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Agenda

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

January 11, 2018

9:00 a.m.

James R. Mills Building
Executive Conference Room, 10th Floor
1255 Imperial Avenue, San Diego

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ACTION RECOMMENDED

- | | | |
|----|---|-----------------|
| A. | ROLL CALL | |
| B. | APPROVAL OF MINUTES - November 2, 2017 | Approve |
| C. | COMMITTEE DISCUSSION ITEMS | |
| 1. | <u>San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative from RVK and Larry Marinesi)</u> | Informational |
| 2. | <u>San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2017 (Anne Harper of Cheiron Inc. and Larry Marinesi)</u> | Possible Action |
| | Action would forward a recommendation to the Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) actuarial valuation as of July 1, 2017, and adopt the pension contribution amount of \$15,614,315 for fiscal year 2019. | |
| 3. | <u>Mission Valley and Grantville Real Estate (Tim Allison, Karen Landers, Sharon Cooney)</u> | Possible Action |
| | Action would receive a report on real estate issues in the Mission Valley and Grantville areas and provide direction. | |



- | | | |
|----|--|--------------------|
| 4. | <p>CLOSED SESSION - PUBLIC EMPLOYEE PERFORMANCE EVALUATION/CONFERENCE WITH LABOR NEGOTIATORS - CHIEF EXECUTIVE OFFICER Pursuant to California Government Code Sections 54957 and 54957.6;</p> <p><u>Agency-Designated Representative</u>: Ron Roberts, Vice Chairman</p> <p><u>Employee</u>: Paul C. Jablonski</p> | Possible
Action |
| | | |
| D. | REVIEW OF DRAFT January 18, 2018 BOARD AGENDA | |
| | | |
| E. | <p><u>REVIEW OF SANDAG TRANSPORTATION COMMITTEE AGENDA</u></p> <p>Review of SANDAG Transportation Committee Agenda and discussion regarding any items pertaining to MTS, San Diego Transit Corporation, or San Diego Trolley, Inc. Relevant excerpts will be provided during the meeting.</p> | Possible
Action |
| | | |
| F. | COMMITTEE MEMBER COMMUNICATIONS AND OTHER BUSINESS | |
| | | |
| G. | PUBLIC COMMENTS | |
| | | |
| H. | NEXT MEETING DATE: February 1, 2018 | |
| | | |
| I. | ADJOURNMENT | |

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

November 2, 2017

MINUTES

A. ROLL CALL

Vice Chair Roberts called the Executive Committee meeting to order at 9:58 a.m. A roll call sheet listing Executive Committee member attendance is attached.

B. APPROVAL OF MINUTES

Ms. Cole moved for approval of the minutes of the October 12, 2017, MTS Executive Committee meeting. Mr. McClellan seconded the motion, and the vote was 3 to 0 in favor with Mr. Mathis and Ms. Rios absent.

C. COMMITTEE DISCUSSION ITEMS

1. Fiscal Year 2017 Final Budget Comparison (Mike Thompson)

Mike Thompson, Director of Financial Planning and Analysis, provided a presentation on Fiscal Year (FY) 2017 final budget comparison. He reviewed total operating revenues and total operating expenses. Mr. Roberts inquired about the increase in overtime numbers for bus operators. Mr. Thompson stated that the overtime numbers for bus operators fluctuate based on the job market however there is an ongoing push towards recruitment. He noted that the overtime levels are not significantly high, but they are higher than what was originally targeted. Mr. Thompson reviewed total non-operating revenue and noted that Medi-Cal is now providing reimbursements after a couple years of delay due to procedural updates. Mr. Jablonski stated that Medi-Cal reimburses 50% of Medi-Cal recipient trips on Access service. Mr. Thompson reviewed total revenues less expenses and the contingency reserve balance. He reviewed the staff recommendation to approve the allocation of FY17 excess revenues less expenses to return \$2.0 million to the contingency reserve balance and carry-over \$1.5 million to the FY19 capital budget.

Mr. Jablonski commented that we are putting the excess revenues into the contingency reserve with the understanding that we may have to use it for next year's budget, because for this year's budget we had to take \$5.0 million from the capital budget to balance the operating budget. He stated that we are currently tracking unfavorable to budget on revenues, not expenses, primarily due to declining ridership. He noted that declining ridership is being experienced nationwide, not just locally.

Mr. Roberts asked if money for the electric bus pilot would be taken from the contingency reserve. Mr. Jablonski replied that staff will be looking for one-time money for the electric bus pilot such as SB 1 money, Cap and Trade grant money, VW settlement money, or California Air Resources Board funds. He noted that there is a local developer that is interested in a partnership that could potentially be another option

for funding. Mr. Jablonski discussed the potential options for buses for the pilot and noted that the awarded consultant will help determine the details of the program.

Action Taken

Mr. McClellan moved to receive the MTS operations budget status report for Fiscal Year 2017 and forward a recommendation to the MTS Board of Directors to approve staff recommendations to program the excess revenues less expenses. Ms. Cole seconded the motion, and the vote was 3 to 0 in favor with Mr. Mathis and Ms. Rios absent.

2. AB 805 Implementation and Process for Electing Chairperson (Karen Landers)

Karen Landers, General Counsel, provided a presentation on AB 805 implementation and the process for electing a Chairperson. She reviewed the details and changes of AB 805 including MTS Board membership, Board Chair, voting, weighted voting, skilled labor/project labor agreement requirements, and MTS sales tax authority. Ms. Landers stated that Board action is required for revising Board policies to be consistent with AB 805 and to determine the process to elect a Chair. She reviewed the potential options and processes to elect a Chair.

Ms. Cole recommended establishing an Ad-Hoc Nominating Committee at the Board meeting and soliciting letters of interest for the Board Chair. The Executive Committee agreed with that recommendation and also recommended that the timing of the vote for Chair be discussed at the Board meeting.

Action Taken

Ms. Cole moved to forward a recommendation to the MTS Board of Directors to: (1) Approve revisions to Board Policy No. 22, "Rules of Procedures for the San Diego Metropolitan Transit System (MTS) Board of Directors"; (2) Approve revisions to Board Policy No. 27, "Weighted Vote Procedure"; (3) Approve revisions to Board Policy No. 52, "Procurement of Goods and Services"; and (4) Direct staff as to the timeline and process to elect a new Chairperson for the 2018-2019 term. Mr. McClellan seconded the motion, and the vote was 3 to 0 in favor with Mr. Mathis and Ms. Rios absent.

D. REVIEW OF DRAFT November 9, 2017 BOARD AGENDA

Recommended Consent Items

6. Fiscal Year 2018 State Transit Assistance Claim

Action would adopt Resolution No. 17-13 approving the fiscal year (FY) 2018 State Transit Assistance (STA) claim.

7. Fare Collection Technical Support Services - Contract Amendment

Action would authorize the Chief Executive Officer (CEO) to extend the contract with CH2M (MTS Doc. No. G1923.0-16) consistent with draft Amendment No. 4.

8. Payroll and Human Resources Information System Solution & Implementation Services - Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G1935.0-17, with Automatic Data Processing (ADP), for Payroll and Human Resources Information System (HRIS) Solution & Implementation Services.
9. Occupational Health Services - Contract Award
Action would: (1) Authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G194.0-17, with Kaiser Permanente, to provide occupational health services for a three (3) year base term with three (3) one year options in the amount of \$599,265.00; (2) Authorize the CEO to execute MTS Doc. No. G2069.0-18, with Concentra, to provide occupational health services for a three (3) year base term with three (3) one year options in the amount of \$122,542.00; and (3) Authorize the CEO to execute MTS Doc. No. G2070.0-18, with UCSD Health, to provide occupational health services for a three (3) year base term with three (3) one year options in the amount of \$40,397.00.
10. Investment Report - September 2017
11. Relocation of SDG&E Facilities for the New Orange Line Courthouse Station - Change Orders
Action would authorize the Chief Executive Officer (CEO) to execute Construction Change Order 9 to MTS Doc. No. PWL204.0-16, Work Order No. MTSJOC7504-26 with ABC for additional trenching for SDG&E utility relocation.
12. Courthouse Station - Additional Design Services (HDR/RailPros Work Order)
Action would ratify the action taken by the Chief Executive Officer (CEO) approving Work Order WOA1947-AE-10 to MTS Doc. No. G1947.0-17 with HDR Engineering, Inc. (HDR) for \$97,209 for Design Services during Construction (DSDC) and authorizing an additional project contingency of \$25,000 for unforeseen conditions.
13. Orange Line Grade Crossing Warning Approach and Signal Improvements Engineering Design Services - Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA-AE-07 to MTS Doc. No. G1953.0-17 with Pacific Railway Enterprises, Inc. (PRE) for the Orange Line Grade Crossing Warning Approach and Signal Improvements Engineering design services.
14. Interlocking E22 to E24 AC Low Voltage and E26 Upgrade Design Services - Work Order
Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA1953-AE-08 to MTS Doc. No. G1953.0-17 with Pacific Railway Enterprises, Inc. (PRE) for design services for the Orange Line Interlocking E22 to E24 AC Low Voltage and E26 upgrade design services.
15. Purchase of Three (3) Class E Medium Duty Buses for Rural Service - Contract Award
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0681.0-18 with Creative Bus Sales, for the purchase of three (3) gasoline powered 32ft Class E mid-size rural buses.
16. Davra Networks, RuBAN Software and Support Infrastructure Solution Five Years - Sole Source Contract Award
Action would authorize the Chief Executive Officer (CEO) to: (1) Execute MTS Doc. No. G2071.0-18 with Davra Networks, for a three (3) year period with two (2) one-year options to

Executive Committee Meeting – MINUTES

November 2, 2017

Page 4 of 4

provide Software and Supporting Infrastructure for RuBAN system; and (2) Exercise each option year at CEO's discretion.

17. SDSU Tunnel Safety Equipment Maintenance - Contract Award

Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWL226.0-17 with Comfort Mechanical, Inc. to provide maintenance services for San Diego State University (SDSU) Tunnel Safety Equipment.

E. REVIEW OF SANDAG TRANSPORTATION COMMITTEE AGENDA

There was no SANDAG Transportation Committee agenda discussion.

F. COMMITTEE MEMBER COMMUNICATIONS AND OTHER BUSINESS

There was no Committee Member Communications and Other Business discussion.

G. PUBLIC COMMENTS

There were no Public Comments.

H. NEXT MEETING DATE

The next Executive Committee meeting is scheduled for December 7, 2017, at 9:00 a.m. in the Executive Committee Conference Room.

I. ADJOURNMENT

Chairman Mathis adjourned the meeting at 11:00 a.m.

/s/ Ron Roberts
Vice Chairman

Attachment: Roll Call Sheet

EXECUTIVE COMMITTEE
SAN DIEGO METROPOLITAN TRANSIT SYSTEM

ROLL CALL

MEETING OF (DATE) November 2, 2017

CALL TO ORDER (TIME) 9:58 a.m.

RECESS _____

RECONVENE _____

CLOSED SESSION _____

RECONVENE _____

ADJOURN 11:00 a.m.

BOARD MEMBER	(Alternate)	PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
COLE	<input checked="" type="checkbox"/> (Gomez) <input type="checkbox"/>	9:58 a.m.	11:00 a.m.
MATHIS	<input type="checkbox"/>		
MCCLELLAN	<input checked="" type="checkbox"/> (McWhirter) <input type="checkbox"/>	9:58 a.m.	11:00 a.m.
RIOS	<input type="checkbox"/> (Salas) <input type="checkbox"/>		
ROBERTS	<input checked="" type="checkbox"/> (Cox) <input type="checkbox"/>	9:58 a.m.	11:00 a.m.
Transportation Committee Rep Slot (Mathis)			

SIGNED BY THE CLERK OF THE BOARD: 

CONFIRMED BY THE GENERAL COUNSEL: 



1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
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Agenda Item No. C1

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

January 11, 2018

SUBJECT:

SAN DIEGO TRANSIT CORPORATION (SDTC) PENSION INVESTMENT STATUS
(JEREMY MILLER, REPRESENTATIVE FROM RVK AND LARRY MARINESI)

INFORMATIONAL ONLY

Budget Impact

None at this time.

DISCUSSION:

Representatives from RVK will provide the Executive Committee with an update as to the performance of the SDTC Employee Retirement Plan (Plan). RVK's pension investment performance analysis (Attachment A) for the Plan as of June 30, 2017 includes assets with a market value of \$162,189,864.

During fiscal year 2017, the Plan's assets increased by approximately \$8.5 million (5.6%). This resulted from a net investment gain of \$12.5 million, partially offset by a net payout of benefits and expenses less contributions of \$4.0 million. The Plan's twelve managers achieved a combined investment return of 8.15% for the year. The Plan's returns over the past three and five years were 2.67% and 6.03% respectively. Since inception (10/1/1982), the Plan's investments have returned 9.11%.

The Plan's investment advisor, Jeremy Miller, will be attending the meeting to discuss capital markets performance in general and the Plan's performance specifically.

/s/ Paul C. Jablonski

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. RVK Pension Investment Performance Analysis





Annual Investment Report

San Diego Transit Corporation

Employees Retirement Plan

Period Ended: June 30, 2017

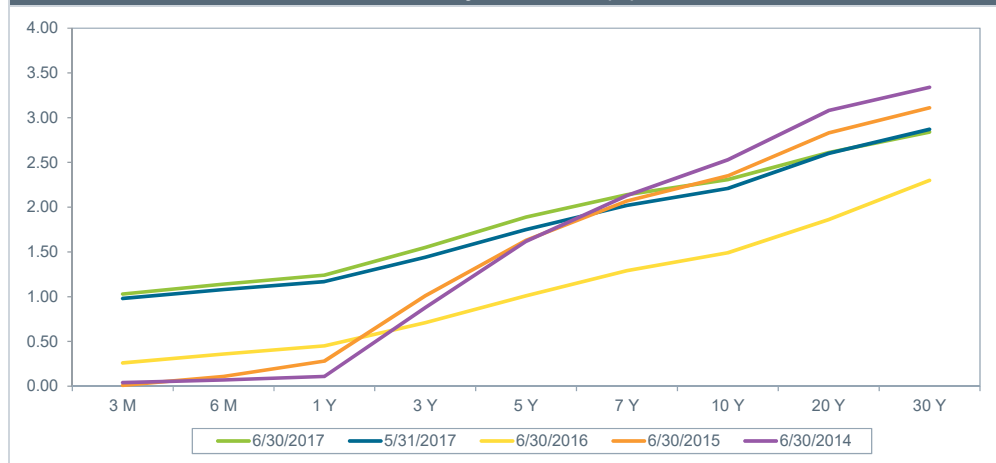


General Market Commentary

- The International Monetary Fund (IMF) cut their US growth outlook for 2017 from 2.3% to 2.1%, citing uncertainty over the current administration's economic and tax reform policies.
- The Federal Reserve raised the benchmark interest rate 25 basis points for the second time in 2017, bringing the target range up to 100 to 125 basis points. The FOMC also stated that it would start to unwind its \$4.5 trillion balance sheet of agency bonds and mortgage-backed securities at some point in 2017 assuming the economy evolves broadly as anticipated.
- Equity markets posted mixed returns in June as the S&P 500 (Cap Wtd) Index returned 0.62% and the MSCI EAFE (Net) Index returned -0.18%. Emerging markets returned 1.01% as measured by the MSCI EM (Net) Index.
- The Bloomberg US Aggregate Bond Index returned -0.10% in June, outperforming the -0.27% return by the Bloomberg US Treasury Intermediate Term Index. International fixed income markets returned -0.12%, as measured by the Citi Non-US World Gov't Bond Index.
- Public real estate, as measured by the Wilshire US REIT Index, returned 2.44% in June and 9.35% over the trailing five-year period.
- The Cambridge US Private Equity Index returned 17.80% for the trailing one-year period and 12.54% for the trailing five-year period ending March 2017.
- Absolute return strategies, as measured by the HFRI FOF Comp Index, returned -0.15% for the month and 6.37% over the trailing one-year period.
- Crude oil's price fell by 4.72% during the month, and has decreased by 4.74% YoY.

Economic Indicators	Jun-17	May-17	Jun-16	10 Yr	20 Yr
Federal Funds Rate (%)	1.06 ▲	0.83	0.30	0.61	2.23
Breakeven Inflation - 1 Year (%)	0.72 ▼	1.20	1.17	0.84	N/A
Breakeven Inflation - 5 Year (%)	1.66 ▼	1.76	1.40	1.67	N/A
Breakeven Inflation - 10 Year (%)	1.74 ▼	1.84	1.44	1.99	N/A
Breakeven Inflation - 30 Year (%)	1.85 ▼	1.96	1.61	2.20	N/A
Bloomberg US Agg Bond Index - Yield (%)	2.55 ▲	2.46	1.91	2.93	4.22
Bloomberg US Agg Bond Index - OAS (%)	0.43 ▲	0.42	0.55	0.73	0.66
Bloomberg US Agg Credit Index - OAS (%)	1.03 ▼	1.07	1.47	1.73	1.51
Bloomberg US Corp: HY Index - OAS (%)	3.64 ▲	3.63	5.94	6.12	5.72
Capacity Utilization (%)	76.57 ▲	76.35	75.83	76.06	77.73
Unemployment Rate (%)	4.4 ▲	4.3	4.9	7.0	5.9
PMI - Manufacturing (%)	57.8 ▲	54.9	52.8	52.2	52.3
Baltic Dry Index - Shipping	901 ▲	878	660	2,287	2,289
Consumer Conf (Conf Board)	117.30 ▼	117.60	97.40	75.14	93.08
CPI YoY (Headline) (%)	1.6 ▼	1.9	1.0	1.8	2.1
CPI YoY (Core) (%)	1.7 —	1.7	2.2	1.8	2.0
PPI YoY (%)	2.2 ▼	2.6	-2.0	1.9	2.0
M2 YoY (%)	5.5 ▼	5.9	7.0	6.5	6.4
US Dollar Total Weighted Index	90.54 ▼	92.11	90.65	79.30	86.89
WTI Crude Oil per Barrel (\$)	46 ▼	48	48	78	57
Gold Spot per Oz (\$)	1,242 ▼	1,269	1,322	1,238	806

Treasury Yield Curve (%)



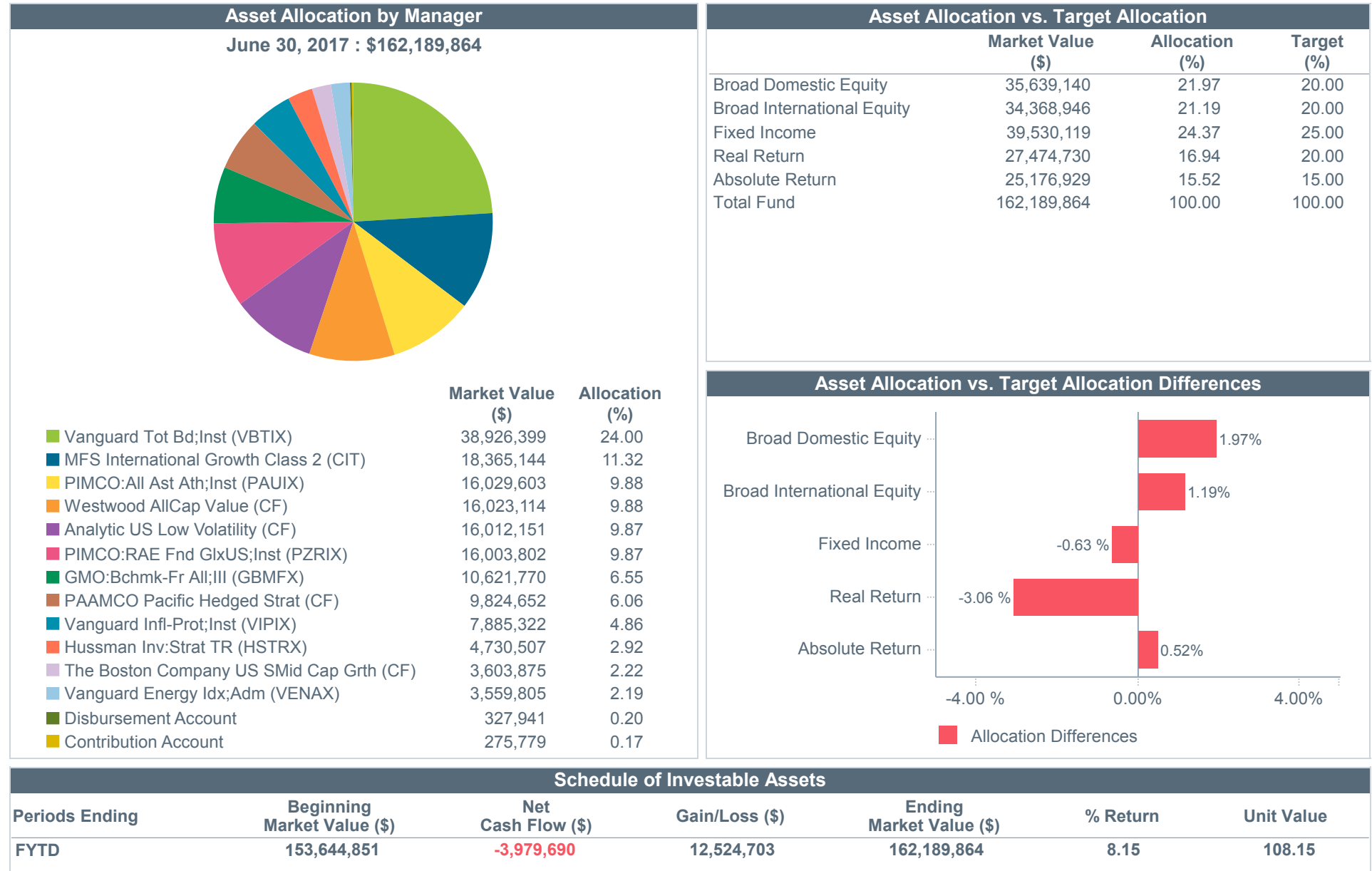
Treasury Yield Curve (%)	Jun-17	May-17	Jun-16	Jun-15	Jun-14
3 Month	1.03	0.98	0.26	0.01	0.04
6 Month	1.14	1.08	0.36	0.11	0.07
1 Year	1.24	1.17	0.45	0.28	0.11
3 Year	1.55	1.44	0.71	1.01	0.88
5 Year	1.89	1.75	1.01	1.63	1.62
7 Year	2.14	2.02	1.29	2.07	2.13
10 Year	2.31	2.21	1.49	2.35	2.53
20 Year	2.61	2.60	1.86	2.83	3.08
30 Year	2.84	2.87	2.30	3.11	3.34

Market Performance (%)	MTD	QTD	CYTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr
S&P 500 (Cap Wtd)	0.62	3.09	9.34	17.90	9.61	14.63	15.41	7.18
Russell 2000	3.46	2.46	4.99	24.60	7.36	13.70	14.35	6.92
MSCI EAFE (Net)	-0.18	6.12	13.81	20.27	1.15	8.69	7.91	1.03
MSCI EAFE SC (Net)	-0.02	8.10	16.72	23.18	5.60	12.94	11.40	3.41
MSCI EM (Net)	1.01	6.27	18.43	23.75	1.07	3.96	3.87	1.92
Bloomberg US Agg Bond	-0.10	1.45	2.27	-0.31	2.48	2.21	3.19	4.48
BofA ML 3 Mo US T-Bill	0.08	0.20	0.30	0.49	0.23	0.17	0.15	0.58
NCREIF ODCE (Gross)	1.70	1.70	3.50	7.87	11.34	11.79	13.08	5.25
Wilshire US REIT	2.44	1.78	1.82	-1.71	8.30	9.35	13.32	5.63
HFRI FOF Comp Index	-0.15	0.70	3.10	6.37	1.52	3.85	3.01	0.86
Bloomberg Cmdty Index (TR)	-0.19	-3.00	-5.26	-6.50	-14.81	-9.25	-5.68	-6.49

NCREIF performance is reported quarterly; MTD and QTD returns are shown as "N/A" on interim-quarter months and until available. Data shown is as of most recent quarter-end. Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as "N/A."

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

Att. A, AI C1, 1/11/18
As of June 30, 2017



Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees. Fiscal year ends 06/30. Market values, net cash flow, and gain/loss are provided by San Diego Transit Corporation per the audit report. Return may be slightly adjusted to tie out with actuarial and audited financial statements.

San Diego Transit Corporation Employees Retirement Plan
Asset Allocation Performance

As of June 30, 2017

	Allocation		Performance (%)												
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
San Diego Transit Total Fund	162,189,864	100.00	2.62	6.39	8.15	8.15	2.67	6.03	7.19	-2.64	2.66	9.74	12.42	9.11	10/01/1982
Policy Index			2.13	5.45	8.80	8.80	2.93	5.86	6.26	-1.57	3.86	9.78	10.45	9.27	
Difference			0.49	0.94	-0.65	-0.65	-0.26	0.17	0.93	-1.07	-1.20	-0.04	1.97	-0.16	
Domestic Equity Composite	35,639,140	21.97	2.27	7.11	12.09	12.09	8.54	14.09	11.96	1.06	12.58	31.19	14.86	7.42	03/01/2005
Russell 3000 Index			3.02	8.93	18.51	18.51	9.10	14.58	12.74	0.48	12.56	33.55	16.42	8.27	
Difference			-0.75	-1.82	-6.42	-6.42	-0.56	-0.49	-0.78	0.58	0.02	-2.36	-1.56	-0.85	
International Equity Composite	34,368,946	21.19	7.87	16.63	22.82	22.82	2.86	9.81	8.11	-4.55	-4.73	21.80	18.79	3.70	03/01/2005
MSCI ACW Ex US Index (USD) (Net)			5.78	14.10	20.45	20.45	0.80	7.22	4.50	-5.66	-3.87	15.29	16.83	4.88	
Difference			2.09	2.53	2.37	2.37	2.06	2.59	3.61	1.11	-0.86	6.51	1.96	-1.18	
Fixed Income Composite	39,530,119	24.37	1.47	2.39	-0.38	-0.38	1.77	2.24	0.97	0.72	4.56	-1.07	8.22	5.19	03/01/2005
Bloomberg US Agg Bond Index			1.45	2.27	-0.31	-0.31	2.48	2.21	2.65	0.55	5.97	-2.02	4.21	4.25	
Difference			0.02	0.12	-0.07	-0.07	-0.71	0.03	-1.68	0.17	-1.41	0.95	4.01	0.94	
Real Return Composite	27,474,730	16.94	-0.09	1.93	4.92	4.92	-1.82	0.77	13.58	-10.41	-2.41	-3.69	13.57	1.58	06/01/2007
Real Return Actual Alloc Index (Active)			-0.16	0.64	2.82	2.82	0.01	1.83	8.75	-4.47	0.99	-0.24	10.03	2.83	
Difference			0.07	1.29	2.10	2.10	-1.83	-1.06	4.83	-5.94	-3.40	-3.45	3.54	-1.25	
Absolute Return Composite (Net)	25,176,929	15.52	1.05	3.97	5.43	5.43	0.43	2.33	3.04	-2.61	2.25	1.89	6.10	1.65	06/01/2007
HFRI FOF: Cnsvt Index			0.37	1.59	5.15	5.15	1.45	3.61	1.89	0.37	3.14	7.70	4.22	0.83	
Difference			0.68	2.38	0.28	0.28	-1.02	-1.28	1.15	-2.98	-0.89	-5.81	1.88	0.82	

Performance shown is gross of fees with the exception of the Absolute Return Composite which is shown net of fees. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Market values are provided by San Diego Transit Corporation per the audit report. Returns may be slightly adjusted to tie out with actuarial and audited financial statements.

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

Att. A, AI C1, 1/11/18
As of June 30, 2017

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
San Diego Transit Total Fund	2.62	6.39	8.15	8.15	2.67	6.03	7.19	-2.64	2.66	9.74	12.42	9.11	10/01/1982
Policy Index	2.13	5.45	8.80	8.80	2.93	5.86	6.26	-1.57	3.86	9.78	10.45	9.27	
Difference	0.49	0.94	-0.65	-0.65	-0.26	0.17	0.93	-1.07	-1.20	-0.04	1.97	-0.16	
Westwood AllCap Value (CF) (1)	2.42	6.55	16.29	16.29	6.69	14.18	13.56	-2.45	10.79	34.61	14.76	10.77	07/01/1986
Russell 3000 Val Index (2)	1.29	4.32	16.21	16.21	7.32	13.89	18.40	-4.13	12.70	32.69	17.55	10.06	
Difference	1.13	2.23	0.08	0.08	-0.63	0.29	-4.84	1.68	-1.91	1.92	-2.79	0.71	
Analytic US Low Volatility (CF)	1.45	6.23	6.46	6.46	10.39	N/A	10.36	4.99	16.65	24.58	N/A	12.85	10/01/2012
MSCI US Min Vol Index (USD) (Net)	2.97	9.03	7.55	7.55	11.22	12.88	9.84	4.92	15.76	24.37	10.20	12.85	
Difference	-1.52	-2.80	-1.09	-1.09	-0.83	N/A	0.52	0.07	0.89	0.21	N/A	0.00	
Russell 1000 Index	3.06	9.27	18.03	18.03	9.26	14.67	12.05	0.92	13.24	33.11	16.42	14.02	
Difference	-1.61	-3.04	-11.57	-11.57	1.13	N/A	-1.69	4.07	3.41	-8.53	N/A	-1.17	
The Boston Company US SMid Cap Grth (CF)	5.44	13.90	21.48	21.48	8.86	14.04	11.75	-1.28	4.82	41.47	15.39	17.81	04/01/2009
Russell 2500 Grth Index	4.13	10.63	21.44	21.44	7.65	14.33	9.73	-0.19	7.05	40.65	16.13	18.47	
Difference	1.31	3.27	0.04	0.04	1.21	-0.29	2.02	-1.09	-2.23	0.82	-0.74	-0.66	
PIMCO:RAE Fnd GlxUS;Inst (PZRIX)	4.42	12.62	24.66	24.66	0.51	9.27	13.61	-10.81	-5.55	24.39	N/A	6.92	03/01/2012
FTSE RAFI Dvl'd Ex US 1000 Index	5.55	12.69	26.00	26.00	0.88	9.67	7.30	-4.80	-4.79	25.41	15.90	6.86	
Difference	-1.13	-0.07	-1.34	-1.34	-0.37	-0.40	6.31	-6.01	-0.76	-1.02	N/A	0.06	
MSCI ACW Ex US Index (USD) (Net)	5.78	14.10	20.45	20.45	0.80	7.22	4.50	-5.66	-3.87	15.29	16.83	4.91	
Difference	-1.36	-1.48	4.21	4.21	-0.29	2.05	9.11	-5.15	-1.68	9.10	N/A	2.01	
MFS International Growth Class 2 (CIT)	10.78	20.05	21.12	21.12	4.97	N/A	3.58	1.29	-4.19	N/A	N/A	6.99	03/01/2013
MSCI ACW Ex US Grth Index (USD) (Net)	7.56	17.38	17.38	17.38	2.55	8.04	0.12	-1.25	-2.65	15.49	16.67	5.44	
Difference	3.22	2.67	3.74	3.74	2.42	N/A	3.46	2.54	-1.54	N/A	N/A	1.55	
Vanguard Tot Bd;Inst (VBTIX)	1.49	2.43	-0.39	-0.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.39	07/01/2016
Vanguard Spl B US Agg Flt Adj Index	1.49	2.35	-0.33	-0.33	2.49	2.23	2.75	0.44	5.85	-1.97	4.32	-0.33	
Difference	0.00	0.08	-0.06	-0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.06	
PIMCO:All Ast Ath;Inst (PAUIX)	1.97	6.87	10.65	10.65	0.31	2.69	14.80	-10.89	-1.40	-4.57	19.00	4.67	06/01/2008
All Asset Custom Index (EqI Wtd) (3)	1.83	4.55	6.59	6.59	3.04	3.89	6.47	-1.07	3.73	1.67	9.40	4.46	
Difference	0.14	2.32	4.06	4.06	-2.73	-1.20	8.33	-9.82	-5.13	-6.24	9.60	0.21	
Consumer Price Index+5%	1.71	3.96	6.72	6.72	5.96	6.38	7.18	5.77	5.79	6.58	6.83	6.43	
Difference	0.26	2.91	3.93	3.93	-5.65	-3.69	7.62	-16.66	-7.19	-11.15	12.17	-1.76	

Performance shown is gross of fees with the exception of GMO:Bchmk-Fr All;III (GBMFX), Hussman Inv:Strat TR (HSTRX), and PAAMCO Pacific Hedged Strat (CF), which are shown net of fees. Manager inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see Addendum for more information regarding custom hybrids denoted with a number in parentheses. Returns may be slightly adjusted to tie out with the actuarial and audited financial statements.

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

Att. A, AI C1, 1/11/18
As of June 30, 2017

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Vanguard Energy Idx;Adm (VENAX)	-7.80	-14.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.63	08/01/2016
MSCI US IM Energy 25/50 Index (Gross)	-7.81	-14.16	-4.53	-4.53	-12.22	0.79	29.56	-23.20	-9.79	25.92	3.48	-2.64	
Difference	0.01	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01	
Vanguard Infl-Prot;Inst (VIPIX)	-0.42	0.97	-0.71	-0.71	0.75	0.32	4.71	-1.60	4.14	-8.77	6.94	2.95	08/01/2010
Bloomberg US Trsy: US TIPS Index	-0.40	0.85	-0.63	-0.63	0.63	0.27	4.68	-1.44	3.64	-8.61	6.98	2.89	
Difference	-0.02	0.12	-0.08	-0.08	0.12	0.05	0.03	-0.16	0.50	-0.16	-0.04	0.06	
GMO:Bchmk-Fr All;III (GBMFX)	2.77	7.61	10.13	10.13	0.99	N/A	3.40	-4.30	N/A	N/A	N/A	1.94	04/01/2014
60% MSCI ACW (Net)/40% Bbrg US Agg Idx	3.14	7.72	10.80	10.80	4.03	7.27	5.92	-0.98	4.96	12.32	11.48	4.92	
Difference	-0.37	-0.11	-0.67	-0.67	-3.04	N/A	-2.52	-3.32	N/A	N/A	N/A	-2.98	
Consumer Price Index+5%	1.71	3.96	6.72	6.72	5.96	6.38	7.18	5.77	5.79	6.58	6.83	6.17	
Difference	1.06	3.65	3.41	3.41	-4.97	N/A	-3.78	-10.07	N/A	N/A	N/A	-4.23	
Hussman Inv:Strat TR (HSTRX)	-0.66	0.50	-3.50	-3.50	1.47	0.47	8.03	-1.01	3.78	-8.37	1.14	0.70	10/01/2011
Bloomberg US Agg Bond Index	1.45	2.27	-0.31	-0.31	2.48	2.21	2.65	0.55	5.97	-2.02	4.21	2.54	
Difference	-2.11	-1.77	-3.19	-3.19	-1.01	-1.74	5.38	-1.56	-2.19	-6.35	-3.07	-1.84	
BofA ML 3 Mo US T-Bill Index+5% (4)	1.43	2.78	5.51	5.51	5.24	5.22	5.34	5.05	5.04	5.11	5.53	5.25	
Difference	-2.09	-2.28	-9.01	-9.01	-3.77	-4.75	2.69	-6.06	-1.26	-13.48	-4.39	-4.55	
PAAMCO Pacific Hedged Strat (CF)	0.03	1.84	5.10	5.10	-0.81	3.65	-0.04	-1.65	0.51	13.61	6.84	2.20	06/01/2007
HFRI FOF: Cnsvt Index	0.37	1.59	5.15	5.15	1.45	3.61	1.89	0.37	3.14	7.70	4.22	0.83	
Difference	-0.34	0.25	-0.05	-0.05	-2.26	0.04	-1.93	-2.02	-2.63	5.91	2.62	1.37	
BofA ML 3 Mo US T-Bill Index+5% (4)	1.43	2.78	5.51	5.51	5.24	5.22	5.34	5.05	5.04	5.11	5.53	6.04	
Difference	-1.40	-0.94	-0.41	-0.41	-6.05	-1.57	-5.38	-6.70	-4.53	8.50	1.31	-3.84	

Performance shown is gross of fees with the exception of GMO:Bchmk-Fr All;III (GBMFX), Hussman Inv:Strat TR (HSTRX), and PAAMCO Pacific Hedged Strat (CF), which are shown net of fees. Manager inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see Addendum for more information regarding custom hybrids denoted with a number in parentheses. Returns may be slightly adjusted to tie out with actuarial and audited financial statements.

PORTLAND

CHICAGO

NEW YORK

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San Diego Transit Corporation

Investment Manager Fiscal Year 2017 Update



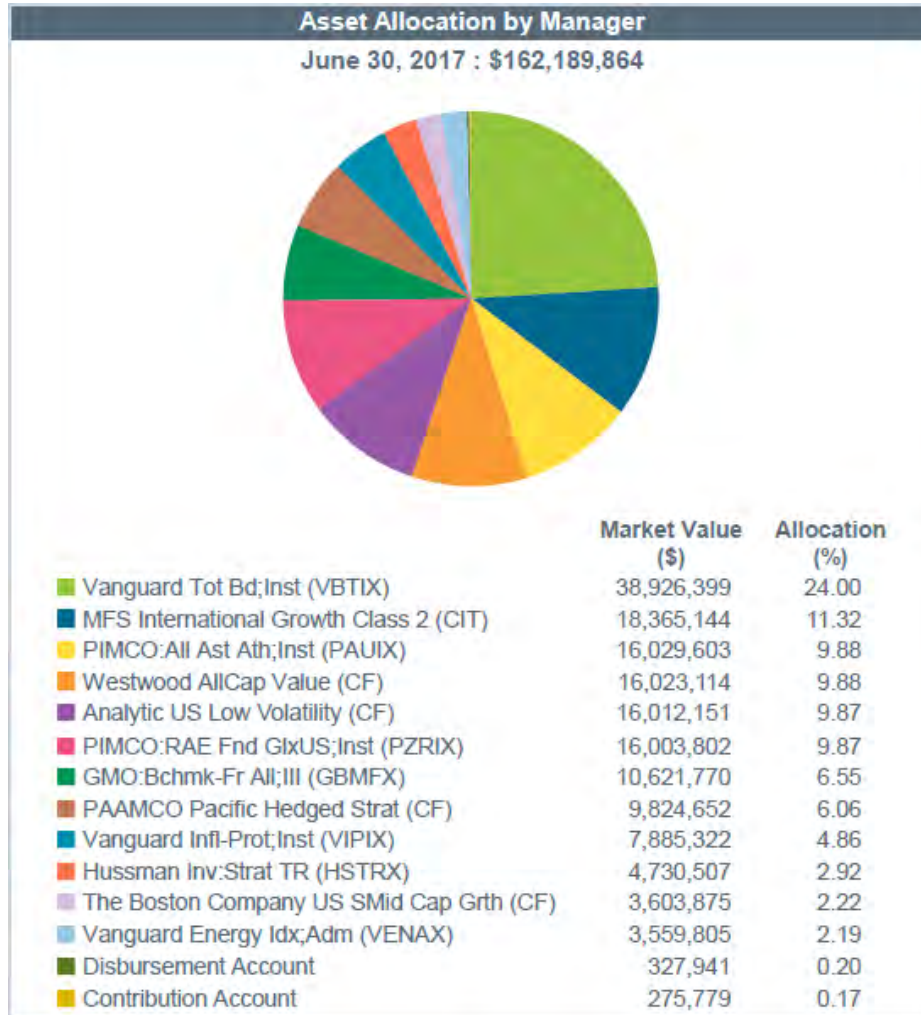
Investment Structure as of 6/30/2017

Asset Allocation vs. Target Allocation

	Market Value (\$)	Allocation (%)	Target (%)	Variance (%)
Broad Domestic Equity	35,639,140	21.97	20.00	1.97
Broad International Equity	34,368,946	21.19	20.00	1.19
Fixed Income	39,530,119	24.37	25.00	0.63
Real Return	27,474,730	16.94	20.00	3.06
Absolute Return	25,176,929	15.52	15.00	0.52
Total Fund	162,189,864	100.00	100.00	

- Plan is diversified across five broad asset classes.
- Goal is to maximize return, while assuming a prudent risk level.
 - Closed Plan to non-management participants
 - Assets exist to satisfy the Liabilities
- Liability structure (net outflows) would suggest an Asset structure that is more diversified and highly liquid structure
 - Balanced portfolio with less emphasis on equity position

Investment Details



- Assets are allocated across 12 different products.
- Diversification reduces portfolio risks.
- Allocation sizes for active managers are controlled, reducing concentration risks.

Fiscal Year Performance (2017)

Schedule of Investable Assets

Period Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	Return (%)
FYTD	153,644,851	-3,979,690	12,524,703	162,189,864	8.15

- Plan returned 8.15% over the 2017 fiscal year.
- Assumed Actuarial annual rate of return is 7.00%.

Performance Details as of 6/30/2017

	Allocation		Performance (%)				
	Market Value (\$)	%	1 Year	3 Years	5 Years	Since Incep.	Inception Date
San Diego Transit Total Fund	162,189,864	100.00	8.15	2.67	6.03	9.11	10/01/1982
Domestic Equity Composite	35,639,140	21.97	12.09	8.54	14.09	7.42	03/01/2005
International Equity Composite	34,368,946	21.19	22.82	2.86	9.81	3.70	03/01/2005
Fixed Income Composite	39,530,119	24.37	-0.38	1.77	2.24	5.19	03/01/2005
Real Return Composite	27,474,730	16.94	4.92	-1.82	0.77	1.58	06/01/2007
Absolute Return Composite (Net)	25,176,929	15.52	5.43	0.43	2.33	1.65	06/01/2007

- Plan has improved absolute performance for fiscal year 2017 beating the assumed actuarial annual rate of return by 1.15%
- Portfolio is well positioned for the future given Plan dynamics

Performance Details for FYTD 2018

Schedule of Investable Assets

Period Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	Return (%)
FYTD	162,189,864	-1,302,369	8,227,336	169,114,831	5.07

- Plan returned 5.07% for the FYTD through November 30, 2017.
 - Represents $\frac{1}{3}$ of the Fiscal Year



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Agenda Item No. C2

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

January 11, 2018

SUBJECT:

SAN DIEGO TRANSIT CORPORATION (SDTC) EMPLOYEE RETIREMENT PLAN'S
ACTUARIAL VALUATION AS OF JULY 1, 2017 (ANNE HARPER OF CHEIRON INC.
AND LARRY MARINESI)

RECOMMENDATION:

That the 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, 2017 (Attachment A), and adopt the pension contribution amount of \$15,614,315 for fiscal year 2019.

Budget Impact

Board adoption would result in the annual pension contribution of \$15,614,315 for fiscal year 2019, consisting of both employer and employee contributions

DISCUSSION:

The actuarial valuation of the Plan as of July 1, 2017 has recently been completed and the entire report is included in Attachment A. The purpose of the actuarial valuation is to compute the annual pension contribution amount and funded ratio.

This valuation was completed in December 2017 by Cheiron, Inc. and has produced a total contribution of \$15,614,315 which would be used for the fiscal year 2019 budget. This represents an increase in the contribution amount of \$526,908, compared to the previous valuation that was completed in November 2016. The following table details the cost element changes year over year.



Total Contribution Reconciliation	
Fiscal Year 2017-2018, middle of year	\$ 15,087,407
Change due to actuarial investment experience	459,290
Change due to effect of closed plan on benefits earned	(148,889)
Change due to demographic and salary experience	170,034
Change due to other miscellaneous factors	46,473
Fiscal Year 2018-2019, middle of year	\$ 15,614,315

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

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Actuarial Report (EC Only Due to Volume)



Retirement Plans of San Diego Transit Corporation

**Actuarial Valuation
as of July 1, 2017**

Produced by Cheiron

December 2017

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Letter of Transmittal	i
Foreword	ii
 Section I Executive Summary	 1
Section II Assets	12
Section III Liabilities	17
Section IV Contributions.....	21
 <u>Appendices</u>	
Appendix A Membership Information	23
Appendix B Actuarial Assumptions and Methods	33
Appendix C Summary of Plan Provisions.....	39
Appendix D Glossary	55

December 6, 2017

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

Dear Mr. Marinesi:

At your request, we have conducted an actuarial valuation of the **Retirement** Plans of San Diego Transit Corporation (SDTC) as of July 1, 2017. This report contains information on the Plan's assets, liabilities, and contribution levels. 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 was prepared solely for the Retirement Board and MTS Board in accordance with applicable law for the purposes described herein. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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.

Sincerely,
Cheiron

A handwritten signature in blue ink that reads "Anne Harper".

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

A handwritten signature in black ink that reads "Alice I. Alsberghe".

Alice I. Alsberghe, ASA, MAAA
Associate Actuary

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

FOREWORD

Cheiron has performed the actuarial valuation of the Retirement Plans of San Diego Transit Corporation as of July 1, 2017. The valuation 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 - Assets
 - Section III - Liabilities
 - Section IV- 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).

The results of this report rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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 2018-2019.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings 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,
- Assumed Administrative Expenses, and
- Amortization of the Unfunded Actuarial Liability.

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 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.
- 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 will increase 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 to 7% of Compensation on January 1, 2016. As of January 1, 2017, the member contribution rate increased to 8% of Compensation.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION I – EXECUTIVE SUMMARY

- **PEPRA:** New Members must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. Currently, PEPRA members are paying 6.25% of pay and the employer pays the remaining cost of the Plan.

This valuation was prepared based on the Plan provisions shown in Appendix C. There have been no changes in plan provisions since the prior valuation.

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 is necessary.

Finally, 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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION I – EXECUTIVE SUMMARY

B. Key Findings of this Valuation

The key results of the July 1, 2017 actuarial valuation are as follows:

- The total contribution increased from \$15,087,407 to \$15,614,315. This is an increase of \$526,908 from the July 1, 2016 valuation. The actuarial contribution determined in this report is the total contribution required from both the employer and the employees. See Table I-2 for a reconciliation of the contribution cost from last year to this year.
- The \$0.5 million contribution increase is primarily due to the continued recognition of prior years' deferred asset losses in the Actuarial Value of Assets.
- The Plan's funded ratio, the ratio of actuarial (smoothed) assets over the actuarial liability, slightly decreased from 58.2% last year to 58.1% as of July 1, 2017. However, the funded ratio based on the Market Value of Assets increased from 52.9% to 54.6%.
- 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 \$121,020,524 to \$123,961,789 as of July 1, 2017.
- During the year ending June 30, 2017, the return on Plan assets was 8.08% on a market value basis as compared to the 7.00% assumption. This resulted in a market value gain on investments of \$1,632,573. The Actuarial Value of Assets (AVA) recognizes 20% of the difference between the expected and actual return on the Market Value of Assets (MVA) for each of the prior five years. This method of smoothing the asset gains and losses returned 4.40% on the smoothed value of assets, an actuarial asset loss of \$4,327,108.
- The Plan experienced a loss on the Actuarial Liability of \$1,185,687, or 0.4% of the expected actuarial liability. In aggregate, the Plan experienced a loss of \$5,880,935 from all sources combined. See Table III-3 for more details.
- Overall, participant membership decreased compared to last year since the Plan is closed to most new entrants. Total projected payroll decreased from \$29,538,619 for FYE June 30, 2017 to \$28,966,717 for FYE June 30, 2018. However, average total pay increased by about 5.8%, mostly due to an increase in overtime pay and the dynamics of a closed plan. As the closed Plan continues to mature, average pay is expected to continue to increase without new members entering the Plan at lower pay levels to offset the average. The increase in overtime produced a liability loss of about \$1.4 million.

These figures do not include payroll for members participating in the defined contribution plans.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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, 2016	July 1, 2017	% Change
Active Participants	552	513	-7.1%
Participants Receiving a Benefit	921	952	3.4%
Inactive Participants	225	214	-4.9%
Total	1,698	1,679	-1.1%
Projected Plan Member Payroll ¹ for Fiscal Year 2017 and 2018	\$ 29,538,619	\$ 28,966,717	-1.9%
<u>Assets and Liabilities</u>			
Actuarial Liability (AL)	\$ 289,255,802	\$ 296,010,712	2.3%
Actuarial Value of Assets (AVA)	168,235,278	172,048,923	2.3%
Unfunded Actuarial Liability (UAL)	\$ 121,020,524	\$ 123,961,789	2.4%
Market Value of Assets (MVA)	\$ 152,932,851	\$ 161,635,007	5.7%
Funded Ratio (AVA)	58.2%	58.1%	0.0%
Funded Ratio (MVA)	52.9%	54.6%	1.7%
<u>Contributions</u>	FY 2017-2018	FY 2018-2019	
Total Normal Cost ²	\$ 4,055,874	\$ 3,958,564	-2.4%
Total UAL Contribution	11,031,534	11,655,751	5.7%
Total Contribution (middle of year)	\$ 15,087,407	\$ 15,614,315	3.5%

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 of \$260,000 for FY 2017-2018 and \$267,150 for FY 2018-2019.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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 2017-2018, middle of year	\$ 15,087,407
Change due to actuarial investment experience	459,290
Change due to effect of closed plan on benefits earned	(148,889)
Change due to demographic and salary experience	170,034
Change due to other miscellaneous factors	46,473
Fiscal Year 2018-2019, middle of year	\$ 15,614,315

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

- The Plan cost increased by \$526,908.
- Investment experience produced a gain based on the Market Value of Assets, but a loss based on the Actuarial Value of Assets. The assets of the Plan returned 8.08% on a market value basis and 4.40% based on the Actuarial Value of Assets. This resulted in an increase of \$459,290 in the total contribution.

The Market Value of Assets is lower than the actuarial value by about 6% since there are approximately \$10.4 million in deferred investment losses. These net losses will be recognized in future years.

- Closing the Plan to most new entrants decreases the total amount of benefits that are being earned since members continue to leave employment through retirements, terminations, disabilities, and death, and thus cease to earn additional benefits. This decreased the Plan contribution by \$148,889.
- Actual demographic experience will always differ from the actuarial assumptions.

Overall, the demographic experience of the Plan – rates of retirement, death, disability, and termination – was relatively close to what was expected based on the actuarial assumptions. The salary experience with increased overtime caused an increase in the contribution of \$170,034.

- The net effect of other miscellaneous factors, including inflationary increases in the administrative expense assumption, actual administrative expenses being different than expected, and a contribution delay adjustment, increased the Plan contributions by \$46,473.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION I – EXECUTIVE SUMMARY

One of the most important measures of a plan's risk is the ratio of plan assets to payroll shown in Table I-3 below.

This ratio indicates the sensitivity of the Plan to the returns earned on plan assets. We note in the table that plan assets currently are over five times covered payroll for the Plan; as funding improves and the Plan reaches 100% funding, the ratio of asset to payroll will increase to nearly 10 times payroll, perhaps higher depending on the Plan's future demographic makeup. Although the current ratio of assets to payroll is lower than that of many other public plans (which typically range from six to ten times payroll), the increase in the asset to payroll ratio that is expected to accompany a closed Plan still represents a substantial increase in the volatility of the contributions.

Table I-3	
Asset to Payroll Ratio as of July 1, 2017	
Active Member Payroll	\$ 28,966,717
Assets (Market Value)	\$ 161,635,007
Ratio of Assets to Payroll	5.58
Ratio with 100% Funding	10.22

To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the Plan cost is nil, because the assets are so small.

On the other hand, consider the situation for this Plan. Suppose the Plan's assets lose 10% of their value in a year. Since they are assumed to earn 7.0%, there is an actuarial loss of 17.0% of plan assets. Based on the current ratio of asset to payroll (5.58), that means the loss in assets is about 95% of active payroll (5.58% of the 17.0% loss). There is only one source of funding to make up for this loss: contributions. Consequently, barring future offsetting investment gains, the loss must be made up with future contributions. The loss would be even larger – over 174% of payroll – if the Plan were 100% funded.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION I – EXECUTIVE SUMMARY

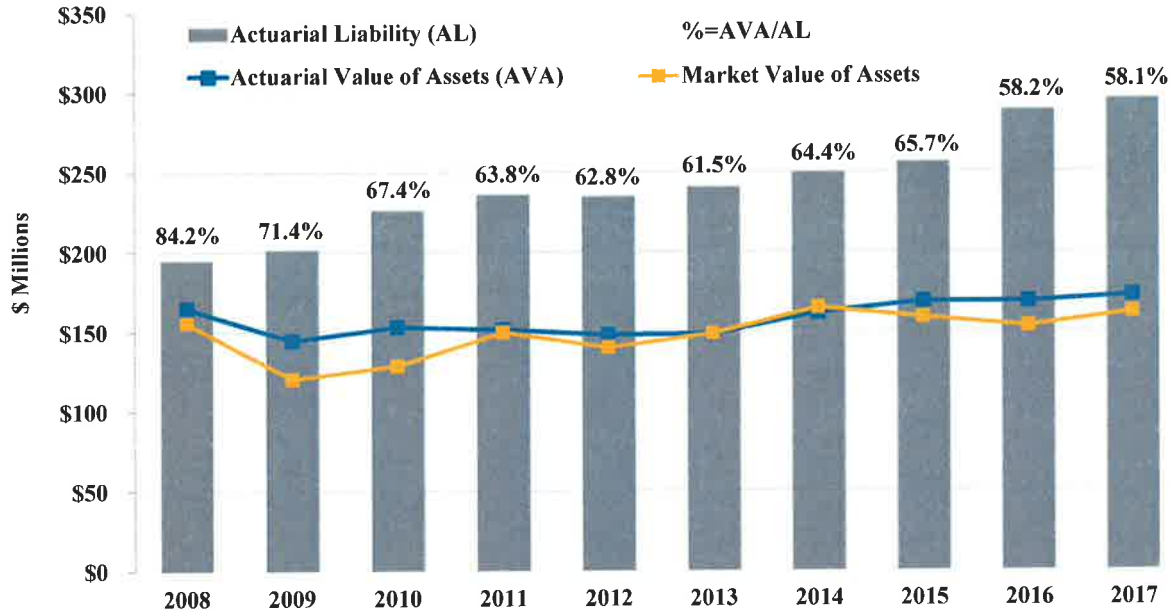
D. Historical Trends

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 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 result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities (AL). The percentage shown at the top of each bar is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). The significant decrease in the funded ratio in 2009 was due to actuarial investment losses as a result of the severe market downturn in 2008.

The funded ratio decreased slightly in 2017 from 58.2% to 58.1%. The main reason for the decrease is the continued recognition of deferred investment losses in the Actuarial Value of Assets. There are deferred investment losses when the Market Value of Assets (gold line) is below the Actuarial Value of Assets (teal line).



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

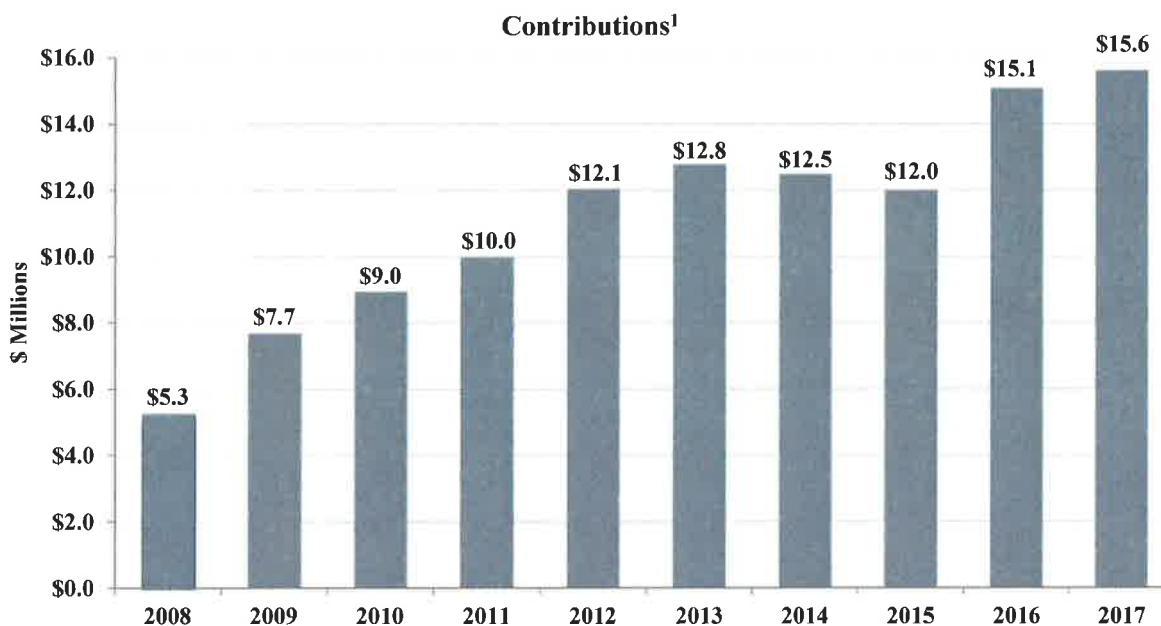
SECTION I – EXECUTIVE SUMMARY

Contributions

The chart below shows a history of the Plan's actuarially determined total contribution. The Plan's actuarially determined contributions have increased from 2008 to 2012 primarily due to the phasing in over five years of the 2009 asset loss, along with assumption changes in 2010, and actuarial funding policy changes in 2012. The contributions leveled off between \$12-\$13 million from 2012 to 2015 primarily due to closing the Plan to new entrants.

In 2016, the Board approved actuarial assumption changes based on the recommendations in the Actuarial Experience Study for July 1, 2010 through June 30, 2015. Most notably were the new mortality assumptions and the assumed investment rate of return decreasing from 7.50% to 7.00%. In aggregate, the assumption changes increased the total contribution by \$2.7 million.

The total contribution for 2017 increased mainly from the continued recognition of the deferred investment losses in the Actuarial Value of Assets and the salary loss due to overtime. A reconciliation of the contributions from the 2016 to 2017 valuations can be found in Table I-2 of this report.



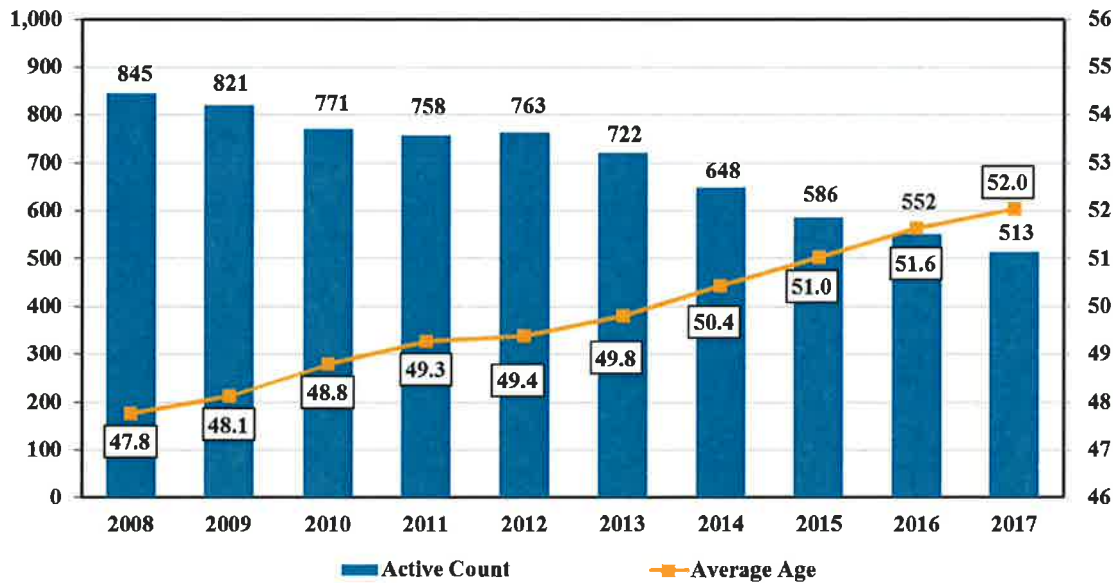
¹ Beginning with 2015, contribution amounts are mid-year values for the upcoming fiscal year.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017

SECTION I – EXECUTIVE SUMMARY

Participant Trends

The number and average age of active Plan members for the last 10 years is shown in the chart below. We can see that membership has declined from 845 actives on July 1, 2008, to 513 on July 1, 2017, a decrease of 39%. In addition, the average age of an active member has increased by over four years during the period shown. These trends are expected to continue, as most new employees participate instead in the defined contribution plan.



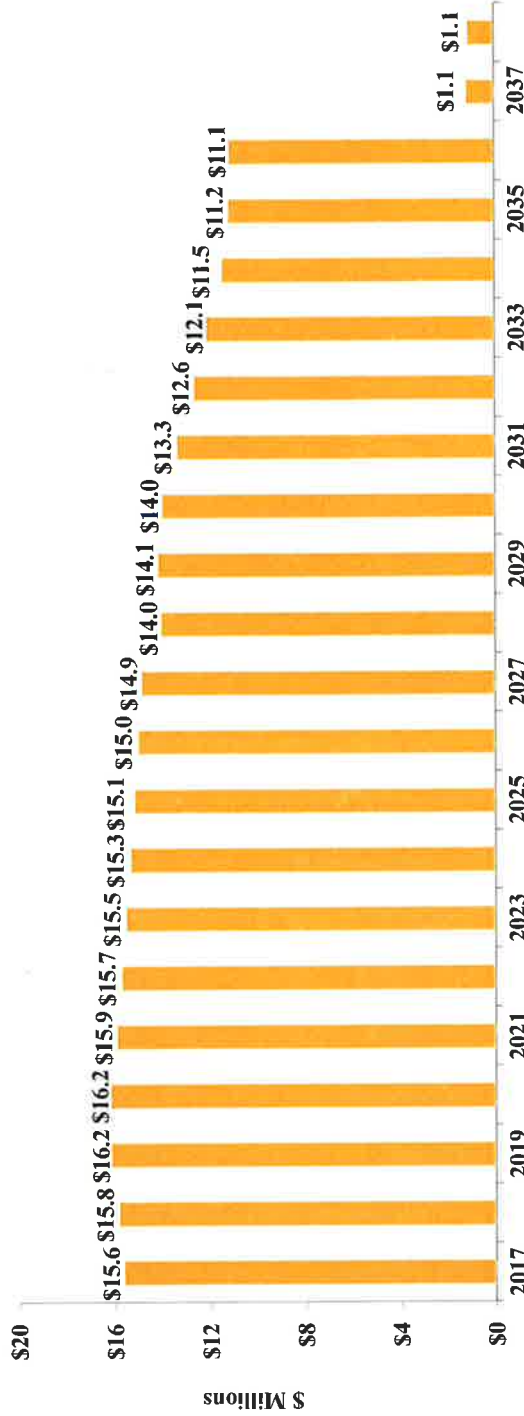
RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017

SECTION I – EXECUTIVE SUMMARY

E. Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of this valuation. In this Section, we present our assessment of the implications of the July 1, 2017 valuation results in terms of benefit security (assets over liabilities) and contributions over the next 20 years. All the projections in this section are based on the assumption that the Plan will exactly achieve the 7.00% investment return assumption each year, which is clearly an impossibility. We assume the current funding method and amortization policy adopted in 2012 will remain in place throughout the projection period.

Projection of Total Plan Contributions, 7.00% return each year



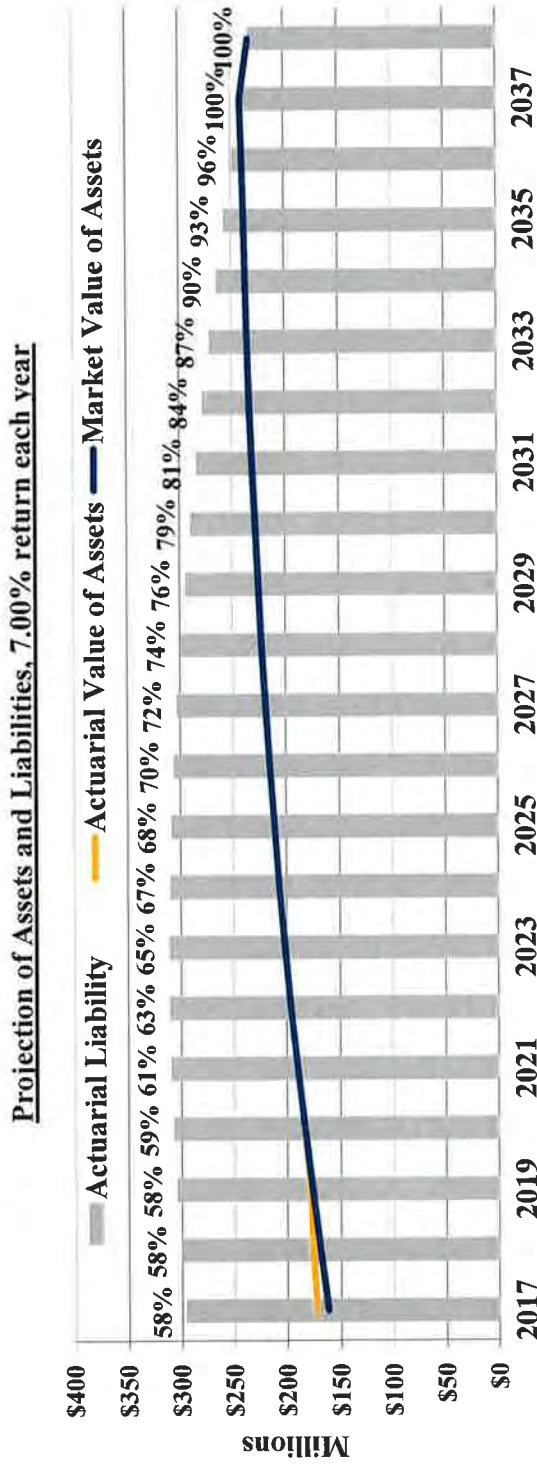
The contribution graph shows that the Plan's contributions are expected to gradually increase over the next three years as the Plan recognizes the \$10.4 million in net deferred asset losses from the unfavorable returns during FYE 2015 and FYE 2016. Thereafter, the Plan's contributions are expected to steadily decline from \$16.2 million in 2020 to \$11.1 million in 2036. The gradual decline in the contribution is due to the cost of benefits accruing gradually decreasing as the number of active members decline. Since the Plan is closed to most new entrants, there are fewer new benefits being earned. During Fiscal Year 2036-37, the last payment will be made to pay off the Plan's current UAL.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017

SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections:

The following graph shows the projection of assets and liabilities assuming that assets will earn the 7.00% assumption each year during the projection period.



The funded status is expected to remain somewhat level at 58% over the next three years and then gradually increases over the projection period. The Plan is projected to be fully funded by 2037 assuming the actuarial assumptions are achieved. However, it is the actual return on Plan assets that will determine the future funding status and contribution to the Plan.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION II -- 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, 2016 and June 30, 2017,
- 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
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION II -- ASSETS

Table II-1 discloses and compares each component of the Market Value of Assets as of June 30, 2016 and June 30, 2017.

Table II-1 Statement of Assets at Market Value		
Investments	June 30, 2016	June 30, 2017
Common Stock	\$ 68,155,978	\$ 73,558,116
Mutual Funds	29,503,540	31,381,880
REIT Mutual Funds	0	0
Corporate Debt / Bond Funds	39,094,483	38,926,399
Closely Held Instruments	9,347,952	9,824,652
US Treasury Obligations	7,017,138	7,885,322
Short-Term Investments	525,759	613,495
Total Investments	\$ 153,644,850	\$ 162,189,864
Receivables		
Dividends and Interest	\$ 511	\$ 400
Other Reveivables	0	0
Total Receivables	\$ 511	\$ 400
Payables		
Due to Plan Sponsor	\$ 614,669	\$ 447,050
Other Payables	97,841	108,207
Total Payables	\$ 712,510	\$ 555,257
Market Value of Assets	\$ 152,932,851	\$ 161,635,007

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION II -- ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Investment income (realized and unrealized)
- Benefit payments
- Expenses (other)

Table II-2 shows the components of a change in the Market Value of Assets during FYE 2016 and FYE 2017.

Table II-2 Changes in Market Values		
	June 30, 2016	June 30, 2017
Contributions		
Employer's Contribution	10,711,282	12,649,101
Members' Contributions	1,754,869	2,047,593
Total Contributions	12,466,151	14,696,694
Investment Income		
Interest	794,562	3,126
Dividends	1,300,112	2,746,299
REIT Mutual Funds	0	0
Miscellaneous	0	0
Realized & Unrealized Gain/(Loss)	(2,232,649)	9,775,278
Investment Expenses	(402,118)	(307,767)
Net Investment Income	(540,093)	12,216,936
Disbursements		
Benefit Payments	(17,350,158)	(17,977,346)
Administrative Expenses	(290,381)	(234,128)
Total Disbursements	(17,640,539)	(18,211,474)
Net increase (Decrease)	(5,714,481)	8,702,156
Net Assets Held in Trust for Benefits		
Beginning of Year	158,647,332	152,932,851
End of Year	152,932,851	161,635,007
Approximate Return	-0.35%	8.08%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION II -- 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 II-3
Development of Actuarial Value of Assets
as of June 30, 2017**

	(a)	(b)	(c) = (b) - (a)	(d)	(c) x (d)
	Expected	Actual	Unexpected	Phase-In	Phase-In
<u>Plan Year</u>	<u>Earnings</u>	<u>Earnings</u>	<u>Earnings</u>	<u>Factor</u>	<u>Adjustment</u>
2012 -13	10,765,036	12,739,686	1,974,650	0%	0
2013 -14	11,577,862	18,159,297	6,581,435	20%	1,316,287
2014 -15	12,204,882	(2,018,866)	(14,223,748)	40%	(5,689,499)
2015 -16	11,704,510	(540,093)	(12,244,603)	60%	(7,346,762)
2016 -17	10,584,363	12,216,936	1,632,573	80%	1,306,058
1. Total Unrecognized Asset Gains/(Losses)					(10,413,916)
2. Market Value of Assets as of June 30, 2017					161,635,007
3. Actuarial Value of Assets as of June 30, 2017: [(2) - (1)]					172,048,923
4. Ratio of Actuarial Value to Market Value [(3) ÷ (2)]					106.44%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION II -- 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 7.00% assumption.

Table II-4 Asset Gain/(Loss)		
	Market Value	Actuarial Value
As of June 30, 2016	\$ 152,932,851	\$ 168,235,278
Employer Contributions	12,649,101	12,649,101
Employee Contributions	2,047,593	2,047,593
Benefit Payments	(17,977,346)	(17,977,346)
Administrative Expenses	(234,128)	(234,128)
Expected Investment Earnings (7.00%)	10,584,363	11,655,533
Expected Value as of July 1, 2017	\$ 160,002,434	\$ 176,376,031
Investment Gain/(Loss)	1,632,573	(4,327,108)
As of June 30, 2017	\$ 161,635,007	\$ 172,048,923
Return	8.08%	4.40%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION III – LIABILITIES

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

- **Disclosure** of Plan liabilities at July 1, 2016 and July 1, 2017,
- 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 Projected 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
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017

SECTION III – LIABILITIES

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

Table III-1		
Liabilities and Unfunded Actuarial Liability		
	July 1, 2016	July 1, 2017
(1) Present Value of Future Benefits		
Active Participant Benefits		
ATU/Drivers	\$ 64,923,440	\$ 65,291,904
IBEW/Mechanics	30,181,082	29,892,285
ATU/Clerical	2,349,503	2,422,132
Non-Contract/Admin ¹	<u>24,852,172</u>	<u>24,165,953</u>
Total	\$ 122,306,197	\$ 121,772,274
(2) Inactive Actuarial Liability		
ATU/Drivers	\$ 105,512,188	\$ 108,029,652
IBEW/Mechanics	21,406,389	23,284,255
ATU/Clerical	4,931,004	4,773,769
Non-Contract/Admin	<u>59,307,124</u>	<u>61,190,448</u>
Total	\$ 191,156,705	\$ 197,278,124
(3) Active Actuarial Liability		
ATU/Drivers	\$ 51,160,485	\$ 52,286,565
IBEW/Mechanics	24,162,304	24,236,851
ATU/Clerical	1,938,988	2,038,996
Non-Contract/Admin ¹	<u>20,837,320</u>	<u>20,170,176</u>
Total	\$ 98,099,097	\$ 98,732,588
(4) Total Actuarial Liability, [(2) + (3)]	\$ 289,255,802	\$ 296,010,712
(5) Plan Assets (Actuarial Value)	<u>168,235,278</u>	<u>172,048,923</u>
(6) Unfunded Actuarial Liability (UAL), [(4) - (5)]	\$ 121,020,524	\$ 123,961,789

¹ Includes PEPRAs members.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION III – LIABILITIES

Table III-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 III-2 below), depending upon which liability is analyzed, can include:

- Benefits accrued since the last valuation
- Plan amendments changing benefits (None for the 2017 Valuation)
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- 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 III-2 Changes in Actuarial Liability		
Actuarial Liability at July 1, 2017	\$	296,010,712
Actuarial Liability at July 1, 2016	\$	<u>289,255,802</u>
Liability Increase (Decrease)	\$	6,754,910
Change due to:		
Accrual of Benefits	\$	3,660,961
Actual Benefit Payments		(17,977,346)
Interest		19,885,608
Actuarial (Gain)/Loss		<u>1,185,687</u>
Liability Increase (Decrease)	\$	6,754,910

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION III – LIABILITIES

Unfunded liabilities will change (as shown in Table III-3 below) because of all of the above, and also due to changes in Plan assets resulting from:

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

**TABLE III-3
Development of Actuarial Gain / (Loss)**

1. Unfunded Actuarial Liability (UAL) at Start of Year (not less than zero)	\$ 121,020,524
2. Expected UAL Payment	(10,664,586)
3. Interest on (1) and (2) to End of Year	<u>7,724,916</u>
4. Expected Unfunded Actuarial Liability at End of Year, [(1) + (2) + (3)]	\$ 118,080,854
5. Actual Unfunded Actuarial Liability at End of Year (not less than zero)	\$ 123,961,789
6. Actuarial Gain/(Loss), [(4) – (5)]	\$ (5,880,935)
(a) Liability Gain/(Loss)	(1,185,687)
(b) Asset Gain/(Loss) on Actuarial Value	(4,327,108)
(c) Contribution Delay Gain/(Loss)	(404,156)
(d) Administrative Expenses Less than Expected	36,016

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION IV – 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 balance of the Plan contribution represents the amortization of the unfunded liability, which is 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 two-thirds of the total contribution.

As the UAL is paid over time, 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 IV-1 Development of Annual Contribution		
	July 1, 2016	July 1, 2017
(1) Total Actuarial Liability	\$ 289,255,802	\$ 296,010,712
(2) Plan Assets (Actuarial Value)	<u>168,235,278</u>	<u>172,048,923</u>
(3) Unfunded Actuarial Liability (UAL), [(1) - (2)]	\$ 121,020,524	\$ 123,961,789
(4) UAL Amortization Payment (BOY)	\$ 10,664,586	\$ 11,268,040
(5) Total Plan Normal Cost	\$ 3,660,961	\$ 3,559,738
(8) Expected Administrative Expenses	\$ 260,000	\$ 267,150
(9) Total Cost, [(4) + (5) + (8)]	\$ 14,585,547	\$ 15,094,928
(10) Total Cost (interest adjusted to middle of year)	\$ 15,087,407	\$ 15,614,315

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

SECTION IV – CONTRIBUTIONS

The table below presents the calculation of the UAL payments for the Plan under the amortization policy adopted in 2012.

Table IV-2 Development of the Amortization Payment (BOY) as of July 1, 2017						
Type of Base	Date Established	Initial Balance	Initial Amortization	Outstanding Balance	Remaining Amortization	Amortization Amount
Initial Unfunded Actuarial Liability	7/1/2012	\$ 87,613,245	25	\$ 80,024,004	20	\$ 7,059,532
Actuarial Loss	7/1/2013	6,555,553	15	5,423,545	11	675,951
Actuarial Gain	7/1/2014	(2,132,368)	15	(1,865,497)	12	(219,504)
Actuarial Loss	7/1/2015	740,624	15	680,682	13	76,116
Assumption Changes	7/1/2016	29,699,872	21	29,037,891	20	2,561,656
Actuarial Loss	7/1/2016	4,978,340	15	4,780,229	14	510,836
Actuarial Loss	7/1/2017	5,880,935	15	<u>5,880,935</u>	15	<u>603,453</u>
TOTAL				\$ 123,961,789		\$ 11,268,040
				Total UAL Payment, Middle of Year		\$ 11,655,751

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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, 2016	July 1, 2017
Number	63	61
Average Age	51.8	51.9
Average Service	17.2	17.2
Average Pay	\$ 72,738	\$ 73,791
Non-Contract/PEPRA	July 1, 2016	July 1, 2017
Number	11	12
Average Age	43.3	43.2
Average Service	3.8	4.5
Average Pay	\$ 64,143	\$ 65,009
ATU/Clerical	July 1, 2016	July 1, 2017
Number	18	17
Average Age	48.6	49.3
Average Service	11.9	12.8
Average Pay	\$ 45,275	\$ 47,159
ATU/Drivers	July 1, 2016	July 1, 2017
Number	325	296
Average Age	52.7	53.2
Average Service	14.5	15.3
Average Pay	\$ 52,229	\$ 56,363
IBEW/Mechanics	July 1, 2016	July 1, 2017
Number	135	127
Average Age	50.0	50.6
Average Service	18.8	19.5
Average Pay	\$ 57,109	\$ 59,234
Total	July 1, 2016	July 1, 2017
Number	552	513
Average Age	51.6	52.0
Average Service	15.6	16.2
Average Pay	\$ 55,774	\$ 59,043

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data

Deferred Participants

Terminated Vested	July 1, 2016	July 1, 2017
Number	225	214
Average Age	53.2	53.7
Average Annual Benefit	\$ 7,239	\$ 7,596

In-Pay Participants

Service Retired	July 1, 2016	July 1, 2017
Number	693	721
Average Age	69.7	69.9
Average Annual Benefit	\$ 22,130	\$ 22,253
Beneficiaries	July 1, 2016	July 1, 2017
Number	139	145
Average Age	71.4	71.0
Average Annual Benefit	\$ 9,414	\$ 9,962
Disabled	July 1, 2016	July 1, 2017
Number	89	86
Average Age	68.9	68.9
Average Annual Benefit	\$ 9,758	\$ 9,682
Total	July 1, 2016	July 1, 2017
Number	921	952
Average Age	69.9	70.0
Average Annual Benefit	\$ 19,015	\$ 19,245

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Data Summary as of July 1, 2017

Active Participants	Non-Contract/Administrative			ATU/ Clerical	ATU/ Drivers	IBEW/ Mechanics	Total
	Non-PEPRA	PEPRA	Sub-Total				
Number	61	12	73	17	296	127	513
Average Age	51.9	43.2	50.4	49.3	53.2	50.6	52.0
Average Service	17.2	4.5	15.1	12.8	15.3	19.5	16.2
Average Pay	\$73,791	\$65,009	\$72,348	\$47,159	\$56,363	\$59,234	\$59,043

Inactive Participants	Non-Contract/Administrative			ATU/ Clerical	ATU/ Drivers	IBEW/ Mechanics	Total
	Non-PEPRA	PEPRA	Sub-Total				
Service Retired							
Number	120	n/a	120	32	471	98	721
Average Age	68.1	n/a	68.1	71.4	70.1	70.5	69.9
Average Annual Benefit	\$36,672	n/a	\$36,672	\$13,497	\$19,578	\$20,311	\$22,253
Beneficiaries							
Number	29	n/a	29	3	91	22	145
Average Age	68.7	n/a	68.7	71.2	72.1	69.4	71.0
Average Annual Benefit	\$18,964	n/a	\$18,964	\$3,146	\$8,030	\$7,017	\$9,962
Disabled							
Number	2	n/a	2	3	71	10	86
Average Age	67.7	n/a	67.7	78.9	68.8	67.1	68.9
Average Annual Benefit	\$8,707	n/a	\$8,707	\$6,102	\$9,302	\$13,648	\$9,682
Terminated Vested							
Number	21	n/a	21	12	133	48	214
Average Age	51.7	n/a	51.7	55.8	53.7	53.8	53.7
Average Annual Benefit	\$16,078	n/a	\$16,078	\$4,373	\$7,299	\$5,514	\$7,596

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - All Divisions
Changes in Plan Membership as of July 1, 2017**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2016	552	225	89	693	139	1,698
New Entrants						0
Rehires						0
Disabilities		(2)				(2)
Retirements/ Domestic Relations Order (DRO)	(29)	(18)		47	4	4
Vested Terminations	(9)	9	2			2
Died, with Beneficiaries' Benefit Payable	(1)		(1)	(6)	8	0
Transfers						0
Died, without Beneficiary, and Other Terminations	(1)		(4)	(13)		(18)
Beneficiary Deaths					(7)	(7)
Data Corrections	1				1	2
Total Change	(39)	(11)	(3)	28	6	(19)
Participant count as of July 1, 2017	513	214	86	721	145	1,679

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

**Status Reconciliation - Non-Contract/Administrative¹
Changes in Plan Membership as of July 1, 2017**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2016	74	21	2	116	28	241
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ DRO	(5)	(1)		6		0
Vested Terminations	(1)	1				0
Died, with Beneficiaries' Benefit Payable				(1)	1	0
Transfers	4					4
Died, without Beneficiary, and Other Terminations				(1)		(1)
Beneficiary Deaths				(1)	(1)	(1)
Data Corrections	1			0	1	2
Total Change	(1)	0	0	4	1	4
Participant count as of July 1, 2017	73	21	2	120	29	245

¹ Includes 12 active individuals participating in PEPPRA.

**Status Reconciliation - Clerical
Changes in Plan Membership as of July 1, 2017**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2016	18	12	3	33	3	69
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ DRO	(1)			1		0
Vested Terminations						0
Died, with Beneficiaries' Benefit Payable						0
Transfers	0					0
Died, without Beneficiary, and Other Terminations				(2)		(2)
Beneficiary Deaths					0	0
Data Corrections						0
Total Change	(1)	0	0	(1)	0	(2)
Participant count as of July 1, 2017	17	12	3	32	3	67

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - ATU/Drivers

Changes in Plan Membership as of July 1, 2017

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2016	325	141	73	454	88	1,081
New Entrants						0
Rehires						0
Disabilities		(2)				(2)
Retirements/ DRO	(18)	(14)		32	3	3
Vested Terminations	(8)	8	2			2
Died, with Beneficiaries' Benefit Payable				(5)	5	0
Transfers	(2)					(2)
Died, without Beneficiary, and Other Terminations	(1)		(4)	(10)		(15)
Beneficiary Deaths					(5)	(5)
Data Corrections					0	0
Total Change	(29)	(8)	(2)	17	3	(19)
Participant count as of July 1, 2017	296	133	71	471	91	1,062

Status Reconciliation - IBEW/Mechanics

Changes in Plan Membership as of July 1, 2017

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2016	135	51	11	90	20	307
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ DRO	(5)	(3)		8	1	1
Vested Terminations	0	0				0
Died, with Beneficiaries' Benefit Payable	(1)		(1)		2	0
Transfers	(2)					(2)
Died, without Beneficiary, and Other Terminations	0		0	0		0
Beneficiary Deaths					(1)	(1)
Data Corrections						0
Total Change	(8)	(3)	(1)	8	2	(2)
Participant count as of July 1, 2017	127	48	10	98	22	305

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - Non-Contract/Administrative ¹ (Counts) As of July 1, 2017													
Age	Under 1	Service											Total
		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	1	0	0	1	1	0	2	0	0	0	0	0	5
35 to 39	0	0	0	1	0	5	2	0	0	0	0	0	8
40 to 44	0	0	0	1	0	3	2	2	1	0	0	0	9
45 to 49	0	0	1	1	2	2	2	2	1	0	0	0	11
50 to 54	0	0	0	1	0	3	2	1	0	3	2	0	12
55 to 59	0	0	0	0	0	3	2	2	4	1	1	2	15
60 to 64	0	0	0	0	0	3	1	3	1	2	0	2	12
65 to 69	0	0	0	0	0	0	0	0	1	0	0	0	1
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	5	3	19	13	10	8	6	3	4	73

¹ Includes 12 active individuals participating in PEPPRA.

Age / Service Distribution Of Active Participants - Non-Contract/Administrative ¹ (Average Salary) As of July 1, 2017													
Age	Under 1	Service											Total
		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	53,019	0	0	71,909	44,000	0	63,155	0	0	0	0	0	\$59,048
35 to 39	0	0	0	73,925	0	60,549	66,852	0	0	0	0	0	\$63,797
40 to 44	0	0	0	73,209	0	56,526	66,757	80,925	71,273	0	0	0	\$67,714
45 to 49	0	0	72,323	44,387	76,859	56,875	64,427	62,406	49,913	0	0	0	\$62,523
50 to 54	0	0	0	70,611	0	65,155	62,377	82,509	0	68,233	80,631	0	\$69,942
55 to 59	0	0	0	0	0	68,302	76,272	81,574	85,700	79,786	175,813	96,867	\$87,515
60 to 64	0	0	0	0	0	64,868	58,968	101,324	79,105	80,368	0	79,907	\$79,767
65 to 69	0	0	0	0	0	0	0	0	69,360	0	0	0	\$69,360
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	\$0
Total	\$53,019	\$0	\$72,323	\$66,808	\$65,906	\$62,161	\$66,050	\$83,629	\$76,557	\$74,203	\$112,358	\$88,387	\$72,348

¹ Includes 12 active individuals participating in PEPPRA.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - ATU/Clerical (Counts)

As of July 1, 2017

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	2	0	0	0	0	0	0	2
35 to 39	0	0	0	0	0	1	1	0	0	0	0	0	2
40 to 44	0	0	0	0	2	0	0	0	0	0	0	0	2
45 to 49	0	0	0	0	0	1	0	1	0	0	0	0	2
50 to 54	0	0	0	0	0	2	1	0	0	0	0	0	3
55 to 59	0	0	0	0	0	0	1	1	1	0	0	0	3
60 to 64	0	0	0	0	0	0	0	0	0	1	0	1	2
65 to 69	0	0	0	0	0	1	0	0	0	0	0	0	1
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	7	3	2	1	1	0	1	17

Age / Service Distribution Of Active Participants - ATU/Clerical (Average Salary)

As of July 1, 2017

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	43,996	0	0	0	0	0	0	\$43,996
35 to 39	0	0	0	0	0	41,453	41,705	0	0	0	0	0	\$41,579
40 to 44	0	0	0	0	55,358	0	0	0	0	0	0	0	\$55,358
45 to 49	0	0	0	0	0	41,055	0	42,234	0	0	0	0	\$41,645
50 to 54	0	0	0	0	0	42,206	55,167	0	0	0	0	0	\$46,526
55 to 59	0	0	0	0	0	0	41,055	56,768	58,031	0	0	0	\$51,951
60 to 64	0	0	0	0	0	0	0	0	0	41,714	0	50,825	\$46,270
65 to 69	0	0	0	0	0	48,581	0	0	0	0	0	0	\$48,581
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	\$0
Total	\$0	\$0	\$0	\$0	\$55,358	\$43,356	\$45,976	\$49,501	\$58,031	\$41,714	\$0	\$50,825	\$47,159

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - ATU/Drivers (Counts)

As of July 1, 2017

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	0
20 to 24	0	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	0
30 to 34	0	0	0	0	1	12	2	0	0	0	0	0	0	15
35 to 39	0	0	0	0	1	4	6	1	0	0	0	0	0	12
40 to 44	0	0	0	0	0	9	12	6	0	0	0	0	0	27
45 to 49	0	0	0	0	2	10	15	12	2	0	0	0	0	41
50 to 54	0	0	0	0	2	19	9	17	3	10	0	0	0	60
55 to 59	0	0	0	0	0	19	6	13	15	13	3	0	0	69
60 to 64	0	0	0	0	0	10	18	9	6	9	3	3	0	58
65 to 69	0	0	0	0	0	2	2	2	0	2	0	2	0	10
70 & up	0	0	0	0	0	0	0	1	0	0	2	1	0	4
Total	0	0	0	0	6	85	70	61	26	34	8	6		296

Age / Service Distribution Of Active Participants - ATU/Drivers (Average Salary)

As of July 1, 2017

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	\$0
20 to 24	0	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	\$0
30 to 34	0	0	0	0	41,130	47,837	52,014	0	0	0	0	0	0	\$47,946
35 to 39	0	0	0	0	36,673	48,210	53,364	63,564	0	0	0	0	0	\$51,105
40 to 44	0	0	0	0	0	49,472	57,311	61,820	0	0	0	0	0	\$55,700
45 to 49	0	0	0	0	42,031	51,642	56,703	57,895	57,934	0	0	0	0	\$55,162
50 to 54	0	0	0	0	40,769	53,504	59,765	58,841	63,850	62,023	0	0	0	\$57,468
55 to 59	0	0	0	0	0	51,070	55,925	59,284	61,561	60,436	60,431	0	0	\$57,492
60 to 64	0	0	0	0	0	46,200	54,442	63,015	62,353	56,818	73,740	62,896	0	\$56,974
65 to 69	0	0	0	0	0	47,959	57,376	60,986	0	70,799	0	73,735	0	\$62,171
70 & up	0	0	0	0	0	0	0	54,059	0	0	66,882	56,276	0	\$61,025
Total	\$0	\$0	\$0	\$0	\$40,567	\$50,275	\$56,152	\$59,728	\$61,729	\$60,555	\$67,035	\$65,406		\$56,363

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - IBEW/Mechanics (Counts)

As of July 1, 2017

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	6	3	0	0	0	0	0	9
30 to 34	0	0	0	0	1	6	5	0	0	0	0	0	12
35 to 39	0	0	0	0	0	2	2	2	0	0	0	0	6
40 to 44	0	0	0	0	0	1	0	6	3	0	0	0	10
45 to 49	0	0	0	0	0	1	1	1	2	5	0	0	10
50 to 54	0	0	0	0	0	4	1	7	3	4	3	1	23
55 to 59	0	0	0	0	0	1	4	8	4	8	3	4	32
60 to 64	0	0	0	0	0	3	2	3	0	5	2	3	18
65 to 69	0	0	0	0	0	0	1	2	1	1	0	1	6
70 & up	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	1	24	19	30	13	23	8	9	127

Age / Service Distribution Of Active Participants - IBEW/Mechanics (Average Salary)

As of July 1, 2017

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	58,566	68,434	0	0	0	0	0	\$61,855
30 to 34	\$0	\$0	\$0	\$0	32,766	50,450	69,961	0	0	0	0	0	\$57,106
35 to 39	\$0	\$0	\$0	\$0	\$0	49,074	69,961	69,961	0	0	0	0	\$62,998
40 to 44	\$0	\$0	\$0	\$0	\$0	62,565	0	58,766	56,036	0	0	0	\$58,327
45 to 49	\$0	\$0	\$0	\$0	\$0	69,961	46,934	40,076	66,263	65,523	0	0	\$61,711
50 to 54	\$0	\$0	\$0	\$0	\$0	40,216	32,766	62,764	65,030	62,387	65,030	69,961	\$58,377
55 to 59	\$0	\$0	\$0	\$0	\$0	62,565	55,572	55,513	60,539	67,187	67,496	68,112	\$61,986
60 to 64	\$0	\$0	\$0	\$0	\$0	42,699	55,018	59,318	0	57,925	62,565	69,961	\$57,818
65 to 69	\$0	\$0	\$0	\$0	\$0	\$0	32,766	45,139	62,565	47,063	0	69,961	\$50,439
70 & up	\$0	\$0	\$0	\$0	\$0	\$0	\$0	32,766	0	0	0	0	\$32,766
Total	\$0	\$0	\$0	\$0	\$32,766	\$51,512	\$59,990	\$57,235	\$61,573	\$63,102	\$65,338	\$69,139	\$59,234

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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 or changes in actuarial assumptions will be amortized in level dollar payments over a separate period, of length from five to 30 years depending on the source. The UAL resulting from the recently adopted assumption changes effective with the July 1, 2016 actuarial valuation is amortized in level dollar payments over a 21-year period, also ending June 30, 2037.

Changes in the Unfunded Actuarial Liability due to actuarial gains and losses are amortized over closed separate 15-year periods. 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, 2017**

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, 2010 through June 30, 2015 that was adopted at the Budget Development Meeting in April 2016. The rationale for all the assumptions can also be found in the experience study report dated April 2016. All assets and liabilities are computed as of the valuation date, July 1, 2017.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 7.00%, 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 2.75% 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 each Participant's pay during the year 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, 2017**

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 2.75%. The combination of rates is compounded rather than using an additive method.

6. Active Participant Mortality

Rates of mortality for all active Participants are given by the Combined Healthy Retired Pensioners (RP) 2000 Tables published by the Society of Actuaries using male's rates for both male and female members with generational improvements using Scale MP-2015.

7. Healthy Inactive Participant and Beneficiary Mortality

Rates of mortality for healthy inactive Participants, spouses, and surviving spouses are given by the Combined Healthy Retired Pensioners (RP) 2000 Tables with Blue Collar Adjustments for males and no collar adjustments for females published by the Society of Actuaries with generational improvements using Scale MP-2015.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Disabled Participant Mortality

Rates of mortality for male disabled members are given by the Retired Pensioners (RP) 2014 Tables for Disabled Annuitants. Rates of mortality for female disabled members are given by Retired Pensioners (RP) 2000 Combined Healthy Table published by the Society of Actuaries, with future mortality improvements to 2010, the midpoint of the experience used for the mortality study, using projection scale MP-2015.

9. Mortality Improvement

For active and healthy inactive Participants, mortality is assumed to improve in future years in accordance with the MP-2015 generational improvement tables. For disabled Participants no explicit provision for mortality improvement is used.

10. Disability

Among ATU Drivers and IBEW Mechanics, 0.50% of Participants eligible for a disability benefit are assumed to become disabled each year. Disabled Participants are assumed not to return to active service. No disability is assumed for Clerical and Non-Contract Participants.

11. Plan Expenses

Plan administrative expenses of \$267,150 are included in the annual cost calculated, 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, 2017**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

13. Service Retirement

Retirement is assumed to occur in accordance with the rates shown in the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 ¹	0%	0%	10%
53-54	0%	0%	10%
55-56	10%	5%	10%
57-59	10%	5%	15%
60-61	15%	10%	15%
62	25%	20%	40%
63-64	25%	20%	30%
65	40%	40%	30%
66-69	30%	30%	30%
70 and older	100%	100%	100%

¹Non-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 is assumed to occur in accordance with the service-based rates shown in the following table:

Service	ATU Driver	IBEW Mechanic	Non- Contract
0	25.0%	25.0%	10.0%
1	25.0%	25.0%	10.0%
2	12.0%	12.0%	10.0%
3	12.0%	12.0%	10.0%
4 – 9	5.0%	5.0%	10.0%
10 +	2.0%	2.0%	3.0%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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	11.0%
30-34	13.0%
35-39	17.0%
40-44	12.0%
45-49	8.0%
50 and older	5.0%

15. Employment Status

No future transfers among Participant groups are assumed.

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

None

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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 thirty-six (36) consecutive months.
- For Non-Contract Participants, the number of consecutive months is twelve (12).
- Public Employees' Pension Reform Act (PEPRA): For Non-Contract Participants hired on and after July 1, 2013, the number of consecutive months is thirty-six (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 July 1, 2013, only base compensation up to the Social Security-integrated PEPRA compensation limit (\$117,020 for 2015 and 2016) will count for computing Plan benefits and employee and employer contributions; in particular, all or most overtime will be excluded.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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 July 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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.
- 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 will increase 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 will increase to 7% of Compensation on January 1, 2016. As of January 1, 2017, the member contribution rate increased to 8% of Compensation.
- PEPPRA: New Members must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. Currently, PEPPRA members are paying 6.25% of pay and the employer pays the remaining cost of the Plan.

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 Prior Valuation

None

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

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%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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, 2017**

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, 2017**

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, 2017**

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, 2017**

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, 2017

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, 2017**

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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2017**

**APPENDIX D
GLOSSARY**

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.

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. C2, 1/11/18



Actuarial Valuation as of July 1, 2017

January 11, 2018

Anne D. Harper, FSA, EA, MAAA

Alice I. Alsberghe, ASA, MAAA

Today's Discussion



- Plan Cost for Fiscal Year 2018-2019 based on 2017 Valuation
- Plan History
- Plan Future

Plan Cost - Changes



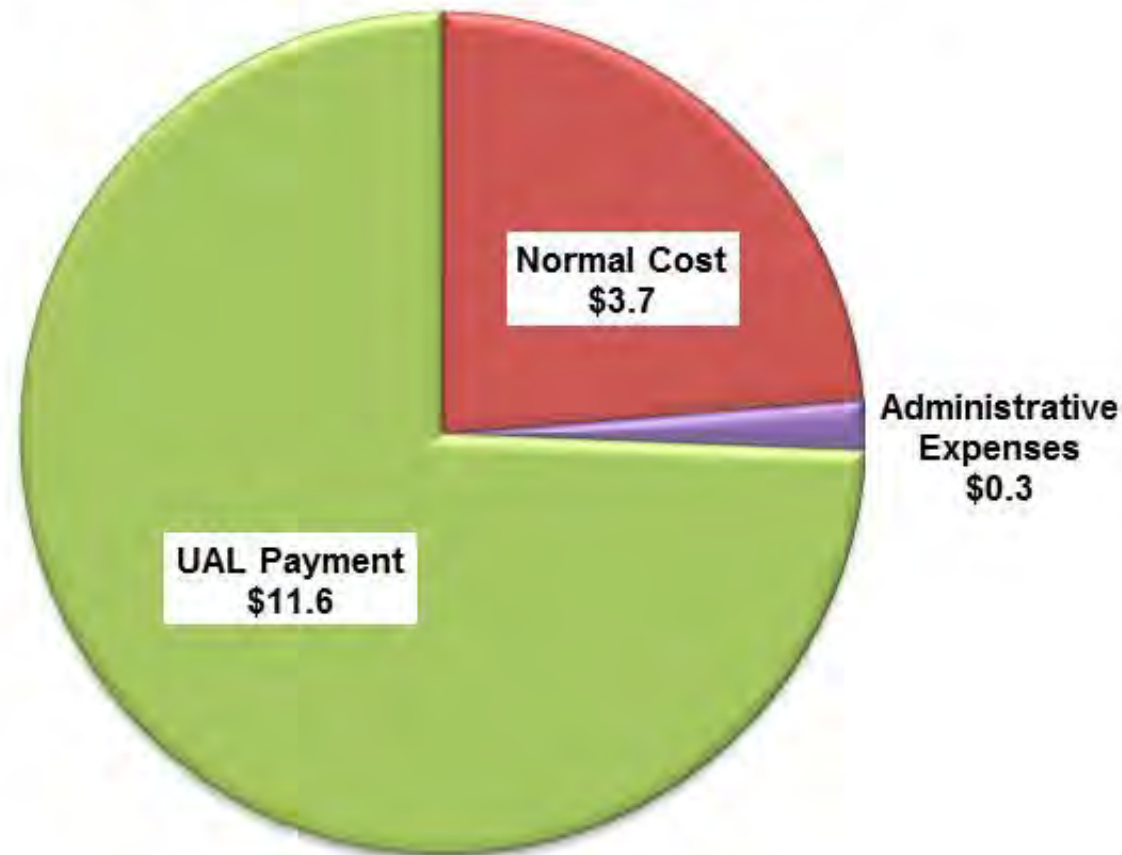
Total Contribution Reconciliation

Fiscal Year 2017-2018	\$ 15,087,000
Change due to actuarial investment experience	459,000
Change due to effect of closed plan on benefits earned	(149,000)
Change due to demographic and salary experience	170,000
Change due to other miscellaneous factors	<u>47,000</u>
Fiscal Year 2018-2019	\$ 15,614,000

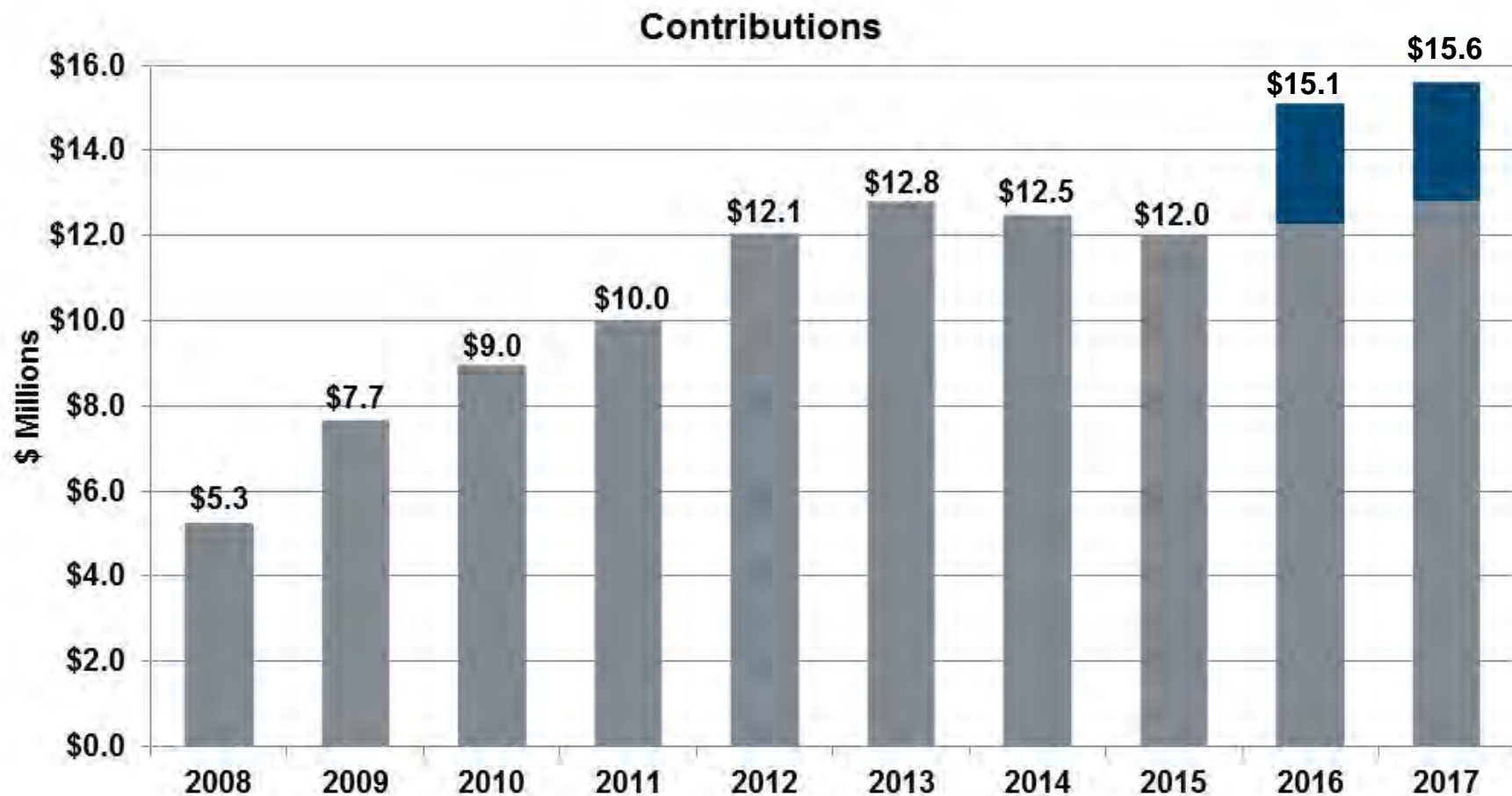
Plan Cost – By Source



Total Contribution \$15.6 million

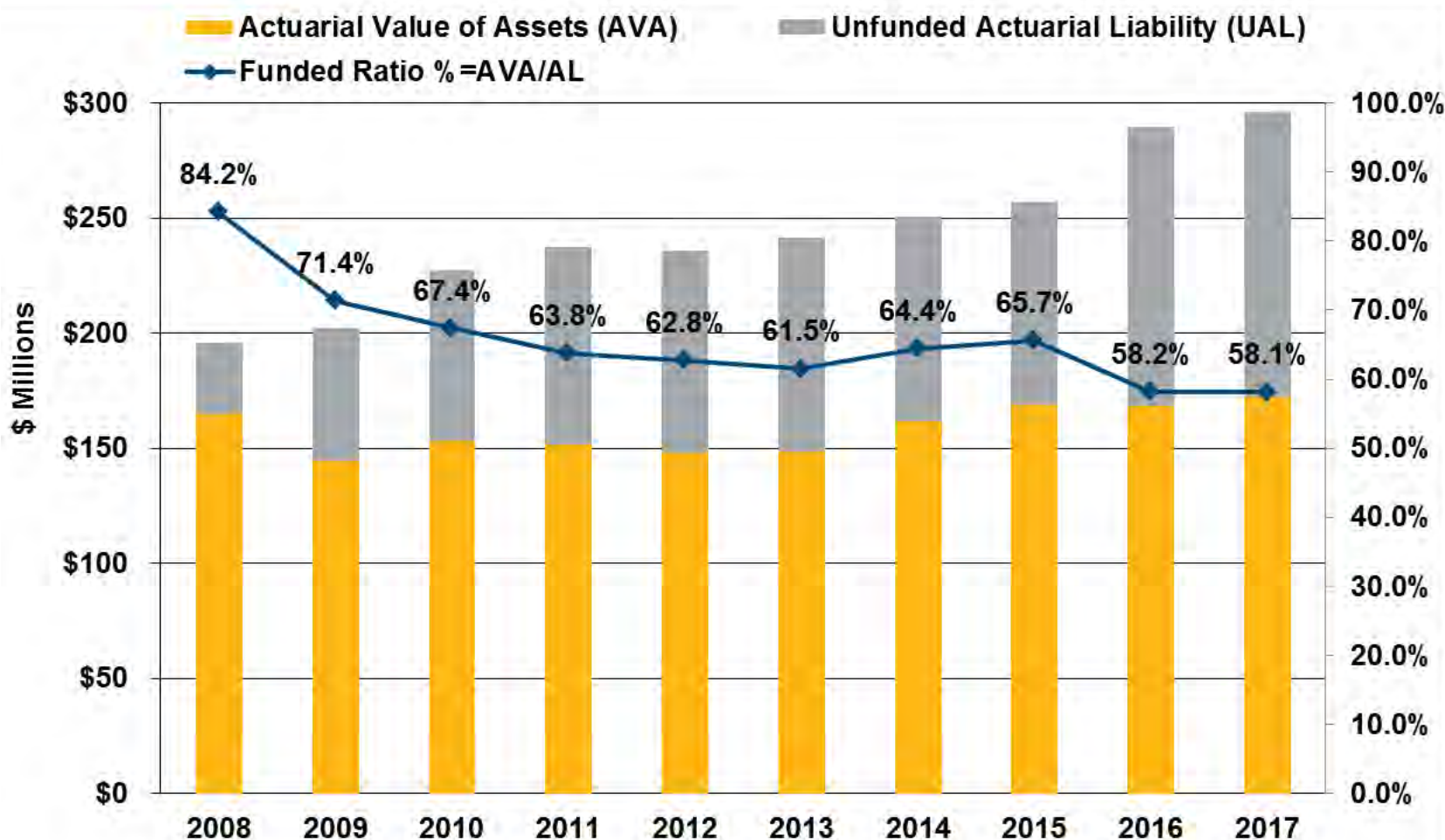


Plan History – Contributions



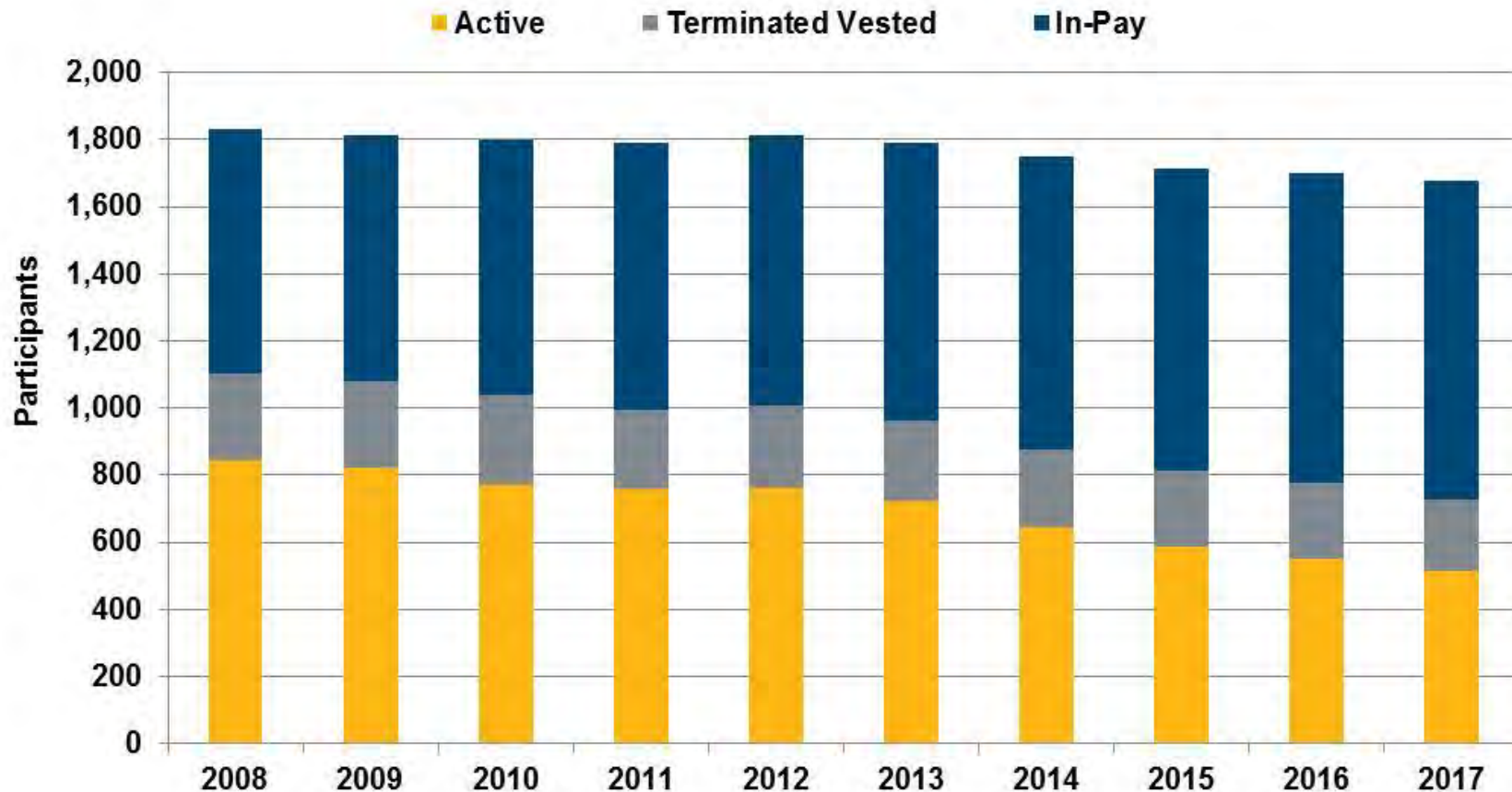
Note: \$2.8 million (blue area) of the increase from 2015 to 2016 was due to assumption changes. Most notably were changes to mortality assumptions and lowering the assumed rate of return from 7.5% to 7.0%.

Plan History – Funding



Note: As of July 1, 2017, the Funded Ratio based on the Market Value of Assets is 54.6%.

Plan History – Membership

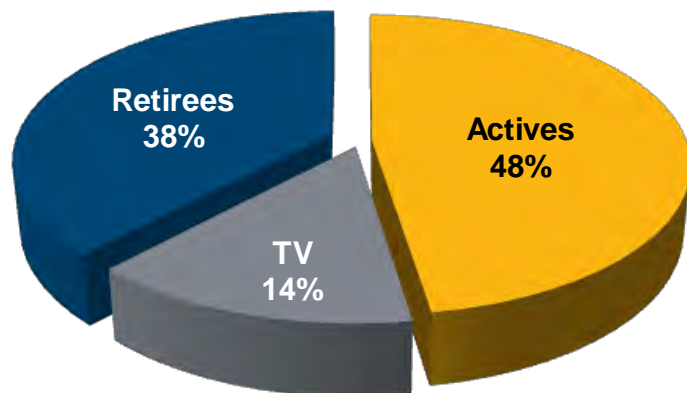


Active	845	821	771	758	763	722	648	586	552	513
Term Vested	256	260	270	237	244	239	229	226	225	214
In-Pay	729	734	759	794	805	827	873	902	921	952
Total	1,830	1,815	1,800	1,789	1,812	1,788	1,750	1,714	1,698	1,679

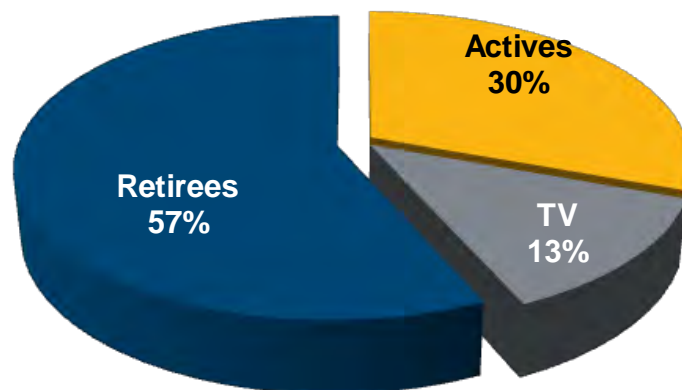
Plan Composition



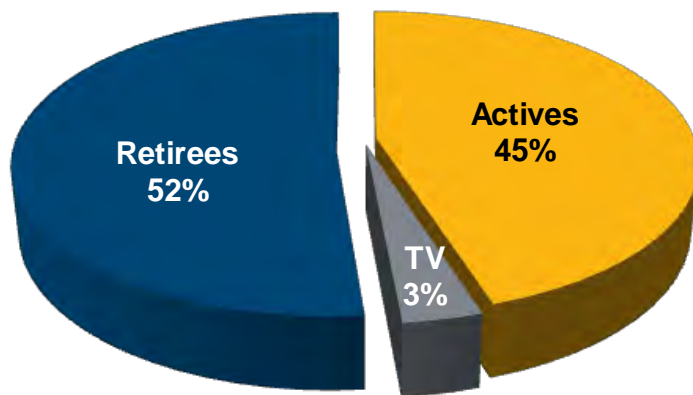
2007 Head Count



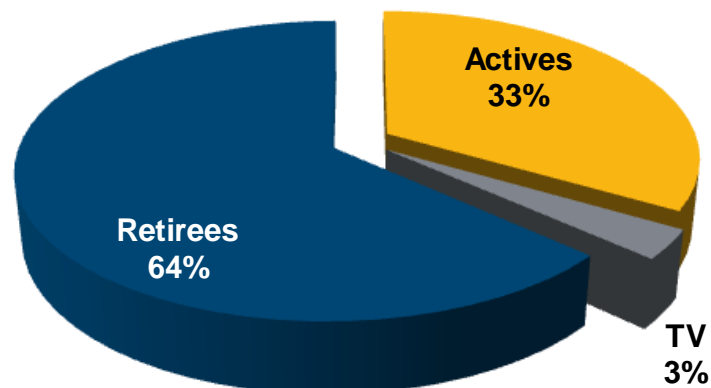
2017 Head Count



2007 Plan Liabilities



2017 Plan Liabilities



TV = Terminated Vested Members



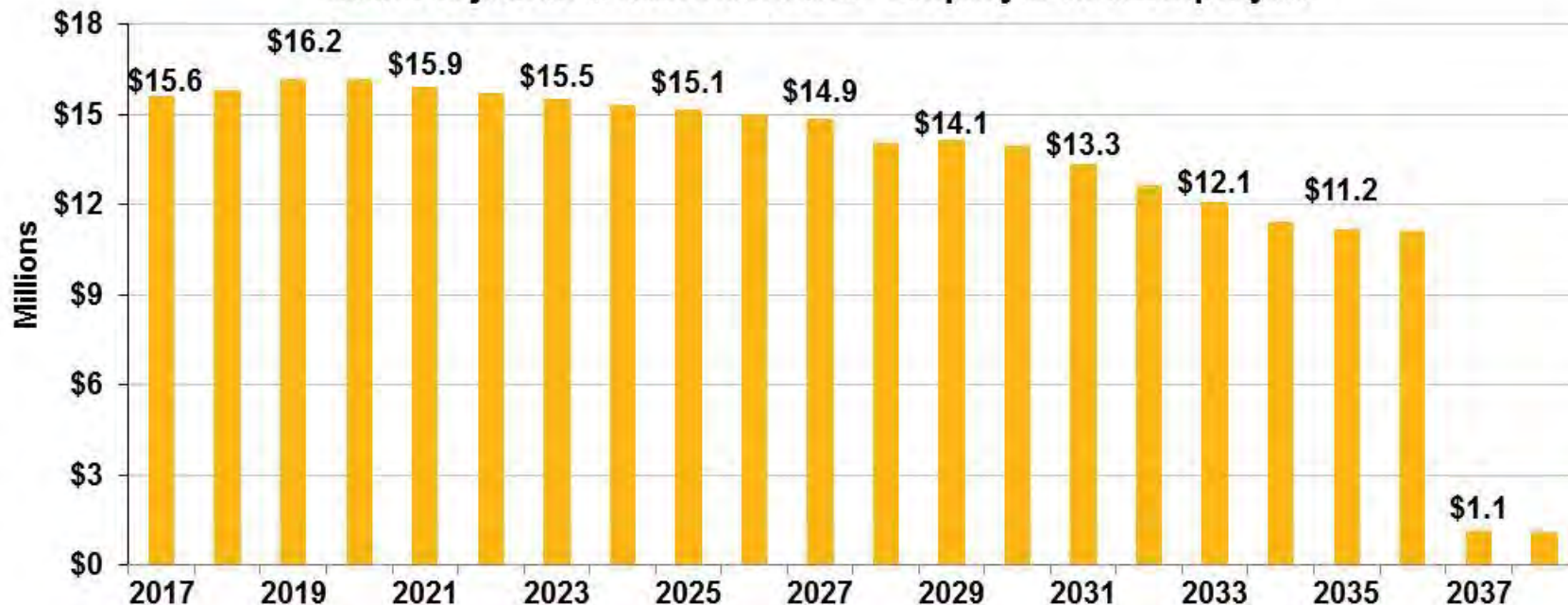
...Are Only Estimates

- Projected contributions and funding levels assume all actuarial assumptions will be realized exactly every year
- This is clearly impossible
- **Actual** experience – particularly investment experience – will determine contribution and funding levels

Projected Total Contributions

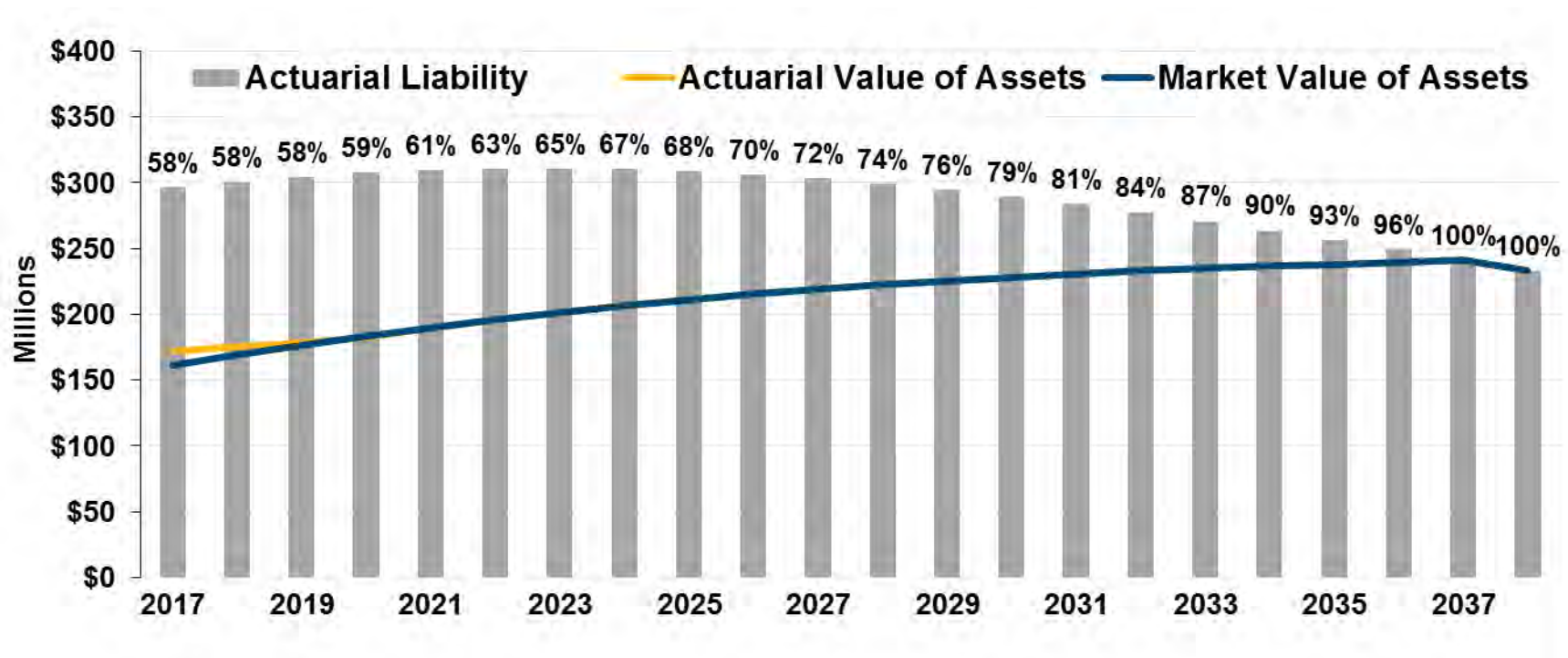


Total Projected \$ Contributions - Employer and Employee



- Contributions are expected to increase slightly over the next three years as the Plan continues to recognize the unfavorable investment returns of FYE 2015 and 2016
- Then gradually decline starting in 2020
- Costs are expected to decrease to \$1.1 million in 2037 when the UAL is paid off

Projected Funded Ratio



- Funded ratio expected to remain stable over the next three years
- Projected to be fully funded by 2037
- In 2017, the Actuarial Value of Assets is 6% higher than the Market Value of Assets since there are deferred losses, which are keeping the funded ratio from improving in the near future

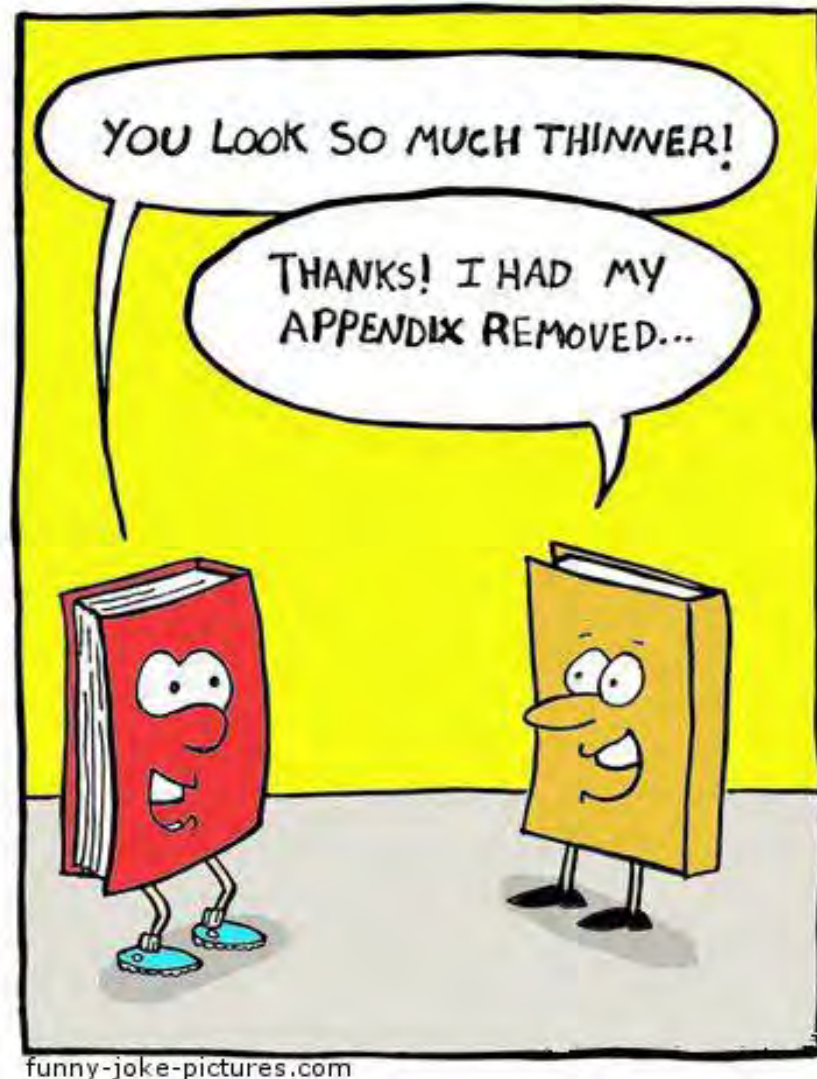
Today's Takeaways



- Plan History
 - Year over year plan costs increased by approximately 3% primarily due to investment experience
 - Funded ratio remained stable
 - Active population continues to decline given the closed nature of the Plan
- Plan Future
 - Cost is expected to increase slightly over the next three years, then start declining
 - Investments will drive actual cost
 - Plan membership is declining and growing older, shorter investment horizon



Actuarial funding



Actuarial Funding



- Estimate assets required at retirement to provide the promised retirement benefit
 - ✓ Requires economic assumptions (e.g., rate of return on assets) and demographic assumptions (e.g., life expectancy)
- Design a plan to accumulate those assets as the employee works
 - ✓ The Actuarial Funding Method (e.g., Entry Age Normal)
- Set a series of asset targets to achieve as the employee works
 - ✓ These asset targets are called the Actuarial Liability
- Set an annual contribution that will hit these asset targets if all the assumptions hold true
 - ✓ This is the Normal Cost
- Monitor funding progress every year
 - ✓ Compare actual assets against the asset targets in the annual actuarial valuation
- Adjust annual contribution for assets above or below the asset target
 - ✓ This is the amortization of the unfunded liability (if assets below target)



- Return assumption: 7.00% for July 1, 2017 valuation
- Wage and price inflation: 2.75% per year
- Amortization Policy
 - Closed 25-year amortization of Unfunded Actuarial Liability (UAL) on July 1, 2012; 20 years remaining as of July 1, 2017
 - Closed 21-year amortization of UAL impact due to assumption changes as of July 1, 2016; 20 years remaining as of July 1, 2017
 - Closed 15-year amortization of actuarial gains and losses emerging in each year's valuation
 - Currently "Acceptable." As amortization period of UAL declines, will transition to Model by CAAP
- Asset smoothing method: five-year smoothing using fixed periods, 80%/120% corridor
 - Classified as Model by CAAP



- The purpose of this presentation is to discuss the current status and outlook for the Retirement Plans of San Diego Transit Corporation. This presentation is for the use of the Executive Committee in its education and outreach efforts.
- In preparing this presentation, we relied on information (some oral and some written) supplied by the Staff at San Diego Transit and San Diego Metropolitan Transit System. 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.
- To the best of our knowledge, this presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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 solely for the Executive Committee of the Retirement Plans of San Diego Transit Corporation for the purposes described herein. This presentation is not intended to benefit any third party and Cheiron assumes no duty or liability to any such party.

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Consulting Actuary

Alice I. Alsberghe, ASA, MAAA
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Agenda Item No. C3

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM EXECUTIVE COMMITTEE

January 11, 2018

SUBJECT:

MISSION VALLEY AND GRANTVILLE REAL ESTATE (TIM ALLISON, KAREN
LANDERS, SHARON COONEY)

RECOMMENDATION:

That the Executive Committee receive a report on real estate issues in the Mission Valley and Grantville areas and provide direction.

Budget Impact

None.

DISCUSSION:

Multiple planning and private development efforts are underway in the City of San Diego's Mission Valley and Navajo communities which will have an impact on MTS real property, transit infrastructure, and services. Staff will provide an update on some of these efforts and how they pertain to MTS interests, and gather feedback on next steps with regard to MTS-owned properties and development opportunities.

Related Land Use Planning Efforts

In 2015, the City of San Diego and local community members began updating the Mission Valley Community Plan which serves as a blueprint for future development of the neighborhood. The Mission Valley Community Plan was adopted in 1985 and the area has changed significantly since that time, including the extension of light rail service in 1997 and 2005. With increasing development pressure in Mission Valley, a new plan is intended to direct growth and better promote transit use.

Following the original adoption of the Mission Valley Community Plan, the City approved several Specific Plans to guide development, including the Levi-Cushman Specific Plan (1987), the Atlas Specific Plan (1988), the Mission City Specific Plan (1998), and the



Quarry Falls Specific Plan (2008). In addition, the San Diego River Park Master Plan (2013) provides an overlay policy document for development along the San Diego River.

Additional planning efforts are underway to guide development of the SDCCU Stadium (formerly Qualcomm) site. The outcome of two competing proposals will likely be decided by voters in the coming years. The site planning is intended to incorporate the current MTS light rail station and a proposed future extension of a new light rail line being planned by SANDAG.

East of Mission Valley, the Navajo Community Plan was updated and adopted by the City Council in 2015. The Navajo Community Plan includes Community Plan Implementation Overlay Zones (CPIOZ) for specific parts of the community. One such CPIOZ is for Grantville. "Grantville is envisioned to include more transit-supported residential, workforce housing, and local neighborhood retail, as well as new commercial and employment opportunities. The new development would also provide additional community benefits to the area including pedestrian and bicycle infrastructure, improvements to Alvarado Creek, and access to the San Diego River."

In the Grantville CPIOZ, development that is consistent with the Community Plan, the base zone regulations, and the supplemental development regulations identified in each CPIOZ section can be processed ministerially.

Development of MTS Real Estate

Joint use and development of MTS property is governed by MTS Board Policy 18: "It is the intention of the MTS to extract the maximum benefits from and utilization of property owned and acquired by the Board consistent with transportation goals and community development objectives." MTS has been approached by multiple development interests regarding agency-owned properties in Mission Valley and Grantville. Staff will provide a report and receive direction regarding next steps.

/s/ Paul C. Jablonski

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Mission Valley and Grantville Real Estate

Executive Committee

January 11, 2018



Introduction

- Multiple planning efforts underway or recently completed
 - Mission Valley Community Plan update
 - SDCCU (Qualcomm) site planning
 - San Diego State Campus Master Plan
 - Riverwalk Specific Plan
 - Navajo Community Plan Update/Grantville Community Plan Implementation Overlay Zone
- Improved economy means increased interest from the development community in MTS real property



Board Policy 18: Joint Use and Development of Property

- Criteria for evaluation of development proposals:
 - Projects do not negatively impact present/future transit facilities
 - Consistent with regional and local community policies and plans
 - Projects must demonstrate a fiscal benefit to MTS
- Selection between projects will be based on those that can demonstrate:
 - The greatest economic development potential to MTS and the community
 - Increased accessibility to public transportation.
 - Responsiveness to community needs for housing, employment, services, or recreational facilities.



Riverwalk

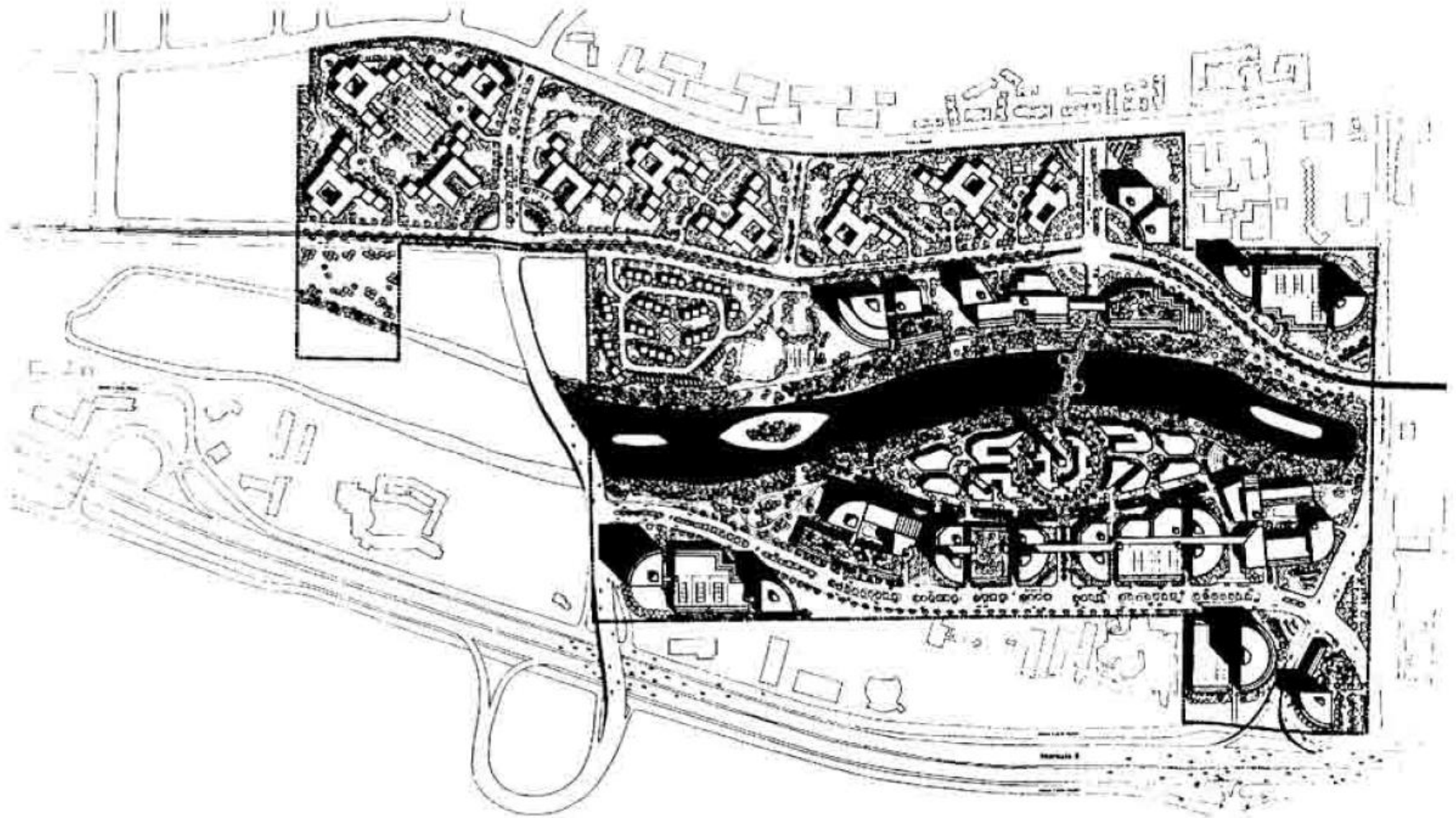




Levi Cushman Specific Plan

- 1987 – Levi Cushman Specific Plan Adopted (LCSP)
- 1988 – Levi Cushman Development Agreement (DA) approved based on LCSP
 - 2.6 million sf office; 1000 hotel rooms; 200,000 sf retail; 1,329 residential units
- The DA expired but the LCSP remains in effect





**LEVI – CUSHMAN
SPECIFIC PLAN**

CONCEPT PLAN



Acquisition History

- 1994 – MTDB initiated condemnation with Levi-Cushman entities to acquire LRT easements through the then Stardust Golf Course and acquire a 5 acre parcel to be used for part of a larger mitigation site (Warner Ranch)
- 1997 Settlement includes:
 - Riverwalk Golf Course Lease
 - LRT Station Construction Agreement

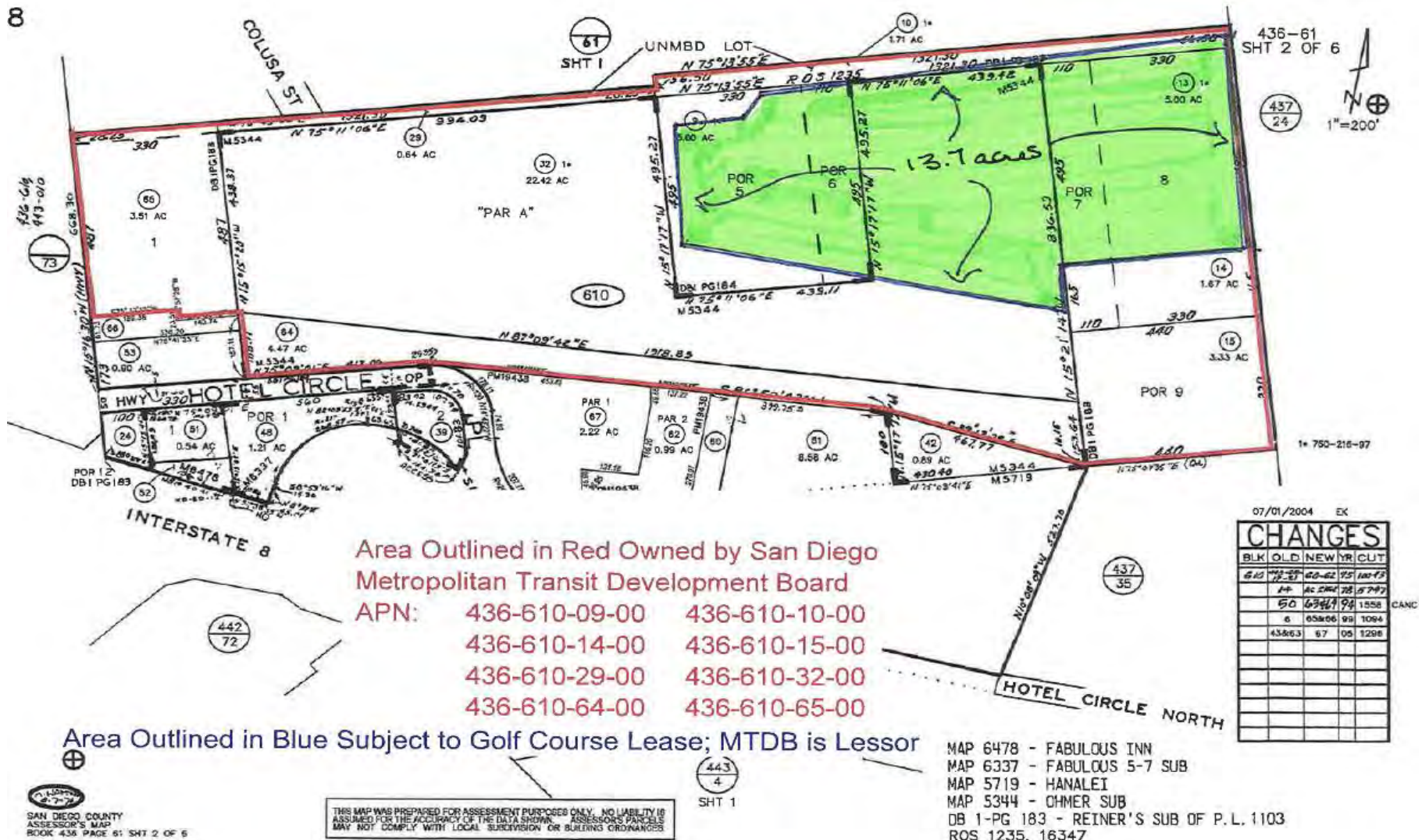




Property Line ———
MHPA Line ———

RIVERWALK - MHPA OVERLAY





Riverwalk Golf Course Lease Agreement

- 90 year lease term – expires 2087
- First 20 years of lease – no rent payment
- Lease expires if no longer used for a golf course

LRT Station Construction Agreement

- Levi Cushman is obligated to construct a trolley station if the Average Daily Trips generated by development exceeds 12,000
- MTS has 4 years from notification to request construction of the new station
- Owners “cost cap” - \$500,000





Hines
 4747 Executive Drive, Suite 410
 San Diego, CA 92121
 T 619.435.4000
 www.hines.com

MVE
 1900 Main Street, Suite 800
 Irvine, CA 92614
 T 949.809.3388
 www.mve-archifacts.com

ILLUSTRATIVE SITE CONCEPT

MIR SUBMITTAL
RIVERWALK

09.26.2017

A1



Discussion

- Is massing/mix of uses in Hines proposal optimal for transit oriented development?
- Is a new Trolley Station warranted/desirable?
 - .7 mile to Fashion Valley, 1 mile to Morena Linda Vista
 - Other comparable MV stations averaging 630 boardings, but with much more retail
 - No funding identified to pay for the station, cost to maintain
- Transit benefit to extension of Via Las Cumbres
- Multiple at grade rail crossings proposed
- Should MTS try to have its property incorporated into this development plan?
 - Hines proposal will include access to MTS property

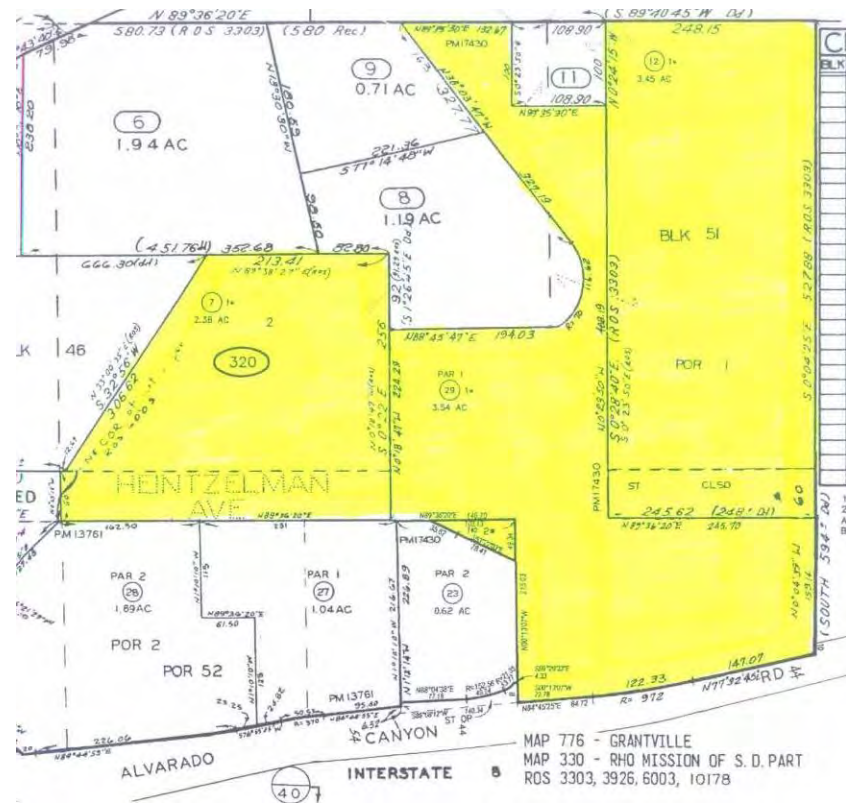


Grantville



Grantville Trolley Station

- City of San Diego
- 9.4 acres
- 246 Total Parking Spaces plus overflow lots
- 5 Bus Bays
- Grantville Redevelopment Area
- Federally funded acquisition



Grantville Trolley Station



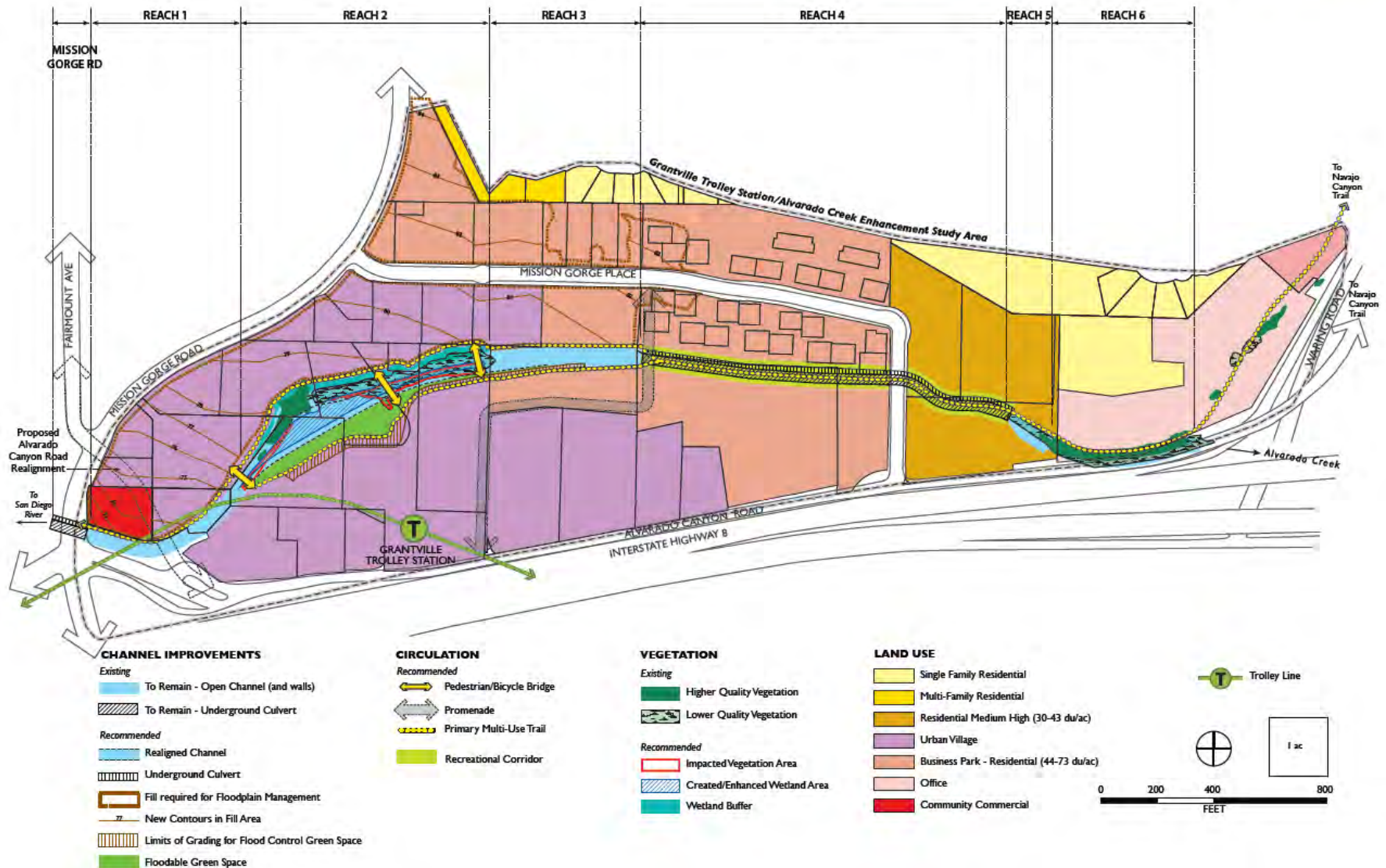
5915 and 5927 Mission Gorge Road

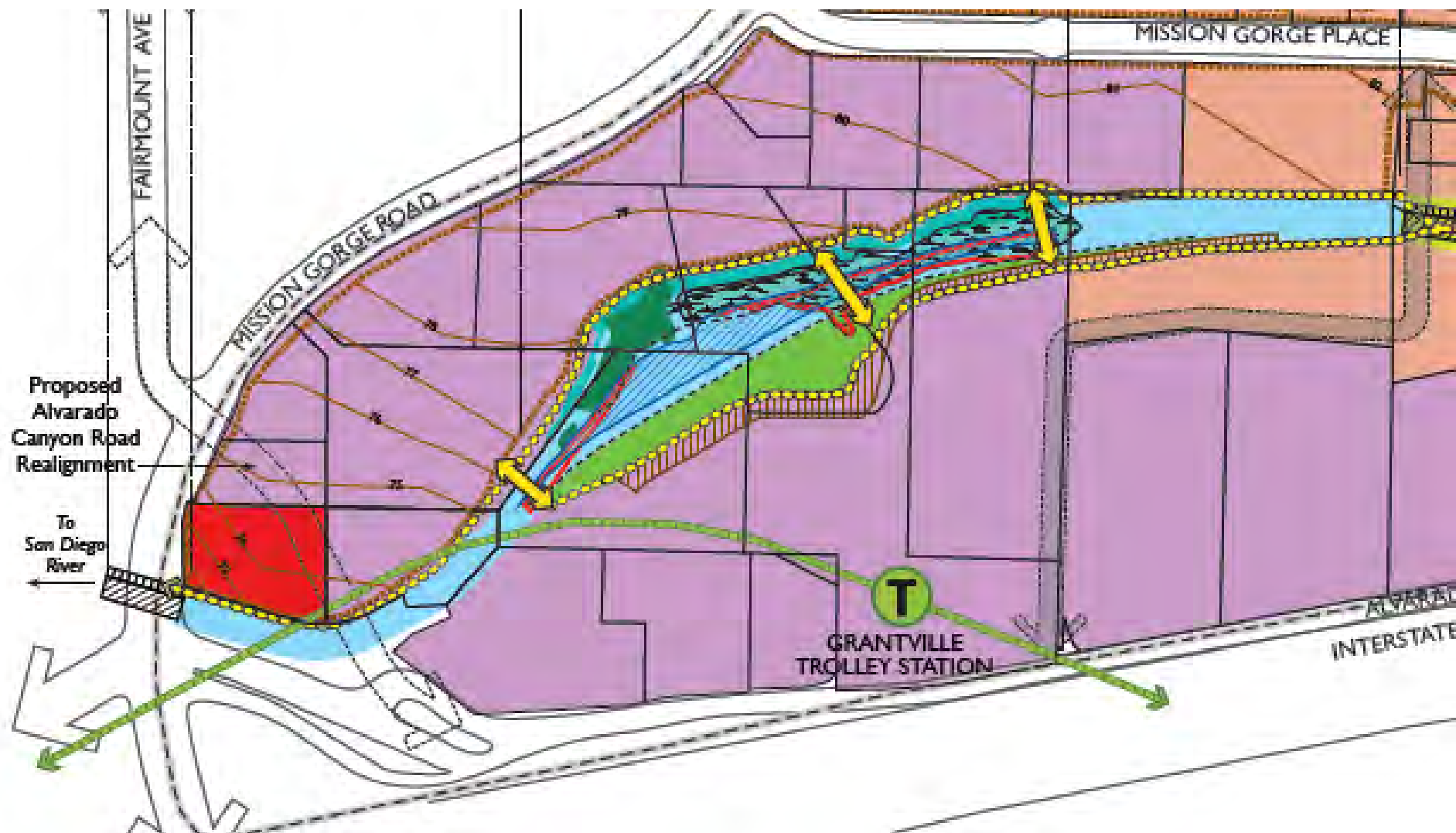


Flood Zone



FIGURE 3-1 CONCEPTUAL RECOMMENDATIONS BY REACH





Affirmed Housing Proposal

- Experienced developer with over a 25 year track record – 44 communities with over 3,500 affordable rental homes
- Owners of the adjacent motel site – veterans housing
- Proposing a mixed income residential development with both affordable and market rate housing
 - 182 affordable units – podium construction (5 over 2)
 - 253 market rate units – wrap construction (6 levels)
 - Reduced MTS replacement parking based on parking study
 - Yield – 435 units (61 du/ac net usable, 47 du/ac gross)





Affirmed Grantville Trolley

ACQUISITION &
DEVELOPMENT PLAN

content 3D Views

scale NA

project # 5830.00 date 12.18.2017

sheet

T0.11

AFFIRMED HOUSING
carrierjohnson + CULTURA



Greystar Proposal

- Experienced developer global assets – development and residential management
- Owners of the Park12 Development (Ballpark Village adjacent to the Mills Building)
- Proposing two development scenarios – multi-family; student housing
- Multi-family scenario – 327 units, replacement MTS parking
- Student Housing scenario – 355 units, replacement MTS parking
- Yield:
 - MF: 327 units (47 du/acre net usable, 35 du/acre gross)
 - SH: 355 units (51 du/acre net usable, 38 du/acre gross)



Site Area: 9.4 Acres

Gross Floor Area:

5 Story Type IIIA Residential: 425,680 sf

Net Rentable: 352,280 sf

Units: 327

Average Unit Size: 1,077 sf

Parking:

Resident Stalls (1.2 Stalls/Unit): 394 Stalls

MTS Stalls: 246 Stalls

Total Stalls: 640 Stalls

5 Story Type IA Garage: 192,000 sf

Alternative 1 (Six Stories at Building 2):

Gross Floor Area:

5 Story Type IIIA Residential: 425,680 sf

1 Story Type IA Residential: 60,363 sf

Total Residential: 486,043 sf

Net Rentable: 382,335 sf

Units: 355

Average Unit Size: 1,077 sf

Alternative 2 (Reduced Avg. Unit Size):

Gross Floor Area:

5 Story Type IIIA Residential: 425,680 sf

Net Rentable: 352,280 sf

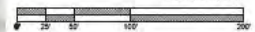
Units: 355

Average Unit Size: 990 sf



Site Plan

November 2, 2017



PREPARED FOR:
Greystar
444 S. Calhoun Ave.
San Diego, CA 92105

Student Apartments
Grantville Station
San Diego, California

1735 BROADWAY, SUITE 1000
SAN FRANCISCO, CA 94109
TEL: (415) 774-1000
WWW.VANTRUBB.COM

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Staff Next Actions

- Keyser Marston analysis – continuation of the previous 2008 study.
 - Review updated land use
 - Market research
 - Financial feasibility analysis including yield studies and residual land values
 - Recommendation to MTS – current development environment versus highest and best use.
 - Is it possible to achieve the 109 du/acre
- Return to the Executive Committee with Study results and recommendations
- Anticipate competitive procurement



SDCCU Site







Discussion

- How Qualcomm Stadium Station fits into the development
- How does site accommodate future Purple Line connection?
- Transit circulation on site to access Trolley Station and/or transit parking



Mission Valley and Grantville Real Estate

Executive Committee

January 11, 2018



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REVISED DRAFT

Agenda

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

9:00 a.m.

James R. Mills Building
Board Meeting Room, 10th Floor
1255 Imperial Avenue, San Diego

To request an agenda in an alternative format or to request accommodations to facilitate meeting participation, please call the Clerk of the Board at least two working days prior to the meeting. Assistive Listening Devices (ALDs) are available from the Clerk of the Board/Assistant Clerk of the Board prior to the meeting and are to be returned at the end of the meeting.

ACTION RECOMMENDED

1. Roll Call
2. Approval of Minutes - December 14, 2017 Approve
3. Public Comments - 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.
4. Elect Chair, Vice Chair, Chair Pro Tem, and Committee Appointments (Sharon Cooney) Elect

Please **SILENCE** electronics
during the meeting

1255 Imperial Avenue, Suite 1000, San Diego, CA 92101-7490 • (619) 231-1466 • www.sdmts.com

Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego.



CONSENT ITEMS

- | | | |
|-----|--|---------------|
| 6. | <u>2018 State and Federal Legislative Programs</u>
Action would approve staff recommendations for 2018 federal and state legislative programs. | Approve |
| 7. | <u>Accessible Services Advisory Committee (ASAC) Membership</u>
Action would approve the revisions to the ASAC Membership Guidelines. | Approve |
| 8. | <u>MTS Access Operator First Transit Proposed Use of Taxicab Transportation Services</u>
Action would waive the applicability of MTS Board Policy No. 31, "Providing Transit Services", in order for First Transit to subcontract with a taxicab dispatch company. | Approve |
| 9. | <u>Green Line Shelter Replacement - Work Order</u>
Action would authorize the Chief Executive Officer (CEO) to execute Work Order MTSJOC7504-42, PWL204.0-16 with ABC Construction, Inc. (ABC) for Green Line Shelter Replacement. | Approve |
| 10. | <u>Upgrade Euclid Avenue and University Avenue Grade Crossings - Job Order Contract (JOC)</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWL203.0-16, Work Order No. MTSJOC7500-07 with HMS Construction for the upgrade of grade crossings at both Euclid Avenue and University Avenue. | Approve |
| 11. | <u>Investment Report - November 2017</u> | Informational |
| 12. | <u>Kearny Mesa Division Bay 18 Lift Replacement - Contract Award</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. PWB244.0-18 with Makai Solutions for the purchase and installation of Bay 18 replacement lifts. | Approve |
| 13. | <u>WSP/Parsons Brinckerhoff (WSP) Procurement of Inspection and Engineering Support Services During the Manufacturing of MTS Light Rail Vehicles (LRV)</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G0930.17-04.65 with the San Diego Association of Governments (SANDAG) for the procurement of inspection and engineering support services during manufacturing of up to 9 LRVs. | Approve |
| 14. | <u>Green Line Train to Wayside Communications (TWC) System Upgrade - Amendment Approval</u>
Action would: (1) Ratify Amendments 1 through 5 of MTS Doc. No. PWL214.0-17 with Global Signals Group, Inc. (GSG) for the TWC system upgrade; (2) Authorize the Chief Executive Officer (CEO) to execute Amendments 6 and Amendment 7. Amendment 6 is for reprogramming the TWC to separate the ability to track trains and control the signals at Mission Valley, and Amendment 7 is for additional site surveying and conduit installation at fourteen locations; and (3) Approve time extension for three months from June 8, 2018 to September 8, 2018. | Approve |

- | | | |
|-----|--|---------|
| 15. | <u>Light Rail Vehicle (LRV) Upper Level Work Platforms Construction Management Services - Work Order Agreement</u>
Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA2016-CM001 to MTS Doc. No. G2016.0-17 with Caltrop Corporation for the LRV Upper Level Work Platform Construction Management Services. | Approve |
| 16. | <u>MTS Building A - Operations Control Center (OCC) Video Wall System and Workstation Consoles Purchase and Installation Services - Award Work Order Under a Job Order Contract</u>
Action would authorize the Chief Executive Officer (CEO) to execute Work Order No. MTSJOC7504-41, under MTS Doc. No. PWL204.0-16 with ABC Construction, Inc., for the provision of labor, materials, equipment, and supplies for the purchase and installation of new video wall system and dispatch workstation console for MTS Building A - OCC room. | Approve |
| 17. | <u>Prohibiting Marijuana Advertisements</u>
Action would approve the revisions to MTS Board Policy No. 21, "MTS Revenue-Generating Display Advertising, Concessions, and Merchandise". | Approve |
| 18. | <u>On-Board Video Surveillance System (OBVSS) Vehicle Upgrades and Camera Removal and Re-Installations - Sole Source Contract Award</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. B0685.0-18 with Apollo Video Technology ("Apollo") for: (1) A camera system upgrade to the Fixed-route, Access, Mini Bus fleets; and (2) An agreement for the removal and re-installation of camera systems on Access and Mini Bus fleets vehicles that have reached the end of their service life. | Approve |
| 19. | <u>Roadway Worker Protection (RWP) Safety Training Services - Contract Award</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1373.0-17, with Jacobs Engineering Group ("Jacobs"), for Roadway Worker Protection (RWP) Safety Training Services. | Approve |
| 20. | <u>Vehicle Advertising - Contract Award</u>
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. G2014.0-17, with Outfront Media, to provide Vehicle (MTS Buses and Trolley Rail Cars) Advertising services for a five (5) year base term with five (5) one year options. | Approve |

CLOSED SESSION

- | | | |
|-----|---|-----------------|
| 24. | a. CLOSED SESSION - PUBLIC EMPLOYEE PERFORMANCE EVALUATION/CONFERENCE WITH LABOR NEGOTIATORS - CHIEF EXECUTIVE OFFICER Pursuant to California Government Code Sections 54957 and 54957.6;
<u>Agency-Designated Representative:</u> Ron Roberts, Vice Chairman | Possible Action |
| | b. CLOSED SESSION - CONFERENCE WITH LABOR NEGOTIATORS PURSUANT TO CALIFORNIA GOVERNMENT CODE SECTION 54957.6
<u>Agency:</u> San Diego Trolley, Inc. (SDTI)
<u>Employee Organization:</u> Public Transit Employees Association (PTEA) (Representing SDTI Train Operators, Electromechanics, Servicepersons and Clerical Staff)
<u>Agency-Designated Representative:</u> Jeff Stumbo | Possible Action |

c. CLOSED SESSION - CONFERENCE WITH LABOR NEGOTIATORS
PURSUANT TO CALIFORNIA GOVERNMENT CODE SECTION 54957.6
Agency: San Diego Trolley, Inc. (SDTI)
Employee Organization: Transit Enforcement Officers Association (TEOA)
(Representing SDTI Code Compliance Inspectors)
Agency-Designated Representative: Jeff Stumbo

Possible
Action

Oral Report of Final Actions Taken in Closed Session

NOTICED PUBLIC HEARINGS

25. None.

DISCUSSION ITEMS

- | | | |
|-----|--|---------------|
| 30. | <u>San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative from RVK and Larry Marinesi)</u> | Informational |
| 31. | <u>San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2017 (Anne Harper of Cheiron Inc. and Larry Marinesi)</u> | Approve |

REPORT ITEMS

- | | | |
|-----|---|---------------|
| 45. | <u>Operations Budget Status Report for November 2017 (Mike Thompson)</u> | Informational |
| 60. | <u>Chairman's Report</u> | Informational |
| 61. | <u>Chief Executive Officer's Report</u> | Informational |
| 62. | <u>Board Member Communications</u> | |
| 63. | <u>Additional Public Comments Not on the Agenda</u>
If the limit of 5 speakers is exceeded under No. 3 (Public Comments) on this agenda, additional speakers will be taken at this time. If you have a report to present, please furnish a copy to the Clerk of the Board. Subjects of previous hearings or agenda items may not again be addressed under Public Comments. | |
| 64. | <u>Next Meeting Date</u> : February 8, 2018 | |
| 65. | <u>Adjournment</u> | |



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Agenda Item No. 6

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

2018 STATE AND FEDERAL LEGISLATIVE PROGRAMS

RECOMMENDATION:

That the Board of Directors approve staff recommendations for 2018 federal and state legislative programs (see Attachments A and B).

Budget Impact

None.

DISCUSSION:

The draft state and federal legislative programs (Attachments A and B) are attached for review. The changes from the 2017 programs are identified. Upon approval by the MTS Board, these programs will be used to define MTS legislative advocacy efforts in calendar year 2018. Staff will return to the Board for approval of any amendments that are required to address unforeseen events or policy initiatives.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, sharon.cooney@sdmts.com

Attachments: A. Draft Federal Legislative Program (redline version)
B. Draft State Legislative Program (redline version)

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Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego.



DRAFT

San Diego Metropolitan Transit System (MTS) 2017~~8~~ Federal Legislative Program

I. Transit Funding

- Oppose legislation that would reduce direct funding to transit agencies or transportation funding in general, and support increased appropriation levels for existing transit funding programs.
- Seek a permanent compressed natural gas tax credit program for transit operators.
- Support legislation that would help offset the impact on transit budgets caused by increases in fuel costs.
- Support legislation that would generate new revenue for transit projects and operating costs, and advocate for positive outcomes in any new infrastructure funding program.
- Support legislation to bring funding to railroad corridors.
 - and seek funding for railroad bridge and infrastructure rehabilitation.
- Seek funding to offset the costs associated with implementation of hybrid and alternative technologies in the transit fleet.
- In partnership with interested cities, seek funding dedicated to grade-separation projects.
- Seek programs in the defense appropriation process that would help offset the cost to provide transit services for military facilities.
- Oppose attempts to discontinue federal funding for school paratransit services or for nonemergency medical transport.

II. Public Safety

- Oppose attempts to create duplicative state rail safety regulatory agencies.
- Seek stiffer federal criminal penalties for vandalism or theft of transit property.
- Seek federal penalties for assaults on transit workers.
- Support legislation that increases funding for transit security projects and personnel.
- Support legislation that provides reimbursement to transit operators for lost employee work hours due to emergency preparedness and antiterrorism training.
- Oppose legislation or regulations that would have an adverse impact on transit agencies' ability to provide safe transportation to their customers.
- Support legislation that assists transit operators to carry out their responsibilities as first responders to emergency situations.
- Support efforts to enhance the transit agency's ability to coordinate with other local emergency personnel for disaster response and evacuation preparedness.

III. Regulatory Matters

- Support legislation that would facilitate the delivery of capital projects.
- Oppose unfunded mandates that impact transit operators.
- Support efforts to increase competition in the fuel market.
- Support legislation that would require manufacturers of wheelchairs and scooters to notify customers prior to purchase of any vehicles that are larger than what the Americans with Disabilities Act requires transit agencies to accommodate for boarding.
- Oppose proposals that limit the use of eminent domain for public transportation projects.
- Monitor and respond to legislation in the areas of finance, employment, and safety that could affect agency governance or operations, including issues related to contractors.
- Support efforts to ensure that climate change legislation recognizes that transit investment can help achieve emission reduction goals, and seek inclusion of transit funding in any climate change legislation.

- Oppose efforts to enlarge the universe of paratransit service eligibility to classifications of individuals that could effectively be served through fixed-route services.
- Seek limits on the interpretation of the Americans With Disabilities Act with regard to service animals.
- Monitor and respond to attempts to alter access guidelines in a way that would financially burden transit operators without providing funding.
- Oppose regulatory interpretations of Title VI that are not in keeping with the policy's intent or which cause actions by transit agencies that constitute unfunded mandates.
- Seek positive closure to the Department of Labor's case regarding the California Public Employees' Pension Reform Act (PEPRA).
- Seek approval for the operation of cross border rail freight.

IV. Support for Legislative Programs of Other Agencies or Organizations

- Support the legislative programs of other agencies, such as SANDAG, NCTD or other jurisdictions, where consistent with the MTS legislative program.
- Support provisions in the legislative programs of organizations, such as the California Transit Association and American Public Transportation Association, where consistent with the MTS legislative program.

V. Capital Projects

1. Seek funding for the following capital projects:

- MTS Bus Replacement Vehicles
- Fare Collection System
- Zero Emission Buses and Electrification Infrastructure

DRAFT

San Diego Metropolitan Transit System (MTS)
201~~7~~8 State Legislative Program

I. Transit Funding

- Oppose legislation that would reduce direct funding to transit agencies, or transportation funding in general; support legislation that would generate new revenue for transit projects and operating costs.
- Oppose legislation that would expand the use of Transportation Development Act (TDA) funds to non-transit purposes not currently covered by statute.
- Support legislation that would help offset the impact on transit budgets caused by increases in fuel costs.
- In partnership with interested cities, seek funding dedicated to grade-separation projects.
- Seek legislation to exempt transit agencies from state sales tax.
- Seek favorable programmatic guidelines for Cap and Trade related funding sources, and seek awards under all relevant programs.
- Oppose attempts to legislate local fare programs or to remove fare setting decisions from transit agencies.
- Seek funding for zero emission buses and electrification infrastructure.
- ~~Seek legislation to clarify State Transit Assistance funding allocations.~~

II. Transit-Oriented Development

- Support legislation that provides funding incentives for mixed-use projects and transit-oriented development.
- Support legislation that aids transit operators' efforts to create transit-oriented development.

III. Public Safety

- Oppose legislation or regulations that would have an adverse impact on transit agencies' ability to provide safe transportation to their customers.
- Support efforts to enhance penalties for crimes against transit staff or related to transit property.
- Support legislation that would protect the records of transit code compliance officers to the same degree as sworn officers.
- Seek legislation that would permit transit agencies to adjudicate code violations.
- Support legislation that would remove Vehicle Code restrictions on the placement of video and audio recorders inside taxicabs.

IV. Climate Change

- ~~Advocate for favorable implementation of AB 32.~~
- Oppose efforts to require actions by the transit operators in support of state climate change initiatives that constitute unfunded mandates.
- Assist the California Air Resources Board (CARB) in crafting the Innovative Advanced Clean Transit program, and oppose efforts to impose the purchase of a specific

technology that would have adverse impacts on MTS's ability to provide adequate levels of transit service.

V. Regulatory Matters

- Support legislation that would facilitate the delivery of transit capital projects—especially through the availability of alternative procurement practices, such as design build.
- Oppose unfunded mandates that impact transit operators.
- Oppose legislation that adversely limits the use of eminent domain for public transportation projects.
- Seek relief from regulations which prevent MTS from providing service in the most cost efficient way possible.
- Oppose legislation that would limit MTS's use of data to provide better service to customers.
- Oppose efforts to eliminate or restrict transit exemption provisions in the California Environmental Quality Act (CEQA); seek legislative clarification that service and fare adjustments are always exempt from CEQA.
- Seek ways to improve the state's oversight of rail operators, currently the jurisdiction of the California Public Utilities Commission.

VI. Labor Relations

- Monitor and respond to legislation relating to personnel matters.
- Support legislation that protects the integrity of collective bargaining agreements, and oppose efforts to mandate benefits or working conditions.
- Monitor and respond to legislation designed to clarify provisions of the Public Employees Pension Reform Act of 2012.

VII. Support Legislative Programs of Other Agencies or Organizations

- Support the legislative programs of other agencies, such as SANDAG and NCTD, where consistent with the MTS legislative program.
- Support provisions in the legislative programs of organizations, such as the California Transit Association and American Public Transportation Association, where consistent with the MTS legislative program.



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Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

ACCESSIBLE SERVICES ADVISORY COMMITTEE (ASAC) MEMBERSHIP

RECOMMENDATION:

That the Board of Directors approve the revisions to the ASAC Membership Guidelines.

Budget Impact

None

DISCUSSION:

At the ASAC Meeting on September 21, 2017 members approved the addition of a new member, a behavioral health services representative.

ASAC Members will now include representatives from MTS Board of Directors, MTS operations (Bus, Trolley, Transdev, First Transit, MTM), governmental agencies (SANDAG, CALTRANS, FACT, County of San Diego Health and Human Services Department, Aging and Independent Services, County of San Diego Health and Human Services Department, Behavioral Health Services), social services agencies (San Diego Regional Center, Access to Independence), disability organizations (San Diego Center for the Blind, Deaf Community Services, State Council on Developmental Disabilities), a paratransit passenger and a passenger with a disability that uses fixed route services. The addition of the new member will increase ASAC voting membership from 17 to 18.

On September 21, 2017, ASAC also established an ad hoc subcommittee, the Transit Training Development Committee (TTDC) to advise ASAC on MTS's implementation of the travel training program.



The proposed revisions to the ASAC Membership Guidelines would reflect the additional behavioral health services representative, expressly include the authority for ASAC to establish subcommittees as necessary, provide a brief narrative of the purpose of ASAC and clarify sections that were unclear.

On December 14, 2017, ASAC members unanimously approved (Attachment A) the proposed revisions to the ASAC membership guidelines (Attachment B). All other proposed revisions to ASAC Membership Guidelines not described here are minor and non-substantive.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachments: A. Draft roster of ASAC members from December 14, 2017 meeting
B. Red lined revisions to ASAC Membership Guidelines

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
ACCESSIBLE SERVICES ADVISORY COMMITTEE (ASAC) MEETING
ROLL CALL

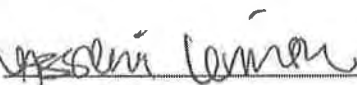
MEETING OF (DATE): 12.14.17

CALL TO ORDER (TIME): 1:00PM

ADJOURN (TIME): 1:58PM

COMMITTEE MEMBER (Alternate)		ORGANIZATION	PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
Lorie Bragg	<input checked="" type="checkbox"/>	ASAC Chairwoman	1:00 PM	1:58PM
Amy Kalivas	<input type="checkbox"/> Ruben Ceballos <input type="checkbox"/>	Access to Independence		
Arun Prem	<input type="checkbox"/> Jonathan Albarran <input type="checkbox"/>	FACT (CTSA)		
Debbie Marshall	<input checked="" type="checkbox"/>	State Council on Developmental Disabilities	1:00 PM	1:58PM
Bill Lewis	<input checked="" type="checkbox"/> Rene Alvarez <input type="checkbox"/>	Transdev - Contracted Bus Routes	1:00 PM	1:58PM
Callie Johnson	<input checked="" type="checkbox"/> Caroline Margulis <input type="checkbox"/>	MTM, Inc	1:00 PM	1:58PM
Anthony Ferguson	<input type="checkbox"/> Jorge Malone <input checked="" type="checkbox"/>	San Diego Regional Center		
Monica Aguirre	<input type="checkbox"/> Rebbie Radtke <input checked="" type="checkbox"/>	San Diego Center for the Blind	1:00 PM	1:58PM
DeRees Clark	<input checked="" type="checkbox"/> Rafael Villegas <input type="checkbox"/>	First Transit, Inc. (MTS Access)	1:00 PM	1:58PM
Audrey Porcella	<input checked="" type="checkbox"/> Brian Lane <input type="checkbox"/>	SANDAG	1:03 PM	1:58PM
Floyd Willis	<input checked="" type="checkbox"/>	County of San Diego AIS	1:00 PM	1:58PM
Annie Gottwig	<input type="checkbox"/>	Caltrans		
Kim Rucker	<input checked="" type="checkbox"/> Tanya Azevedo <input type="checkbox"/>	Paratransit Consumer	1:00 PM	1:58PM
Jorge Rivas	<input checked="" type="checkbox"/> Lynn Parrish <input type="checkbox"/>	Fixed Route Consumer	1:00 PM	1:58PM
Tom Doogan	<input checked="" type="checkbox"/>	MTS Trolley	1:00 PM	1:58PM
Belinda Fragger	<input checked="" type="checkbox"/>	MTS Bus	1:03 PM	1:58PM
	<input type="checkbox"/>	Deaf Community Services		
Vassy Lerinska	<input checked="" type="checkbox"/> non-voting	MTS Contracted Services	1:00 PM	1:58PM
Jay Washburn	<input checked="" type="checkbox"/> non-voting	MTS Contracted Services	1:00 PM	1:58PM
Samantha Leslie	<input checked="" type="checkbox"/> non-voting	MTS Legal	1:00 PM	1:58PM

CLERK OF ASAC:



PARATRANSIT AND MINIBUS MANAGER:





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Accessible Services Advisory Committee Guidelines

The San Diego Metropolitan Transit System (MTS) provides fixed route bus service, complementary paratransit service, and light rail service in southern San Diego County. On February 9, 1995, the San Diego Metropolitan Transit System (MTS) Board of Directors established the MTS Accessible Services Advisory Committee (ASAC). The purpose of ASAC is provide feedback to the Chief Executive Officer and designated staff about various MTS services, proposals, and concepts relating to accessibility. This feedback is used to formulate recommended courses of action that the Chief Executive Officer or Board of Directors, whichever applicable, may review for approval.

The ~~and established the~~ minimum guidelines for the ASAC ~~which~~ are as follows:

- I. The responsibilities of the committee will be:
 - A. To advise and make recommendations to the MTS Board of Directors on:
 1. Funding to implement accessible service;
 2. Disabled passenger fare structures;
 3. Policies and guidelines for accessible service delivery;
 4. Accessible service plans/plan updates; and
 5. Accessible service contracts.
 - B. To advise the MTS staff and MTS operators on:
 1. Accessible service operational and performance issues;
 2. Disabled passenger transfer procedures between, (a) paratransit/paratransit services, (b) fixed route/fixed route services, and (c) paratransit/fixed route services (fixed route includes all rail);
 3. Plans/updates for new or expanded accessible services;
 4. Community outreach, interface, and marketing for accessible services;
 5. Accessible revenue vehicle purchase or lease, and design for new or updated facilities; and
 6. Disabled passenger certification policies and procedures.



II. The committee will not set policy.

III. Membership to the committee will ~~be drawn from the following~~ include
~~representation~~ eighteen (18) voting members, comprised of:
~~III.~~

A. ~~One representative of the~~ a MTS Board of Directors member, appointed on an annual basis, who will be approved by the MTS Board of Directors;

B. ~~One representative from~~ a MTS ~~area fixed route operator (i.e. trolley~~ trolley
~~representative, bus, contract services)~~, appointed by the MTS Chief Executive Officer or designee;

C. a MTS bus representative, appointed by the MTS Chief Executive Officer or designee;

~~B.~~ D. a MTS fixed route contract service representative, appointed by the MTS Chief Executive Officer or designee;

E. ~~One representative from the~~ a MTS complementary paratransit contract service
~~operator~~ representative, appointed by the MTS Chief Executive Officer or designee;

~~C.~~ F. a MTS complementary paratransit eligibility contract service representative, appointed by the MTS Chief Executive Officer or designee;

G. ~~a Individual representation from appropriate governmental agencies (i.e., San Diego Association of Governments (SANDAG) representative~~ SANDAG, Caltrans), appointed in writing by the governmental agency;

H. a California Department of Transportation (Caltrans) representative, appointed in writing by the governmental agency;

I. a Facilitating Access to Coordinated Transportation (FACT) representative, appointed in writing by the agency;

~~D.~~ a

J. ~~Individual representation from appropriate social service agencies (i.e., San Diego Regional Center~~ representative, appointed in writing by the agency;

K. a San Diego Center for the Blind representative, appointed in writing by the organization;

L. a State Council on Developmental Disabilities representative etc.), appointed in writing by the ~~social service agency~~ organization;

M. a County of San Diego Health and Human Services Department, Aging and Independent Services representative, appointed in writing by the agency;

~~E.~~ N. a County of San Diego Health and Human Services Department, Behavioral Health Services representative, appointed in writing by the agency;

~~O. Individual representation from appropriate disability groups (i.e., an~~ Access to Independence representative, appointed in writing by the agency; ~~plus each disability category—~~

P. a Deaf Community Service representative, appointed in writing by the organization;

~~F. vision, hearing, speech, physical mobility, and developmental), appointed in writing by the disability group;~~

~~G.Q.~~ One MTS complementary paratransit service patron representative, appointed by the MTS Chief Executive Officer or designee;

~~H.R.~~ One an individual with a disability that uses MTS fixed route service, appointed by the MTS Chief Executive Officer or designee; and

~~I.S.~~ Decisions to add a new governmental agency, social service agency or disability group to the committee shall be approved by the MTS Chief Executive Officer or designee.

IV. Committee officers

A. Committee chairperson will be the MTS Board of Director member representative; and

B. Committee vice-chair will be the MTS Liaison to the committee.

V. Alternates

A. Each governmental agency, social service agency and disability group may designate one (1) alternate member by ~~notifying~~ providing written notification to the MTS Liaison to the committee; and

B. The MTS Chief Executive Officer or designee may designate one (1) alternate MTS complementary paratransit patron and one (1) alternate fixed route patron representative.

VI. Committee membership terms

A. Except for the chairperson of the committee, the term of membership of each committee member shall be three (3) years. Members may be re-appointed for successive terms.

VII. Removal and Resignation

A. Any member who misses four (4) consecutive meetings may be subject to removal. For any member who has missed three (3) consecutive meetings, a documented warning shall be provided to the member; and

B. A member may resign from the committee by a letter of resignation.

VIII. Committee voting will be accomplished, as follows:

A. Committee will determine the number of its membership of purposes of a quorum;

- B. 51 percent attendance will be a quorum to hold a meeting;
- C. Each membership representative, as described within Section III, will have an equal vote;
- D. 51 percent of the vote of those in attendance will approve an item; and
- E. A roster of the members who voted will be provided to the MTS Board of Directors along with any agenda item proposed for MTS Board of Directors Action.

IX. Subcommittees

A. ASAC may establish subcommittees as necessary.

1. MTS Board of Directors approval is required to establish a standing subcommittee.

2. MTS Chief Executive Officer or designee approval is required to establish an ad hoc subcommittee.

X. MTS Liaison – Staff Support

A. MTS Chief Executive Officer or designee will designate a staff person(s) to act as the MTS Liaison to the committee to prepare meeting notices, agendas and minutes as required.

A.

XI. MTS Board of Directors approval is required to revise the ASAC Guidelines.

XII. The committee is subject to the Brown Act.

Originally adopted by the MTS Board of Directors on 2/3/1995

Revisions Approved by ASAC on 3/3/2016

Revisions Approved by MTS Board of Directors on 3/17/2016

Revisions Approved by ASAC on 9/21/2017

Revisions Approved by ASAC on 12/14/2017

Revisions Approved by MTS Board of Directors on 1/18/2018



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Agenda Item No. 8

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

MTS ACCESS OPERATOR FIRST TRANSIT PROPOSED USE OF TAXICAB
TRANSPORTATION SERVICES

RECOMMENDATION:

That the Board of Directors waive the applicability of MTS Board Policy No. 31, "Providing Transit Services", in order for First Transit to subcontract with a taxicab dispatch company.

Budget Impact

None.

DISCUSSION:

MTS's complementary paratransit service, MTS Access, is operated by contractor First Transit. MTS Access has recently seen increased demand for complementary paratransit service. In order to maintain existing service needs, productivity levels and cost effectiveness, First Transit is looking at new and innovative transit options to provide service.

Using taxicab transportation services is one such option. Taxicabs would be used as an additional resource for First Transit in meeting MTS Access needs. In times of increased demand, First Transit is interested in subcontracting trips to a taxicab dispatch company. The taxicab dispatch company would then schedule a taxicab to provide the requested trip.

First Transit would conduct a one year pilot prior to executing any long term subcontracting commitments with a taxicab dispatch company. Elements such as



service quality, service area availability, cost, and compliance with ADA requirements will be evaluated during the pilot.

In order for First Transit to subcontract with a taxicab dispatch company, a waiver of MTS Board Policy No. 31, "Providing Transit Services", is necessary. MTS Board Policy No. 31 in part sets forth the responsible wages and benefits that should be provided by First Transit to its vehicle drivers. Applying the requirements of a responsible wage and benefits policy is not feasible since taxicab drivers are independent contractors, not employees. Taxicab drivers are not paid by an employer, but instead paid through the collection of fares from passengers. Therefore, staff recommends that the Board of Directors waive the applicability of MTS Board Policy No. 31 so that First Transit can subcontract with a taxicab dispatch company to provide trips as needed.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. MTS Board Policy No. 31 "Providing Transit Services"



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Policies and Procedures

No. 31

SUBJECT:

Board Approval: 3/25/04

PROVIDING TRANSIT SERVICES

PURPOSE:

To establish a process for competitive award of transit services.

BACKGROUND:

Public Utilities Code Section 120265 et seq. requires that the Board provide a system of regional transit services for its area of jurisdiction to be funded from the regional transit service fund established by the Board. It also stipulates that the Board may provide the regional transit services by the following means:

- Directly providing the services.
- By contract with San Diego Transit Corporation (SDTC).
- By contract with any other provider of services as it deems appropriate.

This code section also states that the Board may provide the regional transit services upon the terms and conditions that the Board finds in its best interests.

This policy relates to any publicly subsidized transit service that may be considered for competitive award by MTS and sets forth minimum policy requirements for contractor compliance.

POLICY:

- 31.1 Contracting Authority. MTS will endeavor to provide high-quality public transit service in the most cost-effective manner possible. To achieve this end, MTS will retain complete authority to contract out particular transit services to any experienced public or private operator judged best able to provide the most cost-effective service.
- 31.2 Competitive Award Service Guidelines. Constructive competition for provision of services will be encouraged. An annual review of existing SDTC services for potential competitive award will be included in the MTS Short-Range Transit Plan



Metropolitan Transit System (MTS) is a California public agency and is comprised of San Diego Transit Corporation and San Diego Trolley, Inc. nonprofit public benefit corporations, in cooperation with Chula Vista Transit and National City Transit. MTS is the taxicab administrator for eight cities and the owner of the San Diego and Arizona Eastern Railway Company. MTS member agencies include: City of Chula Vista, City of Coronado, City of El Cajon, City of Imperial Beach, City of La Mesa, City of Lemon Grove, City of National City, City of Poway, City of San Diego, City of Santee, and the County of San Diego.

(SRTP) development process. The following list provides a guideline as to what services are potentially most suitable for competitive award:

- New routes added to the existing MTS and new special services.
- Existing routes or services operating by contract with MTS that were competitively awarded.
- Evening or weekend service that is an extension of an existing route but does not mix with existing service.
- Major restructuring of existing routes to the extent that it can be accomplished without causing major employee layoffs. In the event of major state or federal funding cutbacks, employee layoffs may be required as part of a restructuring of routes and services.

A committee shall be established as part of the annual review. The purpose of the committee shall be to identify the service to be considered for competitive bidding and to determine how the routes and services shall be packaged for bidding. The committee shall consist of the following representatives:

- MTS Director of Multimodal Operations
- SDTC Vice President of Operations
- Private-sector representative
- Representative from a local transit labor unit
- Representative from the private sector (e.g., Chamber of Commerce)

A recommendation of routes and services for competitive award shall be made to the MTS Chief Executive Officer. Final selection of the routes and services to be competitively bid will be the responsibility of the MTS Chief Executive Officer. The routes and services to be competitively bid shall be included in the SRTP. Once the SRTP is adopted by the MTS Board, the Request for Proposals (RFP) and price bids shall be distributed for those routes and services.

When possible, the implementation of service improvements to be operated by SDTC and routes and services to be operated by a private contractor shall be coordinated so as to avoid or minimize employee layoffs.

- 31.3 Determination of Award of Transit Services. A bidding process shall be used to acquire information regarding cost of the routes and services for determining award of transit services. The cost information will be evaluated and a recommendation will be made by the Chief Executive Officer to the Board. The Board may elect to award a contract for routes and services directly to SDTC or a private contractor.
- 31.4 Directly Providing the Services. Should the Board elect to directly provide the routes and services, it shall develop and adopt a separate set of operation policies and procedures relating to the administration, financing, planning, and operation of the transit services.

- 31.5 Directly Contracting with SDTC. Should the Board elect to contract for routes and services with SDTC, it will adhere to MTS's policies for operating corporations.
- 31.6 Competitive Award Process. The competitive award process will utilize a two-step evaluation sequence. The RFP to potential public and private-sector bidders will request separate proposal and bid packages. Step 1 will involve judging the proposal and eliminating nonresponsive bidders in accordance with Policy Section 31.6d. Step 2 will involve opening the bid packages of responsive bidders. The award process shall include the following events:
- a. Issuance of the RFP. MTS will issue an RFP, which delineates the services to be provided, the terms of the contract, any evaluation criteria, contract performance specifications, and the selection process to be used in determining the successful contractor for services. The RFP will also request a separately bound price package be transmitted with the proposal. In addition, MTS will provide public notice and advertisement of the RFP in a newspaper of general circulation at least 21 calendar days prior to the deadline for receipt of proposals. RFPs shall also be sent to a list of prospective bidders.
 - b. Preproposal Conference. MTS will hold a preproposal conference for prospective proposers at least 15 days prior to the deadline for receipt of proposals. The purpose of the preproposal conference is to fully describe the services to be contracted out and to answer any questions from prospective proposers and provide any additional information pertinent to the RFP.
 - c. Receipt of Qualifications. Proposers shall be required to submit a proposal containing all information necessary to judge their qualifications and experience to perform the work as outlined in the RFP. Any public operator shall comply with provisions of Policy Section 31.7.
 - d. Evaluation of Proposals. All proposals will be reviewed by the MTS Chief Executive Officer, with assistance from an evaluation panel, in accordance with the criteria specified in the RFP such as:
 - experience of firm and references
 - financial stability
 - disadvantaged and women business enterprise status
 - management plan, including key personnel to be assigned
 - ability to furnish vehicles in suitable quantity and condition and in conformance with service specifications
 - California Highway Patrol Safety reports or similar independent maintenance and/or safety reports
 - e. Evaluation of Price Bids. Only the price packages of responsive bidders will be opened by the Chief Executive Officer. All other price packages will be returned unopened to the original bidders. Price bids shall be

submitted in a format prescribed by MTS. The price bid format shall include a procedure for public operators that is consistent with Section 31.7 whereby a cost-allocation plan is disclosed. Furthermore, this format shall be consistent with the State of California Transportation Development Act legal requirements for reporting and detailed in the expense object classes. The detailed pricing sheets of the price bids of responsive bidders will be examined by MTS for responsiveness. All line item prices shall be reasonable (competent and otherwise able to perform under any resulting contract) for a bid to be considered responsive.

- f. Recommendations to Board. Following the review of price bids, the Chief Executive Officer will recommend award or rejection based upon the bids received. MTS reserves the right to reject all bids, readvertise the project, and restructure the project in part or whole.

31.7 Statement of Compliance with Cost-Allocation Procedures for Operators

- a. A proposal submitted by a public transit operator shall contain a statement of compliance regarding cost-allocation procedures. The statement of compliance must be certified by the public transit operator's governing board and legal counsel. The statement of compliance shall include (a copy of) the cost-allocation plan used to develop the bid price(s) for the proposed transit services. The cost-allocation plan shall allocate all costs that the public operator will incur in operating the service, including overhead and support services. The basis for allocating all costs, including overhead and support costs, shall be shown.
- b. MTS shall review the statement of compliance submitted by the public operator for its completeness, accuracy, and reasonableness. Based upon review of the statements, MTS may take one or more of the following actions:
 - 1. Accept the statement of compliance.
 - 2. Request additional supporting documentation from the public operator needed to verify the amounts presented in the statement.
 - 3. Reject the statement of compliance and disqualify proposer as nonresponsive to the RFP due to inaccuracy, incompleteness, or unreasonableness.
- c. MTS may require a review of the cost allocation and the resulting bid to assess the compliance with the requirements in Section 31.7a or to review pricing proposals from public or private contractors to ensure the price proposals are responsive.
- d. MTS's review of the statement of compliance will be performed following the opening of sealed price bids.

31.8 Cost-Comparison Analysis. Pursuant to the provisions of California Public Utilities Code Section 99250.5, a private transportation service provider may request a cost-comparison analysis at a publicly noticed meeting of the Board before the Board acts on bus-route restructuring or a service addition.

The Board may agree to perform a cost-comparison analysis on the condition that the private transportation service provider requesting the analysis agrees to pay the actual cost of conducting the analysis. The private transportation service provider shall supply any information necessary and relevant to complete the analysis. The results of the analysis shall be reported to the MTS Board at a publicly noticed meeting.

The Board is not required to perform the requested cost-comparison analysis. However, if the Board decides not to perform the analysis, it shall specify the reasons for that decision in a resolution adopted at a publicly noticed meeting.

For purposes of this section, "cost-comparison analysis" means a study of the route restructuring or service addition under consideration that compares the cost to the operator of directly providing those services to the cost of procuring those services from private entities. The study shall utilize a full cost-allocation method that is consistent with generally accepted cost-allocation principles.

"Route restructuring" means a permanent change in routing that changes the total number of daily revenue miles or hours by 25 percent or more.

"Service addition" means an increase in the total number of daily revenue miles or hours on an existing route by 50 percent or more.

31.9 Statement of Compliance for Charitable, Nonprofit Organizations

- a. To ensure that nonprofit, charitable organizations bidding on MTS transit service contracts are in compliance with the requirements set forth by the MTS Board of Directors, a proposal submitted by such an organization shall include documentation to show that all financing and costs associated with the proposal and bid are financially independent of the organization's charitable activities. Such documentation must be attached to the bidder's technical proposal. The nonprofit, charitable organization shall provide a certification from its governing board certifying that any bid for the services proposed shall be priced in a manner to be totally independent and without subsidy from the organization's charitable functions and revenues.
- b. MTS shall review the certification provided by the organization's governing board for its completeness, reasonableness, and compliance with the intentions of section "a" above. Based upon review of the statements, MTS may take one or more of the following actions:
 1. Accept the Statement of Compliance for charitable, nonprofit organizations.
 2. Request additional supporting documentation from the charitable, nonprofit organization needed to verify the financial independence of the proposal and price bid from the organization's charitable functions and revenues.
 3. Reject the Statement of Compliance for charitable, nonprofit organizations and disqualify proposer as nonresponsive to the RFP due to incompleteness, unreasonableness, or noncompliance with the intentions of section "a" (above).

MTS's review of the Statement of Compliance for charitable, nonprofit organizations will be performed concurrently with the review of the proposals.

- 31.10 Setting Responsible Wages and Benefits. MTS will include as part of the bid documents a minimum wages and benefits requirement for vehicle drivers operated as a result of a bus, mini-bus, van, or other service contract. The purposes of this requirement are: to retain fully trained, qualified and experienced drivers; to provide a high level of quality transit service to the transit patrons; and to reduce absenteeism and driver turnover.
- a. Base Wage Level – In advance of the initiation of a bid process, MTS will conduct an analysis to develop minimum wage-level requirements for the term of the contract. For purposes of the analysis, a base wage rate is established at \$8.35 per hour for July 1, 2000, for drivers after a training and probation period. The analysis will identify a cost of living index (based on prior five-year average San Diego Consumer Price Index) for each future year as a starting point for establishing a minimum wage each year of the future contract. All existing MTS-contracted vehicle driver wage rates and all existing labor agreements of the MTS-contracted vehicle driver, entered into after the effective date of this section, will then be reviewed. The initial starting point wage rate based on the five-year average San Diego Consumer Price Index would be adjusted to ensure consistency with existing transit service contracts for the remaining years of those contracts. Any years in a new contract that are beyond the termination of an existing contract would be calculated based on the five-year average San Diego Consumer Price Index.
 - b. Training Wage Level – MTS shall set a level no less than 90 percent of the base wage level after probation. Training pay shall not exceed 160 hours. If additional training is required beyond 160 hours, the employee shall be paid at the wage level of probation wage after certification.
 - c. Probation Wage After Certification – A driver who is in training and exceeds 160 hours or who has been certified as a driver shall have a minimum wage level set by MTS of no less than 95 percent of the base wage level for a period not to exceed 90 days after completion of training.
 - d. The above wage categories shall be established as minimums in the contract bid requirements and are base driver wage levels excluding benefits and any performance bonuses. These minimum wage categories shall apply to full-time and part-time drivers of contract services.
 - e. Health Benefits – MTS shall include in bid documents the requirement for the contractor to offer full-time and part-time vehicle drivers (20 hours or more per week) a family health plan based on a minimum employer contribution. The minimum contribution for the health benefit is established at \$1.25 per hour for July 1, 2000. The health benefit plan contribution standard would be indexed based on the prior five-year average San Diego Consumer Price Index for each year of the contract to be awarded.

- f. The requirements of this section shall not apply to proposers and contractors whose vehicle drivers are subject to a collective bargaining agreement.

31.11 Contract Term. The term of any award (i.e., period of performance), resulting from Section 31.6 above, will generally depend upon the number of vehicles required and will be subject to termination for breach. It is anticipated that the contract period will not be longer than five years, including any options exercised, nor shorter than two years. Option periods will be allowed not to exceed the basic term. Shorter terms may be allowed for demonstration services to be implemented.

DDarro/SChamp/JGarde
POLICY.31.PROVIDING TRANSIT SERVICES
7/14/06

Original Policy approved on 12/19/85.
Policy revised on 4/9/87.
Policy revised on 3/22/90.
Policy revised on 2/25/93.
Policy revised on 2/22/96.
Policy revised on 7/13/00.
Policy revised on 9/13/01.
Policy revised on 3/25/04.



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Agenda Item No. 9

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

GREEN LINE SHELTER 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 MTSJOC7504-42, PWL204.0-16 (in substantially the same format as Attachment A) with ABC Construction, Inc. (ABC) for Green Line Shelter Replacement.

Budget Impact

The total cost will not exceed \$1,088,118.00 inclusive of a direct cost of \$1,077,236.82 and the contractor share of administrative fees totaling \$10,881.18. Total administrative fees are \$28,943.94 (contractor share \$10,881.18 and MTS share \$18,062.76). Funding will be from the MTS Capital Improvement Project(s) 2006006402 – Shelters Replacement and 2006006502 – El Cajon Transit Center.

DISCUSSION:

MTS has existing shelters, benches and trash receptacles at the Amaya Drive Trolley Station, Arnele Avenue Trolley Station, Gillespie Field Trolley Station, and El Cajon Trolley Station, which are deteriorating. All of the existing shelter roofs are in irreparable condition. Furthermore, the shelters at El Cajon Station have dry rot which is compromising the structural integrity. The existing benches at the stations have no replacement parts readily available to make repairs, and many are rusted or completely beyond use. The trash receptacles at all of the locations are in poor condition, with visible denting and major deformities. Moreover, MTS must also be compliant with the Recycling Ordinance, which requires the replacement of all trash receptacles with receptacles that can accept recycling waste. This project will not only significantly improve current station facilities, but will also provide an improved station aesthetic.



The new shelters will include an upgrade from a traditional wood frame to steel frame roof. All existing trolley shelters, trash receptacles, and benches will be removed with a total of seventeen (17) trolley shelters, twenty one (21) trash receptacles, and thirty four (34) benches to be installed.

ABC Construction, Inc. will be providing the material (with the exception of the material for the shelters, which MTS will be providing), labor, equipment, and disposal necessary for a complete removal and replacement of the shelters, trash receptacles, and benches. Construction is expected to be completed by early summer 2018.

Utilizing the JOC process was determined to be the most effective way of ensuring project completion and subsequent receipt of state grant funding.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Work Order MTSJOC7504-42, PWL204.0-16 with ABC Construction, Inc. for Green Line Shelter Replacement.

/s/ Paul C. Jablonski

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft Work Order MTSJOC7504-42, PWL204.0-16

JOB ORDER CONTRACT
WORK ORDER

PWL204.0-16

CONTRACT NUMBER

MTSJOC7504-42

WORK ORDER NUMBER

THIS AGREEMENT is entered into this _____ day of _____ 2017, 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: ABC Construction, Inc. Address: 3120 National Avenue

Form of Business: Corporation San Diego, CA 92113
(Corporation, partnership, sole proprietor, etc.)

Telephone: (619) 239-3428

Authorized person to sign contracts: Wayne Czubernat Project Manager
Name Title

Pursuant to the existing Job Order Contract (MTS Doc. No. PWL204.0-16), MTS issues a Work Order to Contractor to complete the detailed Scope of Work (attached as Exhibit A.), the Cost Breakdown for the Scope of Work (attached as Exhibit B.), and the subcontractor listing form applicable to this Work Order (attached as Exhibit C.)

Pursuant to the SANDAG JOC Contract Section 7-1.04A(3), 1% of the work order value has been deducted. MTS will pay both the Contractor (1%) and the MTS/Owner share of the Gordian Group license fee.

The total cost for this work order will not exceed \$1,088,118.00 inclusive of a direct cost of \$1,077,236.82 and a 1% Gordian Group license fee of \$10,881.18.

TOTAL PAYMENTS TO CONTRACTOR SHALL NOT EXCEED \$ 1,077,236.82

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CONTRACTOR AUTHORIZATION
By: _____ Chief Executive Officer	Firm: _____
Approved as to form:	By: _____ Signature
By: _____ Office of General Counsel	Title: _____

AMOUNT ENCUMBERED	BUDGET ITEM	FISCAL YEAR
<u>\$ 1,077,236.82</u>	<u>2006006402/ 2006006502</u>	<u>2018</u>

By: _____
Chief Financial Officer Date

(____ total pages, each bearing contract number and work order number)



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Agenda Item No. 10

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

UPGRADE EUCLID AVENUE AND UNIVERSITY AVENUE GRADE CROSSINGS -
JOB ORDER CONTRACT (JOC)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No PWL203.0-16, Work Order No. MTSJOC7500-07 (in substantially the same format as Attachment A) with HMS Construction, Inc. for the upgrade of grade crossings at both Euclid Avenue and University Avenue.

Budget Impact

The total value of this JOC will not exceed \$907,108.27, inclusive of direct costs of \$898,037.19 and the contractor share of administrative fees totaling \$ 9,071.08. Total administrative fees are \$24,129.08 (contractor share \$9,071.08 and MTS share \$15,058.00). The funding for this project is provided in the MTS CIP No. 2005004802 Euclid/University Crossing project.

DISCUSSION:

Due to the width of the existing roadway, the existing gates at the Orange Line Euclid Avenue Grade Crossing located at Euclid Avenue in the City of San Diego and University Avenue in the City of La Mesa consist of extended gate arms. However, when high winds occur, these long gate arms have failed, hitting the overhead catenary system and causing damage. This causes an interruption in trolley service until Maintenance of Wayside staff can repair the damage.

This project will replace the existing crossing mechanisms that will allow a shorter gate arm to be used in place of the existing larger gate arms at the Orange Line Crossings.



Furthermore, the work will include an upgrade to the gate mechanisms, installation of gate guards and replacement of existing cable on the existing gates at University Avenue. This additional work will bring the crossing up to CPUC GO-88B standards. Staff has elected to utilize a JOC for this project in order to save time and money, as developing bid specifications for this project will involve the separate procurement of an engineering firm to both design the project and prepare the bid document. The use of a JOC to complete this work was approved by both MTS Legal and Procurement departments on August 7, 2017.

HMS Construction, Inc. is a current MTS Job Order Contractor for signal systems work. Furthermore, HMS has worked closely with MTS Operations and has the wealth of knowledge on our system to get MTS trolley signal in compliance.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No PWL203.0-16, Work Order No. MTSJOC7500-07 (in substantially the same format as Attachment A) with HMS Construction, Inc. for the upgrade of grade crossings at both Euclid Avenue and University Avenue.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft Work Order MTSJOC7500-07

**JOB ORDER CONTRACT
WORK ORDER**

PWL203.0-16

CONTRACT NUMBER

MTSJOC7500-07

WORK ORDER NUMBER

THIS AGREEMENT is entered into this _____ day of _____ 2017, 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: HMS Construction, Inc.Address: 2885 Scott St.Form of Business: Corporation
(Corporation, partnership, sole proprietor, etc.)Vista, CA 92081Telephone: 760-727-9808

Authorized person to sign contracts: Michael C. High President
Name Title

Pursuant to the existing Job Order Contract (MTS Doc. No. PWL203.0-16), MTS issues a Work Order to Contractor to complete the detailed Scope of Work (attached as Exhibit A.), the Cost Breakdown for the Scope of Work (attached as Exhibit B.), and the subcontractor listing form applicable to this Work Order (attached as Exhibit C.)

Pursuant to the SANDAG JOC Contract Section 7-1.04A(3), 1% of the work order value has been deducted. MTS will pay both the Contractor and the MTS/Owner share of the Gordian Group license fee

The total cost for this work order will not exceed \$907,108.27 inclusive of a direct cost of \$898,037.19 and a Gordian Group administrative fee of \$9,071.08.

TOTAL PAYMENTS TO CONTRACTOR SHALL NOT EXCEED \$898,037.19

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CONTRACTOR AUTHORIZATION
By: _____ Chief Executive Officer	Firm: _____
Approved as to form:	By: _____ Signature
By: _____ Office of General Counsel	Title: _____

AMOUNT ENCUMBERED	BUDGET ITEM	FISCAL YEAR
\$ 898,037.19	2005004802	2018

By: _____
Chief Financial Officer
(_____ total pages, each bearing contract number and work order number)

Date



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Agenda Item No. 11

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

INVESTMENT REPORT – NOVEMBER 2017

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

Attachment A comprises a report of the San Diego Metropolitan Transit System (MTS) investments as of November 30, 2017. The combined total of all investments has decreased month to month from \$138.0 million to \$117.2 million. This \$20.8 million decrease is attributable to \$17.7 million in capital expenditures, \$2.8 million in principal and interest for the Pension Obligation Bonds, as well as normal timing differences in other payments and receipts.

The first column provides details about investments restricted for capital improvement projects.

The second column, unrestricted investments, reports the working capital for MTS operations allowing payments for employee payroll and vendors' goods and services.

/s/ Paul C. Jablonski

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Investment Report for November 2017



**San Diego Metropolitan Transit System
Investment Report
November 30, 2017**

	Restricted	Unrestricted	Total	Average rate of return
Cash and Cash Equivalents				
JP Morgan Chase - concentration account	-	23,871,090	23,871,090	0.00%
Total Cash and Cash Equivalents	-	23,871,090	23,871,090	
Cash - Restricted for Capital Support				
US Bank - retention trust account	2,303,606	-	2,303,606	N/A*
California Bank & Trust - retention trust account	66,842			N/A*
San Diego County Investment Pool				
Proposition 1B TSGP grant funds	7,510,425	47,928	7,558,353	
Total Cash - Restricted for Capital Support	9,880,873	47,928	9,928,801	
Investments - Working Capital				
Local Agency Investment Fund (LAIF)	6,612,858	76,772,090	83,384,948	1.172%
Total Investments - Working Capital	6,612,858	76,772,090	83,384,948	
Total cash and investments	\$ 16,493,731	\$ 100,691,108	\$ 117,184,839	

N/A* - Per trust agreements, interest earned on retention account is allocated to trust beneficiary (contractor)



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Agenda Item No. 12

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

KEARNY MESA DIVISION BAY 18 LIFT REPLACEMENT – 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. PWB244.0-18 (in substantially the same format as Attachment A) with Makai Solutions for the purchase and installation of Bay 18 replacement lifts.

Budget Impact

The value of this agreement will not exceed \$129,682.00 and is funded under the MTS Capital Project KMD Bay 18 Hoist Replacement (WBS 3008104601).

DISCUSSION:

There are currently three in-ground platform lifts at KMD in the Bay 18 body shop that are inoperable and have not been in use since 2009. The in-ground piston style lifts are an antiquated system and being below ground does not allow for easy maintenance or repair. It is more cost effective to replace them with an above-ground style mobile column lift. The mobile column lifts will allow for lifting all bus lengths in order to perform necessary body and other maintenance work. This contract is for the install of six (6) mobile column lifts at KMD in Bay 18.

MTS Policy No. 52, "Procurement of Goods and Services", requires a formal competitive process for procurements exceeding \$100,000. On November 8, 2017 staff issued an Invitation for Bids (IFB). Four responsive bids were received by the due date of December 19, 2017.



KMD Bay 18 Lift Replacement	
COMPANY NAME	BID AMOUNT
<i>Makai Solutions</i>	\$129,682.00
<i>Western Pump</i>	\$134,788.00
<i>Auto Lift Services</i>	\$171,750.00
<i>Telliard Construction</i>	\$236,300.11
<i>ICE</i>	\$235,590.00

Based on the bids received, and in comparison with the Engineers Estimate, Makai Solutions' price of \$129,682 was determined to be fair and reasonable.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. PWB244.0-18 with Makai Solutions for the purchase and install of six mobile column lifts at KMD.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft MTS Doc. No. PWB244.0-18

SECTION 4.0 SAMPLE OF STANDARD CONSTRUCTION AGREEMENT AND GENERAL CONDITIONS

PWB244.0-18 CONTRACT NUMBER
 FILE/PO NUMBER(S)

**STANDARD CONSTRUCTION AGREEMENT
FOR
KEARNY MESA DIVISON BAY 18 LIFT REPLACEMENT**

THIS AGREEMENT is entered into this _____ day of _____ 2017, 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: Makai Solutions _____ Address: 1653 W. El Segundo Blvd. _____

Form of Business: Corp. _____ Gardena, CA 90249 _____
(Corporation, Partnership, Sole Proprietor, etc.)

Telephone: 310-436-2222 _____ Email Address: dan@makaisolutions.com

Authorized person to sign contracts: Dan Peterson II _____ Vice President
Name Title

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

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

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

KEARNY MESA DIVISON BAY 18 LIFT REPLACEMENT

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

CONTRACT TIME. Time is of the essence in the performance of the Work. The Work shall be commenced by the date stated in MTS's Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within 84 calendar days from the commencement date stated in the Notice to Proceed. By its signature hereunder, Contractor agrees the Contract Time is adequate and reasonable to complete the Work.

CONTRACT PRICE. MTS shall pay to the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of _____ Dollars

(\$_____). Payment shall be made as set forth in the General Conditions.

LIQUIDATED DAMAGES. It is agreed that the Contractor will pay MTS the sum of **\$500.00** for each and every calendar day of delay beyond the time prescribed in the Contract Documents for finishing the Work, as Liquidated Damages and not as a penalty or forfeiture. In the event this is not paid, the Contractor agrees MTS may deduct that amount from any money due or that may become due the Contractor under the Contract. This Section does not exclude recovery of other damages specified in the Contract Documents.

COMPONENT PARTS OF THE CONTRACT. The "Contract Documents" include the following:

Invitation for Bids (IFB)
Information and Instructions for Bidders
Contractor's Bid Forms
Bid Bond
Designation of Subcontractors
Designation of Other Third Party Contractors
Information Required of Bidders
Non-Collusion Declaration Form
Iran Contracting Act Certification
Public Works Contractor Registration Certification
Performance Bond
Payment (Labor and Materials) Bond
General Conditions
Special Provisions (or Special Conditions)
Technical Specifications prepared by _____, dated ____
Standard Specifications (Excluding sections 1-9 in their entirety)
Addenda
Plans prepared by RailPros, dated 9/17/17
Change Orders as executed by MTS

The Contractor shall complete the Work in strict accordance with all of the Contract Documents.

This Contract shall supersede any prior agreement of the parties.

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

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

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

SAN DIEGO METROPOLITAN TRANSIT SYSTEM		CONTRACTOR AUTHORIZATION	
By: _____ Chief Executive Officer		Firm: _____	
Approved as to form:		By: _____ Signature	
By: _____ Office of General Counsel		Title: _____	
AMOUNT ENCUMBERED	BUDGET ITEM	FISCAL YEAR	
\$129,682.00	3008104601	2018	
By: _____ Chief Financial Officer (___ total pages, each bearing contract number)		Date	SA-CONSTRUCTION (REV 5-17)



1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466 • FAX (619) 234-3407

Agenda Item No. 13

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

WSP/PARSONS BRINCKERHOFF (WSP) PROCUREMENT OF INSPECTION AND
ENGINEERING SUPPORT SERVICES DURING THE MANUFACTURING OF MTS
LIGHT RAIL VEHICLES (LRV)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc No. G0930.17-04.65 with the San Diego Association of Governments (SANDAG) for the procurement of inspection and engineering support services during manufacturing of up to 9 LRVs (Attachment A).

Budget Impact

The total value of this agreement will not exceed \$140,502.40. Funding for costs related to the inspection and engineering services will be provided by SD9 Procurement Project (Capital Improvement Program (CIP) No. 20021029) through a reimbursement agreement with SANDAG.

DISCUSSION:

The Mid-Coast project, currently under construction requires 36 LRVs in order to provide the additional trolley service contemplated by the project and MTS requires an additional 9 vehicles to supplement the existing MTS LRV fleet for a total of 45 vehicles. MTS has an existing contract with Siemens Industry, Inc. to procure the 45 LRVs consistent with SDTI's technical specifications.

Through SANDAG's Architectural & Engineering contracting process, SANDAG has hired WSP to assist with inspection and engineering support services during the LRV manufacturing process in the amount of \$702,512.00. These services include: (a) project



management assistance; (b) design review and vehicle manufacturing first article inspection services; and (c) prepare and perform post-delivery audit of rolling stock.

MTS is responsible for funding 20% of the service cost since nine of the total vehicle orders of 45 are being funded by MTS. SANDAG shall invoice MTS and MTS shall reimburse SANDAG for the consultant services described herein.

Description	Amount
100% cost of Inspection and Engineering Services 45 LVRs	\$702,512.00
MTS's 20% share for Inspection and Engineering Services of 9 LVRs	\$140,502.40

The inspection and engineering support services are necessary to ensure that the 9 LRVs manufactured on schedule and to the technical specifications set forth by MTS. SANDAG will administer a consultant contract and provide oversight during the performance period.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc No. G0930.17-04.65 with SANDAG for inspection and engineering support services during the LRV manufacturing process.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. SANDAG Addendum 17, 5000710 SOW 65

Addendum 17 Project Scope of Work

MTS File No.	G0930.17-04.65	SANDAG Reference No.	5000710 SOW 65
CIP Title:	MTS SD9 LRV Procurement		
CIP/WBSE No.	20021029	Project Managers:	MTS – Karen Landers/Andy Goddard, Jr. SANDAG – Chip Finch
Lead Agency:	SANDAG	Operating Agency:	MTS
Estimated Start Date:	11/15/2017	Original SOW 65 Budget	\$140,502.40
Estimated Completion Date:	12/1/2020	Additional SOW 65._ Budget (this amendment)	N/A
Total CIP Budget	\$39,272,000	Total SOW Budget (value of work to be invoiced between SANDAG/MTS):	\$140,502.40

Intended Source of Funds:

Low Carbon Transit Operations Program (LCTOP), Transit and Intercity Rail Capital Program (TIRCP), TDA, STA

Describe Any Necessary Transfers of Project Funds Between the Parties:

MTS will be responsible for funding 20% of the project cost since nine of the total vehicle order of 45 are being funded by MTS. SANDAG shall invoice MTS and MTS shall reimburse SANDAG for the consultant services described herein.

Project Description:

The Mid-Coast project requires 36 LRVs in order to provide the additional trolley service contemplated by the project and MTS requires an additional 9 vehicles to supplement the existing MTS LRV fleet. MTS has an existing contract with Siemens Industry, Inc. to procure the total of 45 LRVs consistent with SDTI's technical specifications. Through SANDAG's A&E contracting process, SANDAG has hired WSP/PB ("Consultant") to assist with inspection and engineering support during the LRV manufacturing process., these services include: a) project management assistance; b) design review and vehicle manufacturing first article inspection services, and c) prepare and perform post-delivery audit of rolling stock. In performing its monitoring work, Consultant shall not be responsible for Siemens' manufacturing means, methods, techniques, or safety in connection with the project.

Scope of Work to be Performed by SANDAG and SANDAG Consultant:

The Consultant scope of work is attached herein as Exhibit A and SANDAG will administer Consultant contract and provide oversight during the performance period.

Any Additional Project-Specific Conditions:

N/A

APPROVED BY:

SANDAG

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

_____ Kim Kawada Chief Deputy Executive Director	_____ Date	_____ Paul Jablonski Chief Executive Officer	_____ Date
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Exhibit A – WSP/PB Contract #5007814 Task Order 3 Scope of Work



1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466 • FAX (619) 234-3407

Agenda Item No. 14

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE –
AMENDMENT APPROVAL

RECOMMENDATION:

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

- 1) Ratify Amendments 1 through 5 of MTS Doc. No. PWL214.0-17 with Global Signals Group, Inc. (GSG) for the TWC system upgrade (in substantially the same format as Attachment A);
- 2) Authorize the Chief Executive Officer (CEO) to execute Amendments 6 and Amendment 7 (in substantially the same format as Attachment B). Amendment 6 is for reprogramming the TWC to separate the ability to track trains and control the signals at Mission Valley, and Amendment 7 is for additional site surveying and conduit installation at fourteen locations; and
- 3) Approve time extension for three months from June 8, 2018 to September 8, 2018.

Budget Impact

The total value of Amendments 1 through 7 will not exceed \$379,536.76. The original agreement was \$1,414,743.49. Including all amendments, the new total will be \$1,794,280.25. Funding is coming from the Capital Improvement Project (CIP) 2005002402 for Green Line Communications, which is locally funded.

DISCUSSION:

On January 19, 2017, the MTS Board of Directors approved MTS Doc. No. PWL214.0-17 with GSG for TWC system upgrade. This project was to complete the Green Line Communications upgrade project at 18 remaining stations from Morena/Linda Vista to Santee Town Center and to bring these stations up to the current Communications and Signaling standards, which meets the MTS system-wide compatibility. The work also



included reconfiguring the communications rooms at Fashion Valley and Qualcomm stations to provide additional space for the installation of the new communications equipment.

Staff requests that the MTS Board ratifies Amendments 1 through 5 for changes to the original scope of work in the amounts shown in the table below.

In addition, staff is requesting approval for Amendment 6, for reprogramming the TWC to separate the ability to track trains and control the signals at Mission Valley; and Amendment 7 for additional site surveying and conduit installation at fourteen locations.

Finally, staff also requests that the MTS Board approve a contract extension for three (3) months from June 8, 2018 to September 8, 2018 to allow for completion of the project.

The table below provides a summary of the Amendments for this Contract:

Change Order #	Amendment #	Description	Ratify or Approve	Amendment Amount	Contract Total
-	1	Tax Adjustment	Ratify	\$ 30,166.38	\$ 1,444,909.87
1	2	New fiber and media converters at Gillespie and Arnele	Ratify	\$ 6,115.36	\$ 1,451,025.23
2	3	New fiber and media converters at Grossmont	Ratify	\$ 3,780.91	\$ 1,454,806.24
4	4	Move Communications equipment at Old Town	Ratify	\$ 35,466.24	\$ 1,490,272.48
3	5	Installation of break-in detection equipment	Ratify	\$ 11,645.21	\$ 1,501,917.59
5	6	Separate the ability to track trains and control the signals at Mission Valley	Approve	\$ 28,229.78	\$ 1,530,147.37
6	7	Additional site surveying and conduit installation at fourteen locations	Approve	\$ 264,132.88	\$ 1,794,280.25
Amendments 1 through 7 Total					\$ 379,536.76
Requested Amount for This Agenda Item, Amendments 6 and 7					\$ 292,362.66

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Amendments 6 and 7 (in substantially the same format as Attachment B), under MTS Doc. No. PWL214.0-17 with Global Signals Group, Inc. (GSG) for the TWC system upgrade.

/s/ Paul C. Jablonski

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachments: A. Amendments 1 through 5 (Ratify)
B. Amendments 6 and 7 (Approve)



1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466

ORIGINAL

March 23, 2017

MTS Doc. No. PWL214.1-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Road, Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 1 TO MTS DOC. NO. PWL214.1-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 1 to our agreement for the Green Line Train to Wayside Communications (TWC) System upgrade as further described below.

SCOPE

There shall be no change to the Scope.

SCHEDULE

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

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$77,323.82, as reflected below:

Current Total Contract Cost						
	BASE (Materials)	BASE (Labor)	OPTION (Materials)	OPTION (Labor)	7.75% CA Sales Tax	SUBTOTAL
Current Contracted Amount	\$454,673.90	\$499,328.00	\$134,794.75	\$278,789.40	\$0	\$1,367,586.05
Performance Bond						\$0
TOTAL						\$1,367,586.05

Total Contract Cost Adjustment						
	BASE (Materials)	BASE (Labor)	OPTION (Materials)	OPTION (Labor)	7.75% CA Sales Tax	SUBTOTAL
Revised Contract Amount	\$454,673.90	\$499,328.00	\$134,794.75	\$274,789.40	\$45,683.82	\$1,409,269.87
Performance Bond						\$35,540.00
TOTAL						\$1,444,909.87



Global Signals Group, Inc.
Mr. Ray Rizman
March 23, 2017
Page Two

The total value of this contract including this amendment shall be in the amount of \$1,444,909.87. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "Original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,


Paul C. Jablonski
Chief Executive Officer

LMARQUIS-CL
CL-PWL214.1-17.GSG.CAQUINO.032317

Agreed:


Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

Date: 4/4/17

Attachment: A – Revised MTS Calculations

cc: T. Nguyen, A. Monreal, C. Aquino, Procurement File



Metropolitan Transit System

1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466

ORIGINAL

June 20, 2017

MTS Doc. No. PWL214.2-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Road, Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 2 TO MTS DOC. NO. PWL214.2-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 2 to our agreement for the Green Line Train to Wayside Communications (TWC) System Upgrade as further described below.

SCOPE

Alterations and relocation of existing communications equipment at Gillespie and Arnele trolley stations as described in the attached Change Order #1 letter from Global Signals Group.

SCHEDULE

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

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$6,115.36.

The total value of this contract including this amendment shall be in the amount of \$1,451,025.23. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,


Paul C. Jablonski
Chief Executive Officer

LMARQUIS-CL
CL-PWL214.2-17.GSG.CAQUINO.062017

Agreed:


Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

Date: 6/23/17

cc: T. Nguyen, A. Monreal, C. Aquino, Procurement File

Enclosure: Change Order #1 Letter – Global Signal Group

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Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego.





Randall Bird
Global Signals Group, Inc
rande@globalsignals.net

May 11, 2017

Thang Nguyen
MTS – Green Line TWC Project Manager

RE: Contract # PWL214.0-17, Change Order #1

Dear Thang Nguyen:

Change Order #1 is comprised of alterations necessary to allow the communications equipment to be installed in the same locations throughout the Green Line project. CCO#1 only addresses Gillespie and Arnele Station. The extent and breakdown of the changes is detailed below.

Gillespie Station

Gillespie station work will be comprised of moving the existing Fiber distribution unit from the middle backboard to the left backboard. The existing fiber cable management system will need to be altered to support this move. Additionally there are two media converters and their associated power supplies that will also be relocated to support the installation of the new equipment. The work at this location is estimated at \$717.81.

Arnele Station

The work at Arnele is significantly more involved than at Gillespie. The fiber distribution unit will require removal and it has been determined that it would be best to relocate into the existing slide trays after being properly installed into splice trays. There are also 7 media converters that will require re-location and or replacement. These units will be placed into a new media converter bay. This work may disrupt CCTV, TVM, etc and will therefore be completed during evening/night hours. The work at this location is estimated at \$5397.55

Please do not hesitate to contact me with any further questions.

Thang Nguyen
May 11, 2017
Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "Randall Bird". The signature is stylized with a large, looped "R" and a trailing "1" at the end.

Randall Bird

Enclosures;

- GSG Summary - Gillespie
- GSG Summary - Arnele

Contract No.
Task Order No.
Attachment:

Work/Task Order Title: Green Line TWC - Gillespie Communications Modifications

Project No:

Table 1 - Cost Codes Summary (Costs & Hours)

Item	Cost Codes	Cost Codes Description	Total Costs
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Totals =			

Table 2 - TASKS/WBS Summary (Costs & Hours)

Item	TASKS/WBS	TASKS/WBS Description	Labor Hrs	Total Costs	ODC's
1	Task 1	Relocate FDU - Move to left backboard	2.0	\$268.84	\$25.30
2	Task 2	Relocate existing media converter(s), install on left backboard	2.0	\$268.84	\$25.30
3	Task 3				
4	Task 4				
5	Task 5				
6	Task 6				
7	Task 7				
8	Task 8	Material - media converter bay, media converter (2), splice tray, fiber patches, LC /LC (2), misc mounting material		\$42.50	
9	Task 9				
10	Task 10				

Sub Total =	4.0	\$580.18	\$50.60
Overhead and Profit (15%)		\$87.03	
Total = COMPETE =		\$717.81	
includes ODC's TOTAL =		\$50.60	
(ODC Indicative only)			

Contract No.
Task Order No.
Attachment:

Work/Task Order Title:

Project No:

Table 1 - Cost Codes Summary (Costs & Hours)

Item	Cost Codes	Cost Codes Description	Total Costs
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Totals =			

Table 2 - TASKS/WBS Summary (Costs & Hours)

Item	TASKS/WBS	TASKS/WBS Description	Labor Hrs	Total Costs	ODC's
1	Task 1	Remove FDU - Relocate into existing Splice enclosure	12.0	\$1,395.76	\$202.40
2	Task 2	Remove existing media converter(s), install media converter bay	9.0	\$1,046.82	\$202.40
3	Task 3	Relocate existing fiber and mount to back board/back wall	3.0	\$348.94	
4	Task 4				
5	Task 5				
6	Task 6				
7	Task 7				
8	Task 8	Material - media converter bay, media converter (2), splice tray, fiber patches, LC /LC (2), misc mounting material		\$1,550.00	
9	Task 9				
10	Task 10				

Sub Total =
 Overhead and Profit (15%)
 Total = :OMPETE =
 includes ODC's TOTAL =
 (ODC Indicative only)

SAN DIEGO METROPOLITAN TRANSIT SYSTEM (MTS)									
REVISED BID SUMMARY - TOTALS (BASE AND OPTION)									
		GLOBAL SIGNALS GROUP							
		BASE BID				OPTION			
#	STATION/DESCRIPTION	MATERIAL	7.75% CA Sales Tax	LABOR	TOTAL	MATERIAL	7.75% CA Sales Tax	LABOR	TOTAL
1	Morena/Linda Vista	\$ 24,561.79	\$ 1,903.54	\$ 26,312.00	\$ 52,777.33	N/A		N/A	N/A
2	Fashion Valley	\$ 31,875.81	\$ 2,470.38	\$ 33,756.00	\$ 68,102.19	\$ 10,095.12	\$ 782.37	\$ 31,571.45	\$ 42,448.94
3	Hazard Center	\$ 24,997.79	\$ 1,937.33	\$ 26,312.00	\$ 53,247.12	N/A	N/A	N/A	N/A
4	Mission Valley Center	\$ 24,745.81	\$ 1,917.80	\$ 26,312.00	\$ 52,975.61	N/A	N/A	N/A	N/A
5	Rio Vista	\$ 24,877.41	\$ 1,928.00	\$ 26,312.00	\$ 53,117.41	N/A	N/A	N/A	N/A
6	Fenton Parkway	\$ 24,572.41	\$ 1,904.36	\$ 26,312.00	\$ 52,788.77	N/A	N/A	N/A	N/A
7	Qualcomm Stadium	\$ 25,745.29	\$ 1,995.26	\$ 41,172.00	\$ 68,912.55	\$ 11,784.63	\$ 913.31	\$ 34,818.00	\$ 47,515.94
8	Mission San Diego	\$ 24,984.29	\$ 1,936.28	\$ 26,312.00	\$ 53,232.57	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
9	Grantville	\$ 25,109.69	\$ 1,946.00	\$ 41,172.00	\$ 68,227.69	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
10	SDSU	\$ 25,133.29	\$ 1,947.83	\$ 41,172.00	\$ 68,253.12	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
11	Alvarado Medical Center	\$ 25,361.79	\$ 1,965.54	\$ 26,312.00	\$ 53,639.33	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
12	70th Street	\$ 25,160.29	\$ 1,949.92	\$ 26,312.00	\$ 53,422.21	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
13	Grossmont Transit Center	\$ 24,658.79	\$ 1,911.06	\$ 26,312.00	\$ 52,881.85	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
14	Amaya Drive	\$ 24,770.29	\$ 1,919.70	\$ 26,312.00	\$ 53,001.99	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
15	El Cajon	\$ 24,718.29	\$ 1,915.67	\$ 26,312.00	\$ 52,945.96	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
16	Arnele Avenue	\$ 24,796.29	\$ 1,921.71	\$ 26,312.00	\$ 53,030.00	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
17	Gillespie Field	\$ 24,581.79	\$ 1,905.09	\$ 13,156.00	\$ 39,642.88	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
18	Santee Town Center	\$ 24,022.79	\$ 1,861.77	\$ 13,156.00	\$ 39,040.56	\$ 10,265.00	\$ 795.54	\$ 18,945.45	\$ 30,005.99
19	SUBTOTALS	\$ 454,673.90	\$ 35,237.23	\$ 499,328.00	\$ 989,239.13	\$ 134,794.75	\$ 10,446.59	\$ 274,789.40	\$ 420,030.74
21	TOTAL (BASE AND OPTION)	\$ 989,239.13				\$ 420,030.74			
22	Performance Bond (100%)	\$							35,640.00
GRAND TOTAL: BASE + OPTION (BASIS OF AWARD)		\$							1,444,909.87



Metropolitan Transit System

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San Diego, CA 92101-7490
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ORIGINAL

July 26, 2017

MTS Doc. No. PWL214.3-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Road, Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 3 TO MTS DOC. NO. PWL214.0-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 3 to our agreement for the Green Line Train to Wayside Communications (TWC) System Upgrade as further described below.

SCOPE

1. Provide additional work to upgrade communications equipment at Grossmont Station. This includes moving fiber distribution units and media converters to new locations as required.
2. Revise the contract's minimum insurance policy limits for Railroad Protective Liability (RPL) from \$2M/6M to \$2M/\$4M.

SCHEDULE

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

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$3,780.91.

The total value of this contract including this amendment shall be in the amount of \$1,454,806.24. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "Original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,


Paul C. Jablonski
Chief Executive Officer

Agreed:


Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

LMARQUIS-CL
CL-PWL214.3-17.GSG.CAQUINO.072617

Date: 7/31/17

cc: T. Nguyen, A. Monreal, C. Aquino, Procurement File

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Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, San Lee, and the County of San Diego.



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San Diego, CA 92101-7490
(619) 231-1466

ORIGINAL

October 3, 2017

MTS Doc. No. PWL214.4-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Road, Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 4 TO MTS DOC. NO. PWL214.0-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 4 to our agreement for the Green Line Train to Wayside Communications (TWC) System Upgrade as further described below.

SCOPE

Provide additional work to finish the communications equipment upgrade at Old Town Trolley Station. This includes the relocation of MTS communications infrastructure and the installation of an RX3i/NEMA box controller combination.

SCHEDULE

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

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$35,466.24.

The total value of this contract including this amendment shall be in the amount of \$1,490,272.48. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "Original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,


Paul C. Jablonski
Chief Executive Officer

LMARQUIS-CL
CL-PWL214.4-17.GSG.CAQUINO.100317

Agreed: 
Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

Date: 

Attachment: Global Signal Group's Quote dated 9/15/17

cc: T. Nguyen, A. Monreal, C. Aquino, Procurement File

1255 Imperial Avenue, Suite 1000, San Diego, CA 92101-7490 • (619) 231-1466 • www.sdmts.com

Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego.





Raymond Rizman, PE
Global Signals Group, Inc
908 Fesler Street,
El Cajon, CA 92020

September 15, 2017

Thang Nguyen, PE
MTS – Green Line TWC Project Manager
1255 Imperial Avenue, Suite 900
San Diego, CA 92101

RE: Contract # PWL214.0-17, Change Order #4

Dear Thang:

Change Order #4 encapsulates additional work requested under the Green Line contract to perform services at Old Town. This letter outlines the extra work needed to be performed in order for us to complete regular work under our contract.

Detailed Scope of Work

Generally the work will cover relocation of MTS communications infrastructure from the shared MTS/NCTD Communication room to the MTS 3-bay communications cabinet at Old Town Station. The work will also include the installation of an RX3i/NEMA box controller combination – ensuring consistency with the rest of the Green Line.

Shared NCTD/MTS Shared Communications Room

- Remove and Relocate Media converters for the following items;
 - 1 x TVM
 - 2x x PCID
 - 1 x for M6 Interlocking
 - 1 x M8 Interlocking
 - 1 x for M10 Interlocking
- Remove and Relocate fiber to new owner supplied fiber optic patch panel

RR

Thang Nguyen, PE
September 15, 2017
Page 2

MTS Communications 3-Bay Communications Cabinet

- Install Media Converter Rack
- Relocate VMS media converters to Media Converter Rack
- Install Media converters for the following items;
 - 1 x TVM
 - 2x x PCID
 - 1 x for M6 Interlocking
 - 1 x M8 Interlocking
 - 1 x for M10 Interlocking
- Relocate fiber from Shared communication house to new owner supplied fiber optic patch panel inside MTS 3 bay communications cabinet. Include splicing and configuration per existing as-built plan(s).
- Install RX3i PLC Controller and NEMA box (consistent as other stations on the Green Line)

Owner Furnished Material

- 19" Media Converter Rack
- Cisco Ethernet Switch (if required)
- Corning Splice Tray (capable of holding 144 Fibers)
- 19" rack mounted power supply
- Fiber Optic plans (existing as-in-service)

Other Items

- MTS IT is to ensure the configurations settings (IP, power, Tx, Rx, etc) of all IoT shall be already set. GSG will not configure any network connected items
- CCTV equipment to be relocated by others (managed by MTS) from NCTD/MTS Shared Communications Room to MTS Communications cabinet. Installed items shall be consistent with "MTS standard 3-bay communications plan". We would like to request this work be completed prior to our CCO work commencing.
- MTS IT shall Remove and Relocate MTS wireless access point from the existing NCTD/Shared Communications Room to the MTS 3-bay communications cabinet.
- As of 7/31/17, there is no RX3i PLC or UPS power installed in the 3-bay communications cabinet.

Anticipated/Additional time required

Disconnection and reconnection of fiber and electrical equipment will be required, during the limited work windows. We anticipate 2-3 nights worth of relocation, proposing 1 x 2 man crew plus foreman. MTS supervision will be required to ensure station devices/connected devices are functioning properly after the relocation. MTS IT will be required to ensure any equipment needing programmed reconfiguration is also done.

We further anticipate up to 1 day (combined) of additional work to cover planning, preparation and cleanup. The work will primarily be performed by 1 x 2 man crew plus foreman.

PWL214.3-17
GSG - CCO#4



Thang Nguyen, PE
September 15, 2017
Page 3

We are unsure of any interface there may be with NCTD Infrastructure. This will need to be determined prior to the fiber relocation.

*****We would recommend a site survey be conducted prior to the commencement of work.*****

Anticipated/Additional Material provided by us

- Media Converter Card Chassis & Media Converter(s) (as required – allowed up to 2)
- RX3i PLC (complete per plans)
- NEMA Box (consistent with other Green Line Stations, all inclusive per plan)

Anticipated Price

We have estimated the additional work to cost \$35,466.24, including all work, taxes, shipping, and insurances.

Please do not hesitate to contact me with any further questions.

Sincerely,

Raymond Rizman, PE

Enclosures;

- GSG CCO Summary (Breakdown & Backup)

PWL214.3-17
GSG - CCO#4



CONTRACTOR CHANGE ORDER PRICING/ESTIMATE

[illegible]

Global Signals Group, Inc.

Green Line: Relocation of Communications at Old Town/Provide PLC (RX3i Controller)

Sub-Contract Work

Z

#003

4

[illegible]

Calc'd By:

Date:

Checked By:

Date:

AR



Metropolitan Transit System

1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466

ORIGINAL

October 12, 2017

MTS Doc. No. PWL214.5-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Road, Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 5 TO MTS DOC. NO. PWL214.0-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 5 to our agreement for the Green Line Train to Wayside Communications (TWC) System Upgrade as further described below.

SCOPE

Installation of additional intrusion detection equipment at the following seven (7) locations: Ash Street, Old Town, Fashion Valley, Qualcomm, Baltimore Junction, American Plaza and City College as shown in Exhibit A.

SCHEDULE

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

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$11,645.21 as shown in Exhibit B.

The total value of this contract including this amendment shall be in the amount of \$1,501,917.59. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "Original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,

Paul C. Jablonski
Chief Executive Officer

LMARQUIS-CL
CL-PWL214.5-17.GSGI.DSINGLETON.101017

Agreed:

Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

Date: 10/17/17

Attachment(s): A - Global Signal Group's Quote dated 9/28/17
B - Estimate Summary

cc: T. Nguyen, A. Monreal, Procurement File

1255 Imperial Avenue, Suite 1000, San Diego, CA 92101-7490 • (619) 231-1466 • www.sdmts.com

Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

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Randall Bird
Global Signals Group, Inc
908 Fesler Street,
El Cajon, CA 92020

September 28, 2017

Thang Nguyen:
MTS – Green Line TWC Project Manager
1255 Imperial Avenue, Suite 900
San Diego, CA 92101

RE: Contract # PWL214.0-17, Change Order #3

Dear Thang Nguyen:

Change Order #3 encapsulates the installation of additional intrusion detection equipment at 7 locations. This letter outlines the extra work needed to be performed in order for us to complete regular work under our contract.

Detailed Scope of Work

- Procure, install and test intrusion detection equipment at the following locations:
 - Ash Street
 - Old Town
 - Fashion Valley
 - Qualcomm
 - Baltimore Junction
 - America Plaza
 - City College
- Install Sentrol magnetic door sensors which will be tied back to the RX3i via the NEMA enclosure at each of the locations.
- Install tech on site (TOS) push buttons at each of the locations and EMT conduit from the TOS back to the RX3i via the NEMA enclosure at each location. The TOS push buttons will be mounted inside a bell box with appropriate cover plate.
- All wiring will conform to the original specifications of the contract and is anticipated to be 16AWG.
- All pricing related to this change order is inclusive of all miscellaneous material to include screws, tags, crimps, etc.

Thang Nguyen:
September 28, 2017
Page 2

Anticipated/Additional time required

We anticipate that this work will be performed under daytime hours and that this work will not affect operations in any way.

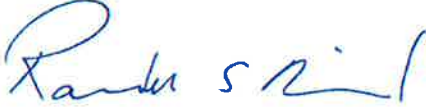
We anticipate this work to take approximately 12-man hours per location. This includes mounting all equipment and placing EMT conduit and pulling all wire. We have also allotted 2 hours per location for administrative and/or oversight at each location.

Anticipated Price

We have estimated the additional work to cost a total of \$11645.21, including all materials, work, taxes, shipping, and insurances.

Please do not hesitate to contact me with any further questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randall Bird", written over a horizontal line.

Randall Bird

Enclosures;

- GSG MTS Change Order Form
- GSG Summary (Backup)



EXHIBIT B
Global Signals Group, Inc
Estimate Summary

Version 3.20140916
Att. A, AI 14, 1/18/18

Contract No.	
Task Order No.	
Attachment:	

Work/Task Order Title: Green Line TWC Contract Change Order #3

Project No:

Table 1 - Cost Codes Summary (Costs & Hours)

Item	Cost Codes	Cost Codes Description	Total Costs
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Table 2 - TASKS/WBS Summary (Costs & Hours)

Item	TASKS/WBS	TASKS/WBS Description	Total Costs	ODC's
1	Task 1			
2	Task 2	Ash Street	\$1,175.56	\$151.80
3	Task 3	Old Town	\$1,175.56	\$151.80
4	Task 4	Fashion Valley	\$1,175.56	\$151.80
5	Task 5	Qualcomm	\$1,175.56	\$151.80
6	Task 6	Baltimore Junction	\$1,175.56	\$151.80
7	Task 7	America Plaza	\$1,175.56	\$151.80
8	Task 8	City College	\$1,175.56	\$151.80
9	Task 9			
10	Task 10			
11		Material Cost / Subcontractor price(s)	\$2,353.69	
Totals =			\$10,582.61	\$1,062.60

\$11,645.21

\$1,062.60
(ODC Indicative only)

Task Order Estimate
Other Direct Costs

Consultant/ Subconsultant: **Global Signals Group, Inc**

Contract No: **PWL214.0-17**

Task Order No.

Task Order Title: **Green Line TWC Contract Change Order #3**

Attachment: **B**

TASKS/WBS (1-5)													
ODC Item	Description	Unit	Unit Cost	Task 1		Task 2		Task 3		Task 4		Task 5	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1	Vehicle Costs Rental	Per Day	\$125.00										
2	Flights	LS	\$550.00										
3	GSA (meals, lodging, fuel, etc)	Per Day	\$215.00										
4	Vehicle Equipment Cost	LS	\$75.00										
5	Printing	LS											
6	Software	LS											
7	Insurance	LS											
8	Tools	LS											
9	Mobilization	LS											
10	Cal Tran Vehicle	Per Hour	\$25.30			6	\$151.80	6	\$151.80	6	\$151.80	6	\$151.80
Subtotal =						Subtotal =		Subtotal =		Subtotal =		Subtotal =	

TASKS/WBS (6-10)													
ODC Item	Description	Unit	Unit Cost	Task 6		Task 7		Task 8		Task 9		Task 10	
				Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
1	Vehicle Costs Rental	Per Day	\$125.00										
2	Flights	LS	\$550.00										
3	GSA (meals, lodging, fuel, etc)	Per Day	\$215.00										
4	Vehicle Equipment Cost	LS	\$75.00										
5	Printing	LS											
6	Software	LS											
7	Insurance	LS											
8	Tools	LS											
9	Mobilization	LS											
10	Cal Tran Vehicle	Per Hour	\$25.30	6	\$151.80	6	\$151.80	6	\$151.80				
Subtotal =						Subtotal =		Subtotal =		Subtotal =		Subtotal =	

DRAFT

December 18, 2017

MTS Doc. No. PWL214.6-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Rd., Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 6 TO MTS DOC. NO. PWL214.0-17; GREEN LINE TRAIN TO WAYSIDE COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 6 to our agreement for the Green Line Train to Wayside Communications (TWC) System Upgrade as further described below.

SCOPE

Reprogramming the TWC to separate the ability to track trains and control the signals at Mission Valley Interlocking.

SCHEDULE

This contract amendment extends the contract from June 8, 2018 to September 8, 2018.

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$28,229.78 as shown in Exhibit B.

The total value of this contract including this amendment shall be in the amount of \$1,530,147.37. This amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "original" to the Contracts Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,

Agreed:

Paul C. Jablonski
Chief Executive Officer

Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

DEC2018.PWL214.6-17.GSG.doc

Date: _____

Attachment: Global Signal Group's Quote dated 11/13/17

Cc: T. Nguyen, Bid File



Raymond Rizman, PE
Global Signals Group, Inc
908 Fesler Street,
El Cajon, CA 92020

November 13, 2017

Thang Nguyen, PE
MTS – Green Line TWC Project Manager
1255 Imperial Avenue, Suite 900
San Diego, CA 92101

RE: Contract # PWL214.0-17, Change Order #5

Dear Thang:

Change Order #5 encapsulates additional work requested under the Green Line contract to perform services at Mission Valley (M8 Interlocking). This letter outlines the extra work needed to be performed in order for us to complete regular work under our contract.

Detailed Scope of Work

TWC signaling controls for M8 interlocking (M720RC) are fed out M710RC and have shared function with the station train location system. MTS desires to split train tracking and signal control functionality. This change order will install a salvaged H&K HCS-R TWC interrogator in M720RC and connect the existing TWC to the interrogator. Programming, testing and placing the new interrogator into service at M8 Interlocking is also part of this change order.

The interrogators in M710RC will be decommissioned as part of this change order.

Design, review and as-building of signal circuits will be performed under this change order.

Owner Furnished Material

- H&K HCS-R uni-directional TWC Interrogator & cables (as salvaged under this contract)
- H&K TWC loop filters

Thang Nguyen, PE
November 13, 2017
Page 2

Anticipated/Additional time required

We anticipate approximately 3 days of field work to install the new Interrogator into M8 Interlocking Case (M720RC), proposing 1 x 2 man crew plus foreman, preparing cable, mounting equipment, etc.

We further anticipate 1 night shift to change over and place into service the new interrogator, ensuring all settings and configurations are correct. MTS supervision will be required. The old VECOM interrogator in M710RC will be decommissioned and returned to MTS.

This change order will add approximately 4 days to the overall project schedule.

*****We would recommend a site survey be conducted prior to the commencement of work.*****

Anticipated/Additional Material provided by us

- Cable to TWC loop/filter. This will be a 1 pair cable.
- Miscellaneous material for terminals, wiring, tagging, etc as necessary inside the signal case.

Anticipated Price

We have estimated the additional work to cost \$28,229.78, including all work, taxes, shipping, and insurances.

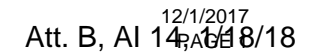
Please do not hesitate to contact me with any further questions.

Sincerely,

Raymond Rizman, PE

Enclosures;

- GSG CCO Summary (Breakdown & Backup)



CCO #	5
-------	---

[illegible]

	5% Contractor Overhead and Profit	\$ 1,317.92
	Subtotal w/ O, H & P	\$27,676.26
	2% Bond	\$553.53
	Subtotal w/ Bond	\$28,229.78
	Grand Total	\$28,229.78

DRAFT

December 18, 2017

MTS Doc. No. PWL214.7-17

Global Signals Group, Inc.
Mr. Ray Rizman
Principal/Engineering & Commercial
5333 Mission Center Rd., Suite 358
San Diego, CA 92108

Dear Mr. Rizman:

Subject: AMENDMENT NO. 7 TO MTS DOC. NO. PWL214.0-17; GREEN LINE TRAIN TO WAYSIDE
COMMUNICATIONS (TWC) SYSTEM UPGRADE

This shall serve as Amendment No. 7 to our agreement for the Green Line Train to Wayside
Communications (TWC) System Upgrade as further described below.

SCOPE

Additional site surveying and conduit installation at all stations between Morena and Santee.

SCHEDULE

There shall be no changes to the schedule provision of this contract.

PAYMENT

This contract amendment shall adjust the total contract value in the amount of \$264,132.88 as shown in
Exhibit B.

The total value of this contract including this amendment shall be in the amount of \$1,794,280.25. This
amount shall not be exceeded without written approval from MTS.

Please sign and return the copy marked "original" to the Contracts Specialist at MTS. All other terms and
conditions shall remain the same and in effect. Retain the other copy for your records.

Sincerely,

Agreed:

Paul C. Jablonski
Chief Executive Officer

Ray Rizman, Principal/Engineering & Commercial
Global Signals Group, Inc.

DEC2018.PWL214.7-17.GSG.doc

Date: _____

Attachment: Global Signal Group's Quote dated 12/11/17

Cc: T. Nguyen, Bid File



Raymond Rizman, PE
Global Signals Group, Inc
908 Fesler Street,
El Cajon, CA 92020

December 11, 2017

Tang Nguyen, PE
MTS – Green Line TWC Project Manager
1255 Imperial Avenue, Suite 900
San Diego, CA 92101

RE: Contract # PWL214.0-17, Potential Change Order #6

Dear Thang:

Change Order #6 encapsulates additional work requested under the Green Line contract to perform services at various locations along the Green Line. The majority of work shall be performed to complete the desired system, ultimately achieving consistency at all stations between Morena and Santee, allowing for the installation required underground work and miscellaneous conduit work not stipulated in the contract documents. This letter outlines the extra work needed to be performed in order for us to complete regular work under our contract.

Detailed Scope of Work

Morena-Linda Vista:

Estimated Additional Time: 1 – 2 days

ROM Cost: \$5873.06

*** Note: This location has a conduit blockage/crushed conduit - Further investigation is required ***

- North side of the tracks most conduits are plugged (can move cable but cannot get cable rodder Through)
- No alternative Path located
- No new conduit will be needed
- Additional exploration time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from existing pullbox to new TWC loops Platform east and west

Fashion Valley:

Estimated Additional Time: 1-2 Days

ROM Cost: \$5174.82

- Install miscellaneous GRS fitting and boxes on structure
- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from existing pullbox to new TWC loops Platform east and west

December 11, 2017

Page 2

Mission Valley Center:

Estimated Additional Time: ~5 days ROM Cost: \$39,405.60

- East end of platform conduit to the TWC pull box located in center of the tracks has a plugged conduit (can move cable but unable to get rodder through)
- ~ 100ft of new conduit to be placed adjacent to EB and WB tracks and intercept existing P/B. Install Caltrans 3.5 P/B (hand dig and trench)
- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from existing pullbox to new TWC loops Platform east and west
- Locate trench line and locate utilities (MTS Assist)

Rio Vista:

Estimated Additional Time: 1 Days ROM Cost: \$4944.02

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from existing pullbox to new TWC loops Platform east and west

Fenton Parkway:

Estimated Additional Time: 1 Days ROM Cost: \$6947.14

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from existing pullbox to new TWC loops Platform east and west

Qualcomm:

Estimated Additional Time: 3 Days ROM Cost: \$10,241.17

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from pullbox to new TWC loops Platform east and west
- Install miscellaneous GRS fitting and boxes on structure (~100ft)

Mission San Diego:

Estimated Additional Time: 1 Day ROM Cost: \$5174.82

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from pullbox to new TWC loops Platform east and west
- Install miscellaneous GRS fitting and boxes on structure (~100ft)

Grantville:

Estimated Additional Time: 1 Days ROM Cost: \$5940.70

- Additional time for extended conduit/site survey due to missing design detail

December 11, 2017

Page 3

- Install new conduit path (Liquid-tite) from pullbox to new TWC loops Platform east and west
- Install miscellaneous GRS fitting and boxes on structure (~100ft)

Alvarado:

Estimated Additional Time: ~5 Days

ROM Cost: \$5369.47

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from new pullbox to new TWC loops Platform east and west
- Install new conduit path from existing pullboxes to new Caltrans 3.5 pullboxes ~100ft away
- Install new conduit from existing Comm pullbox to complete viable path

70th Street:

Estimated Additional Time: ~6 Days

ROM Cost: \$45,952.98

- Cut Concrete and lay conduit in the concrete leading up to the case and out to the tracks
- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from pullbox to new TWC loops Platform east and west
- ALTERNATE: Install miscellaneous GRS fitting and boxes (~100ft)
- Some elements of the work in this location may require Traffic Control

Grossmont:

- East side of the platform appears to be open
- Mule tape has been place in all east side conduits
- New conduit will be needed for the east and west side

Estimated Additional Time: 7 Days

ROM Cost: \$57,040.21

- We will go north through the platform tile/brick work 6', then another 4' of concrete sidewalk, through 6' of asphalt, then travel west for 20' of asphalt, till we hit 6' of concrete sidewalk, back south through 15' of dirt at which we have to travel under the fence.
- When in dirt section we will have many obstacles to dig around as there are many hand holes with electrical and irrigation in them as well as fence post foundation and light post foundation.
- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from new pullbox to new TWC loops Platform east and west
- Install new conduit path from existing pullboxes to new Caltrans 3.5 pullboxes ~100ft away

Amaya:

Estimated Additional Time: ~5 Days

ROM Cost: \$46,049.75

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from new pullbox to new TWC loops Platform east and west
- Install new conduit path from existing pullboxes to new Caltrans 3.5 pullboxes ~100ft away on EB and WB tracks, both ends of platform

December 11, 2017

Page 4

El Cajon:

Estimated Additional Time: ~4-5 days Day

ROM Cost: \$20,681.84

- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from new pullbox to new TWC loops Platform east and west
- Intercept existing conduit and install Caltrans 3.5 pullbox between tracks

Arnele:

Estimated Additional Time: 1 Day

ROM Cost: \$5337.30

*** Note: This location has a conduit blockage/crushed conduit - Further investigation is required ***

- All east side conduits have been located mule tape has been placed
- The only path leading west is plugged somewhere close to the middle of the 440' run (there is currently mule tape in this conduit however we cannot get the rodder through as well as we have tried to use the mule tape to pull in new mule tape and it will not pull through)
- Additional time for extended conduit/site survey due to missing design detail
- Install new conduit path (Liquid-tite) from new pullbox to new TWC loops Platform east and west

Anticipated Exclusions

Traffic Control (unless stipulated): It is anticipated nearly all work will be performed within the railroad right-of-way. Traffic control may be required at 70th Street. Provision for this has been made under our prices – to be reviewed further.

No allowance for testing, fees or permits

No allowance for SWPPP (storm water/pollution control)

No allowance for concrete, tile or paver replacement not directly affected by our work

No allowance for

Contract plans do not show any landscape irrigation in the vicinity of our proposed work areas. If these are uncovered and damaged, these will be capped.

Work days shall be typically 7am – 3:30pm

All material, insurance adjustments, profit adjustment, taxes, are included

Owner Furnished Material

N/A

Anticipated/Additional time required

We anticipate approximately 31 work days to the overall project schedule.

December 11, 2017

Page 5

Anticipated/Additional Material provided by us

- Miscellaneous equipment to perform the change order work
- Miscellaneous material for terminals, wiring, tagging, etc as necessary inside the signal case.
- Miscellaneous additional conduit, pull boxes, etc as necessary

Anticipated Price

We have estimated the additional work to cost \$264,132.88, including all labor, materials, taxes, shipping, and insurances.

Please do not hesitate to contact me with any further questions.

Sincerely,

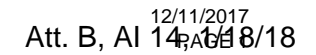
Raymond Rizman, PE

Enclosures;

- GSG CCO#6 Summary (Breakdown & Backup)

Global Signals Group, Inc
MTS: PWL2140.17 - Green Line TWC System Replacement
CCO #6 - Additional Conduit Work: SUMMARY SHEET

Site	Price	Sub- contractor	Sub Price	Additional Days to Contract	Additional Civil work Days
Green Line: Morena Station - Additional Cond	\$ 5,873.06		\$ -	2	
Green Line: Fashion Valley - Additional Condu	\$ 5,174.82		\$ -	1	
Green Line: Mission Valley Additional Conduit	\$ 39,405.60		\$ -	1	5
Green Line: Rio Vista - Additional Conduit Wo	\$ 4,944.02		\$ -	1	
Green Line: Fenton Parkway - Additional Condu	\$ 6,947.14		\$ -	1	
Green Line: Qualcomm - Additional Conduit W	\$ 10,241.17		\$ -	3	
Green Line: Mission San Diego: Additional coi	\$ 5,174.82		\$ -	1	
Green Line: Grantville - Additional Conduit Wc	\$ 5,940.70		\$ -	1	
Green Line: Alvarado: Additional Conduit Wor	\$ 5,369.47		\$ -	1	5
Green Line: 70th Street: Additional Conduit W	\$ 45,952.98	Y	\$ 7,000.00	1	5
Green Line: Grossmont: Additional Conduit W	\$ 57,040.21	Y	\$ 5,000.00	1	7
Green Line: Amaya: Additional Conduit Work	\$ 46,049.75		\$ -	1	5
Green Line: El Cajon: Additional Conduit Wor	\$ 20,681.84		\$ -	1	4
Green Line: Arnele: Additional Conduit Work	\$ 5,337.30		\$ -	1	
TOTAL			\$ 264,132.88		
TOTAL DAYS added to CONTRACT 31 days (17 encapsulated)				17	31

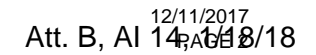


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[illegible]

	5% Contractor Overhead and Profit	\$ 274.19
	Subtotal w/ O, H & P	\$5,757.90
	2% Bond	\$115.16
	Subtotal w/ Bond	\$5,873.06
	Grand Total	\$5,873.06

B-12

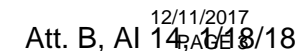


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Sub-Contract Work: N

NOTES: <i>FIELD - ** Time includes field survey and additional effort to install conduit not included in plans **</i>		5% Contractor Overhead and Profit	\$ 241.59
		Subtotal w/ O, H & P	\$5,073.36
		2% Bond	\$101.47
		Subtotal w/ Bond	\$5,174.82
		Grand Total	\$5,174.82

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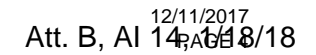


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Sub-Contract Work: N

NOTES: <i>FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup **</i> <i>Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking</i>		5% Contractor Overhead and Profit	\$ 1,839.66
		Subtotal w/ O, H & P	\$38,632.94
		2% Bond	\$772.64
		Subtotal w/ Bond	\$39,405.61
		Grand Total	\$39,405.61

B-14

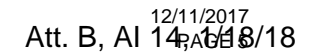


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Sub-Contract Work: N

NOTES: FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup ** Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking		5% Contractor Overhead and Profit	\$ 230.81
		Subtotal w/ O, H & P	\$4,847.08
		2% Bond	\$96.94
		Subtotal w/ Bond	\$4,944.02
		Grand Total	\$4,944.02

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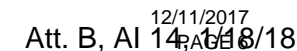


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Sub-Contract Work: N

NOTES: FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup ** Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking		5% Contractor Overhead and Profit	\$ 324.33
		Subtotal w/ O, H & P	\$6,810.92
		2% Bond	\$136.22
		Subtotal w/ Bond	\$6,947.14
		Grand Total	\$6,947.14

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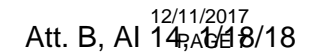


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Sub-Contract Work: N

NOTES: FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup ** Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking		5% Contractor Overhead and Profit	\$ 478.11
		Subtotal w/ O, H & P	\$10,040.36
		2% Bond	\$200.81
		Subtotal w/ Bond	\$10,241.17
		Grand Total	\$10,241.17

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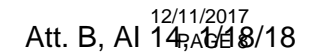


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Sub-Contract Work: N

NOTES: FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup ** Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking		5% Contractor Overhead and Profit	\$ 241.59
		Subtotal w/ O, H & P	\$5,073.36
		2% Bond	\$101.47
		Subtotal w/ Bond	\$5,174.82
		Grand Total	\$5,174.82

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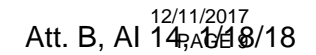


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Sub-Contract Work: N

NOTES: FIELD - ** Time includes 1 x night shift for C/O, and 3 days for prep, install and cleanup ** Work is contingent on Field Survey/Signal Civil being complete to connect loops west of interlocking		5% Contractor Overhead and Profit	\$ 277.34
		Subtotal w/ O, H & P	\$5,824.21
		2% Bond	\$116.48
		Subtotal w/ Bond	\$5,940.70
		Grand Total	\$5,940.70

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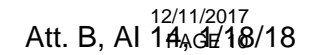


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[illegible]

	5% Contractor Overhead and Profit	\$ 250.68
	Subtotal w/ O, H & P	\$5,264.18
	2% Bond	\$105.28
	Subtotal w/ Bond	\$5,369.47
	Grand Total	\$5,369.47

B-20



CCO #	6
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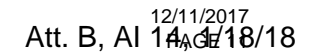
Equip No.	Equipment	Code	Reg Hrs	OT Hrs	Rate	Total
	Air Compressor				\$ 18.75	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Crew Truck		1.0		\$ 25.30	\$ 25.30
	Crew Truck		8.0		\$ 25.30	\$ 202.40
	Crew Truck				\$ 27.77	\$ -
	Crew Truck		88.0		\$ 25.30	\$ 2,226.40
	Compactor/Whacker				\$ 12.75	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 51.10	\$ -
	Crew Truck				\$ 46.55	\$ -
	Fiber Fusion Splicer				\$ 75.00	\$ -
						\$ -
						\$ -
		(A)		Subtotal		\$ 2,454.10
Materials & Specialty Equipment				Unit	Cost/ Unit	Total
Misc underground conduit				60.00	\$3.50	\$ 210.00
						\$ -
Misc underground equipment (rentals, jackhammer, concrete vibrator)				2.00	\$1,000.00	\$ 2,000.00
Caltrans No 3.5T Box (or equivalent)				1.00	\$350.00	\$ 350.00
Misc Conduit & Fittings				1.00	\$1,000.00	\$ 1,000.00
						\$ -
						\$ -
						\$ -
						\$ -
				Subtotal		\$ 3,560.00
(B)				Subtotal		\$ 3,560.00

Labor	Craft	Reg Hrs	OT Hrs	Rate	OT Rate	Total
FIELD - includes site prep, installation, testing, travel						
						\$ -
1	Foreman	1.0		\$ 103.63	\$ 155.45	\$ 103.63
2	Journeyman	8.0		\$ 99.84	\$ 149.76	\$ 1,597.44
						\$ -
1	Signal System Engineer	2.0		\$ 199.63	\$ 299.45	\$ 399.26
						\$ -
1	Foreman	48.0		\$ 103.63	\$155.45	\$ 4,974.24
5	Laborer	40.0		\$ 94.14	\$141.21	\$ 18,828.00
						\$ -
OFFICE SUPPORT - includes management, manufacturing, QA/QC						
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
		(C)		Labor Subtotal		\$ 26,701.09
				Total w/Surcharge of 0.00%		\$ 26,701.09
	(D)	Total Labor Costs				\$ 26,701.09
	(E)	10% Labor Markup (overhead)				\$ 2,670.11
	(F)	Total Equipment Costs				\$ 2,454.10
	(G)	10% Equipment Markup (include shipping, handling, ordering)				\$ 245.41
	(H)	Total Material				\$ 3,560.00
	(I)	7.75% Material Tax				\$ 275.90
	(J)	1 Subcontract (Y or N)				\$ 7,000.00
		Subtotal (H-J) =				\$ 42,906.61

NOTES: FIELD - ** Time includes additional time for install and oversight of subcontractor ** Includes coverage for Traffic Control		5% Contractor Overhead and Profit	\$ 2,145.33
		Subtotal w/ O, H & P	\$45,051.94
		2% Bond	\$901.04
		Subtotal w/ Bond	\$45,952.98
		Grand Total	\$45,952.98

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B-21

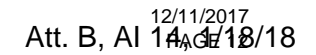


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[illegible]

	5% Contractor Overhead and Profit	\$ 2,662.94
	Subtotal w/ O, H & P	\$55,921.78
	2% Bond	\$1,118.44
	Subtotal w/ Bond	\$57,040.21
	Grand Total	\$57,040.21

B-22



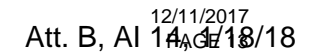
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Equip No.	Equipment	Code	Reg Hrs	OT Hrs	Rate	Total
	Air Compressor				\$ 18.75	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Crew Truck		1.0		\$ 25.30	\$ 25.30
	Crew Truck		8.0		\$ 25.30	\$ 202.40
	Crew Truck				\$ 27.77	\$ -
	Crew Truck		192.0		\$ 25.30	\$ 4,857.60
	Compactor/Whacker				\$ 12.75	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 51.10	\$ -
	Crew Truck				\$ 46.55	\$ -
	Fiber Fusion Splicer				\$ 75.00	\$ -
						\$ -
						\$ -
		(A)	Subtotal			\$ 5,085.30
Materials & Specialty Equipment				Unit	Cost/ Unit	Total
Misc underground conduit				60.00	\$3.50	\$ 210.00
						\$ -
Misc underground equipment (rentals, jackhammer, concrete vibrator)				2.00	\$1,000.00	\$ 2,000.00
Caltrans No 3.5T Box				4.00	\$350.00	\$ 1,400.00
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
				Subtotal		\$ 3,610.00
(B)				Subtotal		\$ 3,610.00

Labor	Craft	Reg Hrs	OT Hrs	Rate	OT Rate	Total
FIELD - includes site prep, installation, testing, travel						
						\$ -
1	Foreman	1.0		\$ 103.63	\$ 155.45	\$ 103.63
2	Journeyman	8.0		\$ 99.84	\$ 149.76	\$ 1,597.44
						\$ -
1	Signal System Engineer	2.0		\$ 199.63	\$ 299.45	\$ 399.26
						\$ -
1	Foreman	48.0		\$ 103.63	\$155.45	\$ 4,974.24
5	Laborer	48.0		\$ 94.14	\$141.21	\$ 22,593.60
						\$ -
OFFICE SUPPORT - includes management, manufacturing, QA/QC						
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
		(C)	Labor Subtotal			\$ 30,466.69
			Total w/Surcharge of 0.00%			\$ 30,466.69
	(D)	Total Labor Costs				\$ 30,466.69
	(E)	10% Labor Markup (overhead)				\$ 3,046.67
	(F)	Total Equipment Costs				\$ 5,085.30
	(G)	10% Equipment Markup (include shipping, handling, ordering)				\$ 508.53
	(H)	Total Material				\$ 3,610.00
	(I)	7.75% Material Tax				\$ 279.78
	(J)	1 Subcontract (Y or N)				
		Subtotal (H-J) =				\$ 42,996.96

	5% Contractor Overhead and Profit	\$ 2,149.85
	Subtotal w/ O, H & P	\$45,146.81
	2% Bond	\$902.94
	Subtotal w/ Bond	\$46,049.75
	Grand Total	\$46,049.75

B-23



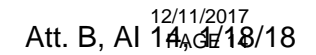
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Equip No.	Equipment	Code	Reg Hrs	OT Hrs	Rate	Total
	Air Compressor				\$ 18.75	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Mini Excavator				\$ 50.00	\$ -
	Crew Truck		2.0		\$ 25.30	\$ 50.60
	Crew Truck		8.0		\$ 25.30	\$ 202.40
	Crew Truck				\$ 27.77	\$ -
	Crew Truck		72.0		\$ 25.30	\$ 1,821.60
	Compactor/Whacker				\$ 12.75	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 46.55	\$ -
	Crew Truck				\$ 51.10	\$ -
	Crew Truck				\$ 46.55	\$ -
	Fiber Fusion Splicer				\$ 75.00	\$ -
						\$ -
						\$ -
		(A)	Subtotal			\$ 2,074.60
Materials & Specialty Equipment				Unit	Cost/ Unit	Total
Misc underground conduit				60.00	\$3.50	\$ 210.00
						\$ -
Misc underground equipment (rentals, jackhammer, concrete vibrator)				2.00	\$1,000.00	\$ 2,000.00
Caltrans No 3.5T Box (Intercept)				1.00	\$350.00	\$ 350.00
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
				Subtotal		\$ 2,560.00
(B)				Subtotal		\$ 2,560.00

Labor	Craft	Reg Hrs	OT Hrs	Rate	OT Rate	Total
FIELD - includes site prep, installation, testing, travel						
						\$ -
1	Foreman	2.0		\$ 103.63	\$ 155.45	\$ 207.26
2	Journeyman	8.0		\$ 99.84	\$ 149.76	\$ 1,597.44
						\$ -
1	Signal System Engineer	1.0		\$ 199.63	\$ 299.45	\$ 199.63
						\$ -
1	Foreman	40.0		\$ 103.63	\$155.45	\$ 4,145.20
2	Laborer	32.0		\$ 94.14	\$141.21	\$ 6,024.96
						\$ -
OFFICE SUPPORT - includes management, manufacturing, QA/QC						
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
1	Project Management/Planning	2.0		\$ 199.63		\$ 399.26
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
		(C)	Labor Subtotal			\$ 12,973.01
			Total w/Surcharge of 0.00%			\$ 12,973.01
	(D)	Total Labor Costs				\$ 12,973.01
	(E)	10% Labor Markup (overhead)				\$ 1,297.30
	(F)	Total Equipment Costs				\$ 2,074.60
	(G)	10% Equipment Markup (include shipping, handling, ordering)				\$ 207.46
	(H)	Total Material				\$ 2,560.00
	(I)	7.75% Material Tax				\$ 198.40
	(J)	1 Subcontract (Y or N)				
		Subtotal (H-J)				= \$ 19,310.77

	5% Contractor Overhead and Profit	\$ 965.54
	Subtotal w/ O, H & P	\$20,276.31
	2% Bond	\$405.53
	Subtotal w/ Bond	\$20,681.84
	Grand Total	\$20,681.84

B-24



CCO #	6
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Sub-Contract Work: N

NOTES: FIELD - ** Time includes additional time for install and oversight of subcontractor **		5% Contractor Overhead and Profit	\$ 249.17
		Subtotal w/ O, H & P	\$5,232.65
		2% Bond	\$104.65
		Subtotal w/ Bond	\$5,337.30
		Grand Total	\$5,337.30

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1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466 • FAX (619) 234-3407

Agenda Item No. 15

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2017

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

LIGHT RAIL VEHICLE (LRV) UPPER LEVEL WORK PLATFORMS CONSTRUCTION
MANAGEMENT SERVICES – WORK ORDER AGREEMENT

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order No. WOA2016-CM001 to MTS Doc. No. G2016.0-17 (in substantially the same format as Attachment A) with Caltrop Corporation for the LRV Upper Level Work Platform Construction Management Services.

Budget Impact

The value of this agreement will not exceed \$119,201.76 and is funded through the MTS Capital Improvement Project budget account(s) 2006003302 and 2006005402.

DISCUSSION:

San Diego Association of Governments (SANDAG) issued an RFSQ for Construction Management (CM) services on October 17, 2014 and MTS was assigned the right to utilize this contract through an assignment agreement on June 7, 2017. The RFSQ resulted in the approval of 8 firms qualified to perform CM services. Tasks are assigned to the firms through a work order process. MTS selects the most qualified firm based on the scope of work to be performed. Caltrop Consulting was selected as the most qualified firm for Work Order WOA2016-CM001.

The Scope of Work for Caltrop Consulting, Work Order WOA2016-CM001, consists of construction management (CM) for the LRV Upper Level Work Platforms installation project. The project includes replacing LRV upper level work platforms at Building A and Building C, and requires onsite CM support through the duration of the project.



MTS requires construction management services for the overall planning, coordination, and control of this project from beginning through completion (collectively “CM Services”). The proposed Work Order for CM Services include the following:

- Resident Engineer
- Field Inspector

The Work Order will provide total construction management in the areas of planning, coordination and management (collectively “Construction Management Services”) across the duration of this project.

Therefore, staff recommends that the Board of Directors authorize the CEO to execute Work Order WOA2016-CM001 to MTS Doc. G2016.0-17 with Caltrop, Inc. for the LRV Upper Level Work Platforms Construction Management Services.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft MTS Doc. No. G2016-.0-17 WOA2016-CM001

January 18, 2018

MTS Doc. No. G2016.0-17
Work Order No. WOA2016-CM001

Mr. Alex Hashroudi
Project/Task Order Manager
CALTROP Corporation
1775 Hancock St. Ste. 190
San Diego, CA 92110

Dear Mr. Hashroudi:

Subject: MTS DOC. NO. G2016.0-17, WOA2016-CM001, SDSU CONSTRUCTION MANAGEMENT SERVICES – WORK ORDER AGREEMENT

This letter shall serve as our agreement, MTS Doc. No. G2016.0-17, WOA2016-CM001, for Construction Management services under the Construction Management Consultant Agreement, as further described below.

SCOPE OF SERVICES

Provide construction management and inspection staff for the LRV Upper Level Platforms project, Schedule A work, in accordance with MTS and SANDAG policies and procedures. Please see Attachment A, Scope of Services, for a detailed summary of the services to be provided.

SCHEDULE

Aligned with LRV Upper Level Platforms project.

PAYMENT

Payment shall be based on actual costs in the amount not to exceed without prior authorization of \$119,201.76.

Sincerely,

Accepted:

Paul C. Jablonski
Chief Executive Officer

Alex Hashroudi
CALTROP Corp.

Date: _____

Attachments: A - Schedule A Scope of Services
B - Schedule A Negotiated Fee Proposal



WORK ORDER TITLE: LRV Upper Level Work Platforms Construction Management and Inspection Services
MTS Doc. No. WOA2016-CM001

I. PROJECT DESCRIPTION

MTS is in the process of performing concrete work and structural steel shop fabrication and field assembly within the existing buildings A and C located in the San Diego Trolley Maintenance Yard at 13th Street and Newton Avenue in San Diego, CA. The work includes removing and replacing of existing railing system, removal of concrete, drilling and construction of Cast-in-drilled hole foundations, (CIDH), construction of new fall protection structures, removable and fixed hand railing systems, retractable ladders, "Flip-Down" step, and connection plates; and connection of new fall protection structures to existing fall protection structures. This task order is for Construction Management services required to provide a Resident Engineer and Field Inspector.

II. EXPECTED RESULTS

Attain a Resident Engineer and Field Inspector to manage the Construction and provide Inspection for the MTS enhancements to in accordance with SANDAG policies and procedures.

III. SCOPE OF WORK

The scope of work shall consist of the following tasks and deliverables:

Engineering and Inspection Services

Resident Engineer:

- A. Attendance on conference calls and or site meetings with the contractor and related subcontractors.
- B. Technical support to SANDAG/MTS Project Manager.
- C. Provide oversight for installation and modifications of trolley station shelter upgrade and improvements.

Field Inspector:

- A. Provide quality control and project oversight for the replacement of the shelters and required incidentals to ensure that is completed per the plans and specifications.
- B. Ensure that work is completed within the safety standards required by MTS of their contractors.

IV. PERIOD OF PERFORMANCE

The period of performance shall be 90 calendar days.

V. DELIVERABLES

Deliverables will consist of the daily work products produced under direct supervision by SANDAG management which include:

1. Inspector's daily reports and photographs
2. Residents Engineers' daily or weekly status reports and updates.
3. A set of 11x17 size prints of the project marked on the front "RESIDENT ENGINEER COPY"
4. Correspondence files.
5. Testing submittal reviews and Inspection
6. Request for Information (RFIs) and responses.
7. Other pertinent files established and maintained that would normally be required for a project of this scope, set up using the Caltrans numbering system.

VI. SCHEDULE OF SERVICES/MILESTONES/DELIVERABLES

A. Tasks Schedule

Task	Begin/End Dates
Construction Management Services	NTP to 5/23/2018
Project Closeout and Final Records Transmittal	5/23/2018

VII. MATERIALS TO BE PROVIDED BY MTS AND/OR SANDAG

1. Project plans, special provisions and standard specifications.
2. Necessary forms for project flaggers.
3. Flagging personnel for work alongside the MTS right-of-way.
4. MTS Roadway Worker training (if not current) for personnel to be working on the project, at all sites, alongside the MTS right-of-way.
5. Access to all signal and highway grade crossing facilities as required.

VIII. SPECIAL CONDITIONS

Not Applicable.

IX. MTS ACCEPTANCE OF SERVICES:

Firm shall not be compensated at any time for unauthorized work outside of this Work Order. Firm 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 Firm provides final service(s) or final work product(s) which are found to be unacceptable due to Firms and/or Firms subcontractors negligence and thus not 100% complete by MTS' Project Manager, Firm 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. Firm 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.

X. DEFICIENT WORK PRODUCT:

Throughout the design and/or implementation phases associated with the services rendered by the Firm, if MTS finds any work product provided by Firm to be deficient and the deficiently delays any portion of the project, Firm 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:

- Paying applicable delay fees,
- Revising provided documents,

At no time will MTS be required to correct any portion of the Firms deficient work product and shall bear no costs or burden associated with Firms deficient performance and/or work product.

XI. DELIVERABLE REQUIREMENTS

Firm will be required to submit any and all documentation required by the Scope of Work. The deliverables furnished shall be of a quality acceptable to MTS. The criteria for acceptance shall be a product of neat appearance, well-organized, and procedurally, technically and grammatically correct. MTS reserves the right to request a change in the format if it doesn't satisfy MTS's needs. All work products will become the property of MTS. MTS reserves the right to disclose any reports or material provided by the Firm to any third party.

Firm shall provide with each task, a work plan showing the deliverables schedule as well as other relevant date needed for Firm's work control, when and as requested by MTS.

Firm'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. Firm shall maintain backup copies of all data conveyed to MTS.

Firm shall provide MTS with hard copy or electronic versions of reports and/or other material as requested by MTS.

XII. ADDITIONAL INFORMATION

List additional information as applicable to the specific Work Order scope of services.

Work Order Estimate Summary

Att. A, AI 15, 1/18/18

MTS Doc. No. **G2016.0-17**
 Work Order No. **WOA2016-CM001**
 Attachment: **B**

Work Order Title: **LRV Upper Level Work Platforms**

Project No:

Table 1 - Cost Codes Summary (Costs & Hours)

Item	Cost Codes	Cost Codes Description	Total Costs
1			\$119,201.76
2			

Totals = **\$119,201.76**

Table 2 - TASKS/WBS Summary (Costs & Hours)

Item	TASKS/WBS	TASKS/WBS Description	Labor Hrs	Total Costs
1	Task 1	Construction Management and Inspection Services	648.0	\$119,201.76
2				
3				
4				
5				

Totals = **648.0** **\$119,201.76**

Table 3 - Consultant/Subconsultant Summary (Costs & Hours)

(If Applicable, Select One)				Consultant	Labor Hrs	Total Costs
DBE	DVBE	SBE	Other			
				CALTROP Corporation	648.0	\$119,201.76

Totals = **648.0** **\$119,201.76**



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Agenda Item No. 16

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

MTS BUILDING A – OPERATIONS CONTROL CENTER (OCC) VIDEO WALL SYSTEM
AND WORKSTATION CONSOLES PURCHASE AND INSTALLATION SERVICES –
AWARD WORK ORDER UNDER A JOB ORDER CONTRACT

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Work Order No. MTSJOC7504-41 (in substantially the same format as Attachment A), under MTS Doc. No. PWL204.0-16 with ABC Construction, Inc., for the provision of labor, materials, equipment, and supplies for the purchase and installation of new video wall system and dispatch workstation consoles for Building A – OCC room.

Budget Impact

The total cost of this Work Order will not exceed \$569,758.49 inclusive of a direct cost of \$564,060.91 and the contractor share of administrative fees totaling \$5,697.58. Total administrative fees are \$14,777.81 (contractor share \$5,555.57 and the MTS share \$9,222.24). Funding will be from the FY 2018 Capital Improvement Project (CIP) WBSE# 1007103301, CTC System Technology Refresh.

DISCUSSION:

The OCC room in Building A in the Trolley Yard houses the Centralized Train Control (CTC) System. The CTC System utilizes a series of projection video boards, which allow the trolley dispatchers to monitor the movement of trains on MTS lines. Having visibility of train movements provides the dispatchers the necessary information to conduct traffic of the trolley system and respond to real-time situations that can affect system performance. The current CTC System was installed in 2007 and operates on obsolete Microsoft 2007 and XP Operating Systems (OS). A faster and more modern OS is required to accommodate the Mid-Coast expansion project, as well as to accommodate the demands of current trolley operations.



As part of the CTC system upgrade, the existing projection video boards, OS, dispatch workstation consoles and carpet will be removed and replaced with new ergonomic consoles and the latest video wall system technology and Microsoft OS. The upgrade will improve CTC system performance, provide greater system security and speed, and an emergency backup solution that is not available on the current system, thus lowering system maintenance costs and delivering more robust system features that are easier to maintain and manage. Also, the removal of the projection video boards will provide additional workspace for MTS staff. In short, the upgrade is essential in ensuring that the CTC system and dispatchers are performing at their optimal levels.

Staff has elected to utilize a Job Order Contract (JOC) for this project in order to save time and money, as developing bid specifications for this project will involve the separate procurement of an engineering firm to both design the project and prepare the bid document.

ABC Construction, Inc. is a current MTS Job Order Contractor for both civil and building facility construction projects. Furthermore, ABC Construction, Inc. has worked closely with MTS Operations and IT staff to select the best suppliers for the new video wall system and the most ergonomic consoles in the market for our dispatchers for the CTC system upgrade project.

Therefore staff recommends that the MTS Board of Directors authorize the CEO to execute Work Order No. MTSJOC7504-41 (in substantially the same format as Attachment A), under MTS Doc. No. PWL204.0-16 with ABC Construction, Inc., for the provision of labor, materials, equipment, and supplies for the CTC system upgrade.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft MTSJOC7504-41, PWL204.0-16

JOB ORDER CONTRACT WORK ORDER

PWL204.0-16

CONTRACT NUMBER

MTSJOC7504-41

WORK ORDER NUMBER

THIS AGREEMENT is entered into this _____ day of _____, 2018, 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: ABC Construction, Inc. Address: 3120 National Avenue
 Form of Business: Corporation San Diego, CA 92113
 (Corporation, partnership, sole proprietor, etc.) Telephone: (619) 239-3428
 Authorized person to sign contracts: Wayne Czubernat Project Manager
 Name Title

Pursuant to the existing Job Order Contract (MTS Doc. No. PWL204.0-16), MTS issues a Work Order to Contractor to complete the detailed Scope of Work (attached as Exhibit A.), the Cost Breakdown for the Scope of Work (attached as Exhibit B.), and the subcontractor listing form applicable to this Work Order (attached as Exhibit C.)

Pursuant to the SANDAG JOC Contract Section 7-1.04A(3), 1% of the work order value has been deducted. MTS will pay both the Contractor (1%) and the MTS/Owner share of the Gordian Group license fee.

The total cost for this work order will not exceed \$569,758.49 inclusive of a direct cost of \$564,060.91 and a 1% Gordian Group license fee of \$5,697.58.

TOTAL PAYMENTS TO CONTRACTOR SHALL NOT EXCEED \$ 564,060.91

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CONTRACTOR AUTHORIZATION
By: _____ Chief Executive Officer	Firm: _____
Approved as to form:	By: _____ Signature
By: _____ Office of General Counsel	Title: _____
AMOUNT ENCUMBERED	BUDGET ITEM
\$ 564,060.91	1007103301
	FISCAL YEAR
	2018

By: _____
Chief Financial Officer Date

(____ total pages, each bearing contract number and work order number)



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Agenda Item No. 17

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

**Draft for
Executive Committee
Review Date: 1/11/18**

SUBJECT:

PROHIBITING MARIJUANA ADVERTISEMENTS

RECOMMENDATION:

That the Board of Directors approve the revisions to MTS Board Policy No. 21, "MTS Revenue-Generating Display Advertising, Concessions, and Merchandise".

Budget Impact

None.

DISCUSSION:

With the recent legalization of marijuana use in California, feedback was received during the December 14, 2017 Board of Directors meeting that we review whether advertising marijuana was prohibited. To be consistent with how we treat alcohol and tobacco, which are legal and regulated products used for recreational consumption, staff recommends adding marijuana to this list of advertising content that is prohibited on MTS vehicles, bus benches, bus shelters, facilities, and other printed materials.

/s/ Paul C. Jablonski _____
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Red-Line Revisions to MTS Board Policy No 21



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Policies and Procedures

No. 21

SUBJECT:

Board Approval:

6/18/151/18/2018

MTS REVENUE-GENERATING DISPLAY ADVERTISING, CONCESSIONS, AND MERCHANDISE

PURPOSE:

To establish a policy and guidelines concerning a revenue-generating advertising, concessions, and merchandise program encompassing trolley stations, San Diego Metropolitan Transit System (MTS) property and facilities, and selected printed materials.

Advertising on bus shelters and benches within the public rights-of-way shall be governed by the policies of the applicable jurisdiction. The City of San Diego policy is included as Attachment A.

BACKGROUND:

Public transit operators and administration agencies have historically utilized advertising, concessions, and merchandising programs to supplement operational and capital funds. A sound advertising and concessions program can be a viable, alternative income source while promoting transit use and ensuring rider convenience and safety. This policy advances the advertising program's revenue-generating objective while also prohibiting advertisements that could detract from that goal, such as by harming advertisement sales, reducing ridership or tarnishing's MTS's reputation. MTS's justifications for its advertising program and policy include:

- 1) Generating advertising revenue;
- 2) Increasing ridership by promoting MTS's services, programs and benefits;
- 3) Informing MTS riders of local, state or federal programs, services or benefits;
- 4) Preserving ridership by avoiding controversial content;
- 5) Preventing the risk of imposing controversial views on a captive audience;
- 6) Preserving the marketing potential of the advertising space by avoiding controversial content;
- 7) Maintaining a position of neutrality on matters of public debate; and
- 8) Reducing the risk of diversion of resources from transit operations that are caused by controversial content.



POLICY:

It is the policy of MTS that advertising spaces on MTS property, which includes the exterior and interior of buses and light rail vehicles (LRVs), bus benches, bus shelters, related transportation facilities and selective printed materials, shall constitute a non-public forum subject to uniform viewpoint-neutral restrictions. This policy has been drafted to ensure a non-public forum status on its advertising spaces and MTS staff will accordingly enforce this policy with that intention.

The following guidelines will be reviewed by staff to reflect the current policies of the MTS Board of Directors and to reflect changes in the trends of social and economic acceptance and appropriateness of various forms of advertising and concessions.

21.1 Advertising - Procedure

- 21.1.1 Safety, rider convenience, and information needs will take precedence over revenue generation.
- 21.1.2 Quantity, quality, and placement of all advertising will be controlled by and subject to the specific approval of MTS.
- 21.1.3 MTS reserves the right to reject any advertisement that does not meet the MTS Board of Director's standards as set forth in this policy.
- 21.1.4 Upon written demand by the Chief Executive Officer on stated grounds that shall be reasonable, any advertisement or other display deemed to be noncompliant with this policy shall immediately be removed. No refund shall be made for the time such objectionable material was on display.
- 21.1.5 MTS reserves the right to allow exceptions to the policy if MTS determines that application of the policy as written would likely be unconstitutional in any particular situation.

21.2 Advertising - Permitted Content

The subject matter for all advertising materials displayed on MTS property shall be limited to Commercial Speech. Commercial Speech is speech that: does no more than propose a commercial transaction; or is an expression related solely to the economic interests of the speaker and its audience (e.g. promotes for sale, lease or other financial benefit a product, service, event or other property interest). Notwithstanding the above general rule requiring Commercial Speech, the following content are allowed:

21.2.1 MTS Operations Advertising that promotes MTS transit services, programs or products, including co-sponsorships with third parties that would increase ridership or otherwise support MTS's mission.

21.2.2 Public Service Advertisements from Local, State or Federal Governmental Agencies regarding public programs, public services and public events that are not otherwise prohibited under this Policy.

21.3 Advertising – Prohibited Content

No advertisement will be permitted that in whole or in part:

- a. intends to demean or disparage any individual, group, company, product or institution;
- b. contains false, deceptive or grossly misleading information;
- c. expresses or advocates an opinion, position or viewpoint on matters of public debate about economic, political, religious, social or moral issues;
- d. directly or indirectly refers to religion;
- e. is of a political or electoral nature;
- f. portrays, solicits or condones acts of violence, murder, sedition, terrorism, vandalism, or other unlawful acts against any individual, group, animal, company or institution;
- g. depicts nudity or portions of nudity that would be considered as pornographic, erotic or obscene. The rule of "public acceptance" should be used in such cases (i.e., if the advertisement has already gained public acceptance, then it may be considered as acceptable to MTS).
- h. contains messages or graphic representations of adult entertainment, such as escort services, adult telephone services, adult internet sites and other adult entertainment establishments;
- i. contains messages or graphic representations describing or suggesting explicit sexual acts, sexual organs, or excrement

where such statements or words have as their purpose or effect of sexual arousal, gratification, or affront;

- j. depicts, suggests, or refers to alcohol, marijuana, tobacco, or firearms, which includes promoting or offering in commerce the sale ~~or~~ use or ingestion of alcohol, marijuana, tobacco, electronic smoking product or any other device that causes smoke, mist or vapor, firearms, or firearm-related products;
- k. condones any type of discrimination;
- l. contains profane language and/or appearance or suggestion of profane language;
- m. contains any material that is an infringement of copyright, trademark or service mark;
- n. implies or declares an endorsement of MTS of any service, product or point of view without written authorization from MTS;
- o. depicts unsafe transit behavior aboard buses, trolleys, rail line tracks or other transit facility;
- p. is reasonably foreseeable that it will result in harm to, disruption of, or interference with the normal operations of MTS's transportation system;
- q. conflicts with any applicable federal, state, or local law, statute, or ordinance;
- r. impedes vehicular or pedestrian traffic, restricts the visibility of directional/traffic signs and informational material, encroaches on necessary sight lines (e.g., driver/operator view of waiting patrons) or presents any other safety risks or hazards (e.g., flashing lights, sound makers, mirrors or other special effects); or
- s. contains a website address or telephone number that directs visitors or callers to material that violates any of the prohibitions within this policy.
- t. is mischaracterized as a commercial advertisement but upon examination is intended to distribute a non-commercial message.

21.4 Advertising – General Conditions

- 21.4.1 Advertising industry standard sizes will be used for all advertising treatments.
- 21.4.2 Advertising treatments will be maintained in "like-new" condition. Damage to the advertisement or its housing will be corrected within forty-eight (48) hours.

21.4.3 All advertisements shall clearly identify the sponsor(s).

21.5 Advertising - LRVs and Buses

21.5.1 LRVs and buses, may carry wrap advertising formats rather than conventional advertising formats, at the discretion of the Chief Executive Officer.

21.5.2 Transit information material may be placed inside LRVs and buses at the discretion of the Chief Executive Officer. Such information can include, in accordance with this policy, the promotion of regularly scheduled public transit routes that will serve major community events. The subject matter and proposed advertisement regarding such event must comply with the provisions set forth under this policy.

21.5.3 Super King and Mural formats are approved for acceptable use on buses. The size specification for the Super King is 226 inches x 30 inches and is placed between the front and rear wheel wells on the street side of the bus. Murals are defined as encompassing the space under the vehicle passenger windows on each side of the bus and extending from the front of the bus to just past the rear wheel well.

21.6 Advertising - Transit Centers, Major Transit Points, Stations, and Stops

21.6.1 Advertising treatments (housings) will be designed to complement the architecture of the transit centers/stations and the flavor of the surrounding community. MTS plan specifications will be followed wherever applicable. Advertising treatments will be designed, constructed, and placed in accordance with all applicable local, state, and federal standards.

21.6.2 Any unsold display advertising space within transit centers, major transit points, and stations will be allocated for MTS related advertisements and displays.

21.7 Advertising - Printed Materials

21.7.1 Advertising space may be allowed in printed materials (e.g., timetables, maps, and informational brochures) at the discretion of the Chief Executive Officer.

21.7.2 Advertising space may be allowed on the reverse side of regional passes, tickets, and transfers at the discretion of the Chief Executive Officer.

21.7.3 No advertising space shall supersede necessary transit information and/or regulations.

21.7.4 At the discretion of the Chief Executive Officer, MTS may allocate space in printed materials to inform transit customers about private entities actively participating in transit services (e.g., pass and ticket-sales outlets).

21.8 Concessions

- 21.8.1 Concession formats, quantity, and placement will be approved and controlled by the MTS Board of Directors.
- 21.8.2 Contracts for any concession format or related development will be awarded in accordance with existing MTS policies.
- 21.8.3 During hours of business, concessionaires will provide the public with transit information materials as directed and supplied by MTS or its designated representative.
- 21.8.4 Concession treatments/structures will be designed to complement the architecture of the transit centers/stations and the flavor of the surrounding community. MTS plan specifications will be followed wherever applicable. Concession treatments/structures will be designed, constructed, and placed in accordance with all applicable local, state, and federal standards.
- 21.8.5 Concession treatments/structures will not impede vehicular or pedestrian traffic, will not restrict the visibility of directional signs and informational materials, and will not encroach on necessary sight lines.
- 21.8.6 Concessionaire contracts will include remittance to MTS on a monthly basis.
- 21.8.7 Any and all concession on-site signing and displays will be in accordance with existing MTS policies and subject to approval of the Chief Executive Officer.

21.9 Merchandise

- 21.9.1 Any and all system-related merchandise will be of the highest available quality and project a positive transit image.
- 21.9.2 Merchandise licensing agreements and royalty payments will be made in accordance with existing MTS policies.

21.10 Revenue

All revenue received from any form of advertising shall be accrued according to MTS policy and allocated during the annual budget process.

21.11 Contractor Services

MTS may engage contractor(s) services for the development, implementation, management, and maintenance of advertising, concessions, and/or merchandise programs in conformance with existing MTS Board of Directors policies and in the best interests of MTS.

LTrese/SChamp/JGarde
DEC10-09.12.AttA.POLICY 21.ABOEKAMP.doc
12/10/09

Attachment A – City of San Diego Advertising Policy

Original Policy approved on 5/9/83.

Policy revised on 6/6/1985.

Policy revised on 7/9/1987.

Policy revised on 6/23/1988.

Policy revised on 3/22/1990.

Policy revised on 3/14/1991.

Policy revised on 4/9/1992.

Policy revised on 5/12/1994.

Policy revised on 8/11/1994.

Policy revised on 6/22/1995.

Policy revised on 3/27/1997.

Policy revised on 6/11/1998.

Policy revised on 2/22/2001.

Policy revised on 2/26/2004.

Policy revised on 12/10/2009.

Policy revised on 6/18/2015

Policy revised on 1/18/2018

ATTACHMENT A

MTS POLICY NO. 21

CITY OF SAN DIEGO
ADVERTISING POLICY

Subject:

ADVERTISING ON BUS STOP SHELTERS AND BENCHES

Background:

The City of San Diego (City) entered into a Memorandum of Understanding (MOU) with the Metropolitan Transit Development Board (MTS), adopted July 25, 1988, and amended February 25, 1991, and June 21, 1999, authorizing MTS to install bus stop shelters and bus benches in public rights-of-way in the City. Pursuant to the MOU, MTS contracted with third parties for the construction, installation, and maintenance of the bus stop shelters and benches. In exchange, MTS's contractors receive the proceeds from the sale of advertising space on the shelters and benches.

MTS regulated the content of the advertising placed on the bus stop shelters and benches according to its Policies and Procedures No. 21. After advertising containing a religious message was removed pursuant to that policy, valid concerns were raised that the policy may violate due process and first amendment rights governing public speech.

Purpose:

It is the intent of the City Council to establish a policy governing advertising on bus stop shelters and benches in the public rights-of-way within the City that will be included by amendment in the MOU between the City and MTS, and administered by MTS.

It is the further intent of the City Council to prohibit advertising on bus stop shelters and benches of alcoholic beverages, tobacco products, and firearms in recognition of the fact that many public transit patrons are minors, that possession of these products by minors is illegal and dangerous, and that advertising is a persuasive medium for encouraging the use of these products by minors.

This policy applies only to advertising space located in designated areas on bus stop shelters and benches, as described in the MOU between the City and MTS.

Policy:

Advertising on Bus Stop Shelters and Benches:

1. In its agreement with its advertising contractors, MTS shall reserve the right to reject any advertisement, commercial or noncommercial, which does not meet the standards set forth in this policy.
2. All advertising posted on bus stop shelters and benches must conform to the following criteria:

- A. Defamatory Advertising. No advertising will be permitted that falsely disparages any person, product, or company, or that is likely to damage the reputation of any person, product, or company.
 - B. Advertising Condoning Criminal Conduct. No advertising will be permitted that is likely to incite or produce imminent unlawful activity.
 - C. Obscene Advertising. No advertising will be permitted that contains obscene matter or matter harmful to minors, as defined in California Penal Code Sections 311 and 313.
 - D. False Advertising. No advertisement will be permitted that contains false or grossly misleading information.
 - E. Alcohol, Tobacco, and Firearms. No advertisement will be permitted that promotes the sale of alcoholic beverages, tobacco or tobacco products, or firearms.
 - F. Existing Laws. All advertisements must conform to applicable federal, state, and local laws.
3. The City may make demand upon the Chief Executive Officer of MTS for the removal of any advertisement, commercial or noncommercial, that does not conform to this policy. Such demand shall be in writing and shall state reasonable grounds for the demand. MTS shall consider and act upon the demand in accordance with this policy.

SGreen/SChamp/JGarde
POLICY.21.REV-GENERATE-DISPLAY
AD-CONCESSIONS & MERCHANDISE
7/13/06



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Agenda Item No. 18

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

SUBJECT:

ON-BOARD VIDEO SURVEILLANCE SYSTEM (OBVSS) VEHICLE UPGRADES AND
CAMERA REMOVAL AND RE-INSTALLATIONS – SOLE SOURCE 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. B0685.0-18 (in substantially the same format as Attachment A) with Apollo Video Technology ("Apollo") for:

- 1) A camera system upgrade to the Fixed-route, Access, Mini Bus fleets; and
- 2) An agreement for the removal and re-installation of camera systems on Access and Mini Bus fleets vehicles that have reached the end of their service life.

Budget Impact

The total value of this agreement will not exceed \$932,881 (\$471,609 for system modifications, \$461,272 for removal and installs on Access and Mini Bus fleet, inclusive of a \$66,118 contingency and California sales tax). Funding would come from the WBSE #1001105001, which is locally funded.

DISCUSSION:

OBVSS are an essential piece of equipment installed on all of our revenue vehicles. Our revenue buses are currently equipped with video systems manufactured by Apollo Video Technology. MTS currently has a maintenance agreement with Apollo for the on-board maintenance and support for the equipment manufactured by Apollo. Based on proprietary equipment, fleet consistency, and the need to limit the maintenance of the system, Apollo has been chosen as our video standard for our revenue buses and requires a Sole Source for maintenance, modification or equipment needs.

As part of the ongoing monitoring and management of the system, MTS staff has identified three (3) necessary tasks that are not included in our current agreement with Apollo:



Task One: Installation of an interior, driver facing camera on 590 fixed-route revenue vehicles. The additional camera will provide MTS with more complete viewing coverage in the event of an incident or accident. The additional camera will allow MTS to refine its training programs based on the additional information or determine if there were additional factors related to the incident or accident.

Task Two: Installation of an exterior, forward facing camera on 218 of the Access and Mini Bus Cut-Away vehicles. The additional camera will provide MTS with more complete viewing coverage in the event of an incident or accident near the front entrance door. The additional camera will allow MTS to refine its training programs based on the additional information or determine if there were additional factors related to the incident or accident.

Task Three: Provide a contractor for the next five (5) years to remove the camera systems from Access and Mini bus vehicles at the end of their vehicle service life, and the re-installation of the systems in newly constructed vehicles at our facility. MTS has 26 systems that will need to be removed and re-installed in new vehicles in 2018 and an estimated 35 per year during the contract term.

Thus, staff recommends that a sole-source award be made to Apollo Video Technology for the three tasks as outlined.

The following table pricing details for each task through Apollo:

Description	Total
Task One - Installation of Driver Facing Interior Camera on 590 vehicles	\$328,016
Task Two - Installation of Forward Facing Exterior Camera on 218 vehicles	\$143,593
Task Three - Removal and Re-installation of Camera Systems for ADA and Mini bus fleet over the next 5 years (estimated 35 buses per year).	\$408,536
Subtotal	\$880,145
Contingency (Task 3 - Parts)	\$ 52,736
TOTAL	\$932,881

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. B0685.0-18 (in substantially the same format as Attachment A) with Apollo for: (1) a camera system upgrade to the Fixed route, Access, Mini bus fleets; and (2) an agreement for the removal and re-installation of camera systems on Access and Mini bus Fleets that have reached the end of their service life.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619-557-4582, Sharon.cooney@sdmts.com

Attachment: A. Draft MTS Doc. No. B0685.0-18

STANDARD SERVICES AGREEMENT

B0685.0-18
CONTRACT NUMBER

DRAFT

FILE NUMBER(S)

THIS AGREEMENT is entered into this _____ day of _____ 2018, in the state of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following contractor, hereinafter referred to as "Contractor":

Name: Apollo Video Technology Address: 2400 35th Ave. SE

Form of Business: Corporation Bothell, WA 98021
(Corporation, partnership, sole proprietor, etc.)

Telephone: 888-288-8721

Authorized person to sign contracts: Rodell Notbohm General Manager
Name Title

The attached Standard Conditions are part of this agreement. The Contractor agrees to furnish to MTS services and materials, as follows:

Provide On-Board Video Surveillance Systems (OBVSS) for MTS Transit bus fleets, including Mini and ADA Paratransit bus fleets per MTS Scopes of Work (Tasks 1-3 - attached as Exhibit A), Apollo's Quotes dated 1/5/18 (attached as Exhibit B), in accordance with the Standard Services Agreement, including Standard Conditions Services (attached as Exhibit C), and Federal Requirements (attached as Exhibit D), and MTS Policy 44-C Travel Guidelines to Contractors (attached as Exhibit E).

The contract term is for up to a 5-year period effective February 1, 2018, through January 31, 2023. Payment terms shall be net 30 days from after acceptance and approval of each installation.

The total contract cost shall not exceed \$932,881 [inclusive of contingency for Task 3 in the amount of \$52,736 and 7.75% CA sales tax].

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CONTRACTOR AUTHORIZATION
By: _____ Chief Executive Officer	Firm: _____
Approved as to form:	By: _____ Signature
By: _____ Office of General Counsel	Title: _____

AMOUNT ENCUMBERED	BUDGET ITEM	FISCAL YEAR
\$328,016 – Task 1		
\$143,593 – Task 2		
\$408,536 – Task 3		
\$ 52,736 - Contingency		
\$932,881 – Total	WBSE #1001105001	18-23

By: _____ Date
Chief Financial Officer



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Agenda Item No. 19

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

SUBJECT:

ROADWAY WORKER PROTECTION (RWP) SAFETY TRAINING SERVICES –
CONTRACT AWARD

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1373.0-17, (in substantially the same format as Attachment A) with Jacobs Engineering Group ("Jacobs"), for Roadway Worker Protection (RWP) Safety Training Services.

Budget Impact

There is no cost impact to MTS. Each Contractor will pay for its own employees' training. MTS's employees are trained internally by San Diego Trolley Inc., (SDTI) staff, but should the services be required for MTS staff, the contracted cost per student would apply.

DISCUSSION:

The Federal Railroad Administration (FRA) and California Public Utilities Commission (CPUC) requires railroads and/or their the Contractors to provide Roadway Worker Protection (RWP) Safety Training to any worker whose job duties include inspection, construction, maintenance or repair of track, bridges, roadway, signal and communication systems, roadway facilities or maintenance machinery on or near the track.

MTS provides the San Diego Trolley Roadway Worker Protection Plan, and Contractor implements and maintains the RWP Safety Training program, conducts safety training for the MTS contractors, San Diego Association of Governments (SANDAG) contractors, third-party firm's contractors (e.g. Herzog Construction, SDG&E, HMS Construction, Downtown San Diego Partnership, etc.), designers, inspectors, or



construction personnel who need access to MTS's right-of-way, or are working adjacent/within the operating envelop.

MTS Policy No. 52, "Procurement of Goods and Services", requires a formal competitive process for procurements and service contracts over \$100,000. On June 7, 2017 MTS and SANDAG, collectively the "Agencies", issued a Joint Request for Proposals (RFP) seeking proposals from qualified and responsible proposers to provide RWP Safety Training for two (2) base years, and three (3) option years. MTS was the lead agency for this solicitation.

MTS advertised on the Daily Transcript and San Diego Union Tribune and posted the RFP on PlanetBids that was downloaded by nine firms including one Disadvantaged Business Enterprise (DBE) and one Women Business Enterprise (WBE).

One proposal was received by the due date of July 14, 2017 from Jacobs Engineering Group, San Diego, who is the current contractor.

Jacobs was deemed responsive and responsible and was evaluated by a committee comprised of representatives from MTS Finance, Real Estate, SDTI and SANDAG. The proposal was evaluated on the following:

Qualifications of the Firm or Individual	20%
Staffing, Organization, and Management Plan	20%
Work Plan	20%
Cost and Price	40%
Total:	100%

Jacobs has been providing RWP Safety Training services for the Agencies since 2009. Each student is trained/certified once a year. Based on past history, MTS estimated there would be a combined 1,800 trained/recertified students per year for MTS, SANDAG and all 3rd party contractors.

The current RWP Safety Training is conducted at MTS facilities, registration is on MTS's website and MTS pays for the services from each project's budget. SANDAG and the 3rd party contractors also pay for their students. Under the new contract, the selected contractor would bill each 3rd party separately. The RFP asked for an all-inclusive fee per student that covers costs including trainer's cost, classroom rental, website registration and payment processing, website maintenance, training materials, ID badges and stickers for hardhats. For this reason the Agencies invited Jacobs for an interview to discuss the new scope of work including its proposed location, website, database management and fee collection.

After the interviews, Jacobs's final costs were as follows:

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual cost per student	\$126	\$130	\$134	\$138	\$142

By comparison, North County Transit District (NCTD) contractors pay \$149.83 per student, and MTS's Independent Cost Estimate was \$152.76 per student.

Based on the objectives of this procurement, consideration of the evaluation criteria and Jacobs technical and price proposals, the evaluation team determined that Jacobs presented a best value proposal to the Agencies.

Therefore, staff recommends that the Board of Directors authorize the CEO to execute MTS Doc. No. L1373.0-17, (in substantially the same format as Attachment A) with Jacobs, for RWP Safety Training Services for two (2) base years, and three (3) option years.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachment: A. Draft Standard Services Agreement; Contract L1373.0-17

DRAFT
STANDARD SERVICES AGREEMENT

L1373.0-17
CONTRACT NUMBER

FILE NUMBER(S)

THIS AGREEMENT is entered into this ___ day of _____ 2018, 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: Jacobs Engineering Group Inc. Address: 401 B Street, Suite 1560

Form of Business: Corporation San Diego, CA 92101

(Corporation, partnership, sole proprietor, etc.)

Telephone: (714) 835-6355 Email Address: Kosal.Krishnan@jacobs.com

Authorized person to sign contracts: Kosal Krishnan Vice President
Name Title

The attached Standard Conditions are part of this Agreement. The Contractor agrees to furnish to MTS services and materials, as follows:

Roadway Worker Protection Safety Training as specified in the Scope of Work (attached as Exhibit A), Jacobs' cost proposal (attached as Exhibit B), and in accordance with the Standard Services Agreement, including Standard Conditions Services (attached as Exhibit C) and federal requirements (attached as Exhibit D).

The contract term is two (2) base years from February 1, 2018 to January 31, 2019, and three (3) option years from February 1, 2019 to January 31, 2022, exercisable at MTS's sole discretion. Costs under this contract will be effective April 1, 2018 to allow Contractor to begin website development from February 1, 2018. Therefore until March 31, 2018, pricing will be based on MTS Contract G1760.0-17.

The cost per student is \$126 for year 1, \$130 for year 2, \$134 for year 3, \$138 for year 4 and \$142 for year 5. The cost per student shall not to exceed the contracted amount without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	CONTRACTOR AUTHORIZATION
<p>By: _____ Chief Executive Officer</p> <p>Approved as to form:</p> <p>By: _____ Office of General Counsel</p>	<p>Firm: _____</p> <p>By: _____ Signature</p> <p>Title: _____</p>
AMOUNT ENCUMBERED	BUDGET ITEM
FISCAL YEAR	
\$N/A	

By: _____ Date _____
Chief Financial Officer

(___ total pages, each bearing contract number)

SA-SERVICES REVISED (2/22/2017)
DATE



1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
(619) 231-1466 • FAX (619) 234-3407

Agenda Item No. 20

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BOARD OF DIRECTORS

January 18, 2018

SUBJECT:

VEHICLE ADVERTISING – 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. G2014.0-17, (in substantially the same format as Attachment A) with Outfront Media, to provide Vehicle (MTS Buses and Trolley Rail Cars) Advertising services for a five (5) year base term with five (5) one year options.

Budget Impact

This is a revenue contract. The Minimum Annual Guarantee over the ten years is \$12,500,000, while the Net MTS Revenue is projected to be \$15,806,050, as detailed in Attachment B.

DISCUSSION:

The San Diego Metropolitan Transit System generates non-fare revenue via advertising on its transit vehicles. Exterior advertisements on trolleys and buses are limited to large format advertising that covers at least an entire side of an MTS bus and all sides of an MTS light rail vehicle. Interior advertising is also sold on both buses and trolleys.

In recent years, the MTS advertising contractor has generated more than \$1 million annually from the Vehicle Advertising contract. This revenue supplements the MTS operations budget. The previous contract called for MTS to receive 70% of all gross revenues. There was no Minimum Annual Guarantee (MAG) as part of the previous contract.

In order to assure that MTS would receive maximum revenues, all proposers were required to provide Gross Ad Sales Projections, the Percentage Split of Gross Revenues to MTS, and projected Net Revenue to MTS for each year of the five-year base contract and for each year of the five option years. Additionally, MTS required each proposer to



provide a MAG for each year of the contract. The MAG provision allows MTS to rely on a minimum amount of advertising revenue without regard to market fluctuations.

MTS Policy No. 52, "Procurement of Goods and Services", requires that unless another method is more appropriate, MTS may utilize a competitive solicitation process for revenue contracts. MTS shall award a revenue contract to the candidate whose offer maximizes revenues to MTS after consideration of all technical qualifications and other criteria as applicable.

On August 23, 2017, MTS issued the Request for Proposals (RFP) for Vehicle Advertising services. Three (3) proposals were received by the due date of October 16, 2017, as follows:

1. Outfront Media Group LLC, New York, 10174
2. Clear Channel Outdoor, Inc., Torrance, CA 90501
3. Michael Allen Associates, San Diego, CA 92131

All proposals were deemed responsive and responsible.

A selection committee, consisting of representatives from MTS Marketing, Finance, San Diego Trolley Inc., and San Diego Transit Corporation met and scored the proposals based on the following:

- | | |
|---|------------|
| 1. Qualifications and Experience of the Firm and Management Team | 25% |
| 2. Work Plan: Purchase, Installation, Advertising, Maintenance & Vandalism Repair | 25% |
| 3. Cost and Revenue Payment/Financial Benefit | <u>50%</u> |
| | Total 100% |

After the initial evaluation of proposals received, the evaluation panel determined it would be in MTS's best interest to interview all three proposers as they were determined to be within the competitive range. Staff interviewed all proposers on ways to maximize revenue including technical enhancements/innovations to the scope of work, advertising in other markets within the country, revenue reporting and transition procedures to the new MAG driven contract. Following interviews of all proposers, MTS requested revised technical and cost proposals and the panel evaluated the interviews and revised submissions per the RFP requirements.

The following table represents the proposers' final scores and rankings following the interviews and evaluation of revised technical and cost proposals:

VEHICLE ADVERTISING SERVICES				
PROPOSER NAME	TOTAL AVG. TECH. SCORE	COST / REVENUE SCORE	TOTAL SCORE (TECH + COST)	RANKING
Outfront Media Group	46.50	50.00	96.50	1
Clear Channel Outdoor	41.00	47.27	88.27	2
Michael Allen Associates	36.50	49.35	85.85	3

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. G2014.0-17, (in substantially the same format as Attachment A) with Outfront Media, to provide Vehicle (MTS Buses and Trolley Rail Cars) Advertising

services for a five (5) year base term with five (5) one year options, exercisable at MTS's sole determination.

/s/ Paul C. Jablonski
Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Sharon Cooney, 619.557.4513, Sharon.Cooney@sdmts.com

Attachments: A. Draft MTS Doc. No. G2014.0-17
B. Cost/Revenue Summary

G2014.0-17
CONTRACT NUMBER**DRAFT
STANDARD SERVICES AGREEMENT**

FILE/PO NUMBER(S)

THIS AGREEMENT is entered into this _____ day of _____ 2018, 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: Outfront Media LLCAddress: 2100 W. Orangewood Ave., Suite 160
Orange, CA 92868Form of Business: Corporation
(Corporation, partnership, sole proprietor, etc.)Telephone: 949-833-4061Email Address: frank.sandusky@outfrontmedia.comAuthorized person to sign contracts: Frank Sandusky
NameVP Business Development
Title

The attached Standard Conditions are part of this Agreement. The Contractor agrees to furnish to MTS services and materials, as follows:

Provide vehicle advertising services, as specified in the Scope of Work (attached as Exhibit A), the Cost/Revenue Proposal (attached as Exhibit B), and in accordance with the Standard Services Agreement, including the Standard Conditions Services (attached as Exhibit C).

The contract term is for up to a five (5) year base period with five (5) option years, exercisable at MTS' sole discretion. The base period shall commence on March 1, 2018 through February 28, 2018, and Option Years 1 through 5 shall be effective March 1, 2023 through February 28, 2028, if exercised by MTS.

The Minimum Annual Guarantee (MAG) for each year shall not be less than the amounts shown in Exhibit B, without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM		CONTRACTOR AUTHORIZATION	
By: _____ Chief Executive Officer		Firm: _____	
Approved as to form:		By: _____	
By: _____ Office of General Counsel		Signature	
		Title: _____	
AMOUNT ENCUMBERED		BUDGET ITEM	FISCAL YEAR
\$0			2018-2022

By: _____
Chief Financial Officer

_____ Date

(XX total pages, each bearing contract number)

SA-SERVICES (REV 2/22/2017)
DATE

Name of Firm:		OUTFRONT MEDIA GROUP LLC		
Contract Year	Gross Ad Sales Projections	% of Gross to MTS	Minimum Annual Guarantee (MAG)	Net MTS Revenue
Example using generic numbers	\$ 2,000,000	65%	\$ 1,000,000	\$ 1,300,000
Year One (1): March 1, 2018 – February 28, 2019	\$ 2,084,300	65%	\$ 1,000,000	\$ 1,354,795
Year Two (2): March 1, 2019 – February 28, 2020	\$ 2,188,500	65%	\$ 1,100,000	\$ 1,422,525
Year Three (3): March 1, 2020 – February 28, 2021	\$ 2,254,100	65%	\$ 1,175,000	\$ 1,465,165
Year Four (4): March 1, 2021 – February 28, 2022	\$ 2,321,700	65%	\$ 1,200,000	\$ 1,509,105
Year Five (5): March 1, 2022 – February 28, 2023	\$ 2,391,400	65%	\$ 1,250,000	\$ 1,554,410
Base Years (years 1-5) Sub-Total:	\$ 11,240,000		\$ 5,725,000	\$ 7,306,000
Year Six (6) – Option Year 1: March 1, 2023 – February 28, 2024	\$ 2,463,100	65%	\$ 1,275,000	\$ 1,601,015
Year Seven (7) – Option Year 2: March 1, 2024 – February 28, 2025	\$ 2,537,000	65%	\$ 1,300,000	\$ 1,649,050
Year Eight (8) – Option Year 3: March 1, 2025 – February 28, 2026	\$ 2,613,100	65%	\$ 1,350,000	\$ 1,698,515
Year Nine (9) – Option Year 4: March 1, 2026 – February 28, 2027	\$ 2,691,500	65%	\$ 1,400,000	\$ 1,749,475
Year Ten (10) – Option Year 5: March 1, 2027 – February 28, 2028	\$ 2,772,300	65%	\$ 1,450,000	\$ 1,801,995
Option Years (years 6-10) Sub-Total:	\$ 13,077,000		\$ 6,775,000	\$ 8,500,050
Grand Total for 10 years:	24,317,000		12,500,000	\$ 15,806,050

Name of Firm:		MICHAEL ALLEN ASSOCIATES		
Contract Year	Gross Ad Sales Projections	% of Gross to MTS	Minimum Annual Guarantee (MAG)	Net MTS Revenue
Example using generic numbers	\$ 2,000,000	65%	\$ 1,000,000	\$ 1,300,000
Year One (1): March 1, 2018 – February 28, 2019	\$ 1,900,000	70%	\$ 900,000	\$ 1,330,000
Year Two (2): March 1, 2019 – February 28, 2020	\$ 1,967,000	70%	\$ 930,000	\$ 1,376,900
Year Three (3): March 1, 2020 – February 28, 2021	\$ 2,035,000	70%	\$ 960,000	\$ 1,424,500
Year Four (4): March 1, 2021 – February 28, 2022	\$ 2,106,000	70%	\$ 990,000	\$ 1,474,200
Year Five (5): March 1, 2022 – February 28, 2023	\$ 2,180,000	70%	\$ 1,020,000	\$ 1,526,000
Base Years (years 1-5) Sub-Total:	\$ 10,188,000		\$ 4,800,000	\$ 7,131,600
Year Six (6) – Option Year 1: March 1, 2023 – February 28, 2024	\$ 2,256,000	70%	\$ 1,050,000	\$ 1,579,200
Year Seven (7) – Option Year 2: March 1, 2024 – February 28, 2025	\$ 2,335,000	70%	\$ 1,080,000	\$ 1,634,500
Year Eight (8) – Option Year 3: March 1, 2025 – February 28, 2026	\$ 2,417,000	70%	\$ 1,110,000	\$ 1,691,900
Year Nine (9) – Option Year 4: March 1, 2026 – February 28, 2027	\$ 2,501,000	70%	\$ 1,140,000	\$ 1,750,700
Year Ten (10) – Option Year 5: March 1, 2027 – February 28, 2028	\$ 2,589,000	70%	\$ 1,170,000	\$ 1,812,300
Option Years (years 6-10) Sub-Total:	\$ 12,098,000		\$ 5,550,000	\$ 8,468,600
Grand Total for 10 years:	22,286,000		10,350,000	\$ 15,600,200

Name of Firm:		CLEAR CHANNEL OUTDOOR		
Contract Year	Gross Ad Sales Projections	% of Gross to MTS	Minimum Annual Guarantee (MAG)	Net MTS Revenue
Example using generic numbers	\$ 2,000,000	65%	\$ 1,000,000	\$ 1,300,000
Year One (1): March 1, 2018 – February 28, 2019	\$ 1,800,000	66%	\$ 955,000	\$ 1,188,000
Year Two (2): March 1, 2019 – February 28, 2020	\$ 1,890,000	66%	\$ 960,000	\$ 1,247,400
Year Three (3): March 1, 2020 – February 28, 2021	\$ 1,984,500	66%	\$ 965,000	\$ 1,309,770
Year Four (4): March 1, 2021 – February 28, 2022	\$ 2,083,725	66%	\$ 970,000	\$ 1,375,259
Year Five (5): March 1, 2022 – February 28, 2023	\$ 2,187,911	66%	\$ 975,000	\$ 1,444,021
Base Years (years 1-5) Sub-Total:	\$ 9,946,136		\$ 4,825,000	\$ 6,564,450

Att. B, AI 20, 1/18/18				
	CLEAR CHANNEL OUTDOOR (con't)			
Year Six (6) – Option Year 1: March 1, 2023 – February 28, 2024	\$ 2,297,307	66%	\$ 980,000	\$ 1,516,222
Year Seven (7) – Option Year 2: March 1, 2024 – February 28, 2025	\$ 2,412,172	66%	\$ 985,000	\$ 1,592,034
Year Eight (8) – Option Year 3: March 1, 2025 – February 28, 2026	\$ 2,532,781	66%	\$ 990,000	\$ 1,671,635
Year Nine (9) – Option Year 4: March 1, 2026 – February 28, 2027	\$ 2,659,420	66%	\$ 995,000	\$ 1,755,217
Year Ten (10) – Option Year 5: March 1, 2027 – February 28, 2028	\$ 2,792,391	66%	\$ 1,000,000	\$ 1,842,978
Option Years (years 6-10) Sub-Total:	\$ 12,694,070		\$ 4,950,000	\$ 8,378,086
Grand Total for 10 years:	22,640,207		9,775,000	\$ 14,942,536

Proposer is responsible for the accuracy of the numbers above:

Gross Ad Sales Projection: Enter gross ad revenue based on your estimates

% Gross to MTS: Enter proposed percentage split to share with MTS

Minimum Annual Guarantee: Enter the annual amount of the MAG

Net MTS Revenue: This calculation will determine the Proposer's scoring by taking the larger of the % of Gross to MTS or Minimum Annual Gurantee (MAG).

The sum of Net MTS Revenue over the term of the Base Term and Option Years will be the basis for the cost score