Operators			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
	• Split of 1 hour or less for Report or Extra Board operator shall be paid for as continuous time worked.		
Part-Time Employees	• Max 20% of full-time operators • Opportunity to become full-time operators • Paid at full-time student rate • Max 12.5-hour spread	• Max 10% of full-time operators • Max 30 hrs per week	• Max 10% of full-time operators • Max 30 hrs per week
Seniority	• One SDTC-wide seniority list. • Seniority lists also exist by position, with seniority being considered for bidding purposes and, in the event of a reduction in force, by inverse seniority.	• Seniority determined by date of hire. • Seniority used in route bidding process. • Layoffs in accordance with reverse seniority in classification. Junior employees in lower classification may be bumped.	• Seniority begins from date of employment, but seniority lists are prepared by classification. • Layoffs are determined by inverse seniority. • For bidding purposes, there is one seniority list for full-time drivers and a separate one for part-time drivers.
Grievance and Arbitration	Binding arbitration for disagreements over the application or interpretation of the agreement.	The grievance and arbitration procedure results in final and binding arbitration.	The grievance and arbitration procedure results in final and binding arbitration.
Probationary Period	180 days	90 days	90 days

Note: In

Table 3-12 below, MTS supervisors and dispatchers are presented separately, as only the dispatchers are represented (by ATU). Transdev supervisors and dispatchers share CBAs and wage, leave accrual, and other terms at each division.

Table 3-12: MTS vs. Transdev CBAs: Supervisors and Dispatchers

Supervisors & Dispatchers				
Contractual Element	**MTS (IAD/KMD)**		**Transdev Supervisors & Dispatchers**	
	Supervisors	**Dispatchers**	**South Bay**	**East County**
Union Representation	None	ATU 1309	ATU 1309	Teamsters 683
Current Contract Duration	N/A	1/1/2025 - 12/31/2027	7/1/2023 - 6/30/2026	5/31/2021 – 5/31/2024
Wages	$37.89 - $53.81 (Salary Grade 10)	$28.97 - $36.63	$22.74 - $29.25	$23.07 - $26.05
Vacation	• Hire Date: 144 hours • After 3 years: 184 hours • After 10 years: 224 hours • Accrued biweekly • Annual Leave is capped at 500 hours at the end of the calendar year	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours • Accrued on pro rata basis. Unused vacation is cashed out at the end of each vacation year.	• Year 1: 40 hours • Years 2-4: 80 hours • Years 5-9: 120 hours • Years 10+: 160 hours	• Year 1: 40 hours • Years 2-5: 80 hours • Years 6-9: 120 hours • Years 10+: 160 hours

Supervisors & Dispatchers				
Contractual Element	**MTS (IAD/KMD)**		**Transdev Supervisors & Dispatchers**	
	Supervisors	**Dispatchers**	**South Bay**	**East County**

Sick Leave	Coupled with annual leave, see above.	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
		• Annual accrual increases with years of service:
		  ○ After 2 years: 24 hours
		  ○ After 3 years: 40 hours
		  ○ After 4 years: 48 hours
		  ○ After 5 years: 56 hours
		  ○ After 6 years: 64 hours
		• Sick leave accrual is capped at 600 hours/75 days, with additional days paid back at 50%.
		• Sick leave may be cashed out upon retirement, up to a maximum of 600 hours.
			• Employees awarded 56 hours on hire date anniversary each year. Employees may use up to 112 hours paid sick leave each year.
			• Up to 56 hours can be rolled over to the following year with a maximum balance of 112 hours
				• Credited with 40 hours at beginning of each year.
				• Sick leave does not carry over.
				• Payout of 50% of unused sick leave at the end of each year.

Bereavement Leave/Jury Duty	Bereavement Leave: 4 working days paid, depending on nature of relationship. Jury Duty: All time served on jury duty, not to exceed 22 paid days during any 24-month period.	Bereavement Leave: Up to 5 days off with either 2 or 4 of them paid, based on nature of relationship, for full-time operators; 4 paid half-days for part-time operators with up to one additional unpaid day Jury Duty: All time served on jury duty, and employees have 10 hours off upon completion of jury duty before returning to work.	Bereavement: 3 paid days off Jury Duty: Time off for all days served	Bereavement: 3 paid days off Jury Duty: Up to 15 days
Holidays	• 10 paid holidays • 24-hour floating holiday pay credited to be	• Eight hours of holiday pay for up to 12 holidays, depending on the employee's years of service.	7 holidays	7 Holidays

Supervisors & Dispatchers				
Contractual Element	**MTS (IAD/KMD)**		**Transdev Supervisors & Dispatchers**	
	Supervisors	**Dispatchers**	**South Bay**	**East County**
	used by the end of the calendar year • Work performed on holidays will grant either an additional floating holiday to be used by the end of following year, or additional 8 hours paid.	○ 0-3 years: 6 holidays ○ 3-5 years: 9 holidays ○ 5+ years: 12 holidays • Work performed on the following holidays to be paid at time and one-half: New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day		
Death Benefit	Life insurance policy at 2x salary paid by MTS.	Employee death benefit of $15,000.	Life insurance policy at 1x salary provided and paid by Transdev.	$30,000
Trainer Pay	N/A	$2.00/hour additional	$1.50/hour additional	None
Uniforms	Provided by MTS.	Up to $250 uniform credit.	Supplied by Transdev. Cleaning is employee responsibility. Employee responsible for normal cleaning. Transdev to replace or provide cleaning if damaged or soiled beyond normal use.	Provided by Transdev, plus $170 annual uniform credit. Cleaning by employee.

Supervisors & Dispatchers				
Contractual Element	**MTS (IAD/KMD)**		**Transdev Supervisors & Dispatchers**	
	Supervisors	**Dispatchers**	**South Bay**	**East County**
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	• Passes for employee, spouse, and dependents.	Passes for employee, spouse, and dependents.
Retirement	• Defined benefit plan	• Defined benefit plan for employees hired on or before November 1, 2012. • 401(a) defined contribution plan for employees hired after November 1, 2012 SDTC also participates in FICA.	401(k) plan	401(k) plan
Guarantee Hours	Salaried exempt position	8 hours per day for 5 days	Not stated in contract	8 hours per day for 5 days; or 10 hours per day for 4 days
Overtime	Exempt	After 40 weekly hours, at time and one-half	Not stated in contract	After 40 weekly hours, at time and one-half
Consecutive Days Off	*Info not available*.	Dependent upon schedule of chosen work.	Not stated in contract	Not stated in contract
Part-Time Employees	N/A	Not stated in contract	Not stated in contract	Not stated in contract

Supervisors & Dispatchers				
Contractual Element	**MTS (IAD/KMD)**		**Transdev Supervisors & Dispatchers**	
	Supervisors	**Dispatchers**	**South Bay**	**East County**
Seniority	N/A	• One SDTC-wide seniority list. • Seniority lists also exist by position, with seniority being considered for bidding purposes and, in the event of a reduction in force, by inverse seniority.	• Seniority determined by date of hire. • Separate seniority list by classification for bidding purposes. • Layoffs in accordance with reverse seniority.	• Seniority begins from date of employment, but seniority lists are prepared by classification. • Layoff made in reverse seniority, with an employee retaining the right to bump an employee with less seniority in a lower class. • Seniority is used in the bidding process.
Grievance and Arbitration	N/A	Binding arbitration for disagreements over the application or interpretation of the agreement.	The grievance and arbitration procedure results in final and binding arbitration.	The grievance and arbitration procedure results in final and binding arbitration.
Probationary Period	180 days	180 days	60 days	90 days

Table 3-13: MTS vs. Transdev CBAs: Maintenance

Maintenance Employees			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Union Representation	IBEW 465	Teamsters 683	Teamsters 683
Current Contract Duration	1/1/2025 - 12/31/2027	1/1/2020 - 12/31/2023	7/1/2022 - 6/30/2025
Wages	• **Mechanic A**: $44.19 - $44.63 • **Mechanic B**: $41.28 - $41.73 • **Mechanic C**: $29.64 - $39.52 • **Comms. Tech.**: $42.00 - $44.19 • **Storeroom Clerk**: $24.78 - $29.74 • **Servicer A**: $24.18 ($28.69 if assigned sign truck) • **Revenue Tech.**: $44.19 • **Assist. Revenue Tech.**: $29.64 - $39.52 • **Apprentice I**: $29.61 - $41.98 • **Apprentice II**: $40.37 - $41.98 • **Building Mtce. Apprentice**: $29.61 - $44.19 *Note: Wages shown above are 2024 rates with 2025 CBA's 7.0% increase applied.*	• **Mechanic A:** $38.50 ($32.39 first year) • **Mechanic B**: $33.10 ($27.12 first year) • **Mechanic C:** $30.90 ($23.85 first year) • **Service Worker**: $17.80 ($16.75 first year) *Wages as of 1/1/2023*	• **Tech A**: $39.00 • **Tech B**: $37.11 • **Tech C**: $33.74 • **Utility**: $19.20 • **Parts Coordinator**: $22.36 ($23.81 if 10+ years and hired before 2020) • **Building & Grounds Keepers**: $19.50 • **Maintenance Clerks**: $21.25 *Wages as of Jan. 2025*

Maintenance Employees			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Vacation	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours	• First Year: 72 hours • After 1 year: 112 hours • After 3 years: 120 hours • After 7 years: 160 hours • After 10 years: 200 hours • After 15 years: 220 hours • After 20 years: 240 hours • After 25 years: 280 hours • PTO may be cashed out under certain circumstances. • Maximum balance of 240 PTO hours; employee may choose to take PTO or be paid out of excess accrual	• Employees may use vacation accrual after one year • Years 1-4: 80 hours • Years 5-9: 120 hours • Years 10+: 160 hours • Maximum balance of twice the annual accrual rate, up to 240 hours. Accrual paused until PTO is used.

Sick Leave	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
	• Annual accrual increases with years of service:
	  ○ After 2 years: 32 hours
	  ○ After 3 years: 48 hours
	  ○ After 4 years: 56 hours
	  ○ After 5 years: 64 hours
	• Sick leave accrual is capped at 1,200 hours/150 days, with additional days paid back at 50%.
	Sick leave may be cashed out upon retirement, up to a maximum of 1,080 hours/135 days.
		• No separate sick leave accrual. Employees granted 40 hours annually to excuse sick absences but must use PTO balance to be paid for it.	• Newly hired employees are allotted 48 hours per year if hired before July 1.
			• Employees hired after July 1 are allotted 24 hours upon employment.
			• All existing employees get 48 hours of sick leave on January 1 of every year.
			• Sick leave can be used after 90 days and carries over in accordance with California law.
			• Each employee can accumulate up to 80 hours of sick leave carryover from the previous year.

Bereavement Leave/Jury Duty	Bereavement Leave: 4 days paid and 1 work day unpaid for death in immediate family Jury Duty: All time served on jury duty	Bereavement Leave: 4 days Jury Duty: Up to 15 days paid	Bereavement: 4 paid days off; 5 total days off; consecutive or non-consecutive Jury Duty: 15 working days paid

Maintenance Employees			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
Holidays	8 holidays + 4 floating Holidays	7 holidays converted to PTO	8 hours holiday pay on 7 enumerated holidays
Death Benefit	• Begins at $2,800 for 1-2 years of service • Incremental increases until the 9th year, when it reaches $6,000 • $50,000 after 9 years	$30,000 life insurance policy	$30,000 life insurance policy
Trainer Pay/Differential Pay	• 10% above normal pay for training or mentoring • Shift Workers will receive a $0.25/hour shift differential for hours worked on eligible shifts.	Not in contract.	Not in contract.
Uniforms	SDTC pays entire cost of uniforms and laundering.	• Supplied and laundered by Transdev • $75 shoe allowance for service workers	• Supplied and maintained by Transdev. • $100 shoe allowance for service workers, parts coordinators, buildings and grounds keepers, and maintenance clerks
Tool Allowance	$1,000 in both first and last year of contract (on 7/1/22 and 7/1/24)	• A Mechanic: $475 • B Mechanic: $425 • C Mechanic: $400 • Tool insurance paid by Transdev	• A Mechanic: $475 • B Mechanic: $425 • C Mechanic: $400 • Tool insurance paid by Transdev • Tool allowance will be increased on the same day to match South Bay if it changes for that division
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	Passes for employee, spouse, and dependents	Passes for employee, spouse, and dependents
Retirement	• Defined benefit plan for employees hired on or before April 28, 2011.	• 401(k) plan • Hourly employer contribution to Teamsters trust fund.	• 401(k) plan • Hourly employer contribution to Teamsters trust fund.

Maintenance Employees			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
	• 401(a) defined contribution plan for employees hired after April 28, 2011. • SDTC also participates in FICA		
Guarantee Hours	• Day Workers: 8 hours per day for five consecutive days with 30-min unpaid lunch • Shift Workers: 8.5 hours per day for five consecutive days with 30-min unpaid lunch	8 hrs per day for 5 days; or 10 hours per day for 4 days	8 hrs per day for 5 days; or 10 hours per day for 4 days
Overtime	• Overtime for hours worked in excess of 40 in a workweek. • Double time for work in excess of 12 consecutive hours.	• Overtime for hours worked in excess of 40 in a work week. • 5/8 Schedule: Overtime for hours worked over 8 per day • 4/10 schedule: Overtime for hours worked over 10 per day	• Overtime for hours worked in excess of 40 in a work week. • 5/8 Schedule: Overtime for hours worked over 8 per day • 4/10 schedule: Overtime for hours worked over 10 per day
Consecutive Days Off	Yes	Yes	Not stated in contract.
Part-Time Employees	Not in contract.	• Defined as employee not available to work all assignments/shifts and working less than 30 hours per week • Limited to 10% of full-time headcount, or two part-timers for departments with 20 or fewer employees	Not in contract.
Seniority	• One SDTC-wide seniority list. • Seniority used in layoffs and recalls. Bumping rights to lower classification over employees with less seniority.	• Seniority determined by date of hire. • Separate seniority list by classification. • Layoffs in accordance with reverse seniority. • Seniority used in bidding.	• Seniority begins from date of employment, but seniority lists are prepared by classification. • Layoff made in reverse seniority, with an employee retaining the right to bump an employee with less seniority in a lower class.

Maintenance Employees			
Contractual Element	**MTS**	**Transdev**	
	IAD/KMD	**South Bay Division**	**East County Division**
			• Seniority is used in the bidding process.
Grievance and Arbitration	Binding arbitration for disagreements over the application or interpretation of the agreement.	The grievance and arbitration procedure results in final and binding arbitration.	The grievance and arbitration procedure results in final and binding arbitration.
Probationary Period	• 180 days from date employee begins work. • In the event of a promotion, 90 days from date of promotion.	90 days	90 days

3.8.3 DISCIPLINARY AND APPEALS PROCESS

SDTC

SDTC employees are public employees with a property interest in their positions and can only be released for just cause after appropriate due process has been provided. Probationary employees, however, may be released without cause. Discipline may be appealed through the grievance and arbitration procedure, which results in binding arbitration for both labor agreements. For the ATU labor agreement, an accident appeals committee and procedure exists for the grading the preventability of accidents

Transdev – South Bay

Teamsters (Maintenance and Drivers): Under both Teamsters agreements, upon passage of probation, discipline can only be imposed for cause. Disciplinary actions are subject to the grievance and arbitration procedure contained in the labor agreement. The grievance and arbitration procedure results in final and binding arbitration. Discipline for probationary employees is subject to the grievance and arbitration procedure. An accident review committee exists to determine if accidents were avoidable. SB Teamsters (Drivers & Maintenance) only accrual PTO – They are granted 5 Sick days (40 hrs) per year (to excuse Sick absences). However, they need to use PTO balance if they would like to get paid.

ATU: Under the ATU labor agreement, upon passage of probation, discipline can only be imposed for cause. Disciplinary actions are subject to the grievance and arbitration procedure contained in the labor agreement. The grievance and arbitration procedure results in final and binding arbitration. Discipline for probationary employees is subject to the grievance and arbitration procedure. An accident appeals committee and procedure exists for the grading the preventability of accidents.

Transdev – El Cajon

Teamsters (Mechanics/Service and Road Supervisors/Dispatchers): Under both Teamsters agreements, upon passage of probation, discipline can only be imposed for cause. Disciplinary actions are subject to the grievance and arbitration procedure contained in the labor agreement. The grievance and arbitration procedure results in final and binding arbitration. Discipline for probationary employees is subject to the grievance and arbitration procedure.

ATU: Under the ATU agreement, discipline can only be imposed for cause. Disciplinary actions are subject to the grievance and arbitration procedure contained in the labor agreement. The grievance and arbitration procedure results in final and binding arbitration. Discipline for probationary employees is subject to the grievance and arbitration procedure. An accident appeals committee exists to determine whether an accident was preventable.

3.9 Bus Operations

This section discusses how MTS and Transdev conduct ongoing bus operations. MTS direction and oversight of Transdev contract bus operations seeks to deliver a seamless transit service for the customer with no differentiation between MTS and outsourced services. MTS Contract Services staff conduct daily, weekly, monthly, and quarterly oversight of Transdev management, support, and execution of ongoing service

delivery per their agreement with Transdev. The Contract Services staff seek to have Transdev mimic MTS best practice internal policies, procedures, and protocols to ensure that the customer enjoys the same safe, reliable, courteous, and comfortable mobility experience as on MTS-operated bus service. Nearly all of the 31 performance standards in Transdev's fixed route transit contract with MTS are oriented to achieving these customer and efficient use of resources goals.

3.9.1 SERVICE DELIVERY

MTS and Transdev follow similar practices in daily service delivery.

Dispatching

Both MTS and Transdev have dispatchers during all hours of service at each division. The primary focus for both is the safe and reliable pull-out and turn-in of all scheduled bus transit service. Dispatchers focus on assuring that operators are available for all daily crew schedules (runs), that operators report fit for duty, and that all buses leave the division on time to meet their schedule commitments. They are responsible for daily record keeping using different, but similar in capability, daily operations technology (MTS – Hastus Daily Crew; Transdev – VDS). In addition, Transdev dispatchers are required to submit the daily deviations from scheduled operations through the TransTrack system, which involves separate data entry. All dispatcher staff for both MTS and Transdev are represented.

Both MTS and Transdev have similar processes upon leaving the bus division to check and confirm that all safety, customer-facing, and monitoring systems on the bus are fully functioning. In both operations vehicles with bad order items are exchanged with a properly functioning bus for revenue service. Likewise, both MTS and Transdev have similar turn-in procedures with no significant differences – bus defects and key information are recorded before turning the vehicle over to bus servicing personnel.

Bus Operations Control (BOC)

MTS and Transdev work side-by-side in the Radio Dispatch Center located at IAD with MTS staffing two (2) consoles and Transdev three (3), consistent with the number of routes and volume of service operated by each. All MTS and Transdev operated buses are outfitted with the Apollo system for video monitoring of daily operations while Transdev adds the additional Lytx DriveCam system to support additional oversight and training. MTS's BOC operations supervisory staff are not represented. Supervisory operations staff employed by Transdev are represented.

Road Supervision

Road Supervision at both MTS and Transdev involve similar duties of monitoring service delivery and assuring safe, reliable, and on-time performance, and responding to incidents. While road supervisory staff for Transdev are represented, MTS road supervisors are not.

3.9.2 TRANSIT SCHEDULING

Transit scheduling normally involves a four-step process that includes service, vehicle, and crew scheduling as well as the associated data uploads. Both MTS and Transdev use the Hastus scheduling systems (individually owned and optimized) to ensure full compatibility. The overall process is coordinated by the

MTS Scheduling section in the Operations Department to assure compliance with MTS service plans and operating requirements.

Service Scheduling (Timetable Generation)

MTS prepares all service schedules (timetables) for all routes, both MTS and Transdev operated. MTS is also responsible for maintaining and updating service running times for all routes. MTS provides the service schedules as part of the full operating schedules (timetables and vehicle blocking) to Transdev in a Hastus export file.

Vehicle Scheduling (Blocking)

MTS also builds vehicle assignments from the service timetables for all routes. The vehicle schedules are provided to Transdev as part of the full operating schedules Hastus data file transmittal noted above. Other than under special circumstances Transdev is not permitted to make any changes in the operating schedules and never without express approval of MTS.

Crew Scheduling (Runcutting)

Crew scheduling involves developing daily work assignments for bus operators. The crew scheduling must be tailored to the individual collective bargaining agreement (CBA) for each bus division and involves setting up Hastus differently (work rules and parameters) to assure compliance with each CBA. MTS scheduling sets up their Hastus system and undertakes crew scheduling for IAD and KMD while Transdev does the same with their Hastus system for SBD and ECD.

Data Uploads

When the Crew Scheduling is complete Transdev sends a final Hastus "run file" using a special OIG routine provided by MTS. This run file provides all the necessary information for MTS to upload into the RTMS and to generate the GTFS files for passenger information.

3.10 Maintenance

3.10.1 FLEET MAINTENANCE

Fleet Comparison

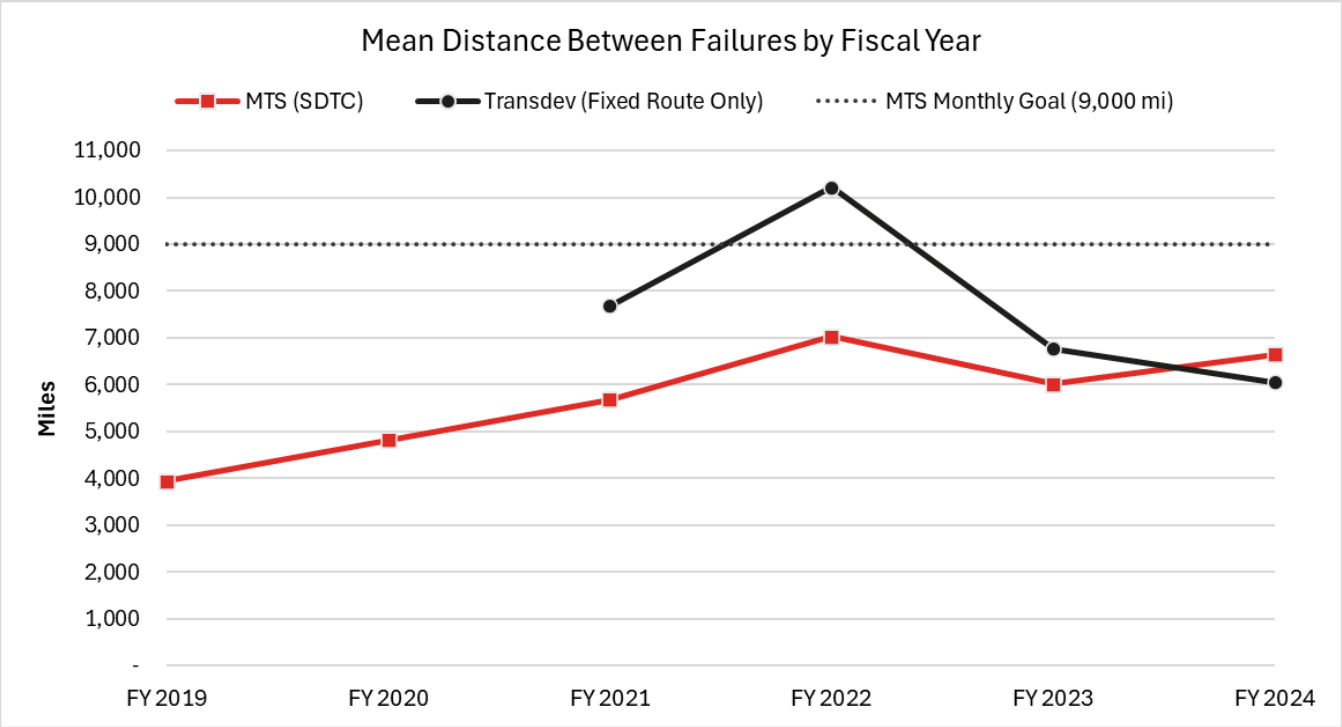
When comparing the fixed route fleets operated by MTS and Transdev in terms of the fixed route service there is a lot of commonality. They both operate 40-foot CNG transit buses, 60-foot articulated CNG transit buses, and 40-foot battery electric transit buses. The only differences in general fleet commonality is at ECD which operates 24 45-foot over-the-road buses and at SBD operating 12 60-foot battery electric articulated buses. In terms of average age, MTS overall operates a slightly older fleet (IAD at 8.72 yrs and KMD at 6.06 years versus SBD at 6.96 years and ECD at 6.73 years). Peak vehicle requirements, exclusive of spare buses, are 197 for MTS and 288 for Transdev.

A comparison of Mean Distance Between Failures (MDBF) also shows commonality, with MTS at 6,645 miles and Transdev at 6,051 miles across FY 2024. These figures are both below MTS's stated goal of 9,000 miles

in the Transdev contract. For Transdev, MDBF below 7,000 miles incurs a $10,000 monthly penalty assessment.

MDBF for Transdev-operated service was formally higher than for MTS, as shown in *Figure 3-1*. Transdev's fixed route MDBF exceeded MTS's by as much as 45% in FY 2022 (10,222 miles for Transdev vs. 7,029 for MTS) but has since declined.

Figure 3-1: MDBF Comparison (FY 2019 – FY 2024)



Repair Procedures

In discussion with management from MTS and Transdev, they both confirmed that they follow the recommended OEM preventive maintenance cycles. MTS and Transdev also both perform supplemental brake inspection every 1,500 miles. Maintenance coverage at MTS is 24/7 with overlapping shifts, with starts at 6:30 am and 6:30 pm being the busiest. Transdev similarly has 24/7 maintenance staffing, with the exception of ECD, which is closed for all operations on Sundays. ECD Sunday service coverage is provided by Transdev out of SBD.

MTS conducts a quarterly audit inspection of 10-20% of the Transdev-assigned fleet.

MTS confirmed that most repairs are done internally, with outside vendor efforts on an exception basis if there is a fleet defect or person power shortage. Outside vendor work for MTS is usually limited to complete engine and transmission re-builds (Cummins and HD). Transdev tends to outsource more, with approval from MTS. Both MTS and Transdev conduct routine farebox and radio repairs internally; they seek vendor assistance when necessary.

MTS has a typical tire rental contract with Goodyear and all tire related items are handled by the tire vendor and staff. Transdev purchases tires as part of a national contract with Continental and maintains all tire related items with their own staff.

MTS performs all body repairs in-house. Transdev usually outsources major body damage, sometimes to MTS KMD.

Maintenance Staffing

There is a clear divergence in the philosophy of maintenance staffing. MTS generally hires maintenance staff as required per budgeted vacancies at the lowest levels and trains them both internally and via a state-sponsored apprentice program. They believe this tends to ensure employee retention and minimizes turnover while training them specifically for transit fleet maintenance. They have two levels of Mechanics, Level A (most senior) and Level C (least senior). They also have specialized Farebox and Radio Technicians.

Transdev tends to hire maintenance staff at the level of the open position, seeking such individuals with existing heavy vehicle skills, believing that this provides mechanics with appropriate training more quickly as needed. They are willing to accept a potentially lower retention level and higher turnover while trying to immediately fill jobs at levels which become vacant. They have three levels of Mechanics, Level A (most senior), Level B, Level C (least senior). They do not use a state-sponsored apprentice program.

MTS and Transdev maintenance employees both go through the same driver training as bus operators to receive a CDL, with the exception of passenger interface and route familiarization.

Both MTS and Transdev have specialized training for operating and maintaining the BEB fleet.

Parts Availability

Both MTS and Transdev have an extensive supply room with most products in stock. Occasionally a specialized part needs to be separately ordered. MTS will assist Transdev on an exception basis. Transdev also selectively obtains parts from other Transdev operations as needed.

3.10.2 FACILITIES

Operating and Maintenance Facilities (Divisions)

Both MTS and Transdev O&M facilities include maintenance bays with portable lifts, CNG fueling and battery charging infrastructure, a bus wash, tire/brake maintenance areas, and a parts room. MTS maintains responsibility for major O&M facility repairs/replacement and capital projects, while Transdev handles day-to-day maintenance including shop equipment, roll-up doors, storm water permits, fire permits, hazmat permits, fuel pumps, generator maintenance, waste disposal, HVAC maintenance, general facility upkeep and janitorial services for SBD and ECD. The contractor must also maintain proper environmental compliance including hazardous materials handling and spill prevention plans.

Passenger Facilities

Maintenance, cleaning, and repair of MTS passenger facilities (77 BRT stations/transit centers and 4,300 bus stops) is managed by MTS Contract Services (four staff) with four bus stop technicians (3 are Transdev staff

and one is MTS) supported by 25 different contractors with a broad range of passenger facility maintenance, repair, and cleaning capabilities.

3.11 HR and Training

3.11.1 RECRUITMENT AND HIRING

MTS Bus Operations

There is a $5,000 new hire sign-on bonus that is paid over three periods: at graduation, after completing six months of work, and after completing one year of driving. MTS still has an issue with people CDL-trained at MTS and then leave for another job requiring a CDL. It is estimated that 10-15% of trainees quit as soon as they get the CDL.

Another incentive to enhance retention is to provide 32 hours of paid time off (PTO) after six months from the hire date. This incentive is not included in the Collective Bargaining Agreement (CBA) but will be added in the next renewal. The existing CBA does not provide PTO accrual until a year after the hire date.

MTS hasn't hired from outside for at least 10 years for dispatchers and supervisors. MTS prefers to hire internally, and drivers have to be employed for a year before they can be evaluated and moved up. Drivers become a Dispatch Clerk working in the dispatch office assigning the work. They are still in the union but get to assign the work. This allows management to assess their work ethic and if they are able to learn and properly use HASTUS for future promotion. Once Dispatch Clerks are promoted to Service Supervisors, they are no longer represented under the CBA as they are considered management employees.

Pre-COVID, MTS had 540 bus operators. This number dropped as low as 462. The goal is to return to 540; however, little progress has been made. For example, at the time of the Insourcing interviews conducted in October 2024, two months prior, MTS had +15 drivers, but at the beginning of the month, the number of drivers was back to where it was at the start of the year.

In October 2024, there were 472 operators. Bonuses and incentives have been insufficient to attract drivers, and employee quality has decreased. They are no longer getting individuals retiring from the military. Former Amazon drivers aren't used to direct supervision, early hours, work rules, etc., and dealing with passengers is a big issue for some.

MTS has a verbal agreement with Transdev that states that they do not hire people with less than a year of working at Transdev. Pay disparity is the biggest reason Transdev bus operators want to move to MTS.

MTS Maintenance

Most mechanics start as Service Workers cleaning and fueling buses. After passing a skills test, a Service Worker is admitted to an apprentice program. While MTS can hire an Apprentice “off the street” provided they pass a skills test, this only occurs if the union cannot provide a sufficient number of Service Workers able to pass the test. This is rare. After four years, the Apprentices become a Journey Mechanic (general) or Communications Technician or, after three years for Body Shop Specialists. Facility Technicians also participate in a three-year apprentice program.

The Journey Mechanic is equivalent to an A mechanic classification and can work on anything. Through the apprentice process, there is a one-to-one ratio of mechanics to apprentices providing mentorship. The result of this process is a very high retention rate in the maintenance area, and most maintenance managers were once mechanics.

Transdev Bus Operations

Transdev is facing the same challenge in hiring and retaining drivers. They recently changed their hiring process. Pre-employment drug screening, criminal check, and a physical examination are conducted before the pre-offer; applicants aren't employees until they pass pre-screening. Beginning in January, the CDL permit process will also occur before issuing a job offer. This change will not likely change the number of applicants who leave for another position once they receive their CDL. They also eliminated the requirement to have two years of professional driving experience.

Transdev has a full-time recruiter who will guide applicants through the process. Applicants must have English proficiency since the CDL permit test is in English. Transdev participates in job fairs as frequently as possible and posts positions on job boards such as Indeed.

One challenge Transdev faces with retention is the lower pay their drivers receive compared to MTS and often other positions requiring a CDL. More recently, they have had drivers leave due to less desirable work schedules. However, this is an industry-wide challenge since work assignments are based on seniority, and newer employees typically are left with the shifts that higher seniority drivers avoid.

Transdev Maintenance

Transdev does not have an apprentice program and has three classifications of mechanics, A, B, and C, that are common in the industry, with A-level mechanics being the highest level of capability and responsibility. They recruit C-level mechanics from local technical schools. While it is possible to advance from C to B and B to A, Transdev often prefers to hire level mechanics from the outside. They participate in virtual job fairs every other week for mechanics and maintain the job postings, ensuring search engine presence. The reason is often that a mechanic does not want to advance once they can work a desirable shift since they go to the bottom of the seniority list for the new position at the time of advancement, resulting in less desirable shifts.

Transdev has more maintenance turnover than MTS due to lower pay and the disincentive to advance due to going from a desirable shift to an undesirable shift.

3.11.2 TRAINING

Effective training, especially for employees in safety-sensitive positions, is critical to delivering high-quality and reliable fixed route transit service. This includes initial training at the beginning of an employee’s tenure with a transit agency and, depending on the position, regular refresher training and corrective instruction following a preventable accident or other infraction and instruction on new equipment/technology. From an insourcing perspective, key considerations related to training include the training process and curriculum, how it is managed, and the program’s effectiveness in equipping employees with the skills and experience they need to perform their jobs and advance the MTS mission. This section provides an overview of the MTS

and Transdev training programs for bus operators and maintenance staff and identifies key differences between them.

Operations

The table below describes the MTS and Transdev training programs for fixed route bus operators. The primary differences between the organizations are the longer overall training duration for MTS operators, MTS staggering classroom training throughout the process, and MTS's ability to conduct CDL examinations themselves.

The key takeaways for insourcing fixed route operations are:

- Ensuring that MTS has sufficient resources to train the additional drivers who would otherwise be hired by the contractor.
- Any operators who are converted from contactor to MTS employment are proficient with all MTS SOPs and directives and perform in line with MTS-trained drivers.
- Additionally, MTS would need to consider what, if any, refresher training would be required upon conversion and accommodate that within existing hiring plans and training resources.

Table 3-14: Transdev vs. MTS Fixed Route Bus Operator Training

	MTS	Transdev (Fixed Route)
Class Sizes and Frequency	• Currently averaging 6 students ○ Formerly starting with 13 (up to 19) • Three-week interval between new classes (i.e., three simultaneous classes) • Formerly six-week interval between new classes	• Currently averaging 8-10 students • Typically three simultaneous classes
Training Duration	• 9 weeks (360 hours)	• 4.5 weeks (180 hours)
Curriculum/ Technology	• In-house training program • Some standardized curriculum used, but fully customized for MTS and San Diego operating environment	• Transdev's Professional Operator Development Program (PODP) – nationally standardized course with ability to add local nuance/context (e.g., no snow in San Diego)
CDL Learners Permit and Licensure	• MTS authorized to administer DMV testing themselves; 6 testers supervised by training manager • Trainees are prepped and sit for CDL permit exam in Week 1 • Upper 90s percent pass rate for written CDL permit exam; employees do not continue training if they fail written exam • CDL testing occurs in Week 5 of testing	• Transdev does not administer CDL exams themselves like MTS • Trainees obtain CDL permit during classroom training
Classroom Training	• Interspersed throughout with behind-the-wheel training • Beginning in Week 2, 1-2 hours every day before road training	• All classroom training is frontloaded in first 48 hours/6 days of training
Road Training	• Begin behind-the-wheel training after obtaining CDL permit (Week 2 and beyond)	• After completion of classroom training and CDL permitting, trainees receive 72 hours of behind-

	MTS	Transdev (Fixed Route)
	• Weeks 2-4: Initial closed-course training and pre-trip inspection training • Weeks 5-7: Skills training, route familiarization, night training	the-wheel training without passengers
Revenue Training	• Weeks 7-9: Revenue operations training with a field trainer • In-service training begins in Week 7 with "split headway" supplemental service from 7 a.m. to 3 p.m. (not part of regularly scheduled runs) • Final week and a half of training includes operating regular runs in full service	• Final portion of training is 56 hours of driving in service, mentored by a master driver
Refresher Training	• Up to 3-4 ride-alongs in first 60 days after graduation • Additional ride-alongs at 90-day mark and at end of probation • Regular ride-alongs with all operators (MTS completed 310 in the year preceding Oct. 2024) • Verification of Transit Training (VTT): Per California DMV, all operators are required to have 8 hours of classroom refresher training annually; concentrated in September-December • Mandatory refresher training for any operator returning after leave of absence for more than 45 days (refresher training plus updates on any new policies)	• Transdev corporate program with required bimonthly safety meetings • Annual ridecheck for every operator (Every two years for bus servicers) • Annual ADA sensitivity/mobility device securement refresher • VTT: staggered quarterly or monthly (as opposed to MTS concentrating VTT in the final months of the year)

Remedial Training	• MTS mandates one-hour training for an unsafe act (i.e., something that could have resulted in a preventable accident but no damage was caused)
	• Operators are shown video and coached as part of remediation for any accident, regardless of severity
	• In the year preceding Oct. 2024, MTS reported 258 remediations:
	  ○ 119 for unsafe acts
	  ○ 106 for accidents
	  ○ 19 for safety violations (management directive)
	  ○ 12 for customer service violations (management directive)
	• 2 for ADA violations
		• All operators with a preventable accident are removed from service for classroom training and a requisite ridecheck
		• Operators are removed from service until video evidence is reviewed to determine accident/incident preventability

Vehicle Maintenance

Training for vehicle maintenance employees differs more significantly between MTS and Transdev than with bus operator training. MTS has a more robust maintenance training program and greater ability to promote from within and maintain and expand their experienced mechanic headcount than Transdev. The latter is more dependent upon hiring experienced mechanics already at the level they wish to fill. This reduces the

number of candidates available to them in the competitive automotive and diesel mechanic field in San Diego County and may prolong vacancies in the Maintenance department.

MTS operates a state-certified joint apprenticeship program with the San Diego Community College District. This includes a four-year program for general mechanics at San Diego Miramar College, a four-year program for communications mechanics at San Diego City College, and a three-year program for body shop mechanics at the Educational Cultural Complex of San Diego College of Continuing Education. MTS has separate Local Education Agency (LEA) agreements with each of them. Around half of the apprentices enter the program with some experience, according to the MTS Training department, and the majority enter the general mechanic apprenticeship program. For specialized training not offered at Miramar College, such as high-voltage training for BEBs, MTS leverages online courses or other resources to expand mechanic training.

Aside from the joint apprenticeship program, MTS also administers other training for maintenance employees. MTS offers a three-year in-house apprenticeship for facilities technicians, who receive one-on-one training and mentorship with a journeyman mechanic. In general, the MTS Training Department reported that their training and apprenticeship programs are successful, most Maintenance Foreman are former Journeyman and were not hired into MTS at the Foreman position, and mechanic attrition is only around one per year.

Transdev's San Diego operation does not have its own state-certified joint apprenticeship program, nor do Transdev hires participate in the MTS program. While some Transdev mechanics likely pursue classroom training on their own, Transdev typically hires maintenance staff at the experience level for the position they wish to fill. Aside from overall competition for mechanics across various fields, this also makes filling vacancies more challenging due to differences in transit bus maintenance (e.g., special tooling and procedures) that require specialized knowledge and experience versus other mechanic positions in the trucking or automative repair industries. Transdev maintenance hires receive CDL training alongside bus operators (not including the revenue training portion). Transdev's Training Department did note that they sometimes hire maintenance employees at a lower level than they wish to fill and train them internally, but this is not the norm.

These differences in the maintenance training programs carry several implications for insourcing of fixed route operations:

- The current CBA for MTS Maintenance employees (IBEW Local 465) requires that all mechanic hires complete the joint apprenticeship program, unless they already hold a journeyman certificate (some training would still be required though). This could create challenges with integrating existing Transdev mechanics into this bargaining unit if they were to be converted to MTS employees.
- Aside from this and any other challenges related to work rules, MTS would also need to set up a structure, and dedicate staff time, to evaluating any converted Transdev mechanics to ensure their training background and current skillsets align with MTS mechanic responsibilities and expectations.

- MTS would need to hire additional mechanics to fill any Transdev vacancies at the time of insourcing, as well as take on greater hiring and training load in general, commensurate with a larger fixed route operation and more revenue vehicles being maintained by MTS employees.

3.12 Key Performance Indicators (KPIs) and Data Reporting

The Transdev fixed route contract requires regular reporting of KPIs and other metrics, in a format specified by MTS to allow for consistency and integration with their own internal and external reporting. *Table 3-15* below lists the Contractor reporting requirements and their frequency.

Table 3-15: Transdev KPI Reporting Requirements

Frequency	Reporting Requirement
Daily	**Radio and Window Dispatching Required Documentation – Daily Activity Logs in TransTrack** • Exceptional operational data, such as accident reports, security incidents, driver incidents, major traffic incidents affecting bus operations, mechanical issues, bus switches, detours, and other relevant information • All wheelchair boarding and alighting locations, routes and times, and any incidents of failed lifts or ramps, failure to board due to full tie-down positions, or other related incidents • Missed service (including bus no., route, miles, and hours affected) • Mechanical failures (with assistance from the maintenance department) • Standby deployment and utilization tracking, including but not limited to: standby location, deployment reason, route covered, hours, and time of day • Weekly standby utilization report • Weekly missed trips report • Weekly road supervision coverage report
	Operations Report • Previous Day PM Operator Coverage • Current AM Operator Coverage • Previous Day Incidents • Rapid Bus Assignments • Extra Service Assignments • Supervisor Schedule/Coverage • Standby Assignments • Operator Attendance and number of call back operators driving • Number of runs covered by extra board or call back operators
	Vehicle Status Report • Current status of all revenue vehicles (e.g. PMIs, major engine and • transmission work, long term body work, etc.). • All vehicles that are out of service
Weekly	**Vehicles Out-of-Service Report** • Weekly report shall be submitted identifying vehicles that have been down for more than ten (10) days. • MTS may require the Contractor to provide weekly reports that were not yet defined in the contract at the time of issuance.
Monthly	**Monthly Invoice**

Frequency	Reporting Requirement

	• A Signed Monthly Invoice detailed page (The Invoice)
	• Revenue Service Mile per Hour Escalator/De-Escalator Monthly Calculation
	• Missed – Added trips Report
	• Bonus or Penalty
	• Transnet II – Pass Through Expenses
	• General Pass-Through Expenses – by Division
	• Engines and Transmissions – South Bay, Rapid and East County
	• Rural Bus Gasoline
	• Station Maintenance – Manpower, Fuel and Utility
	• Stop Technician – hours and rate
	• SB Staffing Levels
	• EC Staffing Levels
	• Monthly Trip Completed by Service Type
	• Employee Expanded Pay Hours by Service Type
	• Monthly Service Reconcile Report by Route:
	  ○ Revenue Miles
	  ○ Revenue Hours

	Vehicles Out-of-Service Report • A report identifying vehicles that have been down for more than 15 days

	Monthly Maintenance Report
	• Division Summary Report
	• Vehicle Mileage Report
	  ○ Monthly Miles
	  ○ Bus Life Miles
	  ○ Total Miles
	  ○ Revenue Vehicle Fuel/Energy Usage Report
	• Roadcalls
	• Bus washing/cleaning report
	• Graffiti removal costs
	  ○ Window repairs
	  ○ Seat replacement
	  ○ Other
	• Stop Tech monthly hours
	• Station Maintenance (power washing) details
	• Proof of purchase (receipts) – fuel
	• Engine and Transmission Support/Invoices
	• Vehicle PMI history / schedule

	Shop Inspection Reports • Monthly shop safety inspection for SBD and ECD with inspection reports signed by designated Facilities Manager
	Monthly Summary Report (for Weekdays/Saturdays/Sundays) • Actual Revenue Miles (“Revenue Miles”) • Actual Bus Miles (“Total Miles”) • Number of Vehicle Service Hours (“Revenue Hours”) • Actual Vehicle Hours (“Total Hours”) • Missed Trip Occurrences • Missed Trip Mileage

Frequency	Reporting Requirement
	• All Totals • Reports will also include the following system data: bus hours, duty hours, expanded driver pay hours, passenger incidents/accidents, vehicle collisions/accidents, mechanical failure information, security data, non-revenue vehicle miles and hours and wheelchair ramp use. • Spreadsheets used by the Contractor to tally Monthly Summary Reports shall be submitted to MTS.
	Employee Separations Report • A report identifying all separated employees and confirmation that all HID cards and employee dependent cards have been collected and/or turned off

3.13 Technology

The purpose of this section of the report is to document MTS's present technological footprint in relation to the possible outsourcing of operational services for fixed routes. Technology is organized into four sections: operations, maintenance, fare collection, and others. Operations focuses on the day-to-day planning, dispatch, and adjustments required to keep the fixed route fleet moving reliably and safely. Maintenance is designed to keep the fleet operational through preventive and required maintenance. Technology for fare collection allows the agency to collect fares, manage the fare policy, and obtain ridership data. The 'other' bucket captures a number of "back office" technologies that are required to support operations. Each subsection captures the current technology, process owner, and technology knowledge owner since these factors will contribute to the potential effort associated with insourcing.

3.13.1 CURRENT TECHNOLOGY STACK

Gaining an understanding of the technologies currently utilized for fixed-route operations is the main objective of this task and interview endeavor. While some of the identified technology is directly used in daily operations, such as Payroll, others are supporting functions, such as CAD/AVL. The table below is an inventory of the technology stack used to conduct or support fixed route operations.

Table 3-16: Full Technology Stack Summary

Application Name	Purpose	IT Contract Owner
Operations		
HASTUS	Transportation scheduling and static GTFS file	MTS
HASTUS	Vehicle assignments, crew assignments, bidding, and dispatching	MTS[10]
Visual Dispatch System (VDS)	Vehicle and crew dispatch	Transdev
Conduent (OrbCAD)	Computer-Aided Dispatch/Automatic Vehicle Location (CAD/AVL)	MTS

[10] Transdev also uses HASTUS for operator runcuts and crew scheduling. Transdev loads the HASTUS runcut into VDS and uses that platform for operator assignments and daily workforce management.

Application Name	Purpose	IT Contract Owner
Conduent	Automatic Passenger Counting	MTS
TransTrack	Incident Management Reporting	MTS
ArcGIS	Geographic Data	MTS
eForce	Security records management and dispatch system	MTS
Apollo System	Onboard Camera System	MTS
Ride Monitor	Rider Counts	MTS
DriveCam	Operator monitoring and training	Transdev
Webrisk	Workers Comp, Accident and Incident Management	Transdev
Maintenance		
Ron Turley Associates (RTA) (Infor/Hexagon EAM)	Asset Management and maintenance	Transdev
SAP	Asset Inventory for financial purposes	MTS
Fleetwatch	Fluid management	MTS
BP Pulse	Zero Emission Bus (ZEB): Charge Management integrated with ChargePoint and ViriCiti	MTS
ChargePoint	Zero Emission Bus (ZEB)—charger stations	MTS
ViriCiti	Zero Emission Bus (ZEB): Telematics for Battery Electric Buses (BEB), Tracks performance, provides alerts and reports	MTS
Webrisk	Workers Comp, Accident and Incident Management	Transdev
Fare Collection		
Pronto	automated system for collecting fares (TVMs, smart cards, mobile devices, etc.).	MTS
GFI	Farebox	MTS
Salesforce	Customer Management for Pronto	MTS
Cash Drop	Cash Management	Transdev
Other		
Cisco VOIP/Call Manager	Phone System	MTS
ADP	Human Resource Management, Benefits, and Payroll	MTS[11]
SAP: CRM	Customer Service Call Center	MTS
SAP: Human Resources	Workflow, Job management, etc.	MTS
SAP: Finance	General Ledger, Accounts Payable, Accounts Receivable, Procurement, Inventory	MTS

[11] Transdev also uses ADP, but just for payroll.

Application Name	Purpose	IT Contract Owner
Visual Dispatch System (VDS)/ADP	Human Resource Management and Payroll	Transdev
JD Edwards - Finance	General Ledger, Accounts Payable, Accounts Receivable, Procurement, Inventory	Transdev
Information Technology Infrastructure	Email, Document Management, Servers, Support	MTS

In the following subsections, the technologies used by area and initial insourcing considerations have been identified. For technologies owned by MTS, insource considerations are highlighted as the potential need for additional staffing to support the added vehicles. For technologies owned and used by Transdev, insource considerations are highlighted around the potential need for migration to existing MTS software, staffing, and potential process development to support the additional vehicles.

3.13.2 OPERATIONS SOFTWARE AND PROCESS

This section's software is essential and used on a daily basis to deliver and oversee services. It will be crucial to take into account the effects of technology, personnel, procedures, and functional knowledge in any insourcing effort. The technology for operations includes scheduling, dispatch, monitoring, Computer-Aided Dispatch (CAD), Automated Vehicle Location (AVL), service adjustments, GTFS files, and incidents.

Table 3-17: Operations Software Summary

Application Name	Purpose	Insourcing Considerations
Hastus	Transportation scheduling and static GTFS file	None
Hastus	Vehicle assignments, crew assignments, bidding, and dispatching.	Staffing and process for the bidding, crew/vehicle assignment, and dispatch functions. Updates to the ADP payroll file for new operators currently managed in Transdev systems (VDS).
Visual Dispatch System (VDS)	Vehicle and crew dispatch	Staffing and process for the bidding, crew/vehicle assignment, and dispatch functions.
Conduent (OrbCAD)	Computer Aided Dispatch 7 Automatic Vehicle Location (CAD/AVL)	Staffing to maintain the hardware on additional vehicles. Staffing to support the monitoring of additional vehicles.
Conduent	Automatic Passenger Counting	None

Application Name	Purpose	Insourcing Considerations
TransTrack	Incident Management Reporting	Staffing to support input of incident data is an insourcing consideration. It will be necessary to develop new business processes to track incidents as part of insourcing.
ArcGIS	Geographic Data	None
eForce	Security records management and dispatch system	None
Apollo System	Onboard Camera System	Staffing to support maintenance and monitoring of additional vehicles.
Ride Monitor	Rider Counts	None
Drive Cam	Operator monitoring and training	None
Webrisk	Workers Comp, Accident and Incident Management	Staffing may need to be considered for insourcing.

Hastus: Scheduling

MTS oversees the creation of transit schedules using Hastus for CAD/AVL, GTFS, and other purposes. There are no insourcing considerations.

Hastus: Bidding and Dispatch

All scheduling, bidding, crew/vehicle assignments, dispatch, and the creation of the static GTFS file are done in Hastus today. While MTS provides the route specific service schedule and associated Vehicle Blocking for Transdev operated services, the Transdev staff currently conducts the associated bidding process, crew assignments i.e. Runcutting, and vehicle assignments outside of Hastus, and then MTS staff manually enters the information into Hastus. This allows Hastus to be the system of record for fleet operations with all schedules, dispatch (crew and vehicle assignments), and operators in one application.

Only MTS employees' operator payroll files are created using Hastus and forwarded to ADP for processing. Transdev also currently manages their operator payroll in ADP.

Visual Dispatch System (VDS): Crew and Vehicle Dispatch

Transdev uses its proprietary VDS solution for operator crewing, timekeeping/attendance, and dispatching. With insourcing, any converted Transdev operators, supervisory staff, or other employees currently using VDS would need to become familiar with HASTUS, RTMS, or any other software used by MTS for similar functions as VDS. There will also be increases to MTS supervisory staff workload, and potentially additional staffing needs, for managing additional operators' crewing, dispatching, and daily timekeeping/attendance data.

Conduent: CAD/AVL

Conduent, known as the Regional Transit Management System (RTMS), is owned and managed by MTS. Transdev does some maintenance and installation of the hardware for vehicles they operate. MTS staff have these skills and processes in place for the maintenance. Additional staffing to support both the maintenance of the extra vehicles and the monitoring of the additional vehicles in service will need to be considered as part of potential insourcing.

Conduent: APC

The Conduent system is integrated with the Automatic Passenger Counters, and the data is owned and managed by MTS. MTS is responsible for cleaning, validating, and reporting on APC data. There are no insourcing considerations. Additional staffing will need to be considered for hardware maintenance and monitoring the additional vehicles as part of insourcing.

TransTrack: Incident Reporting

TransTrack is MTS's operational reporting systems. It is employed for reporting metrics to the NTD. Today MTS owns and creates the reports, but Transdev dispatch does enter information associated with incidents. This would include mechanical malfunctions, missed trips, and more. Staffing to support input of incident data is an insource consideration. As part of insourcing, new business procedures to monitor incidents will need to be created.

ArcGIS: Geographic Data

Planning uses ArcGIS, an ESRI program, to map services, bus stops, and other locations. There are no insource considerations because MTS owns and runs the application.

eForce: Security Management

eForce is an IntelliChoice application used by MTS for managing security personnel. Since MTS owns and runs the application, insource considerations are not present.

Apollo System: Onboard Camera System

Apollo System is an onboard camera from Luminator Technologies to monitor safety and potential driver issues. MTS owns and operates the technology for their fleet, and Transdev shares the same instance for their fleet. Staffing to support maintenance and monitoring of additional vehicles is an insourcing consideration.

Ride Monitor: Rider Counts

MTS developed software to conduct ridership sampling meeting NTD requirements. This is a custom tool developed and managed by MTS. There are no insourcing considerations as it exists on both MTS-operated and Transdev-operated fleets.

Driver Cam: Monitoring and Training

Driver Cam is software used by Transdev to better monitor and train their operators. This goes beyond what is used by MTS. Moving forward with just the Apollo System mentioned above, the Driver Cam is deemed not necessary for potential insourcing.

Webrisk: Workers Comp, Accident and Incident Reporting

Transdev owns and runs Webrisk, an online tool for reporting incidents, accidents, and workers' compensation. When shifting worker compensation to the current MTS solution, there may be a slight staffing requirement that needs to be considered for insourcing.

Fuel Master: Fuel and Fluid Management

Fuel Master is software used by Transdev to manage the fuel and fluids for their vehicles. There is potentially a small staffing need to be considered for insourcing moving the additional vehicles to the current MTS solution.

3.13.3 MAINTENANCE SOFTWARE AND PROCESSES

Maintenance software focuses on the technologies used to keep the rolling stock, facilities, stations, and bus stops in proper working condition. This software is a cornerstone for a Transit Asset management Plan and State of Good Repair. Assets are currently located in two main systems: Ron Turley (formerly Infor and currently Hexagon) and SAP, which is owned and run by MTS. The main function of SAP is to serve as a capital and financial inventory of MTS's operational assets. Ron Turley is used to maintain the fleet with ad-hoc preventative maintenance, work orders, inventory, and some procurement.

Table 3-18: Maintenance Software Summary

Application Name	Purpose	Insourcing Considerations
Ron Turley Associates (RTA) (Infor/Hexagon EAM)	Asset Management and maintenance	Processes, personnel, and technology must change to insource solutions.
SAP	Asset Inventory for financial purposes	Possible technological solution for maintenance and asset management.
Fleetwatch	Fluid management	Possible technological remedy for fluid control.
BP Pulse	Zero Emission Bus (ZEB): Charge Management integrated with ChargePoint and ViriCiti	Insourcing may require consideration of staffing.
ChargePoint	Zero Emission Bus (ZEB): charger stations	None
ViriCiti	Zero Emission Bus (ZEB): Telematics for Battery Electric Buses (BEB), Track performance, provides alerts and reporting	Insourcing may require consideration of staffing.

Ron Turley Associates (RTA): Asset Management and Maintenance

RTA is based upon the Infor/Hexagon EAM solution. RTA is a full suite to manage all the assets associated with the Transdev service. Assets are managed using the State of Good Repair methodology. Vehicle maintenance and preventative maintenance, as well as warranties, fluids, and invoicing, are all handled by RTA. As part of insourcing considerations, all RTA-related personnel, technology, and procedures will need to be transferred to MTS. SAP and Fleetwatch, which are mentioned in this section, may be able to meet the technological requirements, but more research is required.

SAP: Asset Financial Management

SAP is an MTS solution for CRM, finance, and human resources. Currently all MTS-owned assets are in the SAP solution for financial reporting purposes. Instead of the specifics required for an Enterprise Asset Management (EAM) solution, these assets are probably arranged according to their capital costs. Although more module and business requirement analysis is needed, SAP does have an EAM solution that could be used to transfer the current asset maintenance functions from RTA to SAP.

Fleetwatch: Fluid Management

MTS makes use of Fleetwatch, an asset fluid management software application. Fleetwatch is a potential technology for fluid management for assets moved to insourcing to keep processes consistent with MTS practices today.

BP Pulse: Charge Management

The charge management system BP Pulse displays historical and current data by integrating with ChargePoint (charge/consumption data) and ViriCiti (bus data). Although Transdev uses the solution, MTS owns and runs it. For insourcing, a small staffing requirement might need to be taken into account.

ChargePoint: Charging Stations

ChargePoint manages the charging stations for all Battery Electric Buses (BEBs) and software to manage the business rules and status of each charger. MTS manages the contract and software. There are no insourcing considerations.

ViriCiti: Telematics for BEBs

ViciCiti is the telematics software for the BEBs now owned by ChargePoint. The software provides the bus data used to manage the fleet. Although Transdev uses the solution, MTS owns and runs it. For insourcing, a small added staffing requirement might be needed.

3.13.4 FARE COLLECTION

The fare collection solution is the software and hardware used for revenue management, fare collection, and financial reconciliation. Included in this section is the back office fare processing and the front-end mobile application, Ticket Vending Machines, on-vehicle validators, fareboxes, customer service, and

software used for issuing, managing revenue, cash, and fare media. MTS is the owner, operator, and controller of the hardware and software in this section.

Table 3-19: Fare Collection Software Summary

Application Name	Purpose	Insourcing Considerations
Pronto	Automated fare collection system (mobile, smart cards, TVMs, etc.).	Staffing needs to support the maintenance of the validators on the additional vehicles.
GFI	Farebox	Staffing needs to support maintenance of the fareboxes on the additional vehicles. Staffing needs to manage and update business processes associated with the cash collection and revenue reconciliation.
Salesforce	Customer Management for Pronto	None
Cash Drop	Cash Management	Staffing to support cash management will be an insourcing consideration.

Pronto: Fare Collection System

Pronto is an Init fare collection solution that includes mobile ticketing, smart cards, TVMs, and the back office functions. MTS owns the solution, while Init runs it. MTS oversees the customer service center and core operations for both MTS and NCTD. The only consideration for insourcing will be the fare validators. The validators are currently maintained by Transdev as part of the FTEs to maintain the GFI fareboxes. Staffing is required to maintain the validators.

GFI: Fareboxes

GFI are fareboxes and software produced by Genfare. While Transdev employees collect money, maintain the fareboxes, and use the software for cash reconciliation, MTS owns the farebox technology. It will be necessary to consider insourcing staffing for farebox maintenance in order to accommodate the extra vehicles. The daily revenue processing, cash collection, cash reconciliation staff, and business processes will need to be considered for insourcing. Transdev has two FTEs focused on the farebox hardware maintenance and revenue and cash management.

Salesforce: CRM Pronto

Salesforce is the Customer Relationship Management application for Pronto. MTS owns the solution, while Init runs it. There are no insourcing considerations.

Cash Drop: Cash Management

Cash Drop is an application from SecTrans used to manage cash from the fareboxes. Transdev is the owner and operator of Cash Drop. Staffing to support added cash management will be an insourcing consideration and the confirmation of a vendor with software.

3.13.5 OTHER SUPPORTING TECHNOLOGIES

There are various supporting technologies used by MTS and Transdev to support the service. Most of these are back-office applications, but some play critical roles in keeping service moving. Payroll stands out as the most significant application. This section covers areas of Human Resources, Finance, Customer Service (non-fare collection), Safety, and Infrastructure (i.e., email, servers, and phones).

Table 3-20: Other Supporting Software Summary

Application Name	Purpose	Insourcing Considerations
Cisco VOIP/Call Manager	Phone System	None
ADP	Human Resource Management, Benefits, and Payroll	Potentially an additional staffing needed to support the larger staff population during the payroll review process. The Hastus solution will require updates to produce an updated or new payroll file from Hastus to ADP for the new operators associated with insourcing.
SAP:CRM	Customer Service Call Center	None
SAP: Human Resources	Workflow, Job management, etc.	Potential workload increase for tracking additional employees' workflow and job assignments
SAP: Finance	General Ledger, Accounts Payable, Accounts Receivable, Procurement, Inventory	Potential staffing increase for procurement and inventory related to insourcing. Will require adding parts information, ordering rules and procurement rules related to additional fleet associated with insourcing.
Visual Dispatch System (VDS)/ADP	Human Resource Management and Payroll	Will require operators and support staff added to the solution. Potential staffing increase for Human Resource Management and Payroll processing.
JD Edwards: Finance	General Ledger, Accounts Payable, Accounts Receivable, Procurement, Inventory	Insourcing will require data and processes to move to SAP to monitor costs.
Information Technology Infrastructure	Email, Document Management, Servers, Support	None

Cisco: Phone System

The Cisco VOIP and Call Manager are owned and managed by MTS. Transdev uses the MTS-provided Cisco solution. There is no insourcing consideration.

ADP: Payroll

For both Transdev and MTS, ADP serves as the payroll solution. Transdev sends data from the Visual Dispatch System (VDS) and MTS from Hastus. To support the larger operator population during the payroll review process, more staff may be required. The Hastus solution will require updates to produce an updated or new payroll file from Hastus to ADP for the new operators associated with insourcing. This could include new payroll codes. Giro, the Hastus vendor, will be required to provide services to update and configure the file.

MTS also uses ADP for HRIS functions to manage employees and their benefits. It will be necessary to enter and manage all prospective new employees connected to insourcing into ADP. There is a potential staffing increase related to insourcing. ADP will require operators and support staff added to the solution.

SAP: Suite

The SAP solution is multiple suites of modules owned and operated by MTS today. There are three main suites in use today.

- **Customer Relationship Management (CRM):** CRM is used to manage customer complaints. All complaints are currently flowing into the SAP solution. There are no insourcing considerations.
- **Human Resources (HR):** MTS uses SAP HR for supporting work structure/workflow, job assignments, and other similar tasks.
- **Finance:** The finance suite is used to manage MTS's finances, procurement, assets, and inventories, the finance suite consists of several modules. There are a number of areas that have potential insourcing considerations: procurement associated with support for the maintenance of the fleet, inventory associated with maintenance of the fleet, and financial reports for the cost of labor and assets associated with the fleet. There will be a potential staffing increase for procurement and inventory related to insourcing. Parts information, ordering guidelines, and procurement guidelines pertaining to additional fleet connected to insourcing will need to be added to the procurement and inventory modules.
- In addition to these three suites, SAP does have an asset management suite. This is not currently being utilized at MTS but is a consideration to replace RTA.

Visual Dispatch System: Payroll

For processing payroll, Transdev's Visual Dispatch System (VDS) is integrated with ADP. This solution will need to be replaced with existing MTS technology as part of the insourcing consideration. Both SAP and ADP will require updates for additional employees and potential MTS staff to manage the additional workload.

JD Edwards: Finance

Transdev's JD Edwards technology is used to pull data for invoicing and managing finances. The solution has the costs associated with operating services, including labor, materials, maintenance (from RTA), and administrative costs. The data and processes will need to be transferred to the MTS SAP solution as part of insourcing.

Information Technology Infrastructure

MTS provides critical administrative technology services, including email, document management, servers, computers, and the support associated with these systems. According to interviews, MTS provides and supports the infrastructure technologies that Transdev uses today. There are no insourcing considerations.

3.14 Public Relations/Communications/Customer Service

All public relations, communications, and customer service matters are handled centrally by MTS employees. From a customer standpoint, there are no functional differences between in-house and

contract-operated services of the same type and all mobility products are presented under a single MTS brand. MTS manages on-board automatic vehicle announcements for the entire fleet. The MTS Customer Service Department handles all complaints, which are routed to each garage for review and action. Fare-related complaints or refunds are also handled centrally for the Pronto system for both MTS and NCTD. The one exception is with passenger injury claims occurring on board a contract-operated bus, which are addressed through Transdev's corporate legal channels.[12]

Insourcing fixed route operations does not carry significant implications for public relations, communications, or customer service. Any complaint review or correct action currently performed at a Transdev-operated division would fall under the roles and responsibility of MTS employees and any customer-related legal matters currently handled by Transdev would shift to the MTS Legal Department.

4. Paratransit/Minibus

4.1 Service Overview

The operating facility for the MTS Access ADA Paratransit and minibus fixed-route services is located at 7490-7550 Copley Park Place in San Diego, in the Kearny Mesa neighborhood and just over a mile from KMD. The facility is owned by MTS and includes maintenance bays with portable lifts, propane and gasoline fueling infrastructure, a bus wash, daily operations, and administrative offices.

4.1.1 ADA PARATRANSIT SERVICES

The ADA Paratransit service provides origin-to-destination, demand-responsive transportation for ADA-certified passengers throughout the San Diego Metropolitan Transit System service area. This service operates 365 days per year within a 570-square-mile urbanized area and 3,240 square miles of rural territory. Using a fleet of 167 lift-equipped Ford E-450 cutaway vehicles, the service required up to 136 vehicles during weekday peak periods pre-pandemic, with a reduced requirements of 34 vehicles on Saturdays and 30 on Sundays. The service provided approximately 506,000 annual trips pre-pandemic, with projected growth of 3% per year assumed in the contract. About 22% of trips were provided through taxi subcontractors. The service coordinates with the North County Transit District for transfers between systems and maintains strict on-time performance standards within 30-minute pickup windows.

4.1.2 FIXED ROUTE SERVICES (MINIBUS)

The Minibus service operates 14 weekday routes, 12 Saturday routes, and 7 Sunday routes throughout the MTS service area using 31 propane-powered El Dorado National Aero Elite 320 buses. This service requires up to 28 vehicles during weekday peaks, 17 on Saturdays, and 10 on Sundays, providing approximately 92,000 revenue hours and 1.1 million revenue miles annually. This location previously operated the Sorrento Valley Coaster Connection, which was discontinued in 2024 and now operated by NCTD.

[12] Transdev is responsible for passenger liabilities and also vehicle liabilities. Transdev handles all accident claims directly.

4.1.3 SHARED OPERATIONAL REQUIREMENTS

For both service types, the contractor is responsible for comprehensive operations management including vehicle maintenance, operator training and supervision, customer service, paratransit reservations, scheduling, dispatch, and detailed data collection and reporting. The Transdev contract with MTS requires adherence to strict safety protocols, ADA compliance, careful fare collection and reconciliation, vehicle reliability, and maintenance of on-time performance standards. An extensive quality assurance program includes performance metrics with both incentives for exceeding standards and liquidated damages for failing to meet them. The contractor must maintain proper staffing levels, provide road supervision, and ensure all personnel are properly trained and certified. Regular reporting on operational statistics, maintenance activities, safety incidents, and customer feedback is required to document service quality and contract compliance.

4.2 Management

The Copley Park operation management structure is centered around service delivery and contract compliance. At the helm is a General Manager who oversees all contractual and administrative functions while maintaining the critical relationship with MTS. The management team includes an Assistant General Manager who focuses on daily service operations and complaint management, supported by dedicated operations managers for both ADA paratransit and minibus services.

Transdev corporate support is primarily focused on technical aspects such as IT assistance, recruitment support, and Trapeze software troubleshooting. Local management expressed a desire for more hands-on corporate involvement, particularly through on-site visits to better understand operational nuances. The transition from First Transit to Transdev proved challenging for the management team, who often had to learn new procedures through trial and error rather than formal training. This was particularly evident in areas such as employee discipline procedures, recruitment changes, and handbook implementation.

Monthly meetings with MTS provide oversight of performance metrics and operational issues, though day-to-day interaction is limited primarily to customer service matters and specific operational concerns. The management team takes pride in their ability to work collaboratively across departments, particularly during challenging situations, though they note that current staffing levels often require managers to perform front-line duties such as dispatch coverage.

The organization appears to have good backup coverage with at least two designated backups for each position. There's a clear distinction between paratransit and fixed-route minibus operations, with dedicated managers for each service type. The structure emphasizes strong financial controls and reporting, particularly around month-end processes and MTS contractual requirements. Below is a summary of the key management and support positions and their responsibilities at the Copley facility:

4.2.1 SENIOR MANAGEMENT

General Manager	Assistant General Manager
- Overall responsibility for contract management and daily operations - Handles Step 2 employee grievances - Oversees month-end billing and reporting - *Backup: Assistant GM & Regional Manager*	- Assists GM and handles daily operations - Coordinates PRONTO system issues with MTS - Handles Step 1 grievances - *Backup: General Manager & Operations Manager – Minibus Fixed Route*

4.2.2 OPERATIONS MANAGEMENT

Operations Manager - Paratransit	PM Operations Manager
- Oversees paratransit driver operations - Manages attendance and vacation requests - Handles paratransit complaint analysis and reporting - *Backup: PM Operations Manager & Assistant General Manager*	- Manages evening operations - Oversees driver documentation and compliance - Handles TT Pilot Program - Coordinates with customer service on FMLA/LOA - *Backup: Operations Manager- Paratransit & Operations Manager – Minibus Fixed Route*
Operations Manager – Minibus Fixed Route - Manages fixed-route operations - Handles scheduling, missed trips tracking - Manages PTO and discipline processes - *Backup: Assistant GM & PM Operations Manager*	

4.2.3 SUPPORT MANAGEMENT

Safety Manager	Maintenance Manager
- Manages safety programs and training - Manages employee onboarding - Oversees accident investigations - Handles drug/alcohol program - *Backup: Lead Trainer & General Manager*	- Oversees fleet maintenance - Manages maintenance personnel - Handles Step 1 grievances for maintenance - *Backup: Lead Mechanic & General Manager*

4.2.4 DEPARTMENT SUPERVISORS

Dispatch Supervisor	Call Center Supervisor
- Supervises dispatch operations - Manages dispatcher schedules and training - *Backup: Operations Manager- Minibus Fixed Route & PM Operations Manager*	- Manages customer service and scheduling staff - Oversees phone system and reporting - Compares fixed route service equivalency for paratransit users - *Backup: Assistant GM & PM Operations Manager*

4.2.5 ADMINISTRATIVE OFFICES

The facility has significant space constraints that impact operational efficiency and training capabilities. A critical challenge involves the training and driver facilities building, which attempts to serve multiple functions in a limited space. This building houses six offices but must also accommodate a shared training room, conference room, and drivers' lounge. The multi-use nature of this space creates frequent interruptions during training sessions, as the room serves as a thoroughfare to reach the offices which currently are occupied by Road Supervision, Safety, IT, and Recruiting. The building also has only two restrooms to serve all occupants, creating capacity issues during peak periods and training sessions.

The dispatch office faces similar space constraints. Transdev management has identified the need for expansion to accommodate two additional dispatch positions, which would bring the total to their budgeted level of 10 dispatchers plus a supervisor. The current space limitations affect their ability to properly supervise and manage service delivery, particularly during peak periods.

4.2.6 MANAGEMENT REVIEW KEY FINDINGS

- Paratransit operation requires a specialized Call Center Supervisor. Other management roles are similar to existing MTS positions.
- Vacant positions need to be filled promptly; management staff must currently serve in front line positions during peak periods.
- The space constraints at the facility negatively impact the training and dispatch functions.

4.3 Labor

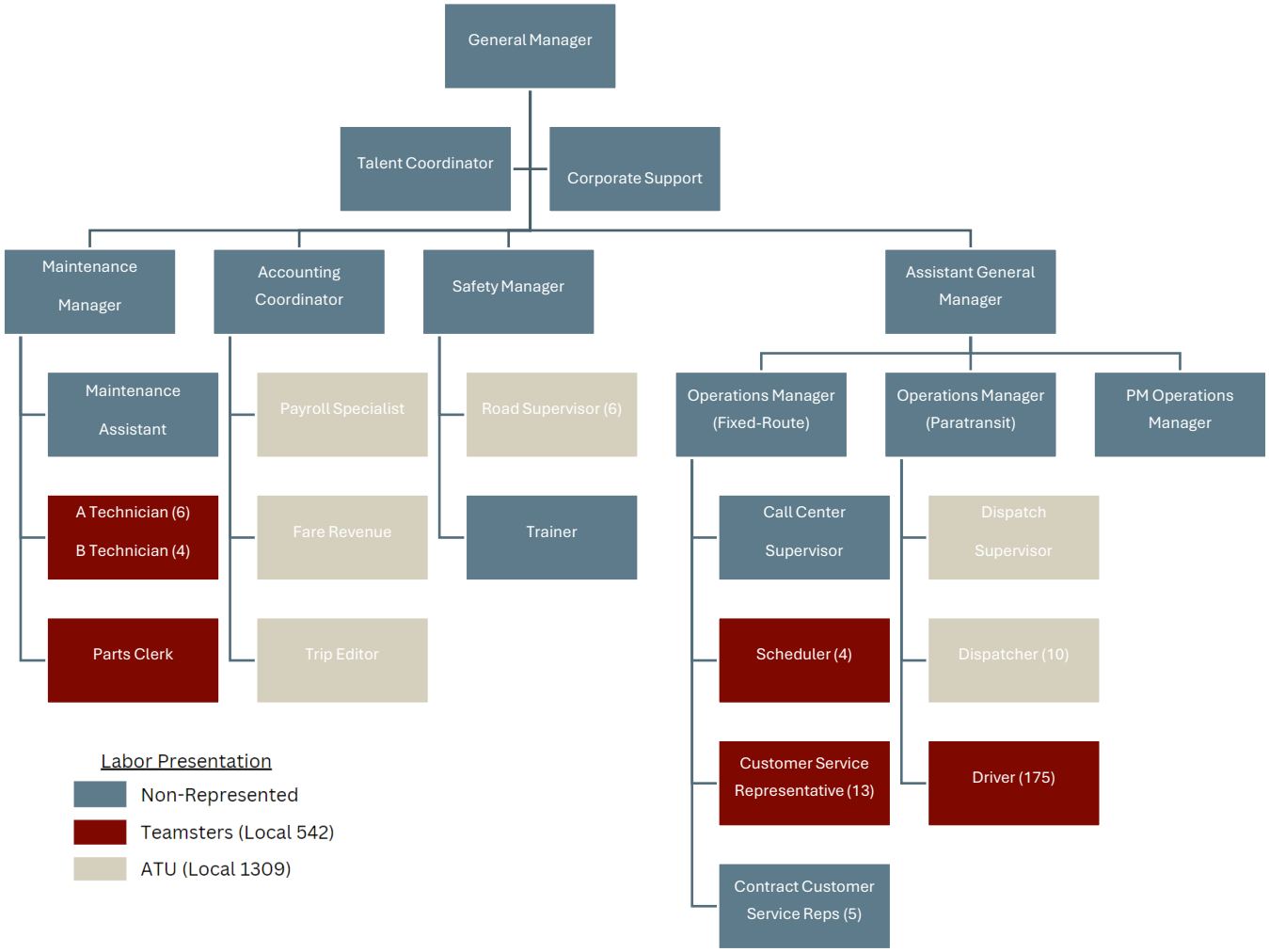
This section outlines the status of labor relations among the various parties involved in providing paratransit services, as well as current terms and conditions of employment of represented employees performing that work, including applicable disciplinary procedures.

4.3.1 OVERVIEW

The Copley Park workforce is divided between two unions, creating a complex labor environment that impacts operational flexibility. The Teamsters Local 542 represents drivers, reservationists, mechanics, and service workers. ATU Local 1309 represents dispatchers/schedulers, road supervisors, and office clerks.

Note that “schedulers” in this context are paratransit schedulers, not the existing fixed-route schedulers that MTS currently employs. *Figure 4-1* outlines the organization chart at the Copley Park facility. These are single positions unless otherwise noted by the number in parentheses. The positions are color coded by labor representation including blue for non-represented, red for Teamsters, and beige for ATU. These figures are budgeted and some positions have not been filled because of reduced service or difficulty in hiring.

Figure 4-1: Copley Park Organizational Chart



4.3.2 KEY DIFFERENCES/CONSIDERATIONS BY JOB TITLE

This section summarizes key similarities and differences between MTS and Transdev employees by job title for the various bargaining units. The summaries focus on the four job titles or employee groups most central to the insourcing question: bus drivers, supervisors/dispatchers/schedulers, reservationists, and maintenance staff. Some of these employees' bargaining units can include other titles that are not discussed below.

Table 4-1: MTS vs. Transdev CBAs: Drivers

Drivers		
Contractual Element	**MTS (N/A FTE)**	**Transdev (175 FTE)**
	IAD/KMD	**Copley Park Division**
Union Representation	ATU 1309	Teamsters 542
Current Contract Duration	1/1/2025 - 12/31/2027	6/26/23 - 3/31/26
Wages	• Hired after 12/16/2021: $27.13-$36.63 (Rates effective 12/29/2024 – 6/27/2026) • Hired before 12/16/21: Same top pay of $36.63, but different progression (e.g., reaching top pay after 91 months, vs. 67 for more recent hires)	$20.80 - $27.50
Vacation	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours • Accrued on pro rata basis. Unused vacation is cashed out at the end of each vacation year.	• Less than 1 yr: 40 hours • 1-3 yrs: 48 hours • 3-6 yrs: 80 hours • 6-10 yrs: 120 hours • 10+ yrs: 160 hours • Part Time: 40 hours

Drivers		
Contractual Element	**MTS (N/A FTE)** **IAD/KMD**	**Transdev (175 FTE)** **Copley Park Division**

Sick Leave	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
	• Annual accrual increases with years of service:
	  ○ After 2 years: 24 hours
	  ○ After 3 years: 40 hours
	  ○ After 4 years: 48 hours
	  ○ After 5 years: 56 hours
	  ○ After 6 years: 64 hours
	• Sick leave accrual is capped at 600 hours/75 days, with additional days paid back at 50%.
	• Sick leave may be cashed out upon retirement, up to a maximum of 600 hours.
		• Part of PTO, shown under vacation

Bereavement Leave/Jury Duty	• Bereavement Leave: Up to 5 days off with either 2 or 4 of them paid, based on nature of relationship, for full-time operators; 4 paid half-days for part-time operators with up to one additional unpaid day • Jury Duty: All time served on jury duty, and employees have 10 hours off upon completion of jury duty before returning to work.	Three workdays paid

Holidays	• Eight hours of holiday pay for up to 12 holidays, depending on the employee's years of service.
	  ○ 0-3 years: 6 holidays
	  ○ 3-5 years: 9 holidays
	  ○ 5+ years: 12 holidays
	• Work performed on the following holidays to be paid at time and one-half: New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day
		Six paid holidays (10 holidays for employees classified as Technicians prior to 8/1/2009)

Death Benefit	Employee death benefit of $15,000.	Transdev-paid life insurance plan. Benefit amount not stated in agreement.

Drivers		
Contractual Element	**MTS (N/A FTE)**	**Transdev (175 FTE)**
	IAD/KMD	**Copley Park Division**
Trainer Pay	$2.00/hour additional	• $1.00/hour additional for behind the wheel training or mentoring • $0.25/hour additional if a trainee is shadowing/riding along with the operator (not applicable if the $1.00 premium is in effect)
Uniforms	Up to $250 uniform credit.	• Supplied by Transdev. • Employee responsible for normal cleaning. • Transdev to replace or provide cleaning if damaged or soiled beyond normal use.
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	Passes for employee, spouse, and dependents.
Retirement	• Defined benefit plan for employees hired on or before November 1, 2012. • 401(a) defined contribution plan for employees hired after November 1, 2012 • SDTC also participates in FICA.	Voluntary payroll deduction into a 401(k) plan. Transdev to provide 50% match of employee contribution up to 6%. (3% match)
Guarantee Hours	8 hrs daily/40 hrs weekly	6 hours per day for full-time and 4 hours per day for part-time.
Overtime	• Overtime for hours worked over 40 in a work week. • Paid and unpaid leave time does not count as hours worked for overtime purposes.	Time and a half after 40 hours per week, or 8 hours per day for 5-day work week, and after 10 hours per day for 4-day work week
Consecutive Days Off	Yes	No mention in agreement
Road Reliefs	Yes, by bus or car	No mention in agreement
Report and Clear Time	15 minutes report, 10 minutes clear	15 minutes report, 5 minutes clear

Drivers		
Contractual Element	**MTS (N/A FTE)**	**Transdev (175 FTE)**
	IAD/KMD	**Copley Park Division**
Run and Time Requirements	• Trippers: max 20% of weekly service hours • Straight runs: min 65% • Day Runs: min 60% Straight • Split Runs: 12-hour Spread max 15%; balance of Split Runs max 11-hr Spread; no 3-piece Split Runs • Extra Board operators restricted to a max of 1 unpaid split • Split of 1 hour or less for Report or Extra Board operator shall be paid for as continuous time worked.	No mention in agreement
Part-Time Employees	• Max 20% of full-time operators • Opportunity to become full-time operators • Paid at full-time student rate • Max 12.5-hour spread	• Defined as those working fewer than 35 hours per week
Seniority	• One SDTC-wide seniority list. • Seniority lists also exist by position, with seniority being considered for bidding purposes and, in the event of a reduction in force, by inverse seniority.	• Company seniority based on date of initial employment with First Transit. • Classification seniority based on initial time in classification. • Seniority used when considering bidding on schedules, forced overtime, layoffs, and transfers.
Grievance and Arbitration	Binding arbitration for disagreements over the application or interpretation of the agreement.	Final and binding arbitration for violations of union contract.
Probationary Period	180 days	90 days.

Table 4-2: MTS vs. Transdev CBAs: Supervisors, Dispatchers, and Schedulers

Supervisors, Dispatchers, and Schedulers			
Contractual Element	**MTS IAD/KMD (N/A FTE)**		**Transdev (175 FTE)**
	Supervisors	**Dispatchers**	**Copley Park Division**
Union Representation	None	ATU 1309	ATU 1309
Current Contract Duration	N/A	1/1/2025 - 12/31/2027	5/21/2021 - 5/20/2025
Wages	$37.89 - $53.81 (Salary Grade 10)	$28.97 - $36.63	Dispatch/Road Supervisor: $19.24 - $23.40 Scheduler: $19.26
Vacation	• Hire Date: 144 hours • After 3 years: 184 hours • After 10 years: 224 hours • Accrued biweekly • Annual Leave is capped at 500 hours at the end of the calendar year	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours • Accrued on pro rata basis. Unused vacation is cashed out at the end of each vacation year.	• 0 - 2 yrs: 40 hours • 2 - 5 yrs: 80 hours • 5 - 10 yrs: 120 hours • 10+ yrs: 160 hours

Sick Leave	Coupled with annual leave, see above.	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
		• Annual accrual increases with years of service:
		  ○ After 2 years: 24 hours
		  ○ After 3 years: 40 hours
		  ○ After 4 years: 48 hours
		  ○ After 5 years: 56 hours
		  ○ After 6 years: 64 hours
		• Sick leave accrual is capped at 600 hours/75 days, with additional days paid back at 50%.
		• Sick leave may be cashed out upon retirement, up to a maximum of 600 hours.
			• In accordance with the San Diego sick leave ordinance.

Supervisors, Dispatchers, and Schedulers			
Contractual Element	**MTS IAD/KMD (N/A FTE)**		**Transdev (175 FTE)**
	Supervisors	**Dispatchers**	**Copley Park Division**
Bereavement Leave/Jury Duty	Bereavement Leave: 4 working days paid, depending on nature of relationship. Jury Duty: All time served on jury duty, not to exceed 22 paid days during any 24-month period.	Bereavement Leave: Up to 5 days off with either 2 or 4 of them paid, based on nature of relationship, for full-time operators; 4 paid half-days for part-time operators with up to one additional unpaid day Jury Duty: All time served on jury duty, and employees have 10 hours off upon completion of jury duty before returning to work.	Bereavement: Three workdays paid Jury Duty: Up to ten days with pay
Holidays	• 10 paid holidays • 24-hour floating holiday pay credited to be used by the end of the calendar year • Work performed on holidays will grant either an additional floating holiday to be used by the end of following year, or additional 8 hours paid.	• Eight hours of holiday pay for up to 12 holidays, depending on the employee's years of service. ○ 0-3 years: 6 holidays ○ 3-5 years: 9 holidays ○ 5+ years: 12 holidays Work performed on the following holidays to be paid at time and one-half: New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day	80 hours of holiday pay per year
Death Benefit	Life insurance policy at 2x salary paid by MTS.	Employee death benefit of $15,000.	Employee death benefit of $15,000.
Trainer Pay	N/A	$2.00/hour additional	No mention in agreement
Uniforms	Provided by MTS.	Up to $250 uniform credit.	• Supplied by Transdev. • Employee responsible for normal cleaning. • Transdev to replace or provide cleaning if damaged or soiled beyond normal use.
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	Passes for employee, spouse, and dependents.

Supervisors, Dispatchers, and Schedulers			
Contractual Element	**MTS IAD/KMD (N/A FTE)**		**Transdev (175 FTE)**
	Supervisors	**Dispatchers**	**Copley Park Division**
Retirement	• Defined benefit plan	• Defined benefit plan for employees hired on or before November 1, 2012. • 401(a) defined contribution plan for employees hired after November 1, 2012 • SDTC also participates in FICA.	Voluntary payroll deduction into a 401(k) plan. Transdev to provide 50% match of employee contribution up to 6%. (3% match)
Guarantee Hours	Salaried exempt position	8 hours per day for 5 days	No mention in agreement
Overtime	• Exempt	After 40 weekly hours, at time and one-half	In accordance with California law.
Consecutive Days Off	*Info not available*.	Dependent upon schedule of chosen work.	No mention in agreement
Seniority	• N/A	• Not stated in contract	• Company seniority is determined by date employee first hired by First Transit. • Seniority by classification based for bidding purposes. • Layoffs done by reverse seniority.
Grievance and Arbitration	N/A	• One SDTC-wide seniority list. • Seniority lists also exist by position, with seniority being considered for bidding purposes and, in the event of a reduction in force, by inverse seniority.	Binding arbitration for disagreements over the application or interpretation of the agreement.
Probationary Period	N/A	Binding arbitration for disagreements over the application or interpretation of the agreement.	90 calendar days. May be extended for an additional 30 days.

Table 4-3: MTS vs. Transdev CBAs: Reservationists

Reservationist		
Contractual Element	**MTS (0 FTE)**	**Transdev (13 FTE)**
	IAD/KMD	**Copley Park Division**
Union Representation	N/A	Teamsters 542
Current Contract Duration	N/A	6/26/23 - 3/31/26
Wages	N/A	$20.65
Vacation	N/A	• Less than 1 yr: 40 hours • 1-3 yrs: 48 hours • 3-6 yrs: 80 hours • 6-10 yrs: 120 hours • 10+ yrs: 160 hours • Part Time: 40 hours
Sick Leave	N/A	• Part of PTO shown under vacation
Bereavement Leave/Jury Duty	N/A	Three workdays paid
Holidays	N/A	Six paid holidays (10 holidays for employees classified as Technicians prior to 8/1/2009)
Death Benefit	N/A	Transdev-paid life insurance plan. Benefit amount not stated in agreement.
Trainer Pay	N/A	$1.00 additional for training new reservationists.
Uniforms	N/A	• Supplied by Transdev. • Employee responsible for normal cleaning. • Transdev to replace or provide cleaning if damaged or soiled beyond normal use.
Transit Pass	N/A	Passes for employee, spouse, and dependents.
Retirement	N/A	Voluntary payroll deduction into a 401(k) plan. Transdev to provide 50% match of employee contribution up to 6%. (3% match)

Reservationist		
Contractual Element	**MTS (0 FTE)**	**Transdev (13 FTE)**
	IAD/KMD	**Copley Park Division**
Guarantee Hours	N/A	6 hours per day for full-time and 4 hours per day for part-time.
Overtime	N/A	Time and a half after 40 hours per week, or 8 hours per day for 5-day work week, and after 10 hours per day for 4-day work week
Consecutive Days Off	N/A	No mention in agreement
Seniority	N/A	• Company seniority based on date of initial employment with First Transit. • Classification seniority based on initial time in classification. • Seniority used when considering bidding on schedules, forced overtime, layoffs, and transfers.
Grievance and Arbitration	N/A	Binding arbitration for disagreements over the application or interpretation of the agreement.
Probationary Period	N/A	90 calendar days. May be extended for an additional 30 days.

Table 4-4: MTS vs. Transdev CBAs: Maintenance

Maintenance		
Contractual Element	**MTS (N/A FTE)** **IAD/KMD**	**Transdev (11 FTE)** **Copley Park Division**
Union Representation	IBEW 465	Teamsters 542
Current Contract Duration	1/1/2022 - 12/31/2024	6/26/23 - 3/31/26
Wages	• **Mechanic A**: $41.30 - $41.71 • **Mechanic B**: $38.58 - $39.00 • **Mechanic C**: $27.70 - $36.93 • **Comms. Tech.**: $39.25 - $41.30 • **Storeroom Clerk**: $23.16 - $27.79 • **Servicer A**: $22.60 ($26.81 if assigned sign truck) • **Revenue Tech.**: $41.30 • **Assist. Revenue Tech.**: $27.70 - $36.93 • **Apprentice I**: $27.67 - $39.23 • **Apprentice II**: $37.73 - $39.23 • **Building Mtce. Apprentice**: $27.67 - $41.30 *Wages as of 4/10/2024*	**Utility Worker**: $19.50 **Technicians**: $33.25 - $35.00 + bonuses for passing ASE test and receiving master certification
Vacation	• After 1 year: 40 hours • After 2 years: 80 hours • After 5 years: 120 hours • After 10 years: 160 hours	• Less than 1 yr: 40 hours • 1-3 yrs: 48 hours • 3-6 yrs: 80 hours • 6-10 yrs: 120 hours • 10+ yrs: 160 hours • Part Time: 40 hours

Maintenance		
Contractual Element	**MTS (N/A FTE)** **IAD/KMD**	**Transdev (11 FTE)** **Copley Park Division**

Sick Leave	• Employees begin with a bank of 40 hours of sick leave that is available for use 90 days after beginning employment.
	• Annual accrual increases with years of service:
	  ○ After 2 years: 32 hours
	  ○ After 3 years: 48 hours
	  ○ After 4 years: 56 hours
	  ○ After 5 years: 64 hours
	• Sick leave accrual is capped at 1,200 hours/150 days, with additional days paid back at 50%.
	Sick leave may be cashed out upon retirement, up to a maximum of 1,080 hours/135 days.
		Part of PTO, shown under vacation

Bereavement Leave/Jury Duty	Bereavement Leave: 4 days Jury Duty: All time served on jury duty	Three workdays paid
Holidays	8 holidays + 4 floating Holidays	No mention in agreement
Death Benefit	• Begins at $2,800 for 1-2 years of service • Incremental increases until the 9th year, when it reaches $6,000 • $50,000 after 9 years	No mention in agreement
Trainer Pay/Differential Pay	• 10% above normal pay for training or mentoring • Shift Workers will receive a $0.25/hour shift differential for hours worked on eligible shifts.	No mention in agreement
Uniforms	SDTC pays entire cost of uniforms and laundering.	• Supplied and laundered by Transdev • $75 shoe allowance for service workers
Tool Allowance	$1,000 in both first and last year of contract (on 7/1/22 and 7/1/24)	No mention in agreement
Transit Pass	• Passes for employee, spouse, and dependents. • Lifetime transit pass for retirees and spouse.	Passes for employee, spouse, and dependents
Retirement	• Defined benefit plan for employees hired on or before April 28, 2011. • 401(a) defined contribution plan for employees hired after April 28, 2011.	No mention in agreement

Maintenance		
Contractual Element	**MTS (N/A FTE)**	**Transdev (11 FTE)**
	IAD/KMD	**Copley Park Division**
	• SDTC also participates in FICA	
Guarantee Hours	• Day Workers: 8 hours per day for five consecutive days with 30-min unpaid lunch • Shift Workers: 8.5 hours per day for five consecutive days with 30-min unpaid lunch	6 hours per day for full-time and 4 hours per day for part-time.
Overtime	• Overtime for hours worked in excess of 40 in a workweek. • Double time for work in excess of 12 consecutive hours.	Time and a half after 40 hours per week, or 8 hours per day
Consecutive Days Off	Yes	No mention in agreement
Part-Time Employees	Not in contract.	No mention in agreement
Seniority	• One SDTC-wide seniority list. • Seniority used in layoffs and recalls. Bumping rights to lower classification over employees with less seniority.	• Company seniority based on date of initial employment with First Transit. • Classification seniority based on initial time in classification. • Seniority used when considering bidding on schedules, forced overtime, layoffs, and transfers.
Grievance and Arbitration	Binding arbitration for disagreements over the application or interpretation of the agreement.	Final and binding arbitration for violations of union contract.
Probationary Period	• 180 days from date employee begins work. • In the event of a promotion, 90 days from date of promotion.	90 days

4.3.3 KEY DIFFERENCES/CONSIDERATIONS

Work Rules

The driver scheduling rules are very flexible for Copley Park compared to the MTS requirements. The Teamsters contract includes a notable provision allowing three "call-outs" per month without disciplinary action, which has led to predictable patterns of absence, particularly around paydays. This impacts service delivery and requires careful management of extraboard staffing. In contrast, the ATU employees operate under a point system for attendance, with 10 points per month leading to progressive discipline, which management indicates has been more effective at controlling attendance issues.

The ATU contract also limits operational flexibility through restrictions on shift rebidding, which can only occur twice per year. This has created challenges in adapting to changing service needs, particularly in dispatch operations where current shift patterns do not optimally match service demands.

A significant operational challenge highlighted by contractor management revolves around compliance with Wage Order 9 and labor agreement language regarding driver breaks and maximum work hours. The complexity of paratransit scheduling makes it difficult to ensure consistent break times while maintaining service quality, and management reports this as an ongoing challenge that impacts both operations and labor relations.

Disciplinary and Appeals Process

The First Transit contract with the Teamsters provides that just cause should be the basis for disciplinary action. Probationary employees may be released without cause. Accidents are to be investigated and reviewed by a joint Accident Review Committee before the initiation of disciplinary action arising out of an accident. Disciplinary actions may be appealed through the grievance and arbitration procedure, which can result in final and binding arbitration.

The ATU contract states that no employee shall be disciplined or discharged except for just cause. Probationary employees may be released without cause during their probationary period. Discipline may be appealed through the grievance and arbitration procedure, which results in binding arbitration.

ATU may also release an employee upon the written request by a client (here MTS) pursuant to a revenue contract where the client retains the right to approve all employees performing work under the contract. Such an action is not appealable through the grievance and arbitration procedure.[13]

4.3.4 LABOR REVIEW KEY FINDINGS

- The Teamster and ATU agreements for Copley Park employees have lower wages and benefits than similar MTS positions.

[13] MTS can request that a contract employee (e.g., Transdev driver) be removed from the MTS contract, but MTS does not weigh in on employment status (e.g., recommending termination). Employment status is at the discretion of contractor and MTS is not a 'joint employer' with any of its contractors.

- There are paratransit-specific positions, including reservationist and paratransit scheduler which do not have similar positions at MTS.
- Paratransit operators require more flexible scheduling terms than fixed-route operators because of the more variable nature of the trips day-to-day.
- Wage Order 9 compliance takes time for management staff to monitor, and it is difficult to schedule regular break times based on the variable nature of paratransit service.
- Bidding for support position shifts such as reservationist, dispatcher, and road supervisor should be done more frequently to allow for management to address changes in paratransit trip demand.

4.4 Operations

4.4.1 RESERVATIONS

The reservations department operates as the primary customer interface for the paratransit service, handling trip booking and customer service functions seven days a week from 8:00 AM to 5:00 PM. The department operates with a hybrid staffing model, combining 13 local reservationists with 4 remote agents through CCSI in Mexico City. This arrangement emerged as a response to local hiring challenges during the pandemic, though management expressed a preference for local staffing due to easier training and supervision.

The department faces several operational challenges, primarily stemming from the extended 10-day booking window implemented in recent years. While intended to provide customers with greater flexibility, this extended window has increased workload and complexity in trip planning. The reservation team also manages subscription trips, which currently comprise about 30% of total trips, below the potential 50% cap. They've developed special handling procedures for high-volume facilities like Casa Pacifica, working through email rather than phone calls to manage large group bookings more efficiently.

There are a couple of unique areas they support which should be considered when determining staffing levels:

- The reservations group is involved with conditional eligibility screening, where they must verify trip eligibility based on various conditions such as distance to bus stops or environmental factors. This process requires coordination with road supervisors for field verification and adds complexity to the reservation process.
- This group also coordinates with MTM on eligibility records. This is currently a manual process where MTM sends a spreadsheet each day and a reservationist needs to add the customers into the Trapeze PASS.
- Lastly, this group is also responsible for registering new users for the Easy Access online booking system which takes lots of manual work and follow up to complete.

4.4.2 DISPATCH/SCHEDULING

The dispatch operation functions as the nerve center of the service, operating with eight dispatchers plus a supervisor, though budgeted for 10 dispatcher positions. The operation maintains five distinct dispatch

stations - four dedicated to paratransit and one to minibus service. This setup allows for specialized attention to each service while maintaining operational flexibility.

Dispatchers utilize a combination of software tools, primarily Trapeze PASS, Genesys Cloud (ACH Phone System), First Analytics and Veolia Vision, to monitor on-time performance, onboard violations, and manage service delivery. First Analytics provides predictive capabilities, allowing dispatchers to identify potential service issues up to four hours in advance, while Vision offers real-time service management capabilities. However, the department reports challenges with the cloud-based Trapeze system, noting periodic performance issues that impact operations. All software products used for Paratransit, except for the radio system, are owned by Transdev.

The dispatch operation shares certain functions with reservations, particularly the management of the ride status queue, which transitions to dispatch during non-reservation hours. A significant challenge involves the tracking of 12-hour log compliance, which currently falls to management due to staffing constraints.

Minibus Dispatch is monitored through OrbCAD and utilizes a separate radio module which is the same as MTS Bus Operations. Service incidents are documented in real time using TransTrack. All Minibus software systems are owned by MTS.

4.4.3 FIELD SUPERVISION

The field supervision team reports to the Safety Manager and consists of seven road supervisors (though six are budgeted), which is down from a pre-COVID level of 10. The supervisors are based in four geographical zones: San Diego, Poway, Chula Vista, and East County. These supervisors serve as the operation's eyes and ears on the street, conducting driver observations, investigating incidents, and verifying service quality.

The supervisors work across both paratransit and minibus services, providing operational flexibility but also creating challenges in coverage. Their day typically begins with yard pullout supervision, followed by zone coverage and response to service issues. The department has recently lost some technological capabilities, with supervisor vehicles no longer equipped with mobile data terminals for service monitoring, requiring increased reliance on radio and phone communication.

A portion of supervisor time is dedicated to conducting driver evaluations, including 30-60-90 day new hire observations and annual evaluations. The team also facilitates monthly meetings, ensuring each driver receives 12 hours of ongoing training annually.

The field supervisors conduct both desktop and field verification for conditional eligibility determinations, physically assessing locations to verify accessibility and distance claims. Staff indicated that this work takes approximately one full-time employee to complete.

4.4.4 VEHICLE OPERATIONS

Vehicle operations represent the largest staffing component of the service, with 124 active paratransit drivers (with a contract goal of 178) and 59 minibus drivers (goal of 68). The goal numbers were provided by contractor management and exceed the budgeted number shown in the org chart in *Figure 4-1*. The

operation has recently implemented a cross-training program between services, though management notes that not all drivers are suitable for both services due to vehicle size and service complexity differences.

The operation maintains an extra board operation that varies by day of week, with approximately 16 extra board drivers for paratransit and 15 for minibus on weekdays, reducing to 12 and 7, respectively, on weekends. A volunteer list system helps cover known open work, though last-minute callouts remain a significant challenge, particularly around paydays.

A major operational focus involves compliance with Wage Order 9 and driver hours requirements in the Teamsters labor agreement. The operation has recently implemented a new run cut specifically designed to eliminate split shifts in paratransit, which has shown positive results for driver retention and satisfaction. Management indicated that driver morale has been low since the pandemic.

4.4.5 SAFETY

Safety integrates multiple aspects of risk management and regulatory compliance. The Safety Manager is responsible for the Lytx DriveCam program, though this is currently limited to relief vehicles and this system is owned by Transdev. The Safety Manager and Trainer coordinates drug and alcohol testing, maintains driver qualification files, and manages the overall SMS (Safety Management System) program, providing quarterly reports to MTS.

Accident investigation is also a safety function, with a goal of no more than one preventable accident per month. Staff utilize a combination of video review, field investigation, and driver interviews to determine preventability and identify retraining needs. The safety staff also coordinates the operation's response to regulatory audits and maintains compliance documentation.

4.4.6 OPERATIONS REVIEW KEY FINDINGS

- Wage Order 9 compliance takes time for management staff to monitor, and it is difficult to schedule regular break times based on the variable nature of paratransit service.
- Bidding for support position shifts such as reservationist, dispatcher, and road supervisor should be done more frequently than twice a year to allow for management to address changes in paratransit trip demand.
- Dispatch supervisor and Operations Managers regularly work in dispatch and call center for coverage.
- The CCSI contracted call takers are not necessary for the operation and the operation could just hire additional San Diego-based reservationists instead of utilizing CCSI.
- Road supervisors currently do not have the required technology to effectively monitor service while in the field as MTS Supervisors do.
- The driver levels have been variable since COVID-19, and the actual number of drivers is likely closer to the original contract amounts compared to current levels by the time the service would be transferred to MTS.
- The process for evaluating conditional eligibility trips is a full-time job for one person, currently impacting road supervisor availability for regular duties.
- The process of creating and updating eligibility records takes significant staff time.

- When developing options for MTS insourced operation, the role of subcontracted transportation services from Yellow Taxi or UZURV should be considered when developing driver staffing levels.

4.5 Maintenance

The maintenance department manages a diverse fleet of 173 vehicles, including 121 paratransit vehicles,31 minibus vehicles, and 21 Transdev-owned support vehicles consisting of sedans and ADA accessible minivans. Operating around the clock with three shifts, the department employs 11 technicians of varying skill levels, supported by service workers and a parts clerk.

Most maintenance is performed in-house, with limited outsourcing for specialized services such as drivetrain work, windshield replacement, and body repair. The department maintains Ford certification for warranty work, allowing them to perform most warranty repairs on-site. They utilize the Hexagon EAM software system for maintenance management, tracking both preventive maintenance compliance and repair history. The Hexagon EAM Software is owned by Transdev. Vehicle fueling is currently handled by Operators, while vehicle cleaning and Minibus farebox vaulting is handled by the Maintenance Department utilizing a dedicated team of Utility Workers.

Vehicle Operator Daily Inspection forms are handled electronically (EVIR) through GeoTab for Paratransit and Minibus. Tablets are harnessed onboard each vehicle. Pre- and post-trip inspection forms are automatically transmitted to maintenance for review. Transdev owns the GeoTab software package.

The maintenance operation faces several challenges, including staffing difficulties, particularly finding new mechanics for evening and overnight shifts. They also note challenges with radio system reliability and the age of some technological systems, particularly in the fixed-route fleet. A current challenge involves the integration of new replacement vehicles, which await installation of various systems before they can enter service.

4.5.1 FLEET

The fleet consists of various models and types, primarily used for paratransit services as show in *Table 4-5*. There are 107 Starcraft Allstar buses, measuring 22 feet in length and fueled with propane, which are used for paratransit service. There are 31 El Dorado Aero Elite midsize buses, each 32 feet long and fueled with propane, which are used for Minibus service. The paratransit service also uses 14 Dodge Grand Caravans, which are 17-foot long and are gasoline-fueled.

Table 4-5: Copley Park Revenue Fleet

Make – Model	Type	Length	Fuel	Service	Vehicles
2016 El Dorado Aero Elite	Buses - Midsize	32 ft	Propane	Minibus	31
2016 Starcraft Allstar	Buses – Small	22 ft	Propane	Paratransit	46
2017 Starcraft Allstar	Buses – Small	22 ft	Propane	Paratransit	25
2018 Starcraft Allstar	Buses – Small	22 ft	Propane	Paratransit	36
2019 Dodge Grand Caravan	Autos & Trucks	17 ft	Gas	Paratransit	14

4.5.2 MAINTENANCE FACILITY

This facility includes maintenance bays with portable lifts, propane and gasoline fueling infrastructure, a bus wash, and parts room. MTS maintains responsibility for major facility repairs and capital projects, while Transdev handles day-to-day maintenance including shop equipment, roll-up doors, storm water permits, fire permits, hazmat permits, fuel pumps, generator maintenance, waste disposal, HVAC maintenance, general facility upkeep and janitorial services. The contractor must also maintain proper environmental compliance including hazardous materials handling and spill prevention plans.

4.5.3 MAINTENANCE REVIEW KEY FINDINGS

- The vehicles maintained at this facility almost all utilize a Ford drivetrain. The contractor has become a certified Ford repair facility that can complete warranty repairs.
- In general, the mechanics at the facility were former automobile mechanics that learned cutaway maintenance from existing staff.
- Issues with third-party maintenance of radios can keep a bus out of service for an extended period of time.

4.6 HR and Training

4.6.1 RECRUITMENT AND HIRING

The hiring and training function focuses heavily on new driver recruitment and development, conducting CDL preparation classes every Friday and processing approximately 15 new trainees per month. A significant recent challenge involves extended background check timelines, with the process now taking up to five weeks under the contractor's new provider. The contractor has a dedicated Talent Coordinator position who successfully developed strategies to hire new drivers.

4.6.2 TRAINING

There is one trainer that reports to the Safety Manager who conducts the training. The training program has evolved to include cross-training between paratransit and minibus services, adding eight additional days to the training process. This investment in cross-training provides operational flexibility but must be balanced against the extended time to deploy new drivers. Safety staff also coordinate ongoing training requirements, including annual refresher training and specific retraining in response to incidents or complaints.

4.7 Customer Eligibility and Certification

The eligibility process represents a complex interaction between multiple entities. While MTM handles initial certification, the operation maintains significant responsibility for managing and verifying eligibility information. Daily updates arrive via Excel files from MTM, requiring manual entry into Trapeze.

A time-consuming aspect involves conditional eligibility verification. When customers request trips, reservationists must screen for conditional eligibility factors such as distance to bus stops or environmental conditions. Road supervisors then conduct field verification of these conditions, with results entered Trapeze to automatically screen future trip requests.

4.8 Finance and Accounting

Financial operations encompass a wide range of activities, from daily fare reconciliation to monthly billing preparation for MTS. The Accounting Coordinator also works with multiple subcontractors, including taxi providers and the CCSI call center operation. The contractor is currently transitioning from ADP to a new Transdev payroll system "Mobi", adding temporary complexity to payroll processing.

The accounting team maintains detailed tracking of service hours and miles, reconciling data from multiple systems to ensure accurate billing and reporting. They also manage the liquidated damages reconciliation process and oversee fare collection and reconciliation procedures. The accounting team manages vendors through Transdev Basware AP Software for products ranging from Uniforms, Bus Parts, etc.

4.9 Key Performance Indicators (KPIs) and Data Reporting

4.9.1 PARATRANSIT

Performance management revolves around several key metrics, with on-time performance (target 88%) serving as the primary service quality indicator for paratransit service. Call center metrics also receive significant attention, with goals of 92% of calls answered within one minute and 99% within three minutes, while maintaining abandoned calls below 3%.

Table 4-6 is the list of performance measures and their associated incentives and liquidated damages under the current contract. The operation uses multiple systems to track these metrics, including First Analytics and Vision for real-time performance monitoring, and various reporting tools for historical analysis. Monthly reporting to MTS includes comprehensive service statistics, complaint analysis, and maintenance performance metrics.

Table 4-6: Paratransit Performance Measures, Incentives, and Liquidated Damages

Performance Measure	Incentive	Liquidated Damage
Mean Distance Between Failures- 40,000 miles or greater between mechanical failure	$160 per roadcall when higher than 60,000 miles	$160 per roadcall when lower than 40,000 miles
Customer Service- 0.25 – 0.4% of trips with a valid complaint	$1,000 when lower than 0.25%	$1,500 when greater than 0.41%
Preventable Accidents- Zero per 100K miles	$2,500 when lower than 0.90 and $5,000 when lower than 0.8	$5,000 when greater than 1.12, $7,500 when greater than 1.35, and $10,000 when greater than 1.60
Missed Trips	None	$100 per missed trip
Improper Vehicle Appearance	None	$100 per vehicle not in compliance
Vehicle Maintenance Performance	None	$500 per vehicle not properly maintained, $100 per missed pre-trip, and $100 per vehicle per day exceeding miles between PMI

Performance Measure	Incentive	Liquidated Damage
CHP Inspection- Satisfactory for both vehicle maintenance and driver records	None	$10,000 when rate "unsatisfactory" for either inspection and $15,000 for both
Failure to Report Accident- Must notify MTS within one hour or accident and follow-up in three hours	None	$500 per occurrence when not notified
Failure to Provide Verifiable Billing	None	$5,000 per month after three consecutive months of incorrect data
Data Security	None	$10,000 per occurrence of security breach
Monthly Report- CONTRACTOR shall submit manually tabulated reports on or before the 8th of each month.	None	$200 per day for each day after the 8th of the month that the CONTRACTOR fails to submit a complete, verifiable and accurate report.
Productivity- Boardings per revenue hour	$15,000 more than 2.10 $20,000 more than 2.15 $30,000 more than 2.20 $50,000 more than 2.25	$35,000 less than 2.00 $55,000 less than 1.95 $75,000 less than 1.90 $125,000 less than 1.85
No Shows- Contractor shall achieve a monthly no-show rate of under 5%	$2,000 Per each month no-show rate is below 5%	Any month in which no-shows are greater than 5.0% may carry a damage of $1,000 and $2,000 in which no-shows are greater than 7.5%
Trip Denials: Contractor shall schedule all trips and have no denials.	None	$2,500 per ADA denial
On-Time Window: Contractor shall ensure that all trips are picked up within the established MTS On-Time Performance Window.	None	$5,000 per 1% penalty may be assessed when the OTP Window is below 88%
Call Hold Times: Contractor shall ensure that hold times don't exceed 92% answered within 1:00 min and 99% answered within 3:00 minutes	None	$500.00 for each hour in which average hold times do not exceed; 92% answered within 1:00min 99% answered within 3:00 minutes
Call Staffing: Contractor shall provide sufficient staff and resources to handle the MTS Access reservations and information line call volume.	$1,000 for each month that the number of abandoned calls is less than 3%	$3,000 for each month that abandoned calls exceed 5%
Failure of Vehicle Operators to Maintain Approved Uniform Appearance	None	If a vehicle operator of the Contractor is found to be out of uniform during revenue service, including Contractor's written standards for appearance, MTS will assess $250.00 for each incident.

Performance Measure	Incentive	Liquidated Damage
Fixed-Route Comparability: Contractor shall ensure that the On-Board Time for trips is comparable to fixed route travel time on 90% of all trips.	None	$5,000 per 1% penalty may be assessed when the OBT Window is below 90%

4.9.2 MINIBUS FIXED-ROUTE

The Minibus service operates under a different performance monitoring structure than paratransit. Key performance indicators focus on service delivery reliability, with particular attention paid to missed trips. On-time performance is monitored through OrbCAD/RTMS, with supervisors particularly focused on monitoring running hot (early) which is a significant concern for fixed-route operations.

The operation must report various metrics daily into TransTrack including accidents, road calls, and missed trips. The service faces challenges with construction delays on certain routes and traffic impacts during school hours. Management reported that while missed trips are a concern, particularly when dealing with driver shortages, the fixed-route service generally maintains good on-time performance.

Table 4-7 outlines the performance measures, incentives, and liquidated damages for the Minibus portion of the contract. Similar to paratransit, we have indicated which measures are required to be monitored by FTA, though many of those that are not required still make sense to monitor for good service quality.

Table 4-7: Minibus Performance Measures, Incentives, and Liquidated Damages

Performance Measure	Incentive	Liquidated Damage
Completed Trips- 99.85% of trips completed	None	$240 per trip when exceeding standard
On-Time Performance- 85.01% On-Time (1 min early and 5 min late)	None	$1.00 per timepoint when below standard
Mean Distance Between Failures- 7,000 miles or greater between mechanical failure	$128 per roadcall when higher than 9,000 miles	$128 per roadcall when lower than 7,000 miles
Customer Service- 7-8 valid complaints per 100K boardings	$2,000 when lower than 6 and $1,000 when lower than 7	$1,500 when greater than 8 and $3,000 when greater than 9
Preventable Accidents- Zero per 100K miles	$5,000 when 0	$5,000 when greater than 1.2 and $10,000 when greater than 2.0
CHP Inspection- Satisfactory for both vehicle maintenance and driver records	None	$10,000 when rate “unsatisfactory” for either inspection and $15,000 for both
Failure to Report Accident- Must notify MTS within one hour or accident and follow-up in three hours	None	$500 per occurrence when not notified
Contractor is required to provide all transit services as specified in the agreement	None	$7,425 per day for each day after commencement of this Agreement. Contractor is unable to provide full scope of services specified in this Agreement.

Performance Measure	Incentive	Liquidated Damage
Contractor shall fully, completely, and effectively perform bus maintenance as detailed in Scope of Work.	None	$1,000 per occurrence for the failure to fully, completely, and effectively perform bus maintenance as detailed in Scope of Work.
Contractor shall perform preventative maintenance inspections in a timely manner and in accordance with contract requirements and agreed upon elements of a preventative maintenance inspection.	None	$250 for each time a Preventative Maintenance Inspection (PMI) is late or missed. $2,000 for a pattern of late or missed preventative maintenance inspections over a three-month period of time.
Contractor shall ensure that all Vehicle Operators have a thorough knowledge of all routes.	None	$100 for each time a Vehicle Operator gets lost or goes off route causing passengers delay and inconvenience.
Contractor shall provide to MTS and follow an approved fare collection policy that ensures that revenues are securely transferred and properly accounted for.	None	$450 for each day or each incident that Contractor fails to conform to the approved fare collection procedures.
Contractor shall ensure vehicles in revenue service follow the MTS provided schedule.	None	$150 per incident of a vehicle in revenue service leaves a scheduled time point prior to the scheduled departure time.
Contractor's Vehicle Operators are required to announce all stops identified by MTS as required for compliance with the ADA Act and MTS policy.	None	$500 per occurrence for each incident in which a Vehicle Operator is observed not making a required stop announcement by MTS or its agent(s) when RTMS is not working.
Contractor is required to provide accurate reporting of all data to MTS, including missed mileage.	None	$500 for each incident in which MTS finds that Contractor has inaccurately reported missed mileage, or fails to report a missed trip, or fails to report a mechanical road call. Note that gross, intentional, or willful inaccuracy in reporting may subject Contractor to other damages.

Performance Measure	Incentive	Liquidated Damage
Contractor is required to cover all scheduled service.	None	$750 for each incident of failure to meet pullout due to lack of available ready buses by Contractor or insufficient Vehicle Operators to fill all runs. (May be applied to morning rush hour pull-out, or afternoon or evening pull-out or weekend pull-outs).
Contractor is required to shut off engines at route terminals within required limits.	None	$100 per each incident of failure to shut off engines in excess of three (3) minutes at route terminals.
Proper Pre-Trip vehicle inspections are required	None	$300 per incident of a Contractor employee driving a vehicle without the proper Pre-Trip inspection as required in the MTS agreement Scope of Work per Contractor safety and accountability requirements.

4.10 Technology

The operation relies on a complex ecosystem of technology systems mostly owned by Transdev, each serving specific functions but requiring significant integration effort. Core systems include Trapeze for paratransit scheduling and dispatch, OrbCAD/RTMS for fixed-route operations, and Geotab for vehicle tracking and driver vehicle inspection reporting.

Recent challenges include performance issues with the cloud-based Trapeze system, radio dead zones affecting communication, and tablet connectivity problems in certain areas. Management notes the lack of certain modern features, such as automated IVR for ride status or real-time customer notifications, as areas for potential improvement. The technology landscape also includes specialized systems for specific functions, such as Lytx for driver monitoring, Hexagon for maintenance management, Jobvite for applicant recruitment/ hiring, Webrisk for accident Management and FormFox for Drug and Alcohol Testing.

5. Conclusion

5.1 Key Findings and Considerations

This Existing Condition report provides an overview of key aspects of the MTS bus service operated in-house (San Diego Transit Corporation) and by Transdev, as well as the MTS Access paratransit and fixed route minibus services. Insourcing of any of the three contract-operated services will require significant administrative staff time and likely incur additional costs for MTS. Key findings for consideration include:

- There are a **significant number of collective bargaining agreements** (CBAs) and associated unions across the operating and maintenance job titles and divisions. Consolidating or converting employee bargaining units will necessitate additional effort, especially where contract terms and wages differ between entities (i.e., between MTS employees and a Transdev-employed bargaining unit).
- The **wage scales for represented Transdev employees are lower** than their MTS counterparts, even when performing an identical function or job with the same responsibilities.
- **Maintenance staff training is significantly different between MTS and Transdev.** MTS uses a state apprenticeship program to bring in staff at an entry level. It trains mechanics and supports their ongoing professional development with additional training and mentorship. Transdev hires mechanics with existing heavy vehicle maintenance experience at Mechanic A and Mechanic C levels without specific supplemental training on transit buses. Ensuring common training and skills at each mechanic level (A, B, C) will require extra effort, especially where contract terms and wages differ between entities (i.e., between MTS employees and a Transdev-employed bargaining unit).
- **Fixed route operating costs are much lower for Transdev** on a unit basis (per revenue hour and per revenue mile) than MTS, due to lower wages, shared administrative resources across the corporation, and other factors. This means that it will be more expensive for MTS to operate the same service currently delivered by Transdev.
- Transdev's **administrative costs** for its San Diego operation, based upon shared resources and national corporate participation, **are not totally comparable with MTS**. This limits comparability between the two organization in terms of administrative costs and staffing levels.
- **Fixed route bus services are generally similar in character between MTS and Transdev**. MTS's diligent oversight of the fixed route contract operations and stated goal of providing seamless service that is indistinguishable for most customers (in terms of whether they are riding an MTS-operated or Transdev-operated bus) reduces operational barriers to insourcing fixed route services.
- **Paratransit and minibus are uniquely provided by Transdev**. The Access paratransit operation has some unique positions and expertise that MTS may not currently have among its staff.

5.2 Next Steps

Utilizing the information learned in the existing conditions analysis, the project team will develop the Operational & Administrative Concept Plan. This document will identify the challenges, opportunities, and advantages associated with each of the four scenarios and include a summary of the impacts by organizational area or function to help guide MTS decision making. Next, the team will develop the Implementation Transition Strategy & Schedule. This document will include a detailed implementation plan for each scenario, with strategies that consider all previously identified opportunities and challenges. The last component of the Insourcing Feasibility Study will be the Cost Implications & Impacts Analysis. This phase will include a multi-year cost projection for each scenario, outlining the changes to employee positions, functions, policies, and procedures, along with any known financial risks. These cost projections will be situated relative to contract expirations and identified implementation timelines with contingencies.

6. Appendix

6.1 List of Interviews and Informational Meetings

6.1.1 IN-PERSON INTERVIEWS/MEETINGS

- Imperial Avenue Division (October 23, 2024)
  - Interviews with Management, Operations, Maintenance, , and Transportation Communication and Technology, and Training
  - IAD facility tour and Transportation Manager interview

- Kearny Mesa Division (October 23, 2024)
  - IAD facility tour and Transportation Manager interview

- South Bay Division (October 24, 2024)
  - Interviews with Management, HR, IT, Safety and Training, and Maintenance
  - SBD facility tour and Operations interview

- East County Division (October 24, 2024)
  - Interviews with Operations and Maintenance
  - ECD facility tour

- Copley Park Division (November 14, 2024)
  - Interviews with Management, Reservations, Dispatch, Operations, and Maintenance
  - CPD facility tour

6.1.2 VIRTUAL INTERVIEWS/MEETINGS

- MTS Chief Operating Officer, Director of Contract Services, and Manager of Paratransit & Minibus (August 16, 2024)
- MTS IT Department, with Fare Payment, Finance, and Operations (October 8, 2024)
- MTS Finance Department (October 11, 2024)
- MTS HR Department (October 18, 2024)
- MTS Legal Department (October 31, 2024)
- ATU Local 1309 – South Bay Operators and East County Supervisors/Copley Park Supervisors (November 6-7, 2024)
- Teamsters Local 542 – Copley Park Operators/Reservationists/Utility/Technicians (November 7, 2024)
- Teamsters Local 683 – South Bay Supervisors/Dispatch/Maintenance and East County Operators/Maintenance (December 13, 2024)
- MTS Contract Management Staff – Manager of Paratransit & Minibus, Contract Services Administrators, and Supervisor of Passenger Facilities (January 6 and 8-9, 2025)

- IBEW Local 465 – February 3, 2025

6.2 Transdev Fixed Route Contract Details

6.2.1 SYSTEM OPERATING STANDARDS AND REQUIREMENTS

- Monitoring the condition of bus stops and posting temporary signage
- Contractor's wages and work hours are in accordance with local, county, state, and federal regulations covering such employment.
- The Contractor shall have a phone line available for customer service calls for both the South Bay and East County Division that is available and staffed consistent with MTS information and Trip Planning office hours. It also specifies who should staff it and their responsibilities.
- Contractor's drivers and supervisors shall report all hazardous road and traffic conditions
- Informing MTS of any contacts with governmental agencies or news media
- Incident/Injury/Property Damage Notification.
- Adherence to MTS communication processes and SOPs. These SOPs will be written and provided by MTS.
- The minimum number of non-revenue vehicles the contractor must provide.
- The requirements of a contractor-provided video monitoring system in each supervisor and relief vehicle.
- Maximum age of non-revenue vehicles.
- Prohibition of relief and supervisor vehicles being diesel-fueled.
- Contractor is responsible for preparing driver paddles and route instructions.
- Contractor is responsible for loading the updated program cards onto each bus destination sign when MTS makes changes.
- Contractor is responsible for specific driver restrooms, including any costs and/or coordination associated in addition to that or required for the maintenance and provision thereof.
- Contractor is responsible for purchasing and ongoing replacement costs of all Contractor employee HID cards.
- Contractor shall provide, at a minimum, one (1) Radio Communication Supervisor or Manager on duty at all times during the revenue service day to handle bus operator calls, radio communications, standby deployment, and other responsibilities. A Radio Communication Manager must be on-site at the IAD facility at least 30 hours per week and available to MTS contract management staff to meet and communicate with directly.
- Contractor shall provide sufficient window dispatchers on duty to handle drivers reporting to and from work, enforcing dress code, providing detailed information on driver runs and routes, and other duties as needed at SBD and ECD.
- The County Regional Communications System (RCS) is managed and monitored through the East County window dispatch. MTS pays for all radio equipment, repairs, replacements, and service fees. If the Contractor neglects, loses, or damages RCS equipment, the Contractor will be financially responsible for complete replacement.

- The ECD operations center coordinates the Rural Lifeline Service. MTS provides a radio system for rural vehicles, utilizing RCS dispatching and radio systems. ECD is responsible for all radio communication for the Rural Lifeline Service. There is no automated dispatching capability, and the system does not require computer system infrastructure. MTS is responsible for the maintenance and user fees of all radios and dispatching communication equipment related to the Rural Lifeline services.
- Contractor is responsible for verifying the eligibility of the point deviation if one is requested for rural passenger service. Rural transit service is a lifeline service in the most rural areas of the County of San Diego. The driver shall wait at the pick-up location for five (5) minutes before departing unless otherwise specified in advance. Reservations will be required to give their point of origin, point of destination, the number of persons in the party, and any special needs (i.e., wheelchair user, bicycle, request for deviation from route, etc.).
- The RTMS system operators shall maintain Daily Activity Logs in an online database format.
- The contractor is responsible for having operating procedures whereby drivers can test and cycle a wheelchair lift or ramp before pulling out from the yard. Lifts or ramps shall be tested in the yard before departures. If a lift or ramp is inoperative or malfunctioning in any way, a bus must be switched for one with a fully operational, mechanically-assisted lift or ramp. Manual ramp operations should only be performed by drivers if the ramp becomes mechanically inoperable while in revenue service. In these cases, the contractor must switch out buses as soon as feasible with little to no disruption in revenue service.
- Field supervisors must be scheduled to cover significant areas and at all times of the span of revenue service based on a plan prepared by the contractor that covers distribution and staffing levels by location and time of day. MTS shall approve the Road Supervision Plan. The field supervisor's primary responsibility will be to respond to service incidents, accidents, and detours but may be asked to provide support for other activities. In addition, field supervisors may also be required to conduct field bus stop inspections. They may assist with special events, targeted ride checks, customer service, and other duties as assigned by the Contractor's management staff. Field supervisors must work in the field with an RTMS-equipped supervisor van or supervisor vehicle to provide quick responses to issues within the service area. Field supervisors may not be left at a location without access to a supervisor vehicle unless they supplement already scheduled and approved supervisor coverage. Field supervisors may not simultaneously be assigned to field supervision and standby bus service.
- Contractor will be required to coordinate operations adjustments for special events.
- The contractor will be responsible for placing notices of closed bus stops, establishing temporary stops (if necessary) utilizing temporary A-frame bus stop signs provided by MTS, and providing staff to monitor and supervise bus operations during special events.
- In the event of a local emergency and upon the request of the MTS Bus Chief Operating Officer (COO) or designated representative, the Contractor shall make transportation, communications, and other desired equipment available for emergency service to the highest degree possible. The contractor shall be paid the regular revenue service mileage rate for emergency work. If the mileage rate does not cover the Contractor's actual verifiable expenses, MTS shall reimburse the Contractor the actual

expenses to the extent that they are fair and reasonable under the circumstances. Reimbursement for such emergency services would be over and above this Agreement's "Maximum Payable" and paid by separate invoice.

- Contractor is required to respond to emergency service requests for bus bridges by the San Diego Trolley, Inc. (SDTI). The contractor will provide as many buses and operators as possible as SDTI deems it necessary to provide trolley bridge service between stations as assigned by SDTI. Additionally, the Contractor may be required to assist MTS in providing NCTD with Coaster related bus bridges.
- The contractor will provide service for large special events or other significant projects upon MTS' request. These events would be defined as large enough to require significant staffing levels above and beyond a regular service day, including overtime pay levels for all drivers and supervisors who are not managers. The contractor will be paid at a specific Large Special Event Service hourly rate.
- As part of this agreement, there may be goods purchased and services rendered that will be eligible for direct reimbursement by MTS as a pass-through expense, such as facility repairs exceeding a base amount, engine and transmission rebuilds reimbursement, property taxes, the state board of equalization taxes, UST diesel fuel taxes, stormwater pollution preventions plan implantation costs, and others.
- As part of this contract with the equipment purchased by MTS, each revenue bus will be equipped with a state-of-the-art, multiple-camera video surveillance system, which includes all existing, new, and expansion buses. The Contractor will ensure that all camera systems are operational for revenue service deployment. All buses operating in revenue service shall have a fully functional and operational system unless otherwise approved by MTS in advance.
- When the Contractor is notified of Record Requests, Law Enforcement, and Customer Service requests or of Incidents, accidents, and events that cause injury or damage. The contractor shall capture the event in the system and transfer/save it separately on a drive, remote server, or cloud server in accordance with MTS's Video Request Guidelines.
- MTS will provide the Contractor with the appropriate marketing and advertising materials for posting and distribution. No exterior or interior advertising will be posted by the Contractor on MTS vehicles without prior approval by the MTS. The use of the MTS brand for use in Contractor promotional materials is strictly forbidden unless expressly permitted by MTS.
- The contractor shall assist MTS in promoting public transit services. The contractor will be required to provide additional marketing or planning assistance of up to 120 hours per year for community events and services.
- Contractor's employees shall be periodically required to distribute informational and promotional material like interior and exterior promotional banners, signs, decals, timetable inventories, light distribution, or similar media provided by MTS. Time spent for this purpose shall be above and beyond the above-referenced community service and marketing hours and shall not be billed to MTS.
- The contractor shall manage the inventory of all applicable route timetables. Timetables will be stored in a safe, secure, and dry area. The contractor shall provide an accurate, bi-weekly inventory count to MTS.
- Additional Contractor required data reporting and collection details as outlined in the contract.

6.2.2 LIQUIDATED DAMAGES

"In lieu of the above estimates of actual damages as LDs, MTS Contract Managers may, at their discretion, assess the actual damages caused by the breach as its remedy and obtain this remedy through offset against retention or any other appropriate procedure.

Failure of MTS to assert any right which it has under the agreement or to assess any LD as provided herein shall not act as a waiver as to MTS's right to enforce the provisions of the agreement or assess LDs in the future, except as specified herein.

The assessment of LDs and/or deductions as provided under the agreement shall in no way relieve the Contractor of its obligation to provide sufficient service, buses, or staff or to meet any of the terms of the agreement."

Table 6-1: Transdev Fixed Route Contract Liquidated Damages

Performance Measures		Liquidated Damages
I. Operations and Reporting		
1	The contractor shall employ and assign all staff to the services covered by the agreement.	The contractor shall pay MTS all of the cost of vacant positions, including salaries, benefits, and **$300** per day for each vacant position (excludes drivers).
2	The contractor shall provide sufficient buses to operate transit routes in accordance with the route descriptions given in the Scope of Work.	**$2,000** per day for failure to provide sufficient buses to operate transit routes in accordance with descriptions in the Scope of Work. (MTS must provide the Contractor with a ratio of spare to total buses available, a minimum of 18 percent at each Division.)
3	The contractor is required to cover all scheduled service and standby runs.	**$2,000** for each incident of failure to meet pullout requirements (including standbys) due to a lack of available, sufficiently trained drivers to fill all runs. (May be applied to morning rush hour, afternoon, evening, or weekend pull-outs).
4	The contractor shall ensure drivers operate transit routes in accordance with MTS route descriptions.	**$500** per occurrence for each unauthorized failure to operate transit routes in accordance with the route descriptions provided by MTS (considered Off Route).
5	The contractor is required to cover all Commuter Express scheduled services in a timely manner.	**$2,500** for each incident of failure to provide a trip in the morning or afternoon within 15 minutes of each scheduled Express trip departure. Considered a missed trip and assessment for each missed trip. The 15-minute grace period is measured from the scheduled terminal departure inbound in the morning or outbound in the afternoon.
6	The contractor shall submit all operational and financial reports, as required in the Agreement, to MTS promptly and accurately.	**$1,000** per day for each incident of failure to accurately submit to MTS any required reports, per Data Reporting. All monthly reports must be submitted to MTS no later than eight calendar days following the end of the month. Other reports are due as specified. MTS may also elect to

Performance Measures		Liquidated Damages
		recover MTS staff time costs incurred by correcting MTS reports due to errors in Contractor billing. MTS will deny payment for additional billings, due to inaccurate data from Contractor, more than 30 calendar days past the initially required billing date.
7	The contractor is required to provide accurate reporting of all data to MTS, including missed mileage.	**$1000** for each incident where MTS finds the Contractor has inaccurately reported missed mileage or fails to report a missed trip or mechanical failure. Gross, intentional, or willful reporting inaccuracies may subject the Contractor to an additional $10,000 per incident damages and potential agreement termination.
8	The contractor is required to report hazardous conditions promptly.	**$250** per incident of failure to report hazardous road conditions, bus stop incidents, or transit center facility conditions within 24 hours.
9	The contractor shall provide to MTS and follow an approved fare revenue collection and security policy to ensure that revenues are securely transferred, completely reconciled, and accounted for.	**$1,000** for each day or each incident that Contractor fails to provide an approved and secure fare revenue collection policy and/or failure to conform to the approved fare collection procedures. $10,000 for each incident where MTS revenue is mishandled, lost, or stolen (in addition to complete replacement of compromised revenue).
10	The contractor shall ensure vehicles in revenue service follow the MTS-provided schedule.	**$250** per incident of a vehicle in revenue service leaves a scheduled time point before the scheduled departure time (considered a Hot departure).
11	Contractor drivers must announce all stops identified by MTS as required for compliance with the ADA Act and MTS policy.	**$100** per occurrence for each incident in which a driver is observed not making a required stop announcement, in accordance with ADA guidelines and MTS policy, by MTS or its agent(s).
12	The contractor shall provide scheduled standby buses in accordance with the contract requirements.	**$250** for each day and each incident that the Contractor fails to provide 100% of MTS designated bid standby positions for the entire duration of the scheduled time.
13	The contractor shall provide required road supervisor coverage in accordance with the contract requirements.	**$500** for each road supervisor assignment not covered in its entirety for the day. A ssessment may be applied once per day per assignment.
14	Drivers must shut off bus engines at terminals.	**$100** per each incident of failure to shut off engines over 3 min at terminals.
15	Proper Pre-trip vehicle inspections are required.	**$250** per incident of a Contractor employee driving a vehicle without the proper Pre-trip inspection as required in the MTS agreement Scope of Work and per Contractor safety and accountability requirements.
16	The contractor shall enforce a zero-tolerance policy regarding distracted driving of any kind and follow all state and federal laws regarding using electronic devices while operating a vehicle.	**$2,500** for each incident of a Contractor employee operating a vehicle while using a cell phone or other electronic device or otherwise distracted by other media. $5,000 for each incident. The Contractor does not strictly follow its own MTS-approved, zero-tolerance distracted driving policy for any reason.

	Performance Measures	Liquidated Damages
17	The contractor shall train and continuously monitor drivers to ensure they provide efficient, safe, and reliable service without unnecessary delays	**$250** for each incident of a driver delaying a bus route, such as departing a terminal or time point late due to unnecessary conversation, unfamiliar with bus routes, unfamiliar with the bus or revenue equipment, frequent restroom or snack breaks, lack of driving skills, or other activities not beneficial to the performance of this contract. **$500** for each second validated incident with the same driver previously disciplined for this infraction. **$1,000** for each incident beyond the second infraction (3 or more violations).
18	The contractor shall comply and ensure employee and dependent ID card distribution complies with all MTS fare and ID card policies.	Adult: $72/$100 Youth/Senior/Disabled: $23/32
	II. Driver Training and Uniforms	
19	The contractor shall ensure that all drivers complete the training requirements specified in the agreement.	$1,000 for each incident in which the Contractor assigns a driver to work who has not completed the training required by the Scope of Work.
20	Contractor is required to complete all employee training as outlined in the agreement	$250 for each hour of required training not provided to an employee as detailed in the agreement. MTS may audit training records at any time without prior notice.
21	The contractor shall ensure that all drivers wear clean, pressed, and approved uniforms while on duty.	$500 for each day or each incident in which any of the Contractor's drivers or road supervisors fail to wear clean, pressed, approved uniforms while on duty.
	III. Vehicle and Facility Maintenance	
22	The contractor shall fully, thoroughly, and effectively perform bus maintenance as detailed in Scope of Work, Sections 3 and 4.	**$15,000** per day for failing to fully, thoroughly, and effectively perform bus maintenance
23	The contractor shall maintain buses in a safe condition, free of scrutiny from safety and transportation agencies.	**$5,000** per bus for the removal from roadworthy status by the CHP, MTS staff, or its designated representatives of any bus used under the agreement.
24	The contractor shall achieve a satisfactory rating in all categories of the annual CHP Safety Compliance Report (CHP 343).	**$5,000** for failure to achieve a satisfactory rating in any category of the annual CHP Safety Compliance Report (CHP 343) at each Division.
25	The contractor shall maintain buses so that none of the buses are out of service for extended periods of time.	**$1,000** for each day or each incident that the Contractor fails to return a bus to service after exceeding 30 calendar days out of service unless the Contractor can document long-term parts not delivered via parts orders or other outside services that are keeping the bus from being returned to service.
26	The contractor shall repair vehicle body damage, not requiring ordering body parts, within 14 calendar days of the date the damage occurred or was reported by MTS, whichever came first.	**$500** for each day or each incident in which the Contractor fails to repair vehicle body damage (interior or exterior), not requiring ordering body parts within fourteen calendar days from the date damage occurred or was reported by MTS, whichever came first.

	Performance Measures	Liquidated Damages
27	The contractor shall perform preventative maintenance inspections in a timely manner and in accordance with contract requirements and agreed-upon elements of a preventative maintenance inspection.	**$500** for each time a Preventative Maintenance Inspection (PMI) is late, and **$2,000** for each time a PMI is missed. **$10,000** for a pattern of late or missed preventative maintenance inspections over a three-month period of time. A late PMI is defined as more than ten percent later than scheduled. A missed PMI is a PMI more than 1,000 miles later than the scheduled PMI.
28	The contractor shall perform an ongoing facility inspection, preventative maintenance, and regulatory safeguards according to both contract and jurisdictional requirements.	**$1,000** for failure to provide ongoing inspections and preventative maintenance services for the facilities. This includes routine preventative maintenance to keep the facilities and all equipment in good, safe working order. **$5,000** for failure to provide the required federal, state, or local regulatory preventative maintenance, inspections, and environmental mitigation. **$10,000** for a pattern of poor or missed facility-related maintenance over more than a two-month period.
29	The contractor shall ensure that all rider safety, rider comfort, ADA, and technical features provided on all buses in revenue service are entirely functional.	**$100** for each time a vehicle does not have fully functioning head/tail/brake/turn signal lights, HVAC, destination signs, stop request, public address systems, wheelchair ramp/lift, kneelers, passenger doors, fareboxes, DCUs, light validators, radios, RTMS, AVL, and video surveillance systems**. $250** for each incident where the Contractor fails to repair one of these failed components (or BX) within the start of the next scheduled revenue trip, per each additional trip operated without a fix. **$1,000** for each incident where the Contractor sends a bus into revenue service, knowing that one or more of these components is inoperable.
30	The contractor shall ensure buses are maintained in clean, sanitary, and attractive condition.	**$500** for each incident where the Contractor fails to clean buses as required.
31	The contractor shall perform ongoing facility cleaning (including shops and administrative offices, and parking and service areas, or other facility areas) in accordance with MTS contract requirements and to meet all local, state, and federal requirements.	**$500** per day for failure to provide ongoing cleaning of all facilities in accordance with contract requirements or other local, state, or federal laws.

Transit Operations Insourcing Feasibility Study

Board of Directors

Project Team

MTS Project Manager: *Mike Daney, Director of Contract Operations & Passenger Facilities*

Transportation Management & Design, Inc. (TMD)

Best Best & Krieger LLP (BBK)

Four Nines Technologies

Project Overview

18-month study to understand the feasibility of insourcing contract transit operations and the impacts to MTS, its employees, and riders/community

Project structured in four phases:

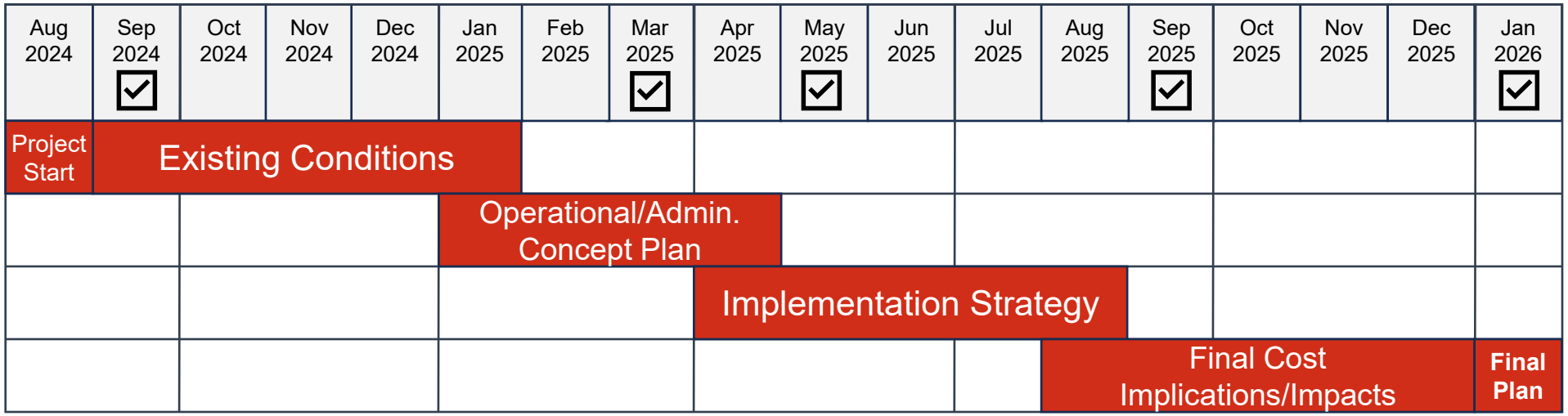
- **Task 1: Existing Conditions Analysis**
  - Summary report for both in-house and contracted operations, through interviews, document review, and data analysis
- **Task 2: Operational & Administrative Concept Plan**
  - Concept plan for four insourcing scenarios
  - Challenges, opportunities, and advantages associated with each scenario, with impacts organized by department/function
- **Task 3: Implementation Transition Strategy & Schedule**
  - Detailed implementation plan for each scenario, with strategies that consider all opportunities and challenges
- **Task 4: Cost Implications & Impacts**
  - Cost projection for each scenario, outlining changes to positions, functions, policies and procedures, and financial risks

Project Overview

18-month study to understand the feasibility of insourcing contract transit operations and the impacts to MTS, its employees, and riders/the public.

Project structured in four phases:

☑ **Board Update and Discussion**



Project Overview

- Insourcing Feasibility Study will consider four scenarios:

Insourced Services	Fixed Route	Minibus	Paratransit
Scenario 1: All Contract Operations	X	X	X
Scenario 2: Fixed Route & Minibus Only	X	X	
Scenario 3: Paratransit Only			X
Scenario 4: Do Nothing			

Existing Conditions

- Existing Conditions task began in Fall 2024, with report submitted to MTS in January 2025
- Deep-dive review of MTS and Transdev organizations, processes, and performance
- Lays the groundwork for insourcing scenario development



Key Findings Discussion

- No significant differences in operational performance – ‘one MTS’ for the customer
- MTS and Transdev employees represented by three unions with four locals and nine CBAs
- Wage ranges at Transdev are lower than MTS for comparable positions
- Transdev’s Maintenance recruitment and training approach differs significantly from MTS

Key Findings Discussion – Continued

- Transdev's fixed route operating costs are much lower than MTS
  - MTS-operated bus service costs 52% more per revenue mile and 67% more per revenue hour.

FY 2025 Budget Book	MTS Bus (SDTC)	Transdev Fixed Route/Minibus	Transdev Paratransit
Total Cost per Revenue Mile	$13.52	$8.87	$5.63
Total Cost per Revenue Hour	$155.98	$93.62	$121.80

Note: SDTC costs shown above do not include wage and benefit increases in recently-ratified contracts with ATU and IBEW. Transdev costs do not include $2 wage increase.

- Transdev's regional and national corporate structure make comparing administrative costs/staffing challenging
- No current in-house Paratransit/Minibus operation for comparative purposes

MTS Board Updates

- MTS staff and consultant team will continue to seek Board input and provide regular updates on project progress and findings
- Past and Planned Board updates:
  - **September 2024**: Project introduction/overview
  - **March 2025**: Existing conditions findings
  - **May 2025**: Operational insourcing concept plan briefing
  - **September 2025**: Cost/implications and strategy update
  - **January 2026**: Final plan briefing

Next Steps

- Project team to develop Operational & Administrative Concept Plan
  - Identify advantages, challenges, and hurdles across the organization for each of the four scenarios
  - Detailed and final cost projections to be developed in later task

- Next Board update planned for May 2025 to present overview of concept plan

Questions/Comments

Metropolitan Transit System

Agenda Item No. 27

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

March 13, 2025

SUBJECT:

Fiscal Year (FY) 2025 Mid-Year Performance Monitoring Report (Brent Boyd and Matthew Grace)

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

MTS Board Policy No. 42, "Transit Service Evaluation and Adjustment," establishes a process for evaluating existing transit services to achieve the objective of developing a customer-focused, competitive, integrated, and sustainable system. Additionally, federal Title VI guidance requires that certain performance measures be evaluated and reported to the Board periodically.

Staff from the Planning and Scheduling Department will provide a summary of service performance for the first six months of FY 2025, including the status of ridership recovery from the COVID-19 pandemic.

/S/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Mark Olson, 619.557.4588, mark.olson@sdmts.com

Attachment: A. FY 2025 Q1-Q2 Performance Monitoring Report

San Diego Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego. MTS is also the For-Hire Vehicle administrator for multiple cities in San Diego County.

San Diego Metropolitan Transit System
POLICY 42 PERFORMANCE MONITORING REPORT
FY 2025: JULY 2024 - DECEMBER 2024

OBJECTIVE | Develop a Customer-Focused and Competitive System

The following measures of productivity and service quality are used to ensure that services are focused on providing competitive and attractive transportation that meets our customers' needs.

Total Passengers

Route Categories	Pre-Pandemic FY2019	FY 2023	FY 2024	FY 2025	% Change FY23 - FY24	% Change FY24 - FY25
Urban Frequent	15,494,842	10,474,906	10,989,188	12,157,248	4.9%	10.6%
Urban Standard	3,792,986	2,741,054	2,835,668	2,945,751	3.5%	3.9%
Rapid	2,954,767	2,500,390	2,856,966	3,271,789	14.3%	14.5%
Express	1,007,362	370,439	293,779	234,700	-20.7%	-20.1%
Circulator	440,163	313,284	280,236	330,225	-10.5%	17.8%
Premium/Rapid Express	138,940	49,655	50,872	52,836	2.5%	3.9%
Rural	42,823	22,158	19,218	28,699	-13.3%	49.3%
Fixed-Bus Subtotal	**23,871,883**	**16,471,886**	**17,325,927**	**19,021,248**	**5.2%**	**9.8%**
Light Rail (Blue, Orange, Green, Copper)	19,055,766	17,786,597	20,177,524	21,726,861	13.4%	7.7%
Light Rail (Silver)	10,794	666	494	868	-25.8%	75.7%
Light Rail Subtotal	**19,066,560**	**17,787,263**	**20,178,018**	**21,727,729**	**13.4%**	**7.7%**
ALL Fixed Route	**42,938,443**	**34,259,149**	**37,503,945**	**40,748,977**	**9.5%**	**8.7%**
Demand-Resp. (MTS Access)	250,524	97,365	86,994	136,071	-10.7%	56.4%
Demand-Resp. (Access Taxi)	-	26,051	65,310	36,283	100.0%	-44.4%
Demand-Resp. Subtotal	**250,524**	**123,416**	**152,304**	**172,354**	**23.4%**	**13.2%**
System	**43,188,967**	**34,382,565**	**37,656,249**	**40,921,331**	**9.5%**	**8.7%**

NOTES: MTS ridership continues to rebound from the Covid-19 pandemic in nearly all categories. Monthly year-over-year ridership changes are still increasing, indicating that MTS ridership has not yet reached its post-pandemic potential (overall fixed-route down about 5% from pre-Pandemic). Express Route 950 was replaced by Rapid 227 in October 2023 (Q2, FY24), contributing to a decrease in the Express category and an increase in the Rapid category. Copper Line (Trolley) implemented Septembe 29, 2024.

Average Weekday Passengers

Route Categories	Pre-Pandemic FY2019	FY 2023	FY 2024	FY 2025	% Change FY23 - FY24	% Change FY24 - FY25
Urban Frequent	100,606	66,790	70,966	77,677	6.3%	9.5%
Urban Standard	25,851	18,492	19,326	19,846	4.5%	2.7%
Rapid	19,425	16,465	19,026	21,316	15.6%	12.0%
Express	7,224	2,458	1,996	1,581	-18.8%	-20.8%
Circulator	3,064	2,240	2,066	2,358	-7.8%	14.2%
Premium/Rapid Express	1,092	391	404	413	3.3%	2.2%
Rural	337	174	153	224	-12.6%	47.0%
Fixed-Bus Subtotal	**157,599**	**107,011**	**113,936**	**123,416**	**6.5%**	**8.3%**
Light Rail (Blue, Orange, Green, Copper)	116,307	107,452	122,979	130,471	14.5%	6.1%
Light Rail (Silver)	85	-	-	-	-	-
Light Rail Subtotal	**116,392**	**107,452**	**122,979**	**130,471**	**14.5%**	**6.1%**
ALL Fixed Route	**273,991**	**214,463**	**236,915**	**253,887**	**10.5%**	**7.2%**
Demand-Resp. (MTS Access)	1,774	680	615	958	-9.5%	55.7%
Demand-Resp. (Access Taxi)	-	174	465	247	100.0%	-46.8%
Demand-Resp. Subtotal	**1,774**	**854**	**1,080**	**1,206**	**26.4%**	**11.6%**
System	**275,765**	**215,317**	**237,995**	**255,093**	**10.5%**	**7.2%**

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Passengers per Revenue Hour

The 'passengers per revenue hour' metric shows how any added or removed**revenue hours** (in-service hours plus layover hours) relate to ridership increases or decreases. Increasing riders per revenue hour would indicate that the system is more efficient, for example, carrying more passengers with the same number of buses.

Route Categories	Pre-Pandemic FY2019 Annual	FY 2023	FY 2024	FY 2025	% Change	
					FY23 - FY24	FY24 - FY25
Urban Frequent	26.8	19.9	20.6	21.5	3.2%	4.8%
Urban Standard	18.8	13.8	14.2	14.4	2.5%	1.9%
Rapid	31.4	24.1	25.2	24.7	4.4%	-1.9%
Express	25.4	12.8	13.3	11.8	4.6%	-11.8%
Circulator	13.3	9.3	8.3	10.5	-10.0%	26.7%
Premium/Rapid Express	24.0	13.5	13.9	14.0	3.2%	0.6%
Rural	15.8	8.3	7.1	10.8	-13.5%	51.4%
Fixed-Bus Subtotal	**25.1**	**18.4**	**19.0**	**19.8**	**3.7%**	**4.2%**
Light Rail (Blue, Orange, Green, Copper)	216.7	152.2	172.8	170.6	13.5%	-1.3%
Light Rail (Silver)	21.6	10.4	20.3	42.1	95.4%	107.3%
Light Rail Subtotal	**215.7**	**152.1**	**172.7**	**170.5**	**13.5%**	**-1.3%**
ALL Fixed Route	**41.0**	**33.8**	**36.5**	**37.5**	**8.1%**	**2.8%**
Demand-Resp. (MTS Access)	2.0	1.7	1.5	1.4	-10.4%	-5.2%
Demand-Resp. (Access Taxi)	3.3	2.9	3.0	2.7	100.0%	-9.1%
Demand-Resp. Subtotal	**2.1**	**1.8**	**1.9**	**1.6**	**3.7%**	**-17.1%**
System	**37.1**	**31.8**	**34.0**	**34.3**	**7.0%**	**0.7%**

NOTES: As with ridership, the figures for this efficiency metric are returning towards pre-pandemic levels.

Weekday Passengers per In-Service Hour

The 'passengers per in-service hour' measure is related to the above 'passengers per revenue hour,' but shows how many passengers are carried while the vehicle is in-service picking up passengers, excluding layover time. Analyzing this figure helps MTS to understand how effective it is at providing the right level of service (instead of how efficiently MTS is grouping trips and breaks together for a vehicle to operate [revenue hours]).

Route Categories	Pre-Pandemic FY2019 Annual	FY 2023	FY 2024	FY 2025	% Change	
					FY23 - FY24	FY24 - FY25
Urban Frequent	33.8	25.4	26.3	27.3	3.4%	3.9%
Urban Standard	26.1	19.0	19.4	19.9	2.3%	2.3%
Rapid	41.3	31.8	33.4	32.7	5.1%	-2.1%
Express	33.4	17.0	17.0	14.3	0.1%	-15.9%
Circulator	17.4	13.0	11.8	14.5	-9.4%	23.0%
Premium/Rapid Express	26.6	15.6	16.1	16.5	3.2%	2.2%
Rural	15.8	12.2	10.5	15.9	-13.5%	51.0%
Fixed-Bus Subtotal	**32.3**	**23.9**	**24.8**	**25.7**	**3.6%**	**3.6%**
Light Rail (Blue, Orange, Green, Copper)	260.9	181.2	207.2	208.2	14.3%	0.5%
Light Rail (Silver)	23.6	-	-	-	0.0%	0.0%
Light Rail Subtotal	**260.6**	**181.2**	**207.2**	**208.2**	**14.3%**	**0.5%**
ALL Fixed Route	**51.1**	**42.3**	**45.7**	**46.7**	**7.9%**	**2.4%**
Demand-Resp. (MTS Access)	N/A	1.7	1.5	1.5	N/A	N/A
Demand-Resp. (Access Taxi)	N/A	2.9	3.4	2.7	N/A	N/A
Demand-Resp. Subtotal	**N/A**	1.9	2.0	1.6	N/A	N/A
System	**51.1**	**39.0**	**41.6**	**41.3**	**6.6%**	**-0.8%**

NOTES: The Weekday Passengers per In-Service Hour metric generally followed the same trends as Passengers per Revenue Hour.

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On-Time Performance

On-time performance (OTP) is measured at each bus & Trolley timepoint for every trip; departing timepoints within 0-5 minutes of the scheduled time are considered to be "on-time." OTP is measured by service change period in order to show the results of scheduling changes. MTS's goal for on-time performance is 85% for Urban Frequent and Rapid bus routes, and 90% for Trolley and all other bus route categories. Each route is continually evaluated to determine if performance below the target is a result of issues that MTS controls, such as driver performance or scheduling, or situations outside MTS' direct control, such as construction, traffic congestion, and passenger issues. **Performance of fixed bus routes is heavily impacted by construction, stop signs and stop lights, and traffic when they travel through high density corridors.**

Route Categories	Service Change Period					*GOAL*
	June 2023	Sept. 2023	Jan. 2024	June 2024	Sept. 2024	
Urban Frequent	81.7%	82.4%	82.1%	82.8%	82.1%	*85.0%*
Urban Standard	84.7%	83.8%	84.5%	84.9%	83.8%	*90.0%*
Rapid	85.4%	85.9%	87.4%	86.7%	86.8%	*85.0%*
Express	90.9%	91.1%	90.2%	90.5%	84.0%	*90.0%*
Circulator	83.1%	84.4%	85.2%	84.9%	84.4%	*90.0%*
Premium/Rapid Express	88.8%	90.2%	88.5%	90.0%	86.7%	*90.0%*
Rural	N/A	N/A	N/A	N/A	N/A	
Demand-Resp. (Access & Taxi)	N/A	N/A	N/A	N/A	N/A	
Light Rail (Blue, Orange, Green, Copper)	95.7%	95.7%	92.8%	92.3%	93.0%	*90.0%*
Light Rail (Silver)	N/A	N/A	N/A	N/A	N/A	*90.0%*
System	**84.4%**	**84.5%**	**84.3%**	**84.8%**	**83.4%**	

NOTES: Route 20 represents about 87% of the express trips, and OTP for Route 20 was worse in September 2024 than June 2024, explaining the difference.

OBJECTIVE | Develop a Sustainable System

The following measures are used to ensure that transit resources are deployed efficiently and do not exceed budgetary constraints. These resources may be increased over the budgeted amounts in order to respond to heavy passenger loads, special events, or unplanned detours due to construction or route changes. They may be lower than budgeted if underperforming services are reduced, or if not all of the planned capacity is required to meet the ridership demand.

Scheduled In-Service Hours (Weekly Total)

Operator	Sept. 2023	Sept. 2024	# Diff	% Diff
MTS Directly-Operated Bus	12,096	12,267	171	1.4%
MTS Contracted Fixed-Route Bus	15,258	16,613	1,356	8.9%
MTS Rail	3,834	3,827	(7)	-0.2%
System	**31,187**	**32,707**	**1,519**	**4.9%**

Scheduled In-Service Miles (Weekly Total)

Operator	Sept. 2023	Sept. 2024	# Diff	% Diff
MTS Directly-Operated Bus	176,707	178,162	1,455	0.8%
MTS Contracted Fixed-Route Bus	211,177	229,523	18,346	8.7%
MTS Rail	82,078	81,861	(217)	-0.3%
System	**469,961**	**489,546**	**19,584**	**4.2%**

Scheduled Weekday Peak-Vehicle Requirement

This measure shows the maximum number of buses and railcars that are scheduled in service at any one time (a weekday peak period) in order to demonstrate the levels of service that are planned.

Operator	Sept. 2023	Sept. 2024	# Change FY24 - FY25
MTS Directly-Operated Bus	201	205	4
MTS Contracted Fixed-Route Bus	268	287	19
MTS Rail	114	113	(1)

Scheduled In-Service Speed (MPH) (Weekday)

Operator	Sept. 2023	Sept. 2024	% Change FY24 - FY25
MTS Directly-Operated Bus	14.5	14.8	1.7%
MTS Contracted Fixed-Route Bus	13.8	13.2	-4.6%
MTS Rail	21.5	21.4	-0.3%

Scheduled In-Service Miles/Total Miles (Weekday)

The 'in-service miles per total miles' ratio is only calculated for MTS in-house operations, as contractors are responsible for bus and driver assignments (runcutting) for MTS Contract Services.

Operator	Sept. 2023	Sept. 2024	% Change FY24 - FY25
MTS Directly-Operated Bus	86.1%	89.9%	4.5%
MTS Contracted Fixed-Route Bus	N/A	N/A	N/A
MTS Rail	98.2%	96.6%	-1.6%

Scheduled In-Service Hours/Total Hours (Weekday)

As with the mileage statistic, 'in-service hours' per total hours are only calculated for MTS in-house operations.

Operator	Sept. 2023	Sept. 2024	% Change FY24 - FY25
MTS Directly-Operated Bus	75.1%	74.0%	-1.4%
MTS Contracted Fixed-Route Bus	N/A	N/A	N/A
MTS Rail (Layover Included)	83.7%	80.0%	-4.5%

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FY 2025 SEMI-ANNUAL ROUTE STATISTICS (Q1-Q2)

BASE STATISTICS

Route	Cat	Jurisdiction (#=SD Dist.)	Q1-Q2 Passengers	FY24-25 % Change	Avg. Wkdy. Psgrs.	Psgrs./ Rev. Hr.	Cost/ Psgr.	Average Fare	Subsidy/ Psgr.	Farebox Recovery	Budgeted Rev.Svc. Hours	Budgeted Rev.Svc. Miles
Blue	LRT	3,8,**NC,CV**	13,152,331	6.8%	80,264	217.9	$ 2.67	$ 0.72	$ 1.95	27.0%	60,361	1,104,146
Orange	LRT	3,4,8,9,**LG,LM,EC**	3,573,648	4.1%	21,711	321.7	$ 4.08	$ 0.72	$ 3.36	17.6%	11,108	47,326
Green	LRT	2,3,7,9,**LM,EC,ST**	4,871,772	9.9%	27,709	158.1	$ 3.68	$ 0.72	$ 2.96	19.6%	30,820	567,190
Copper	LRT		129,110		1,549	5.1	$ 50.04	$ 1.04	$ 49.00	2.1%	25,096	456,579
Silver	LRT	3	868	75.7%	-	41.3	$ 13.80	$ 0.72	$ 13.08	5.2%	21	86
1	Frq	3,7,9,**LM**	487,357	26.8%	3,180	23.6	$ 4.09	$ 1.19	$ 2.90	29.2%	20,674	185,237
2	Frq	3	297,577	6.4%	1,890	22.9	$ 8.20	$ 1.10	$ 7.10	13.4%	13,008	102,261
3	Frq	3,4,8,9	537,556	15.3%	3,509	24.0	$ 3.56	$ 1.42	$ 2.14	39.8%	22,389	178,003
4	Std	3,4,8,9	253,733	(18.3%)	1,644	24.4	$ 7.66	$ 0.94	$ 6.72	12.3%	10,379	109,460
5	Frq	3,4,8,9	229,452	6.0%	1,535	24.3	$ 3.40	$ 1.27	$ 2.13	37.5%	9,459	72,470
6	Frq	3,7	117,917	(0.3%)	717	18.5	$ 10.09	$ 1.15	$ 8.93	11.4%	6,368	54,403
7	Frq	3,4,9	961,825	5.3%	5,691	35.4	$ 5.29	$ 0.99	$ 4.30	18.7%	27,190	211,474
8	Frq	2,3	314,702	4.4%	1,700	22.1	$ 8.56	$ 1.16	$ 7.39	13.6%	14,210	146,939
9	Frq	2,3	137,967	7.6%	755	18.9	$ 9.94	$ 1.02	$ 8.92	10.3%	7,318	65,688
10	Frq	2,3,4,9	512,130	9.9%	3,357	30.4	$ 6.16	$ 1.17	$ 5.00	18.9%	16,830	145,910
11	Frq	3,9	262,428	9.1%	1,675	20.0	$ 9.37	$ 1.18	$ 8.19	12.6%	13,121	128,741
12	Frq	3,4,8,9	468,805	3.4%	3,035	25.6	$ 7.31	$ 0.89	$ 6.42	12.2%	18,289	175,496
13	Frq	4,7,9,**NC**	945,010	9.1%	6,198	38.0	$ 4.94	$ 0.95	$ 3.98	19.3%	24,873	247,838
14	Circ	7,9,**LM**	25,468	20.0%	199	9.4	$ 10.78	$ 1.12	$ 9.66	10.4%	2,698	27,211
18	Circ	3,7	8,666	23.2%	68	7.9	$ 12.83	$ 1.34	$ 11.49	10.4%	1,093	16,509
20	Exp	3,5,6,7	198,771	5.1%	1,300	13.9	$ 13.54	$ 1.14	$ 12.40	8.4%	14,351	272,242
25	Circ	6,7	27,866	18.5%	218	10.7	$ 9.55	$ 1.14	$ 8.40	12.0%	2,615	32,723
27	Std	2,6	138,748	17.5%	837	15.8	$ 0.70	$ 0.14	$ 0.56	19.7%	8,786	77,050
28	Std	2,3	125,366	7.8%	794	24.5	$ 3.00	$ 1.15	$ 1.85	38.4%	5,108	34,935
30	Frq	1,2,3	543,412	(0.4%)	3,238	22.7	$ 8.25	$ 1.22	$ 7.03	14.8%	23,897	300,595
31	Std	1,6	40,473	(0.3%)	316	20.3	$ 9.26	$ 1.25	$ 8.01	13.5%	1,994	24,656
35	Frq	2,3	181,918	9.8%	1,096	19.3	$ 3.46	$ 1.33	$ 2.14	38.3%	9,402	58,543
41	Frq	1,6,7	397,416	9.3%	2,702	26.3	$ 7.08	$ 1.09	$ 5.99	15.4%	15,115	191,262
43	Frq	2,6	232,436	7.1%	1,470	22.7	$ 8.25	$ 1.07	$ 7.19	12.9%	10,237	103,713
44	Frq	2,3,6,7	416,615	9.2%	2,738	28.9	$ 6.43	$ 0.97	$ 5.46	15.0%	14,399	150,433
60	Exp	1,3,4,6,9	26,243	5.3%	205	18.8	$ 9.99	$ 1.19	$ 8.80	11.9%	1,395	24,671
83	Circ	3	9,678	14.9%	76	7.2	$ 14.09	$ 1.44	$ 12.65	10.2%	1,340	10,815
84	Circ	2	7,494	10.3%	59	6.0	$ 16.92	$ 1.39	$ 15.53	8.2%	1,247	14,828
88	Circ	3,7	42,345	1.9%	282	13.8	$ 5.85	$ 1.44	$ 4.41	24.7%	3,066	21,493
105	Std	1,2,3,6	99,662	4.8%	701	15.8	$ 11.88	$ 1.01	$ 10.87	8.5%	6,308	76,102
110	Exp	3,6	9,686	1.7%	76	12.1	$ 15.56	$ 1.24	$ 14.33	8.0%	802	16,770
115	Std	7,9,**LM,EC**	103,305	5.9%	726	14.6	$ 9.17	$ 1.14	$ 8.03	12.5%	7,092	83,034
120	Frq	3,6,7	261,622	6.8%	1,678	18.8	$ 9.99	$ 1.17	$ 8.83	11.7%	13,938	144,597
201/202^	Rpd	1	1,056,373	0.4%	7,432	60.9	$ 3.04	$ 1.43	$ 1.61	46.9%	17,352	158,706
204^	Rpd	1	30,969	8.2%	242	18.3	$ 10.29	$ 1.27	$ 9.03	12.3%	1,696	11,893
215^	Rpd	3,9	728,643	4.0%	4,345	27.9	$ 6.71	$ 1.08	$ 5.62	16.2%	26,090	243,734
225^	Rpd	3,8,**CV**	315,724	12.1%	1,977	20.2	$ 9.96	$ 1.30	$ 8.66	13.1%	15,635	301,224
227~	Rpd	8,**IB**	441,581	209.3%	2,753	25.9	$ 7.18	$ 1.04	$ 6.14	14.5%	17,033	312,466

TITLE VI MONITORING (FY 2025 Annual Statistics) ~

Route	Minority Route	On-Time Perf. Goal	On-Time Perf. Actual	Weekday Headway Goal	Weekday Headway Peak	Weekday Headway Base	Vehicle Load Factor ~~ Goal	Vehicle Load Factor ~~ % trips over VLF	Vehicle Load Factor ~~ > 20%?
Blue	✓	90%	91%	15 min.	7.5	15	3.00	0%	No
Orange	✓	90%	84%	15 min.	15	15	3.00	0%	No
Green		90%	93%	15 min.	15	15	3.00	0%	No
Copper		90%	100%	15 min.	15	15	3.01	100%	No
Silver		90%	100%	15 min.	30	30	3.00	0%	No
1	✓	85%	81%	15 min.	15	15	1.50	0%	No
2		85%	92%	15 min.	12	15	1.50	0%	No
3	✓	85%	77%	15 min.	12	12	1.50	0%	No
4	✓	85%	77%	30 min.	30	30	1.50	0%	No
5	✓	85%	85%	15 min.	12	12	1.50	0%	No
6		85%	88%	15 min.	15	15	1.50	0%	No
7	✓	85%	83%	15 min.	10	10	1.50	0%	No
8		85%	86%	15 min.	20	20	1.50	0%	No
9		85%	93%	15 min.	20	20	1.50	0%	No
10	✓	85%	81%	15 min.	12	15	1.50	0%	No
11		85%	84%	15 min.	15	15	1.50	0%	No
12	✓	85%	85%	15 min.	7.5/15	15	1.50	0%	No
13	✓	85%	84%	15 min.	12	12	1.50	0%	No
14		90%	85%	60 min.	60	60	1.00	0%	No
18		90%	91%	60 min.	30	30	1.00	0%	No
20	✓	90%	84%	30 min.	15/30	30	1.50	0%	No
25		90%	86%	60 min.	60	60	1.00	0%	No
27		85%	83%	30 min.	30	30	1.50	0%	No
28		85%	88%	30 min.	15/30	30	1.50	0%	No
30		85%	78%	15 min.	15	15	1.50	0%	No
31		85%	78%	30 min.	30	-	1.50	0%	No
35		85%	86%	15 min.	15	15	1.50	0%	No
41		85%	83%	15 min.	7.5/15	15	1.50	0%	No
43	✓	85%	88%	15 min.	15	15	1.50	0%	No
44	✓	85%	88%	15 min.	7.5/15	15	1.50	0%	No
60	✓	90%	76%	30 min.	20/30	-	1.50	0%	No
83		90%	91%	60 min.	60	60	1.00	0%	No
84		90%	88%	60 min.	60	60	1.00	0%	No
88		90%	94%	60 min.	30	30	1.00	0%	No
105		85%	86%	30 min.	30	30	1.50	0%	No
110	✓	90%	95%	30 min.	20/30	-	1.50	0%	No
115		85%	83%	30 min.	30	30	1.50	0%	No
120	✓	85%	85%	15 min.	15/30	15/30	1.50	0%	No
201/202^	✓	85%	93%	15.min.	5	10	1.50	0%	No
204^		85%	96%	15.min.	30	30	1.50	0%	No
215^	✓	85%	88%	15.min.	10	15	1.50	0%	No
225^	✓	85%	86%	15.min.	15	30	1.50	0%	No
227~	✓	85%	82%	15.min.	15	30	1.50	0%	No

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FY 2025 SEMI-ANNUAL ROUTE STATISTICS (Q1-Q2)

BASE STATISTICS														TITLE VI MONITORING (FY 2025 Annual Statistics) ~									
Route	Cat	Jurisdiction (#=SD Dist.)	Q1-Q2 Passengers	FY24-25 % Change	Avg. Wkdy. Psgrs.	Psgrs./ Rev. Hr.	Cost/ Psgr.	Average Fare	Subsidy/ Psgr.	Farebox Recovery	Budgeted Rev.Svc. Hours	Budgeted Rev.Svc. Miles	Route	Minority Route	On-Time Perf. Goal	On-Time Perf. Actual	Weekday Headway Goal	Weekday Headway Peak	Weekday Headway Base	Vehicle Load Factor ~~ Goal	Vehicle Load Factor ~~ % trips over VLF	Vehicle Load Factor ~~ > 20%?
235^	**Rpd**	3,5,6,9,**Esc**	616,155	9.0%	3,923	22.3	$ 8.41	$ 1.15	$ 7.25	13.7%	27,625	651,613	**235^**		*85%*	86%	*15.min.*	15	15	*1.50*	0%	No
237^	**Rpd**	1,6	82,344	(3.9%)	643	16.8	$ 11.17	$ 1.29	$ 9.88	11.5%	4,894	60,676	**237^**	✓	*85%*	89%	*15.min.*	15	-	*1.50*	0%	No
280	RpEx	3,5,**Esc**	24,274	0.5%	190	15.0	$ 23.34	$ 3.65	$ 19.69	15.6%	1,619	50,796	**280**		*90%*	84%	*30 min.*	15	-	*1.00*	0%	No
290	RpEx	3,5	28,562	6.9%	223	18.8	$ 14.80	$ 2.95	$ 11.85	19.9%	1,521	37,891	**290**		*90%*	90%	*30 min.*	10	-	*1.00*	0%	No
701	**Frq**	**CV**	169,082	5.4%	1,195	20.1	$ 5.54	$ 1.02	$ 4.53	18.3%	8,432	87,074	**701**	✓	*85%*	78%	*15 min.*	15	15	*1.50*	0%	No
704	Std	**CV**	183,392	9.7%	1,277	20.9	$ 5.52	$ 1.19	$ 4.34	21.5%	8,791	94,159	**704**	✓	*85%*	79%	*30 min.*	30	30	*1.50*	0%	No
705	Std	**CV,NC,Cty**	91,350	10.6%	647	19.7	$ 4.95	$ 1.15	$ 3.80	23.3%	4,640	42,035	**705**	✓	*85%*	89%	*30 min.*	30/60	30/60	*1.50*	0%	No
707	Std	**CV**	49,362	5.2%	386	17.1	$ 6.22	$ 0.99	$ 5.23	15.9%	2,882	28,517	**707**	✓	*85%*	85%	*30 min.*	30	30	*1.50*	0%	No
709	**Frq**	**CV**	353,208	11.8%	2,490	27.2	$ 4.38	$ 1.03	$ 3.35	23.4%	13,008	143,671	**709**	✓	*85%*	80%	*15 min.*	7.5/15	15	*1.50*	0%	No
712	**Frq**	**CV**	269,362	6.2%	1,900	29.6	$ 3.77	$ 0.98	$ 2.79	26.1%	9,103	94,287	**712**	✓	*85%*	86%	*15 min.*	15	15	*1.50*	0%	No
815	**Frq**	**EC**	164,163	18.8%	1,074	22.7	$ 3.74	$ 1.38	$ 2.37	36.8%	7,225	53,618	**815**		*85%*	88%	*15 min.*	15	15	*1.50*	0%	No
816	Std	**EC,Cty**	49,466	5.0%	386	13.2	$ 9.40	$ 1.20	$ 8.20	12.8%	3,746	40,318	**816**		*85%*	85%	*30 min.*	30	30	*1.50*	0%	No
832	Std	**ST**	17,499	(1.5%)	122	15.4	$ 7.45	$ 1.21	$ 6.23	16.3%	1,138	11,866	**832**		*85%*	81%	*30 min.*	60	60	*1.50*	0%	No
833	Std	**EC,ST**	38,196	7.5%	260	12.5	$ 8.14	$ 1.07	$ 7.07	13.2%	3,065	30,459	**833**		*85%*	83%	*30 min.*	35-45	35-45	*1.50*	0%	No
834	Std	**ST**	11,764	12.4%	92	11.4	$ 10.30	$ 1.21	$ 9.08	11.8%	1,031	10,508	**834**		*85%*	69%	*30 min.*	60	60	*1.50*	0%	No
838	Std	**Cty**	52,671	2.9%	296	12.2	$ 8.32	$ 1.33	$ 6.99	16.0%	4,323	64,987	**838**		*85%*	80%	*30 min.*	60	60	*1.50*	0%	No
848	Std	**EC,Cty**	126,813	5.6%	821	18.9	$ 5.89	$ 1.28	$ 4.60	21.8%	6,694	65,165	**848**		*85%*	85%	*30 min.*	30	30	*1.50*	0%	No
851	Circ	**LM,Cty**	31,175	22.3%	244	20.9	$ 6.40	$ 0.88	$ 5.52	13.7%	1,489	17,313	**851**	✓	*90%*	93%	*60 min.*	60	60	*1.00*	0%	No
852	Std	4,9,**LM**	120,847	9.5%	760	15.4	$ 6.74	$ 1.25	$ 5.48	18.6%	7,869	71,273	**852**	✓	*85%*	85%	*30 min.*	30	30	*1.50*	0%	No
854	Std	7,**LM**	31,732	18.1%	248	12.0	$ 10.55	$ 1.20	$ 9.35	11.4%	2,643	29,049	**854**		*85%*	95%	*30 min.*	30/60	30/60	*1.50*	0%	No
855	Std	**LM,Cty**	101,114	17.7%	697	26.1	$ 4.14	$ 0.92	$ 3.22	22.2%	3,867	36,466	**855**	✓	*85%*	89%	*30 min.*	30	30	*1.50*	0%	No
856	Std	4,9,**LG,Cty**	223,971	11.3%	1,588	23.4	$ 5.35	$ 1.13	$ 4.21	21.2%	9,554	104,362	**856**	✓	*85%*	78%	*30 min.*	30	30	*1.50*	0%	No
864	Std	**EC,Cty**	139,917	13.0%	876	22.2	$ 4.61	$ 1.36	$ 3.24	29.6%	6,308	56,243	**864**		*85%*	85%	*30 min.*	30	30	*1.50*	0%	No
872	Std	**EC**	18,405	9.7%	144	12.8	$ 6.08	$ 1.38	$ 4.70	22.7%	1,443	9,712	**872**		*85%*	92%	*30 min.*	30	30	*1.50*	0%	No
874/875	Std	**EC**	125,998	0.9%	835	17.3	$ 6.40	$ 1.36	$ 5.04	21.2%	7,297	70,151	**874/875**		*85%*	87%	*30 min.*	30	30	*1.50*	0%	No
888	Rural	**EC,Cty**	392	(0.5%)	8	1.6	$ 198.33	$ 2.20	$ 196.13	1.1%	246	7,123	**888**									
891	Rural	**EC,Cty**	134	91.4%	6	1.0	$ 324.11	$ 2.73	$ 321.38	0.8%	140	3,995	**891**									
892	Rural	**EC,Cty**	137	85.1%	6	1.0	$ 307.17	$ 1.69	$ 305.48	0.6%	137	3,870	**892**									
894	Rural	**EC,Cty**	28,036	50.1%	219	16.5	$ 15.91	$ 3.66	$ 12.25	23.0%	1,700	40,227	**894**									
901	**Frq**	3,8,**IB,Cor**	295,146	5.3%	1,802	18.0	$ 7.74	$ 1.33	$ 6.41	17.1%	16,355	212,181	**901**	✓	*85%*	77%	*15 min.*	15	30	*1.50*	0%	No
904*	Circ	**Cor**	58,882	61.4%	307	24.1	$ 2.24	$ 0.11	$ 2.13	4.8%	2,442	12,250	**904***		*90%*	81%	*60 min.*	60	60	*1.50*	0%	No
905	Std	8	107,066	(36.4%)	766	16.2	$ 9.22	$ 1.12	$ 8.10	12.1%	6,597	91,727	**905**	✓	*85%*	86%	*30 min.*	15/30	30	*1.50*	0%	No
906/907	**Frq**	8	609,772	21.8%	3,860	34.4	$ 2.30	$ 1.11	$ 1.19	48.4%	17,722	130,481	**906/907**	✓	*85%*	82%	*15 min.*	15	15	*1.50*	0%	No
909	Circ	8	20,895	25.3%	163	13.3	$ 9.99	$ 1.06	$ 8.93	10.6%	1,576	19,394	**909**	✓	*90%*	85%	*60 min.*	60+	60+	*1.5*	0%	No
916/917	Std	4,**LG**	63,453	12.7%	442	13.3	$ 9.41	$ 1.16	$ 8.25	12.3%	4,785	55,469	**916/917**	✓	*85%*	84%	*30 min.*	30/60	30/60	*1.50*	0%	No
921	Std	1,6	111,212	10.6%	700	16.5	$ 6.70	$ 1.55	$ 5.15	23.2%	6,729	65,554	**921**	✓	*85%*	81%	*30 min.*	30	30	*1.50*	0%	No
923	Std	2,3	70,667	12.9%	552	12.5	$ 7.83	$ 1.28	$ 6.55	16.4%	5,635	51,440	**923**		*85%*	84%	*30 min.*	30	30	*1.50*	0%	No
928	Std	6,7	80,257	16.2%	551	12.8	$ 10.18	$ 1.36	$ 8.83	13.3%	6,251	71,109	**928**		*85%*	87%	*30 min.*	30	30	*1.50*	0%	No
929	**Frq**	3,8,**CV,NC**	745,913	14.3%	4,737	25.6	$ 4.00	$ 1.19	$ 2.81	29.8%	29,169	277,599	**929**	✓	*85%*	77%	*15 min.*	12	15	*1.00*	0%	No
932	**Frq**	8,**CV,NC**	411,238	22.5%	2,780	24.6	$ 4.30	$ 1.17	$ 3.14	27.1%	16,741	164,406	**932**	✓	*85%*	79%	*15 min.*	15	15	*1.50*	0%	No
933/934	**Frq**	8,**IB**	621,811	4.5%	4,086	28.1	$ 4.29	$ 1.00	$ 3.29	23.3%	22,162	247,940	**933/934**	✓	*85%*	77%	*15 min.*	12	15	*1.50*	0%	No
936	Std	4,9,**LG,Cty**	180,780	12.1%	1,035	21.0	$ 4.37	$ 1.28	$ 3.09	29.3%	8,593	69,040	**936**	✓	*85%*	84%	*30 min.*	30	30	*1.50*	0%	No
944	Std	5,**PW**	24,562	19.5%	179	7.6	$ 13.33	$ 1.27	$ 12.06	9.5%	3,224	34,754	**944**		*85%*	87%	*30 min.*	30	30	*1.00*	0%	No
945	Std	5,**PW**	52,179	15.6%	376	10.4	$ 9.77	$ 1.14	$ 8.63	11.7%	5,025	70,056	**945**		*85%*	80%	*30 min.*	30	30	*1.50*	0%	No
945A	Std	**PW**	5,201	15.1%	41	7.3	$ 12.90	$ 0.23	$ 12.68	1.8%	711	10,007	**945A**		*85%*	78%	*30 min.*	30	30	*1.50*	0%	No
955	**Frq**	4,8,9,**NC**	523,222	19.1%	3,400	29.4	$ 3.33	$ 1.07	$ 2.27	32.0%	17,807	161,987	**955**	✓	*85%*	81%	*15 min.*	12	12	*1.50*	0%	No

Date: 2/5/24 rev

San Diego Metropolitan Transit System
POLICY 42 PERFORMANCE MONITORING REPORT
FY 2025: JULY 2024 - DECEMBER 2024

FY 2025 SEMI-ANNUAL ROUTE STATISTICS (Q1-Q2)

BASE STATISTICS

Route	Cat	Jurisdiction (#=SD Dist.)	Q1-Q2 Passengers	FY24-25 % Change	Avg. Wkdy. Psgrs.	Psgrs./ Rev. Hr.	Cost/ Psgr.	Average Fare	Subsidy/ Psgr.	Farebox Recovery	Budgeted Rev.Svc. Hours	Budgeted Rev.Svc. Miles
961	**Frq**	4,**NC**	253,508	16.1%	1,616	25.5	$ 4.30	$ 1.10	$ 3.21	25.5%	9,931	101,388
962	**Frq**	4,**NC**,**Cty**	234,723	23.6%	1,488	21.9	$ 5.02	$ 1.20	$ 3.82	23.8%	10,736	109,491
963	Std	4,**NC**	59,831	(4.3%)	387	15.2	$ 5.85	$ 1.17	$ 4.67	20.1%	3,938	32,507
964	Circ	5,6	56,152	25.8%	439	13.1	$ 7.78	$ 1.12	$ 6.66	14.4%	4,296	40,749
965	Circ	9	23,699	13.5%	166	12.1	$ 8.37	$ 1.08	$ 7.29	12.9%	1,956	19,913
967	Std	4,**NC**	19,612	26.6%	153	13.0	$ 7.35	$ 1.22	$ 6.13	16.6%	1,505	13,398
968	Std	**NC**	27,147	18.7%	212	15.5	$ 6.93	$ 1.06	$ 5.87	15.2%	1,751	17,484
985	Circ	1	17,905	100.0%	140	12.5	$ 8.16	$ 1.58	$ 6.58	19.4%	1,437	16,119
992	Frq	2,3	199,955	28.2%	1,086	20.4	$ 4.18	$ 1.26	$ 2.92	30.1%	9,821	77,578
Access	D.R.	ALL	136,071	56.4%	958	1.4	$ 70.04	$ 4.39	$ 65.64	6.3%		
Taxi	D.R.	ALL	36,283	(44.4%)	247	2.7	$ 35.31	$ 4.70	$ 30.62	13.3%		
TOTAL			**40,921,331**	8.9%	**255,093**	**39.7**	**$ 4.90**	**$ 0.93**	**$ 3.96**	**19.1%**	**923,530**	**10,900,901**

TITLE VI MONITORING (FY 2025 Annual Statistics) ~

Route	Minority Route	On-Time Perf. Goal	On-Time Perf. Actual	Weekday Headway Goal	Weekday Headway Peak	Weekday Headway Base	Vehicle Load Factor ~~ Goal	Vehicle Load Factor ~~ % trips over VLF	Vehicle Load Factor ~~ > 20%?
961	✓	85%	84%	15 min.	15/30	15/30	1.50	0%	No
962	✓	85%	80%	15 min.	15	15	1.50	0%	No
963	✓	85%	85%	30 min.	30	30	1.50	0%	No
964	✓	90%	79%	60 min.	30	30	1.00	0%	No
965	✓	90%	66%	60 min.	35-45	35-45	1.00	0%	No
967	✓	85%	85%	30 min.	60	60	1.50	0%	No
968	✓	85%	86%	30 min.	60+	60+	1.50	0%	No
985	✓	90%		15 min.	15	15			
992		85%	71%	15 min.	15	15	1.50	0%	No

*FTA defines **Minority** persons to include the following: (1) American Indian and Alaska Native, (2) Asian, (3) Black or African American, (4) Hispanic or Latino, (5) Native Hawaiian or Other Pacific Islander.*

*FTA defines **Minority Route** as one with at least 1/3 of its total mileage in a census block(s) with a percentage of minority population that exceeds the percentage of minority population in the entire MTS service area.*

Source: https://www.transit.dot.gov/sites/fta.dot.gov/files/dovs/FTA_Title_VI_FINAL.pdf

Route Category	Q1-Q2 Passengers	FY24-25 % Change	Avg. Wkday. Psgrs.	Psgrs./ Rev. Hr.	Cost/ Psgr.	Average Fare	Subsidy/ Psgr.	Farebox Recovery
Urban Frequent	12,157,248	10.6%	77,677	25.9	$ 5.46	$ 1.11	$ 4.35	20.4%
Urban Standard	2,945,751	3.9%	19,846	17.4	$ 6.62	$ 1.15	$ 5.48	17.3%
Rapid ^	3,271,789	14.5%	21,316	29.7	$ 6.37	$ 1.23	$ 5.14	19.3%
Express	234,700	-20.1%	1,581	14.2	$ 13.22	$ 1.15	$ 12.08	8.7%
Circulator	330,225	17.8%	2,358	13.1	$ 6.92	$ 0.92	$ 6.00	13.3%
Premium/Rapid Express	52,836	3.9%	413	16.8	$ 18.72	$ 3.27	$ 15.45	17.5%
Rural ^^	28,699	49.3%	224	12.9	$ 21.23	$ 3.63	$ 17.60	17.1%
Fixed Bus Subtotal	**19,021,248**	**9.8%**	**123,416**	**23.9**	**$ 5.98**	**$ 1.15**	**$ 4.83**	**19.2%**
Light Rail (B,O,G,C) ~	21,726,861	7.7%	130,471	170.6	$ 3.41	$ 0.72	$ 2.69	21.2%
Light Rail (Silver)	868	75.7%	-	41.3	$ 13.80	$ 0.72	$ 13.08	5.2%
Light Rail Subtotal	**21,727,729**	**7.7%**	**130,471**	**170.5**	**$ 3.41**	**$ 0.72**	**$ 2.69**	**21.2%**
ALL Fixed-Route	**40,748,977**	**8.7%**	**253,887**	**44.1**	**$ 4.61**	**$ 0.92**	**$ 3.69**	**20.0%**
MTS Access	136,071	56.4%	958	1.4	$ 70.04	$ 4.39	$ 65.64	6.3%
Access Taxi	36,283	-44.4%	247	2.7	$ 35.31	$ 4.70	$ 30.62	13.3%
Demand-Resp Subtotal	**172,354**	**13.2%**	**1,206**	**1.6**	**$ 62.73**	**$ 4.46**	**$ 58.27**	**7.1%**
System Total	**40,921,331**	**8.7%**	**255,093**	**39.7**	**$ 4.90**	**$ 0.93**	**$ 3.96**	**19.1%**

* City of Coronado subsidized fares for summer service on Route 904.
^ SANDAG reimburses MTS for net operating costs for Routes 201-237 with TransNet funds (except Route 227).
^^ Routes 888, 891, 892, and 894 receive federal rural operating subsidy.
~ New Copper Line started service on Sep 29, 2024.

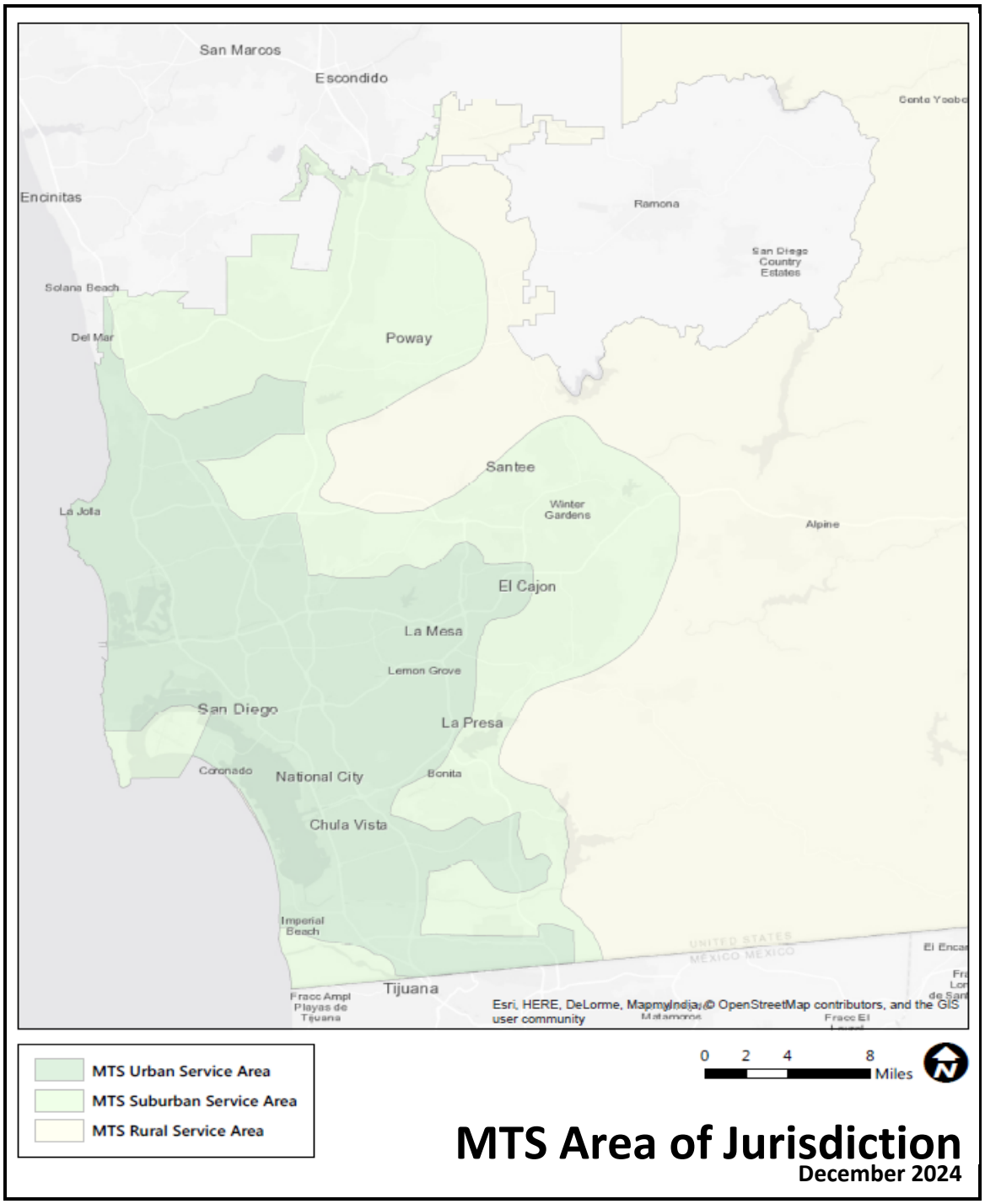
NC=National City, CV=Chula Vista
IB=Imperial Beach, LG=Lemon Grove, LM=La Mesa
EC=El Cajon, ST=Santee, PW=Poway
Cor=Coronado, Cty=County Uninc., Esc=Escondido
SD Dist.=City of San Diego Council District

SERVICE AVAILABILITY

Goal	Actual	
80% of residents or jobs within ½ mile of a bus stop or rail station in urban area	*% of **residents** within 1/2 mile of a bus stop or rail station in urban areas:* **99.2%**	*% of **jobs** within 1/2 mile of a bus stop or rail station in urban areas:* **95.9%**
100% of suburban residences within 5 miles of a bus stop or rail station.	% of suburban residents within 5 miles of a bus stop or rail station: **100.0%**	
One return trip at least 2 days/week to destinations from rural villages (defined as Lakeside and Alpine).	*Available Service:* **Route 848 serves Lakeside seven days a week and Route 838 serves Alpine seven days a week.**	

See attached map entitled 'Metropolitan Transit System Area of Jurisdiction.'

Percentage Sources: American Community Survey (2019) and 2020 U.S. Census Bureau
^ Minority Route report updated using ACS 2021 (10/26/2023)
~ Title VI Monitoring statistics are updated on an annual basis
~~ No trips averaged above the vehicle load factor target (1.5 for most bus routes, 3.0 for Trolley).
NOTE: Rural and Demand Response services have no specific Policy 42 goals for OTP, headway, or vehicle load.


San Marcos
Escondido
Encinitas
Ramona
San Diego Country Estates
Solana Beach
Del Mar
Poway
Santee
La Jolla
Winter Gardens
Alpine
El Cajon
La Mesa
Lemon Grove
San Diego
La Presa
Coronado
National City
Bonita
Chula Vista
Imperial Beach
Tijuana
Fracc Ampl Playas de Tijuana
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community
MTS Urban Service Area
MTS Suburban Service Area
MTS Rural Service Area
0 2 4 8 Miles
MTS Area of Jurisdiction
December 2024

FY 2025 Q1-Q2 Performance Monitoring Report

Board of Directors

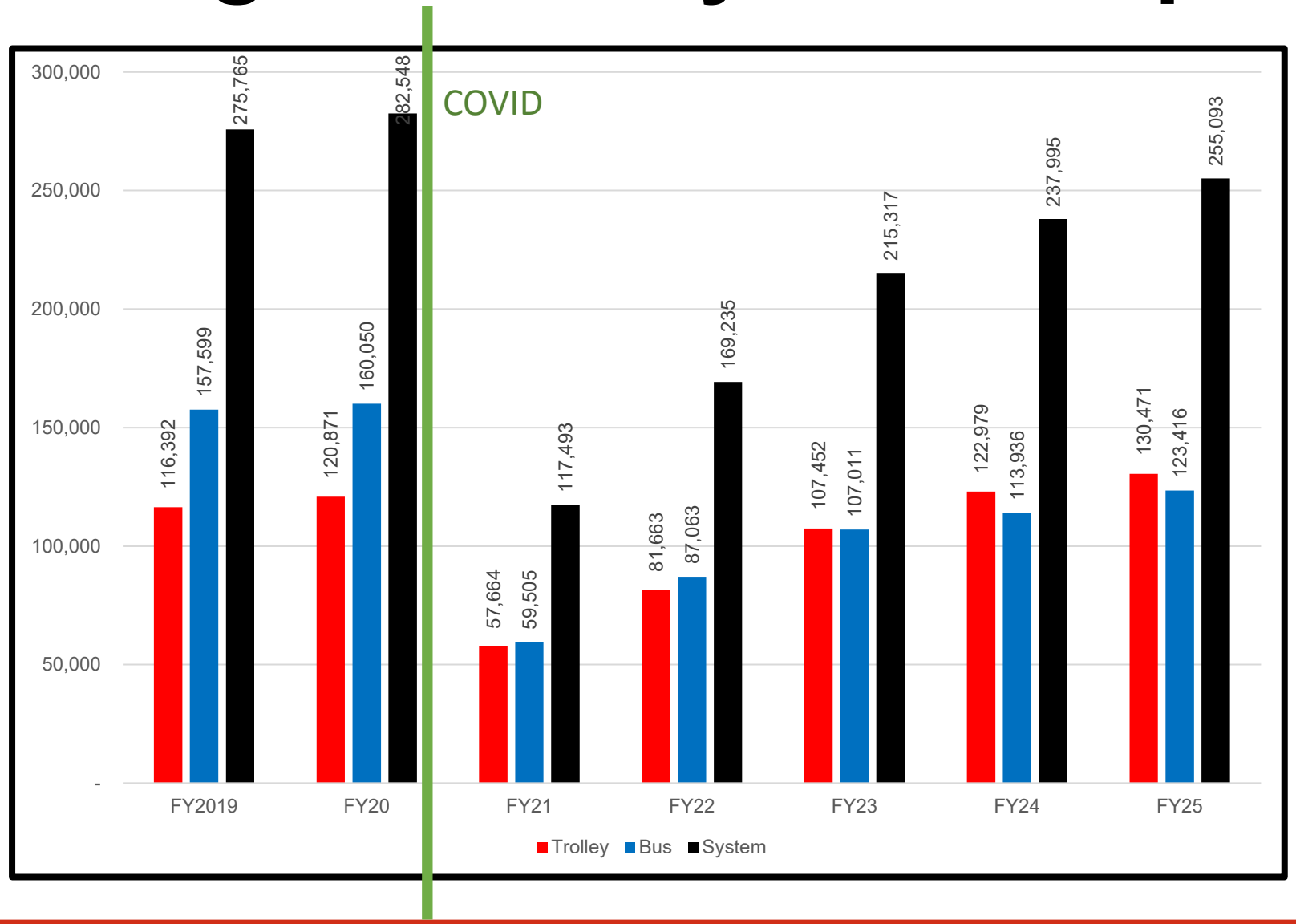
Board Policy 42

- Board policy to establish:
  - A process for evaluating and adjusting existing transit services to improve performance
  - Procedures for implementing service changes
- Adopted vision is for a customer-focused, competitive, integrated, and sustainable system
- Categorizes services by types:
  - Bus: premium express, express, Rapid, urban frequent, urban standard, circulator, Rural
  - Light Rail (Trolley)
  - Demand Response
- Performance indicators are analyzed with performance targets established
- Board receives annual and quarterly updates

Policy 42 Evaluation Criteria

CUSTOMER FOCUSED/COMPETITIVE		INTEGRATED	SUSTAINABLE	
PRODUCTIVITY	**QUALITY**	**CONNECTIVITY**	**RESOURCES**	**EFFICIENCY**
• **Total Passengers** • **Average Weekday Passengers** • **Passengers/ Revenue Hour** • Passengers/ In-Service Hour	• Passenger Load Factor • **On-Time Performance** • Accidents/ 100,000 Miles • Comments/ 100,000 Passengers • Mean Distance Between Failures	• Route Headway • Span-of- Service Consistency • Service Availability	• In-Service Miles • In-Service Hours • Peak Vehicle Requirement	• In-Service Speed • In-Service/Total Miles • In-Service/Total Hours • Farebox Recovery Ratio • Subsidy/Passenger

Average Weekday Ridership

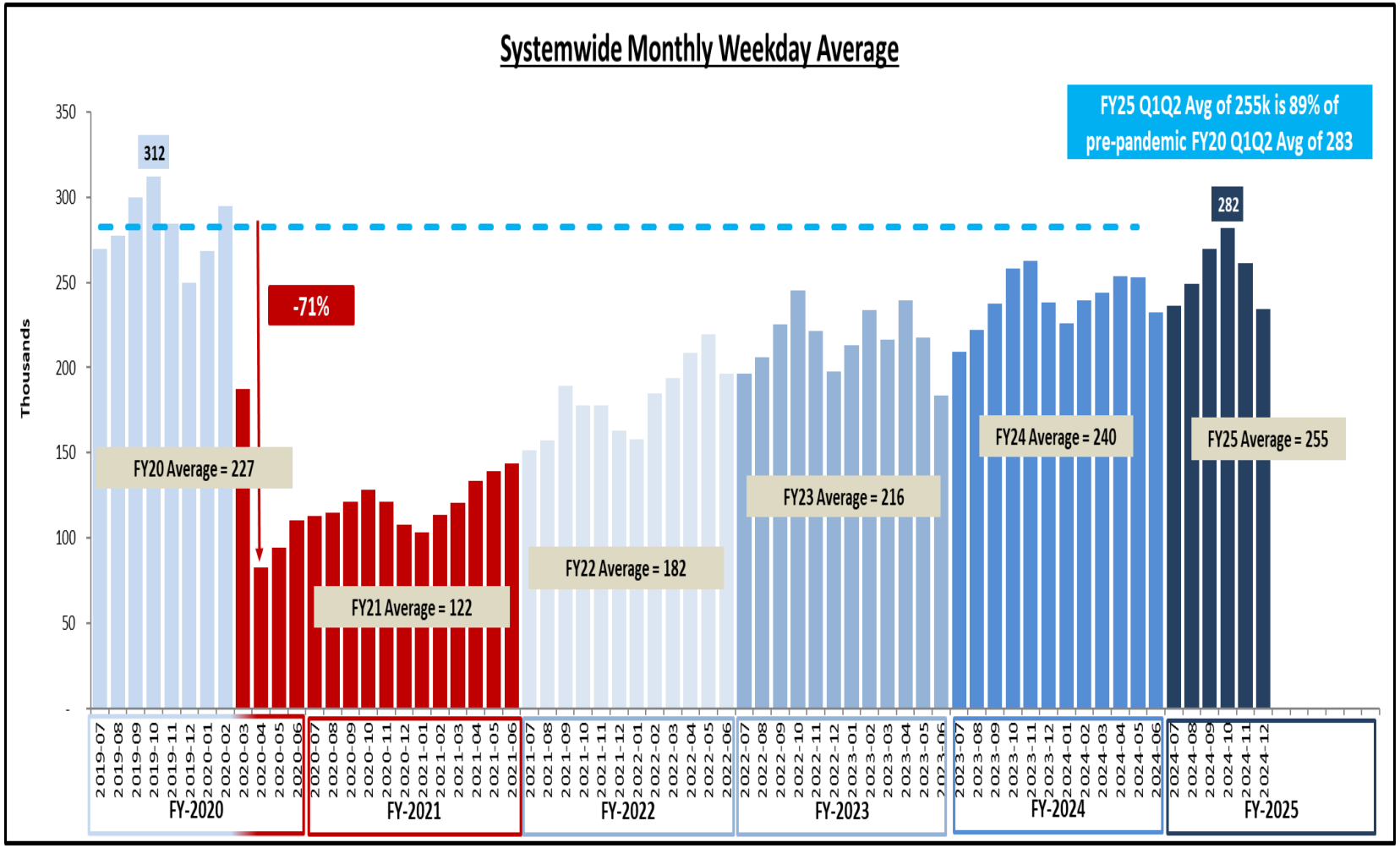


- <u>One-year Change</u>
  - System up 7.2%
    - Trolley up 6.1%
    - Bus up 8.3%
- <u>From Pre-Covid (FY20)</u>
  - System down 9.7%
    - Trolley up 7.4%
    - Bus down 23.0%
      - Commuter bus slowest to return (-62%)
- <u>From Post-Covid (FY21)</u>
  - System up 117%
    - Trolley up 226%
    - Bus up 207%

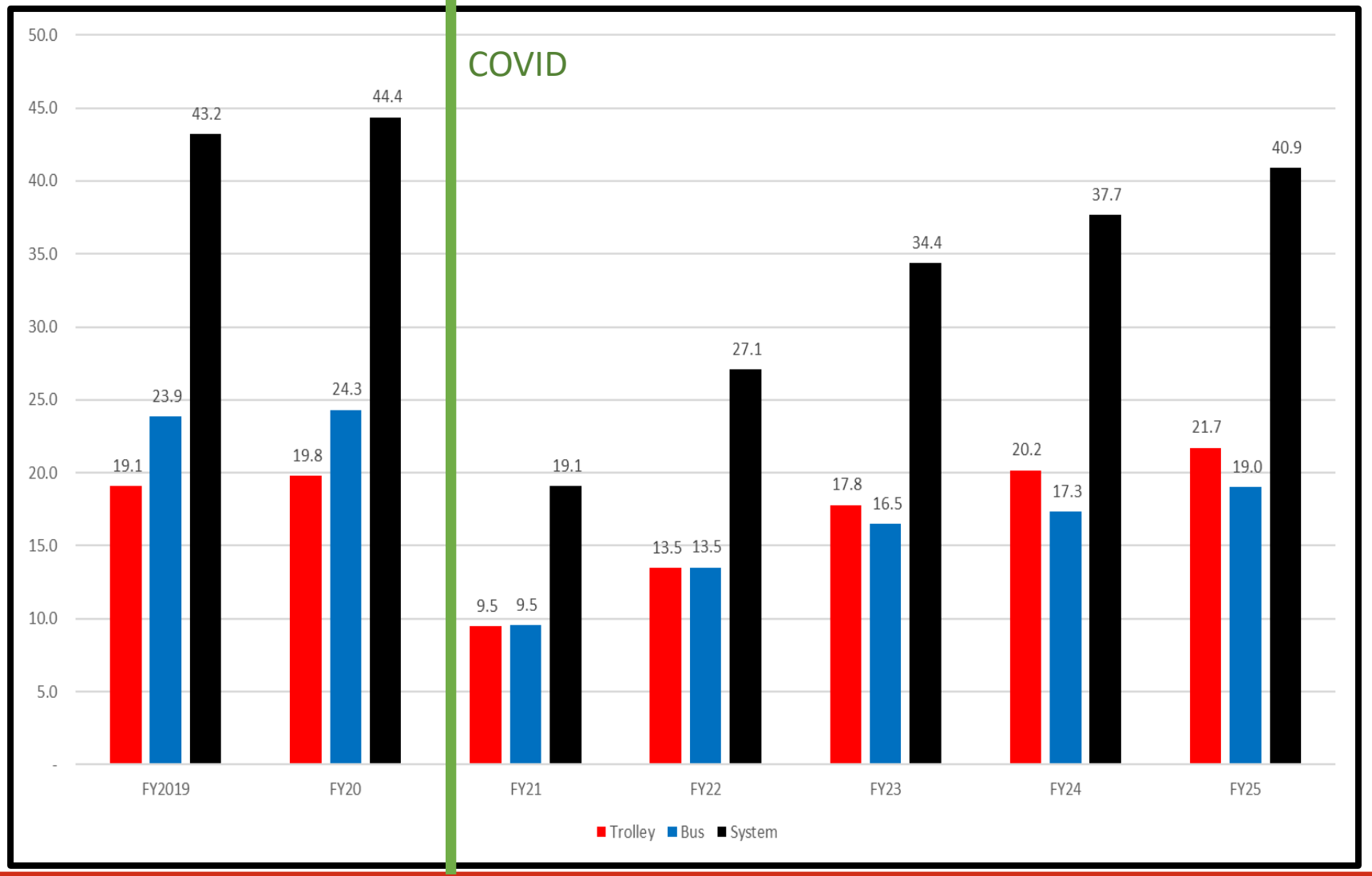
Average Weekday Ridership

Compared to pandemic low-point of 83k in April 2020 (29% of baseline):

- Oct 2024 = **240% higher** (282k)
  - *Weekday average in Oct. 2024 was the highest at 282k (99.8% of Fall 2019 baseline)*
  - ***Baseline Fall 2019 = 282,455***
  - ***Highest Oct 2024 = 281,976***
- Systemwide weekday average ridership just under pre-pandemic levels.

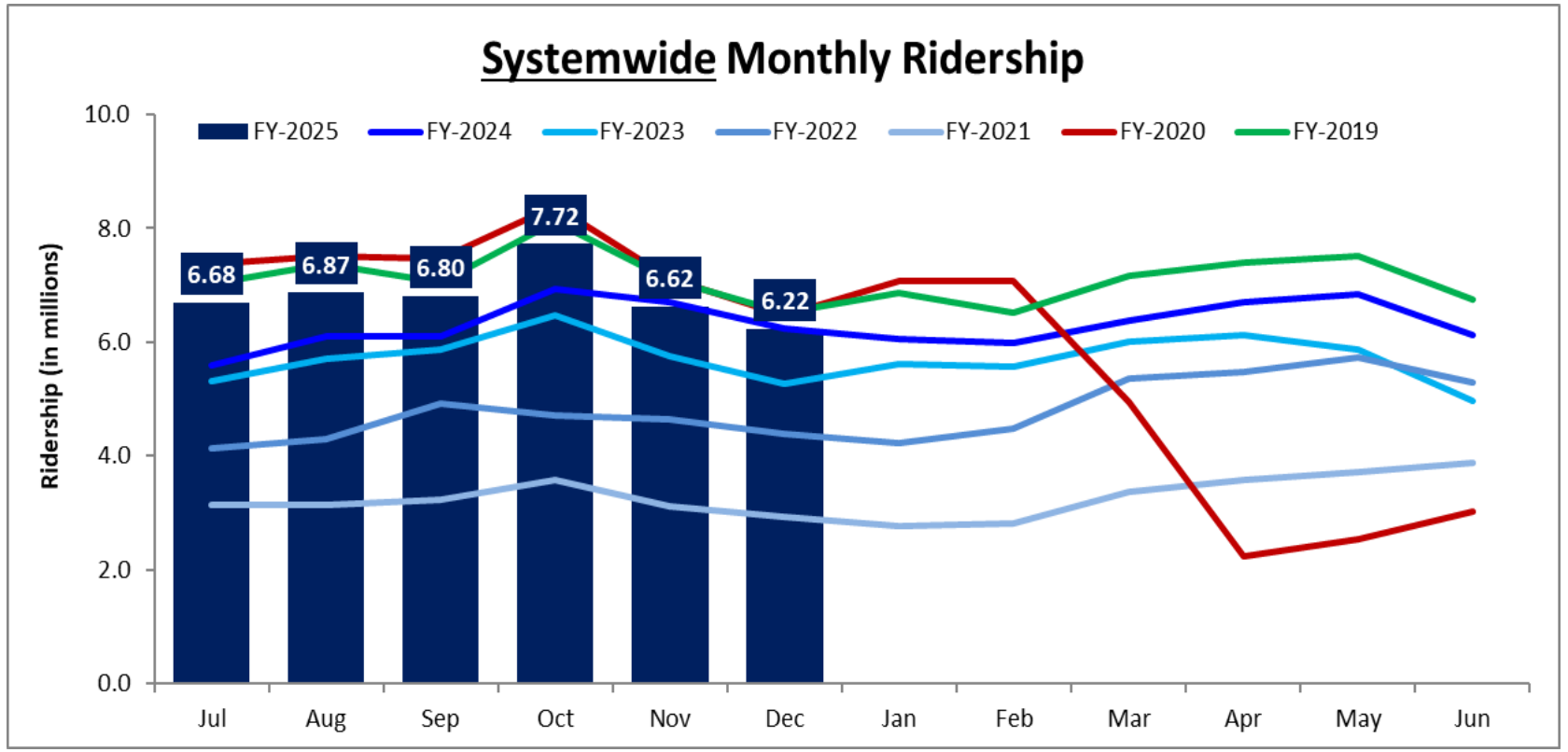


Total Ridership (in millions)



- Overall Trends
  - MTS Ridership continues to rebound and has not reach post-pandemic potential
    - **Down 7%**
  - Expected to reach pre-COVID levels in FY25 or FY26
  - While Trolley has recovered at a quicker rate than Bus, Bus is growing at a quicker rate between FY24 and FY25
  - Demand response down 32% from pre-COVID, but up 13% since FY24

Total Ridership (by month)



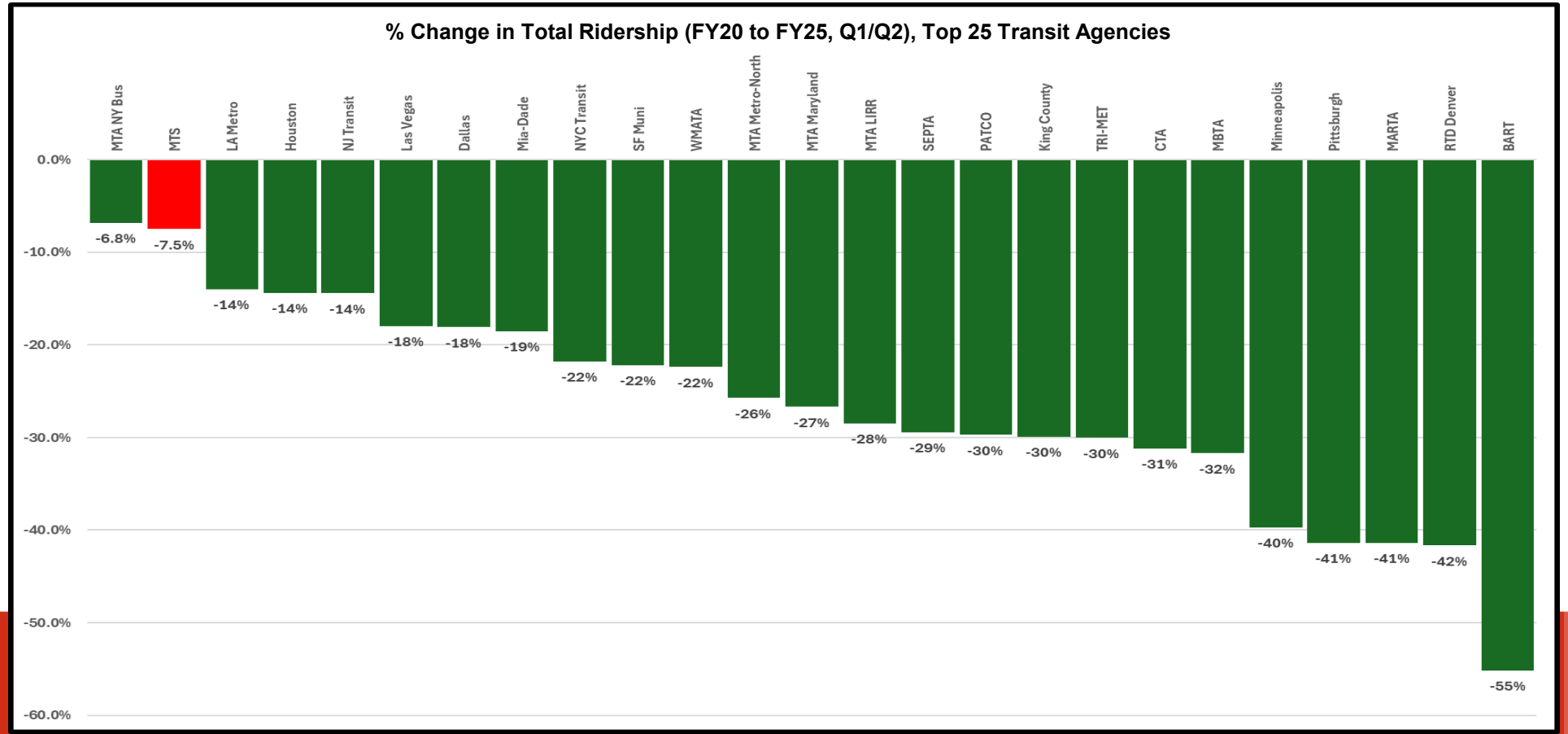
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY24-FY25	20%	12%	11%	11%	-1%	0%						
FY23-FY24	5%	7%	4%	7%	16%	19%	8%	8%	6%	9%	17%	23%
FY22-FY23	28%	33%	20%	38%	24%	20%	34%	25%	12%	12%	2%	-6%
FY21-FY22	32%	37%	53%	32%	49%	49%	53%	59%	59%	53%	54%	36%
FY20-FY21	-58%	-58%	-57%	-58%	-56%	-55%	-61%	-60%	-32%	60%	47%	29%
FY19-FY20	5%	2%	6%	4%	0%	-1%	3%	9%	-31%	-70%	-66%	-55%

- Overall Trends
  - MTS Ridership continues to rebound and has not reach post-pandemic potential
  - January ridership (Q3) showing 8% growth over January ridership in 2024

MTS vs National Trends

- MTS ridership down **7%** from July-December 2019 to July-December 2024
- National ridership down **23%** in same timeframe

- Of Top 25 transit systems, only MTA New York Bus (-6.8%) retained more ridership than MTS.



MTS vs National Trends

- MTS went from 21st highest-ridership system in first half of FY20 to 13th highest-ridership system in first half of FY25

- 4 of 12 higher than San Diego in FY25 are in metro New York

Agency	FY20, Q1Q2	FY20Rank	FY25Rank	FY25, Q1Q2	Agency
NYC Transit	1,777,036,628	1	1	1,389,867,379	NYC Transit
CTA	232,046,493	2	2	161,357,701	LA Metro
LA Metro	187,605,962	3	3	159,708,662	CTA
WMATA	186,644,813	4	4	144,881,978	WMATA
MBTA	186,208,556	5	5	127,185,399	MBTA
SEPTA	155,958,519	6	6	116,449,760	NJ Transit
NJ Transit	136,053,984	7	7	110,035,164	SEPTA
SF Muni	108,392,791	8	8	84,327,598	SF Muni
MTA NY Bus	68,481,589	9	9	63,829,907	MTA NY Bus
King County	64,250,423	10	10	45,027,482	King County
BART	64,026,896	11	11	42,336,557	MTA LIRR
MTA LIRR	59,171,192	12	12	41,624,973	Miami-Dade
MARTA	56,848,936	13	13	41,039,265	San Diego MTS
RTD Denver	54,430,197	14	14	38,960,924	Houston
Miami-Dade	51,087,634	15	15	35,034,265	MTA Maryland
TRI-MET	48,644,972	16	16	34,758,805	MTA Metro-North
MTA Maryland	47,791,322	17	17	34,044,934	TRI-MET
MTA Metro-North	46,797,893	18	18	33,334,499	MARTA
PATCO	46,547,631	19	19	32,720,070	PATCO
Houston	45,511,850	20	20	31,765,029	RTD Denver
San Diego MTS	44,360,716	21	21	29,063,732	Dallas
Minneapolis	39,906,659	22	22	28,718,733	BART
Dallas	35,482,471	23	23	28,349,542	Las Vegas
Las Vegas	34,554,924	24	24	24,065,634	Minneapolis
Pittsburgh	32,746,778	25	30	19,203,766	Pittsburgh

Passengers per Revenue Hour

- Metric measures how well service provided is used
- Policy 42 goal is to improve the route category average
- Returning towards pre-pandemic levels.
  - Aside from emergency reductions in April-June 2020, MTS maintained relatively stable service levels through most of the Covid-19 pandemic.

Route Categories	FY 2023 *July-Dec.*	FY 2024 *July-Dec.*	FY 2025 *July-Dec.*	% Change FY24-FY25
Urban Frequent	19.9	20.6	21.5	4.8%
Urban Standard	13.8	14.2	14.4	1.9%
Rapid	24.1	25.2	24.7	-1.9%
Express	12.8	13.3	11.8	-11.8%
Circulator	9.3	8.3	10.5	26.7%
Premium/Rapid Express	13.5	13.9	14.0	0.6%
Rural	8.3	7.1	10.8	51.4%
Fixed-Route Bus	**18.4**	**19.0**	**19.8**	**4.2%**
Light Rail	**152.1**	**172.7**	**170.5**	**-1.3%**
All Fixed-Route	**33.8**	**36.5**	**37.5**	**2.8%**
MTS Access	1.8	1.9	1.4	-17.1%
System	**31.8**	**34.0**	**34.3**	**0.7%**

On-Time Performance

- Policy 42 goal is 85% for Urban Frequent & Rapid, 90% for all other categories
- Increasing ridership and resuming traffic congestion are impacting on-time performance figures, with results returning to levels similar to pre-pandemic periods.

Route Categories	Service Change Period					GOAL
	June 2023	Sept. 2023	Jan. 2024	June 2024	Sept. 2024	
Urban Frequent	81.7%	82.4%	82.1%	82.8%	82.1%	*85.0%*
Urban Standard	84.7%	83.8%	84.5%	84.9%	83.8%	*90.0%*
Rapid	85.4%	85.9%	87.4%	86.7%	86.8%	*85.0%*
Express	90.9%	91.1%	90.2%	90.5%	84.0%	*90.0%*
Circulator	83.1%	84.4%	85.2%	84.9%	84.4%	*90.0%*
Premium/Rapid Express	88.8%	90.2%	88.5%	90.0%	86.7%	*90.0%*
Rural	N/A	N/A	N/A	N/A	N/A	
Demand-Resp. (Access & Taxi)	N/A	N/A	N/A	N/A	N/A	
Light Rail (Blue, Orange, Green)	95.7%	95.7%	92.8%	92.3%	93.0%	*90.0%*
Light Rail (Silver)	N/A	N/A	N/A	N/A	N/A	*90.0%*
System	**84.4%**	**84.4%**	**84.3%**	**84.8%**	**83.4%**	

Questions/Comments