



Executive Committee Agenda

Click link to access the meeting:

<https://us02web.zoom.us/j/94562188418>






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.
	▶	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.
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	▶	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. Three-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
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3. The Clerk will announce your name when it is your turn to speak
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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 three 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) 398-9681 or by mail at 1255 Imperial Ave. Suite 1000, San Diego CA 92101.



Agenda del Comité Ejecutivo

Haga clic en el enlace para acceder a la reunión:

<https://us02web.zoom.us/j/94562188418>






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.

ID de la reunión
en Zoom

Funciones del Seminario En Línea:

 Levantar la mano	►	Use la herramienta de levantar la mano cada vez que desee hacer un comentario público.
	►	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).



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 tres 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 tres 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) 398-9681** o por correo postal en **1255 Imperial Ave. Suite 1000, San Diego CA 92101.**



Executive Committee Agenda

February 9, 2023 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) 444-9171; Webinar ID: 945 6218 8418, <https://us02web.zoom.us/j/94562188418>

NO.	ITEM SUBJECT AND DESCRIPTION	ACTION
1.	Roll Call	
2.	Public Comments	
3.	Approval of Minutes Action would approve the December 1, 2022 Executive Committee meeting Minutes.	Approve
DISCUSSION ITEMS		
4.	San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative with RVK Inc. and Larry Marinesi)	Informational
5.	San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as Of July 1, 2022 (Anne Harper With Cheiron Inc. And Larry Marinesi) Action would forward a recommendation to the MTS Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2021 (Attachment A), and adopt the pension contribution amount of \$18,946,198 for fiscal year 2024.	Approve
6.	Security Services – Contract Amendment (Al Stiehler) Action would forward a recommendation to the MTS Board of Directors to authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2359.5-20, with Inter-Con Security Services (Inter-Con), in the amount of \$5,273,494 for Inter-Con contracted employee wage increases for the provision of security services through December 31, 2026.	Approve



- | | | |
|----|---|---------------|
| 7. | Spring Street Station Transit-Oriented Development (Sean Myott)
Action would authorize the Chief Executive Officer to execute an Exclusive Negotiation Agreement (ENA) with Affirmed Housing (Affirmed) for a Spring Street Station Transit-Oriented Development Project, in substantially the same format as Attachment A. | Approve |
| 8. | Upcoming Major Service Change Proposals - Iris Rapid Bus Route and Sorrento Valley Coaster Connection (Denis Desmond) | Informational |

OTHER ITEMS

- 9. **Review of Draft February 16, 2023 MTS Board Agenda**
- 10. **Other Staff Communications and Business**
- 11. **Committee Member Communications and Other Business**
- 12. **Next Meeting Date: March 9, 2023**
- 13. **Adjournment**

DRAFT MINUTES

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM

EXECUTIVE COMMITTEE

December 1, 2022

[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 Fletcher called the Executive Committee meeting to order at 9:02 a.m. A roll call sheet listing Executive Committee member attendance is attached.

2. Approval of Minutes

Chair Fletcher moved to approve the minutes of the November 3, 2022, MTS Executive Committee meeting. Board Member Moreno seconded the motion, and the vote was 5 to 0 in favor with Board Member Salas and Board Member Sandke absent.

3. Public Comments

There were no Public Comments.

DISCUSSION ITEMS

4. 2023 State and Federal Legislative Program (Julia Tuer, Mark Watts, Peter Peyser)

Julia Tuer, MTS Manager of Government Affairs, Mark Watts, MTS State Legislative Representative and Peter Peyser, MTS Federal Legislative Representative presented on 2023 State and Federal Legislative Program. The presentation covered the following topics: 2023 state and federal legislative program, state and federal legislative priorities, passed legislation in 2022, legislative proposals, state & federal legislative updates, and staff's recommendation.

COMMITTEE COMMENTS

Board Member Elo-Rivera asked to formally support legislation for cost recovery for the operation of restrooms. He acknowledged that cost recovery is a current barrier, and wished to see the Board formally advocate for this issue, since he did not know of a state representative that was advocating for this issue. Chair Fletcher agreed that his request could be added into the recommendation. He also asked to include support for zoning and permitting that help to prioritize transit-oriented development projects. Sharon Cooney, Chief Executive Officer, noted that the current proposal does include such priorities and has historically advocated for it. He clarified that he wanted the agency to support zoning and permitting for those aspects of development, independent of available funding. Ms. Cooney confirmed that staff could incorporate the request.

Board Member Hall referenced the MTS Weekly Safety and Security report and asked about what the agency is doing to advocate for transit workers. Ms. Cooney replied that this was an effort that the California Transit Association (CTA) was spearheading and the agency would like to seek formal legislative support to disincentivize individuals from attacking workers. Board Member Hall was curious about how that legislation would be implemented. Ms. Tuer responded that was an ongoing conversation between CTA and other agencies across California.

PUBLIC COMMENT

Corinna Contreras – Representing Climate Action Campaign made a verbal statement to the Board during the meeting. Contreras supported any push for restroom amenities and asked if there was a way for the agency to receive matching funding for water bottle filling stations and the development of canopies to provide shade in order to make the stations more hospitable. Contreras also asked for active transportation as a priority.

Rebecca Satrom – An MTS bus driver made a verbal statement to the Board during the meeting. Satrom acknowledged a flooding issue in the Fashion Valley private worker restrooms during the winter. Satrom acknowledged the lack of temporary accommodations made for the drivers. Flooding and rust also posed safety obstacles at the site.

Action Taken

Chair Fletcher moved to forward a recommendation to the Board of Directors to approve the 2023 State and Federal Legislative Program and include the following additions: 1) support restroom recovery opportunities; and 2) support zoning and permitting that help to prioritize transit-oriented development projects. Board Member Hall seconded the motion, and the vote was 5 to 0 in favor with Board Member Salas and Board Member Sandke absent.

5. License Agreement for Gaslamp Quarter Trolley Station Digital Information Board Project; Determination That Project Is Statutorily and Categorically Exempt from Environmental Review Under the California Environmental Quality Act; And Approval of Project (Mark Olson)

Mark Olson, MTS Director of Marketing and Communications, Karen Landers, General Counsel and Bill Tagliaferri, representing Big Outdoor presented on the license agreement for Gaslamp Quarter Trolley Station Digital Information Board Project; determination that project is statutorily and categorically exempt from environmental review under the California Environmental Quality Act; and approval of project. They discussed: the background; digital information board discussions; Big Outdoor work samples; new opportunity at Gaslamp Trolley Station; License Agreement Research & Negotiations; License Agreement Key Terms; License Agreement – Project is Exempt from CEQA; additional findings in support of CEQA exemptions; key terms - advertising rules/waiver; key terms - revenue share; revenue share comparable; digital information board conceptual design; proximity to residential spaces; digital information board benefits and uses; next steps and staff recommendation.

COMMITTEE COMMENT

Board Member Hall asked if all the nearby residential and commercial stakeholders were supportive. Mr. Olson clarified that Big Outdoor and MTS reached out to a few constituents, coupled with talking with Board members who represent the area. He also asked if the agency could take over the billboard for emergency information services. Ms. Landers replied that the license agreement gives MTS the absolute right to 10% of the time, including emergency messages. She noted that Big Outdoor is a good partner and negotiating additional time in case of an emergency would not be an issue. Chair Fletcher added that staff could add standard language to the contract for emergency communication. Ms. Landers replied that staff could work with Big Outdoor on the issue.

Board Member Moreno commended staff on securing additional non-fare revenue. She was concerned that the agency was claiming an exemption from CEQA. She believed that courts intended to declare exemptions narrowly; potential litigation could delay the project and recommended that the agency proceed with a mitigated negative declaration (MND), rather than

claim an exception. She was wary to support the claim that the billboard was a transit wayfinding sign. She added that an MND would allow the agency to study the impacts of possible light pollution in the surrounding areas. She also questioned why MTS should move forward on the project in partnership with Big Outdoor. The construction cost of a digital display is minimal compared with the 35% – 45% revenue stream the agency would receive for all advertisement revenue. She suggested the agency independently construct the sign and partner with another contractor to administer the sign. She asked if the suggestion was previously considered. Chair Fletcher replied that her comments were more relevant to be made during a closed session portion of the Board agenda since the comment directly addressed potential litigation. This discussion would be docketed to be addressed in the closed session portion of the meeting on December 8, 2022. Mr. Olson replied that in this industry, there will always be a revenue split. She also asked what additional added value did Big Outdoor bring to the agreement. Mr. Olson replied that they were able to secure advertisers and maintain structure, be agile in the technology and maintenance. She did not agree that the project was exempt from CEQA and stated that she would be voting against the motion.

PUBLIC COMMENT

Corry Briggs – Provided a written statement to the Board prior to the meeting. The written comment is provided in the [December 1, 2022 Final Meeting Packet](#).

Action Taken

Chair Fletcher moved to forward a recommendation to the MTS Board of Directors to: 1) Authorize the Chief Executive Officer (CEO) to execute MTS Doc. G2702.0-23 with Big Outdoor Investments, LLC, a Texas limited liability company (Big Outdoor) for a license agreement to construct and operate a digital information board at the Gaslamp Trolley Station (“Project”) for a base period of 20 years and two (2) five (5)-year options; 2) Waive the prohibition on alcohol advertising in MTS Board Policy 21.3(j) as it relates to this Project only; 3) Determine that the Project is statutorily and categorically exempt from environmental review under the California Environmental Quality Act pursuant to Public Resources Code sections 21080.25 and 21080(b)(11) and Title 14 of the California Code Regulations, sections 15275, 15303, 15311, and 15332; and 4) Certify that the Project will be completed by a skilled and trained workforce consistent with the criteria in Public Resources Code section 21080.25. Board Member Hall seconded the motion, and the vote was 3 to 2 in favor with Board Member Moreno and Board Member Sotelo-Solis voting no, and Board Member Salas and Board Member Sandke absent.

6. Naming Rights Program Services – Contract Award (Mark Olson)

Mark Olson and Kyle Cantor with Superlative presented on the naming rights program services. The presentation included the following topics: the background, naming rights agreements success, seeking new naming rights partners, scope of work, solicitation process, Superlative key contract terms, Superlative introduction, next steps, and staff’s recommendation.

COMMITTEE COMMENTS

Board Member Elo-Rivera recognized the Board’s push to expand service and programs in the middle of a structural deficit. He recognized staff for their efforts to balance the two concerns. He noted Youth Opportunity Passes and commented that perhaps a naming rights deal could be a means of funding the passes and other programs for young adults to acquire lifelong riders. He asked to have conversations amongst Board Members and community-based organizations to list out a wish list of programs that the agency would strive for, once funding was available.

Action Taken

Board Member Elo-Rivera moved to 1) Execute MTS Doc. G2623.0-22 (in substantially the same format as Attachment A), with The Superlative Group, Inc. (Superlative), for Naming Rights Program services for a three (3) base year period and five (5) 1-year options; and 2) Exercise the option years at the CEO's discretion. Chair Fletcher seconded the motion, and the vote was 5 to 0 in favor with Board Member Salas and Board Member Sandke absent.

OTHER ITEMS

7. REVIEW OF DRAFT DECEMBER 8, 2022 BOARD AGENDA

Recommended Consent Items

6. Clean Natural Gas (CNG) Fueling Station Equipment Replacement – Contract Amendment
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0729.1-21 (in substantially the same format as Attachment A), with Trillium USA Company, LLC (Trillium), in the amount of \$207,072.90.
7. Closed Circuit Television (CCTV) Services – Contract Amendment
Action would authorize the Chief Executive Officer (CEO) to execute Amendment No. 1, MTS Doc. No. PWG335.1-21 with Electro Specialty Systems (ESS), a Small Business (SB), for CCTV services for \$1,907,402.08.
8. Janitorial Services for San Diego Trolley, Inc. (SDTI) & San Diego Transit Corporation (SDTC) Facilities – Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2613.0-22 with NMS Management, Inc. ("NMS"), a Disadvantaged Business Enterprise (DBE), for the provision of Janitorial Services for six (6) years for \$9,813,452.97.
9. San Diego State University (SDSU) Tunnel Safety Equipment Maintenance – Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWL360.0-23 with Comfort Mechanical, Inc. (Comfort), a Small Business (SB), for maintenance and as-needed repair of the tunnel safety equipment at SDSU, in the amount of \$707,341.00 for preventive maintenance, and \$100,000.00 for as-needed repairs, for a total amount of \$807,341.00, for a period of five (5) years commencing on January 1, 2023.
10. Semiannual Uniform Report of Disadvantaged Business Enterprise (DBE) Awards and Payments
11. Amaya Trolley Station Asphalt Repairs – Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order MTSJOC347-04 to MTS Doc. No. PWG347.0-22, with ABC General Contractor, Inc. (ABCGC), in the amount of \$302,856.55 for the mill and overlay of asphalt at the Amaya Trolley Station parking lot.
12. FY23 Americans With Disabilities Act (ADA) Bus Stop Design Services – Work Order

Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA356-AE-03 under MTS Doc. No. PWL356.0-22 with Pacific Railway Enterprises (PRE), a Disadvantaged Business Enterprise (DBE), in the amount of \$151,845.16 to provide design services for upgrading ten (10) existing bus stops to meet current ADA standards for access to the bus stop and bus doors.

13. Orange Line Improvement Project – Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA356-AE-06 under MTS Doc. No. PWL356.0-22, with Pacific Railway Enterprises, Inc. (PRE), a Disadvantaged Business Enterprise (DBE), in the amount of \$1,411,503.63 to prepare plans, specifications, and estimate (PS&E) for the Orange Line Improvement Project.
14. Las Chollas Creek Bridge Repair – Engineering Design Services – Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order WOA354-AE-13 under MTS Doc. No. PWG354.0-22, with Mott MacDonald (MM) in the amount of \$274,457.89 to provide design services for the Las Chollas Bridge scour remediation.
15. San Diego Metropolitan Transit System (MTS) Ordinance No. 11 – Ordinance Revisions
Action would 1) Adopt the proposed amendments to MTS Ordinance No. 11, “An Ordinance Providing for the Licensing and the Regulating of Transportation Services within the City and the County by the Adoption of a Uniform Paratransit Ordinance”; and 2) Upon adoption to the proposed amendments, grant the Chief Executive Officer (CEO) the discretion to enforce MTS Ordinance No. 11 in its amended form.
16. Approve the Fiscal Year (FY) 2022-23 State Transit Assistance (STA) Claim and STA Interest Claim
Action would adopt Resolution No. 22-17 approving the FY 2022-23 STA claim.
17. Naming Rights Program Services – Contract Award
Action would authorize the Chief Executive Officer (CEO) to: 1) Execute MTS Doc. G2623.0-22, with The Superlative Group, Inc. (Superlative), for Naming Rights Program services for a three (3) base year period and five (5) 1-year options; and 2) Exercise the option years at the CEO’s discretion.

COMMITTEE COMMENT

Ms. Cooney added that Agenda Item 6, Naming Rights Program Services, was slated to be put on the consent calendar for the Board and asked the Chair if the Board would rather have that item as a discussion item.

Board Member Elo-Rivera did not believe the item needed to be taken as a discussion item, but requested that Board members had an opportunity to engage with staff to add input on these projects. Ms. Cooney agreed.

Executive Committee – DRAFT MINUTES

December 1, 2022

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8. Other Staff Communications and Business

There was no Other Staff Communications and Business discussion.

9. Committee Member Communications and Other Business

There was no Committee Member Communications and Other Business discussion.

10. Next Meeting Date

The next Executive Committee meeting is scheduled for January 19, 2023, at 9:00 a.m.

11. Adjournment

The meeting was adjourned at 10:26am.

Chairperson
San Diego Metropolitan Transit System

Clerk of the Board
San Diego Metropolitan Transit System

Attachment: Roll Call Sheet

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

ROLL CALL

MEETING OF (DATE): December 1, 2022 CALL TO ORDER (TIME): 9:02am
 RECESS: _____ RECONVENE: _____
 CLOSED SESSION: _____ RECONVENE: _____
 PUBLIC HEARING: _____ RECONVENE: _____
 ORDINANCES ADOPTED: _____ ADJOURN: 10:26am

REPRESENTING	BOARD MEMBER	(Alternate)	PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
County Chair	FLETCHER	<input checked="" type="checkbox"/> (Vargas) <input type="checkbox"/>	9:02am	10:26am
Vice Chair	SOTELO-SOLIS	<input checked="" type="checkbox"/> (no alternate) <input type="checkbox"/>	9:02am	10:26am
Chair Pro Tem	SALAS	<input type="checkbox"/> (no alternate) <input type="checkbox"/>	ABSENT	ABSENT
City of San Diego	ELO-RIVERA	<input checked="" type="checkbox"/> (Montgomery Steppe) <input type="checkbox"/>	9:02am	10:26am
East County	HALL	<input checked="" type="checkbox"/> (Frank) <input type="checkbox"/>	9:02am	10:26am
SANDAG Transportation Committee	MORENO	<input checked="" type="checkbox"/> (Aguirre) <input type="checkbox"/>	9:02am	10:26am
South Bay	SANDKE	<input type="checkbox"/> (Aguirre) <input type="checkbox"/>	ABSENT	ABSENT

SIGNED BY THE CLERK OF THE BOARD:

/S/ Dalia Gonzalez



Agenda Item No. 4

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

February 9, 2023

SUBJECT:

San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative with RVK Inc. and Larry Marinesi)

INFORMATION ONLY

Budget Impact

None at this time.

DISCUSSION:

MTS was created by state statute in 1975. Over the following two decades, MTS assumed responsibility for all public transit services within our jurisdictional area. This was achieved by MTS bringing three distinct entities under the MTS umbrella: MTS (administration employees such as Human Resources, Finance, Planning, Marketing, Legal, Internal Audit, IT, Security, Capital Projects, and the Executive Office), San Diego Trolley, Inc. (SDTI) (employees operating and maintaining the trolley system), and San Diego Transit Corporation (SDTC) (employees operating and maintaining the bus system). Members of the MTS Board also serve as members of the governing boards for SDTI and SDTC. MTS Board meetings are considered consolidated meetings of all three entities.

MTS and SDTI employees participate in the statewide California Public Employee Retirement System (CalPERS). However, legacy SDTC employees participate in a private retirement plan that was created before the City of San Diego transferred the SDTC entity to MTS.

Today's presentation will relate to the private SDTC Employee Retirement Plan (Plan) that MTS is responsible for. The Plan has a pool of investments to fund the current and future pension benefit of the Plan members. In 2012, the Plan was closed to new members.

The Plan's investment advisor, Jeremy Miller from RVK, will provide the Board of Directors with an update as to the performance of the Plan as well as general capital market performance. RVK's pension investment performance analysis (Attachment A) for the Plan as of June 30, 2022 includes assets with a market value of \$177.5 million. During fiscal year 2022, the Plan's assets decreased by approximately \$27.6 million, primarily due to negative market investment



performance and benefit payments to retirees.

The Plan's ten products achieved a combined investment return of -10.80% for the year. The Plan's returns over the past three, five and ten years were 2.8%, 4.0% and 5.0% respectively. Since inception (10/1/1982), the Plan's investments have returned 8.5%. The current actuarial target for the Plan is 6.0%.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. RVK Pension Investment Performance Analysis



Quarterly Investment Performance Analysis

San Diego Transit Corporation Employees Retirement Plan

Period Ended: June 30, 2022



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5	Exposure Slides	Page 51

Capital Markets Review



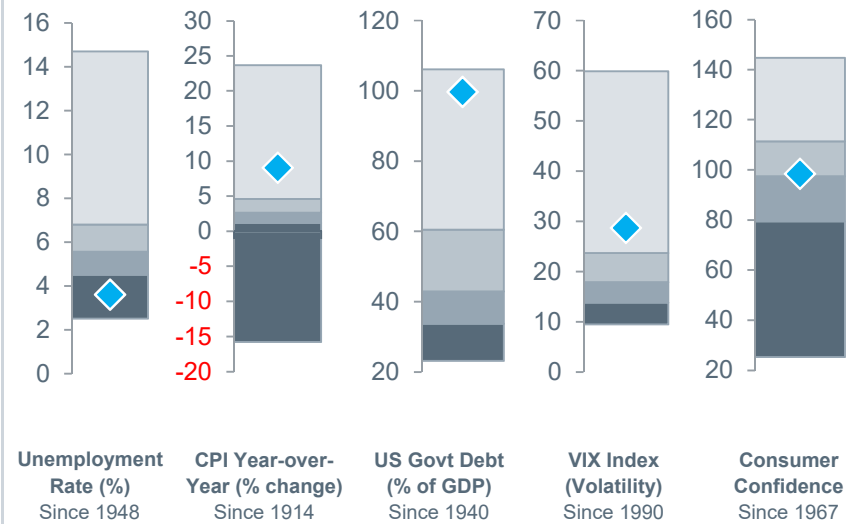
Capital Markets Review

As of June 30, 2022

Second Quarter Economic Environment

Continued rising inflation, accelerated tightening of global monetary policy and falling economic growth estimates led to most major indices ending negative in Q2. Inflation continued to rise in the US as the Consumer Price Index (CPI) rose to 9.1% at the end of June, spurred on by supply chain disruptions tied with the war in Ukraine and China's zero-COVID policy. The OECD's June Economic Outlook report now forecasts global inflation to end the year near 9%. Central banks continued to tighten monetary policy with the Federal Open Market Committee raising the federal funds rate by 0.75% in June which followed a 0.50% increase in May. Following the June CPI release, a 1.0% increase at the FOMC meeting in July is now the most likely scenario based on probabilities implied by traders. Forecasters are increasingly citing a rising risk of a recession in the US however the data is less clear. The Atlanta Fed's GDP Nowcast indicates a modest contraction of growth in Q2, with declining residential investment and private inventory overhang as key negative effects. However, manufacturing and services Purchasing Managers' indexes (PMIs) indicate expansion. The unemployment rate ended June at 3.6% as non-farm payroll growth averaged just under 375k per month. According to the latest JOLTS survey, the US currently has roughly two job openings for every unemployed individual. The Atlanta Fed's wage tracker also lists average annual wage growth at 6.7% based on a 3-month moving average.

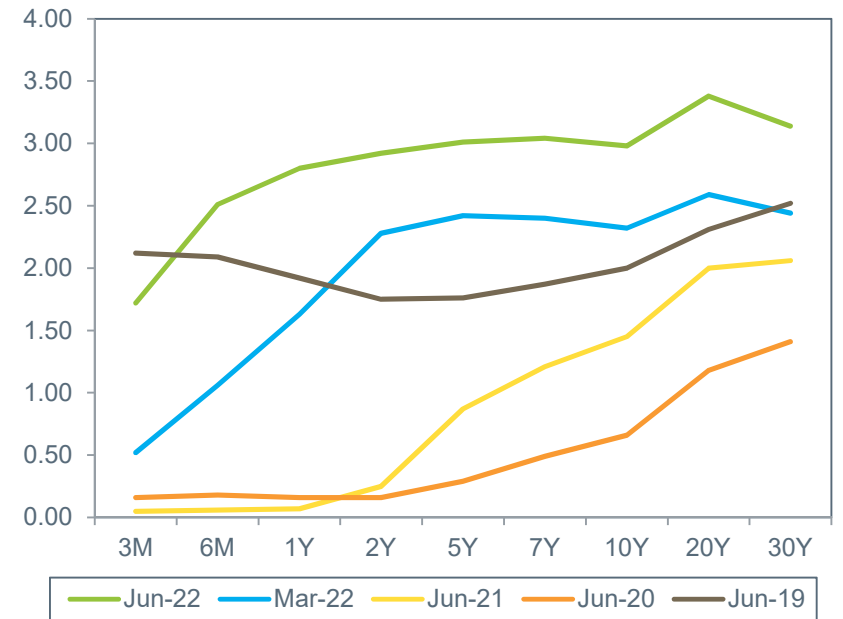
Key Economic Indicators



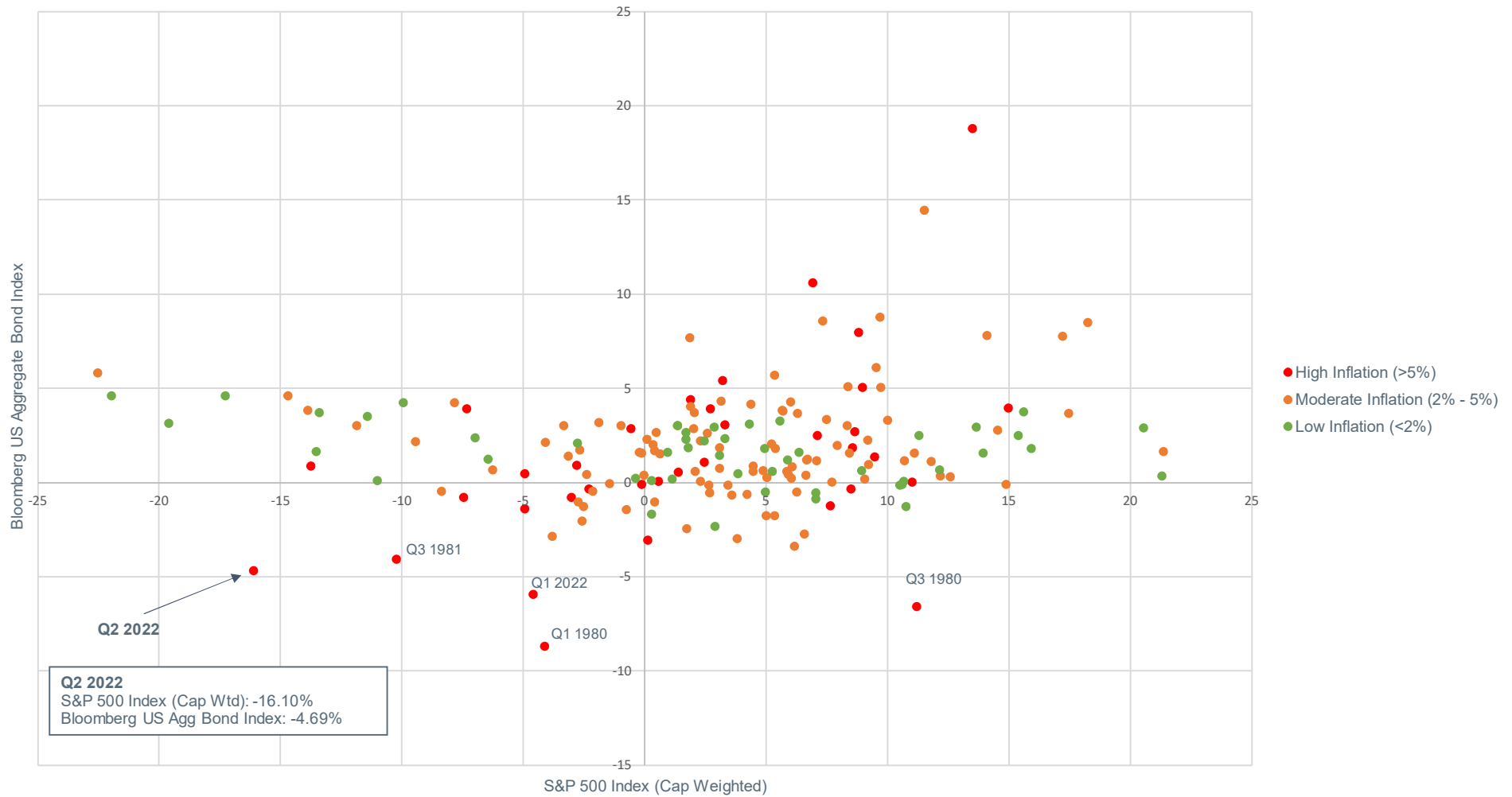
Economic Indicators	Jun-22	Mar-22	Jun-21	Jun-19	20 Yr
Federal Funds Rate (%)	1.58 ▲	0.33	0.08	2.40	1.30
Breakeven Infl. - 5 Yr (%)	2.62 ▼	3.43	2.50	1.54	1.86
Breakeven Infl. - 10 Yr (%)	2.34 ▼	2.83	2.34	1.70	2.04
CPI YoY (Headline) (%)	9.1 ▲	8.5	5.4	1.6	2.2
Unemployment Rate (%)	3.6 —	3.6	5.9	3.6	6.1
Real GDP YoY (%)	1.6 ▼	3.5	12.2	2.1	1.9
PMI - Manufacturing	53.0 ▼	57.1	60.9	51.5	53.5
USD Total Wtd Idx	121.05 ▲	115.22	112.61	114.58	103.10
WTI Crude Oil per Barrel (\$)	105.8 ▲	100.3	73.5	58.5	64.4
Gold Spot per Oz (\$)	1,807 ▼	1,937	1,770	1,410	1,086

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-16.10	-19.96	-10.62	11.31	12.96
Russell 2000	-17.20	-23.43	-25.20	5.17	9.35
MSCI EAFE (Net)	-14.51	-19.57	-17.77	2.20	5.40
MSCI EAFE SC (Net)	-17.69	-24.71	-23.98	1.72	7.18
MSCI Emg Mkts (Net)	-11.45	-17.63	-25.28	2.18	3.06
Bloomberg US Agg Bond	-4.69	-10.35	-10.29	0.88	1.54
ICE BofAML 3 Mo US T-Bill	0.11	0.15	0.17	1.11	0.64
NCREIF ODCE (Gross)	4.77	12.49	29.51	10.54	11.16
FTSE NAREIT Eq REIT (TR)	-16.97	-20.20	-6.27	5.30	7.39
HFRI FOF Comp	-3.88	-6.53	-5.45	3.63	3.75
Bloomberg Cmdty (TR)	-5.66	18.44	24.27	8.39	-0.82

Treasury Yield Curve (%)



Quarterly Equity & Fixed Income Returns Since 1976



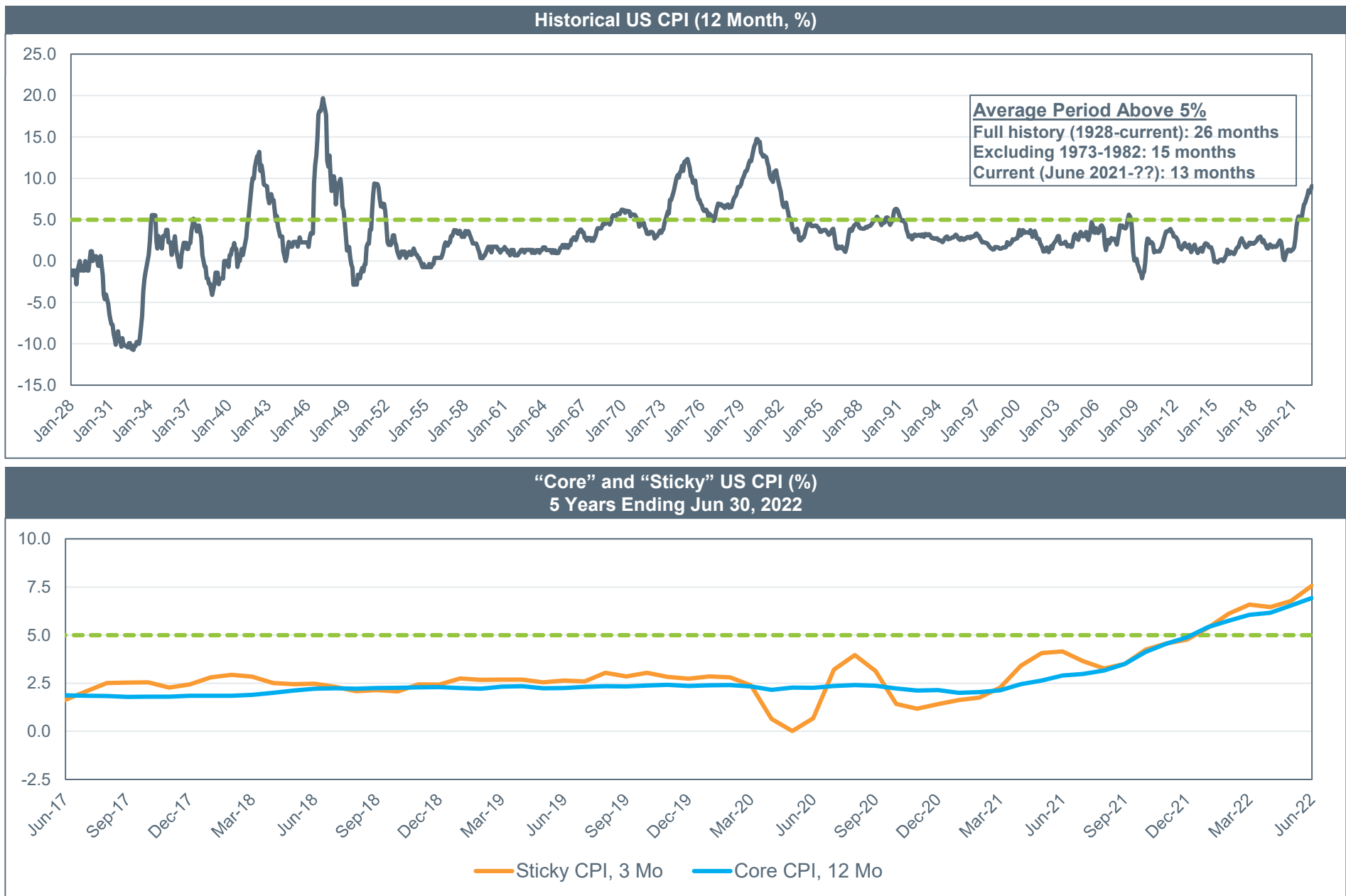
Bloomberg US Aggregate Bond Index: Worst Quarters and Subsequent Performance

Quarter Ended	Quarter Return	YTW at Quarter End	Subsequent Quarter Return	Subsequent Year Return	Subsequent 3 Year Return Annualized
Mar-1980	-8.71%	14.10	18.79%	13.05%	17.88%
Sep-1980	-6.60%	12.43	1.36%	-2.58%	15.05%
Mar-2022	-5.93%	2.92	-4.69%	?	?
Jun-2022	-4.69%	3.72	?	?	?
Sep-1981	-4.07%	16.50	10.58%	35.22%	19.35%
Mar-2021	-3.38%	1.61	1.83%	-4.15%	?
Dec-1979	-3.08%	11.19	-8.71%	2.67%	13.12%

Inflation data provided by the Federal Reserve Economic Database.
Yield to Worst data provided by Barclays Live.

Current Inflation in Context

As of June 30, 2022



As of June 30, 2022. Sources: US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, and Federal Reserve Bank of Atlanta.
Core CPI is represented by the Revised FRB Cleveland Trimmed Mean, 12-month. Sticky CPI is represented by the FRB Atlanta Sticky-Price Index, 3-month.

US Equity Review

As of June 30, 2022

Second Quarter Review

Broad Market

US equity markets were down sharply in Q2 in the midst of increasing concerns of a looming recession as the Fed acted to respond to sustained, elevated levels of inflation. With declines affecting all sectors, investors fled to defensive stocks as these were comparatively resilient. Likewise, investors in energy stocks benefited as the sector was buoyed by commodity prices.

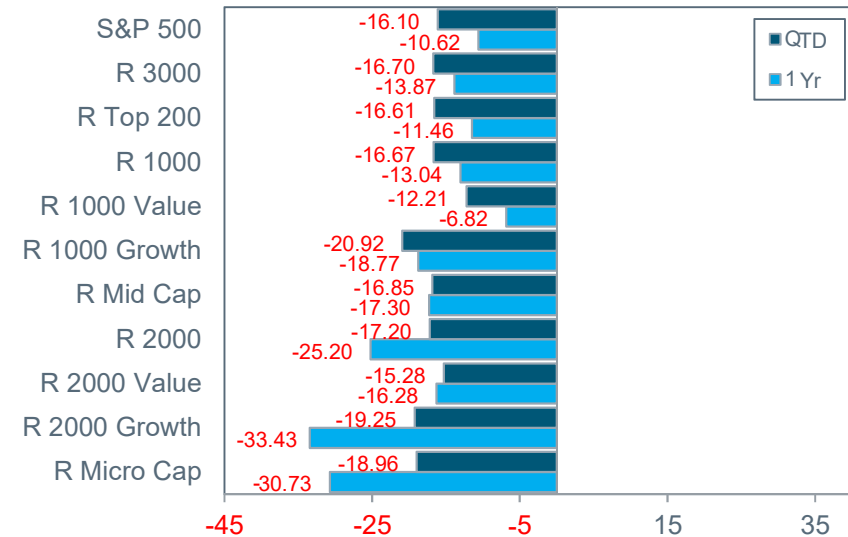
Market Cap

There was significant outperformance of value stocks over growth stocks, with the Russell 1000 Value and Russell 2000 Value indexes outperforming their growth counterparts by 8.7% and 4.0%, respectively.

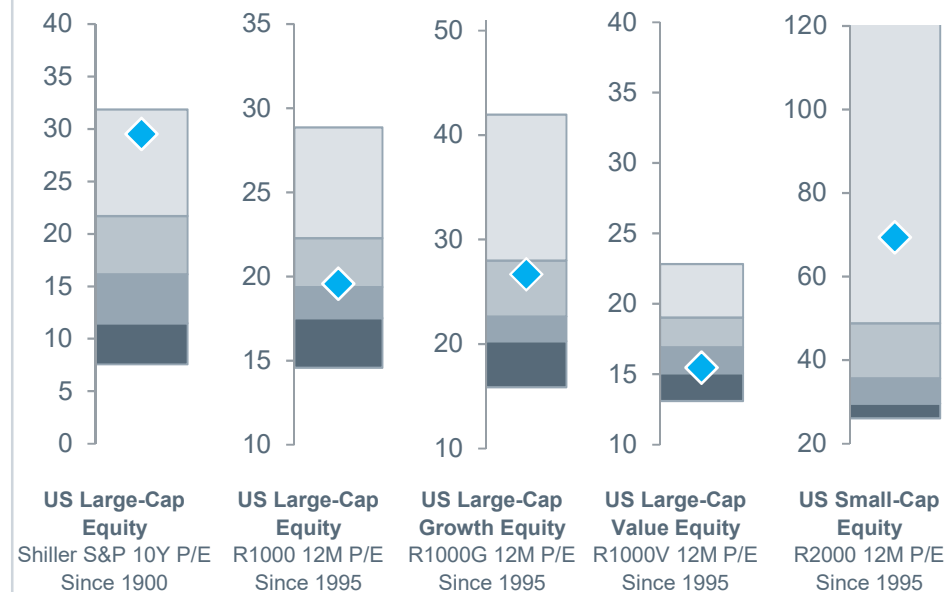
Style and Sector

Active management performed well in Q2, with the exception of large-cap growth managers. Small- and mid-cap core and value managers had an exceptionally strong Q2 with a majority outpacing their respective benchmarks by significant margins.

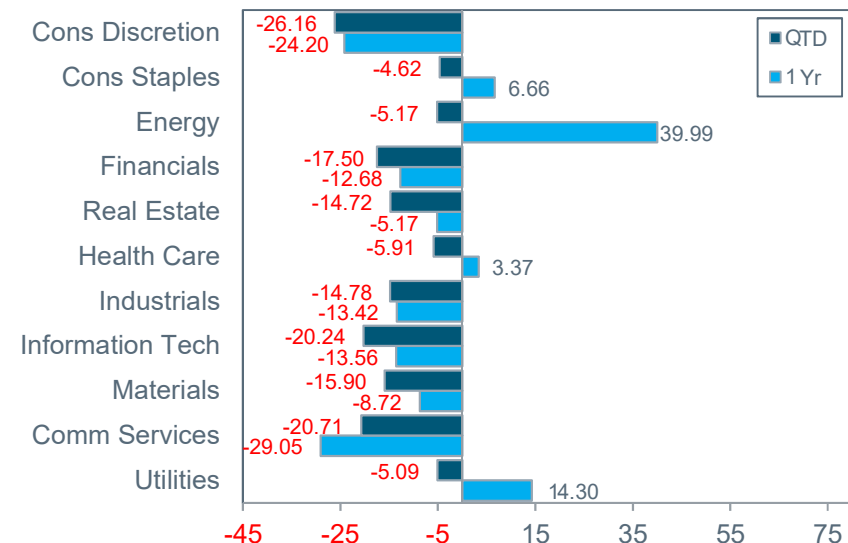
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, *Irrational Exuberance*, Second Edition.
P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

Non-US Equity Review

As of June 30, 2022

Second Quarter Review

Developed Markets

Developed International markets fared better than the domestic market, albeit still finishing Q2 in negative territory with the MSCI EAFE Index notching a -14.5% return for the period. Value stocks remained in favor with continued outperformance over growth stocks, while large-cap stocks outperformed small-cap stocks. All developed market countries and sectors were negative for the quarter, with the Asia-Pacific region and information technology sector leading markets lower.

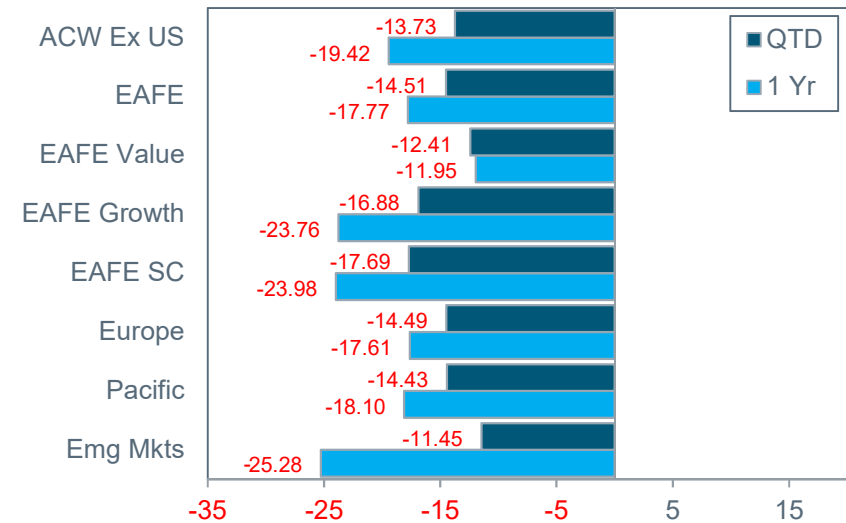
Emerging Markets

Emerging markets outperformed developed in Q2 with the MSCI EM Index returning -11.4%. Nearly all emerging market countries experienced negative returns.

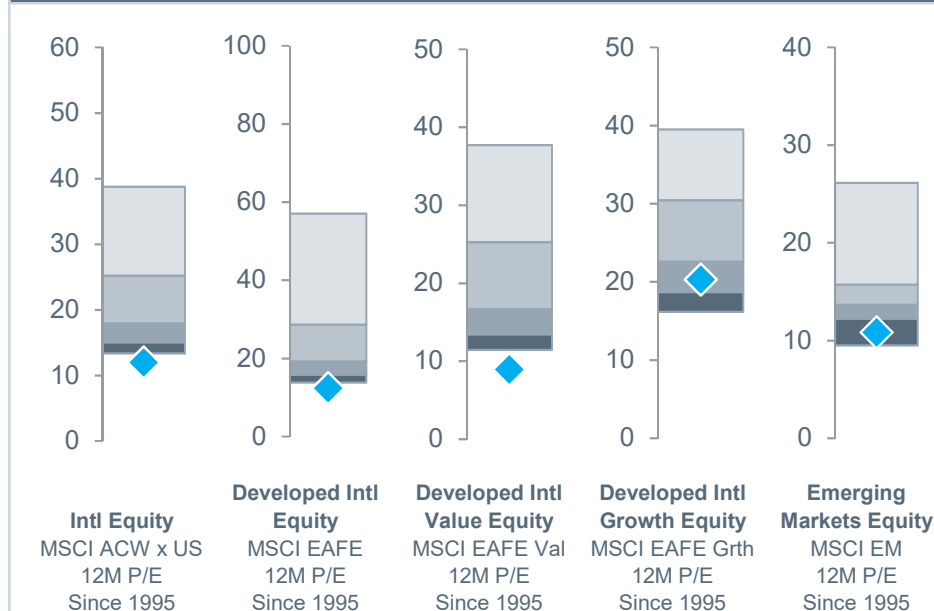
Market Cap & Style

In international markets, value stocks outperformed growth, while large-cap stocks outperformed small-cap. In emerging markets, value stocks outperformed growth, and large-cap stocks outperformed small-cap.

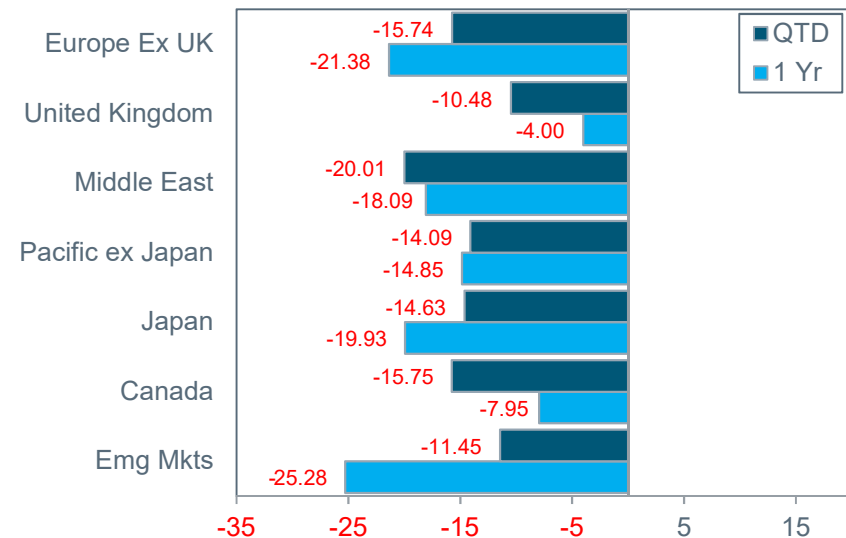
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.

Fixed Income Review

As of June 30, 2022

Second Quarter Review

Broad Market

In Q2, Treasury yields rose 66 basis points from 2.32% to 2.98% with an intra-quarter high of 3.49%, as measured by the 10-year US Treasury yield. The Federal Reserve hiked the Federal Funds rate by 75 basis points over the quarter, the largest single increase since 1994. The Bloomberg US Aggregate ended the quarter down with an overall return of -4.7%.

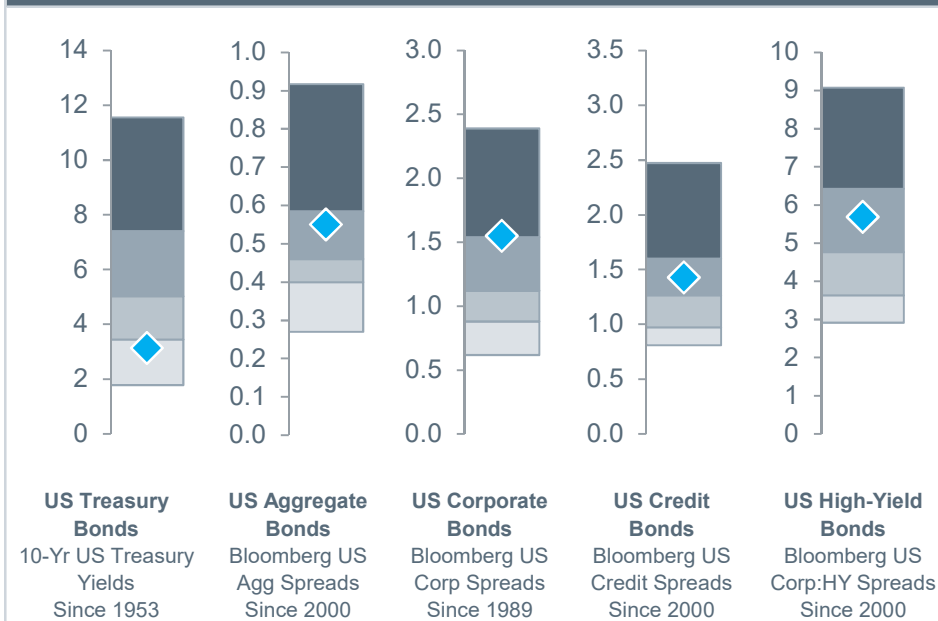
Credit Market

While fixed income broadly experienced negative absolute performance over the quarter, widening credit spreads presented additional headwinds to corporate credit. US Investment Grade credit detracted -6.9%, while US High Yield returned -9.8%, as measured by the Bloomberg US Credit Index and Bloomberg US High Yield index, respectively.

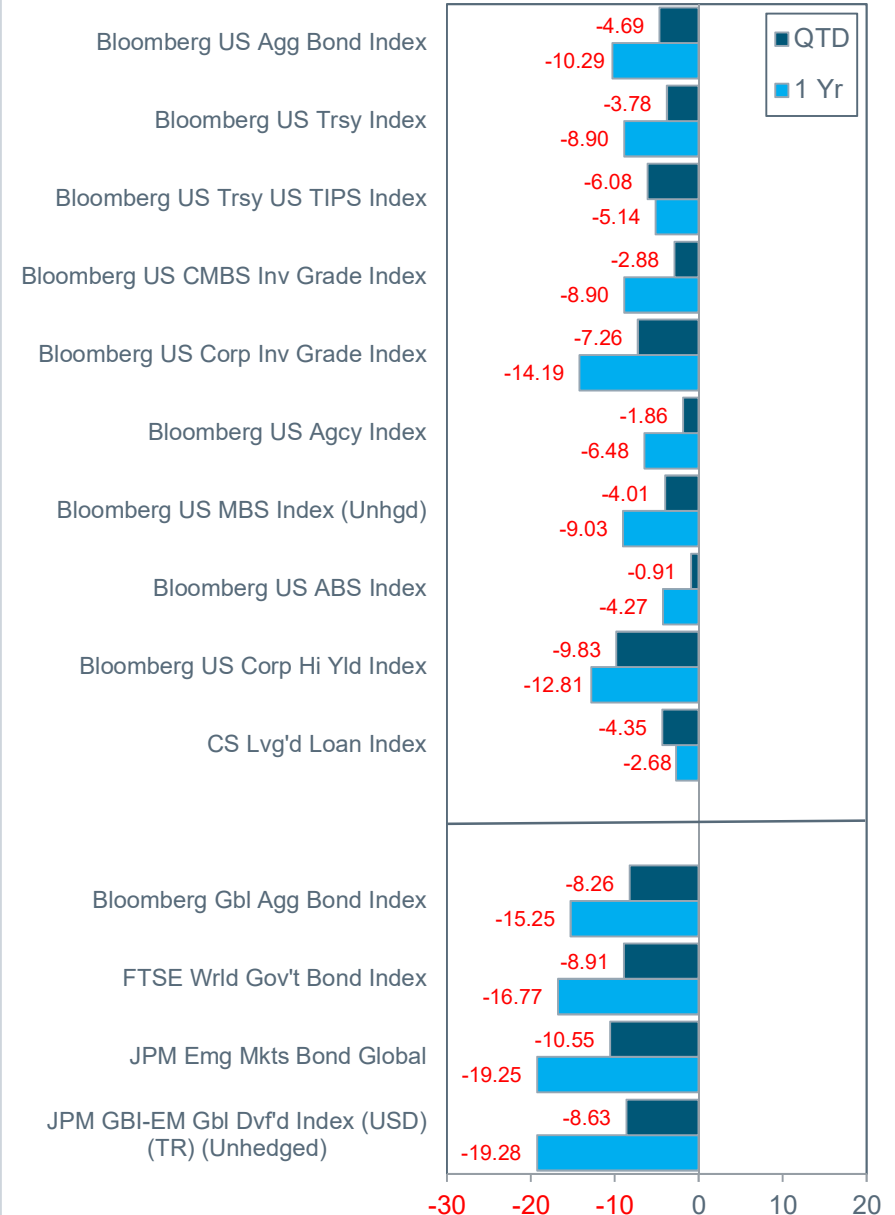
Emerging Market Debt

Foreign fixed income experienced headwinds from the Russia-Ukraine war, inflationary concerns, and mixed central bank policy. These factors led to a -11.4% return in Q2 for the JPM EMBI Global Diversified Index.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

Alternatives Review

As of June 30, 2022

Second Quarter Review - Absolute Return

General Market - Hedge Funds

Dispersion continues to be the theme across the hedge fund landscape. Although the HFRI Asset Weighted Composite returned 0.3% during the quarter, its year-to-date return remained positive at 2.1%. By contrast, the Equal Weighted Index, which is dominated by long/short equity strategies ("ELS"), returned -4.9% in Q2, led lower by ELS managers returning -8.3%. Prime brokerage data indicates that the 1st half of 2022 was one of the strongest on record for short alpha, as higher interest rates tend to structurally benefit short sellers.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generated disparate performance in Q2. Although overall performance was negative, nearly all managers outperformed a US centric blend of 60% equity and 40% fixed income. The top performing long-biased GTAA strategies tended to emphasize relative undervaluation in their asset allocation processes, while underperformers tended to hold larger allocations to US equity and non-USD fixed income.

Second Quarter Review - Real Assets

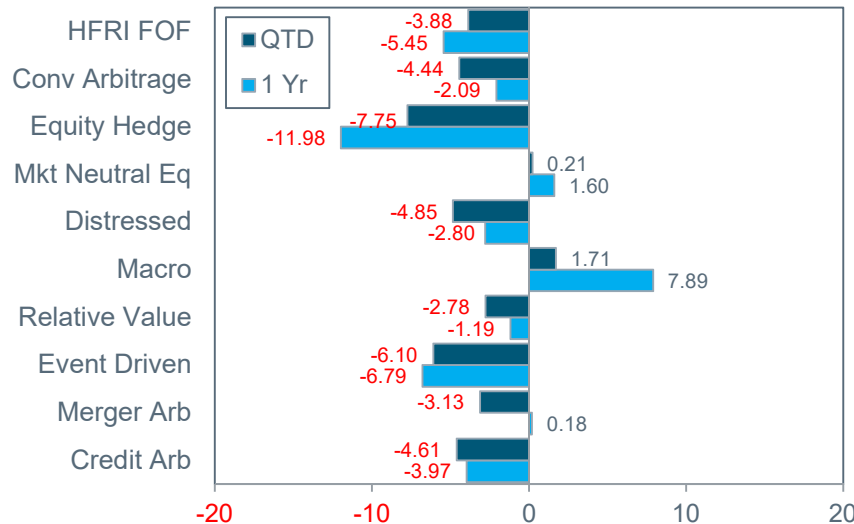
General Market - Diversified Inflation Strategies (DIS)

After responding positively to record inflationary pressures in Q1, DIS posted losses ranging from negative mid-single digit to negative low double-digit. Manager allocations to inflation sensitive assets were affected by cross currents of Fed rate hikes combined with changing market estimates of future economic growth. During the Q2, nearly all inflation sensitive asset classes were negative except for energy commodities. Managers with larger TIPS allocations tended to outperform peers, especially in cases where shorter duration TIPS were targeted.

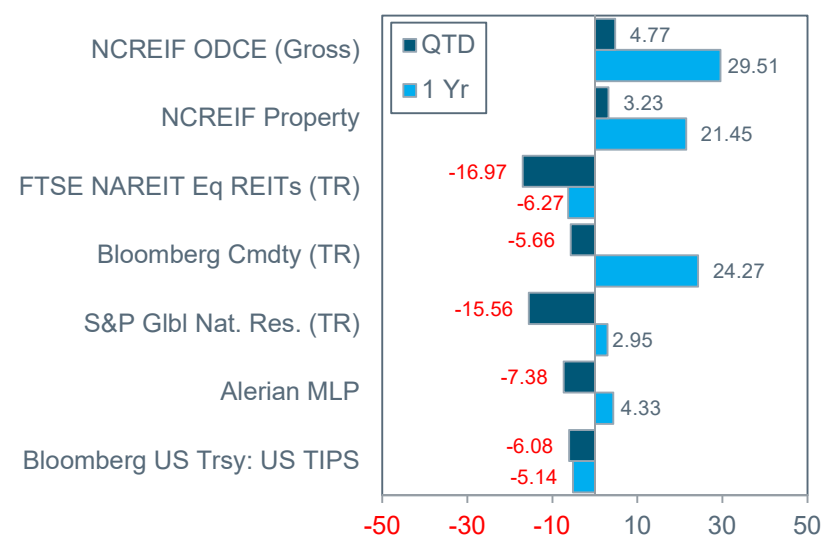
General Market - Real Estate

Core private real estate generated 4.8% return in Q2, as reported by the NFI-ODCE Index, with the total return comprising of 0.9% income and 3.9% price appreciation. As income return trends at the lower end of historical levels, the price appreciation return remains elevated. Investors in publicly traded real estate significantly underperformed their private market counterparts by a meaningful margin.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of June 30, 2022

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Best	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	18.44
	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	12.49
	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	0.15
	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-6.53
	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-8.92
	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-10.35
	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.44	10.88	10.10	-14.19
	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-17.63
	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-19.57
	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-19.96
	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.20
	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.73	7.69	0.67	-1.55	-21.88
	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-3.12	-2.52	-23.43
Worst	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-24.71
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

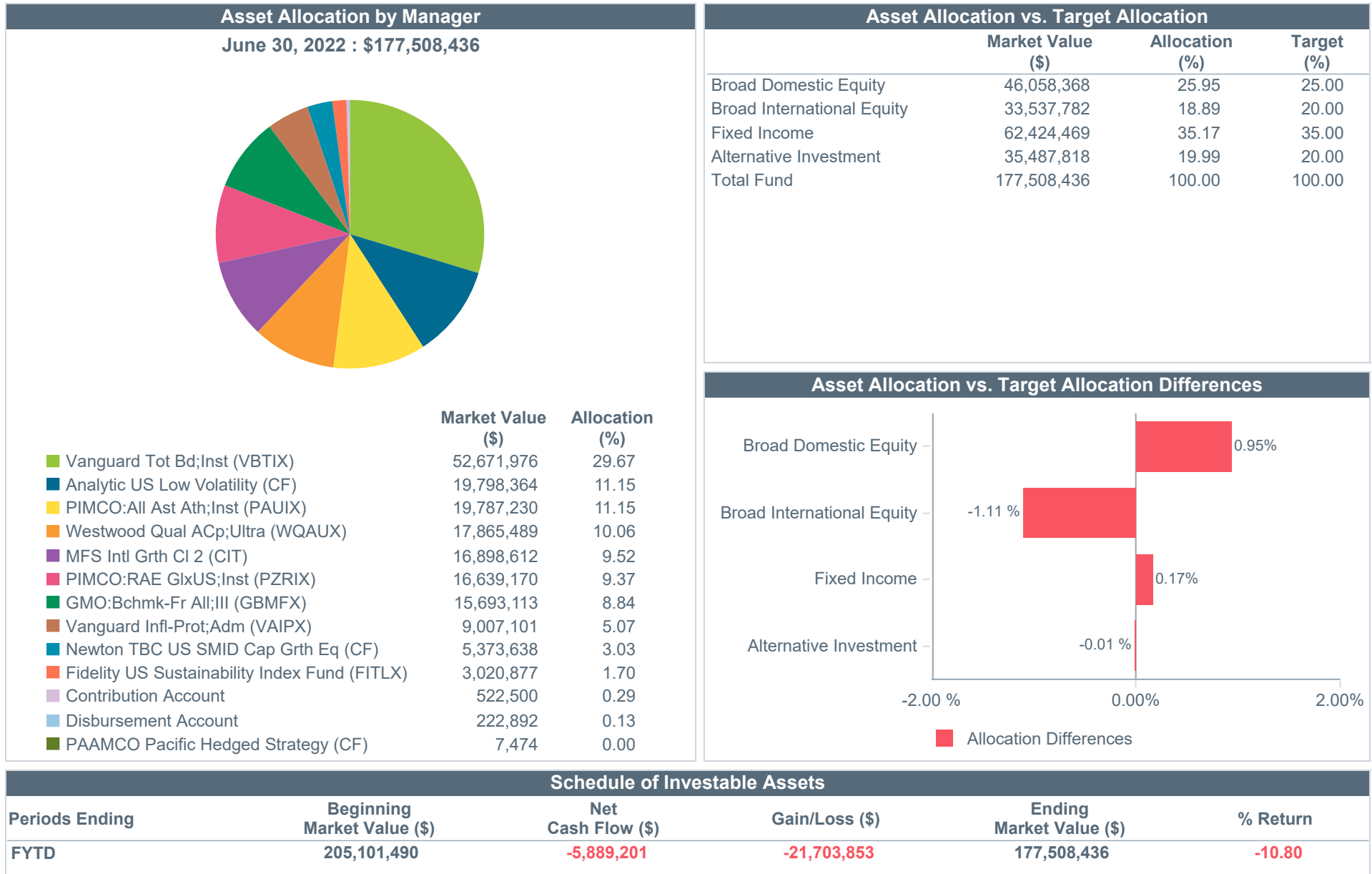
NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.

Total Fund



San Diego Transit Corporation Employees Retirement Plan
AA by Manager, AA vs. Target, and Schedule of Investable Assets

As of June 30, 2022



Performance shown is gross of fees. Allocations shown may not sum up to 100% exactly due to rounding. Fiscal year ends 06/30. The market value shown for PAAMCO represents illiquid special purpose vehicle (SPV) assets. BNYM PE US SMID Cap Grth Eq NL has been rebranded as Newton TBC US SMID Cap Grth Eq.

San Diego Transit Corporation Employees Retirement Plan
Schedule of Investable Assets - San Diego Transit Total Fund

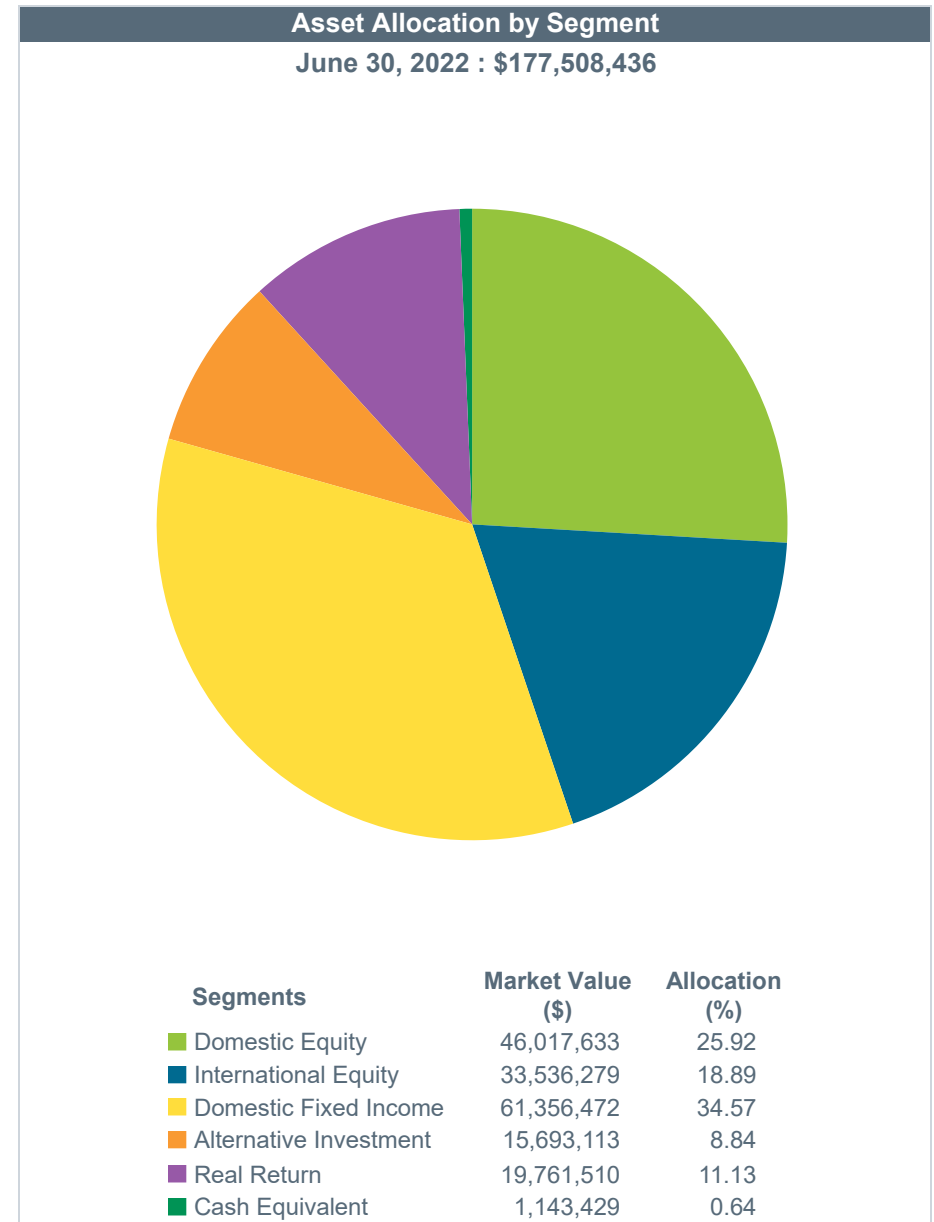
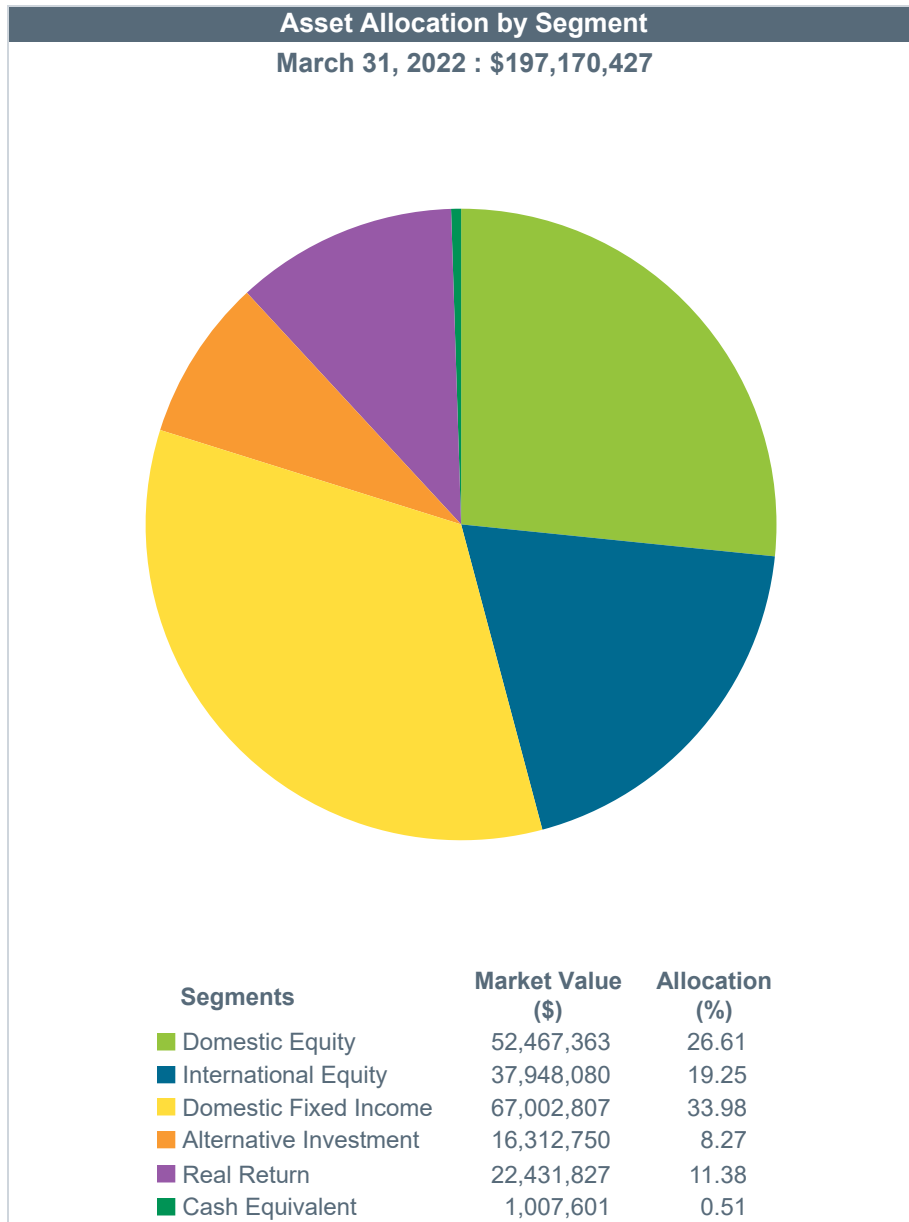
10 Years Ending June 30, 2022

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
Jun-2012	-	-	-	142,447,048	N/A	100.00
Sep-2012	142,447,048	-2,751,113	6,531,104	146,227,039	4.63	104.63
Dec-2012	146,227,039	-153,825	3,519,575	149,592,790	2.41	107.16
Mar-2013	149,592,790	-1,845,785	6,076,266	153,823,271	4.10	111.55
Jun-2013	153,823,271	-1,800,069	-2,920,203	149,103,000	-1.92	109.41
Sep-2013	149,103,000	-565,655	6,045,813	154,583,158	4.07	113.86
Dec-2013	154,583,158	-606,833	5,049,931	159,026,256	3.28	117.59
Mar-2014	159,026,256	-813,836	2,781,901	160,994,321	1.79	119.70
Jun-2014	160,994,321	-1,348,034	5,563,384	165,209,671	3.47	123.86
Sep-2014	165,209,671	-424,471	-4,150,003	160,635,197	-2.52	120.74
Dec-2014	160,635,197	-866,442	-16,263	159,752,492	-0.01	120.72
Mar-2015	159,752,492	-1,164,342	3,562,860	162,151,010	2.23	123.41
Jun-2015	162,151,010	-2,510,007	-363,657	159,277,346	-0.24	123.11
Sep-2015	159,277,346	-439,611	-8,862,389	149,975,346	-5.58	116.24
Dec-2015	149,975,346	-1,233,556	1,697,383	150,439,174	1.12	117.54
Mar-2016	150,439,174	-1,514,509	3,383,938	152,308,602	2.29	120.24
Jun-2016	152,308,602	-2,860,078	4,196,826	153,645,350	2.65	123.42
Sep-2016	153,645,350	-533,720	3,576,792	156,688,421	2.33	126.30
Dec-2016	156,688,421	-1,245,718	-400,351	155,042,353	-0.25	125.98
Mar-2017	155,042,353	-1,038,006	5,678,897	159,683,244	3.68	130.62
Jun-2017	159,683,244	-1,664,483	4,171,462	162,190,222	2.62	134.04
Sep-2017	162,190,222	-138,740	4,913,052	166,964,534	3.03	138.10
Dec-2017	166,964,534	-1,212,085	5,463,783	171,216,232	3.28	142.63
Mar-2018	171,216,232	-1,131,419	-1,268,345	168,816,469	-0.74	141.58
Jun-2018	168,816,469	-2,482,287	544,570	166,878,752	0.32	142.04
Sep-2018	166,878,752	-350,977	2,298,753	168,826,529	1.38	144.00
Dec-2018	168,826,529	-1,086,426	-9,842,880	157,897,222	-5.84	135.60
Mar-2019	157,897,222	-1,369,668	11,292,906	167,820,461	7.18	145.34
Jun-2019	167,820,461	-2,517,216	5,552,667	170,855,911	3.33	150.18
Sep-2019	170,855,911	-339,285	950,495	171,467,121	0.56	151.02
Dec-2019	171,467,121	-1,298,990	7,350,456	177,518,587	4.31	157.52
Mar-2020	177,518,587	-1,048,375	-24,536,027	151,934,186	-13.92	135.59
Jun-2020	151,934,186	-2,520,038	17,156,564	166,570,712	11.35	150.98
Sep-2020	166,570,712	-396,885	6,006,502	172,180,329	3.61	156.42
Dec-2020	172,180,329	-827,691	16,536,620	187,889,258	9.64	171.51
Mar-2021	187,889,258	6,388,977	5,096,857	199,375,092	2.65	176.06
Jun-2021	199,375,092	-2,283,526	8,009,925	205,101,490	4.03	183.15
Sep-2021	205,101,490	-752,997	-2,118,196	202,230,297	-1.04	181.25
Dec-2021	202,230,297	-1,245,110	5,115,791	206,100,979	2.54	185.85
Mar-2022	206,100,979	-1,430,158	-7,500,394	197,170,427	-3.65	179.07
Jun-2022	197,170,427	-2,460,936	-17,201,055	177,508,436	-8.77	163.36
	142,447,048	-43,883,925	78,945,313	177,508,436	5.03	163.36

The last row shown in bold at the end of the table contains aggregate values pertaining to the period specified in the header. Performance shown is gross of fees. Calculation is based on quarterly periodicity.

San Diego Transit Corporation Employees Retirement Plan
Asset Allocation by Segment
San Diego Transit Total Fund

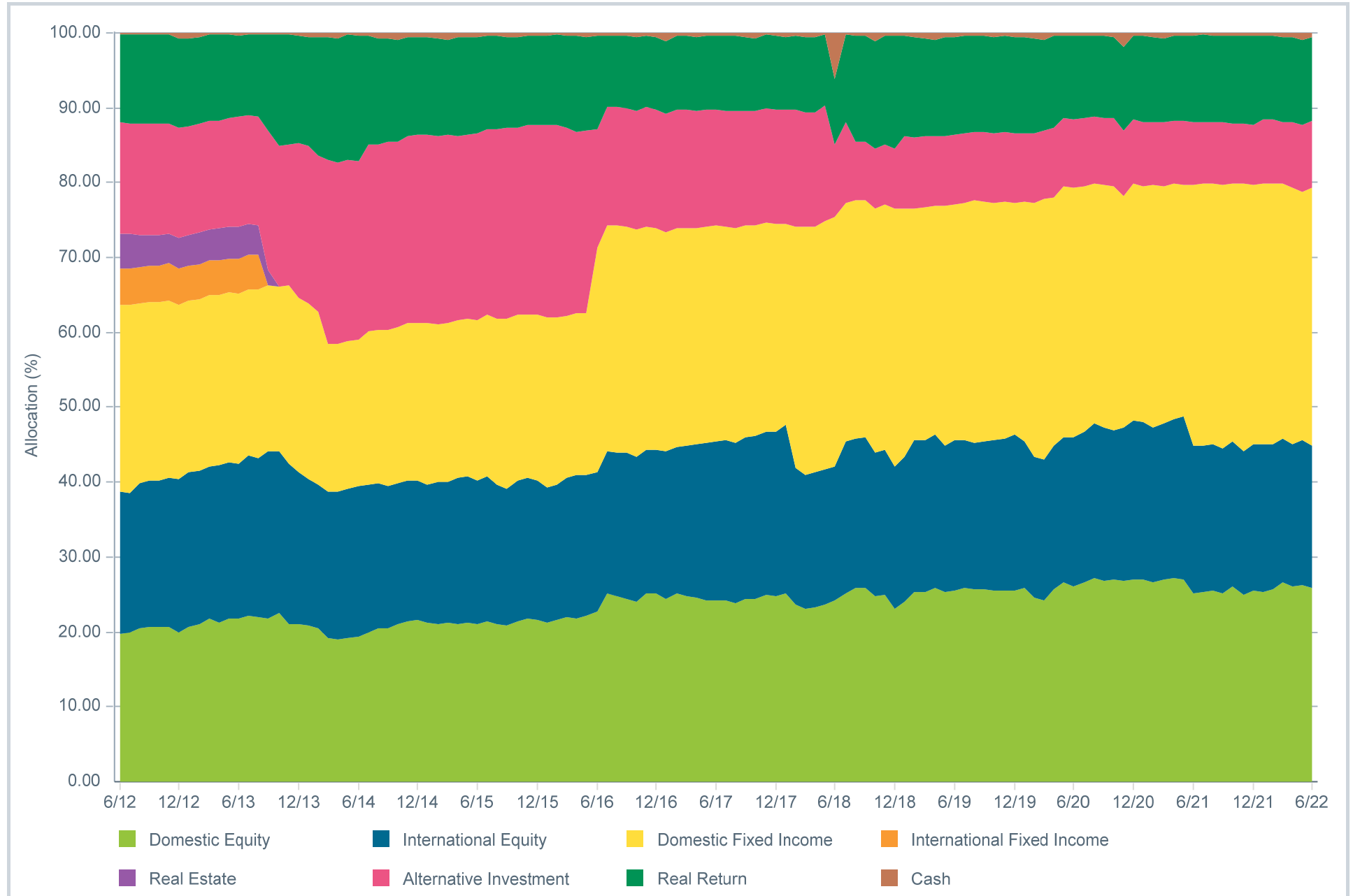
As of June 30, 2022



Allocations shown may not sum up to 100% exactly due to rounding. Alternative Investment includes Absolute Return strategies. Domestic Fixed Income includes Vanguard Infr-Pro;Adm (VAIPX). US Equity includes Fidelity US Sustainability Index Fund (FITLX). Cash Equivalent includes accrued income and uninvested cash.

San Diego Transit Corporation Employees Retirement Plan
Historical Asset Allocation by Segment
San Diego Transit Total Fund

10 Years Ending June 30, 2022



San Diego Transit Corporation Employees Retirement Plan
Asset Allocation (\$000)

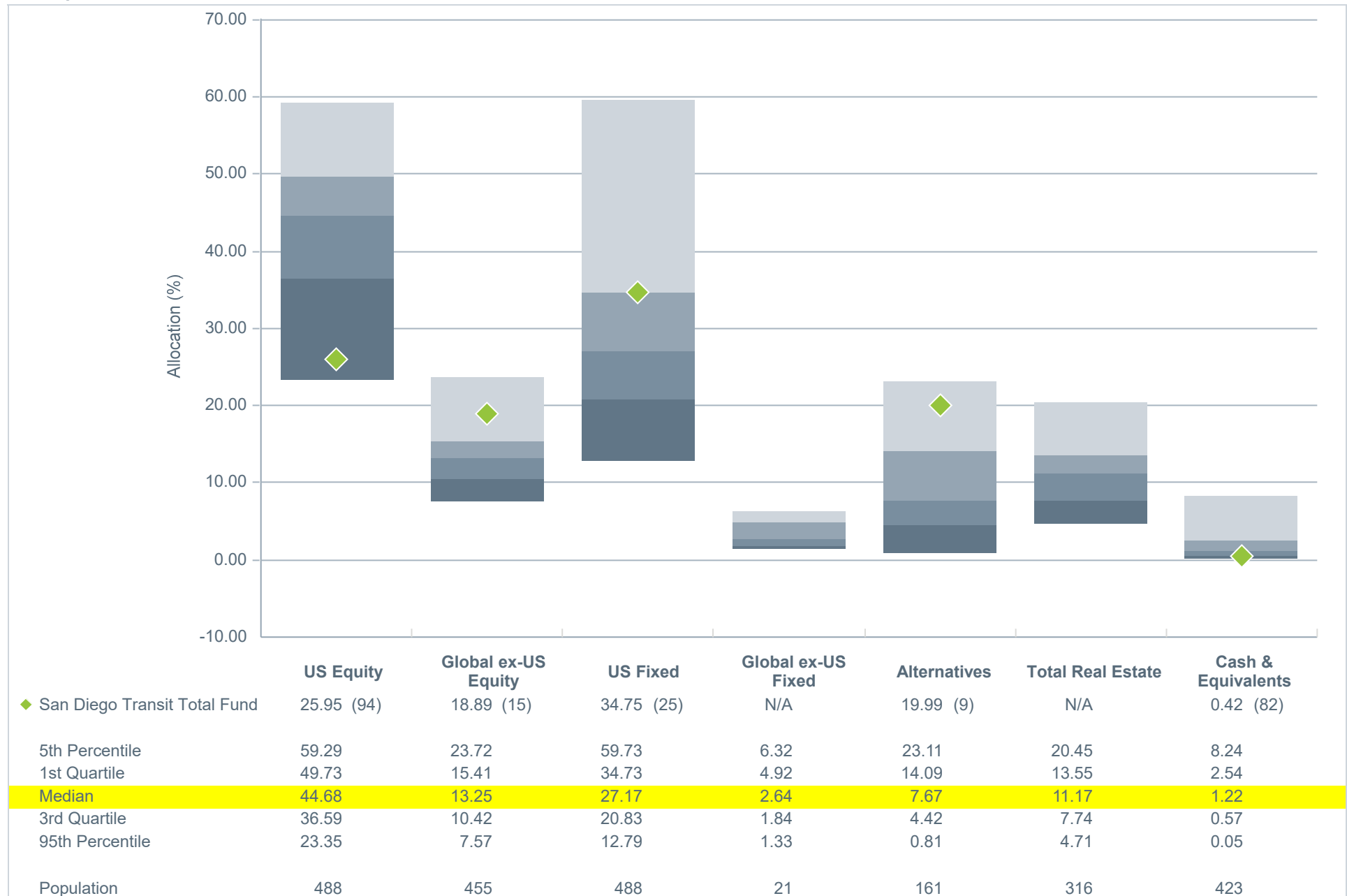
As of June 30, 2022

	Domestic Equity		International Equity		Domestic Fixed Income		Alternative Investment		Real Return		Cash Equivalent		Total Fund	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
<u>Broad Domestic Equity</u>														
Westwood Qual ACP;Ultra (WQAUX)	17,865	100.00	-	-	-	-	-	-	-	-	-	0.00	17,865	10.06
Fidelity US Sustainability Index Fund (FITLX)	3,021	100.00	-	-	-	-	-	-	-	-	-	0.00	3,021	1.70
Analytic US Low Volatility (CF)	19,758	99.80	-	-	-	-	-	-	-	-	40	0.20	19,798	11.15
Newton TBC US SMID Cap Grth Eq (CF)	5,374	100.00	-	-	-	-	-	-	-	-	-	0.00	5,374	3.03
Total	46,018	99.91	-	-	-	-	-	-	-	-	41	0.09	46,058	25.95
<u>Broad International Equity</u>														
PIMCO:RAE GlxUS;Inst (PZRIX)	-	-	16,638	99.99	-	-	-	-	-	-	1	0.01	16,639	9.37
MFS Intl Grth CI 2 (CIT)	-	-	16,898	100.00	-	-	-	-	-	-	-	0.00	16,899	9.52
Total	-	-	33,536	100.00	-	-	-	-	-	-	2	0.00	33,538	18.89
<u>TOTAL EQUITY</u>	46,018	57.81	33,536	42.13	-	-	-	-	-	-	42	0.05	79,596	44.84
<u>Fixed Income</u>														
Vanguard Tot Bd;Inst (VBTIX)	-	-	-	-	52,567	99.80	-	-	-	-	105	0.20	52,672	29.67
Vanguard Infl-Prot;Adm (VAIPX)	-	-	-	-	8,789	97.58	-	-	-	-	218	2.42	9,007	5.07
Contribution Account	-	-	-	-	-	-	-	-	-	-	522	100.00	522	0.29
Disbursement Account	-	-	-	-	-	-	-	-	-	-	223	100.00	223	0.13
Total	-	-	-	-	61,356	98.29	-	-	-	-	1,068	1.71	62,424	35.17
<u>TOTAL FIXED INCOME</u>	-	-	-	-	61,356	98.29	-	-	-	-	1,068	1.71	62,424	35.17
<u>Alternative Investment</u>														
PIMCO:All Ast Ath;Inst (PAUIX)	-	-	-	-	-	-	-	-	19,762	99.87	26	0.13	19,787	11.15
GMO:Bchmk-Fr All;III (GBMFX)	-	-	-	-	-	-	15,693	100.00	-	-	-	-	15,693	8.84
PAAMCO Pacific Hedged Strategy (CF)	-	-	-	-	-	-	-	-	-	-	7	100.00	7	0.00
Total	-	-	-	-	-	-	15,693	44.22	19,762	55.69	33	0.09	35,488	19.99
<u>TOTAL ALTERNATIVES</u>	-	-	-	-	-	-	15,693	44.22	19,762	55.69	33	0.09	35,488	19.99
<u>SAN DIEGO TRANSIT TOTAL FUND</u>	46,018	25.92	33,536	18.89	61,356	34.57	15,693	8.84	19,762	11.13	1,143	0.64	177,508	100.00

Allocations shown may not sum up to 100% exactly due to rounding. BNYM PE US SMID Cap Grth Eq NL has been rebranded as Newton TBC US SMID Cap Grth Eq.

San Diego Transit Corporation Employees Retirement Plan
All Public Plans (<\$500M) (Custom PG)
Plan Sponsor TF Asset Allocation

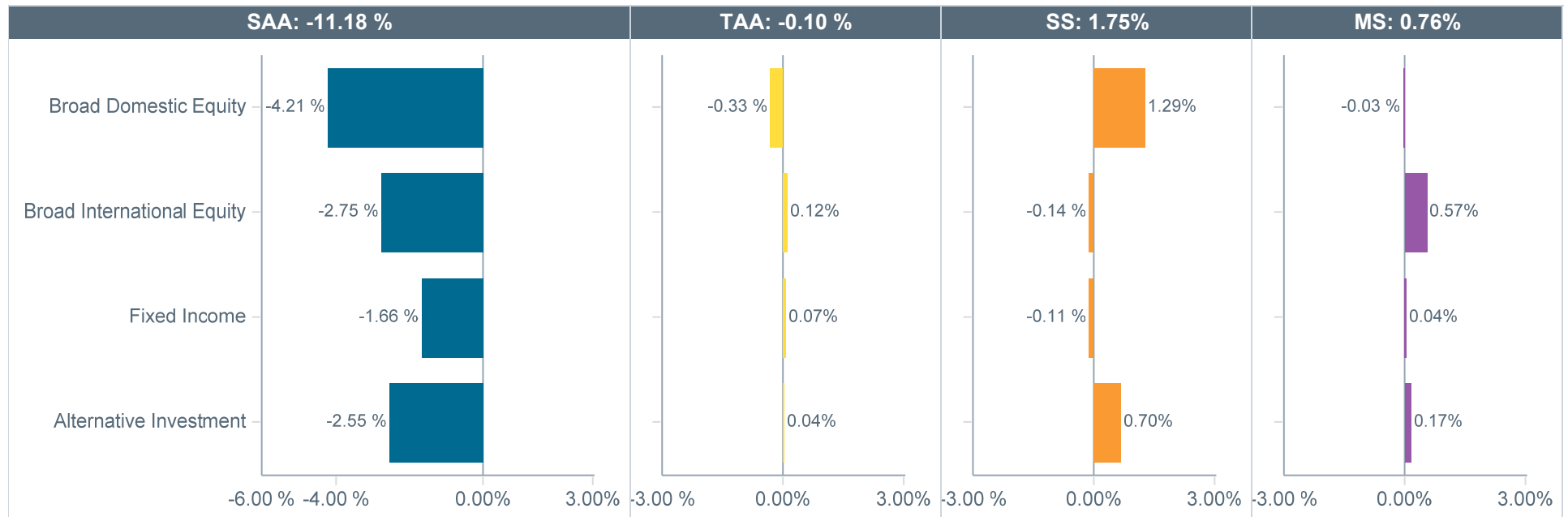
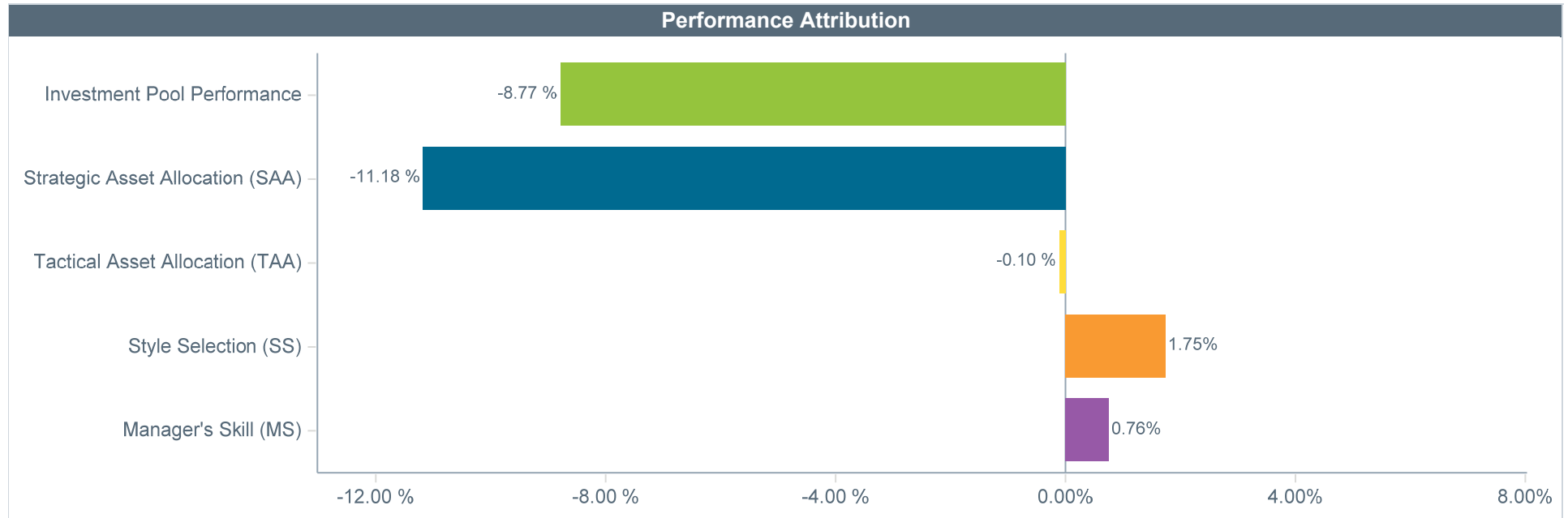
As of June 30, 2022



Parentheses contain percentile ranks. Alternative Investment includes Absolute Return strategies. US Fixed Income includes Vanguard Infl-Prot;Adm (VAIPX). US Equity includes Fidelity US Sustainability Index Fund (FITLX). Cash consists of both the Contribution & Disbursement Accounts.

San Diego Transit Corporation Employees Retirement Plan
Total Fund Attribution - IDP

Quarter To Date Ending June 30, 2022



Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

**San Diego Transit Corporation Employees Retirement Plan
Asset Allocation & Performance**

As of June 30, 2022

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019
San Diego Transit Total Fund	177,508,436	100.00	-8.77	-12.10	-10.80	-10.80	2.84	4.04	5.03	8.36	8.88	16.17
Policy Index			-11.18	-16.13	-13.92	-13.92	3.09	4.37	5.12	8.87	13.05	19.02
Difference			2.41	4.03	3.12	3.12	-0.25	-0.33	-0.09	-0.51	-4.17	-2.85
Domestic Equity	46,058,368	25.95	-12.14	-12.73	-8.36	-8.36	7.36	8.28	11.14	16.35	13.11	28.24
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	12.57	25.66	20.89	31.02
Difference			4.56	8.37	5.51	5.51	-2.41	-2.32	-1.43	-9.31	-7.78	-2.78
International Equity	33,537,782	18.89	-11.47	-16.27	-16.13	-16.13	3.35	4.52	7.13	12.03	9.68	22.67
MSCI ACW Ex US Index (USD) (Net)			-13.73	-18.42	-19.42	-19.42	1.35	2.50	4.83	7.82	10.65	21.51
Difference			2.26	2.15	3.29	3.29	2.00	2.02	2.30	4.21	-0.97	1.16
Fixed Income	62,424,469	35.17	-4.86	-10.25	-10.18	-10.18	-0.79	0.95	1.59	-1.42	7.74	8.66
Bloomberg US Agg Bond Index			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.54	-1.55	7.51	8.72
Difference			-0.17	0.10	0.11	0.11	0.15	0.07	0.05	0.13	0.23	-0.06
Alternative Investment	35,487,818	19.99	-8.28	-10.33	-9.65	-9.65	1.56	2.33	2.00	10.98	2.11	9.71
Alternative Investment Custom Index			-12.74	-17.66	-15.41	-15.41	2.63	3.63	3.62	8.78	14.05	18.55
Difference			4.46	7.33	5.76	5.76	-1.07	-1.30	-1.62	2.20	-11.94	-8.84

Performance shown is gross of fees. The Alternative Investment performance shown is a blend of gross and net of fees, due to gross of fees performance for PAAMCO Pacific Hedged Strat (CF) being unavailable. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30.

**San Diego Transit Corporation Employees Retirement Plan
Comparative Performance**

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
San Diego Transit Total Fund	-8.77	-12.10	-10.80	-10.80	2.84	4.04	4.12	5.03	8.36	8.88	16.17
Policy Index	-11.18	-16.13	-13.92	-13.92	3.09	4.37	4.32	5.12	8.87	13.05	19.02
Difference	2.41	4.03	3.12	3.12	-0.25	-0.33	-0.20	-0.09	-0.51	-4.17	-2.85
All Public Plans (<\$500M) (Custom PG) Median	-10.29	-14.50	-10.53	-10.53	5.48	6.30	6.28	7.59	13.27	12.76	19.25
Rank	21	20	53	53	95	96	97	97	93	91	86
Westwood Qual ACp;Ultra (WQAUX) (1)	-10.76	-11.66	-4.43	-4.43	9.10	9.06	8.45	11.59	23.36	9.02	28.56
Russell 3000 Val Index (2)	-12.41	-13.15	-7.46	-7.46	6.82	7.01	7.60	10.39	25.37	2.87	26.26
Difference	1.65	1.49	3.03	3.03	2.28	2.05	0.85	1.20	-2.01	6.15	2.30
IM U.S. All Cap Value Equity (SA+CF) Median	-12.42	-14.41	-8.67	-8.67	7.85	8.35	8.40	11.14	26.27	7.69	27.12
Rank	24	31	16	16	35	31	49	40	69	40	37
Fidelity US Sustainability Index Fund (FITLX)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI US ESG Leaders Index (USD) (Gross)	-15.95	-20.90	-10.53	-10.53	11.34	11.91	11.25	12.74	31.73	18.84	31.66
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Equity (MF) Median	-16.24	-21.44	-12.94	-12.94	9.96	11.29	11.00	13.14	26.35	21.54	31.82
Rank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Analytic US Low Volatility (CF)	-8.53	-9.01	-3.14	-3.14	6.73	7.98	8.51	N/A	15.69	6.63	28.79
MSCI US Min Vol Index (USD) (Net)	-9.27	-12.78	-3.67	-3.67	5.75	8.97	9.81	10.91	20.43	5.09	27.09
Difference	0.74	3.77	0.53	0.53	0.98	-0.99	-1.30	N/A	-4.74	1.54	1.70
Russell 1000 Index	-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	26.45	20.96	31.43
Difference	8.14	11.93	9.90	9.90	-3.44	-3.02	-2.27	N/A	-10.76	-14.33	-2.64
IM U.S. Large Cap Core Equity (SA+CF) Median	-15.06	-19.06	-10.55	-10.55	9.83	10.68	10.43	12.83	27.83	17.26	29.99
Rank	7	9	11	11	93	93	90	N/A	98	89	62
Newton TBC US SMID Cap Grth Eq (CF)	-26.84	-35.50	-38.95	-38.95	4.46	10.60	9.62	12.31	-3.24	70.19	40.61
Russell 2500 Grth Index	-19.55	-29.45	-31.81	-31.81	3.68	7.53	7.05	10.88	5.04	40.47	32.65
Difference	-7.29	-6.05	-7.14	-7.14	0.78	3.07	2.57	1.43	-8.28	29.72	7.96
IM U.S. SMID Cap Growth Equity (SA+CF) Median	-19.66	-28.28	-24.78	-24.78	6.64	10.23	9.38	12.11	16.62	44.80	31.91
Rank	95	87	88	88	69	43	38	40	90	12	5
PIMCO:RAE GlxUS;Inst (PZRIX)	-11.09	-13.42	-15.09	-15.09	2.00	2.30	3.25	5.73	12.77	2.30	16.57
FTSE RAFI Dvl'd Ex US 1000 Index	-13.10	-14.07	-12.61	-12.61	3.36	3.21	3.72	6.39	16.13	3.61	18.85
Difference	2.01	0.65	-2.48	-2.48	-1.36	-0.91	-0.47	-0.66	-3.36	-1.31	-2.28
MSCI ACW Ex US Val Index (USD) (Net)	-11.90	-11.79	-12.77	-12.77	0.56	1.23	1.72	3.76	10.46	-0.77	15.72
Difference	0.81	-1.63	-2.32	-2.32	1.44	1.07	1.53	1.97	2.31	3.07	0.85
IM ACWI Ex US Value (SA+CF) Median	-11.90	-15.29	-15.94	-15.94	2.09	2.52	3.33	6.07	11.05	6.52	21.34
Rank	31	38	36	36	54	58	52	54	36	68	83

Performance shown is gross of fees and client specific. Fiscal year ends 06/30. Manager inception dates shown represent the first full month following initial funding.

**San Diego Transit Corporation Employees Retirement Plan
Comparative Performance**

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
MFS Intl Grth CI 2 (CIT)	-11.85	-18.89	-17.13	-17.13	4.20	6.65	7.28	N/A	10.61	16.51	28.56
MSCI ACW Ex US Grth Index (USD) (Net)	-15.71	-24.79	-25.80	-25.80	1.62	3.43	3.86	5.71	5.09	22.20	27.34
Difference	3.86	5.90	8.67	8.67	2.58	3.22	3.42	N/A	5.52	-5.69	1.22
IM ACWI Ex US Growth (SA+CF) Median	-15.98	-26.22	-24.88	-24.88	2.60	4.46	4.68	6.96	9.00	22.14	29.57
Rank	3	12	4	4	23	18	14	N/A	35	81	62
Vanguard Tot Bd;Inst (VBTIX)	-4.73	-10.35	-10.45	-10.45	-0.91	0.88	N/A	N/A	-1.77	7.80	8.77
Vanguard Spl B US Agg Flt Adj Index	-4.73	-10.46	-10.38	-10.38	-0.91	0.90	1.45	1.56	-1.58	7.75	8.87
Difference	0.00	0.11	-0.07	-0.07	0.00	-0.02	N/A	N/A	-0.19	0.05	-0.10
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-4.85	-10.35	-10.29	-10.29	-0.44	1.29	1.89	2.03	-1.21	8.52	9.20
Rank	46	49	61	61	88	92	N/A	N/A	91	72	73
Vanguard Infl-Prot;Adm (VAIPX)	-6.01	-8.56	-4.94	-4.94	3.11	3.23	2.88	1.76	5.78	11.07	8.32
Bloomberg US Trsy US TIPS Index	-6.08	-8.92	-5.14	-5.14	3.04	3.21	2.82	1.73	5.96	10.99	8.43
Difference	0.07	0.36	0.20	0.20	0.07	0.02	0.06	0.03	-0.18	0.08	-0.11
IM U.S. TIPS (SA+CF) Median	-6.10	-8.88	-5.11	-5.11	3.13	3.25	2.87	1.82	5.92	11.01	8.43
Rank	35	37	42	42	51	63	49	70	71	30	68

Performance shown is gross of fees and client specific. Fiscal year ends 06/30. Manager inception dates shown represent the first full month following initial funding.

**San Diego Transit Corporation Employees Retirement Plan
Comparative Performance**

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
PIMCO:All Ast Ath;Inst (PAUIX)	-11.67	-13.80	-11.43	-11.43	2.74	2.93	3.40	2.81	16.57	5.58	8.62
All Asset Custom Index (EqI Wtd) (3)	-7.62	-11.00	-8.65	-8.65	2.73	3.81	4.01	3.85	6.46	9.89	12.97
Difference	-4.05	-2.80	-2.78	-2.78	0.01	-0.88	-0.61	-1.04	10.11	-4.31	-4.35
HFRI FOF: Cnsvt Index	-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	7.62	6.47	6.30
Difference	-10.14	-12.42	-11.71	-11.71	-1.96	-1.14	0.27	-1.03	8.95	-0.89	2.32
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	12.39	6.43	7.40
Difference	-16.00	-22.70	-25.94	-25.94	-7.48	-6.14	-4.90	-4.91	4.18	-0.85	1.22
GMO:Bchmk-Fr All;III (GBMFX)	-3.55	-5.25	-7.16	-7.16	0.43	1.90	2.39	N/A	3.91	-1.60	12.53
60% MSCI ACW (Net)/40% Bbrg US Agg Idx	-11.36	-16.28	-13.43	-13.43	3.66	4.83	5.00	6.04	10.20	13.49	19.41
Difference	7.81	11.03	6.27	6.27	-3.23	-2.93	-2.61	N/A	-6.29	-15.09	-6.88
HFRI FOF: Cnsvt Index	-1.53	-1.38	0.28	0.28	4.70	4.07	3.13	3.84	7.62	6.47	6.30
Difference	-2.02	-3.87	-7.44	-7.44	-4.27	-2.17	-0.74	N/A	-3.71	-8.07	6.23
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	12.39	6.43	7.40
Difference	-7.88	-14.15	-21.67	-21.67	-9.79	-7.17	-5.91	N/A	-8.48	-8.03	5.13

The Policy Index is calculated monthly and currently consists of 25% Russell 3000 Index, 20% MSCI ACW Ex US Index (USD) (Net), 35% Bloomberg US Agg Bond Index, and 20% of the 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx. For the full historical composition, please see the Addendum.

BNYM PE US SMID Cap Grth Eq NL has been rebranded as Newton TBC US SMID Cap Grth Eq.

Performance shown for Alternative Investment Custom Index represents 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx from 07/2018 through present; HFRI FOF: Cnsvt Index from 01/1990 through 06/2018.

Performance shown for Westwood Qual ACp:Ultra (WQAUX) (1) represents Westwood Qual ACp:Ultra (WQAUX) from 10/2021 through present; Westwood All Cap Value (CF) from 08/2011 through 09/2021; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF) from 07/2008 through 07/2011; Westwood LargeCap Value (CF) from 10/2004 through 06/2008; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF) from 01/1997 through 09/2004; and Westwood LargeCap Value (CF) from 07/1986 through 12/1996.

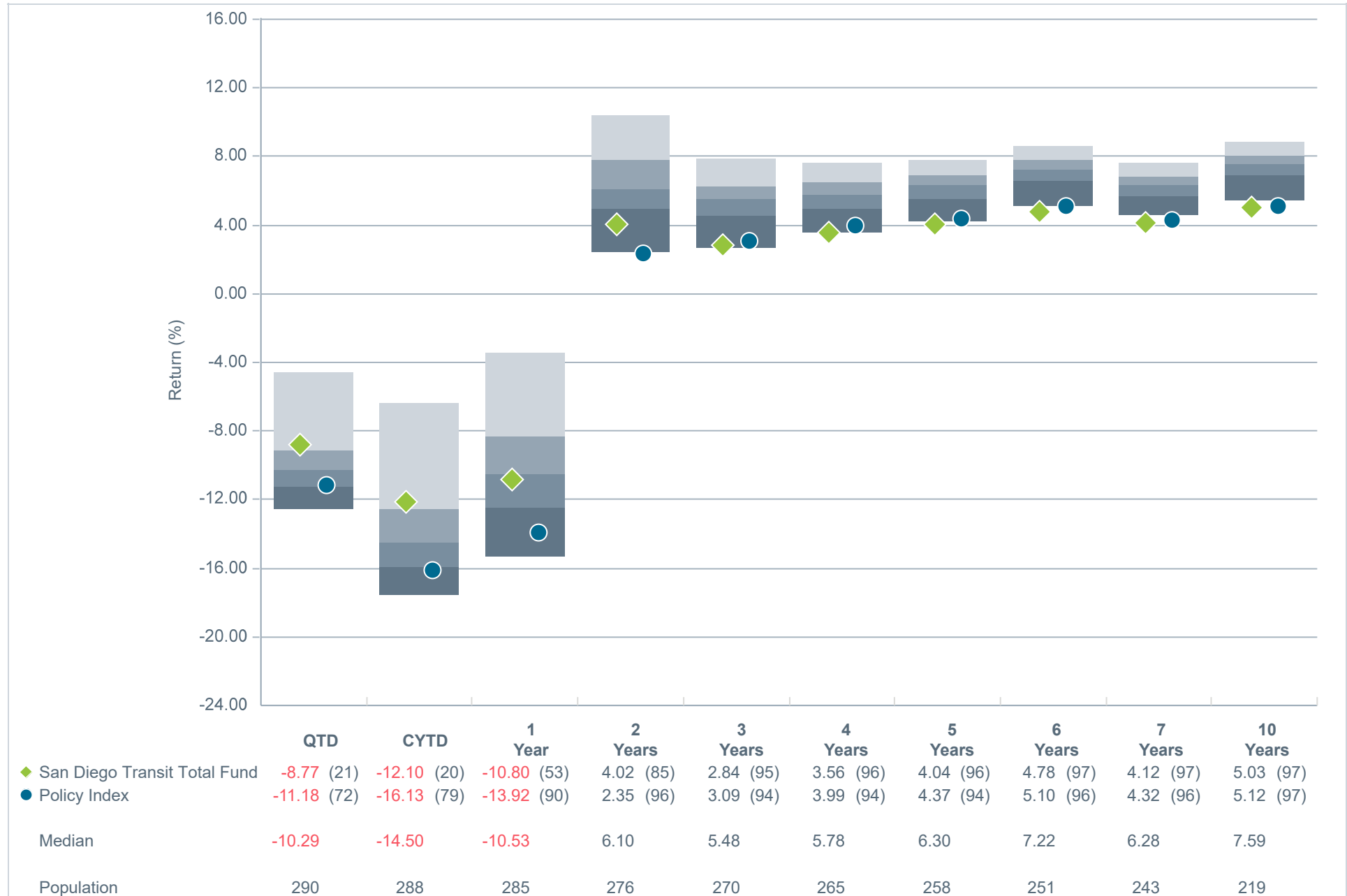
Performance shown for Russell 3000 Val Index (2) represents Russell 3000 Val Index from 08/2011 through present; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF) applied to the Russell 1000 Val Index and Russell 2500 Val Index, respectively, from 07/2008 through 07/2011; Russell 1000 Val Index from 10/2004 through 06/2008; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF) applied to the Russell 1000 Val Index and Russell 2000 Grth Index, respectively, from 01/1997 through 09/2004; and Russell 1000 Val Index from 07/1986 through 12/1996.

Performance shown for All Asset Custom Index (EqI Wtd) (3) represents All Asset Custom Index (EqI Wtd) from 01/2014 through present; and All Asset Composite Index from 10/1997 through 12/2013.

Performance shown is gross of fees and client specific. Fiscal year ends 06/30. Manager inception dates shown represent the first full month following initial funding.

San Diego Transit Corporation Employees Retirement Plan
Plan Sponsor Peer Group Analysis
All Public Plans (<\$500M) (Custom PG)

As of June 30, 2022



Performance shown is gross of fees. Parentheses contain percentile ranks.

San Diego Transit Corporation Employees Retirement Plan
Plan Sponsor Peer Group Analysis
All Public Plans (<\$500M) (Custom PG)

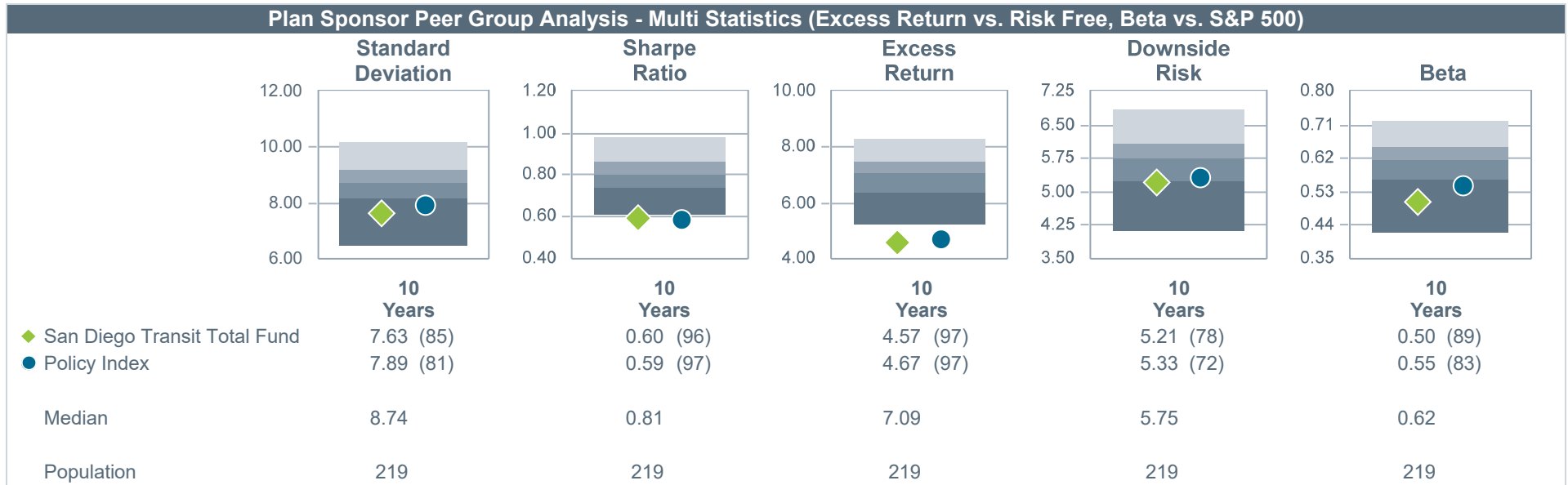
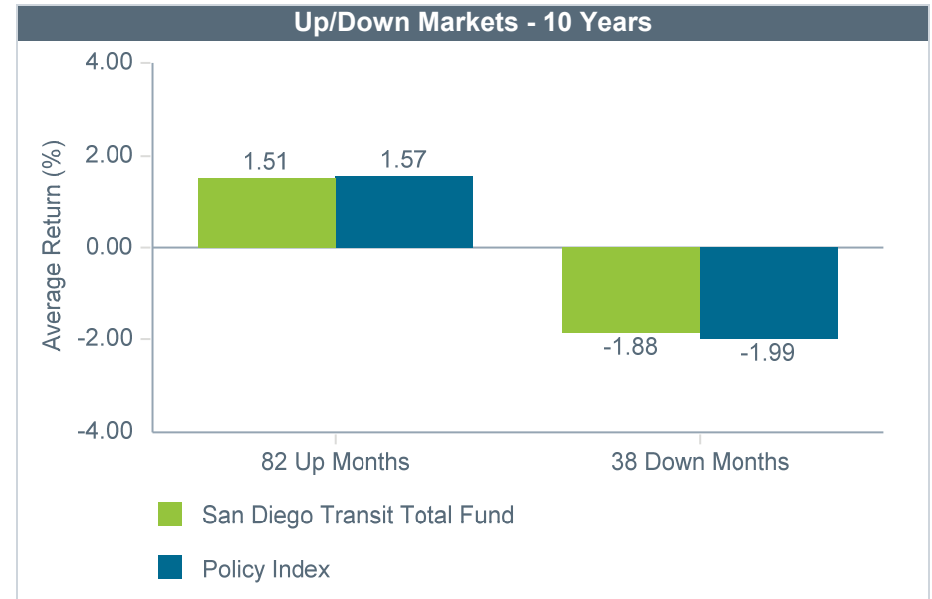
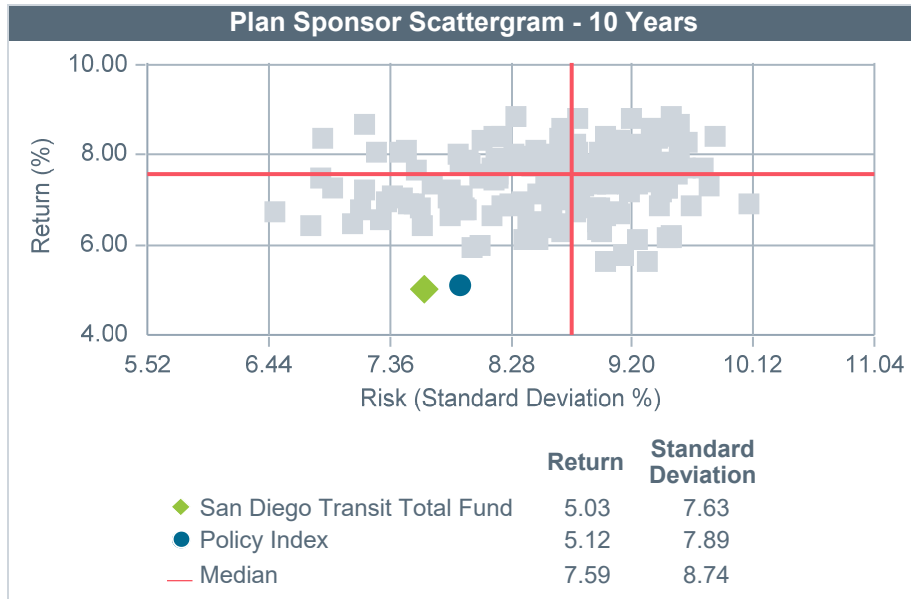
As of June 30, 2022



Performance shown is gross of fees. Parentheses contain percentile ranks.

San Diego Transit Corporation Employees Retirement Plan
San Diego Transit Total Fund vs. All Public Plans (<\$500M) (Custom PG)

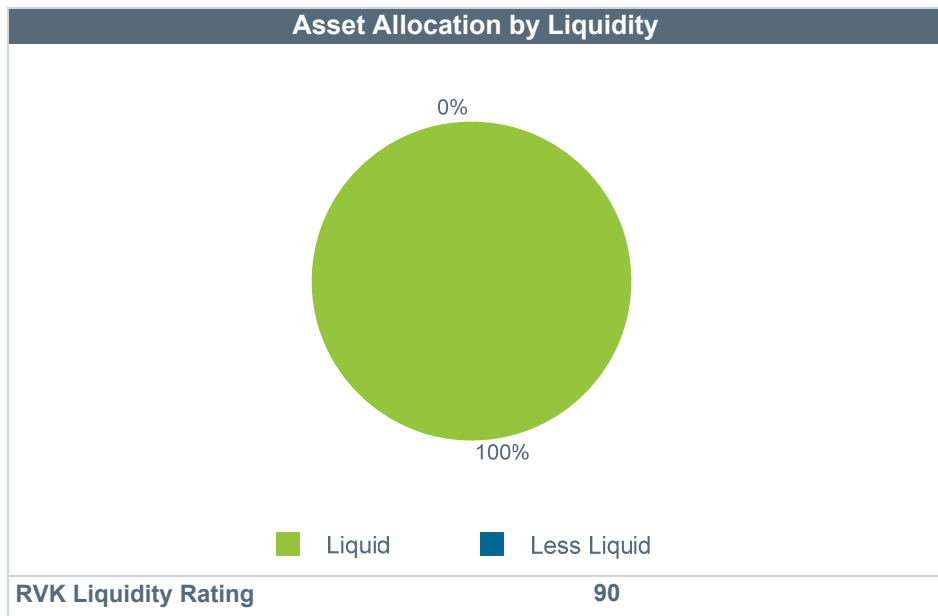
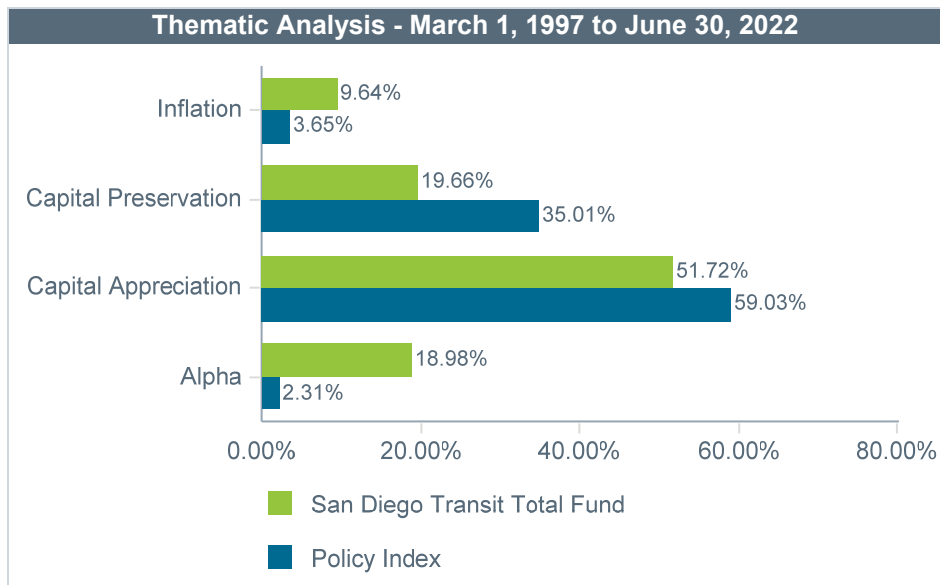
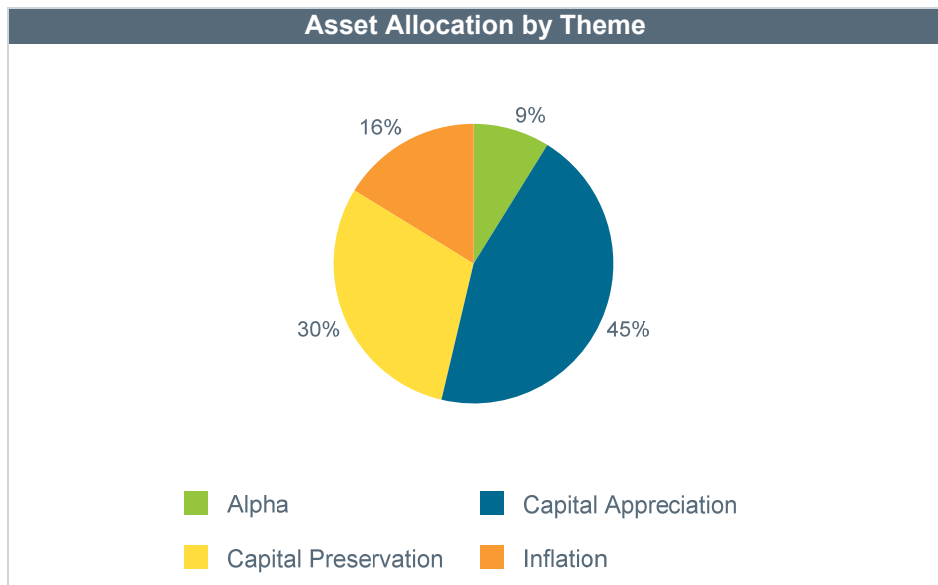
As of June 30, 2022



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

San Diego Transit Corporation Employees Retirement Plan Total Fund Thematic and Liquidity Analysis

As of June 30, 2022



Correlation Matrix - 10 Years

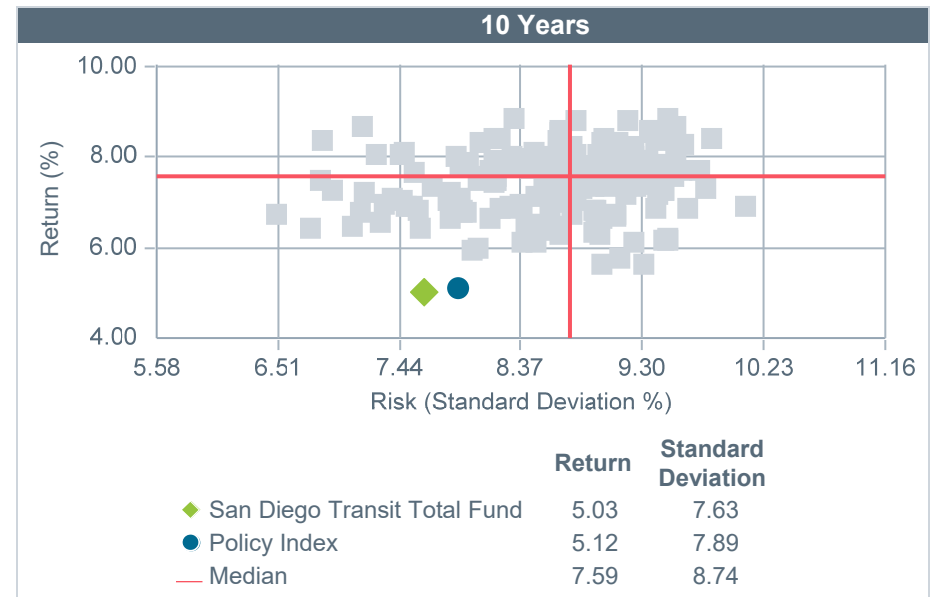
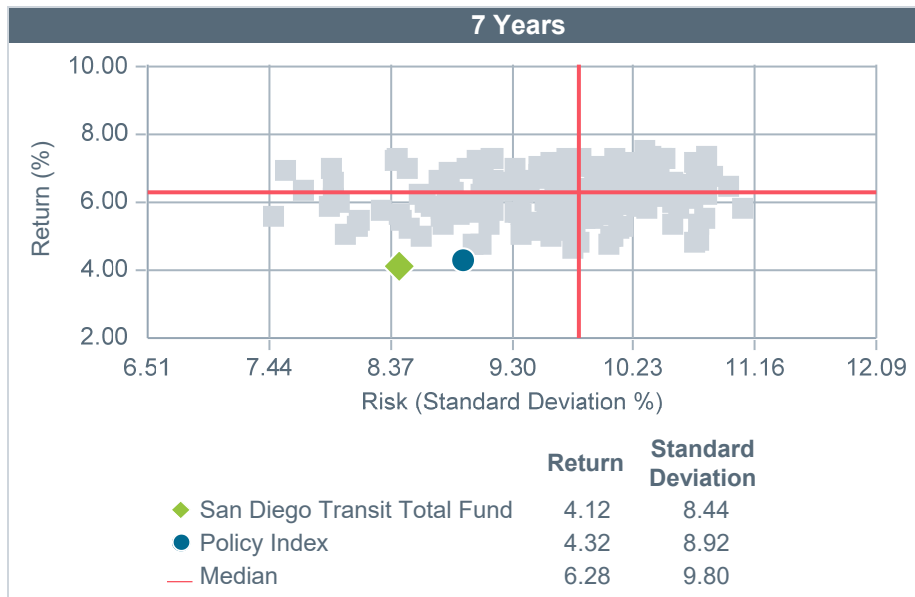
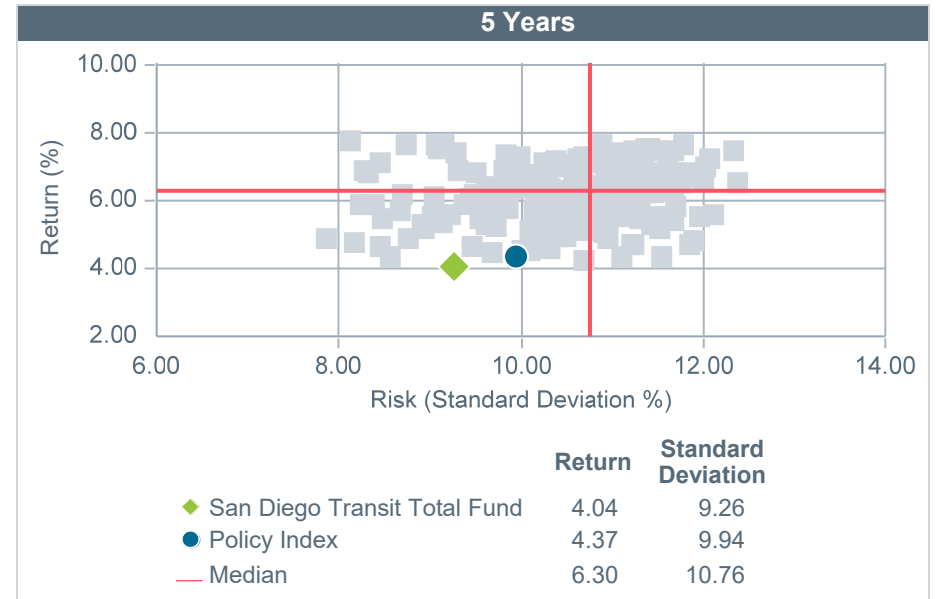
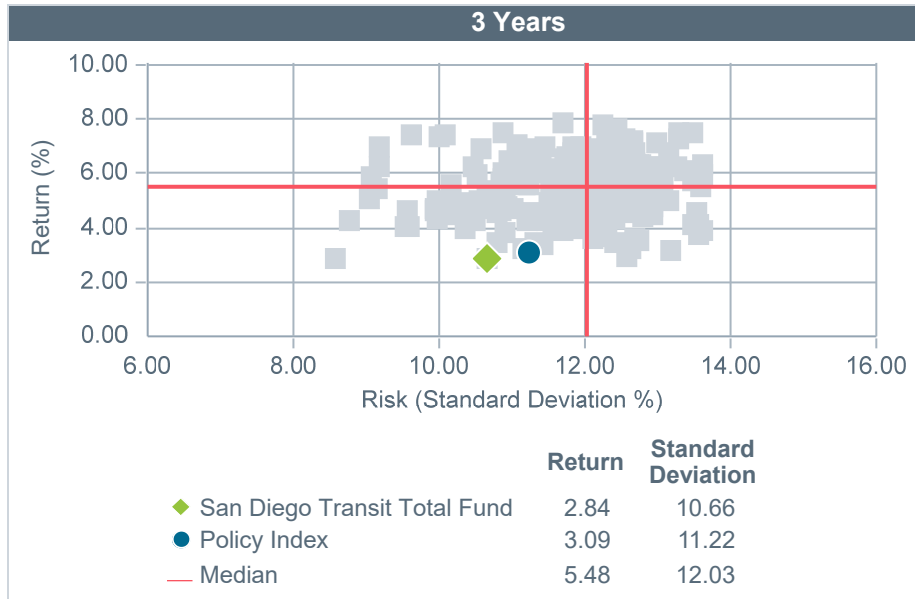
	A	B	C	D
A	1.00			
B	0.60	1.00		
C	-0.14	-0.15	1.00	
D	0.54	0.74	-0.03	1.00

A = HFRI EH: Equity Market Neutral Index (Alpha)
B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)
C = Bloomberg US Gov't Bond Index (Capital Preservation)
D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic and custom index descriptions.

San Diego Transit Corporation Employees Retirement Plan
Plan Sponsor Scattergrams
All Public Plans (<\$500M) (Custom PG)

As of June 30, 2022

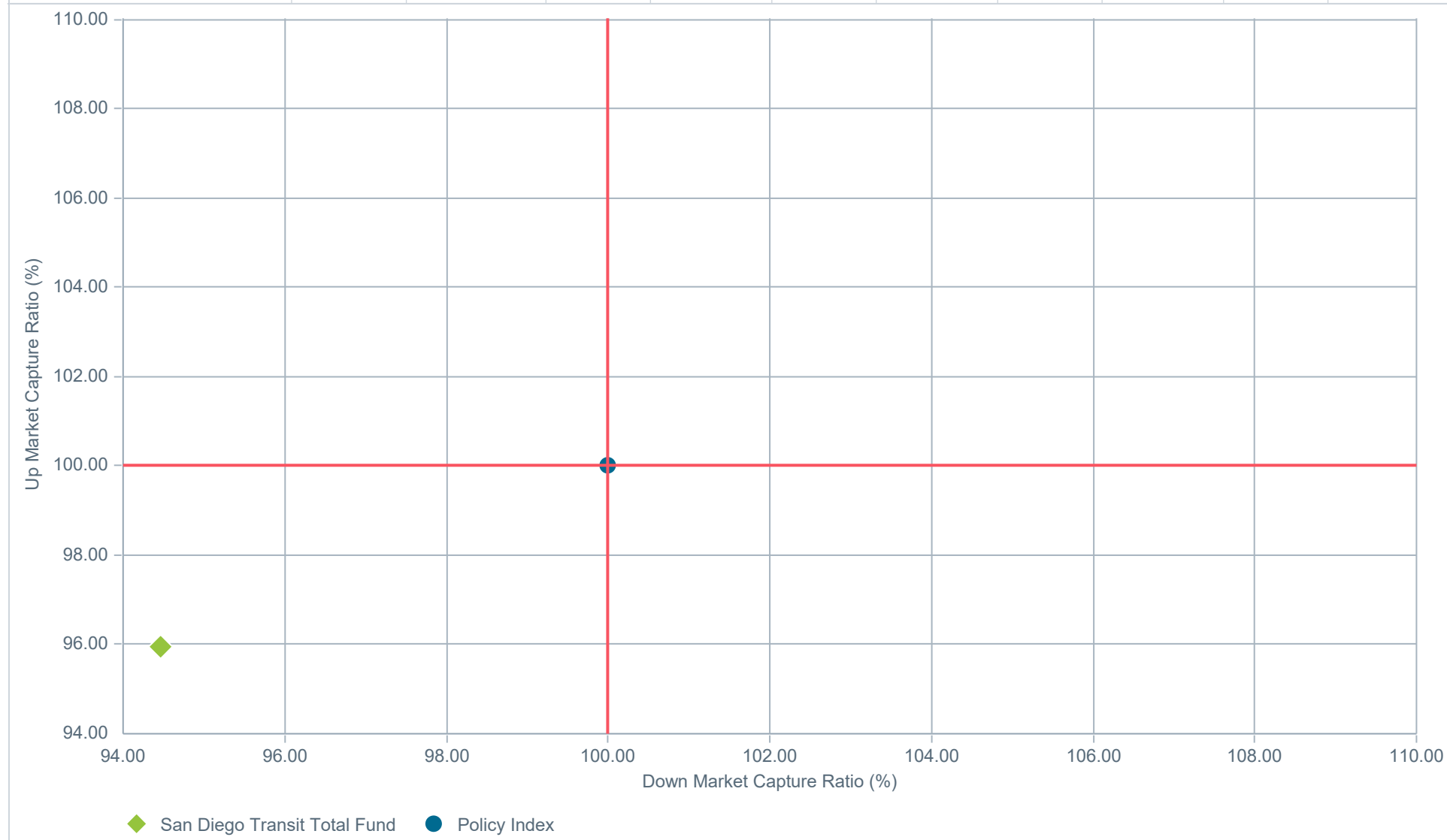


Performance shown is gross of fees. Calculation is based on monthly periodicity.

San Diego Transit Corporation Employees Retirement Plan
Up/Down Markets Versus Policy Index

10 Years Ending June 30, 2022

	Full Period Return		Months Benchmark Up(82)				Months Benchmark Down(38)			
			Portfolio Ahead		Portfolio Behind		Portfolio Ahead		Portfolio Behind	
	Portfolio	Benchmark	No. Months	Average Ahead	No. Months	Average Behind	No. Months	Average Ahead	No. Months	Average Behind
San Diego Transit Total Fund	5.03	5.12	40	0.25	42	-0.37	18	0.60	20	-0.33
Policy Index	5.12	5.12	82	0.00	0	0.00	38	0.00	0	0.00



Performance shown is gross of fees. Calculation is based on monthly periodicity.

Investment Manager Profiles



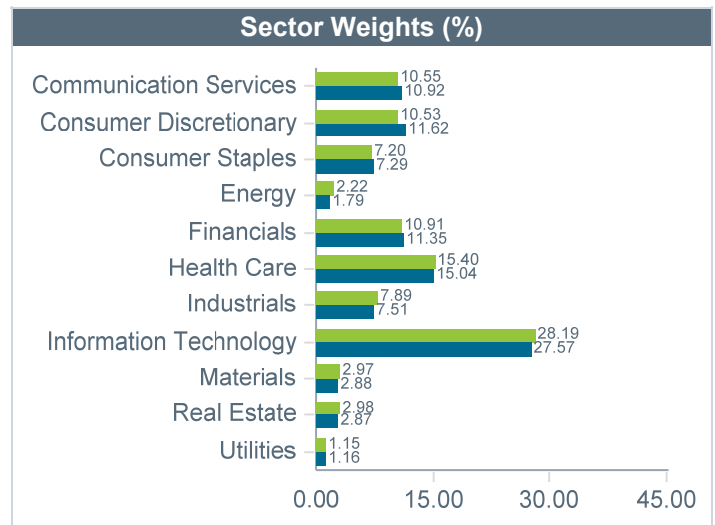
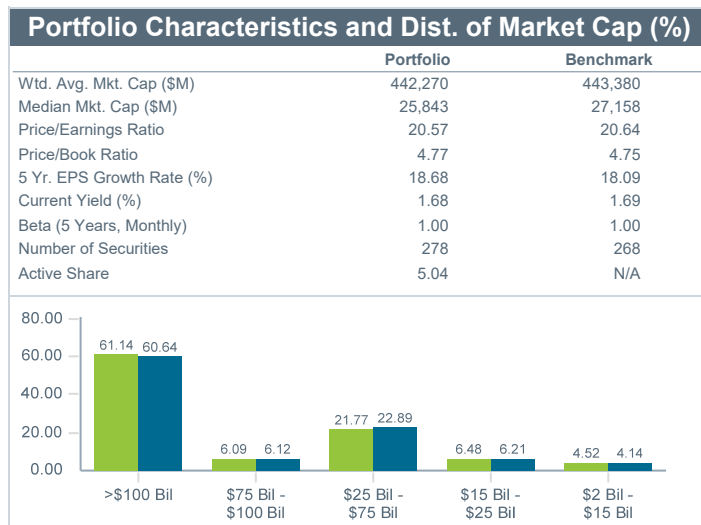
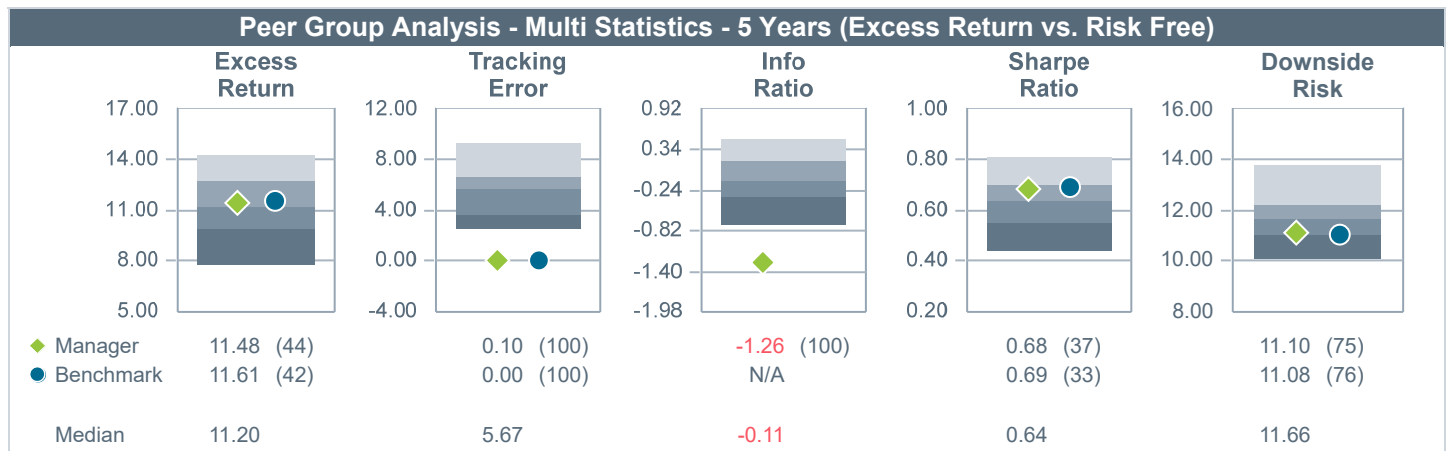
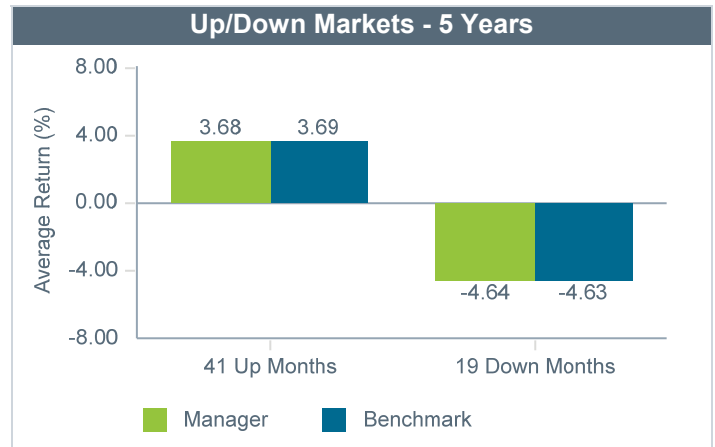
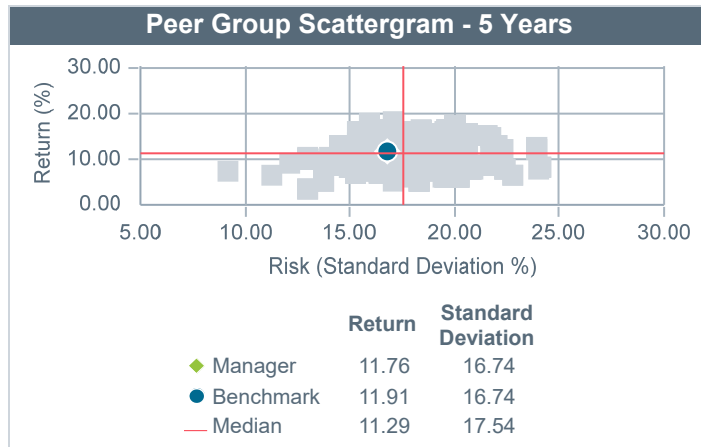
Manager: Fidelity US Sustain Idx (FITLX)

As of June 30, 2022

Benchmark: MSCI US ESG Leaders Index (USD) (Gross)

Peer Group: IM U.S. Large Cap Equity (MF)

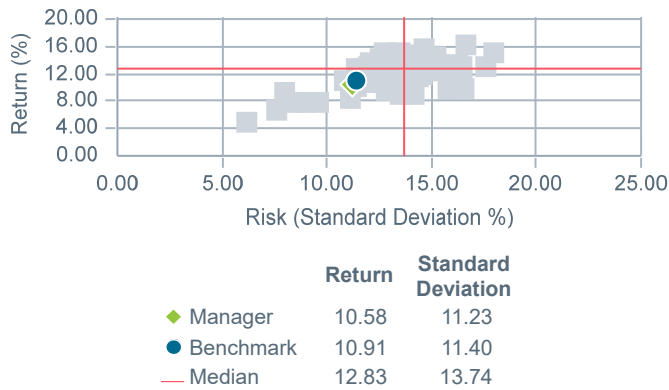
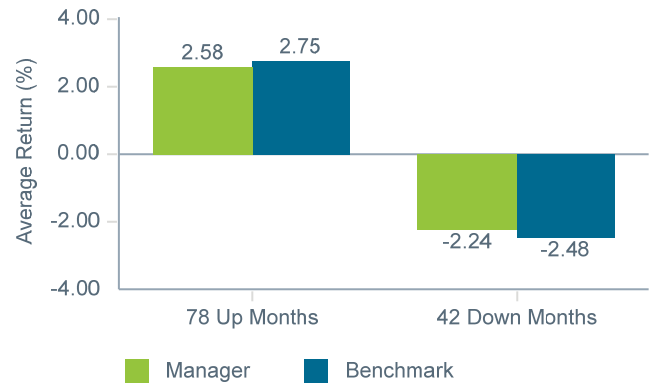
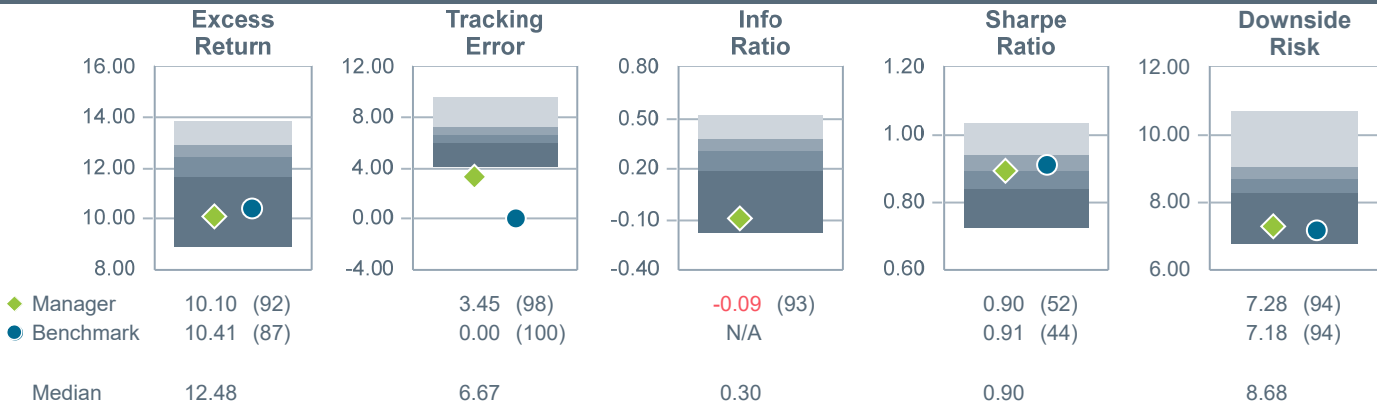
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-15.99	-10.64	11.20	11.76	N/A	N/A	31.57	18.67	31.53	-3.28	N/A
Benchmark	-15.95	-10.53	11.34	11.91	11.25	12.74	31.73	18.84	31.66	-3.11	20.56
Difference	-0.04	-0.11	-0.14	-0.15	N/A	N/A	-0.16	-0.17	-0.13	-0.17	N/A
Peer Group Median	-16.24	-12.94	9.96	11.29	11.00	13.14	26.35	21.54	31.82	-3.52	24.06
Rank	47	37	25	42	N/A	N/A	7	61	53	47	N/A
Population	1,741	1,680	1,512	1,420	1,265	1,110	1,669	1,652	1,646	1,682	1,637



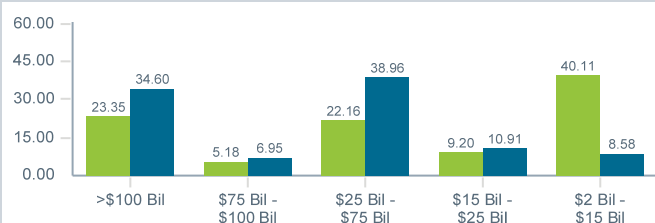
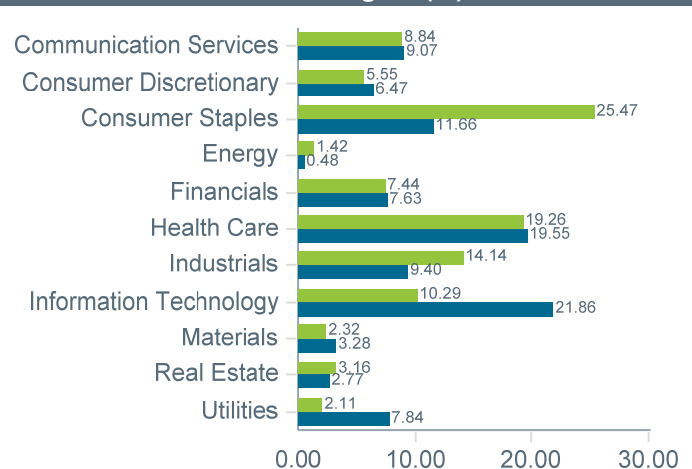
Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: Analytic US Low Volatility (CF)**As of June 30, 2022****Benchmark: MSCI US Min Vol Index (USD) (Net)****Peer Group: IM U.S. Large Cap Core Equity (SA+CF)**

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-8.53	-3.04	6.85	8.11	8.64	10.58	15.90	6.78	28.89	-4.71	13.45
Benchmark	-9.27	-3.67	5.75	8.97	9.81	10.91	20.43	5.09	27.09	0.87	18.41
Difference	0.74	0.63	1.10	-0.86	-1.17	-0.33	-4.53	1.69	1.80	-5.58	-4.96
Peer Group Median	-15.06	-10.55	9.83	10.68	10.43	12.83	27.83	17.26	29.99	-5.15	21.86
Rank	7	11	93	92	89	89	98	89	62	43	95
Population	180	180	175	169	162	148	205	226	253	276	299

Peer Group Scattergram - 10 Years**Up/Down Markets - 10 Years****Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)****Portfolio Characteristics and Dist. of Market Cap (%)**

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	119,263	161,935
Median Mkt. Cap (\$M)	18,975	41,341
Price/Earnings Ratio	17.84	21.20
Price/Book Ratio	3.60	4.14
5 Yr. EPS Growth Rate (%)	12.35	14.90
Current Yield (%)	2.20	1.87
Beta (5 Years, Monthly)	0.94	1.00
Number of Securities	127	173
Active Share	70.05	N/A

**Sector Weights (%)**

Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Analytic Low Volatility has moved away from Utilities and Real Estate as they have become high beta sectors.

Manager: BNYM Newton PE US SMID Cap Grth Eq NL (CF)

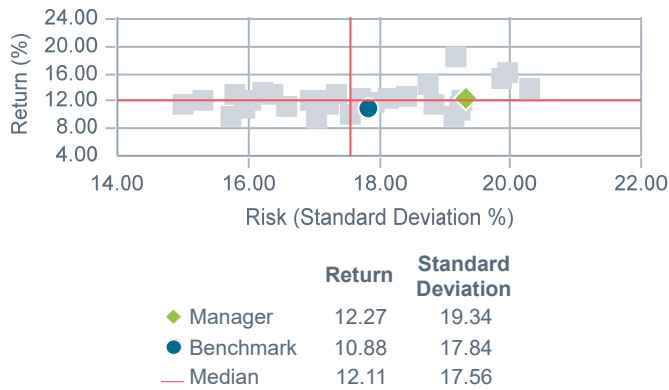
As of June 30, 2022

Benchmark: Russell 2500 Grth Index

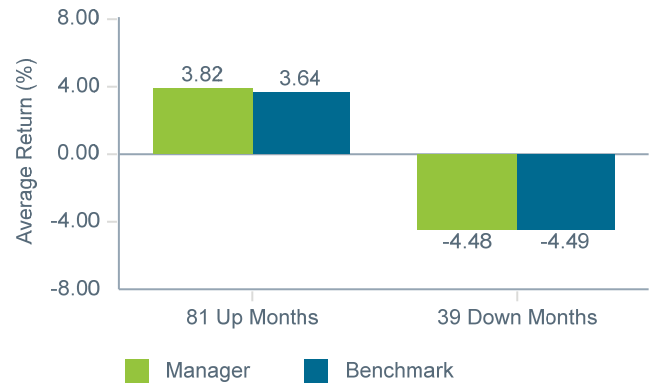
Peer Group: IM U.S. SMID Cap Growth Equity (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-26.84	-39.14	4.34	10.53	9.57	12.27	-3.57	70.19	40.59	-0.86	27.32
Benchmark	-19.55	-31.81	3.68	7.53	7.05	10.88	5.04	40.47	32.65	-7.47	24.46
Difference	-7.29	-7.33	0.66	3.00	2.52	1.39	-8.61	29.72	7.94	6.61	2.86
Peer Group Median	-19.66	-24.78	6.64	10.23	9.38	12.11	16.62	44.80	31.74	-4.67	24.93
Rank	95	88	70	44	41	42	90	12	5	26	38
Population	58	55	52	45	38	29	59	60	59	63	62

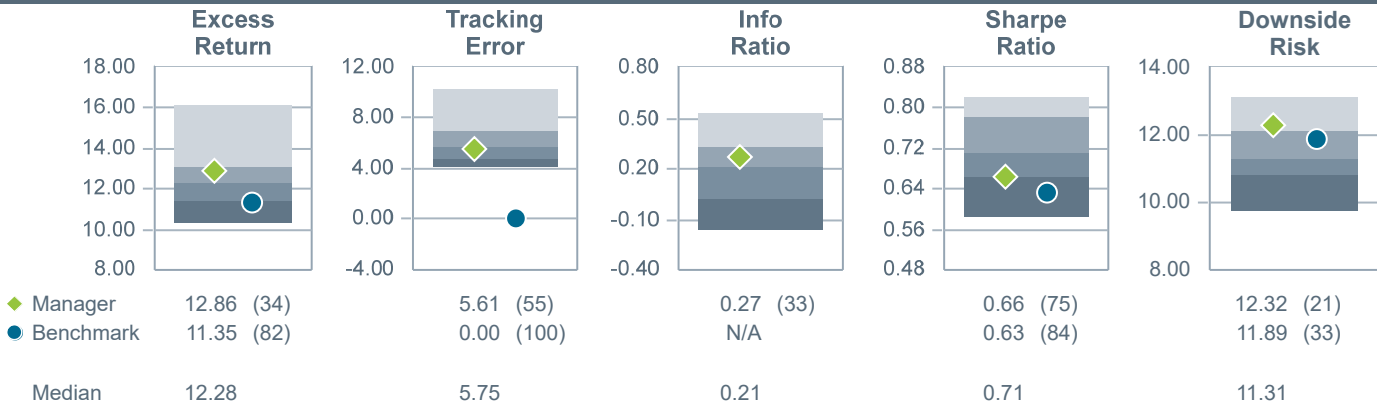
Peer Group Scattergram - 10 Years



Up/Down Markets - 10 Years

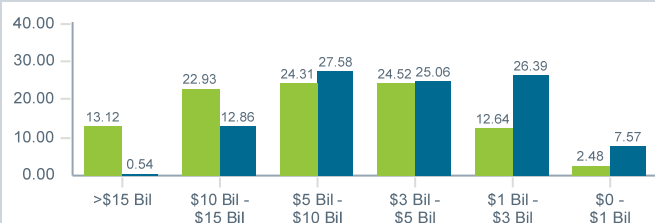


Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

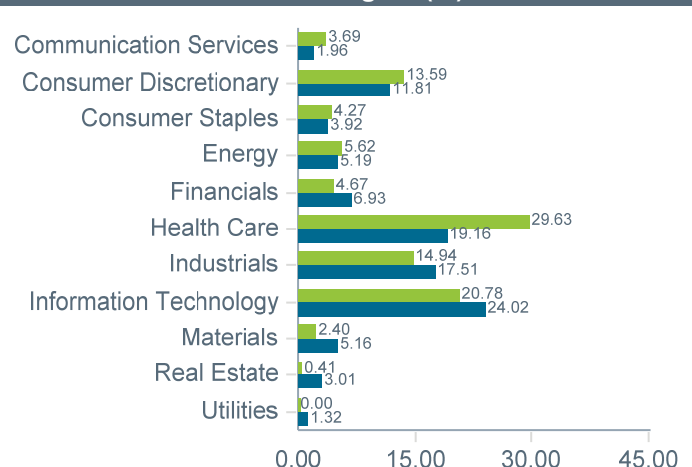


Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	8,720	5,208
Median Mkt. Cap (\$M)	4,374	1,457
Price/Earnings Ratio	32.10	18.71
Price/Book Ratio	3.74	4.20
5 Yr. EPS Growth Rate (%)	18.51	21.44
Current Yield (%)	0.21	0.81
Beta (5 Years, Monthly)	1.09	1.00
Number of Securities	93	1,371
Active Share	92.32	N/A



Sector Weights (%)



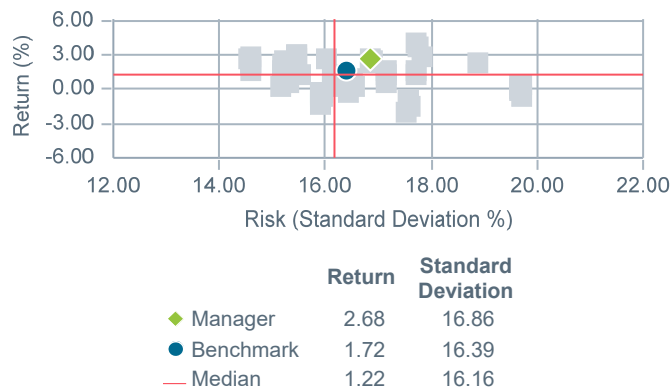
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. BNYM PE US SMID Cap Grth Eq NL has been rebranded as Newton TBC US SMID Cap Grth Eq.

Manager: PIMCO:RAE GlxUS;Inst (PZRIX)
Benchmark: MSCI ACW Ex US Val Index (USD) (Net)
Peer Group: IM ACWI Ex US Value (MF)

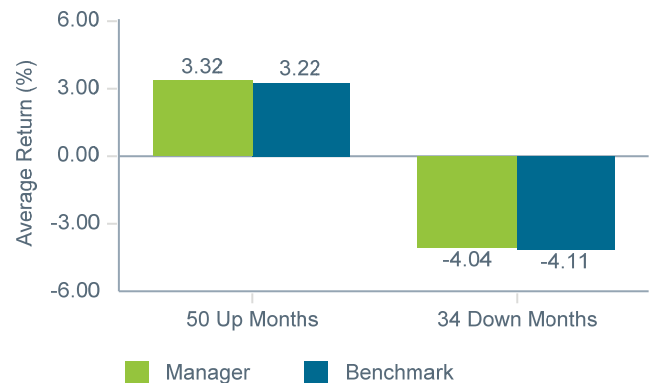
As of June 30, 2022

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-11.22	-15.58	1.43	1.73	2.68	N/A	12.12	1.73	15.94	-14.91	25.97
Benchmark	-11.90	-12.77	0.56	1.23	1.72	3.76	10.46	-0.77	15.72	-13.97	22.66
Difference	0.68	-2.81	0.87	0.50	0.96	N/A	1.66	2.50	0.22	-0.94	3.31
Peer Group Median	-11.56	-15.58	1.07	1.12	1.22	3.65	10.01	3.69	17.82	-16.03	22.88
Rank	23	51	33	23	17	N/A	33	58	72	12	23
Population	62	62	62	62	57	44	62	67	68	68	72

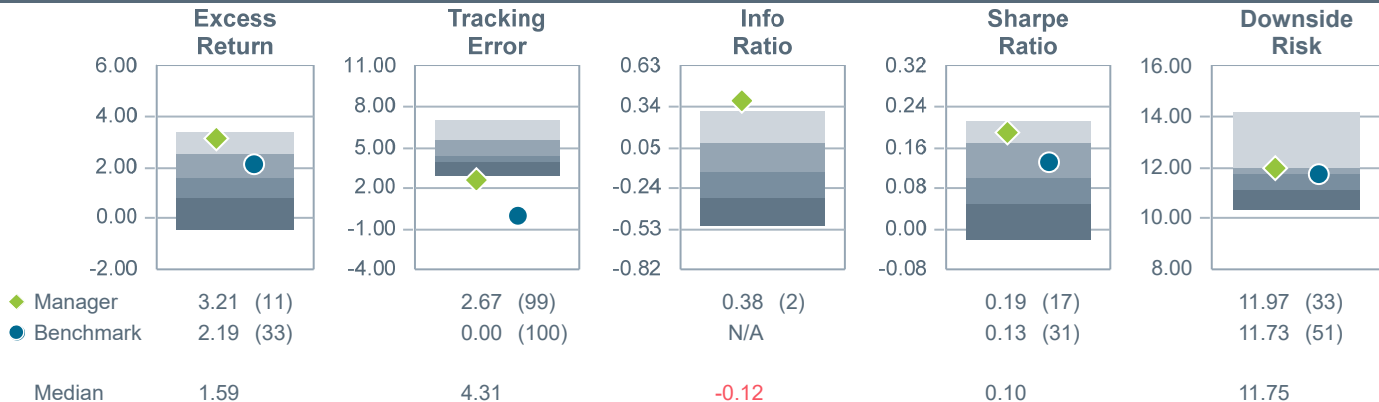
Peer Group Scattergram - 7 Years



Up/Down Markets - 7 Years

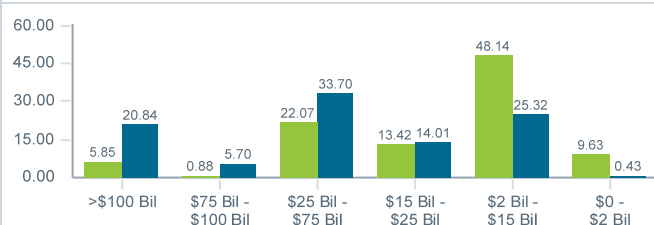


Peer Group Analysis - Multi Statistics - 7 Years (Excess Return vs. Risk Free)

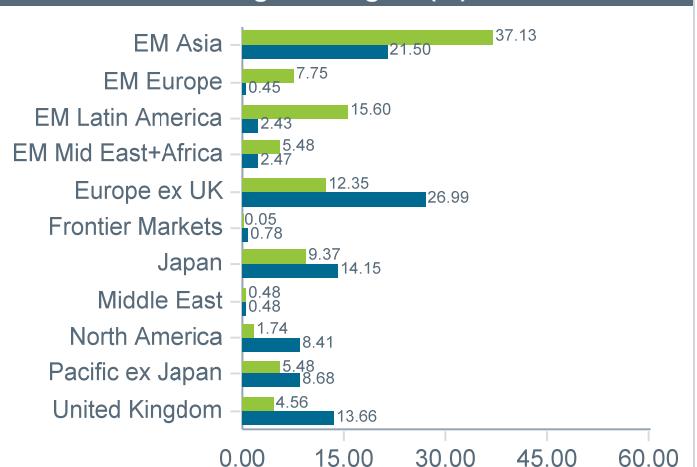


Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	25,862	64,202
Median Mkt. Cap (\$M)	4,977	8,006
Price/Earnings Ratio	6.05	8.98
Price/Book Ratio	1.69	1.74
5 Yr. EPS Growth Rate (%)	12.86	12.79
Current Yield (%)	5.95	5.03
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	717	1,310
Active Share	80.09	N/A



Region Weights (%)



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: MFS Intl Grth CI 2 (CIT)

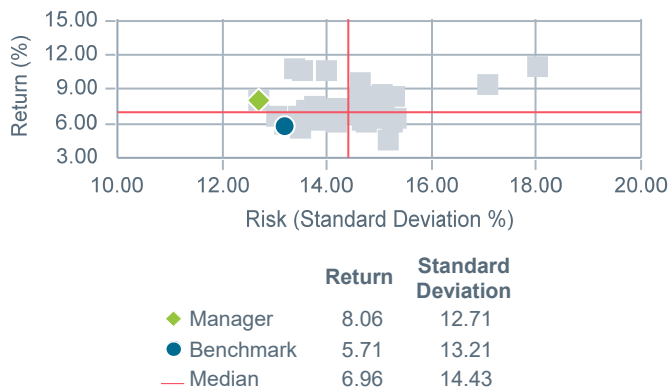
As of June 30, 2022

Benchmark: MSCI ACW Ex US Grth Index (USD) (Net)

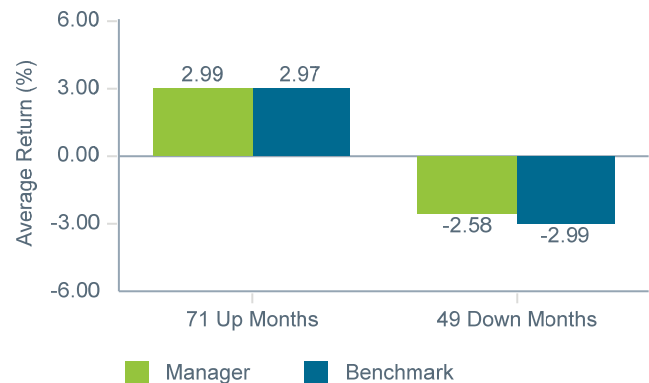
Peer Group: IM ACWI Ex US Growth (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-11.86	-17.17	4.20	6.66	7.31	8.06	10.58	16.55	28.62	-7.97	34.00
Benchmark	-15.71	-25.80	1.62	3.43	3.86	5.71	5.09	22.20	27.34	-14.43	32.01
Difference	3.85	8.63	2.58	3.23	3.45	2.35	5.49	-5.65	1.28	6.46	1.99
Peer Group Median	-15.98	-24.88	2.60	4.46	4.68	6.96	9.00	22.14	29.57	-13.78	32.56
Rank	3	4	23	18	14	23	35	81	61	9	38
Population	51	51	51	51	50	46	52	53	55	58	64

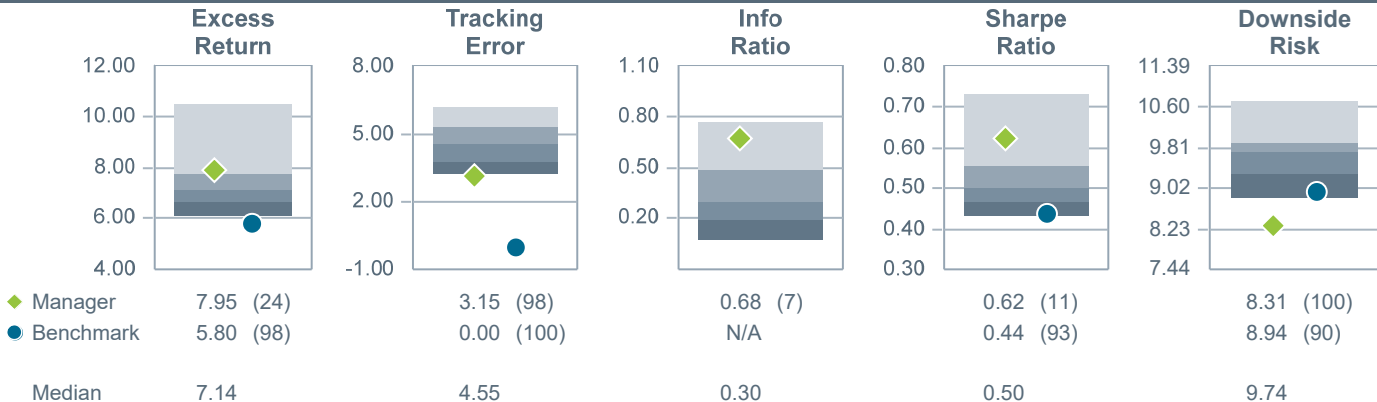
Peer Group Scattergram - 10 Years



Up/Down Markets - 10 Years

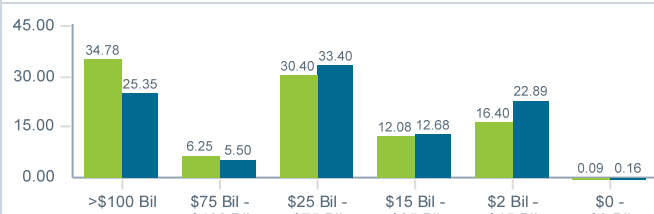


Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

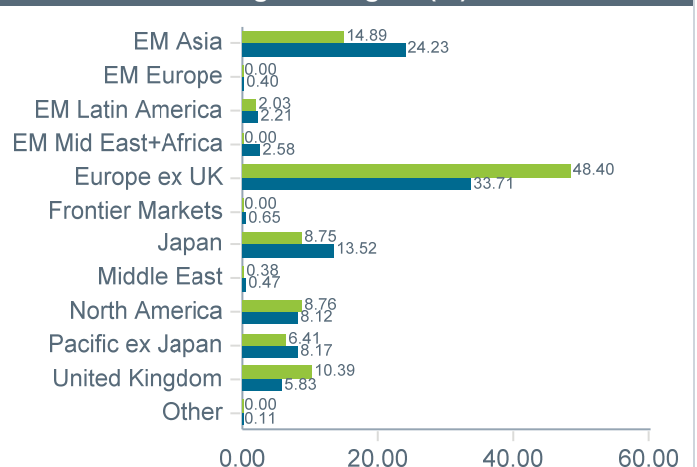


Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	111,792	89,620
Median Mkt. Cap (\$M)	25,034	8,855
Price/Earnings Ratio	19.28	17.63
Price/Book Ratio	2.86	3.18
5 Yr. EPS Growth Rate (%)	12.53	16.72
Current Yield (%)	2.07	1.87
Beta (5 Years, Monthly)	0.92	1.00
Number of Securities	82	1,311
Active Share	78.71	N/A



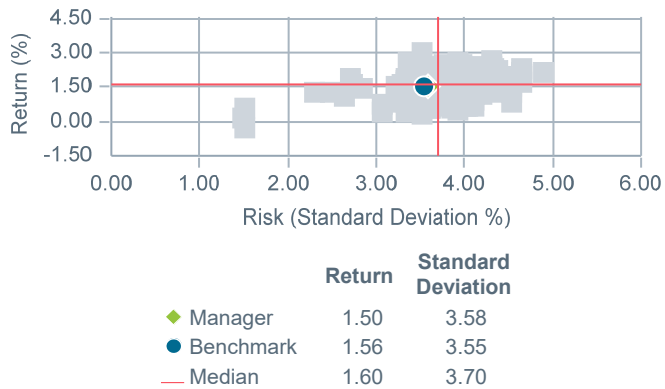
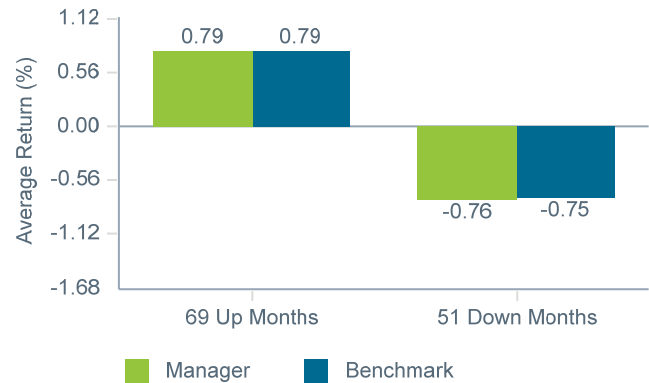
Region Weights (%)



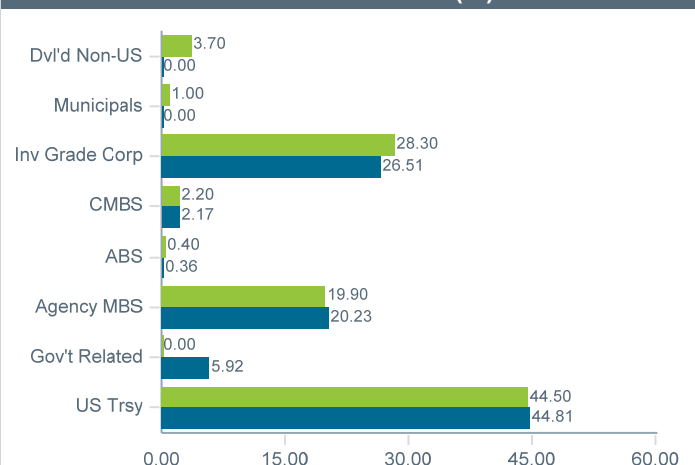
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: Vanguard Tot Bd;Inst (VBTIX)**As of June 30, 2022****Benchmark: Vanguard Spl B US Agg Flt Adj Index****Peer Group: IM U.S. Broad Market Core Fixed Income (MF)**

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-4.71	-10.39	-0.92	0.86	1.41	1.50	-1.65	7.74	8.73	-0.01	3.57
Benchmark	-4.73	-10.38	-0.91	0.90	1.45	1.56	-1.58	7.75	8.87	-0.08	3.63
Difference	0.02	-0.01	-0.01	-0.04	-0.04	-0.06	-0.07	-0.01	-0.14	0.07	-0.06
Peer Group Median	-5.35	-11.17	-0.93	0.80	1.37	1.60	-1.33	8.15	8.76	-0.62	3.60
Rank	17	23	50	42	46	56	64	64	52	19	53
Population	516	504	476	437	386	317	511	508	529	523	513

Peer Group Scattergram - 10 Years**Up/Down Markets - 10 Years****Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)****Portfolio Characteristics**

	Portfolio	Benchmark
Effective Duration	6.86	6.48
Spread Duration	N/A	6.45
Avg. Maturity	8.81	8.69
Avg. Quality	Aa2	Aa2/Aa3
Yield To Maturity (%)	1.72	3.72
Coupon Rate (%)	2.59	2.50
Current Yield (%)	N/A	N/A
Holdings Count	10,162	12,563

Sector Distribution (%)

Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Benchmark consists of Bloomberg US Agg Bond Index through 12/31/09; and Bloomberg US Agg Flt Adj Index thereafter.

Manager: Vanguard Infl-Prot;Adm (VAIPX)

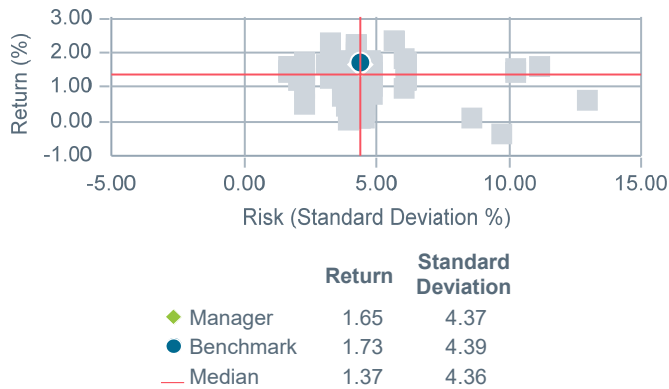
As of June 30, 2022

Benchmark: Bloomberg US Trsy US TIPS Index

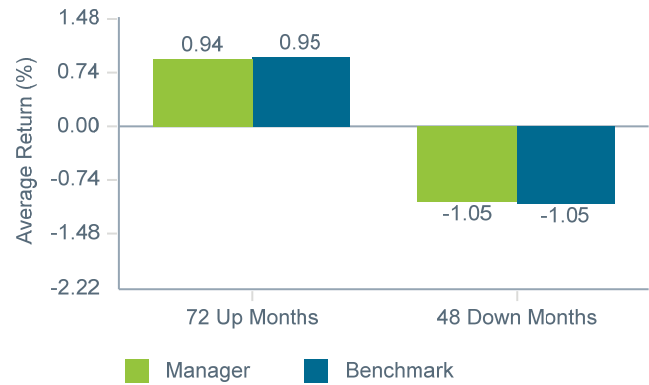
Peer Group: IM U.S. TIPS (MF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-6.06	-5.07	2.98	3.11	2.75	1.65	5.68	10.96	8.16	-1.39	2.91
Benchmark	-6.08	-5.14	3.04	3.21	2.82	1.73	5.96	10.99	8.43	-1.26	3.01
Difference	0.02	0.07	-0.06	-0.10	-0.07	-0.08	-0.28	-0.03	-0.27	-0.13	-0.10
Peer Group Median	-6.09	-5.34	2.89	2.87	2.35	1.37	5.26	9.70	7.41	-1.57	2.60
Rank	48	44	44	27	17	22	31	27	31	44	34
Population	202	196	189	176	153	116	201	199	214	221	222

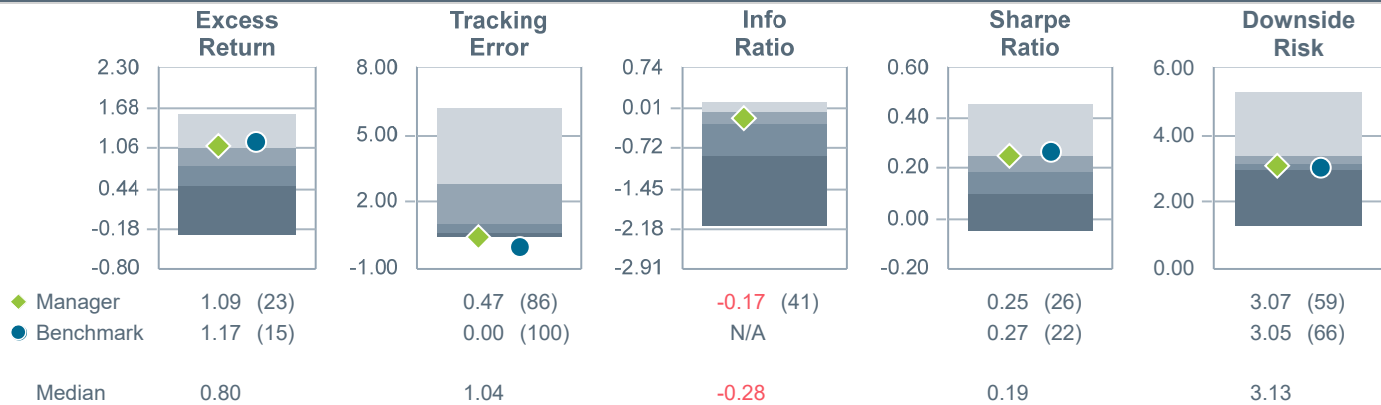
Peer Group Scattergram - 10 Years



Up/Down Markets - 10 Years



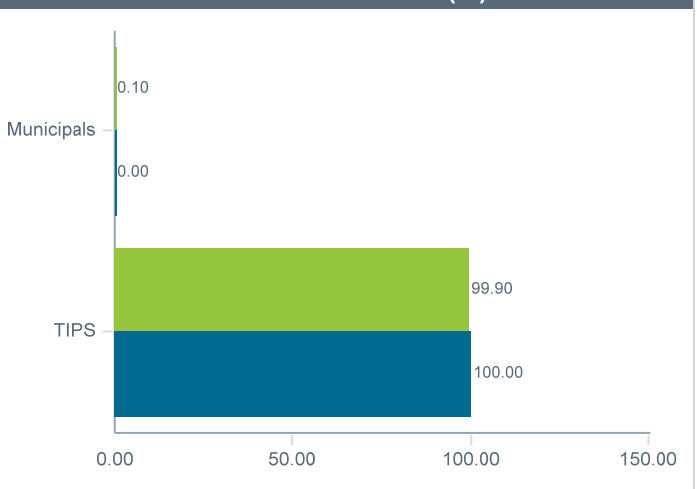
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.75	5.05
Spread Duration	N/A	5.05
Avg. Maturity	7.18	7.38
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	2.91	3.38
Coupon Rate (%)	0.66	0.63
Current Yield (%)	-0.23	N/A
Holdings Count	54	46

Sector Distribution (%)



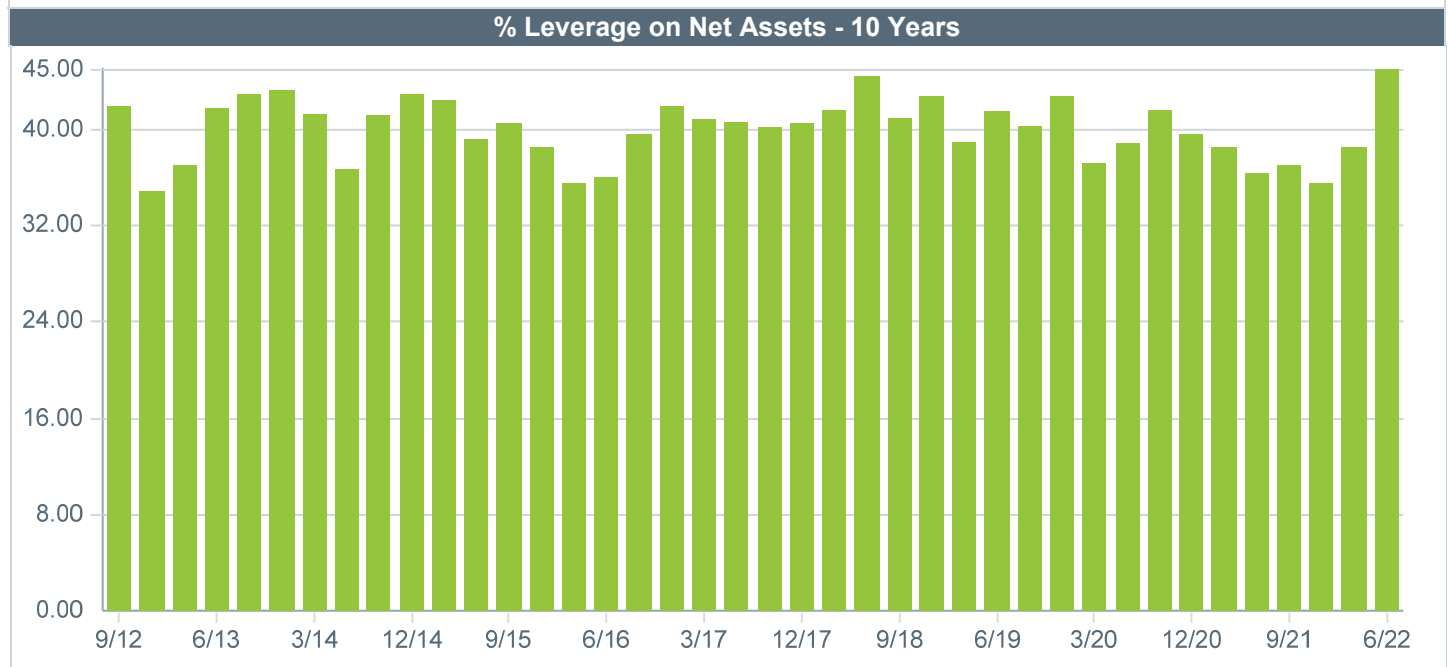
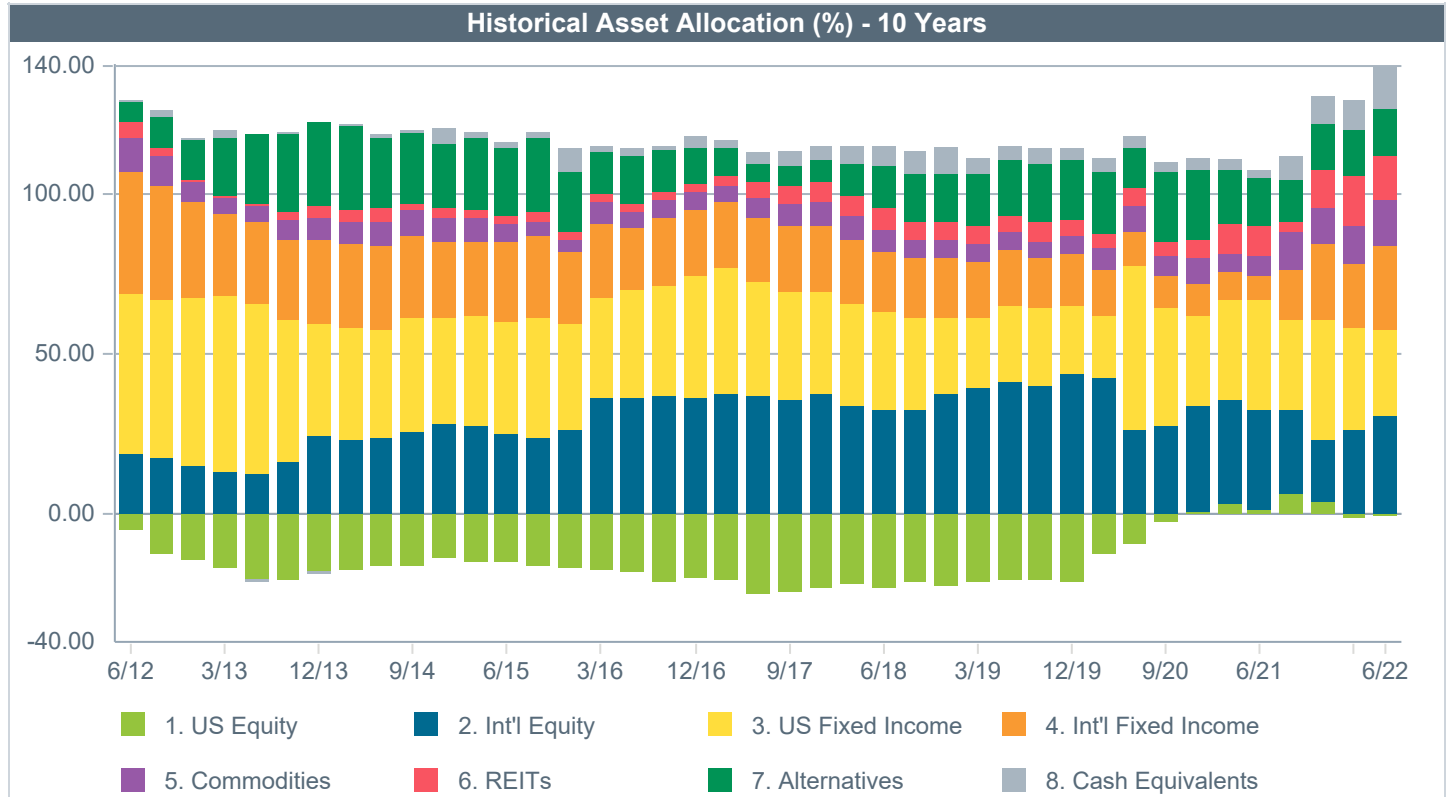
Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: PIMCO:All Ast Ath;Inst (PAUIX)

As of June 30, 2022

Benchmark: All Asset Custom Index (EqI Wtd)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-11.90	-12.28	1.77	1.97	2.44	1.83	15.51	4.59	7.62	-6.14	12.04
Benchmark	-7.62	-8.65	2.73	3.81	4.01	4.32	6.46	9.89	12.97	-1.62	8.94
Difference	-4.28	-3.63	-0.96	-1.84	-1.57	-2.49	9.05	-5.30	-5.35	-4.52	3.10



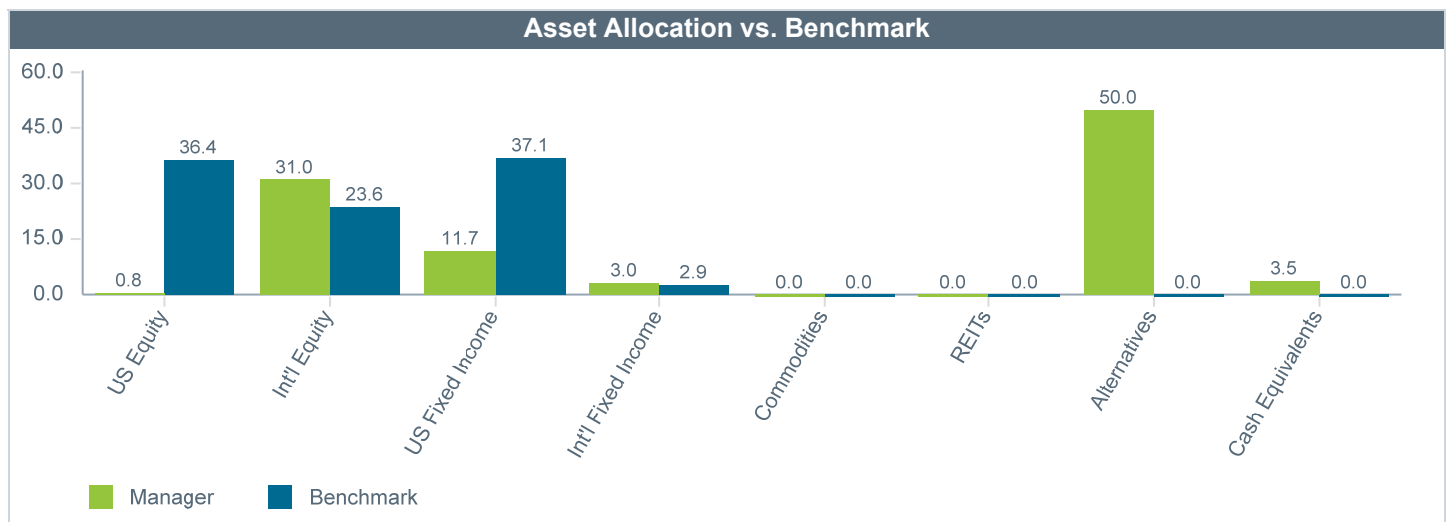
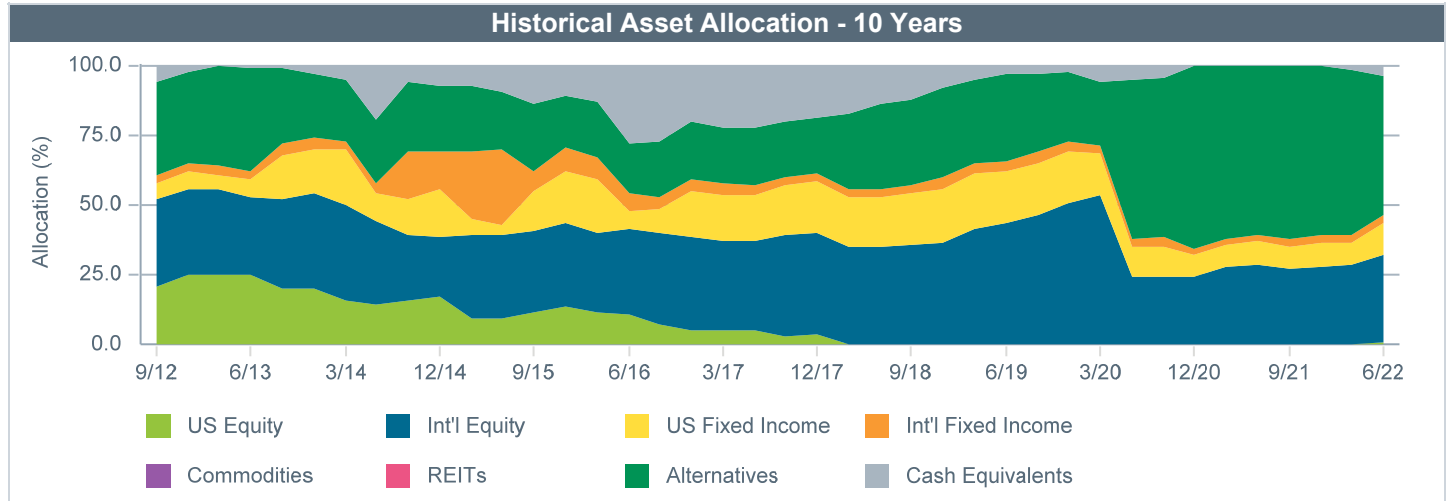
Performance shown is net of fees and product specific. Manager may use leverage up to one-half of net assets. This is accomplished through a line of credit from external banks, the proceeds of which are used to gain incremental exposure to the desired underlying fund(s). Current gross exposures sum to 146.00% due to the use of 46.00% leverage on net assets. Historical Commodities and REITs allocations shown are available at a one-quarter lag due to the disclosure guidelines set by the investment manager for the underlying fund strategies. Please see the Addendum for custom index definition.

Manager: GMO:Bchmk-Fr All;III (GBMFX)

As of June 30, 2022

Benchmark: 60% MSCI ACW (Net)/40% Bbrg US Agg Idx

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-3.80	-8.07	-0.48	0.99	1.47	2.82	2.96	-2.49	11.62	-5.35	13.04
Benchmark	-11.36	-13.43	3.66	4.83	5.00	6.04	10.20	13.49	19.41	-5.52	15.41
Difference	7.56	5.36	-4.14	-3.84	-3.53	-3.22	-7.24	-15.98	-7.79	0.17	-2.37



Historical Statistics - 10 Years					Actual Correlation - 10 Years	
	Manager	Benchmark	S&P 500 Index (Cap Wtd)	Bloomberg US Agg Bond Index		Actual Correlation
Standard Deviation	7.56	8.37	13.65	3.48	60% MSCI ACW (Net)/40% Bbrg US Agg Idx	0.80
Sharpe Ratio	0.32	0.67	0.92	0.28	S&P 500 Index (Cap Wtd)	0.73
Downside Risk	5.40	5.51	8.68	2.39	Russell 2000 Index	0.67
Excess Return	2.44	5.59	12.54	0.95	MSCI EAFE Index (USD) (Net)	0.82
					MSCI Emg Mkts Index (USD) (Net)	0.84
					Bloomberg US Agg Bond Index	0.14
					Bloomberg US Trsy US TIPS Index	0.27
					Wilshire US REIT Index	0.51
					HFRI FOF Comp Index	0.73
					Bloomberg Cmtty Index (TR)	0.47
					ICE BofAML 3 Mo US T-Bill Index	-0.18
					Cons Price Index (Unadjusted)	-0.08

Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Allocation to Int'l Eq includes Emg Mkts. Allocation to US Fixed Inc includes ABS/Struct'd Products and Hi Yld/Distr'd Debt. Allocation to Int'l Fixed Inc includes Emg Debt. Allocation to Alts includes Merger Arbitrage, Systematic Global Macro, Relative Value Interest Rates & FX (Global); Emg Mkts, Cyclical Focus and Special Opp vs. S&P 500; US Small Value vs. Russell 2000; Dvlp'd ex-US, Dvlp'd ex-US Small Value and ACWI ex-US Equity Ext vs. EAFE.

Manager: Fidelity IMM:Govt:I (FIGXX)

As of June 30, 2022

Benchmark: ICE BofAML 3 Mo US T-Bill Index

Peer Group: IM U.S. Taxable Money Market (MF)

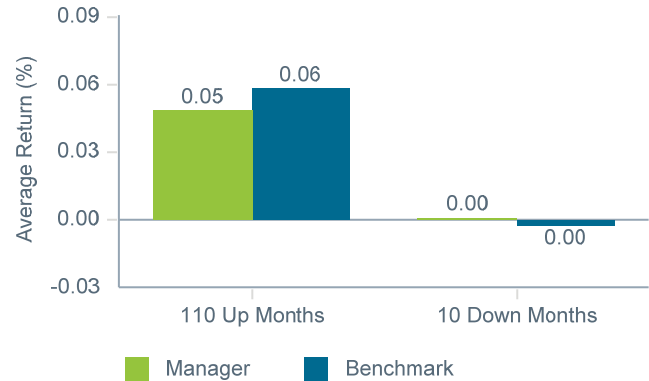
Performance

	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	0.13	0.14	0.48	0.95	0.76	0.53	0.01	0.35	2.09	1.72	0.75
Benchmark	0.11	0.17	0.63	1.11	0.89	0.64	0.05	0.67	2.28	1.87	0.86
Difference	0.02	-0.03	-0.15	-0.16	-0.13	-0.11	-0.04	-0.32	-0.19	-0.15	-0.11
Peer Group Median	0.10	0.11	0.42	0.85	0.63	0.45	0.01	0.30	1.90	1.53	0.55
Rank	35	33	28	24	22	23	55	37	21	23	25
Population	800	765	708	661	565	531	768	789	793	817	831

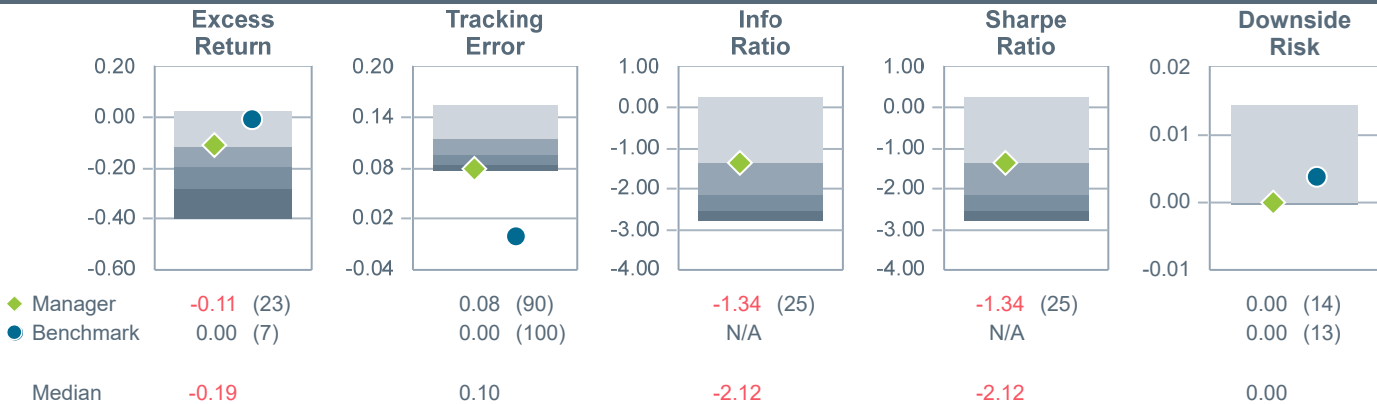
Peer Group Scattergram - 10 Years



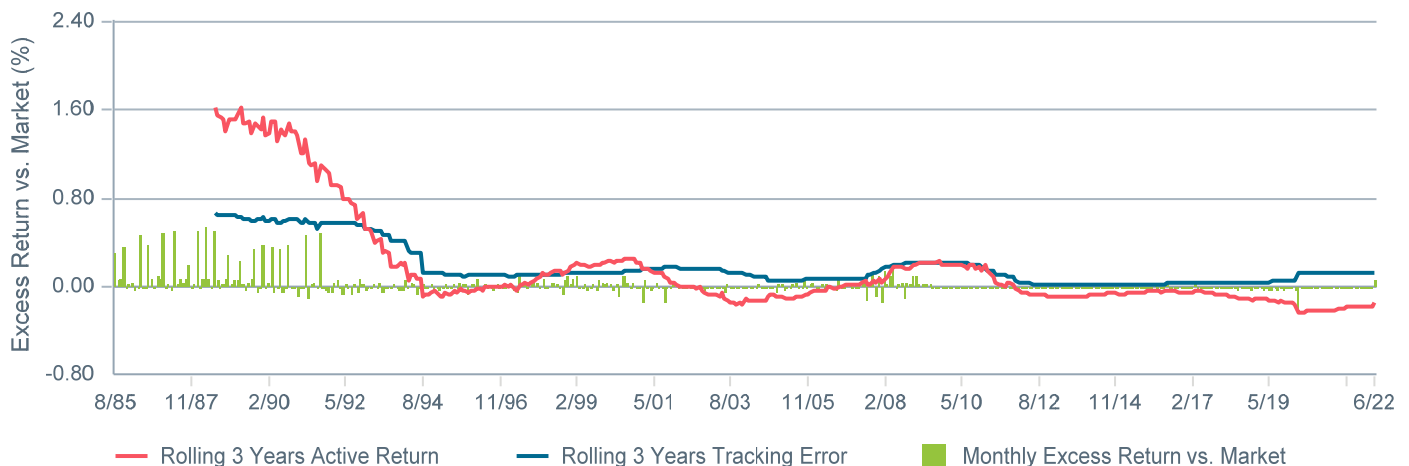
Up/Down Markets - 10 Years



Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



Rolling Return - Since Inception



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Addendum & Glossary



San Diego Transit Corporation Employees Retirement Plan Addendum

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Performance Related Comments

- Performance versus (SA+CF) peer groups or plan sponsor peer groups is shown gross of fees, while performance versus (MF) peer groups is shown net of fees.
- PIMCO:All Ast Ath;Inst (PAUIX) performance prior to 08/2011 is represented by PIMCO:All Asset;Inst (PAAIX).
- Vanguard Infl-Prot;Adm (VAIPX) performance prior to 05/2019 is represented by Vanguard Infl-Prot;Inst (VIPIX) and prior to 06/2012 is represented by Vanguard Infl-Prot;Adm (VAIPX).
- PIMCO:RAE Fnd GlxUS;Inst (PZRIX) performance prior to 06/2015 is represented by Research Affiliates Global AC Ex-US, L.P.
- Fiscal year ends 06/30.

Manager Transition Comments

- Vanguard Energy Idx; Adm (VENAX) was liquidated in 04/2022.
- Fidelity US Sustainability Index Fund (FITLX) was funded in 04/2022.
- During 10/2021, Westwood All Cap Val (CF) transitioned to Westwood Qual ACp;Ultra (WQAUX).
- Hussman Inv:Strat TR (HSTRX) was liquidated in 01/2019.
- In 07/2018, PAAMCO Pacific Hedged Strategy (CF) began the liquidation process with an initial distribution. Market value for PAAMCO Pacific Hedged Strategy (CF) represents residual assets held by the manager in the form of cash equivalents for auditing purposes. Additional distributions were received in 09/2018, 01/2019, 08/2019 and 11/2019.
- WTC-CIF Diversified Inflation Hedges (CF) was liquidated in 07/2016, and Vanguard Energy Idx;Adm (VENAX) was funded with the proceeds.
- JPMorgan Core Bond Trust (CF), PIMCO: Tot Rtn;Inst (PTTRX), and NHIT Strategic Alpha (CF) were liquidated in 06/2016, and Vanguard Tot Bd;Inst (VBTIX) was funded with the proceeds.
- As of 07/01/2015, Loomis Sayles Trust Company renamed all trusts by replacing "Loomis Sayles" with "NHIT."
- Research Affiliates Global AC Ex-US, L.P. transitioned to PIMCO:RAE Fnd GlxUS;Inst (PZRIX) during 06/2015.
- GMO:Bchmk-Fr All;III (GBMFX) was funded in 03/2014.
- Cohen&Steers Inst RS (CSRIX) was liquidated during 10/2013. The proceeds were transitioned into PIMCO: All Ath;Inst (PAUIX).
- Loomis Sayles World Bond Trust (CF) was liquidated during 09/2013. The proceeds were transitioned into Loomis Sayles Strategic Alpha (CF).
- TT Int'l Inv Tr Active Int'l Eq (CF) was liquidated and the proceeds were used to fund MFS International Growth (CF) in 02/2013.
- Rainier Large Cap Equity (SA) was liquidated and the proceeds were used to fund Analytic US Low Volatility Equity (CF) at the end of 09/2012.
- Enhanced RAFI Global AC Ex-US, L.P. (CF) and Loomis Sayles Strategic Alpha (CF) were funded in 02/2012.
- Artio Int'l Equity II Group Trust (CF) and Loomis Sayles:Strat Alp;Y (LASYX) were liquidated in 01/2012.
- Loomis Sayles:Strat Alp;Y (LASYX) was funded in 02/2011.
- The Contribution Account was added on 10/2011.
- Hussman Inv:Strat TR (HSTRX) was funded in 09/2011.
- Westwood Large Cap Value (CF) and Westwood SMidCap Equity (CF) were liquidated in 07/2011, and the funds were used to purchase Westwood All Cap Value (CF).
- PIMCO:All Asset;Inst (PAAIX) transferred to PIMCO:All Ast Ath;Inst (PAUIX) in 07/2011.
- Vanguard Infl-Prot;Adm (VAIPX) was funded in 07/2010.
- Brandes Global Equity (CF) was liquidated in 09/2009. The proceeds were used to fund Artio Int'l Equity II Group Trust (CF).
- Vanguard Explorer;Adm (VEXRX) was liquidated in 03/2009. The proceeds were used to fund The Boston Co. SMid Cap Growth (CF).
- GMO US SMid Value Fund (GMSUX) was liquidated in 06/2008. The proceeds were used to fund Westwood SMidCap Equity (CF).
- Loomis Sayles:Gl Bd;Inst (LSGBX) was sold at the end of 06/2008 to transition into Loomis Sayles World Bond Trust (CF), thus historical data prior to 07/2008 is from (LSGBX).
- UBS Dynamic Alpha;P (BNAYX) was liquidated in 05/2008. The proceeds were used to purchase PIMCO:All Asset;Inst (PAAIX) and Wellington Diversified Inflation Hedge (CF).
- Nicholas-Applegate Global Select Fund (NACHX) was liquidated in 10/2007. The proceeds were used to fund TT Int'l Investment Trust Active Int'l Equity (CF).
- TCW Large Cap Growth (SA) was liquidated in 08/2007. The proceeds were used to fund Rainier Large Cap Equity (SA).
- UBS Dynamic Alpha;P (BNAYX) and PAAMCO Pacific Hedged Strategies Portfolio (CF) were both funded in 05/2007.
- Kayne Anderson (SA) was liquidated in 03/2006. The proceeds were used to purchase GMO US SMid Value Fund (GMSUX).
- Brandes Global Equity (SA) was sold at the end of 12/2005 to transition into the Brandes Global Equity (CF) equivalent, and thus historical data prior to 01/2006 is from the (SA) vehicle.

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Miscellaneous Comments

- The PIMCO All Asset All Authority Fund currently consists of the following underlying strategies which have been provided by the investment manager on a quarter lag and classified by RVK into eight broad Real Return categories:
 1. *Equity - Nat. Resources*: None
 2. *Commodities*: Commodity Real Return Strategy Fund, CommoditiesPLUS Strategy Fund
 3. *Inflation Linked Bonds*: Real Return Fund, Real Return Asset Fund
 4. *Floating Rate Bonds*: Senior Floating Rate Fund
 5. *REITs*: Real Estate Real Return Strategy Fund, Mortgage Opportunities Fund
 6. *Nominal Bonds*: Low Duration Fund, Extended Duration Fund, Investment Grade Corporate Bond Fund, Long Term US Government Fund, Total Return Fund, Emerging Markets Currency Fund, Diversified Income Fund, Emerging Local Bond Fund, High Yield Fund, High Yield Spectrum Fund, Income Fund, Long Duration Total Return Fund
 7. *Equity - Non Real*: RAE Fundamental EM Fund, RAE Fundamental PLUS EMG Fund, RAE Low Volatility PLUS EMG Fund, RAE Worldwide Long/Short PLUS Fund, RAE Low Volatility PLUS Fund, StockPLUS Short Fund, RAE Fundamental PLUS Intl Fund, RAE Low Volatility PLUS Intl Fund, StocksPLUS International Fund (USD-Hedged), StocksPLUS International Fund (Unhedged), RAE Fundamental International Fund
 8. *Other (Includes Cash)*: TRENDS Managed Futures Strategy Fund, RAE Fundamental Advantage PLUS Fund, Government Money Market Fund, Net Short Duration Instruments

Custom Index Comments

- The **Policy Index** is a static custom index that is calculated monthly and consists of
 - o From 05/2020 through present: **25%** Russell 3000 Index, **20%** MSCI ACW Ex US Index (USD) (Net), **35%** Bloomberg US Agg Bond Index, & **20%** of the 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx.
 - o From 07/2018 through 04/2020: **25%** Russell 3000 Index, **20%** MSCI ACW Ex US Index (USD) (Net), **32.5%** Bloomberg US Agg Bond Index, & **22.5%** of the 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx.
 - o From 04/2018 through 06/2018: **25%** Russell 3000 Index, **20%** MSCI ACW Ex US Index (USD) (Net), **32.5%** Bloomberg US Agg Bond Index, & **22.5%** HFRI FOF:Cnsvt Index
 - o From 12/2011 through 03/2018: **20%** Russell 3000 Index, **20%** MSCI ACW Ex US Index (USD) (Net), **25%** Bloomberg US Agg Bond Index, **20%** Real Return Actual Allocation Index, & **15%** HFRI FOF:Cnsvt Index
 - o From 08/2011 through 11/2011: **22.5%** Russell 3000 Index, **22.5%** MSCI ACW Ex US Index (USD) (Net), **25%** Bloomberg US Agg Bond Index, **20%** Real Return Actual Allocation Index, & **10%** HFRI FOF:Cnsvt Index
 - o From 07/2010 through 07/2011: **20%** S&P 500 Index (Cap Wtd), **5%** Russell 2500 Index, **12.5%** MSCI ACW Ex US Index (USD) (Net), **12.5%** MSCI EAFE Index (USD) (Net), **20%** Bloomberg US Agg Bond Index, **5%** Bloomberg US Trsy: US TIPS Index, **5%** FTSE Wrld Gov't Bond Index, **4%** FTSE NAREIT Eq REITs TR Index, **6%** All Asset Composite Index, **6%** Wellington Dv'd Infl Hedge Comp Index, & **4%** HFRI FOF:Cnsvt Index
 - o From 10/2009 through 06/2010: **20%** S&P 500 Index (Cap Wtd), **15%** Russell 2500 Index, **7.5%** MSCI ACW Ex US Index (USD) (Net), **7.5%** MSCI EAFE Index (USD) (Net), **27.5%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, **5%** FTSE NAREIT Eq REITs TR Index, **4.5%** All Asset Composite Index, **4.5%** Wellington Dv'd Infl Hedge Comp Index, & **3.5%** HFRI FOF:Cnsvt Index
 - o From 06/2008 through 09/2009: **20%** S&P 500 Index (Cap Wtd), **15%** Russell 2500 Index, **7.5%** MSCI World Index (USD) (Net), **7.5%** MSCI EAFE Index (USD) (Net), **27.5%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, **5%** FTSE NAREIT Eq REITs TR Index, **4.5%** All Asset Composite Index, **4.5%** Wellington Dv'd Infl Hedge Comp Index, & **3.5%** HFRI FOF:Cnsvt Index
 - o From 11/2007 through 05/2008: **20%** S&P 500 Index (Cap Wtd), **15%** Russell 2500 Index, **7.5%** MSCI World Index (USD) (Net), **7.5%** MSCI EAFE Index (USD) (Net), **27.5%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, **5%** FTSE NAREIT Eq REITs TR Index, **9%** Consumer Price Index+5%, & **3.5%** HFRI FOF:Cnsvt Index
 - o From 06/2007 through 10/2007: **20%** S&P 500 Index (Cap Wtd), **15%** Russell 2500 Index, **15%** MSCI World Index (USD) (Net), **27.5%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, **5%** FTSE NAREIT Eq REITs TR Index, **9%** Consumer Price Index+5%, & **3.5%** HFRI FOF:Cnsvt Index
 - o From 04/2006 through 05/2007: **25%** S&P 500 Index (Cap Wtd), **15%** Russell 2500 Index, **15%** MSCI World Index (USD) (Net), **35%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, & **5%** FTSE NAREIT Eq REITs TR Index
 - o From 04/2005 through 03/2006: **25%** S&P 500 Index (Cap Wtd), **7.5%** Russell 2500 Index, **7.5%** Russell 2000 Index, **15%** MSCI World Index (USD) (Net), **35%** Bloomberg US Agg Bond Index, **5%** FTSE Wrld Gov't Bond Index, & **5%** FTSE NAREIT Eq REITs TR Index
 - o From 01/2002 through 03/2005: **25.2%** S&P 500 Index (Cap Wtd), **4.2%** Russell 2500 Index, **4.2%** Russell 2000 Index, **26.4%** MSCI World Index (USD) (Net), **35%** Bloomberg US Agg Bond Index, & **5%** FTSE Wrld Gov't Bond Index
 - o From 10/1998 through 12/2001: **35%** S&P 500 Index (Cap Wtd), **10%** Russell 2000 Index, **15%** MSCI EAFE Index (USD) (Net), **35%** Bloomberg US Agg Bond Index, & **5%** FTSE Wrld Gov't Bond Index
 - o From 10/1996 through 09/1998: **27%** S&P 500 Index (Cap Wtd), **10%** Russell 2000 Index, **10%** MSCI EAFE Index (USD) (Net), **13%** MSCI World Index (USD) (Net), **36%** Bloomberg US Agg Bond Index, & **4%** FTSE Wrld Gov't Bond Index
 - o From 01/1994 through 09/1996: **37%** S&P 500 Index (Cap Wtd), **10%** MSCI EAFE Index (USD) (Net),

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- 13% MSCI World Index (USD) (Net), 36% Bloomberg US Agg Bond Index, & 4% FTSE Wrld Gov't Bond Index
 - o From 01/1989 through 12/1993: 50% S&P 500 Index (Cap Wtd), 10% MSCI EAFE Index (USD) (Net), & 40% Bloomberg US Agg Bond Index
 - o From 07/1982 through 12/1988: 60% S&P 500 Index (Cap Wtd) & 40% Bloomberg US Agg Bond Index
- Performance shown for Alternative Investment Custom Index represents
 - o From 07/2018 through present: 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx
 - o From 01/1990 through 06/2018: HFRI FOF: Cnsvt Index
- Performance shown for Westwood Qual ACp:Ultra (WQAUX) (1) represents
 - o From 10/2021 through present: Westwood Qual ACp:Ultra (WQAUX)
 - o From 08/2011 through 09/2021: Westwood All Cap Value (CF)
 - o From 07/2008 through 07/2011: beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF)
 - o From 10/2004 through 06/2008: Westwood LargeCap Value (CF)
 - o From 01/1997 through 09/2004: beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF)
 - o From 07/1986 through 12/1996: Westwood LargeCap Value (CF)
- Performance shown for Russell 3000 Val Index (2) represents
 - o From 08/2011 through present: Russell 3000 Val Index
 - o From 07/2008 through 07/2011: beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF) applied to the Russell 1000 Val Index and Russell 2500 Val Index, respectively
 - o From 10/2004 through 06/2008: Russell 1000 Val Index
 - o From 01/1997 through 09/2004: beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF) applied to the Russell 1000 Val Index and Russell 2000 Grth Index, respectively
 - o From 07/1986 through 12/1996: Russell 1000 Val Index
- Performance shown for All Asset Custom Index (Eql Wtd) (3) represents
 - o From 01/2014 through present: All Asset Custom Index (Eql Wtd)
 - o From 10/1997 through 12/2013: All Asset Composite Index
- The All Asset Custom Index (Eql Wtd) is an equal-weighted hybrid created independently by RVK specifically for PIMCO's All Asset strategies, and it consists of the following benchmarks:
 1. *Short Term Strategies*: ICE BofAML 1 Yr T-Bill Index
 2. *US Core and Long Maturity Bond Strategies*: Bloomberg US Agg Bond Index
 3. *EM and Gbl Bond Strategies*: PIMCO GLADI Index*
 4. *Crdt Strategies*: ICE BofAML US Hi Yld Master II Index
 5. *Inflation Related Strategies*: Bloomberg US Trsy US TIPS Index
 6. *US Equity Strategies*: Russell 3000 Index
 7. *Global Equity Strategies*: MSCI ACW Index (USD) (Net)
 8. *Alternative Strategies*: ICE BofAML 3 Mo US T-Bill Index+3%

* Performance for the PIMCO Gbl Advantage Bond Index (London Close) prior to 01/01/2004 consists of the JPM EMBI Gbl Dvf'd Index (USD) (TR).

San Diego Transit Corporation Employees Retirement Plan Fee Schedule

	Fee Schedule	Market Value As of 06/30/2022 (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Westwood Qual ACp;Ultra (WQAUX)	0.45 % of Assets	17,865,489	80,395	0.45
Fidelity US Sustainability Index Fund (FITLX)	0.11 % of Assets	3,020,877	3,323	0.11
Analytic US Low Volatility (CF)	0.40 % of First \$20 M 0.30 % of Next \$80 M 0.20 % Thereafter	19,798,364	79,193	0.40
Newton TBC US SMID Cap Grth Eq (CF)	0.90 % of First \$25 M 0.75 % Thereafter	5,373,638	48,363	0.90
PIMCO:RAE GlxUS;Inst (PZRIX)	0.56 % of Assets	16,639,170	93,179	0.56
MFS Intl Grth CI 2 (CIT)	0.75 % of Assets	16,898,612	126,740	0.75
Vanguard Tot Bd;Inst (VBTIX)*	0.04 % of Assets	52,671,976	18,435	0.03
PIMCO:All Ast Ath;Inst (PAUIX)	0.94 % of Assets	19,787,230	186,000	0.94
GMO:Bchmk-Fr All;III (GBMFX)	1.11 % of Assets	15,693,113	174,194	1.11
Vanguard Infl-Prot;Adm (VAIPX)	0.10 % of Assets	9,007,101	9,007	0.10
Contribution Account	0.18 % of Assets	522,500	941	0.18
Disbursement Account	0.18 % of Assets	222,892	401	0.18
San Diego Transit Total Fund		177,508,436	820,245	0.46

Mutual fund fees are sourced from Morningstar and/or the investment manager. BNYM PE US SMID Cap Grth Eq NL has been rebranded as Newton TBC US SMID Cap Grth Eq.

*The fee for Vanguard Tot Bd;Inst (VBTIX) is 0.035%.

Glossary

Active Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

Active Share - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – Below Investment Grade		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

Benchmark Effect - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

Box Plots - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd quartile meet.

Buy and Hold Attribution - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Glossary

Federal Funds Rate - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

Option-Adjusted Spread - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

Purchasing Managers Index (PMI) - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

Real Gross Domestic Product (Real GDP) - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

Unemployment Rate - The percentage of the total labor force that is unemployed but actively seeking employment.

US Dollar Total Weighted Index - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

VIX - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

Cash Flow Effect - The composite's active return minus the sum of each managers' active return minus the benchmark effect.

Consistency - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Convexity - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

Correlation - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

Coupon Rate - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

Current Yield - The annual income of a security divided by the security's current price.

Down Market Capture - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

Downside Risk - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

Earnings Per Share - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

Effective Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield.

Excess Return vs. Market - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

Excess Return vs. Risk Free - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

Excess Risk - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

Expense Ratios - Morningstar is the source for mutual fund expense ratios.

Gain/Loss - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

Indices - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

Information Ratio - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

Liability Driven Investing (LDI) - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

Estimated Funded Status - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

Estimated PV of Liabilities - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

Duration of Liabilities - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

Duration of Assets - The dollar-weighted average duration of all the individual Plan assets.

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and

Glossary

multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

Modified Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

Mutual Fund Performance - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

Net Cash Flow - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans.

Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

Percentile Rankings - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value

100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4th percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

Performance Methodology - RVK calculates performance for investment managers and composites using different methodologies.

Investment Managers - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of $\geq 10\%$ of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

Composites - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

Portfolio Characteristics - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

Price to Earnings Ratio - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

Private Equity Quartile Ranks - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

R-Squared - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Return - Compounded rate of return for the period.

% Return - The time-weighted rate of return of a portfolio for a given period.

Risk Free Benchmark - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

Glossary

RVK Liquidity Rating - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<u>Not Liquid Investments</u>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity Funds of Funds	5
US SMid Cap Equity	85		
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

Sector Allocation - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Thematic Classification - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

Time Period Abbreviations - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

Total Fund Attribution - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

Strategic Asset Allocation (SAA) - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

Tactical Asset Allocation (TAA) - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

Style Selection (SS) - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

Manager's Skill (MS) - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

Total Fund Beta - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

Glossary

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

Treynor Ratio - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

Unit Value - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

Up Market Capture - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

Exposure Slides



Exposures – Investment Managers

Allocations as of June 30, 2022

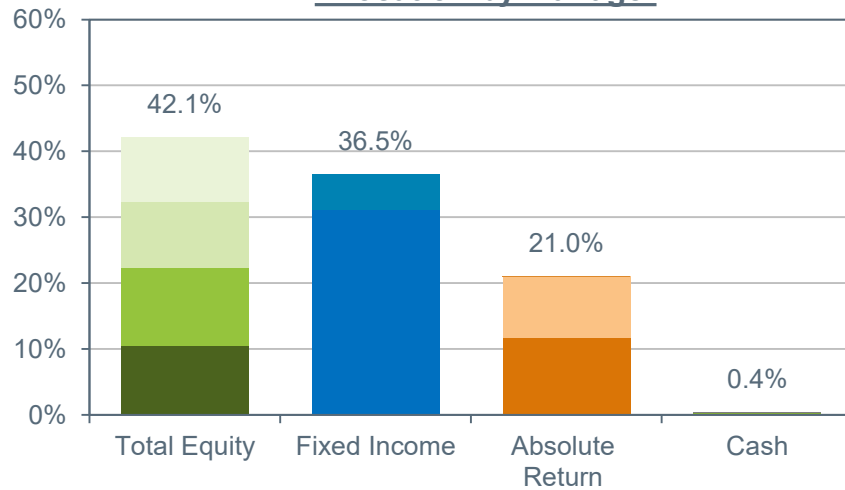
Asset Class	Manager	US Equity	Non-US Equity	Total Equity	Bonds & Cash	Inflation Assets	Other
EQUITY	Westwood Qual ACp;Ultra (WQAUX)	94%	-	94%	-	6%	-
	Fidelity US Sustainability Index Fund (FITLX)	93%	4%	97%	-	3%	-
	Analytic US Low Volatility Equity (CF)	96%	1%	97%	1%	3%	-
	BNYM Newton TBC US SMID Cap Grth Eq (CF)	92%	6%	98%	2%	-	-
	MFS Intl Grth CI 2 (CIT)	1%	98%	98%	2%	-	-
	PIMCO:RAE Fnd GlxUS;Inst (PZRIX)	0%	100%	100%	-	0%	-
FIXED INCOME	Vanguard Tot Bd;Inst (VBTIX)	-	-	-	100%	-	-
	Vanguard Infl-Prot;Adm (VAIPX)	-	-	-	100%	-	-
ABSOLUTE RETURN	PIMCO:All Ast Ath;Inst (PAUIX)	6%	24%	30%	42%	16%	13%
	GMO:Bchmk-Fr All;III (GBMFX)	1%	31%	32%	18%	-	50%
	PAAMCO Pacific Hedged Strat (CF)	-	-	-	100%	-	-
CASH	Cont - Fidelity IMM:Govt;I (FIGXX)	-	-	-	100%	-	-
	Disb - Fidelity IMM:Govt;I (FIGXX)	-	-	-	100%	-	-

- Allocations shown may not sum up to 100% exactly due to rounding.
- Allocations reflecting 0% represent non-zero allocations less than 0.5%.
- Equity Assets Include High Yield and Distressed Debt.
- Inflation Assets Include Commodities, REITs, and TIPS.
- Bonds & Cash Include Fixed Income, Cash, and Cash Equivalents.
- "Other" Includes Alternatives, Merger Arbitrage, Special Opportunities, Systematic Global Macro, Cross-Sectional Rates, FX, Event Driven, Convertible Arbitrage, Relative Value, and Alpha Only.
- PAAMCO's Allocation is representative of residual assets held in cash equivalents.
- Exposure allocations may not sum up to 100% due to managers use of short-selling.
- During 04/2022, Vanguard Energy Idx; Adm (VENAX) was liquidated and Fidelity US Sustainability Index Fund (FITLX) was funded.

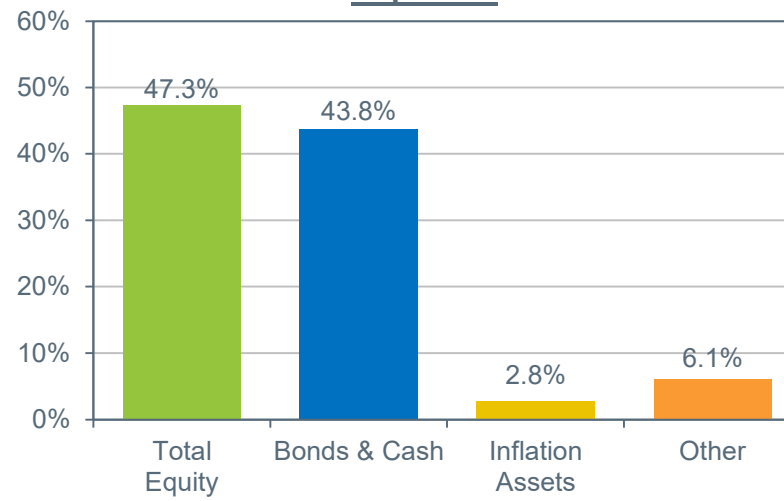
As of June 30, 2022

Exposures – Total Portfolio

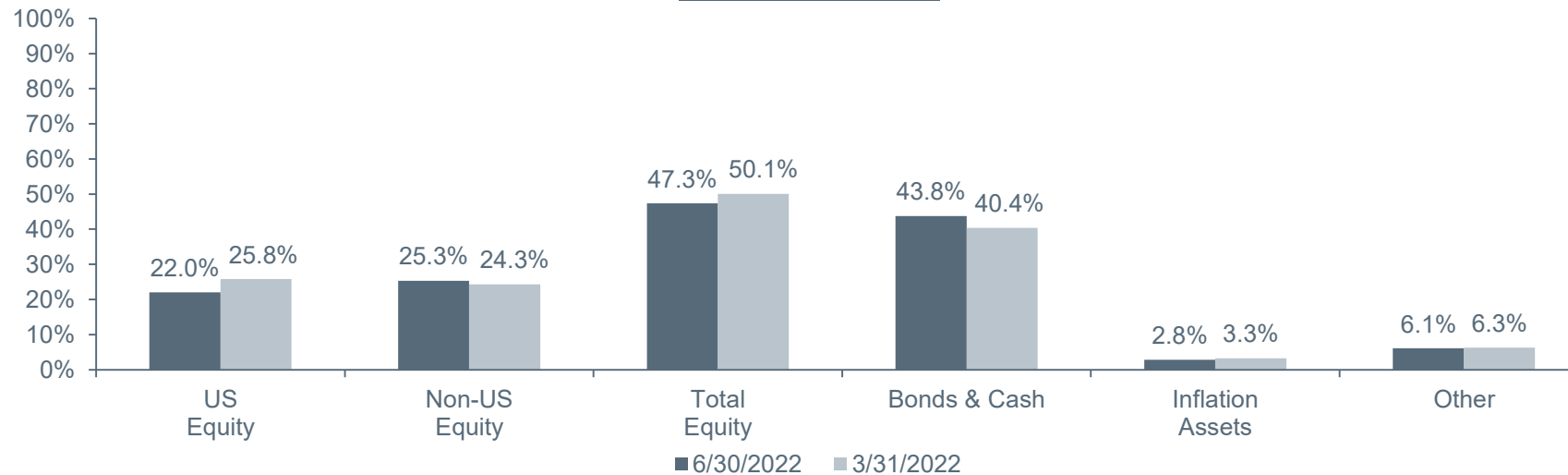
Allocation by Manager



Exposure



Exposure Detail



- Allocations may not sum up to 100% due to rounding.
- Exposure allocations may not sum up to 100% due to managers use of short-selling.
- TIPS account for 12.17% of Bonds & Cash.

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SDTC Pension Investment Status / Actuarial Valuation

MTS Executive Committee Meeting
February 9, 2023

Agenda Item No. 4

Background / Status of SDTC Pension Plan

- MTS Deferred Benefit (DB) Pension Plans
 - CalPERS (CA Public Employees Retirement System) – MTS & SDTI Employees
 - Manages pension benefits for more than 2 million CA members
 - SDTC (San Diego Transit Corporation) Pension Plan – SDTC Employees
 - Private Pension Plan – Funding of 3 Plans for ATU, IBEW and SDTC Non-Contract EEs
 - Approximately 1570 active & retired members
 - Comprised of Pension Board made up of representatives from ATU, IBEW, Management
 - Board responsible for retirement application review, investment oversight, and administration of the Plan
 - Funding of Plan shared by active employees and MTS each year. The total contribution amount based upon previous year's actuarial valuation report
 - In 2012, this Plan was closed to non-contract employees through a negotiated Collective Bargaining Agreement
 - Resulted in an MTS Board-approved plan of continuing benefit payments for retirees and active members hired up to that date. All new employees in Defined Contribution Plan
 - Achieving a 100% funded Plan within 25 years (2038)

Background / Status of SDTC Pension Plan

- SDTC Pension Plan

- Pension Plan Direction

- Continue paying benefits to retirees (and eligible active members) as membership continues to decrease given closed plan status
 - Achieve sustainability with 100% funded status by 2038
 - With market return volatility over time, reduce actuarial investment return target
 - Smooth out annual investment gains / losses over 5-year period to mitigate large swings in contribution levels
 - Above has proved successful:
 - Moved actuarial target from 7.5% target to 6.0% target in last 6 years.
 - Projected to be at 100% fully funded by 2038

Background / Status of SDTC Pension Plan

- SDTC Pension Plan

- Each year (today's presentations), staff reviews with MTS Board:
 - Investment results for the previous fiscal year (RVK - Jeremy Miller)
 - -10.8% for FY 2022 (ending June 30, 2022)
 - +21.3% in FY 2021 (all gains and losses smoothed over 5-year period)
 - Focus of mitigating risk / diversification within the Plan given closed structure
 - Resulting actuarial analysis based on investment performance, other factors (Cheiron - Anne Harper)
 - Given investment return and analysis of membership, provide an update to next fiscal year's contribution levels
 - Contributions projected to increase \$1.0M (5.8%) in FY24
 - Gradual increase of contributions over next five years followed by reduced contribution levels in subsequent years
 - Significant decrease of contributions in 2038 reducing by \$12M+ (to just under \$1M)
 - Unfunded Actuarial Liability (UAL) fully paid off and normal costs remain



San Diego Transit Corporation

Investment Manager Fiscal Year 2022 Update

February 2023



Investment Structure as of 6/30/2022

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Broad Domestic Equity	46,058,368	25.95	25.00
Broad International Equity	33,537,782	18.89	20.00
Fixed Income	62,424,469	35.17	35.00
Alternatives (Multi-Asset)	35,487,818	19.99	20.00
Total Fund	177,508,436	100.00	100.00

- Plan is diversified across four broad asset classes
- Goal is to maximize return, while assuming a prudent risk level
 - Closed Plan to non-management participants (2011/2012)
 - Risk Profile as measured by Volatility (higher % = riskier portfolio) has been meaningfully reduced since Plan closed
 - 6/30/2011: 3-Year Plan Risk = 16% Volatility (Percentile Rank: 31st of 100)
 - 6/30/2022: 3-Year Plan Risk = 11% Volatility (Percentile Rank: 81st of 100)
- Liability structure (mature plan, with net outflows) would suggest an Asset structure that is more conservative, diversified and liquid
 - Assets exist to satisfy the Liabilities, as capital preservation is necessary in mature plan, and thus less emphasis on equity allocation
 - Management fees meaningfully reduced through passive investing

Investment Details as of 6/30/2022

Asset Allocation Detail					
Fund	Asset Class	Strategy	Market Value (\$)	Allocation (%)	Target (%)
Westwood All Cap Value	US Equity	Active	17,865,489	10.06	
Fidelity US Sustainability Index	US Equity	Passive	3,020,877	1.70	
Analytic US Low Volatility	US Equity	Active	19,798,364	11.15	
Newton TBC US SMID Growth	US Equity	Active	5,373,638	3.03	
Total US Equity			46,058,368	25.95	25.00
PIMCO RAE	Int'l Equity	Active	16,639,170	9.37	
MFS Int'l Growth	Int'l Equity	Active	16,898,612	9.52	
Total International Equity			33,537,782	18.89	20.00
Vanguard Total Bond	Fixed Income	Passive	52,671,976	29.67	
Vanguard Inflation-Protection	Fixed Income	Active	9,007,101	5.07	
Total Fixed Income¹			62,424,469	35.17	35.00
PIMCO All Asset All Auth	GTAA	Active	19,787,230	11.15	
GMO Benchmark-Free	GTAA	Active	15,693,113	8.84	
Total Alternatives²			35,487,817	19.99	20.00
TOTAL FUND			177,508,436	100.00	100.00

¹ Includes residual cash in the Contribution & Disbursement Accounts

² Includes \$7,474 in residual PAAMCO illiquid SPV assets

- Assets are allocated across 10 different products
- Product diversification reduces overall portfolio risks
- Allocation sizes for active managers are controlled, reducing concentration risks
- Direct Environmental, Social, Governance (ESG) allocation via Fidelity US Sustainability Index



FY 2022 Performance

- Significant market headwinds for both stocks and bonds, especially in the first two quarters of 2022
 - Market headwinds primary due to ***rapidly rising inflation and interest rates***
- Three of the four quarters of FY 2022 posted negative returns for the Plan
 - Q3 2021: -1.0% Q4 2021: 2.6% Q1 2022: -3.7% Q2 2022: -8.8%
- Plan returned -10.80% over the 2022 fiscal year
- Assumed Actuarial annual rate of return is 6.00%
- Underperformed the Actuarial rate by 16.80% in fiscal year 2022

Long Term Performance Details

As of 6/30/2022

	Allocation		Performance (%)				Inception
	Market		1	5	10	40	
	Value (\$)	%	Year	Years	Years	Year	Date
San Diego Transit Total Fund	177,508,436	100%	-10.80	4.04	5.03	8.46	10/01/1982
Domestic Equity	46,058,368	25.95%	-8.36	8.28	11.14		
International Equity	33,537,782	18.89%	-16.13	4.52	7.13		
Fixed Income	62,424,469	35.17%	-10.18	0.95	1.59		
Alternative Investment	35,487,818	19.99%	-9.65	2.33	2.00		

- Year to year returns will fluctuate significantly, some years above and some years below the Actuarial rate of return, but over the long-run the SDTC portfolio has outperformed the 6.00% Actuarial return hurdle

Investment Structure Summary

- Plan is well diversified across a variety of managers and broad asset classes
- Asset Allocation is more conservative by design given that the Plan is closed
 - Focus is on satisfying liabilities
 - Balance capital appreciation vs. capital preservation
- Management fees are kept low with the use of passive investments
- Portfolio is well positioned for the future given the liability structure of the Plan
- Fiscal Year 2023 return for the Plan is above 2% thus far

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Agenda Item No. 5

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

February 9, 2023

SUBJECT:

San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as Of July 1, 2022 (Anne Harper With Cheiron Inc. And Larry Marinesi)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Executive Committee forward a recommendation to the Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2021 (Attachment A), and adopt the pension contribution amount of \$18,946,198 for fiscal year 2024.

Budget Impact

Board adoption would result in the annual pension contribution of \$18,946,198 for fiscal year 2024, consisting of both employer and employee contributions.

DISCUSSION:

The Actuarial Valuation of the Plan as of July 1, 2022 was completed in December 2022 by Cheiron, Inc., and the entire report is included as Attachment A. The purpose of the actuarial valuation is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan, and
- Compute the total annual pension contribution amount.

The Plan's funding policy is to contribute an amount equal to the sum of:

- The normal cost,
- Expected administrative expenses, and
- Amortization of the unfunded actuarial liability.

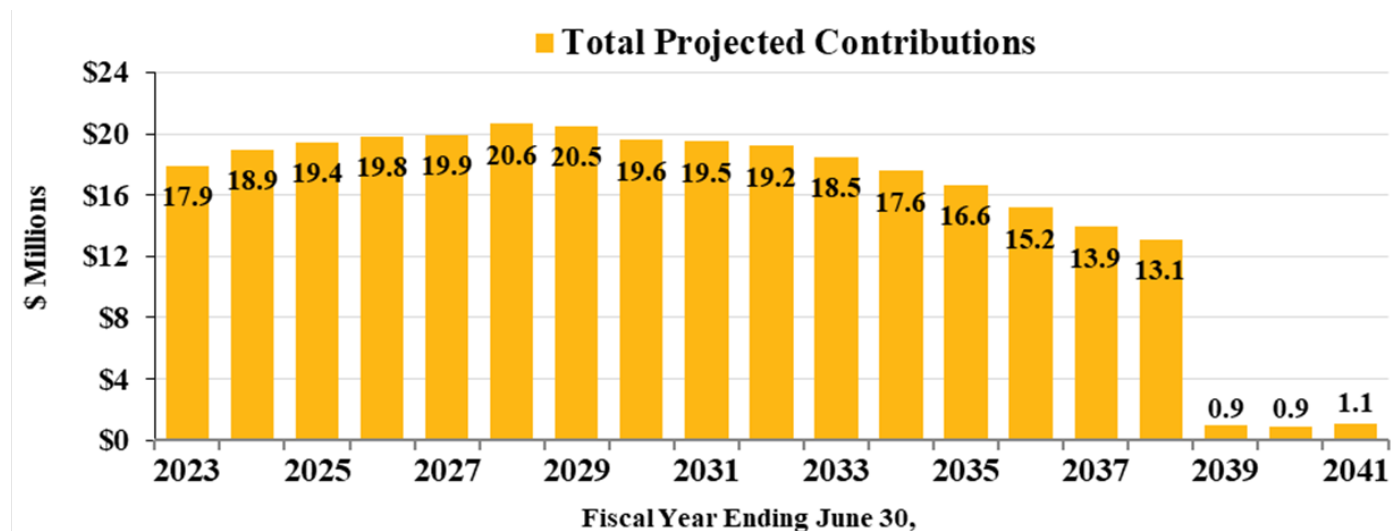
This valuation has calculated a total contribution of \$18,946,198, an increase of 5.8% from fiscal year 2023, which would be used for the fiscal year 2024 budget.



As reflected in the following table, contributions are increasing year over year by approximately \$1,044,000.

Total Contribution Reconciliation	
Fiscal Year 2022-2023, middle of the year	17,901,804
Change due to actuarial investment experience	505,208
Change due to liability experience	635,601
Changed due to effect of closed plan on benefits earned	(149,916)
Change due to other miscellaneous factors	53,501
Fiscal Year 2022-2023, middle of the year	18,946,198

Given the updated projected rates of return and the closed nature of the Plan, the Plan contributions are projected to continue to stabilize over the next few years, and the Unfunded Actuarial Liability will be fully paid off by fiscal year 2038.



Anne Harper of Cheiron, Inc. will provide an overview of the report in more detail and be available for any questions.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Actuarial Valuation Report as of July 1, 2022



Retirement Plans of San Diego Transit Corporation

Actuarial Valuation Report as of July 1, 2022

Produced by Cheiron

December 2022

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***Via Electronic Mail***

December 22, 2022

Mr. Larry Marinesi
San Diego Transit Corporation
1255 Imperial Avenue, Suite 1000
San Diego, California 92101-7490

Dear Mr. Marinesi,

At your request, we have conducted an actuarial valuation of the Retirement Plans of San Diego Transit Corporation (“Plan,” “SDTC”) as of July 1, 2022. This report contains information on the Plan’s assets, liabilities, and contribution levels. It also contains an assessment and disclosures of the Plan’s risks. In the Foreword, we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of the Plans. This report is for the use of the Retirement Board and the San Diego Metropolitan Transit System (“MTS”) Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

In preparing our report, we relied on information (some oral and some written) supplied by the plan administrator. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The assumptions used in calculating the liabilities found in this report reflect the results of an Experience Study approved by the Budget Development Committee in October 2021 and the San Diego Metropolitan Transit System’s (MTS) Board of Directors in November 2021.

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; changes in methods; and changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable law and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.



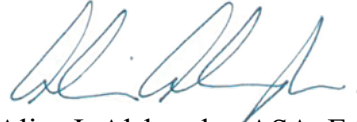
Mr. Larry Marinesi
San Diego Transit Corporation
December 22, 2022

This report was prepared exclusively for the Retirement Board and MTS Board for the purposes described herein. Other uses of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely,
Cheiron



Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary



Alice I. Alsberghe, ASA, EA, MAAA
Consulting Actuary

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

FOREWORD

Cheiron has performed the actuarial valuation of the Retirement Plans of San Diego Transit Corporation as of July 1, 2022. The valuation report is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends.
- The **Main Body** of the report presents details on the Plan's:
 - Section II – Assessment and Disclosure of Risk
 - Section III – Assets
 - Section IV – Liabilities
 - Section V – Contributions
- In the **Appendices**, we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of key actuarial terms (Appendix D).

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report. The deterministic and stochastic projections shown in this report were developed using R-Scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan, and
- The total contribution amount (employer and employee) to be made during Fiscal Year 2023-2024.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key results of this valuation including a summary of all key financial results, (C) changes in Plan cost, (D) an examination of historical trends, and (E) the future expected financial trends for the Plan.

A. Valuation Basis

This valuation determines total employer and employee contributions for the plan year.

The Plan's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Expected administrative expenses, and
- Amortization of the Unfunded Actuarial Liability (UAL) based on level dollar payments.

The employee will contribute according to the Plan schedules below. Member contribution rates in the future may change in response to collective bargaining. It will be the responsibility of the employer to contribute the remaining portion of the total contribution determined in this report.

- IBEW members contribute 8% of compensation (since April 2016)
- ATU drivers and clerical members contribute 8% of compensation (since December 2017)
- Non-contract members hired before July 1, 2013 contribute 8% of compensation (since January 2017)
- PEPRA: New Members must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. Currently, PEPRA members are contributing 7.75% of pay and the employer pays the remaining cost of the Plan. For the July 1, 2022 valuation, the PEPRA member rate has increased to 9.50% of compensation as a result of the demographic shifts and assumed COLA during retirement. The development of the PEPRA member rate can be found in Section V in the body of this report.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION I – EXECUTIVE SUMMARY

The SDTC Plans are closed to new entrants, except for Non-Contract members. A closed plan has very different dynamics as active plan membership declines and grows older and a larger portion of the Plan's liability shifts to payees. This dynamic shortens the investment horizon thus mitigating investment risk becomes more important. If the asset mix changes to reflect the expected pattern of benefit payments, it will become more conservative and the expected return on plan assets will decrease. Thus, adjusting the Plan's investment rate of return to be consistent with the expected trending decrease of future asset returns should continue to be monitored.

The true cost of the Plan is a function of actual Plan experience, not the actuarial assumptions. It is important to set realistic assumptions to mitigate the risk of Plan contribution volatility. In Section II of this report, we provide a detailed assessment and disclosure of the Plan's risks.

This valuation was prepared based on the Plan provisions as summarized in Appendix C. There have been no changes in plan provisions since the prior valuation. The results of this valuation do not include members participating in the defined contribution plans.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION I – EXECUTIVE SUMMARY

B. Key Results of this Valuation

The key results of the July 1, 2022 actuarial valuation are as follows:

- The actuarial contribution shown in this report is the total contribution required from both the employer and the employees. The total contribution increased from \$17,901,804 to \$18,946,198, an increase of about \$1 million from the July 1, 2021 valuation. This increase is due to the recognition of the current year's asset loss as well as unfavorable liability experience. See Table I-2 for a reconciliation of the contribution cost from last year to this year that includes all components of the change.
- During the plan year ending June 30, 2022, the return on Plan assets was -11.3% based on the Market Value of Assets (MVA) compared to the 6.0% assumed rate of return. A return over 6.0% would result in an actuarial gain, and a return lower than 6.0% would result in an actuarial loss. The unfavorable investment experience resulted in an actuarial loss on the market value of assets of \$ (34,885,265).
- The Actuarial Value of Assets (AVA) recognizes 20% of the difference between the expected and actual return, referred to as "Unexpected Earnings", on the Market Value of Assets (MVA) for each of the prior five years. The return on the AVA was return of 3.4% for June 30, 2022. See Table III-3 and III-4 for the detailed calculations.
- The Actuarial Liability was more than expected by \$4,856,802. The liability experience loss was primarily driven by retiree Cost of Living Adjustments (COLA) increases and active member salary increases that were higher than expected.
- The Plan's funded ratio, the ratio of actuarial (smoothed) assets over the Actuarial Liability, decreased from 58.7% last year to 58.1% as of July 1, 2022. Additionally, the funded ratio based on the Market Value of Assets decreased significantly from 61.7% to 52.5%, since the asset losses are recognized immediately with the MVA.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan's UAL increased from \$136,971,026 to \$141,224,003 as of July 1, 2022.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION I – EXECUTIVE SUMMARY

Below we present Table I-1, which summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

**Table I-1
Summary of Principal Plan Results**

<u>Participant Counts</u>	July 1, 2021	July 1, 2022	% Change
Active Participants	355	331	-6.8%
Participants Receiving a Benefit	1,048	1,058	1.0%
Inactive Participants	<u>192</u>	<u>184</u>	-4.2%
Total	1,595	1,573	-1.4%
 Projected Plan Member Payroll ¹ for Fiscal Year 2022 and 2023	 \$ 23,223,335	 \$ 23,023,954	 -0.9%
 <u>Assets and Liabilities</u>			
Actuarial Liability (AL)	\$ 331,267,043	\$ 337,148,571	1.8%
Actuarial Value of Assets (AVA)	<u>194,296,017</u>	<u>195,924,568</u>	0.8%
Unfunded Actuarial Liability (UAL)	\$ 136,971,026	\$ 141,224,003	3.1%
 Market Value of Assets (MVA)	 \$ 204,471,831	 \$ 176,877,426	 -13.5%
Funded Ratio (AVA)	58.7%	58.1%	-0.5%
Funded Ratio (MVA)	61.7%	52.5%	-9.3%
 <u>Contributions</u>	 FY 2022-2023	 FY 2023-2024	
Total Normal Cost ²	\$ 4,002,415	\$ 4,012,243	0.2%
Total UAL Contribution	<u>13,899,389</u>	<u>14,933,955</u>	7.4%
Total Contribution (middle of year)	\$ 17,901,804	\$ 18,946,198	5.8%

¹ Based on valuation data projected using half-year of salary increases but excludes payroll for members expected to leave employment or retire during the year.

² Includes assumed administrative expenses as of the beginning of the valuation year of \$275,122 and \$282,000 for both July 1, 2021 and July 1, 2022, respectively.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION I – EXECUTIVE SUMMARY

C. Changes in Plan Cost

Table I-2 below summarizes the impact of actuarial experience on Plan cost.

Table I-2	
Total Contribution Reconciliation	
Fiscal Year 2022-2023, middle of year	\$ 17,901,804
Total Change due to actuarial investment experience	505,208
Investment experience from FYE 2022	697,707
Expected change based on deferred investment gains 2018-2021	(192,499)
Change due to liability experience	635,601
Change due to effect of closed plan on benefits earned	(149,916)
Change due to other miscellaneous factors	<u>52,214</u>
Fiscal Year 2023-2024, middle of year	\$ 18,946,198

An analysis of the cost **changes from the prior valuation** reveals the following:

- The Actuarial Value of Assets recognizes the annual unexpected gains or losses in the Market Value of Assets over a 5-year period. Actuarial gains and losses are based on the assumed rate of return. The actual return on Actuarial Value of Assets (AVA) was 3.4%, compared to the expected return of 6.00%, resulting in an actuarial loss of \$5,051,760 which is paid over a 15-year period. The actuarial asset experience the total contribution by \$505,208.

The asset loss on the Market Value of Assets for the plan year ending June 30, 2022 resulted in a \$35.9 million loss and accounted for a \$697,707 increase to the total contribution. While the partial recognition of previous year's net deferred assets gains decreased the contribution by \$192,499.

- Actual demographic experience will always differ from the actuarial assumptions. Salary experience, Cost-of-Living Adjustment (COLA) experience, and demographic experience of the Plan – rates of retirement, death, disability, and termination – were different than expected based on the actuarial assumptions, causing in the contribution of \$635,601. The liability experience loss was primarily driven by retiree COLA increases higher than expected.
- Closing the Plan to most new entrants decreases the total amount of benefits that are being earned each year as members continue to leave employment through retirements, terminations, disabilities, and death, and thus cease to earn additional benefits. This decreased the Plan contribution by \$149,916.
- The net effect of other miscellaneous factors, including administrative expenses experience and the timing of contributions, the Plan contributions by \$52,214.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION I – EXECUTIVE SUMMARY

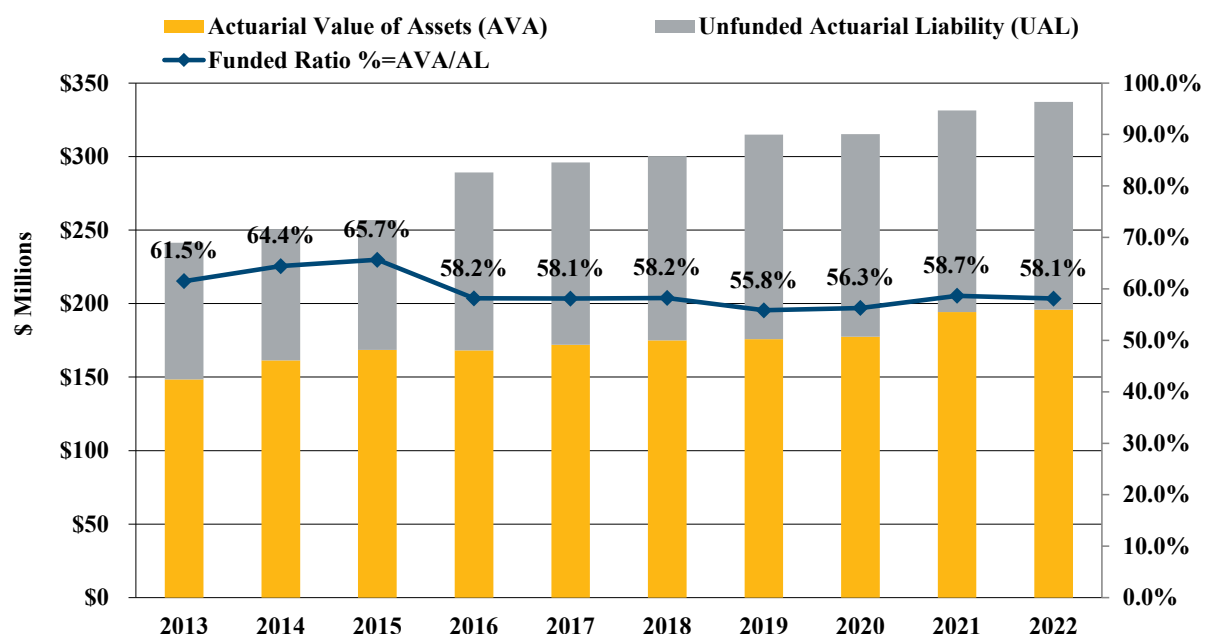
D. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results – in particular the size of the current Unfunded Actuarial Liability (UAL) and the total contribution – it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is important to judge a current year's valuation results relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below presents the Actuarial Value of Assets (gold bars), Unfunded Actuarial Liability (gray bars), and Funded Ratio (navy line). The top of the bars (sum of gold and gray bars) depicts the total Actuarial Liability. Over the ten-year period shown, both the Actuarial Liability and Actuarial Value of Assets have been increasing, however, the Actuarial Liability has increased just under 40% while the Actuarial Value of Assets has increased by just over 30%. It is important to note that the assumed rate of return at the beginning of the period was 7.50% and has been gradually reduced over the ten-year period to 6.00% as of July 1, 2021, which has been a major source of the decrease in the funded ratio.

The funded ratio increased from 61.5% in 2013 to 65.7% in 2015, primarily due to favorable asset returns from 2010 to 2014 after the Great Recession. The decreases in the funded ratio in 2016 and 2019 were a result of reductions in the assumed rate of return, as well as increased life expectancy assumption in 2016. The funded ratio increased by 2.4% to 58.7% in 2021 even though the assumed rate of return was reduced from 6.75% to 6.00%. The significant return on assets as of June 30, 2021, and an additional \$7.8 million contribution from the CARES Act more than offset the impact of the assumption changes. In 2022, the funding ratio decreased 0.6% due to both unfavorable asset and liability experience.



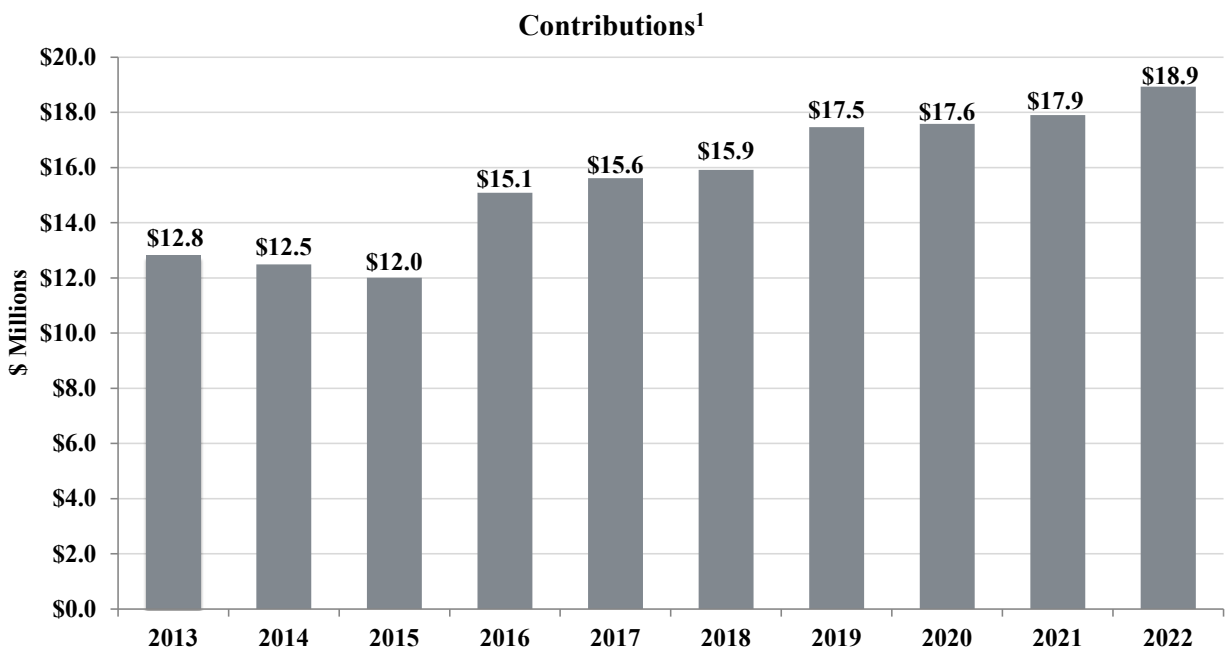
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION I – EXECUTIVE SUMMARY

Contributions

The chart below shows a history of the Plan’s actuarially determined total contribution. The contributions were relatively stable from 2013 to 2015. In 2016, the investment rate of return was reduced from 7.50% to 7.00% and mortality assumptions were updated for improved life expectancy. Investment experience on the AVA has been the primary source of the contribution increases during for the next four years. However, in 2019, there was a further reduction in the assumed rate of return to 6.75% which also increased the contribution level to \$17.5 million. In 2021, the assumption changes, including a reduction in the assumed rate of return to 6.00%, were the primary source for the increase in the total contribution but were partially offset by the additional CARES Act contribution and favorable investment experience. In 2022, the contribution level increased to \$18.9 million due to a combined actuarial asset and liability loss.

A reconciliation of the contributions from the 2021 to 2022 valuations can be found in Table I-2 of this report.



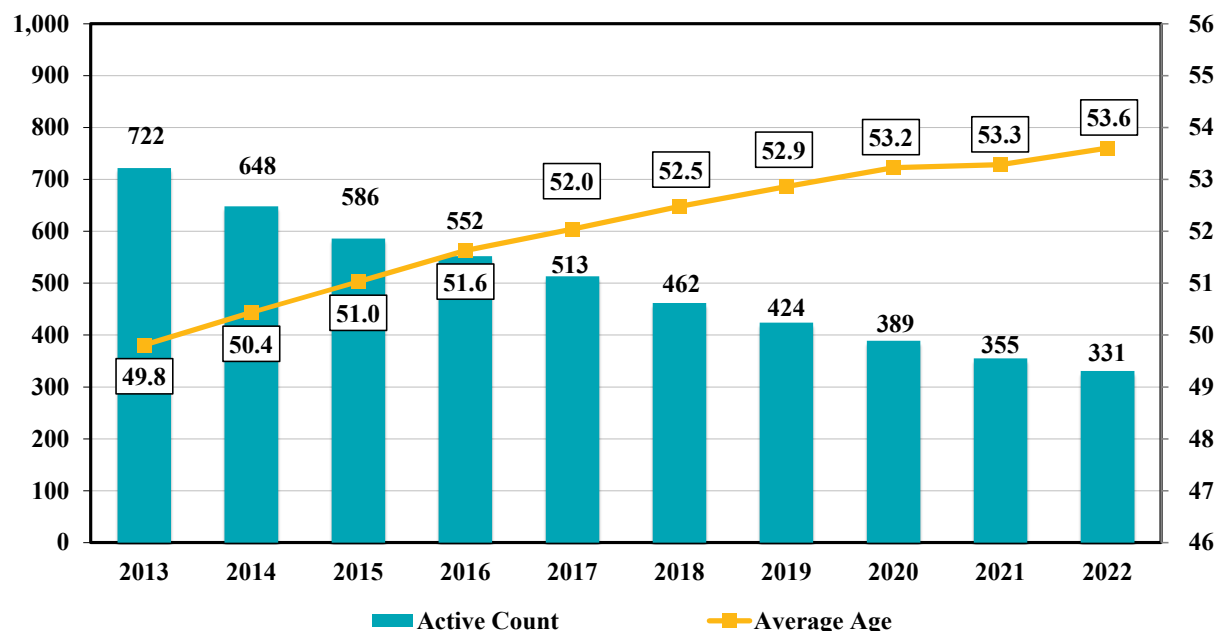
¹ Beginning with 2015, contribution amounts are mid-year values for the upcoming fiscal year.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION I – EXECUTIVE SUMMARY

Active Participant Trends

The number and average age of active Plan members for the last 10 years is shown in the chart below. Since the plan has been mostly closed to new entrants since 2012, the membership has declined by 54% from 722 to 331 actives over the last ten years. In addition, the average age of an active member has increased by almost four years during the period shown. These trends are expected to continue, as most new employees participate instead in the defined contribution plan.



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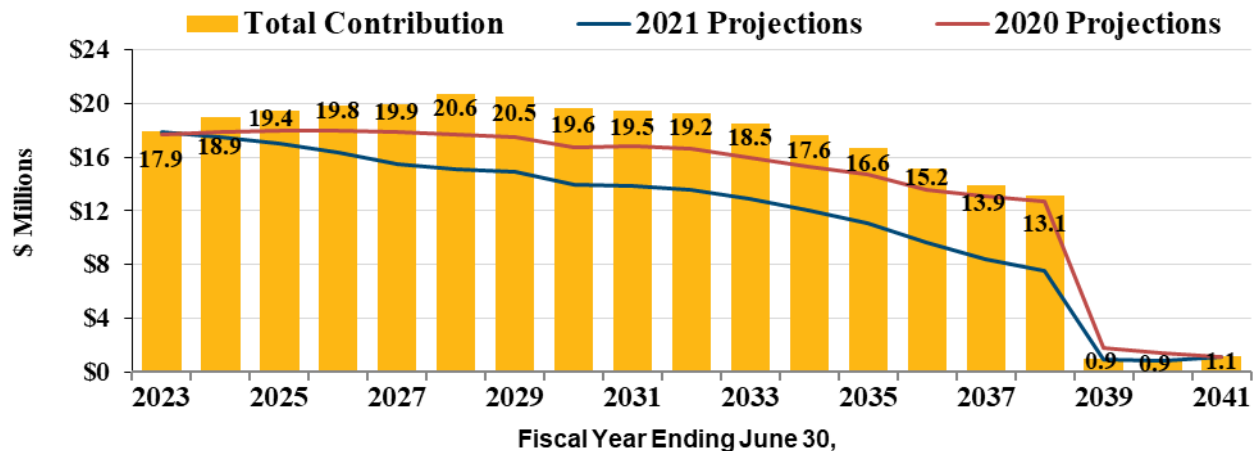
SECTION I – EXECUTIVE SUMMARY

E. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this section, we present our assessment of the implications of the July 1, 2022 valuation results in terms of benefit security (assets over liabilities) and contributions over the next 19 years.

The projections in this section assume that the Plan will achieve the 6.00% investment return assumption and all other actuarial assumptions will be met each year, which is highly unlikely. We assume the current funding method and amortization policy will remain in place throughout the projection period.

Contributions are shown for the Fiscal Year End that they are expected to be made. For example, the actuarial determined contribution from the July 1, 2022 valuation of \$18.9 million is expected to be made during the period July 1, 2023 through June 30, 2024.



The Plan's contributions are higher than those projected in the 2021 valuation due to the unfavorable returns on the market value of assets, salary increases for actives and post retirement COLAs for retirees higher than expected. The graph shows that the Plan's contribution are expected to steadily increased over the next four years from \$18.9 million to \$20.6 million in FYE 2028 as the \$19.0 million in net deferred asset losses are recognized. The gradual decline in the contribution thereafter is due to the decrease in the annual benefits that are earned as the number of active members decline since the Plan is closed to most new entrants.

The blue and red lines represent the contribution projections from the July 1, 2021 and July 1, 2020 actuarial valuation, respectively, for comparison. The favorable investment experience in 2021 and the additional CARES Act contribution are the reasons the 2021 projections are lower than the 2020 projections.

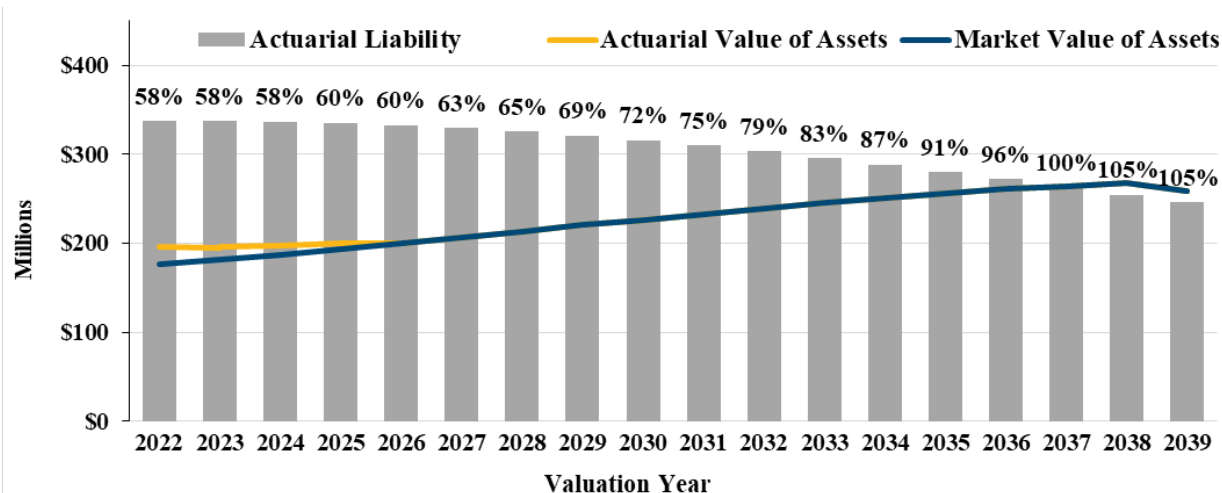
During Fiscal Year 2037-38 (which will be based on results from the July 1, 2036 valuation), the last payment for the Plan's expected UAL will be made. After that point, employer contributions are expected to stabilize and are based on the normal cost and expected administrative expenses since the UAL is paid off. PEPPRA mandates that employers must continue to contribute at least the normal cost portion unless the plan is 120% funded and has met certain legal requirements as well.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections:

The following graph shows the projection of assets and liabilities assuming that assets will earn the 6.00% assumption each year during the projection period. The percentages at the top of the graph represent the funded ratio based on the Actuarial Value of Assets.



The funded status is expected to gradually increase over the projection period. The Plan is projected to be fully funded with the July 1, 2037 valuation, assuming the actuarial assumptions are achieved. The projected funded status increases over 100% funded to 105% because of the aforementioned minimum contribution requirement of the normal cost. However, it is the actual return on Plan assets that will determine the future funding status and contributions to the Plan.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the Plan by itself would become unaffordable, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary sources are:

- Investment risk,
- Inflation risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability (UAL) necessitating higher contributions in the future unless there are other gains that offset these investment losses. In contrast, higher investment returns than anticipated may create a potentially significant surplus that could be difficult to use until all benefits have been paid. Expected future investment returns and their potential volatility are determined by the Plan's asset allocation.

Inflation risk is the potential for actual inflation to be different than expected. Retirement benefits under the plan for the Non-Contract retirees who retired on or after June 30, 1999, are potentially increased annually for inflation with certain caps. Higher inflation than expected could result in the payment of greater benefits, and lower inflation than expected could result in the payment of lower benefits.

Contribution risk is the potential for actual future actuarially determined contributions to deviate from expected future contributions to an extent that they become unaffordable. The Plan's funding policy is to determine an Actuarially Determined Contribution (ADC) equal to the sum of the normal cost, amortization of the UAL, and the Plan's expected administrative expenses. The UAL is amortized in level dollar payments with several layers with differing amortization periods. The UAL is currently expected to be fully paid for as of the July 1, 2037 actuarial valuation. However, as 2037 gets closer and the Plan's remaining amortization period shortens, a significant loss or change in assumption may cause a large increase in the ADC. While the funding policy can be changed when such a situation occurs, any reduction in the ADC will result in a slower recovery in funded status.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

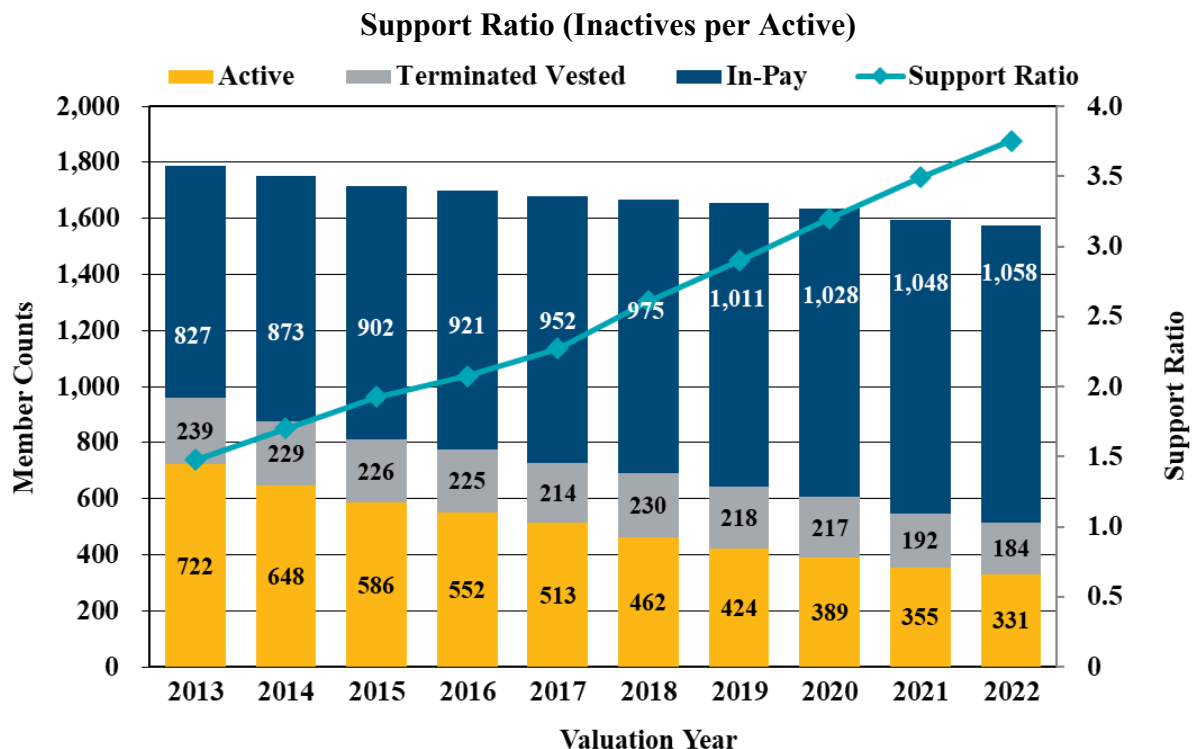
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. Given that the Plan has been closed to most new entrants since 2012, measures specific to the Plan show significant increases in maturity while maturity measures in context of Metropolitan Transit System as a whole show declining maturity.

Support Ratio (Inactives per Active)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. For a closed plan, the Support Ratio is expected to increase significantly as the active members retire or terminate and there are no new entrants replacing them. The chart below shows the growth in the Support Ratio for the Plan for the past 10 years.



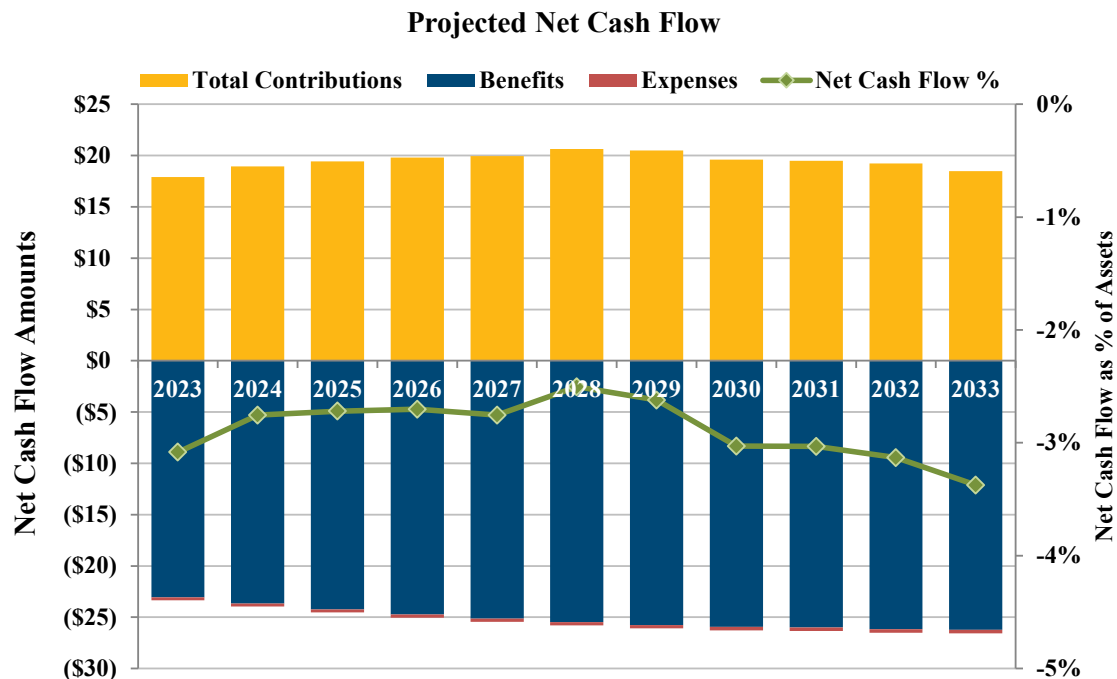
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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded.

The chart below shows the projected net cash flow for the next 10 fiscal years. The bars represent the dollar amounts of the different components of the projected net cash flow, and the line represents the net cash flow as a percentage of the assets as of the beginning of the fiscal year.



The net cash flow has been negative since at least 2013. The net cash flow is expected to become less negative as contributions increase over the next five years. Then as the Plan becomes better funded, benefit payments increase and contributions slowly decline, the net cash flow starts to become increasingly negative.

The first issue the negative cash flow presents to the Plan is a need for liquidity in the investments so that benefits can be paid. When the cash flow was positive or close to neutral, benefits could be paid out of contributions without liquidating investments. As net cash flow becomes increasingly negative, the benefit payments will require liquidation of some investments (at least to the extent the bond portfolio doesn't generate sufficient cash income).

The other change of note is the sensitivity to short-term investment returns. Investment losses in the short term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. On the other hand, large investment gains in the short term also tend to have a longer beneficial effect as any future losses are relative to a smaller liability base due to the negative cash flow.

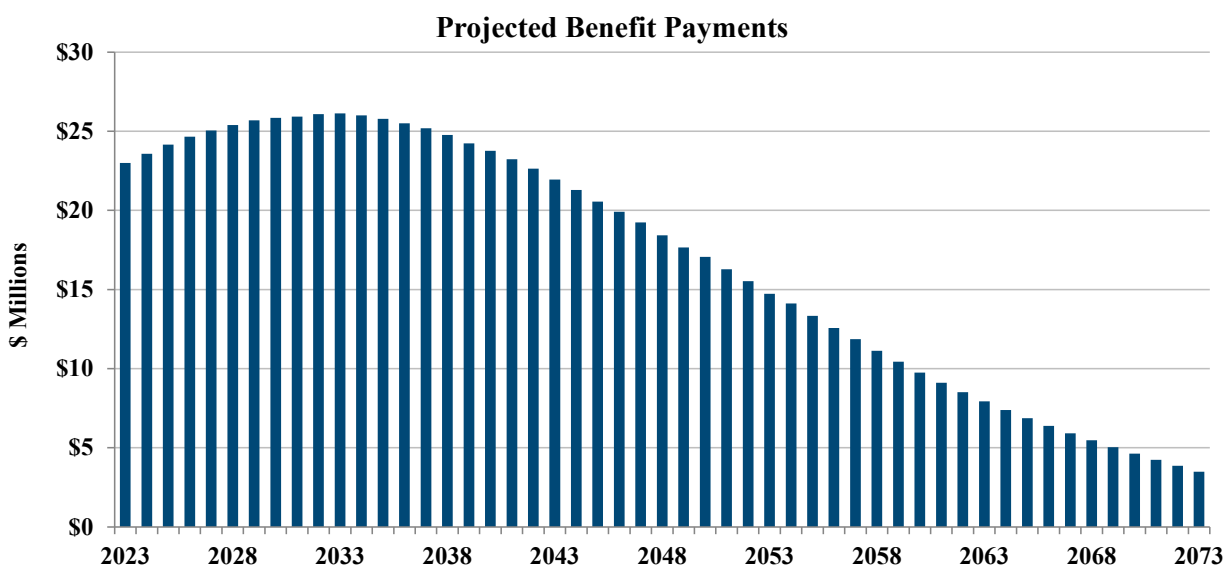
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Assessing Costs and Risks

A closed pension plan will ultimately either end up with excess assets after all benefits have been paid or run out of assets before all benefits have been paid. If the Plan develops surplus assets, it may be able to reduce the risk in its investment portfolio, immunize investments, or purchase annuities to settle the remaining obligation. However, such an approach may not be the objective for MTS, and if the surplus assets exceed the additional amounts needed to purchase annuities or immunize the portfolio, it is not clear how they could be used until all benefits have been paid.

If the Plan, on the other hand, were to run out of assets, MTS would be forced to pay benefits directly on a pay-as-you-go basis. As long as MTS can afford the pay-as-you-go costs, benefits would remain secure. The chart below shows a projection of expected benefit payments for the closed plan.

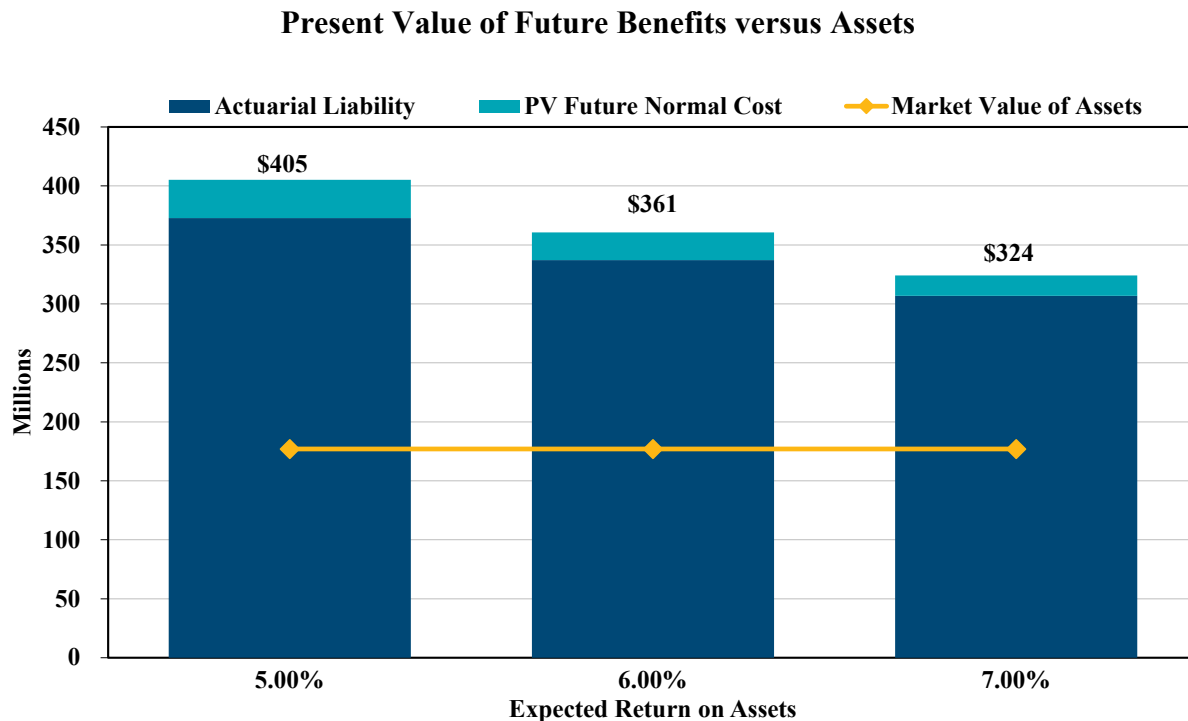


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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Sensitivity to Investment Returns

The chart below compares assets to the present value of all projected future benefits discounted at the current expected rate of return and at investment return 100 basis points above and below the expected rate of return. The present value of future benefits is shown as a bar with the portion attributable to past service in dark blue (Actuarial Liability) and the portion attributable to future service in teal (Present Value of Future Normal Costs). The Market Value of Assets is shown by the gold line.



If investments return 6.00% annually, the Plan would need approximately \$361 million in assets today to pay all projected benefits compared to current assets of \$177 million. If investment returns are only 5.00%, the Plan would need approximately \$405 million in assets today, and if investment returns are 7.00%, the Plan would need approximately \$324 million in assets today.

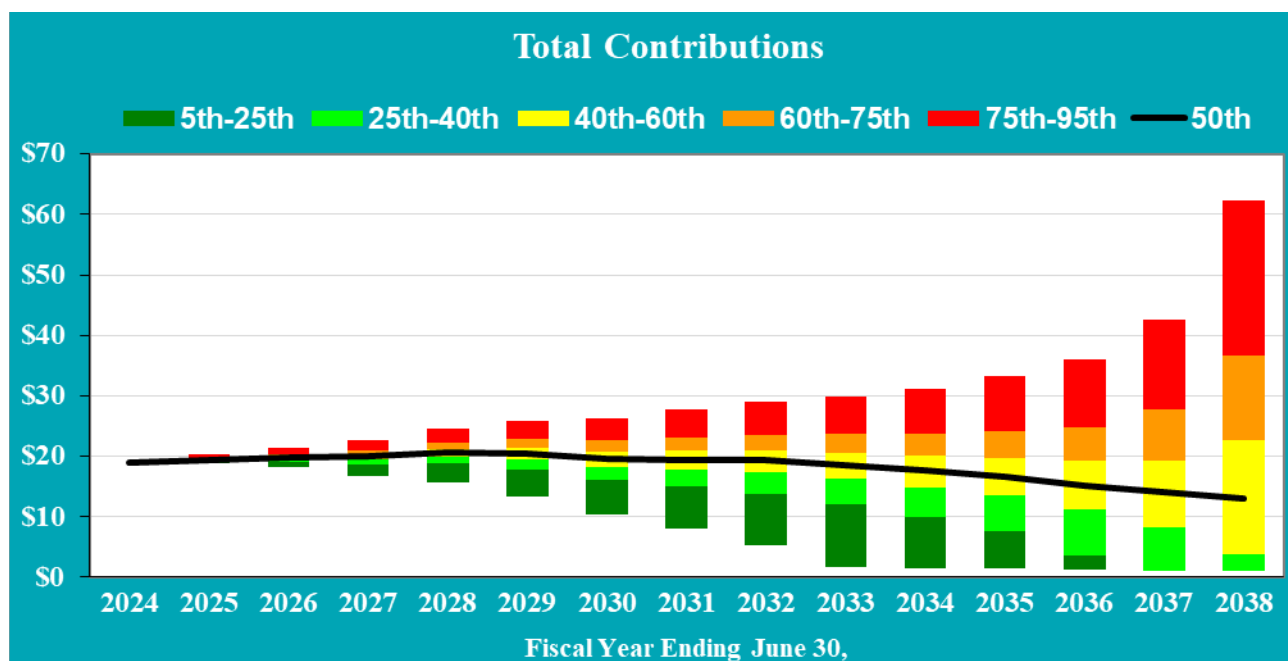
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Stochastic Projections

Stochastic projections serve to show the range of probable outcomes of various measurements. The charts on the following pages show the projected range of the total contributions and of the funded ratio on an actuarial value of assets basis. The range in both scenarios is driven by the volatility of investment returns (a 9.5% standard deviation of annual returns from RVK's Asset Allocation Study dated March 2022). The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time.

Stochastic Projection of Total Contributions (in millions)



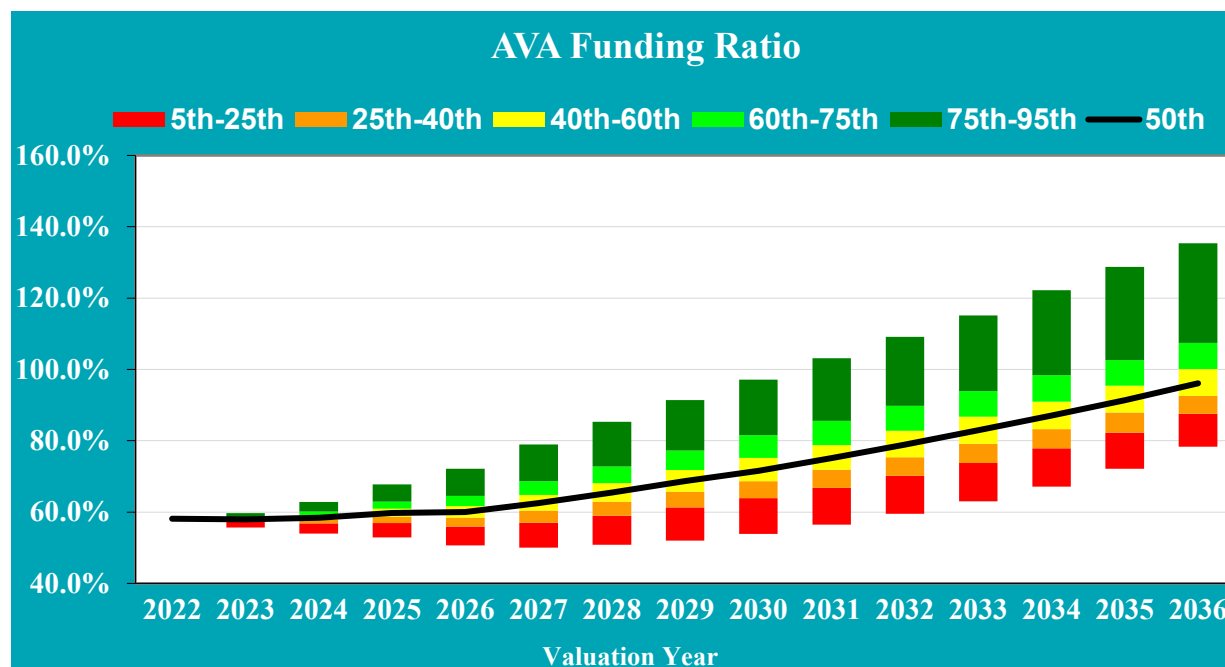
The stochastic projection of contributions shows the probable range of future contributions. The baseline contributions (black line), which is based on the median simulations using an average return of 6.00%, aligns with the projections discussed in Subsection E of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected contributions are almost \$62 million in FYE 2038. Conversely, in the most optimistic scenario shown, the 5th percentile, the projected contribution amount declines to about \$1 million in FYE 2038.

The contribution range in the outer years becomes wider since the amortization periods for any actuarial gains or losses are short and fully paid for by 2038.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Stochastic Projection of Funded Ratio based on the Actuarial Value of Assets



While the baseline funded ratio (black line) is projected to be around 95% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%. Due to the sound funding policy of the Plan, even in scenarios with unfavorable investment returns, the Plan is projected to remain above 50% funded, as long as actuarially determined contributions continue to be made.

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SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2021 and June 30, 2022,
- Statement of the **changes** in market values during the year,
- Development of the **Actuarial Value of Assets**.

Disclosure

There are two types of asset values disclosed in the valuation, the Market Value of Assets, and the Actuarial Value of Assets. The market value represents a snapshot value that provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the Actuarial Value of Assets that reflect smoothing of annual investment returns.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION III – ASSETS

Table III-1 discloses and compares each component of the Market Value of Assets as of June 30, 2021 and June 30, 2022.

Table III-1 Statement of Assets at Market Value		
	June 30, 2021	June 30, 2022
Investments		
Common Stock	\$ 89,616,904	\$ 58,668,033
Mutual Funds	43,252,362	56,340,502
Corporate Debt / Bond Funds	68,165,562	52,671,200
Closely Held Instruments	33,419	7,694
US Treasury Obligations	3,434,282	9,006,975
Short-Term Investments	<u>647,402</u>	<u>813,377</u>
Total Investments	\$ 205,149,931	\$ 177,507,781
Receivables		
Dividends and Interest	\$ 10	\$ 909
Other Receivables	<u>0</u>	<u>0</u>
Total Receivables	\$ 10	\$ 909
Payables		
Due to Plan Sponsor	\$ 525,090	\$ 541,246
Other Payables	<u>153,020</u>	<u>90,018</u>
Total Payables	\$ 678,110	\$ 631,264
Market Value of Assets	\$ 204,471,831	\$ 176,877,426

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION III – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Investment income (realized and unrealized), net of investment expenses
- Benefit payments
- Administrative Expenses

Table III-2 shows the components of a change in the Market Value of Assets during FYE 2021 and FYE 2022.

Table III-2 Changes in Market Values		
	June 30, 2021	June 30, 2022
Contributions		
Employer's Contribution	23,718,402	15,838,082
Members' Contributions	<u>1,950,898</u>	<u>1,621,654</u>
Total Contributions	25,669,300	17,459,736
Investment Income		
Interest	123	1,949
Dividends	4,648,015	6,977,161
Miscellaneous	0	0
Realized & Unrealized Gain/(Loss)	30,434,250	(29,442,846)
Investment Expenses	<u>(417,438)</u>	<u>(296,142)</u>
Net Investment Income	34,664,950	(22,759,878)
Disbursements		
Benefit Payments	(21,531,678)	(22,029,157)
Administrative Expenses	<u>(252,541)</u>	<u>(265,106)</u>
Total Disbursements	(21,784,219)	(22,294,263)
Net Increase (Decrease)	38,550,031	(27,594,405)
Net Assets Held in Trust for Benefits		
Beginning of Year	<u>165,921,800</u>	<u>204,471,831</u>
End of Year	<u>204,471,831</u>	<u>176,877,426</u>
Approximate Return	20.7%	-11.3%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION III – ASSETS

Actuarial Value of Assets (AVA)

The Actuarial Value of Assets represents a “smoothed” value developed by the actuary to reduce the volatile results, which could develop due to short-term fluctuations in the Market Value of Assets. For this Plan, the Actuarial Value of Assets is calculated on a modified market-related value. The Market Value of Assets is adjusted to recognize, over a five-year period, investment earnings which are greater than (or less than) the assumed investment return. The actuarial value is constrained to fall within 20% of the market value.

**Table III-3
Development of Actuarial Value of Assets
as of June 30, 2022**

	(a)	(b)	(c) = (b) – (a)	(d)	(c) x (d)
<u>Plan Year</u>	<u>Expected</u>	<u>Actual</u>	<u>Unexpected</u>	<u>Phase-In</u>	<u>Phase-In</u>
	<u>Earnings</u>	<u>Earnings</u>	<u>Earnings</u>	<u>Factor</u>	<u>Adjustment</u>
2017 -18	11,170,341	8,792,300	(2,378,041)	0%	0
2018 -19	11,481,373	8,415,801	(3,065,572)	20%	(613,114)
2019 -20	11,343,578	24,666	(11,318,912)	40%	(4,527,565)
2020 -21	11,328,702	34,664,950	23,336,248	60%	14,001,749
2021 -22	12,125,387	(22,759,878)	(34,885,265)	80%	<u>(27,908,212)</u>
1. Total Unrecognized Asset Gains/(Losses)					(19,047,142)
2. Market Value of Assets as of June 30, 2022					176,877,426
3. Actuarial Value of Assets as of June 30, 2022: [(2) - (1)]					195,924,568
4. Ratio of Actuarial Value to Market Value [(3) ÷ (2)]					110.8%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION III – ASSETS

Investment Performance

The following table calculates the investment related gain/loss for the plan year on both a market value and an actuarial value basis. The market value gain/loss is an appropriate measure for comparing the actual asset performance to the valuation's long-term assumption. The rate of return assumption was 6.00% for the July 1, 2021 actuarial valuation.

Table III-4 Asset Gain/(Loss)			
	Market Value	Actuarial Value	
As of June 30, 2021	\$ 204,471,831	\$ 194,296,017	
Employer Contributions	15,838,082	15,838,082	
Employee Contributions	1,621,654	1,621,654	
Benefit Payments	(22,029,157)	(22,029,157)	
Administrative Expenses	(265,106)	(265,106)	
Expected Investment Earnings at 6.00%	12,125,387	11,514,838	
Expected Value as of June 30, 2022	\$ 211,762,691	\$ 200,976,328	
Actuarial Gain/(Loss) on Assets	(34,885,265)	(5,051,760)	
Actual Value as of June 30, 2022	\$ 176,877,426	\$ 195,924,568	
Return	-11.3%	3.4%	
Variance from Expected Return of 6.00%	-17.3%	-2.6%	

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at July 1, 2021 and July 1, 2022,
- Statement of **changes** in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them. Note that these liabilities are not appropriate for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations; the obligations of the Plan earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the total Present Value of Future Benefits and subtracting all future normal costs. The method used for this Plan is called the Entry Age Normal (EAN) funding method.
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION IV – LIABILITIES

Table IV-1 discloses each of these liabilities for the current and prior valuations.

Table IV-1 Liabilities and Unfunded Actuarial Liability		
	July 1, 2021	July 1, 2022
1. Present Value of Future Benefits		
Active Participant Benefits		
ATU/Drivers	\$ 55,826,704	\$ 56,871,565
IBEW/Mechanics	29,056,184	28,757,046
ATU/Clerical	2,287,345	2,074,727
Non-Contract/Admin ¹	25,266,909	26,488,209
Total	\$ 112,437,142	\$ 114,191,547
2. Inactive Actuarial Liability		
ATU/Drivers	\$ 125,691,062	\$ 125,463,264
IBEW/Mechanics	32,562,591	33,332,983
ATU/Clerical	5,175,729	5,999,971
Non-Contract/Admin	79,294,340	81,693,824
Total	\$ 242,723,722	\$ 246,490,042
3. Active Actuarial Liability		
ATU/Drivers	\$ 43,715,761	\$ 45,266,486
IBEW/Mechanics	23,246,960	23,667,959
ATU/Clerical	1,980,025	1,746,716
Non-Contract/Admin ¹	19,600,575	19,977,368
Total	\$ 88,543,321	\$ 90,658,529
4. Total Actuarial Liability, [(2) + (3)]	\$ 331,267,043	\$ 337,148,571
5. Plan Assets (Actuarial Value)	194,296,017	195,924,568
6. Unfunded Actuarial Liability (UAL), [(4) - (5)]	\$ 136,971,026	\$ 141,224,003

¹ Includes PEPRAs members.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

SECTION IV – LIABILITIES

Table IV-2 below analyzes the increases or decreases in the liabilities since the last valuation.

Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change (as shown in Table IV-2 below), depending upon which liability is analyzed, can include:

- Benefits accrued since the last valuation
- Plan amendments changing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Actuarial gains or losses from participants retiring, terminating, or dying at rates different than expected
- A change in actuarial assumptions
- A change in the actuarial funding method or software

Table IV-2		
Changes in Actuarial Liability		
Actuarial Liability at July 1, 2022	\$	337,148,571
Actuarial Liability at July 1, 2021	\$	<u>331,267,043</u>
Liability Increase (Decrease)	\$	5,881,528
Change due to:		
Assumption Changes		0
Accrual of Benefits		3,612,367
Actual Benefit Payments		(22,029,157)
Interest		19,441,516
Actuarial (Gain)/Loss		<u>4,856,802</u>
Liability Increase (Decrease)	\$	5,881,528

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION IV – LIABILITIES

Unfunded liabilities will change (as shown in Table IV-3 below) because of the changes in liabilities on the previous page, and also due to changes in Plan assets resulting from:

- Contributions different than expected
- Investment earnings different than expected
- Expenses different than expected

**Table IV-3
Development of Actuarial Gain / (Loss)**

1. Unfunded Actuarial Liability (UAL) at Start of Year (not less than zero)	\$	136,971,026
2. Expected UAL Payment		(13,500,280)
3. Interest on (1) and (2) to End of Year		7,408,244
4. Increase in UAL due to Assumption Change		<u>0</u>
5. Expected Unfunded Actuarial Liability at End of Year, [(1) + (2) + (3) + (4)]	\$	130,878,990
6. Actual Unfunded Actuarial Liability at End of Year (not less than zero)	\$	141,224,003
7. Actuarial Gain/(Loss), [(5) – (6)]	\$	(10,345,013)
(a) Liability Gain/(Loss)		(4,856,802)
(b) Asset Gain/(Loss) on Actuarial Value		(5,051,760)
(c) Contribution Timing Delay Gain/(Loss)		(455,137)
(d) Administrative Expenses Less than Expected		18,686

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions are needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

Based on the assumptions and cost method, Plan assets are currently below the target level of assets determined by the cost method; consequently, there is an Unfunded Actuarial Liability. As a result, the required Plan contribution consists of three components: The normal cost, the amortization of the Unfunded Actuarial Liability (UAL) and assumed administrative expenses.

The normal cost represents the cost of the additional benefits earned during the plan year by active Plan members. The amortization of the unfunded liability represents a payment designed to bring the Plan's assets up to the target level set by the actuarial cost method. Currently, the amortization of UAL represents about three-fourths of the total contribution.

As the UAL is paid overtime, the Plan contribution is expected to decrease to a level near the normal cost plus administrative expenses. The normal cost itself will be changing since the Plan is closed to new members other than non-contract employees.

The table below presents the total Plan contributions (both employer and employee) for the current and prior valuations.

**Table V-1
Development of Annual Contribution**

	July 1, 2021	July 1, 2022
1. Total Actuarial Liability	\$ 331,267,043	\$ 337,148,571
2. Plan Assets (Actuarial Value)	\$ <u>194,296,017</u>	\$ <u>195,924,568</u>
3. Unfunded Actuarial Liability (UAL), [(1) - (2)]	\$ 136,971,026	\$ 141,224,003
4. UAL Amortization Payment	\$ 13,500,280	\$ 14,505,139
5. Total Plan Normal Cost	\$ 3,612,367	\$ 3,615,035
6. Expected Administrative Expenses	\$ <u>275,122</u>	\$ <u>282,000</u>
7. Total Cost (beginning of year), [(4) + (5) + (6)]	\$ 17,387,769	\$ 18,402,174
8. Total Cost (interest adjusted to middle of year)	\$ 17,901,804	\$ 18,946,198

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION V – CONTRIBUTIONS

Table V-2 presents the calculation of the UAL payments for the Plan under the amortization policy adopted in 2012.

Table V-2 Development of the Amortization Payment (BOY) as of July 1, 2022						
Type of Base	Date Established	Initial Balance	Initial Amortization	Outstanding Balance	Remaining Amortization	Amortization Amount
Initial Unfunded						
1. Actuarial Liability	7/1/2012	\$ 87,613,245	25	\$ 68,475,264	15	\$ 6,651,323
2. Actuarial Loss	7/1/2013	6,555,553	15	3,426,905	6	657,457
3. Actuarial Gain	7/1/2014	(2,132,368)	15	(1,258,412)	7	(212,666)
4. Actuarial Loss	7/1/2015	740,624	15	483,567	8	73,464
5. Assumption Changes	7/1/2016	29,699,872	21	24,847,260	15	2,413,531
6. Actuarial Loss	7/1/2016	4,978,340	15	3,541,489	9	491,205
7. Actuarial Loss	7/1/2017	5,880,935	15	4,510,646	10	578,163
8. Method Changes	7/1/2018	(640,322)	19	(561,612)	15	(54,552)
9. Actuarial Loss	7/1/2018	5,453,907	15	4,466,709	11	534,290
10. Assumption Changes	7/1/2019	7,536,766	18	6,792,043	15	659,743
11. Actuarial Loss	7/1/2019	9,988,472	15	8,666,087	12	975,156
12. Actuarial Loss	7/1/2020	3,425,437	15	3,130,089	13	333,561
13. Assumption Changes	7/1/2021	10,215,184	16	9,817,281	15	953,598
14. Actuarial Gain	7/1/2021	(5,703,358)	15	(5,458,326)	14	(553,994)
15. Actuarial Loss	7/1/2022	10,345,013	15	<u>10,345,013</u>	15	<u>1,004,860</u>
TOTAL				\$ 141,224,003		\$ 14,505,139
				Total UAL Payment, Middle of Year		\$ 14,933,955

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION V – CONTRIBUTIONS

Table V-3 presents the development of the PEPRA Member Contribution Rate. PEPRA Members must contribute half of the total normal cost rate of the Plan, rounded to the nearest 0.25%, as shown in the table below.

Table V-3		
Development of the PEPRA Member Contribution Rate		
Valuation Date	July 1, 2021	July 1, 2022
Effective Date	FY 2022-2023	FY 2023-2024
Assumed Rate of Return	6.00%	6.00%
Total Normal Cost Rate	15.32%	18.81%
50/50 Cost Sharing Rate for Members	7.66%	9.40%
Member Contribution Rate	7.75%	9.50%
<i>(rounded to nearest quarter %)</i>		
Active PEPRA Membership Statistics		
Number	24	23
Average Age	47.3	46.8
Average Service	7.4	7.1
Average Age at Hire Date	39.9	39.7

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator on electronic media. As is usual in studies of this type, Member data was neither verified nor audited; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

Summary of Participant Data

Active Participants

Non-Contract/Admin	July 1, 2021	July 1, 2022
Number	45	47
Average Age	52.3	51.2
Average Service	18.5	18.0
Average Pay	\$ 80,643	\$ 82,441
Non-Contract/PEPRA	July 1, 2021	July 1, 2022
Number	24	23
Average Age	47.3	46.8
Average Service	7.4	7.1
Average Pay	\$ 68,718	\$ 71,110
ATU/Clerical	July 1, 2021	July 1, 2022
Number	10	9
Average Age	54.0	53.0
Average Service	17.6	15.4
Average Pay	\$ 52,166	\$ 56,094
ATU/Drivers	July 1, 2021	July 1, 2022
Number	185	171
Average Age	54.8	55.3
Average Service	17.7	18.4
Average Pay	\$ 65,620	\$ 70,855
IBEW/Mechanics	July 1, 2021	July 1, 2022
Number	91	81
Average Age	52.3	53.5
Average Service	21.1	22.7
Average Pay	\$ 69,484	\$ 73,474
Total	July 1, 2021	July 1, 2022
Number	355	331
Average Age	53.3	53.6
Average Service	17.9	18.5
Average Pay	\$ 68,345	\$ 72,758

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data

Deferred Participants

Terminated Vested	July 1, 2021	July 1, 2022
Number	192	184
Average Age	54.9	55.2
Average Annual Benefit	\$ 8,925	\$ 9,249

In-Pay Participants

Service Retired	July 1, 2021	July 1, 2022
Number	798	807
Average Age	71.0	71.4
Average Annual Benefit	\$ 23,807	\$ 24,269
Beneficiaries	July 1, 2021	July 1, 2022
Number	174	178
Average Age	72.4	72.9
Average Annual Benefit	\$ 11,416	\$ 11,698
Disabled	July 1, 2021	July 1, 2022
Number	76	73
Average Age	70.9	70.9
Average Annual Benefit	\$ 9,915	\$ 10,121
Total	July 1, 2021	July 1, 2022
Number	1,048	1,058
Average Age	71.2	71.6
Average Annual Benefit	\$ 20,742	\$ 21,178

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

Data Summary as of July 1, 2022

Active Participants	Non-Contract/Administrative			ATU/ Clerical	ATU/ Drivers	IBEW/ Mechanics	Total
	Non-PEPRA	PEPRA	Sub-Total				
Number	47	23	70	9	171	81	331
Average Age	51.2	46.8	49.8	53.0	55.3	53.5	53.6
Average Service	18.0	7.1	14.4	15.4	18.4	22.7	18.5
Average Pay	\$82,441	\$71,110	\$78,718	\$56,094	\$70,855	\$73,474	\$72,758

Inactive Participants	Non-Contract/Administrative			ATU/ Clerical	ATU/ Drivers	IBEW/ Mechanics	Total
	Non-PEPRA	PEPRA	Sub-Total				
Service Retired							
Number	136	n/a	136	34	513	124	807
Average Age	70.5	n/a	70.5	72.1	71.6	71.2	71.4
Average Annual Benefit	\$40,866	n/a	\$40,866	\$15,319	\$20,815	\$22,810	\$24,269
Beneficiaries							
Number	35	n/a	35	6	103	34	178
Average Age	71.1	n/a	71.1	75.6	73.7	71.9	72.9
Average Annual Benefit	\$21,066	n/a	\$21,066	\$7,036	\$9,901	\$8,323	\$11,698
Disabled							
Number	1	n/a	1	1	60	11	73
Average Age	63.3	n/a	63.3	80.3	71.1	69.8	70.9
Average Annual Benefit	\$15,164	n/a	\$15,164	\$4,709	\$9,740	\$12,232	\$10,121
Terminated Vested							
Number	21	2	23	9	114	38	184
Average Age	52.7	49	52.4	52.9	56.2	54.5	55.2
Average Annual Benefit	\$21,018	\$14,755	\$20,473	\$4,076	\$8,135	\$7,022	\$9,249

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - All Divisions
Changes in Plan Membership as of July 1, 2022**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2021	355	192	76	798	174	1,595
New Entrants	5					5
Rehires						0
Disabilities		(2)	2			0
Retirements/ Domestic Relations Order (DRO)	(22)	(11)		33	3	3
Vested Terminations	(6)	6				0
Died, with Beneficiaries' Benefit Payable			(1)	(8)	9	0
Transfers						0
Died, without Beneficiary, and Other Terminations			(4)	(16)	(2)	(22)
Beneficiary Deaths					(5)	(5)
Data Corrections	(1)	(1)			(1)	(3)
Total Change	(24)	(8)	(3)	9	4	(22)
Participant count as of July 1, 2022	331	184	73	807	178	1,573

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - Non-Contract/Administrative¹
Changes in Plan Membership as of July 1, 2022**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2021	69	19	2	134	35	259
New Entrants	5					5
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(3)			3		0
Vested Terminations	(4)	4				0
Died, with Beneficiaries' Benefit Payable						0
Transfers	4					4
Died, without Beneficiary, and Other Terminations			(1)	(1)		(2)
Beneficiary Deaths						0
Data Corrections	(1)					(1)
Total Change	<u>1</u>	<u>4</u>	<u>(1)</u>	<u>2</u>	<u>0</u>	<u>6</u>
Participant count as of July 1, 2022	70	23	1	136	35	265

¹ Includes 23 active individuals participating in PEPRAs.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - Clerical
Changes in Plan Membership as of July 1, 2022**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2021	10	11	2	30	5	58
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(2)	(2)		4		0
Vested Terminations						0
Died, with Beneficiaries' Benefit Payable			(1)		1	0
Transfers	1					1
Died, without Beneficiary, and Other Terminations						0
Beneficiary Deaths						0
Data Corrections						0
Total Change	(1)	(2)	(1)	4	1	1
Participant count as of July 1, 2022	9	9	1	34	6	59

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - ATU/Drivers
Changes in Plan Membership as of July 1, 2022**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2021	185	122	62	512	104	985
New Entrants						0
Rehires						0
Disabilities		(1)	1			0
Retirements/ Domestic Relations Order (DRO)	(12)	(7)		19		0
Vested Terminations	(1)	1				0
Died, with Beneficiaries' Benefit Payable				(6)	6	0
Transfers	(1)					(1)
Died, without Beneficiary, and Other Terminations			(3)	(12)	(2)	(17)
Beneficiary Deaths					(5)	(5)
Data Corrections		(1)				(1)
Total Change	(14)	(8)	(2)	1	(1)	(24)
Participant count as of July 1, 2022	171	114	60	513	103	961

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - IBEW/Mechanics
Changes in Plan Membership as of July 1, 2022**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2021	91	40	10	122	30	293
New Entrants						0
Rehires						0
Disabilities		(1)	1			0
Retirements/ Domestic Relations Order (DRO)	(5)	(2)		7	3	3
Vested Terminations	(1)	1				0
Died, with Beneficiaries' Benefit Payable				(2)	2	0
Transfers	(4)					(4)
Died, without Beneficiary, and Other Terminations				(3)		(3)
Beneficiary Deaths						0
Data Corrections					(1)	(1)
Total Change	(10)	(2)	1	2	4	(5)
Participant count as of July 1, 2022	81	38	11	124	34	288

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

**Age / Service Distribution Of Active Participants - Non-Contract/Administrative¹ (Counts)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	1	0	0	0	0	0	0	0	0	1
30 to 34	0	0	0	0	1	2	0	0	0	0	0	0	3
35 to 39	0	0	0	0	1	4	2	3	0	0	0	0	10
40 to 44	0	0	0	1	0	1	4	2	0	0	0	0	8
45 to 49	0	1	1	0	0	3	3	2	4	1	0	0	15
50 to 54	0	0	0	0	0	3	2	2	1	1	0	0	9
55 to 59	0	0	1	1	0	1	3	2	0	0	2	1	11
60 to 64	0	0	0	0	0	3	3	1	0	3	1	0	11
65 to 69	0	0	0	0	0	0	1	1	0	0	0	0	2
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	2	3	2	17	18	13	5	5	3	1	70

¹ Includes 23 active individuals participating in PEPRAs.

**Age / Service Distribution Of Active Participants - Non-Contract/Administrative¹ (Average Salary)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	\$0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	\$0
25 to 29	0	0	0	68,744	0	0	0	0	0	0	0	0	\$68,744
30 to 34	0	0	0	0	71,348	78,062	0	0	0	0	0	0	\$75,824
35 to 39	0	0	0	0	76,141	79,677	74,121	82,580	0	0	0	0	\$79,083
40 to 44	0	0	0	67,059	0	71,426	84,228	88,234	0	0	0	0	\$81,483
45 to 49	0	46,093	68,744	0	0	77,656	83,665	90,591	91,003	89,188	0	0	\$82,212
50 to 54	0	0	0	0	0	71,772	72,149	73,609	69,161	57,807	0	0	\$70,422
55 to 59	0	0	48,418	88,234	0	75,734	76,653	70,206	0	0	84,347	88,234	\$76,335
60 to 64	0	0	0	0	0	63,011	81,831	75,734	0	106,973	90,372	0	\$83,777
65 to 69	0	0	0	0	0	0	73,944	69,157	0	0	0	0	\$71,550
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	\$0
Total	\$0	\$46,093	\$58,581	\$74,679	\$73,745	\$74,077	\$79,436	\$79,839	\$86,635	\$93,583	\$86,355	\$88,234	\$78,718

¹ Includes 23 active individuals participating in PEPRAs.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX A – MEMBERSHIP INFORMATION

**Age / Service Distribution Of Active Participants - ATU/Clerical (Counts)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	1	0	0	0	0	0	1
40 to 44	0	0	0	0	0	0	0	1	0	0	0	0	1
45 to 49	0	0	0	0	0	1	0	0	0	0	0	0	1
50 to 54	0	0	0	0	0	0	2	0	1	0	0	0	3
55 to 59	0	0	0	0	0	0	1	0	0	0	0	0	1
60 to 64	0	0	0	0	0	0	0	0	0	1	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	1	5	1	1	1	0	0	9

**Age / Service Distribution Of Active Participants - ATU/Clerical (Average Salary)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	\$0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	\$0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	\$0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	\$0
35 to 39	0	0	0	0	0	0	52,731	0	0	0	0	0	\$52,731
40 to 44	0	0	0	0	0	0	0	48,959	0	0	0	0	\$48,959
45 to 49	0	0	0	0	0	74,599	0	0	0	0	0	0	\$74,599
50 to 54	0	0	0	0	0	0	57,677	0	48,661	0	0	0	\$54,671
55 to 59	0	0	0	0	0	0	48,195	0	0	0	0	0	\$48,195
60 to 64	0	0	0	0	0	0	0	0	0	67,331	0	0	\$67,331
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	\$0
70 & up	0	0	0	0	0	0	49,017	0	0	0	0	0	\$49,017
Total	\$0	\$0	\$0	\$0	\$0	\$74,599	\$53,059	\$48,959	\$48,661	\$67,331	\$0	\$0	\$56,094

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX A – MEMBERSHIP INFORMATION

**Age / Service Distribution Of Active Participants - ATU/Drivers (Counts)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	1	11	1	0	0	0	0	13
40 to 44	0	0	0	0	0	1	4	5	1	0	0	0	11
45 to 49	0	0	0	0	0	0	6	10	3	0	0	0	19
50 to 54	0	0	0	0	0	2	8	11	8	1	0	0	30
55 to 59	0	0	0	0	0	1	14	8	14	3	2	0	42
60 to 64	0	0	0	0	0	0	14	4	6	7	4	2	37
65 to 69	0	0	0	0	0	0	5	2	5	2	1	2	17
70 & up	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	5	62	41	38	13	7	5	171

**Age / Service Distribution Of Active Participants - ATU/Drivers (Average Salary)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	\$0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	\$0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	\$0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	\$0
35 to 39	0	0	0	0	0	73,834	67,762	67,628	0	0	0	0	\$68,219
40 to 44	0	0	0	0	0	63,916	61,023	73,056	80,799	0	0	0	\$68,553
45 to 49	0	0	0	0	0	0	67,156	68,527	68,558	0	0	0	\$68,099
50 to 54	0	0	0	0	0	67,907	71,747	70,522	74,221	80,120	0	0	\$71,981
55 to 59	0	0	0	0	0	78,224	72,188	76,837	73,937	80,076	65,369	0	\$74,039
60 to 64	0	0	0	0	0	0	73,087	70,816	64,716	67,734	72,752	70,673	\$70,305
65 to 69	0	0	0	0	0	0	64,571	64,722	75,823	68,876	64,551	64,064	\$68,344
70 & up	0	0	0	0	0	0	0	0	72,494	0	0	76,796	\$74,645
Total	\$0	\$0	\$0	\$0	\$0	\$70,358	\$69,727	\$71,252	\$72,507	\$71,711	\$69,471	\$69,254	\$70,855

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX A – MEMBERSHIP INFORMATION

**Age / Service Distribution Of Active Participants - IBEW/Mechanics (Counts)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	5	3	0	0	0	0	8
35 to 39	0	0	0	0	0	1	3	1	0	0	0	0	5
40 to 44	0	0	0	0	0	0	2	1	2	0	0	0	5
45 to 49	0	0	0	0	0	0	0	0	5	3	0	0	8
50 to 54	0	0	0	0	0	0	1	1	1	2	5	0	10
55 to 59	0	0	0	0	0	0	3	1	6	3	4	2	19
60 to 64	0	0	0	0	0	0	1	4	7	2	3	3	20
65 to 69	0	0	0	0	0	0	2	2	0	0	1	0	5
70 & up	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	1	17	13	22	10	13	5	81

**Age / Service Distribution Of Active Participants - IBEW/Mechanics (Average Salary)
As of July 1, 2022**

Age	Service												Total
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	\$0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	\$0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	\$0
30 to 34	0	0	0	0	0	0	75,912	82,109	0	0	0	0	\$78,236
35 to 39	0	0	0	0	0	82,109	69,646	82,109	0	0	0	0	\$74,631
40 to 44	0	0	0	0	0	0	68,585	82,109	82,109	0	0	0	\$76,699
45 to 49	0	0	0	0	0	0	0	0	71,617	79,213	0	0	\$74,465
50 to 54	0	0	0	0	0	0	82,109	73,423	47,021	77,766	76,897	0	\$74,257
55 to 59	0	0	0	0	0	0	58,559	44,720	77,629	76,318	73,218	82,109	\$72,222
60 to 64	0	0	0	0	0	0	73,423	68,671	71,948	77,766	76,318	79,213	\$73,693
65 to 69	0	0	0	0	0	0	63,361	64,565	0	0	73,423	0	\$65,855
70 & up	0	0	0	0	0	0	0	0	55,234	0	0	0	\$55,234
Total	\$0	\$0	\$0	\$0	\$0	\$82,109	\$69,623	\$71,731	\$72,453	\$77,766	\$75,364	\$80,371	\$73,474

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Method

For the Retirement Plans of San Diego Transit Corporation (the Plan), the actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the individual entry age to final decrement cost method. This method is consistent with the method required under the GASB accounting statements.

Under this cost method, the normal cost is calculated as the amount necessary to fund Members' benefits as a level percentage of total payroll over their projected working lives. At each valuation date, the Actuarial Liability is equal to the difference between the liability for the Members' total projected benefit and the present value of future normal cost contributions. The total normal cost is calculated as the sum of the individual normal costs for each active member (individual entry age method).

The excess of the Actuarial Liability over the smoothed value of Plan assets is the Unfunded Actuarial Liability (UAL); the initial Unfunded Actuarial Liability as of July 1, 2012 is amortized in level dollar payments over a 25-year period ending June 30, 2037. Changes in the Unfunded Actuarial Liability due to Plan amendments, changes in actuarial assumptions or methods will be amortized in level dollar payments over a separate period that ends on June 30, 2037, consistent with the amortization of the remaining June 30, 2012 UAL.

Changes in the Unfunded Actuarial Liability due to actuarial gains and losses are amortized over closed separate 15-year periods in level dollar payments. In order for SDTC to achieve its goal of full funding by 2037, once the amortization of future gains and losses extends beyond June 30, 2037, the period will be reduced to end on June 30, 2037. However, as the targeted full funding date of June 30, 2037 approaches, changes to the amortization policy may be made at the MTS Board's discretion to mitigate volatility or unsustainable increases in the UAL payment.

Though, the Retirement Board may make exceptions, in general, the intent is to follow the guidelines published by the California Actuarial Advisory Panel and the Government Finance Officers' Association.

The total Plan cost is the sum of the normal cost, assumed administrative expenses, and the amortization of the Unfunded Actuarial Liability. The employer is responsible for contributing the difference between the total cost and member contributions.

Actuarial Value of Plan Assets

The Actuarial Value of Assets (AVA) is determined using an adjusted market value. Under this method, a preliminary AVA is determined as the Market Value of Assets on the valuation date less a decreasing fraction (4/5, 3/5, 2/5, 1/5) of the gain or loss in each of the preceding four years. The gain or loss for a given year is the difference between the actual investment return (on a market-to-market basis) and the assumed investment return based on the Market Value of Assets at the beginning of the year and actual cash flow. The AVA is adjusted, if necessary, to remain between 80% and 120% of the market value.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

The economic and demographic assumptions are based on the experience study covering the period from July 1, 2015 through June 30, 2020 that was adopted at the MTS Board of Directors Meeting in November 2021. The rationale for all the assumptions can also be found in the experience study report dated September 2021. All assets and liabilities are computed as of the valuation date, July 1, 2022.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 6.00% net of investment expenses.

2. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.50% per year.

3. Post Retirement COLA

Benefits for Non-Contract retirees assumed to increase after retirement at the rate of 2.0% per year.

4. Pay for Benefits

In most cases, pay for benefits is based on a two-year average of each Participant's pay during the two years preceding the valuation date. Special procedures are used in some cases, as noted for full-time Participants.

<u>Unit</u>	<u>Pay for Continuing Participants</u>	<u>Pay for New Participants</u>
Drivers	The larger of gross pay or 1,800 hours times the member's hourly rate	
Mechanics	2,150 hours times the Participant's hourly rate	
Clerical	Gross pay	The larger of gross pay or 2,100 hours times the Participant's hourly rate
Non-Contract	Gross pay	The larger of gross pay or 2,080 hours times the Participant's hourly rate

Part-time Participants are assumed to work 1,040 hours in the calculations shown above.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

5. Merit Pay (Longevity and Promotion) Increases

Assumed pay increases for active Participants consist of increases due to inflation (cost-of-living adjustments) and those due to longevity and promotion. Based on an analysis of pay levels and service, we developed the following assumptions:

Longevity and Promotion Increases				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	6.00%	7.50%	10.00%	3.50%
1	6.00%	7.50%	10.00%	3.50%
2	6.00%	7.50%	0.25%	3.50%
3	6.00%	7.50%	0.25%	3.50%
4	6.00%	7.50%	0.25%	3.50%
5	6.00%	7.50%	0.25%	3.50%
6	6.00%	7.50%	0.25%	3.50%
7	6.00%	7.50%	0.25%	3.50%
8	0.50%	7.50%	0.25%	3.50%
9	0.50%	7.50%	0.25%	3.50%
10+	0.50%	0.50%	0.25%	0.25%

In addition, annual adjustments in pay due to inflation will equal the CPI, for an additional annual increase of 2.50%. The combination of rates is compounded rather than using an additive method.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Active Participant Mortality

Rates of mortality for all active ATU and IBEW Participants are given by Cheiron's ATU Non-Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020. Sample rates are shown in the table below:

Age	Male	Female
25	0.040%	0.033%
30	0.049%	0.038%
35	0.056%	0.051%
40	0.064%	0.072%
45	0.079%	0.101%
50	0.113%	0.151%
55	0.174%	0.239%
60	0.272%	0.365%
65	0.408%	0.524%

Rates of mortality for all active Clerical and Non-Contract Participants are given by 2010 Public General Employee mortality with generational improvements from the base year 2010 using Scale MP-2020.

7. Healthy Inactive Participant and Beneficiary Mortality

Rates of mortality for healthy inactive ATU and IBEW Participants, spouses, and surviving spouses are given by Cheiron's ATU Healthy-Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020. Sample rates are shown in the table below:

Age	Male	Female
55	0.898%	0.520%
60	1.123%	0.762%
65	1.309%	1.103%
70	1.983%	1.633%
75	3.272%	2.631%
80	5.595%	4.433%
85	9.647%	7.691%
90	15.707%	13.411%
95	22.864%	20.609%

Rates of mortality for healthy inactive Clerical and Non-Contract Participants, spouses, and surviving spouses are given by 2010 Public General Healthy Annuitant Amount Weighted mortality with generational improvements from the base year 2010 using Scale MP-2020.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Disabled Participant Mortality

Rates of mortality for disabled members are given by Cheiron's ATU Disabled Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020.

9. Mortality Improvement

Mortality is assumed to improve in future years in accordance with the MP-2020 generational improvement tables.

10. Disability

Among ATU Drivers and IBEW Mechanics uses an 80% male/20% female blend of the standard CalPERS Public Agency Table, with sample rates below. Disabled Participants are assumed not to return to active service. No disability is assumed for Clerical and Non-Contract Participants.

Disability	
Age	Rate
25	0.016%
30	0.020%
35	0.045%
40	0.109%
45	0.158%
50	0.166%
55	0.156%
60	0.143%
65	0.120%
70	0.098%
75+	0.099%

11. Plan Expenses

Expected Plan administrative expenses as of the valuation date of \$282,000 are included in the total annual cost, increasing each year with the assumed rate of inflation.

12. Family Composition

100% of active Participants are assumed married. Male spouses are assumed four years older than their wives are.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

13. Service Retirement

Rates of service retirement among Participants eligible to retire are given by the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 ¹	0%	0%	0%
53-54	0%	0%	7.5%
55	10%	5%	7.5%
56-59	7.5%	5%	10%
60-61	10%	10%	10%
62	15%	10%	30%
63	15%	10%	25%
64	20%	15%	25%
65-66	40%	45%	25%
67-69	25%	20%	25%
70 and older	100%	100%	100%

¹ Non-Contract retirement assumption at age 52 is for PEPPA participants only, 0% otherwise.

14. Termination

Service-based or age-based termination rates are shown below by group. For all Participants, termination rates are assumed zero once a participant is eligible for retirement.

Termination for ATU Driver, IBEW Mechanic, and Non-Contract Participants are assumed to occur in accordance with the service-based rates shown in the following table:

Service	ATU Driver	IBEW Mechanic	Non- Contract
0	10.0%	10.0%	5.0%
1-6	4.0%	4.0%	5.0%
7 +	3.0%	3.0%	5.0%

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Termination for Clerical Participants is assumed to occur in accordance with the age-based rates shown in the following table:

Clerical	
Age	Rate
20-24	25.0%
25-29	15.0%
30-34	13.0%
35-39	11.0%
40-44	10.0%
45-49	9.0%
50 and older	9.0%

15. Employment Status

No future transfers among Participant groups are assumed.

16. Changes in Actuarial Methods and Assumptions since the Prior Valuation

None.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

A. Definitions

Average Monthly

Final Earnings: Average Monthly Final Earnings means the average monthly compensation during the consecutive months that produces a Participant's highest average compensation, computed by dividing the Compensation Earnable for such period by the number of months in such period.

- For ATU, IBEW, and Clerical Participants, the averaging period is 36 consecutive months.
- For Non-Contract Participants, the number of consecutive months is 12.
- Public Employees' Pension Reform Act (PEPRA): For Non-Contract Participants hired on and after January 1, 2013, the number of consecutive months is 36.
- Those months during which the Participant did not receive compensation from the Employer equivalent to one-half the regular working days will be excluded. The average is then based on that portion of the averaging period remaining after the excluded months.
- PEPRA: It is possible that exclusions for months in which the Participant did not work full-time may be subject to change.
- Use the total of the Periodic Pensionable Earnings from the highest three calendar (payroll) years. These years need not be consecutive years. There shall be no skips and drops within the three calendar (payroll) years. Add the total Periodic Pensionable Earnings to Terminal Earnings and then divide by 36.

Compensation: Compensation means the remuneration for services paid by the Employer. The monetary value of board, lodgings, fuel, car allowance, laundry, or other advantages furnished to a Participant is not included.

PEPRA: For Participants joining the Plan on or after January 1, 2013, only base compensation up to the Social Security-integrated PEPRA compensation limit (\$134,974 for 2022 and \$128,059 for 2021) will count for computing Plan benefits and employee and employer contributions; in particular, all or most overtime will be excluded.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Compensation

Earnable: Compensation Earnable is the compensation actually received by a Participant during a period of employment. For ATU and Non-Contract Participants, any bonus or retroactive wage increases are treated as compensation when received rather than when the services are performed. For IBEW Participants, Compensation Earnable is limited to 2,140 hours of straight time equivalent hours in any 12-month period.

In addition, the value of any vacation or sick leave accumulated but unused when benefits begin is excluded from Compensation Earnable and from Average Monthly Final Earnings.

PEPRA: For Participants joining the Plan on and after January 1, 2013, it is likely that some sources of compensation, such as those underlined above, may be excluded from benefit and contribution computations for these new Participants.

Credited Years

Of Service: In general, Credited Years of Service is continuous service with the San Diego Transit Corporation and its predecessor company from the last date of employment through the date of retirement, death, disability, or other termination of service.

As of November 10, 1997, part-time ATU employees receive one Credited Year of Service for every 2,080 hours of service worked as a part-time employee after December 1, 1990.

For Non-Contract Participants, Credited Years of Service includes any year commencing on or after July 1, 1982 in which the Participant completes at least 1,000 Hours of Service. In addition, Credited Years of Service for Non-Contract Participants will exclude any period of service after the Participant's Normal Retirement Date.

A Participant who is disabled and recovers from disability and reenters the Plan as an active Participant will not receive Credited Years of Service for the period of disability.

B. Membership

All full-time and certain part-time IBEW employees hired prior to May 1, 2011, will become Participants on their date of hire. IBEW employees hired on and after May 1, 2011, will become Participants of a separate defined contribution plan and will not be Participants of this Plan.

All full-time and certain part-time ATU employees hired prior to November 1, 2012, will become Participants on their date of hire. ATU employees hired on and after November 1, 2012, will become Participants of a separate defined contribution plan and will not be Participants of this Plan.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

All Non-Contract employees become Participants after earning one Credited Year of Service.

PEPRA: Any Participant joining the Plan for the first time on or after January 1, 2013, is a New Participant.

C. Retirement Benefit

Eligibility: Clerical and Non-Contract Participants are eligible for normal service retirement upon attaining age 63 and completing five or more Credited Years of Service and eligible for early service retirement upon attaining age 53 and completing five or more Credited Years of Service.

ATU and IBEW Participants are eligible for normal service retirement upon attaining age 63 (65 for IBEW) and completing five or more Credited Years of Service and eligible for early service retirement upon attaining age 55 and completing five or more Credited Years of Service.

PEPRA: New Participants are eligible to retire upon attaining age 52 and completing five or more Credited Years of Service.

Benefit Amount: The monthly service retirement benefit is the Participant's Average Monthly Final Earnings multiplied by the percentage figures shown in the tables below.

- For ATU and Clerical Participants terminating prior to October 1, 2005, ATU/Clerical Table A-1 is used; for ATU and Clerical Participants terminating on and after October 1, 2005, ATU/Clerical Table A-2 is used. Prior to July 1, 2006, the benefit from the table is limited to 60%.
- For IBEW Participants terminating prior to January 1, 2007, IBEW Table A-1 is used; for IBEW Participants terminating on and after January 1, 2007, IBEW Table A-2 is used.
- For Non-Contract participants terminating prior to July 1, 2000, Non-Contract Table A-1 is used; for Non-Contract participants terminating on and after July 1, 2000, Non-Contract Table A-2 is used.

For Participants with fractions of a year of age or service, the Participant's age or service will be rounded to the completed quarter year, and the percentage multiplier will be computed from the table using interpolation.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

ATU participants who are active from November 10, 1997, to December 31, 1998, and from November 10, 1997, to December 31, 1999, receive an additional 2.5% and 2.5%, respectively. However, the multiplier from Table A-1 or A-2, as augmented by the additional 2.5% increments, is still limited to 60% prior to July 1, 2006 and 70% thereafter.

Non-Contract Participants who are active as of July 1, 1994, and July 1, 1995, receive an additional 6% and 2%, respectively. However, the benefit multiplier, as augmented by the additional 6% and 2% increments, is still limited to 60% under Table A-1 and 70% under Table A-2.

A Participant who is disabled and recovers from disability and reenters the Plan as an active Participant will have this benefit amount reduced by the actuarial equivalent of the benefits paid during the period of disability.

PEPRA: For New Participants, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.

Form of Benefit: The normal form of benefit is an annuity payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The retirement benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

ATU and IBEW Participants may elect an Alternative Retirement Formula if they terminate employment before early retirement but after 10 Credited Years of Service or were hired between April 1, 1968, and March 31, 1971, and desire to retire at their Normal Retirement Date. These Participants are eligible for a deferred benefit commencing at age 65 based on Table B.

Tables A-1 and A-2 for each employee group, as well as Table B, can be found at the end of Appendix C herein.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

D. Disability Retirement Benefit

Eligibility: A Participant is eligible for a Disability Retirement Benefit if:

- The Participant has earned five Credited Years of Service (ATU, IBEW, Clerical and Non-Contract), and
- The Participant is unable to perform the duties of his or her job with the Corporation, cannot be transferred to another job with the Corporation, and has submitted satisfactory medical evidence of permanent disqualification from his or her job.

Benefit Amount: The Disability Retirement Benefit is a monthly benefit equal to the lesser of:

1. 1.5% times Credited Years of Service at Disability Retirement Date times the Participant's Average Monthly Final Earnings; and,
2. The Normal Retirement Benefit calculated using the Average Monthly Final Earnings at Disability Retirement Date and the projected Credited Years of Service to Normal Retirement Date.

The benefit is reduced by 50% of the amount of any earned income from other sources in excess of 50% of the Participant's Average Monthly Earnings during the 12 months prior to disability; this reduction applies to all IBEW and Non-Contract Participants, but only to ATU Participants hired after June 30, 1983.

PEPRA: Note that the Disability Retirement Benefit for New Participants is based on the new definition of Compensation, which is subject to a maximum and excludes overtime.

Form of Benefit: The normal form of benefit is an annuity commencing at disability and payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The Disability Retirement Benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

E. Pre-Retirement Death Benefit

Eligibility: A vested Participant is entitled to elect coverage of a pre-retirement spouse's benefit.

For years, a Participant is age 55 or under, the cost of the coverage is paid by the Company. For the years, a Participant is over age 55 and has elected this coverage, the cost of this coverage is paid by the Participant in the form of a reduced benefit upon retirement. The reduction is 3.5¢ per \$10 of monthly benefit for each year of coverage.

There is no cost for this benefit for any ATU, Clerical, or Non-Contract Participant whose monthly benefit commences after November 27, 1990. There is no cost for this benefit for any IBEW Participant whose monthly benefit commences after December 3, 1996.

In order for the spouse to be eligible for this benefit, the participant must be married to the spouse for one year prior to death, unless death occurs from accidental causes.

Benefit Amount: For a Participant who is eligible to retire at death, the pre-retirement death benefit is 50% of the benefit that would have been payable had the Participant retired immediately prior to his or her death and elected to receive a 50% Joint and Survivor annuity.

For a Participant who dies before being eligible to retire, the pre-retirement death benefit is 50% of the benefit that would have been payable had the Participant survived to his or her earliest retirement date, retired, elected to receive a 50% Joint and Survivor annuity, and died immediately.

PEPRA: Note that the Pre-Retirement Death Benefit for New Participants is based on the new definition of compensation, which is subject to a maximum and excludes overtime.

Form of Benefit: For a Participant who is eligible to retire at death, the death benefit begins when the Participant dies and continues for the life of the surviving spouse.

For a Participant who dies before being eligible to retire, the death benefit begins when the Participant would have reached his or her earliest retirement date and continues for the life of the surviving spouse.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant or spouse (if any) upon death.

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F. Termination Benefit

Eligibility: A Participant is eligible for a termination benefit after earning five Credited Years of Service.

Benefit Amount: The termination benefit is computed in the same manner as the Normal Retirement Benefit, but it is based on Credited Years of Service and Average Monthly Final Earnings on the date of termination.

Effective July 1, 2000, Non-Contract participants who terminate prior to eligibility for early service retirement will have their benefits actuarially reduced if they begin receiving benefits before Normal Retirement Age.

PEPRA: For New Participants, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age. Note also that the Termination Benefit for New Participants is based on the new definition of compensation, which is subject to a maximum and excludes overtime.

We assume a refund of employee contributions, with no interest, if termination occurs before five years of service.

Form of Benefit: The Participant will be eligible to commence benefits at the later of termination and earliest retirement eligibility age.

The normal form of benefit is an annuity payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The retirement benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

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G. Cost-of-Living Adjustments

Eligibility: An annual Cost-of-Living Adjustment (COLA) has been added for Non-Contract Participants who were actively employed on or after June 30, 1999. One time only (ad hoc) COLAs were granted to ATU and IBEW Participants in 1991 and 1992.

Benefit Amount: For Non-Contract Participants, the cumulative COLA is the increase in the Consumer Price Index (CPI) since the Participant began receiving benefits.

The COLA is subject to the following limits for Non-Contract Participants:

- The cumulative COLA cannot exceed 2% compounded annually for all years since the Participant's benefits began;
- The annual COLA is zero if the CPI increase in that year is less than 1%;
- The annual COLA is limited to 6% of the initial benefit amount in any year; and,
- A Participant's benefit cannot be reduced below the benefit level when payments commenced.

H. Voluntary Early Retirement Program

The Plan provided enhanced benefits to ATU participants who voluntarily elected early retirement during the window period from July 1, 1998 through February 20, 1998.

The Plan provided enhanced benefits to certain IBEW participants who voluntarily elected early retirement during the window period from July 1, 2004, through December 31, 2004.

I. DROP Program

The Plan provided DROP benefits to a number of ATU participants who elected retirement from July 1, 2002, through December 31, 2002.

J. Funding

- IBEW members contributed 3% of compensation to the Plan in April 2013 and 4% of compensation in April 2014. The contribution rate increased to 6% of compensation in April 2015 and increased to 8% of compensation in April 2016.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

- ATU drivers and clerical members contributed 3% of compensation in July 2013. The contribution rate increased to 5% of compensation in July 2014, to 6% in July 2015, and to 7% of compensation in July 2016. The contribution rate increased to 8% of compensation in December 2017.
- Non-contract members hired before July 1, 2013, contributed 2% of compensation to the Plan prior to January 2014. The Non-contract member contributions increased to 4% of compensation in January 2014, to 6% of in January 2015, and increased to 7% of compensation on January 1, 2016. As of January 1, 2017, the member contribution rate increased to 8% of compensation.
- New members under PEPRA must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. PEPRA members have been paying 6.25% of pay and the employer has been paying the remaining cost of the Plan. The PEPRA employee contribution rate increases to 7.75% of pay based on the results of July 1, 2021 valuation and 9.50% of pay based on the results of this July 1, 2022 valuation.

The Corporation pays the actuarial cost of the Plan as reduced by Member contributions. Member contribution rates in the future may change in response to collective bargaining.

K. Changes in Plan Provisions since the Prior Valuation

PEPRA employee contributions increased from 7.75% of pay to 9.50% of pay.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS

ATU/Clerical Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement								
	55	56	57	58	59	60	61	62	63+
5	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

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ATU/Clerical Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	Clerical										
	53	54	55	56	57	58	59	60	61	62	63+
5	8.71%	9.33%	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	10.45%	11.20%	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	12.19%	13.06%	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	13.94%	14.93%	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	15.68%	16.79%	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	17.42%	18.66%	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	19.16%	20.53%	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	20.90%	22.39%	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	22.65%	24.26%	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	24.39%	26.12%	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	26.13%	27.99%	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	27.87%	29.86%	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	29.61%	31.72%	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	31.36%	33.59%	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	33.10%	35.45%	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	34.84%	37.32%	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	36.58%	39.19%	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	38.32%	41.05%	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	40.07%	42.92%	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	41.81%	44.78%	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	43.55%	46.65%	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	45.29%	48.52%	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	47.03%	50.38%	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	48.78%	52.25%	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	50.52%	54.11%	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	52.26%	55.98%	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	54.00%	57.85%	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	55.74%	59.71%	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	57.49%	61.58%	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	59.23%	63.44%	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	60.97%	65.31%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

IBEW Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	55	56	57	58	59	60	61	62	63	64	65+
5	5.2%	5.5%	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	6.2%	6.6%	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	7.2%	7.7%	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	8.2%	8.8%	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	9.3%	9.9%	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	10.2%	11.0%	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	11.2%	12.1%	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	12.3%	13.2%	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	13.3%	14.3%	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	14.4%	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	16.4%	17.6%	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	17.5%	18.7%	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	18.5%	19.8%	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	19.6%	20.9%	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	20.6%	22.0%	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	21.6%	23.1%	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	22.7%	24.2%	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	23.7%	25.3%	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	24.8%	26.4%	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	25.8%	27.5%	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	26.9%	28.6%	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	27.9%	29.7%	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	29.0%	30.9%	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	30.0%	32.0%	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	31.1%	33.1%	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	32.1%	34.2%	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	33.2%	35.3%	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	34.3%	36.5%	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	35.4%	37.6%	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	36.5%	38.7%	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

IBEW Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement								
	55	56	57	58	59	60	61	62	63+
5	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Non-Contract Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	53	54	55	56	57	58	59	60	61	62	63+
5	5.2%	5.5%	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	6.2%	6.6%	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	7.2%	7.7%	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	8.2%	8.8%	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	9.3%	9.9%	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	10.2%	11.0%	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	11.2%	12.1%	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	12.3%	13.2%	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	13.3%	14.3%	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	14.4%	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	16.4%	17.6%	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	17.5%	18.7%	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	18.5%	19.8%	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	19.6%	20.9%	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	20.6%	22.0%	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	21.6%	23.1%	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	22.7%	24.2%	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	23.7%	25.3%	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	24.8%	26.4%	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	25.8%	27.5%	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	26.9%	28.6%	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	27.9%	29.7%	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	29.0%	30.9%	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	30.0%	32.0%	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	31.1%	33.1%	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	32.1%	34.2%	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	33.2%	35.3%	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	34.3%	36.5%	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	35.4%	37.6%	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	36.5%	38.7%	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Non-Contract Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	53	54	55	56	57	58	59	60	61	62	63+
5	8.71%	9.33%	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	10.45%	11.20%	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	12.19%	13.06%	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	13.94%	14.93%	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	15.68%	16.79%	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	17.42%	18.66%	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	19.16%	20.53%	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	20.90%	22.39%	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	22.65%	24.26%	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	24.39%	26.12%	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	26.13%	27.99%	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	27.87%	29.86%	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	29.61%	31.72%	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	31.36%	33.59%	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	33.10%	35.45%	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	34.84%	37.32%	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	36.58%	39.19%	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	38.32%	41.05%	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	40.07%	42.92%	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	41.81%	44.78%	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	43.55%	46.65%	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	45.29%	48.52%	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	47.03%	50.38%	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	48.78%	52.25%	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	50.52%	54.11%	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	52.26%	55.98%	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	54.00%	57.85%	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	55.74%	59.71%	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	57.49%	61.58%	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	59.23%	63.44%	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	60.97%	65.31%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table B: Alternate Retirement Formula Multipliers

Credited Years Of Service	Percentage
10	20.1%
11	22.2%
12	24.2%
13	26.2%
14	28.2%
15	30.2%
16	32.2%
17	34.3%
18	36.3%
19	38.3%
20	40.3%
21	42.3%
22	44.3%
23	46.3%
24	48.4%
25	50.4%
26	52.4%
27	54.4%
28	56.4%
29	58.4%
30	60.4%
31	62.5%
32	64.5%
33	66.5%
34	68.5%
35 or more	70.5%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits, which will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

8. Actuarially Equivalent

Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2022**

APPENDIX D – GLOSSARY

9. Amortization Payment

The portion of the pension plan contribution that is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses, which is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.



Classic Values, Innovative Advice

Retirement Plans of San Diego Transit Corporation

AI No. 5, 2/9/2023



Actuarial Valuation Results as of July 1, 2022

February 9, 2023

Anne D. Harper, FSA, EA, MAAA

Today's Discussion



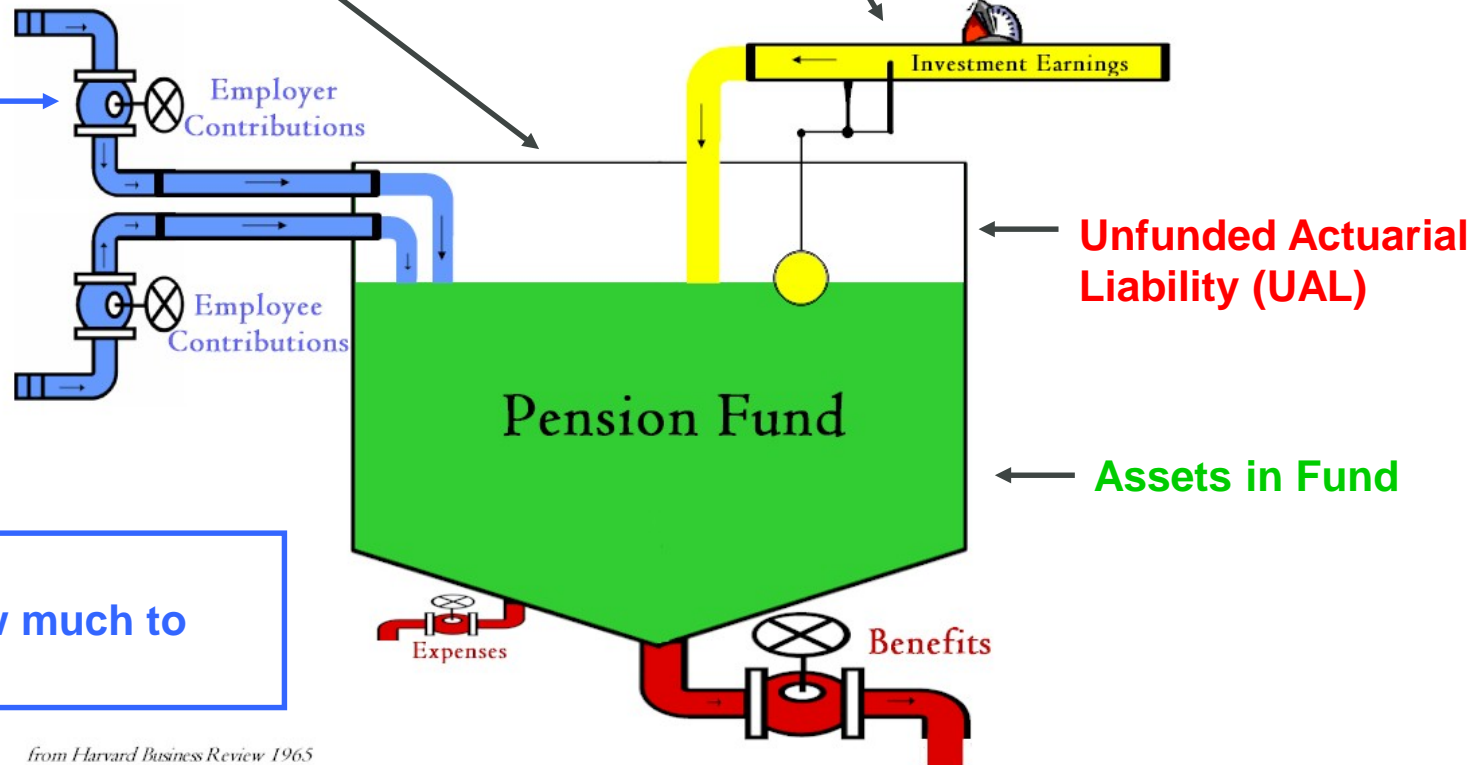
- Background
- Plan Cost for Fiscal Year 2023-2024 based on 2022 Actuarial Valuation
- Plan History
- Plan Projections

Pension Plan Management



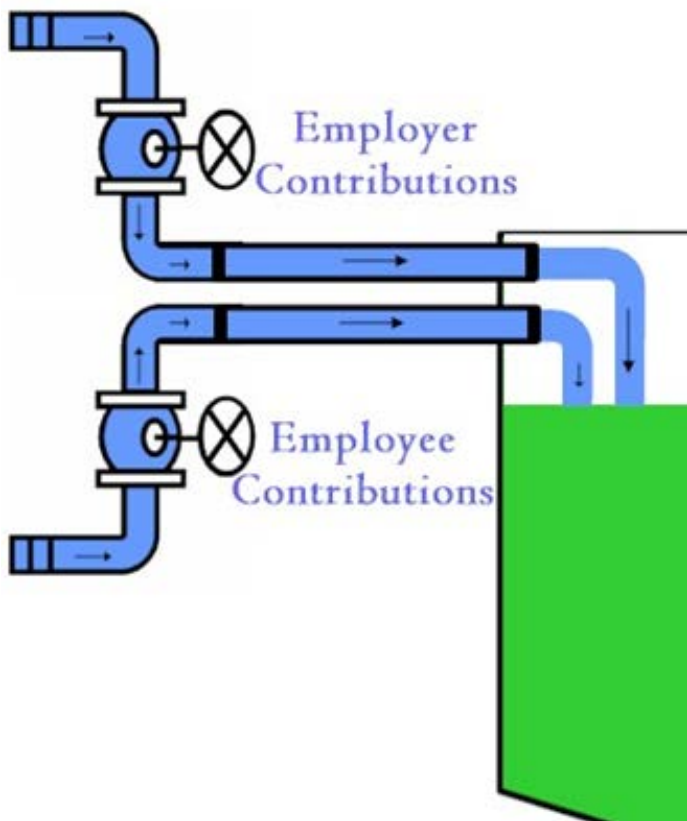
The “Tank” represents the
Plan’s Liabilities

Investment Policy: Determines expected return



from Harvard Business Review 1965

Pension Plan Contributions



Components of the Contribution

1. *Normal Cost*

- Active members' benefits earned during the year
- *Gradual decreases over time for SDTC since Plan is closed to most new employees*

2. *Unfunded Actuarial Liability (UAL) Payment*

- *New layer each year (payment or credit)*
- *Level \$*
- *Last payment for all layers will be on or before FYE 2038*

3. *Expected Administrative Expenses*

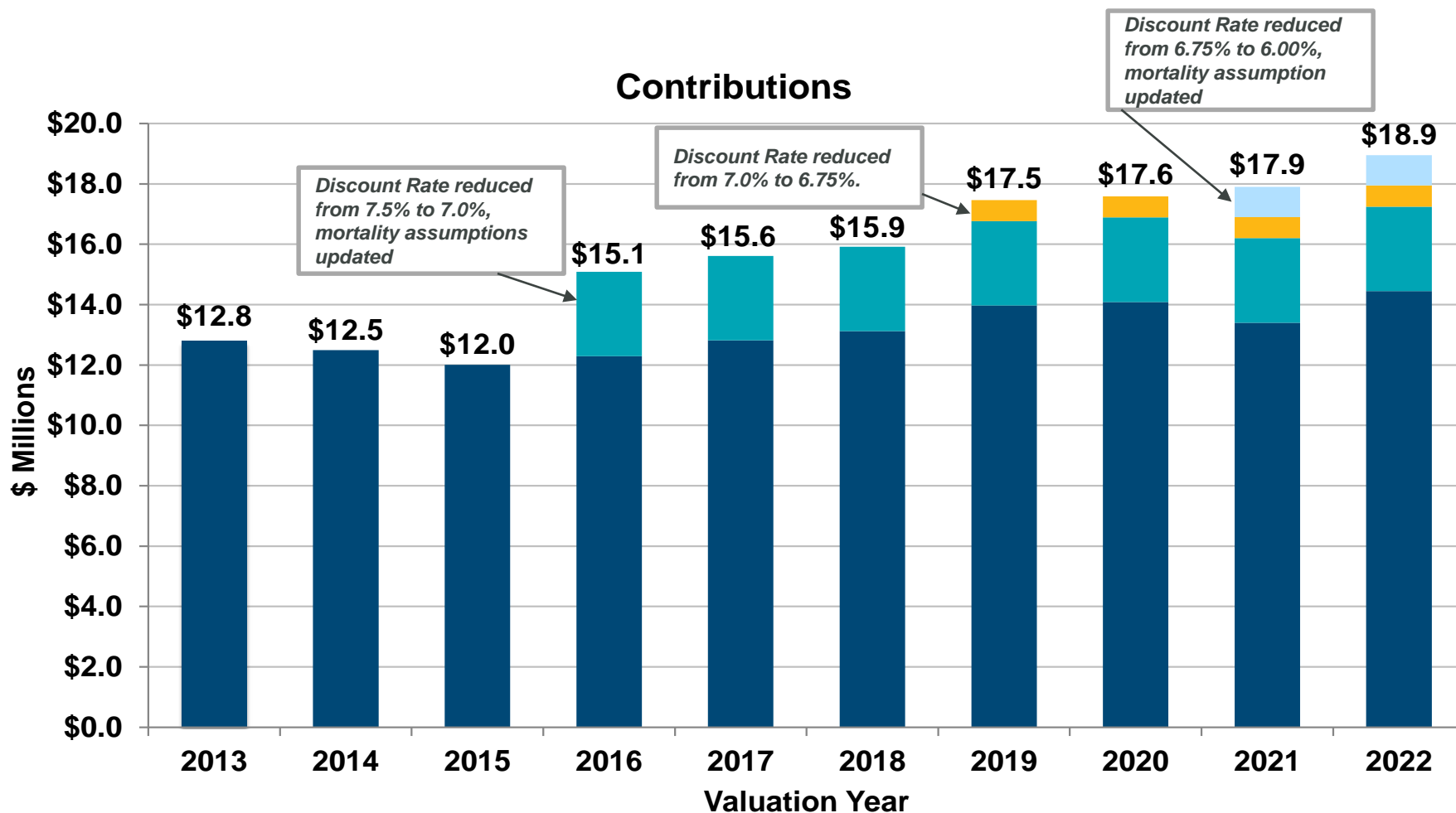
4. *Employer Contributions = 1) + 2) + 3) less Employee Contributions*

Plan Cost – Changes

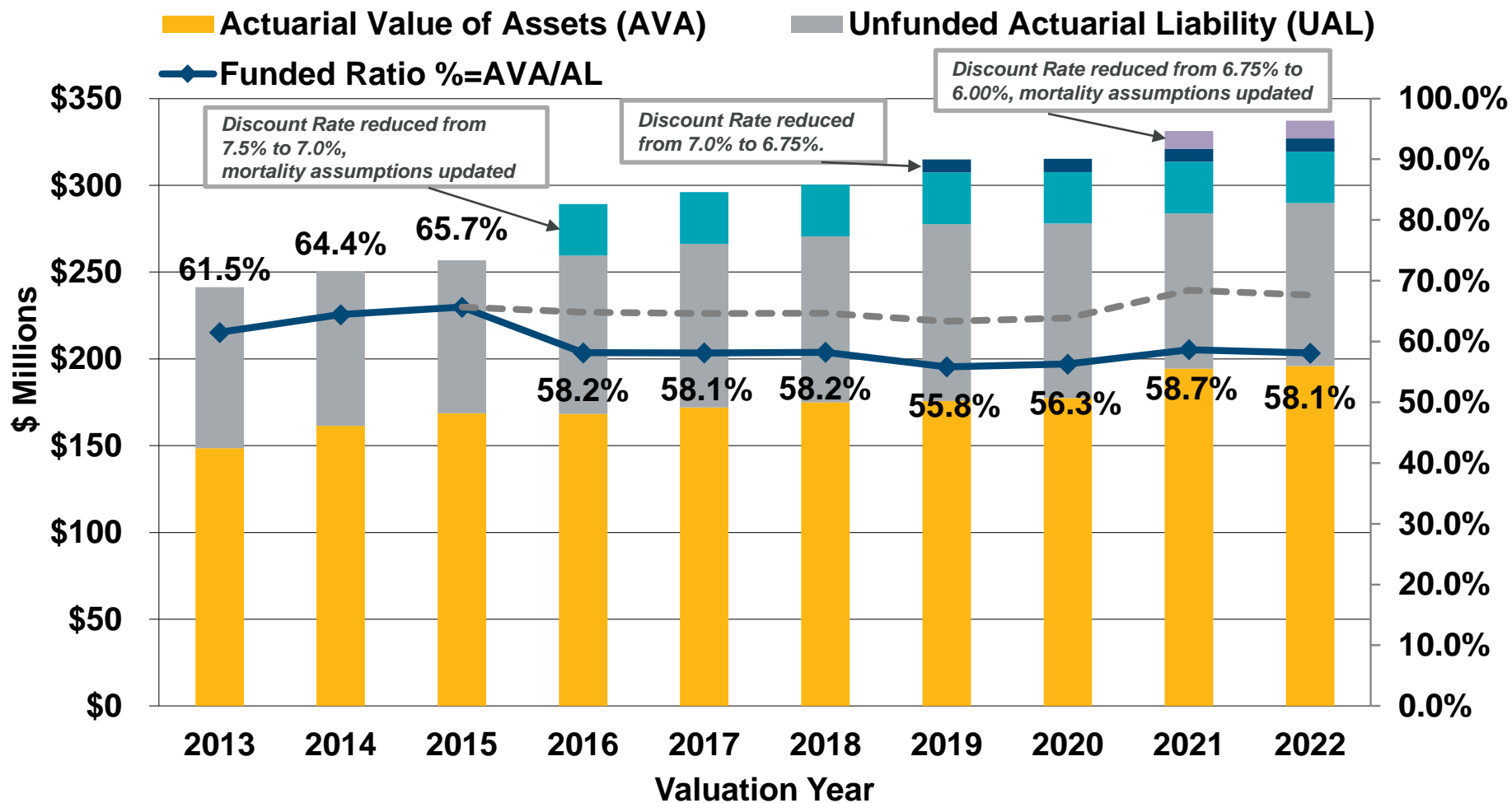


Total Contribution Reconciliation	
Fiscal Year 2022-2023	\$ 17,902,000
Actuarial liability experience	636,000
Actuarial investment experience	
FYE 2022 loss	698,000
FYE 2018-2021 net deferred gains	<u>(193,000)</u>
	505,000
Fewer benefits earned by active membership due to closed plan	(150,000)
Demographic, salary and COLA experience, and other miscellaneous factors	53,000
Fiscal Year 2023-2024	\$ 18,946,000

Plan History – Contributions



Plan History – Funding

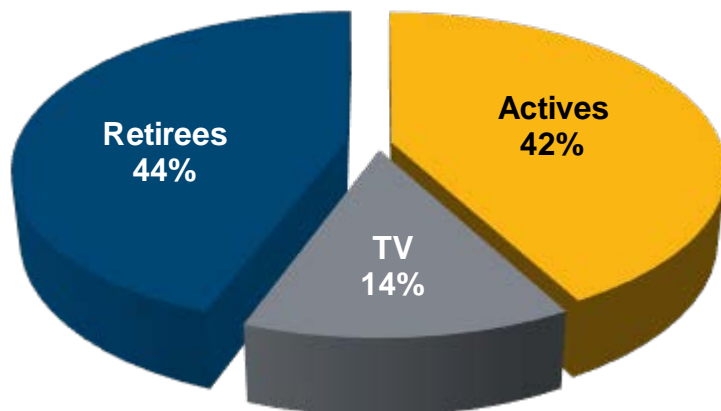


Note: As of July 1, 2022, the Funded Ratio based on the Market Value of Assets is 52.5%.

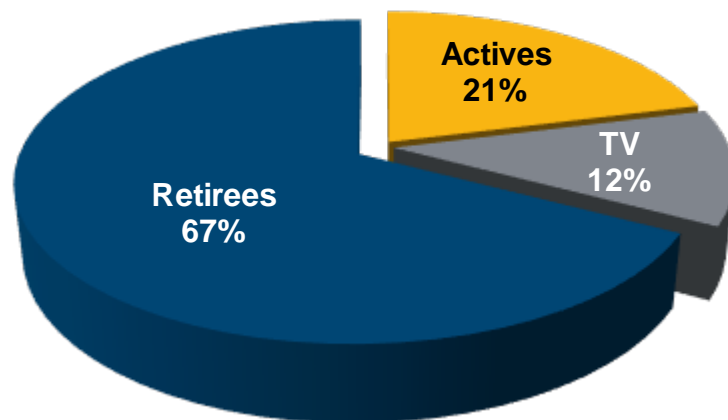
Membership Composition



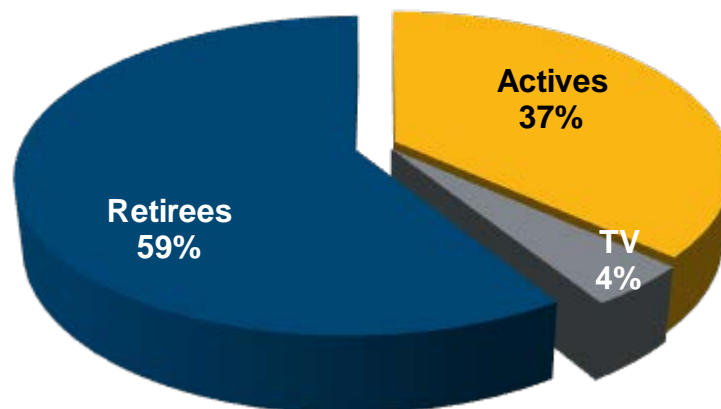
2012 Head Count



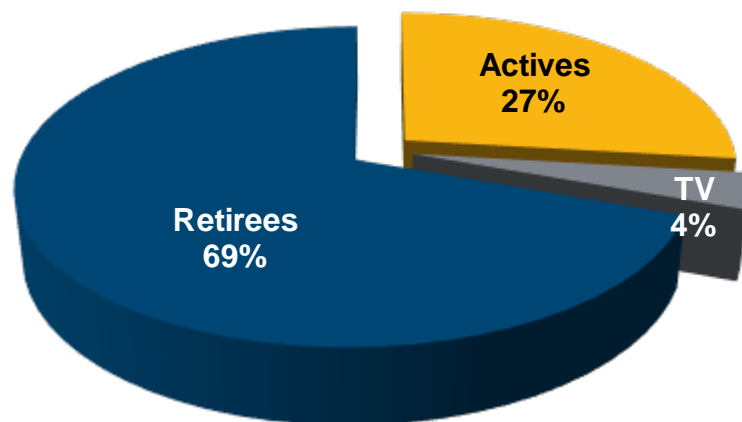
2022 Head Count



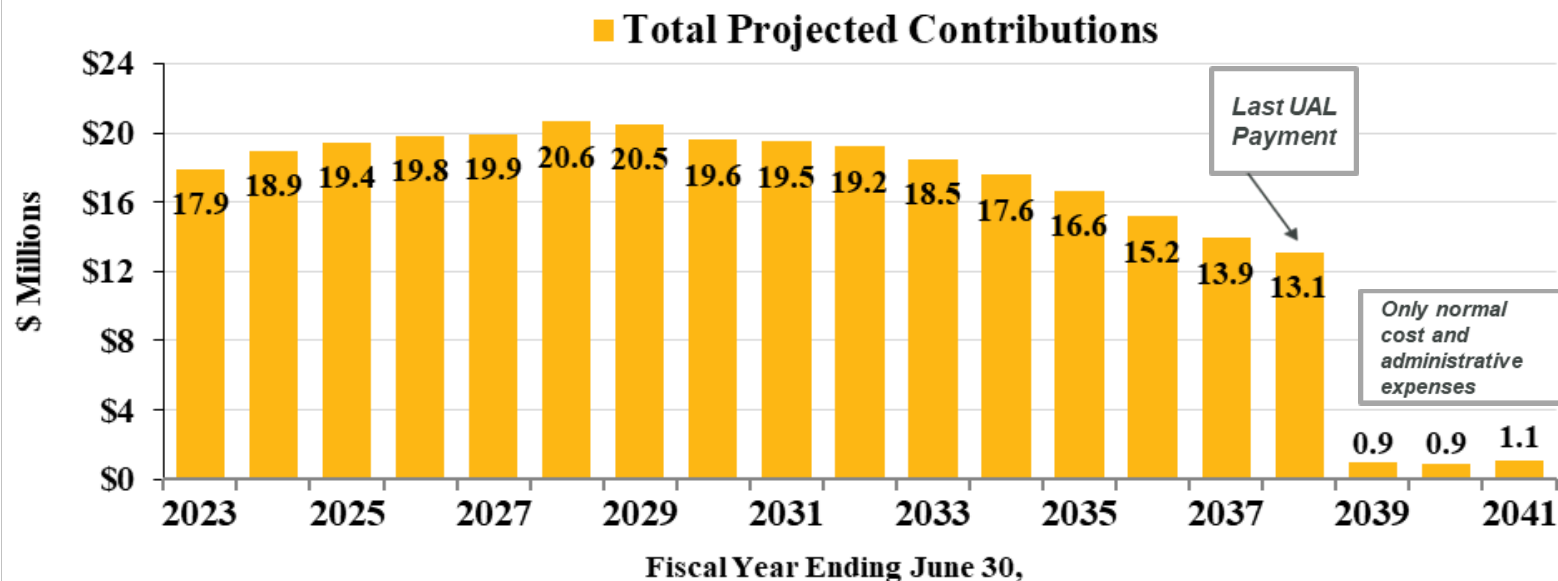
2012 Plan Liabilities



2022 Plan Liabilities

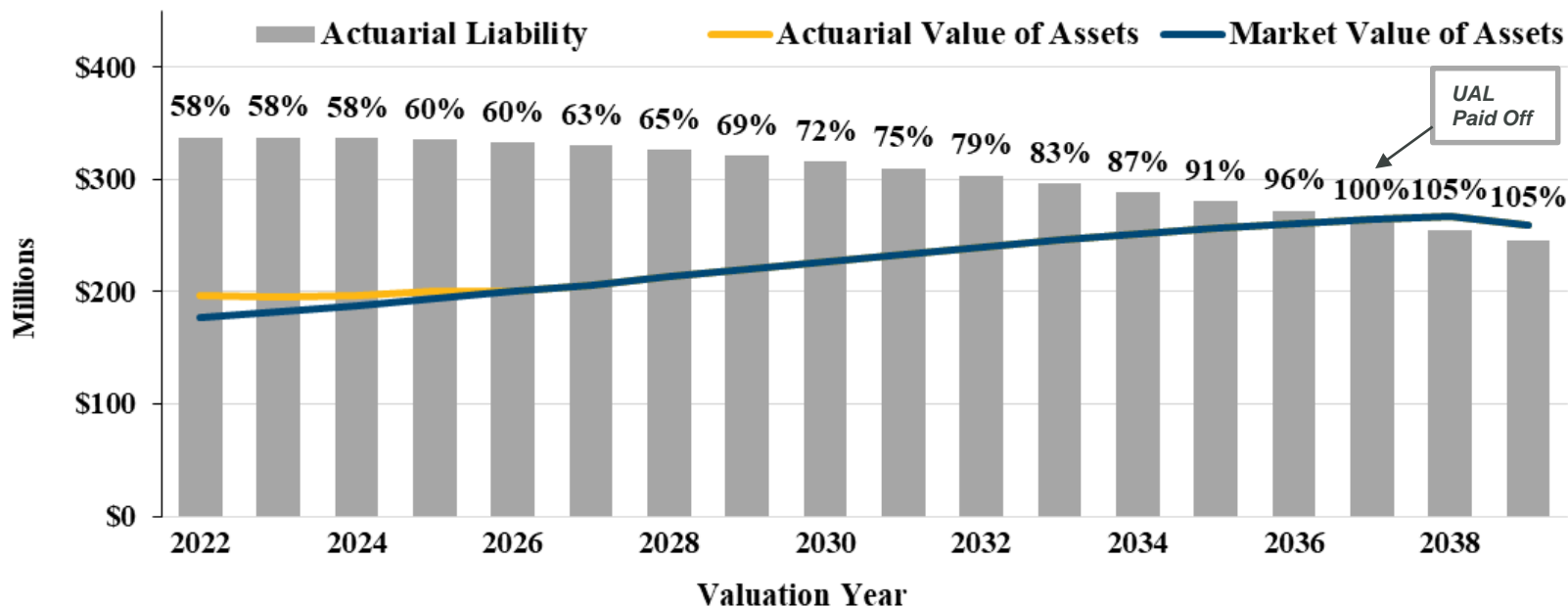


Projected Total Contributions



- Projected contributions have increased due to:
 - Approximately an 11% asset loss for FYE 2022
 - Larger retiree COLAs due to higher inflation
- Total contributions are expected to gradually increase to \$20.6 million in FYE 2028 as net deferred asset losses are recognized
- Thereafter, contributions gradually decrease as the number of active members declines

Projected Funded Ratio



- Slow progress is expected in the funded ratio over the next four years as the 2022 investment losses are phased-in to the Actuarial Value of Assets
- The liabilities are expected to decrease over the period while the assets are expected to grow
- The Plan is still projected to be fully funded by 2037

Board Recommendation

- That the MTS Executive Committee forward a recommendation to the MTS Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2021 (Attachment A), and adopt the pension contribution amount of \$18,946,198 for fiscal year 2024.



The purpose of this presentation is to discuss the July 1, 2022 Actuarial Valuation Results for the Retirement Plans of San Diego Transit Corporation.

In preparing this presentation, we relied on information (some oral and some written) supplied by the plan administrator. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this presentation were developed using P-Scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System. P-Scan uses standard roll-forward techniques that implicitly assume a stable active population.

Future results may differ significantly from the current results presented herein due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in Plan provisions or applicable law. The future outcomes become increasingly uncertain over time, and therefore the general trends and not the absolute values should be considered in the review of these projections.

This presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable law and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared exclusively for the Retirement Board and MTS Board for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary

Alice I. Alsberghe, ASA, EA, MAAA
Consulting Actuary



Agenda Item No. 6

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

February 9, 2023

SUBJECT:

Security Services – Contract Amendment (Al Stiehler)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Executive Committee forward a recommendation to the Board of Directors to authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2359.5-20 (in substantially the same format as Attachment A), with Inter-Con Security Services (Inter-Con), in the amount of \$5,273,494 for Inter-Con contracted employee wage increases for the provision of security services through December 31, 2026.

Budget Impact

The total cost of this contract is estimated to be \$71,443,503.

Base Period			Original	Amended	Change
Year 1	Calendar Year	2022	12,552,054	11,982,252	(569,802)
Year 2	Calendar Year	2023	12,821,879	14,052,485	1,230,606
Year 3	Calendar Year	2024	13,202,690	14,603,094	1,400,403
Base Period Totals			38,576,624	40,637,831	2,061,207
Option Period					
Year 4	Calendar Year	2025	13,594,809	15,175,383	1,580,573
Year 5	Calendar Year	2026	13,998,576	15,630,290	1,631,714
Option Period Totals			27,593,385	30,805,672	3,212,287
Grand Total			66,170,009	71,443,503	5,273,494

Funding will be included in each respective fiscal year's operating budget. Attachment B displays a further projected cost breakdown for calendar years 2022 through 2026.



DISCUSSION:

MTS provides uniformed security personnel at various locations throughout MTS's service area to provide a safe environment for patrons and employees alike. These security personnel have the capability to respond to disturbances and emergencies affecting both trolley and bus services within the MTS service area.

A high-quality security team offers a physical presence serving as a visual and physical deterrent to suspicious and illegal behavior including assault, vandalism and graffiti activities as well as ambassadors of goodwill to MTS passengers. Security personnel also work closely with MTS Code Compliance Inspectors to conduct fare inspections.

MTS awarded a Security Services contract with Inter-Con in July 2021 with the term of the agreement spanning from January 2022 through December 2026.

As the cost of living increases have affected the nation and region, the hiring and retention of security personnel, our front-line employees, has become a growing challenge. Competition for labor, the higher cost of living in San Diego, and a job market that has seen unprecedented wage increases has made attracting new and retaining security personnel extremely difficult at the current contract wage rates.

Over the past several months, Inter-Con and MTS staff have discussed and negotiated wage increases for Inter-Con security personnel and the resulting contract impacts for MTS. Today's proposed action would approve additional funding to increase contract security pay rates through the contract expiration date of December 31, 2026.

The following table reflects the proposed increase in employee wage rates for the current calendar year 2023. Billable rates to MTS include a 47.6% overhead factor to incorporate employer costs such as health benefits, retirement costs, payroll taxes, etc. Year 2 wages shall be increased as follows, which results in a net 9.6% increase of 2023 wage rates:

Security Personnel	CY 2023 Original	CY 2023 Amended	Change
Armed Security	20.59	22.00	1.41
Unarmed Officer	16.48	20.00	3.52
Armed Lieutenant - Salaried	28.83	29.00	0.17
Armed Sergeant	23.17	24.00	0.83
Armed Captain - Salaried	44.56	45.00	0.44
Dispatch / CCTV Officer - Step A	17.50	21.00	3.50
Dispatch / CCTV Officer - Step B	18.02	21.00	2.98
Administrative - Salaried	25.74	26.00	0.26
Trainer - Salaried	28.83	29.00	0.17
Event Staff	15.45	15.45	-

* Inter-Con billable rates to MTS include a 47.6% overhead rate

Wage rates will increase by an additional 4% for Year 3, 4% for Year 4, and 3% for Year 5.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. G2359.5-20 (in substantially the same format as Attachment A), with Inter-Con, in the amount of \$5,273,494 for Inter-Con contracted employee wage increases for the provision of security services through December 31, 2026.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. G2359.5-20
B. Cost Proposal Form

Amendment 5

February 16, 2023

MTS Doc No. G2359.5-20

SECURITY SERVICES

Inter-Con Security Systems, Inc. dba Inter-Con Security
36TNeil Martau
Chief Administrative Officer
210 S. De Lacey Avenue
Pasadena, CA, 91105

This shall serve as Amendment No.5 to the original agreement G2359.0-20 as further described below.

SCOPE

Pursuant to the Scope of Work of the San Diego Metropolitan Transit System (MTS) both parties agree to a wage increase on all security personnel. Wages rates shall be increased as follows:

- Year 2 (January 1, 2023 through December 31, 2023)

Security Personnel	CY 2023 Original	CY 2023 Amended	Change
Armed Security - Step A	20.59	22.00	1.41
Armed Lieutenant - Salaried	28.83	29.00	0.17
Armed Sergeant - Step A	23.17	24.00	0.83
Unarmed Officer - Step A	16.48	20.00	3.52
Dispatch / CCTV Officer - Step A	17.50	21.00	3.50
Dispatch / CCTV Officer - Step B	18.02	21.00	2.98
Armed Captain - Salaried	44.56	45.00	0.44
Administrative - Salaried	25.74	26.00	0.26
Trainer - Salaried	28.83	29.00	0.17
Event Staff	15.45	15.45	-

* Inter-Con billable rates to MTS include a 47.6% overhead rate

- Year 3 (January 1, 2024 through December 31, 2024) – **4%**
- Year 4 (January 1, 2025 through December 31, 2025) – **4%**
- Year 5 (January 1, 2026 through December 31, 2026) – **3%**

SCHEDULE

There shall be no change to the schedule of the contract.

PAYMENT

This contract amendment shall authorize additional costs not to exceed \$5,273,494 (\$2,061,207 for base years and \$3,212,287 for option years, if exercised) as reflected below:

Base Period			Original	Amended	Change
Year 1	Calendar Year	2022	12,552,054	11,982,252	(569,802)
Year 2	Calendar Year	2023	12,821,879	14,052,485	1,230,606
Year 3	Calendar Year	2024	13,202,690	14,603,094	1,400,403
Base Period Totals			38,576,624	40,637,831	2,061,207
Option Period					
Year 4	Calendar Year	2025	13,594,809	15,175,383	1,580,573
Year 5	Calendar Year	2026	13,998,576	15,630,290	1,631,714
Option Period Totals			27,593,385	30,805,672	3,212,287
Grand Total			66,170,009	71,443,503	5,273,494

The total value of this contract including this amendment shall be in the amount of \$40,665,279. 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,

Agreed:

Sharon Cooney, Chief Executive Officer

46T36TNeil Martau, 48TChief
Administrative Officer
Inter-Con Security Systems, Inc. dba
Inter-Con Security

Date: _____

Attachment A

	Proposed Amendment - EmployEe Wage Increase					
	Year 1*	Year 2	Year 3	Year 4	Year 5	Total
Armed Security		6,483,315	6,742,648	7,012,354	7,222,724	27,461,041
Armed Lieutenant - Salaried		267,068	277,751	288,861	297,527	1,131,208
Armed Sergeant		957,762	996,073	1,035,916	1,066,993	4,056,745
Unarmed Officer		3,745,097	3,894,901	4,050,697	4,172,218	15,862,912
Dispatch / CCTV Officer - Step A		644,648	670,434	697,251	718,169	2,730,501
Dispatch / CCTV Officer - Step B		64,465	67,043	69,725	71,817	273,050
Armed Captain - Salaried		138,139	143,664	149,411	153,893	585,107
Administrative - Salaried		319,254	332,024	345,305	355,664	1,352,248
Trainer - Salaried		89,023	92,584	96,287	99,176	377,069
Provide hourly rate for event staff		227,951	237,069	246,552	253,949	965,521
Bodycam Reclass from Base to Fixed (Amend 3)**		(88,612)	(88,612)	(88,612)	(88,612)	(354,448)
Overtime		877,204	903,257	930,083	957,707	3,668,250
Actual + Projection	11,650,573					
Total Wages	11,650,573	13,725,314	14,268,836	14,833,830	15,281,225	58,109,205
Weapons & Ammo	25,287	26,038	26,811	27,607	28,427	134,169
Vehicle Equipment	11,130	11,461	11,801	12,151	12,512	59,055
Visiologix Bodycameras	24,164	24,882	25,621	26,382	27,166	128,215
Equipment Add (Amendment 2)	1,855	1,910	1,967	2,025	2,085	9,842
Fixed Equipment	62,436	64,290	66,200	68,166	70,190	331,282
Auto Insurance	63,188	65,065	66,997	68,987	71,036	335,274
Auto Insurance Add (Amendment 2)	10,532	10,844	11,167	11,498	11,840	55,881
Fixed Insurance	73,720	75,909	78,164	80,485	82,876	391,155
(Optional) Cost for Bodycam video storage	41,552	42,787	44,057	45,366	46,713	220,475
Bodycam Reclass from Base to Fixed (Amend 3)**	-	88,612	88,612	88,612	88,612	354,448
On The Job Training (OJT) (Amendment 1)	100,000	-	-	-	-	100,000
Fixed Other	141,552	131,399	132,669	133,978	135,325	674,923
Profit	53,971	55,574	57,224	58,924	60,674	286,366
After Proposed Amendment Grand Total	11,982,252	14,052,485	14,603,094	15,175,383	15,630,290	71,443,503
Current Contract Grand Total	12,552,054	12,821,879	13,202,690	13,594,809	13,998,576	66,170,009
Net Change After Proposed Amendment	(569,802)	1,230,606	1,400,403	1,580,573	1,631,714	5,273,494

*Year 1 wage total reflects actual costs incurred

**Note that Bodycam cost was moved from variable cost category to fixed with Amendment 3

Attachment A	Current Contract					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Armed Security	5,893,923	6,068,972	6,249,221	6,434,823	6,625,937	31,272,876
Armed Lieutenant - Salaried	257,859	265,518	273,403	281,523	289,885	1,368,188
Armed Sergeant	897,902	924,570	952,030	980,305	1,009,420	4,764,227
Unarmed Officer	2,996,077	3,085,061	3,176,687	3,271,035	3,368,185	15,897,045
Dispatch / CCTV Officer - Step A	521,858	537,357	553,316	569,750	586,672	2,768,953
Dispatch / CCTV Officer - Step B	53,721	55,316	56,959	58,651	60,393	285,039
Armed Captain - Salaried	132,828	136,773	140,835	145,018	149,325	704,780
Administrative - Salaried	306,975	316,092	325,480	335,147	345,101	1,628,796
Trainer - Salaried	85,953	88,506	91,134	93,841	96,628	456,063
Provide hourly rate for event staff	221,376	227,951	234,721	241,693	248,871	1,174,612
Bodycam Reclass from Base to Fixed (Amend 3)	-	-	-	-	-	-
Overtime	851,902	877,204	903,257	930,083	957,707	4,520,152
Actual + Projection						
Total Wages	12,220,375	12,583,320	12,957,045	13,341,869	13,738,122	64,840,731
Weapons & Ammo	25,287	26,038	26,811	27,607	28,427	134,169
Vehicle Equipment	11,130	11,461	11,801	12,151	12,512	59,055
Visiologix Bodycameras	24,164	24,882	25,621	26,382	27,166	128,215
Equipment Add (Amendment 2)	1,855	1,910	1,967	2,025	2,085	9,842
Fixed Equipment	62,436	64,290	66,200	68,166	70,190	331,282
Auto Insurance	63,188	65,065	66,997	68,987	71,036	335,274
Auto Insurance Add (Amendment 2)	10,532	10,844	11,167	11,498	11,840	55,881
Fixed Insurance	73,720	75,909	78,164	80,485	82,876	391,155
(Optional) Cost for Bodycam video storage	41,552	42,787	44,057	45,366	46,713	220,475
Bodycam Reclass from Base to Fixed (Amend 3)	-	-	-	-	-	-
On The Job Training (OJT) (Amendment 1)	100,000	-	-	-	-	100,000
Fixed Other	141,552	42,787	44,057	45,366	46,713	320,475
Profit	53,971	55,574	57,224	58,924	60,674	286,366
Grand Total	12,552,054	12,821,879	13,202,690	13,594,809	13,998,576	66,170,009

Contract Amendment Proposal Inter-Con Security

February 9, 2023

Background / Contract Details

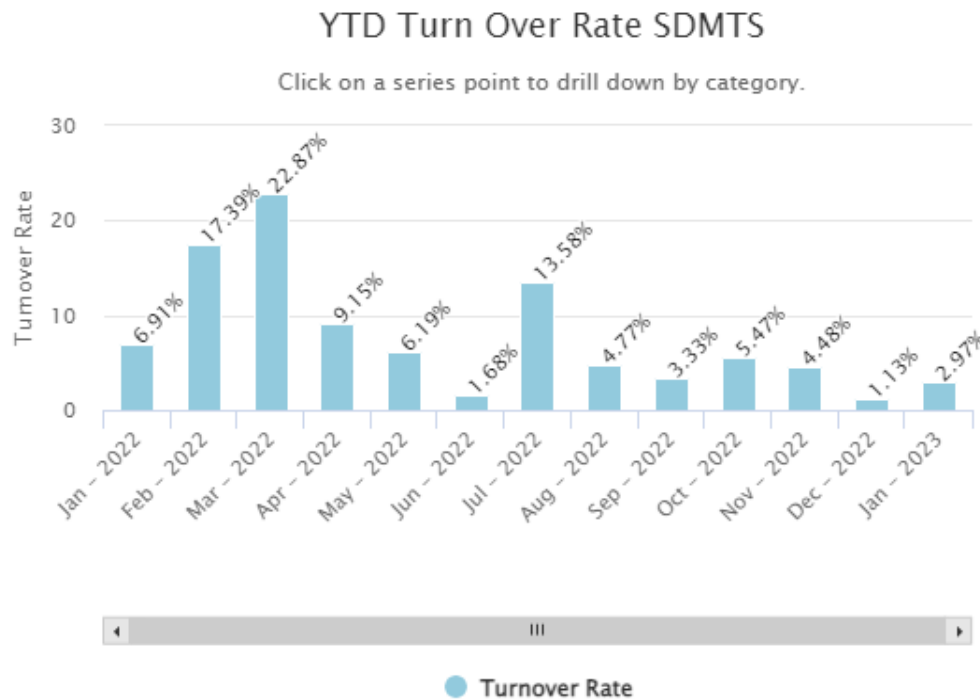
- San Diego MTS Board of Directors approved the agreement between MTS and Inter-Con Security on July 29, 2021
- Contract with Inter-Con Security executed for the provision of security services throughout the MTS service area
- Contract spans over three base years (2022-2024) and an option for two additional years (2025-2026) in the amount of \$66,004,286.

Background / Contract Details

- A total of 190 contracted personnel:
 - 96 Armed Officers
 - 61 Unarmed Officers
 - 17 Armed Supervisors (Sergeants, Lieutenants, Captain)
 - 11 Dispatch Personnel
 - 5 Administrative Personnel
- Three contract amendments included over the past year increasing total contract by \$166k
 - Billable On the Job Training (\$100k – approved Dec 2021)
 - Additional insurance and equipment for vehicles. (\$66k)
- Updated contract totals \$66,170,009

Personnel Turnover

- Cumulative turnover in 2022 at 97.0%
- Monthly average turnover: Jan 2022-Jun 2022 was 10.7%
- 6 months July to December the average turnover rate was 5.9%.



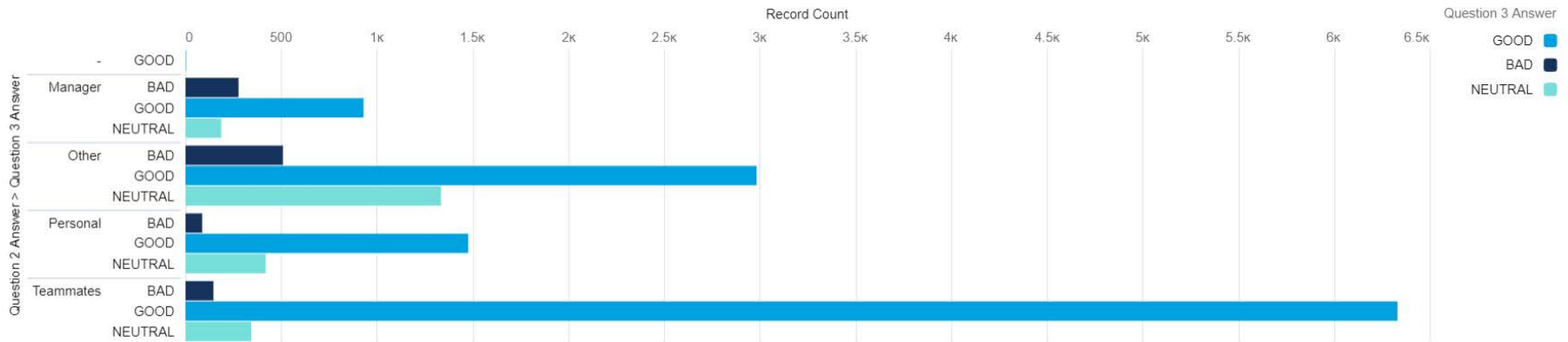
Health Report – “How was your shift?”

January 1 – June 2022

- Over 4,800 responses
- 1,900 (40%) happy with shift because of their “teammates”
- 72.5% are happy with work shift
- Neutral- 17.3%
- Bad- 10.2%

July 1 – Dec 2022

- Over 10,200 responses
- 4,400 (43%) happy with shift because of their “teammates”
- 80.6% are happy with work shift
- Neutral- 14.2%
- Bad- 5.2%



Contract Amendment Request

- Cost of living increases have affected the nation and region.
- Challenges in the hiring and retention of security personnel, our front-line employees.
- Competition for labor.
- Higher cost of living in San Diego.
- Unprecedented wage increases in the job market has made attracting new and retaining security personnel extremely difficult.

Proposed Changes

Security Personnel	CY 2023 Original	CY 2023 Amended	Change
Armed Security	20.59	22.00	1.41
Unarmed Officer	16.48	20.00	3.52
Armed Lieutenant - Salaried	28.83	29.00	0.17
Armed Sergeant	23.17	24.00	0.83
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Event Staff	15.45	15.45	-

* Inter-Con billable rates to MTS include a 47.6% overhead rate

- Wage rates will increase by 4%/4%/3% over the subsequent three calendar years of the contract.

Cost Analysis

Base Period			Original	Amended	Change
Year 1	Calendar Year	2022	12,552,054	11,982,252	(569,802)
Year 2	Calendar Year	2023	12,821,879	14,052,485	1,230,606
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Option Period Totals			27,593,385	30,805,672	3,212,287
Grand Total			66,170,009	71,443,503	5,273,494

MTS Customer Satisfaction Survey Results - 2022

Final Survey Question:

- Briefly tell us what changes would make the biggest difference in improving your transit experience?
- 869 responses to final questions (approx. half of total survey participants)

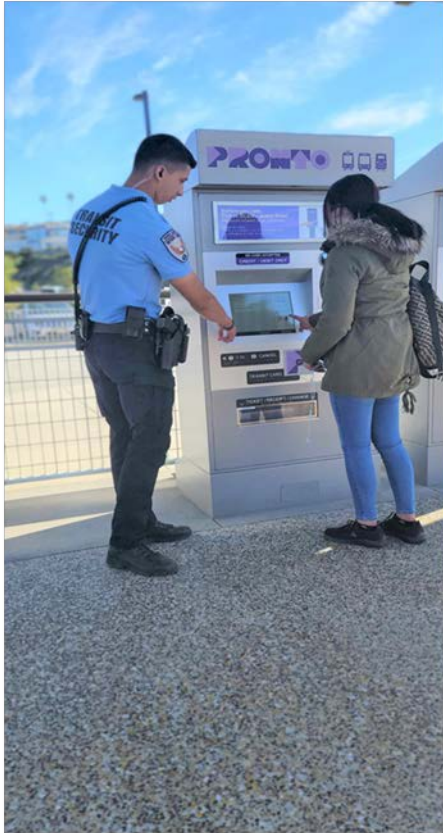


MTS Customer Satisfaction Survey Results - 2022

- Challenge – Security can mean different things to different people
- MTS advisory groups recommended follow-up research specific to this topic
- Passenger focus groups set for Feb 22-23 to discuss further



Re-imaging Security



Options

- Increase Code Compliance Inspector Staffing
- Increase contract security supplement
- Modify personnel mix between armed and unarmed
- Include law enforcement component
 - Contract
 - In-house

Recommendation

That the MTS Executive Committee forward a recommendation to the MTS Board of Directors authorize the CEO to execute MTS Doc. No. G2359.5-20 (in substantially the same format as Attachment A) with Inter-Con Security Services, in the amount of \$5,273,494 for Inter-Con contracted employee wage increases for the provision of security services through December 31, 2026.

Contract Amendment Proposal

Inter-Con Security

February 9, 2023



Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

February 9, 2023

SUBJECT:

Spring Street Station Transit-Oriented Development (Sean Myott)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Executive Committee authorize the Chief Executive Officer to execute an Exclusive Negotiation Agreement (ENA) with Affirmed Housing (Affirmed) for a Spring Street Station Transit-Oriented Development Project, in substantially the same format as Attachment A.

Budget Impact

None. Today's proposed action simply authorizes MTS staff to enter negotiations with Affirmed. The final scope of development, price, and terms of payment will be negotiated and brought to the MTS Board for review and approval at a future meeting. Any outside consultant costs that MTS incurs during the negotiation period will be paid for with a \$25,000 deposit from Affirmed.

DISCUSSION:

Background

During the 2018 to 2019 time period, MTS updated its Joint Development Program policy documents: Board Policy 18 and a new Joint Development Policy Manual. Those documents established a process for MTS review of unsolicited development proposals, including a process to post a notice of receipt of an unsolicited proposal for at least 30 days. Unsolicited proposals are brought to the Executive Committee for review and consideration of whether to proceed with an ENA. Final development proposals are brought to the full MTS Board for approval after the scope, price, and other terms have been negotiated.

In early 2020, the City of La Mesa (City) initiated The La Mesa Transit-Oriented Development Feasibility Study (TOD Study) utilizing funding from the State Sustainable Communities grant program. The Study evaluated Transit-Oriented Development (TOD) opportunities at the Spring Street and Amaya Drive Stations.

In compliance with Assembly Bill 1486 (AB 1486) and the Surplus Land Act, on July 30, 2020 (AI 30), the MTS Board took action to declare the Spring Street Station site to be "surplus land".



On August 21, 2020, MTS sent a Notice of Availability of the Spring Street Station property in compliance with AB 1486. No Notice of Interest was received under the AB 1486 process.

On November 1, 2021, MTS received an unsolicited proposal for a TOD at the Spring Street Station from Affirmed Housing. The City completed the TOD Study in December 2021. On September 12, 2022, MTS posted a notice of receipt of an unsolicited proposal. Within the 30-day posting window, MTS received additional TOD proposals from Chelsea Investment Corporation (Chelsea) and USA Properties Fund Incorporated (USA).

Current Use and Continuing Transit Needs

When making a transit center available for a potential joint development project, MTS staff first reviews the current and potential future transit operational needs at the site. MTS's first priority is to make sure it can continue to provide safe and efficient transit services at each site, and that a development project will not unduly impair MTS's ability to improve or expand anticipated transit services in the future. If operational concerns are not identified that would make a development project infeasible, then staff works with proposers to develop a scope of work that meets MTS's transit needs and achieves other policy goals set by the Board. Current policy goals identified are: maintain sufficient space and parking for transit operations and riders, increase ridership, increase density and spur economic development in and around transit, support the region's affordable housing goals, and require the payment of prevailing wage and use of skilled labor for such projects.

The Spring Street Station is currently served by the Orange Line trolley and bus routes 851 and 855. There are 295 parking spaces but MTS staff observed that not all of the parking sites were being utilized. About ten years ago, MTS fenced off 115 of the spaces to be used as construction material staging for MTS track improvement projects. This construction staging area minimized track improvement project costs by allowing MTS contractors and employees to stage on MTS property instead of leasing private property for staging. As a result, 180 parking spaces presently remain open for transit passenger use.

Figure 1 –
Current Use



TOD Proposals

Affirmed, Chelsea and USA put forth viable and competitive proposals for the Spring Street Station. Figures 2 – 5 provides an overview of their vision for the Spring Street Station.

Figure 2 – Proposal Summary

Item	Affirmed	Chelsea	USA
Housing – Units	Affordable Unit Count: 152	Affordable Unit Count: 80	Affordable Unit Count: 173
Housing – Square Feet	Affordable Unit: 123,282 sf	Affordable Unit: 61,242 sf	Affordable Unit: 112,220 sf
Bedroom Count	264	194	244
Occupancy - No Fed. Assistance Formula¹	630	468	661
Occupancy - Fed. Assistance Formula²	396	291	366
Unit Types	Studio = 50 1 Bed = 28 2 Bed = 36 3 Bed = 38	1 Bed = 12 2 Bed = 30 3 Bed = 30 4 Bed = 8	1 Bed = 111 2 Bed = 53 3 Bed = 9
MTS Replacement Parking³	63 spaces / 36% replacement	135 spaces / 75% replacement	140 spaces / 78% replacement
Bus Path of Travel	No Change	Increase	Increase
Financial Concerns	No	No	Yes
Public and Bus Driver Restroom Construction	Yes	Yes	Yes
Public Bus Driver Restroom Long Term Maintenance	Yes	Yes	Maybe
Community or Commercial Space	~1,200 sf	3,627 sf	~3,000 sf

¹ No Federal Assistance Formula occupancy was calculated using the 2+1 formula. The formula calculates the occupancy of a unit as two persons per each bedroom plus one additional person in the common area of the unit.

² Federal Assistance Formula occupancy was calculated by multiplying 1.5 times the number of bedrooms.

³ Calculated using the 180 present day available transit spaces

Figure 3 – Affirmed Site Layout



Figure 4 – Chelsea Site Layout



Figure 5 – USA Site Layout
Spring Street Station Site Plan



TOD Proposal Discussion

When MTS staff has multiple competing proposals for an ENA, MTS staff evaluates the best negotiation starting point for an ENA. MTS staff is cognizant that during ENA negotiations, proposals change based on site due diligence, market factors, and negotiations between the development partner and MTS. MTS is in the enviable position of evaluating multiple proposals as an ENA negotiation starting point. MTS staff is aware that there may be more than one capable development partner. Therefore, at this stage, MTS staff is not choosing the best final proposal but choosing the best development partner with the best development proposal starting point to execute an ENA.

The Chelsea proposal replaced a significant amount of parking and provided the shortest financial and construction timelines. This was accomplished by the proposal of a smaller building size, allowing for a less complicated financial funding structure. The smaller building size also did not propose any development for the southern parcel, which resulted in high rate of MTS transit replacement parking. Chelsea did commit to construction and long-term maintenance of public and bus driver restroom facilities to be incorporated into the proposal. Of the three proposals, the Chelsea proposal provided the least amount of housing by square footage, bedroom count, and occupancy counts. By avoiding development on the southern parcel, MTS staff felt that the Chelsea proposal would be a missed opportunity, leaving MTS with a half-developed site. Additionally, by building only on the northern parcel, the bus turn-around area was moved to the southern parcel, increasing transit passenger and bus travel times.

The USA proposal maximized unit count and MTS replacement parking. USA proposed a parking garage wrapped with housing as well as a standalone second housing building. This allowed for the USA proposal to provide more MTS replacement parking and housing units than

the competing proposals. Digging deeper into the housing metrics, the unit design emphasized one-bedroom units, explaining the high unit count metrics. When analyzing bedroom and square footage, the USA design had less bedrooms and square footage compared to the Affirmed proposal. As with the Chelsea proposal, the USA proposal required the bus-turn around area to be moved to the south, increasing transit passenger and bus travel times. When analyzing the proposed financing of the USA proposal, USA relied heavily on the award of a State of California Affordable Housing Sustainable Communities (AHSC) grant. The AHSC program is a highly competitive, statewide program that in recent years has awarded very few grants in the San Diego area. An assumption that this project will be awarded an AHSC grant presents a risk to USA's ability to complete the project. Lastly, while USA proposed construction of public and bus driver restrooms, USA was hesitant to commit to long term maintenance obligations.

The Affirmed proposal provided the best site utilization and balance of housing unit types. The proposed building footprint straddled both MTS owned parcels to maximize housing while not increasing bus and transit passenger travel times. Affirmed proposed a more balanced mix of studio, one-, two-, and three-bedroom units. The result is that while the USA proposal has 23 more units than the USA proposal, the Affirmed proposal has 20 more bedrooms and 11,062 more square feet of housing. Affirmed also committed to the construction and long-term maintenance of public and bus driver restroom facilities to be incorporated into the proposal. Affirmed's financial proposal avoided AHSC financing and instead focused on County Innovative Housing Trust Funding, CA Housing and Community Development Infill and Infrastructure Grants and Transit Oriented Development Grants, with a mix of federal and state tax credits. The biggest drawback to the Affirmed proposal was the 36% MTS transit replacement parking. While Affirmed's parking replacement ratio was based on an independent parking memo, the memo was based on a small sample size of data from July 2021 when ridership was depressed due to the COVID-19 pandemic. MTS staff will be negotiating a replacement parking ratio based upon the forthcoming MTS Parking Study, due to be completed in April 2023.

Today's proposed action would authorize the CEO to execute an Exclusive Negotiation Agreement with Affirmed for a Spring Street Station Transit-Oriented Development Project (ENA), in substantially the same format as Attachment A.

If approved, then staff will engage in more detailed negotiations with Affirmed to refine the proposed site plan, unit mix, parking facilities, and other project features before coming back to the full MTS Board of Directors with a proposed Disposition and Development Agreement for the final project.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Draft Exclusive Negotiation Agreement

**EXCLUSIVE NEGOTIATION AGREEMENT
BY AND BETWEEN**

San Diego Metropolitan Transit System

AND

Affirmed Housing Group, Inc.

THIS EXCLUSIVE NEGOTIATION AGREEMENT ("Agreement") is made and entered into this 16th day of February, 2023 ("Effective Date"), by and between the **San Diego Metropolitan Transit System**, a public body, corporate and politic ("Agency"), on the one hand, and **Affirmed Housing Group, Inc.** ("Developer"), on the other hand, individually referred to herein as the "Party" and collectively referred to herein as the "Parties", with reference to the following:

RECITALS

- A. Agency is the owner and/or controlling governmental agency of the Spring Street Trolley Station (defined below as the "Site");
- B. On July 30, 2020, as required by Government Code section 54221(b), the Agency Board declared the Site to be "surplus land";
- C. On August 21, 2020, Agency issued a Notice of Availability for the Site under Government Code section 54222 and did not received any notices of interest in response;
- D. On or about November 1, 2021, Developer submitted to Agency an unsolicited development proposal for the Site for a multi-family residential project ("Proposed Project") (Exhibit A);
- E. Per Agency Policies and Procedures No. 18 – JOINT DEVELOPMENT PROGRAM, approved by the Agency Board on July 25, 2019, Agency publicly noticed the receipt of an unsolicited development proposal for 30 days for other development interests to submit a competing proposal;
- F. During the 30-day notice period, Agency received two additional competing proposals;
- G. Agency reviewed all three development proposals and determined that the Developer's Proposed Project was the preferred proposal for the Site;
- H. Agency and Developer desire to enter into negotiations concerning the development of the Site; and
- I. Developer and Agency desire to enter into this Agreement, with the purpose of this Agreement being to negotiate the terms of a Disposition and Development Agreement (DDA) which will accomplish the objectives described in this Agreement.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES CONTAINED HEREIN, AND OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED BY EACH OF THE PARTIES HERETO, THE PARTIES HERETO AGREE AS FOLLOWS:

Section 1. RECITALS

The Recitals set forth above are hereby incorporated into this Agreement by this reference, as though fully set forth herein.

Section 2. THE SITE

The Site is composed of certain real property located at the Spring Street Trolley Station in the City of La Mesa, shown in the map attached hereto as Exhibit B and incorporated herein by this reference.

Section 3. PURPOSE OF AGREEMENT

A. The purpose of this Agreement is to provide for the negotiation by the Parties of a DDA, which shall take into consideration, among other items, each of the following:

(i) Developer's execution of a long-term ground lease of the Site for the purpose of developing the Site with a multi-family residential project.

(ii) The coordination of the planning, design and construction of the Proposed Project to maximize the Proposed Project's compatibility with the abutting and adjacent uses, and to minimize environmental, traffic and other impacts on the abutting and adjacent uses.

(iii) Developer will be solely responsible for all development costs of their Proposed Project, except for any loans or funding that may be provided by the Agency under the DDA.

(iv) Payment of financial consideration to the Agency for conveyance of a long-term ground lease interest in the Site to the Developer for purposes of developing the Proposed Project.

(v) Such other provisions regarding the participation and responsibilities of the Developer and the Agency deemed necessary or advisable by the Agency to further the purpose of developing the Proposed Project, revitalizing the area around the Site and meeting all applicable legal requirements.

B. Notwithstanding any provisions of this Agreement, Developer acknowledges and agrees that nothing in this Agreement shall obligate the Agency to approve a DDA or the Proposed Project or shall otherwise expressly or impliedly obligate the Agency to sell any property or interests therein. Developer further acknowledges and agrees that the approval of this Agreement and a DDA and the participation in any portion of the Proposed Project by the Agency shall be in the sole and absolute discretion of the Agency. Developer further acknowledges and agrees that this Agreement does not confer upon Developer the right to have a DDA, the Proposed Project or any portion of the Proposed Project approved by the Agency. The Parties in no way intend for this Agreement to waive or restrict the Agency's exercise of its independent, discretionary judgment with regard to a DDA and any and all portions of the Proposed Project.

Section 4. EXCLUSIVE RIGHT TO NEGOTIATE

A. The Agency hereby grants to the Developer and the Developer hereby accept the right under this Agreement to exclusively negotiate the terms of the DDA for the Proposed Project with Agency for a period of Two Hundred Seventy (270) calendar days, commencing on the date this Agreement is executed, and continuing in full force and effect until the earlier of (i) expiration or earlier termination of this Agreement pursuant to Sections 8 or 9 of this Agreement and (ii) the date that a DDA for the Proposed Project is approved or disapproved by the Agency Board ("Term").

B. Subject to earlier termination pursuant to Sections 8 or 9 of this Agreement, this Agreement shall remain in effect for the Term so long as Developer has not breached this Agreement.

C. Agency and Developer agree during the Term, and so long as this Agreement is effective, to negotiate diligently and in good faith to prepare a DDA to be entered into by the Agency and Developer with regard to the objectives described above and the purposes of this Agreement. During the Term, the Agency agrees not to negotiate for the acquisition, financing and/or development of the Site, or any portion thereof, with any party other than the Developer, or approve or conduct a public hearing for any other acquisition, financing and/or development of the Site, or any portion thereof.

D. Subject to the reasonable approval of the Agency CEO or designee, the Term may be extended one or more additional times for a period not to exceed an aggregate of an additional One Hundred Eighty (180) calendar days upon the request of Developer.

E. If Developer requests an additional extension of the Term of this Agreement beyond the extension described in Section 4.E., then any such extension shall be granted, if at all, in the sole and absolute discretion of the Agency CEO or designee and only if the Developer agrees to reimburse the Agency for all reasonable costs and expenses for staff and consultant time expended on the negotiation and preparation of the DDA during such extended term.

F. If, upon the expiration of the Term of this Agreement, the Parties have not each approved and Developer has not executed a DDA, then this Agreement shall automatically terminate and Developer shall have no further rights regarding the subject matter of this Agreement or all or any part of the Site and the Agency shall be free to negotiate with any other persons or entities with regard to all or any part of the Site.

Section 5. TERMS

A. Agency and Developer hereby agree to comply with each of the following in accordance, as applicable, with the timing described below:

(i) Monthly Status Reports. On or before the tenth (10th) day of each month starting with the first full month after the effective date of this Agreement, the Developer shall provide monthly status reports to the Agency Manager of Real Estate Assets in a format reasonably requested by the Manager of Real Estate Assets. These reports, at a minimum, shall include status reports regarding progress associated with the Schedule of Performance, identification of the issues and concerns raised by community residents, organizations,

businesses and property owners regarding the Proposed Project and the Developer' progress in resolving those issues and concerns.

(ii) Financial Analysis. Developer shall provide the Agency with a detailed financial analysis for the Proposed Project containing matters typically contained in such analyses, including without limitation, a detailed development cost budget, proposed rents and a detailed operating income and expense estimate ("Financial Analysis"). The Financial Analysis will be used to evidence the financial feasibility of the Proposed Project and to assist in the negotiation of terms in the DDA regarding the financing of the Proposed Project. The analysis shall describe the proposed amount and uses of any financial assistance requested to be provided by the Agency. Agency staff shall use reasonable efforts to review and comment on the Financial Analysis in a timely manner, and in any event no later than thirty (30) days after receipt of the Financial Analysis from Developer.

(iii) Submittal and Review of Conceptual Plans. The Developer shall submit to the Agency conceptual plans for the development of the entire Site ("Conceptual Plans"). Agency staff and the Agency Board shall use reasonable efforts to review and comment on the Conceptual Plans in a timely manner.

(iv) City's Planning Process. Developer, at its sole cost and expense, shall submit to the City of La Mesa's ("City") Planning Division such plans as are necessary to conduct the review for the Proposed Projects that the Agency Manager of Real Estate Assets reasonably determines must be completed prior to the submittal of the DDA for Agency Board approval. Such plans shall be for the entire Site and Proposed Project. Developer shall be solely responsible for paying any and all costs and expenses associated with Developer' preparation of such plans and with the review and processing of the plans by the City and the Agency. The Agency (as owner of the Site) at no material cost thereto, shall reasonably cooperate with Developer in processing the plans, including, without limitation, execution of all necessary applications to the City.

(v) CEQA Compliance. Developer, at its sole cost and expense, shall be responsible for compliance with CEQA in connection with the development of the Site and the Proposed Projects. Developer shall be solely responsible for paying any and all costs and expenses associated with the Agency's compliance with applicable CEQA requirements (including, without limitation, any required Environmental Impact Report and/or other required environmental documents). Developer shall cooperate fully and in a timely manner to requests for information from the Agency and any of the Agency's consultants. The Agency (as the owner of the Site) at no material cost thereto, shall reasonably cooperate with Developer in processing the CEQA analysis, including, without limitation, execution of all necessary applications therefor.

(vi) DDA Process. In accordance with this Agreement, the Agency shall conduct any required CEQA review and process and approve or disapprove a DDA with Developer. If the negotiations hereunder culminate in a DDA that is acceptable to the Parties, such an agreement shall become effective only after and if the DDA has been considered and approved by the Agency Board after public hearing. The Agency shall reasonably cooperate with Developer in order to enable Developer to meet its deadlines (including, without limitation, using reasonable efforts to make Agency staff and consultants available as reasonably needed to allow the Agency to timely perform its obligations under this Agreement); however, the Agency shall not be obligated to expedite any reviews, approvals, notices, meetings or other matters, and nothing contained in this Agreement shall be construed to limit the Agency's discretion in its activities in connection with the Proposed Project.

(vii) Agency's Right to Additional Information. The Agency reserves the right, during the Term of this Agreement, to request reasonable additional information and data from Developer necessary for review and evaluation of the Site and the Proposed Projects provided, however, Developer shall not be obligated to provide any information or data not obtained by the Developer in the course of their review and evaluation of the Project. Developer agrees to provide such additional information or data as requested in a timely manner. All information regarding the Developer's business practices and finances which may be provided to the Agency shall remain confidential to the extent permissible by law including, without limitation, the California Public Records Act. If the Agency at the request of the Developer is required to defend an action under the California Public Records Act with regard to a request for disclosure of any of the documents or reports related to the Project, Developer agrees to defend and indemnify the Agency from all costs and expenses of such defense, including reasonable attorneys' fees of the Agency or attorneys' fees awarded by a court arising out of such action.

(viii) Developer's Due Diligence. During the Term of this Agreement, Developer shall have the right to examine, inspect and investigate the Site and to determine whether the Site is acceptable to Developer, which right of Developer is subject to and conditioned upon the terms and provisions of a Right of Entry Agreement, the form of which will be the one most currently used by the Agency at the time of required entry.

(ix) Agency Not Responsible for Costs; Negotiation Payment.

(a) Except as otherwise may be mutually agreed to in writing by the Parties, as part of this Agreement or the DDA, the Agency shall not be liable for any costs and expenses associated with the preparation of any reports by Developer or the planning or development of the Site pursuant to or arising from this Agreement.

(b) Developer shall pay to the Agency a payment of Twenty-five Thousand Dollars (\$25,000) due on the Effective Date ("Negotiation Payment"). The Negotiation Payment shall be made in consideration of Agency entering into this Agreement and shall be used by Agency to cover expenses incurred in connection with this Agreement, including but not limited to, legal expenses, financial analysis expenses, administrative and staff expenses, materials, and labor ("Expenses").

(1) In the event the parties are unable to agree to the terms of a DDA resulting in termination or expiration of this Agreement, Agency will deduct from the Negotiation Payment all Expenses and return any remaining portion to Developer, provided that the Agency shall be entitled to retain the entire Negotiation Payment, regardless of Expenses, in the event of a material breach of this Agreement by Developer as set forth in Section 8. To obtain this refund and related accounting, Developer must send to Agency by certified mail, a written notice of cancellation, requesting an accounting and refund of any remaining portion of the Negotiation Payment minus Expenses. Agency will provide the accounting and refund within forty-five (45) days after receiving a cancellation notice and request. Except as set forth above, the Developer hereby waives any claim or right to any refund of the Negotiation Payment, any portion thereof, and any interest accrued thereon.

(2) In the event Agency's Expenses exceed the Negotiation Payment, or are reasonably anticipated to exceed the amount of the Negotiating Payment that remains on deposit, Agency and Developer shall meet and confer on the amount of an additional deposit necessary to cover Agency's Expenses up to and until a DDA is executed by the Parties, or until this Agreement is terminated pursuant to Sections 8 or 9, whichever occurs

first. Developer shall make an additional payment to Agency within fifteen (15) days of receiving Agency's request for additional funds.

(x) DDA to Supersede this Agreement. This Agreement will be superseded by the DDA, if and when the proposed DDA is executed by Developer, approved by the Agency in the manner required by law, and executed by the Agency.

(xi) Real Estate Commissions. Neither the Agency nor the Developer shall be liable for any real estate commissions or brokerage fees which may arise herefrom. Agency and Developer each represent it has not engaged a broker, agent or finder in connection with this transaction. Developer agrees to defend, hold harmless and indemnify the Agency from any claim by any broker, agent or finder retained, or claimed to have been retained, by Developer. Agency agrees to defend, hold harmless and indemnify Developer from any claim by any broker, agent or finder retained, or claimed to have been retained by the Agency.

Section 6. TERMS TO BE NEGOTIATED

A. Agency and Developer shall meet regularly with each other in order to negotiate a proposed DDA which shall include, without limitation, the following provisions:

(i) A Scope of Development for the Proposed Project setting forth the total square feet of development space, the number of required replacement transit parking spaces and the design parameters for the Site including, but not be limited to, building height, acceptable architectural and landscape quality, access and circulation, determination of parcel boundaries, on-site and off-site improvements, site-perimeter treatment, landscaped buffers, parking, signage, lighting, and easements, if applicable. Use issues involving the compatibility and amount of uses, their financial feasibility and their physical compatibility, shall also be resolved.

(ii) The manner in which the edges of the development are designed to maximize compatibility with the abutting and adjacent uses by the use of a variety of materials to provide a sense of visual relief and openness, to preserve the privacy of adjacent residential units and to minimize noise and other impacts.

(iii) The manner in which the development will be designed to be compatible with the La Mesa General Plan, and any other applicable land use plans, or an applicable exception to such land use plans.

(iv) A sources and uses budget, which shall be based upon a financial *pro forma* that has been approved by the Agency, and a feasible method of financing, reasonably demonstrating to the Agency the availability of all funds needed to complete the development of the Proposed Project.

(v) The timing and conditions precedent for the conveyance of the Site or portions thereof.

(vi) Financial consideration to the Agency for conveyance of a long-term ground lease interest in the Site to Developer for purposes of developing the Proposed Project.

(vii) Number, location, and type of parking to be reconstructed for use by Agency and access to Agency facilities.

(viii) The terms of any additional financial assistance to be provided by the Agency for the payment of eligible development costs of the Proposed Project and Developer's construction of additional off-site improvements requested by the Agency and agreed to by the Developer, if any.

(ix) A schedule of performance encompassing appropriate and necessary legal, administrative, transfer of property interest, financial and construction benchmarks to be met by the appropriate Party.

(x) The DDA shall be subject to the Agency's standard insurance requirements and all other applicable and customary Agency and City policies.

Section 7. LIMITATIONS ON REMEDIES FOR BREACH OR DEFAULT AND RELEASE OF CLAIMS

A. Rights and Remedies. If either Party defaults with regard to any of the provisions of this Agreement, then the non-defaulting Party shall serve written notice of such default upon the defaulting Party. If the default is not cured within a reasonable time (but not more than fifteen (15) calendar days), then the defaulting Party shall be liable to the non-defaulting Party for any damages caused by such default, and the non-defaulting Party may thereafter (but not before) commence an action for damages against the defaulting Party with respect to such default; provided however, that neither Party shall have any obligation to the other for payment of punitive, exemplary or consequential damages and provided further, that each Party waives its right to bring an action for specific performance against the other Party, except that Developer may bring an action for specific performance to enforce the Agency's obligation to negotiate exclusively with Developer during the Term of this Agreement and the Agency may bring an action for specific performance to enforce Developer's obligation to pay those Agency costs expressly required by this Agreement to be paid by the Developer. In the event of a breach or default of this Agreement, the non-breaching Party shall be entitled to all remedies available pursuant to the terms of this Agreement, at law and in equity, and all such remedies are cumulative in nature and may be asserted by such Party in the alternative and the assertion of a remedy by a Party shall not be deemed an exclusive election of remedies or waiver of any other rights conferred on that Party by the terms of this Agreement.

B. Section 1542. Each Party acknowledges that it is aware of the meaning and legal effect of California Civil Code Section 1542, which provides:

A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her would have materially affected his or her settlement with the debtor.

C. General Release. California Civil Code Section 1542 notwithstanding, it is the intention of both of the Parties to be bound by the limitation on damages and remedies set forth in this Section 7 of the Agreement, and the Parties hereby release any and all claims against each other and their respective officers, officials, employees, consultants or agents for damages or specific performance (except as set forth above) related to any breach of this Agreement (other than those claims and damages allowed in Section 7.A. above), whether or not any such released

claims were known or unknown to either of the Parties as of the date of this Agreement. Each of the Parties hereby waives the benefits of California Civil Code Section 1542 and all other statutes and judicial decisions (whether state or federal) of similar effect with regard to the limitations on damages and remedies and waivers of any such damages and remedies contained in this Section 7.

Agency's Initials

Developer's Initials

Section 8. TERMINATION BY AGENCY

A. Agency shall have the right to terminate this Agreement in the event of any of the following:

(i) Developer fails timely to perform any of their obligations hereunder or are otherwise in default under this Agreement, after expiration of any applicable notice and cure periods; or

(ii) Developer proposes provisions in the proposed DDA which materially vary from the Proposed Project (*i.e.*, a combination of affordable housing and onsite parking spaces), and fail to timely rescind such proposals after the Agency notifies Developer of its rejection of such proposals.

(iii) The negotiations reach a point where the Agency Board has rejected a last, best and final proposal from Developer and determined that further negotiations with Developer are not likely to lead to an agreement.

B. The Agency's right of termination shall be subject to the fifteen calendar day (15-day) notice and cure provisions set forth in Section 7(A) of this Agreement.

Section 9. TERMINATION BY DEVELOPER

A. Developer shall have the right to terminate this Agreement in the event of the occurrence of any of the following:

(i) Developer determines, in its sole and absolute discretion, that (i) the development of the Proposed Project is not financially feasible or (ii) it is reasonably likely that the Proposed Project will not obtain all necessary entitlements and environmental clearances necessary for the development and operation of the Proposed Project.

(ii) In the course of its investigation of the Site, Developer discovers any currently unknown conditions or circumstances which would materially impact the cost of the Proposed Project and/or the use of all or any portion of the Proposed Project; or

(iii) Agency fails timely to perform any of its obligations hereunder or is otherwise in default under this Agreement.

B. Developer's right of termination shall be subject to the fifteen (15) calendar day notice and cure provisions set forth in Section 7(A) of this Agreement.

Section 10. INDEMNITY

Other than arising from a dispute between Developer and Agency regarding any such Party's performance hereunder, Developer shall indemnify, defend, and hold the Agency, its directors, officers, employees, agents, and successors and assigns (collectively, the "Indemnitees" in this Section) harmless against all suits and causes of action, claims, costs, and liability, including, but not limited to, reasonable attorney's fees and costs of any litigation, or arbitration or mediation, if any, brought (1) challenging the validity, legality or enforceability of this Agreement (other than an action brought by a Party hereto) or (2) seeking damages which may arise directly or indirectly from the negotiation, formation, execution, enforcement or termination of this Agreement, or which are incident to the performance of the activities contemplated in this Agreement (other than an action brought by a Party hereto). Nothing in this Section shall be construed to mean that Developer shall hold the Indemnitees harmless and/or defend them to the extent of any claims arising from, or alleged to arise from the sole or gross negligence, willful misconduct or illegal acts of any of the Indemnitees, the failure of the Agency to follow any rule, procedure or law applicable to the Agency, and/or any claims that this Agreement violates any current agreement to which the Agency is subject. The Agency agrees that it shall fully cooperate with Developer in the defense of any matter in which Developer is defending and/or holding the Indemnitees harmless. The Agency may make all reasonable decisions with respect to its representation in any legal proceeding, including, but not limited to, the selection of attorney(s). This indemnity obligation shall survive the termination of this Agreement.

Section 11. NO THIRD PARTY BENEFICIARIES

Agency and Developer expressly acknowledge and agree they do not intend, by their execution of this Agreement, to benefit any persons or entities not signatory to this Agreement, including, without limitation, any brokers representing the parties to this transaction. No person or entity not a signatory to this Agreement shall have any rights or causes of action against either Agency or Developer arising out of or due to Agency's or Developer's entry into this Agreement.

Section 12. NOTICES

A. Any notice, request, approval or other communication to be provided by either Party shall be in writing and dispatched by first class mail, postage prepaid, or by personal delivery (including by means of professional messenger service, courier service such as United Parcel Service or Federal Express, or by U.S. Postal Service), to the addresses of the Agency and the Developer set forth in this Section 12 of the Agreement. Such written notices, requests, approvals or other communication may be sent in the same manner to such other addresses as either Party may designate from time to time.

B. Any notice personally delivered (including by means of professional messenger service, courier service such as United Parcel Service or Federal Express, or by U.S. Postal Service), shall be deemed received on the documented date of receipt; and any notice that is sent by first-class mail, postage prepaid shall be deemed received on the date of receipt thereof.

If to the Agency:

Karen Landers, General Counsel
San Diego Metropolitan Transit System
1255 Imperial Avenue, Suite 1000
San Diego, California 92101

With a copy to:

Sean Myott, Manager of Real Estate Assets
San Diego Metropolitan Transit System
1255 Imperial Avenue, Suite 1000
San Diego, California 92101

If to the Developer:

Affirmed Housing
15320 Evening Creek Drive North, Suite 160
San Diego, CA 92128
Attn: James Silverwood

Section 13. NO CONFLICT OF INTEREST

No member, official, or employee of Agency shall have any personal interest, direct or indirect, in this Agreement, nor shall any such member, official or employee participate in any decision relating to this Agreement which affects his or her personal interests or the interests of any corporation, partnership or association in which he or she is, directly or indirectly, interested. Developer warrants that it has not paid or given, and will not pay or give, directly or indirectly, any Agency employee or official any money or other consideration at all, whether or not connected in any way with the subject matter of this Agreement. Further, Developer warrants that it has no knowledge of any financial interest of any Agency employee or official in Developer, directly or indirectly, or in any person or entity affiliated with Developer, or in any transaction in which Developer have been involved. Notwithstanding the foregoing, Developer hereby discloses that Developer and/or its principals have made campaign contributions to Agency board members, details of which will be provided to Agency.

Section 14. LIMITATION ON EFFECT OF AGREEMENT

This Agreement shall not obligate either Party to enter into a DDA or to enter into any particular DDA. Agency and Developer do not intend this Agreement to be a purchase agreement, ground lease, license, option or similar contract. Nor do Agency and Developer intend to be bound in any way by this Agreement except during the Term as expressly set forth herein. By execution of this Agreement, Agency is not committing itself to or agreeing to undertake acquisition, disposition, or exercise of control over any portion of the Site nor is Developer committing itself to undertake the acquisition of any portion of the Site or the development, financing or construction of the Proposed Project. Execution of this Agreement by the Agency and Developer is merely an agreement to conduct a period of exclusive negotiations and to prepare recommendations to the Agency Board in accordance with the terms hereof, reserving for subsequent Agency action the final discretion and approval regarding the execution of a DDA and all proceedings and decisions in connection therewith. Any DDA resulting from negotiations pursuant to this Agreement shall become effective only if and after such DDA has been considered and approved by the Agency Board following performance of all legally required procedures. Each Party assumes the risk that, notwithstanding this Agreement and good faith negotiations, the Parties may not enter into a DDA due to the Parties' failure to agree upon essential terms of a transaction or a decision by the Agency Board not to authorize execution of a DDA. Except as expressly provided in this Agreement, a Party shall have no obligations or duties to the other Party hereunder and no liability whatsoever in the event the Parties fail to execute a DDA.

Section 15. MISCELLANEOUS PROVISIONS

A. Counterparts. This Agreement may be executed in counterparts, each of which when so executed shall be deemed an original, and all of which, when taken together, shall constitute but one and the same instrument.

B. Entire Agreement/Integration. This Agreement represents the entire agreement of the Parties and integrates all of the terms and conditions mentioned herein or incidental hereto, and supersedes all negotiations or previous agreements, oral or written, between the Parties with respect to development of the Site.

C. Waivers; Amendments. All waivers of the provisions of this Agreement must be in writing and signed by the appropriate authorized agents or officers of the Party to be charged, and all amendments and modifications hereto must be in writing and signed by the appropriate authorized agents or officers of the Parties. Except as otherwise expressly provided in this Agreement, any failure or delay by either Party in asserting any of its rights or remedies as to any Default shall not operate as a waiver of said Default or of any rights or remedies in connection therewith or of any subsequent Default or any rights or remedies in connection therewith, or deprive such Party of its right to institute and maintain any actions or proceedings which it may deem necessary to protect, assert or enforce any such rights or remedies.

D. Governing Law and Venue. This Agreement and the legal relations between the Parties shall be governed by, interpreted under, construed and enforced in accordance with, the internal laws of the State of California without reference to the rules governing the conflict of laws. This Agreement is made and entered into in the County of San Diego, California, and any legal actions or proceedings arising from or related to this Agreement shall be brought in the County of San Diego.

E. No Association Between Developer and Agency. The Parties in no way intend for this Agreement to give rise to or create any relationship of partnership, joint venture, or any other form of association of any kind or nature between Developer and Agency.

F. Litigation Expenses and Attorneys' Fees. In the event any action, suit or proceeding is brought for the enforcement of, or the declaration of any right or obligation pursuant to this Agreement or as a result of any alleged breach of any provision of this Agreement, the prevailing Party in such suit or proceeding shall be entitled to recover its costs and expenses, including reasonable attorney's fees, from the losing Party, and any judgment or decree rendered in such a proceeding shall include an award thereof.

G. Assignment. This Agreement shall not be assignable by either Party without the prior written consent of the other Party. The Agency shall have the right to terminate this Agreement if Developer assigns this Agreement or if there is any material change in the management or control of the Developer.

H. Ambiguities. This Agreement is in all respects intended by each Party hereto to be deemed and construed to have been jointly prepared by the Parties and the Parties hereby expressly agree that any uncertainty or ambiguity existing herein shall not be interpreted against either of them. Except as expressly limited by this Section 15(H) of the Agreement, all of the applicable rules of interpretation of contracts shall govern the interpretation of any uncertainty or ambiguity of this Agreement.

I. Captions and Headings. The headings and captions of the various sections and paragraphs of this Agreement have been inserted only for the purpose of convenience and are not a part of this Agreement and shall not be deemed in any manner to modify, explain, expand or restrict any of the provisions of this Agreement.

J. Severability. Every provision of this Agreement is intended to be severable. If any provision of this Agreement or the application of any provision hereof to any party or circumstance is declared to be illegal, invalid or unenforceable for any reason whatsoever by a court of competent jurisdiction, such invalidity shall not affect the other terms and provisions hereof or the application of the provision in question to any other party or circumstance, all of which shall continue in full force and effect.

K. Warranty Against Payment of Consideration for Agreement. Developer warrants that they have not paid or given, and will not pay or give, any third party any money or other consideration for obtaining this Agreement.

L. Nonliability of Officials, Officers, Members, and Employees. No member, official, officer, or employee of the Agency shall be personally liable to Developer, or any successor in interest, in the event of any default or breach by Agency or for any amount which may become due to Developer or to their successors, or on any obligations under the terms of this Agreement. No member, officer or employee of Developer shall be personally liable to the Agency, or any successor in interest, in the event of any default by the Developer or for any amount which may become due to the Agency or its successor, or an obligation under the terms of this Agreement.

M. Authority to Enter Agreement. Developer represents and warrants that it has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and to bind each respective Party.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date first written above.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

Date: _____

By: _____
Sharon Cooney, Chief Executive Officer

Approved as to Form:

By: _____
Karen F. Landers, General Counsel

AFFIRMED HOUSING GROUP, INC.

Date: _____

By: _____
Name: _____

Title: _____

EXHIBIT A

Affirmed Housing Proposed Project



SPRING STREET TROLLEY VILLAGE
La Mesa, CA

SITE PLAN



JOB NO. 795.029
DATE 11-01-2021



10



EXHIBIT B
MAP OF SITE



Spring Street Station ENA

—

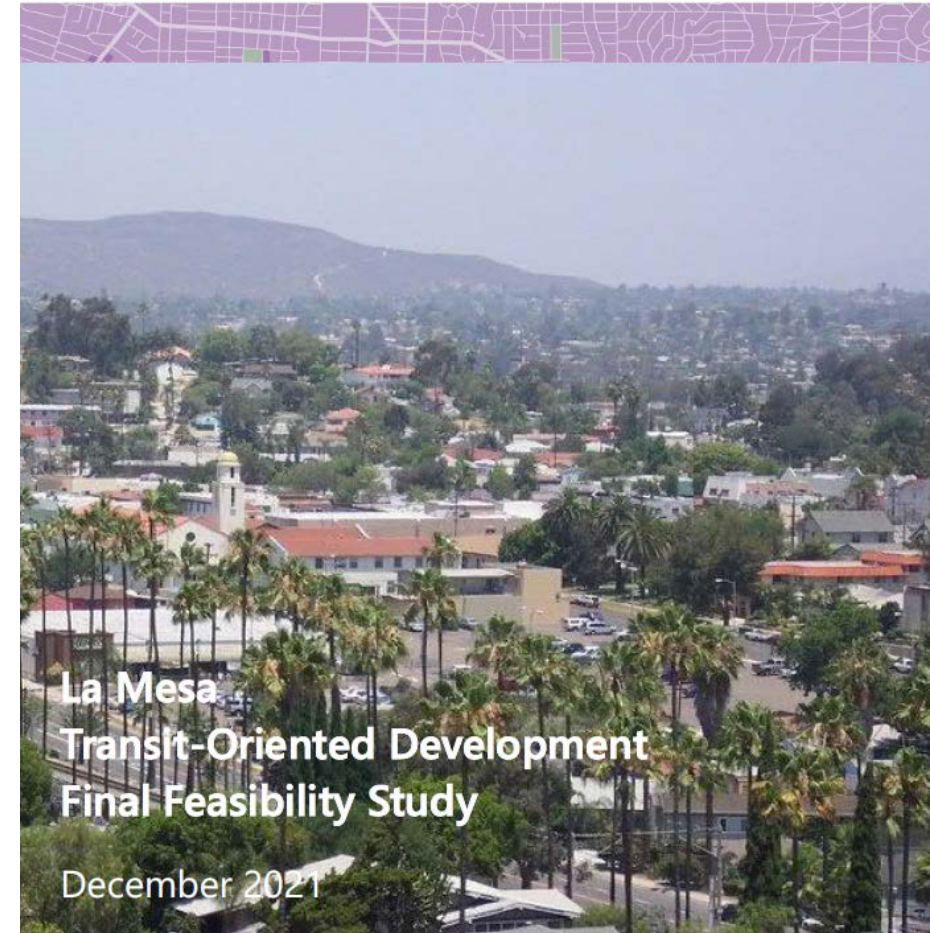
Affirmed Housing Development of the Spring Street Station

MTS Executive Committee Meeting

February 9, 2023

Background

- Early 2020 City of La Mesa initiated the La Mesa Transit-Oriented Development Feasibility Study (Study)
- July 2020 (AI 30), the MTS Board declares Spring Street Station site to be “surplus land”.
- August 2020 Notice of Availability Issued – MTS Does Not Receive a Notice of Interest
- November 2021 MTS receives an unsolicited proposal from Affirmed Housing (Affirmed)
- December 2021 Study completed
- September 2022 MTS posts notice of receipt of unsolicited proposal per MTS Board Policy 18
 - MTS receives proposals from Chelsea Investment Corporation (Chelsea) and USA Properties Fund (USA)



Current Use

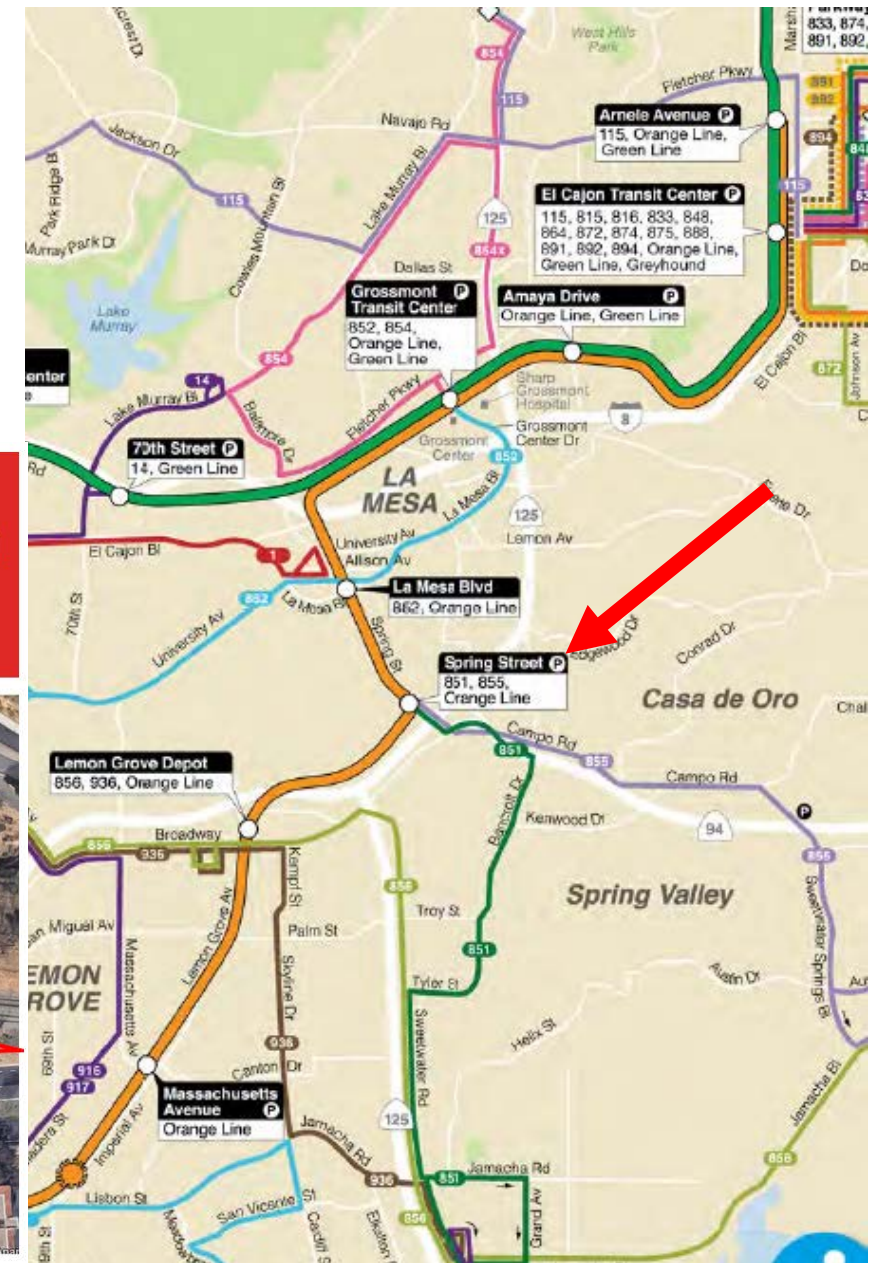
- Board Policy 18 A. → Transit is MTS First Priority
 - Orange Trolley Line
 - Bus Lines 851 and 855

Parking

- 295 Total Parking Spaces
- 115 Spaces Reserved for MTS Capital Improvement Projects
- 180 Spaces for Transit Use

Restroom / MTS Bus Breakroom

- None



Affirmed

100% Affordable – 152 Units, 123k sf

Unit Types

Studio = 50

1 Bed = 28

2 Bed = 36

3 Bed = 38

Bedroom Count – 264

Bus Routing – No Added Time

Public Restroom – Construction &
Long Term Maint.

MTS Breakroom – Construction &
Long Term Maint.

Transit Replacement Parking

63 spaces / 36% replacement

Financial Concerns – No




SPRING STREET TROLLEY VILLAGE
La Mesa, CA

Bus Routing 

SITE PLAN



JOB NO. 736.029
DATE 11-01-2021

1

Chelsea

100% Affordable – 80 Units, 61k sf

Unit Types

1 Bed = 12

2 Bed = 30

3 Bed = 30

4 Bed = 8

Bedroom Count – 194

Bus Routing – Increased Travel
Time

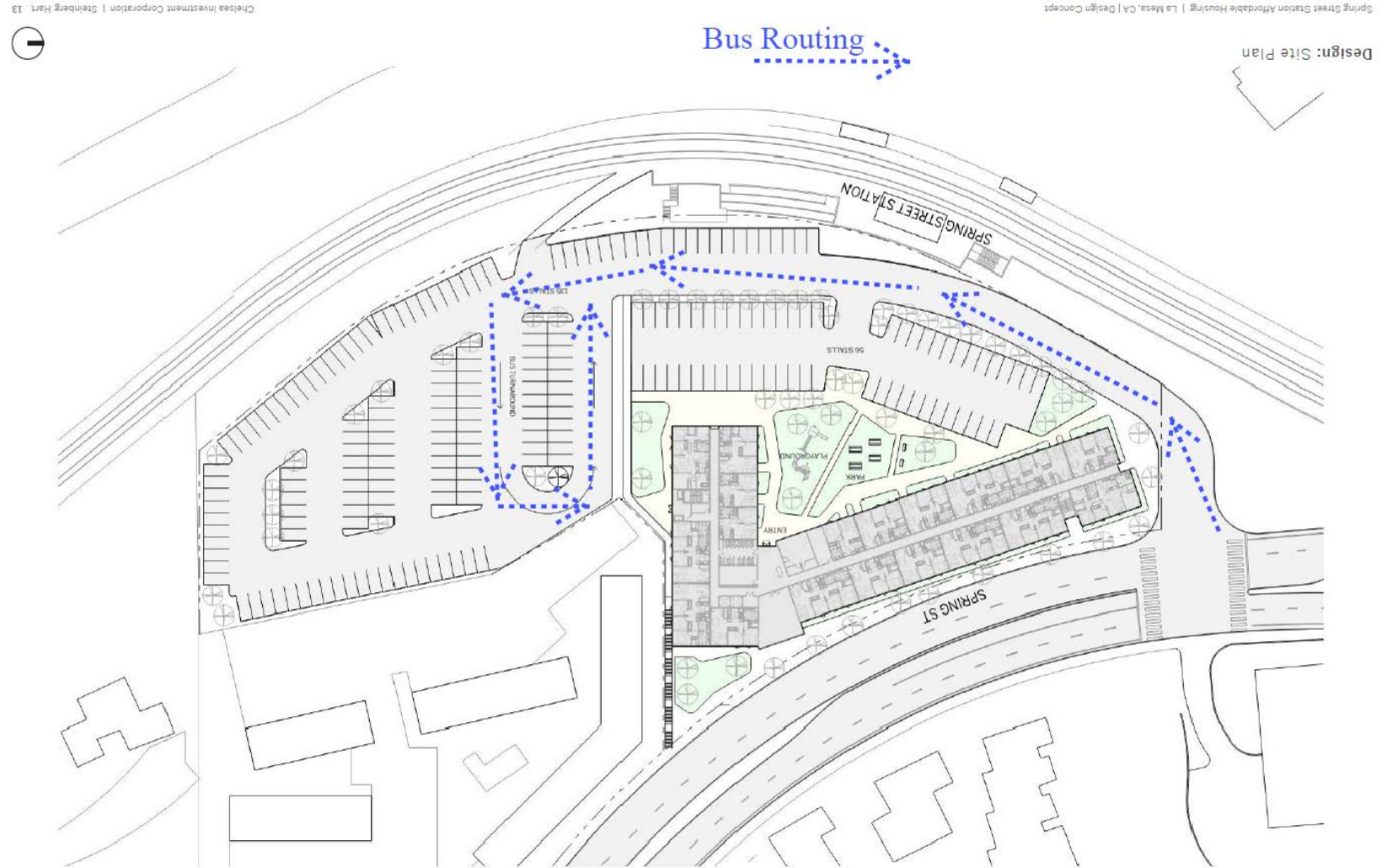
Public Restroom – Construction &
Long Term Maint.

MTS Breakroom – Construction &
Long Term Maint.

Transit Replacement Parking

135 spaces / 75% replacement

Financial Concerns – No



USA

100% Affordable – 173 Units, 112k sf

Unit Types

1 Bed = 111

2 Bed = 53

3 Bed = 9

Bedroom Count – 244

Bus Routing – Increased Travel Time

Public Restroom – Construction

MTS Breakroom – Construction

Transit Replacement Parking

140 spaces / 78% replacement

Financial Concerns – Reliance on

AHSC grant presents a risk



Side By Side Comparison

Item	Affirmed	Chelsea	USA
Housing – Units	Affordable Unit Count: 152	Affordable Unit Count: 80	Affordable Unit Count: 173
Housing – Square Feet	Affordable Unit: 123,282 sf	Affordable Unit: 61,242 sf	Affordable Unit: 112,220 sf
Bedroom Count	264	194	244
Unit Types	Studio = 50 1 Bed = 28 2 Bed = 36 3 Bed = 38	1 Bed = 12 2 Bed = 30 3 Bed = 30 4 Bed = 8	1 Bed = 111 2 Bed = 53 3 Bed = 9
MTS Replacement Parking	63 spaces / 36% replacement	135 spaces / 75% replacement	140 spaces / 78% replacement
Bus Path of Travel	No Change	Increase	Increase
Financial Concerns	No	No	Yes
Public and Bus Driver Restroom Construction	Yes	Yes	Yes
Public and Bus Driver Restroom Long Term Maintenance	Yes	Yes	Maybe

MTS Decision Making Rationale

- All developers submitted viable and competitive proposals
- Affirmed proposal best ENA Starting Point
 - Maximized the site
 - Sound financial plan
 - Construction & Maint. of public restroom & MTS Bus Driver breakrooms
 - Bus Routing
 - Replacement parking ratio to be negotiated based on forthcoming MTS Parking Study



RECOMMENDATION

That the San Diego Metropolitan Transit System (MTS) Executive Committee authorize the Chief Executive Officer to:

- Execute an Exclusive Negotiation Agreement with Affirmed Housing for an Spring Street Station Transit-Oriented Development Project



SPRING STREET TROLLEY VILLAGE
La Mesa, CA

BIRD'S EYE VIEW



JOB NO. 736.029
DATE 11-01-2021

16

NEXT STEPS

- Further refine scope of work for development project
 - Footprint for multi-residential project
 - Analyze MTS Parking Study Results and incorporate into TOD
 - Other transit amenities and integration of multi-residential project into the Spring St Station
 - Finalize estimated unit count / unit breakdown
- Identify material terms to be brought to the MTS Board for approval
- Bring proposed Disposition and Development Agreement to MTS Board for approval
 - Estimated 6-9 months

MTS Transit-Oriented Development Program

Residential Unit Totals

MTS TOD Projects - Residential Units (date opened)	Occupied	Under Construction	Under DDA	Under Negotiation	Future Sites	# of Rent Restricted Units*
Morena Linda Vista Station, San Diego (2007)	185					18
Grossmont Station, San Diego – Fairfield (2010)	527					80
Encanto / 62nd Street Station, San Diego - Amcal/Villa Encantada (2018)	67					67
Grantville, San Diego - Greystar (2023)		250				5
Grantville, San Diego - Affirmed (2023)		126				125
Palm Avenue Station, San Diego - National CORE and Malick Infill			390			390
Beyer Boulevard Station, San Diego - Affirmed			100			99
Rancho Bernardo Station, San Diego - Affirmed			100			99
E Street Station/Joint RFP with City of CV parcel - 750 E Street and 707 F Street, Chula Vista				806		265
El Cajon Transit Center				299		122
Spring Street Station, La Mesa				152		152
Palomar Station, Chula Vista				XXX		
24th Street Station, National City				XXX		
12th & Imperial Expansion Site, Downtown San Diego					?	
70th Street Station, La Mesa					?	
Amaya Station, La Mesa					?	
Massachusetts Ave Station, Lemon Grove					?	
H Street, Chula Vista					?	
TOTALS	779	376	590	1,257		1,422
			GRAND TOTAL UNITS			3,002
*Most 100% affordable projects include one market rate manager's unit; exact count to be confirmed at construction stage						



Agenda Item No. 8

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

February 9, 2023

SUBJECT:

Upcoming Major Service Change Proposals - Iris Rapid Bus Route and Sorrento Valley Coaster Connection (Denis Desmond)

INFORMATIONAL ONLY

Budget impact

The net impact of the proposed changes will be an additional cost of approximately \$2.8 million for the MTS operating budget, largely due to the operating costs of the new Iris Rapid. Those expenses will be offset by some savings achieved from reductions to Route 950 and the Sorrento Valley Coaster Connection services.

DISCUSSION:

MTS will be holding a public hearing at the March 2023 MTS Board of Directors meeting to receive public testimony and consider recommendations for two major service changes. Staff will provide an update on the changes that will be proposed, including:

- Implementation of new Rapid 227 ("Iris Rapid") in the South Bay, and its replacement of existing Route 950.
- Major adjustments to Sorrento Valley COASTER Connection services, including the consolidation of routes and the discontinuation of some segments.

Iris Rapid

Iris Rapid, which will be numbered as Route 227, is MTS' next evolution for high-quality transit service in the Otay Mesa/South Bay region. *Iris Rapid* will leverage the strong transit ridership on the existing transit service in the corridor (primarily Routes 933/934 and 950) with a new *Rapid* service that will offer infrastructure improvements and new customer-oriented amenities. *Iris Rapid* will provide much-needed all-day, high-frequency, express/limited-stop service connecting residents and visitors to coastal destinations, regional employment and activity centers, and the UC San Diego Blue Line at the Iris Avenue Transit Center.



Capital improvements being made as part of the Iris Rapid project include 12 new fully-electric, articulated buses, changes at the Iris Avenue Transit Center for greater capacity and more efficient operations, new upgraded shelters and passenger amenities, and new overhead electric bus charging infrastructure at the South Bay Division.

Route map of proposed Iris *Rapid*.



Sorrento Valley COASTER Connection

The Sorrento Valley COASTER Connection (SVCC) is a commuter shuttle service that connects the Sorrento Valley COASTER Station (SVCS) with nearby employment destinations in North Torrey Pines, University City, and Sorrento Mesa. Since the SVCC's primary purpose is to distribute COASTER riders to worksites in these areas, MTS has an agreement with North County Transit District (NCTD) that partially reimburses MTS the operating costs for the service.

In the past five years, demand for the SVCC service has decreased considerably. The reduction in ridership is largely due to the COVID-19 pandemic and its continued effects on travel, especially commuter traffic demand. In FY 2018, all SVCC routes combined averaged 362 daily riders; in FY 2022, even with the addition of a UCSD route, all SVCC routes combined averaged only 106 daily riders – a 70.8% decline in boardings.

In light of the reduced passenger demand, MTS will propose to streamline and combine the routing for four of the five SVCC routes as follows:

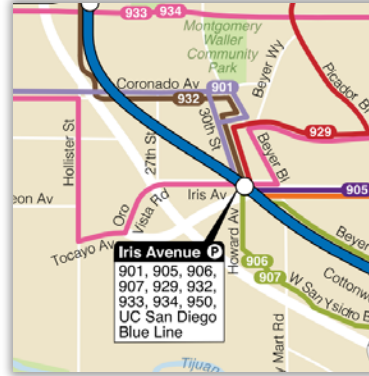
- Routes 972/973 – The two routes serving Sorrento Mesa would be a single route serving Sorrento Mesa serving employment destinations north and south of Mira Mesa Boulevard.
- Routes 974/979 – The two routes serving UC San Diego main campus, UC San Diego east campus, and Towne Centre Drive would be a single route serving UC San Diego main campus and east campus, crossing over I-5 at the Gilman Bridge.

MTS is preparing for a transition of the SVCC service to NCTD in 2024 as their staffing levels and resources allow. In the meantime, the proposed changes will improve the productivity of the service while reducing the bus requirement and number of MTS drivers needed.

The March 2023 public hearing will be noticed and accompanied by a Title VI analysis, as required by FTA guidance and MTS Board Policy 42.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com



Iris *Rapid* and Sorrento Valley Coaster Connection

February 9, 2023

March 2023 Public Hearing

Proposed changes for two MTS projects:

- *Iris Rapid*
- Sorrento Valley Coaster Connection

Major changes require public hearing per MTS Board Policy 42.

Iris Rapid

Will operate between Otay Mesa Transit Center and Imperial Beach in mixed traffic, connecting with the UC San Diego Blue Line Trolley at Iris Ave. Transit Center.

- Launch Date: September 2023 (soft launch)
- Total route length: 13 miles
- Total Stops: 10. Many stations will have unique branding and premium amenities.
- Electric buses in service: 12
- Estimated Frequency: 7.5-minute peak service/15-minute off-peak service
- MTS Operating Budget: \$3 million annually
- Capital Project Cost: \$35-40 million
 - Funded primarily by Transit and Intercity Rail Capital Program (TIRCP) grant

Iris Rapid

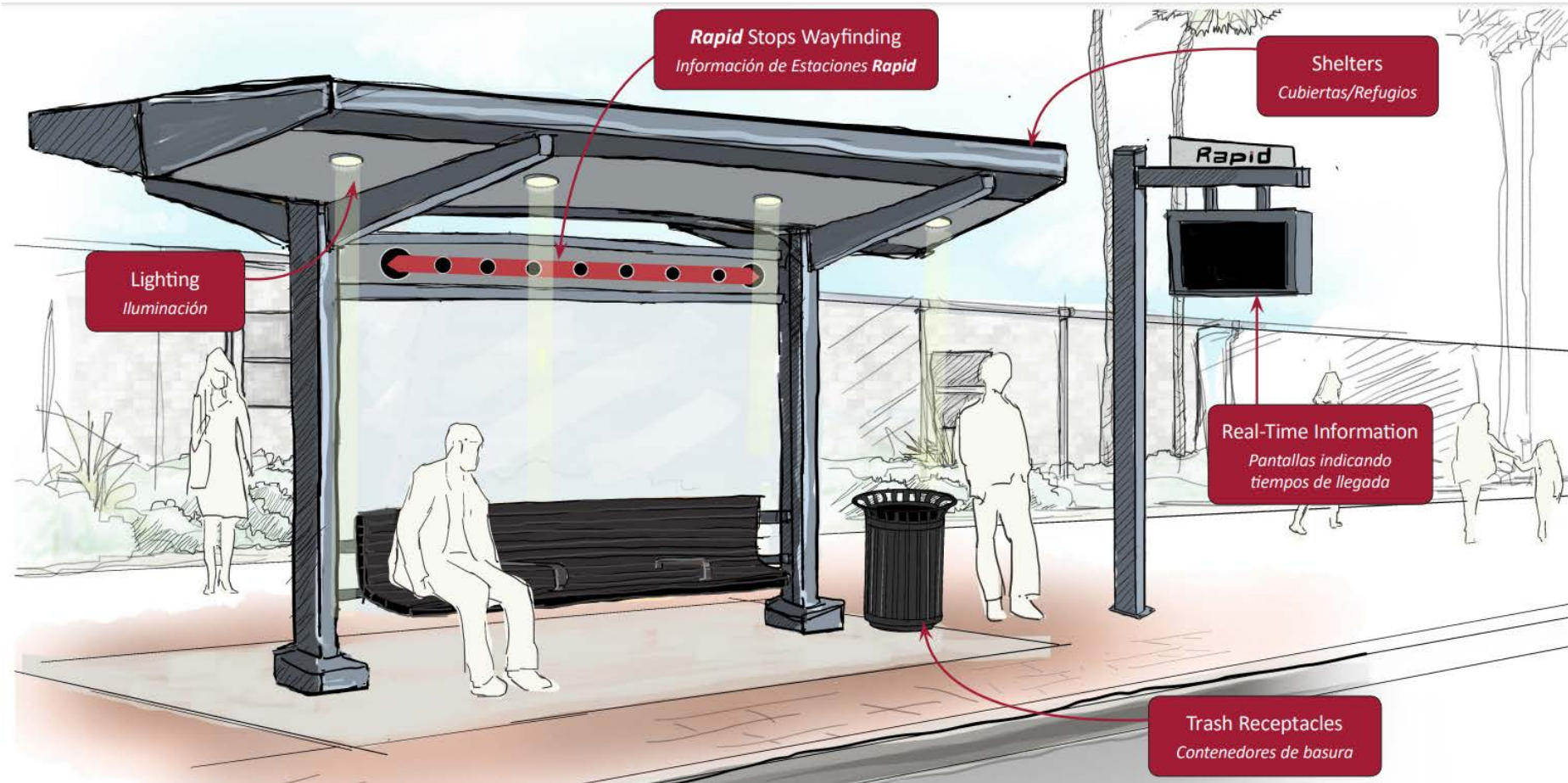


Rapid ELECTRIC

- San Diego's first electric 60' articulated buses
- 12 new battery-electric buses
- Quieter rides
- Zero emissions



Rapid Station Amenities

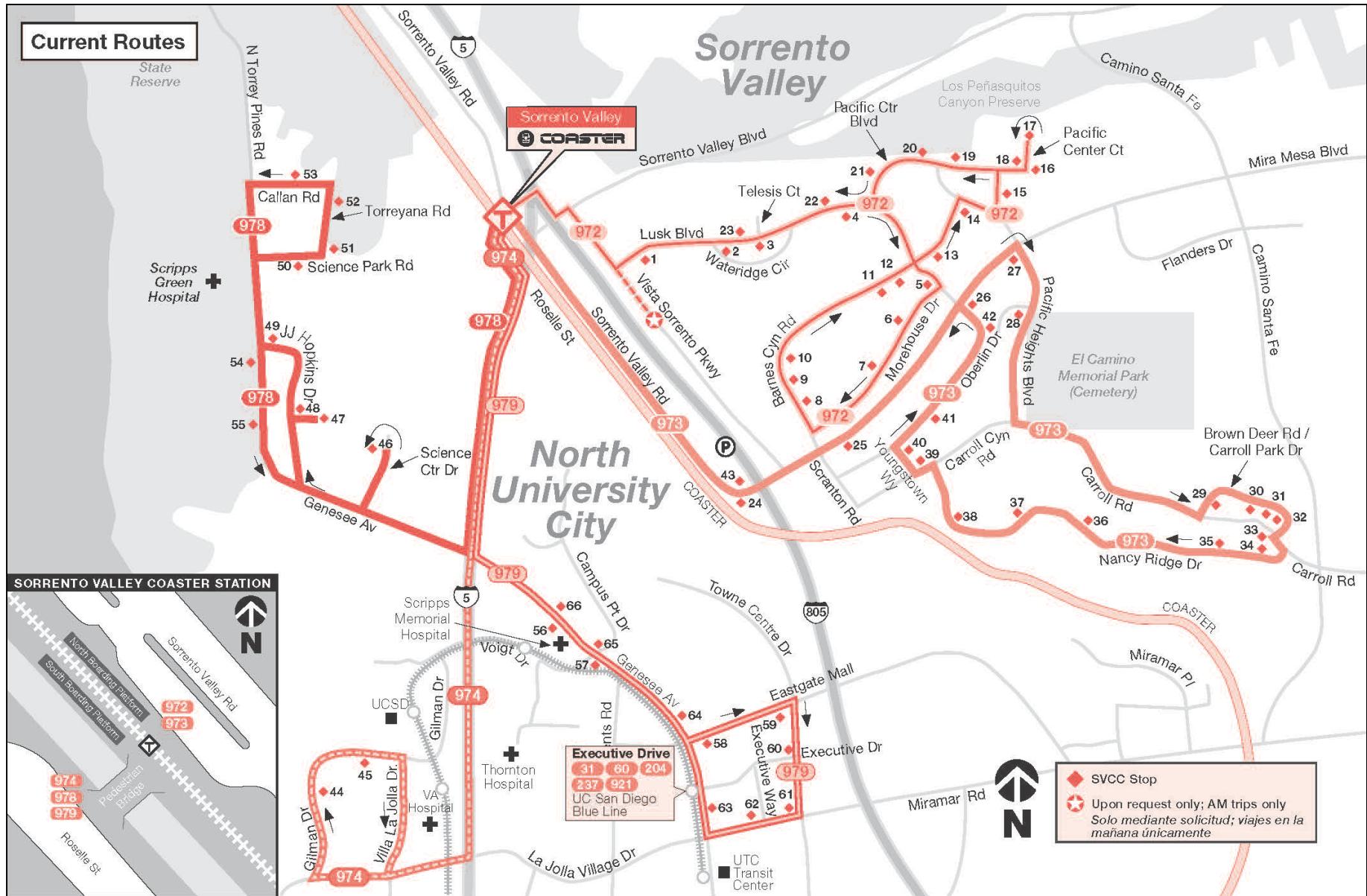


Iris Rapid Proposals

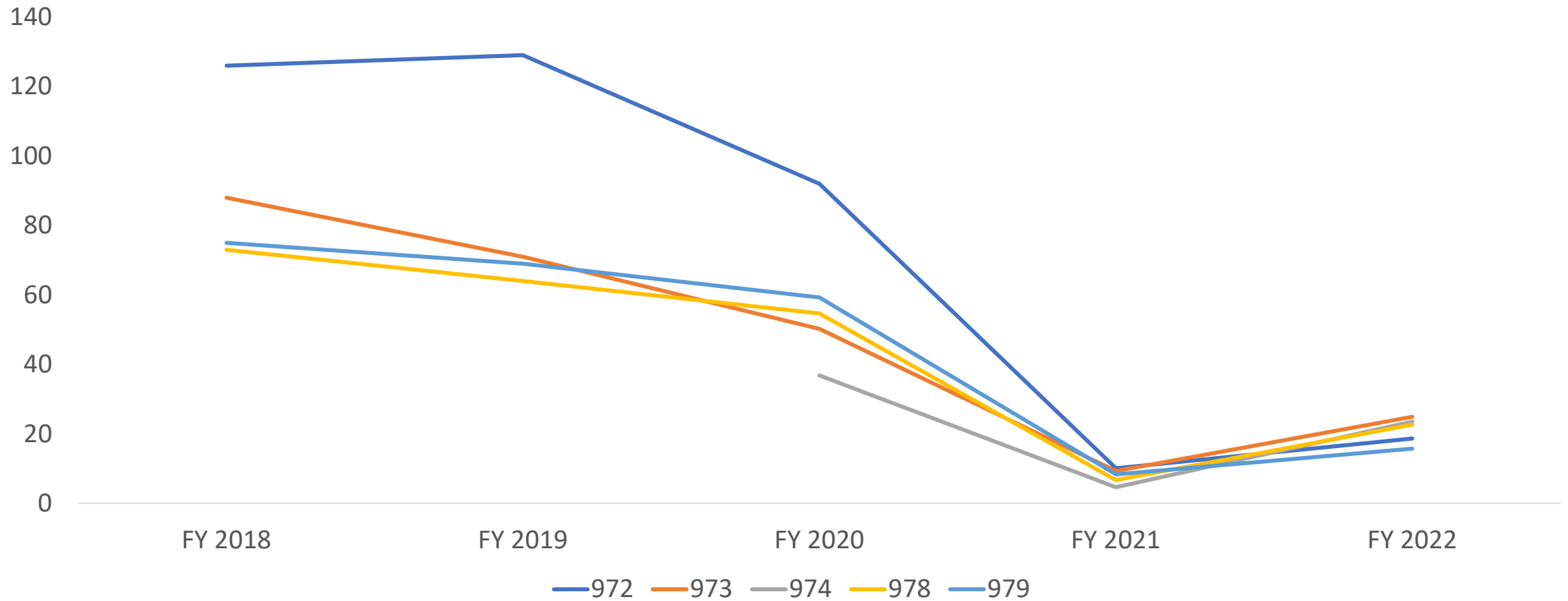
- Implement new Iris Rapid with a soft launch in Sept. 2023.
- Discontinue Route 950 (fully replaced by Iris Rapid).
- Other minor adjustments possible to nearby routes to complement new Iris Rapid service.

Sorrento Valley COASTER Connection

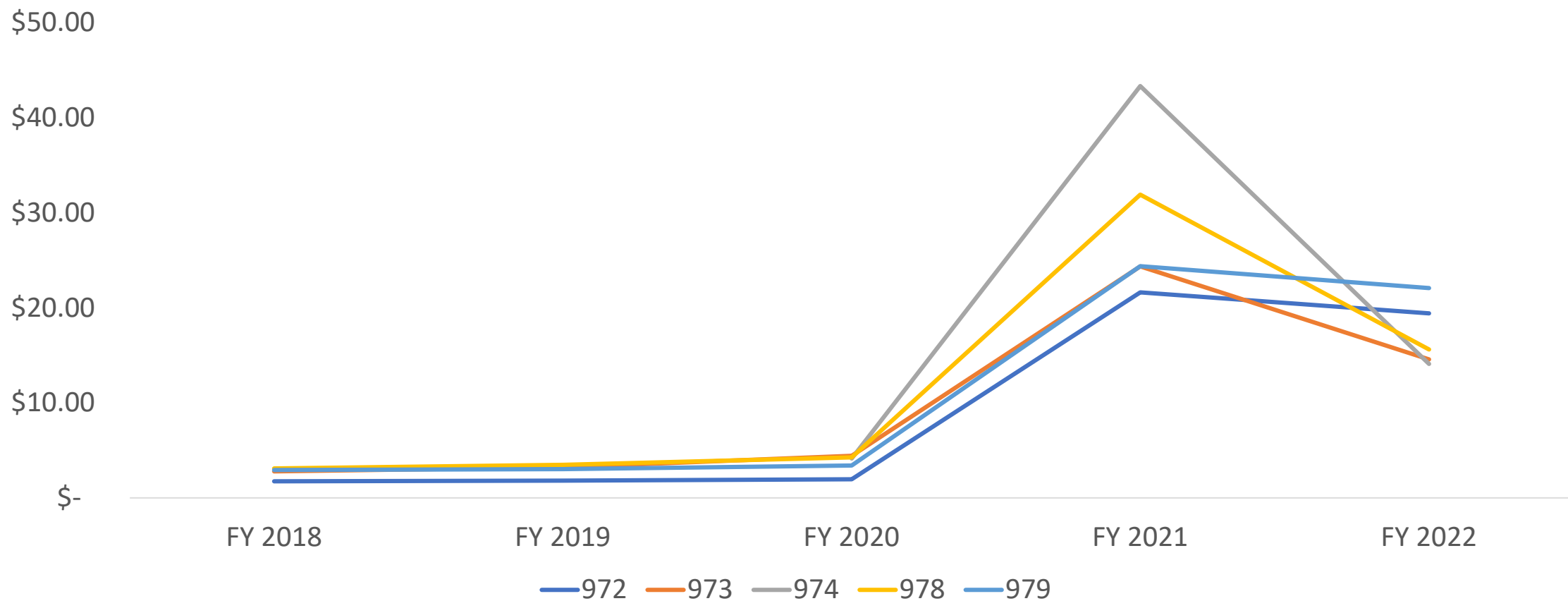
- Five commuter routes connecting Sorrento Valley COASTER Station with surrounding employment destinations.
- Operates during morning and afternoon peaks with minibuses.
- North County Transit District (NCTD) funds 50% of the operating cost, plus a \$1 fare per boarding.
- Resource-intensive, requiring 5 buses and drivers on split shifts
- Ridership dropped 70% since start of pandemic, with recovery much slower than other MTS services.



Sorrento Valley COASTER Connection Average Daily Boardings by Fiscal Year



Sorrento Valley COASTER Connection Subsidy per Passenger



SVCC Proposals

- Transition service to NCTD in 2024.
- For June 2023 interim measure:
 - Modify routings to reduce number of buses and drivers needed.
 - Public hearing will introduce proposals after rider and stakeholder input.
 - Target annual saving of \$180,000.
- Current SVCC minibus fleet will be retired at NCTD handover.
 - At end of useful-life.
 - Fleet replacement cost would be **\$1.74 Million** from MTS capital budget

Public Hearing

- March 2023 MTS Board of Directors Meeting
- Opportunity for the public to comment on proposals
- Title VI analysis included at public hearing for Board attention
- If approved:
 - SVCC major changes would go into effect in June 2023
 - Iris Rapid and Route 950 changes would begin in Sept. 2023



Iris *Rapid* and Sorrento Valley Coaster Connection

QUESTIONS



Board of Directors Draft Agenda

February 16, 2023 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) 444-9171; Webinar ID: 982 8803 2362, <https://zoom.us/j/98288032362>

NO.	ITEM SUBJECT AND DESCRIPTION	ACTION
1.	Roll Call	
2.	Public Comments This item is limited to five speakers with three 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 January 26, 2023 Board of Director meeting minutes.	Approve
4.	Kearny Mesa Division (KMD) Zero Emission Bus (ZEB) Overhead Charging System Layout and Design – Work Order Action would authorize the Chief Executive Officer (CEO) to execute Work Order WOA356-AE-05 under MTS Doc No. PWL356.0-22 with Pacific Railway Enterprises, Inc. (PRE), a Disadvantaged Business Enterprise (DBE), in the amount of \$354,742.55 to provide engineering planning services for the KMD ZEB master planning.	Approve
5.	Adoption of 2022 Conflict of Interest Code – Amendment Action would 1) Adopt Resolution No. 23-01 amending the MTS Conflict of Interest Code pursuant to the Political Reform Act of 1974; 2) Adopt the amended 2023 MTS Conflict of Interest Code; and 1) Forward the amended 2023 MTS Conflict of Interest Code to the County of San Diego, the designated code-reviewing body, (Gov. Code § 82011) requesting approval of the amendment as required under Government Code section 87303.	Approve



- | | | |
|-----|---|---------------|
| 6. | Purchase of 24 Class C Propane Powered Medium Duty Minibuses - Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0744.0-22, with Creative Bus Sales (CBS), for the purchase of up to twenty-four (24) propane powered Class C Minibuses in the amount of \$5,028,360.24. | Approve |
| 7. | MTS Excess Liability Insurance Renewals | Approve |
| 8. | Investment Report – Quarter Ending December 31, 2022 | Informational |
| 9. | Printing Timetables – Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2686.0-23 with Neyenesch Printers, Inc., (Neyenesch), a certified Small Business (SB), for the provision of printing timetables for a period of three (3) years, in the amount of \$375,731.09. | Approve |
| 10. | Hazardous and Universal Waste Management and Trauma Scene Clean-Up Services for San Diego Trolley, Inc. (SDTI) & San Diego Transit Corporation (SDTC) – Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2676.0-23 with Clean Harbors Environmental Services, Inc. (“Clean Harbors”) for the provision of Hazardous Waste and Trauma Scene Clean-Up Services for five (5) years for up to \$1,912,145.96. | Approve |
| 11. | C Street & Broadway Wye Sicas S7 And Wheel Counter Replacement - Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order MTS Doc. No. PWL355.0-22, WOA355-AE-11 (in substantially the same format as Attachment A), with Psomas, in the amount of \$299,610.15 to provide engineering design review for the C Street and Broadway Wye – Sicas S7 and wheel counter replacement. | Approve |

DISCUSSION AND REPORT ITEMS

- | | | |
|-----|--|---------------|
| 12. | San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative with RVK Inc. and Larry Marinesi) | Approve |
| 13. | San Diego Transit Corporation (SDTC) Employee Retirement Plan’s Actuarial Valuation as Of July 1, 2022 (Anne Harper With Cheiron Inc. And Larry Marinesi) | Approve |
| 14. | Security Services – Contract Amendment | Approve |
| 15. | MTS Safety Performance Annual Review (Fabeann Soberg and Jared Garcia) | Informational |
| 16. | Operations Budget Status Report for December 2022 (Gordon Meyer) | Informational |

OTHER ITEMS

- | | |
|--|---------------|
| 17. Chair's Report | Informational |
| 18. Chief Executive Officer's Report | Informational |
| 19. Board Member Communications | Informational |
| 20. Additional Public Comments Not on The Agenda | |
| If the limit of 5 speakers is exceeded under No. 3 (Public Comments) on this agenda, additional speakers will be taken at this time. Subjects of previous hearings or agenda items may not again be addressed under Public Comments. | |

CLOSED SESSION

21.

ADJOURNMENT

- | | |
|------------------------------|---|
| 22. Next Meeting Date | The next Board of Director's meeting is scheduled for March 16, 2023 at 9:00am. |
| 23. Adjournment | |



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/9/2023

Agenda Item No. 4

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

Kearny Mesa Division (KMD) Zero Emission Bus (ZEB) Overhead Charging System Layout and Design – Work Order

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order WOA356-AE-05 under MTS Doc No. PWL356.0-22 (in substantially the same format as Attachment A) with Pacific Railway Enterprises, Inc. (PRE), a Disadvantaged Business Enterprise (DBE), in the amount of \$354,742.55 to provide engineering planning services for the KMD ZEB master planning.

Budget Impact

The total cost of this contract is estimated to be \$354,742.55. The project is funded by Capital Improvement Program (CIP) budget number 3009117201 – KMD ZEB Overhead Charging Master Planning.

DISCUSSION:

On October 19, 2017 (AI 30), the MTS Board directed staff to implement a ZEB pilot program. As part of the pilot program, MTS installed six stand-alone charging stations at Imperial Avenue Division (IAD), two at KMD, two at the East County Division, and two at the South Bay Bus Maintenance Facility (SBMF). In addition to the installation of the charging stations, MTS has completed an electric bus concept layout study at SBF and IAD, is in construction for the first phase of overhead charging infrastructure at SBF, and is in design for the first phase of overhead charging infrastructure at IAD.

MTS operates and maintains a fleet of one hundred one hundred sixteen (116) compressed natural gas (CNG) buses and two (2) battery electric buses at KMD and seeks to implement a scalable and modular battery bus charging system for the entire fleet. Today's proposed action would help MTS take the next step of meeting this goal. The initial intent of the KMD zero emission bus master planning study is to commence charging for an additional twelve (12) 40'



Battery Electric Bus (BEB) in FY27, twenty-three (23) 40' BEB in FY28 while maintaining current operations. Charging thirty-five (35) BEBs requires a more robust infrastructure for multi-bus simultaneous charging. Given the state mandate to convert the MTS fleet to ZEB over time, the infrastructure to charge these buses will be the first installation of a scalable and modular battery bus charging system at KMD.

Under the proposed work order, PRE will provide planning services for a set of conceptual layouts, planning report, and a recommendation for the phased implementation of BEB charging facilities for the entire bus fleet at KMD. The scope of services under this work order will focus on charging technology, conceptual layouts, and a summary explaining all aspects of the proposed master plan.

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 Set Aside- Three (3) prime contracts awarded to a certified Small Business (SB) or a 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 November 4, 2022, MTS issued a Request for Proposals (RFP) to all firms in Categories A and B.

On December 9, 2022, MTS received a total of four (4) proposals from Chen Ryan Associates (CRA) (a DBE firm), Dokken, HDR, Inc., and PRE (a DBE firm).

An evaluation panel was comprised of MTS representatives, and the proposals were evaluated based on the following factors.

1. Project Team
2. Project Team's Capabilities
3. Project Understanding and Approach
4. Schedule

On January 9, 2023, , the selection committee evaluated the initial proposals and scored as follows:

Ranking	Proposer Name	Total Score
1.	PRE (a DBE firm)	89.01
2.	Dokken	88.33
3.	HDR. Inc.	73.67
4.	CRA (a DBE firm)	70.66

After an evaluation of the proposal, the evaluation panel determined that PRE was the most qualified firm and best met the requirements set forth in the RFP, with final score of 89.01 points out of maximum 100 points.

The evaluation panel then reviewed PRE's initial price proposal in the amount of \$354,742.55. Based on the level of effort and the design work involved for this project, staff determined the contract price to be fair and reasonable. For the project, PRE will utilize the following subcontractor:

Subcontractor Name	Firm Classification	Value of Services
AECOM Technical Services	None	\$319,067.84

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Work Order WOA356-AE-05 under MTS Doc No. PWL356.0-22 (in substantially the same format as Attachment A) with PRE, a DBE and SBE, in the amount of \$354,742.55 to provide engineering planning services for the KMD ZEB master planning.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Draft Work Order MTS Doc. No. WOA356-AE-05

February 16, 2023

MTS Doc. No. PWL356.0-22
Work Order No. WOA356-AE-05

Pacific Rail Enterprises, Inc.
Jennifer . Seccombe
President/CEO
3560 University Ave, Suite F
Riverside, CA 92501

Dear Mrs. Seccombe:

Subject: WORK ORDER WOA356-AE-05, TO MTS DOC. NO. PWL356.0-22, GENERAL ENGINEERING SERVICES FOR KEARNY MESA DIVISION (KMD) ZERO EMISSION BUS (ZEB) OVERHEAD CHARGING SYSTEM LAYOUT AND DESIGN

This letter shall serve as our agreement for Work Order WOA356-AE-05 to MTS Doc. No. PWL356.0-03, for engineering services under the General Engineering Consultant Agreement, as further described below.

SCOPE OF SERVICES

Provide engineering planning services for the KMD ZEB master planning. Work provided under this Work Order will be performed in accordance with the attached Scope of Services (Attachment A).

SCHEDULE

The Scope of Services, as described above, shall be for a period of fifteen (15) weeks from the date of the Notice to Proceed.

PAYMENT

Payment shall be based on actual costs in the amount not to exceed \$354,742.55 without prior authorization of MTS (Attachment B).

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,

Accepted:

Sharon Cooney
Chief Executive Officer

Jennifer Seccombe, President/CEO
Pacific Rail Enterprises

Date:

Attachments: Attachment A, Scope of Services
Attachment B, Negotiated Fee Proposal

**ATTACHMENT A
SCOPE OF SERVICES**



PWL356.0-22 Work Order Agreement Request for Proposal

December 9, 2022

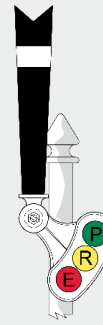
Kearney Mesa Division (KMD) Zero Emission Bus (ZEB) Overhead Charging Systems Layout and Design



PACIFIC
RAILWAY
ENTERPRISES, INC.

3560 University Avenue
Suite F
Riverside, CA 92501

AECOM



PACIFIC
RAILWAY
ENTERPRISES, INC.

December 9, 2022

Mr. Elias Belknap
Senior Project Manager
San Diego Metropolitan Transit System
1255 Imperial Avenue
San Diego, CA 92101

RE: Request for Proposal for Contract PWL356.0-22, Work Order Agreement WOAXXX-AE-05

Dear Mr. Belknap,

Pacific Railway Enterprises, Inc (PRE) is pleased to submit this proposal for your review and consideration. **Our team should be selected for this work because we have included AECOM's National Zero Emission Bus Facility Lead, Jewels Carter to lead the study at Kearney Mesa Division.** Mr. Carter was the task lead for site analysis, Battery Electric Buses (BEB) charging technology selection, and transitional phasing for both MTS' South Bay Maintenance Facility and Imperial Avenue Division. PRE formed this team with AECOM Technical Services for opportunities like this: providing MTS with access to AECOM's extensive resources and increase the overall competition for work within the A&E Contract.

Below is PRE's company information:

- Contact: President/CEO, Jennifer A. Seccombe, PE; jaseccombe@pacrail.com
- Address: 3560 University Avenue, Suite F, Riverside, CA, 92501
- Telephone: (951) 784-4630, x110
- DBE Firm CUCP #42273; DIR #1000009052
- Website: www.pacrail.com

Within this proposal we have demonstrated our team's relevant qualifications and experience, our understanding and approach to this project, a proposed schedule, resumes of key individuals from our team, and a separately submitted fee. As the Consultant Contract Manager, I commit to working closely with you to make this project a success.

Thank you for this opportunity and we look forward to meeting MTS's objectives for a transition plan to BEB.

Sincerely,

Jennifer A. Seccombe

Jennifer Seccombe, PE
PRE-PWL356.0-22 Consultant Contract Manager

All project members planned for the KMD-ZEB Study are profiled here. The unique qualifications of each proposed staff member are described along with their anticipated time commitment.



KMD - ZEB PROJECT LEADERSHIP TEAM PROFILES & COMMITMENT

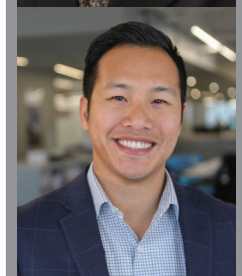
Jennifer Seccombe, PE (PRE) will lead the team as the Project Manager. As PRE's MTS Contract Manager, Jennifer has been working on MTS rail systems projects for over a decade. She has 25 years of experience in systems engineering design. Jennifer has led multiple small projects for agency owners that have been highly successful, including Metrolink, NCTD, and SANDAG providing comprehensive project management, design and value engineering. She successfully managed a \$14M communications project, her largest to date.

The Deputy Project Manager will be **Ryan Winn (AECOM)**. As a specialist, Ryan has 7 years of experience specific to Zero Emissions fleet transition projects. Ryan is currently working on predictive energy modeling for bus routes to determine energy needs for conversion of Capital Metro's bus fleet to ZEB. In addition he developed strategies based on best fitting programs, policies and project management for San Diego Gas & Electric's Acceleration 2 Zero project.

Robert Hertz, AICP (AECOM) will be the Principal in Charge. Robert is a senior project manager with 31 years of industry experience in transportation planning with a local presence to MTS. He can contribute knowledge and experience from both MTS and SANDAG projects. Robert was AECOM's project manager for the SANDAG Downtown Bus Stopover and Multiuse Facility conceptual design project, which included bus operations and configuration planning.

The Battery Electric Bus (BEB) Master Plan leader will be **Jewels Carter, AIA (AECOM)**. Jewels brings his experience with MTS on ZEB past projects at South Bay Maintenance Facility and Imperial Avenue Division. He led the BEB functional design for those projects and developed documents and detail specified components that are anticipated to be applied to KMD. As the national zero emissions lead for AECOM with 30 years of career experience, Jewels not only brings a diverse perspective but incorporates lessons learned from ZEB projects across the country.

Andrew Bui, PE (AECOM) will lead Quality Assurance and Quality Control (QA/QC). Andrew is AECOM's national transportation innovation leader. He has served as the project manager and technology lead for the Los Angeles Department of Transportation Bus Electrification for BEB retrofits to four of their facilities. This experience will make him a strong independent reviewer of the KMD-ZEB project.



PROJECT TEAM OVERVIEW

All project members planned for the KMD-ZEB Study are profiled here. The unique qualifications of each proposed staff member are described along with their anticipated time commitment.



Att.A, AI 4, 02/13/23

KMD - ZEB PROJECT ENGINEERING TEAM PROFILES & COMMITMENT

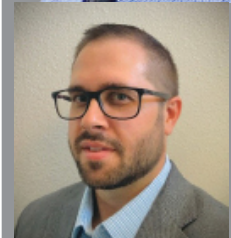
Bruce Farrell, AIA (AECOM) will be the Architectural Lead. Bruce was part of the MTS ZEB Pilot Program, which produced a ZEB Transition Plan for 5 MTS divisions, including Kearney Mesa. He developed multiple alternatives of yard bus parking and circulation. Bruce has been involved in ZEB transition studies for Culver City Transportation Department (CityBus) where he designed overhead charging equipment space frame structure with maximum flexibility.



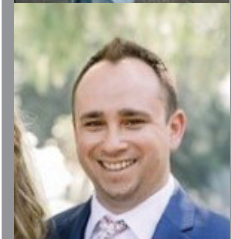
The Structural Lead will be **Steven Brokken, PE (AECOM)**. Steven was the structural engineer for the Culver City Bus Electrification Transition project. He has provided design for a space frame systems to provide overhead routing of electric vehicle charging equipment and solar panels on the top surface of the space frame. Steven brings an impressive 44 years of engineering experience to the team.



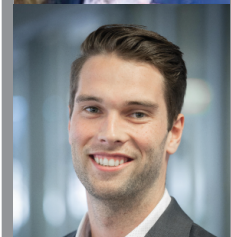
Jason Fischer, PE (AECOM) will serve as the Civil Lead. Jason provides a local presence based in AECOM's San Diego office with 16 years of design experience. In the past he has led a task for the Port of San Diego mapping out existing utilities. Jason has participated in preliminary studies as well as full PS&E design for bikeways, roadways, and busways.



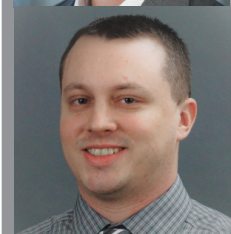
As a Civil Associate, **Kevin Ciucki, PE (AECOM)** has 9 years experience in surface transportation for a variety of civil disciplines including a BRT project in Oakland, CA. He has experience in preparing project reports for the SR-91/I-15 Express Lanes Connector project and the SR-33 Pavement Rehabilitation project including a traffic management plan. Kevin is local to San Diego.



Jordan Zimmer (AECOM) will be a Civil Design Engineer on the project. Jordan has spent 5 years working with MTS, SANDAG and SDG&E. He completed a vehicle layout analysis for the SANDAG Downtown Bus Stopover and Multiuse Facility conceptual design project. Working on the University Avenue Bikeway project, Jordan led design for proposed and relocated bus stops.

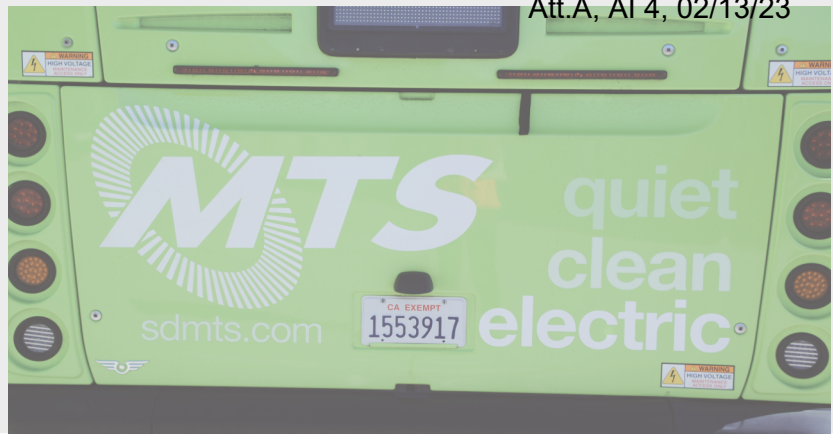


As a Certified Estimating Professional, **Russell Link, CEP (AECOM)** will provide cost estimating for the project. Russell has 17 years of experience preparing cost estimates for materials, labor and equipment for construction projects. He recently assembled estimates for the new Ameren Transmission Operations Control Center, which included smart technologies, renewable energy, energy storage and various technology systems.



PROJECT TEAM OVERVIEW

All project members planned for the KMD-ZEB Study are profiled here. The unique qualifications of each proposed staff member are described along with their anticipated time commitment.



Att.A, AI 4, 02/13/23

KMD - ZEB PROJECT ENGINEERING TEAM PROFILES & COMMITMENT

The Electrical Lead and Generator/Solar Designer will be **Tyler Blauvelt, PE (AECOM)**. Tyler worked on the BEB transition at Culver City Transportation, producing IFB electrical drawings and specifications for the incremental transition of 60 buses. He also completed assessments and produced a report detailing infrastructure build-out for a fully electric fleet as well as a hybrid fleet of BEB and hydrogen fuel cell powered busses for Livermore Amador Valley Transit Authority.

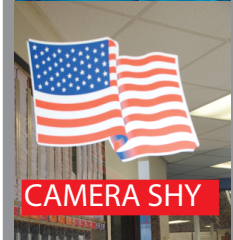
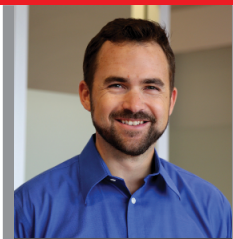
Lynn Feng (AECOM) has extensive knowledge of the planning process in California including familiarity with the San Diego area and the governance model, focusing on electrification for 3 years. Lynn worked on the Fleet Electrification Feasibility White Paper for VDOT, GDOT and FDOT, developing an industry scope pilot project to gather real-world data and operating experience.

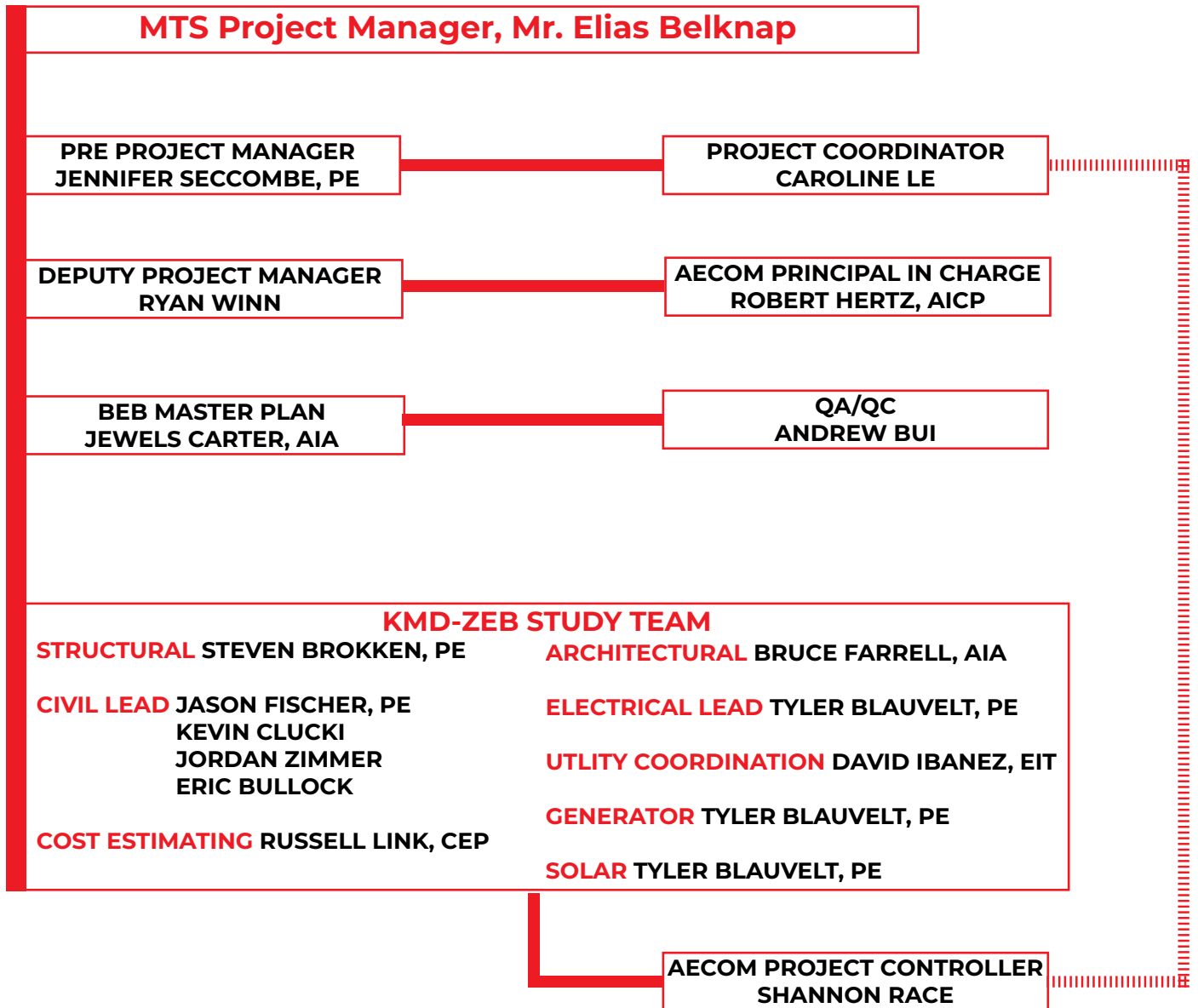
Utility Coordination for the project will be performed by **David Ibanez, EIT (AECOM)**. Coordination with local power utilities to coordinate incoming new medium voltage electrical service and gear are routine tasks for David. He worked on the ZEB Pilot program for Culver City Transportation, completing coordination with PG&E for expanded service requirements, performing load analysis and voltage drop calculations.

Eric Bullock (AECOM) will provide the project with any CAD/BIM needs. Eric worked on the on the ZEB Pilot program for Culver City Transportation as a designer, drafter and planner. The project included planning for a new parking structure on site that will accomodate buses on the ground level and employee parking on four upper levels.

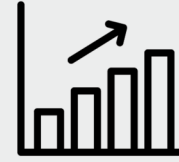
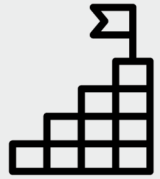
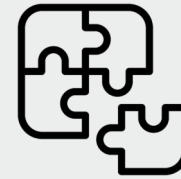
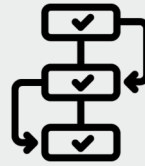
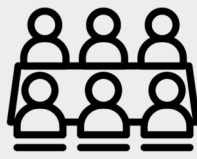
Shannon Race (AECOM) will provide project financial management to the AECOM team members and will provide information to PRE for monitoring, helping the overall project to stay on budget. She is currently serving as financial lead/control support for mutiple SANDAG, Caltrans, and SDG&E projects.

Caroline Le (PRE) will provide project management assistance and coordination to the team by preparing agendas, recording meeting minutes and updating the project schedule. Caroline is a detail oriented electrical engineer with 4 years of experience in design of communications systems, conduit, low voltage power and standby power. She will participate in the meetings and assist Jennifer in reviewing deliverables prior to delivery to MTS.





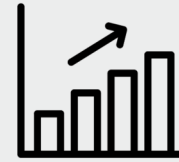
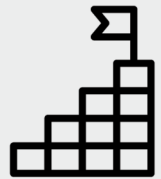
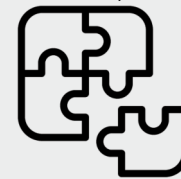
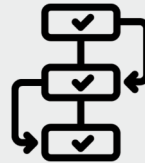
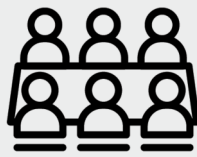
All project members shown in the organization chart for the KMD-ZEB Study are profiled under the Project Team Overview, pages 3-5 of this proposal. We believe we have assembled a team with relevant experience that aligns with the scope and objectives of this study. To keep the project on track, we have added a specific project controls interface between PRE and AECOM, as shown in the dashed line.



KMD - ZEB PROJECT TEAM CAPABILITIES

- ♦ **Team Management Coordination and Scheduling Abilities:** Our team will develop a strong Project Management Plan and define/track specific project risks in order to successfully monitor overall project scope, schedule and budget. It is important that this roadmap be revisited and statused regularly throughout the study. Regular communication, both with and without the owner, will help identify any issues early on in the project, allowing freeform discussion to determine risk mitigation. Meeting minutes will be recorded and action items will be assigned and monitored until completion. Scheduling will be performed with Microsoft Project software, updated weekly, and distributed for review at each meeting.
- ♦ **Team Ongoing Work:** The broad knowledge of the team in performing ZEB related work will enable the team to have flexibility to adapt to various resource demand levels. The KMD-BEB project size is not large enough to require dedicated staffing, but this is not a disadvantage to MTS. Resources working on simultaneous projects that are trying to solve similar problems can have a beneficiary effect. Challenges encountered on one project can present lessons learned for another project. The majority of these proposed staff are comfortable with managing multiple projects at one time. For the KMD-ZEB project, the philosophy “What gets measured gets done” will be deployed. Effective project management will ensure forward progress is occurring. Appropriate steps will be taken to remedy in a timely manner if delays are detected.
- ♦ **Quality Assurance and Quality Control:** PRE’s goal on every project is to deliver a product that is professionally prepared, on time, within budget and in accordance with all industry and client standards. We have proposed a design team with experienced, competent staff and good relationships across disciplines. Communication will be reinforced through regularly scheduled design meetings throughout the project development to strengthen the team and leverage solutions collectively. The following quality control steps are proposed:

 - ♦ Define the project scope, schedule, and key contacts in a Project Management Plan (PMP) that is accessible to the team.
 - ♦ Hold regular design meetings with the owner and without the owner throughout project development.
 - ♦ Assemble deliverables in Bluebeam and allow adequate time for interdisciplinary review.
 - ♦ Check deliverables via an independent competent party, not directly working on the project design.
 - ♦ Project Manager consistently drives agendas, risk register review, schedule review, and tracking of action items.



KMD - ZEB PROJECT TEAM CAPABILITIES

- ♦ **Cost Controls:** The overall budget will be monitored versus schedule and project progression. PRE has an in house tracking tool to monitor company budgets in real time. PRE's Project Coordinator will communicate with AECOM's Project Controller to get regular updates of AECOM's budget utilization. If an out-of-scope item arises, PRE will assess the specific impacts and prepare sufficient details with potential options for a discussion with MTS so a timely and informed decision can be made. Often it is when out-of-scope items are not addressed immediately there is an impact to the budget, because the team loses sight of direction. Regular meetings with communication and status discussions should allow for early identification of these items if any.

- ♦ **Staff Availability and Commitment to KMD-ZEB:**

The following table shows each proposed staff member for this project and the availability and commitment of time towards the project. The staffing assumes a March 16 MTS Board of Directors approval with an NTP in late March or early April.

Within the table, all starred staff members are based within the Southern California and can easily respond locally to MTS.

KMD-ZEB Team Staff Member	Availability & Commitment
Jennifer Seccombe*	20%
Ryan Winn*	25%
Robert Hertz*	5%
Jewels Carter	50%
Andrew Bui*	5%
Bruce Farrell	40%
Steven Brokken	25%
Jason Fischer*	10%
Kevin Ciucki*	25%
Jordan Zimmer*	25%
Russell Link	25%
Tyler Blauvelt	60%
Lynn Feng*	15%
David Ibanez	30%
Eric Bullock	75%
Shannon Race	15%
Caroline Le*	40%



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

The Zero Emission Bus (ZEB) Charging Concept Master Plan shall be comprehensive to implement complete ZEB infrastructure to support either a fleet of (125) one hundred and twenty five Battery Electric Buses (BEBs) fleet or Hydrogen Fuel Electric Buses (HFCEB) fleet at the Kearney Mesa Division (KMD). The HFCEB master plan concept will show a final buildout of Zero Emission (ZE) supporting infrastructure including concept layouts of the hydrogen storage, compression, on-site distribution and dispensing / fueling system. The BEB master plan will show a final buildout of BEB supporting infrastructure including concept layouts of the new SDG&E charging electrical service entrance and gear, new MTS owned electrical charging power distribution gear, overhead structural frame over bus parking area to support overhead pantographs to charge the BEBs, chargers to energize the pantographs and resiliency components such as solar photovoltaic arrays, provision and sizes for fixed and trailerized power generators, and a battery electric storage system container(s) (BESS). Each master plan will be subdivided into smaller construction concept 'phases' that allow the various ZE components to be constructed with minimal impact to on-going transit operations and with the goal of retaining all KMD buses on site during construction. Two known phases will be the initial phase supporting twelve (12) 40-ft ZEBs in an initial installation ready in year 2027 and a second phase supporting (23) twenty-three 40-ft ZEBs in year 2028. Additional phase concepts will be developed that allow conversion of the remaining yard to ZEB while keeping all KMD buses on-site.

Services shall generally include:

- ◇ Identification of required charging infrastructure and placement needed to support the initial (12) twelve incoming BEBs as a scalable solution, allowing for an incremental scaling electrical design to support a future full fleet of all electric vehicles and its supporting resilient infrastructure.
- ◇ Identification of required hydrogen storage / compression / distribution and dispensing system to support a full HFCEB fleet as well as an only a portion of the fleet in a mixed BEB and HFCEB option. Design goal will be to allow either HFCEB infrastructure or BEB infrastructure to be constructed without affecting the ability to build the other ZE infrastructure.
- ◇ Design with a focus of keeping existing buses on-site during master plan phased construction. This includes identifying potential general contractor construction staging areas.
- ◇ While keeping the existing bus parking orientation will be considered in the early concepts, additional out of the box concepts such as replacing the existing staff parking garage and or relocating the entry / exit gates will also be considered if the modifications enhance the ZEB master plan operational efficiency and parking capacity.
- ◇ Development of three (3) concepts for nose to nose, side by side parking with overhead frame charging and for HFCEB including cost and recommendations for laying out and operating the initial twelve (12) ZEBs and the ultimate full transition to ZEBuses.
- ◇ Validation of the site's existing utilities against the incoming fleet's requirements and coordinate with the public utilities on implementing any required additions.
- ◇ Assisting MTS with preparation of the required BEB infrastructure additions to be implemented with the ongoing Kearney Mesa Division daily operations.



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

Our team proposes that these consulting services be divided into sequential tasks, as indicated in the scope of work outline below:

SCOPE OF WORK

Task 1: Project Management

1. Perform project management and coordination with MTS and subconsultant AECOM.
2. Conduct a project kick-off meeting to establish clear lines of communication, review the scope of work and project schedule, clearly define project goals and objectives, and identify MTS staff to be involved in the review process. Schedule and coordinate up to seven (7) bi-weekly project status meetings identifying appropriate participants for each meeting, developing (with MTS input) and distributing agenda prior to meetings, developing and distributing minutes for each meeting. Note that (2) two of the seven (7) bi-weekly meetings will be combined with the (2) preassessment discussion / charrettes.
3. A project schedule will be developed using Microsoft Project and updated prior to each meeting.
4. Prepare and submit monthly progress reports. Each report shall include an updated schedule, summary of tasks in progress and completed, and projected tasks to be accomplished in the next month.
5. Interdisciplinary team meetings will be held and internal Interdisciplinary review of deliverables will be held using Bluebeam sessions.

Task 1 Deliverables - Kick-off meeting, up to seven (7) status meetings, and monthly progress reports and schedule.

Task 2: Site Assessment

1. Review existing documents provided by MTS which are pertinent to the project including:
 - a. As-built drawings of existing facilities with a focus on identifying available space for battery electric bus (BEB) and hydrogen fuel cell electric buses (FCEB) infrastructure and existing site items / conditions that will hinder zero emission bus (ZEB) improvements. Identify any new modified or added site modifications, structures, electrical service, backup generators, existing charging stations, or otherwise enhanced or modified the Kearney Mesa Division (KMD) site, power service and service entry points.
 - b. Ongoing KMD projects or studies that could impact the KMD ZEB master plan designs.
 - i. Maintenance bus in ground lift replacements
 - ii. Concrete lot replacements
 - iii. LED lot lights
 - iv. CNG upgrades
 - c. Specifications for proposed battery electric buses, charging equipment, and charge management software to be procured directly by MTS.



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

- d. Existing KMD CAD background including built structures, fueling, fare, and wash equipment, above and underground utilities including storm water vaults and testing wells, piping, electricity, water, and natural gas if available.
 - e. One (1) years' worth of utility bills to establish existing site power usage and current rate structure. Review SDG&E load analysis if available.
 - f. Ten (10) years' KMD power disruption report from SDG&E to help establish grid reliability to site.
2. Develop a site specific questionnaire for discussion with MTS Management.
 3. Conduct a Preassessment Discussion to field verify as-built conditions and confirm operational site, vehicle and work flows. Meet with MTS key stake holders and KMD operations and maintenance staff to identify current O&M practice that could be affected by the introduction of ZEBs and confirm the current on-site bus traffic flow during pull-in, pull-out, and nightly servicing.
 4. Perform on-site assessment observations observing and verifying the current bus parking configuration. (daytime). Review flow of staff, private vehicle, and vendor (staff and vehicles) on site.
 5. Perform on-site assessment observations observing and verifying the current bus parking configuration (nighttime). Review flow of staff, private vehicle, and vendor (staff and vehicles) on site.
 6. Prior to completing existing conditions report:
 - a. Confirm existing electrical natural gas and electrical service to site. Confirm availability of hydrogen fuel to site.
 - b. Confirm the capacity and usage of any on-site power generation at existing bus facilities, including existing CNG generation and confirm current power requirements and usage to support existing facilities, existing CNG fueling system and BEB charging stations.
 - c. Review and document adjacent off-site power availability as well as availability (voltage and capacity) and locations of closest substations with SDG&E.

Task 2 Deliverable - Existing Conditions Report Draft and Final

Task 3: KMD Zero Emission Vehicle Layout Analysis

1. As a prerequisite activity, review anticipated MTS KMD Phase 1 chargers and dispensers to establish charging infrastructure component sizes (foot print area and height) to be used for layout of the ZEB master plan concepts. Our team will need to:
 - a. Identify and analyze infrastructure requirements to support the ZEB fleet. Analysis will include PE concept:
 - i. Develop master plan to maximize capacity of buses parked on site.
 - ii. Confirm with MTS the anticipate mix of vehicle sizes (40, 60-ft buses) and types (transit, articulated, double-decker, etc...) to be used for master planning concepts.

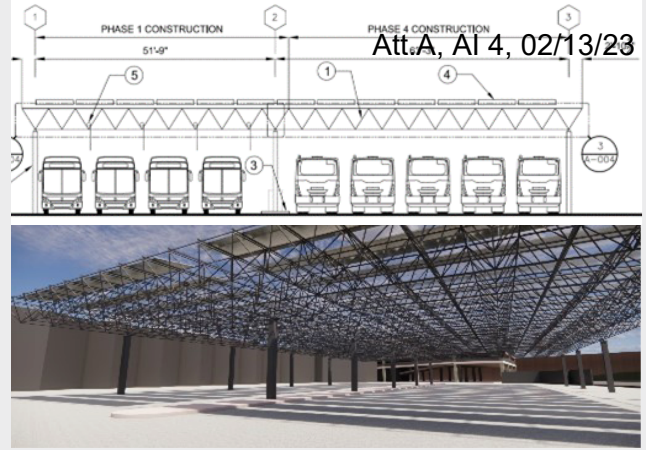
Overhead Charging Frame in Construction
at South Bay Maintenance Facility



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

- iii. Identify power system components required (transformers, switchgear, chargers, dispensers, etc.) and power requirements for coordination with SDG&E.
 - iv. Identify emergency power and backup requirements including fixed & portable generators, solar array and BESS battery storage system.
 - v. Identify potential risks and steps to mitigate those risks.
 - vi. Integrate MTS existing agency standard smart charging / charge management systems into incoming BEB fleet and on-site building management systems.
 - vii. Confirm with SDG&E maximum size (physical and capacity) available as utility provided medium voltage service switch and transformer(s). Include switch and transformer required clearances for operation and maintenance.
 - b. Identify necessary infrastructure upgrades and energy strategies to minimize risk for operating ZEBs.
 - c. Identify potential long lead electrical service, electrical equipment, and charge management items that will not only affect “how” to procure these items but also “who” and “when”.
 - d. Validate MTS’s selection of inverted overhead pantographs as the proposed type of charger to use and how its use affects charger to pantograph ratio, bus parking, charge time, charge management hardware / software opportunities, yard management, and charge management approach.
 - e. Identify existing site and facility modifications needed to maintain the ZEBs on the KMD site.
2. Develop Electric Vehicle Layout Concepts. The design team intends to work collaboratively with MTS while these concepts are being developed. Our team will need to:
- a. Develop site and charger layouts with emphasis on:
 - i. Master planning for “Ultimate Buildout” to maximize bus parking, service and operational capacity.
 - ii. Circulation patterns for vehicles, equipment, materials, and personnel that will provide efficient, cost effective, and safe operation. Ingress and egress routes that maximize safety and security and minimize vehicular and pedestrian conflict on and off the site.
 - iii. Ability to improve existing site parking and driveways to provide better on-site vehicle flow.
 - iv. Scalability of power for the on-site electrical distribution and charging systems to expand from the initial twelve (12) 40-ft BEBs in FY27, (23) 40-ft BEBs in FY28 to the ultimate completely electric fleet. The designs will be created to readily accept modular expansion to grow with minimal operational impact during

Section & Rendering of Culver
City Overhead BEB Charging
Frame - Out for Bid



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

- the phased transition of a mixed size fleet.
- v. Identification, location, and requirements of future electrical infrastructure expansion elements including but not limited to CNG generator, solar array and battery electric storage onsite.
- vi. Consider utilization and re-purposing of existing CNG yard to support a new hydrogen yard to support FCEBs.
- b. Develop a conceptual modular phasing plan to show how the site can remain operational during construction. The phasing plan will include drawings with a narrative description to be reviewed and agreed upon by MTS. Critical areas for phasing are site access, contractor lay down area, site traffic and parking, building access, and building system coordination.
- c. Develop circulation pattern options for buses, non-revenue vehicles, private vehicles (employees and visitors), delivery vehicles, and service contractor vehicles. On-site vehicle traffic flow will be impacted by the introduction of ZEBs and its supporting infrastructure. As a result, we will:
 - i. Recommend the on-site traffic flow to be implemented for ZEBs and non ZEBs, including pull- in, bus parking, nightly service cycle, and pull-out.
 - ii. Identify space and electrical infrastructure requirement impacts and considerations for possible future employee and non-revenue electric vehicle charging.
- d. Develop a conceptual implementation schedule including ZEB procurement, design phases, approvals, bidding, construction, commissioning, move-in and start-up.
- e. Develop Initial Power Requirements for each layout concept developed. This high-level power demand will allow the design team to compare the effectiveness and viability of the different options and present the various power scenarios to both MTS and SDG&E for input.
- f. Schedule and participate in an utility coordination meeting with SDG&E. This meeting will allow SDG&E to review anticipated power need ranges of potential options and provide the design team with their systems capacity to provide equivalent power to the site or confirm that maximum power is available to the site.
- g. Submit Conceptual Layouts package for MTS review and comment. This is the formal deliverable that will include:
 - i. Developed Concepts.
 - ii. Conceptual phasing plan.
 - iii. Implementation schedule.
 - iv. Power requirements per developed concept.
 - v. Notes from SDG&E review of concepts and power requirements.



KMD - ZEB PROJECT UNDERSTANDING AND APPROACH

Task 3 Deliverables - Conceptual Layouts package.

Task 4: Firm Recommendation

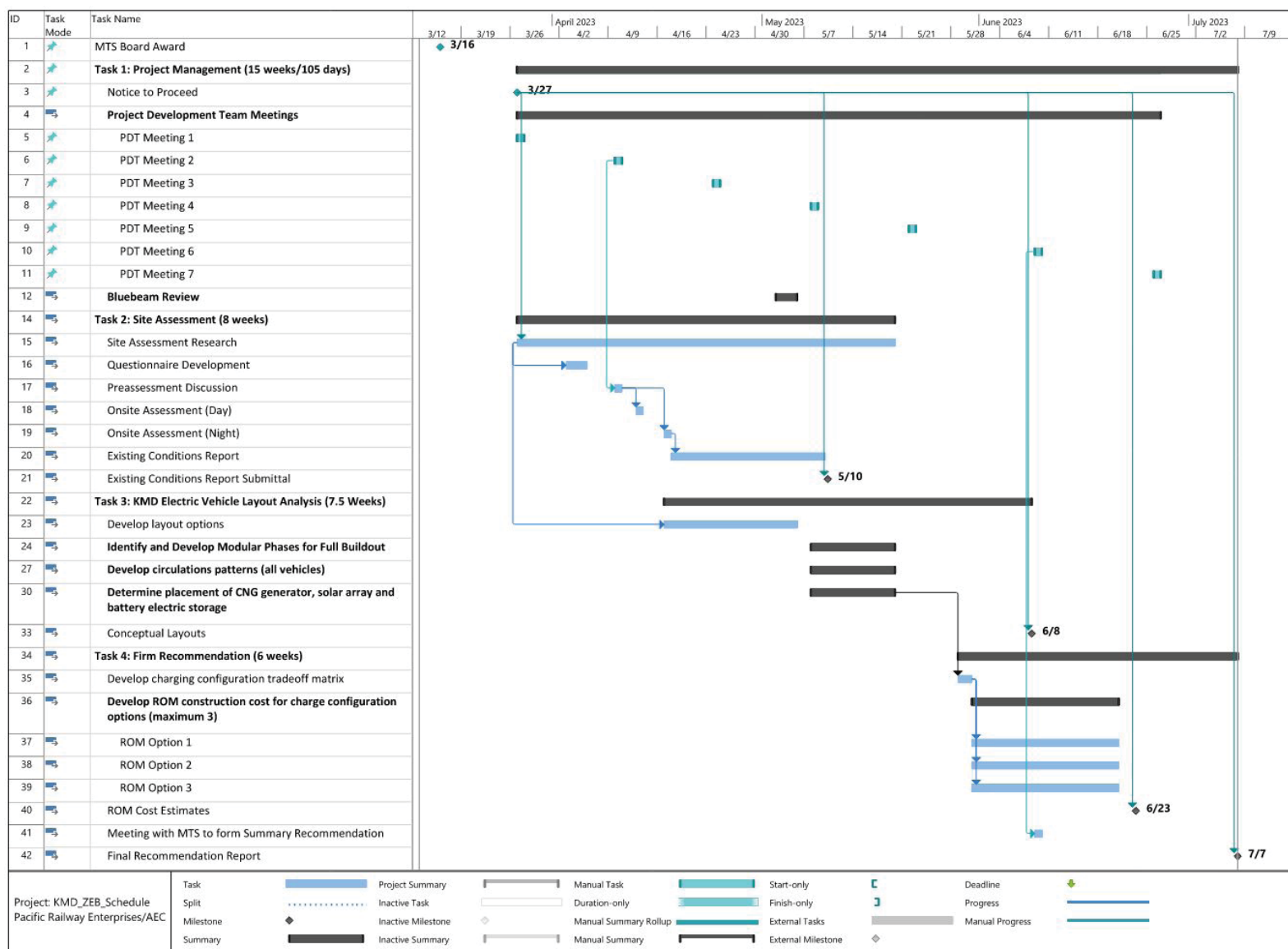
1. Develop a charging configuration tradeoff matrix with pros and cons identified for discussion with MTS. Concepts will be reviewed with respect to operational flow, constructability, cost, impact to ongoing operations, and expandability. Based on these discussions, the concepts will be refined and presented for review. This review will result in the selection of three (3) concepts to be further developed as the recommended options. Each concept will present solutions for the initial near-term twelve (12) BEB's charging support, near mid-term of twenty three (23) BEB's charging support and the ultimate ZEB master plan buildout of the site to a fully electric fleet.
2. Develop Rough Order of Magnitude (ROM) cost estimates for each developed charging concept option, phasing plan, implementation schedule, on-site and off-site electrical improvements, and CNG fueling system decommissioning. These estimates will include any proposed facility renovation / modification / construction, site improvements, and associated equipment.
3. Hold a working meeting with MTS to form a summary recommendation.
4. Update the two selected Electric Vehicle Layout Concepts and prepare/submit a Final Recommendation Report to include:
 - a. A statement of the problem, purpose, and objective of the Conceptual Layouts.
 - b. Analysis of the Conceptual Layouts leading up to the recommended options including pros and cons of each concept.
 - c. Updated ROM cost estimates.

Task 4 Deliverables – Draft and Final Recommendation Report including four (4) bound copies of final report.

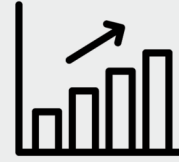
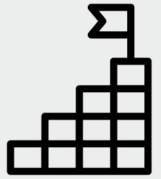
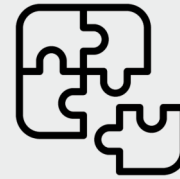
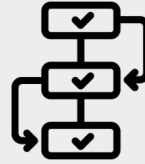
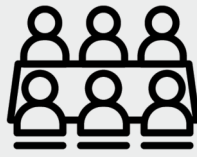


KMD - ZEB SCHEDULE AND DBE UTILIZATION

Our team schedule is presented below. The schedule will be published to all team members and be revisited regularly at each team meeting. A PDF version of the schedule is included in the appendix.



As the DBE Prime, Pacific Railway Enterprises, Inc (PRE) will be utilized on this project. The project will provide an opportunity to perform a job that differs from MTS rail. It will also give our electrical engineering staff exposure to ZEB technology, principles, and design approach.



KMD - ZEB PROJECT TEAM RESUMES

KMD-ZEB Team Staff Member
Jennifer Seccombe
Ryan Winn
Robert Hertz
Jewels Carter
Andrew Bui
Bruce Farrell
Steven Brokken
Jason Fischer
Kevin Ciucki
Jordan Zimmer
Russell Link
Tyler Blauvelt
Lynn Feng
David Ibanez
Eric Bullock
Caroline Le

JENNIFER A. SECCOMBE, P.E.
PRESIDENT & CEO/SENIOR SYSTEMS ENGINEER

EDUCATION

Bachelor of Science, Electrical Engineering,
 Specialization in Computer Engineering,
 Minor in Management, 1997
 University of California-Irvine

Certificate, Communications, 2009
 University of California-Los Angeles

PROFESSIONAL AFFILIATIONS

Professional Engineer,
 Electrical, CA License No. E 19158
 Comity in: OR, WA, NM, NV, TX, CO, AZ, UT, FL, MA, IL

WTS-Inland Empire

AREMA

REFERENCES

DeAndre Conley
 SCRRA
 2703 Melbourne Ave.
 Pomona, CA 91767
 213/760-0864

Jerone Hurst
 SCRRA
 2703 Melbourne Ave.
 Pomona, CA 91767
 909/451-2346

Fred Byle
 SDTI (MTS)
 1255 Imperial Avenue, Suite 1000
 San Diego, CA 92101
 619/595-4937

EMPLOYMENT HISTORY

Pacific Railway Enterprises:
 04/2007 – present

Mindspeed Technologies
 (Formerly Conexant):
 01/2001 - 04/2007

Conexant Systems (Formerly Rockwell): 01/1999 – 01/2001

Rockwell Semiconductor
 Systems: 05/1996 – 01/1999



Jennifer Seccombe's career includes over 25 years of systems engineering experience in design, CAD, programming, problem solving, configuration management, standards development and documentation. As the principal of PRE, Jennifer Seccombe has worked within the train control systems industry designing signal, highway grade crossing, communications, positive train control, station, and central office systems. Mrs. Seccombe has held a leading role in all aspects of the transportation engineering project life cycle including: project funding evaluation and study reports, design concept, creation of issue for bid plans, specifications and estimates, material list development, design support during construction, field testing oversight, systems integration, and cutover. As Responsible Engineer, Mrs. Seccombe leads PRE staff developing signal and communications designs for agencies within the Southern California area.

REPRESENTATIVE PROJECTS INCLUDE:

DART – Silver Line Regional Rail Design Build, Dallas, TX. Sealing design build specification set for the communications infrastructure including: fiber, power over Ethernet, telephone, video IP cameras, public address, video message boards, intrusion detection, fire suppression, SCADA, and voice radio. Will also provide review and approval for communications product submittals once the specification set is approved by the owner. Timeframe: 01/2022 – present.

SCRRA – SCORE Simi Valley Communications Design, Simi Valley, CA. Producing issue for bid plans, specifications and estimates for communications backhaul and station systems. Project included addition and phasing of station systems (Visual Message Signs, Cameras, Speakers, Information Monitors) on a new second platform, including a pedestrian underpass and replacement of the existing communications shelter. Communications backhaul tied fiber to an existing microwave facility. Timeframe: 08/2021 – present.

MTS – El Cajon Third Track Project, San Diego, CA: Systems design lead for relocation of the station platform communications cabinet in conflict with the new third track. The project required extensive field verifications due to scarce documentation of existing systems. Developed innovative phasing of the platform systems to support existing infrastructure operation during construction. She developed 100% level design plans, specifications, and cost estimates. Timeframe: 01/2021 – present.

SBCTA – Arrow Maintenance Facility PTC Initialization Design, San Bernardino, CA: Used EDX software to produce predicted area of coverage for WLAN channels for 2 PTC initialization locations along the wayside. Integrated design into maintenance facility communications room. Coordinated Wide Area Network (WAN) connections with SCRRA to integrate the system. Timeframe: 10/2020 – 06/2021.

NCTD – Downtown Convention Center Station Project, San Diego, CA: Used EDX software to produce predicted area of coverage for VHF and ATCS. Used Infovista Planet to produce predicted coverage for 220MHz along the track for PTC. Produced a 5% Design Radio Study Report. Timeframe: 05/2020 – 07/2020.

MTS – Bayside Station Project, San Diego, CA: Systems design lead for track and station platform modifications to support operational changes. The signal design utilizes presence detection for switch indicators. Modifications to this location impacted MTS' central communications facility. Field verifications were performed to identify communications stakeholders and minimize impact to them. She developed 100% level design plans, specifications and cost estimates. Timeframe: 07/2019 – 07/2020.

SCRRA – SCORE San Gabriel Project Study Report, Pomona, CA: Signal design lead for study of 3 double track projects on the San Gabriel subdivision. Evaluated signal placements,

braking calculations, crossing improvements, and communications infrastructure. Produced signal and communications project narrative, estimates and exhibits for larger report. Coordinated constructability evaluations with other disciplines. Timeframe: 09/2018 – 05/2019.

SCRRA – Security Data Network, Pomona, CA: Produced design plans for a systemwide network utilizing DWDM for passenger station security camera video monitoring at a centralized location. The 10Gbps network was designed with two fiber strands and 8 channels, providing future expansion for 7 network isolated applications. In addition, the project involved discovery and proofing of existing conduit, and installation of intercept pull boxes for fiber installation from San Bernardino Station to Rancho Cucamonga Station along the San Gabriel subdivision. This project has been executed in 5 phases to cost effectively utilize an \$8M grant. Within each phase she supported 100% design, bill of materials, estimates, contractor evaluation and selection, design support during construction and construction oversight. Timeframe: 06/2017 – Present.

MTS – Courthouse Station Project, San Diego, CA: Systems design lead for this new station to support operational changes for the future Mid Coast Trolley Extension. The signal design utilizes presence detection for switch indicators in this street running area of the San Diego Trolley. Modified the existing Wide Area Network to add the new station and devised cost-effective integration solutions for the train control network. She developed design plans, specifications and cost estimates. Timeframe: 04/2016 – 05/2017

LACMTA – Willowbrook/Rosa Parks Station Improvements Project, Los Angeles, CA: Design lead in the development of Issue for Bid (IFB) contract documents for two grade crossing modifications and one station pedestrian crossing for the Blue Line light rail system. The project included extensive field verifications, drawing creation, specifications, and engineering support. This project is currently in design support during construction. Timeframe: 11/2015 – Present.

MCCARTHY – County Center - Little Italy Station Cabinet Relocation Project, San Diego, CA: Design lead for this third-party contract to relocate the communications cabinet for construction of the County Center parking structure. She developed design plans, specifications and cost estimates to assist McCarthy in gaining SANDAG/MTS approval to complete the third-party relocation work. Timeframe: 02/2015 – 09/2016.

SANDAG - Orange Line CTC Project, San Diego, CA: Led project management, design and development of Job Order Contract (JOC) documents to incorporate track circuits and signal indications to MTS central control for display on their ARINC CTC supervisory system. She also developed an engineering estimate, construction schedule, scope of work and bill of materials for Contractor negotiations. Delivered the project on time and within budget, meeting MTS goals for providing next train information. Timeframe: 04/2014 – 09/2015.

LACMTA - Microwave Replacement Project, Los Angeles, CA: Communications lead in the project management and development of Issue for Bid (IFB) contract documents. She also developed the proposal to competitively bid and win this LACMTA contract. The microwave network backhaul design used the Alcatel-Lucent 9500 for the Rail Services Division. The project included drawings, a bill of materials list, engineering estimate, and existing conditions survey. Timeframe: 09/2013 – 04/2014.

SCRRA - Orange County Communications Rehabilitation Design, Orange, CA, Lead Design Engineer: Communications lead in the project management and development of Issue for Bid (IFB) contract documents. This project included design of fiber optic SONET and Gigabit Ethernet networks, digital point to point microwave, Advanced Train Control Systems (ATCS) network, and railroad voice radio systems. Mrs. Seccombe provided design support during construction, field testing and integration participation. Timeframe: 05/2009 – 11/2012.



Ryan Winn

Transportation Planner/Project Manager

Years of Experience

With AECOM: 12
With Other Firms: 0

Education

Masters Urban and Regional Planning (MURP), University of California, Los Angeles, 2016
B.S., Civil and Environmental Engineering, Cornell University, 2010

Professional Affiliations

Rautenberg New Leader's Program
Toastmasters International,
Competent Communicator

Ryan is a mobility planner with 12 years' experience on various transportation projects, including corridor planning studies, alternatives analysis, environmental mitigation monitoring, and project management. His recent experiences focus on planning for emerging mobility trends in electrification of transit and municipal fleets, planning for public charging stations, connected and automated vehicles, and congestion pricing/tolling. He holds an undergraduate degree in civil engineering and a graduate degree in urban planning providing him a diverse set of technical skills to deliver various planning studies and infrastructure projects. His Master's thesis was published by UCLA's Luskin Center for Innovation that quantitatively analyzed 500,000 EV charging transactions to study charging behavior and pricing policies.

Project Experience

Acceleration 2 Zero, San Diego Gas & Electric, CA. Transportation planner and task lead developing the core principles that steer the overall EV strategy based on best fitting programs, policies, and projects. Using the key principles and evaluation criteria established during the project through stakeholder outreach, EV strategies are ranked based on potential effectiveness and fit with local policies. Highest ranked strategies are then developed into action plans. 2021-present.

Los Angeles County Public Works ZEV Transition Study, Los Angeles, CA. Project manager responsible for developing the long-term plan for transitioning Public Work's fleet of light, medium, and heavy-duty vehicles to zero-emission vehicles. Tasks include inventorying and categorizing existing composition of fleet vehicles to conduct performance comparison, lifecycle cost analyses, and air quality benefits of transitioning to ZEVs. Specific considerations made for vehicles where no zero-emission alternative exists, is unrealistically priced, or is considered hard-to-electrify so a long-term transition plan based on upcoming procurement cycles can be developed. 2022-present

Arizona DOT Electric Vehicle Infrastructure Deployment Plan, AZ. Task lead responsible for developing the existing and future conditions report that aligns with the National EV Infrastructure (NEVI) requirements for installing charging infrastructure along the designated alternative fuel corridors. 2022-present

Electric Vehicle Infrastructure Study. County of Union. Union County, NJ. Internal project manager to a local subconsultant to study existing and future infrastructure deployment within Union County, NJ. Leading internal team utilizing proprietary EV-Readi software to

Ryan Winn

determine where future EV infrastructure should be deployed based on socioeconomic inputs and stakeholder adjustments. 2022-present

Study of Transitioning the County's Public Works Fleet to Electric Vehicles, Anne Arundel County, Maryland. Transportation planner and task lead responsible for policy analysis of transitioning Department of Public Works municipal light duty vehicle fleet to electric vehicles. Policies look at localities that provide EVs to employees to charge at home, paying for electricity, use by public of city- or county-owned chargers, and pricing policies for public use chargers. 2021-present

Transportation Management Plan, United States Air Force Academy, Colorado. Task lead for developing the electric vehicle transition phasing plan for various users and Academy's fleets of shuttle buses, sedans, vans, trucks, and other specialty vehicles. Plan included identifying key user groups on site and types of chargers needed over time to satisfy EV charging needs. Documented fleet considerations and phased approach to achieve EV needs over time. 2022

Bus Electrification Fleet Study, Denver Regional Transportation District, Denver, Colorado. Transportation planner responsible for putting together state of the industry report and a policy and funding background report regarding recommendations for electric bus deployment, including best practices for propulsion, vehicle, infrastructure, and systems technology. Policy and funding report described all available funding sources at local, state, and federal levels as well as near-term opportunities and potential partnerships for innovative financing. Supporting initial operations planning to determine best routes to electrify based on operating characteristics, vehicle energy loads, and battery sizes. 2019

National Automated Bus Consortium, Los Angeles, California and Nationwide. Transit analyst and project manager for two of the transit agencies in an AECOM-led consortium to accelerate the deployment of full-size automated buses. Duties include analysis of existing bus routes suitable for conversion to automated fleets, including considerations of charging infrastructure. Additional consortium efforts include identifying candidate routes for automated bus deployment, developing bus specifications, and assisting agencies with operating plans. 2019-present.

Publication

Electric Vehicle Charging at Work. Published by: UCLA Luskin Center for Innovation, 2016. Available at: https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/EV_Charging_at_Work.pdf



Robert D. Hertz, AICP

Vice President/Sr. Project Manager



Education

MS, Urban and Regional Planning,
Florida State University, 1991

BS, Economics, Florida State
University, 1989

Licenses/Registrations

Certified Planner, #10760

Years of Experience

With AECOM: 22

With Other Firms: 9

Professional Associations

American Planning Association

American Institute of Certified
Planners

Mr. Hertz is a senior project manager with a background in environmental planning and specific applications for transit and transportation projects. He offers over 30 years of experience in transportation planning projects at the local, regional, and state level. His experience includes project and task management for commuter rail and light rail transit corridor planning, transit maintenance facility planning, high-speed rail planning, long-range and master planning, environmental evaluations, alternatives analysis, and feasibility studies. Mr. Hertz also has a technical background that includes experience with specific evaluations related to traffic and transportation impacts, social and economic impacts, land use assessment, traffic and transit air quality, noise and vibration assessment, and hurricane evacuation planning.

Project Experience

San Diego Association of Governments (SANDAG), I-8 (Kumeyaay Corridor) Comprehensive Multimodal Corridor Plan, San Diego, California. Currently serving as the rail transit lead for a multidisciplinary team conducting the evaluation and consideration of transportation improvement strategies in the I-8 corridor. The team developed and is recommending improvement strategies that will be evaluated for effectiveness and cost and included in the final CMCP to provide future funding eligibility under SB 1.

Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Northern Extension Advanced Alternatives Analysis, Los Angeles, California. Project Manager responsible for oversight, management, and direction of a team of professionals to develop an advanced screening of alternative alignments and features to be recommended for further evaluation during the CEQA and potential NEPA environmental process. The advanced evaluation included elements of engineering, travel demand, transit-oriented communities, first/last mile, environmental, and cost considerations to screen five alternatives down to three alternatives to be recommended for further consideration. Agency and community outreach and coordination were also critical aspects of the process.

Orange County Transportation Authority (OCTA), Orange Maintenance Facility Preliminary Engineering and Environmental Clearance. AECOM Project Manager, working as a subconsultant on CEQA and NEPA environmental clearance for a new commuter rail maintenance facility in Orange County. The



AECOM team is preparing CEQA environmental documentation, anticipated to be a Mitigated Negative Declaration and is assisting OCTA with development and approval of a conditional use permit for the site with the City of Irvine. The project includes a NEPA environmental clearance, consisting of development of an Categorical Exclusion.

San Diego Association of Governments (SANDAG), Downtown Bus Stopover and Multiuse Facility, San Diego, California. Served first as project director responsible for ensuring staffing, resource availability, and strategic decision-making for a multi-disciplinary team, then as project manager. The team evaluated the potential configuration and viability of a downtown bus stopover and potential multiuse development in downtown San Diego. Services include environmental and geotechnical assessment, bus operations and configuration planning and conceptual design, market assessment, and project delivery/procurement assessment. The team evaluated options to satisfy the bus stopover need while providing the greatest value in terms of overall development and potential revenue under a public private partnership.

Metro Gold Line Foothill Extension Construction Authority, Phase 2B, Monrovia, California. Project Manager and Environmental task leader responsible for the development of CEQA environmental documents addressing changes since completion of the Phase 2B Final EIR of the Metro Gold Line Extension between Azusa and Montclair. This second phase of the Gold Line Extension currently in design and changes necessary for implementation are being processed for environmental clearance. During the first time period, between 2014 and 2016, the team produced two CEQA FEIR addenda, developed visual representations of potential grade separations, conducted traffic and transportation analysis, and completed other environmental analysis. Since that time, the team a Supplemental EIR to address changes related to parking at stations and is currently preparing an additional Supplemental EIR to address further changes related to parking.

Los Angeles County Metropolitan Transportation Authority, Eastside Phase 2 Transit Corridor, Los Angeles, California. Alternatives analysis task manager responsible for developing and analyzing alternatives for extension of the Eastside Gold Line from East Los Angeles to the city of Whittier (approximately 10 miles). The project is being developed in three parts. An alternatives analysis consistent with FTA New Starts requirements is part one and was completed in December 2008. The goal of part one was the identification of a locally preferred alternative or set of alternatives that can be advanced into the draft environmental impact statement phase of project development. The LACMTA Board approved the second phase of the project in January 2009.

Mid City/Exposition Corridor Light Rail Transit Project Phase 2, Exposition Authority, Los Angeles California: Mr. Hertz served as a technical reviewer and author for the Environmental Impact Statement/Environmental Impact Report for this planned extension of the light rail system between Culver City and Santa Monica. The project included evaluation of at-grade alignment with multiple roadway and facility crossing locations throughout the western portion of Los Angeles. Mr. Hertz also served on a peer review team to evaluate the completeness of the Final Environmental Impact Report prior to its submittal to the client.

Draper Transit Corridor Light Rail Extension, Utah Transit Authority, Salt Lake City, Utah: Transportation Planning Task Leader responsible for directing the analysis of transportation issues related to this planned extension of the north/south light rail line in Salt Lake City to the Draper Town Center. Mr. Hertz managed the development of all transportation elements of the alternatives analysis and the subsequent Environmental Impact Statement including the analysis of traffic, grade crossing, parking, and station access impacts and potential mitigation measures.

California High-Speed Train Project, Merced to Fresno Section, California High-Speed Rail Authority, Sacramento, California: Technical sufficiency reviewer and editor. Participated in the initial review and revisions to several key sections of the Draft EIR/EIS including the Land Use, Noise and Vibration, Transportation, and Safety and Security sections integral to meeting of a deadline was for delivery of the Administrative Draft EIR/EIS for review by the Federal Railroad Administration and the State of California Attorney General. This deadline was integral to keeping the project on track to receive funding from the American Recovery and Reinvestment Act for further design and construction.



Jewels Carter

Vice President, National Zero Emission Bus Facility Lead

Business Development Senior Director

Years of Experience

With AECOM: 0

With Other Firms: 30

Education

Bachelor of Architecture (BArch),
Architecture, University of Houston,
1992

Licenses / Registrations

Registered Architect, Texas, 16123

Professional Affiliations

American Public Transportation
Association (APTA), Member

APTA Zero Emission Fleet
Committee Member

American Institute of Architects,
Member

Zero Emissions Bus Resource
Alliance (ZEBRA) Member

Automated Bus Consortium (ABC)

Jewels has over 30 years of experience on over 50+ Zero Emission Bus projects and over 110+ Transit and Garage project experience. He has extensive experience designing new and modifying existing transit bus and public works, school bus and private fleet facilities for fleet growth, equipment replacement to accommodate new vehicles and fuel types, and site and bus yard/fleet operational vehicle flow enhancements.

Project Experience

MTS Metropolitan Transit System, Imperial Avenue Division BEB Master Plan & Phase 1 Implementation, San Diego, California

Facility task lead for existing site analysis, BEB charging technology selection and impact of implementation of the different charging systems on the existing operating 200+ bus site. Provided full site BEB master plan options and implementation phases [Prior to AECO]

MTS Metropolitan Transit System, South Bay Maintenance Facility BEB Master Plan & Phase 1 Implementation, San Diego, California.

Facility task lead for existing site analysis, BEB charging technology selection and impact of implementation of the different charging systems on the existing operating 258 bus site. Developed master plan implemental in 11 phases to allow full BEB transition while facility remains operational, Detail design for initial Phase 1 for 24 BEBs as well as installing future proofing infrastructure electrical improvements for microgrid with solar, on-site generator and on-site energy storage for future 271 BEB fleet. [Prior to AECOM]

San Diego Association of Governments (SANDAG) / San Diego Metropolitan Transit System (MTS), East County Bus Maintenance Facility, El Cajon, California. Task lead and facilities team manager for the replacement bus maintenance, administrative and operations facility. The current East County site was a mixture of 1950s and 1960s era buildings and adjacent parcels that had been used to service an 80-bus diesel fleet. Work included new maintenance facility, operations, administrative offices, new CNG fueling lanes, bus wash and parking for an ultimate fleet of 120 CNG buses including 60-foot articulated buses. Buildings were demolished and rebuilt. The site was completely re-graded and paved in phases, without disrupting ongoing onsite transit operations. [Prior to AECOM]

KCATA Zero Emission Transition Plan and BEB Charging

Infrastructure Detail Design, Kansas City, MO. Facility task lead to support zero emission plan development for use in Phase 1 and Phase 2

Jewels Carter

Publications / Presentations

2003 Published – **Industrial Spaces Vol 1**, The Images Publishing Group – Rtron Corporate HQ

2005 Published – **Texas Architect**, Rail Expressed. July / August 2005 Issue

Carter, Jewels. *“Challenges and Issues with Operating a Fleet of Battery Electric Buses.”* **APTA Bus & Paratransit Conference, Reno, NV** May 8, 2017

Carter, Jewels. *“Site Impacts of Incorporating On-Site Depot BEB Charging with Traditional Diesel / CNG Nightly Service Cycle.”* **APTA Sustainability & Multimodal Planning Workshop, Minneapolis, MN** August 7, 2017

Carter, Jewels, *“Each City’s Journey To Transit Bus Fleet Electrification Looks Different”* **ABB Expert Day Conference, New York City, NY** October 30, 2018

Carter, Jewels, *“Considerations for Creating a Long-Term Electric Bus Charging Plan - Best Practices.”* **BusCon Conference, Indianapolis, IN** October 2, 2018

Carter, Jewels. *“Site Impacts of Incorporating On-Site Depot BEB Charging with Traditional Diesel / CNG Nightly Service Cycle.”* **APTA Bus & Paratransit Conference, Tampa, FL** May 8, 2018.

Carter, Jewels. *“Electric Bus Infrastructure and Your Garage.”* **APTA Bus and Mobility Conference, Louisville, KY** May 20, 2019

Carter, Jewels *“ZE Depot Design Strategies”* **UTIP ZEB Masterclass** UTIPANZ International Association of Public Transport Australia / New Zealand March 9, 2022

Carter, Jewels *“Zero-Emission Infrastructure and Resilience”* **Power Up! Connecting the First Coast – Zero Emissions Conference, Jacksonville, FL** June 22, 2022

FTA grant approvals. Project includes reviewing existing installed battery electric bus (BEB) chargers, incoming BEB chargers, near and far future BEB charging infrastructure. Develop drawing and specs to support public bid and construction of two incoming BEB chargers. Work includes construction service oversight during charger and new electrical infrastructure installation. (April 2022 ongoing)

Ragged Lake Transit Centre (RTLTC) Battery Electric Bus Facility Expansion, Halifax Regional Municipality, Halifax, Nova Scotia. – EV subject matter expert (SME). The RTLTC Expansion and Fleet Electrification project aims at reducing greenhouse gas emissions of the Halifax Transit fleet and storage facility. The project included the expansion of the bus storage garage to accommodate up to 62, SBE Battery Electric Buses (BEBs) and charging infrastructure and chargers including design / engineering and construction. Responsibilities / Level of Involvement: Jewels, as AECOM’s US National ZE Bus Facility Lead, provided the AECOM Canadian design team with insight and review of the developing transit operations plans for charging and operation; confirming that the facility is reaching a net-zero operation target with heat recovery from bus charging and roof top solar. (March 2022 – ongoing)

MTS Zero Emission Bus Transition Plan, Minneapolis, MN. Facility task lead to support zero emission plan development Metropolitan Transportation Services (MTS) and its five (5) additional suburban providers – Maple Grove Transit, Metro Transit, MVTA, Plymouth-Metrolink, SouthWest Transit. A total of (16) sixteen garages were assessed for feasibility of updating to operate a hundred percent zero emission fleet. The suburban transit agencies provide transit in and around Minneapolis including Burnsville, Eagan, Blaine, Brooklyn Center, Fridley, Buffalo, Eden Prairie, and St Paul with 757 shuttles and 359 buses. Conceptual full fleet BEB master plan detailed design and phased implementation and utility coordination performed at the two MVTA and one SouthWest Transit garage. (June 2022 – ongoing)

Los Angeles County Metropolitan Transportation Authority (METRO), Zero Emission Bus (ZEB) Program Master Plan, Los Angeles, California. Task Lead to review 11 of its 14 bus divisions for fleet capacity and facility impacts to transition all of Metro’s bus fleet to battery electric vehicles. Task included review of existing conditions, incorporation and prioritizing existing facility capital needs with full fleet BEB master planning and modifications required to charge fleet on-site, estimate increased electrical service size, impacts to maintenance bays and equipment, investigate impacts to existing grid and the possibility of utilizing on-site micro-grids and battery storage. [Prior to AECOM]



Andrew Bui, PE

Vice President, AECOM Ventures

Andrew.bui@aecom.com

+1.213.949.8212

Education

BS, Civil Engineering, California Polytechnic University of California, Pomona

Professional Licenses

California Licensed Civil Engineer, License Number 78996

Awards

2018 AECOM CEO Award for outstanding contributions leading innovation throughout the organization

Professional Societies/Affiliates

Board of Directors, VELOZ

American Society of Civil Engineers

Asian American Architects/Engineers Association

WTS International

Engineers Without Borders

Chronology

06/2004 - Present, AECOM

09/2003-06/2004 Associated Engineers

06/2003-09/2003 Parsons Brinkerhoff

Overview

Andrew Bui is Vice President AECOM's National Transportation Innovation Leader. A California registered professional engineer by background with over 15 years of transportation and mobility experience, Bui currently leads development of AECOM innovation strategy for new transportation and smart cities technology integration and how it will impact infrastructure planning, design, construction and operations and maintenance. His key technology initiatives include smart cities, connected and automated technologies, electric vehicle infrastructure/technology, and hyperloop. As a global industry leader on mobility technologies, Andrew supports cities around the nation and globe better plan how emerging technologies can improve the safety, efficiency, and operability of their transportation network.

Project Manager, Los Angeles Department of Transportation Bus Electrification Project Management, 2019-Present:

Project manager and technology lead for Los Angeles Department of Transportation to lead the planning and design of four LADOT bus facility retrofits to accommodate their conversion to battery electric buses. This project aims to convert these facilities for delivery of buses starting in 2021 with the eventual full fleet conversion by 2028. The project includes design and coordination of the power infrastructure upgrades, planning the facility's layout and expansion, and strategy development for how LADOT will manage other technologies to support their fleets, including smart charging, battery storage, and on-site power generation.

Project Director, ARPA-E Charge as You Go Study, 2017-present: Project manager and civil planning lead for an ARPA-E study to understand benefits, impacts and potential deployment strategies for charge as you go technologies for electric vehicles. Both inductive and conductive charging technologies will be studied in major corridors in California for case study impacts on traffic, grid infrastructure, and sustainability.

Project Manager, eHighway, Carson CA, Siemens, 2016: Project manager for technology integration and civil infrastructure for the Siemens demonstration project that will install equipment to allow for electric trucks powered by overhead cables to travel through a heavily used corridor near the Ports of Los Angeles and Long Beach. The e-highway concept is particularly effective from an environmental and economic point of view on heavily used and relatively short truck routes, e.g. between ports, industrial estates, freight transport centers and central transshipment terminals. The intention is to set up a "zero emission corridor" for shuttle traffic between the two sea ports and the inland rail transshipment centers around 30 kilometers away.

I-805 HOV Widening, San Diego, CA, Caltrans, 2010-2011: Design Lead for the design-build team to design and build an HOV widening on I-805 in San Diego. The Project includes design of the HOV facility, freeway modification and a direct access ramp for the HOV Lane. Responsibilities include geometric design and traffic design for the HOV facilities,

Project Manager, Roseville Electric Vehicle Study, California, City of Roseville, 2017-present: Project manager and lead for a City of Roseville study on electric vehicle adoption and strategy to better promote adoption of electric vehicles, understand impacts to the grid infrastructure, and to develop preliminary strategies to better prepare for long term electric vehicle adoption. The study involved both the transportation and energy groups of the City and works closely with key stakeholders to develop an initial strategy to futureproof proposed electric vehicle technology deployments around the City.

Technical Lead, Feasibility Analysis of Electric Roadways through Localized Traffic, Cost, Adoption, and Environmental, Utah, Department of Energy, 2017-present: Lead for a study to provide analysis of opportunities for integration of electric roadways in Southern California. . This assessment will provide an initial technology strategy for electrified roadways in major urban populations.

Technical Lead, ODOT AV/CV System Engineering Analysis Development, ODOT, April 2018-Present: Technical lead to develop the statewide architecture for all future AV/CV deployments in the state of Ohio. The system engineering analysis (SEA) will be developed as a template for how future deployments will be managed and approved, regardless of the stakeholder. The SEA will be focused on developing successful metrics for all statewide deployment, with an understanding of key priorities that will be defined during the development phases, and developing a cohesive technology integration strategy for Ohio.

Technical Lead, South Corridor Study-AV task, Miami-Dade County, 2017-Present: Technical lead for a study of an existing dedicated transit way that has at-grade intersections in the County of Miami Dade. The AV tasks looks to identify near terms AV technologies, assess technology readiness, and develop a technology strategy that can enhance the transit way. Technologies to be studied include AV shuttles and connected technologies, and how those could increase ridership, promote safety, and improve operations.

Technical Lead, MNDOT Autonomous Bus Pilot, Minnesota, 2017-Present: Researching vehicle and infrastructure requirements for an autonomous vehicle bus that can safely operate in cold weather climate conditions. Evaluating autonomous bus technology readiness and regulations, defining the state of the industry, and reviewing national and international case studies and lessons-learned. Defining pilot project requirements and goals and identifying and evaluating locations to implement Minnesota's first autonomous vehicle pilot project.

Technical Lead, Dubai BRT Master Plan, Dubai RTA: Providing oversight and technical oversight for planning for a proposed BRT system for Dubai RTA. RTA proposes to use state-of-the-art technology to integrate a BRT of the future with an anticipated opening date in 2019. Technologies that will be focused on for the BRT system will include autonomous technologies and electric propulsion.



Bruce Farrell, AIA, CSI

Architecture/Construction Phasing



Education

BS, Architecture, California Polytechnic State University

Registrations

Professional Registered Architect, CA #14987

Years of Experience

With AECOM: 29

With Other Firms: 13

Bruce is an Associate Vice President at AECOM, an architect and senior project manager in the Oakland office. He is the leader of the firm's Northern California transportation architecture practice and has managed and designed a variety of transit infrastructure design and planning projects, including several ZEB Transition Planning projects. His experience has included these transit battery electric and hydrogen fuel cell procurement plans, maintenance and repair facilities, marine terminal operations buildings, and industrial, office and commercial projects.

Recent example projects include:

San Diego Metropolitan Transit System (MTS) Zero Emission Bus Pilot Program, San Diego, CA. This project is a zero-emission bus feasibility assessment, a ZEB Roadmap (or ZEB Transition Plan), and a Zero-Emission Bus Pilot program with AECOM as a sub to CTE.

Culver City Transportation Department (CityBus), BEB Transition Plan, Culver City, CA. Project Architect and

Planner. Project includes planning, architectural design, electrical engineering, and cost estimating services for the conversion of 44 CNG fueled buses to 54 Battery Electric Buses (BEB). AECOM provided assessments of existing buildings at their depot for adapting the design to accommodate BEBs/FCEBs. Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. A phasing scheme was developed to begin with a 4 BEB pilot phase, through five subsequent construction phases that will increase the charging infrastructure on an incremental basis as new BEBs are added to the fleet. Planning for a new parking structure on site will accommodate buses on the ground level and employee parking on four upper levels. Coordination with the local utility, Southern California Edison and their "Charge Ready" assistance program was part of the project scope.

Livermore Amador Valley Transit Authority (LAVTA), BEB/FCEB Transition Study, Livermore, CA. Project Architect and Planner. Project includes architectural design, electrical engineering and cost estimating services for the conversion of 60 fuel burning buses to 68 completely zero emissions BEB. An alternate scenario, deploying 41 BEBs and 19 hydrogen fuel cell electric buses (FCEB) was also developed. AECOM provided assessments of planned construction documents for new buildings at a new depot site for adapting the design to accommodate BEBs/FCEBs. Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. The phasing scheme worked to base new BEBs on the new site and commence operations as expansion construction was planned during a 10-year time frame.

SoITrans, BEB Feasibility Study, Vallejo, CA. Project Architect and Planner. Project includes architectural design, electrical engineering and cost estimating services for the conversion of 58

fuel burning buses to 70 completely zero emissions BEB. AECOM coordinated assessments of existing electrical service capacities and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. An electrical improvement project schedule and phasing plan with cost estimates of annual capital improvement budgets extending to the year 2040 was developed along with design requirements, and estimated costs related to battery charging infrastructure. The phasing scheme worked to minimize disruption of daily bus operations for the duration of the project.

Contra Costa County Transit Authority (CCCTA), BEB Transition Study, Concord, CA. Project Architect and Planner. Project includes site planning and phasing, electrical engineering and cost estimating services for the conversion of 125 CNG fueled buses to 173 completely zero emissions BEB. Three alternate scenarios were developed:

- Scenario 1B: Depot Only with Expansion, CCCTA would add BEBs to their fleet in order to meet the range requirements of their blocks. In this scenario, 48 BEBs would be added to the fleet of 125, for a total of 173 BEBs.
- Scenario 2: Depot and On-Route, they would have 125 BEBs, 48 of which would require in-service, on-route charging in addition to their depot charge.
- Scenario 3: BEB and FCEB, they would have a final number of 77 BEBs with the remaining 48 buses in the fleet being FCEBs.

AECOM provided assessments of existing depot buildings for adapting the design to accommodate BEBs/FCEBs. Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. The phasing scheme worked to maintain operations as expansion construction will be carried out during a 12-year time frame.

AC Transit Zero Emissions Bus Study, Oakland, CA. Bruce was the lead architect, providing technical assistance in assessing feasibility and defining capacities, site layouts, and costs related to battery charging and hydrogen fueling infrastructure to transition AC Transit to a zero emission bus fleet. 2018.

Yuba-Sutter Transit Battery Electric Bus Feasibility Study, Marysville, CA. Bruce worked with a multi-disciplined AECOM team providing an analysis for transitioning Yuba-Sutter's fleet of buses from diesel/gas fuels to BEBs by 2020. Bruce assessed feasibility and answering critical questions on the number of BEBs that can be deployed on their existing site. Options for charger placement and power cord delivery were developed for the project, employing space saving concepts on their limited area site.



Steven Brokken, SE Senior Structural Engineer

Professional History

06/1980 - Present, AECOM Senior
Structural Engineer

Education

Bachelor of Science (B.S.), Civil
Engineering, University of California-
Berkeley, 1978
Master of Science (M.S.), Structural
Engineering and Structural Mechanics,
University of California-Berkeley, 1979

Registrations

Civil Engineer - State of California
Structural Engineer - State of California

Years of Experience

With AECOM: 42
With Other Firms: 2

Professional Affiliations

Structural Engineers Association of
Northern California (SEAONC)

Steven has provided design for a variety of structures, including parking garages, bridges, maintenance facilities, warehouses, administrative offices, research laboratories, tunnels, and nuclear power plants. His experience includes technical direction of engineering activities, coordination of consultants and subcontractors, and management of budgets and schedules. Steven has a strong background in seismic retrofit of concrete structures, long-span structures, and seismic engineering. He experience includes design on difficult sites in high-seismic regions.

Experience

Project Structural Engineer, Culver City Bus Electrification Transition Project, Culver City, 2022.

Structural Engineer of Record for improvements at the Culver City Bus storage facility for electrification of the bus fleet. Improvements include installation of a space frame system to provide overhead routing of electric vehicle charging equipment. The space frame system is to be constructed in 2 phases, with the final plan dimensions of both phases being 207 ft by 115 ft. The project includes solar panels on the top surface of the space frame, and a new parking structure accommodating busses and standard vehicles at this facility.

City of San Jose, Norman Y. Mineta San Jose International Airport - Consolidated Rental Car Facility, San Jose, California.

Structural engineering peer review services for the consolidated rental car facility (CONRAC) and new parking structure at the airport. Services included complete structural engineering review of Design Build Documents for issuance of building permits. The CONRAC is a pile supported 8-story reinforced concrete shear wall building consisting of a ground level public parking, elevated levels for parking, a single level customer service building located interior to the main structure on the ground level. The building has overall plan dimensions of 950 by 280 feet and provides access and storage for both public parking and the rental car garage.

River Rock Casino, Site Work and Parking Structures, Sonoma County, California.

Project Structural Engineer providing multidisciplinary project management and administration services for several related components, including three interconnected reinforced-concrete parking structures, six, seven, and eight stories high; geotechnical investigations and design of site retaining walls including tie-back walls for landslide mitigation; civil design of the main access road; preparation of a stormwater master plan for the site; evaluation of sanitary sewer treatment, reuse, and disposal systems; and NPDES permitting support. All construction occurred simultaneously on a highly constrained 75-acre site and was accomplished without affecting the ongoing operations of a 60,000 square-foot casino.



Steven Brokken, SE

Gateway Homeowners Association, McKinley Towers Parking Facility, Albany, California. Structural consultant for the McKinley Tower condominium complex, which consists of multi-story reinforced-concrete and masonry residential towers and a 3-level precast and reinforced-concrete parking structure for 509 cars. The parking structure, designed by another firm, had unacceptable performance under service loads. The performance was manifested by excessive deflections, vibration under vehicle loads, extensive cracking of the reinforced and precast members, and water intrusion. Served as the engineering representative during construction overseeing construction work, including strengthening and replacing existing structural members and repairing by epoxy injection more than two miles of concrete cracks.

US Bureau of Reclamation, Hoover Dam Visitors Center and Parking Garage, Boulder City, Nevada. Engineer of record for the 5-story visitor center and multilevel parking garage accommodating 450 cars with provision for tour buses at the first level. The visitor facility includes a pedestrian path below the interstate highway to eliminate the necessity for pedestrians crossing the roadway, and two 50 passenger elevators traveling from the visitor center 650 feet down to the turbine deck at the Nevada side of the dam. The visitor facility is in a very restricted area at the Nevada Dam abutment and required extensive rock excavation for construction. The facility was designed to an elevated level of seismic standards.

San Francisco Airport Commission, San Francisco International Airport - Central Parking Garage Seismic Assessment, San Francisco, California. Project manager for a condition and seismic/structural assessment study of the 5-story, 3.2-million-square-foot central parking garage. The study included the garage, the central plant region and tunnels connecting the garage to the terminal buildings. The condition study consisted of a survey of the garage slabs, girders, walls and columns and provided documentations of deterioration such as cracking (surface, diagonal, vertical and horizontal) spalling and erosion. Methods for repair and remedial measures were provided as part of the condition assessment final report. The seismic/structural assessments of the garage were performed by developing computer models of the garage structures, performing dynamic analyses for earthquake loadings and identification of seismic/structural vulnerabilities. The study included a parameter study to investigate the cost of seismic retrofit for a range of possible seismic upgrade criteria.

Transbay Joint Powers Authority, Transbay Transit Center Program Management, San Francisco, California. Project structural engineer for preliminary design of the \$2B six level redevelopment project used as a component of proof of concept and cost verification for this three-block long transit facility. Produced design build specifications for the 1,300 feet long by 185 feet wide by 65 feet deep excavation in downtown San Francisco for construction of this facility.



Jason Fischer, PE

Surface Transportation Leader/Civil Design

Jason has over 16 years of experience designing and managing local roadway and highway interchange projects for various local public agencies. He has experience in all aspects of project design, ranging from preliminary engineering studies to PS&E packages and construction support services. He has an outstanding application of design principles used to craft innovative and optimal designs while meeting local agency and ADA standards.

Years of Experience

With AECOM: 1
With Other Firms: 15

Education

B.S., Civil Engineering, North Dakota
State University, 2007

Professional Affiliations

ACEC
ASCE
APWA

Project Experience

University Avenue Bikeway, San Diego, CA. Design Manager. The scope of services included the final design of bike lanes along University Avenue and improvements to signing, striping, drainage, pavement rehabilitation, and various enhancements to existing pedestrian features. Project Cost: \$32M. Owner: [SANDAG](#)

Metro Gold Line Foothill Extension Phase 2B, Los Angeles, California. Civil Design Lead for this design-build project, which extends the current Metro Gold Line light rail by approximately 9 miles and adds four new light rail transit stations in the cities of Glendora, San Dimas, La Verne, and Pomona. Jason was responsible for the design and construction support of 23 at-grade crossings, 4 transit stations along the track corridor, various bus transit stations and curb ramps along the adjacent roadways, pedestrian grade crossings, and designed each of these features to meet all ADA and local agency requirements. This work was done under a highly accelerated schedule with integrated quality management. Owner: [Metro](#)

SR-33 Pavement Rehabilitation Project, Coalinga, CA. Task Order Manager. The scope of services includes preparing both the Project Report and final PS&E design for a 2-mile-long roadway project through the City of Coalinga, which includes a total of 72 impacted pedestrian curb ramps along with other pedestrian sidewalk upgrades. The roadway improvements feature a road diet for approximately 1 mile. Project Cost: \$18M. Owner: [Caltrans](#)

I-8 Concrete Slab Replacement Project, San Diego, CA. Task Order Manager. The scope of services included the final design of 34 pedestrian curb ramps and pavement rehabilitation work along I-8. Project Cost: \$16M. Owner: [Caltrans](#)

Jason Fischer, PE

Caltrans

Port of San Diego Utility Mapping, San Diego, CA. Task Order Manager for mapping the existing utilities throughout the limits of the Port of San Diego, which included coordinating field verification work and created a BIM model recognized by various CADD platforms such as ArcGIS, Civil 3D, and augmented reality applications. [Owner: Port of San Diego](#)

SR-29 Pavement Rehabilitation Project, Caltrans District 4, Vallejo, CA. Task Order Manager for project as part of a Caltrans District 4 on-call contract. The scope of services includes preparing both the Project Report 6-mile-long pavement rehabilitation of SR-29 between SR-198 and Merced Ave, which is located through the City of Coalinga. This project includes a total of 72 impacted pedestrian curb ramps along with other pedestrian sidewalk upgrades. The roadway improvements feature the pavement rehabilitation along with a road diet for approximately 1 mile of the project limits. Project Cost: \$32 million [Owner: Caltrans](#)

SR-82 Pavement Rehabilitation Project, Palo Alto, CA. Task Order Manager. The roadway improvements feature the added bicycle lanes, driveway improvements, pavement rehabilitation, and enhancements to pedestrian features for approximately 8 miles. Project Cost: \$43M. [Owner: Caltrans](#)

SR-91/I-15 Express Lanes Connector Project, RCTC, San Bernardino and Riverside Counties, CA. Project Manager for project report, environmental clearance, and construction management services for the I-15 Express Lanes Connector project design build project for the Riverside County Transportation Commission (RCTC). The project includes toll system planning and policy development; procurement strategy development for a design-builder, a systems integrator, and a toll operator; procurement and contract document development; conceptual engineering to support the design-build procurement; third-party coordination; and finance support to implement the tolled managed lanes between SR-91 and I-15 in Riverside County. Jason is responsible for preparing the supplemental project report, supporting technical studies, and approval of the design standard decision document and the geometric approval drawing. Project Cost: \$83 million [Owner: RCTC](#)

Kevin Ciucki, PE

Associate Design Engineer

Education

BS, Civil Engineering,
California Polytechnic State
University San Luis Obispo,
2012

Years of Experience

9

Years with Firm: <1

Registrations/Certifications

Professional Engineer, CA, #85702, Civil

Kevin Ciucki has 9 years of experience in surface transportation including state construction, at-grade rail crossings, and traffic engineering for clients such as Caltrans, LA Metro, RCTC, and other public agencies. He has experience in a variety of phases of project development, including project reports, geometric approval drawings (GAD), design standard decision documents, Plans, Specifications, and Estimate (PS&E), and construction support. Kevin is well-versed in the various design software, standards, and manuals to meet project needs. Kevin's responsibilities include road and highway design, plan production, exhibit preparation, construction cost estimate, and construction support.

Selected Project Experience

SR-138 Widening Project, Caltrans District 7, Palmdale, Design Engineer for PS&E which included a roadway widening and safety improvements at an at-grade crossing. Kevin's responsibilities included leading the design and preparation of the Traffic Management Plan, stage construction, traffic handling, and temporary water pollution control plans.

SR-33 Pavement Rehabilitation Project, Caltrans District 6, Coalinga, CA, Design Engineer for the project as part of a Caltrans District 6 on-call contract. The scope of services included assisting in the preparation of both the Project Report and final PS&E design for a 2-mile-long rehabilitation between SR-198 and Merced Ave, which is located within the City of Coalinga. This project included a total of 72 impacted pedestrian curb ramps along with other pedestrian sidewalk upgrades. The roadway improvements featured the pavement rehabilitation along with a road diet for approximately 1 mile of the project limits. Kevin's responsibilities included assisting in preparation of the Project Report, Design Standard Decision Document, and Traffic Management Plan.

SR-91/I-15 Express Lanes Connector Project, RCTC, San Bernardino and Riverside Counties, CA, Design Engineer for project report, environmental clearance, and construction management services for the I-15 Express Lanes Connector project design build project for the Riverside County Transportation Commission (RCTC). The project includes toll system planning and policy development; procurement strategy development for a design-builder, a systems integrator, and a toll operator; procurement and contract document development; conceptual engineering to support the design-build procurement; third-party coordination; and finance support to implement the tolled managed lanes between SR-91 and I-15 in Riverside County. Kevin was responsible for preparing the supplemental project report, technical design concepts, and approval of the design standard decision document and the geometric approval drawing. **Cost: \$83M**

I-10/Pepper Avenue Bridge Replacement PS&E, SanBAG, Colton, CA, Traffic Engineer for PS&E of this 7-lane bridge replacement project. The scope of services consisted of lighting, modification of an existing fiber-optic network, CCTV, ramp meters, traffic signals, pavement delineation, and signing. Kevin assisted in the stage construction plans including temporary signs and temporary traffic signals. Responsibilities included layout plans, plan details, quantities, and engineer's estimates.

California High-Speed Rail Construction Package 1, Madera to Fresno, CA, Design Engineer for this design-build project which included the first section of a new, ultimately 800-mile-long high-speed rail system to accommodate trains running between San Diego and Sacramento at speeds of more than 200 mph. It is predominantly a civil infrastructure project that included 27 grade separations, a 250-foot-long jacked box tunnel, 3.4 miles of aerial structures, a major river crossing over the San Joaquin River, and 2.7 miles of trench. Kevin was responsible for supporting the design of the temporary traffic signals and stage construction plan.

I-15 Cajon Pass Rehabilitation Design-Build, San Bernardino County, CA, Design Engineer for this design build project to rehabilitate the existing I-15 Freeway. The roadway rehabilitation extended the pavement service life with minimal maintenance expenditures. Kevin was responsible for plan production of modifying intelligent transportation system elements and staging for temporary roadway lighting design.



Professional History

04/2017 - Present, AECOM Civil Engineer
 01/2017 - 04/2017, Dodd and Associates
 Structural Designer
 06/2016 - 09/2016, M.F. Maher Inc.
 Construction Engineering Intern
 06/2015 - 09/2015, Mid-Pacific
 Engineering Geotechnical Technician

Education

Bachelor of Science (BSc), Civil
 Engineering, San Diego State University,
 2017
 Bachelor of Science (BSc), Civil
 Engineering with Structural emphasis,
 California State University - San Diego,
 2017

Registrations

Professional Engineer (PE) - State of
 California, State of California
 Engineer in Training - EIT - State of
 California, State of California

Years of Experience

With AECOM: 5
 With Other Firms: 1

Jordan Zimmer

Jordan is a civil engineer in the San Diego office. His design experience includes the preparation of improvements, grading, storm drain and best management practices plans, storm drainage analysis reports, cost estimates, and specifications.

Experience

City of Escondido, Citracado Parkway Widening and Extension, Preliminary Engineering, Escondido, California. The project includes a roadway extension to connect the northern and southern Citracado Parkway terminations and the widening of the existing portion of Citracado Parkway. The project includes a bridge, soil nail wall, and sound walls designed to Caltrans Standard Plans. Jordan was responsible for design efforts for most of the project corridor which included curb alignments and profiles, cross sections, daylight grading, curb ramps, and finished surfaces. He also redesigned a portion of the proposed storm drain system and updated the project drainage report accordingly. He was also responsible for updates to the stormwater pollution prevention plan, stormwater quality management plan, signing/stripping plans, traffic control plans, and construction quantities.

San Diego Association of Governments, University Avenue Bikeway Final Design - TO 07, San Diego, California. Deputy project manager who assisted project manager in effectively managing change with the client and the project team. Regularly met with client to confirm that project expectations were satisfied. Understood and mitigated for project and business risk issues. Prepared for and participated in monthly project reviews. Regularly confirmed that the project EAC was current and accurately reflected the anticipated project financial outcomes. Assisted project manager by preparing and updating the project schedule. Prepared and executed the project technical approaches. Led the weekly team technical approach meetings. Conducted a preliminary storm drain analysis and prepared the Hydrology and Hydraulics Technical Memorandum. Lead the design effort for the storm drain improvement plans and sign plans. Ensured execution of project deliverables were consistent with the project plan. Mentored project team members in furtherance of their professional development.

City of San Diego, Otay Mesa Truck Route Phase IV Environmental & Design Services, San Diego, California. The project is a roadway widening along the Otay Truck Route in San Diego, and proposed improvements include a new storm drain system, rain garden, rigid pavement, and retaining walls designed to Caltrans Standard Plans. During the design phase, Jordan assisted in redesigning a portion of the proposed storm drain system and rain garden, and assisted in the redesign of the retaining walls and curb profiles. During the construction phase, Jordan responded to RFIs, conducted field inspections, submitted construction changes to the City of San Diego, and led the efforts for the City-required CAD conversion from Civil3D to MicroStation.

City of San Diego, Hazard Center Drive Extension - Final Design, San Diego, California. The project includes a roadway extension underneath the SR-163 freeway to connect the eastern and western Hazard Center Drive terminations in San Diego. Proposed improvements include a U-channel buoyancy slab, pump station, biofiltration swale, storm drain



system, and curb ramps. During the design phase, Jordan was responsible for the redesign of pedestrian curb ramps, sidewalk improvements, driveway improvements, and portions of the proposed storm drain system. During the bid and construction phases, Jordan responded to RFIs, conducted field inspections, submitted construction changes, and was responsible for preparation of the conformed set of Caltrans plans.

City of San Diego, I-805/La Jolla Village Drive Interchange and Miramar Road Widening, San Diego, California. Prepared updated improvement plans, retaining wall plans, storm drain plans, traffic control plans, specifications, and estimate including quantity calculations. Conducted a preliminary storm drain analysis for the proposed biofiltration basin.

Array Technologies, Inc., Array Mt. Jackson Solar, Shenandoah, Virginia. Civil Engineer that led and oversaw final grading design for a solar array project. Site analysis was accomplished by setting profiles for proposed drive lines and torque tubes of solar panel arrays along the existing, mountainous grade. Site design was accomplished using AutoCAD Civil 3D grading tools. The final design required a combination of adherence to array design requirements, conservation of existing watershed areas, and minimal, balanced site grading.

sPower, Skipjack Solar Center, Charles City County, Virginia. Civil Engineer that led and oversaw final grading design for a solar array project. Site analysis was accomplished by setting profiles for proposed drive lines and torque tubes of solar panel arrays along the existing, mountainous grade. Site design was accomplished using AutoCAD Civil 3D grading tools. The final design required a combination of adherence to array design requirements, conservation of existing watershed areas, and minimal, balanced site grading.

Broad Reach Power., Cascade Energy Storage Project, Stockton, California. Led the civil/stormwater design effort for a battery storage area in Stockton. Tasks were accomplished using AutoCAD Civil 3D, and included storm water analysis and design, site grading, and vehicle turn analysis. Led the design of an underwater stormwater retention chamber to ensure the proposed design complied with local standards.

Enel Green Power North America, Inc., Pomerado Battery Energy Storage, Poway, California. Led the civil/stormwater design effort for a battery storage area in Poway. Led the design for the proposed storm drain facility, retaining wall, and site grading. Ensured the proposed design complied with local standards.

Russell Link, CEP Cost Estimator

Years of Experience

17

Registrations

AACE International (Association for the Advancement of Cost Engineering), Member

Professional Societies/Affiliates

American Association of Cost Engineers Member and Certified Estimating Professional (CEP)

Specialized Training

Confined Space Entry Training
Shell Oil Contractor Safety Training
OSHA 10 Hour Safety Training
Adult/Child/Infant CPR, AED and First Aid Training

Clearances

TS Clearance/Single Scope Background Investigation, 2016

Summary

Mr. Link has 17 years of experience preparing estimates of costs of materials, labor, and equipment for construction projects. He is a focused and efficient worker. His skillset allows him the ability to build strong relationships, lead a team, and adapt to client specific needs. He also has extensive experience with federal/military projects, change order management, and estimate reconciliation processes.

Project Experience

Detroit Water and Sewer District, CIPMO Program

Cost Estimator for various projects related to Detroit Water and Sewerage Department (DWSD) investment of \$500 million through a Capital Improvement Program (CIP). These projects, which are the largest for DWSD in decades, will help the city to maintain their water and sewer systems for future generations.

The CIP's goal is to improve service delivery and quality of life in the neighborhoods by reducing water main breaks, reducing street flooding and sewer system failures, reducing future investment in new CSO facilities (wet weather treatment), increasing acres managed by green stormwater infrastructure, and upgrading/maintaining facilities, equipment and systems for effective operations. Since the program launched in 2018, DWSD has repaired or replaced 25 miles of water main, 22 miles of sewer collection piping and 173 lead service lines.

Ameren Transmission Operations Control Center, Illinois

The project is for the construction of a new transmission operations control center (TOCC) for the American power company Ameren Corporation. The new TOCC will be approximately a 66,500-squarefoot single story building located on a 25.87ac property in Illinois. It will accommodate up to 40 critical operations personnel. The new TOCC will be Tier 3+, and capable of withstanding extreme natural conditions, resisting high altitude electromagnetic pulse (HEMP) events, integrating smart technologies, renewable energy, energy storage for better monitoring and controlling of the grid, and providing increased physical security measures. The project includes technology systems in the control room which will be designed to facilitate rapid and easy information sharing for decision making and collaboration, a video management system that will ingest content from a variety of sources, process them, and display them as needed, and a networked visualization system that will be a platform that allows content sharing to a control room spanning display wall.

Remedial Design, Raymark Superfund Site, Stratford, CT

Serving as cost estimator throughout the design of remedial efforts at the Raymark Superfund Site in Stratford, CT. Areas of this 34-acre former industrial site have been contaminated due to historical manufacturing processes involving the disposal of liquid wastes to on-site lagoons, which were periodically excavated and used as fill around the town of Stratford, CT. The remedial efforts include the excavation of contaminated soils from several operable units within the overall site, and consolidation and capping within a single operable unit. The project also includes off site disposal of approximately 10% of the overall excavated wastes. Additional task orders related to this project include estimating for the deconstruction of an existing athletic facility to allow the conversion of the site into a landfill, as well as a new waste water pumping station and conveyance system. This project requires the use of MCACES (MII) estimating software.

Corrective Action Plan, Phase I Slope Lining System Repair, Las Pulgas Landfill, MCB Camp Pendelton, San Diego County, California

Cost Estimator from concept through final design of this NAVFAC project which constitutes the initial phase of a landfill slope lining system

repair/replacement. This \$4.5 million project included deconstruction of the existing landfill liner including clay cap, and reconstruction of the entire liner and anchor trenches as well as new leachate collection and removal system main lines and subdrains. Phase I also required tie-in to the existing liner system.

Portland General Electric Company, Boardman Plant Decommissioning, Boardman, OR

Lead Estimator / QAQC in the estimation of salvageable concrete and structural steel for the decommissioning of a coal powered energy plant. Digital quantity takeoff software was utilized to determine the amount of structural steel and volumes of concrete from several thousand historical as-built documents. The estimated 33,000 tons of salvageable material provided PGE an offset to their overall decommissioning cost.

U.S. General Services Administration, Office of Personnel Management Relocation, VA Butler Healthcare Center Renovation and Additions, Butler, Pennsylvania

Lead Cost Estimator for the preliminary design of renovations of and additions to the existing 230,000 square foot VA Butler Healthcare Center. The hospital was built in 1937 by the Pennsylvania Department of Health as a Tuberculosis Sanitarium and served as a soldier's hospital during world war two, prior to being purchased by the Veterans Administration in 1948. In 2018, AECOM designers and cost estimators explored the feasibility of renovating and relocating OPM offices to the building, from their current facility within an abandoned mine in Boyers, PA. Renovations included the complete gut and reconfiguration of all interiors and MEP systems, extensive hazardous material remediation, and many anti-terrorism/force protection upgrades. Various options associated with the project included combinations of file storage warehouse additions, parking garages, and a multi-story atrium entrance. Site work associated with the project included new site roads, complete removal and replacement of existing parking surfaces, various major utility reconfigurations, and additional anti-terrorism/force protection upgrades. Project construction value was estimated at \$160,000,000.

Building 23640 – Battery Control Building HVAC Repairs, White Sands Missile Range, New Mexico

Served as cost estimator on this mechanical renovation project at White Sands Missile Range. The project includes the replacement of air handling units, chillers, boilers and associated temperature controls on this nearly 60-year-old facility. The renovation will

provide ventilation systems that operate at reduced energy consumption as compared to the existing outdated equipment. This project required the use of MCACES (MII) estimating software.

Bus Rapid Transit Project, Port Authority of Allegheny County, Pittsburgh, PA

Estimator and QA/QC lead for this \$200+ million Bus Rapid Transit project in Pittsburgh Pennsylvania. Tasks included development of a complex estimating template which allows for real-time updates to the overall budget estimate as scope is tweaked by engineers on an intersection by intersection basis. The project provides a vital east-west connection between downtown Pittsburgh and the Uptown, Oakland, and East End neighborhoods, and includes changes to both physical infrastructure and transit operations. Challenges in estimating the project include significant phasing considerations as well as near total replacement of utility mains along a significant portion of the project corridor.

Long-Baseline Neutrino Facility, Near Site Facilities, Fermi National Accelerator, Batavia, IL
Estimation and QA/QC of civil and structural elements of this \$280 million+ multi-facility project. The LBNF project will connect new facilities to an existing particle accelerator to conduct studies on neutrino particles projected from Illinois to be detected in South Dakota as part of DUNE (Deep Underground Neutrino Experiment). Efforts required interfacing with engineers and other estimating disciplines in order to properly capture a rapidly evolving scope of work into an accurate estimate. The civil scope required the estimation of facilities built either partially, or entirely underground with mining-like conditions. Additionally, I participated in the transition from a traditional spreadsheet-based cost estimate to a cloud based estimating software package which allowed for estimating teams across the country to work concurrently, as well as BIM and schedule integration.

F-15QA Beddown Program for the Qatar Emiri Air Force, Al Udeid Air Base, Doha, Qatar

Cost estimating team member for the \$900,000,000 F-15 QA Beddown program at Al Udeid Air Base in Qatar. The purpose of this program is to provide the facilities necessary to support the modernization of the F-15QA aircraft for the Qatar Emiri Air Force (QEAF). The program includes 40 + facilities, inclusive of hangars, munitions storage, squadron operations, maintenance and utility structures and related site work.



Tyler Blauvelt, PE

Electrical Engineer



Areas of Expertise

Power Distribution -LV/MV
Traction Power
Solar Photovoltaics
Battery Energy Storage
Power System Modeling
Arc Flash Analysis
Infrastructure Assessment

Education

BS, Electrical Engineering
Power Systems and Electronics, Cal Poly
San Luis Obispo, 2011

Licenses/Registrations

Professional Electrical Engineer,
CA #E21957

Years of Experience

With AECOM	4
With Other Firms	7

Professional Associations

Institute of Electrical and Electronics,
Power and Energy Society

Institute of Electrical and Electronics,
Industry Applications Society
Institute of Electrical and Electronics,
Young Professionals

Tyler Blauvelt is an electrical engineer with a diverse background in power distribution, having worked in both the renewable energy and transportation sectors as electrical designer and project electrical engineer, and lead electrical engineer. Having a combined ten years of experience in electrical design and engineering, as well as having spent four years as a US Marine, Tyler is well-organized and takes a disciplined approach to all projects. He has worked on medium and large design-build solar installations, large grid-connected lithium-ion battery storage projects, and most recently various transit electrification programs. He is well-suited to work in conjunction with other disciplines to identify design challenges early in the process. Tyler is also registered as a professional engineer in California and can be relied upon to be the electrical engineer-of-record should the need arise.

Experience

Culver City Transit, Culver City, CA. Electrical Engineer of Record. Tyler is currently working as lead Electrical Engineer and Engineer-of-Record for a full battery electric bus (BEB) transition at Culver City Transportation. He is producing full issue-for-bid electrical drawings and specifications for the gradual transition of a 60-bus fleet to 54 BEBs. The project is multi-disciplinary with several specialized architectural and structural elements to provide electrical charging infrastructure to the depot while minimizing operations disruptions.

Caltrans, Oakland, CA. Electrical Engineer. Tyler is currently working as Electrical Engineer and Deputy Project Manager to complete an architectural lighting design for several Caltrans highway tunnel portals. He is facilitating coordination between designers and suppliers to produce plans, specifications, and estimates for a lighting design which will provide colorful light displays to enhance the architectural experience of bay area portals to users of these tunnels.

San Francisco Public Utility Commission (SFPUC) Water Supply and Treatment Division, San Francisco, CA. Electrical Engineer. Tyler worked as a project electrical engineer to calculate the arc flash incident energy, safe work boundaries, and personal protective equipment (PPE) requirements per OSHA to provide accurate labeling per NEC requirements, as well as submit a full report to the client for 50 sites. He conducts field visits to SFPUC facilities to document existing conditions and uses as-built drawings to create an accurate system model in SKM PowerTools, which he then uses to produce arc flash information for reporting and labeling.

Altamont Corridor Express (ACE) Passenger Stations (multiple), CA. Lead Electrical Designer. Tyler is currently leading a design team to produce the electrical discipline drawings for new passenger platform stations in multiple locations in the California central valley. The projects are currently in the design phase, requiring interdisciplinary coordination with architects, civil, structural, landscape engineers. The electrical designs include lighting, power, CCTV, and communications diagrams and layouts. He focuses on reviewing drawings produced by remote design teams, creating markups for incorporating new

design elements, and optimizing design efficiency using various digital applications.

Bay Area Rapid Transit District (BART), Measure RR Substation Replacement, San Francisco Bay Area, CA. Electrical Engineer. Tyler worked as designer and project engineer to produce construction documents for the replacement of seven traction power substations and one switching station. He supported the project in multiple facets, including producing calculations, designing physical layout, bid support, and coordinating quality control of the final documents for submittal. The work involved coordination of several disciplines, including traction power, electrical, structural, mechanical, and civil engineering. He designed the conduit and cable tray layout for two complete substations and assisted in creating detailed schedules for hundreds of circuits used for everything from medium voltage transmission to low-voltage control wiring. He also organized the quality assurance and control process, digitizing the process and reducing many man-hours of work. Construction services end year: 2020. Total cost of the substations is estimated to be \$300 million.

Chestertown Wastewater Treatment Plant, 1.3 MW Photovoltaic Solar Plant, Chestertown, MD. Design Engineer. Tyler worked as design engineer to design a large, ground-mount type solar installation at a wastewater treatment plant. He developed drawings using AutoCAD and responded to plan check comments from authorities having jurisdiction. He created calculations for sizing protection elements and balance of system equipment, including transformers, disconnects, and switchgear. Total cost estimated at \$3.7 million.

Livermore Amador Valley Transit Authority, Livermore, CA. Electrical Engineer. Tyler worked with the Project Manager and Lead Architect to complete infrastructure assessments of two existing bus depots. He completed conceptual electrical single line diagrams for the new facility's planned transition to battery electric buses (BEB) and assisted in developing site plans showing conceptual locations and phasing of new equipment construction which will eventually support a fleet of 68 BEB's. In addition, he wrote a four-page technical memo detailing the required infrastructure build-out which considered both a fully electric fleet, as well as hybrid fleet of both BEB's and hydrogen fuel cell-powered busses. LAVTA will use this information in planning their eventual transition to a fully zero-emission bus fleet.

David A. Ibanez

Electrical Engineer

Professional History

07/2004 - Present, AECOM Electrical Engineer III

Registrations

E.I.T

Education

BS, Electrical Engineering, University of California - Santa Cruz, 2004

Years of Experience

With AECOM: 18

With Other Firms: 0

Mr. Ibanez has a wide range of design experience. He has worked on a variety of infrastructure improvement projects, including highway, rail, marine ports and airports. His expertise is focused on electrical elements associated with these projects with emphasis on electrical lighting systems, power distribution and communications infrastructure. He is well versed in AutoCAD, SKM, Visual Professional and other computer programs relating to electrical design, and is extremely knowledgeable with current national and local codes and requirements. Coordination with local power utilities to coordinate incoming new medium voltage electrical service and gear are routine task on the majority of Mr. Ibanez's projects.

Mr. Ibanez has construction management and field inspection experience on the various types of projects listed above with emphasis on airfield electrical construction. During construction he has been a valuable resource to provide support to projects being constructed.

Experience

Zero Emissions Bus Pilot Program, Culver City Bus, Culver City California. Electrical engineer responsible for preparation of plans and specifications. The ZEB pilot program included the Phased development of overhead, space frame mounted electrical bus depot boxes for the charging of (22) City buses. The project also included coordination with PG&E for additional service to (2) 4000A, 480V switchboards that support the bus charging equipment. Load analysis and voltage drop calculations were also provided, adhering to the local electrical codes and the NEC. Additional coordination with bus charging manufacturer was made to ensure infrastructure is compatible with charging system. Developed Project Specification and CAD drawings/exhibits using AutoCad. [Ongoing]

Slover Boxcar, Slover Intermodal Facility, Colton, California. Electrical engineer responsible for preparation of plans, quantity/cost estimate and reports. The intermodal facility project included the development of a new site for fully automated handling of cargo. Yard wide 12KV underground distribution was provided as a doubled ended loop system. The 12KV distribution provide power to Automated Straddle Carrier Charging units, Automated Rail Mounted Gantries (ARMG's), Buildings, Hoslter Electrical Charging Stations and Inbound and Outbound Gates. The yard was provided with 100' high mast LED lighting. UPS's are located at each substation locations to provide back up power to yard instrumentation. The project also included design of (2) 2.5MW, 12KV centralized generators to provide standby power to a portion of the site. [Developed CAD drawings/exhibits using Microstation.](#) [Ongoing]

Zero Emissions Charging Stations, Pier T, Port of Long Beach, California. Electrical engineer responsible for quality control of plans and specifications. The Zero Emissions Charging Stations quality control included the technical discipline review of the electrical plans and specifications for the project. This review included providing comments to the designer/engineer to

ensure the package is technically sound, consistent and meets the department standards. [2019]

Infrastructure for Zero Emission Busses, San Jose International Airport, San Jose, California. Electrical engineer responsible for preparation of plans, quantity/cost estimate and reports. The Bus Charging Station included the development of an existing parking lot site for the charging of (10) City buses. The project also included coordination with PG&E for additional service to a 1200A 480V switchboard supporting the bus chargers. Additional coordination with bus charging manufacturer was made to ensure infrastructure is compatible with charging system. Developed Project Specifications, Cost Estimates and CAD drawings/exhibits using AutoCad. [2018]

Tapac LLC, Berth 24/26 Redevelopment at Port of Oakland, Oakland CA, Lead Electrical Engineer. Lead electrical engineer that provided complete design for (52) electrical reefer bunkers to support storage of refrigerated containers and also included design for wireless high mast lighting system within backlands complying with Port of Oakland and TraPac standards. Provided design for underground power distribution which included 480V low voltage distribution and 2.5MVA 12KV medium voltage outdoor secondary unit substation. This work included calculations for short circuit analysis, coordination study and arc fault current study. This project also included the extension of existing 600A 12KV bus to a new 15KV section. As part of the project, a truck entry gate design was provided that included scales, pedestals, chassis cameras, T-pole and OCR. Communication and Lighting control was also provided, coordinated with TraPac IT and the existing lighting control system. Provided support for the design efforts and developing CAD drawings. Developed technical specifications, construction cost estimates and provided construction support and inspection. [2016]

Eric Bullock

Senior CAD/BIM Technician
Transportation

Education

Western Career College
Architectural CADD Drafting

Art Institute of California – San Francisco
Media Arts & Animation

City College of San Francisco
Computer Drafting & Design

Years of Experience

With AECOM: 15

Specialized skills

Building Information Modeling
3D Modeling & Animation
Graphic design
ProjectWise Administrator

Eric creates construction documents and coordinates drawing production in the Oakland office. He has also been project CADD/BIM manager with experience on numerous projects and is proficient with AutoCAD Release 2020, MicroStation V8i SS2, and Revit 2020, as well as graphics and animation software including Photoshop, Illustrator, 3DS Max. He has been involved with the planning and design of a variety of transit infrastructure projects, including several ZEB Transition Planning projects. His experience has included these transit battery electric and hydrogen fuel cell phasing plans, maintenance and repair facilities, marine terminal operations buildings, rail station and maintenance buildings, and industrial, office, and commercial projects.

Recent example projects include:

Culver City Transportation Department (CityBus), BEB Transition Plan, Culver City, CA. Designer, Drafter and Planner. Project includes planning, architectural design, electrical engineering, and cost estimating services for the conversion of 44 CNG fueled buses to 54 Battery Electric Buses (BEB). AECOM provided assessments of existing buildings at their depot for adapting the design to accommodate BEBs/FCEBs (fuel cell electric buses). Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. A phasing scheme was developed to begin with a 4 BEB pilot phase, through five subsequent construction phases that will increase the charging infrastructure on an incremental basis as new BEBs are added to the fleet. Planning for a new parking structure on site will accommodate buses on the ground level and employee parking on four upper levels. Coordination with the local utility, Southern California Edison and their "Charge Ready" assistance program was part of the project scope.

Chapel Hill Transit Center

BEB Transition Plan and Yard Expansion, Chapel Hill, NC. Designer, Drafter and Planner. Project includes planning services for the conversion of a variety of sizes of CNG fueled buses to Battery Electric Buses (BEB), as well as an expansion of the yard. AECOM provided assessments of existing buildings and proposed new buildings, bus and yard vehicle circulation, POV parking, and a combination of overhead and ground mounted charging at their depot to accommodate an expanded fleet of BEBs/FCEBs.

Livermore Amador Valley Transit Authority (LAVTA), BEB/FCEB Transition Study, Livermore, CA. Designer, Drafter and Planner. Project includes architectural design, electrical engineering and cost estimating services for the conversion of 60 fuel burning buses to 68 completely zero emissions BEB. An alternate scenario, deploying 41 BEBs and 19 hydrogen fuel cell electric buses (FCEB) was also developed. AECOM provided assessments of planned construction documents for new

buildings at a new depot site for adapting the design to accommodate BEBs/FCEBs. Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. The phasing scheme worked to base new BEBs on the new site and commence operations as expansion construction was planned during a 10-year time frame.

Contra Costa County Transit Authority (CCCTA), BEB Transition Study, Concord, CA. Designer, Drafter, and Planner. Project includes site planning and phasing, electrical engineering and cost estimating services for the conversion of 125 CNG fueled buses to 173 completely zero emissions BEB. Three alternate scenarios were developed:

- Scenario 1B: Depot Only with Expansion, CCCTA would add BEBs to their fleet in order to meet the range requirements of their blocks. In this scenario, 48 BEBs would be added to the fleet of 125, for a total of 173 BEBs.
- Scenario 2: Depot and On-Route, they would have 125 BEBs, 48 of which would require in-service, on-route charging in addition to their depot charge.
- Scenario 3: BEB and FCEB, they would have a final number of 77 BEBs with the remaining 48 buses in the fleet being FCEBs.

AECOM provided assessments of existing depot buildings for adapting the design to accommodate BEBs/FCEBs. Developed electrical service concept and the design of new electrical infrastructure to serve the agency's future BEB fleet charging needs. The phasing scheme worked to maintain operations as expansion construction will be carried out during a 12-year time frame.

San Diego Metropolitan Transit System (MTS) Zero Emission Bus Pilot Program, San Diego, CA. This project is a zero-emission bus feasibility assessment, a ZEB Roadmap (or ZEB Transition Plan), and a Zero-Emission Bus Pilot program with AECOM as a sub to CTE.

Other recent ZEB projects include:

- Long Beach Transit ZEB Transition Plan
- Santa Cruz Transit ZEB Transition Plan and Pilot Program

CAROLINE LE
SYSTEMS ENGINEER**EDUCATION**

BS, Electrical Engineering,
University of California,
Riverside

REFERENCES

Jennifer A. Purcell, PE,
Pacific Railway
Enterprises, Inc.
3560 University Ave.
Riverside, CA 92501
951/784-4630

Robert Baumgarten, Pacific
Railway Enterprises, Inc.
3560 University Ave.
Riverside, CA 92501
951/784-4630

**EMPLOYMENT
HISTORY**

Pacific Railway
Enterprises, Inc.
June 2018 – Current



As an Electrical Engineering graduate, Ms. Le has demonstrated that she is an enthusiastic learner with strong analysis, multi-tasking and collaboration skills. She is knowledgeable in SCORE communications design and signal breaking calculations, simulated RF frequency coverage, logic design, modeling and simulating Dynamic Systems, and embedded systems. She is familiar with MicroStation, Microsoft Office, C++, C, Atmel Studios, Xilinks, Pspice, RIBS, MatLab and Synopsis. Since joining PRE in 2018, first as an engineering intern and moving to a full-time position, Caroline's tenacity and spirit have quickly made her a PRE favorite. She is a quick learner who knows how to apply her skills to help and assist in everything she does.

REPRESENTATIVE PROJECTS INCLUDE:

SCORE Final Design, Simi Valley Double Track: As Systems Engineer, created logical network diagram, physical fiber diagram, fiber route diagram and detailed location plans to add fiber to this 2.2 mile project. Also supported Simi Valley communications shelter design and addition of second platform at the station. Timeframe: 08/2021 – Current

PVL Fiber to Intermediates Design: As Systems Engineer, completed modification of logical network diagram, physical fiber diagram, fiber route diagram and detailed location plans to add all intermediate signal locations to PVL network. Also created bill of materials for each location. Timeframe: 03/2021 – Current

Redlands Passenger Rail (RPRP): As Systems Engineer, evaluated OTDR and Power Meter test results for vital fiber tested by installation contractor. Timeframe: 07/2020 – 03/2022

PBX Design Drawing Orange Subdivision: As Systems Engineer, ran EDX simulations to determine signal strength and received power of antennas. Performed battery calculations and worked on location design plans. Timeframe: 07/2020 – 03/2022

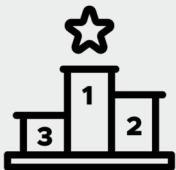
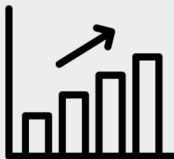
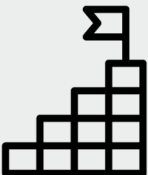
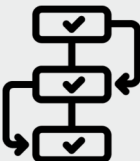
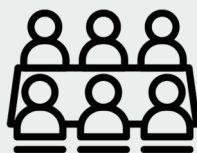
NCTD Escondido Signal Fiber Installation: As Systems Engineer, reviewed contractor submittals and returned comment response logs. Timeframe: 07/2020 – 02/2022

Wi-Fi Mesh Node: As Systems Engineer, helped with the design of NCTD's Wireless Mesh Network System that covers the areas near the City of Del Mar and Rose Canyon. Checked proposed locations of nodes, created a cost estimate of materials, and ran TOWAIR determination. Timeframe: 07/2019 – 02/2022

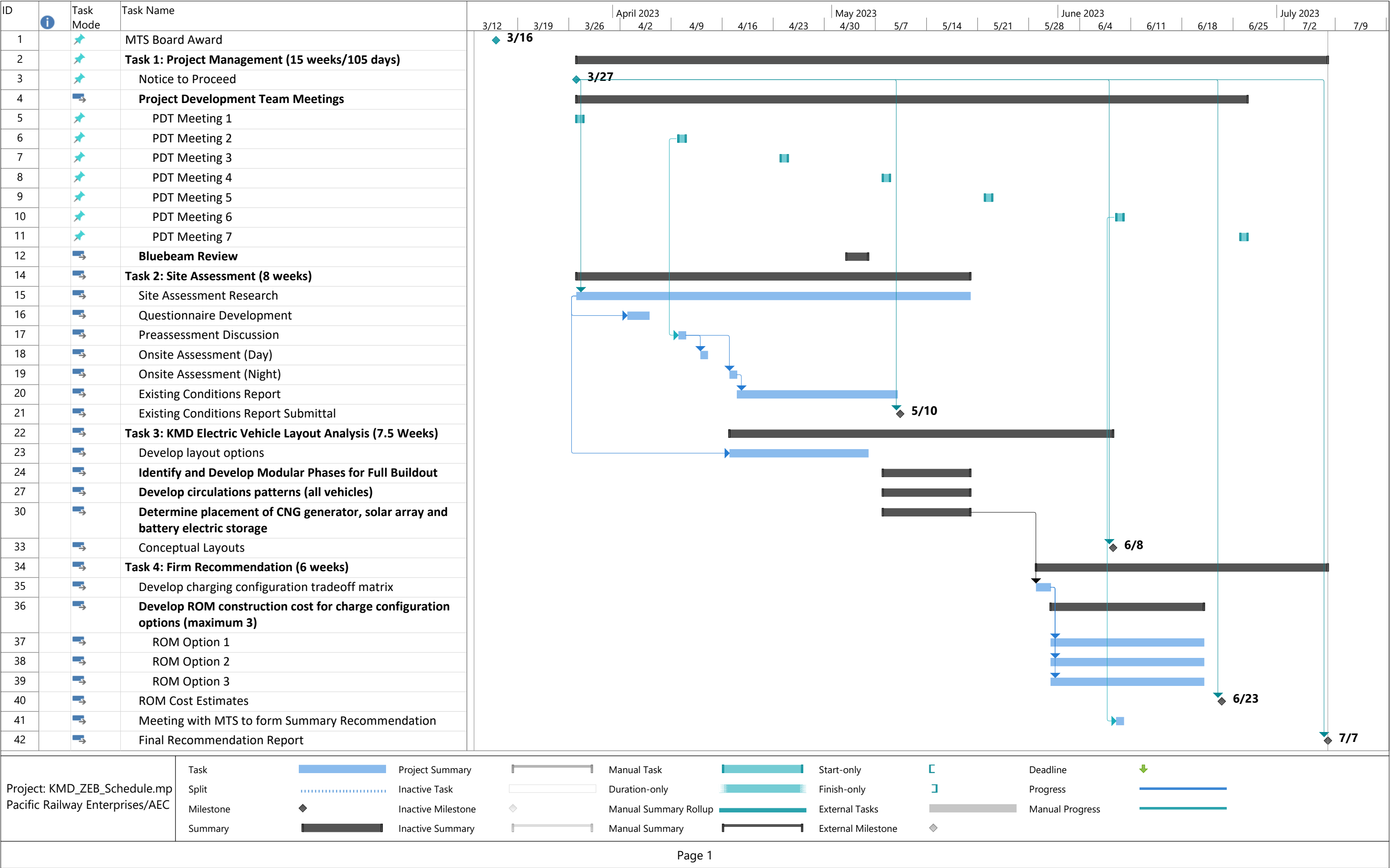
Security Data Network: As Systems Engineer worked on detailed location plans, created BOM and ICE for the design. Worked on all phases of the project: 1 to 6. Kitted materials for each location in phases 1 and 2. Completed design for phases 3 and 5. Attended and documented field installations. Timeframe: 06/2018 – Current

Communications Engineering Standards: As Systems Engineer Intern, helped complete the Communications Engineering Standard Drawings for SCRRA/Metrolink, Used MicroStation to create plans that detailed the engineering standards for the design of fiber optic, microwave, voice radio, and data radio systems used by Metrolink. Timeframe: 06/2018

SCORE 5% Concept Designs (Ventura, Orange, San Bernardino): As Systems Engineer Intern, performed SCORE and breaking calculations, used MicroStation to draw new signal locations on aspect sheets and added prediction limits to aspect sheets. Timeframe: 11/2018 – 05/2019



KMD - ZEB PROJECT TEAM SCHEDULE



**ATTACHMENT B
NEGOTIATED FEE PROPOSAL**

Work Order Estimate Summary

Att.A, AI 4, 02/13/23

MTS Doc. No.	PWL356.0-22
Work Order No.	WOA356-AE-05
Attachment:	B

Work Order Title: **KMD ZEB OVERHEAD CHARGING SYSTEM LAYOUT
AND DESIGN**

Project No:

Table 1 - Cost Codes Summary (Costs & Hours)

Item	Cost Codes Description	Total Costs
1	Project Management	\$57,719.52
2	Site Assessment	\$44,753.91
3	KMD Electric Vehicle Layout Analysis	\$153,615.15
4	Firm Recommendation	\$98,653.97

Totals = **\$354,742.55**

Table 2 - TASKS/WBS Summary (Costs & Hours)

Item	TASKS/WBS Description	Labor Hrs	Total Costs
1	Project Management	274.0	\$57,719.52
2	Site Assessment	204.0	\$44,753.91
3	KMD Electric Vehicle Layout Analysis	745.0	\$153,615.15
4	Firm Recommendation	495.0	\$98,653.97

Totals = **1,718.0** **\$354,742.55**

Table 3 - Consultant/Subconsultant Summary (Costs & Hours)

(If Applicable, Select One)				Consultant	Labor Hrs	Total Costs
DBE	DVBE	SBE	Other			
x		x		Pacific Railway Enterprises, Inc.	261.0	\$35,674.71
				AECOM Technical Services	1,457.0	\$319,067.84

Totals = **1,718.0** **\$354,742.55**



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 02/09/23

Agenda Item No. 5

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

Adoption of 2022 Conflict of Interest Code – Amendment

RECOMMENDATION:

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

- 1) Adopt Resolution No. 23-01 (Attachment A) amending the MTS Conflict of Interest Code pursuant to the Political Reform Act of 1974;
- 2) Adopt the amended 2023 MTS Conflict of Interest Code (in substantially the same format as Attachment B); and
- 1) Forward the amended 2023 MTS Conflict of Interest Code to the County of San Diego, the designated code-reviewing body, (Gov. Code § 82011) requesting approval of the amendment as required under Government Code section 87303.

Budget Impact

None.

DISCUSSION:

The Political Reform Act (the “Act”) requires all public agencies to adopt and maintain a Conflict of Interest Code containing the rules for disclosure of personal assets. Except for positions listed in Gov. Code § 87200, the Conflict of Interest Code must specifically designate all agency positions that make or participate in the making of decisions and assign specific types of personal assets to be disclosed that may be affected by the exercise of powers and duties of that position.

The Act further requires that an agency amend its Conflict of Interest Code when change is necessitated by changed circumstances which include the need to designate positions.



It is proposed that MTS's Conflict of Interest Code be amended to include new positions that must be designated, delete titles of positions that have been abolished and/or positions that no longer make or participate in making governmental decisions and revises the titles of existing positions (Attachment B). It is proposed that MTS's Conflict of Interest Code be amended to include new positions that must be designated, delete titles of positions that have been abolished and/or positions that no longer make or participate in making governmental decisions and revises the MTS's filing officer information.

Therefore, staff recommends the MTS Board of Directors:

- 2) Adopt Resolution No. 23-01 (Attachment A) amending the MTS Conflict of Interest Code pursuant to the Political Reform Act of 1974;
- 3) Adopt the amended 2023 MTS Conflict of Interest Code (in substantially the same format as Attachment B); and
- 4) Forward the amended 2023 MTS Conflict of Interest Code to the County of San Diego, the designated code-reviewing body, (Gov. Code § 82011) requesting approval of the amendment as required under Government Code section 87303.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Resolution 23-01
B. Redline of Amendment to 2023 Conflict of Interest Code
C. Notice of Intent

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

Resolution No. 23-01

Resolution of The Board of Directors of the San Diego Metropolitan Transit System Adopting an Amended Conflict of Interest Code Pursuant to the Political Reform Act of 1974

WHEREAS, the State of California enacted the Political Reform Act of 1974, Government Code Section 81000 et seq. (the "Act"), which contains provisions relating to conflicts of interest which potentially affect all officers, employees and consultants of the San Diego Metropolitan Transit System ("MTS") and requires all public agencies to adopt and promulgate a Conflict of Interest Code; and

WHEREAS, the potential penalties for violation of the provisions of the Act are substantial and may include criminal and civil liability, as well as equitable relief which could result in MTS being restrained or prevented from acting in cases where the provisions of the Act may have been violated; and

WHEREAS, the Board of Directors adopted a Conflict of Interest Code (the "Code") which was amended on November 10, 2022, in compliance with the Act; and

WHEREAS, subsequent changed circumstances within MTS have made it advisable and necessary pursuant to Sections 87306 and 87307 of the Act to amend and update MTS's Code; and

WHEREAS, notice of the time and place of a public meeting on, and of consideration by the Board of Directors of, the proposed amended Conflict of Interest Code was provided each designated employee and publicly posted for review at the offices of MTS; and

WHEREAS, a public meeting was held upon the proposed amended Conflict of Interest Code at a regular meeting of the Board of Directors on February 16, 2023, at which all present were given an opportunity to be heard on the proposed amended Conflict of Interest Code.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The Board of Directors does hereby adopt the proposed amended Conflict of Interest Code, a copy of which is attached hereto and shall be on file with the General Counsel and available to the public for inspection and copying during regular business hours.

SECTION 2. The said amended Conflict of Interest Code shall be submitted to the Board of Supervisors of the County of San Diego for approval.

SECTION 3. The said amended Conflict of Interest Code shall become effective immediately after the Board of Supervisors approves the proposed amended Code as submitted.

PASSED AND ADOPTED by the Board of Directors this 16th day of February,
2023 by the following vote:

AYES:

NAYS:

ABSENT:

ABSTAINING:

Chairperson
San Diego Metropolitan Transit System

Filed by:

Approved as to form:

Clerk of the Board
San Diego Metropolitan Transit System

General Counsel
San Diego Metropolitan Transit System

Resolution 23-01

Attachment: A. Final Conflict of Interest Code

**CONFLICT OF INTEREST CODE
OF THE
SAN DIEGO METROPOLITAN
TRANSIT SYSTEM**

CONFLICT OF INTEREST CODE
OF THE
SAN DIEGO METROPOLITAN TRANSIT SYSTEM
(Amended February 16, 2023)

The Political Reform Act, (Government Code Sections 81000, et seq.) requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission has adopted a regulation (2 Cal. Code of Regs. 18730) that contains the terms of a standard model conflict of interest code, which can be incorporated by reference in an agency's code. After public notice and hearing Section 18730 may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This incorporation page, Regulation 18730 and the attached Appendix designating positions and establishing disclosure categories shall constitute the conflict of interest code of the **San Diego Metropolitan Transit System (MTS)**.

All officials and designated positions shall file their statements of economic interests with MTS's **Clerk of the Board** as MTS's Filing Officer. The **Clerk of the Board** shall make and retain a copy of all statements filed by Members and Alternates of the Board of Directors, Chief Executive Officer and the Chief Financial Officer, and forward the originals of such statements to the Clerk of the Board of Supervisors of the County of San Diego. The **Clerk of the Board** shall retain the originals of the statements filed by all other designated positions. The **Clerk of the Board** will make all retained statements available for public inspection and reproduction during regular business hours (Gov. Code Section 81008).

APPENDIX

CONFLICT OF INTEREST CODE **OF THE** **SAN DIEGO METROPOLITAN TRANSIT SYSTEM**

(Amended February 16, 2023)

PART “A”

OFFICIALS WHO MANAGE PUBLIC INVESTMENTS

MTS Officials who manage public investments, as defined by 2 Cal. Code of Regs. § 18700.3, are NOT subject to MTS’s Code, but must file disclosure statements under Government Code section 87200 et seq. [Regs. § 18730(b)(3)] These positions are listed here for informational purposes only.

It has been determined that the positions listed below are officials who manage public investments¹:

Board of Directors and Alternates

Chief Executive Officer

Chief Financial Officer

Investment Consultant

¹ Individuals holding one of the above-listed positions may contact the Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes the final determination whether a position is covered by § 87200.

DESIGNATED POSITIONS**GOVERNED BY THE CONFLICT OF INTEREST CODE**

<u>DESIGNATED POSITIONS'</u> <u>TITLE OR FUNCTION</u>	<u>DISCLOSURE CATEGORIES</u> <u>ASSIGNED</u>
Administrative Assistant (Copy Center)	4
Applications Development & Support Manager	5
Assistant Manager of Maintenance	5
Assistant Manager of Stores	5
Associate Transportation Planner	5
Business Systems Analyst (ALL)	5
Buyer	4
Chief Human Resources Officer	5
Chief Information Officer	5
Chief of Staff	1
Chief Operating Officer – Rail	1
Chief Operating Officer – Transit Services	1
Community Engagement Specialist	5
Contract Administrator (ALL)	4
Controller	1, 2
Creative Design Manager	5
Deputy Director of Transit Enforcement	5
Deputy Fare Systems Administrator	5
Deputy General Counsel	2, 5, 6, 7
Director of Capital Projects	1, 2

Director of Contract Services & Passenger Facilities	3, 5
Director of Financial Planning & Analysis	1, 2
Director of Fleet and Facility Maintenance	5
Director of Human Resources	5
Director of Marketing & Communications	5
Director of Planning & Scheduling	1, 2
Director of Supply & Operations	4
Director of Support Services	5
Director of Transit Security & Passenger Safety	5
Director of Transportation	1
Division Manager of Maintenance	5
Environmental Health & Safety Specialist	5
Fare Systems Administrator	5
Financial Analyst	4
For-Hire Vehicle Administration Manger	5
General Counsel	1, 2
Grants Administrator	9
Graphic Designer	5
Information Security & Intelligence Engineer	5
Information Security & Intelligence Manager	5
Information Technology Development Manager	5

Information Technology Enterprise Architect (IoT)	5
Information Technology Operation Manager	5
Internal Auditor	4
Liability Claims Supervisor	1, 2, 7
Manager of Benefits & Compensation	5
Manager of Contract Operations & Passenger Facilities	2, 4
Manager of Government Affairs	1
Manager of Human Resources	5
Manager of Inventory Operations	4
Manager of Marketing and Communications	5
Manager of Paratransit & Mini Bus	5
Manager of Procurement	4
Manager of PRONTO AND Passenger Support	5
Manager of Real Estate Assets	1, 2
Manager of Risk and Claims	1, 2, 7
Manager of Scheduling	5
Manager of Service Quality and Special Operations	5, 8
Manager of Support Services	2, 3, 5
Manager of Talent Acquisition	5
Marketing and Communications Specialist	5
Network Operations Manager	5

Operating Budget Supervisor	1, 2
Procurement Specialist (ALL)	4
Project Engineer	1, 2
Professional Standards Manager	7
Project Administrator	5
Project Manager (ALL)	1, 2
Public Relations Specialist	5
Regulatory Enforcement Supervisor	6
Report Development Analyst	5
Revenue Maintenance Supervisor (ALL)	5
Right-of-Way Permit Coordinator	2, 5, 6
Security System Administrator	5
Senior Contract Operations Administration	5
Senior Data Warehouse Engineer	5
Senior Human Resources Analyst	5
Senior Project Manager - Rail Systems	1, 2
Senior SAP Architect	5
Senior Transportation Planner	1, 2
Software Developer	5
Superintendent of Facilities	5
Superintendent of LRV Maintenance	5

Superintendent of Transportation	5
Superintendent of Wayside Maintenance	5
Supervisor of Paratransit & Mini Bus	5
Supervisor Revenue Operations	5
Technical Project Manager	5
Transit Asset Management Program Manager	2, 4
Transportation Operations Specialist (ALL)	2, 5
Worker's Compensation Analyst (ALL)	7
ZEV and Sustainability Manager	5
Consultant and New Positions ²	

² Individuals serving as a Consultant defined in Regulation 18700.3, or in a new position created since this Code was last amended that makes or participates in making decisions shall disclose pursuant to the broadest disclosure category in this Code subject to the following limitation:

The Chief Executive Officer may determine that, due to the range of duties or contractual obligations, it is more appropriate to assign a limited disclosure requirement. A clear explanation of the duties and a statement of the extent of the disclosure requirements must be in a written document. (Gov. Code Sec. 82019; FPPC Regulations 18219 and 18734.). The Chief Executive Officer's determination is a public record and shall be retained for public inspection in the same manner and location as this Conflict of Interest Code. (Gov. Code Sec. 81008.)

PART “B”

DISCLOSURE CATEGORIES

The disclosure categories listed below identify the types of economic interests that the designated position must disclose for each disclosure category to which the designated is assigned.³ “Investment” means financial interest in any business entity (including a consulting business, or other independent contracting business) and are reportable if they are either located in, doing business in, planning to do business in, or have done business during the previous two years in the jurisdiction of MTS.

Category 1: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that are located in, do business in or own real property within the jurisdiction of MTS.

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³ This Conflict of Interest Code does not require the reporting of gifts from outside this agency’s jurisdiction if the source does not have some connection with or bearing upon the functions of the position. (Reg. 18730.1)

Category 6: All investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, subject to the regulatory, permit, or licensing authority of the designated position's department, unit or division.

Category 7: All investments and business positions in business entities, and sources of income, including gifts, loans, and travel payments, if such entities or sources have filed claims against MTS in the past 2 years, or have a claim pending before MTS.

Category 8: Disclose investments and business positions in business entities, and sources of income, including gifts, loans and travel payments, that are located in, do business in, or own real property within the geographical area of, and within two miles of, the designated position's assigned project area.

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LAW OFFICES OF
BEST BEST & KRIEGER LLP

**CONFLICT OF INTEREST CODE
OF THE
SAN DIEGO METROPOLITAN
TRANSIT SYSTEM**

BBK – ~~October 2022~~ January 2023

CONFLICT OF INTEREST CODE

OF THE

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

(Amended ~~November 10, 2022~~ February 16, 2023)

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(Amended ~~November 10, 2022~~ February 16, 2023)

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Chief Executive Officer

Chief Financial Officer

Investment Consultant

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LAW OFFICES OF
BEST BEST & KRIEGER LLP

DESIGNATED POSITIONS

GOVERNED BY THE CONFLICT OF INTEREST CODE

<u>DESIGNATED POSITIONS'</u> <u>TITLE OR FUNCTION</u>	<u>DISCLOSURE CATEGORIES</u> <u>ASSIGNED</u>
Administrative Assistant (Copy Center)	4
Applications Development & Support Manager	5
Assistant Manager of Maintenance	5
Assistant Manager of Stores	5
Associate Transportation Planner	5
Business Systems Analyst (ALL)	5
Buyer	4
Chief Human Resources Officer	5
Chief Information Officer	5
Chief of Staff	1
Chief Operating Officer – Rail	1
Chief Operating Officer – Transit Services	1
Community Engagement Specialist	5
Contract Administrator <u>(ALL)</u>	4
Controller	1, 2
Creative Design Manager	5
Deputy Director of Transit Enforcement	5
Deputy Fare Systems Administrator	5
Deputy General Counsel	2, 5, 6, 7
Director of Capital Projects	1, 2

LAW OFFICES OF
BEST BEST & KRIEGER LLP

<u>DESIGNATED POSITIONS'</u> <u>TITLE OR FUNCTION</u>	<u>DISCLOSURE CATEGORIES</u> <u>ASSIGNED</u>
Director of Contract Services & Passenger Facilities	3, 5
Director of Financial Planning & Analysis	1, 2
Director of Fleet and Facility Maintenance	5
Director of Human Resources	5
Director of Marketing & Communications	5
Director of Planning & Scheduling	1, 2
Director of Supply & Operations	4
Director of Support Services	5
Director of Transit Security & Passenger Safety	5
Director of Transportation	1
Division Manager of Maintenance	5
Environmental Health & Safety Specialist	5
Fare Systems Administrator	5
Financial Analyst	4
For-Hire Vehicle Administration Manger	5
General Counsel	1, 2
Grants Administrator	9
Graphic Designer	5
Information Security & Intelligence Engineer	5
Information Security & Intelligence Manager	5
Information Technology Development Manager	5

LAW OFFICES OF
BEST BEST & KRIEGER LLP

DESIGNATED POSITIONS'
TITLE OR FUNCTION

DISCLOSURE CATEGORIES
ASSIGNED

Information Technology Enterprise Architect (IoT)	5
Information Technology Operation Manager	5
Internal Auditor	4
Lead Revenue Maintenance Supervisor <u>(ALL)</u>	5
Liability Claims Supervisor	1, 2, 7
Manager of Benefits & Compensation	5
Manager of Contract Operations & Passenger Facilities	2, 4
Manager of Government Affairs	1
Manager of Human Resources	5
Manager of Inventory Operations	4
Manager of Marketing and Communications	5
Manager of Paratransit & Mini Bus	5
Manager of Procurement	4
Manager of PRONTO AND Passenger Support	5
Manager of Real Estate Assets	1, 2
Manager of Risk and Claims	1, 2, 7
Manager of Scheduling	5
Manager of Service Quality and Special Operations	5, 8
Manager of Support Services	2, 3, 5
Manager of Talent Acquisition	5
Marketing and Communications Specialist	5

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DESIGNATED POSITIONS'
TITLE OR FUNCTION

DISCLOSURE CATEGORIES
ASSIGNED

Network Operations Manager	5
Operating Budget Supervisor	1, 2
Principal Contract Administrator	4
Procurement Specialist (ALL)	4
<u>Project Administrator</u>	<u>5</u>
<u>Project Engineer</u>	<u>1, 2</u>
Professional Standards Manager	7
Project Manager (ALL)	1, 2
Public Relations Specialist	5
Regulatory Enforcement Supervisor	6
Report Development Analyst	5
Right-of-Way Permit Coordinator	2, 5, 6
Security System Administrator	5
Senior Contract Operations Administration	5
Senior Data Warehouse Engineer	5
Senior Human Resources Analyst	5
Senior Project Manager - Rail Systems	1, 2
Senior SAP Architect	5
Senior Transportation Planner	1, 2
Software Developer	5
Superintendent of Facilities	5

LAW OFFICES OF
BEST BEST & KRIEGER LLP

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Superintendent of LRV Maintenance	5
Superintendent of Transportation	5
Superintendent of Wayside Maintenance	5
Supervisor of Paratransit & Mini Bus	5
Supervisor Revenue Operations	5
Technical Project Manager	5
Transit Asset Management Program Manager	2, 4
Transportation Operations Specialist (ALL)	2, 5
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LAW OFFICES OF
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NOTICE OF INTENT

DATE: February 6, 2023
TO: All MTS Conflict of Interest Code Filers
FROM: Dalia Gonzalez, Clerk of the Board
SUBJECT: Amend the Conflict of Interest Code of the San Diego Metropolitan Transit System

NOTICE IS HEREBY GIVEN that the Board of Directors of the San Diego Metropolitan Transit System (MTS) intends to amend its Conflict of Interest Code (the "Code") pursuant to Government Code Section 87306.

The Appendix of the Code designates those employees, members, officers and consultants who are subject to the disclosure and disqualification requirements of MTS's Code. The proposed amendment include new positions that must be designated, delete titles of positions that have been abolished and/or positions that no longer make or participate in making governmental decisions and revises the titles of existing positions.

The proposed amended Code will be considered by the Board of Directors on February 16, 2023, at 9:00 a.m. at San Diego Metropolitan Transit System, James R. Mills Building, Board Meeting Room, 10th Floor, 1255 Imperial Avenue, San Diego, California. Any interested person may participate via teleconference 1(669) 444-9171; Board Webinar ID: 982 8803 2362 or via Zoom: <https://zoom.us/j/98288032362> and comment at the public meeting or may submit written comments concerning the proposed amendment.

Any comments or inquiries should be directed to the attention of Dalia Gonzalez, Executive Assistant to CEO and Clerk of the Board, at clerkoftheboard@sdmts.com or (619) 398-9561. Written comments must be submitted no later than February 15, 2023 at 4:00 p.m.

The proposed amended Code may be reviewed at, and copies obtained from Dalia Gonzalez, Executive Assistant to CEO and Clerk of the Board.



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 02/09/23

Agenda Item No. 6

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

Purchase of 24 Class C Propane Powered Medium Duty Minibuses - 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. B0744.0-22 (in substantially the same format as Attachment A), with Creative Bus Sales (CBS), for the purchase of up to twenty-four (24) propane powered Class C Minibuses in the amount of \$5,028,360.24.

Budget Impact

The total cost of this contract is estimated to be \$5,028,360.24, inclusive of all applicable taxes and fees. This project is funded by the Capital Improvement Project (CIP) 1001111601 – Minibus Replacement, and the transfer of \$500,000.00 from project 1001110101 - ADA Bus Procurement to CIP 1001111601. This would replace authority previously granted on April 14, 2022 (AI 16) authorizing the purchase of eighteen (18) Class E minibuses at a cost of \$4,465,915.38.

DISCUSSION:

MTS currently operates fixed route service with Class E cutaway buses to provide lifeline transit services in areas where ridership does not warrant the use of 40-foot transit buses. Twenty-four (24) vehicles have reached the end of their useful service life and have been scheduled for replacement as part of the FY 2022 MTS Fleet Replacement Plan. The new vehicles will maintain and enhance the agency's ability to provide transit services efficiently and cost effectively.

Federal Transit Administration (FTA) Circular 4220.1F, 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 buses that meet MTS specifications, using a California State government purchasing schedule administered by the California Association of Coordinated Transportation (CalACT), Request for



Proposal (RFP) No. 20-01. The CalACT Vehicle Purchasing Cooperative allows MTS to select vehicles from a pre-competed menu of choices from different vendors and manufacturers.

On April 14, 2022 (AI 16), the MTS Board approved MTS Doc. No. B0744.0-22 with CBS for the purchase of up to eighteen (18) propane powered Class E Minibuses in the amount of \$4,465,915.38; and the transfer of \$2.6 million from project 1001110101- FY20 ADA Bus Procurement to project 1001111601 - FY22 Minibus Replacement to support the procurement of these Minibuses.

Shortly after the MTS Board approval and before an agreement was signed, CBS notified MTS that with the chassis delays from Ford, they could not offer these buses at the approved pricing. Ford estimated 24 to 48-months lead times for the F550 chassis as the best-case scenario. During that time, CBS and CalACT reviewed pricing on all vehicle types and classes to reflect current market pricing and ensure fair and reasonable cost. Once approved, the new pricing would be published for agencies to utilize in their vehicle procurements.

Due to the lack of availability of similar model vehicles, MTS conducted a review of optional replacement vehicles. MTS determined that it could purchase similar cutaway style vehicles built on a Ford E-450 Chassis as opposed to the current Ford F-550 buses. The E-450 chassis is the same as the MTS paratransit fleet and also available in propane fuel. The vehicles are 22 passenger buses as opposed to the current vehicles that can hold 26 passengers. In conjunction with the MTS Planning Department, it was determined that 24 of the existing 31 vehicle fleet could be replaced with the smaller vehicles without impacting ridership. These vehicles also have a lower per unit purchase price (\$209,515.01) than the prior vehicles (\$248,106.41).

Although the smaller Class C buses are not currently covered under the California Innovative Clean Transit (ICT) rule, and are not part of the MTS Zero Emission Bus (ZEB) Transition Plan until 2026 at the earliest, MTS staff did evaluate possible ZEB options for this purchase. Unfortunately, there is no current vehicle that can meet our range requirements and there is no current charging infrastructure at the Copley Division to support the fleet. The Class E cutaways are being evaluated by California Air Resources Board (CARB) for inclusion in the ICT rule starting in 2026. MTS staff is monitoring the regulatory process and other technical developments for future inclusion in the ZEB Transition Plan.

The Class C buses being purchased are similarly equipped as the majority of the current MTS medium duty, paratransit fleet which allows for additional savings in common spare parts and maintenance. MTS has used propane powered Class E and C buses in the past because fueling with propane autogas leads to significant reductions in exhaust emissions with up to 25 percent less greenhouse gases, 20 percent less nitrogen oxide and up to 60 percent less carbon monoxide than gasoline-powered vehicles. Based on these factors, it was determined that the Propane Powered, E-450 Class C cutaway option was the best all-around solution for MTS.

CalACT negotiates the purchasing collectively on behalf of multiple agencies and is able to obtain pricing that cannot be obtained through individual agency procurements. This pricing is in line with prior proposals from previous procurements for minibuses. Therefore, staff deems the \$209,515.01/bus all-inclusive unit cost (\$5,028,360.24 for 24 buses) to be fair and reasonable.

Today's Board action will approve a change from 18 previously approved Class E Minibuses on April 14, 2022 (AI 16) at \$4,465,915.38, to 24 Class C Minibuses at \$5,028,360.24, a difference of \$562,444.86.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. B0744.0-22 (in substantially the same format as Attachment A), with CBS, for the purchase of up to twenty-four (24) propane powered Class C Minibuses in the amount of \$5,028,360.24.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. B0744.0-22
B. Contractor's Proposal



**Metropolitan
Transit
System**

STANDARD AGREEMENT

FOR

MTS DOC. NO. B0744.0-22

PURCHASE OF 24 CLASS C PROPANE POWERED MEDIUM DUTY MINI BUSES

THIS AGREEMENT is entered into this _____ day of _____, 2023 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: <u>Creative Bus Sales</u>	Address: <u>14740 Ramona Avenue</u>
	<u>Chino</u> <u>CA</u> <u>91710</u>
	<u>City</u> <u>State</u> <u>Zip</u>
Form of Business: <u>Corporation</u> (Corporation, Partnership, Sole Proprietor, etc.)	Email: <u>TonyM@creativebussales.com</u>
Telephone: <u>(562) 594-8948</u>	
Authorized person to sign contracts <u>Tony Matijevich</u>	<u>Vice President</u>
<u>Name</u>	<u>Title</u>

Provide up to twenty-four (24) Class C Propane Powered Medium Duty Minibuses as specified in the Creative Bus Sales Proposal dated January 31, 2023 (attached as Exhibit A), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit B), Federal Requirements (Exhibit C), and signed MTS Forms (Exhibit D).

The contract duration shall be for no more than a two-year initial term, effective April 1, 2023 through February 28, 2025, with no more than three optional extensions exercisable at MTS's sole discretion, of not more than one year each, for an overall five-year term ending February 28, 2028.

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 contract cost shall be firm fixed price not exceed \$5,028,360.24, which includes tax, delivery, registration and California tire fee.



SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CREATIVE BUS SALES
<p>By: _____ Sharon Cooney, Chief Executive Officer</p> <p>Approved as to form:</p> <p>By: _____ Karen Landers, General Counsel</p>	<p>By _____</p> <p>Title: _____</p>

DRAFT



Creative Bus Sales

14740 Ramona Avenue
Chino, CA 91710
888.633.8380



Creative Bus Sales

7471 Reese Road
Sacramento, CA 95828
888.633.8380

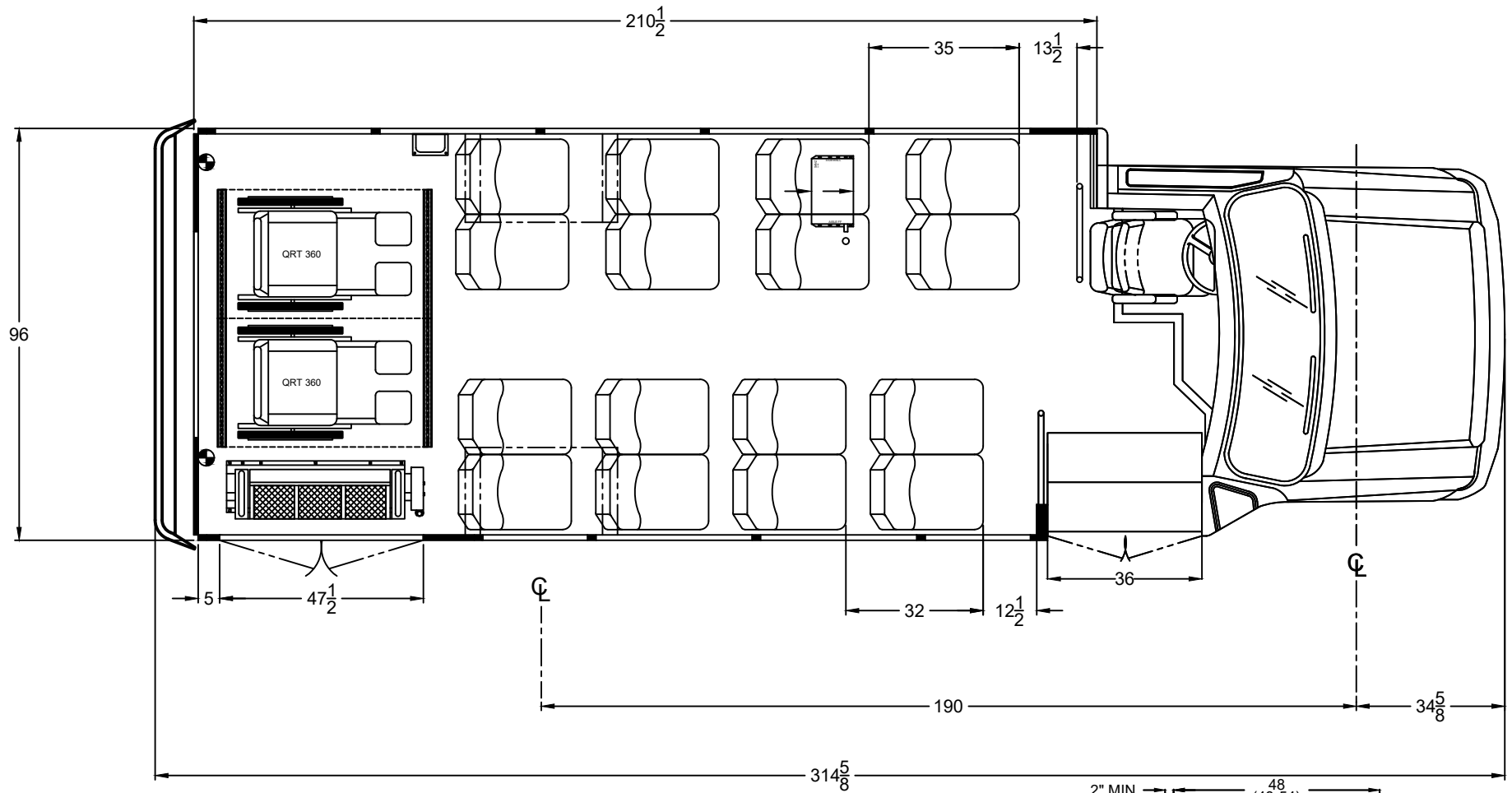
Att.B, AI 6, 02/16/23

CalACT MBTA RFP #20-01 - Class C - Quote Sheet (Rev 2022)

Vehicle Type:	STARCRAFT ALLSTAR CLASS C BUS	Type of Lift:	<input checked="" type="checkbox"/> Braun	
Contact:	JAY WASHBURN	Lift Location:	<input type="checkbox"/> Front <input checked="" type="checkbox"/> Rear	
Agency:	SAN DIEGO MTS	Seat Material Level:	LEVEL 4 DOCKET 90	
Address:	100 16TH STREET	Seat Color:	WINE VINYL	
City, State, Zip:	SAN DIEGO, CA 92101	Flooring and Color:	Altro Chroma TFCR27MTS Grey	
Phone:	619.235.2648	Salesperson:	STEVE CHUNG	
E-Mail:	JAY.WASHBURN@SDMTS.COM	Salesperson Cell:	909.549.9398	
Delivery:	9 TO 12 MONTHS FROM ORDER (SUBJECT TO CARB CERTIFICATION)	Salesperson E-Mail:	STEVEC@CREATIVEBUSSALES.COM	
Quantity:	Description	Price	Ext. Price	ADA
1	Starcraft Bus - Class C - (Ford E450 Propane 64G) *Subject to CARB certification*	\$127,459.00	\$127,459.00	\$11,790.00
2	2 - 34"-36" Freedman Flip Seat (featherweight)	\$1,670.00	\$3,340.00	\$3,340.00
1	10 - Recaro SHS Drivers Seat (If not standard) (BLACK VINYL 77850L)	\$1,185.00	\$1,185.00	
2	31 - Qstraint Deluxe (8100) credit per set of 4	-\$100.00	-\$200.00	-\$200.00
1	42 - Lift Pad Cover	\$300.00	\$300.00	\$300.00
1	47 - 2-Way radio prep	\$170.00	\$170.00	
1	48 - REI PA system (4 interior, 1 exterior ADA spkr)	\$460.00	\$460.00	
1	64 - Telma Driveline Brake Retarder	\$9,355.00	\$9,355.00	
1	80 - Sportworks bike rack (Stainless 2 Bike) / APEX W/ FAT TIRE ADAPTORS FOR BOTH BIKE POSITIONS	\$3,255.00	\$3,255.00	
1	84 - Roof Vent (Safefleet)	\$310.00	\$310.00	
1	98 - Amerex Fire Suppression	\$3,155.00	\$3,155.00	
1	102 - Rear Backup Camera and Monitor	Standard	Standard	Standard
1	116 - Stop Request System (w/ sign)	\$1,000.00	\$1,000.00	\$1,000.00
1	123 - Delivery Zone 1	\$800.00	\$800.00	
1	130 - Diamond Farebox SV W/ 2 VAULTS	\$2,400.00	\$2,400.00	\$2,400.00
Non-Published Options				
1	BUSES TO BE KEYED ALIKE (CHASSIS AND ACCESSORIES WHERE POSSIBLE)	\$595.00	\$595.00	
3	Altro T36T Aluminum step edging w/yellow insert (Each)	\$50.00	\$150.00	
1	REDUCE TENSION ON ALTERNATOR POWER WIRES FROM EXTRA SUPPORT BASE	\$50.00	\$50.00	
1	ALIGN FRONT END OF BUS	\$0.00	\$0.00	
1	INTERIOR BUS NUMBERS CENTERED ON FRONT EDGE OF CEILING	\$20.00	\$20.00	
1	FULL WIDTH DRIVER'S STORAGE COMPARTMENT LOCKED AND CARPETED	\$595.00	\$595.00	
1	EXHAUST TO EXIT STREET SIDE OF BUS TURNED DOWN 90 DEGREES FROM UNDERNEATH CHASSIS AND EXIT 6" OF REAR BUMPER	\$495.00	\$495.00	
1	(2) MATCHING 750 CCA BATTERIES WITH MILITARY BATTERY TERMINALS IN TRAY (NO BATTERY UNDER HOOD)	\$595.00	\$595.00	
1	BUS PAINT AND DECAL (VALSPAR #829R4072) TOYLAND RED	\$8,000.00	\$8,000.00	
1	CREDIT FOR TOOL BOX REMOVAL	-\$20.00	-\$20.00	
1	CREDIT FOR FIRST AID KIT AND BODY FLUID KIT	-\$50.00	-\$50.00	
1	LUMINATOR HORIZON SMT FRONT AND SIDE DESTINATION SIGNS	\$9,445.00	\$9,445.00	
1	FORD E450 CHASSIS COST INCREASE (SUBJECT TO MBTA / CALACT APPROVAL)	\$4,371.00	\$4,371.00	
1	ADD SLACK TO MAIN POWER CABLE AT WHEELCHAIR BASE	\$50.00	\$50.00	
1	FLOW THROUGH GATOR VALVE CORE CAPS / NO VALVE EXTENSIONS	\$50.00	\$50.00	
	AS BUILT PARTS MANUAL	\$495.00	\$0.00	

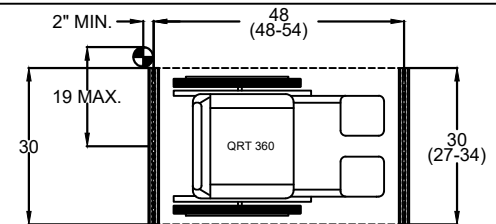
3	Antenna gound plane w/conduit and pull cord	\$80.00	\$80.00	Att.B, AL6, 02/16/23
1	Pre-wire, BAT/IGN/GND Front Storage with Buss Bar	\$595.00	\$595.00	
1	Pre-wire, BAT/IGN/GND Behind Driver HD	\$295.00	\$295.00	
1	MOVE HEATER TO CURBSIDE THIRD ROW	\$0.00	\$0.00	
1	REMOVE OEM STEREO	\$0.00	\$0.00	
1	SAFEFLEET SEON CAMERA SYSTEM PER ATTACHED SPECIFICATIONS	\$13,000.00	\$13,000.00	
1	PROPANE HEAT MITIGATION SYSTEM	\$3,000.00	\$3,000.00	
1	WHEELCHAIR LOOP COMPARTMENT UNDER FLIP SEAT	\$550.00	\$550.00	
1	REMOVE BACK UP SENSORS IN REAR BUMPER	-\$200.00	-\$200.00	
<div> <div>Class C - Base Price</div> <div>\$127,459.00</div> </div> <div> <div>Published Options</div> <div>\$25,530.00</div> </div> <div> <div>Non-Published Options</div> <div>\$41,826.00</div> </div> <div> <div>Total</div> <div>\$194,815.00</div> </div> <div> <div>Doc Prep Fee</div> <div>\$85.00</div> </div> <div> <div>The Non-Taxable Amount is the ADA Equipment in the Base and Added as Options</div> <div>Non-Taxable</div> <div>\$18,630.00</div> </div> <div> <div>The Taxable Amount Includes the Mobility Rebate of \$1,000.00 For Ford Chassis</div> <div>Taxable Amount</div> <div>\$177,270.00</div> </div> <div> <div>San Diego*</div> <div>▼</div> </div> <div> <div>Tax Total</div> <div>\$13,738.43</div> <div>7.750%</div> </div> <div> <div>Sub-Total</div> <div>\$208,638.43</div> </div> <div> <div>CalACT Fee*</div> <div>\$833.33</div> </div> <div> <div>DMV E-File Fee:</div> <div>\$31.00</div> </div> <div> <div>DMV Fee</div> <div>\$0.00</div> </div> <div> <div>Tire Fee</div> <div>\$12.25</div> </div> <div> <div>Total</div> <div>\$209,515.01</div> </div> <div> <div>Number of Units</div> <div>24</div> </div> <div> <div>Final Total</div> <div>\$5,028,360.24</div> </div>				
<div> <div>*PLEASE NOTE THAT THE CALACT PROCUREMENT FEE IS CAPPED AT \$20,000 PER PURCHASE ORDER.</div> <div>*THIS AMOUNT IS SUBJECT TO CHANGE DEPENDING ON NUMBER OF VEHICLES THAT ARE ORDERED.</div> </div> <div> <div>(Estimated)</div> </div>				
<div> <div>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</div> </div>				

CLASS C REAR LIFT FORD GAS, CNG 16 + 2 W.C.



RETRACTOR LOCATIONS

NOTE: SHOWN WITH MID HI FREEDMAN SEATS
E-450 14,500 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.

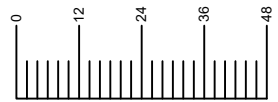


DEALER APPROVAL

☐ APPROVED

CUSTOMER SIGNATURE

SCALE
IN INCHES



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 CONSENT. 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:
16 2 W/C 190" WB 199 BDY
MODEL 26

NAME: CRANS DATE: 11/07/22

DWG. No. 16 2 WC 190 199-15 FRB

**SEON 10 CAMERA SYSTEM**

NH16KH2T0 - NH NVR Hybrid, 16 Channels, 8CH Analog HD Built-In, 16 Port POE Switch, Audio, Security Front Cover with Lock Set, Mounting Plates, Power Harnesses, Stacking Bracket, 2TB Single HDD

WT1D20S20G4 - TL, TL-HD & TH, Explorer TX8 and HX16 wiring bundle with adapter harness, diagnostic indicator/alarm button cable 20 ft., five signal input 20 ft., GPS4 receiver magnetic mount 20 ft.

C3Q9PD03AF-BK-FF20 - IP Camera, PoE, dome, black, 3MP progressive scan, 2.8 mm lens size, interior, IR Day/Night, audio, 20 ft. harness, with Forward Facing Bracket - to use with TH8 or NH16

C3Q9PD03A20 - IP Camera, PoE, dome, white, 3MP progressive scan, 2.8 mm lens size, interior, IR Day/Night, audio, 20 ft. harness - to use with TH8 or NH16

C3Q9PD03A50 - IP Camera, PoE, dome, white, 3MP progressive scan, 2.8 mm lens size, interior, IR Day/Night, audio, 50 ft. harness - to use with TH8 or NH16

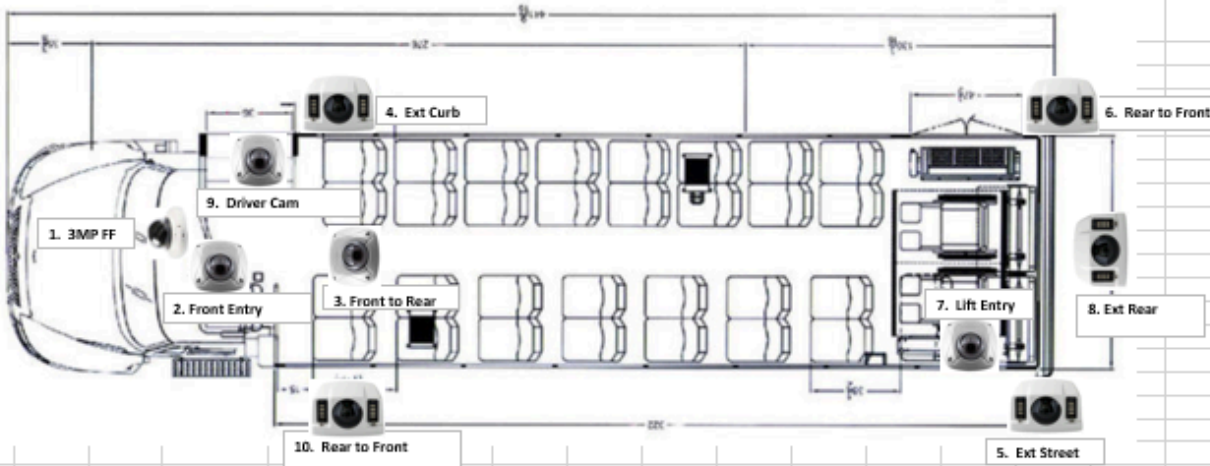
C3W9PD03E50 - IP Camera, PoE, wedge, 3MP progressive scan, 2.8 mm lens size, exterior (no audio), IR Day/Night, 50 ft. harness - to use with TH8 or NH16

C3W9PD03E75 - IP Camera, PoE, wedge, 3MP progressive scan, 2.8 mm lens size, exterior (no audio), IR Day/Night, 75 ft. harness - to use with TH8 or NH16

SRLN07NP - SmartReach Lite, 2.4/5GHz, ANT, No POE, -N

G-SENSOR-EXT - G-Sensor, module and cable kit for compatible DVR

ANTK-W11W5 - Dual Band White WiFi Antenna Kit with Single Cable at 1.8 m length plus 3 m Antenna Extension Cable and RP-SMA Male Termination



Camera Proposal Line

1	3
2	4
3	4
4	6
5	7
6	7
7	5
8	7
9	4
10	6



*Bus photo is not to exact specifications

Class C Standard Build Options

Allstar 25 176" WB E-450 7.3L Premium Gas Engine W/240 Amp Ford Alt **	ST	93091	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
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 Retractor 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-Strait 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		8
PASSENGER SEAT FABRICS				1
Seat Cover - Level 4 Ice Pinstripe; Mor-Care; Leathermate	05	2074		16
SEAT OPTIONS				1
Anti-Vandal Grab Handle, Black Ea on: ALL SEAT EXCEPT AGAINST REAR WALL	05	2311		16
Black US Armrest - Each - on:	05	2077		8
Flame Block Material on Underside of Seat (each)	05	2884		16
SEAT BELTS				1
Seat Belt, Freedman USR Retractable (Per Person)	05	2282		16
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



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 02/06/23

Agenda Item No. 7

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

MTS Excess Liability Insurance Renewals

AGENDA ITEM WILL BE PROVIDED BEFORE BOARD MEETING





DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 02/09/23

Agenda Item No. 8

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2022

SUBJECT:

Investment Report – Quarter Ending December 31, 2022

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

Attachment A comprises a report of the San Diego Metropolitan Transit System (MTS) investments as of December 31, 2022. The combined total of all investments has increased quarter to quarter from \$214.6M to \$225.5M. This \$10.9M increase is attributable to \$17.7M in Federal Transit Administration (FTA) capital draws, \$15.4M in American Rescue Plan Act of 2021 (ARPA), partially offset by \$18.5M in capital expenditures, as well as normal timing differences between other payments and receipts.

The first column provides details about investments restricted for capital improvement projects 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: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Investment Report for the Quarter Ending December 31, 2022



**San Diego Metropolitan Transit System
Investment Report
December 31, 2022**

Institution / Issuer	Function	Investment Type	Restricted	Unrestricted	Total	Avg. Rate of Return	Benchmark	
J.P. Morgan Chase	Operating Funds	Depository Bank	-	54,924,941	54,924,941	0.80%	*	0.380% WSJ Money Market
U.S. Bank - Retention Trust Account	Restricted for Capital Support	Depository Bank	8,531,874	-	8,531,874	N/A	**	-
Local Agency Investment Fund (LAIF)	Restricted (Stored Value)	Investment Pool	4,688,530		4,688,530	2.173%		6.808% S&P US T-Bill 0-3 Mth Index
San Diego County Treasurer's Office	State Grant Funds	Investment Pool	17,273,913	5,557,196	22,831,108	2.970%		6.808% S&P US T-Bill 0-3 Mth Index
Subtotal: Restricted for Capital Support / Stored Value			30,494,316	5,557,196	36,051,512			
Local Agency Investment Fund (LAIF)	Investment of Surplus Funds	Investment Pool	-	60,464,489	60,464,489	2.173%		6.808% S&P US T-Bill 0-3 Mth Index
San Diego County Treasurer's Office	Investment of Surplus Funds	Investment Pool	-	74,017,219	74,017,219	2.970%		6.808% S&P US T-Bill 0-3 Mth Index
Subtotal: Investment Surplus Funds			-	134,481,708	134,481,708			
Grand Total Cash and Investments			\$ 30,494,316	\$ 194,963,845	\$ 225,458,160			

*-The .80% is an annual percentage yield on the average daily balance that exceeds \$30 million

** - Per trust agreements, interest earned on retention account is allocated to trust beneficiary (contractor)



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 02/09/23

Agenda Item No. 9

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

Printing Timetables – 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. G2686.0-23 (in substantially the same format as Attachment A) with Neyenesch Printers, Inc., (Neyenesch), a certified Small Business (SB), for the provision of printing timetables for a period of three (3) years, in the amount of \$375,731.09.

Budget Impact

The total cost of this contract is estimated to be \$375,731.09. The project will be funded by Operating Budget account 902010-571220 - Administration Timetables

DISCUSSION:

MTS Bus Operations, ACCESS & Americans with Disabilities Act (ADA) Service and Trolley Operations connect people to work, school, shopping, medical appointments, cultural sites and various events. Timetables inside each mode of service are an important piece of the information customers need to ride each day.

Contractor will print timetables for distribution by MTS to bus and trolley riders. The services include providing all the necessary labor, equipment, printing materials and supplies and delivering the timetables to various designated MTS locations.

On October 21, 2022 MTS issued a Request for Proposals (RFP) for printing timetables services. A single proposal was received by the due date of December 05, 2022 from Neyenesch located in San Diego.

On December 6, 2022, to ascertain that the solicitation was not restrictive, MTS emailed a survey to all the firms that had downloaded the RFP on PlanetBids asking them their reason/s for not proposing. The results indicated that neither the RFP nor MTS's procurement processes played a role in their decision not to respond. MTS then moved forward with proposal evaluations.



An evaluation committee consisting of MTS Bus Contract Operations, Marketing and Finance staff met and scored the proposals based on the following technical and cost criteria:

1. Qualifications of the Firm or Individual	15%
2. Staffing, Organization, and Management Plan	15%
3. Work Plan	25%
4. Contractor Responsiveness and Flexibility	15%
5. Cost	<u>30%</u>
Total 100%	

The evaluation results are summarized below:

MTS Independent Cost Estimate (ICE)	Neyenesch Proposal	Technical Score	Cost Score	Total Score (Max 100)
\$387,652.07 (\$359,769.90 + CA sales tax \$27,882.17)	\$375,731.09 (\$348,706.35 + CA sales tax \$27,024.74)	57.67	30.00	87.67

Neyenesch has provided printing services for MTS for over 30 years and has been a great partner. Comparing the Neyenesch's proposal to MTS's ICE, the agency saves \$11,920.98 or 3.08% over the 3 years, a cost that staff deems to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. G2686.0-23 (in substantially the same format as Attachment A) with Neyenesch, a certified SB, for the provision of printing timetables for a period of three (3) years, in the amount of \$375,731.09.

/s/ Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. G2686.0-23
B. Scope of Work
C. Cost Form



Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. G2686.0-23

PRINTING TIMETABLES

THIS AGREEMENT is entered into this _____ day of _____, 2023 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: Neyenesch Printers, Inc Address: 2750 Kettner Blvd
San Diego, CA 92101
 City State Zip
 Form of Business: Corporation
 (Corporation, Partnership, Sole Proprietor, etc.) Email: kandy@neyensch.com
 Telephone: 619-488-8315

Authorized person to sign contracts Kandy Neyenesch Chief Financial Officer
 Name 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) and Forms (Exhibit D).

The contract term is for up to three (3) years effective April 1, 2023 to March 31, 2026.

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed \$375,731.09 (\$348,706.35 + CA sales tax \$27,024.74) without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	NEYENESCH PRINTERS, INC
By: <u>Sharon Cooney, Chief Executive Officer</u>	By _____
Approved as to form:	Title: _____
By: <u>Karen Landers, General Counsel</u>	



SCOPE OF WORK/TECHNICAL SPECIFICATIONS

1.1. INTRODUCTION

San Diego Metropolitan Transit System is soliciting proposals from experienced and qualified firms to print timetables for distribution to its customers. One (1) contract will be awarded from RFP.

Contractor will provide timetable printing services including but not limited to the necessary labor, equipment, materials, supplies, press cleaning and set up for the following:

- A. Group A - MTS Bus Timetables
- B. Group B - MTS Trolley Timetables

Bus and Trolley services connect people to work, school, shopping, medical appointments, cultural sites and events. The printed timetables are an important piece of the information customers need to ride the bus and trolley.

The agreement will be for three (3) years effective May 1, 2023 to April 30, 2026.

1.2. TASKS TO BE PERFORMED

Contractor shall be responsible for the following tasks:

- A. Upon receipt of artwork from MTS, Contractor shall prepare proofs and plates necessary for the printing of timetables within specified time frame.
- B. Print with proofs, fold, package, and deliver timetables to the locations shown in this scope of work.

1.3. ALL-INCLUSIVE COSTS

On the cost proposal (Attachment 1), unit costs shall be all-inclusive (with the exception of sales tax), including but not limited to labor, printing costs, supplies, press cleaning and setup, and all other production costs.

The unit cost shall include the production of "blue line" quality proofs (clean, crisp, press quality proofs) following any changes to art, map, or copy for approval by MTS. There shall be no additional charge for subsequent blue lines, which are required for approval unless they are required as the result of changes by MTS. All plate/proof charges shall be incorporated into the cost proposal.

If MTS has a requirement to produce a new timetable, for a route not included in the annual quantities section of the specifications, the unit price for production of that timetable shall be consistent with routes of equivalent function and scale.

The cost shall include courier service and/or delivery of all printed items to the locations specified by MTS in section 5.11.

MTS will not pay additional delivery costs so proposers should propose accordingly.

MTS has provided estimated yearly quantities. These quantities are for proposing purposes only, and do not reflect actual amounts to be printed. The estimated quantities do not commit MTS to authorize any printing services. Amounts may be more or less than indicated and will depend on MTS's actual needs. Attachment 2 shows a breakdown of estimates.

1.4. TRIM SIZE SPECIFICATIONS

A. MTS Bus Timetables

Bus schedules are printed in three (3) different flat sizes:

- i. 11" x 17" – forty (41) timetables at this size
- ii. 8.5" x 11" – thirty-five (34) timetables at this size
- iii. 11" x 21" – one (1) timetable at this size

All timetables are folded to 3.625" x 4.25".

B. MTS Trolley Timetable

The Trolley timetable flat size is 14.5" x 21.25" and fold to 3.625" x 4.25".

FOLDING NOTE: All of the above pieces fold down to 3.625" w x 4.25"h so they can all be displayed in uniform display rack together.

1.5. PAPER REQUIREMENTS

A. MTS Bus Timetables

All bus timetables will be printed on 50 lb. White Offset Uncoated paper.

The stock needs to have decent opacity so there is little to no show through as they print 2-sided, and fold with a clean line. MTS will accept either regular or recycled paper.

B. MTS Trolley Timetables

The Trolley timetables will be printed on 40 lb. White Offset Uncoated paper.

The stock needs to have decent opacity so there is little to no show through as they print 2-sided, and fold with a clean line. MTS will accept either regular or recycled paper.

1.6. INK

A. MTS Bus Timetables

MTS bus timetables will be printed using two colors: 1) Black; 2) One solid PMS uncoated ink, color to be determined by MTS.

All timetables will print (2/2).

Each order can include timetables using different PMS colors. For example, an order may include 12 timetables that print Black & Solid PMS 186 Red, plus 20 other timetables that print Black & Solid PMS 3005 Blue.

B. MTS Trolley Timetables

The Trolley timetables print in four (4) color process printing; 4/4. Ink coverage would be considered "medium".

1.7. ORDERING

MTS will initiate all the order placements.

A. Service Changes

MTS conducts three (3) scheduled system service changes per year (January, June and September). During these periods, MTS introduces new Trolley and Bus route and schedule changes to passengers. Newly designed timetables are required to communicate and market these changes. During these scheduled service change periods, MTS will require that all ordered timetables be delivered two (2) weeks or ten (10) business days prior to the effective service change date. It is imperative that schedules arrive on time to adequately provide passengers the necessary information.

B. Reorders

Not all MTS Trolley and Bus routes change every scheduled service change. Routes that do not change may require reorders of existing timetables when the current inventory is depleted. The lead time for these orders is two (2) weeks or ten (10) business days from the time the order is placed by MTS.

1.8. SPECIAL ORDERS

When and if service changes occur, MTS reserves the right to request different size schedules with different color combinations. With written notice, MTS may request an emergency order to print timetables and delivery within five (5) business days.

1.9. QUANTITY OF ORDERS

A master list of each route and estimated number of printed copies required will be sent with each order. The schedules change approximately three (3) times per year and major change periods could entail changes from 0 to 94 routes. Reasonable notice will be given in cases where large quantities of paper are to be ordered.

1.10. PACKAGING

All MTS Bus and Trolley timetables must be packaged in bundles of fifty (50) copies in bust proof bands, string, or rubber bands. All boxes used for the packaging of schedules must be the standard size of 18" x 12" x 8" or 11" x 9" x 8" in order to fit in existing storage bins. Packaging of timetables shall not exceed 1,000 timetables per box.

Each box must be identified with a taped-on sample of the schedule and quantity. Each box must be clearly labeled with the following information below:

A. Specific timetable

B. Delivery location

C. Delivery date

1.11. DELIVERIES

Deliveries must be made between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday, to destinations in San Diego County as specified by MTS. Below is the current list of delivery locations which MTS reserves the right to add or subtract locations at any time.

Kearny Mesa Division (KMD) (San Diego Transit) Attn: Gregorio Romero 4630 Ruffner Street San Diego, CA 92111	Imperial Avenue Division (IAD) (San Diego Transit) Attn: Jessica Duarte 100 16 th Street San Diego, CA 92101
East County Division (Transdev) Attn: Edgar Gonzalez 544 Vernon Way El Cajon, CA 92020	Copley Park Division Attn: Geri Kaarstad 7490 Copley Park Place San Diego, CA 92111
South Bay Division (Transdev) Attn: Claudia Valley 3620 Main Street Chula Vista, CA 91911	San Diego Trolley Warehouse Attn: Storeroom Manager 1341 Commercial Street San Diego, CA 92113
Tele-Information - Mills Building Attn: Luz Gallo 1255 Imperial Ave, 8th Floor San Diego, CA 92101	Transit Store – Mills Building Attn: Brianne Graham 1255 Imperial Ave, 1st Floor San Diego, CA 92101

1.12. PAYMENT TERMS

Unless otherwise stated in the specifications or cost 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 of the unit or units ordered, as herein provided, and after the statements covering the unit or units have been presented to MTS by the Contractor.

Cash discounts as shown on the bid form shall be accepted at the option of MTS. Otherwise, the terms will be Net thirty (30) from acceptance. Payment terms less than ten (10) days from acceptance will not be considered. **Advanced Payment is Not Allowable**

1.13. 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.

Contractor must also indicate if any of the invoiced amount 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 Section 16 Prompt Progress Payments of the Standard Conditions.

1.14. TRANSITION

After contract execution, MTS and selected Contractor will hold a “New Account Meeting” with all department supervisors to review the entirety of the project.

Contractor will designate personnel that will be assigned to MTS's account to respond to all questions, ensure that MTS projects are expedited throughout the entire production process and delivered on time.

1.15. EXAMPLE LAYOUT

Example Layout (11x17)

[illegible][illegible]

PROPOSER NAME: NEYENESCH PRINTERS

ADDENDUM NO. 1**Printing Timetables**

PROPOSERS TO ONLY FILL OUT THE CELLS IN

MTS TIMETABLE SPECIFICATIONS			Year One				
			Price Break per Timetable via Quantities				
ROUTE	PAPER SIZE	No. of Colors	1-9,999	10,000-19,999	20,000-24,999	25,000 - 34,999	35,000 - 49,999
Trolley	14.5" x 21.25"	4	\$ 0.22	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20
Bus Route	11" x 21"	2	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18
Bus Route	11" x 17"	2	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18
Bus Route	8.5 x 11"	2	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10

Year One													
Paper Size	# of Colors	Order Quantity											
		1- 9,999			10,000 - 19,999			20,000 - 24,999			35,000 - 49,999		
		Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total
14.5" x 21.25"	4										0.20	36,225	\$ 7,331.94
11" x 21"	2				0.18	11,550	\$ 2,127.51						
11" x 17"	2	0.18	140,700	\$ 25,973.22	0.18	257,250	\$ 46,819.50						
8.5" x 11"	2	0.10	139,650	\$ 13,965.00	0.10	97,650	\$ 9,765.00	0.10	42,000	\$ 4,200.00			
Totals				\$ 39,938.22			\$ 58,712.01			\$ 4,200.00			\$ 7,331.94

TOTAL

\$ 110,182.17

MTS TIMETABLE SPECIFICATIONS			Year Two				
			Price Break per Timetable via Quantities				
ROUTE	PAPER SIZE	No. of Colors	1-9,999	10,000-19,999	20,000-24,999	25,000 - 34,999	35,000 - 49,999
Trolley	14.5" x 21.25"	4	\$ 0.23	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21
Bus Route	11" x 21"	2	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Bus Route	11" x 17"	2	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Bus Route	8.5 x 11"	2	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11

Year Two													
Paper Size	# of Colors	Quantity Ordered											
		1- 9,999			10,000 - 19,999			20,000 - 24,999			35,000 - 49,999		
		Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total
14.5" x 21.25"	4									0.21	36,225	\$ 7,698.54	
11" x 21"	2				0.19	11,550	\$ 2,238.39						
11" x 17"	2	0.19	140,700	\$ 27,267.66	0.19	257,250	\$ 49,855.05						
8.5" x 11"	2	0.11	139,650	\$ 14,663.25	0.11	97,650	\$ 10,253.25	0.11	42,000	\$ 4,410.00			
Totals				\$ 41,930.91			\$ 62,346.69			\$ 4,410.00		\$ 7,698.54	

TOTAL

\$ 116,386.14

MTS TIMETABLE SPECIFICATIONS			Year Three				
			Price Break per Timetable via Quantities				
ROUTE	PAPER SIZE	No. of Colors	1-9,999	10,000-19,999	20,000-24,999	25,000 - 34,999	35,000 - 49,999
Trolley	14.5" x 21.25"	4	\$ 0.24	\$ 0.22	\$ 0.22	\$ 0.22	\$ 0.22
Bus Route	11" x 21"	2	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20
Bus Route	11" x 17"	2	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20
Bus Route	8.5 x 11"	2	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11

Year Three													
Paper Size	# of Colors	Quantity Ordered											
		1- 9,999			10,000 - 19,999			20,000 - 24,999			35,000 - 49,999		
		Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total	Unit Price	Yearly Quantity	Total
14.5" x 21.25"	4									0.22	36,225	\$ 8,081.80	
11" x 21"	2				0.20	11,550	\$ 2,350.43						
11" x 17"	2	0.20	140,700	\$ 28,632.45	0.20	257,250	\$ 52,350.38						
8.5" x 11"	2	0.11	139,650	\$ 15,361.50	0.11	97,650	\$ 10,741.50	0.11	42,000	\$ 4,620.00			
Totals				\$ 43,993.95			\$ 65,442.30			\$ 4,620.00		\$ 8,081.80	

TOTAL

\$ 122,138.05

OVERALL 3 YEAR TOTAL

\$ 348,706.35

CA Sales Tax

\$ 27,024.74

OVERALL TOTAL INCLUDING TAX \$ 375,731.09



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/9/2023

Agenda Item No. 10

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

February 16, 2023

SUBJECT:

Hazardous and Universal Waste Management and Trauma Scene Clean-Up Services for San Diego Trolley, Inc. (SDTI) & San Diego Transit Corporation (SDTC) – 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. G2676.0-23 (in substantially the same format as Attachment A) with Clean Harbors Environmental Services, Inc. ("Clean Harbors") for the provision of Hazardous Waste and Trauma Scene Clean-Up Services for five (5) years for up to \$1,912,145.96.

Budget Impact

The total cost of this contract is estimated to be \$1,912,145.96 (Attachment C). The project will be funded by the SDTC and SDTI operating budgets. Although costs are incurred on an as-needed basis, the estimated costs over the 5-year contract period are as follows:

Contract Term	Hazardous Waste		Trauma Scene Clean-Up Services		Total Amount	
Agency	SDTC	SDTI	SDTC	SDTI	SDTC	SDTI
YEAR 1	\$84,830.13	\$233,156.41	\$15,705.00	\$15,580.00	\$100,535.13	\$248,736.41
YEAR 2	\$84,830.13	\$233,156.41	\$15,705.00	\$15,580.00	\$100,535.13	\$248,736.41
YEAR 3	\$93,527.47	\$256,976.04	\$17,315.84	\$17,177.84	\$110,843.31	\$274,153.88
YEAR 4	\$98,201.02	\$269,647.05	\$18,179.43	\$18,034.93	\$116,380.45	\$287,681.98
YEAR 5	\$103,114.01	\$283,402.86	\$19,089.19	\$18,937.19	\$122,203.20	\$302,340.05
Total	\$464,502.77	\$1,276,338.77	\$85,994.46	\$85,309.96	\$550,497.23	\$1,361,648.73
GRAND TOTAL (5 Years)						\$1,912,145.96



DISCUSSION:

MTS and North County Transit District (NCTD) jointly solicited proposals to secure a multiyear contract for Hazardous Waste and Trauma Scene Clean-Up Services. MTS generates waste streams, including but not limited to hazardous, universal and regulated medical waste in the maintenance and servicing of buses and rail cars. MTS is the lead agency for this solicitation.

MTS Policy No. 52, "Procurement of Goods and Services", requires a formal competitive process for procurements and service contracts over \$150,000.00. On November 1, 2022, MTS issued a Request for Proposals (RFP) from qualified proposers to provide Hazardous Waste and Trauma Scene Clean-Up Services for five (5) years.

On December 2, 2022, a total of five (5) proposals were received and all five (5) proposals were deemed responsive and responsible.

Proposer Name	Firm Certification
Clean Harbors Environmental Services, Inc. ("Clean Harbors")	N/A
Environmental Management Technologies ("EMT")	N/A
HCI Environmental ("HCI")	N/A
NRC Environmental Services ("NRC")	N/A
Ocean Blue Environmental Services ("Ocean Blue")	Minority Business Enterprise (MBE), Small Business (SB), Woman-Owned Business (WBE)

An evaluation committee consisting of representatives from the MTS Finance, Environmental Health & Safety, and NCTD Quality Control departments met and scored the proposals based on the following evaluation criteria:

Evaluation Criteria	Total Possible Points
Qualifications of the Firm	20
Staffing, Organization, and Management Plan	25
Work Plan	30
Cost and Price	25
Total	100

The table below represents each Proposer's initial scores and rankings:

Proposer Name	Initial Cost	Technical Score	Cost Score	Total Score (Maximum total score: 100)	Ranking
Clean Harbors	\$1,929,519.76	67.00	22.01	89.01	1
NRC	\$1,916,700.53	65.00	21.84	86.84	2
Ocean Blue	\$3,720,341.48	64.67	12.31	76.97	3
HCI	\$1,797,989.09	48.00	25.00	73.00	4
EMT	\$1,642,030.24	37.00	12.10	49.10	5

The committee invited the two proposers that were within the competitive range, Clean Harbors, and NRC, for interviews. Interviews were held on January 18, 2023, at which proposers were asked to make a presentation of their firm's services and provide clarifications on their proposal to MTS.

Following the interviews, MTS requested for a Best and Final Offer (BAFO) from both firms, which were received on January 20, 2023. The committee met a second time to re-evaluate and rescore the proposals based on the additional information gained during the interviews and the BAFO.

The table below reflects the final scores and rankings:

Proposer Name	Revised Cost	Technical Score	Cost Score	Total Score (Maximum total score: 100)	Ranking
Clean Harbors	\$1,912,145.96	67.00	25.00	92.00	1
NRC	\$1,916,700.53	65.00	24.58	89.58	2

Based on the objectives of this procurement, consideration of the evaluation criteria and Clean Harbors' technical and price proposals, the evaluation team determined that Clean Harbors presented the best value proposal to MTS.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. G2676.0-23 (in substantially the same format as Attachment A) with Clean Harbors for the provision of Hazardous Waste and Trauma Scene Clean-Up Services for SDTI/SDTC for SDTI/SDTC for five (5) years for up to \$1,912,145.96.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. G2676.0-23
B. Scope of Work
C. Cost Form



**Metropolitan
Transit
System**

STANDARD AGREEMENT

FOR

MTS DOC. NO. G2676.0-23

**HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP
SERVICES**

THIS AGREEMENT is entered into this _____ day of _____, 2023 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: Clean Harbors Environmental Services, Inc.

Address: 42 Longwater Drive, P.O. Box 9149

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

Norwell MA 02061
City State Zip

Email: curtisg@cleanharbors.com

Telephone: 781.792.5370

Authorized person to sign contracts _____

George L Curtis
Name

Executive Vice President
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), and Forms (Exhibit F).

The contract term is for five (5) years effective April 1, 2023 through March 31, 2028.

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed \$1,912,145.96 without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
By: _____ Sharon Cooney, Chief Executive Officer	By _____
Approved as to form:	
By: _____ Karen Landers, General Counsel	Title: _____



1. SCOPE OF WORK/TECHNICAL SPECIFICATIONS

1.1. INTRODUCTION

1.1.1. MTS

The San Diego Metropolitan Transit System “MTS” is a special district, with authority to provide public transportation services throughout San Diego County. MTS operates primarily light rail vehicle (LRV) and bus service. MTS generates waste streams including but not limited to hazardous, universal and regulated medical waste in the maintenance and servicing of buses and rail cars.

MTS maintains various service areas throughout San Diego County. The Agreement will cover the routine removal and disposal and analysis (as needed) of hazardous and universal waste at two (2) bus facilities (Imperial Avenue Division (IAD) and Kearny Mesa Division (KMD); and one (1) Trolley Yard. Due to the amount of hazardous and universal waste generated, the three (3) facilities are currently classified as Large Quantity Generators (LQG). Due to the large area of operation, on occasion, MTS may require waste management of non-routine waste streams services throughout the County of San Diego or as agreed upon by MTS.

1.1.2. NCTD

North County Transit District “NCTD” offers bus and rail services that are a vital part of San Diego’s regional transportation network and connect with services offered by MTS. NCTD moves more than 12 million passengers annually by providing public transportation for greater North San Diego County. The family of transit services offered by NCTD includes commuter rail service (Coaster), light rail (Sprinter), bus system (Breeze), rural and on-demand service (Flex), and paratransit (Lift).

In this joint procurement, NCTD is seeking to award its own Agreement to a contractor to provide hazardous and biohazardous cleanup and disposal services at various NCTD facilities. NCTD and MTS are separate legal entities and will each have their own Agreement with Contractor.

1.1.3. JOINT NEEDS

Each agency’s Agreement will cover the services discussed in this Scope of Work, and include cleanup, disposal, and removal of biohazardous waste at trauma scenes.

The ideal Contractor will be a firm that possesses all of the requisite licenses, permits, materials, equipment and personnel (Transporters, Emergency Responders and Technicians) to assist MTS and NCTD (the “Agencies” or individually “Agency”, as applicable) and their respective project managers with hazardous and universal waste management to ensure the agencies remain compliant to applicable laws, regulations and reporting requirements, including but not limited to California State Department of Toxic Substance Control (DTSC) and Federal Environmental Protection Agency (EPA) regulations pertaining to the storage and transport. For the purposes of

this solicitation, hazardous waste will refer to hazardous waste, universal waste, and biohazardous waste.

Typical right-of-way cleanup and removal for the Agencies will include illegally dumped waste that is hazardous to people, animals, and the environment, spills, dead animals, and trespasser strike trauma cleanup. Additionally, some of the Agencies' properties may contain encampments and may contain biohazardous material such as syringes, feces, urine, personal hygiene items and other material which could pose a health threat that will need to be managed and removed. Typical facilities clean up and removal will include oil fuel, grease, solvents, paints, and coolant. Facilities clarifier services, oil/water separator, lift station/sewer and any spilled fluid and debris pumping/cleanup will be required. Disposal of batteries, appliances and various lighting lamps will be needed as well. The Contractor will work on its own in the field and/or in conjunction with the Agencies' staff or designees.

The Contractor shall provide all labor, materials, and equipment required for all work, including removing and disposing of collected waste, procuring all necessary materials, and performing all other work necessary in accordance with the Scope of Work.

1.2. DEFINITION OF TERMS/ACRONYMS

Contractor	A firm that has entered into Agreements with MTS and NCTD for the removal and disposal of hazardous, universal, biohazardous waste, and/or trauma scene clean up.
Subcontractor	A firm that enters into a legal agreement with the Contractor to provide services, on behalf of the Contractor, as specified in the Scope of Work. The Subcontractor can be a Transporter, Emergency Responder, Treatment Storage and Disposal Facility (TSDF) or a Laboratory.
Transporter	The firm responsible for transporting waste from an Agency's facility or incident, to a recycling or disposal facility. The transporter could either be the Contractor or a Subcontractor. The secondary transporter shall perform the work should the primary transporter be unable to provide services.
Emergency Responder	The firm responsible for remediation of hazardous material and biohazard incidents. The emergency responder shall respond to incidents, remediate the scene, and transport any waste generated to an approved TSDF. The work of the emergency responder may be conducted by the Contractor or its subcontractor. There will be a primary emergency responder and a secondary emergency responder. The secondary emergency responder shall perform the work should the primary be unable to provide service.

Treatment, Storage, and Disposal Facility (TSDf)	The firm that is licensed to accept hazardous waste. The TSDf shall properly and lawfully handle, treat, bulk, or dispose of the Agencies' hazardous waste.
Laboratory	The firm that shall perform chemical analysis of waste when needed.

1.3. LICENSE REQUIREMENT

Contractor must adhere to all federal, state and local license requirements, and possess and maintain the applicable permits required per federal, state and local regulations. Contractor must also show a history of compliance to federal, state, and local regulations.

1.4. GENERAL REQUIREMENTS

1. The Contractor shall submit a list of at least three (3) current clients/references.
2. The operator of the transporting vehicle shall not, at any time discharge solid or liquid waste material onto the Agencies' property, sanitary sewer or storm drain systems.
3. The operator of the transporting vehicle shall notify the Project Manager, or designated facility representative, when work is completed and ready for final inspection.
4. All regulations, including but not limited to Department of Toxic Substances Control and Department of Transportation regulations, pertaining to the transporting of hazardous materials must be implicitly followed.
5. Contractor must provide copies of all applicable licenses and permits at the time of its renewal or modification. It is the Agencies' prerogative to periodically review the status of compliance at any time during the term of the Agreement.
6. After award of the Agreement, Contractor technicians and representatives shall be required to attend Roadway Worker Protection (RWP) training and any other safety training, as required by the Agencies at no additional cost to Agencies. The Agencies' respective Project Managers shall coordinate the training date and time at the designated facility.
7. All costs associated with the storage, packaging, analysis, transportation, disposal and documentation of waste must be in the per unit disposal fee. The per unit disposal fee shall include all associated fees including, but not limited to, any of the following charges:
 - a. Labor
 - b. Travel time
 - c. Fuel/truck/transport fees
 - d. Supplies including containers and personal protective equipment (PPE)
 - e. Documentation fees

1.5. SCOPE OF SERVICES

The requirements of this scope of services are intended to assure that all waste streams are handled and disposed of in a legal manner by fully qualified, licensed and permitted Contractor and its subcontractors, which shall limit and reduce the liability in the transportation and disposal of such wastes.

1.6. SCOPE OF WORK – HAZARDOUS AND UNIVERSAL WASTE

1.6.1. HAZARDOUS WASTE REMEDIATION

The Transporter shall package, analyze, transport and dispose of hazardous waste generated by the Agencies. The Agencies' respective Project Managers will contact the Contractor to schedule pick-ups of hazardous waste at various facilities by a Transporter. Contractor shall pick up waste within five (5) business days of contact by the Agency. The Agency will provide an inventory of the material that is to be transported. The Transporter must be fully registered and permitted by the California Department of Toxic Substances Control (DTSC) and have an Environmental Protection Agency (EPA) identification (ID) number. The Transporter shall not transfer custody of any waste to a Transporter or TSDF that does not hold a valid registration.

The Transporter shall follow all of the Uniform Hazardous Waste Manifest procedures as outlined in California Code of Regulation (CCR) Title 22, 6623.20. The Transporter shall have a manifest in his or her possession at all times while transporting hazardous waste. Hazardous waste must be delivered to the authorized facility designated on the manifest. The Contractor shall keep a copy of the signed manifest for three (3) years.

Vehicles, containers, and equipment used for transporting hazardous waste must be in sound condition and designed or maintained to contain hazardous waste. Vehicles must be supplied with a spill kit, at all times. Waste containers must be securely fastened while inside the vehicle to minimize the risk of shifting during transport. If a discharge or spill of hazardous waste occurs during transportation, the Transporter shall take appropriate immediate action and will be responsible for the discharge cleanup at no cost to the Agency.

The Contractor shall provide a qualified and licensed secondary waste Transporter that can be called upon to transport waste in the event that the primary Transporter cannot perform the service. The secondary Transporter must meet all of the qualifications outlined herein.

1.7. ROUTINE REMEDIATION TASKS

Contractor shall package, analyze, remove, transport, and dispose of industrial hazardous waste generated by the Agencies. Waste streams may include, but shall not be limited to the following:

- Aerosols

- Oily Absorbent Materials (Oil Soaked Rags or absorbent)
- Sludge (Debris, Oil, and Grease waste)
- Water and oil mixtures
- Contaminated Gasoline
- HVAC R134 Refrigerant, including other types of refrigerants
- Brake Grindings
- Waste oils (Non-Recyclable)
- Anti-freeze
- Waste Paint: Latex and oil base liquids, Paint Sludge, and Paint Soaked Solids
- Drained and Oil & Fuel Filters
- Universal Wastes including, but not limited to:
 - Fluorescent Lighting Tubing
 - Light Emitting Diode (LED) lighting
 - Lithium Ion Batteries
 - Alkaline (dry filled) Batteries
 - Alkaline (wet filled) Batteries
 - Electronic Lamps, including but not limited to fluorescent light (bulbs, tubes, compact, HID), metal halide, sodium vapor, etc.
 - Mercury containing wastes, including mercury switches from appliances and vehicles
- Electrical ballast: polychlorinated biphenyl (PCB), and non-PCB
- Leaking Ballast (PCB)
- Ballast (HID)
- Regulated Medical Waste (primarily sharps and other infected items)
- Paint booth filter
- Waste paint containing lead
- Silica Sand
- Rock/Dirt/Soil contaminated with Oil
- Clarifier, oil-water separator pumping
- Septic pumping
- Household appliance disposal
- Pressure washing
- Treated wood waste disposal (ties)
- Encampment cleanup
- E-waste (not batteries)

1.8. EMERGENCY RESPONSE

Hazardous material incidents related to Agencies' vehicles, equipment, and facilities are primarily managed by the Agencies' staff members. At the respective Agency's discretion, Contractor shall ensure that the designated Emergency Responder shall respond to hazardous

material incidents at the Agency and emergency sites within one (1) hour of notification by the Agency's respective Project Manager or designee. The Emergency Responder must be available, 24-hours a day, seven days a week, 365 days a year.

Contractor's trained personnel shall be deployed with appropriate equipment to respond to hazardous material releases. An estimated ten (10) hours will be used to remediate hazardous material incidents per year for MTS. NCTD estimates one hundred and twenty (120) hours will be used to remediate hazardous material incidents per year. These are estimates only for the Agencies.

With regard to emergency responses, time is of the essence. The emergency response team (primary or secondary) shall respond to hazardous material incidents at an Agency's facilities and emergency sites within one (1) hour of notification by the Project Manager or designee, 24-hours a day, seven days a week, 365 days a year.

Note: In the event the Contractor is not able to meet the emergency response time and not able to perform the emergency service (including other services required and covered within the scope), the Agency may request quotes from other firms and issue a separate Purchase Order (PO).

Hazardous material incidents will require the remediation of vehicle fluids such as, but not limited to, the release of diesel fuel, engine oil, hydraulic fluid, and antifreeze on public rights-of-way and Agency facilities. These incidents shall require the Contractor to respond to the location with trained personnel, including personnel trained to perform confined space entry, if necessary. The trained personnel shall be expected to remediate the incident using absorbent materials including but not limited to booms, clay and absorbent pads. The Agency Project Manager or designee may also request power wash equipment, water tankers and vacuum trucks to respond to the location to perform washing, flushing, and vacuuming of contaminated storm drains.

The Agencies organize and oversee multiple homeless encampment clean up events on their Right-of-Way or Agency properties. In some occasions, hazardous substances (household cleaning products, fuels, or regulated medical waste) may be found. Contractor might be called out to as an emergency response to remediate, transport and dispose of the hazardous waste substances.

All waste generated during the remediation of a hazardous material incident shall be packaged and labeled in accordance with federal, state and local environmental regulations. Furthermore, Transporters hauling hazardous waste shall have the hazardous waste manifested and the vehicles properly placarded in accordance with Department of Transportation regulations.

1.9. TREATMENT, STORAGE, AND DISPOSAL FACILITY (TSDF)

The Contractor shall not cross international borders to deliver waste outside of the United

States. Contractor shall propose the TSDF for each of the waste streams identified in the scope to the Agency Project Manager or designee for approval. The TSDF shall meet all of the qualifications outlined herein and perform all waste management activities in accordance with 40 CFR Parts 264/265 subpart A-E.

The TSDF must have a valid permit to engage in hazardous waste management. The permit authorizes the types of waste the TSDF can accept and the treatment, storage and/or disposal activities that can be conducted. The permit also outlines the operating conditions and record keeping procedures that the TSDF must follow to ensure that wastes will be handled according to EPA rules. The TSDF must operate in a manner to prevent release. The TSDF must adhere to the regulations outlined in the Land Disposal Restrictions program. The TSDF will notify the Agency of final disposal of the waste. This shall include a certificate of recycling if applicable.

1.10. LABORATORY SERVICES

Laboratory analysis shall be conducted by an independent Laboratory that carries current National Environmental Laboratory Accreditation Program (NELAP) and state of California certifications for each test method. The Laboratory shall be certified by the State of California and NELAP.

Laboratory samples may be in a solid, liquid or sludge form. Laboratory services shall include pickup, sample extraction, transportation, delivery, analysis and reporting.

All waste stream profiles shall be included to determine each appropriate profile including non-routine "Lab Pack" services. Approximately two (2) Lab Pack services are estimated to be requested annually. Agency does not guarantee the amount of samples that may be submitted.

The Laboratory shall meet all of the qualifications outlined herein.

1.11. NON-ROUTINE REMEDIATION "LAB PACK"

Contractor shall package, analyze, remove, transport, and dispose of hazardous waste gathered by Agency.

1.12. DISPOSAL METHOD REFERENCE

Agency policy is to promote recycling and reuse as disposal options over other disposal methods whenever more than one method is authorized by regulations for a particular type of waste. Contractor shall adhere to this policy in providing the services under this Contract. Accordingly, Contractor shall utilize the following disposal methods, prioritized from the highest to lowest:

- 1) Recycling/ Reuse (treatment may be needed to make waste recyclable),
- 2) Alternative fuel,
- 3) Destructive Incineration,

- 4) Treatment (treatment for acceptable sewer discharge),
- 5) Bioremediation,
- 6) Class I Landfill Disposal.

1.13. GENERAL REQUIREMENTS

- A. The Transporter must report at prearranged times and facilities for scheduled hazardous waste pickups as directed by the Agency Project Manager or designee. Agency reserves the right to perform a single pickup or multiple pickups on the same day and at various facilities. In either instance, the disposal cost will be based on the contracted rate.
- B. The Contractor shall provide Agency Project Manager with a sample of liquid or solid waste collected from an Agency facility whenever requested by the Agency Project Manager.
- C. The Transporter shall ensure that hazardous waste drums are properly labeled and marked; trucks transporting hazardous waste shall be properly placarded in accordance with Department of Transportation and Department of Toxic Substances Control regulations.
- D. Contractor shall provide documentation of proper disposal including, but not limited to completed manifests, certificate of recycling, and bill of lading.
- E. Contractor shall haul waste within five (5) business days of notification and contact Authorized Waste Contact within one (1) hour of site arrival.
- F. Disposal vehicles shall have a spill kit with adequate supplies readily available in the event of a spill.
- G. The Contractor or its subcontractor may remove and transport the waste for removal and transportation services. In either case, only a fully licensed and permitted hazardous waste Transporter meeting all federal, state, and local regulations for the transportation of hazardous wastes shall be allowed to perform the services.
- H. The operator of the transporting vehicle shall report to an Authorized Waste Contact. Authorized Waste Contacts will be provided upon award. Transporter's driver must possess a State of California "B" driver's license for transporting waste materials in drums. Also, the Transporter's driver must possess a State of California "A" driver's license for transporting waste materials in Transporter tanker trucks.
- I. Each hazardous waste shipment shall be accompanied by a Uniform Hazardous Waste Manifest. Contractor shall prepare and complete a separate Uniform Hazardous Waste Manifest for each hazardous waste pickup. Agency will provide the Environmental Protection Agency Identification (EPA ID) Number for each facility to the Contractor.

- J. When applicable, the removal of universal waste from Agency facilities shall be documented on a Bill of Lading in accordance with Department of Transportation and Department of Toxic Substances Control regulations.
- K. As required, shipment shall be accompanied with a Land Disposal Restriction (LDR). The operator of the transporting vehicle shall complete the LDR in accordance with Title 49, Code of Federal Regulations, Section 268 Subpart C or revisions.
- L. Prior to transporting the hazardous waste from a facility, the operator of the transporting vehicle shall provide the Project Manager or designated facility representative with one (1) legible signed copy of the completed Uniform Hazardous Waste Manifest. In the event of a universal waste disposal, the operator shall provide a signed copy of the bill of lading.
- M. The Transporter shall submit legible copies of the Uniform Hazardous Waste Manifest completed by generator, hauler and TSDF facility operator, to public agencies within thirty (30) days of the transportation of hazardous wastes.
- N. The Transporter shall be registered with Chemical Emergency Center (CHEMTREC) or another recognized emergency call center. The 24-hour emergency response number shall be placed on every Uniform Hazardous Waste Manifest.
- O. Contractor shall profile the waste streams initially and as requested by Project Manager. This shall include providing the appropriate technical name description(s) for disposal of hazardous waste material. Laboratory analysis may be required in order to classify the waste See Section 5.4.1, item #5 for additional requirements regarding the testing Laboratory.
- P. The operator of the transporting vehicle must have a California Department of Motor Vehicle (DMV) Hazardous Materials/Waste Certificate endorsement and must present this certificate to the Project Manager or designated facility representative upon request.
- Q. Contractor must ensure that sufficient quantity of storage containers are provided to temporarily store waste on customer's site. Storage containers shall be leak-resistant and fitted with a pre-printed label (indicating the appropriate waste stream for the container), cover, band strap, and filler cap (if applicable).
- R. Hauling shall be scheduled with an Authorized Waste Contact. Only Authorized Waste Contacts are authorized to sign waste manifests and only the specified waste listed on the manifests shall be transported.

1.14. QUALIFICATIONS OF THE WASTE TRANSPORTERS

- 1. The Transporter shall be fully licensed and permitted for the transportation of hazardous waste and universal waste. The Transporter and subcontractor/s (if any) must comply

with federal, state and local licensing requirements.

2. The Transporter must be in compliance with all federal, state and local regulations for transporting and disposing of hazardous and universal waste and biohazardous waste.
3. The Transporter shall have adequate certified personnel to perform the required scope of work within the projected schedule.
4. The Transporter's employees shall have completed and provide evidence all required training.
5. The Transporter's vehicles shall comply with California Code of Regulations, Title 13 and the California Vehicle Code.
6. Agency may request, as necessary, Transporter to submit a current "MISTER" report from the California Highway Patrol.
7. The Transporter must have at least five (5) years of experience conducting required services of similar scope.

1.15. QUALIFICATIONS OF THE TSDF

1. The TSDF shall be properly licensed and permitted for the treatment, storage, and disposal of the Agencies' hazardous waste and universal waste.
2. The TSDF shall have the necessary capacity for disposal of Agencies' hazardous waste and universal waste.
3. The TSDF staff shall have the required license, permits and employee training to perform the required work.
4. The TSDF shall have the required general liability coverage and pollution coverage.
5. The TSDF shall have a monitoring plan to ensure waste streams are properly treated and/or disposed.
6. The TSDF for any waste stream shall be located within the borders of the United States.
7. The approved TSDF cannot be changed unless the Contractor makes a request in writing; and it is approved by Agency.

5.15.1 QUALIFICATION OF THE LABORATORY

Laboratory staff shall have the licenses/certifications to perform analyses of the substance types generally described in this Scope of Work.

5.15.2 QUALIFICATIONS OF THE EMERGENCY RESPONDER

1. The Emergency Responder shall be fully licensed and permitted for the transportation of hazardous waste, medical waste and universal waste. The Emergency Responder and subcontractor/s (if any) must comply with federal, state and local licensing requirements.
2. The Emergency Responder shall be in compliance with all federal, state and local regulations for transporting and disposing of hazardous waste and universal waste.
3. The Emergency Responder shall have certified personnel to perform the required scope of work within the projected schedule and said personnel must be properly trained.

5.15.3 SPILLS, CONTAINMENT AND CLEAN-UP

The Contractor shall be solely responsible for any and all spills and leaks during the performance a resulting contract, which occur as a result of, or are contributed to, by the actions of its agents, employees, or subcontractors. The Contractor shall clean-up such spills or leaks to the satisfaction of the onsite Agency representative and in a manner that complies with applicable local, state and federal laws and regulations. The clean-up shall be at no additional cost to the Agency. The Contractor shall report all such spills or leaks regardless of their quantity to the applicable Agency immediately upon discovery. A written follow-up report shall be submitted no later than 24 hours after the initial telephone report. The written report shall be at a minimum include the following:

- A. Description of item spilled (including identity, quantity, manifest no, etc.)
- B. Whether the amount spilled is EPA/state reportable, and if so whether it was reported.
- C. Exact time and location of spill including description of the area involved.
- D. Containment procedures initiated.
- E. Summary of all communications the contractor had with included but not limited to press, government officials, MTS, NCTD, and any third-party agency.
- F. Description of clean-up procedures employed or to be employed at the site including the disposal location of spill residue.
- G. Work orders shall have the following information.
 - 1) Description of the specific services performed
 - 2) Staff titles and hours worked
 - 3) Methods and Materials used
 - 4) Name and address of disposal facilities
- H. Contractor shall be required to provide a 24-hour emergency contact. This person(s) shall have authority to provide what is needed in an emergency. Failure to respond may be grounds for default or termination.
- I. Contractor shall furnish the labor force and equipment necessary to meet the needs of each Agency. Cost estimates for identified work items, including labor, equipment, materials and supplies to be used, shall be furnished to the applicable Agency for review/ authorization prior to commencement of work.

1.16. SCOPE OF WORK – TRAUMA SCENE CLEANUP

Trauma scene incidents requiring the Emergency Responder to provide personnel and equipment occur approximately twenty-five (25) times annually for MTS. An estimated 200 hours per year will be used to cleanup trauma scene incidents for MTS. Trauma scene incidents requiring the Emergency Responder to provide personnel and equipment occur approximately twenty-five (25) times annually for NCTD. An estimated 384 hours per year will be used to cleanup trauma scene incidents for NCTD. These are estimates only for the Agencies.

Contractor shall respond to a request for a trauma scene cleanup with all the necessary tools, materials, equipment, containers, personal protective gear, traffic control equipment, and personnel to efficiently, and effectively clean the location.

Agency requires that the Contractor provide a qualified and licensed secondary emergency responder that can be called upon to respond to Agency incidents in the event that the primary responder cannot perform the service. The secondary emergency responder must meet all of the qualifications outlined herein.

5.16.1 EMERGENCY RESPONSE

1. Biohazardous waste incidents shall require the cleanup of, but not limited to, blood and tissue at a trauma scene on public highways, rail rights-of-way and Agency facilities. These incidents shall require the Contractor to respond to the scene with trained personnel and equipment. The Contractor shall be expected to clean and disinfect the scene including the public highway, railroad ties, tracks, rail ballast, underground rail stations and tunnels. The Contractor shall comply with all provisions of the Medical Waste Management Act and revisions.
2. With regard to emergency responses, time is of the essence. The emergency response team (primary or secondary) shall be expected to respond to biohazardous waste incidents at Agency facilities, public highways, rail rights-of-way and other emergency sites within one (1) hour of notification by the Agency Project Manager or designee, 24-hours a day, seven days a week, 365 days a year.

Note: In the event the Contractor is not able to meet the emergency response time and not able to perform the emergency service (including other services required and covered within the scope), Agency may request quotes from other firms and issue a separate Purchase Order (PO).

3. The Contractor shall clean and disinfect rail/bus equipment at the trauma scene and/or at the Agency rail or bus facility, as directed by the Project Manager or authorized delegate. A list of authorized delegates will be provided upon award.
4. All waste material, contaminated with blood and/or tissue, generated in the cleanup of

a trauma scene shall be packaged and labeled in accordance with federal, state and local health department regulations. Furthermore, waste material shall be transported by a registered medical waste Transporter to a permitted medical waste treatment facility.

5.16.2. GENERAL REQUIREMENTS

1. Contractor or the subcontractor responsible for Trauma Scene Cleanup shall be fully licensed and permitted for the transportation of medical waste. Trauma Scene Cleanup Contractor responsibilities must be carried out in compliance with federal, state and local licensing requirements.
2. Contractor or the subcontractor responsible for Trauma Scene Cleanup shall be in compliance with all federal, state and local regulations for transporting and disposing of trauma scenes. Treatment shall be by a Registered Treatment Facility with California Department of Public Health.
3. Contractor or the subcontractor responsible for Trauma Scene Cleanup shall have certified personnel to perform the required scope of work within the projected schedule and said personnel must be properly trained.
4. Contractor or the subcontractor responsible for Trauma Scene Cleanup shall be responsible for removal and transportation services. In either case, only a certified trauma scene waste management practitioner meeting all federal, state, and local regulations for the transportation of hazardous wastes shall be allowed to perform the services.
5. The operator of the transporting vehicle shall report to an Authorized Waste Contact. Authorized Waste Contacts will be provided upon award. Also, the Transporter's driver must possess a State of California "A" driver's license for transporting waste materials.
6. Each hazardous waste shipment shall be accompanied by a tracking document. Contractor shall prepare and complete a separate tracking document for each hazardous waste pickup. Agency will provide the Environmental Protection Agency Identification (EPA ID) Number for each facility to the Contractor.

1.17. CONTRACTOR QUALIFICATIONS

Contractor and subcontractors shall maintain current permits and licensing throughout the life of the Agreement. Should any permit, license, or certification be revoked or expire, the Contractor must notify Agency immediately.

Contractor, subcontractors and Waste Handlers must maintain a spill response plan. Contractor must ensure that Waste Handlers must have **HAZWOPER training**. As new staff is added during the Agreement term, Contractor shall submit new staff training records to MTS attention: **MTS Environmental Health Safety Specialist**, contact information to be provided. For NCTD,

such records shall be sent to: Contact information to be provided.

The Agency Project Manager or representative may inspect and audit the TSDf and Transporter at a mutually agreed upon time prior to the award of Agreement. Agency personnel may also inspect and audit the facilities on an annual basis. Table 2 outlines the minimum qualifications that must be maintained throughout the term of the Agreement. Contractor that handles Agency waste or responds to Agency incidents must be minimally qualified.

Table 2: Minimum Qualifications

Description	TYPE									
	Contractor	Primary Transporter	Secondary Transporter	Primary Emergency Responder	Secondary Emergency Responder	TDSF	Contractor	Primary Contractor Transporter	Secondary Contractor Transporter	
Certificate of Liability Insurance	X	X	X	X	X	X	X	X	X	
DMV Motor Carrier Permit	X	X	X	X	X		X	X	X	
DTSC: Hazardous Waste Transporter Registration		X	X	X	X					
DOT: Hazardous Materials Certificate of Registration		X	X	X	X			X	X	
CA Department of Highway Patrol: Hazardous Materials Transportation License		X	X	X	X					
Trauma scene waste management practitioner certification				X	X					
Medical waste transporter certification				X	X					
State EPA DTSC: Hazardous Waste Facility Permit						X				
State-specific environmental permits or permits to operate for facilities outside of California						X				
EPA: Identification Number		X	X	X	X	X				

Note: Contractor shall notify and provide any changes or updates (as applicable) to the above list and send to MTS, attention, **MTS Environmental Health Safety Specialist**, contact information to be provided. For NCTD, such records shall be sent to: Contact information to be provided.

- 1.18. LOCATIONS.** Below is a listing of Agency facilities that will require hazardous waste disposal and trauma clean-up services. Agencies reserve the right to add or remove facilities

during the life of the Agreement. The locations shall also include all areas maintained and owned by the Agency.

- A. MTS locations of services provided under the Agreement will be in MTS jurisdiction as shown in ATT 2 (MTS Jurisdiction Boundary Map). Below are the three MTS industrial locations that require hazardous waste pick (routine services):

MTS: SAN DIEGO TRANSIT CORPORATION (SDTC)	
Imperial Avenue Division (IAD)	100 16 th Street, San Diego, CA 92101
Kearny Mesa Division (KMD)	4630 Ruffner Street, San Diego, CA 92111

MTS: SAN DIEGO TROLLEY, INC. (SDTI)	
Trolley Yard	1535 Newton Avenue, San Diego, 92113

- B. NCTD locations of services provided under the Agreement will be:

1. Railroad Right-of-Way

- A. San Diego Subdivision: (60.1-mile section of Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN Corridor) from the Orange County Line (MP 207.4) south to the City of San Diego's Santa Fe Depot (MP 267.5)), average of 100' wide, with sections up to 200' wide.
- B. Escondido Subdivision (22-mile section Oceanside (MP 99.3) Escondido (MP 121.66)), average of 100' wide, with sections up to 200' wide.

2. Type A Facilities – Operations and Maintenance

- A. BREEZE Bus Operations Facility – West Division
- B. BREEZE Bus Operations Facility – East Division
- C. SPRINTER Maintenance Facility
- D. COASTER Maintenance Facility

3. Type B Facilities – Passenger Stations and Transit Centers

- A. COASTER Stations
1. Carlsbad Village Station
 2. Carlsbad Poinsettia Station
 3. Encinitas Station
 4. Solana Beach Station
 5. Sorrento Valley Station

6. Santa Fe Depot

B. SPRINTER Stations

1. Coast Highway Station
2. Crouch Street Station
3. El Camino Real Station
4. Rancho Del Oro Station
5. College Boulevard Station
6. Melrose Drive Station
7. Vista Civic Center
8. Buena Creek Station
9. Palomar College Station
10. San Marcos Civic Center Station
11. Cal State University San Marcos Station
12. Nordahl Road Station

C. Transit Centers

1. Oceanside Transit Center
2. San Luis Rey Transit Center
3. Escondido Transit Center
4. Vista Transit Center
5. Palomar College Transit Center

4. Type C Facilities – Office Buildings

- A. 810 Mission Avenue, Oceanside (General Administration Office)
- B. 311 South Tremont Street, Oceanside (Tremont Building)
- C. 501 Mission, Oceanside

5. Type D Facilities – Miscellaneous

San Marcos Lots (Rancheros Drive & Woodland Parkway)

Additionally, please see a map of NCTD's service area here: [NCTDSysMap.pdf](https://www.nctd.com/NCTDSysMap.pdf)
([gonctd.com](https://www.gonctd.com))

1.19. SAFETY AND UNIFORMS

Contractor shall be responsible to perform all services in a safe manner. Agencies reserve the right to stop all work, at any time, if unsafe practices are observed. All Contractor representatives shall adhere to the Contractor's health and safety plan and observe the following requirements:

1. Steel-toed safety shoes shall be worn on Agency properties at all times;
2. Reflective safety vests shall be worn at all times while on Agency properties;

3. The posted 10 MPH speed limit and stop signs shall be adhered to by all Contractor vehicles;
4. Smoking is strictly prohibited on all Agency facilities except at clearly marked designated smoking areas;
5. Personal cell phone usage is prohibited at an agency response site;
6. The use of cell phone is not allowed if services are performed around the rail track. Contractor shall abide by California Public Utilities Commission (CPUC), General Order 172 - Prohibited Use of a Personal Electronic Device.
7. Contractor shall not discharge waste or any other material into Agencies' tanks, drains, sumps, bins, clarifiers, storm drains or onto Agency property;
8. Contractor vehicles shall be clearly identified with signage indicating Contractor's business name and telephone number(s);
9. Contractor employees or representative entering Agency properties shall wear uniforms and/or badges that clearly indicate Contractor's business name and employee name;
10. Contractor technicians and representatives shall be required to attend, at no cost, Agency Rail Safety Training, prior to performing any services. Contractor personnel will not be allowed to perform services without this training, and
11. Contractor technicians and representatives shall be required to attend, at no cost, Agency Environmental Management System Training, prior to performing any services.

1.20. CONTRACTOR DELIVERABLES

Training

Contractor staff working on or near rail right-of-way including MTS Trolley Yard or NCTD rail sites, shall complete annual Roadway Worker Protection Training.

Contractor shall be available to perform service on a 24-hour, seven day per week, 365 day a year basis. Contractor shall provide ad hoc reports as requested by Agency.

1.21. AGENCY RESPONSIBILITIES

1. Access shall be provided to Contractor to facilities for applicable services;
2. Contractor badges shall be provided to authorized Contractor employees upon commencement of Agreement;
3. A valid EPA ID of each serviced location shall be provided;

4. Agency will indicate what type of waste, location, and quantities on hand for each routine service call; and authorize disposal facilities.

1.22. ACCEPTANCE AND ACCURACY OF SERVICES

Contractor shall be solely responsible for providing timely and accurate documentation throughout the term of the Agreement. Contractor shall be responsible for all additional costs due to inaccurate and/or incorrect profiling of waste streams due to Contractor negligence. If Contractor is unable to haul waste within five (5) business days of notification, Agency may coordinate for another Contractor to haul the waste at the Contractor's expense. At no time shall either Agency pay for Contractor's or its subcontractors' negligence and Contractor shall be solely responsible for re-documentation and re-profiling of any and all documents that are found to be inaccurate.

1.23. PERIOD OF PERFORMANCE

The term of the agreement shall be for five (5) years period effective April 1, 2023 through March 31, 2028.

1.24. TRANSITION

In the event there is a need to transition from the current contractor to a new Contractor, the process will be as shown below:

MTS:

- A. Current MTS Agreement terminates on March 31, 2023.
- B. On or about February 1, 2023 current contractor shall start a transition of the services to new Contractor, without any interruption of or adverse impact on services (at a minimum, 60 days prior to termination of current agreement).

NCTD

- A. NCTD anticipates awarding the contract on January 19, 2023.

The current and new Contractor shall coordinate and select a time that has the least impact to client services.

1.25. DISENTANGLEMENT

1.25.1. DISENTANGLEMENT PROCESS:

1. The Disentanglement process for the Agreement awarded from this RFP shall begin on any of the following dates:
 - the date designated by Agency not earlier than sixty (60) days prior to the end of current term, that Agency has elected not to exercise option year/s;

- the date Agency notifies Contractor that no funds or insufficient funds have been appropriated so that the Agreement shall be terminated for convenience;
 - the date any Termination Notice is delivered, if Agency or Contractor elects to terminate any or all of the services pursuant to the Agreement.
2. Contractor shall be required to perform its Disentanglement obligations on an expedited basis, as determined by Agency, if Agency terminates the Agreement for cause.
 3. Contractor shall be required to provide full cooperation. Information shall be complete and detailed to enable Agency or designee to fully assume and continue a smooth transition with no interruption of services.

1.25.2. GENERAL OBLIGATIONS

1. All services related to Disentanglement shall be deemed a part of the base services and shall be performed by Contractor at no additional cost to Agency. Contractor's obligation to provide the services shall not cease until Disentanglement is satisfactory to Agency, and delivered in writing.
2. Contractor shall provide all information regarding the services, including data conversion, files, interface specifications, training staff assuming responsibility, and related professional services (if applicable).
3. Contractor shall provide for the prompt and orderly conclusion of all work including documentation of work in process to assure an orderly transition to Agency or designee.

1.25.3. DELIVERY OF DOCUMENTATION:

Contractor shall deliver to Agency or designee all documentation and data related to the service, in format as requested by Agency, and Contractor shall destroy all copies not turned over to Agency, all at no cost to Agency.

1.26. PRICING

Proposers shall provide pricing for all line items and for all years using the Cost Proposal Forms, which are included in this solicitation. Failure to do so may deem the proposal as non-responsive. The estimated quantities are for bidding purposes only, not actual amounts to be used. The estimated quantities do not commit the Agencies to authorize any orders/usage to be executed. Actual usage may vary more or less than the cost proposal forms suggest.

Pricing submitted shall be firm fixed price and must be inclusive of all costs, including but not limited to, transportation containers, fuel, recycling, hauler, facility, travel, insurance, etc.

1.27. PAYMENT

MTS

MTS shall process an invoice for payment within thirty (30) days from invoice date. Contractor shall reference the MTS 10-digit PO number on all invoices, and shall submit an itemized invoice along with supporting delivery receipts to the following email address: AP@sdmts.com

NCTD

NCTD's invoice process is set forth in its Agreement.

Both Agencies

NOTE: **ADVANCED PAYMENT IS NOT ALLOWABLE.**

The following documents are required with any invoice prior to approval for payment:

- A. Service order that includes number of containers removed from each facility.
- B. Uniform Hazardous Waste Manifest with all appropriate legal signatures, including those of the TSDF facility within thirty (30) days of pickup, as applicable.
- C. Land Disposal Restriction form with required information and signatures, as applicable.

MTS COST PROPOSAL FORMS
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TRANSIT CORP. (SDTC) -- Rev.4

I. HAZARDOUS AND UNIVERSAL WASTE

For each waste stream or category include all costs per unit. If not applicable or is a "no charge" to MTS, indicate so with **N/A** or **zero (\$0.00)**. MTS does not guarantee that it will generate any or all of the items listed below. The prices will be used as a reference for base prices in each waste category for the contract period.

ROUTINE WASTE				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Absorbent material (clay, rags, dirt, booms) with oil, diesel, and/or antifreeze)	20	55 Gallon	\$232.68	\$4,653.60	\$232.68	\$4,653.60	\$256.53	\$5,130.60	\$269.36	\$5,387.20	\$282.83	\$5,656.60
2	Absorbent material (clay, rags, dirt, booms) with gasoline, paint, solvent and/or thinner	10	55 Gallon	\$425.63	\$4,256.30	\$425.63	\$4,256.30	\$469.26	\$4,692.60	\$492.72	\$4,927.20	\$517.36	\$5,173.60
3	Waste engine fuels and lubricants, including but not limited to diesel fuel, brake fluid, engine oil, transmission fluid, gear, HVAC and hydraulic oil	10	55 Gallon	\$216.22	\$2,162.20	\$216.22	\$2,162.20	\$238.38	\$2,383.80	\$250.30	\$2,503.00	\$262.82	\$2,628.20
4	Engine filters with oil	10	55 Gallon	\$283.75	\$2,837.50	\$283.75	\$2,837.50	\$312.84	\$3,128.40	\$328.48	\$3,284.80	\$344.90	\$3,449.00
5	Gasoline	0	55 Gallon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Aerosol cans	10	55 Gallon	\$382.50	\$3,825.00	\$382.50	\$3,825.00	\$421.71	\$4,217.10	\$442.80	\$4,428.00	\$464.94	\$4,649.40
7	Biological waste	4	55 Gallon	\$454.00	\$1,816.00	\$454.00	\$1,816.00	\$500.54	\$2,002.16	\$525.57	\$2,102.28	\$551.85	\$2,207.40
8	Sharps	4	55 Gallon	\$454.00	\$1,816.00	\$454.00	\$1,816.00	\$500.54	\$2,002.16	\$525.57	\$2,102.28	\$551.85	\$2,207.40
9	Lithium ion batteries	100	Pound	\$10.78	\$1,078.00	\$10.78	\$1,078.00	\$11.89	\$1,189.00	\$12.48	\$1,248.00	\$13.10	\$1,310.00
10	Alkaline (Dry filled) Batteries	300	Pound	\$1.98	\$594.00	\$1.98	\$594.00	\$2.18	\$654.00	\$2.29	\$687.00	\$2.40	\$720.00
11	Alkaline wet filled batteries	0	Pound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	Paint and paint related, lacquer thinner and reducer	10	55 Gallon	\$257.65	\$2,576.50	\$257.65	\$2,576.50	\$284.06	\$2,840.60	\$298.26	\$2,982.60	\$313.17	\$3,131.70
13	Sludge solids, Oily Water, and Grease	4	55 Gallon	\$343.91	\$1,375.64	\$343.91	\$1,375.64	\$379.17	\$1,516.68	\$398.13	\$1,592.52	\$418.04	\$1,672.16
14	Paint material lab packs	4	55 Gallon	\$331.42	\$1,325.68	\$331.42	\$1,325.68	\$365.39	\$1,461.56	\$383.66	\$1,534.64	\$402.84	\$1,611.36
15	Paint Material Totes/Boxes (flammable)	0	Tote	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Paint Related Material Totes/Boxes (water Based Paint)	0	Tote	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	Paint Booth Filters	6	55 Gallon	\$539.13	\$3,234.78	\$539.13	\$3,234.78	\$594.39	\$3,566.34	\$624.11	\$3,744.66	\$655.32	\$3,931.92
18	Ballasts (non-BCP)	600	Pound	\$1.37	\$822.00	\$1.37	\$822.00	\$1.51	\$906.00	\$1.59	\$954.00	\$1.67	\$1,002.00
19	Tritium Exit Signs	0	Each	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	Hazardous Waste Liquid (Non-RCRA)	4	55 Gallon	\$255.94	\$1,023.76	\$255.94	\$1,023.76	\$282.18	\$1,128.72	\$296.29	\$1,185.16	\$311.10	\$1,244.40
21	Anti-freeze	10	55 Gallon	\$244.59	\$2,445.90	\$244.59	\$2,445.90	\$269.66	\$2,696.60	\$283.14	\$2,831.40	\$297.30	\$2,973.00
22	Fluorescent Lights	600	Linear Foot	\$0.58	\$348.00	\$0.58	\$348.00	\$0.64	\$384.00	\$0.67	\$402.00	\$0.70	\$420.00
23	LED	1,400	Linear Foot	\$0.96	\$1,344.00	\$0.96	\$1,344.00	\$1.06	\$1,484.00	\$1.11	\$1,554.00	\$1.17	\$1,638.00
24	Mercury Vapor, Low and High – Pressure Sodium Lamps (HID) (not to exceed 250 lamps)	4	55 Gallon	\$766.13	\$3,064.52	\$766.13	\$3,064.52	\$844.66	\$3,378.64	\$886.89	\$3,547.56	\$931.23	\$3,724.92
25	Silica Sand	0	55 Gallon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	Ballasts (PCB)	10	55 Gallon	\$340.50	\$3,405.00	\$340.50	\$3,405.00	\$375.41	\$3,754.10	\$394.18	\$3,941.80	\$413.89	\$4,138.90
27	Leaking ballasts (PCB)	10	55 Gallon	\$879.63	\$8,796.30	\$879.63	\$8,796.30	\$969.79	\$9,697.90	\$1,018.28	\$10,182.80	\$1,069.19	\$10,691.90
28	Dirt/ Sand/ Rock Contaminated with Oil	0	Yards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	Refrigerant - R12	0	Pound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	Refrigerant - R22	0	Pound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	HVAC Refrigerant - R134A	0	Pound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	Refrigerant - 407	0	Pound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	Subtotal				\$52,800.68		\$52,800.68		\$58,214.96		\$61,122.90		\$64,181.86
34	CA 7.75% Sales Tax				\$4,092.05		\$4,092.05		\$4,511.66		\$4,737.02		\$4,974.09
35	TOTAL				\$56,892.73		\$56,892.73		\$62,726.62		\$65,859.92		\$69,155.95

*The quantities described and displayed on this pricing form is for bidding purposes only. They represent what MTS/SDTI anticipates as a requirement, but MTS/SDTI does not guarantee this quantity. The actual quantity ordered may be more or less than what is anticipated on the pricing form, and it is dictated by MTS/SDTI's actual requirements and the available funding at the time each order is initiated.

MTS COST PROPOSAL FORMS
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TRANSIT CORP. (SDTC) -- Rev.4													
II. LAB PACK				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION - LAB PACK (PACKAGING/TRANSPORT/DISPOSAL - all inclusive of Analysis and labor)	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Acids - Inorganics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
2	Acids - Organic	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
3	Acids - Oxidizing	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
4	Aerosols - Corrosive	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
5	Aerosols - Flammable	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
6	Base - Inorganics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
7	Base - Organics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
8	Base - Oxidizing	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
9	Class 9 Non-RCRA Liquid	0	55 Gallon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Class 9 Non-RCRA Solid	0	55 Gallon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Flammable Liquid	2	55 Gallon	\$404.06	\$808.12	\$404.06	\$808.12	\$445.48	\$890.96	\$467.75	\$935.50	\$491.14	\$982.28
12	Flammable Solid	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
13	Mercury Containing Device	2	5 gallon	\$928.43	\$1,856.86	\$928.43	\$1,856.86	\$1,023.59	\$2,047.18	\$1,074.77	\$2,149.54	\$1,128.51	\$2,257.02
14	Oil Based Paint & Related	2	55 Gallon	\$358.66	\$717.32	\$358.66	\$717.32	\$395.42	\$790.84	\$415.19	\$830.38	\$435.95	\$871.90
15	Organic Peroxide	2	5 gallon	\$360.93	\$721.86	\$360.93	\$721.86	\$397.93	\$795.86	\$417.82	\$835.64	\$438.71	\$877.42
16	Oxidizer - Neutral	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
17	PCB Containing Paint	2	55 Gallon	\$901.19	\$1,802.38	\$901.19	\$1,802.38	\$993.56	\$1,987.12	\$1,043.24	\$2,086.48	\$1,095.40	\$2,190.80
18	PCB Waste - other	2	55 Gallon	\$1,014.69	\$2,029.38	\$1,014.69	\$2,029.38	\$1,118.70	\$2,237.40	\$1,174.63	\$2,349.26	\$1,233.36	\$2,466.72
19	Poison - Liquids	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
20	Poison - Solids	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
21	Reactive	2	55 Gallon	\$1,184.94	\$2,369.88	\$1,184.94	\$2,369.88	\$1,306.40	\$2,612.80	\$1,371.72	\$2,743.44	\$1,440.30	\$2,880.60
22	Category 9 Asbestos	2	55 Gallon	\$333.69	\$667.38	\$333.69	\$667.38	\$367.89	\$735.78	\$386.29	\$772.58	\$405.60	\$811.20
23	Toxic	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
24	Latex Paint & Rinses	2	95 Gallons	\$715.05	\$1,430.10	\$715.05	\$1,430.10	\$788.34	\$1,576.68	\$827.76	\$1,655.52	\$869.15	\$1,738.30
25	Empty Gas/Gas Cylinder	2	≤ 300 ft³	\$296.24	\$592.48	\$296.24	\$592.48	\$326.60	\$653.20	\$342.93	\$685.86	\$360.08	\$720.16
26	Empty drums	2	55 Gallon	\$90.80	\$181.60	\$90.80	\$181.60	\$100.11	\$200.22	\$105.11	\$210.22	\$110.37	\$220.74
27	Subtotal				\$25,927.98		\$25,927.98		\$28,585.48		\$30,014.94		\$31,515.60
28	CA 7.75% Sales Tax				\$2,009.42		\$2,009.42		\$2,215.37		\$2,326.16		\$2,442.46
29	TOTAL				\$27,937.40		\$27,937.40		\$30,800.85		\$32,341.10		\$33,958.06

*The quantities described and displayed on this pricing form is for bidding purposes only. They represent what MTS/SDTI anticipates as a requirement, but MTS/SDTI does not guarantee this quantity. The actual quantity ordered may be more or less than what is anticipated on the pricing form, and it is dictated by MTS/SDTI's actual requirements and the available funding at the time each order is initiated.

MTS COST PROPOSAL FORMS
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TRANSIT CORP. (SDTC) -- Rev.4

III. EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS)

Fill in each line item for trauma scene clean-up services to include all costs per unit of measure. If not applicable or is a "no charge" to MTS, indicate so with **N/A** or **zero (\$0.00)**. MTS does not guarantee that it will generate any or all of the items listed below. The prices will be used as a reference for base prices for the contract period.

EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS) (LABOR/PERSONNEL - all inclusive of all materials/equipment/transportation/disposal/etc.)				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Supervisor	8	Hour	\$95.00	\$760.00	\$95.00	\$760.00	\$104.74	\$837.92	\$109.97	\$879.76	\$115.47	\$923.76
2	Technician	150	Hour	\$75.00	\$11,250.00	\$75.00	\$11,250.00	\$82.69	\$12,403.50	\$86.82	\$13,023.00	\$91.16	\$13,674.00
3	Technician - Overtime/Holiday	30	Hour	\$95.00	\$2,850.00	\$95.00	\$2,850.00	\$104.74	\$3,142.20	\$109.97	\$3,299.10	\$115.47	\$3,464.10
4	Admins	8	Hour	\$50.00	\$400.00	\$50.00	\$400.00	\$55.13	\$441.04	\$57.88	\$463.04	\$60.78	\$486.24
5	Admins - Overtime/Holiday	1	Hour	\$70.00	\$70.00	\$70.00	\$70.00	\$77.18	\$77.18	\$81.03	\$81.03	\$85.09	\$85.09
6	Disposal Charge	150	Pound	\$2.50	\$375.00	\$2.50	\$375.00	\$2.76	\$414.00	\$2.89	\$433.50	\$3.04	\$456.00
7	TOTAL				\$15,705.00		\$15,705.00		\$17,315.84		\$18,179.43		\$19,089.19

#	DESCRIPTION	TOTALS (YEAR 1)	TOTALS (YEAR 2)	TOTALS (YEAR 3)	TOTALS (YEAR 4)	TOTALS (YEAR 5)
1	ROUTINE WASTE	\$56,892.73	\$56,892.73	\$62,726.62	\$65,859.92	\$69,155.95
2	LAB PACK	\$27,937.40	\$27,937.40	\$30,800.85	\$32,341.10	\$33,958.06
3	EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS)	\$15,705.00	\$15,705.00	\$17,315.84	\$18,179.43	\$19,089.19
4	TOTALS	\$100,535.13	\$100,535.13	\$110,843.31	\$116,380.45	\$122,203.20

MTS COST PROPOSAL FORMS - continued
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TROLLEY, INC. (SDTI) -- Rev.4

I. HAZARDOUS AND UNIVERSAL WASTE

For each waste stream or category include all costs per unit. If not applicable or is a "no charge" to MTS, indicate so with **N/A** or zero **(\$0.00)**. MTS does not guarantee that it will generate any or all of the items listed below. The prices will be used as a reference for base prices in each waste category for the contract period.

ROUTINE WASTE				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Absorbent material (clay, rags, dirt, booms) with oil, diesel, and /or antifreeze)	20	55 Gallon	\$232.68	\$4,653.60	\$232.68	\$4,653.60	\$256.52	\$5,130.40	\$269.35	\$5,387.00	\$282.83	\$5,656.60
2	Absorbent material (clay, rags, dirt, booms) with gasoline, paint, solvent and/or thinner	12	55 Gallon	\$425.63	\$5,107.56	\$425.63	\$5,107.56	\$469.25	\$5,631.00	\$492.71	\$5,912.52	\$517.36	\$6,208.32
3	Waste engine fuels and lubricants, including but not limited to diesel fuel, brake fluid, engine oil, transmission fluid, gear, HVAC and hydraulic oil	18	55 Gallon	\$216.22	\$3,891.96	\$216.22	\$3,891.96	\$238.38	\$4,290.84	\$250.30	\$4,505.40	\$262.82	\$4,730.76
4	Engine filters with oil	10	55 Gallon	\$283.75	\$2,837.50	\$283.75	\$2,837.50	\$312.83	\$3,128.30	\$328.48	\$3,284.80	\$344.90	\$3,449.00
5	Gasoline	18	55 Gallon	\$216.22	\$3,891.96	\$216.22	\$3,891.96	\$238.38	\$4,290.84	\$250.30	\$4,505.40	\$262.81	\$4,730.58
6	Aerosol cans	12	55 Gallon	\$382.50	\$4,590.00	\$382.50	\$4,590.00	\$421.70	\$5,060.40	\$442.79	\$5,313.48	\$464.94	\$5,579.28
7	Biological waste	4	55 Gallon	\$454.00	\$1,816.00	\$454.00	\$1,816.00	\$500.54	\$2,002.16	\$525.56	\$2,102.24	\$551.85	\$2,207.40
8	Sharps	4	55 Gallon	\$454.00	\$1,816.00	\$454.00	\$1,816.00	\$500.54	\$2,002.16	\$525.56	\$2,102.24	\$551.85	\$2,207.40
9	Alkaline batteries (wet filled)	30,000	Pound	\$2.27	\$68,100.00	\$2.27	\$68,100.00	\$2.50	\$75,000.00	\$2.62	\$78,600.00	\$2.76	\$82,800.00
10	Alkaline batteries (dry filled)	500	Pound	\$1.98	\$990.00	\$1.98	\$990.00	\$2.18	\$1,090.00	\$2.30	\$1,150.00	\$2.41	\$1,205.00
11	Lithium ion batteries	0	Pound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	Paint and paint related, lacquer thinner and reducer	12	55 Gallon	\$257.65	\$3,091.80	\$257.65	\$3,091.80	\$284.06	\$3,408.72	\$298.26	\$3,579.12	\$313.17	\$3,758.04
13	Sludge solids, Oily Water, and Grease	12	55 Gallon	\$343.91	\$4,126.92	\$343.91	\$4,126.92	\$379.17	\$4,550.04	\$398.13	\$4,777.56	\$418.04	\$5,016.48
14	Paint material lab packs	12	55 Gallon	\$331.42	\$3,977.04	\$331.42	\$3,977.04	\$365.39	\$4,384.68	\$383.66	\$4,603.92	\$402.84	\$4,834.08
15	Paint Material Totes/Boxes (flammable)	12	Tote	\$1,138.41	\$13,660.92	\$1,138.41	\$13,660.92	\$1,255.10	\$15,061.20	\$1,317.86	\$15,814.32	\$1,383.75	\$16,605.00
16	Paint Related Material Totes/Boxes (water Based Paint)	12	Tote	\$1,138.41	\$13,660.92	\$1,138.41	\$13,660.92	\$1,255.10	\$15,061.20	\$1,317.86	\$15,814.32	\$1,383.75	\$16,605.00
17	Paint Booth Filters	12	55 Gallon	\$539.13	\$6,469.56	\$539.13	\$6,469.56	\$594.39	\$7,132.68	\$624.11	\$7,489.32	\$655.32	\$7,863.84
18	Ballasts (non-BCP)	900	Pound	\$1.37	\$1,233.00	\$1.37	\$1,233.00	\$1.51	\$1,359.00	\$1.59	\$1,431.00	\$1.67	\$1,503.00
19	Tritium Exit Signs	12	Each	\$319.22	\$3,830.64	\$319.22	\$3,830.64	\$351.94	\$4,223.28	\$369.54	\$4,434.48	\$388.02	\$4,656.24
20	Hazardous Waste Liquid (Non-RCRA)	12	55 Gallon	\$255.94	\$3,071.28	\$255.94	\$3,071.28	\$282.18	\$3,386.16	\$296.29	\$3,555.48	\$311.10	\$3,733.20
21	Anti-freeze	12	55 Gallon	\$244.59	\$2,935.08	\$244.59	\$2,935.08	\$269.66	\$3,235.92	\$283.14	\$3,397.68	\$297.30	\$3,567.60
22	Fluorescent Lights	8,000	Linear Foot	\$0.58	\$4,640.00	\$0.58	\$4,640.00	\$0.64	\$5,120.00	\$0.67	\$5,360.00	\$0.70	\$5,600.00
23	LED	3,000	Linear Foot	\$0.96	\$2,880.00	\$0.96	\$2,880.00	\$1.06	\$3,180.00	\$1.11	\$3,330.00	\$1.17	\$3,510.00
24	Mercury Vapor, Low and High – Pressure Sodium Lamps (HID) (not to exceed 250 lamps)	12	55 Gallon	\$766.13	\$9,193.56	\$766.13	\$9,193.56	\$844.66	\$10,135.92	\$886.89	\$10,642.68	\$931.23	\$11,174.76
25	Silica Sand	12	55 Gallon	\$247.43	\$2,969.16	\$247.43	\$2,969.16	\$272.79	\$3,273.48	\$286.43	\$3,437.16	\$300.75	\$3,609.00
26	Ballasts (PCB)	12	55 Gallon	\$340.50	\$4,086.00	\$340.50	\$4,086.00	\$375.41	\$4,504.92	\$394.18	\$4,730.16	\$413.89	\$4,966.68
27	Leaking ballasts (PCB)	12	55 Gallon	\$879.63	\$10,555.56	\$879.63	\$10,555.56	\$969.79	\$11,637.48	\$1,018.28	\$12,219.36	\$1,069.19	\$12,830.28
28	Dir/ Sand/ Rock Contaminated with Oil	10	Yards	\$135.87	\$1,358.70	\$135.87	\$1,358.70	\$149.79	\$1,497.90	\$157.28	\$1,572.80	\$165.14	\$1,651.40
29	Refrigerant - R12	0	Pound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Refrigerant - R22	0	Pound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31	HVAC Refrigerant - R134A	0	Pound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
32	Refrigerant - 407	0	Pound	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
33				Subtotal	\$189,434.72		\$189,434.72		\$208,778.68		\$219,052.44		\$230,258.94
34				CA 7.75% Sales Tax	\$14,681.19		\$14,681.19		\$16,180.35		\$16,976.56		\$17,845.07
35				TOTAL	\$204,115.91		\$204,115.91		\$224,959.03		\$236,029.00		\$248,104.01

MTS COST PROPOSAL FORMS - continued
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TROLLEY, INC. (SDTI) -- Rev.4

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II. LAB PACK				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION - LAB PACK (PACKAGING/TRANSPORT/DISPOSAL - all inclusive of Analysis and labor)	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Acids - Inorganics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
2	Acids - Organic	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
3	Acids - Oxidizing	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
4	Aerosols - Corrosive	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
5	Aerosols - Flammable	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
6	Base - Inorganics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
7	Base - Organics	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
8	Base - Oxidizing	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
9	Class 9 Non-RCRA Liquid	2	55 Gallon	\$404.06	\$808.12	\$404.06	\$808.12	\$445.47	\$890.94	\$467.74	\$935.48	\$491.13	\$982.26
10	Class 9 Non-RCRA Solid	2	55 Gallon	\$404.06	\$808.12	\$404.06	\$808.12	\$445.47	\$890.94	\$467.74	\$935.48	\$491.13	\$982.26
11	Flammable Liquid	2	55 Gallon	\$404.06	\$808.12	\$404.06	\$808.12	\$445.48	\$890.96	\$467.75	\$935.50	\$491.14	\$982.28
12	Flammable Solid	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
13	Mercury Containing Device	2	5 gallon	\$928.43	\$1,856.86	\$928.43	\$1,856.86	\$1,023.59	\$2,047.18	\$1,074.77	\$2,149.54	\$1,128.51	\$2,257.02
14	Oil Based Paint & Related	2	55 Gallon	\$358.66	\$717.32	\$358.66	\$717.32	\$395.42	\$790.84	\$415.19	\$830.38	\$435.95	\$871.90
15	Organic Peroxide	2	5 gallon	\$360.93	\$721.86	\$360.93	\$721.86	\$397.93	\$795.86	\$417.82	\$835.64	\$438.71	\$877.42
16	Oxidizer - Neutral	2	55 Gallon	\$589.07	\$1,178.14	\$589.07	\$1,178.14	\$649.44	\$1,298.88	\$681.92	\$1,363.84	\$716.01	\$1,432.02
17	PCB Containing Paint	2	55 Gallon	\$901.19	\$1,802.38	\$901.19	\$1,802.38	\$993.56	\$1,987.12	\$1,043.24	\$2,086.48	\$1,095.40	\$2,190.80
18	PCB Waste - other	2	55 Gallon	\$1,014.69	\$2,029.38	\$1,014.69	\$2,029.38	\$1,118.70	\$2,237.40	\$1,174.63	\$2,349.26	\$1,233.36	\$2,466.72
19	Poison - Liquids	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
20	Poison - Solids	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
21	Reactive	2	55 Gallon	\$1,184.94	\$2,369.88	\$1,184.94	\$2,369.88	\$1,306.40	\$2,612.80	\$1,371.72	\$2,743.44	\$1,440.30	\$2,880.60
22	Category 9 Asbestos	2	55 Gallon	\$333.69	\$667.38	\$333.69	\$667.38	\$367.89	\$735.78	\$386.29	\$772.58	\$405.60	\$811.20
23	Toxic	2	55 Gallon	\$460.81	\$921.62	\$460.81	\$921.62	\$508.04	\$1,016.08	\$533.45	\$1,066.90	\$560.12	\$1,120.24
24	Latex Paint & Rinses	2	95 Gallons	\$715.05	\$1,430.10	\$715.05	\$1,430.10	\$788.34	\$1,576.68	\$827.76	\$1,655.52	\$869.15	\$1,738.30
25	Empty Gas/Gas Cylinder	0	≤ 300 ft ³	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	Empty drums	2	55 Gallon	\$90.80	\$181.60	\$90.80	\$181.60	\$100.11	\$200.22	\$105.11	\$210.22	\$110.37	\$220.74
27	Subtotal				\$26,951.74		\$26,951.74		\$29,714.16		\$31,200.04		\$32,759.96
28	CA 7.75% Sales Tax				\$2,088.76		\$2,088.76		\$2,302.85		\$2,418.00		\$2,538.90
29	TOTAL				\$29,040.50		\$29,040.50		\$32,017.01		\$33,618.04		\$35,298.86

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MTS COST PROPOSAL FORMS - continued
HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT AND TRAUMA SCENE CLEAN-UP SERVICES RFP
MTS DOC. NO. G2676.0-23

SAN DIEGO TROLLEY, INC. (SDTI) -- Rev.4

III. EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS)

Fill in each line item for trauma scene clean-up services to include all costs per unit of measure. If not applicable or is a "no charge" to MTS, indicate so with **N/A** or **zero (\$0.00)**. MTS does not guarantee that it will generate any or all of the items listed below. The prices will be used as a reference for base prices for the contract period.

EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS) (LABOR/PERSONNEL - all inclusive of all materials/equipment/transportation/disposal/etc.)				YEAR 1 (4/1/23 - 3/31/24)		YEAR 2 (4/1/24 - 3/31/25)		YEAR 3 (4/1/25 - 3/31/26)		YEAR 4 (4/1/26 - 3/31/27)		YEAR 5 (4/1/27 - 3/31/28)	
#	DESCRIPTION	ESTIMATED ANNUAL QTY*	UNIT OF MEASURE (UOM)	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST	UNIT COST	EXTENDED COST
1	Supervisor	8	Hour	\$95.00	\$760.00	\$95.00	\$760.00	\$104.74	\$837.92	\$109.97	\$879.76	\$115.47	\$923.76
2	Technician	150	Hour	\$75.00	\$11,250.00	\$75.00	\$11,250.00	\$82.69	\$12,403.50	\$86.82	\$13,023.00	\$91.16	\$13,674.00
3	Technician - Overtime/Holiday	30	Hour	\$95.00	\$2,850.00	\$95.00	\$2,850.00	\$104.74	\$3,142.20	\$109.97	\$3,299.10	\$115.47	\$3,464.10
4	Admins	8	Hour	\$50.00	\$400.00	\$50.00	\$400.00	\$55.13	\$441.04	\$57.88	\$463.04	\$60.78	\$486.24
5	Admins - Overtime/Holiday	1	Hour	\$70.00	\$70.00	\$70.00	\$70.00	\$77.18	\$77.18	\$81.03	\$81.03	\$85.09	\$85.09
6	Disposal Charge	100	Pound	\$2.50	\$250.00	\$2.50	\$250.00	\$2.76	\$276.00	\$2.89	\$289.00	\$3.04	\$304.00
7	TOTAL				\$15,580.00		\$15,580.00		\$17,177.84		\$18,034.93		\$18,937.19

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#	DESCRIPTION	TOTALS (YEAR 1)	TOTALS (YEAR 2)	TOTALS (YEAR 3)	TOTALS (YEAR 4)	TOTALS (YEAR 5)
1	ROUTINE WASTE (HAZMAT)	\$204,115.91	\$204,115.91	\$224,959.03	\$236,029.00	\$248,104.01
2	LAB PACK (HAZMAT)	\$29,040.50	\$29,040.50	\$32,017.01	\$33,618.04	\$35,298.86
3	EMERGENCY RESPONSE (TRAUMA SCENE CLEAN UP/CHEMICAL SPILLS)	\$15,580.00	\$15,580.00	\$17,177.84	\$18,034.93	\$18,937.19
4	TOTALS	\$248,736.41	\$248,736.41	\$274,153.88	\$287,681.98	\$302,340.05



DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/9/2023

Agenda Item No. 11

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS**

February 16, 2023

SUBJECT:

C Street & Broadway Wye Sicas S7 And Wheel Counter Replacement - Work Order

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order MTS Doc. No. PWL355.0-22, WOA355-AE-11 (in substantially the same format as Attachment A), with Psomas, in the amount of \$299,610.15 to provide engineering design review for the C Street and Broadway Wye – Sicas S7 and wheel counter replacement.

Budget Impact

The total cost of this contract is estimated to be \$299,610.15. The project is funded by the Capital Improvement Program (CIP) 2005118801 – Signal Upgrade - Sicas7 & H&K Design.

DISCUSSION:

This project aims to replace the existing axle counter system provided by Siemens with a system provided by Frauscher FAdC Axle Counter System, and replace the existing Sicas S7 vital logic controller with an ElectrologIXS Controller. This project is necessary to ensure safe and efficient movement of trains through the C street interlocking and Broadway Wye.

Under the proposed work order, Psomas shall update existing AutoCAD drawings files of the existing signaling system. The drawing updates shall include, but not be limited to, 1) current track layout plans, 2) case circuit plans, and 3) all other signaling system plans requiring updates to accurately reflect the modifications required for complete revisions. Final improvement plans will accurately reflect the addition of all circuits required and reflect the final configuration of the circuits.

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 Disadvantaged 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 Architectural and Engineering (A&E) services. For projects requiring A&E Services, work orders are issued to these firms.

MTS staff reviewed the approved A&E firms in Category A, and utilizing the direct award process, selected Psomas, to perform the requisite services, as their subconsultant Global Signal Group, Inc. performed multiple signal design projects for MTS in the past and therefore has special knowledge and expertise that will maximize value to MTS for this project.

Psomas's proposed amount of \$299,610.15 is comparable to MTS's Independent Cost Estimate (ICE) of \$287,062.88, and thus was determined to be fair and reasonable. Psomas will utilize the following subcontractor:

Subcontractor Name	Classification	Value of Services
Global Signals Group, Inc.	SB	\$271,904.68

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Work Order MTS Doc. No. PWL355.0-22, WOA55-AE-11 (in substantially the same format as Attachment A), Psomas, in the amount of \$299,610.15 to provide engineering design review for the C Street and Broadway Wye – Sicas S7 and wheel counter replacement.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Draft Work Order MTS Doc No. WOA355-AE-11



**Metropolitan
Transit
System**

February 16, 2023

MTS Doc. No. PWL355.0-22
Work Order No. WOA355-AE-11

Mrs. Sarah Curran, PE
Vice President
Psomas
401 B Street, Suite 1600
San Diego, CA 92101

Dear Mrs. Curran:

Subject: MTS DOC. NO. PWL355.0-22, WORK ORDER WOA355-AE-11, GENERAL ENGINEERING SERVICES FOR SIGNAL UPGRADE – SICAS7 & H&K DESIGN

This letter shall serve as our agreement for Work Order WOA355-AE-11 to MTS Doc. No. PWL355.0-22, for professional services under the General Engineering Consultant Agreement, as further described below.

SCOPE OF SERVICES

This Work Order shall provide design services for the C Street and Broadway Wye – Sicas S7 and wheel counter replacement. (Attachment A).

SCHEDULE

The Scope of Services, as described above, shall be for a period of seven (7) months from the date of the Notice to Proceed.

PAYMENT

Payment shall be based on actual costs in the amount not to exceed \$299,610.15 without prior authorization of MTS (Attachment B).



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,

Accepted:

Sharon Cooney
Chief Executive Officer

Sarah Curran, Vice President
Psomas

Date: _____

Attachments: Attachment A, Scope of Services
Attachment B, Negotiated Fee Proposal

**ATTACHMENT A
SCOPE OF SERVICES**

P S O M A S

Balancing the Natural and Built Environment

January 18, 2023

Steve Augustyn
Senior Procurement Specialist
SAN DIEGO METROPOLITAN TRANSIT SYSTEM (MTS)
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

Subject: Proposal for Professional Services – Revision 1
WOA355-AE-11
Signal Upgrade – SICAS7 & H&K Design

Dear Steve:

Psomas is pleased to submit the attached revised proposal to provide professional services for the subject project. Based on the information provided to us, we have developed the attached Work Plan and associated fee to meet the project requirements, as we understand them, as described in Attachment “A” and Attachment “B” respectively (attached).

We look forward to working with you on this important project.

Sincerely,

PSOMAS



Sarah Curran, P.E.
Vice President
Enclosures

401 B Street
Suite 1600
San Diego, CA 92101

Tel 619.961.2800
www.Psomas.com

I. PROJECT DESCRIPTION

This project aims to replace the existing axle counter system provided by Siemens with a system provided by Frauscher FAdC Axle Counter System and replace the existing Sicas S7 vital logic controller with an ElectrologIXS Controller

Consultant shall prepare complete design plans and software to replace with the new axle counter system and ElectrologIXS Controller to ensure safe and efficient movement of trains through the C street interlocking and Broadway Wye. Consultant design shall maintain the existing operation as part of the new ElectrologIXS Software.

Consultant shall update existing AutoCAD drawings files of the existing signaling system. The drawing updates shall include, but not be limited to, 1) current track layout plans, 2) case circuit plans, and 3) all other signaling system plans requiring updates to accurately reflect the modifications required for complete revisions described in this document. Final improvement plans shall accurately reflect the addition of all circuits required and reflect the final configuration of the circuits.

It is assumed that the final as-builts shall be completed by MTS and the construction contractor shall complete a set of red lines to facilitate the final as-built process.

Demolition plans shall show the removal of existing circuits and removal or reconfiguration of existing case circuits.

Consultant shall work with construction contractor to determine a schedule and time for the cut-over and tie-in of the new system elements and shall support the uploading of the new software for testing by the construction contractor.

II. SCOPE OF WORK

The scope of work shall consist of the following tasks and deliverables:

Task 1A - Project Management and Coordination (Psomas)

- 1A.1 Provide project management services including the requirements for invoicing, scheduling, monthly project progress reports, and administration of the Consultant's team.
- 1A.2 Arrange and facilitate project-related meetings.
- 1A.3 Implement a project schedule to complete the Scope of Work
- 1A.4 Provide QA/QC on all deliverables.

Task 1B - Project Management and Coordination (Global Signals)

- 1B.1 Provide project management services including the requirements for invoicing and monthly project progress reports
- 1B.2 Attend weekly meetings.

1B.3 Coordinate with the project team.

1B.4 Prepare Construction Cost Estimate

Task 2 – Hardware Circuit Design

2.1 Provide the hardware design required to support the new track circuit(s), the new ElectrologIXS vital controller, as well as other modifications necessary to deliver power to these new system elements. Provide demolition plans using existing CAD drawings detailing those items that are to be removed from service.

Task 3 – Software Data Design

3.1 Provide ElectrologIXS Data design for both C street and Broadway Wye location to maintain the existing operations currently, while interfacing with new Frauscher FAdC Axle Counter System. Providing Bit List being send/receive between ElectrologIXS and both Frauscher and Quest QLCP. ElectrologIXS software development shall be designed and align as much as possible to the latest standard practice Mid-Coast/Blue line, where practical.

3.2 Software Simulation Testing shall be undertaken prior to final cut-over.

Task 4 – Specifications

4.1 Update the standard specifications. Modify standard specifications to provide project specific standards where necessary and retain those specifications that are relevant.

Task 5 – HMI Panels, Blue Line SCADA (Turn Backs, CPU Health) and Switch 37 Electric lock Circuit design

5.1 Provide HMI panel and logic design for multiple locations to include Stadium, M4 and Baltimore Junction. Provide office indications for turn backs on the blueline as well as a health indication from all interlocking locations. Verify electric lock logic is consistent with other locations and alter as necessary to bring consistent with other MTS locations.

III. PERIOD OF PERFORMANCE

Design work shall be completed in seven (7) months from the date of the Notice to Proceed.. Software modificaitons with commisioning and testing shall be coordinated with constrction contractor.

IV. DELIVERABLES

Prepare develop 50%, and 95% and final stamped signal modifications design plans, specifications and construction estimate.

Develop software logic and install in signal controllers to obtain desired functionality described in this document.

V. SCHEDULE OF SERVICES/MILESTONES/DELIVERABLES

A. Tasks Schedule

Task	Begin/End Dates
Field Survey	Anticipate NTP: January (1-2 Days).
Signal Modification Plans	1/06/2022-06/28/2023
50% Design	Anticipated 50% completion: End of Jan
95% Design	Anticipated 95% completion: End of June
100% Final Design & Specifications (Stamped)	End Of July

B. Milestones/Deliverables Schedule

Milestone/Deliverable	Due Date
50% Signal Design Plans	Anticipated 50% completion: End of Jan
95% Signal Design Plans	Anticipated 95% completion: End of June
100% Signal Design Plans	Anticipated completion: End July
Software Modifications	Anticipated completion: End July

VI. MATERIALS TO BE PROVIDED BY MTS AND/OR THE OTHER AGENCY

We will need the following items/resources from MTS;

- Signal/Communications keys for access
- Current As-built circuit plan in CAD format for all affected locations.
- CAD plans (if available) shall be provided
- Current As-built conduit plan CAD/pdf format for surrounding locations around Broadway Wye, America Plaza, C street, and India Street.
- New IP Addresses for new ElectrologIXS, Frauscher System and QLCP.
- Chasis ID For new ElectrologIXS
- New Fiber Core Allocation for the ElectrologIXS and access to new QLCP.
- Current As Built S7 data shall be provided for Broadway Wye and C Street.
- Current As Built H&K Programming for Broadway Wye and C Street
- Title block and border shall be provided to GSG.
- Standard Specifications and special provisions for MTS construction work
- Software for all Milestones on Blueline

VII. SPECIAL CONDITIONS

Any condition listed below applies solely to this Work Order and does not otherwise alter the Agreement or other Work Orders.

Not Applicable.

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 PRODUCT

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 (i.e., not meeting the professional standard of care) and the deficiency 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,

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 reasonably 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

List additional information as applicable to the specific Work Order scope of services.

XIII. PREVAILING WAGE

Prevailing wage rates apply to certain personnel for these services? ☐ Yes ☒ No

If yes, please list classification subject to prevailing wage rates:

**ATTACHMENT B
NEGOTIATED FEE PROPOSAL**

Att.A, Al 11, 02/16/23

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\$27,705.47

Attachment: B

AA11