TransNet Independent Taxpayer Oversight Committee Agenda

Wednesday, November 13, 2024
9:30 a.m.

Welcome to SANDAG. The TransNet Independent Taxpayer Oversight Committee (ITOC) meeting scheduled for Wednesday, November 13, 2024, will be held in person in the SANDAG Board Room. While ITOC members will attend in person, members of the public will have the option of participating either in person or virtually.

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Public Comments: Members of the public may speak to the ITOC on any item at the time the ITOC is considering the item. Public speakers are generally limited to three minutes or less per person.

Persons who wish to address the members on an item to be considered at this meeting, or on non-agendized issues, may email comments to the Clerk at clerkoftheboard@sandag.org (please reference ITOC meeting in your subject line and identify the item number(s) to which your comments pertain). Comments received by 4 p.m. the business day before the meeting will be provided to members prior to the meeting. All comments received prior to the close of the meeting will be made part of the meeting record.

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Mission Statement: *We are the regional agency that connects people, places, and innovative ideas by implementing solutions with our unique and diverse communities.*

Our Commitment to Equity: *We hold ourselves accountable to the communities we serve. We acknowledge we have much to learn and much to change; and we firmly uphold equity and inclusion for every person in the San Diego region. This includes historically underserved, systemically marginalized groups impacted by actions and inactions at all levels of our government and society.*

We have an obligation to eliminate disparities and ensure that safe, healthy, accessible, and inclusive opportunities are available to everyone. The SANDAG equity action plan will inform how we plan, prioritize, fund, and build projects and programs; frame how we work with our communities; define how we recruit and develop our employees; guide our efforts to conduct unbiased research and interpret data; and set expectations for companies and stakeholders that work with us.

We are committed to creating a San Diego region where every person who visits, works, and lives can thrive.

Independent Taxpayer Oversight Committee

Wednesday, November 13, 2024

Comments and Communications

1. Non-Agenda Public Comments/Member Comments

Members of the public shall have the opportunity to address the TransNet Independent Taxpayer Oversight Committee (ITOC) on any issue within the jurisdiction of the ITOC that is not on this agenda. Public speakers are limited to three minutes or less per person. Public comments under this agenda item will be limited to five public speakers. If the number of public comments under this agenda item exceeds five, additional public comments will be taken at the end of the agenda. ITOC members and SANDAG staff also may present brief updates and announcements under this agenda item.

Consent

+2. Approval of Meeting Minutes — Approve

Francesca Webb, SANDAG

The ITOC is asked to approve the minutes from its September 11, 2024, meeting.

Meeting Minutes.pdf

+3. FY 2025 ITOC Meeting Calendar — Approve

Vanessa Leon, SANDAG

The ITOC is asked to approve the meeting schedule for the 2025 calendar year.

FY 2025 ITOC Meeting Calendar.pdf

+4. Draft FY 2025 Schedule of ITOC Meeting Agenda Topics — Information

Vanessa Leon, SANDAG

The ITOC is asked to review the upcoming draft schedule of agenda topics.

Draft FY 2025 Schedule of ITOC Meeting Agenda Topics.pdf

+5. Quarterly TransNet Financial Reports for the Period Ending September 30, 2024, and Other Financial Data — Information

Marcus Pascual, SANDAG

This report provides an overview of the financial status of the TransNet Program.

Qrtly TransNet Financial Rpts for the Period Ending Sept 30, 2024.pdf
Att. 1 - Discussion Memo.pdf
Att. 2 - TransNet Extension Qrtly Rpt for FY 2025, 1st Qtr.pdf
Att. 3 - TransNet Ext Est Annual Sales Tax Rev.pdf
Att. 4 - ITOC Operating Budget Analysis.pdf
Att. 5 - LSI and Road Maint Analysis as of Sept 30, 2024.pdf
Att. 6 - TransNet Grant Prgm Balances as of Sept 30, 2024.pdf
Att. 7 - Local Agency St and Rd Balances.pdf

+6. Overview of Developments in the Financial Markets, Quarterly Finance Report as of September 30, 2024 — Information

Dawn Vettese, SANDAG

This report provides an update on the latest developments in the financial markets,

economy, sales tax revenues, and strategies being explored and implemented to minimize possible impacts to the TransNet Program.

Overview of Developments in the Financial Mkts.pdf
Att. 1 - Financial Market Review.pdf
Att. 2 - Local Economy and Sales Tax Revenue.pdf
Att. 3 - Investment and Debt Portfolio_093024.pdf

+7. TransNet Major Corridor and Regional Bikeway Program of Projects: Quarterly Status Report — Information

Clint Peace, David Cortez, Jennifer Cha, SANDAG

This report provides an update on TransNet Major Corridor and Regional Bikeway Program projects.

TransNet Major Corridor and Reg Bikeway Pgrm of Proj.pdf
Att. 1 - TransNet Qrtly Status Rpt July 2024 - Sep 2024.pdf

Reports

+8. TransNet Major Corridor Projects Update — Information

Victor Mercado, Wameedh Tozy, Caltrans

Presentation.pdf

+8A. North Coast Corridor

Caltrans staff will present an update on the North Coast Corridor program of projects.

North Coast Corridor.pdf
Att. 1 - Build NCC Project Fact Sheet.pdf
Att. 2 - Discussion Memo NCC Program Update Sep 2024.pdf

+8B. State Route 78

Caltrans staff will present an update on the State Route 78 Corridor program of projects.

State Route 78.pdf
Att. 1 - SR 78 Active Project Underway Fact Sheet.pdf
Att. 2 - Discussion Memo SR 78 Program Update Sep 2024.pdf

+9. TransNet Smart Growth Incentive Program — Recommend

Jenny Russo, Goldy Herbon, Stacey Cooper, SANDAG

The ITOC is asked to recommend that the Board of Directors approve the evaluation criteria and release the Cycle 6 Call for Projects for the Smart Growth Incentive Program.

TransNet SGIP.pdf
Att. 1 - Discussion Memo.pdf
Att. 2 - SGIP Performance Metrics.pdf
Att. 3 - Cycle 6 Call for Projects.pdf
Presentation.pdf

+10. FY 2015, 2018, 2021, and 2024 TransNet Triennial Performance Audits Recommendations: Quarterly Update — Discussion

Adrian Paniagua, Vanessa Leon, SANDAG

Staff will present an overview of progress made to date on recommendations from

the FY 2015, FY 2018, FY 2021, and FY 2024 TransNet Triennial Performance Audit (third, fourth, fifth, and sixth Triennial Performance Audits).

TransNet Triennial Performance Audit - Implementation Status.pdf
Att. 1 - Imp of TPA Recs - Progress Update Charts.pdf
Att. 2 - Imp of TPA Recs - Progress Updated Matrix - In-Progress.pdf
Att. 3 - Imp of TPA Recs - Progress Updated Matrix - Recently Completed.pdf
Att. 4 - Imp of TPA Recs - Completion Forms.pdf
Presentation.pdf

+11. FY 2025 ITOC Goals Discussion

Adrian Paniagua, Vanessa Leon, SANDAG

Staff will present the ITOC goals for the remainder of FY 2025 for discussion.

FY 2025 ITOC Goals.pdf
Att. 1 - FY 2023-2024 ITOC Goals and Progress Tracker.pdf
Att. 2 - Draft ITOC Goals for FY 2025.pdf

Adjournment

12. Adjournment

The next ITOC meeting is scheduled for Wednesday, January 8, 2025, at 9:30 a.m.

+ next to an agenda item indicates an attachment

October 9, 2024

September 11, 2024, Meeting Minutes

View Meeting Video

Chair Maryam Babaki (Finance/Budgeting) called the meeting of the TransNet Independent Taxpayer Oversight Committee (ITOC) to order at 9:30 a.m.

1. Non-Agenda Public Comments/Member Comments

Public Comments: None.

Member Comments: None.

Agency Updates: Chief Executive Officer Mario Orso.

Consent

2. Approval of Meeting Minutes

The ITOC was asked to approve the minutes from its July 10, 2024, meeting.

4. Quarterly TransNet Financial Reports for the Period Ending June 30, 2024, and Other Financial Data Report as of June 30, 2024

This report provided an overview of the financial status of the TransNet Program.

5. Overview of Developments in the Financial Markets, Quarterly Finance

This report provided an update on the latest developments in the financial markets, economy, sales tax revenues, and strategies being explored and implemented to minimize possible impacts to the TransNet Program.

6. Annual Selection of ITOC Chair and Vice Chair

This report provided an overview of the solicitation and appointment process.

7. 2023 Regional Transportation Improvement Program Amendment No.15

This report provided an update on the 2023 Regional Transportation Improvement Program (RTIP), Amendment No.15.

8. Proposed Final 2025 Regional Transportation Improvement Program: Including the Air Quality Conformity Determination

This item was provided to the ITOC for information on the proposed final 2025 Regional Transportation Improvement Program (RTIP), with focus on the TransNet-funded projects.

9. TransNet Ordinance and Major Corridor Correlation Matrix

This report provided an updated matrix connecting the capital projects in the TransNet Major Corridor program and TransNet Ordinance Projects in response to the FY 2024 TransNet Triennial Performance Audit.

DRAFT

10. FY 2023-2024 ITOC Goals Update

This report provided an update on progress made to date by the ITOC Subcommittees, the ITOC, and SANDAG staff.

Consent Agenda Item 3 was pulled for discussion.

Public Comments: None.

Action: Upon a motion by Vice Chair Frank Rivera (Licensed Civil / Traffic Engineer), and a second by Lorraine Ahlquist (Biology / Environmental), the ITOC voted to approve the balance of the Consent Agenda.

The motion passed.

Yes: Chair Babaki, Vice Chair Rivera, Lorraine Ahlquist, Sunnie House (CEO / Private Sector), and Les Hopper (Licensed Engineer).

No: None.

Abstain: None.

Absent: Contractor/Construction and Real Estate/Right-of-Way Acquisition.

3. TransNet Grant Program Amendment Requests

The ITOC was asked to recommend that the Transportation Committee approve:

1. A retroactive seven-month amendment for the City of Lemon Grove's Connect Main Street Phase I Smart Growth Incentive Program (SGIP) project.
2. A two-year time extension for the City of El Cajon's Main Street-Green Street Gateway SGIP project.
3. A two-year time extension for the City of San Diego's Downtown Mobility Cycle Way Improvement Phase I & II SGIP project.

A scope of work amendment for the San Dieguito River Valley Regional Open Space Park Joint Powers Authority's West Bernardo Mountain Habitat Management Area Enhancement & Restoration Environmental Mitigation Program Land Management Grant Program project.

Public Comments: None.

Action: Upon a motion by Sunnie House, and a second by Vice Chair Rivera, the ITOC voted to approve Agenda Item No. 3.

The motion passed.

Yes: Chair Babaki, Vice Chair Rivera, Lorraine Ahlquist, Sunnie House, and Les Hopper.

No: None.

Abstain: None.

Absent: Contractor/Construction and Real Estate/Right-of-Way Acquisition.

Reports

11. Appointment of One Subcommittee Member for TransNet Ordinance

Senior Financial Programing and Project Control Analyst Adrian Paniagua presented the item.

The ITOC was asked to appoint one voting member to serve on its Subcommittee to Consider TransNet Ordinance Amendments regarding the ITOC governance structure.

Public Comments: None.

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Action: Upon a motion by Sunnie House, and a second by Lorraine Ahlquist, the ITOC voted to appoint Frank Rivera to serve on its Subcommittee to Consider TransNet Ordinance Amendments regarding the ITOC governance structure.

The motion passed.

Yes: Chair Babaki, Vice Chair Rivera, Lorraine Ahlquist, Sunnie House, and Les Hopper.

No: None.

Abstain: None.

Absent: Contractor/Construction and Real Estate/Right-of-Way Acquisition.

12. TransNet Major Corridor and Regional Bikeway Program of Projects: Quarterly Status Report

Senior Financial Programming and Project Control Analyst Jennifer Cha presented an update on TransNet Major Corridor and Regional Bikeway Program projects.

Public Comments: None.

Action: Information.

13. Adjournment

The next ITOC meeting is scheduled for Wednesday, October 9, 2024, at 9:30 a.m.

Chair Frankel adjourned the meeting at 10:17 a.m.

DRAFT

Confirmed Attendance at TransNet Independent Taxpayer Oversight Committee Meeting

Jurisdiction	Name	Attend
Biology/Environmental	Lorraine Ahlquist	Yes
CEO/Private Sector	Sunnie House	Yes
Contractor/Construction	Vacant	N/A
Finance/Budgeting	Maryam Babaki, Chair	Yes
Licensed Civil/Traffic Engineer	Frank Rivera, Vice Chair	Yes
Licensed Engineer	Les Hopper	Yes
Real Estate/Right-of-Way Acquisition	Jonathan Frankel	No
Advisory Members		
San Diego County Auditor's Office	Tracy Drager	No

DRAFT

November 13, 2024

FY 2025 ITOC Meeting Calendar

Overview

The TransNet Independent Taxpayer Oversight Committee (ITOC) typically meets on the second Wednesday of each month. The proposed meeting dates for 2025 are shown below.

- January 8, 2025
- February 12, 2025
- March 12, 2025
- April 9, 2025
- May 14, 2025
- June 11, 2025
- July 9, 2025
- August 13, 2025
- September 10, 2025
- October 8, 2025
- November 12, 2025
- December 10, 2025

Meeting dates in August and December 2025 are included in the list above; however, typically, the ITOC cancels the meetings in both months.

Action: **Approve**
The ITOC is asked to approve the meeting schedule for the 2025 calendar year.

Fiscal Impact:

Costs incurred in administering ITOC activities are paid from TransNet sales tax proceeds and audited annually. ITOC members serve without compensation except for direct expenses, such as parking or mileage for meetings related to the work of the ITOC.

Schedule/Scope Impact:

The ITOC typically meets monthly to carry out its roles and responsibilities, including conducting annual fiscal audits and triennial performance audits.

Next Steps

Upon ITOC approval, staff will post the ITOC meeting calendar on the agency website.

Susan Huntington, Director of Financial Planning, Budgets, and Grants

ITOC 12 Month Look Ahead
Master Calendar

Wednesday, January 8, 2025	Consent	Report	Information	Discussion	Recommend	Approve	Accept	Appoint
TransNet ITOC MEMBER APPOINTMENT PROCESS	X		X					
TransNet GRANT PROGRAMS: BIANNUAL STATUS UPDATE	X		X					
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. XX	X		X					
TENTATIVE: FIXING AMERICA'S SURFACE TRANSPORTATION ACT: PERFORMANCE MANAGEMENT SAFETY TARGETS		X		X				
TENTATIVE: REGIONAL SAFETY PLANNING UPDATES		X	X					
STATE ROUTE 67 UPDATE (CALTRANS)		X	X					
Wednesday, February 12, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
TENTATIVE: LOCAL AGENCY PRESENTATION (TBD) - Escondido		X	X					
TransNet REGIONAL TRANSPORTATION CONGESTION IMPROVEMENT PROGRAM FEE ADJUSTMENT	X		X					
QUARTERLY TransNet FINANCIAL REPORTS AND OTHER FINANCIAL DATA	X		X					
QUARTERLY FINANCE REPORT AND UPDATE ON FINANCIAL MARKETS	X		X					
PROPOSED FY 2024 ITOC ANNUAL OPERATING BUDGET		X		X				
TENTATIVE: CITY OF SAN DIEGO TransNet PROGRAM AND TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM UPDATE		X	X					
TransNet PROGRAM REVENUE ESTIMATES		X	X					
TENTATIVE: OTAY MESA EAST PORT OF ENTRY STATUS UPDATE		X	X					
2024 ITOC ANNUAL REPORT: INITIAL INPUT		X		X				
FY 2015, FY 2018, FY 2021, AND FY 2024 TransNet TPA RECOMMENDATIONS: QUARTERLY UPDATE	X		X					
TENTATIVE: REGIONAL BIKEWAY PROGRAM STATUS UPDATE: EARLY ACTION PROGRAM	X		X					
Wednesday, March 12, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
FY 2024 TransNet MAJOR CORRIDORS AND BIKEWAY PROGRAM PROJECT ANNUAL STATUS REPORT		X	X					
FY 2025 ITOC GOALS UPDATE	X		X					
FY 2024 FISCAL AND COMPLIANCE AUDIT RESULTS - DRAFT		X				X		
FY 2024 FISCAL AND COMPLIANCE AUDIT RESULTS - DRAFT FUNDING ELIGIBITY		X			X			
TENTATIVE: CITY OF SAN DIEGO TransNet PROGRAM AND TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM UPDATE		X	X					
DRAFT FY 2026 CAPITAL PROGRAM BUDGET UPDATE: TransNet PROGRAM OF PROJECTS		X		X				
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. XX	X		X					
Wednesday, April 9, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
TENTATIVE: LOCAL AGENCY PRESENTATION (TBD)		X	X					
ITOC ANNUAL REPORT								
ANNUAL SUBMITTAL OF REGIONAL TRANSPORTATION CONGESTION IMPROVEMENT PROGRAM FUNDING PROGRAMS BY LOCAL JURISDICTIONS	X						X	
OTAY MESA EAST PORT OF ENTRY STATUS UPDATE		X	X					
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. XX	X		X					
Wednesday, May 14, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
QUARTERLY TransNet FINANCIAL REPORTS AND OTHER FINANCIAL DATA	X		X					
QUARTERLY FINANCE REPORT AND UPDATE ON FINANCIAL MARKETS	X		X					
TransNet MAJOR CORRIDOR AND REGIONAL BIKEWAY PROGRAM OF PROJECTS: QUARTERLY STATUS REPORT (FY 2024 Q3)	X		X					
TENTATIVE: LOCAL AGENCY PRESENTATION (TBD)		X	X					
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. xx		X		X				
FY 2015, FY 2018, FY 2021, AND FY 2024 TransNet TPA RECOMMENDATIONS: QUARTERLY UPDATE	X		X					

ITOC 12 Month Look Ahead

Master Calendar

Wednesday, June 11, 2025	Consent	Report	Information	Discussion	Recommend	Approve	Accept	Appoint
ANNUAL SELECTION PROCESS FOR ITOC CHAIR AND VICE CHAIR	X		X					
2024 STATE OF THE COMMUTE: ANNUAL REPORT	X					X		
APPOINTMENT OF SUBCOMMITTEE MEMBERS FOR FY 2025 FISCAL AND COMPLIANCE AUDIT		X						X
2024 ITOC ANNUAL REPORT: DRAFT REPORT		X		X				
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. XX	X		X					
Wednesday, July 9, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
FINAL 2024 ITOC ANNUAL REPORT	X					X		
TransNet GRANT PROGRAMS: BIANNUAL STATUS UPDATE AND SMART GROWTH INCENTIVE PROGRAM AMENDMENT REQUEST		X			X			
ACCEPTANCE OF FY 2024 TransNet FISCAL AND COMPLIANCE AUDITS		X					X	
ANNUAL SELECTION OF ITOC CHAIR AND VICE CHAIR		X				X		
FY 2025 PROPOSED TransNet AGREED-UPON PROCEDURES		X				X		
TENTATIVE: REGIONAL SAFETY PLANNING UPDATES		X	X					
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM: AMENDMENT NO. XX	X		X					
FY 2024 TransNet LOCAL STREET AND ROAD PROGRAM ANNUAL STATUS REPORT		X	X					
Wednesday, August 13, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
No meeting								
Wednesday, September 10, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
QUARTERLY TransNet FINANCIAL REPORTS AND OTHER FINANCIAL DATA	X		X					
OVERVIEW OF DEVELOPMENTS IN THE FINANCIAL MARKETS, QUARTERLY FINANCE REPORT	X		X					

ITOC 12 Month Look Ahead
Master Calendar

TransNet MAJOR CORRIDOR AND REGIONAL BIKEWAY PROGRAM OF PROJECTS: QUARTERLY STATUS REPORT (FY 2024 Q4)		X	X					
TENTATIVE: LOCAL AGENCY PRESENTATION (TBD)		X	X					
FY 2026-2027 ITOC GOALS UPDATE	X		X					
FY 2015, FY 2018, FY 2021 AND FY 2024 TransNet TRIENNIAL PERFORMANCE AUDITS RECOMMENDATIONS: QUARTERLY UPDATE	X		X					
Wednesday, October 8, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
NORTH COAST CORRIDOR STATUS UPDATE		X	X					
TENTATIVE: SMART GROWTH INCENTIVE PROGRAM (SGIP)		X			X			
TENTATIVE: REGIONAL BIKEWAY PROGRAM STATUS UPDATE: EARLY ACTION PROGRAM	X		X					
2025 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT NO. xx	X		X					
Wednesday, November 12, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
2026 ITOC MEETING CALENDAR	X					X		
TransNet MAJOR CORRIDOR AND REGIONAL BIKEWAY PROGRAM OF PROJECTS: QUARTERLY STATUS REPORT (FY 2026 Q1)	X		X					
TransNet ENVIRONMENTAL MITIGATION PROGRAM: ANNUAL STATUS REPORT		X	X					
TENTATIVE: UPDATE ON TransNet EXTENSION ORDINANCE AMENDMENTS		X	X					
FIXING AMERICA'S SURFACE TRANSPORTATION ACT: PERFORMANCE MANAGEMENT SAFETY TARGETS		X		X				
DRAFT SCHEDULE OF ITOC MEETING AGENDA TOPICS	X		X					
TENTATIVE: LOCAL AGENCY PRESENTATION (TBD)		X	X					
REGIONAL SAFETY PLANNING UPDATES		X	X					
FY 2015, FY 2018, FY 2021, AND FY 2024 TransNet TPA RECOMMENDATIONS: QUARTERLY UPDATE	X		X					
Wednesday, December 10, 2025	**Consent**	**Report**	**Information**	**Discussion**	**Recommend**	**Approve**	**Accept**	**Appoint**
No meeting								

SANDAG

TransNet Independent Taxpayer Oversight Committee

Item: **5**

November 13, 2024

Quarterly TransNet Financial Reports for the Period Ending September 30, 2024 and Other Financial Data

Overview

This report provides quarterly TransNet financial information in accordance with requests from the Independent Taxpayer Oversight Committee (ITOC) and in response to recommendations from the first and second TransNet Triennial Performance Audits.

Action: **Information**

This report provides an overview of the financial status of the TransNet Program.

Fiscal Impact:

Sales tax revenues of $108.58M through the first quarter of FY25 were higher when compared to $108.29M of revenues received through the same quarter of the prior fiscal year.

Schedule/Scope Impact:

This report is presented to the ITOC on a quarterly basis.

Key Considerations

- SANDAG has an aggregate level debt service profile with annual debt service ranging from $102.9 million to $106.6 million per year through FY 2048. Maximum annual debt service coverage for the senior lien, using sales tax receipts of $423.51 million for the last 12 months ending October 31, 2024, is 4.05 times. For every $1 of debt service, SANDAG received $4.05 of sales tax revenue, providing ample coverage. The debt-to-revenue ratio includes the FY 2024 debt service of the 2010, 2016, 2019, 2020, 2021 and 2023 bonds.
- Cumulative fiscal year sales tax revenues through September 30, 2024 came in 0.27% higher than last year.
- All cities and the county are within the allowable 30% limitations for Maintenance spending.

Dawn Vettese, Chief Financial Officer

Attachments:
1. Discussion Memo
2. TransNet Extension Quarterly Report for FY 2025, 1st Quarter
3. TransNet Extension Estimated Annual Sales Tax Revenue as Compared to Actual Receipts through September 30, 2024
4. ITOC Operating Budget Analysis
5. Local Agency Street and Road Maintenance Analysis as of September 30, 2024
6. TransNet Grant Program Balances as of September 30, 2024
7. Local Agency Street and Road Balances as of September 30, 2024

Discussion Memo

The Independent Taxpayer Oversight Committee (ITOC) requests certain information on a quarterly basis and is also provided information based on recommendations from the first and second *TransNet* Triennial Performance Audits.

The first *TransNet* Triennial Performance Audit recommended the following:

- Recommendation No. 17: SANDAG should…report to the ITOC on the status of the debt-to-revenue ratio on a regular basis. (See cover page)

- Recommendation No. 18: Other data that would be valuable for the ITOC to receive is the quarterly data related to sales tax revenue collected in the particular quarter, collected to date, and distributed amongst the various Extension Ordinance projects, programs, and entities. (Attachment 2)

The Following are additional items requested by ITOC to be provided on a quarterly basis:

- *TransNet* Extension estimated annual sales tax revenue as compared to actual receipts (Attachment 3).

- The ITOC operating budget analysis (Attachment 4) includes the Board of Directors-approved FY 2025 Program Budget, along with the actual (unaudited) expenses to date for the three months ending September 2024, and the projected budgets for FY 2026 through FY 2027.

- Local Agency Street and Road Maintenance amounts paid to the local agencies (Attachment 5)

- Committed and actual spent activity of *TransNet* grant programs (Attachment 6).

Recommendation No. 7 of the second *TransNet* Triennial Performance Audit includes the following:

- Replacing the 30 percent fund balance limitation with a more effective measure to monitor performance… where SANDAG and ITOC could observe progress and performance through administrative processes rather than through an audit compliance mechanism.

  In response to Recommendation No. 7, in November 2013, the ITOC requested minor adjustments to the Local Agency Street and Road balances attachment to assist in monitoring balances and expected use of local agency *TransNet* funds. The Local Agency Street and Road balances schedule (Attachment 7) includes unaudited balances held at SANDAG and the local jurisdictions through September 30, 2024, balance of programmed funds remaining in the Regional Transportation Improvement Program available for payment in FY 2025, estimated balance of funds that have not been programmed, and the cumulative percentage of funds anticipated to be spent through the end of FY 2025 if all funds other than those not programmed are expended. At the request of ITOC, the heading for column J has been modified to better articulate data provided.

TransNet Extension Quarterly Report

FISCAL YEAR: FY 2025 QUARTER: 1

	TransNet Allocations					Fund Disbursements						
	Sales Tax Allocations			Other Income [1]	Total Allocation	Program Disbursements [2]			Debt Service [3]			Total Disbursements
PROGRAM & RECIPIENT	This Quarter	FY to Date	Program to Date	Program to Date	Program to Date	This Quarter	FY to Date	Program to Date	This Quarter	FY to Date	Program to Date	Program to Date
SANDAG Admin	$2,171,614	$2,171,614	$62,090,819	$238,209	$62,329,028	$(1,800,000)	$(1,800,000)	$(61,513,001)	$0	$0	$0	$(61,513,001)
ITOC	$128,786	$128,786	$4,891,889	$82,610	$4,974,499	$(10,099)	$(10,099)	$(4,500,471)	$0	$0	$0	$(4,500,471)
Bicycle/Pedestrian/Neighborhood Safety	$2,171,614	$2,171,614	$96,763,039	$4,497,393	$101,260,432	$(817,414)	$(817,414)	$(191,666,963)	$(430,772)	$(430,772)	$(26,474,210)	$(218,141,173)
Major Corridor Capital Projects	$39,561,300	$39,561,300	$1,776,274,353	$(185,742,235)	$1,590,532,118	$(18,416,323)	$(18,416,323)	$(2,999,230,288)	$(7,750,356)	$(7,750,356)	$(1,335,688,861)	$(4,334,919,149)
Major Corridor Project EMP	$4,580,782	$4,580,782	$205,673,873	$152,713,447	$358,387,320	$(732)	$(732)	$(431,537,389)	$(1,565,540)	$(1,565,540)	$(242,854,910)	$(674,392,299)
Local Project EMP	$1,873,956	$1,873,956	$84,139,312	$5,113,969	$89,253,281	$(300)	$(300)	$(21,701,887)	$0	$0	$(54)	$(21,701,941)
Smart Growth Incentive Program	$2,186,282	$2,186,282	$98,162,530	$6,964,160	$105,126,690	$(349)	$(349)	$(53,614,391)	$0	$0	$0	$(53,614,391)
Local Streets and Roads												
City of Carlsbad	$1,232,643	$1,232,643	$50,048,770	$11,911,896	$61,960,666	$(197)	$(197)	$(29,278,882)	$0	$0	$0	$(29,278,882)
City of Chula Vista	$2,311,831	$2,311,831	$98,704,064	$7,145,684	$105,849,748	$(1,207,370)	$(1,207,370)	$(74,404,420)	$0	$0	$0	$(74,404,420)
City of Coronado	$202,720	$202,720	$9,794,918	$1,236,318	$11,031,236	$(156,360)	$(156,360)	$(7,175,857)	$0	$0	$0	$(7,175,857)
City of Del Mar	$67,370	$67,370	$3,385,407	$233,535	$3,618,942	$(9)	$(9)	$(4,962,101)	$(11,170)	$(11,170)	$(2,299,483)	$(7,261,584)
City of El Cajon	$895,288	$895,288	$40,043,058	$3,554,335	$43,597,393	$(143)	$(143)	$(30,282,793)	$0	$0	$0	$(30,282,793)
City of Encinitas	$594,529	$594,529	$27,645,699	$4,574,712	$32,220,411	$(94)	$(94)	$(28,357,087)	$0	$0	$0	$(28,357,087)
City of Escondido	$1,321,357	$1,321,357	$59,679,999	$6,971,800	$66,651,799	$(1,050,211)	$(1,050,211)	$(52,783,217)	$0	$0	$0	$(52,783,217)
City of Imperial Beach	$228,824	$228,824	$11,568,233	$627,455	$12,195,688	$(416,963)	$(416,963)	$(11,839,804)	$(39,734)	$(39,734)	$(1,479,651)	$(13,319,455)
City of La Mesa	$553,537	$553,537	$25,603,946	$3,780,725	$29,384,671	$(87)	$(87)	$(23,095,899)	$0	$0	$(4,605,159)	$(27,701,058)
City of Lemon Grove	$253,507	$253,507	$11,716,997	$772,506	$12,489,503	$(281,418)	$(281,418)	$(10,245,370)	$0	$0	$0	$(10,245,370)
City of National City	$511,828	$511,828	$23,318,801	$2,027,816	$25,346,617	$(80)	$(80)	$(18,324,859)	$0	$0	$(8,233,109)	$(26,557,968)
City of Oceanside	$1,581,464	$1,581,464	$75,126,347	$9,921,403	$85,047,750	$(253)	$(253)	$(68,182,870)	$0	$0	$(4,915,690)	$(73,098,560)
City of Poway	$525,313	$525,313	$24,679,661	$1,592,244	$26,271,905	$(83)	$(83)	$(20,931,765)	$0	$0	$0	$(20,931,765)
City of San Diego	$11,790,113	$11,790,113	$540,439,153	$31,546,246	$571,985,399	$(7,833,868)	$(7,833,868)	$(550,893,885)	$(741)	$(741)	$(1,733,139)	$(552,627,024)
City of San Marcos	$807,896	$807,896	$35,956,357	$4,839,246	$40,795,603	$(128)	$(128)	$(33,557,251)	$72,177	$72,177	$(8,569,167)	$(42,126,418)
City of Santee	$514,144	$514,144	$23,664,109	$1,343,890	$25,007,999	$(81)	$(81)	$(26,734,813)	$(65,672)	$(65,672)	$(14,907,751)	$(41,642,564)
City of Solana Beach	$142,244	$142,244	$7,129,940	$675,521	$7,805,461	$(21)	$(21)	$(8,721,489)	$27,212	$27,212	$(3,034,691)	$(11,756,180)

FISCAL YEAR: FY 2025 QUARTER: 1

	TransNet Allocations					Fund Disbursements						
	Sales Tax Allocations			Other Income [1]	Total Allocation	Program Disbursements [2]			Debt Service [3]			Total Disbursements
PROGRAM & RECIPIENT	This Quarter	FY to Date	Program to Date	Program to Date	Program to Date	This Quarter	FY to Date	Program to Date	This Quarter	FY to Date	Program to Date	Program to Date
City of Vista	$838,147	$838,147	$38,126,414	$4,352,011	$42,478,425	$(133)	$(133)	$(35,905,884)	$0	$0	$0	$(35,905,884)
San Diego County	$5,922,870	$5,922,870	$253,620,327	$23,918,407	$277,538,734	$(1,760,953)	$(1,760,953)	$(173,082,519)	$(99,027)	$(99,027)	$(26,368,164)	$(199,450,683)
Total Local Streets and Roads	$30,295,625	$30,295,625	$1,360,252,200	$121,025,750	$1,481,277,950	$(12,708,452)	$(12,708,452)	$(1,208,760,765)	$(116,955)	$(116,955)	$(76,146,004)	$(1,284,906,769)
Transit Services												
MTS	$11,810,119	$11,810,119	$530,078,048	$971,653	$531,049,701	$(7,511,939)	$(7,511,939)	$(527,009,126)	$0	$0	$0	$(527,009,126)
NCTD	$4,809,531	$4,809,531	$216,132,470	$394,531	$216,527,001	$(3,250,769)	$(3,250,769)	$(212,747,031)	$(19,752)	$(19,752)	$(1,874,764)	$(214,621,795)
Senior Grant Program	$558,283	$558,283	$25,066,503	$337,388	$25,403,891	$(89)	$(89)	$(22,813,241)	$0	$0	$0	$(22,813,241)
Total Transit Services	$17,177,933	$17,177,933	$771,277,021	$1,703,572	$772,980,593	$(10,762,797)	$(10,762,797)	$(762,569,398)	$(19,752)	$(19,752)	$(1,874,764)	$(764,444,162)
New Major Corridor Transit Operations	$8,432,803	$8,432,803	$378,626,902	$27,404,779	$406,031,681	$(1,830,303)	$(1,830,303)	$(264,115,431)	$0	$0	$0	$(264,115,431)
TOTAL TRANSNET EXTENSTION	$108,580,695	$108,580,695	$4,838,151,938	$134,001,654	$4,972,153,592	$(46,346,769)	$(46,346,769)	$(5,999,209,984)	$(9,883,375)	$(9,883,375)	$(1,683,038,803)	$(7,682,248,787)

Commercial Paper Program Activity

PROGRAM & RECIPIENT	Commercial Paper Disbursements	
	FY to Date	Program to Date
City of National City	$0	$(4,500,000)
City of Santee	$0	$(3,950,000)
NCTD	$0	$(34,000,000)
City of Imperial Beach	$(101,000)	$(1,900,000)
City of San Diego	$0	$(26,167,000)
City of La Mesa	$0	$(4,500,000)
City of Oceanside	$0	$(4,790,000)
City of Del Mar	$0	$(704,000)
Major Corridor Capital Projects	$0	$(99,999,679)
Major Corridor Project EMP	$0	$(16,052,321)
Total CP Disbursements	$(101,000)	$(196,563,000)

PROGRAM & RECIPIENT	Commercial Paper Program Availability			
	Prior Years	This Quarter	FY to Date	Program to Date
CP Program	$100,000,000	$0	$0	$100,000,000
NCTD	$(17,750,000)	$$1,400,000	$$1,400,000	$(16,350,000)
City of La Mesa	$0	$0	$0	$0
City of Oceanside	$0	$0	$0	$0
City of Imperial Beach	$(796,000)	$378,000	$378,000	$(418,000)
Major Corridor Capital Projects	$0	$0	$0	$0
City of San Diego	$0	$0	$0	$0
Major Corridor Project EMP	$0	$0	$0	$0
CP Outstanding	$(18,546,000)			$(16,768,000)
CP AVAILABLE FOR ISSUANCE	$81,454,000			$83,232,000

Other Activity

PROGRAM & RECIPIENT	Sales Tax Revenue Transfers for EMP Debt Service Payments			
	Prior Years	This Quarter	FY to Date	Program to Date
Major Corridor Capital Projects	$(151,839,904)	$0	$0	$(151,839,904)
Major Corridor Project EMP	$195,515,863	$(2,804,039)	$(2,804,039)	$192,711,824
Local Project EMP	$(43,675,959)	$2,804,039	$2,804,039	$(40,871,920)
Total Other Activity	$0	$0	$0	$0

2008 ABCD Sales Tax Revenue Bond Activity - $600,000,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [4]			
	Prior Years	This Quarter	FY to Date	Program to Date
San Diego County	$16,893,500	$0	$0	$16,893,500
Major Corridor Capital Projects	$392,721,119	$0	$0	$392,721,119
Major Corridor Project EMP	$45,517,182	$0	$0	$45,517,182
Total 2008 Bond Disbursement	$455,131,801	$0	$0	$455,131,801

2010 A Sales Tax Revenue Bond Activity - $338,960,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [5]			
	Prior Years	This Quarter	FY to Date	Program to Date
City of San Marcos	$15,253,815	$0	$0	$15,253,815
City of Solana Beach	$5,515,065	$0	$0	$5,515,065
Major Corridor Capital Projects	$276,292,690	$0	$0	$276,292,690
Major Corridor Project EMP	$43,419,140	$0	$0	$43,419,140
Total 2010 A Bond Disbursement	$340,480,710	$0	$0	$340,480,710

2010 B Sales Tax Revenue Bond Activity - $11,040,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [5]			
	Prior Years	This Quarter	FY to Date	Program to Date
City of National City	$3,383,956	$0	$0	$3,383,956
City of Santee	$8,519,844	$0	$0	$8,519,844
Total 2010 B Bond Disbursement	$11,903,800	$0	$0	$11,903,800

2020 A Sales Tax Revenue Bond Activity - 74,820,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [6]			
	Prior Years	This Quarter	FY to Date	Program to Date
Bike/Pedestrian	$$91,761,005	$0	$0	$91,761,005
TOTAL TRANSNET EXTENSION	$91,761,005	$0	$0	$91,761,005

2021 B Sales Tax Revenue Bond Activity - $116,150,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [6]			
	Prior Years	This Quarter	FY to Date	Program to Date
Major Corridor Capital Projects	131,143,976.00	$0.00	$0.00	$131,143,976.00
Total 2021 B Bond Disbursement	131,143,976.00	$0.00	$0.00	$131,143,976.00

2012 A Sales Tax Revenue Bond Activity - $420,585,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [4.5.6]			
	Prior Years	This Quarter	FY to Date	Program to Date
San Diego County	$5,706,500	$0	$0	$5,706,500
Major Corridor Capital Projects	$444,770,201	$0	$0	$444,770,201
Major Corridor Project EMP	$26,812,066	$0	$0	$26,812,066
Total 2012 A Bond	$477,288,767	$0	$0	$477,288,767

2014 A Sales Tax Revenue Bond Activity - $350,000,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [5.6]			
	Prior Years	This Quarter	FY to Date	Program to Date
City of Del Mar	$3,518,350	$0	$0	$3,518,350
City of San Marcos	$1,152,611	$0	$0	$1,152,611
City of Santee	$4,938,727	$0	$0	$5,397,979
Major Corridor Capital Projects	$343,906,117	$0	$0	$343,906,117
Major Corridor Project EMP	$52,162,768	$0	$0	$52,162,768
Total 2014 A Bond Disbursement	$405,678,573	$0	$0	$406,137,825

2016 A Sales Tax Revenue Bond Activity - $325,000,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [6]			
	Prior Years	This Quarter	FY to Date	Program to Date
Bicycle/Pedestrian/Neighborhood Safety	$31,224,192	$0	$0	$31,224,192
Major Corridor Capital Projects	$322,425,541	$0	$0	$322,425,541
Major Corridor Project EMP	$54,042,182	$0	$0	$54,042,182
Total 2016 A Bond Disbursement	$407,691,915	$0	$0	$407,691,915

2018 A Sales Tax Revenue Bond Activity - $537,480,000

PROGRAM & RECIPIENT	Bond Proceeds Disbursements [6]			
	Prior Years	This Quarter	FY to Date	Program to Date
Major Corridor Capital Projects	$573,453,241	$0	$0	$573,453,241
Total 2018 A Bond Disbursement	$573,453,241	$0	$0	$573,453,241

FOOTNOTES:

1. Other income includes interest revenue, transfers from TransNet I, other non-sales tax revenue, and the one-time swap of Major Corridor Sales Tax Revenue (to LSI Cities and County) for ARRA funds.
2. Program Disbursements include payments to TransNet recipient agencies and program costs, including payments made for Early Action Projects in prior years, and return of funds.
3. Debt Service includes principal and interest payments, including debt payments beginning in March 2008 upon issuance of the 2008 ABCD Sales Tax Revenue Bonds, and other debt service costs net of interest earnings.
4. 2008 Bond Proceeds have been fully disbursed, net of Reserve Requirement of $17.1 million. The Program to Date total includes interest earnings. The 2008 Bonds were partially defeased with the issuance of the 2012 Bonds on June 14, 2012, thereby reducing the 2008 Bond Proceed Disbursement.
5. 2010, 2012, 2014, 2016,2018,2020 and 2021 Bond Proceeds have been fully disbursed and the Program to Date includes interest earnings.
6. The 2012 Bond total includes a premium of $55.8 million, the 2014 Bond total includes a premium of $55.3 million, the 2016 Bond total includes a premium of $78.8 million, the 2018 Bond includes a premium of $31.6 million and the 2020 bond includes a premium of $20 million.
7. On March 25, 2021 the Commission issued $265.9 million in 2021AB bonds of which $170 million was used to refund the 2014A bonds. The bonds were issued at a premium of $36 million with $130 million in project funds available to be used on Major Corridor projects. All project funds as of March 31, 2023 have been expended.

TransNet Extension Estimated Annual Sales Tax Revenue as Compared to Actual Receipts through September 2024

	Annual		Current Year Actuals vs.	Current Year Actuals vs. Prior Year	Annual Forecast vs.
	Estimates[1]	Actuals	Estimates	Actuals	Prior Year
FY 2009	$ 229,741,846	$ 221,991,360	-3.37%	-9.07%	-6.00%
FY 2010	199,792,224	204,191,748	2.20%	-8.02%	-10.00%
FY 2011	216,443,252	221,304,014	2.25%	8.38%	6.00%
FY 2012	232,369,215	236,947,113	1.97%	7.07%	5.00%
FY 2013	249,979,204	247,221,162	-1.10%	4.34%	5.50%
FY 2014	262,478,164	260,114,931	-0.90%	5.22%	5.00%
FY 2015	269,965,509	268,840,549	-0.42%	3.35%	4.00%
FY 2016	278,249,968	275,500,023	-0.99%	2.48%	3.50%
FY 2017	287,988,716	284,456,260	-1.23%	3.25%	5.00%
FY 2018	292,132,637	301,455,493	3.19%	5.98%	3.00%
FY 2019	300,896,616	305,349,500	1.48%	1.29%	3.00%
FY 2020	309,923,514	305,851,214	-1.31%	-2.07%	3.00%
FY 2021	308,165,353	333,998,567	8.38%	9.20%	-0.57%
FY 2022	403,847,835	405,921,138	0.51%	21.53%	31.05%
FY 2023	425,804,071	429,735,180	0.92%	5.87%	5.44%
FY2024	429,992,613	426,692,983	-0.77%	-0.71%	0.98%
FY2025	427,566,972	108,580,698	0.06%	0.27%	-0.56%
Cumulative		$ 4,838,151,933			

	FY 2025 Estimates	FY 2025 Actuals[2]	Cumulative: FY 2025 Actuals vs. FY 2025 Estimates	Cumulative: FY 2025 Actuals vs. Same Period of FY 2024 Actuals
July	$ 43,780,752	42,756,562	-2.34%	-2.14%
August	$ 27,982,886	29,154,928	0.21%	0.41%
September	$ 36,748,059	36,669,208	0.06%	0.27%
October	$ 38,166,755			
November	$ 33,558,022			
December	$ 35,874,978			
January	$ 34,042,223			
February	$ 39,590,197			
March	$ 35,859,755			
April	$ 33,373,877			
May	$ 33,487,879			
June	$ 35,101,589			
	$ 427,566,972 [1]	$ 108,580,698		

[1]Latest SANDAG Board of Directors approved estimate.

[2]Reflects actual year-to-date cash receipts through September 2024.

ITOC Operating Budget Analysis
FY 2025 Approved Budget and Actual Expenses
for the three Months Ending September 30, 2024
and Projected Budgets for FY 2026 and FY 2027

	FY 2025			Projected FY 2026	Projected FY 2027
Revenues	**Budget**	**Actual[8]**	**Variance**	**Budget**	**Budget[9]**
Annual TransNet Allocation[1]	$ 515,144	$128,790	$ (386,354)	$ 528,383	539,532
Expenses					
Annual Fiscal Audits[2]	122,485	9,195	(113,290)	122,485	122,485
Triennial Performance Audit[2]	-	-	-	-	340,423
Administration - SANDAG[3]	272,818	-	(272,818)	279,911	285,789
Mileage[4]	2,130	-	(2,130)	2,185	2,231
Interpretation Services	9,898	904	(8,994)	10,155	10,368
Advertisement	1,890	-	(1,890)	1,939	1,980
Postage/Delivery	243	-	(243)	249	254
Reserve for Outside Consulting Services[5]	26,865	-	(26,865)	27,563	28,142
Total Expenses	436,329	10,099	(426,230)	444,487	791,672
Net Difference[6]	78,815	118,691	39,876	83,896	(252,140)
Other Available Funds					
Carryover TransNet Revenue - unbudgeted	$348,091			$446,296	$550,086
Carryover TransNet Revenue - Budgeted/Actual	78,815			83,896	(252,140)
Current Year Interest Earned[7]	$19,390			$19,894	$20,312
End of Year	$446,296			$550,086	318,258

Notes:

[1]Annual budget is $250,000 in $2,000 escalated annually by the most recent Consumer Price Index (CPI).

[2] Projected annual fiscal audits for FY 2026 and FY 2027 are based on agreed upon future rates.

[3] Salaries, benefits, indirect costs for SANDAG staff supporting the ITOC.

[4]Mileage and parking reimbursement for ITOC members.

[5]Reserve started at $20,000 in FY 2013 with CPI adjustment each subsequent year.

[6]Any expenditures exceeding TransNet revenues will be funded by other unbudgeted available funds. Remaining (unspent)TransNet revenues will carry forward at year-end and be added to Other Available Funds.

[7]Current Year Interest Earned will be added to "Carryover TransNet Revenue - unbudgeted" in future years, and future interest earned is estimated

[8] Amounts are unaudited.

[9] FY 2026 and FY2027 budget is adjusted by 2.6% CPI and 2.1% CPI, respectively.

Local Agency Street & Road (LSI)
Maintenance (30% LSI Funding) Analysis
Cumulative SANDAG Activity
As of September 30, 2024
(in thousands)

	A	B	C = A + B	D	E = C + D	F
	LSI: Maintenance					
	TransNet Funds Allocated at September 30, 2024	Other Funds Allocated at September 30, 2024[2]	Total Funds Allocated at September 30, 2024	Expended at September 30, 2024[3]	Unspent Total Balance at September 30, 2024	Cash Balances Available at September 30, 2024[4,5]
City of Carlsbad	$ 15,015	$ 3,556	$ 18,571	$ (1,596)	$ 16,975	$ 16,974
City of Chula Vista	29,611	2,133	31,744	(21,657)	10,087	10,088
City of Coronado	2,938	364	3,302	(327)	2,976	2,977
City of Del Mar	1,016	69	1,085	(403)	682	**574**
City of El Cajon	12,013	1,058	13,071	(6,918)	6,153	6,153
City of Encinitas	8,294	1,360	9,654	(1,332)	8,322	**3,863**
City of Escondido	17,904	2,097	20,001	(17,889)	2,113	2,113
City of Imperial Beach	3,470	187	3,657	(3,252)	405	406
City of La Mesa	7,681	1,135	8,816	(4,874)	3,943	3,943
City of Lemon Grove	3,515	232	3,747	(3,230)	517	517
City of National City	36,593	591	37,184	(5)	37,179	**6,673**
City of Oceanside	22,538	2,985	25,523	(16,024)	9,500	9,498
City of Poway	7,404	475	7,879	(6,361)	1,519	1,519
City of San Diego	162,132	9,597	171,729	(169,974)	1,756	1,756
City of San Marcos	10,787	1,446	12,233	(4,192)	8,042	8,042
City of Santee	7,099	393	7,492	(6,074)	1,418	**1,243**
City of Solana Beach	2,139	200	2,339	(425)	1,914	**1,483**
City of Vista	11,438	1,318	12,756	(8,309)	4,447	4,447
San Diego County	76,086	6,924	83,010	(4,402)	78,607	78,608
Totals	$ 437,673	$ 36,120	$ 473,793	$ (277,244)	$ 196,555	$ 160,877

[1] Unaudited.

[2] Other Funds (Column B) may include *TransNet* I funds carried over to the *TransNet* Extension Program, Interest earnings, and ARRA swap.

[3] Expended amounts (Column D) include payments made to local jurisidictions and Program Costs.

[4] Maintenance activity is tracked to ensure no more than 30% of funds will be cumulatively paid to the local jurisdiction and/or used for Program Costs; however actual payment to local jurisdictions for Maintenance projects may not exceed both the Unspent Total Balance (Column E) and Cash Balances Available (Column F).

[5] As noted in **bold**, amounts in Column F are less than Column E when the local jurisdiction is programming and spending more than 70% LSI on Congestion Relief projects.

TransNet Grant Program Balances
As of September 30, 2024
(Unaudited)

	A	B	C	D	E = C - D
	Revenue Received				
	Total Revenue Received[1]	Non-Grant (Regional) Revenue	Awarded Grant Revenue	Grantee Expenditures[2]	Unspent Grant Commitment
Active Transportation Grant Program (ATGP - Bike/Ped)[3,4]	$ 101,189,740	$ 84,503,470	$ 16,686,270	$ 14,101,182	$ 2,585,088
Smart Growth Program (SGIP)[5]	105,053,939	n/a	59,957,009	52,600,672	7,356,337
Local Environmental Mitigation Program (EMP)[6]	48,086,264	29,269,603 [7]	18,816,661 [8]	16,751,612	2,065,049
Senior Mini-Grant Program (SMGP)[9]	25,385,259	n/a	23,925,366 [10]	21,840,885	2,084,481

[1]Total Revenue Received is net of program costs.

[2] Grantee Expenditures may include estimated accruals for the period ending June 30, 2024. Grantee invoices submitted through September may still be pending processing; figures are not finalized.

[3] Includes 48 awarded projects from ATGP Cycles 1 through 4 (FY 2009-2019) that were funded by TransNet. TDA funded another 40 projects from those cycles.

[4] *TransNet* 2% (Bike/Ped) revenue allocation is used toward regional bike projects in addition to the ATGP Grant Program.

[5] Includes awarded SGIP Cycles 1 through 5 (FY 2009-2020).

[6] Local EMP revenues are used toward grant and non-grant projects. Includes awarded EMP Land Management Grants (LMGs) (FY 2006-2019). Land Acquisition Grants from Cycle 1 (FY 2014) are funded from Major Corridor EMP and are therefore not included in this report.

[7] Local EMP non-grant projects and expenditures are funded with sales tax revenue while regional projects may also receive bond proceed funding.

[8] All 19 of the 10th Cycle LMG contracts have been executed. One grant was withdrawn, and these funds will added to the funds available for the next EMP-LMG call for projects.

[9] Includes awarded SMGP Cycles 1 (FY 2009-2011), 2 (FY 2012-2013), 3 (FY 2014-2015), 4 (FY 2016-2017), 5 (FY 2018-2019), 6 (FY 2020-2021), 7 (FY 2022-2023), 8 (FY 2024-2025)

[10] SMGP Awarded Grant Revenue (Column C) includes *TransNet* allocations through FY 2025 whereas Column A represents Total Revenues Received through September 30, 2024.

Local Agency Street & Road Balances
As of September 30, 2024
(in thousands)

							<60% [5]			<75% [5]
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
						= D + E	**=(-C-E)/(A+B)**		**= B + D - H**	**= (-C-E+H)/(A+B)**
	LSI Allocations			Cash Balances Held						
Local Agency	Cumulative (Actuals) Received Through 09/30/2024	FY24 Estimated Allocation Balance net of D/S Costs	Cumulative Disbursed[4]	At SANDAG[1]	At Local Agencies[1]	Cash Balances Total	Actual % spent (Cumulative)	Programmed Funds Available to Draw in FY25[3]	Estimated Cumulative Balance Available to Program	Proposed % applied to projects by 06/30/25 (Cumulative)[6]
City of Carlsbad	$ 61,961	$ 3,696	$ (29,279)	$ 32,682	$ (83)	$ 32,599	44.7%	$ 31,149	$ 5,228	92.2%
City of Chula Vista	105,850	6,931	(74,404)	31,445	83	31,528	65.9%	47,317	(8,941)	**107.9%**
City of Coronado	11,031	608	(7,176)	3,855	26	3,881	61.4%	5,054	(591)	**104.9%**
City of Del Mar[2]	3,619	64	(4,962)	574	3	578	**134.6%**	247	391	**141.3%**
City of El Cajon	43,597	2,684	(30,283)	13,315	(2,596)	10,718	71.0%	19,384	(3,385)	**112.9%**
City of Encinitas	32,220	1,782	(28,357)	3,863	(38)	3,825	83.5%	5,382	264	99.3%
City of Escondido	66,652	3,961	(52,783)	13,869	(2,076)	11,793	77.7%	22,684	(4,854)	**109.8%**
City of Imperial Beach	12,196	611	(11,840)	776	(122)	654	93.4%	1,763	(376)	**107.2%**
City of La Mesa[2]	29,385	1,660	(23,096)	6,184	(185)	5,999	75.0%	6,882	961	97.2%
City of Lemon Grove	12,490	760	(10,245)	2,244	(586)	1,659	81.7%	3,757	(752)	**110.1%**
City of National City[2]	25,347	1,535	(18,325)	6,673	(1,861)	4,812	75.1%	3,965	4,242	89.8%
City of Oceanside[2]	85,048	4,741	(68,183)	16,739	1,827	18,566	73.9%	14,418	7,062	90.0%
City of Poway	26,272	1,575	(20,932)	5,340	(220)	5,121	76.0%	6,125	790	98.0%
City of San Diego	571,985	35,347	(550,894)	45,525	6,673	52,198	89.6%	124,778	(43,905)	**110.2%**
City of San Marcos[2]	40,796	1,493	(33,557)	14,926	272	15,198	78.7%	17,424	(1,005)	**119.9%**
City of Santee[2]	25,008	738	(26,735)	1,243	(419)	824	**105.5%**	2,408	(427)	**114.8%**
City of Solana Beach[2]	7,805	101	(8,721)	1,483	2	1,485	**110.3%**	428	1,157	**115.7%**
City of Vista	42,478	2,513	(35,906)	6,573	124	6,696	79.5%	11,315	(2,229)	**104.7%**
County of San Diego[2]	277,539	16,518	(173,083)	106,211	1,229	107,440	58.4%	91,862	30,867	89.7%
Totals[7]	$ 1,481,278	$ 87,317	$ (1,208,761)	$ 313,521	$ 2,052	$ 315,573		$ 416,341	$ (15,501)	

[1] Amounts are unaudited

[2] For participants in the SDCRTC Debt Program (bonds or commercial paper), amounts may include interest earned on the unspent proceeds (cash and investment balances) and bond proceeds.

[3] Remaining biennial programmed amounts available for drawing for FY25, less negative balances at local agencies.

[4] Disbursements include formula-based regular monthly payments to local agencies as requested and may include program costs, debt service payments and payments using debt proceeds.

[5] Monitoring threshold. Amounts in **bold** represent estimated percentage spent in excess of available funds that may be due to debt proceeds disbursed and/or programming based on two years of allocations.

[6] Column (J) represent the percentage of actual sales tax spent cumulatively compared to actual cumulative sales tax revenue allocated. Allocations may include interest earnings and debt proceeds.

[7] May include rounding.

November 13, 2024

Overview of Developments in the Financial Markets, Quarterly Finance Report as of September 30, 2024

Action: **Information**
This report provides an update on the latest developments in the financial markets, economy, sales tax revenues, and strategies being explored and implemented to minimize possible impacts to the TransNet Program.

Fiscal Impact:
Senior lien debt service coverage remains strong at 4.05 times, providing ample coverage and supporting triple-A ratings.

Schedule/Scope Impact:
As inflation continues to ease and the labor market stabilizes, economic outlooks exhibit cautious optimism.

Overview

Staff provides quarterly briefings on the latest developments in the financial markets, economy, sales tax revenues, and the strategies being explored and implemented to minimize possible impacts to the TransNet Program; and a quarterly report on investments as required per Board Policy No. 003.

Key Considerations

- Through September 2024 of FY2025, sales tax revenue is 0.27% higher than FY2024 collections through the same month, with TransNet revenue totaling $108.6 million thus far.
- Senior lien maximum annual debt service coverage, using sales tax receipts of $423.5 million for the 12 months ending October 31, 2024, is 4.05 times. Meaning, for every $1 of senior lien debt service, SANDAG received $4.05 of sales tax revenue providing ample coverage, supporting SANDAG senior lien triple-A ratings.
- Inflation continued to ease through Q1, with local inflation falling to 2.2% in September – the lowest inflation has fallen over the last three years. This trend is aligned with national inflation which fell to 2.4% in September. For the first time since 2020, the Federal Reserve cut rates. While it is thought that the Fed has achieved a soft-landing outcome, it remains to be seen how aggressive rate cuts will be in the coming months.

Dawn Vettese, Chief Financial Officer

Attachments:
1. Financial Market Review
2. Local Economy and Sales Tax Revenue
3. Investment and Debt Portfolio

Market Review and Update

Overview

Inflation continues to be a key indicator that economists, and in particular the Federal Open Market Committee (FOMC), are watching closely in 2024. At its last meeting in September the FOMC cut rates after over a year of maintaining steady high rates. The move was supported by several economic indicators leading up to the meeting. The annual inflation rate in the US slowed for a sixth consecutive month to 2.4% in September 2024, the lowest since February 2021. That said, recent major economic releases continue to support the view that the US economy remains broadly resilient to higher interest rates, limiting the urgency for the Fed to normalize its policy at less-restrictive levels. Retail sales accelerated more than expected in September to underscore the strength of the US consumer, and unemployment claims were well below expectations halfway through October to pare concerns of a softening labor market. That alongside market predictions on potential election outcomes, are driving yields upwards.

Interest Rates

- **Treasury Rates:** As was the case in 2022 and 2023, Treasury rates (industry accepted benchmark for taxable bonds) continue to be volatile in 2024 as the market reacts to key economic indicators like inflation and labor statistics. Some of the more recent volatility is also attributable to the uncertainty around the presidential and congressional elections. Current Treasury rates are at or close to the highest they have been since June. The 2-year treasury note is currently yielding 4.14%. The 10-year treasury is currently yielding 4.28% and the 30-year treasury bond yielding 4.53%. Slight inversion persists on the short end of the yield curve inside of 3 years.
- **Municipal Market Rates:** Tax exempt municipal bond rates, as represented by the AAA BVAL rates (benchmark for tax-exempt rates produced by Bloomberg) inched up for the first half of the year through June. By mid-June this trend reversed, and rates dropped significantly in August and continuing into September. However, October releases of strong economic data and market expectations on potential election outcomes has caused rates to rise significantly towards the end of the month. The 30-year rate is currently at 3.79% and is 0.38% higher compared to its recent August lows.
- **Fed Funds Rate:** The Fed recently cut rates by 0.5% to 4.75% - 5.00% range at the September 2024 meeting. This represents the first rate cut since 2020, and more aggressive than the 0.25% expected by nearly half of the market. The larger cut was aimed at preventing further labor market weakening. Market expectations indicate that the Fed could continue to cut rates by another 0.5% before the end of 2024. However more recent commentary from Fed members indicates a more cautious approach with “modest and gradual” rates cuts than anticipated at the time of the September meeting.
- **Municipal Market Supply-Demand Dynamics:** Municipal issuance volume year to date remains high, especially compared to suppressed volumes in recent prior years, as issuers try to get ahead of any election related volatility later in the year. This was somewhat balanced by modest inflows into bond funds over the same period.

Equity Markets: Domestic equity markets experienced some turbulence in August 2024 due to a combination of adverse market conditions including below-market jobs reports and international tensions. The market has since experienced a resurgence, stabilizing back to near all-time highs.

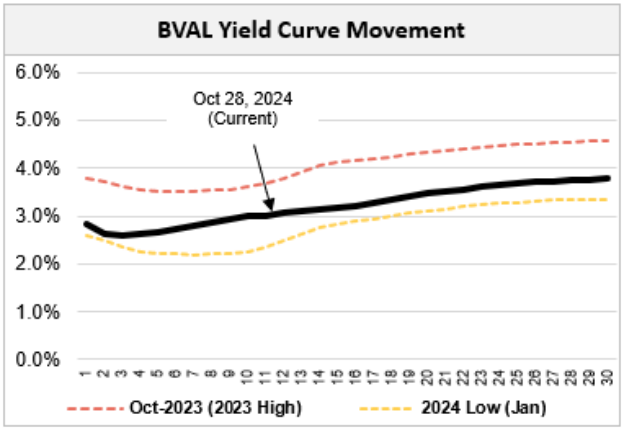
U.S. Economy

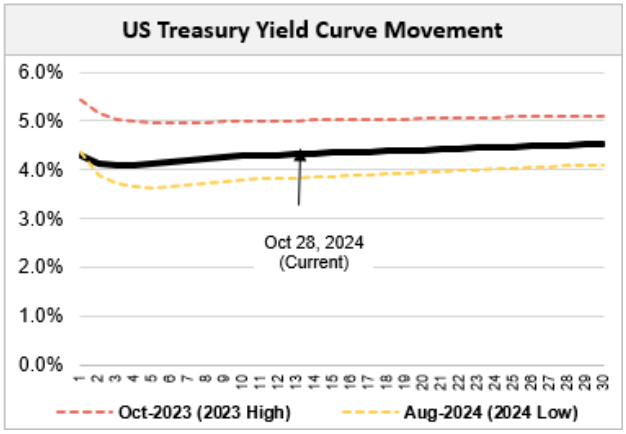
- **Jobs and Unemployment**: The Initial Jobless Claims declined for a second week in a row to 227,000 for the week ending October 19, well below market expectations. The unemployment rate fell to 4.1% in September 2024, a slight reduction from its annual peak of 4.3% in July. These trends extended the view that the US labor market remains relatively resilient to restrictive interest rates.
- **GDP**: GDP expanded an annualized 3.0% in Q2, up from 1.6% in Q1 2024 and above forecasts of 2.8%. This doubling of growth quarter over quarter was fueled by sustained consumer and business spending.

- **Personal Spending**: As one of the key drivers of the economy, personal spending increased by 0.2% in August 2024, following a 0.5% increase in July slightly below market expectations.
- **Retail Sales:** Retail sales in the US increased 0.4% month-over-month in September 2024, well above a 0.1% gain in August and beating market expectations of a 0.3% rise.
- **Manufacturing and Service Data:** The S&P Global U.S. Composite Purchasing Managers Index (PMI) fell slightly to 54.0 in September, a four-month low, down from 54.6 in August but still indicating sustained growth in the private sector and marking 20 consecutive months of expansion. A reading above 50 indicates expansion in business activity, vice versa for readings below 50. The growth is being primarily driven by the service sector. The Manufacturing PMI fell to 47.3 in September 2024 from 47.9 in the previous month and 52.2 in March.
- **Consumer Sentiment**: The University of Michigan's consumer sentiment rose to 70.5 in October 2024, marking a third consecutive month of increase.

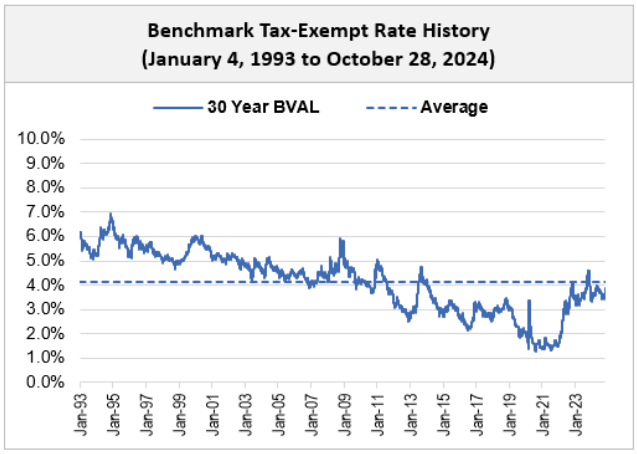
Long-Term Tax-Exempt and Taxable Interest Rates

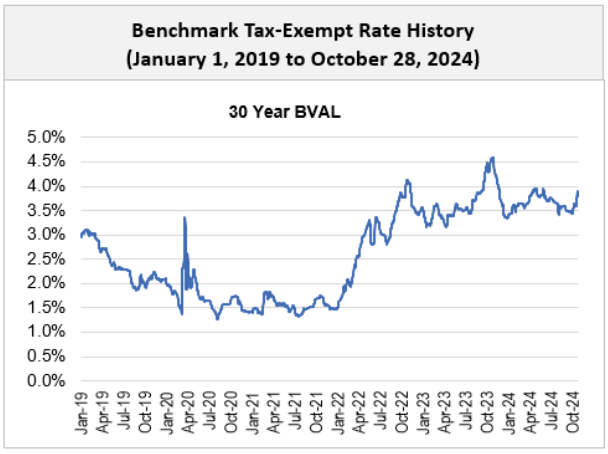
The Bloomberg Valuation Service's (BVAL) AAA yield curve (i.e., the "BVAL AAA" which is a widely accepted benchmark for tax-exempt municipal bond rates) dropped in July and August, in anticipation of the first potential rate cut at the September Fed meeting. However much of that was reversed in the final weeks of October as a batch of stronger-than-expected economic data for labor and sales tempered hopes of aggressive rate cuts by the Fed. The two charts below show current AAA BVAL yield curve and the current US Treasury yield curve (benchmark of taxable municipal bond rates) in comparison to the lowest and highest rates have been in the last 12 months. Despite recent increase, as seen in the chart, the current BVAL AAA yield curve is still fairly lower than October 2023 last year. Treasury rates also remain lower than they were 12 months ago in October 2023. Both the BVAL yield curve as well as the U.S. Treasury curve continue to reflect "inversion" wherein short-term rates are higher than intermediate-term rates, though this is considerably less pronounced than it has been over the last couple years.





The current 30-year BVAL AAA bond yield is 3.793%, which is 35 bps lower than its long-term average.

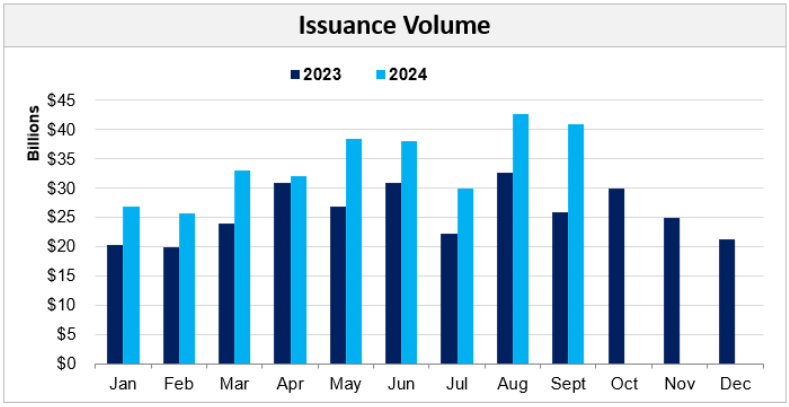




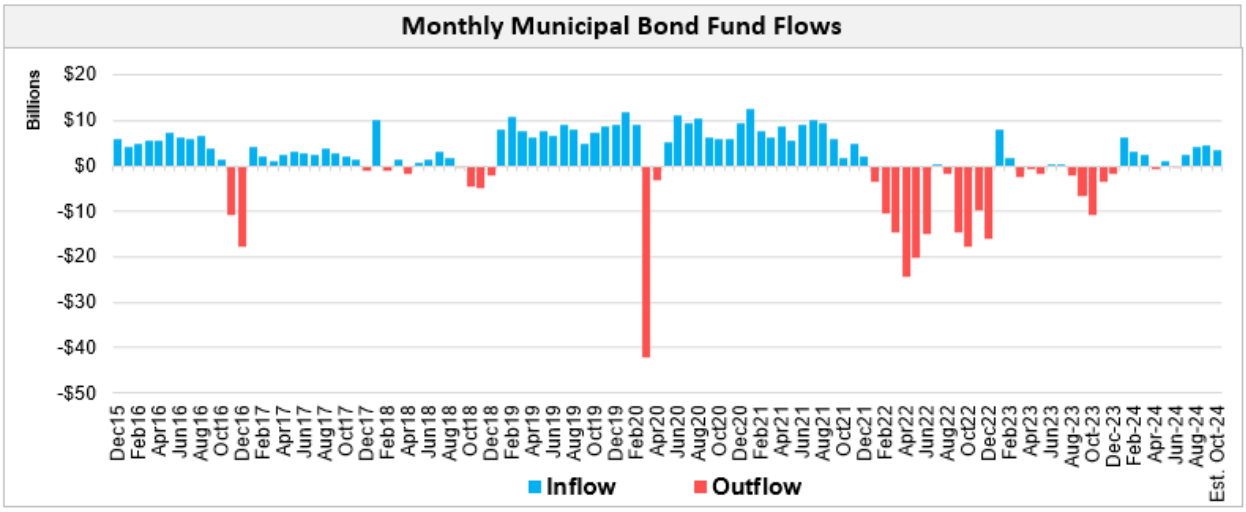
**The 1993-2010 data represents the AAA Municipal Market Data (MMD) data which is also a widely accepted tax-exempt benchmark rate. The 2011-2024 data represents the AAA BVAL rates.*

Municipal Market Supply and Demand

For the first nine months through September. tax-exempt issuance volume totaled $307.6 billion; 31.8% higher than the same period in 2023. The volume is partly driven by improved interest rates in 2024 reviving certain refundings and attracting more new money and partly by issuers accelerating transactions to price before the November presidential election which can be a volatile period in the market.



Mutual funds are one of the largest investors in municipal bonds and the net inflow or net outflow from mutual funds is indicative of demand for municipal bonds. There were outflows from municipal bond funds for a majority of 2022 and 2023 indicating weak limited investor appetite for municipal bonds owing to a very volatile and relatively high interest rate environment. There were low-to-modest inflows in eight of the first ten months in 2024 indicating an improving appetite for bonds partly due to a flight to safety spurred by some recession fears and concerns around a “soft landing”.



Credit Spreads

Mirroring the movements in rates, credit spreads have also been volatile for the last few years since the pandemic. Spreads that had widened significantly in 2022 generally improved over the course of 2023 and 2024. Despite record issuance volume in May-September period, spreads have remained relatively stable and attractive for municipal issuers.

Interest Rate Forecasts

The Fed implemented its first rate cut of the cycle at its September meeting, cutting rates by 0.5% to 4.75-5.00%. This cut exceeded market expectations of a smaller 0.25% cut. The Fed dot plot released after the last meeting suggested possibility of two more rate cuts in 2024. But several Fed members made recent statements favoring a "slower pace of interest-rate reductions" following a run of strong US economic indicators in October.

The next table provides an average of interest rate forecasts by industry professionals. These are surveyed and compiled by Bloomberg. The market is forecasting two rate cuts of 0.25%, at each of the two remaining Fed meetings in 2024. However, the implied probability of the rate cuts continues to tick down week over week as hopes for a swift decrease in interest rates by the Fed diminish. The two-year U.S. Treasury rate is forecasted to fall by 0.43% to 3.50% through the end of 2024. The ten-year U.S. Treasury rate is forecasted to fall by 0.31% to 3.74% by end of 2024. The 30-year U.S. Treasury rate is also forecast to fall by 0.32% to 4.03% by the end the year.

Street's Interest Rate Forecast

Forecast	10/15/24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25	Q1 26	Q2 26	Q3 26	Q4 26	Q1 27
30-Year UST	4.35 %	4.03 %	3.99 %	3.97 %	4.00 %	4.00 %	4.00 %	4.01 %	4.00 %	4.06 %	4.03 %
10-Year UST	4.05 %	3.74 %	3.69 %	3.67 %	3.68 %	3.67 %	3.61 %	3.62 %	3.62 %	3.69 %	3.68 %
2-Year UST	3.93 %	3.50 %	3.38 %	3.27 %	3.21 %	3.14 %	3.06 %	3.06 %	3.10 %	3.19 %	3.12 %
3M Secured Overnight Financing Rate	4.65 %	4.32 %	3.91 %	3.53 %	3.27 %	3.09 %	3.00 %	2.95 %	2.99 %	3.06 %	3.11 %
Federal Funds Target Rate Upper Bound	5.00 %	4.50 %	4.05 %	3.70 %	3.45 %	3.30 %	3.20 %	3.10 %	3.05 %	3.05 %	3.05 %
Federal Funds Target Rate Lower Bound	4.75 %	4.23 %	3.79 %	3.44 %	3.20 %	3.07 %	2.93 %	2.86 %	2.82 %	2.82 %	2.81 %

First Quarter Fiscal Year 2025 – Economic Update and Sales Tax Revenues

Local Economy

Economic conditions were robust in the first quarter of Fiscal Year 2025, as the US economy picked up steam. The latest estimates revealed US GDP in Q1 FY 2025 grew at an annualized rate of 3%, which is above the historical average of the 10 years before COVID. Consumer spending – now accounting for nearly 70% of GDP – continues to bolster economic activity and surpass expectations.

These strong GDP estimates were accompanied by easing inflation and a loosening labor market. Inflation fell below 3% for the first time in over three years with the latest estimate for September at 2.4%, which is within hailing distance of the Federal Reserve's 2% target. The labor market sent mixed signals through Q1 FY2025 that pointed to some cooling. Unemployment ticked up, averaging 4% for the quarter (up from 3.8% in the previous quarter); however, the layoff rate remained well below pre-COVID levels and the US economy continued to add jobs.

In light of the data, the Federal Reserve cut rates for the first time since 2020. Its half-point move took some economists by surprise and raised questions on how aggressively the Federal Reserve will cut rates in the coming quarter.

The San Diego regional economy mirrored many of these positive national trends. Foremost, the region's labor market remains positive. Although the unemployment rate inched up to 5.0% in August (averaging 4.1% in the previous quarter), the region saw positive gains in the number of people entering the labor force and finding jobs. Total private employment in Q1 FY 2025 averaged 1.31 million, around 6,100 higher than the previous quarter. Average hourly earnings also rose just under 1% for the same period.

Alongside stable employment and rising wages, households in the region also experienced relative ease in prices. Headline inflation for September was 2.2% – the lowest over 3 years. Falling prices for energy and motor fuel and the cost of groceries rising more slowly all contributed to a falling inflation rate.

In spite of this lower rate, housing remains a significant pinch point in the regional economy. As of September, the median sale price was $890,000, roughly $50,000 lower than the peak in June, despite thin inventory and recent movements in mortgage rates. While an encouraging result, it is still too early to know if this is the start of a change in the housing market.

With easing inflation, steady wage growth, and what appears to be a stable labor market, many economists view the Federal Reserve as having successfully navigated a soft landing. On the other hand, the short-term economic outlook continues to be characterized by cautious optimism and steady monitoring of how geopolitical dynamics may impact the economy.

Sales Tax Revenues

Total TransNet revenue for the first quarter of Fiscal Year 2025 was $108.6 million, just slightly above collections in the same quarter of the last fiscal year (0.3% or $290,810). This net result masks that only August collections were higher than last year as it included back payments from prior quarters. July and September receipts were down year-over-year. Early indications of October collections point to further slowing. The tables below provide a breakdown of the

sales tax collected. Table 1 compares revenue by month for the current and past two fiscal years. Table 2 reports annual revenue beginning in FY 2009 (the first year of the TransNet Extension Ordinance).

The weak growth in Q1 FY 2025 continues the trend that emerged last year. While the seasonality of tax collections remains intact, the swings are softer (that is movement between low and high throughout the year). A confluence of factors is likely acting as a drag on sales tax growth. These factors include slowing inflation (particularly for gas), shifts in consumer spending patterns as households allocate more of their spending to nontaxable necessities (housing, groceries) to manage growing household debt, and business spending moderating in anticipation of rate cuts.

Later this year, SANDAG will update its short-term TransNet revenue forecast. SANDAG economists are examining if growth expectations should be lowered (from the current projection of 1% for FY 2025). Specifically, they are tracking how the emerging trends of shallower seasonality and flattening growth will likely play out in the remainder of this fiscal year – especially given the uncertainty that comes with an election year and evolving macroeconomic conditions (e.g., inflation trends, a softening labor market, and the pace of Federal Reserve action on interest rates).

Table 1: TransNet Revenue by Month

Month	FY 2024	FY 2025
July	$43,691,260	$42,756,562
August	$27,925,686	$29,154,928
September	$36,672,942	$36,669,208
October	$38,088,738	
November	$33,489,426	
December	$35,801,646	
January	$33,972,638	
February	$39,509,271	
March	$35,786,454	
April	$33,305,657	
May	$33,419,427	
June	$35,029,838	
TOTAL	**$426,692,983**	**$108,580,698**

Table 2: TransNet Revenue by Year

Year	Annual Revenue
FY2009	$221,991,360
FY2010	$204,191,748
FY2011	$221,304,014
FY2012	$236,947,113
FY2013	$247,221,162
FY2014	$260,114,931
FY2015	$268,840,549
FY2016	$275,500,023
FY2017	$284,456,260
FY2018	$301,455,493
FY2019	$305,349,500
FY2020	$305,851,214
FY2021	$333,998,567
FY 2022	$405,921,138
FY 2023	$429,735,180
FY 2024	$426,692,983
FY 2025*	*$108,580,698*
TOTAL	**$4,838,151,933**

**Reflects only Q1 FY2025 collections.*

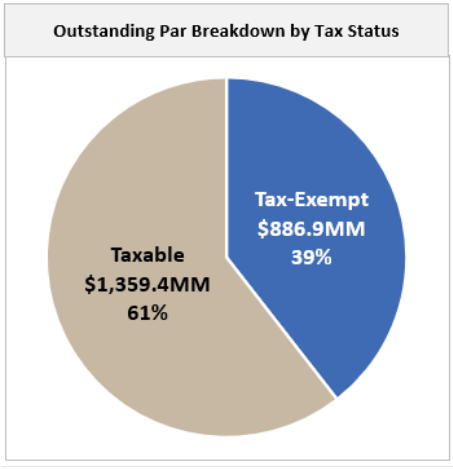
AGENCY DEBT PORTFOLIO OVERVIEW

Commission Outstanding Debt Overview

SANDAG, serving as the San Diego County Regional Transportation Commission, has $2.25 billion of outstanding long-term debt. A summary of the outstanding bonds is tabulated and graphically presented below.

Summary of Outstanding Debt							
Series	**Lien**	**Tax Status**	**Coupon Type**	**Original Issue Size**	**Outstanding Par**	**Call Option**	**Final Maturity**
2010A	Senior	Taxable	Fixed Rate	$338,960,000	338,960,000	Make-Whole	4/1/2048
2016A	Senior	Tax-Exempt	Fixed Rate	$325,000,000	285,160,000	4/1/2026	4/1/2048
2019A	Senior	Taxable	Fixed Rate	$442,620,000	314,062,000	4/1/2030	4/1/2048
2020A	Senior	Tax-Exempt	Fixed Rate	$74,820,000	68,170,000	4/1/2030	4/1/2048
2021A	Senior	Taxable	Fixed Rate	$149,840,000	149,840,000	4/1/2031	4/1/2048
2021B	Subordinate	Tax-Exempt	Fixed Rate	$116,150,000	116,150,000	4/1/2031	4/1/2039
2023A	Senior	Tax-Exempt	Fixed Rate	$433,355,000	417,415,000	4/1/2033	4/1/2042
TIFIA	Junior Sub.	Taxable	Fixed Rate	$537,484,439	556,544,744[1]	Anytime	10/1/2045
Total					**$2,246,301,744**		

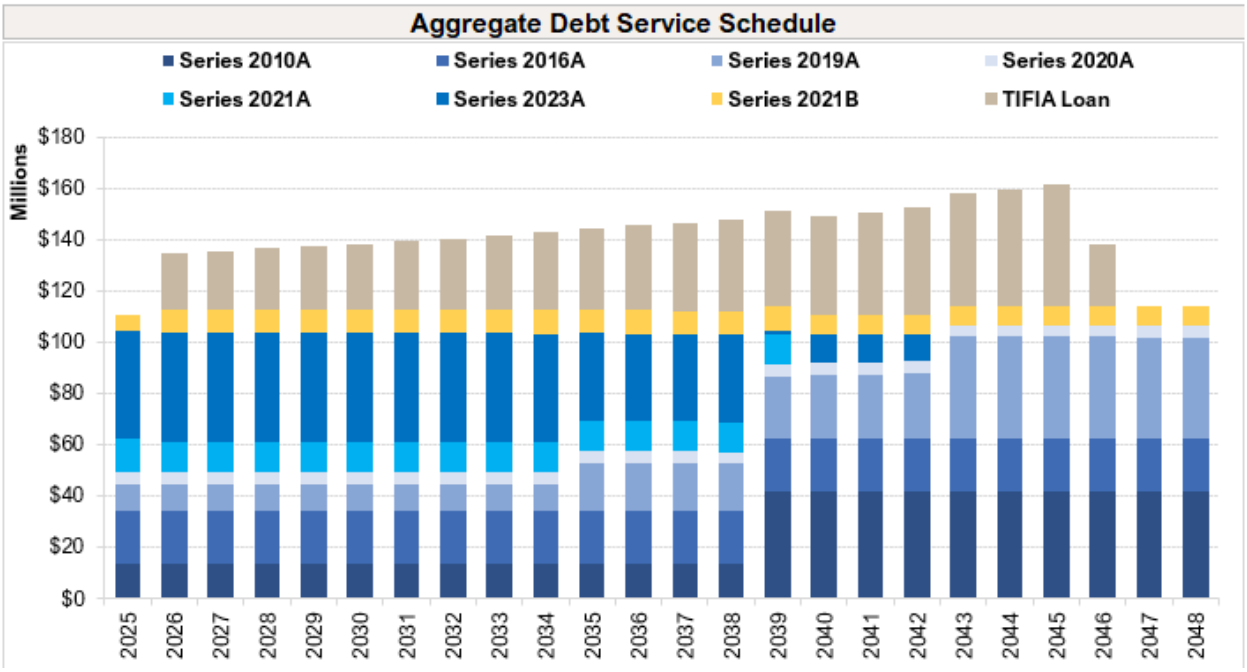
The long-term debt portfolio is comprised of 100% fixed-rate debt. Of the total debt portfolio, 61% consists of taxable debt, including the TIFIA loan, and the remaining 39% is tax-exempt bonds.



[1]Balance as of 10/1/2024

Debt Service and Coverage

SANDAG has debt obligations on three separate lien levels, providing different priority of sales tax payment to investors based on their respective lien level. Senior lien obligations are paid first, followed by subordinate lien obligations and then junior subordinate lien obligations (i.e., TIFIA loan). The TIFIA loan is repayable from a third lien that is subordinate to the senior lien bonds, and subordinate to the 2021B Bonds and the commercial paper notes. This three-tiered lien structure has been developed by SANDAG to maximize program capacity, keep senior lien ratings as high as possible, and minimize borrowing costs. Excluding the TIFIA loan, SANDAG has a level debt service profile with senior lien annual debt service ranging from $102.9 million to $106.6 million per year through FY 2048. The aggregate senior and subordinate lien debt service ranges from $110.3 million to $114.0 million. With the TIFIA loan, SANDAG's aggregate debt service is ascending with peak debt service of $161.2 million in FY 2045.



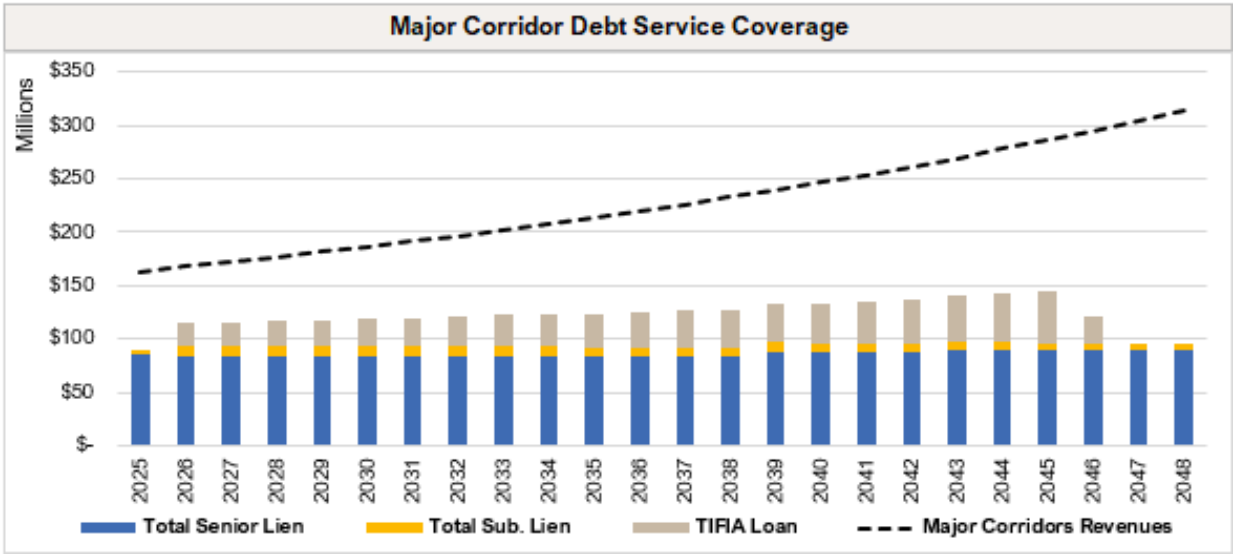
Senior lien debt service coverage, using sales tax receipts of $423.51 million for the 12 months ending October 31, 2024, is 4.05 times. Meaning, for every $1 of senior lien debt service, SANDAG received $4.05 of sales tax revenue, providing ample coverage and supporting SANDAG senior lien triple-A ratings. Total coverage, when comparing the annual revenues for the 12 months ending October 31, 2024, to peak debt service in FY 2045, is 2.51 times.

Major Corridors Coverage

In accordance with the *TransNet* Ordinance, the Major Corridors subprogram receives 38% of *TransNet* revenues after allocations for administrative and ITOC expenses. Major Corridors is the most capital-intensive program, funding various projects, including the Mid-Coast Corridor Transit Project. Costs associated with these projects can and have been funded with tax-exempt bonds. SANDAG Board Policy No. 036: San Diego County Regional Transportation Commission Debt Policy, dictates that the Major Corridors subprogram (and other *TransNet* subprograms) maintain an annual debt service coverage ratio of at least 1 times, meaning that for every $1 of *TransNet* revenue, there is no more than $1 of debt service allocated to the subprogram in any given year. Board Policy No. 036, Section 2.3, states as follows:

2.3 Borrowing requirements are determined for each eligible sub-program and debt service is allocated to each sub-program based upon its pro rata share of bond proceeds. It is the general principle for the TransNet Plan of Finance that the annual debt service for each sub-program be less than the annual sales tax revenue allocated to a sub-program on an annual basis. This 1.0 times program debt service coverage requirement ensures that no single sub-program incurs more debt than it can afford.

For planning purposes, debt service has been structured using a forecast of sales tax receipts. Based on this forecast, coverage in the Major Corridors Program is estimated at 1.79 times in FY 2025. Based on that revenue forecast, annual coverage is projected to dip to 1.46 times when the TIFIA loan payments start in FY 2026. The TIFIA debt service structure in the Major Corridors Program increases over time, in anticipation of future increases in sales tax revenue.



Cost of Capital

SANDAG has a very attractive weighted average cost of capital (WACC) of 2.89%.

SANDAG's WACC Calculations		
Series	**Original Par**	**All-in TIC**
2010A	$338,960,000	3.8871%
2016A	$325,000,000	3.2947%
2019A	$442,620,000	3.1890%
2020A	$74,820,000	2.6226%
2021A	$149,840,000	2.2136%
2023A	$433,355,000	3.2264%
2021B	$116,150,000	2.7146%
TIFIA	$537,484,439	1.7500%
Total Weighted Avg.		**2.8872%**

The 2010A bonds were issued as taxable Build America Bonds and have a borrowing cost of 3.89%. The 2016A and 2020A bonds were issued at an all-in cost of 3.29% and 2.62% respectively. The 2019A refunding bonds that refunded a part of 2012A and 2014A bonds were issued at an all-in cost of 3.19%. The taxable 2021A bonds refunded a portion of the remaining 2014A bonds were issued at an all-in cost of 2.21%. The tax-exempt 2021B bonds raised new money funding as well as refunded a portion of the 2014A bonds and issued at an all-in cost of 2.71%. The 2023A bonds were issued to refund all of the variable-rate 2008 bonds as well as a portion of the 2019A bonds and issued at an all-in cost of 3.23%. The TIFIA loan has a borrowing cost of 1.75%. Taken together, SANDAG has issued over $2.0 billion in long-term debt to accelerate project delivery and for refunding, for a WACC of 2.89%.

Credit Ratings

SANDAG's debt secured by TransNet sales tax revenues is rated by Standard and Poor's (S&P) and Fitch as shown here. SANDAG's senior lien ratings are currently at the highest possible level with the triple-A ("AAA") rating and a "stable" outlook. The ratings were most recently reviewed and affirmed in April 2024 and May 2024, respectively.

SANDAG Ratings (*TransNet*)		
Lien	**S&P**	**Fitch**
Senior Lien	AAA/Stable	AAA/Stable
Subordinate Lien Bonds	AA/Stable	AA+/Stable
Third Lien TIFIA Loan	A+/Stable	A+/Stable

Commercial Paper and Revolving Credit Facility

In addition to the long-term debt, SANDAG has a short-term Commercial Paper Program supported by a Letter of Credit (LOC) from Bank of America Merrill Lynch. The Commercial Paper Program was authorized at $100 million and has a current outstanding balance of $16.8 million. On August 22, 2024, it was remarketed out 90 days, at a rate of 3.12%. The supporting LOC was recently extended and is in place through August 2027 at an annual cost of 0.37%. In first quarter 2024, SANDAG staff replaced Citi as the Commercial Paper Dealer with BofA who will continue to remarket the Commercial Paper going forward.

SANDAG had a Revolving Credit Agreement with U.S. Bank National Association in the amount not-to-exceed $100 million. This drawdown facility provided SANDAG with additional flexibility to manage short-term cash flow needs when capital expenses are incurred prior to the receipt of federal and state grant funds. In September 2024, SANDAG paid down the $1 million outstanding balance on that line in full and closed out of the facility. Following the closing of the revolving credit facility, SANDAG continues to have the $100 million commercial paper program to provide liquidity and support cash flow management.

SANDAG Outstanding Debt Overview

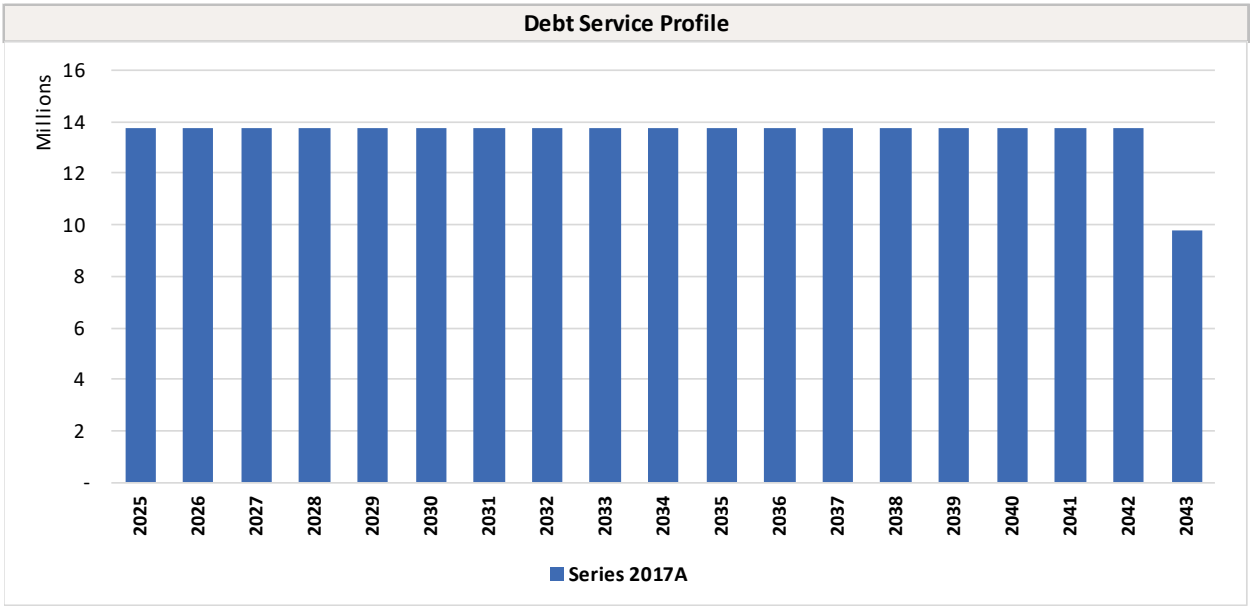
SANDAG has debt outstanding in conjunction with the South Bay Expressway toll road as summarized in the table below.

South Bay Expressway

The SANDAG debt portfolio for South Bay Expressway (SBX) is comprised of a single bond series. In November 2017, SANDAG issued Toll Revenue First Senior Lien Bonds, 2017 Series A to refinance indebtedness incurred with the acquisition of SBX. The bonds are secured from the toll revenues generated on SBX, net of operating expenses. As of July 1, 2024, the debt outstanding is $161.6 million.

Summary of Outstanding Debt						
Series	**Tax Status**	**Coupon Type**	**Original Par**	**Outstanding Par**	**Call Date**	**Final Maturity**
2017A	Tax-Exempt	Fixed-Rate	$194,140,000	$161,645,000	7/1/2027	7/1/2042

An annual debt service chart is provided presented below. The annual payment on the bonds is level at about $13.8 million through final maturity in FY 2043. Based on estimated annual net toll revenues of $37.3 million for FY 2024 the coverage on future maximum annual debt service payment was 2.71 times. This demonstrates a strong recovery in traffic and revenue, compared to recent years and satisfies the rate covenant of 1.50 times in the bond documents.



S&P and Fitch maintain credit ratings on the toll-revenue bonds. S&P last affirmed their rating of 'A' in January 2024. Fitch most recently affirmed their rating of 'A', with a stable outlook, in August 2024.

Looking Ahead

SANDAG expects to deliver a majority of upcoming project needs on a pay-go basis. That said, SANDAG has existing borrowing capacity driven by strong *TransNet* sales tax revenue receipts over the past several years. Staff continues to evaluate borrowing requirements in the context of project delivery needs. Any borrowing recommendation would be presented to the Board in the future for consideration.

Quarterly Investment Data

Included with this quarterly finance report through September 30, 2024, are a Detail of Portfolio Balances (by Account); and a Detail of Portfolio Balances (by Investment Type) for all money under the direction or care of SANDAG, including funds of the Commission, SourcePoint, and the Automated Regional Justice Information System (ARJIS).

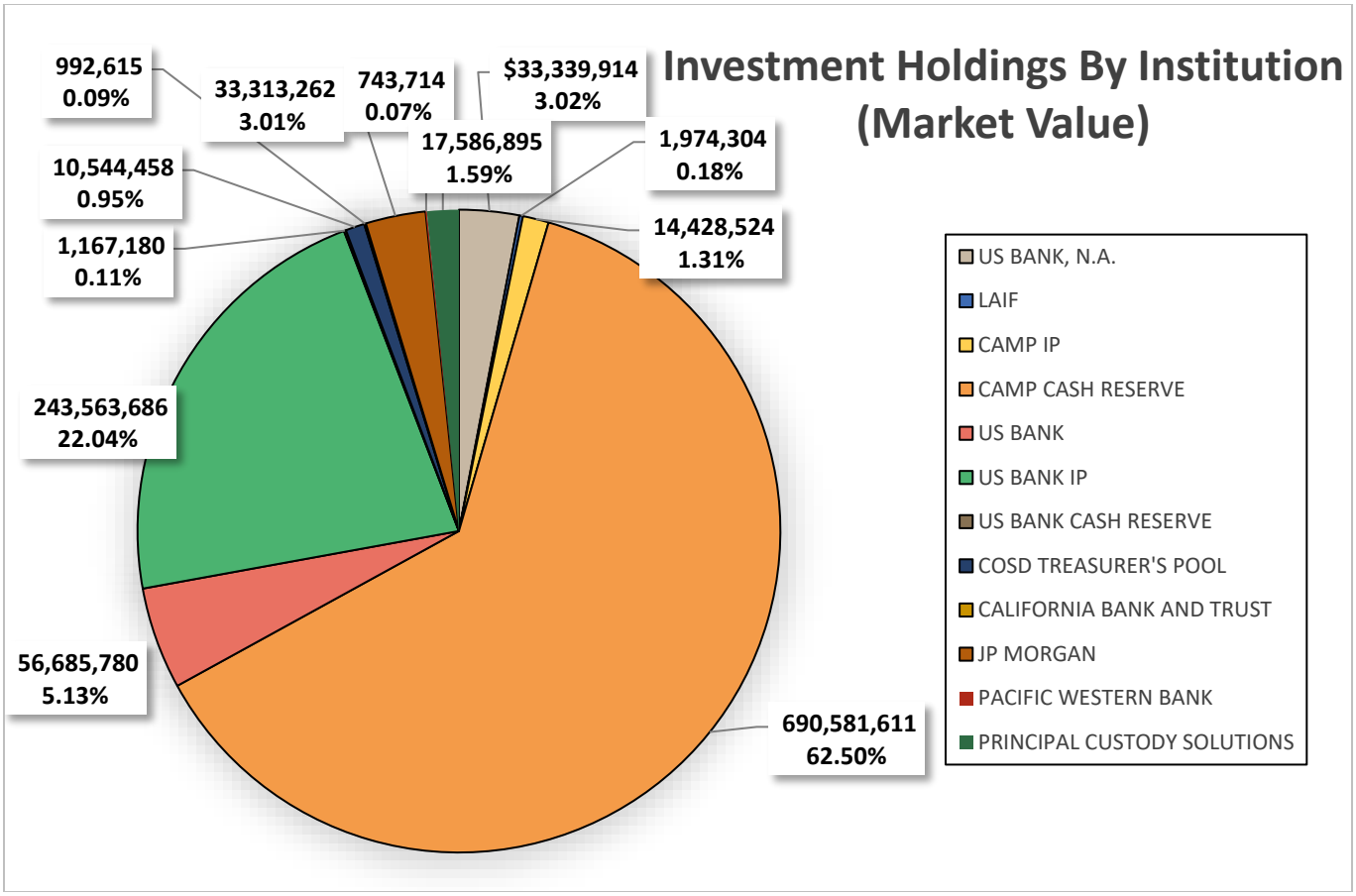
As of September 30, 2024, a total of $1.105 billion was held by SANDAG in a number of investment accounts, in comparison to $1.045 billion held in the previous quarter. The $60 million increase during the quarter is primarily due to operating activity within the investment and operating accounts.[1]

The chart below provides a summary of the holdings by Agency.

OBJ

Approximately $33.3 million was held in eleven U.S. Bank, N.A. accounts at the end of the quarter, which are used for operating purposes. Approximately $1.07billion was invested in eight institutions.

[1] Due to rounding, the numbers below may not tie to the attached detail of investments.



The Finance Department has continued to implement the Board of Directors investment objectives of safety, liquidity, and return on investment for the SANDAG investment portfolio. These will continue to be important investment objectives for the future.

Certifications

The Chief Financial Officer reports that this investment portfolio, together with the authorized short-term Commercial Paper Program, will provide the necessary liquidity to meet the expenditure requirements of SANDAG, the Commission, ARJIS, and SourcePoint for the next six months. This portfolio is in compliance with state law and Board Policy No. 003: Investment Policy.

SANDAG
Summary of Portfolio Balances (by Institution)
as of September 30, 2024

Institution	Book Value	Percent of Portfolio	Market Value	Market Price	Unrealized Gain/(Loss)	Yield on Cost	Wtd Avg. Days to Maturity
US BANK, N.A.	$ 33,339,914.07	3.04%	$ 33,339,914.07	100.00%	$ -	N/A	1
STATE OF CALIFORNIA LOCAL AGENCY INVESTMENT FUND	1,974,304.41	0.18%	1,974,304.41	100.00%	-	4.58%	231
CALIFORNIA ASSET MANAGEMENT PROGRAM (CAMP) INDIVIDUAL PORTFOLIO	14,130,240.23	1.29%	14,428,523.64	102.11%	298,283.41	4.19%	319
CAMP CASH RESERVE PORTFOLIO	690,581,610.86	62.90%	690,581,610.86	100.00%	-	5.29%	37
US BANK TRUST	56,719,668.57	5.17%	56,685,780.04	99.94%	(33,888.53)	3.74%	27
US BANK INDIVIDUAL PORTFOLIO	239,046,706.67	21.77%	243,563,686.11	101.89%	4,516,979.44	4.03%	961
US BANK CASH RESERVE PORTFOLIO	1,167,179.94	0.11%	1,167,179.94	100.00%	-	0.00%	1
SAN DIEGO COUNTY TREASURER'S POOLED MONEY FUND	10,544,458.28	0.96%	10,544,458.28	100.00%	-	3.67%	504
JP MORGAN	33,310,234.48	3.03%	33,313,262.00	100.01%	3,027.52	5.14%	30
CALIFORNIA BANK AND TRUST	992,615.26	0.09%	992,615.26	100.00%	-	N/A	1
PACIFIC WESTERN BANK	743,713.93	0.07%	743,713.93	100.00%	-	N/A	1
PRINCIPAL CUSTODY SOLUTIONS	15,318,192.27	1.40%	17,586,895.12	114.81%	2,268,702.85	2.56%	1
TOTAL	$ 1,097,868,838.97	100.00%	$ 1,104,921,943.66	100.64%	$ 7,053,104.69	4.69%	247

Summary of Portfolio Balances (by Agency)

Agency	Book Value	Percent of Portfolio	Market Value	Market Price	Unrealized Gain/(Loss)	Yield on Cost	Wtd Avg. Days to Maturity
SANDAG FUNDS	$ 199,615,323.60	18.18%	$ 201,850,137.92	101.12%	2,234,814.32	4.12%	52
AUTOMATED REGIONAL JUSTICE INFORMATION SYSTEM FUNDS	12,841,378.76	1.17%	12,841,378.76	100.00%	-	4.72%	33
SOURCEPOINT FUNDS	206,758.88	0.02%	206,758.88	100.00%	-	3.48%	478
CORONADO BRIDGE TOLL FUNDS	318,529.96	0.03%	318,529.96	100.00%	-	5.29%	37
SAN DIEGO COUNTY REGIONAL TRANSPORTATION COMMISSION FUNDS	884,886,847.77	80.60%	889,705,138.14	100.54%	4,818,290.37	4.80%	292
TOTAL	$ 1,097,868,838.97	100.00%	$ 1,104,921,943.66	100.64%	$ 7,053,104.69	4.67%	245

Note: In addition to the funds held above, there is $5,042.89 petty cash held at SANDAG.

SANDAG
Detail of Portfolio Balances (by Account)
as of September 30, 2024

Institution / Account	Book Value	Percent of Portfolio	Market Value	Market Price	Unrealized Gain/(Loss)	Yield on Cost	Wtd Avg. Days to Maturity
US BANK, N.A.:							
Checking - (ARJIS)	$ 1,373,677.48	0.13%	$ 1,373,677.48	100.00%	$ -	N/A	1
Checking - (RTC) TransNet Sales Tax	3,616,625.42	0.33%	3,616,625.42	100.00%	-	N/A	1
Checking - (SANDAG) Flexible Spending Acct (FSA)	39,991.54	0.00%	39,991.54	100.00%	-	N/A	1
Checking - (SANDAG) General	9,538,883.29	0.87%	9,538,883.29	100.00%	-	N/A	1
Checking - (SANDAG) Interstate 15 (I-15) FasTrak®	4,788,612.78	0.44%	4,788,612.78	100.00%	-	N/A	1
Checking - (SANDAG) Refund Account Common	323,215.98	0.03%	323,215.98	100.00%	-	N/A	1
Checking - (SANDAG) Revenue Account Common	686,283.60	0.06%	686,283.60	100.00%	-	N/A	1
Checking - (SANDAG) SAFE Program Account	2,853,499.09	0.26%	2,853,499.09	100.00%	-	N/A	1
Checking - (SANDAG) State Route 125 (SR-125) Collection Account	126,149.24	0.01%	126,149.24	100.00%	-	N/A	1
Checking - (SANDAG) State Route 125 (SR-125) Payment Account	9,982,341.54	0.91%	9,982,341.54	100.00%	-	N/A	1
Checking - (SourcePoint)	10,634.11	0.00%	10,634.11	100.00%	-	N/A	1
TOTAL US BANK, N.A.	$ 33,339,914.07	3.04%	$ 33,339,914.07	100.00%	$ -	N/A	1
STATE OF CA LOCAL AGENCY INVESTMENT FUND (LAIF):							
(RTC) TransNet	$ 1,855,239.02	0.17%	$ 1,855,239.02	100.00%	$ -	4.58%	231
(SANDAG)	119,065.39	0.01%	119,065.39	100.00%	-	4.58%	231
TOTAL LAIF	$ 1,974,304.41	0.18%	$ 1,974,304.41	100.00%	$ -	4.58%	231
CALIFORNIA ASSET MANAGEMENT PROGRAM (CAMP):							
INDIVIDUAL PORTFOLIO:							
(RTC) TransNet Program Reserve	$ 14,130,240.23	1.29%	$ 14,428,523.64	102.11%	$ 298,283.41	4.19%	319
TOTAL INDIVIDUAL PORTFOLIO	$ 14,130,240.23	1.29%	$ 14,428,523.64	102.11%	$ 298,283.41	4.19%	319
CASH RESERVE PORTFOLIO:							
(ARJIS)	$ 11,461,579.85	1.04%	$ 11,461,579.85	100.00%	$ -	5.29%	37
(RTC) 2008 Cap Proj DSRF Release	19,145,961.29	1.74%	19,145,961.29	100.00%	-	5.29%	37
(RTC) 2008 Sales Tax Account - TransNet Extension	445,801,138.08	40.61%	445,801,138.08	100.00%	-	5.29%	37
(RTC) 2010 Bond Series A - Interest	10,142,174.88	0.92%	10,142,174.88	100.00%	-	5.29%	37
(RTC) 2016 Bond Series A Interest	7,217,403.14	0.66%	7,217,403.14	100.00%	-	5.29%	37
(RTC) 2016 Bond Series A Principal	3,245,031.57	0.30%	3,245,031.57	100.00%	-	5.29%	37
(RTC) 2020 Bond Series A Interest	1,633,890.21	0.15%	1,633,890.21	100.00%	-	5.29%	37
(RTC) 2020 Bond Series A Principal	961,976.92	0.09%	961,976.92	100.00%	-	5.29%	37
(RTC) Sage Hill Endowment	979,681.67	0.09%	979,681.67	100.00%	-	5.29%	37
(RTC) TransNet Program Reserve	47,647,437.43	4.34%	47,647,437.43	100.00%	-	5.29%	37
(RTC) Wetland Mitigation TransNet Sales Tax	347,622.79	0.03%	347,622.79	100.00%	-	5.29%	37
(SANDAG) California Coastal Commission	371,052.12	0.03%	371,052.12	100.00%	-	5.29%	37
(SANDAG) Coronado Bridge Toll Funds	318,529.96	0.03%	318,529.96	100.00%	-	5.29%	37
(SANDAG) El Portal Project	-	0.00%	-	0.00%	-	5.29%	37
(SANDAG) I-15 FasTrak®	13,432,151.32	1.22%	13,432,151.32	100.00%	-	5.29%	37
(SANDAG) SR 125	2,206,124.45	0.20%	2,206,124.45	100.00%	-	5.29%	37
(SANDAG) SR 125	38,367,462.59	3.49%	38,367,462.59	100.00%	-	5.29%	37
(SANDAG) SR 125	41,605,214.28	3.79%	41,605,214.28	100.00%	-	5.29%	37
(SANDAG) SR125 2017 A Bond Interest	2,228,162.87	0.20%	2,228,162.87	100.00%	-	5.29%	37

Institution / Account	Book Value	Percent of Portfolio	Market Value	Market Price	Unrealized Gain/(Loss)	Yield on Cost	Wtd Avg. Days to Maturity
(SANDAG) SR125 2017 A Bond Principal	1,634,535.13	0.15%	1,634,535.13	100.00%	-	5.29%	37
(SANDAG) SR125 2017 A Debt Reserve Fund	21,017,200.22	1.91%	21,017,200.22	100.00%	-	5.29%	37
(SANDAG) SR125 2017A Bond Fastrak Customer Prepaid Fund	2,467,507.93	0.22%	2,467,507.93	100.00%	-	5.29%	37
(SANDAG) SR125 2017A Bond Reserve Account	14,012,439.02	1.28%	14,012,439.02	100.00%	-	5.29%	37
(SANDAG) SR125 2017A Bond Toll Revenue Fund	4,144,811.64	0.38%	4,144,811.64	100.00%	-	5.29%	37
(SANDAG) Shoreline Management	192,521.50	0.02%	192,521.50	100.00%	-	5.29%	37
TOTAL CASH RESERVE PORTFOLIO	$ 690,581,610.86	62.90%	$ 690,581,610.86	100.00%	$ -	5.29%	37
TOTAL CAMP	$ 740,026,069.57	64.19%	$ 705,010,134.50	95.27%	$ 298,283.41	5.27%	43
US BANK TRUST:							
Money Market - (RTC) 2019 Bond Series A Principal	$ 2,609.55	0.00%	$ 2,609.55	100.00%	$ -	4.33%	1
Money Market - (RTC) 2019 Revenue Bond Series A Interest	5,125,962.91	0.47%	5,125,962.91	100.00%	-	4.33%	1
Money Market - (RTC) 2021 Revenue Bond Series A COI	0.02	0.00%	0.02	100.00%	-	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series A Interest	1,512,636.48	0.14%	1,512,636.48	100.00%	-	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series A Principal	4,867,250.84	0.44%	4,867,250.84	100.00%	-	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series B COI	0.01	0.00%	0.01	100.00%	-	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series B Interest	2,959,672.62	0.27%	2,959,672.62	100.00%	-	4.48%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Interest	4,242.33	0.00%	4,242.33	100.00%	-	4.82%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Principal	12,088.42	0.00%	12,088.42	100.00%	-	4.82%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Revolving Notes Project Fund	959,231.45	0.09%	959,231.45	100.00%	-	4.82%	1
Money Market - (RTC) 2023 Sales Tax Revenue Bonds Series A Interest	10,639,779.71	0.97%	10,639,779.71	100.00%	-	4.48%	1
Money Market - (RTC) 2023 Sales Tax Revenue Bonds Series A Principal	11,217,393.92	1.02%	11,217,393.92	100.00%	-	4.48%	1
Money Market - (RTC) Commercial Paper Notes Series B Interest	20,566.81	0.00%	20,566.81	100.00%	-	4.33%	1
Money Market - (RTC) Commercial Paper Notes Series B Principal	77,483.74	0.01%	77,483.74	100.00%	-	4.33%	1
Money Market - (RTC) Commercial Paper Series B - NCTD Interest	254,280.63	0.02%	254,280.63	100.00%	-	0.00%	1
Money Market - (RTC) Bond 2021 Tifia Series Interest	487,438.00	0.04%	487,438.00	100.00%	-	4.48%	1
Money Market - (SANDAG) Grant Receipt 2019 AB Escrow AC Account	0.08	0.00%	0.08	100.00%	-	4.78%	1
Money Market - (SANDAG) SB Expressway 2017 Series A Maint Reserve	549.91	0.00%	549.91	100.00%	-	4.48%	1
Money Market - (SANDAG) SR 125 2017 Bond Series A Interest	0.07	0.00%	0.07	100.00%	-	4.48%	1
Money Market - (SANDAG) SR 125 2017 Bond Series A Principal	9.72	0.00%	9.72	100.00%	-	4.48%	1
Money Market - (SANDAG) SR 125 2017 Bond Series A Reserve	37.51	0.00%	37.51	100.00%	-	4.48%	1
Money Market - (SANDAG) SR 125 FasTrak Customer Prepaid Fund	5.75	0.00%	5.75	100.00%	-	0.00%	1
Certificates of Participation - (RTC) North County Transit District	16,350,000.00	1.49%	16,350,000.00	100.00%	-	2.10%	90
Capital Project Retention Accounts	2,228,428.09	0.20%	2,194,539.56	98.48%	(33,888.53)	N/A	1
TOTAL US BANK TRUST	$ 56,719,668.57	5.17%	$ 56,685,780.04	99.94%	$ (33,888.53)	3.74%	27
US BANK:							
INDIVIDUAL PORTFOLIO:							
(RTC) TransNet Extension	$ 239,046,706.67	21.77%	$ 243,563,686.11	101.89%	$ 4,516,979.44	4.03%	961
TOTAL INDIVIDUAL PORTFOLIO	$ 239,046,706.67	21.77%	$ 243,563,686.11	101.89%	$ 4,516,979.44	4.03%	961
CASH RESERVE:							
(RTC) TransNet Extension	$ 1,167,179.94	0.11%	1,167,179.94	100.00%	$ -	0.00%	1
TOTAL CASH RESERVE	$ 1,167,179.94	0.11%	$ 1,167,179.94	100.00%	$ -	0.00%	1
TOTAL US BANK	$ 296,933,555.18	21.88%	$ 244,730,866.05	82.42%	$ 4,516,979.44	4.01%	956

Institution / Account	Book Value	Percent of Portfolio	Market Value	Market Price	Unrealized Gain/(Loss)	Yield on Cost	Wtd Avg. Days to Maturity
SAN DIEGO COUNTY TREASURER'S POOLED MONEY FUND:							
San Diego County Treasurer's Pooled Money Fund - (ARJIS)	$ 6,121.43	0.00%	6,121.43	100.00%	$ -	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) 2020 Bonds	25,085.55	0.00%	25,085.55	100.00%	-	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) 2021 Bonds	13,090.80	0.00%	13,090.80	100.00%	-	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) TransNet Extension	109,490.24	0.01%	109,490.24	100.00%	-	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SANDAG) I-15 FasTrak®	1,595,971.13	0.15%	1,595,971.13	100.00%	-	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SANDAG) SAFE Program	8,598,574.36	0.78%	8,598,574.36	100.00%	-	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SourcePoint)	196,124.77	0.02%	196,124.77	100.00%	-	3.67%	504
TOTAL SAN DIEGO COUNTY TREASURER'S POOLED MONEY FUND	$ 10,544,458.28	0.96%	$ 10,544,458.28	100.00%	$ -	3.67%	504
JP MORGAN:							
(RTC) JPMorgan Prime Money Market Fund	22,204,264.31	2.02%	$ 22,202,828.00	99.99%	$ (1,436.31)	5.13%	30
(RTC) Morgan Stanley Institutional Liquidity Funds: Prime Portfolio	11,105,970.17	1.01%	11,110,434.00	100.04%	4,463.83	5.16%	30
TOTAL JP MORGAN	$ 33,310,234.48	3.03%	$ 33,313,262.00	100.01%	$ 3,027.52	5.14%	30
CALIFORNIA BANK AND TRUST:							
Capital Project Retention Accounts	$ 992,615.26	0.09%	$ 992,615.26	100.00%	$ -	N/A	1
TOTAL CALIFORNIA BANK AND TRUST	$ 992,615.26	0.09%	$ 992,615.26	100.00%	$ -	N/A	1
PACIFIC WESTERN BANK:							
Capital Project Retention Accounts	$ 743,713.93	0.07%	$ 743,713.93	100.00%	$ -	N/A	1
TOTAL PACIFIC WESTERN BANK	$ 743,713.93	0.07%	$ 743,713.93	100.00%	$ -	N/A	1
PRINCIPAL CUSTODY SOLUTIONS:							
(SANDAG) Section 115 Pension Trust	$ 15,318,192.27	1.40%	$ 17,586,895.12	114.81%	$ 2,268,702.85	2.56%	1
TOTAL PRINCIPAL CUSTODY SOLUTIONS	$ 15,318,192.27	1.40%	$ 17,586,895.12	114.81%	$ 2,268,702.85	2.56%	1
TOTAL	**$ 1,097,868,838.97**	**100.00%**	**$ 1,104,921,943.66**	**100.64%**	**$ 7,053,104.69**	**4.69%**	**247**

Legend:

Automated Regional Justice Information System (ARJIS)
Commercial Paper (CP)
State of California Local Agency Investment Fund (LAIF)
North County Transit District (NCTD)
San Diego County Regional Transportation Commission (RTC)

SANDAG
Detail of Portfolio Balances (by Investment Type)
as of September 30, 2024

Investment	Trade Date	Maturity Date	Book Value	Market Value	Unrealized Gain/(Loss)	Par Value	S&P Rating	Moody's Rating	Fitch Rating	Yield on Cost	Wtd. Avg. Days to Maturity
Cash and cash equivalents:											
Demand deposits:											
(ARJIS)	N/A	N/A	$ 1,373,677.48	$ 1,373,677.48	$ -	N/A	NR	NR	NR	N/A	1
(RTC) TransNet Sales Tax	N/A	N/A	3,616,625.42	3,616,625.42	-	N/A	NR	NR	NR	N/A	1
(SANDAG) Flexible Spending Acct (FSA)	N/A	N/A	39,991.54	39,991.54	-	N/A	NR	NR	NR	N/A	1
(SANDAG) General	N/A	N/A	9,538,883.29	9,538,883.29	-	N/A	NR	NR	NR	N/A	1
(SANDAG) Interstate 15 (I-15) FasTrak®	N/A	N/A	4,788,612.78	4,788,612.78	-	N/A	NR	NR	NR	N/A	1
(SANDAG) Refund Account Common	N/A	N/A	323,215.98	323,215.98	-	N/A	NR	NR	NR	N/A	1
(SANDAG) Revenue Account Common	N/A	N/A	686,283.60	686,283.60	-	N/A	NR	NR	NR	N/A	1
(SANDAG) SAFE Program Account	N/A	N/A	2,853,499.09	2,853,499.09	-	N/A	NR	NR	NR	N/A	1
(SANDAG) State Route 125 (SR-125) Collection Account	N/A	N/A	126,149.24	126,149.24	-	N/A	NR	NR	NR	N/A	1
(SANDAG) State Route 125 (SR-125) Payment Account	N/A	N/A	9,982,341.54	9,982,341.54	-	N/A	NR	NR	NR	N/A	1
(SourcePoint)	N/A	N/A	10,634.11	10,634.11	-	N/A	NR	NR	NR	N/A	1
Total demand deposits			$ 33,339,914.07	$ 33,339,914.07	$ -	$ -				N/A	1
Money market accounts and funds:											
CAMP Cash Reserve Portfolio - (ARJIS)	N/A	N/A	$ 11,461,579.85	11,461,579.85	$ -	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2008 Cap Proj DSRF Release	N/A	N/A	19,145,961.29	19,145,961.29	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2008 Sales Tax Account - TransNet Extension	N/A	N/A	445,801,138.08	445,801,138.08	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2010 Bond Series A - Interest	N/A	N/A	10,142,174.88	10,142,174.88	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2016 Bond Series A Interest	N/A	N/A	7,217,403.14	7,217,403.14	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2016 Bond Series A Principal	N/A	N/A	3,245,031.57	3,245,031.57	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2020 Bond Series A Interest	N/A	N/A	1,633,890.21	1,633,890.21	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) 2020 Bond Series A Principal	N/A	N/A	961,976.92	961,976.92	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) Sage Hill Endowment	N/A	N/A	979,681.67	979,681.67	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) TransNet Program Reserve	N/A	N/A	47,647,437.43	47,647,437.43	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (RTC) Wetland Mitigation TransNet Sales Tax	N/A	N/A	347,622.79	347,622.79	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) California Coastal Commission	N/A	N/A	371,052.12	371,052.12	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) Coronado Bridge Toll Funds	N/A	N/A	318,529.96	318,529.96	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) El Portal Project	N/A	N/A	-	-	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) I-15 FasTrak®	N/A	N/A	13,432,151.32	13,432,151.32	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SANDAG Shoreline Management	N/A	N/A	192,521.50	192,521.50	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125	N/A	N/A	2,206,124.45	2,206,124.45	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125	N/A	N/A	41,605,214.28	41,605,214.28	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125	N/A	N/A	38,367,462.59	38,367,462.59	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Bond Fastrak Customer Prepaid Fund	N/A	N/A	2,467,507.93	2,467,507.93	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Bond Interest	N/A	N/A	2,228,162.87	2,228,162.87	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Bond Principal	N/A	N/A	1,634,535.13	1,634,535.13	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Bond Reserve Account	N/A	N/A	14,012,439.02	14,012,439.02	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Bond Toll Revenue Fund	N/A	N/A	4,144,811.64	4,144,811.64	-	N/A	AAAm	NR	NR	5.29%	37
CAMP Cash Reserve Portfolio - (SANDAG) SR 125 2017A Debt Reserve Fund	N/A	N/A	21,017,200.22	21,017,200.22	-	N/A	AAAm	NR	NR	5.29%	37
Money Market - (RTC) 2019 Bond Series A Principal	N/A	N/A	2,609.55	2,609.55	-	N/A	NR	NR	NR	4.33%	1
Money Market - (RTC) 2019 Revenue Bond Series A Interest	N/A	N/A	5,125,962.91	5,125,962.91	-	N/A	NR	NR	NR	4.33%	1
Money Market - (RTC) 2021 Revenue Bond Series A COI	N/A	N/A	0.02	0.02	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series A Interest	N/A	N/A	1,512,636.48	1,512,636.48	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series A Principal	N/A	N/A	4,867,250.84	4,867,250.84	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series B COI	N/A	N/A	0.01	0.01	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2021 Revenue Bond Series B Interest	N/A	N/A	2,959,672.62	2,959,672.62	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Interest	N/A	N/A	4,242.33	4,242.33	-	N/A	NR	NR	NR	4.82%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Principal	N/A	N/A	12,088.42	12,088.42	-	N/A	NR	NR	NR	4.82%	1
Money Market - (RTC) 2022 Subordinate Sales Tax Revenue Revolving Notes Project Fund	N/A	N/A	959,231.45	959,231.45	-	N/A	NR	NR	NR	4.82%	1
Money Market - (RTC) 2023 Sales Tax Revenue Bonds Series A Interest	N/A	N/A	10,639,779.71	10,639,779.71	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) 2023 Sales Tax Revenue Bonds Series A Principal	N/A	N/A	11,217,393.92	11,217,393.92	-	N/A	NR	NR	NR	4.48%	1
Money Market - (RTC) Commercial Paper Notes Series B Interest	N/A	N/A	20,566.81	20,566.81	-	N/A	NR	NR	NR	4.33%	1
Money Market - (RTC) Commercial Paper Notes Series B Principal	N/A	N/A	77,483.74	77,483.74	-	N/A	NR	NR	NR	4.33%	1
Money Market - (RTC) Commercial Paper Series B - NCTD Interest	N/A	N/A	254,280.63	254,280.63	-	N/A	NR	NR	NR	0.00%	1
Money Market - (RTC) Bond 2021 Tifia Series Interest	N/A	N/A	487,438.00	487,438.00	-	N/A	NR	NR	NR	4.48%	1
Money Market - (SANDAG) Grant Receipt 2019 AB Escrow AC Account	N/A	N/A	0.08	0.08	-	N/A	NR	NR	NR	4.78%	1
Money Market - (SANDAG) SB Expressway 2017 Series A Maint Reserve	N/A	N/A	549.91	549.91	-	N/A	NR	NR	NR	4.48%	1
Money Market - (SANDAG) SR 125 2017 Bond Series A Interest	N/A	N/A	0.07	0.07	-	N/A	NR	NR	NR	4.48%	1
Money Market - (SANDAG) SR 125 2017 Bond Series A Principal	N/A	N/A	9.72	9.72	-	N/A	NR	NR	NR	4.48%	1

Investment	Trade Date	Maturity Date	Book Value	Market Value	Unrealized Gain/(Loss)	Par Value	S&P Rating	Moody's Rating	Fitch Rating	Yield on Cost	Wtd. Avg. Days to Maturity
Money Market - (SANDAG) SR 125 2017 Bond Series A Reserve	N/A	N/A	37.51	37.51	-	N/A	NR	NR	NR	4.48%	1
Money Market - (SANDAG) SR 125 FasTrak Customer Prepaid Fund	N/A	N/A	5.75	5.75	-	N/A	NR	NR	NR	0.00%	1
Principal Custody Solutions - (SANDAG) Section 115 Pension Trust	N/A	N/A	15,318,192.27	17,586,895.12	2,268,702.85	N/A	NR	NR	NR	2.56%	1
San Diego County Treasurer's Pooled Money Fund - (ARJIS)	N/A	N/A	6,121.43	6,121.43	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) 2020 Bonds	N/A	N/A	25,085.55	25,085.55	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) 2021 Bonds	N/A	N/A	13,090.80	13,090.80	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (RTC) TransNet Extension	N/A	N/A	109,490.24	109,490.24	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SANDAG) I-15 FasTrak®	N/A	N/A	1,595,971.13	1,595,971.13	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SANDAG) SAFE Program	N/A	N/A	8,598,574.36	8,598,574.36	-	N/A	NR	NR	AAAf / S1	3.67%	504
San Diego County Treasurer's Pooled Money Fund - (SourcePoint)	N/A	N/A	196,124.77	196,124.77	-	N/A	NR	NR	AAAf / S1	3.67%	504
State of CA Local Agency Investment Fund (LAIF) - (RTC) TransNet	N/A	N/A	1,855,239.02	1,855,239.02	-	N/A	NR	NR	NR	4.58%	231
State of CA Local Agency Investment Fund (LAIF) - (SANDAG)	N/A	N/A	119,065.39	119,065.39	-	N/A	NR	NR	NR	4.58%	231
US Bank Cash Reserve Portfolio - (RTC) TransNet Extension	N/A	N/A	1,167,179.94	1,167,179.94	-	N/A	NR	NR	NR	0.00%	1
JP Morgan (RTC) JPMorgan Prime Money Market Fund	N/A	N/A	22,204,264.31	22,202,828.00	(1,436.31)	N/A	AAAm	Aaa-mf	AAAmmf	5.13%	30
JP Morgan (RTC) Morgan Stanley Institutional Liquidity Funds: Prime Portfolio	N/A	N/A	11,105,970.17	11,110,434.00	4,463.83	N/A	AAAm	Aaa-mf	AAAmmf	5.13%	30
Capital Project Retention Accounts - US Bank	N/A	N/A	2,228,428.09	2,194,539.56	(33,888.53)	N/A	NR	NR	NR	N/A	1
Capital Project Retention Accounts - CA Bank & Trust	N/A	N/A	992,615.26	992,615.26	-	N/A	NR	NR	NR	N/A	1
Capital Project Retention Accounts - Pacific Western Bank	N/A	N/A	743,713.93	743,713.93	-	N/A	NR	NR	NR	N/A	1
Total money market accounts and funds			$ 795,001,978.00	$ 797,239,819.84	$ 2,237,841.84	$ -				5.16%	41
Total cash and cash equivalents			$ 828,341,892.07	$ 830,579,733.91	$ 2,237,841.84	N/A				5.16%	39
Investments:											
U.S. Agencies:											
FEDERAL FARM CREDIT BANK	11/06/2023	10/10/2025	$ 6,114,274.00	$ 6,174,359.00	$ 60,085.00	$ 6,100,000.00	AA+	Aaa	AA+	5.00%	375
FEDERAL FARM CREDIT BANK	03/25/2024	03/20/2029	5,961,786.00	6,128,220.00	166,434.00	6,000,000.00	AA+	Aaa	-	4.27%	1,632
FEDERAL HOME LOAN BANK	02/08/2021	02/10/2025	6,017,160.00	5,903,820.00	(113,340.00)	6,000,000.00	AA+	Aaa	-	0.21%	133
FEDERAL HOME LOAN BANK	03/10/2023	03/10/2028	5,294,796.00	5,351,476.00	56,680.00	5,200,000.00	AA+	Aaa	-	4.09%	1,257
FEDERAL HOME LOAN BANK	05/25/2023	09/10/2027	5,127,540.00	5,301,890.00	174,350.00	5,500,000.00	AA+	Aaa	-	4.12%	1,075
FEDERAL HOME LOAN BANK	10/12/2023	09/11/2026	5,785,152.00	5,927,600.00	142,448.00	5,800,000.00	AA+	Aaa	-	4.97%	711
FEDERAL HOME LOAN BANK	04/01/2024	03/12/2027	5,893,893.50	6,022,484.00	128,590.50	5,900,000.00	AA+	Aaa	-	4.54%	893
FEDERAL HOME LOAN BANK	07/01/2024	11/24/2028	5,760,560.00	5,961,356.00	200,796.00	5,800,000.00	AA+	Aaa	-	4.52%	1,516
FEDERAL NATIONAL MORTGAGE ASSOCIATION	06/09/2021	01/07/2025	6,461,206.00	6,149,966.00	(311,240.00)	6,200,000.00	AA+	Aaa	AA+	0.44%	99
FEDERAL NATIONAL MORTGAGE ASSOCIATION	07/22/2024	10/08/2027	6,262,760.00	6,437,060.00	174,300.00	7,000,000.00	AA+	Aaa	AA+	4.31%	1,103
UNITED STATES TREASURY NOTE/BOND	08/19/2021	11/30/2024	5,888.61	5,669.11	(219.50)	5,700.00	AA+	Aaa	AA+	0.48%	61
UNITED STATES TREASURY NOTE/BOND	09/08/2021	11/30/2024	6,093,593.75	5,868,022.00	(225,571.75)	5,900,000.00	AA+	Aaa	AA+	0.47%	61
UNITED STATES TREASURY NOTE/BOND	03/23/2022	12/15/2024	5,111,187.50	5,261,098.00	149,910.50	5,300,000.00	AA+	Aaa	AA+	2.36%	76
UNITED STATES TREASURY NOTE/BOND	09/13/2021	12/31/2024	5,727,323.11	5,460,455.00	(266,868.11)	5,500,000.00	AA+	Aaa	AA+	0.48%	92
UNITED STATES TREASURY NOTE/BOND	03/23/2022	01/31/2025	5,322,152.34	5,264,172.00	(57,980.34)	5,300,000.00	AA+	Aaa	AA+	2.35%	123
UNITED STATES TREASURY NOTE/BOND	04/06/2022	04/30/2025	4,657,812.50	4,887,850.00	230,037.50	5,000,000.00	AA+	Aaa	AA+	2.73%	212
UNITED STATES TREASURY NOTE/BOND	11/13/2023	07/31/2025	5,009,468.75	5,150,444.00	140,975.25	5,200,000.00	AA+	Aaa	AA+	5.14%	304
UNITED STATES TREASURY NOTE/BOND	11/27/2023	09/30/2025	6,182,521.44	6,338,688.00	156,166.56	6,400,000.00	AA+	Aaa	AA+	4.96%	365
UNITED STATES TREASURY NOTE/BOND	06/23/2022	12/31/2025	5,184,328.13	5,461,113.00	276,784.87	5,700,000.00	AA+	Aaa	AA+	3.12%	457
UNITED STATES TREASURY NOTE/BOND	09/09/2024	03/31/2026	5,051,383.94	5,052,750.00	1,366.06	5,000,000.00	AA+	Aaa	AA+	3.81%	547
UNITED STATES TREASURY NOTE/BOND	08/02/2022	06/30/2026	4,909,332.03	5,049,310.00	139,977.97	5,300,000.00	AA+	Aaa	AA+	2.88%	638
UNITED STATES TREASURY NOTE/BOND	12/07/2022	11/15/2027	4,672,070.31	4,804,900.00	132,829.69	5,000,000.00	AA+	Aaa	AA+	3.72%	1,141
UNITED STATES TREASURY NOTE/BOND	04/03/2023	03/31/2028	3,582,200.90	3,696,400.00	114,199.10	4,000,000.00	AA+	Aaa	AA+	3.55%	1,278
UNITED STATES TREASURY NOTE/BOND	10/27/2023	04/30/2028	4,738,493.31	4,987,700.00	249,206.69	5,000,000.00	AA+	Aaa	AA+	4.81%	1,308
UNITED STATES TREASURY NOTE/BOND	09/13/2023	06/30/2028	5,596,464.84	5,785,272.00	188,807.16	5,700,000.00	AA+	Aaa	AA+	4.42%	1,369
UNITED STATES TREASURY NOTE/BOND	08/29/2023	08/15/2028	4,837,921.66	4,936,030.00	98,108.34	4,600,000.00	AA+	Aaa	AA+	4.33%	1,415
UNITED STATES TREASURY NOTE/BOND	10/02/2023	09/30/2028	4,386,264.74	4,570,852.00	184,587.26	4,400,000.00	AA+	Aaa	AA+	4.70%	1,461
UNITED STATES TREASURY NOTE/BOND	02/14/2024	11/15/2028	5,995,110.95	6,190,254.00	195,143.05	6,300,000.00	AA+	Aaa	AA+	4.26%	1,507
UNITED STATES TREASURY NOTE/BOND	04/26/2024	12/31/2028	5,278,729.36	5,536,960.00	258,230.64	5,500,000.00	AA+	Aaa	AA+	4.72%	1,553
US TREASURY NOTES	10/05/2022	08/15/2025	14,130,240.23	14,428,523.64	298,283.41	14,545,000.00	AA+	Aaa	AA+	4.19%	319
Total U.S. Agencies			$ 165,151,615.90	$ 168,094,693.75	$ 2,943,077.85	$ 169,150,700.00				3.57%	803
Corporate Medium Term Notes:											
AMAZON.COM INC	08/01/2023	05/12/2028	$ 5,678,075.00	$ 6,020,430.00	$ 342,355.00	$ 6,500,000.00	AA	A1	AA-	4.63%	1,320
AMERICAN HONDA FINANCE	03/17/2023	01/12/2028	4,926,068.00	4,987,514.00	61,446.00	4,900,000.00	A-	A3	A	4.57%	1,199
APPLE INC	12/15/2022	09/12/2027	2,559,816.00	2,639,412.00	79,596.00	2,700,000.00	AA+	Aaa	-	4.12%	1,077
BANK OF AMERICA CORP	10/20/2023	02/04/2028	3,974,265.00	4,323,510.00	349,245.00	4,500,000.00	A-	A1	AA-	6.56%	1,222
CHEVRON CORP	05/10/2022	05/11/2025	5,719,560.00	5,895,300.00	175,740.00	6,000,000.00	AA-	Aa2	-	3.20%	223
CITIBANK NA	01/19/2024	12/04/2026	6,597,370.00	6,687,525.00	90,155.00	6,500,000.00	A+	Aa3	A+	4.92%	795
CITIBANK NA	12/04/2023	09/29/2028	3,072,060.00	3,175,710.00	103,650.00	3,000,000.00	A+	Aa3	A+	5.23%	1,460

Investment	Trade Date	Maturity Date	Book Value	Market Value	Unrealized Gain/(Loss)	Par Value	S&P Rating	Moody's Rating	Fitch Rating	Yield on Cost	Wtd. Avg. Days to Maturity
COCA-COLA CO/THE	04/20/2023	05/25/2027	3,357,025.00	3,419,780.00	62,755.00	3,500,000.00	A+	A1	-	3.99%	967
COLGATE-PALMOLIVE CO	04/03/2023	03/01/2028	3,604,160.00	3,591,350.00	(12,810.00)	3,500,000.00	A+	Aa3	-	3.93%	1,248
HOME DEPOT INC/THE	08/13/2024	06/25/2029	4,290,174.00	4,328,982.00	38,808.00	4,200,000.00	A	A2	A	4.26%	1,729
JOHN DEERE CAPITAL CORP	02/06/2023	01/20/2028	5,781,054.00	5,836,743.00	55,689.00	5,700,000.00	A	A1	A+	4.43%	1,207
MICROSOFT CORP	02/05/2024	02/06/2027	5,819,460.00	5,946,240.00	126,780.00	6,000,000.00	AAA	Aaa	-	4.38%	859
PEPSICO INC	05/31/2023	05/15/2028	2,626,208.00	2,655,016.00	28,808.00	2,600,000.00	A+	A1	-	4.22%	1,323
PFIZER INC	05/09/2024	03/15/2029	4,229,730.00	4,409,460.00	179,730.00	4,500,000.00	A	A2	-	4.86%	1,627
PNC BANK NA	07/20/2023	01/22/2028	2,760,870.00	2,903,310.00	142,440.00	3,000,000.00	A	A2	A+	5.27%	1,209
US BANCORP	02/01/2024	02/01/2029	4,927,750.00	5,048,400.00	120,650.00	5,000,000.00	A	A3	A	5.06%	1,585
Total Corporate Medium Notes			$ 69,923,645.00	$ 71,868,682.00	$ 1,945,037.00	$ 72,100,000.00				4.58%	1,154
Supra-National Agency Bond/Note:											
INT'L BANK FOR RECON AND DEVELOPMENT	03/08/2021	01/15/2025	$ 6,229,560.00	$ 5,947,140.00	(282,420.00)	$ 6,000,000.00	AAA	Aaa	-	0.62%	107
INTER-AMERICAN DEVELOPMENT BANK	05/22/2023	01/12/2028	7,035,070.00	7,080,430.00	45,360.00	7,000,000.00	AAA	Aaa	-	3.88%	1,199
INTER-AMERICAN DEVELOPMENT BANK	05/14/2024	07/05/2028	4,837,056.00	5,001,264.00	164,208.00	4,800,000.00	AAA	Aaa	-	4.61%	1,374
Total Supra-National Agency Bond/Notes			$ 18,101,686.00	$ 18,028,834.00	$ (72,852.00)	$ 17,800,000.00				2.95%	887
Certificates of Participation:											
(RTC) North County Transit District Certificates of Participation	08/22/2024	11/20/2024	$ 16,350,000.00	$ 16,350,000.00	$ -	$ 16,350,000.00	NR	A1	NR	2.10%	90
Total Certificates of Participation			$ 16,350,000.00	$ 16,350,000.00	$ -	$ 16,350,000.00				2.10%	90
Total investments			$ 269,526,946.90	$ 274,342,209.75	$ 4,815,262.85	$ 275,400,700.00				3.70%	858
Total Portfolio:			**$ 1,097,868,838.97**	**$ 1,104,921,943.66**	**$ 7,053,104.69**	**N/A**				6.04%	253

Legend:

Automated Regional Justice Information System (ARJIS)
Commercial Paper (CP)
State of California Local Agency Investment Fund (LAIF)
North County Transit District (NCTD)
San Diego County Regional Transportation Commission (RTC)

November 13, 2024

TransNet Major Corridor and Regional Bikeway Program of Projects: Quarterly Status Report

Action: **Information**
This report provides an update on TransNet Major Corridor and Regional Bikeway Program projects.

Fiscal Impact:
SANDAG invested $40.3 million on TransNet Major Corridor projects and $9.0 million on Regional Bikeway projects in the first quarter of FY 2025.

Schedule/Scope Impact:
Six major milestones were achieved in the first quarter of FY 2025.

Overview

Consistent with the TransNet Extension Ordinance and previous TransNet Triennial Performance Audits, this report provides a quarterly update on TransNet Major Corridor and Regional Bikeway Program projects.

Key Considerations

As of September 30, 2024, there were a total of 15 projects in the environmental phase, 22 projects in the design phase, and 11 projects under construction within the TransNet Major Corridor and Regional Bikeway programs.

During the first quarter of FY 2025, significant construction activity occurred on several projects including SR 56 HOV Lanes, I-805 North Auxiliary Lanes, Pershing Drive Bikeway, Border to Bayshore Bikeway, Inland Rail Trail Phase 3, and Downtown to Imperial Avenue Bikeway.

Additionally, six of the seven major milestones anticipated for the first quarter were achieved as planned. The Uptown Bikeways: Washington Street and Mission Valley Bikeways project was initially projected to advertise to the construction community in September 2024, but this milestone was achieved in October 2024. The six major milestones achieved in the first quarter, as shown in Attachment 1, include:

- In July, SANDAG, together with local leaders, community members, and bike advocates, celebrated the official opening of the Pershing Drive Bikeway. This 2.3-mile bikeway includes a two-way separated bike lane and a pedestrian path, improving accessibility and safety for everyone travelling the area.
- In July, the Request for Qualifications (RFQ) for the Construction Manager/General Contractor (CM/GC) contract was advertised to the construction community for the SR 11 and Otay Mesa East Port of Entry project. This project involves the construction of the Commercial Vehicle Facility and Port of Entry at the U.S.-Mexico border.
- In July, the construction complete milestone was achieved for SR 11 and Otay Mesa East Port of Entry: Segment 2A and SR 905/125/11 Southbound Connectors. This project constructed a four-lane toll highway on SR11, extending from Enrico Fermi Drive to the proposed Otay Mesa East Port of Entry, and included the SR 125 southbound to eastbound SR 905 and eastbound SR 11 connectors.
- In August, the North Park/Mid-City Bikeways: University Bikeway project advertised to the construction community. Upon completion, this project will add 2.8 miles of on-street protected bikeway within the City Heights and El Cerrito communities of San Diego.
- In August, construction began on the Batiquitos Lagoon Double-Track project, which includes 0.8 miles of double-track and a new bridge spanning over the Batiquitos Lagoon.
- In August, the construction completion milestone was reached for the SR 76 East project, which reconstructed a two-lane conventional highway into a four-lane conventional highway and modified the SR 76/I-15 interchange.

Construction Costs

Engineering News-Record (ENR) is a leading publication in the engineering and construction industry, providing a monthly ENR Construction Cost Index (ENR CCI). The ENR CCI for Los Angeles (ENR CCI-LA) is particularly relevant for capturing market trends in Southern California. In addition to the ENR CCI-LA, the U.S. Bureau of Labor Statistics Producer Price Index for Government Construction (PPI Government Construction) and the Caltrans Construction Cost Index are used as needed. SANDAG consistently monitors these indices to ensure that cost estimates align with current regional economic conditions.

Attachment 1 charts ENR CCI-LA for the TransNet Extension period, which continues through 2048. According to the ENR CCI-LA, construction costs have increased 0.5% between Q4 FY 2024 and Q1 FY 2025. Additionally, construction costs have increased 4.4% between September 2023 and September 2024.

Next Steps

The next quarterly update on the TransNet Major Corridor and Regional Bikeway Program projects, covering October through December 2024, will be provided at the February 2025 ITOC meeting. Progress of Major Corridor and Regional Bikeway Program projects and program trends can be tracked by using the TransNet Dashboard.

Clint Peace, Director of Program/Project Management
David Cortez, Director of Engineering and Construction

Attachment: 1. TransNet Quarterly Status Report: July 2024 – September 2024

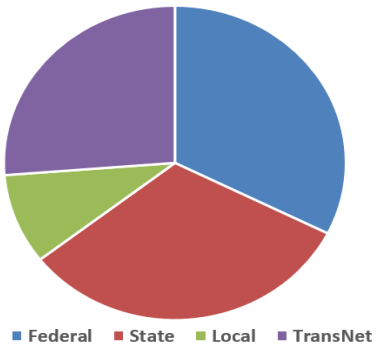
TransNet Quarterly Status Report
July 2024 – September 2024

Data as of 09/30/2024

Major Corridors Funding Plan*

Source	Amount**	% of Total Funding
Federal	$3.34 billion	31%
Local	$1.09 billion	10%
State	$3.60 billion	33%
TransNet	$2.81 billion	26%
Total	$10.94 billion	100.0%

*Funding information is only reflective of TransNet Major Corridors projects since there is a TransNet Ordinance 1:1 match requirement for the Major Corridors Program.
**Funding amounts include prior year funds through FY 33 funds, per the FY 2025 budget timeframe.



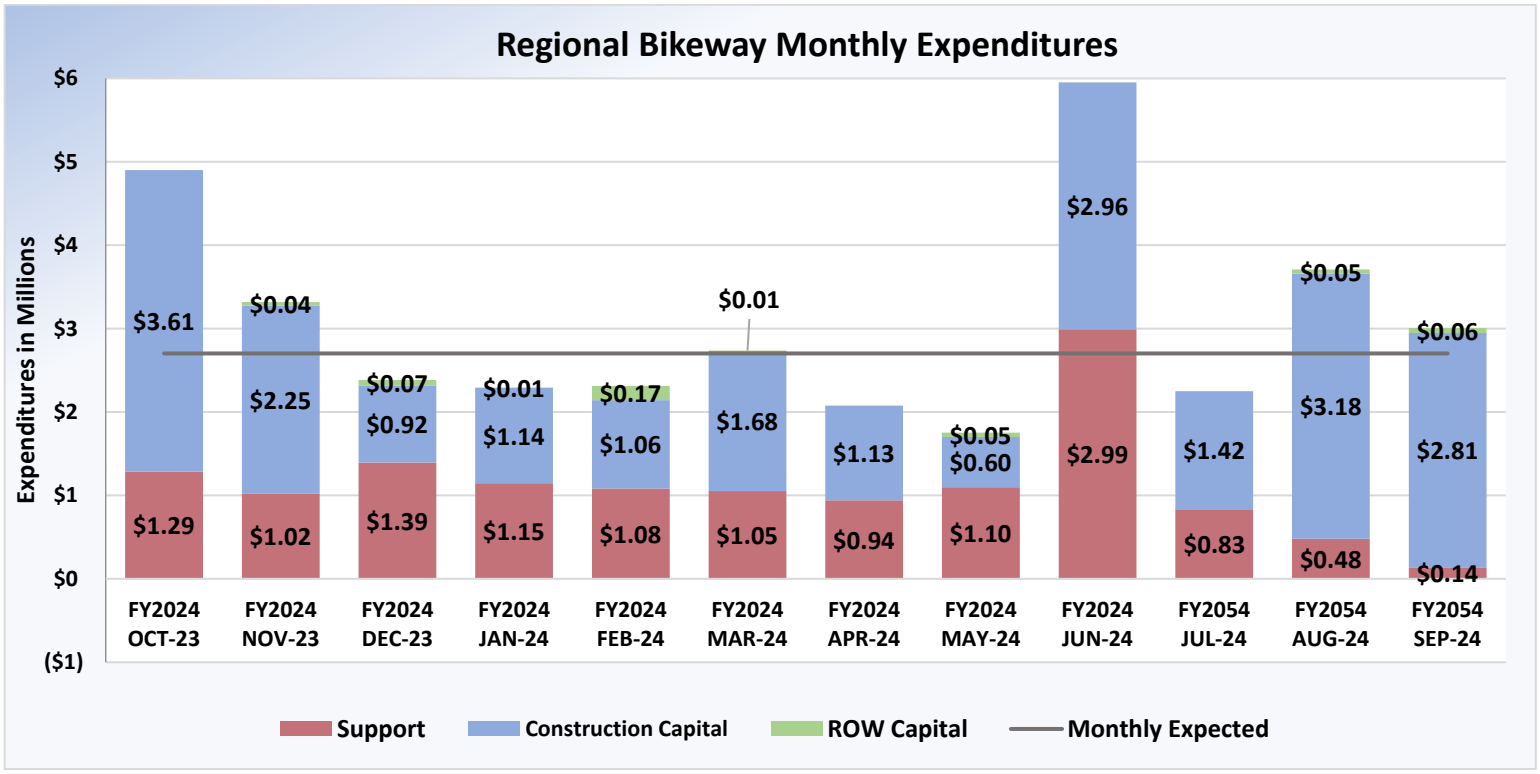
Major Corridors & Bikeway Milestones

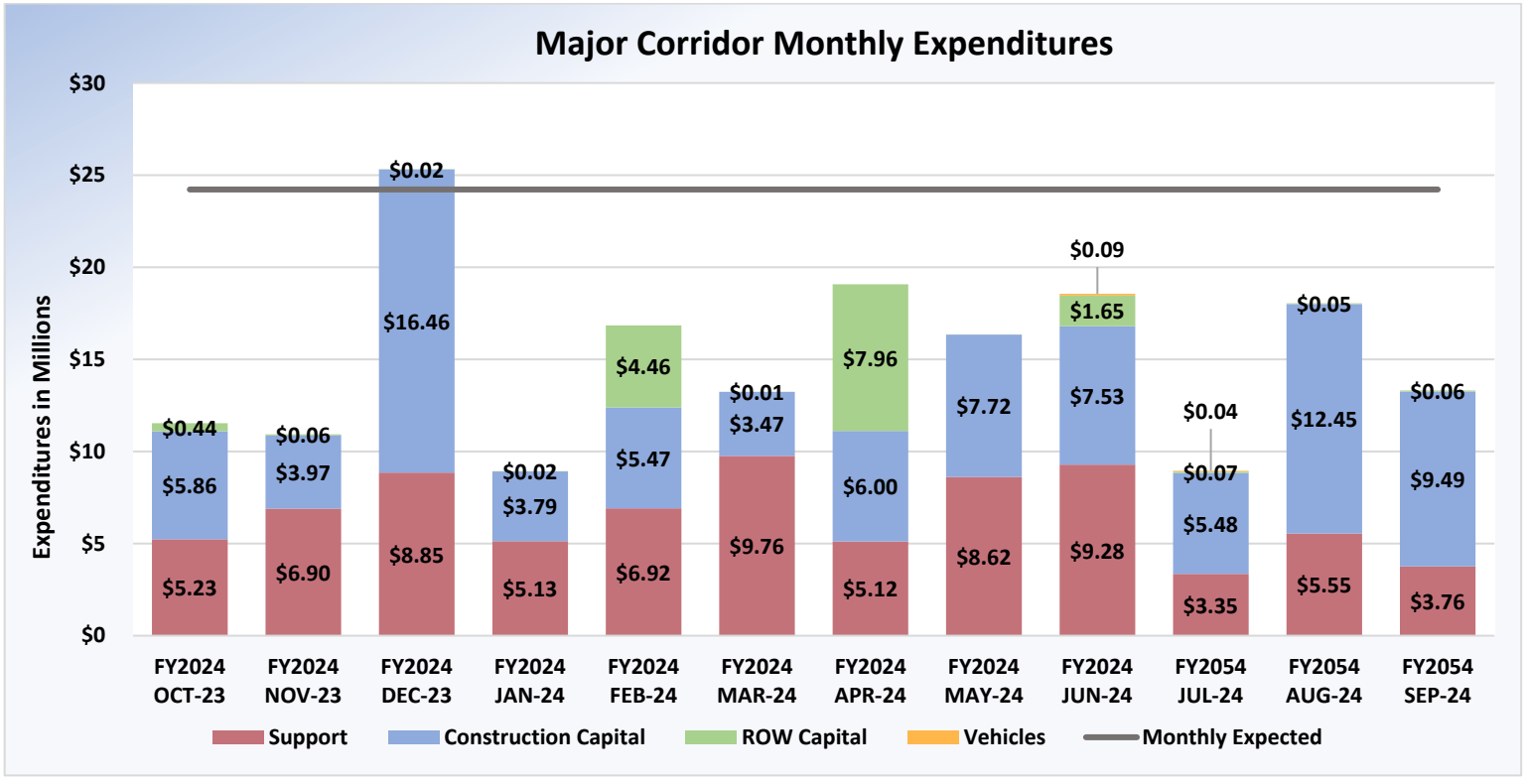
Milestones marked as A indicate an actualized event.
Milestones marked as X indicate a planned event.

Segment	FY 2025 Baseline Date***	Milestone	2024 July	2024 Aug	2024 Sep	2024 Oct	2024 Nov	2024 Dec
Border Access Projects								
SR 11 and Otay Mesa East Port of Entry (CIP-1201101)	Jul 2024	ADVERTISE	A					
SR 11 and Otay Mesa East Port of Entry: Segment 2A and SR 905/125/11 Southbound Connectors Construction (CIP-1201103)	Jul 2024	CON COMPLETE	A					
LOSSAN Projects								
Batiquitos Lagoon Double-Track (CIP-1239816)	Aug 2024	BEGIN		A				
Regional Bikeway Projects								
North Park/Mid-City Bikeways: University Bikeway (CIP-1223081)	Jul 2024	ADVERTISE		A				
Uptown Bikeways: Washington Street and Mission Valley Bikeways (CIP-1223084)	Aug 2024	ADVERTISE				A		
Uptown Bikeways: Eastern Hillcrest Bikeways (CIP-1223083)	Nov 2024	BEGIN					X	
Pershing Drive Bikeway (CIP-1223057)	May 2024	OPEN	A					
SR 76 Projects								
SR 76 East (CIP-1207606)	Sep 2024	CON COMPLETE		A				

Schedule Milestones:
DED represents the release of the Draft Environmental Document to the public for comment, or when the document is sent to the lead federal agency for review.
FED represents the signing of the Final Environmental Document by approving agency.
ADVERTISE represents the completion of the project design and advertisement of the construction contract. Before advertisement, all environmental permits have been acquired, right of way has been certified, and the plans, specifications, and engineer's estimate has been completed.
BEGIN represents the beginning of construction initiated by the Notice to Proceed.
OPEN represents the opening of the constructed facility for its intended use.
CON COMPLETE represents the completion of all construction and most of project closeout items for the project. This includes, but is not limited to: construction contract acceptance, complete plant establishment/landscaping, final inspection, closure of task orders, and all claims settled.

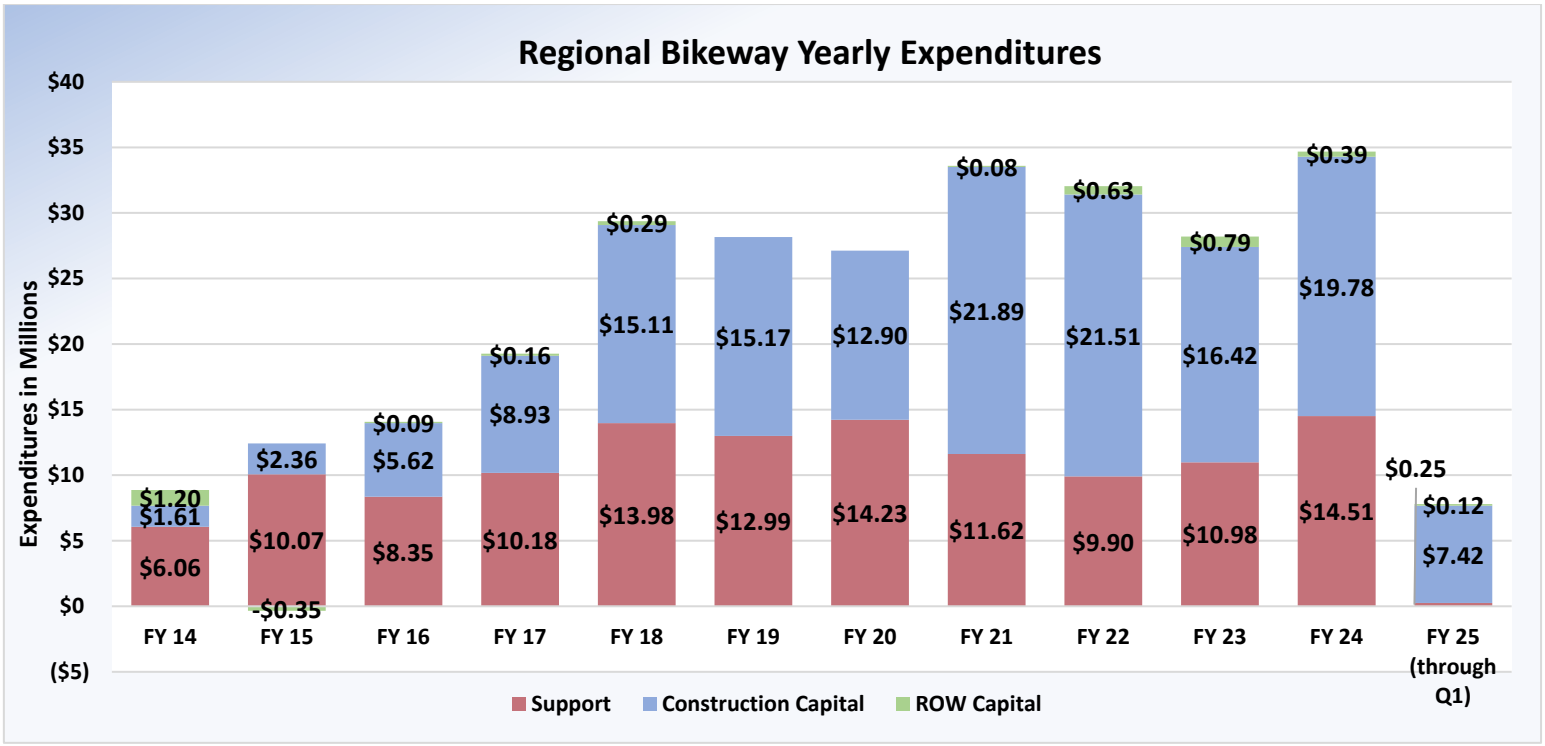
***FY 2025 Baseline Date refers to the baseline milestone completion date that was set in the FY 2025 Program Budget.

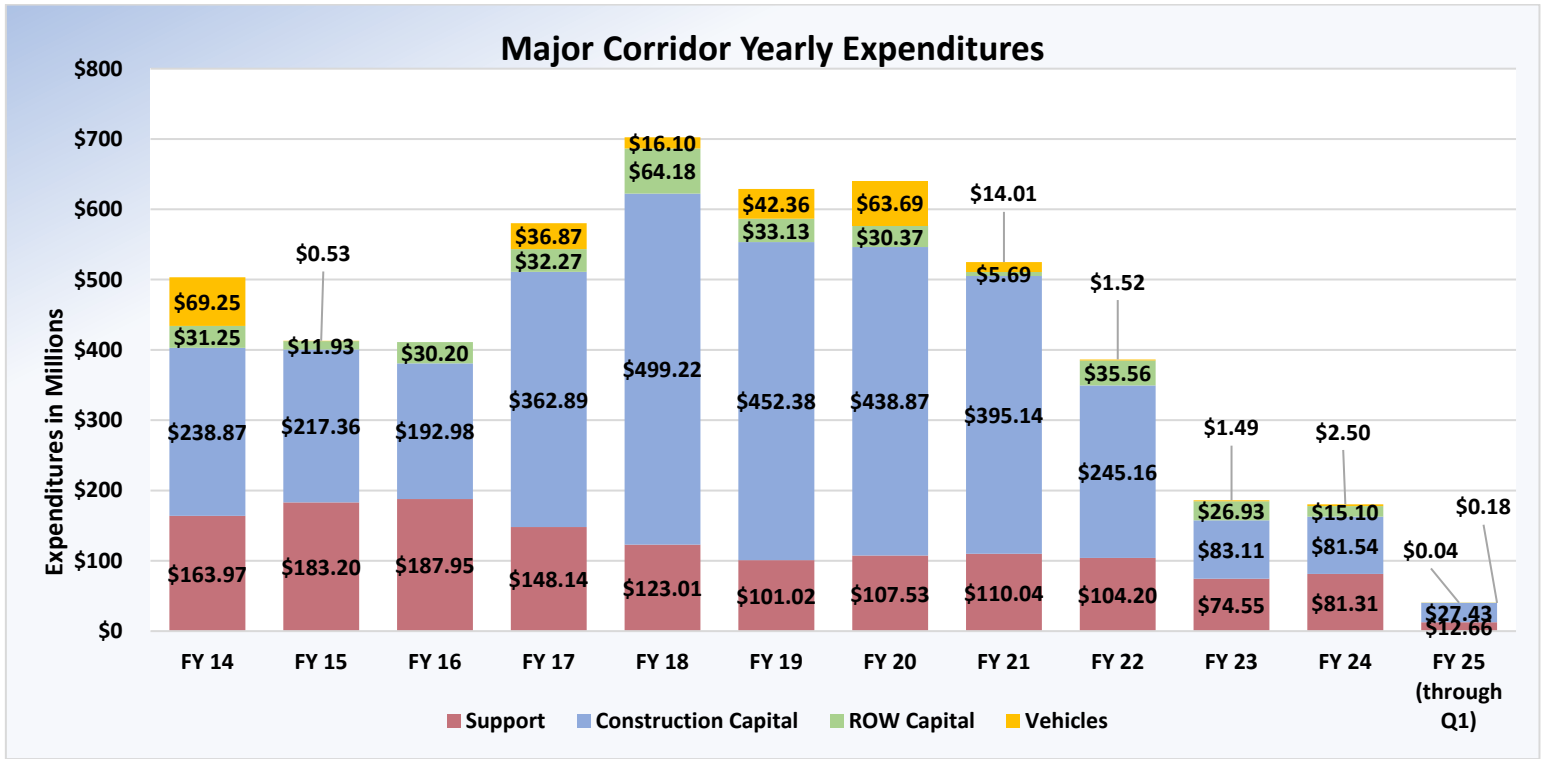




*** Support - Includes Administration, Design, Environmental, Right of Way Support, Construction Management, Legal Services, and Communications.**

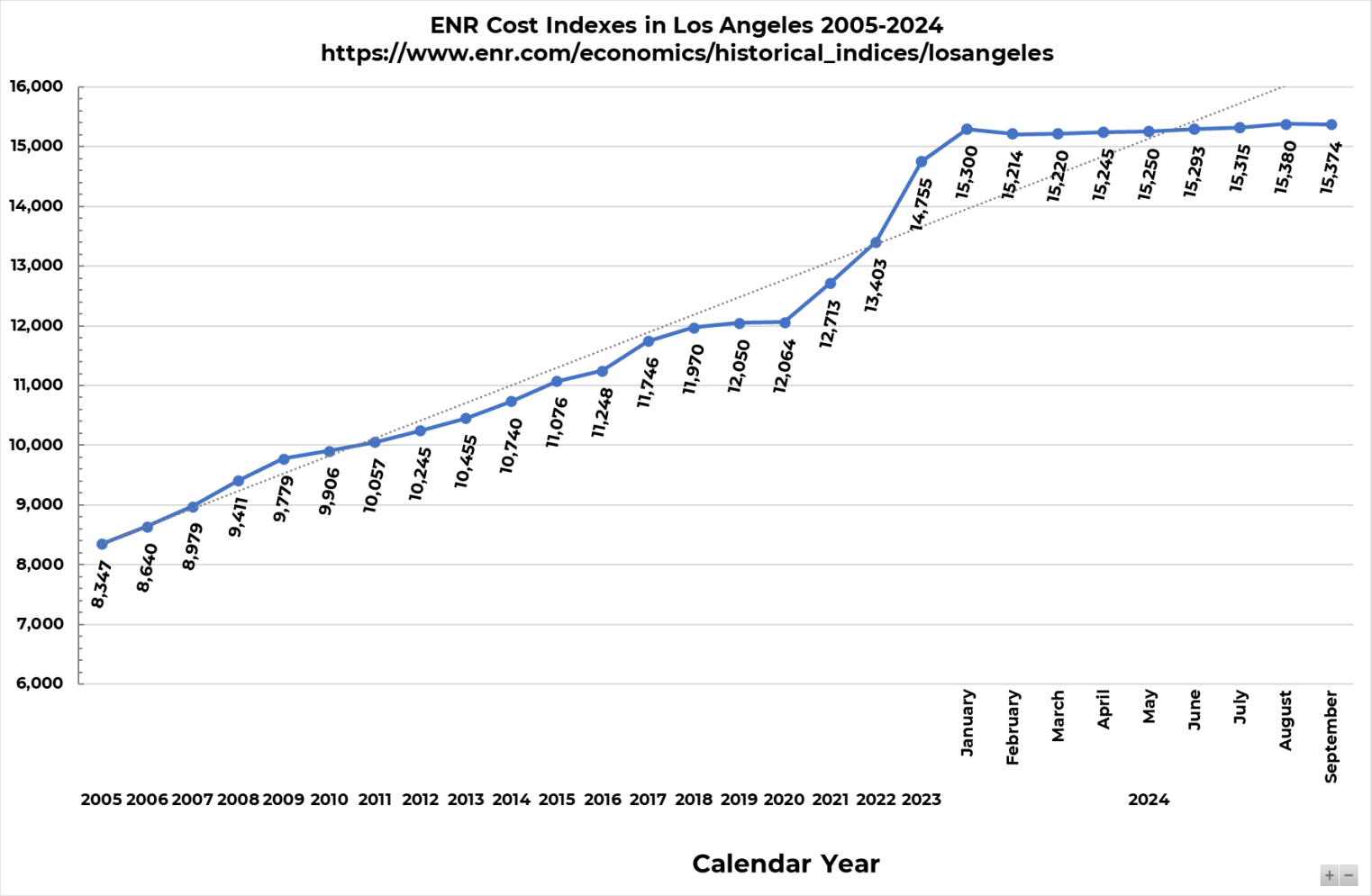
*** Monthly expenditures are reported on the 20th of each month.**





*** Support - Includes Administration, Design, Environmental, Right of Way Support, Construction Management, Legal Services, and Communications.**

*** Monthly expenditures are reported on the 20th of each month.**


ENR Cost Indexes in Los Angeles 2005-2024
https://www.enr.com/economics/historical_indices/losangeles
16,000
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
8,347
8,640
8,979
9,411
9,779
9,906
10,057
10,245
10,455
10,740
11,076
11,248
11,746
11,970
12,050
12,064
12,713
13,403
14,755
15,300
15,214
15,220
15,245
15,250
15,293
15,315
15,380
15,374
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
January
February
March
April
May
June
July
August
September
2024
Calendar Year

North County Corridor

Project Updates

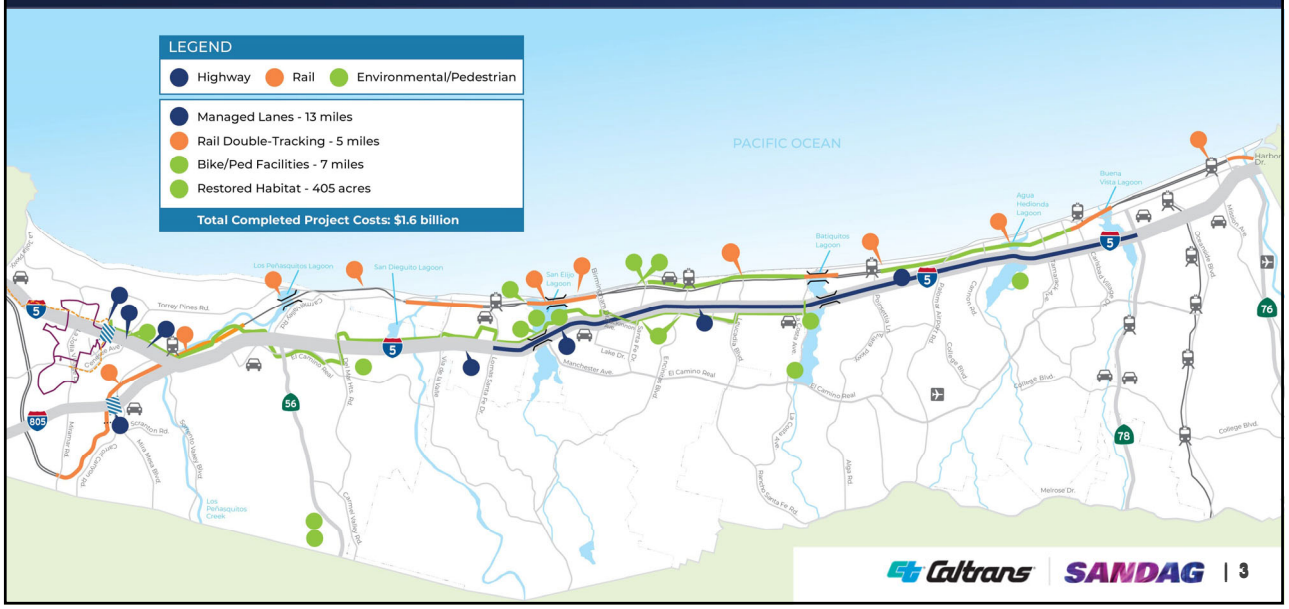
ITOC
November 13, 2024

NCC Program





Completed Projects



Genesee Bikeway

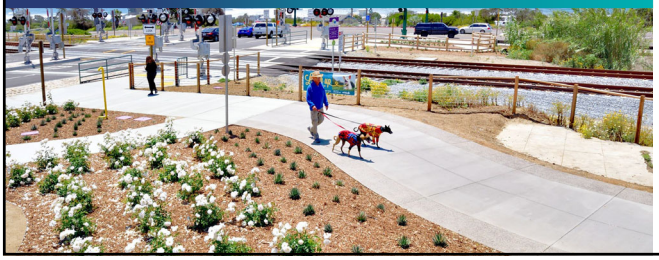


San Elijo Lagoon Double Track and Rail Crossing Improvements

San Elijo Lagoon Double Track



Chesterfield Drive Rail Crossing Improvements



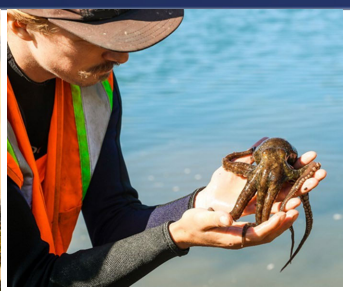
Coastal Rail Trail

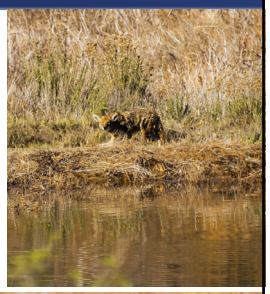


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San Elijo Lagoon Restoration









Caltrans | SANDAG | 6

San Dieguito Lagoon Restoration – Phase II

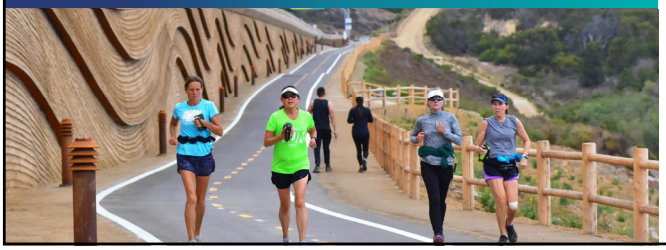


Bike/Pedestrian Improvements

San Elijo Lagoon Suspension Bridge



Solana Hills Bike & Pedestrian Trail



North Coast Bike Trail



Encinitas Boulevard Art

Partnership with City of Encinitas







SR 56 Bike Path Ribbon-Cutting



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Active Projects



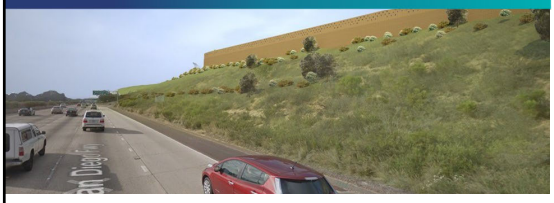
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Carlsbad Community Enhancements
Summer 2025

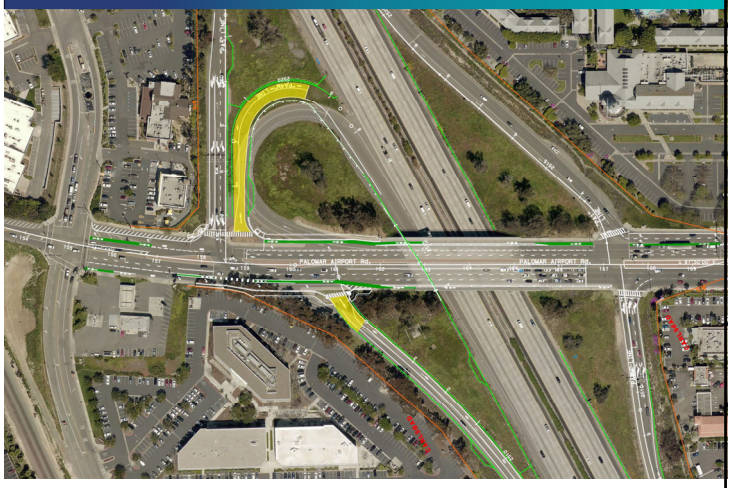
Chestnut Avenue Bike/Ped Enhancements



Tamarack Avenue Sound Wall



Palomar Airport Road Bike/Ped Enhancements



Batiquitos Lagoon Double Track
Construction Began in August



Segment 5: On I-5 from SR 78 to Harbor Drive Managed Lanes



Caltrans | SANDAG | 15

Build NCC Project Completion

SEGMENT	CONSTRUCTION CAPITAL & SUPPORT	STATE PARTICIPATION	% COMPLETION	OPEN TO PUBLIC DATE
EA 2T217 (Segment 6): San Elijo Lagoon Double Track & Chesterfield Crossing Improvements	$70 M	TCIF	✓	May 2019
EA 2T345: Coastal Rail Trail	$6 M	ATP	✓	May 2019
EA 2E150 (Segment 8): San Elijo Lagoon Restoration	$110 M	Local only	✓	October 2020
EA 2T217 (Segment 1): San Elijo Lagoon Highway Bridge & Community Enhancements	$257 M	STIP	✓	June 2022
EA 2T218 (Segment 2 & 3): Manchester – Palomar Airport Carpool/HOV Lanes	$302 M	SHOPP STIP	✓	March 2022
EA 2T35U (Segment 4A&B): Palomar Airport – SR 78 Carpool/HOV Lanes	$76 M	SHOPP STIP	✓	June 2023
EA 2T36U (Segment 4C): Mobility & Sustainability Improvements	$96 M	SHOPP STIP	45%	May 2025
EA 2T044 (Segment 7): Batiquitos Lagoon Double Track	$143 M	SCCP Local	1%	April 2028

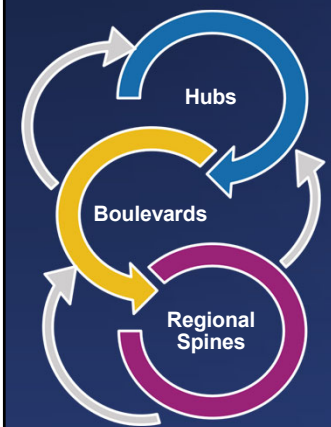
North County Corridor

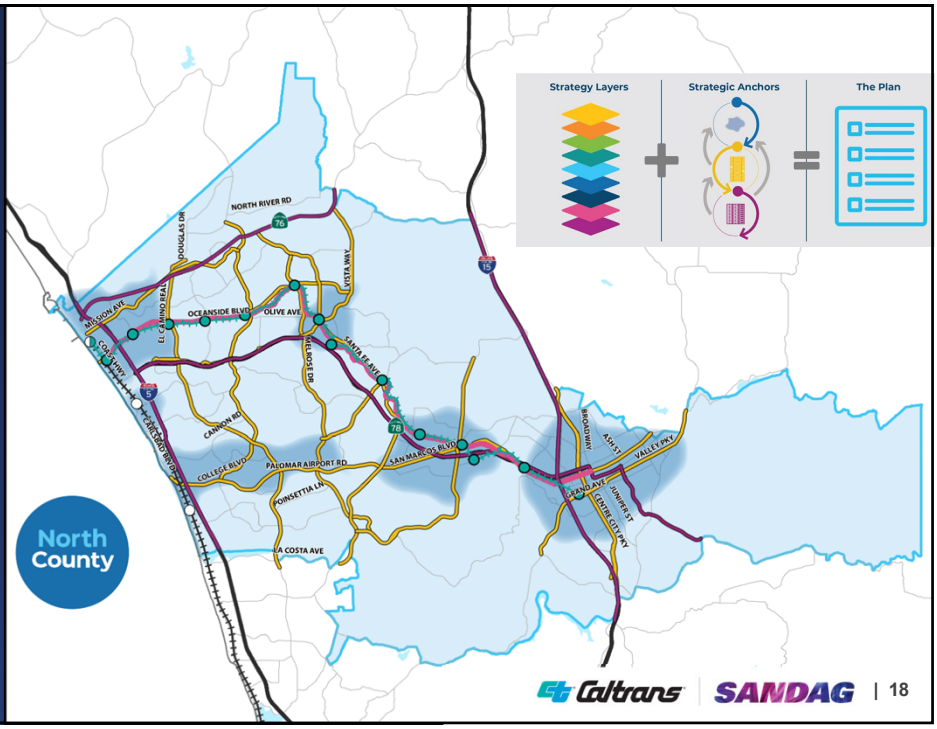
- Cities, County, NCTD in technical working group
- CBOs, business/employers, health care stakeholder group
- Public & stakeholder outreach
- Identify corridor characteristics and travel patterns
- Establishing goals & objectives
- Develop a 30-year portfolio of infrastructure and service improvements



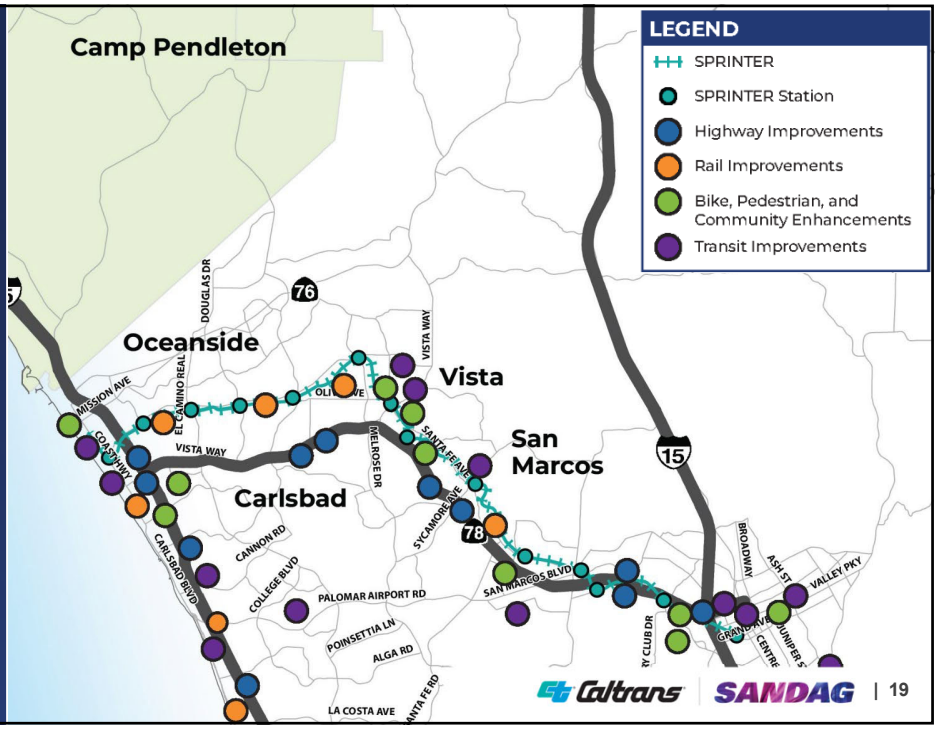


North County CMCP
Focus of Plan





Active Projects Underway



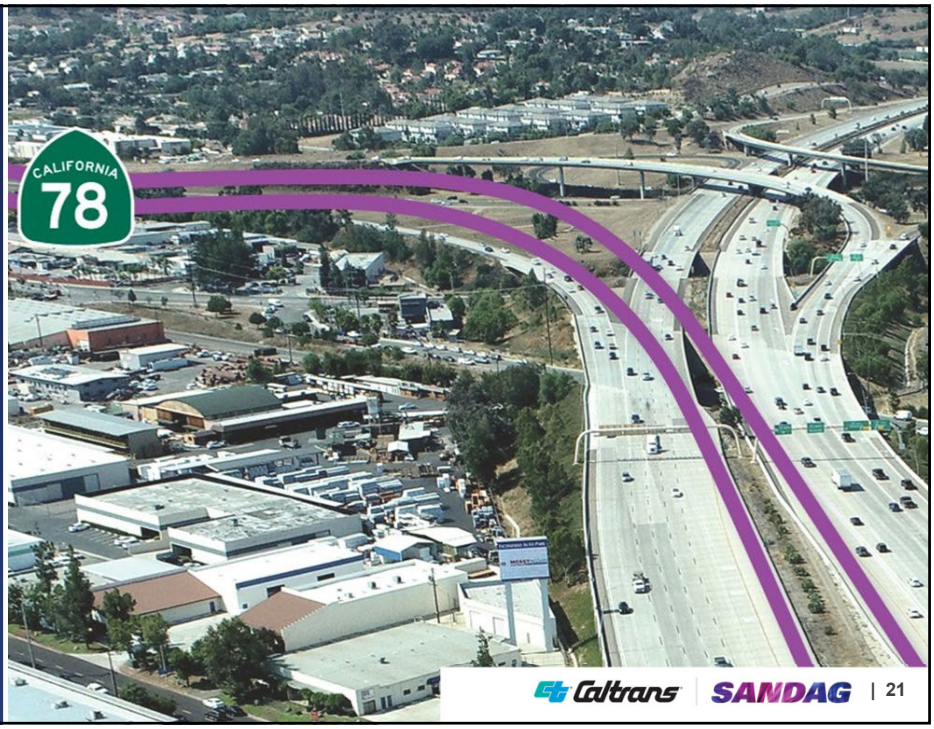
SR 78 Asset Management

- Corridor Re-Fresh
- Pavement
- Aux Lanes
- Drainage
- Safety upgrades
- Landscaping
- Project Cost: $140M



I-15/SR 78 Interchange

- Technical Studies
- Draft Environmental
- Draft VMT Mitigation
- BRT to Temecula
- Active Transportation Connection between CSUSM and Inland Rail Trail
- Regional Investment: $40M (full funding on Environmental and Design)



SR 78 Managed Lanes

- Technical Studies
- Early Engineering
- Draft Environmental
- Regional Investment: $39M



I-5/SR 78 Interchange

- Technical Studies
- Traffic Modeling
- Conceptual Alternative
- Draft Environmental
- Regional Investment: $16M



North County Project Updates

2024

August 2024
Batiquitos Lagoon Double Track start of construction

Fall 2024
Start Design NCC segment 5 (SR 78 to SR 76) / Begin Engineering Studies for I-5/ SR78

Fall/Winter 2024
SR 78 culvert construction completion

Winter/Spring 2024
Release I-15/SR 78 Managed Lanes and Direct Connectors Draft EIR/EIS

2025

Spring 2025
Begin Construction of SR 78 Asset Management Project

Summer 2025
NCC Segment 4c construction completion

Caltrans | SANDAG | Build NCC

Thank you!



November 13, 2024

North Coast Corridor

Overview

This report provides an update on the status of project progress, schedule, cost, and risk.

Action: **Information**

Caltrans staff will present an update on the North Coast Corridor program of projects.

Key Considerations

The North Coast Corridor (NCC) program is a comprehensive set of transportation, environmental, and coastal access projects that reduce congestion, improve the quality of life for residents, create a stronger local and regional economy for the future, and enhance the coastal environment (Attachment 1).

These projects are being built using the Construction Manager/General Contractor (CM/GC) delivery method, which is a best-value construction procurement method. The CM/GC contractor is a joint venture of Flatiron, Skanska, and Stacy Witbeck contractors.

The project continues to be on schedule and within budget.

Recent accomplishments include:

Fiscal Impact:

The project budget for construction of the North Coast Corridor (NCC) program is currently $1.06 billion and includes federal, state, and *TransNet* funds.

Schedule/Scope Impact:

Build NCC is on schedule to complete construction of Community Improvements at Chestnut Avenue, Palomar Airport Road, and Tamarack Avenue in summer 2025. The construction of the Batiquitos Lagoon Rail Bridge is scheduled to be completed spring 2028. The extended plant establishment of 84 acres of wetlands at the San Dieguito Lagoon is underway and expected to be completed in fall 2029.

- Opened to the public the State Route 56 (SR 56) Bike Extension, which connects the SR 56 regional Bicycle Trail from Carmel Valley Road to an enhanced Park and Ride lot at Carmel Valley Road. Completing an eight-mile bike route between the SR 56 Bike Path to the North Coast bike trail and the Sorrento Valley Transit Station.
- Began Construction of the Carlsbad Community Enhancement project scheduled to be completed in the summer of 2025.
- Began Construction of the Batiquitos Lagoon Double Track that will add 0.75 miles of a second mainline rail track from Avenida Encinas in Carlsbad to La Costa Avenue in Encinitas across the Batiquitos Lagoon. The project also includes replacing a wooden trestle bridge, built in the 1930s, with a modern concrete bridge.
- Began design for the Interstate 5 (I-5) Managed Lanes Segment 5 project. The project adds three miles of managed lanes on I-5 between State Route 78 and Harbor Drive and is scheduled to be shovel-ready by the end of summer 2027. This was made possible thru $10 million of State Transportation Improvement Program (STIP) funding and $1.16 million of Federal funds for local projects and priorities secured by Congressman Mike Levin.
- Began the Environmental phase of I-5/SR 78 Interchange project. This project is scheduled to begin the formal public input period for the Notice of Preparation/Notice of Intent (NOP/NOI) by the spring 2025, and on schedule to have a Draft Environmental Impact Report/ Environmental Impact Study (EIR/EIS) completed in 2028.

Upcoming efforts include: the opening of the Mobility and Sustainability Improvements project that include Bike/Ped improvements at Chestnut and Palomar Airport Road, ITS elements, construction of auxiliary lane in the southbound direction from Palomar Airport Road to Poinsettia Lane, sound walls on private property, and shoulder and slope repairs; continuing the San Elijo Lagoon and San Dieguito Lagoon plant establishment efforts; and the ongoing construction of the Batiquitos Lagoon Double Track project.

Next Steps

Caltrans and SANDAG staff will present periodic updates on these projects at future meetings.

David Cortez, Director of Engineering and Construction

Attachments: 1. Build NCC Project Fact Sheet
2. Discussion Memo: North Coast Corridor Program Update September 2024

Caltrans | SANDAG | Build NCC

Attachment 1

About the Project

The first phase of construction of the North Coast Corridor (NCC) program, known as Build NCC, will extend through the cities of Solana Beach, Encinitas, and Carlsbad (Attachment 1). Construction began in late 2016 with HOV lane extension completed in June 2023 and remaining Build NCC Corridor improvements to be completed by Spring 2028.

Highway Improvements

Caltrans will extend High Occupancy Vehicle (HOV) Lanes for 13 miles on I-5 from Lomas Santa Fe Drive in Solana Beach to SR 78 in Oceanside. Additional highway improvements include replacing and lengthening the San Elijo highway bridge to accommodate the HOV Lanes and help improve lagoon tidal flow; constructing sound walls on private property; building a new Park & Ride/multi-use facility at the I-5/Manchester Avenue interchange; and including auxiliary lanes. The Park & Ride/ multi-use facility will provide parking for carpools and vanpools, secure bike parking, and offer recreational access to the San Elijo Lagoon and the new North Coast Bike Trail.



Rail Improvements

Improving the coastal rail line is a central component of Build NCC. The San Elijo Lagoon Double Track project is part of a larger plan to improve the coastal rail system by adding a second track. The addition of the second track will allow trains traveling in opposite directions to pass without slowing down or stopping, increasing the corridor's efficiency and reliability. Other project features include the replacement and lengthening of the rail bridge that spans over San Elijo Lagoon. Additionally, at-grade rail crossing improvements have been made at Chesterfield Drive in Encinitas. Finally, a pedestrian undercrossing was built on the south side of the lagoon to provide improved lagoon and coastal access.

Rail Improvements also includes the Batiquitos Lagoon Double Track the project will add 0.75 miles of a second mainline rail track from Avenida Encinas in Carlsbad to La Costa Avenue in Encinitas across the Batiquitos Lagoon. The Project also includes replacing a wooden trestle bridge, built in the 1930s, with a modern concrete bridge.



Project Schedule and Funding

Construction Start Date
2017

Completion Date
Spring 2028

Funding Sources
Federal, State, SANDAG (TransNet)

Contractor
Flatiron-Skanska-Stacy and Witbeck (FSSW)

Total Project Cost
$1.06 billion

For more information:

KeepSanDiegoMoving.com/BuildNCC

Construction Hotline: (844) NCC-0050

Text Alerts: Text "Build NCC" to (760) 454-0070

Marvin Canton, Project Manager
marvin-adolfo.canton.jr@dot.ca.gov

SANDAG | SDCaltrans

SANDAGregion | SDCaltrans

SANDAGRegion | D11Caltrans

See inside map for details.

Lagoon/Bike/Pedestrian

Build NCC includes the restoration of the San Elijo Lagoon. The restoration project is being coordinated with Nature Collective and resource agencies. Restoration will enhance the lagoon's wetland and upland areas, improve tidal flushing, and facilitate beach sand replenishment. Improving coastal access is a critical component of the NCC program. Build NCC includes new east-west and north-south bicycle and pedestrian trails in and around the San Elijo Lagoon.

Lagoon restoration also includes the San Dieguito Wetlands Lagoon restoration, a major restoration planned for the eastern end of the San Dieguito Lagoon from east of I-5 to El Camino Real. This project will establish a system with approximately 50 acres of restored tidal wetland and 15 acres of brackish wetland, and enhance approximately 5 acres of riparian habitat. Other areas would be established as transitional areas and native uplands.



Fall 2024

Integrating Transportation and Environmental Enhancements



The San Elijo Lagoon highway bridge will be replaced to accommodate new Carpool/HOV Lanes along I-5. The new bridge will be lengthened to improve tidal flows, circulation, and the overall health of the lagoon. In addition, a suspended bike and pedestrian bridge will be built underneath the highway bridge to further increase north-south and east-west connectivity, and create more travel choices. The North Coast Bike Trail will be constructed to expand the regional bike and pedestrian network.

Active Transportation Improvements



Build NCC includes construction of 7 miles of the North Coast Bike Trail, a planned bike trail stretching approximately 27 miles between Gilman Drive in the City of San Diego and Harbor Drive in the City of Oceanside. Build NCC also includes segments of the Coastal Rail Trail (CRT), a planned continuous bike route approximately 44 miles long between the City of Oceanside and Santa Fe Depot in Downtown San Diego. The first 1.3-mile segment of the CRT in the City of Encinitas from Chesterfield Drive to Santa Fe Drive was completed under Build NCC.



Fall 2024

Build NCC

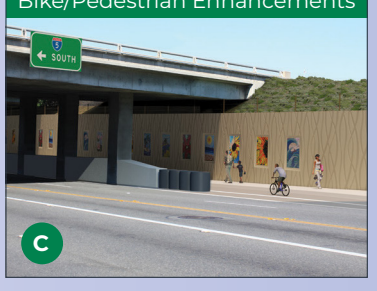
New Carpool/HOV Lanes from Lomas Santa Fe Dr. to SR 78



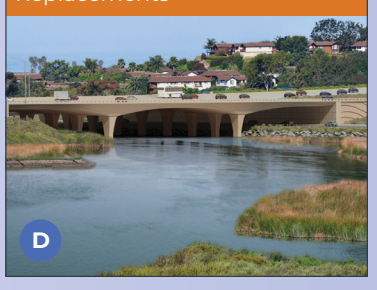
San Elijo Lagoon Double Track



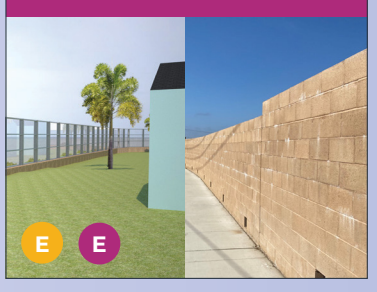
Encinitas Blvd./Santa Fe Dr. Bike/Pedestrian Enhancements



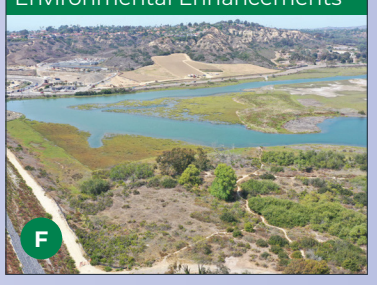
San Elijo Lagoon Bridge Replacements*



Sound/Privacy Walls**



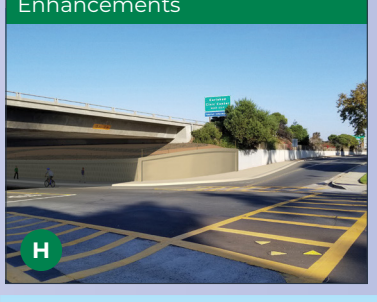
San Elijo Lagoon Restoration and Environmental Enhancements



Coastal Rail Trail Bikepath



Chestnut Avenue Community Enhancements



*Bridge replacements will help improve tidal flow and overall lagoon health. Simulation depicts Highway Lagoon Bridge Replacement.

**Not all sound walls will be transparent (glass).

LEGEND

- New Carpool/HOV Lanes (One in Each Direction)
- Carpool/HOV Lanes (In Design)
- New Auxiliary Lane
- Privacy Walls
- Sound Walls
- Bike/Pedestrian Access Improvements
- Coastal Rail Line
- New Double Track
- North Coast Bike Trail (Shared Roadway)
- North Coast Bike Trail (Class 1 Separated Bike Path)
- New Pedestrian Path
- Existing Path
- Lagoon Bridge Replacement
- New Overpass/Underpass
- Point of Interest
- Manchester Ave. Crosswalk
- I-5/SR 78 Interchange (Environmental Review)

I-5/SR 78 Interchange



5 · 76 · 78 · I · Buena Vista Lagoon · Mission Ave. · Oceanside Blvd. · Carlsbad Blvd. · Vista Way · Carlsbad Village COASTER Station · Las Flores Dr. · Carlsbad Village Dr. · H · CARLSBAD · Tamarack Ave. · E · F · Agua Hedionda Lagoon · Cannon Rd. · Avenida Encinas · Palomar Airport Rd. · Carlsbad Poinsettia COASTER Station · Poinsettia Ln. · Batiquitos Lagoon · La Costa Ave. · La Costa Property · Piraeus St. · A · Batiquitos Bluffs · Leucadia Blvd. · N. Vulcan Ave. · Saxony Rd. · Encinitas Blvd. · Encinitas COASTER Station · C · Westlake St. · Requeza St. · Donahue Dr. · Nardo Rd. · Santa Fe Dr. · G · Encinitas Community Park · Mackinnon Ave. · Nolbey St. · ENCINITAS · El Camino Real · Highway 101 · San Elijo Ave. · Birmingham Dr. · Vista Point · Villa Cardiff Dr. · Playa Riviera Dr. · Chesterfield Dr. · D · B · San Elijo Lagoon Nature Center · Laser Property · San Elijo Activity Hub Park & Ride · Manchester Ave. · San Elijo Lagoon · SOLANA BEACH · Gateway Parcel · Lomas Santa Fe Dr. · NORTH Not To Scale

Discussion Memo: North Coast Corridor Program Update September 2024

The first phase of construction of the North Coast Corridor (NCC) program, known as Build NCC, will extend through the cities of Solana Beach, Encinitas, and Carlsbad (Attachment 1). Construction began in late 2016 with High Occupancy Vehicle (HOV) lane extension completed in June 2023 and remaining Build NCC Corridor improvements to be completed by spring 2028.

Scope of Work

Highway Improvements

Caltrans will extendHOV Lanes for 13 miles on Interstate 5 (I-5) from Lomas Santa Fe Drive in Solana Beach to State Route 78 (SR 78) in Oceanside. Additional highway improvements include replacing and lengthening the San Elijo highway bridge to accommodate the HOV Lanes and help improve lagoon tidal flow; constructing sound walls on private property; building a new Park & Ride/multi-use facility at the I-5/Manchester Avenue interchange; and including auxiliary lanes. The Park & Ride/multi-use facility will provide parking for carpools and vanpools, secure bike parking, and offer recreational access to the San Elijo Lagoon and the new North Coast Bike Trail.

Rail Improvements

Improving the coastal rail line is a central component of Build NCC. The San Elijo Lagoon Double Track project is part of a larger plan to improve the coastal rail system by adding a second track. The addition of the second track will allow trains traveling in opposite directions to pass without slowing down or stopping, increasing the corridor's efficiency and reliability. Other project features include the replacement and lengthening of the rail bridge that spans over San Elijo Lagoon. Additionally, at-grade rail crossing improvements have been made at Chesterfield Drive in Encinitas. Finally, a pedestrian undercrossing was built on the south side of the lagoon to provide improved lagoon and coastal access.

Rail Improvements also include the Batiquitos Lagoon Double Track. The project will add 0.75 miles of a second mainline rail track from Avenida Encinas in Carlsbad to La Costa Avenue in Encinitas across the Batiquitos Lagoon. The Project also includes replacing a wooden trestle bridge, built in the 1930s, with a modern concrete bridge.

Lagoon Restoration

Build NCC includes the restoration of the San Elijo Lagoon. The restoration project is being coordinated with Nature Collective and resource agencies. Restoration will enhance the lagoon's wetland and upland areas, improve tidal flushing, and facilitate beach sand replenishment. Improving coastal access is a critical component of the NCC program. Build NCC includes new east-west and north-south bicycle and pedestrian trails in and around the San Elijo Lagoon.

Lagoon restoration also includes the San Dieguito Wetlands Lagoon restoration, a major restoration planned for the eastern end of the San Dieguito Lagoon from east of I-5 to El Camino Real. This project will establish a system with approximately 50 acres of restored tidal wetland and 15 acres of brackish wetland and enhance approximately 5 acres of riparian habitat. Other areas would be established as transitional areas and native uplands.

Active Transportation Improvements

Build NCC includes construction of 7 miles of the North Coast Bike Trail, a planned bike trail stretching approximately 27 miles between Gilman Drive in the City of San Diego and Harbor Drive in the City of Oceanside. Build NCC also includes segments of the Coastal Rail Trail (CRT), a planned continuous bike route approximately 44 miles long between the City of Oceanside and Santa Fe Depot in downtown San Diego. The first 1.3-mile segment of the CRT in the City of Encinitas from Chesterfield Drive to Santa Fe Drive was completed under Build NCC.

Overall Capital Project Budget and Schedule

The construction capital and support budget for the projects currently in construction is $1.06 billion. Actual expenditure through August 2024 is $781 million, or 73.7% of the capital budget.

Status of Work

Highway Improvements

The San Elijo Highway project, which includes the Santa Fe Drive and Encinitas Boulevard bicycle and pedestrian improvements, as well as the San Elijo Pedestrian bridge, have been completed and opened to the public. The suspended pedestrian bridge deck was opened to the public in June of 2022. Early outside landscape planting in the proximity of the San Elijo Lagoon highway bridge was completed 1.5 years ahead of schedule and is currently under Plant Establishment period. The community enhancements at Santa Fe Drive and Encinitas Boulevard are open to the public with Encinitas Boulevard transportation art installed in fall of 2022.

The 9-mile extension of the HOV Lanes project from Manchester Avenue to Palomar Airport Road was open to the public in March 2022, which includes sound walls on private property, culvert rehab, intelligent transportation systems, and Manchester Avenue Street improvements; these improvements were completed in October 2023. The Manchester Avenue Street improvements west of I-5, the Active Transportation widening, which accommodates bike lanes, a sidewalk in the Westbound direction and multi-use trail in the Eastbound direction, were completed and opened to the public in April 2022. Manchester Avenue work east of I-5 consists of utility work, widening of Manchester Street, and constructing the multi-use facility opened to the public in August 2023.

The stretch of HOV Lanes from Palomar Airport Road to SR 78, is 95% complete with HOV lanes open to public in June of 2023; followed by one year of plant establishment, the improvements are scheduled to be completed in fall 2025.

The Mobility and Sustainability Improvements project includes Bike/Ped improvements at Chestnut and Palomar Airport Road, including ITS elements, construction of auxiliary lane in the southbound direction from Palomar Airport Road to Poinsettia Lane, sound wall on private property, shoulder and slope repairs. This work began construction in November of 2023 and is anticipated to be complete by summer 2025.

The design teams have begun efforts on the I-5 Managed Lanes Segment 5. This project adds three miles of managed lanes on I-5 between SR 78 and Harbor Drive. This was made possible through $10 million of STIP funding and $1.16 million of Federal funds for local projects and priorities secured by Congressman Mike Levin. This project is schedule to be shovel-ready summer 2027.

The Project Development Team has begun the environmental efforts for the I-5/SR 78 interchange project. The project is scheduled to begin the formal public input period for the Notice of Preparation/Notice of Intent (NOP/NOI) in spring 2025; the project is on schedule to have a Draft Environmental Impact Report/ Environmental Impact Study (EIR/EIS) completed in 2028.

Rail Improvements

The San Elijo Lagoon Double Track project and the Chesterfield Drive improvements are complete and were open to traffic in May 2019.

The Batiquitos Lagoon Double Track project began construction in August of 2024 and is scheduled to be completed in spring 2028.

Lagoon Restoration

Planting within all the basins is complete and the project is in Plant Establishment. The trail network was opened to the public in early 2022. Pedestrian bridges were opened to the public in October 2020. San Dieguito Wetlands Lagoon restoration project is ongoing and is 85% complete.

Coastal Rail Trail Construction

The CRT is complete and was opened to the public in May 2019.

November 13, 2024

State Route 78

Action: **Information**

Caltrans staff will present an update on the State Route 78 Corridor program of projects.

Fiscal Impact:

The environmental phase of each project is fully funded and has a combined budget of $72 million, encompassing federal, state, and TransNet funds

Schedule/Scope Impact:

The I-15/SR 78 Interchange Project is tentatively scheduled to release a draft environmental document in spring 2025.

Overview

This report provides an update on the status of project progress, schedule, cost, and risk.

Key Considerations

The current 2021 Federal Regional Transportation Plan and the draft 2025 Regional Transportation Plan propose key investments on the State Route 78 (SR 78) Corridor between Interstate 5 (I-5) and Interstate 15 (I-15). These include the I-15/SR 78 Managed Lanes/HOV Connectors project, SR 78 Managed Lanes, I-5/SR 78 Interchange Project, and SR 78 Asset Management improvement project. Collectively, these projects are part of a larger multi-modal blueprint for the corridor called the North County Comprehensive Multimodal Corridor Plan (CMCP) which was complete in June 2023. The final CMCP includes investments into other modes of transportation such as Sprinter, Inland Rail Trail, and Rapid Bus Transit.

Next Steps

Caltrans and SANDAG staff will present periodic updates on these projects at future meetings.

David Cortez, Director of Engineering and Construction

Attachments:
1. SR 78 Active Project Underway Fact Sheet
2. Discussion Memo: State Route 78 Program Update September 2024

SR 78 Corridor Active Projects Underway

MARCH 2024

Overview

State Route 78 (SR 78) serves as the primary east-west travel corridor between Escondido and Oceanside, traversing through Carlsbad, Vista, and San Marcos, as well as unincorporated areas of San Diego County. It is the main route for local and regional travel in North County and provides north-south connections to Interstates 5 and 15.

All active projects are part of the larger Comprehensive Multimodal Corridor Plan (CMCP) for North County, which aims to bring more travel choices to the region while improving transportation safety and connectivity. By making these necessary improvements to our highway and transit systems, Caltrans and SANDAG are committed to increasing regional mobility throughout North County and the San Diego region.

Corridor Projects

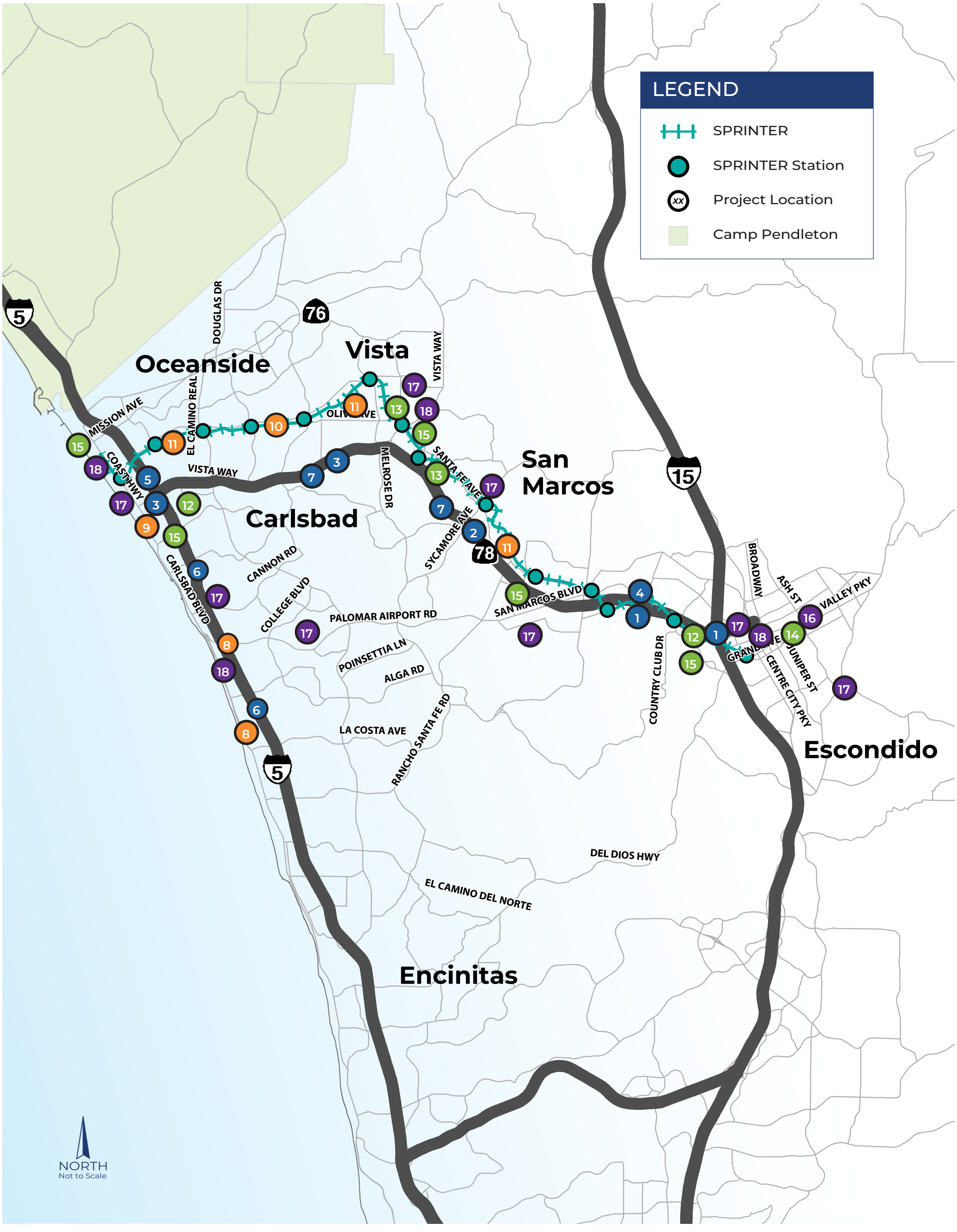
ID	Name	Lead Agency	Status	Description
Highway Improvements				
1	I-15/SR 78 Connector and Managed Lanes	Caltrans	Environmental	Managed Lanes with direct connectors between I-15 and SR 78. A Draft document will be released in **Early 2025**. Note: Funded through design.
2	SR 78 Managed Lanes	Caltrans	Environmental	Managed Lanes in each direction along SR 78 between El Camino Real to Twin Oaks Road.
3	I-5/SR 78 Connector and Managed Lanes	Caltrans	Environmental	Managed Lanes with direct connectors between I-5 and SR 78.
4	SR 78 Interchange/Ramp Improvement	Caltrans	Environmental	Proposed SR 78 interchange and ramp improvements at Woodland Parkway. Draft document will be released **Early 2025**.
5	I-5 NCC Managed Lanes (SR 78 to SR 76)	Caltrans	Design	Managed Lanes along I-5 from SR 78 to SR 76.
6	I-5 NCC HOV to Managed Lanes Conversion	Caltrans	Design	HOV to Managed Lanes conversion from SR 52 to SR 76 along I-5 and I-805.
7	SR 78 Asset Management/ Operational Improvement	Caltrans	Design / Construction	Improvements including pavement resurfacing, bridge rails, ADA ramps, culvert restoration, and a new westbound auxiliary lane between Nordahl and Twin Oaks Valley roads and a new eastbound auxiliary lane. Construction will begin in **Spring 2025**.
Rail Improvements				
8	Batiquitos Lagoon Double Track	SANDAG	Design	Add .75 miles of second track from Avenida Encinas in Carlsbad to La Costa Avenue and replace the Batiquitoes Lagoon rail bridge.
9	Carlsbad Village Double Track	SANDAG	Environmental	Add 1.1 miles of second track from southern Oceanside to Carlsbad Village and replace the Buena Vista Lagoon rail bridge.
10	SPRINTER Double Tracking	NCTD	Planning	9.5 miles of double track to increase SPRINTER frequencies to 15 minutes.
11	SPRINTER Signaling Improvements	NCTD	Planning	Improved signaling along the SPRINTER line. $7.5M recieved for initial improvements.
Bike, Pedestrian, and Community Enhancements				
12	Buena Vista Lagoon Restoration	SANDAG	Design	The 220-acre Buena Vista Lagoon is in a state of decline due to a variety of environmental concerns. This restoration will enhance biological and hydraulic functions through a modified saltwater alternative.
13	Inland Rail Trail Segment 3 and 4	SANDAG	Construction	3 miles of Class I bike path from Mar Vista to North Drive.
14	SR 78 ATP Improvements	County	Preliminary Planning	Add bike lanes along SR 78 from Grand Avenue to Bear Valley Road.
15	North County Mobility Hubs	Multiple	Planning	Infrastructure and amenities to increase safety, connectivity, and competiviteness of walking, cycling, and transit (Carlsbad Village, Vista Village and San Marcos Mobility Hubs).
Transit Improvements				
16	*Rapid* 471	SANDAG	Planning	Downtown Escondido to East Escondido
17	NCTD Flex Routes /Flexible Fleet Pilots	NCTD/ SANDAG	Planning	Flexible fleet services in mobility hubs.
18	NCTD TODs	NCTD	Developer Selected	Transit-supportive mixed-used developments (TODs) at NCTD stations including Oceanside Transit, Vista Transit Center, Escondido Transit Center, and Carlsbad Village Transit Center.
19	NCTD ZEV Conversion	NCTD	Bus Funded; Rail Vehicles Pending	Initiative to transition to zero-emission vehicles by 2033.

To view map – see reverse side

SR 78 Corridor Active Projects Underway

MARCH 2024

SANDAG | Caltrans



Discussion Memo: State Route 78 Program Update September 2024

Interstate 15/State Route 78 Managed Lanes Connector Project (CIP No. 1207802)

This project proposes to build direct connector ramps that will link to the existing I-15 Express Lanes – which currently end just south of the Interstate 15 (I-15)/State Route 78 (SR 78) interchange in Escondido – and extend managed lanes west on SR 78 for approximately three miles in both eastbound and westbound directions, which would provide a faster and more reliable trip. The project would also reconstruct Barham Drive and the Woodland Parkway Interchange to improve multimodal access across SR 78. A Class I multiuse path is proposed along Barham Drive and Woodland Parkway which would connect California State University, San Marcos with the Inland Rail Trail. As part of the Vehicle Miles Traveled mitigation package this project is supporting the extension of the regional Bus Rapid Transit (BRT) service to Temecula.

- Current Status: The I-15/SR 78 Interchange Project is tentatively scheduled to release a draft environmental document in Spring 2025.

I-5/SR 78 Interchange Project (CIP No. 1207803)

The I-5/SR 78 Interchange, situated within the cities of Oceanside and Carlsbad, connects two major transportation corridors in Northern San Diego County. I-5 is the primary north-south route for the region, linking San Diego with Los Angeles and Orange Counties to the north and Mexico to the south, while SR 78 serves as a key east-west corridor, connecting I-5 with inland cities like San Marcos and Escondido. The purpose of this project is to enhance traffic operations at the interchange for both local and regional traffic, address the operational concerns caused by the existing at-grade freeway intersection, and provide Managed Lanes/High Occupancy Vehicle (HOV) connectivity between I-5 and SR 78. The project also proposes to construct about 3-miles of managed lanes on SR 78.

- Current Status: The I-5/SR 78 Interchange Project is currently conducting an operational analysis to aid in the development of project alternatives. A draft environmental document is expected to be completed in Spring 2030.

SR 78 Managed Lanes Project (CIP No. 1207804)

This project proposes the construction of two new managed lanes along a 12-mile stretch of SR 78, between Twin Oaks Valley Road and El Camino Real, with one lane in each direction. The managed lanes aim to improve corridor mobility and facilitate future connectivity between I-5 and I-15. Key improvements include bridge replacements and widenings, ramp relocations, street realignments, and various operational enhancements within the project limits.

- The SR 78 Managed Lanes Project has begun traffic modeling for the corridor; this effort will layer on proposed improvements to evaluate corridor operations. A draft environmental document is expected to be completed in summer 2029.

SR 78 Asset Management Project

This project aims to extend the service life of the SR 78 pavement while enhancing ride quality and safety. The project involves cold planning and overlaying all general-purpose lanes, inside and outside shoulders, and entrance and exit ramps within the project limits. Additionally, it includes operational improvements for westbound traffic at Nordahl Drive and eastbound traffic at Las Posas, upgrades to highway safety features, bridge improvements at Mission Road and Mar Vista Drive, and upgrades to the drainage system. Construction is scheduled to begin in spring 2025.

Overall Capital Project Budget

CIP No.	CIP Name	FY 2025 Phase	FY 2025 Budget (millions)	Multi-year Budget (millions)	Funded Through
1207802	I-15/SR 78 HOV Connectors	Environ/Design	$4.913	$39.937	Design
1207803	SR 78/I-5 Express Lanes Connector	Environmental	$4.758	$66.118	Design
1207804	SR 78 HOV Lanes: I-5 to I-15	Environmental	$4.990	$39.000	Environmental
			$14.661	$145.055	

Note: The SR 78 Asset Management Project is being implemented by Caltrans only and is not included in the SANDAG budget.

November 13, 2024

TransNet Smart Growth Incentive Program (SGIP)

Overview

The TransNet Extension Ordinance funds several competitive grant programs that help implement the SANDAG Regional Plan, including the Smart Growth Incentive Program (SGIP). The SGIP provides funding to the region's 18 cities and the County of San Diego for transportation-related infrastructure and planning projects that catalyze compact, mixed-use development focused near public transit, jobs, services, and public facilities to maximize the use of existing infrastructure, preserve open space and natural resources, and increase housing and transportation choices around the region. Since 2009, the SGIP has invested approximately $60 million in planning and capital projects throughout our region.

Action: **Recommend**
The ITOC is asked to recommend that the Board of Directors approve the evaluation criteria and release the Cycle 6 Call for Projects for the Smart Growth Incentive Program.

Fiscal Impact:
Up to $45 million could be made available through the Cycle 6 Call for Projects through OWP No. 3300100: TransNet Smart Growth & Active Transportation Grant Programs.

Schedule/Scope Impact:
Pending Board approval, staff anticipates releasing the SGIP Cycle 6 Call for Projects in November 2024.

Key Considerations

TransNet Triennial Performance Audit

Earlier this year, the 2024 TransNet Triennial Performance Audit was conducted and included an in-depth review of the SGIP. Six audit recommendations were made, and staff has been working to address the audit recommendations, as detailed in Attachment 1. Two of the recommendations have been completed, and the remaining four will be addressed with the release of the Cycle 6 Call for Projects.

Cycle 6 Call for Projects

The Cycle 6 Call for Projects was developed with input received from the local jurisdictions. Staff conducted stakeholder engagement through several opportunities, and a majority of the feedback was incorporated into the Call for Projects. Attachment 1 includes the stakeholder engagement process used to develop the Call for Projects. The draft Cycle 6 Call for Projects is included in Attachment 3.

The Transportation and Regional Planning Committees were asked to recommend that the Board of Directors approve the evaluation criteria and release the call for projects at their respective meetings on October 18, 2024 (Item 5) and November 1, 2024 (Item 3). At those meetings, the committee members discussed minimum requirements for Climate Action Plans under the SGIP and whether TransNet Local Streets and Roads funding should be an allowable cash match source to receive points under the match funding criterion.

Staff is seeking input from the ITOC regarding the allowance of other TransNet funding (e.g., Local Street and Road) as a cash match for the SGIP. Further details are included in Attachment 1.

Next Steps

The Call for Projects will be released pending action by the Board of Directors on November 22, 2024.

Susan Huntington, Director of Financial Planning, Budgets, and Grants

Attachments: 1. Discussion Memo
2. SGIP Performance Metrics
3. Cycle 6 Call for Projects

Discussion Memo

TransNet Triennial Performance Audit

In May 2024, the 2024 TransNet Triennial Performance Audit report was released. The audit is mandated by the TransNet Ordinance, which requires an independent performance audit of the efficiency and effectiveness of Ordinance expenditures every three years. The FY 2024 audit scope focused on several areas, including SGIP and the status of implementing prior audit recommendations. Section 5 of the report details the audit results, which found that "activities adhered to grant applications and project outputs aligned with smart growth concepts - although there was limited data available to measure program outcomes." Six audit recommendations were provided, and all received a Medium priority. Since the audit results were released, SGIP staff has been working to address the recommendations as quickly as possible. The first three recommendations require changes to be made to the Call for Projects, grant application, and grant agreement, which have all been addressed through the Cycle 6 Call for Projects.

1. Revamp the smart growth grant application form to clearly identify quantified, detailed objectives and deliverables to allow for meaningful analysis.
2. Require grantees to include a well-defined description of what will be constructed through the project to affect desired smart growth outcomes.
3. Require grantees to report on the quantifiable performance metrics now required in grant awards related to promoting smart growth goals to create compact, walkable, bikeable, and transit-oriented communities and increase housing and transportation choices around the region as applicable.
4. Put practice in place to summarize grantee performance data, analyze success of grant efforts, and report to ITOC.
5. Review grantees final close out reports and investigate any items the grantees marked as "in progress."
6. Validate that smart growth grantees met all objectives and verify that grantees provided deliverables at project close-out during site visits.

One of the challenges with requiring detailed objectives and deliverables (audit recommendation Nos. 1 and 2 above) is developing a standard template that requires this information but also allows flexibility for the variances in project nuances. For the Cycle 6 Call for Projects, a more robust template for capital projects has been developed that sets the typical tasks for a capital project (e.g. project planning and development, final design and environmental review, right of way acquisition, construction contracting, construction, and project closeout) and requires grantees to include subtasks to help provide the project-level details that are needed. For planning and climate action plan projects, there is a wide array of methods and tasks that could be taken, so a more general template has been developed to request details at the task and subtask level such as the task or subtask description, task or subtask outcome/output, and task or subtask deliverables. Staff will review each planning and climate action plan application and conduct meetings with each applicant to review the scope of work in detail and make any necessary changes to include additional tasks or subtasks or other details that can assist with project monitoring, closeout, and future performance audits.

SGIP staff first incorporated performance measures (audit recommendation Nos. 3 and 4 above) in the Cycle 5 Call for Projects, but those projects had just begun when the 2024 Performance Audit was being conducted, and therefore, the results were not yet determined. Additionally, staff sought to develop more robust performance measures to more accurately detail the program's achievements. Staff has developed a new set of SGIP performance metrics, included in Attachment 2, that applicants will be required to select from when their application is developed. The performance measures and baseline data will then

be included in their grant agreement, and the grantee will be required to demonstrate progress toward achieving those measures throughout the grant term and at project closeout. In January 2025, as part of the regularly scheduled TransNet grant programs quarterly status update, a new component will be introduced that includes detailed reporting of each grantee's progress to meet the performance measures in their agreement and a final assessment of what the grantee achieved with the grant at project closeout.

For audit recommendation Nos. 5 and 6 above, staff began implementing those recommendations as soon as the audit results were released. In June 2024, a new grant closeout checklist was implemented that requires all grants to be reviewed in detail prior to processing the final payment or releasing retention. This includes a review of the grantee's final report to ensure there are no items that are listed as still being in process. For construction projects, a site visit is conducted where the program manager goes to the project site and verifies that all work was completed as outlined in the grant agreement scope of work. The program manager then documents this on a capital project site visit report and the completed checklist and report files are included as an attachment when the final invoice and retention release requests are routed for approval to ensure that no final payments are made without the required documentation. Any grant where the grantee cannot provide all of the required deliverables or does not meet the program objectives will be brought to the ITOC and Transportation or Regional Planning Committees for resolution, including determining whether grant funding should be repaid to SANDAG.

Development of the Call for Projects

Stakeholder Engagement

To determine the need for SGIP funding in the region, staff began the development of the Cycle 6 Call for Projects with a listening session with the local jurisdictions on November 15, 2023. During this meeting, the following input was sought:

- Staff Experience and Capacity: Did the local jurisdictions have the staff capacity to implement both planning and capital projects within the grant agreement's timelines? Staff expressed concerns over limited capacity and the ability to prepare a competitive grant application.
- Project Priorities: What types of projects did the jurisdictions need funding for? Generally, local jurisdictions wanted funding for capital projects to enhance mobility and safety, augment staff to support projects, and planning activities to implement their housing elements.
- Barriers: What are the barriers to an agency in applying for funding? Some barriers include limited staff resources, grant administration, grant writing, a complicated application process, and schedules of other funding sources relating to ongoing projects.
- Opportunities: What are ways that SANDAG can address those barriers? Identifying processes and tools to support local jurisdictions, such as providing technical assistance in meeting grant requirements, offer grant writing resources and assistance with understanding project costs and developing a streamlined application, providing one-on-one consultations with jurisdiction staff, and providing data resources.
- Application Process: How can the call for projects process be changed to better suit your agency? Develop a streamlined application, allow multiple applications from a single jurisdiction, provide realistic timelines to execute projects successfully, and assist agencies with understanding how SGIP can fund a portion of a larger project.

Following the listening session, staff further refined the evaluation criteria and scoring rubric. The draft evaluation criteria (included in Attachment 3) were brought to the Mobility, Sustainable Communities, and Social Equity working groups for discussion at their June 2024 meetings, the Transportation Committee and the Climate Action Planning Task Force at their July 2024 meetings, and the Regional Planning

Committee at its September 2024 meeting. Feedback received included a greater consideration for equity and investing in underserved communities, raising the maximum award amount to account for inflation, reducing the administrative burden on applicants, and funding projects in descending score order without consideration of the number of awards an applicant could receive. This feedback was considered, and the following was incorporated into the final call for projects.

- Increase the award maximums for the planning and capital project types. The planning project award maximum was raised from $500,000 to $1 million, and the capital project award maximum was raised from $2.5 million to $3.5 million.
- Further prioritize equity in the evaluation criteria. The Community Engagement criteria was enhanced to prioritize projects that are community-led, include underserved and limited English proficiency populations and provide a meaningful role for the community throughout the project lifespan.
- Reduce the administrative burden on applicants by simplifying the application to include more quantitative questions (Yes or No) and providing technical assistance to all applicants during the application period.
- Broadening the climate action plan project type to allow for jurisdictions with an adopted Climate Action Plan to receive funding for monitoring or implementation efforts that align with SGIP principles and the 2021 Regional Plan Environmental Impact Report.

Drafting the Call for Projects

To develop the SGIP Cycle 6 Call for Projects, staff utilized the most recent SGIP Call for Projects as a base. Changes were made to include the 2024 TransNet Triennial Performance Audit recommendations and an updated selection process as a result of input received from the Transportation Committee at its July 21, 2023 meeting (Item 9). Staff also made changes to the evaluation criteria to incorporate the agency's efforts in its Regional Vision Zero Action Plan, including an emphasis on projects on the region's Safety Focus Network and Systemic Safety Network.

Similar to previous funding cycles of the SGIP, staff developed the Cycle 6 Call for Projects to include funding for two project types: planning and capital. Additionally, a third project type will fund new or updated climate action plans to address a commitment made in the 2021 Regional Plan Environmental Impact Report. The majority of funds would be made available in the capital category of funding, and a total of $45 million would be available.

The proposed Call for Projects, including the evaluation criteria, is included in Attachment 3.

SGIP Eligibility

Project Location

The TransNet Ordinance states that SGIP funding "will be allocated to the Smart Growth Incentive Program to provide funding for a broad array of transportation-related infrastructure improvements that will assist local agencies in better integrating transportation and land use, such as enhancements to streets and public places, funding of infrastructure needed to support development in smart growth opportunity areas consistent with the Regional Comprehensive Plan,[1] and community planning efforts related to smart growth and improved land use/transportation coordination." SGIP Cycle 5 limited funding to projects within geographically-restricted Smart Growth Opportunity Areas (SGOAs), which were identified in the Smart Growth Concept Map developed by SANDAG in 2016, and regionally identified employment centers.

[1] The Regional Comprehensive Plan is integrated into the 2021 Regional Plan.

With the adoption of the 2021 Regional Plan, the Sustainable Communities Strategy designated mobility hub areas as the region's strategy for integrating land use and transportation projects, policies and programs. To provide greater flexibility to local jurisdictions and align with the 2021 Regional Plan, staff proposes to remove the rigid geographic constraint used in prior cycles and fund projects that further smart growth principles and the goals and objectives of the 2021 Regional Plan and Sustainable Communities Strategy. Staff believe this approach will make funding available to a broader array of projects that further the goals of the TransNet SGIP identified above. Projects would:

- Implement a comprehensive approach to influence land development by improving the public realm and encouraging private smart growth projects that, in combination, create great places, advance mobility hub concepts, and leverage advanced technologies.
- Serve as model examples for smart growth in a variety of settings throughout the region.
- Contribute to reducing GHG emissions and vehicle miles traveled and improve public health by encouraging travel by means other than single-occupant vehicles. In particular, proposed projects would support public transit usage by improving access to transit and be located in areas served by transit.
- Support future housing development.
- Proposed capital projects would be "ready to go" and serve as catalysts for further smart growth development.

Adopted Climate Action Plan (CAP) or Greenhouse Gas (GHG) Reduction Plan

With the adoption of the 2021 Regional Plan and GHG Mitigation Measure 5A included in the Environmental Impact Report, applicants must have a locally adopted CAP or GHG reduction plan to be eligible to receive grant funding for Planning and Capital Projects from the SGIP. The applicant is required to self-certify through the submittal of a resolution that the applicant has a locally adopted CAP or GHG reduction plan or will adopt one before the Board of Directors' approval of the SGIP funding recommendations.

Agencies that do not have a locally adopted CAP or GHG reduction plan can apply for SGIP funding to develop one under the climate action plan project type. The evaluation criteria for this project type prioritize funding for new CAPs over other climate action plan activities. Any new or updated CAP or GHG reduction plan that receives funding through SGIP must meet the requirements outlined in GHG Mitigation Measure 5A:

- Be adopted by the jurisdiction's elected decision-making body.
- Establish a locally appropriate 2030 GHG reduction target for communitywide GHG emissions derived from the State's legislative target for 2030 (as established by SB 32 or as amended by future legislation) and should establish long-term targets.
- Quantify, using substantial evidence, how local GHG reduction strategies, programs, and measures would meet or exceed the local GHG reduction target.
- Establish a mechanism to monitor the plan's progress toward achieving the target, including reporting data to SANDAG consistent with, and inclusion in, the Climate Action Data Portal or similar database, and a requirement to amend the plan if it is not achieving adopted goals.

Matching Funds

Previous SGIP Calls for Projects awarded points for matching funds. Applicants could provide matching funds as in-kind services or as cash from the Applicant. Points were awarded based on the amount of

matching funds the applicant provided, compared to the total cost of the project. Other TransNet funds, including Local Street and Road Program funding, were allowed to be used as a cash match, along with other federal, state, and local funding. Additionally, the Calls for Projects would state that "All TransNet funds are subject to Board Policy No. 031, Rule 21. Local Street and Road Program TransNet funds are an acceptable source of match as long as TransNet grant funding will not be used to fulfill routine accommodations required under the Extension Ordinance and/or supplant TransNet funds committed to an existing project programmed in the currently adopted Regional Transportation Improvement Program."

Staff has reviewed the TransNet Extension Ordinance and Expenditure Plan and Board Policy No. 031, and while there is no specific language that allows for or prohibits the use of other TransNet funds as a cash match for SGIP funding, staff believes the intent of the voters was to not allow the use of TransNet in this matter because the ballot language specifically refers to "match state/federal funds." The Ordinance and Expenditure Plan states, "It is intended that these [SGIP] funds be used to match federal, state, local, and private funding to maximize the number of improvements to be implemented." SGIP projects that use other TransNet funding as a cash match require a higher level of scrutiny to ensure that expenses are not routine accommodations.

Staff recommends that other TransNet funding, including Local Street and Road Program funding, not be a permitted cash matching funds source. Staff realizes that other local, state, and federal funding may not be available to support all projects, and therefore, in-kind services such as staff salaries are still allowable and a match is not required. Additionally, the amount of match required to receive points has been reduced to incentivize applicants to provide a match but not to dissuade or adversely applicants who cannot provide a match.

The ITOC is asked to consider the staff recommendation that other TransNet Local Street and Road Program funding not be permitted as a source of cash match. The Ordinance states, "The Commission shall establish specific project eligibility criteria for this program," and determining whether other TransNet funding can be an eligible matching funds source will be brought to the Board of Directors for consideration when they review the Cycle 6 Call for Projects.

SANDAG

Smart Growth Incentive Program (SGIP) Performance Metrics

Below are examples of performance metrics that could be used to measure a project's success in meeting the SGIP goals, depending on the type of project funded through the SGIP. Grantees may propose their own performance metric(s) but they must be related to the project scope, be quantifiable, and be included in the grant agreement. For each measure used, the Grantee must provide the baseline measure (before the SGIP project began) and the post-delivery measure (once the SGIP project was completed). A minimum of five metrics must be used for each project. Grantees can refer to Smart Growth America's *From Policy to Practice: A Guide to Measuring Complete Streets Progress* for additional guidance and examples.

PROCESS METRICS

***Funding Measures**: How money is budgeted and spent on Smart Growth*

- Percent of active transportation funding allocated to underserved communities
- Percent of funding allocated to systemic/risk-based safety efforts
- Percent of maintenance funding devoted to maintaining bike, pedestrian, and transit infrastructure
- Percent of publicly funded building projects that included an improvement for biking, walking, and/or transit (e.g., new/rebuilt schools, parks, or other capital projects that involve a publicly funded/owned site contributing to improvements)
- Percent of transportation funding allocated to high-injury networks
- Percent of transportation funding allocated to Safe Routes to Schools
- Percent of transportation funding allocated to sidewalks and bike lanes for transportation versus recreation
- Cost savings by combining efforts/funds leveraged between agencies or departments (e.g., transportation, public works, health, and parks departments)
- Transportation funding (Total and percent) allocated to projects that improve pedestrian, bicycle, and/or transit level of service

***Accountability**: Efficiency and transparency of internal processes related to Smart Growth*

- Level of coordination/collaboration among relevant departments (transportation, land use/zoning, housing, economic development, public health, etc.)
- Number and nature of approved and denied exceptions
- Number of existing plans/policies updated to comply with the smart growth policy (including plans/policies for other departments such as school site policies, policies for locating community services, etc.)
- Number of new staff hired or existing staff/full-time equivalents focused on smart growth policy implementation
- Number of publicly available progress reports and/or dashboards with pertinent performance measures
- Number of public requests for smart growth projects/improvements and their fulfillment rate
- Number/percentage of staff who received training on smart growth per year (disaggregated by tenure, role, etc.)
- Number of uses of smart growth checklists in planning and capital projects
- Use of performance measures to inform project selection and prioritization (For example: Have traffic crash hot spots (high-injury networks) been identified and prioritized? Have "communities of concern" been identified and prioritized? Have systemic/risk-based areas and corridors been identified and prioritized?)

***Community Engagement**: The extent to which the public can understand and participate in processes and projects related to smart growth*

- Number of authentic and creative public engagement events and actions such as "pop-up" demonstrations, walk audits, community bike/walk events, etc., and number of people engaged in them (disaggregated by demographics)
- Number of community members and community organizations involved in project development and representation by underserved/vulnerable groups
- Number of meetings held by a committee that includes both internal and external stakeholders (and representation of underinvested and vulnerable communities)
- Number of participatory budgeting events related to smart growth
- Number of suggestions/proposals from community engagement processes that are incorporated into decisions and plans

IMPLEMENTATION METRICS

***Infrastructure Projects** (built/repaired/upgraded/removed): Physical alterations to streets and surrounding areas*

- Percent of ADA-accessible sidewalks and intersections (curb ramps, audio signals, tactile pavement, etc.)
- Percent of repaving miles that included a change/improvement for biking, walking, and/or transit; or safety improvements such as traffic calming, intersection improvements, etc.
- Accessible signage and information (existing and new additions) for all users (pedestrians, bicyclists, transit riders, etc.)
- Coverage of streets with lighting, especially at intersections, that is pedestrian-scaled, etc.
- Miles of bike lanes: new, repaired, and total (condition/quality, width, striped, protected, shaded, etc.)
- Miles of sidewalk: new/repaired /total (condition/quality, width, shaded, accessible, etc.)
- Number of bike racks, bike parking spaces, bike maintenance stations, and other supportive infrastructure, and their location in relation to need
- Number of beautification/art/ cultural projects (street trees, murals, façade improvements, painted crosswalks, collaboration with local artists, etc.)
- Number of intersection improvements to facilitate multimodal access (crosswalks, new/adjusted signal timing, stop signs, circular intersections, bollards, bike signals, etc.)
- Number of midblock crosswalks (and details such as striped, raised, improved signal, signage, distance to nearest transit stop or intersection, etc.)

***Network Creation**: Projects to ensure a complete, multimodal transportation network*

- Percent of bike plan/walk plan/ Vision Zero network completed
- Average block length
- Conflicts (or absence thereof) between local and state or federal standards
- Distance between intersections/ changes in intersection density
- Measures of directness of implemented cycling and pedestrian projects from key origins and destinations throughout the network
- Number of interventions/projects to close gaps in pedestrian/bicycle/transit network and create connections to important destinations for nondriving (e.g., employment, food, healthcare)
- Number of projects focused on creating first-mile/last-mile transit access connections for non-drivers

***Places And Destinations**: Placemaking and other actions to create more livable and healthy communities*

- Amount of usable public space (e.g., number of spaces and square feet)
- Number and type of changes to zoning ordinances to promote smart growth (e.g., sidewalks in residential zones and pedestrian amenities like benches, lighting, and trees in commercial zones)
- Percent of land area with exclusionary zoning (e.g., land area reserved only for large single-family houses)
- Increase in mixed-use zones/ coverage (in sustainable and equitable ways)
- Increase in residential density (in sustainable and equitable ways)

- New and existing outdoor seating spaces added/repaired/replaced
- Number of new placemaking amenities that naturally invite walking, rolling, sitting, dancing, eating/drinking, socializing, waiting for transit, seeking shade, playing, learning, etc.
- Number of outdoor dining space permits issued (without encroachment on sidewalk/ clearance)

***Parking**: Actions to right-size parking policies and requirements*

- Percent of paid vs. unpaid parking
- Number of off-street surface parking spaces
- Number of on-street parking spaces added/removed, paid/unpaid
- Parking ratio in commercial office buildings: parking spaces per 100k sq ft of space
- Removal/reduction of parking minimum requirements and regulations
- Residential multifamily parking: number of spaces per unit in new buildings

IMPACT METRICS

***ACCESS**: Improvements to the multimodal transportation system that give users options for safely reaching important destinations*

- Percent of population and jobs near high-quality transit (e.g., high-frequency service seven days a week.
- Percent of population burdened by transportation and housing combined (spending more than 45% of annual income on transportation and housing combined)
- Percent of population burdened by transportation costs (spending more than 15% of annual income on transportation)
- Percent of the population for whom lack of transportation kept them from/resulted in being late to important destinations such as work, medical appointments, education, social engagements)
- Percent of population with direct access to a low-stress bike network/sidewalks
- Percent of students traveling to school via active transportation modes (e.g., walking, biking)
- Percent of transit stops that are ADA accessible and with amenities (e.g., sidewalk, curb-cut/ramp access, shelters, seating, lighting
- Percent of transit stops with marked crosswalks within 50 feet
- Changes in mode split and vehicle miles traveled (VMT) and/or single occupancy auto commute trips over time
- Commute times by travel mode. For example, the number of people that can reach jobs within 30, 45, and 60 minutes via transit, biking, walking, and driving

***ECONOMY**: Effects of smart growth interventions on local economies*

- Amount of affordable and attainable housing near important destinations
- Amount of private investment in adjacent properties
- Changes in property values, vacancy rates, retail sales, number of jobs and local businesses, tax yield per acre
- Employment rates in nearby census tracts
- Number of private sector-led projects or public-private collaborations
- Number of visitors to the project area (total and by travel mode) and changes over time
- Permanent maintenance jobs created (or FTE dedicated) and hiring from local communities
- Surrounding rehabilitation construction permits
- Sales tax revenue
- Temporary construction jobs created (or FTE dedicated) and use of local workforce

***SAFETY & PUBLIC HEALTH**: Benefits of smart growth interventions such as reducing crashes and rates of chronic illness*

- Percent of streets with stormwater facilities/xeriscape/rain gardens
- Average emergency vehicle response times (e.g., percentage of emergency calls for which the first arriving unit was <4 minutes)
- Changes in air quality (e.g., Air Quality Index or carbon emissions)
- Rates of chronic illnesses by race/age/income

- Changes in corridor and impact area noise levels (e.g., chronic exposure to noise levels > 45 dB)
- Changes in crash fatalities by demographics, location, and conditions
- Changes in crash injuries by demographics, location, and conditions
- Changes in motor vehicle operating speeds/speed limit compliance
- Changes in shade canopy coverage to mitigate the urban heat island effect and heat stress on vulnerable populations (measured via ambient temperatures)
- Changes in water pollution from runoff
- Rates of meeting physical activity guidelines by race/age/income

***USAGE**: Changes in the ways people move around and occupy space*

- Average number of minutes users spend in places at different times of day, days of week, and times of year
- Number of people congregating at different times of day, days of week, and times of year in the project area (disaggregated by demographics such as age, gender, ability, race/ethnicity)
- Number of users on existing and new infrastructure
- Parking utilization for cars and bicyclists
- Transit ridership

***PUBLIC PERCEPTION**: The opinions and perspectives of the public, business owners, and other stakeholders related to the implemented smart growth interventions*

- Changes in the perceived quality of life of residents in neighborhoods adjacent to the implemented project (compared with residents not adjacent to the project)
- Changes in the perceived safety of residents in neighborhoods adjacent to the implemented project (compared with residents not adjacent to the project) measured through surveys
- Changes in trust in government among residents in neighborhoods adjacent to the implemented project compared with residents of "control" neighborhoods (e.g., participation in community engagement events, surveys, etc)
- Perceptions of mobility among business owners and customers
- Perception of social cohesion/connectedness/community
- Perceptions of transportation needs: “Are your transportation needs being met?”
- Satisfaction with public places

Smart Growth Incentive Program (SGIP)

Cycle 6 Call for Projects

Program Website

http://www.sandag.org/grants

Program Contact

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619-699-6990
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Eligible Applicants

Cities in the County of San Diego and the County of San Diego

In order to receive funding for Planning or Capital projects, the Applicant must have an adopted Climate Action Plan (CAP). Eligible Applicants who do not have an adopted CAP can apply for a Climate Action Plan project to receive funding to develop a CAP.

Example Projects

- **Planning**: Curb management plans, specific or area plans, transit-oriented development plans, complete streets plans or policies, rezoning or zoning updates, Program-level environmental clearance, density bonus ordinance, etc.
- **Capital**: Updating housing supportive infrastructure, bike and pedestrian infrastructure enhancements, traffic calming infrastructure such as roundabouts, streetscape or placemaking enhancements for pedestrians, projects listed in CAPs as applicable, etc.
- **Climate Action Plan**: New or updates to existing climate action plans and GHG reduction plans

Program Overview

The San Diego Association of Governments (SANDAG) is soliciting applications for its Smart Growth Incentive Program (SGIP). The goal of this program is to fund comprehensive planning activities, public infrastructure projects, and climate action plan projects that facilitate compact, mixed-use, transit-oriented development and increase housing and transportation choices.

Funding Source: TransNet Extension Ordinance

Amount of Funding Available: $45 million

- **Planning**: $12 million
- **Capital**: $30 million
- **Climate Action Plan**: $3 million

Matching Funds: Matching Funds are not required

Project Types

Applicants can submit multiple applications under each project type.

- **Planning**: Includes plans and processes that accelerate smart growth activities but will not directly result in the construction of a public improvement project.
- **Capital**: Will eventually result in the construction of public improvements. Project phases can include environmental, design (conceptual, preliminary, or final), right-of-way, and construction.
- **Climate Action Plan**: To prepare a new CAP or CAP Update and GHG reduction plans, or CAP or GHG reduction plan implementation and monitoring efforts that keep pace with state targets and goals for GHG emission reductions.

Award Sizes and Performance Period

	Planning	Capital	Climate Action Plan
Minimum Award	$150,000	$500,000	$150,000
Maximum Award	$1,000,000	$3,500,000	$400,000
Performance Period	3 years	3.5 years	3 years

Timeline

Activity	Date
Release of the Call for Projects	11/15/2024
Call for Projects Question Deadline (by 5 p.m.)	2/14/2025
Deadline to request application assistance	2/14/2025
Responses to all questions released in BidNet	2/21/2025
Application Deadline (by 5 p.m.)	**2/28/2025**
Applicant Resolution Deadline	**3/30/2025**
SANDAG Transportation Committee Meeting (proposed funding recommendations)	7/18/2025
SANDAG Board of Directors Meeting (proposed funding recommendations)	7/25/2025
Grant Agreements Executed/Notices to Proceed Issued	10/1/2025

SANDAG

Free Language Assistance | Ayuda gratuita con el idioma | Libreng Tulong sa Wika | Hỗ trợ ngôn ngữ miễn phí
免費語言協助 | 免费语言协助 | مساعدة ترجمة مجانية | 무료 언어 지원 | کمک زبان رایگان | 無料の言語支援 | Бесплатная языковая помощь
Assistência linguística gratuita | मुफ़्त भाषा सहायता | Assistance linguistique gratuite | ជំនួយភាសាឥតគិតថ្លៃ | ఉచిత భాషా సహాయం
ภาษาช่วยเหลือด้านพาสาฟรี | Kaalmada Luqadda ee Bilaashka ah | Безкоштовна мовна допомога

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I. Glossary of Key Terms

Accessory Dwelling Unit (ADU) is a secondary living unit on the same property as a primary residence that can provide independent living for one or more people.

Applicant is an organization that is considering or has submitted an application in response to a Call for Projects.

Application Deadline is the date and time when applications must be submitted to the CTC's ATP Application Portal in order to be considered. Applications submitted after the Application Deadline will not be considered. The Application Deadline is located on the first page of this CFP.

Average Qualitative Score is the sum of all evaluator scores for an application divided by the number of evaluators. The score is added to the application's Quantitative scores to produce the Total Application Score.

California Environmental Quality Act (CEQA) requires state and local agencies in California to identify the significant environmental impacts of their actions, including impacts to cultural resources, and to avoid or mitigate those impacts if feasible.

California Tax Credit Allocation Committee/Housing and Community Development (TCAC/HCD) Opportunity Map identifies areas whose characteristics have been shown by research to be most strongly associated with positive economic, educational, and health outcomes for low-income families – particularly long-term outcomes for children – when compared to other neighborhoods in the same region. The map also identifies areas in California that are both high-poverty and racially segregated. The 2024 TCAC/HCD Opportunity Map is available here.

Call for Projects (CFP) is the document that SANDAG releases to solicit applications to receive grant funding. The CFP contains information such as Applicant and project eligibility, the application submittal requirements, and the process SANDAG uses to select applications to receive funding, including the evaluation criteria.

Capital Project is a type of project that will eventually result in the construction of public improvements. Project phases can include environmental, design (conceptual, preliminary, or final), right-of-way, and construction.

Climate Action Plan (CAP) is a comprehensive policy document that outlines the actions a local jurisdiction is taking or will take to reduce community-wide greenhouse gas (GHG) emissions.

Climate Action Plan Project is a type of project that will prepare a new CAP or a CAP Update, including a GHG reduction plan that keeps pace with state targets and goals for GHG emission reductions.

- **New CAP** is a subtype under the Climate Action Plan Project type that will develop a CAP for an agency that does not have an adopted CAP.

- **CAP Update** is a subtype under the Climate Action Plan Project type that will update an already adopted CAP. The California Office of Planning and Research recommends that a CAP be updated every 3-5 years.

- **Implementation and/or Monitoring of an Existing CAP** is a subtype under the Climate Action Plan Project type that will develop an implementation or monitoring plan for an already adopted CAP.

Direct Cost is an expense that can be directly assigned to a grant relatively easily and with high accuracy. It typically consists of items such as salaries, consultant or contractor services, and other expenses that would not otherwise exist if the project were not in existence.

Environmental Impact Report (EIR) is a detailed statement prepared under the California Environmental Quality Act (CEQA) that describes and analyzes the significant environmental effects of a project and discusses ways to mitigate or avoid the effects.

Federally Negotiated Indirect Cost Rate (FNICR) is an Indirect Cost rate applicable to a specified past period that a federal agency has approved for use. All federal agencies and pass-through entities must accept the rate. An agency typically receives a Negotiated Indirect Cost Rate Agreement (NICRA) that includes the rate.

General Plan A policy document required of California cities and counties by state law that describes a jurisdiction's future development in general terms. All land use decisions must be derived from this document. The General Plan contains broad policy statements about the jurisdiction's goals. It also must contain seven mandatory elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, Safety, and Environmental Justice.

Grant Term is the period of time in which expenses for project-related activities can be incurred to be eligible for reimbursement. It begins on the NTP date and extends through the grant agreement expiration date.

Grantee is an organization that has been awarded funding through the Smart Growth Incentive Program and has entered into a grant agreement with SANDAG.

Greenhouse Gas Emissions (GHG) are the release of water vapor, ozone, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride that influence global climate change.

Independent Taxpayer Oversight Committee (ITOC) is a group of community members appointed by SANDAG to provide an enhanced level of accountability for expenditures of TransNet funds, as outlined in the TransNet Extension Ordinance and Expenditure Plan. The committee helps ensure that all voter mandates are carried out as required and develops recommendations for improvements to the financial integrity and performance of the program. The ITOC meetings are generally held on the second Wednesday of every month. More details on ITOC are available here.

Indirect Cost Allocation Plan (ICAP) is the documentation prepared by an agency that is used to substantiate its request for the establishment of an indirect cost rate. The indirect cost rate is the ratio (expressed as a percentage) of the indirect costs to a direct cost base.

Indirect Cost is an expense incurred for a common or joint purpose benefiting more than one cost objective or project and cannot be readily assigned to a specific grant, contract, or other activity. Indirect costs typically include rent, insurance, copying expenses, fringe

benefits, and other costs not directly charged to the grant project that the local jurisdiction's general fund typically supports.

Local Transit Stop is any stop served by MTS bus routes or NCTD BREEZE services. A list of MTS transit services and stations is available here: https://www.sdmts.com/transit-services. A list of NCTD services and stations is available here: https://gonctd.com/services/transit-centers/.

Major Transit Stop is a site containing an existing rail or bus rapid transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Match percentage is calculated by dividing the total Matching Funds by the sum of the Matching Funds and the grant award.

Matching Funds is the amount of funding other than the grant award that goes towards the total project cost. It is often represented as a percentage of the total project cost.

Minimum Total Application Score is the Total Application Score value that an application must be equal to or greater than in order to be eligible to receive funding from this Call for Projects.

Mixed Use is the combining of commercial, office, and residential land uses to provide easy pedestrian access and reduce the public's dependence on driving. It can be implemented in multistory buildings containing businesses and retail stores on the lower floors and housing on the upper floors.

Mobility Hubs are communities with a high concentration of people, destinations, and travel choices. They provide an integrated suite of mobility services, safe roads, and supporting amenities and technology to help people reach high-frequency transit or make short trips around a community. Mobility Hubs can span one, two, or a few miles, and each hub is uniquely designed to fulfill a variety of travel needs while strengthening the sense of place.

Non-Scalable Project is a project whose scope of work cannot be reduced because doing so (a) is not possible, (b) would create an incomplete project that contributes little to the grant program goals or provides little value to those intended to benefit from the project, or (c) would have scored substantially differently in the competitive process with a reduced scope of work.

Notice to Proceed (NTP) is a written notice issued by SANDAG that allows the Grantee to begin working on the project and marks the beginning of the Grant Term.

Performance Measure is the numeric value assigned to the performance metric to show the quantity or extent of the item being observed by the metric. For example, the number of participants that attend an outreach meeting for a project is the performance measure that could be used to demonstrate the performance metric on increased stakeholder engagement.

Performance Metric is the specific, quantifiable unit of measurement that will be used to determine an SGIP project's success in meeting SGIP goals and objectives. For example, a performance metric could be the number of linear feet of class IV bicycle facilities constructed in the project area.

Planning Project is a type of project that includes plans and processes that accelerate smart growth activities but will not directly result in the construction of a public improvement project.

Prohousing Designation is a designation that the California Department of Housing and Community Development gives to document a jurisdiction's commitment to implementing local policies that remove obstacles to new housing and recognizes the work that a jurisdiction has already done to address California's severe housing shortage and affordability crisis. Applicants seeking to build affordable housing projects in local governments that receive the Prohousing Designation can receive priority processing or funding points when applying for several funding programs. More information is available here.

Project Milestone and Completion Deadlines are outlined in SANDAG Board Policy No. 035 and require grantees to complete and implement projects quickly so the public can benefit from project deliverables as soon as possible. Failure to meet the deadlines following SANDAG's issuance of the Notice to Proceed on the project may result in the revocation of all grant funds not already expended.

Qualitative Criteria are subjective criteria in which discretion is needed to provide a score. Often, qualitative criteria seek to evaluate how well an Applicant responded to an application question or how well the proposed project will achieve a stated goal. These criteria are subjective in nature, and scores are determined at the evaluator's discretion.

Quantitative Criteria are objective criteria for which a formula or conditional statement is used to provide a score. Often, quantitative criteria seek to evaluate a project-related data point or metric against a range or scale and assign a point value based on where the data point or metric falls within the range or scale. Other quantitative criteria assign a point value based on responses to a conditional statement, such as a yes/no question or the presence or absence of a condition.

Regional Housing Needs Assessment (RHNA) quantifies the need for housing and informs land use planning in addressing identified existing and future housing needs resulting from population, employment, and household growth. The RHNA process is reassessed every eight years, and SANDAG is currently in its 6th cycle, covering April 15, 2021 – April 15, 2029.

Regional Planning Committee (RPC) is one of six policy advisory committees at SANDAG that advise the Board of Directors on developing and implementing the Regional Plan and Sustainable Communities Strategy. The RPC reviews and provides recommendations to the Board on the eligibility and evaluation criteria of the Call for Projects and reviews and provides recommendations to the Board on the SGIP funding recommendations. The RPC also receives quarterly reports on the status of each awarded grant and has the authority to grant time extensions for individual projects. More details on RPC are available here.

Regional Transit Station is any station served by COASTER, SPRINTER, Trolley, Rapid, or Rapid Express Routes.

Regional Vision Zero Resolution is a resolution adopted by the SANDAG Board of Directors that contains actionable steps toward eliminating all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility options for all. The Resolution is available here.

Safety Focus Network (SFN) identifies roads with the highest concentration of fatal and serious injury crashes. SANDAG identified this regional network as part of its Vision Zero

program The SFN consists of 6% of the non-freeway network and accounts for 54% of fatal and serious injury crashes. A GIS layer detailing the Safety Focus Network locations is available on the SANDAG Traffic Safety Dashboard here.

Scalable Project is a project whose scope of work can be reduced while still furthering the grant program goals and providing significant value to the public intended to benefit from the project. SANDAG staff will consider how the project would have scored in the competitive process if the scope of work were reduced. If the project would have scored substantially the same with the scaled-down scope of work and the scaled-down project would further the grant program goals and provide significant value to the public, then the project may be scaled.

Smart Growth Incentive Program (SGIP) is a competitive grant program funded by the *TransNet* Extension Ordinance that provides funding for transportation-related infrastructure improvements and planning efforts that support smart growth development.

Smart Growth is a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities while preserving open space and natural resources.

Sustainable Communities Strategy is an element of the Regional Transportation Plan that demonstrates how development patterns and the transportation network, policies, and programs can work together to achieve the targets set by the California Air Resources Board for reducing regional greenhouse gas emissions from cars and light trucks in a region. More information is available here.

Systemic Safety Network (SSN) is a proactive, risk-based network screening that identifies facilities with several features that strongly correlate with severe crashes. SANDAG has developed this regional network as part of its safety program. A map detailing the Systemic Safety Network locations is available on the SANDAG Traffic Safety Dashboard here.

Total Application Score is the sum of an application's Average Qualitative Score and the application's Quantitative scores. The score determines the order in which projects are recommended to receive funding through this CFP.

Total Project Cost is calculated as the sum of the grant award and the Matching Funds.

Transit Priority Area (TPA) is an area within a half-mile of a Major Transit Stop that is existing or planned.

Transit-Oriented Development (TOD) is residential and employment growth that occurs near existing and planned public transit facilities.

TransNet Extension Ordinance and Expenditure Plan is the document that was approved by the voters in 2004 to extend the half-cent sales tax from 2008 through 2048. The document is available here.

TransNet is the half-cent sales tax administered by SANDAG to fund local transportation projects consistent with the Regional Plan. The first 20-year TransNet measure was approved by voters in 1987. It went into effect in 1988 and was extended by voters in 2004 for 40 years. TransNet is the funding that is provided to grantees through the SGIP.

Transportation Committee (TC) is one of six policy advisory committees at SANDAG that advise the Board of Directors on major policy-level matters related to transportation, including the Regional Plan. The TC reviews and provides recommendations to the Board on the eligibility and evaluation criteria of the Call for Projects and reviews and provides recommendations to the Board on the SGIP funding recommendations. The TC also receives quarterly reports on the status of each awarded grant and has the authority to grant time extensions for individual projects. More details on TC are available here.

Vehicle Miles Traveled (VMT) is the total number of miles traveled on all roadways by all vehicles. Reducing VMT can help ease traffic congestion and improve air quality.

Vision Zero is a national campaign that uses a variety of strategies to work toward eliminating deaths and severe injuries on our streets by focusing on roadway design and policies that affect people's choices.

II. List of Resources

Below is a list of resources referenced in this CFP and a description of how to use these resources.

Resource/Links	What to do?
BidNet	Access the CFP materials, submit and receive responses to questions, receive any updates to the CFP, and submit a completed application for consideration.
SANDAG Board Policy No. 035	Review the Board Policy that governs SANDAG's Competitive Grant Programs and provides the milestone and completion deadlines for each project type.
SANDAG Grant Programs Webpage	Explore SANDAG's grant programs, review grant project progress reports, and access documents applicable across all grant programs, such as the Grant Program Protest Procedures and BidNet registration and navigation information.
SANDAG Traffic Safety Dashboard	Interactive site with crash data from the Statewide Integrated Traffic Records System, National Transit Database, and Federal Rail Administration.
SGIP Grant Program Webpage	Learn about the program, including program requirements, past grant awards, and SANDAG performance monitoring.
SGIP Performance Metrics	Review the examples of performance metrics that can be used to measure a project's success in meeting the SGIP goals. Select the metrics that apply to the project scope of work and include the metrics and baseline data in the application. This resource is available in BidNet with the Call for Projects materials.
SGIP Cycle 6 Interactive Mapping Tool	Utilize the map to determine project eligibility and how points will be determined for several evaluation criteria. The map will also be used to submit information in the application. The map contains layers for the following:

	• Transit Stops and a half-mile buffer area • SSN and SFN and a half-mile buffer area • TPAs • Mobility Hubs • Disadvantaged Communities • Jurisdiction boundaries
TransNet Project Map	Provides an interactive map that shows some of the projects funded by the *TransNet* Smart Growth Incentive Program to date.
TransNet Webpage	Learn more about the TransNet program.

III. Background

A. About SANDAG

The San Diego Association of Governments (SANDAG) is the San Diego region's primary public planning, transportation, and research agency, comprising the 18 cities and the County of San Diego. SANDAG serves as the public forum for regional policy decisions about growth, transportation, environmental management, housing, open space, energy, public safety, and binational collaboration.

SANDAG's vision is to pursue a brighter future for everyone living, working, or recreating in the San Diego region. To this end, SANDAG plans and implements projects that seek to use land more wisely, build a more efficient and accessible transportation system, protect the environment, improve public health, promote a strong regional economy, better manage our access to energy, incorporate equity into the planning process, address pressing needs on tribal lands, and support a vibrant international border.

SANDAG receives local, state, and federal funds to implement regional policies, programs, and projects that advance its vision. SANDAG passes through a portion of its funding through several competitive grant programs. These grant programs provide local, state, and federal funding to local jurisdictions, nonprofits, and other partners to accomplish regional goals at the local level. Grants awarded range from infrastructure projects to habitat management and monitoring efforts to specialized transportation services for senior and disabled populations. While each individual grant program maintains a particular focus, all work together to enhance our region's quality of life.

B. Smart Growth Incentive Program

1. Overview

The TransNet Extension Ordinance provides funding for a competitive grant program that supports local efforts to increase walking, biking, and transit use throughout the region: the Smart Growth Incentive Program (SGIP).

2. Goals and Objectives

The goals of the SGIP are to encourage comprehensive public infrastructure projects and planning activities that facilitate compact, mixed-use development focused near

public transit, and that aim to increase housing and transportation choices, reduce greenhouse gas (GHG) emissions, and improve public health. The SGIP seeks to fund projects that can serve as models around the region and attract private development. Projects funded by this program must support the objectives outlined below, derived from the goals in the SANDAG 2021 Regional Plan (Regional Plan) and its Sustainable Communities Strategy (SCS).

- Implement a comprehensive approach to influence land development by improving the public realm and encouraging private smart growth projects that, in combination, create great places, advance mobility hub concepts, and leverage advanced technologies.
- Serve as model examples for smart growth in a variety of settings throughout the region.
- Contribute to reducing GHG emissions and vehicle miles traveled, and improve public health by encouraging travel by means other than single-occupant vehicles. In particular, proposed projects should support public transit usage by improving access to transit and be located in areas served by transit.
- Support future housing development.
- Fund proposed capital projects that are "ready to go" and serve as catalysts for further smart growth development.

IV. Eligibility

A. Eligible Applicants and Projects

1. Eligible Applicants

- **Individual Jurisdictions:** Eligible Applicants include the 18 incorporated cities in the SANDAG region and the County of San Diego.
- **Partnerships:** Jurisdictions can opt to work together on an application to conduct eligible activities consistent with the goals and objectives of this program. Jurisdictions also may partner with a community-based organization (CBO) or nonprofit providing services in the San Diego region to ensure the benefits of their activities are realized by a broad population and in an equitable manner. Only the 18 cities and the County of San Diego are eligible to serve as the lead Applicant and grantee, and the grant agreement cannot be assigned to a third party.

  Applicants forming partnerships must provide a letter of support from each jurisdiction, CBO, or nonprofit.

Per the adoption of the 2021 Regional Plan and GHG Mitigation Measure 5A included in the Environmental Impact Report, Applicants must have a locally adopted CAP or GHG reduction plan to be eligible to receive grant funding for Planning and Capital Projects from the SGIP. The Applicant is required to self-certify through the submittal of a resolution that the Applicant has a locally adopted CAP or GHG reduction plan or will adopt one before the Board of Directors' approval of the SGIP funding recommendations (see the Timeline for the anticipated date).

Agencies that do not have a locally adopted CAP or GHG reduction plan can apply for SGIP funding to develop one under the Climate Action Plan project type. The

evaluation criteria for this project type prioritize funding for new CAPs over other climate action plan activities.

2. Eligible Project Types

Proposed projects must be eligible under the TransNet program. The TransNet Extension Ordinance broadly defines the SGIP. Proposed projects can include a "broad array of transportation-related infrastructure improvements that will assist local agencies in better integrating transportation and land use, such as enhancements to streets and public places, funding of infrastructure needed to support development… and community planning efforts related to smart growth and improved land use/transportation coordination" (Section 2C.3, p. 8 of the TransNet Extension Ordinance). The ITOC recommends to the Board of Directors whether a project is eligible to receive TransNet funding. All projects must meet the SGIP goals and objectives to be deemed eligible.

Three types of projects are eligible for funding, as listed below. See the Glossary of Key Terms for the definition of each type. Example projects under each type are provided below. Additional project examples may also be eligible, as long as the project meets the goals of the SGIP and is consistent with the TransNet Extension Ordinance and Expenditure Plan. Applicants are encouraged to contact SANDAG to request assistance in determining whether a particular project not listed below may be eligible.

Planning Projects

- Comprehensive planning efforts:
  - Specific area plans or community plans
  - Amendments/updates to general or specific plans
  - Updates to complete street policies
- Smaller-scale neighborhood planning activities:
  - Traffic calming or mobility plans
  - Feasibility studies for future capital improvements
  - Parking management plans
  - Form-based codes or design guidelines
  - Planning efforts required to make smart growth zoning changes
  - Health Impact assessments (HIAs) to inform the development of local planning efforts funded by the SGIP, such as specific plans, area plans, or specific plan amendments. Any proposed HIAs must be directly connected to a proposed SGIP planning project
- Complete Streets Design Manuals
- Financing Tools
- Smart Growth Studies
- Transit Oriented Development Overlay Zones
- Transit Oriented Concept Plans
- Mobility Hub Plans

Capital Projects

Proposed projects must meet the minimum geometric standards outlined in the Caltrans Highway Design Manual (Chapter 1000: Bicycle Transportation Design), the California Manual on Uniform Traffic Control Devices, and design guidance established by a national association of public transportation officials such as National Association of City Transportation Officials (NACTO). Projects also must meet the Public Rights-of-Way Accessibility Guidelines.

Applicants must have completed a feasibility study or an equivalent project feasibility evaluation. The feasibility study or equivalent evaluation must include the following type of information:

- Agency staff field evaluation
- Concept drawings
- Horizontal alignment
- Identification of potential challenges (such as drainage)
- Identification of right-of-way
- Cost estimate
- Preliminary community input
- Identification of environmental requirements/constraints

Some examples of capital projects include, but are not limited to:

- Public plazas
- Pedestrian street crossings
- Streetscape improvements (such as median landscaping, street trees, lighting, and street furniture)
- Parklets
- Traffic calming features (such as pedestrian bulb-outs or traffic circles)
- Access improvements to transit stations/routes
- Wayfinding signage
- Community gateway features
- Pedestrian and bike paths and bridges
- On-street bike lanes
- Bike parking
- Low-impact development elements included as part of the above

Climate Action Plan Projects

The 2021 Regional Plan and GHG Mitigation Measure 5A included in the Environmental Impact Report requires SANDAG to make funding available for local jurisdictions to prepare new CAPs and CAP Updates and GHG reduction plans that keep pace with future longer-term State targets and goals for GHG emissions reductions. Any new or

updated CAP or GHG reduction plan receiving funding through SGIP shall meet the following minimum criteria:

- Be adopted by the jurisdiction's governing body (city council or Board of Supervisors).
- Establish a locally appropriate 2030 GHG reduction target for communitywide GHG emissions derived from the State's legislative target for 2030 (as established by SB 32 or as amended by future legislation), and should establish long-term targets.
- Shall quantify, using substantial evidence, how local GHG reduction strategies, programs, and measures would meet or exceed the local GHG reduction target.
- Shall establish a mechanism to monitor the plan's progress toward achieving the target, including reporting data to SANDAG consistent with, and inclusion in, the Climate Action Data Portal or similar database, and a requirement to amend the plan if it is not achieving adopted goals.

3. Other Project Eligibility Requirements

To be eligible, a project must also meet all of the following criteria:

- Project activities must illustrate their reach to the entire project area and describe the effort that will be made to reach low-income, disabled, and minority communities within the project area.
- Funded projects must not have alcohol, political, religious, or discriminatory themes or affiliations.
- Projects must be able to meet the performance measures that are included in the grant agreement between SANDAG and the Grantee.
- Projects already underway are eligible to apply ONLY if the application requests funds for additional work beyond the scope of the current project. *TransNet* funds cannot be used to supplant or replace existing project funding.

4. Project Milestone and Completion Deadlines

The project schedule must confirm the following milestone and completion deadlines established in SANDAG Board Policy No. 035.

Planning and Climate Action Plan Projects

- If a consultant contract is required, the project must be completed within **three years** of receiving the Notice to Proceed (NTP) from SANDAG.
- If no consultant contract is necessary, the project must be completed within **two years** of receiving the NTP from SANDAG.
- Completion is when the grantee approves the final planning project deliverable specified in the grant agreement. The grantee's policies shall determine the level of approval required (e.g. staff or City Counsel).

Capital Projects

- If a construction contract is required, the project must be open to the public within **three and a half years** following SANDAG's issuance of the NTP.

- If no construction contract is necessary, the project must be open to the public within **eighteen months** following SANDAG's issuance of the NTP.
- Completion of construction is when the prime construction contractor is relieved from its maintenance responsibilities.

B. Eligible Expenses

Eligible expenses must be directly related to executing the project scope of work, including Direct and Indirect Costs. SANDAG will only reimburse costs that were actually incurred for the project after the Notice to Proceed has been issued, and only up to the amount awarded in the grant agreement. In the event of project cost overruns, SANDAG will not pay more than the original amount specified in the grant agreement.

C. Ineligible Activities and Expenses

Ineligible projects and activities are those that do not align with the program goals and objectives. Projects already funded by TransNet are not eligible. In addition, grant funds cannot be used to fulfill routine accommodation requirements, which are governed by the Routine Accommodation Provisions outlined in Board Policy No. 031, Rule 21 "TransNet Ordinance and Expenditure Plan Rules."

The following activities and expenses are ineligible through the grant program:

- Capital financing, operation, or funding related to programs of individual development projects
- Administrative costs of persons employed by the grantee for activities not directly related to the preparation and adoption of the proposed activity or activities
- Costs for work performed prior to SANDAG issuing a Notice to Proceed or following the termination of the grant agreement; or
- Claims or litigation costs
- Curb, gutter, and other drainage improvements
- Driveway Ramps Installed Across Sidewalks
- If local roadway design standards require a roadway shoulder to be the standard bike lane width of five feet or wider, the cost of the shoulder construction is not eligible. Projects, including roadway shoulder construction, that do not exclusively and explicitly provide bike or pedestrian infrastructure are ineligible.
- Projects that are a required element of a larger capital improvement project.

If necessary, Applicants can include curb, gutter, and other drainage improvements as part of their broader application, and allocate Matching Funds toward their construction. Applicants should consult with SANDAG staff before they submit a grant application to confirm eligible and ineligible expenses. For example, if the removal and/or replacement of curb and gutter, driveway ramps, drainage facilities, and other existing improvements will be necessary to construct a bikeway or sidewalk, the cost of this work is likely eligible; however, Applicants will be required to justify the necessary inclusion of such improvements before submitting the grant application.

V. Funding

A. Available Funding

$45 million is available through this CFP. SANDAG intends to award projects from each of the three project types as described below. The total amount of funding awarded for each project type will be determined by the number of applications received, the Minimum Total Application Score, each application's Total Application Score, and the Application Evaluation Process described in this Call for Projects.

- **Capital Projects** - $30 million could be allocated to capital projects.
- **Planning Projects** - $12 million could be allocated to planning projects.
- **Climate Action Plan Projects** - $3 million could be allocated to climate action plan projects.

SANDAG reserves the right to partially fund projects and to fund less than the amount available in a given grant cycle. See the section entitled "Partial Awards".

B. Minimum and Maximum Grant Awards

The minimum and maximum grant awards for an individual project under each project type are included in the table below.

Project Type	Minimum Award	Maximum Award
Planning	$150,000	$1,000,000
Capital	$500,000	$3,500,000
Climate Action Plan	$150,000	$400,000

C. Matching Funds

No Matching Funds are required; however, points will be awarded based on evidence of Matching Funds in the application. Matching funds can consist of in-kind services or cash match from the Applicant, funds from outside sources such as developer contributions, non-profit contributions, other state or federal funds (e.g., Caltrans planning grants), or other quantifiable sources. Other TransNet funds, including Local Street and Road Program funding, cannot be used as Matching Funds. Applicants are required to provide adequate documentation of Matching Funds and the match source(s) in the application.

D. Indirect Costs

Grant funds may be used toward Indirect Costs if they are related to the project scope of work and the application indicates that reimbursement for indirect costs would be requested. Applicants who wish to request reimbursement for indirect costs are required to disclose this in their application.

Applicants must use one of the following options to receive reimbursement for indirect costs:

- If the Applicant has a FNICR recognized by the federal government, that rate must be used, and the approval must be submitted to SANDAG.

- Elect the de minimis rate under 2 CFR 200 if the Applicant has never received a FNICR. The current de minimis rate is 15%. Applicants who have an ICAP approved by their elected body (City Council or Board of Supervisors), management, another individual within the agency, or any other non-federally approved agency must choose to elect the de minimis rate when charging indirect costs.

VI. Other Program Requirements

A. SANDAG Board Policy No. 035

SANDAG Board Policy No. 035, "Competitive Grant Program Procedures," applies to all grant programs administered through SANDAG. Applicants should be aware of the following requirements.

1. Applicant Resolution

Within 30 days following the grant application deadline, Applicants must submit a resolution from their authorized governing body that:

- commits to providing the minimum Matching Funds percentage outlined in the Call for Projects; and
- authorizes the Applicant's staff to accept the grant funding and execute a grant agreement if an award is made by SANDAG.

If an Applicant fails to provide a resolution that meets the above requirements, that application will be considered nonresponsive and will no longer be considered in the competitive process. Applicants are encouraged to use the sample resolution included in this CFP.

2. Grant Agreement Execution

After the Board approves the funding recommendations, SANDAG will present a grant agreement to the awarded Applicant. An authorized representative of the awarded Applicant must sign the grant agreement within 45 days from the date SANDAG presents the grant agreement to the awarded Applicant. Failure to meet this requirement may result in revocation of the grant award. Applicants are encouraged to review the sample grant agreement included with this CFP to ensure compliance with this provision.

3. Project Milestone and Completion Deadlines

When signing a grant agreement, grantees must agree to the project deliverables and schedule in the agreement. In addition, a grantee's project schedule in its application and grant agreement must adhere to the deadlines listed in the "Project Milestone and Completion Deadlines" in this call for projects. Failure to meet the project milestone and completion deadlines following SANDAG's issuance of the Notice to Proceed on the project may result in the revocation of all grant funds not already expended.

Grantees may request and be granted a twelve-month extension at the SANDAG staff level. This twelve-month period is cumulative over the entire duration of the grant. Grantees must request and receive approval from the appropriate policy advisory

committee for time extensions longer than twelve months. In all instances, a grantee seeking an extension must document previous efforts undertaken to maintain the project schedule, explain the reasons for the delay, explain why the delay is unavoidable, and demonstrate an ability to succeed in the extended timeframe the grantee proposes.

B. Performance Measures

SANDAG has identified numerous performance metrics that can be used to measure a project's success in meeting the SGIP goals and objectives. Applicants must review the SGIP Performance Metrics, select the ones that apply to their project, and provide baseline data in their application that will be used to measure their project's success at the end of the grant agreement. The SGIP Performance Metrics are provided as an attachment to this CFP.

All SGIP grantees must meet the performance measures they select during the application process, which are included in the grant agreement. The grantee must report on its progress toward meeting the performance measures in its quarterly progress report. If SANDAG believes the grantee will not be able to achieve the performance measures in its grant agreement, SANDAG will require the grantee to submit a plan that outlines how the grantee will meet the performance measures and a timeline to do so. If the grantee cannot meet its stated performance measures, the ITOC, RPC, and TC may be asked to provide direction to SANDAG staff, including whether to terminate the grant and repay any previously reimbursed expenses.

C. Baseline Data Collection (Capital projects only)

Before the construction of grant-funded improvements, the Grantee must work with SANDAG and its consultant, who will develop a baseline data collection plan to gather information on walking and biking activity in the project area before the improvements are made. A subtask for this work has been included in the scope of work template.

D. Project Implementation and Oversight Requirements

1. Project Communication

The Grantee must provide SANDAG with contact information for the project manager and keep this information up-to-date. SANDAG should be notified promptly in case of a change to the Grantee's project manager. Grantees must notify SANDAG of events related to the grant-funded project, such as groundbreakings, ribbon cuttings, and community workshops, and provide project before and after photos and required signage. The Grantee will be asked to provide project milestone information to support SANDAG media and communication efforts. SANDAG staff may attend any meetings as appropriate.

2. Plan Review (Capital projects only)

The Grantee must submit project design drawings to SANDAG for review and comment at 30 percent, 60 percent, 90 percent, and 100 percent. SANDAG may comment on submitted plans regarding consistency with the original project application and accepted bike/pedestrian facility and smart growth design standards.

3. Quarterly Progress Reports

Grantees must complete and submit quarterly progress reports that illustrate the grantee's efforts to make timely progress on their project, including meeting the performance measures. SANDAG will provide a standard progress report template that the grantee must use. Quarterly reports will be due on the last day of the month following the quarter's close. SANDAG will summarize the information in the grantee's progress report, which will be provided to the RPC and TC at their next meeting. Staff also provides semi-annual progress reports to the ITOC in January and June each year.

Quarter	Performance Period	Report Due Date	RPC and TC Meeting Date
1	7/1 – 9/30	10/31	January
2	10/1 – 12/31	1/31	April
3	1/1 – 3/31	4/30	July
4	4/1 – 6/30	7/31	October

SANDAG will monitor the grantee's progress and performance against the scope of work and schedule in the grant agreement. If SANDAG believes the grantee is not making timely progress or is not adhering to the terms of the grant agreement, this information will be reported to the RPC and TC. SANDAG will notify the grantee if it believes the grantee's performance warrants notification of RPC and TC. Poor performance may be grounds for termination of the grant agreement and revocation of the grant, as determined by RPC or TC.

4. Invoices

Grant funding is by reimbursement only. Funds will not be disbursed until SANDAG and the grantee have fully executed a grant agreement, and project expenses incurred by the grantee before the Notice to Proceed issuance are not eligible for reimbursement.

To be reimbursed for project expenses, grantees must submit an invoice packet consisting of an invoice coversheet, expense summary, and invoice history. Grantees are required to use the invoice template provided by SANDAG. Invoices submitted without a corresponding progress report will not be processed. Any third-party consultant or contractor expenses must be accompanied by proof of a competitive procurement or a sole source justification signed by the SANDAG Grants Program Manager to be eligible for reimbursement.

To qualify for reimbursement, the following requirements must be met:

- Staff costs must be submitted with payroll documentation. Personally identifiable information (social security numbers, home addresses, etc.) must not be provided to SANDAG.
- Third-party vendor (consultant or contractor) invoices must be submitted with:
    - Proof of payment, such as a copy of a check provided to the vendor or a printout for the grantee's financial system showing the funds were dispersed.
    - The vendor's invoice and backup documentation (schedule of values, receipts for expenses)

- Clearly identify all grant-related expenses that include non-related costs. Grantees can highlight, circle, or use a separate document/spreadsheet to differentiate the grant-related costs from other costs unrelated to the grant.
- All receipts and invoices must be detailed, dated, directly related to the project scope of work, and incurred after the Notice to Proceed date and before the grant expiration date.

SANDAG will make payments for eligible invoices as promptly as SANDAG fiscal procedures permit upon receipt of the grantee's invoice packet, backup documentation, deliverables, and confirmation by the SGIP Program Manager that the grantee is in compliance with the requirements in the grant agreement. SANDAG shall retain 10 percent of the amounts invoiced until the completion of the project.

5. Matching Funds

If the grant agreement contains Matching Funds, the grantee must provide a cumulative match over the grant period such that the total Matching Funds amount provided at the end of the grant period is equal to or greater than the match percentage required under the grant agreement. Grantees will forfeit the grant award and be responsible for the repayment of grant funds to SANDAG if the cumulative match percentage falls below the required percentage or if grantees fail to provide sufficient documentation of Matching Funds.

6. Final Progress Report, Invoice, and Project Closeout

Once the grantee determines the project is complete, a final progress report and invoice will be submitted to SANDAG. SANDAG will provide the final progress report template the grantee will be required to use. Final progress reports should detail all completed project activities, challenges, successes, and a description of how the project is expected to promote smart growth. The report will also include the performance measures listed in the grant agreement and document the grantee's ability to achieve them. The grantee should provide the deliverables listed in the scope of work with the final progress report. The final progress report should accompany a final invoice, including all remaining project expenses.

Upon receipt of a final progress report, invoice, and deliverables, SANDAG will verify that the full scope of work in the grant agreement was completed and that the performance measures were met. For capital projects, SANDAG will conduct a site visit of the project to ensure that the entire scope of work was completed. Photos of the completed project will be taken and provided to the RPC and TC. SANDAG will also confirm whether the contractor and the grantee have met all labor compliance requirements.

Once SANDG verifies that the project has been completed and can be closed out, the grantee will be asked to submit an invoice for the retention amounts withheld. Following SANDAG's payment of the grantee's retention invoice, the project will be closed.

E. Public Record and Record Retention Policy

All applications submitted in response to this CFP become the property of SANDAG and are considered a public record. As such, applications and other project-related documentation may be subject to public review per SANDAG Board Policy No. 015: Records Management.

Grantees must retain project-related documents for at least three years after receipt of final payment from SANDAG. These documents must be made available to SANDAG upon request.

F. Notice of Prevailing Wage

California law requires that public works projects pay prevailing wages for workers. As applicable, grantees are required to comply with the provisions of California Labor Code Sections 1775 et seq, which includes the payment of prevailing wages to all workers performing prevailing wage work. Additional details can be found in the grant agreement.

VII. Application and Submittal Process

A. Application Materials

Application materials are available online at https://www.bidnetdirect.com/sandag/sandag-grants. Different applications are available depending on the project type. The Applicant is responsible for completing the appropriate application for their project.

Applicants will submit their completed application with all required signatures by the Application Deadline. An incomplete application may be considered nonresponsive. For an application to be considered complete, it must include all the materials described in the application and be submitted prior to the Application Deadline.

SANDAG reserves the right to cancel or revise at any time, for any or no reason, in part or its entirety, this CFP. If SANDAG revises or cancels the CFP prior to the Application Deadline, Applicants who have downloaded the Call for Projects materials in BidNet will be notified by email.

B. Applicant Webinar, Questions, and Application Assistance

1. Pre-Application Webinar

SANDAG will host a pre-application webinar for all prospective Applicants to provide an overview of this CFP, the application process, and to address any questions. See the Timeline for the date and time of the webinar. SANDAG staff will also provide information and address questions on the eligibility, approval, contracting, and specific requirements of this grant program. This workshop will be held virtually. SANDAG will post the virtual meeting link and other details on BidNet.

2. Call for Projects Questions

Prospective Applicants may submit questions through the SANDAG web-based vendor portal BidNet, available at https://www.bidnetdirect.com/sandag/sandag-grants. Questions submitted after the Question Deadline or outside of BidNet will not be answered. See the Timeline for the deadline to submit questions.

3. Application Assistance

Prospective Applicants may request a meeting with SANDAG Grants staff to obtain assistance with an application, including a discussion of a possible project or assistance with utilizing BidNet. See the Timeline for the deadline to request a meeting.

C. Submittal Process

Applicants shall submit application documents via the SANDAG web-based vendor portal BidNet, available at https://www.bidnetdirect.com/sandag/sandag-grants. Applications submitted by mail, facsimile, or email in lieu of electronic copies uploaded to the online web-based portal will not be acceptable and will not be considered. Any application that is missing pages or cannot be opened for any reason may be considered nonresponsive.

Applicants are responsible for fully uploading their entire application before the Application Deadline. It is the Applicant's sole responsibility to contact the SANDAG bid management provider, BidNet, to resolve any technical issues related to electronic submittal, including, but not limited to, registering as a vendor, updating password, updating profiles, uploading/downloading documents, and submitting an electronic offer, prior to the submission deadline. BidNet's Vendor Support team is available Monday-Friday from 5 a.m. to 5 p.m. Pacific Time at (800) 835-4603 or e-procurementsupport@bidnet.com.

VIII. Application Evaluation Process and Awards

A. Eligibility Screening

Following the application submittal period, SANDAG staff will perform an eligibility screening of all submitted applications. An eligibility screening involves verifying that an Applicant and their proposed project meet the eligibility requirements included in this CFP. During the eligibility screening process, SANDAG reserves the right to request additional information and/or clarification from any or all Applicants but is not required to do so. Staff may also seek input from a policy advisory committee to determine eligibility. Projects that pass the eligibility screening will be scored (see Project Scoring).

Any Applicants deemed ineligible or whose projects have been deemed ineligible during the eligibility screening will be notified in writing when the determination is made. Applicants may protest the eligibility determination pursuant to the protest procedures (see Protest Procedures).

This CFP does not commit SANDAG to award a contract, defray any costs incurred in preparing an application pursuant to this CFP, or procure or contract for work. SANDAG may reject applications without providing the reason(s) underlying the rejection. Failure by SANDAG to award a funding agreement to Applicants will not result in a cause of action against SANDAG.

1. Scope of Work Review

SANDAG Grant's staff will review the scope of work for all Planning and Climate Action Plan projects to ensure that there are tasks and subtasks with sufficient details needed to describe the project activities to be completed by the Applicant. Staff will meet with each Applicant to review the scope of work in detail and make any necessary changes

to include additional tasks, subtasks, or other details that can assist with project monitoring, closeout, and future performance audits. The revised scope of work will be used in the evaluation process.

B. Scoring and Awarding of Funds

Eligible projects will be scored using the Qualitative and Quantitative criteria approved by the SANDAG Board of Directors and included in this CFP. There are three sets of scoring criteria: Capital, Planning, and Climate Action Plan. The application used will dictate which of the scoring criteria are used by the Evaluation Committee:

1. Qualitative Scoring

An external evaluation panel will provide the Qualitative criteria scores for eligible applications. The evaluation panel will typically consist of at least three but no more than five public members who are familiar with the San Diego region and the grant program goals and objectives.

To avoid conflicts of interest, all evaluation panel members will be screened to be sure they do not have an affiliation with any of the Applicants or proposed projects. Individuals who work for a private company that could potentially receive a future contract from an SGIP Applicant due to the project being selected for funding will not be permitted to serve as evaluators.

2. Quantitative Scoring

SANDAG Grants and Data Science staff will provide the Quantitative criteria scores for each project. Points associated with Quantitative criteria undergo a quality assurance/quality control (QA/QC) review to ensure that data used in the Quantitative scoring process are accurate and points were awarded appropriately.

3. Calculation of Total Application Scores

An application's Average Qualitative Score will be calculated by summing all evaluator scores for that application and dividing by the number of evaluators. The application's Average Qualitative Score will then be added to the Quantitative scores, producing the Total Application Score.

4. Tiebreakers

If two or more projects receive the same Total Application Score, the following methodology in descending order will be used as the tiebreaker:

Capital Projects:

- Highest score on the Criteria #3
- Highest combined score on Criteria #4
- Highest combined score on Criteria #2

Planning Projects:

- Highest score on Criteria #3

- Highest combined score on Criteria #4
- Highest combined score on Criteria #2

Climate Action Plan Projects:

- Project that is a new CAP or CAP Update
- Highest combined score on Criteria #2
- Highest combined score on Criteria #3

5. Minimum Total Application Score

To ensure grant funds support quality projects, a project must receive a Total Application Score that is at least 50 points to be eligible for funding.

6. Funding Recommendations and Geographic Funding Distribution

Following the scoring process outlined above, applications in each project type will be placed in descending Total Application Score order (from the highest to lowest). Projects will be recommended to receive funding based on this order and the following. As previously stated, partial awards may be recommended (see the section entitled "Partial Awards").

- First, for each project type the applications will be recommended to receive funding in descending Total Application Score order, until all Applicants with applications receiving scores 50 points or higher have received funding for at least one project or funding is exhausted, whichever comes first.

- If funding remains, additional applications will be recommended to receive funding in descending Total Application Score order until funding is exhausted.

SANDAG will recommend a list of projects to the Board of Directors that are financially constrained by the amount of funding available.

7. Social Equity Analysis

SANDAG will conduct a social equity analysis to determine whether the funding recommendations if approved, will result in an equitable distribution in the region.

8. Partial Awards

Given the competitive nature of the grant program and the finite amount of funds available through this CFP, Applicants may receive partial awards. Additionally, SANDAG may choose to roll over any remaining funds not awarded through this Call for Projects to a future CFP. SANDAG handles partial awards differently based on the scalability of a project. SANDAG, at its sole discretion, will determine whether a project is Scalable or Non-Scalable.

Applicants whose projects are recommended for partial award and are Scalable will be required to work with SANDAG staff before grant agreement execution to alter the scope of work, budget, and schedule submitted as a part of the application to reflect a reduced scope of work.

Applicants whose projects are recommended for partial award and cannot be scaled will be asked if they would like to accept the partial funding award with the condition that the entire project, as proposed in the scope of work included in the application, must be completed. Applicants will be required to contribute additional Matching Funds than listed in their application to complete the project scope of work.

If an Applicant cannot provide the necessary Matching Funds and declines the partial funding award, the award will be offered consistent with the process identified in the section entitled "Application Evaluation Process". If no Applicant accepts the funding, the funding may be rolled over to future funding cycles.

9. Review of Project Eligibility

Prior to taking the funding recommendations to the policy advisory committee and Board of Directors, ITOC will be asked to review the recommended projects and verify that the projects are consistent with the TransNet Extension Ordinance and eligible for funding.

10. Approval of the Funding Recommendations and Contingency List

Following the ITOC eligibility review, the funding recommendations will be presented to the relevant policy advisory committee for recommendation to the Board of Directors. The Board of Directors will then be asked to approve the proposed funding recommendations.

SANDAG will provide Applicants with a Notice of Intent to Award in advance of the publication of the meeting agenda in which the funding recommendations will be presented. See the Timeline for the Notice of Intent to Award date

C. Grant Agreement Execution

If awarded funds, an Applicant will enter into a grant agreement with SANDAG for the approved project scope of services and become a "grantee." A sample grant agreement is included with the CFP.

Applicants are encouraged to review the sample grant agreement within their organization prior to submitting an application. Aside from any potential errors or omissions, the terms of the grant agreement will be substantially the same as those in the sample grant agreement and are non-negotiable. Failure to sign and return the grant agreement within 45 days of receiving the grant agreement from SANDAG may result in revocation of the grant award. See the section entitled "SANDAG Board Policy No. 035."

D. Protests

SANDAG grant program protest procedures may be obtained online at https://www.sandag.org/funding/grant-programs.

I. Capital Scoring Criteria and Rubric

Capital projects will be scored based on the Applicant's responses to the Capital Project Scoring Criteria below. The Capital Project Scoring Rubric is a guide for SANDAG staff and the Evaluation Panel to assist with awarding points based on the Scoring Criteria. The Objective criteria (points calculated by SANDAG's Department of Data Science or Grants staff) are marked with an asterisk (*).

A. Capital Project Scoring Criteria

No.	CRITERIA	POINTS POSSIBLE
1.	***RELATIONSHIP TO REGIONAL TRANSIT**	**10**
	The project area includes or is within 0.5 miles of a 2035 Transit Priority Area	10
	The project area includes or is within 0.5 miles of an existing or planned transit stop	5
2.	**FURTHERS THE REGIONAL PLAN AND SUSTAINABLE COMMUNITIES IMPLEMENTATION STRATEGIES**	**15**
A.	The degree to which the project furthers the Sustainable Communities Strategy i. *Proximity To A Mobility Hub ii. Furthers The Sustainable Communities Strategy	5
B.	The degree to which the project furthers safety and the Regional Vision Zero Resolution i. *Proximity To The Safety Focus Network Or Systemic Safety Network ii. Proposed Safety Improvements	5
C.	The degree to which the project furthers equity and benefits disadvantaged communities i. *Project Location ii. Benefit To A Disadvantaged Community	5
3.	**SMART GROWTH IMPLEMENTATION**	**15**
	The degree to which the project furthers smart growth principles and implementation	
4.	**PROJECT FEASIBILITY**	**30**
A.	*Project development milestones that are completed on or before the Application Deadline.	10
B.	The degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget.	15
C.	The degree to which community members have been engaged and outreach is incorporated throughout the project.	5

5.	***BOARD POLICY NO. 033**	**25**
A.	Prohousing Policies (Favorable Zoning and Land Use, Acceleration of Housing Production Timeframes, Reduction of Construction and Development Costs, Providing Financial Subsidies)	12.5
B.	Housing Equity/Affirmatively Furthering Fair Housing	12.5
6.	***MATCHING FUNDS**	**5**
	Points will be awarded based on the scale provided in the Scoring Rubric.	
	TOTAL	**100**

B. Capital Scoring Rubric

Below is a general scoring guide that provides more specific language based on a project's ability to meet the evaluation criteria.

Term	Definition
Clearly and convincingly	to a considerable extent with substantive documentation or evidence
Sufficiently	to a satisfactory extent with adequate documentation or evidence
Mostly	to a large extent with general documentation or evidence
Partially	to a limited extent with incomplete documentation or evidence
Minimally	to a small extent and without documentation or evidence
Does Not Demonstrate	unable to address criterion, even to a minimal extent

1. Relationship To Regional Transit

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded based on the proposed project's proximity to existing or programmed transit facilities included in the 2035 Transit Priority Areas identified in the SANDAG 2021 Regional Plan. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347.

A regional transit station is defined as any station served by COASTER, SPRINTER, Trolley, *Rapid*, or *Rapid Express* Routes. A local transit stop is defined as any stop served by MTS bus routes or NCTD BREEZE services. A list of MTS transit services and stations is available here: https://www.sdmts.com/transit-services. A list of NCTD services and stations is available here:

https://gonctd.com/services/transit-centers/. Distance refers to walking distance based on actual available pathways. **Up to 10 points possible**

Applicant Response	Points
The project area includes or is within 0.5 miles of a 2035 Transit Priority Area in the 2021 Regional Plan	10 points
The project area includes or is within 0.5 miles of an existing or planned transit stop	5 points
The project does not include or is not within 0.5 miles of an existing or planned transit stop	0 points

2. Furthers The Regional Plan And Sustainable Communities Implementation Strategies (Up to 15 points possible)

A. Sustainable Communities Strategy (Up to 5 points possible)

i. Proximity To A Mobility Hub

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded based on the proposed project's proximity to one or more Mobility Hubs included in the SANDAG 2021 Regional Plan. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 2 points possible**

Applicant Response	Points
The project includes or is within a Mobility Hub	2 points
The project does not include nor is within a Mobility Hub	0 points

ii. Furthers The Sustainable Communities Strategy

The primary purpose of the Sustainable Communities Strategy is to show how development patterns and our transportation system will work together to reduce greenhouse gas (GHG) emissions for cars and light trucks, providing a more sustainable future for our region. Ways to do this include implementing a land use strategy that facilitates VMT reduction, zoning for a higher density of housing than is currently allowed, improving jobs-housing balance, and planning for transportation/mobility improvements to better connect housing to the existing/planned regional transportation network. Applicants will receive points based on the degree to which the project furthers the Sustainable Communities Strategy. **Up to 3 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates how it furthers the SCS and provides substantive documentation or evidence.	3 points

Sufficiently demonstrates how it furthers the SCS and provides adequate documentation or evidence.	2 points
Partially demonstrates how it furthers the SCS and provides incomplete documentation or evidence.	1 point
Unable to address criterion, even to a minimal extent	0 points

B. Furthers Safety And The Regional Vision Zero Resolution

The SANDAG Board of Directors adopted a Regional Vision Zero Resolution that includes steps toward eliminating all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility options for all. Applicants will receive points based on the degree to which the project furthers safety and the Region Vision Zero Resolution. **Up to 5 points possible**

i. Proximity To The Safety Focus Network Or Systemic Safety Network

*NOTE: The SANDAG Data Science staff will calculate the points awarded for this criterion. Points will be awarded based on the proposed project's proximity to the Safety Focus Network or Systemic Safety Network. An interactive map that identifies the SFN and SSN can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 2 points possible**

Applicant Response	Points
The project is on or within .25 miles of the Safety Focus Network (SFN) or Systemic Safety Network (SSN).	2 points
The project is not on or within .25 miles of the Safety Focus Network (SFN) or Systemic Safety Network (SSN).	0 points

ii. Proposed Safety Improvements

The applicant will receive points if the project includes proven bicycle, pedestrian, and traffic calming safety countermeasures. Applicants should review the Federal Highway Administration's Proven Safety Countermeasures and the National Highway Traffic Safety Administration (NHTSA)'s Countermeasures That Work for examples and additional guidance. **Up to 3 points possible**

Applicant Response	Points
The project includes proven bicycle, pedestrian, and traffic calming safety countermeasures.	3 points
The project does not include proven bicycle, pedestrian, and traffic calming safety countermeasures.	0 points

C. Furthers Equity And Benefits Disadvantaged Communities (Up to 5 points possible)

i. Project Location

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded if the project is located in a disadvantaged community as identified in the SANDAG 2021 Regional Plan. An interactive map that identifies the disadvantaged communities can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 2 points possible**

Applicant Response	Points
The project includes or is located in a disadvantaged community.	2 points
The project does not include or is not located in a disadvantaged community	0 points

ii. Benefit To A Disadvantaged Community

Applicants will receive points based on the degree to which the project furthers equity and benefits disadvantaged communities. **Up to 3 points possible**

Applicant Response	Points
Sufficiently demonstrates that it furthers equity and benefits disadvantaged communities	3 points
Partially demonstrates that it furthers equity and benefits disadvantaged communities	1 point
Does not demonstrate that it furthers equity and benefits disadvantaged communities	0 points

3. Smart Growth Implementation (Up to 15 points possible)

SANDAG seeks to promote a pattern of development with whole communities that feature a convenient mix of travel choices, safer streets, and supportive amenities. Smart Growth is a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities while preserving open space and natural resources. The basic principles of smart growth include:

- Mix land uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.

- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, farmland, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost effective.
- Encourage community and stakeholder collaboration in development decisions

Applicants will receive points based on the degree to which the proposed project furthers smart growth principles implementation and strategies. **Up to 15 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates smart growth policy implementation and directly furthers the basic principles of smart growth strategies by providing substantive documentation or evidence.	13-15 points
Sufficiently demonstrates smart growth policy implementation and furthers the basic principles of smart growth strategies by providing sufficient documentation or evidence.	10-12 points
Mostly demonstrates smart growth policy implementation and furthers the basic principles of smart growth strategies by providing adequate documentation or evidence.	7-9 points
Partially demonstrates smart growth policy implementation and furthers the basic principles of smart growth strategies by providing some documentation or evidence.	4-6 points
Minimally demonstrates smart growth policy implementation and furthers the basic principles of smart growth strategies but provides no documentation or evidence.	1-3 points
Unable to address criterion, even to a minimal extent.	0 points

4. Project Feasibility (Up to 30 Points Possible)

A. Completion Of Major Milestones

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion.

Points will be awarded for project development milestones that are completed on or before the Application Deadline, based on the dates that the Applicant provides in the grant application. **Up to 10 points possible**

Applicant Response	Points
Planning Document	
The neighborhood-level plan, corridor study, or community active transportation strategy is completed on or before the Application Deadline.	1 point
The neighborhood-level plan, corridor study, or community active transportation strategy will be completed after the Application Deadline.	0 points
Environmental Review	
Environmental review under the California Environmental Quality Act is completed or will be completed before the Application Deadline.	2 points
Environmental review under the California Environmental Quality Act will be completed after the Application Deadline.	0 points
Right-Of-Way Acquisition and All Necessary Entitlements	
Right-of-way acquisition and all necessary entitlements or evidence that right-of-way acquisition is not required are completed on or before the Application Deadline.	3 points
Right-of-way acquisition and all necessary entitlements or evidence that right-of-way acquisition is not required will be completed after the Application Deadline.	0 points
Ready To Bid for Construction	
The project will be ready to bid for construction within 6 months or less of the Application Deadline.	4 points
The project will be ready to bid for construction within 12 months or less of the Application Deadline.	3 points
The project will be ready to bid for construction within 18 months or less of the Application Deadline.	2 points
The project will be ready to bid for construction within 24 months or less of the Application Deadline.	1 point
The project will be ready to bid for construction within 24 months or more of the application deadline.	0 points

B. Efficient Use Of Program Funds

There are never enough grant funds to pay for all of the projects worthy of funding in the San Diego region. For this reason, SANDAG awards grant funds on a competitive basis that takes the Applicant's ability to perform their proposed project on a timely basis into account. SANDAG holds grantees accountable to the project schedules they have proposed in their grant application in order to ensure fairness in the competitive process and encourage grantees to implement projects quickly so the public can benefit from project deliverables as soon as possible.

Applicants will receive points based on the degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget and the following factors. **Up to 15 points possible**

- The scope of work should identify all major tasks and subtasks that are necessary to complete the project. The Applicant should take into consideration any tasks or subtasks that may be necessary, even if, during project implementation, those tasks are deemed unnecessary. Projects currently in the planning phase should consider the steps it will take to complete the planning work, including robust stakeholder engagement. Projects that have not yet completed environmental review should consider the work necessary to achieve CEQA compliance. Projects that are not within the right-of-way owned by the Applicant should consider all right-of-way acquisition and entitlement requirements and the effort required to complete those steps, including subtasks when appropriate. Applicants are strongly encouraged to consider any regulatory influence on the project (e.g. the Public Utilities Commission, California Coastal Commission, etc.). Any tasks that require approval or input from another public agency should also be included. All projects should consider the effort necessary to prepare a public works project for competitive bidding and ensure that their agency's procurement requirements will be met before putting the project out to bid. The scope of work should also consider the approvals needed to enter into the contract with the construction contractor and any other consultant or support services (e.g., design support, construction management, and labor compliance) needed during project construction.

- The project schedule should include start dates that are reasonable, taking into account any work that has already been completed before the NTP has been issued, and any other tasks or subtasks that might impact the start date. Project durations and completion dates should be reasonable and take into account timeframes that the Applicant can actually achieve. Applicants should keep in mind that they will be required to adhere to the schedule listed in their grant application, and that all schedules must meet the Project Milestone and Completion Deadlines that are listed in SANDAG Board Policy No. 035. Applicants are strongly discouraged from including timeframes that are not reasonable, and Applicants should be aware that any awarded project that cannot meet the Project Milestone and Completion Deadlines will be put on the watch list and subject to scrutiny by the TransNet Independent Taxpayer Oversight Committee, and Regional Planning and Transportation Committees.

- The project budget should consider all of the tasks and subtasks listed in the scope of work. Each task and subtask should identify reasonable costs to complete the task or subtask, and any matching funds should be included. Please note that all dates in the schedule are starting from the date SANDAG will issue the Notice to Proceed to the Applicant, which is typically within 30-45 days of the funding awards being approved by the Board of Directors.

Applicant Response	Points
Clearly and convincingly demonstrates that the project will efficiently use the grant funding.	13-15 points
Sufficiently demonstrates the project will efficiently use the grant funding by providing sufficient documentation or evidence.	10-12 points

Mostly demonstrates the project will efficiently use the grant funding by providing adequate documentation or evidence.	7-9 points
Partially demonstrates the project will efficiently use the grant funding by providing some documentation or evidence.	4-6 points
Minimally demonstrates the project will efficiently use the grant funding but provides no documentation or evidence.	1-3 points
Unable to address criterion, even to a minimal extent.	0 points

C. Community Engagement

Applicants will receive points based on the degree to which community members have been engaged and outreach to the community is incorporated throughout the project.

Factors to be considered are the inclusiveness of the planning process, evidence that key stakeholders will be active participants in the process, and community priorities will be reflected in the proposed project. The highest-scoring projects will demonstrate strong community support for the project, substantial community input will be sought or has been included in the planning or other process, key stakeholders have been identified, including underserved and limited English proficiency populations, and the Applicant will ensure that the community has a meaningful role in the project.

Lower scoring projects will have minimal opportunities for community engagement in the scope of work, include generic letters of support that fail to demonstrate substantive stakeholder involvement, outreach or involvement to the community is or will be done at a minimal level, or the Applicant fails to account for limited English proficiency populations. **Up to 5 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	5 points
Partially demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	3 points
Minimally demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	1 point
Does not demonstrate that the project has or will have strong community support and opportunity for input and a meaningful role in the project, or excludes underserved and/or limited English proficiency populations.	0 points

5. Board Policy No. 033

Points will be awarded based on the Applicant's adoption of Prohousing policies and demonstrated commitment to advancing housing equity. **(Up To 25 points possible)**

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion based on the Applicant's responses in the grant application.

A. Prohousing Policies

Applicants will be awarded 2.5 or 5 points, as indicated below, by demonstrating that the Applicant has implemented policies that accelerate the production of housing in the four categories listed below. An Applicant that has received a Prohousing Designation from HCD will receive 12.5 points. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

i. Favorable Zoning And Land Use (Up to 5 points)

Applicant Response	Points
• Housing element plan for zoned capacity of >150% of RHNA • Permitting missing middle uses (e.g., duplexes, triplexes, fourplexes, townhomes) in existing low-density single-family zones • Eliminating minimum parking requirements • Allowing residential in commercial zones	5 points
• Allowing more/larger accessory dwelling units (ADUs) than state law requires • Density bonus that is >10% more than state requirements • Established Workforce Housing Opportunity Zone (WHOZ) or housing sustainability district • Standards to promote more density • Housing element plan for zoned capacity of >125% of RHNA • Reduced parking requirements	2.5 points
The Applicant has not implemented any of the above policies.	0 points

ii. Acceleration Of Housing Production Timeframes (Up to 5 points)

Applicant Response	Points
• Ministerial approval of housing • Streamlined/program-level California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) for general plans/specific plans etc. • Permit process that is less than two months • Elimination of public hearings for projects consistent with zoning/general plan	5 points

• One-stop shop permitting processes or single point of contact • Priority permit processing or reduced plan check times for ADUs/junior ADUs, multifamily, or affordable housing	
• Streamlined housing development at the project level • Permit process that is less than four months • Three public hearings limit for projects consistent with zoning/general plan • Eliminated or replaced subjective design standards with objective standards that simplify zoning • Standard entitlement application • Publicly posting online status updates on permit approvals	2.5 points
The Applicant has not implemented any of the above policies.	0 points

iii. Reduction Of Construction And Development Costs (Up to 5 points)

Applicant Response	Points
• Waived development impact fees for housing • Adopted universal design ordinances • Preapproved prototype plans for missing middle housing (e.g., duplexes, triplexes, fourplexes, townhomes)	5 points
• Measures that reduce costs for transportation-related infrastructure or that encourage active transit or other alternatives to cars • Reduced development impact fees for housing • Less restrictive ADU standards than state requirements • Fee reduction, including deferrals or reduced fees for housing with people with special needs • Promoting innovative housing types that reduced development costs	2.5 points
The Applicant has not implemented any of the above policies.	0 points

iv. Providing Financial Subsidies (Up to 5 points)

Applicant Response	Points
• Local housing trust fund or collaboration on regional fund • Program to comply with Surplus Lands Act and make publicly owned land available for affordable housing • Enhanced Infrastructure Financing District (EIFD)	5 points

• Prioritization of local general funds for affordable housing	
• Grants/low-interest loans for affordable ADUs • Direct residual redevelopment funds to affordable housing • Development and regular use of housing subsidy pool, local/regional trust, or similar funding source	2.5 points
The Applicant has not implemented any of the above policies.	0 points

B. Housing Equity

In February 2021, the SANDAG Board of Directors adopted a statement demonstrating its Commitment to Equity. Following Government Code section 8899.50 and SANDAG's Commitment to Equity, SANDAG encourages development in jurisdictions with Housing Equity policies. Applicants will be awarded 2.5 or 5 points, as indicated below, for each policy that advances housing equity and affirmatively furthers fair housing. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation, and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

Applicant Response	Points
• An adopted inclusionary housing ordinance • Rent stabilization policies • Anti-displacement policies in conjunction with transit improvements • Strategies or funds to preserve naturally occurring affordable housing • Tenant protection policies such as access to counsel, just cause eviction policy, etc. • Rezoning and other policies that result in a net gain of low- and moderate-income housing while concurrently mitigating development impacts on or from environmentally sensitive or hazardous areas. • Programs, and land use plans and policies that are intended to result in increased investment (such as infrastructure, housing, open space, etc.) in lower opportunity areas. Such areas include but are not limited to, Low Resource and High Segregation & Poverty areas designated in the 2021 California Tax Credit Allocation Committee (TCAC)/HCD Opportunity Maps and disadvantaged communities pursuant to California Senate Bill 535 (2012). • Zone changes or other policies (other than those listed above) that increase low- and moderate-income housing and affordability in High Resource and Highest Resource areas, as designated in the 2021 TCAC/HCD Opportunity Maps.	5 points

• Displacement risk studies • Publicly available database of affordable housing properties at risk of losing affordability restrictions through the expiration of rent restrictions or tenant voucher programs • Proactive monitoring of housing at risk of losing affordability restrictions and proactive enforcement of state-mandated tenant notification provisions	2.5 points
The Applicant has not implemented any of the above policies.	0 points

6. Matching Funds

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion.

Points for matching funds will be awarded based on the following scale. The matching fund percentage is derived by dividing the total matching funds provided in the grant application by the sum of the total SGIP grant requested and the total matching funds listed in the grant application. **Up to 5 points possible**

Percentage of Matching Funds	Points
20.01% - 25.00% and above of the total project cost	5 points
15.01% - 20.00% of total project cost	4 points
10.01% - 15.00% of total project cost	3 points
5.01% - 10.00% of total project cost	2 points
0.01% - 5.00% of total project cost	1 point
0% of total project cost	0 points

II. Planning Scoring Criteria and Rubric

Planning projects will be scored based on the Applicant's responses to the Planning Project Scoring Criteria below. The Planning Project Scoring Rubric is a guide for SANDAG staff and the Evaluation Panel to assist with awarding points based on the Scoring Criteria. The Objective criteria (points calculated by SANDAG's Department of Data Science or Grants staff) are marked with an asterisk (*).

A. Planning Project Scoring Criteria

No.	CRITERIA	POINTS POSSIBLE
1.	***RELATIONSHIP TO REGIONAL TRANSIT**	**10**
	The project area includes or is within 0.5 miles of a 2035 Transit Priority Area	10
	The project area includes or is within 0.5 miles of an existing or planned transit stop	5
2.	**FURTHERS THE REGIONAL PLAN AND SUSTAINABLE COMMUNITIES IMPLEMENTATION STRATEGIES**	**20**
A.	The degree to which the project furthers the Sustainable Communities Strategy i. *Proximity To A Mobility Hub ii. Furthers The Sustainable Communities Strategy	10
B.	The degree to which the project furthers safety and the Regional Vision Zero Resolution i. *Proximity To The Safety Focus Network Or Systemic Safety Network ii. Proposed Safety Improvements	5
C.	The degree to which the project furthers equity and benefits disadvantaged communities i. *Project Location ii. Benefit To A Disadvantaged Community	5
3.	**SMART GROWTH IMPLEMENTATION**	**15**
A.	*Smart Growth Activities	5
B.	Furthers Smart Growth Implementation and Strategies	10
4.	**PROJECT FEASIBILITY**	**25**
A.	*The degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget.	15
B.	The degree to which community members have been engaged and outreach is incorporated throughout the project.	10

5.	***BOARD POLICY NO. 033**	**25**
A.	Prohousing Policies (Favorable Zoning and Land Use, Acceleration of Housing Production Timeframes, Reduction of Construction and Development Costs, Providing Financial Subsidies)	12.5
B.	Housing Equity/Affirmatively Furthering Fair Housing	12.5
6.	**MATCHING FUNDS**	**5**
	Points will be awarded based on the scale provided in the Scoring Rubric.	
	TOTAL	**100**

B. Planning Scoring Rubric

Below is a general scoring guide that provides more specific language based on a project's ability to meet the evaluation criteria.

Term	Definition
Clearly and convincingly	to a considerable extent with substantive documentation or evidence
Sufficiently	to a satisfactory extent with adequate documentation or evidence
Mostly	to a large extent with general documentation or evidence
Partially	to a limited extent with incomplete documentation or evidence
Minimally	to a small extent and without documentation or evidence
Does Not Demonstrate	unable to address criterion, even to a minimal extent

1. Relationship To Regional Transit

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded based on the proposed project's proximity to existing or programmed transit facilities included in the 2035 Transit Priority Areas identified in the SANDAG 2021 Regional Plan. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347.

A regional transit station is defined as any station served by COASTER, SPRINTER, Trolley, *Rapid*, or *Rapid Express* Routes. A local transit stop is defined as any stop served by MTS bus routes or NCTD BREEZE services. A list of MTS transit services and stations is available here: https://www.sdmts.com/transit-services. A list of NCTD services and stations is available here:

https://gonctd.com/services/transit-centers/. Distance refers to walking distance based on actual available pathways. **Up to 10 points possible**

Applicant Response	Points
The project area includes or is within 0.5 miles of a 2035 Transit Priority Area in the 2021 Regional Plan	10 points
The project area includes or is within 0.5 miles of an existing or planned transit stop	5 points
The project area does not include or is not within 0.5 miles of an existing or planned transit stop	0 points

2. Furthers The Regional Plan and Sustainable Communities Implementation Strategies (Up to 20 points possible)

A. Sustainable Communities Strategy (Up to 10 points possible)

i. Proximity To A Mobility Hub

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded based on the proposed project's proximity to one or more Mobility Hubs included in the SANDAG 2021 Regional Plan. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 3 points possible**

Applicant Response	Points
The project includes or is within a Mobility Hub	3 points
The project does not include nor is within a Mobility Hub	0 points

ii. Furthers The Sustainable Communities Strategy

The primary purpose of the Sustainable Communities Strategy is to show how development patterns and our transportation system will work together to reduce greenhouse gas (GHG) emissions for cars and light trucks, providing a more sustainable future for our region. Ways to do this include implementing a land use strategy that facilitates VMT reduction, zoning for a higher density of housing than is currently allowed, improving jobs-housing balance, and planning for transportation/mobility improvements to better connect housing to the existing/planned regional transportation network. Applicants will receive points based on the degree to which the project furthers the Sustainable Communities Strategy. **Up to 7 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates how it furthers the SCS and provides substantive documentation or evidence.	7 points

Sufficiently demonstrates how it furthers the SCS and provides adequate documentation or evidence.	5-6 points
Mostly demonstrates how it furthers the SCS and provides general documentation or evidence.	3-4 points
Partially demonstrates how it furthers the SCS and provides incomplete documentation or evidence.	1-2 points
Unable to address criterion, even to a minimal extent	0 points

B. Furthers Safety And The Regional Vision Zero Resolution

The SANDAG Board of Directors adopted a Regional Vision Zero Resolution that includes steps toward eliminating all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility options for all. Applicants will receive points based on the degree to which the project furthers safety and the Region Vision Zero Resolution. **Up to 5 points possible**

i. Proximity To The Safety Focus Network Or Systemic Safety Network

*NOTE: The SANDAG Data Science staff will calculate the points awarded for this criterion. Points will be awarded based on the proposed project's proximity to the Safety Focus Network or Systemic Safety Network. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 2 points possible**

Applicant Response	Points
The project is on or within .25 miles of the Safety Focus Network (SFN) or Systemic Safety Network (SSN).	2 points
The project is not on or within .25 miles of the Safety Focus Network (SFN) or Systemic Safety Network (SSN).	0 points

ii. Proposed Safety Improvements

The applicant will receive points if the project includes proven bicycle, pedestrian, and traffic calming safety countermeasures. Applicants should review the Federal Highway Administration's Proven Safety Countermeasures and the National Highway Traffic Safety Administration (NHTSA)'s Countermeasures That Work for examples and additional guidance. **Up to 3 points possible**

Applicant Response	Points
The project includes proven bicycle, pedestrian, and traffic calming safety countermeasures.	3 points
The project does not include proven bicycle, pedestrian, and traffic calming safety countermeasures.	0 points

C. Furthers Equity And Benefits Disadvantaged Communities (Up to 5 points possible)

i. Project Location

*NOTE: The SANDAG Data Science staff will calculate the points awarded for these criteria. Points will be awarded if the project is located in a disadvantaged community as identified in the SANDAG 2021 Regional Plan. An interactive map that identifies the Mobility Hubs can be found here: https://sandag.maps.arcgis.com/apps/Cascade/index.html?appid=897af882e8c14b1e996c33e48bc15347. **Up to 2 points possible**

Applicant Response	Points
The project includes or is located in a disadvantaged community.	2 points
The project does not include or is not located in a disadvantaged community	0 points

ii. Benefit To A Disadvantaged Community

Applicants will receive points based on the degree to which the project furthers equity and benefits disadvantaged communities. **Up to 3 points possible**

Applicant Response	Points
Sufficiently demonstrates that it furthers equity and benefits disadvantaged communities	3 points
Partially demonstrates that it furthers equity and benefits disadvantaged communities	1 point
The project does not demonstrate that it furthers equity and benefits disadvantaged communities	0 points

3. Smart Growth Implementation (Up to 15 points possible)

SANDAG seeks to promote a pattern of development with whole communities that feature a convenient mix of travel choices, safer streets, and support amenities. Smart Growth is a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources. The basic principles of smart growth include:

- Mix land uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.

- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, farmland, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost effective.
- Encourage community and stakeholder collaboration in development decisions

A. Smart Growth Activities

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion based on the Applicant's responses in the grant application.

Applicants will be awarded 2 points for each smart growth activity, and no Applicant can receive more than 10 points maximum. **Up to 10 points possible**

Applicant Response	Points
• Increasing density within a Transit Priority Area (TPA) • Planning Transit Oriented Development (TOD) zones with incentives for affordable housing • Creating Smart Growth & Housing Overlay Zones — A set of zoning ordinances specifying land use and/or design standards for a designated district; to ensure architectural character and urban form align with best practices in Smart Growth and support the development of a range of housing options including moderate and affordable housing options • Establishing density minimums • Develop Smart Growth Design Guidelines — A set of standards that aims to promote walkability, active transportation, multimodal transportation options, • Developing Smart Growth Street Design Standards to promote walking and multimodal transit options. Plans may include narrowing travel-lane width, increasing bicycle lanes, decreasing on-street parking, medians, sidewalks, landscaping, lighting, crosswalks, pedestrian refuge islands, bulbouts, and accessibility ramps. • Creating zoning districts that allow mixed-use, mixed-income development by right (i.e., without the need for a rezoning or special discretionary approval process). • Design guidelines to promote street-oriented buildings, with reduced or eliminated setbacks, building heights at least 50 percent of the street width, and locating vehicle entrances behind or on the sides of buildings. • Design guidelines that promote attractive building entrances and frontages through requiring awnings, canopies, or arcades that offer shade and	2 points

weather protection for pedestrians and other standards to enhance the pedestrian realm. • Walkability or Bike Plans that include design improvements to the public realm such as street trees, increased crosswalk visibility, wider sidewalks, street benches, wayfinding signage, provisions for bicycle parking near building entrances using racks that can support the bicycle's frame at two points, protected bikeways, reduced vehicle speed limits, etc. • Developing a comprehensive active transportation plan citywide, or within a targeted transit-rich neighborhood • Implementing Vision Zero plan city-wide • The project will offer people access to shared, on-demand transportation services that provide convenient and personalized travel options • Measures that reduce costs for transportation-related infrastructure or that encourage active transit or other alternatives to cars • Increasing transportation options (such as bus/rail service, micromobility, active transit, etc.) that connect existing or planned housing to other land uses • The project will create a highly connected street grid network where all adjacent roads are connected to the internal street network and provide for future connection with adjacent properties. • Plan to provide amenities to improve mobility such as trip-planning kiosks, complimentary WiFi, mobile device charging options, electric vehicle charging options, parcel delivery lockers, mobile retail services, passenger loading areas, and secure parking and charging for bikes, scooters, and rideable electric vehicles. • The project includes plans to minimize the impacts of climate change, such as actions identified by the U.S. Environmental Protection Agency (e.g., building compactly and using energy-efficient, green building techniques). • Project includes measures to reduce greenhouse gas emissions and implement a jurisdiction's CAP	
The project does not include any of the above smart growth activities.	0 points

B. Furthers Smart Growth Implementation and Strategies

Applicants will receive points based on the degree to which the proposed project furthers smart growth implementation and strategies. **Up to 5 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates smart growth implementation and directly furthers the basic principles of smart growth strategies by providing substantive documentation or evidence.	5 points

Sufficiently demonstrates smart growth implementation and furthers the basic principles of smart growth strategies by providing sufficient documentation or evidence.	4 points
Mostly demonstrates smart growth policy implementation and furthers the basic principles of smart growth strategies by providing adequate documentation or evidence.	3 points
Partially demonstrates smart growth implementation and furthers the basic principles of smart growth strategies by providing some documentation or evidence.	2 points
Minimally demonstrates smart growth implementation and furthers the basic principles of smart growth strategies but provides no documentation or evidence.	1 point
Unable to address criterion, even to a minimal extent.	0 points

4. Project Feasibility (Up to 25 points possible)

A. Efficient Use Of Program Funds

There are never enough grant funds to pay for all of the projects worthy of funding in the San Diego region. For this reason, SANDAG awards grant funds on a competitive basis that takes the Applicant's ability to perform their proposed project on a timely basis into account. SANDAG holds grantees accountable to the project schedules they have proposed in their grant application in order to ensure fairness in the competitive process and encourage grantees to implement projects quickly so the public can benefit from project deliverables as soon as possible.

Applicants will receive points based on the degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget and the following factors. **Up to 15 points possible**

- The scope of work should identify all major tasks and subtasks that are necessary to complete the project. The Applicant should take into consideration any tasks or subtasks that may be necessary, even if, during project implementation, those tasks are deemed unnecessary. Applicants should consider the steps necessary to complete the planning work, including robust stakeholder engagement. All projects should consider the effort necessary to prepare any necessary consultant work for competitive bidding and ensure that their agency's procurement requirements will be met before advertising the solicitation. The scope of work should also consider the approvals needed to enter into the contract with the selected consultant.

- The project schedule should include start dates that are reasonable, taking into account any work that has already been completed before the NTP has been issued, and any other tasks or subtasks that might impact the start date. Project durations and completion dates should be reasonable and take into account timeframes that the Applicant can actually achieve. Applicants should keep in mind that they will be required to adhere to the schedule listed in their grant application and that all schedules must meet the Project Milestone and Completion Deadlines that are listed in SANDAG Board Policy No. 035. Applicants are strongly discouraged from including timeframes that are not reasonable, and Applicants should be aware that any

awarded project that cannot meet the Project Milestone and Completion Deadlines will be put on the watch list and subject to scrutiny by the TransNet Independent Taxpayer Oversight Committee, and Regional Planning and Transportation Committees.

- The project budget should consider all of the tasks and subtasks listed in the scope of work. Each task and subtask should identify reasonable costs to complete the task or subtask, and any matching funds should be included. Please note that all dates in the schedule start from the date SANDAG will issue the Notice to Proceed to the Applicant, which is typically within 30-45 days of the funding awards being approved by the Board of Directors.

Applicant Response	Points
Clearly and convincingly demonstrates the project will efficiently use the grant funding.	13-15 points
Sufficiently demonstrates the project will efficiently use the grant funding by providing sufficient documentation or evidence.	10-12 points
Mostly demonstrates the project will efficiently use the grant funding by providing adequate documentation or evidence.	7-9 points
Partially demonstrates the project will efficiently use the grant funding by providing some documentation or evidence.	4-6 points
Minimally demonstrates the project will efficiently use the grant funding but provides no documentation or evidence.	1-3 points
Does not demonstrate that the project will efficiently use the grant funding	0 points

B. Community Engagement

Applicants will receive points based on the degree to which community members have been engaged and outreach to the community is incorporated throughout the project.

Factors to be considered are the inclusiveness of the planning process, evidence that key stakeholders will be active participants in the process, and community priorities will be reflected in the proposed project. The highest-scoring projects will demonstrate strong community support for the project, substantial community input will be sought or has been included in the planning or other process, key stakeholders have been identified, including underserved and limited English proficiency populations, and the Applicant will ensure that the community has a meaningful role in the project.

Lower scoring projects will have minimal opportunities for community engagement in the scope of work, include generic letters of support that fail to demonstrate substantive stakeholder involvement, outreach or involvement to the community is or will be done at a minimal level, or the Applicant fails to account for limited English proficiency populations. **Up to 10 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	10 points
Sufficiently demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	8-9 points
Mostly demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	5-7 points
Partially demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	3-4 points
Minimally demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	1-2 points
Does not demonstrate that the project has or will have strong community support and opportunity for input and a meaningful role in the project, or excludes underserved and/or limited English proficiency populations.	0 points

5. Board Policy No. 033

Points will be awarded based on the Applicant's adoption of Prohousing policies and demonstrated commitment to advancing housing equity. **(Up To 25 points possible)**

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion based on the Applicant's responses in the grant application.

A. Prohousing Policies

Applicants will be awarded 2.5 or 5 points, as indicated below, by demonstrating that the Applicant has implemented policies that accelerate the production of housing in the four categories listed below. An Applicant that has received a Prohousing Designation from HCD will receive 12.5 points. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

i. Favorable Zoning And Land Use (Up to 5 points)

Applicant Response	Points
• Housing element plan for zoned capacity of >150% of RHNA • Permitting missing middle uses (e.g., duplexes, triplexes, fourplexes, townhomes) in existing low-density single-family zones • Eliminating minimum parking requirements	5 points

• Allowing residential in commercial zones	
• Allowing more/larger accessory dwelling units (ADUs) than state law requires • Density bonus that is >10% more than state requirements • Established Workforce Housing Opportunity Zone (WHOZ) or housing sustainability district • Standards to promote more density • Housing element plan for zoned capacity of >125% of RHNA • Reduced parking requirements	2.5 points
The Applicant has not implemented any of the above policies.	0 points

ii. Acceleration Of Housing Production Timeframes (Up to 5 points)

Applicant Response	Points
• Ministerial approval of housing • Streamlined/program-level California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) for general plans/specific plans etc. • Permit process that is less than two months • Elimination of public hearings for projects consistent with zoning/general plan • One-stop shop permitting processes or single point of contact • Priority permit processing or reduced plan check times for ADUs/junior ADUs, multifamily, or affordable housing	5 points
• Streamlined housing development at the project level • Permit process that is less than four months • Three public hearings limit for projects consistent with zoning/general plan • Eliminated or replaced subjective design standards with objective standards that simplify zoning • Standard entitlement application • Publicly posting online status updates on permit approvals	2.5 points
The Applicant has not implemented any of the above policies.	0 points

iii. Reduction Of Construction And Development Costs (Up to 5 points)

Applicant Response	Points
• Waived development impact fees for housing • Adopted universal design ordinances • Preapproved prototype plans for missing middle housing (e.g., duplexes, triplexes, fourplexes, townhomes)	5 points
• Measures that reduce costs for transportation-related infrastructure or that encourage active transit or other alternatives to cars • Reduced development impact fees for housing • Less restrictive ADU standards than state requirements • Fee reduction, including deferrals or reduced fees for housing with people with special needs • Promoting innovative housing types that reduced development costs	2.5 points
The Applicant has not implemented any of the above policies.	0 points

iv. Providing Financial Subsidies (Up to 5 points)

Applicant Response	Points
• Local housing trust fund or collaboration on regional fund • Program to comply with Surplus Lands Act and make publicly owned land available for affordable housing • Enhanced Infrastructure Financing District (EIFD) • Prioritization of local general funds for affordable housing	5 points
• Grants/low-interest loans for affordable ADUs • Direct residual redevelopment funds to affordable housing • Development and regular use of housing subsidy pool, local/regional trust, or similar funding source	2.5 points
The Applicant has not implemented any of the above policies.	0 points

B. Housing Equity

In February 2021, the SANDAG Board of Directors adopted a statement demonstrating its Commitment to Equity. Following Government Code section 8899.50 and SANDAG's Commitment to Equity, SANDAG encourages development in jurisdictions with Housing Equity policies. Applicants will be awarded 2.5 or 5 points, as indicated below, for each policy that advances housing equity and affirmatively furthers fair housing. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation,

and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

Applicant Response	Points
• An adopted inclusionary housing ordinance • Rent stabilization policies • Anti-displacement policies in conjunction with transit improvements • Strategies or funds to preserve naturally occurring affordable housing • Tenant protection policies such as access to counsel, just cause eviction policy, etc. • Rezoning and other policies that result in a net gain of low- and moderate-income housing while concurrently mitigating development impacts on or from environmentally sensitive or hazardous areas. • Programs, and land use plans and policies that are intended to result in increased investment (such as infrastructure, housing, open space, etc.) in lower opportunity areas. Such areas include but are not limited to, Low Resource and High Segregation & Poverty areas designated in the 2021 California Tax Credit Allocation Committee (TCAC)/HCD Opportunity Maps and disadvantaged communities pursuant to California Senate Bill 535 (2012). • Zone changes or other policies (other than those listed above) that increase low- and moderate-income housing and affordability in High Resource and Highest Resource areas, as designated in the 2021 TCAC/HCD Opportunity Maps.	5 points
• Displacement risk studies • Publicly available database of affordable housing properties at risk of losing affordability restrictions through the expiration of rent restrictions or tenant voucher programs • Proactive monitoring of housing at risk of losing affordability restrictions and proactive enforcement of state-mandated tenant notification provisions	2.5 points
The Applicant has not implemented any of the above policies.	0 points

6. Matching Funds

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion.

Points for matching funds will be awarded based on the following scale. The matching fund percentage is derived by dividing the total matching funds provided in the grant application by the total sum of the total SGIP grant requested and the total matching funds listed in the grant application. **Up to 5 points possible**

Percentage of Matching Funds	Points
20.01% - 25.00% and above of the total project cost	5 points
15.01% - 20.00% of total project cost	4 points
10.01% - 15.00% of total project cost	3 points
5.01% - 10.00% of total project cost	2 points
0.01% - 5.00% of total project cost	1 point
0% of total project cost	0 points

III. Climate Action Plan Scoring Criteria and Rubric

Climate Action Plan projects will be scored based on the Applicant's responses to the Climate Action Plan Scoring Criteria below. The Climate Action Plan Scoring Rubric is a guide for SANDAG staff and the Evaluation Panel to assist with awarding points based on the Scoring Criteria. The Objective criteria (points calculated by SANDAG's Department of Data Science or Grants staff) are marked with an asterisk (*).

A. Climate Action Plan Scoring Criteria

No.	CRITERIA	POINTS POSSIBLE
1.	**NEW CLIMATE ACTION PLAN OR CAP UPDATE CONTENTS**	**20**
A.	*The project will develop a new CAP or update an existing CAP that was adopted three or more years ago.	4
B.	The new CAP or CAP Update includes a greenhouse gas (GHG) emissions inventory for an appropriate recent baseline year, in accordance with adopted protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	8
C.	The new CAP or CAP Update includes specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	8
2.	**IMPLEMENTATION AND MONITORING**	**25**
A.	The new CAP or CAP Update describes the plan for implementing each GHG emissions reduction measure, including, but not limited to, the identification of responsible parties, key actions, timeline, costs, and funding sources. OR The project will develop an implementation plan for an existing CAP, including but not limited to the identification of responsible parties, key actions, timeline, costs, and funding sources.	10
B.	New CAP or CAP Update clearly describes how progress toward achievement of the GHG emissions reduction target(s) will be monitored, including but not limited to metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates. OR The project will establish monitoring measures for an existing CAP including but not limited to metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	15

3.	**PROJECT FEASIBILITY**	**25**
A.	The degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget.	15
B.	The degree to which community engagement will be incorporated into the development, implementation, and/or monitoring of the CAP.	10
4.	***BOARD POLICY NO. 033**	**25**
A.	Prohousing Policies (Favorable Zoning and Land Use, Acceleration of Housing Production Timeframes, Reduction of Construction and Development Costs, Providing Financial Subsidies)	12.5
B.	Housing Equity/Affirmatively Furthering Fair Housing	12.5
5.	***MATCHING FUNDS**	**5**
	Points will be awarded based on the scale provided in the Scoring Rubric.	
	TOTAL	**100**

B. Climate Action Plan Scoring Rubric

Below is a general scoring guide that provides more specific language based on a project's ability to meet the evaluation criteria.

Term	Definition
Clearly and convincingly	to a considerable extent with substantive documentation or evidence
Sufficiently	to a satisfactory extent with adequate documentation or evidence
Mostly	to a large extent with general documentation or evidence
Partially	to a limited extent with incomplete documentation or evidence
Minimally	to a small extent and without documentation or evidence
Does Not Demonstrate	unable to address criterion, even to a minimal extent

1. New Climate Action Plan Or CAP Update Contents (Up to 20 points possible)

A. New CAP Or CAP Update Timeline

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion.

The California Office of Planning and Research recommends that a CAP be updated every 3-5 years. It is encouraged that jurisdictions apply that are looking to develop a new CAP, or an update to a CAP adopted in the last three or more years by the governing agency. Applicants are still eligible to apply if the grant application is for an update to an adopted CAP that was completed within less than three years. **Up to 4 points possible**

Applicant Response	Points
The project will develop a new CAP or update an existing CAP that was adopted three or more years ago.	4 points
The project will develop an update to a CAP that was adopted less than three years but more than one year ago.	2 points
The project will develop an update to a CAP that was adopted within the last year or the project will neither develop a new CAP nor CAP Update.	0 points

B. GHG Emissions Inventory And Near- And Long-Term GHG Emissions Forecasts And Reduction Targets

The new CAP or CAP Update includes a greenhouse gas (GHG) emissions inventory for an appropriate recent baseline year, in accordance with adopted protocols. It also includes near- and long-term GHG emissions forecasts and reduction targets (e.g., for 2035 and 2050). For new CAPs and CAP updates, the inventory baseline year is requested to be 2022 or newer. **Up to 8 points possible**

A GHG emissions inventory is a snapshot reference of the annual emissions associated with a jurisdiction's community-wide activities. GHG emissions inventories are a critical component of the CAP process used to establish emissions targets/goals and monitor emissions over time. Inventories are developed based on the best available data and methods, which change over time and should be accounted for when comparing inventory years.

Applicant Response	Points
Clearly and convincingly demonstrates that the CAP or CAP update has or will have an inventory with established protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	8 points
Sufficiently demonstrates that the CAP or CAP update has or will have an inventory with established protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	6 points
Partially demonstrates that the CAP or CAP update has or will have an inventory with established protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	4 points

Minimally demonstrates that the CAP or CAP update has or will have an inventory with established protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	2 points
Does not demonstrate that the CAP or CAP update has or will have an inventory with established protocols, and includes near- and long-term GHG emissions forecasts and reduction targets (e.g., 2035 and 2050).	0 points

C. GHG Reduction Measures

The new CAP or CAP update includes specific, quantifiable GHG reduction measures to achieve the GHG reduction targets. **Up to 8 points possible**

Local CAP measures represent a jurisdiction's commitment to reduce GHG emissions. While there are similarities in GHG reduction strategies across local CAPs, the measures within each CAP are uniquely crafted based on local needs and conditions. There are many considerations for selecting local reduction measures, including:

- GHG reduction potential
- ability, time, and cost to implement
- available funding
- equity
- community priorities
- co-benefits (positive external impacts)
- ability to monitor

Applicant Response	Points
Clearly and convincingly demonstrates that the proposed CAP or CAP Update will include specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	8 points
Sufficiently demonstrates that the proposed CAP or CAP Update will include specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	5-7 points
Partially demonstrates that the proposed CAP or CAP Update will include specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	3-4 points
Minimally demonstrates that the proposed CAP or CAP Update will include specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	1-2 points
Does not demonstrate that the proposed CAP or CAP Update will include specific, quantifiable GHG reduction measures to achieve the GHG reduction targets.	0 points

2. IMPLEMENTATION AND MONITORING (Up to 25 points possible)

A. CAP Implementation

The new CAP or CAP Update describes the plan for implementing each GHG emissions reduction measure, including, but not limited to, the identification of responsible parties, key actions, timeline, costs, and funding sources.

OR

The project will develop an implementation plan for an existing CAP, including but not limited to the identification of responsible parties, key actions, timeline, costs, and funding sources.

CAP implementation involves coordinating various activities across many agencies and departments. While implementation is considered during CAP development, many jurisdictions develop an implementation plan following CAP adoption. An implementation plan lays out the process for implementing each GHG reduction measure of the CAP, including the staff roles and responsibilities, key actions, timelines, costs, and potential funding opportunities. **Up to 10 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	10 points
Sufficiently demonstrates that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	7-8 points
Mostly demonstrates that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	5-6 points
Partially demonstrates that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	3-4 points
Minimally demonstrates that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	1-2 points
Does not demonstrate that the project's implementation plan identifies responsible parties, key actions, timeline, costs, and funding sources.	0 points

B. CAP Monitoring

New CAP or CAP Update clearly describes how progress toward achievement of the GHG emissions reduction target(s) will be monitored, including but not limited to metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.

OR

The project will establish monitoring measures for an existing CAP including but not limited to metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.

Monitoring CAP implementation is a key part of the iterative climate planning process. Regular monitoring allows a jurisdiction to evaluate progress toward reaching its GHG emissions target, alter strategies or goals based on performance, and reassess future emissions projections. Early in the development of a CAP, staff should consider what data will be necessary to best monitor the CAP after it is adopted. CAP implementation can be monitored by overall emissions and by reduction strategies, measures, and actions. GHG inventories may not reflect the impacts of all local CAP measures. Monitoring local activity may provide a way to demonstrate progress on specific measures. **Up to 15 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	15 points
Sufficiently demonstrates that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	10-12 points
Mostly demonstrates that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	7-9 points
Partially demonstrates that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	4-6 points
Minimally demonstrates that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	1-3 points
Does not demonstrate that the project includes metrics for tracking progress, periodic updates to the GHG emissions inventory, regular reporting of progress, and timing of future CAP updates.	0 points

3. Project Feasibility (Up to 225 points possible)

A. Efficient Use Of Program Funds

There are never enough grant funds to pay for all of the projects worthy of funding in the San Diego region. For this reason, SANDAG awards grant funds on a competitive basis that takes the Applicant's ability to perform their proposed project on a timely basis into account. SANDAG holds grantees accountable to the project schedules they have proposed in their grant application in order to ensure fairness in the competitive process and encourage grantees to implement projects quickly so the public can benefit from project deliverables as soon as possible.

Applicants will receive points based on the degree to which the project will efficiently use program funds, as demonstrated by the proposed project scope, schedule, and budget and the following factors. **Up to 15 points possible**

- The scope of work should identify all major tasks and subtasks that are necessary to complete the project. The Applicant should take into consideration any tasks or

subtasks that may be necessary, even if, during project implementation, those tasks are deemed unnecessary. Applicants should consider the steps necessary to complete the planning work, including robust stakeholder engagement. All projects should consider the effort necessary to prepare any necessary consultant work for competitive bidding and ensure that their agency's procurement requirements will be met before advertising the solicitation. The scope of work should also consider the approvals needed to enter into the contract with the selected consultant .

- The project schedule should include start dates that are reasonable, taking into account any work that has already been completed before the NTP has been issued, and any other tasks or subtasks that might impact the start date. Project durations and completion dates should be reasonable and take into account timeframes that the Applicant can actually achieve. Applicants should keep in mind that they will be required to adhere to the schedule listed in their grant application and that all schedules must meet the Project Milestone and Completion Deadlines that are listed in SANDAG Board Policy No. 035. Applicants are strongly discouraged from including timeframes that are not reasonable, and Applicants should be aware that any awarded project that cannot meet the Project Milestone and Completion Deadlines will be put on the watch list and subject to scrutiny by the TransNet Independent Taxpayer Oversight Committee, and Regional Planning and Transportation Committees.

- The project budget should consider all of the tasks and subtasks listed in the scope of work. Each task and subtask should identify reasonable costs to complete the task or subtask, and any matching funds should be included. Please note that all dates in the schedule start from the date SANDAG will issue the Notice to Proceed to the Applicant, which is typically within 30-45 days of the funding awards being approved by the Board of Directors.

Applicant Response	Points
Clearly and convincingly demonstrates that the project will efficiently use the grant funding.	13-15 points
Sufficiently demonstrates that the project will efficiently use the grant funding by providing sufficient documentation or evidence.	10-12 points
Mostly demonstrates that the project will efficiently use the grant funding by providing adequate documentation or evidence.	7-9 points
Partially demonstrates that the project will efficiently use the grant funding by providing some documentation or evidence.	4-6 points
Minimally demonstrates that the project will efficiently use the grant funding but provides no documentation or evidence.	1-3 points
Does not demonstrate that the project will efficiently use the grant funding.	0 points

B. Community Engagement

Applicants will receive points based on the degree to which community members have been engaged and outreach to the community is incorporated throughout the project.

Factors to be considered are the inclusiveness of the planning process, evidence that key stakeholders will be active participants in the process, and community priorities will be reflected in the proposed project. The highest-scoring projects will demonstrate strong community support for the project, substantial community input will be sought or has been included in the planning or other process, key stakeholders have been identified, including underserved and limited English proficiency populations, and the Applicant will ensure that the community has a meaningful role in the project.

Lower scoring projects will have minimal opportunities for community engagement in the scope of work, include generic letters of support that fail to demonstrate substantive stakeholder involvement, outreach or involvement to the community is or will be done at a minimal level, or the Applicant fails to account for limited English proficiency populations. **Up to 10 points possible**

Applicant Response	Points
Clearly and convincingly demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	10 points
Sufficiently demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	7-8 points
Mostly demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	5-6 points
Partially demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	3-4 points
Minimally demonstrates that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	1-2points
Does not demonstrate that the project has or will have strong community support and opportunity for input and a meaningful role in the project, including underserved and limited English proficiency populations.	0 points

4. Board Policy No. 033

Points will be awarded based on the Applicant's adoption of Prohousing policies and demonstrated commitment to advancing housing equity. **(Up To 25 points possible)**

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion based on the Applicant's responses in the grant application.

A. Prohousing Policies

Applicants will be awarded 2.5 or 5 points, as indicated below, by demonstrating that the Applicant has implemented policies that accelerate the production of housing in the four categories listed below. An Applicant that has received a Prohousing Designation from

HCD will receive 12.5 points. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

i. Favorable Zoning And Land Use (Up to 5 points)

Applicant Response	Points
• Housing element plan for zoned capacity of >150% of RHNA • Permitting missing middle uses (e.g., duplexes, triplexes, fourplexes, townhomes) in existing low-density single-family zones • Eliminating minimum parking requirements • Allowing residential in commercial zones	5 points
• Allowing more/larger accessory dwelling units (ADUs) than state law requires • Density bonus that is >10% more than state requirements • Established Workforce Housing Opportunity Zone (WHOZ) or housing sustainability district • Standards to promote more density • Housing element plan for zoned capacity of >125% of RHNA • Reduced parking requirements	2.5 points
The Applicant has not implemented any of the above policies.	0 points

ii. Acceleration Of Housing Production Timeframes (Up to 5 points)

Applicant Response	Points
• Ministerial approval of housing • Streamlined/program-level California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) for general plans/specific plans etc. • Permit process that is less than two months • Elimination of public hearings for projects consistent with zoning/general plan • One-stop shop permitting processes or single point of contact • Priority permit processing or reduced plan check times for ADUs/junior ADUs, multifamily, or affordable housing	5 points
• Streamlined housing development at the project level • Permit process that is less than four months	2.5 points

• Three public hearings limit for projects consistent with zoning/general plan • Eliminated or replaced subjective design standards with objective standards that simplify zoning • Standard entitlement application • Publicly posting online status updates on permit approvals	
The Applicant has not implemented any of the above policies.	0 points

iii. Reduction Of Construction And Development Costs (Up to 5 points)

Applicant Response	Points
• Waived development impact fees for housing • Adopted universal design ordinances • Preapproved prototype plans for missing middle housing (e.g., duplexes, triplexes, fourplexes, townhomes)	5 points
• Measures that reduce costs for transportation-related infrastructure or that encourage active transit or other alternatives to cars • Reduced development impact fees for housing • Less restrictive ADU standards than state requirements • Fee reduction, including deferrals or reduced fees for housing with people with special needs • Promoting innovative housing types that reduced development costs	2.5 points
The Applicant has not implemented any of the above policies.	0 points

iv. Providing Financial Subsidies (Up to 5 points)

Applicant Response	Points
• Local housing trust fund or collaboration on regional fund • Program to comply with Surplus Lands Act and make publicly owned land available for affordable housing • Enhanced Infrastructure Financing District (EIFD) • Prioritization of local general funds for affordable housing	5 points
• Grants/low-interest loans for affordable ADUs • Direct residual redevelopment funds to affordable housing • Development and regular use of housing subsidy pool, local/regional trust, or similar funding source	2.5 points

The Applicant has not implemented any of the above policies.	0 points

B. Housing Equity

In February 2021, the SANDAG Board of Directors adopted a statement to demonstrate its Commitment to Equity. Following Government Code section 8899.50 and SANDAG's Commitment to Equity, SANDAG encourages development in jurisdictions with Housing Equity policies. Applicants will be awarded 2.5 or 5 points, as indicated below, for each policy that advances housing equity and affirmatively furthers fair housing. A maximum of 5 points can be earned per category for Applicants without a Prohousing Designation and no Applicant can receive more than 12.5 points when all subcriteria scores are added together. **(Up to 12.5 points possible)**

Applicant Response	Points
• An adopted inclusionary housing ordinance • Rent stabilization policies • Anti-displacement policies in conjunction with transit improvements • Strategies or funds to preserve naturally occurring affordable housing • Tenant protection policies such as access to counsel, just cause eviction policy, etc. • Rezoning and other policies that result in a net gain of low- and moderate-income housing while concurrently mitigating development impacts on or from environmentally sensitive or hazardous areas. • Programs, and land use plans and policies that are intended to result in increased investment (such as infrastructure, housing, open space, etc.) in lower opportunity areas. Such areas include but are not limited to, Low Resource and High Segregation & Poverty areas designated in the 2021 California Tax Credit Allocation Committee (TCAC)/HCD Opportunity Maps and disadvantaged communities pursuant to California Senate Bill 535 (2012). • Zone changes or other policies (other than those listed above) that increase low- and moderate-income housing and affordability in High Resource and Highest Resource areas, as designated in the 2021 TCAC/HCD Opportunity Maps.	5 points
• Displacement risk studies • Publicly available database of affordable housing properties at risk of losing affordability restrictions through the expiration of rent restrictions or tenant voucher programs • Proactive monitoring of housing at risk of losing affordability restrictions and proactive enforcement of state-mandated tenant notification provisions	2.5 points
The Applicant has not implemented any of the above policies.	0 points

5. Matching Funds

*NOTE: SANDAG Grants staff will calculate the points awarded for this criterion.

Points for matching funds will be awarded based on the following scale. The matching fund percentage is derived by dividing the total matching funds provided in the grant application by the sum of the total SGIP grant requested and the total matching funds listed in the grant application. **Up to 5 points possible**

Percentage of Matching Funds	Points
20.01% - 25.00% and above of the total project cost	5 points
15.01% - 20.00% of total project cost	4 points
10.01% - 15.00% of total project cost	3 points
5.01% - 10.00% of total project cost	2 points
0.01% - 5.00% of total project cost	1 point
0% of total project cost	0 points

Smart Growth Incentive Program (SGIP)

Cycle 6 Call for Projects

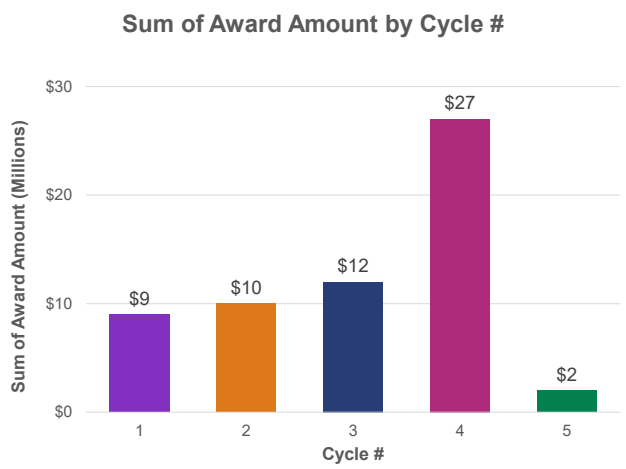
Independent Taxpayer Oversight Committee | Item 9
Jenny Russo, Goldy Herbon, and Stacey Cooper
November 13, 2024

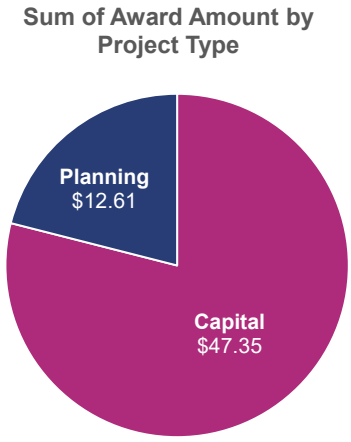
SGIP Overview

- Competitive grant program for local jurisdictions funded by TransNet
- Funds comprehensive public infrastructure projects and planning activities
- Facilitates compact, mixed-use, transit-oriented development and increases housing and transportation choices



SGIP Awards Cycle 1–5





SGIP Projects

More than 70 planning & capital projects throughout the region

Projects include:

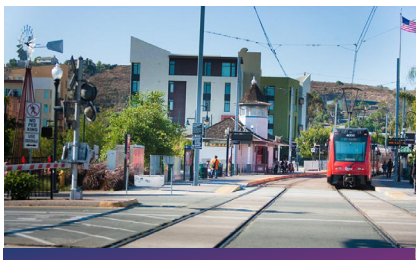
- Enhanced downtown streetscapes
- City plaza gathering and beautification projects
- Safer street design to include enhanced pedestrian and bike infrastructure
- Climate Action Plans, TOD Studies and Specific Plans, etc.



Third Avenue Streetscape Implementation



Armorlite Complete Street Corridor



Lemon Grove Trolley Plaza



Downtown Wayfinding Signage

TransNet Triennial Performance Audit

2024 TransNet Triennial Performance Audit (TPA) Recommendations

- Quantified and Detailed Project Objectives
- Detailed Description of Items to Be Constructed
- Require Grantee Performance Metric Reporting
- Report Grantee Performance and Success to ITOC
- Enhanced Review of Grantee Final Reports
- Verify Deliverables and Program Goal Achievement at Project Closeout

TPA Implementation Update

QUANTIFIED AND DETAILED PROJECT OBJECTIVES

"Revamp the smart growth grant application form to clearly identify quantified, detailed objectives and deliverables to allow for meaningful analysis."

DETAILED DESCRIPTION OF ITEMS TO BE CONSTRUCTED

"Require grantees to include a well-defined description of what will be constructed through the project to affect desired smart growth outcomes."

TPA Implementation Update

REQUIRE GRANTEE PERFORMANCE METRIC REPORTING

"Require grantees to report on the quantifiable performance metrics now required in grant awards related to promoting smart growth goals."

REPORT GRANTEE PERFORMANCE AND SUCCESS TO ITOC

"Put practice in place to summarize grantee performance data, analyze success of grant efforts, and report to ITOC."

TPA Implementation Update

ENHANCED REVIEW OF GRANTEE FINAL REPORTS

"Review grantees final close out reports and investigate any items the grantees marked as 'in progress'."

VERIFY DELIVERABLES AND PROGRAM GOAL ACHIEVEMENT AT PROJECT CLOSEOUT

"Validate that smart growth grantees met all objectives and verify that grantees provided deliverables at project close-out during site visits."

SANDAG

Cycle 6 Call for Projects Development

Stakeholder Engagement



Summary of Feedback Received

From the Listening Session

- Staff Experience and Capacity
- Project Priorities
- Barriers
- Opportunities
- Application Process

From Working Groups and PACs

- Increase the award maximums
- Further prioritize equity
- Reduce the administrative burden on applicants
- Broaden the climate action plan project type
- Allow multiple applications per jurisdiction and fund projects in descending order

Changes to Call for Projects Process

- More Detailed Scoring Rubrics
- Encourage Evaluator Consensus
- Use Average Scores
- Geographic Funding Distribution

Other Changes Made

- Increasing Maximum Project Awards
- Enhancing Community Engagement Criteria
- Reducing Administrative Burden For Applicants
- CAP Monitoring Or Implementation Efforts

SGIP Eligibility

Project Locations

SGIP provides funding for transportation-related infrastructure improvements and planning efforts that facilitate compact, mixed-use, transit-oriented development and increase housing and transportation choices.

New! Proposing no geographic constraints, but projects must:

- Advance multimodal transportation
- Better integrate transportation and land use
- Advance equity
- Align with the 2021 Regional Plan and Sustainable Communities Strategy

Climate Action Plan Projects

New Climate Action Plan (CAP) or CAP Update

- New CAP
- CAP Update
- GHG emissions inventory, emissions forecasts and reduction targets, or GHG reduction measures

CAP Implementation and Monitoring

- CAP Implementation
- CAP Monitoring

Matching Funds

Ballot Language

A	**SAN DIEGO COUNTY TRANSPORTATION IMPROVEMENT PROGRAM.**

To relieve traffic congestion, improve safety, and match state/federal funds by:

- Expanding I-5, I-8, I-15, SR 52, SR 54, SR 56, SR 67, SR 76, SR 78, SR 94, SR 125, I-805;
- Maintaining/improving local roads;
- Increasing transit for seniors and disabled persons;
- Expanding commuter express bus, trolley, Coaster services;

Shall San Diego County voters continue the existing half-cent transportation sales tax (SDCRTC Ordinance 04-01) for forty years, including creating an Independent Taxpayer Oversight Committee to conduct yearly audits ensuring voter mandates are met?

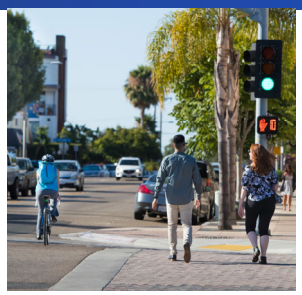
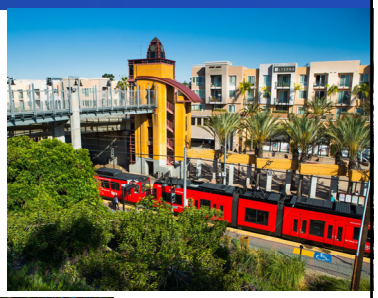
YES 000 → O

NO 000 → O

Matching Funds
Ordinance Language

Smart Growth Inventive Program:

An estimated $280 million will be allocated to the Smart Growth Inventive Program to provide funding for a broad array of transportation-related infrastructure improvements that will assist local agencies in better integrating transportation and land use, such as enhancements to streets and public places, funding of infrastructure needed to support development in smart growth opportunity areas consistent with the Regional Comprehensive Plan, and community planning efforts related to smart growth and improved land use/transportation coordination. These funds shall be allocated on a regional competitive grant basis. It is intended that these funds be used to match **federal, state, local, and private funding** to maximize the number of improvements to be implemented. The commission shall establish specific project eligibility criteria for this program.



SANDAG

Final Call for Projects

Project Types

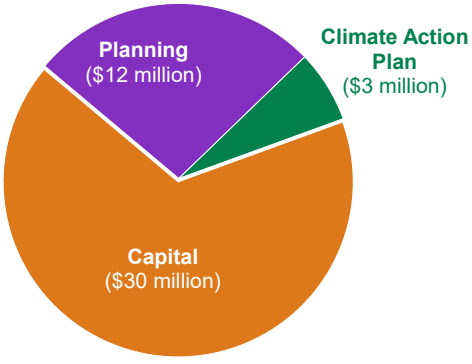
Three project types will be eligible to receive funding

SGIP Cycle 6 Call for Projects

	Climate Action Plan	Planning	Capital
Description	To prepare or update CAPs and GHG reduction plans that keep pace with state targets and goals for GHG emission reductions	Includes plans and processes that accelerate smart growth activities but will not directly result in the construction of a public improvement project.	Will eventually result in the construction of public improvements. Project phases can include environmental, design (conceptual, preliminary, or final), right-of-way, and construction.
Example Projects	New or updates to existing climate action plans and GHG reduction plans	Curb management plans, specific or area plans, transit-oriented development plans, complete streets plans or policies, rezoning or zoning updates, Program-level environmental clearance, density bonus ordinance, etc.	Updating housing supportive infrastructure, bike and pedestrian infrastructure enhancements, traffic calming infrastructure such as roundabouts, streetscape or placemaking enhancements for pedestrians, projects listed in CAPs as applicable, etc.

Cycle 6 Funding Overview

Available Funding: $45 million



Award Amounts and Performance Periods

	Climate Action Plan	Planning	Capital
Minimum	$150,000	$150,000	$500,000
Maximum	$400,000	**Raised!** $1 million	**Raised!** $3.5 million
Performance Period (NTP +)	3 years (36 months)	3 years (36 months)	3.5 years (42 months)

Draft Evaluation Criteria

Planning and Capital Projects

Planning Projects	Percent
1. Relationship to Regional Transit	10%
2. Furthers The Regional Plan and Sustainable Communities Implementation Strategies	20%
3. Smart Growth Implementation	15%
4. Project Feasibility	25%
A. Efficient Use of Program Funds (15%)	
B. Community Engagement (10%)	
5. Board Policy No. 033	25%
6. Matching Funds	5%

Capital Projects	Percent
1. Relationship to Regional Transit	10%
2. Furthers The Regional Plan and Sustainable Communities Implementation Strategies	15%
3. Smart Growth Implementation	15%
4. Project Feasibility	30%
A. Major Milestones Completed (10%)	
B. Efficient Use of Program Funds (15%)	
C. Community Engagement (5%)	
5. Board Policy No. 033	25%
6. Matching Funds	5%

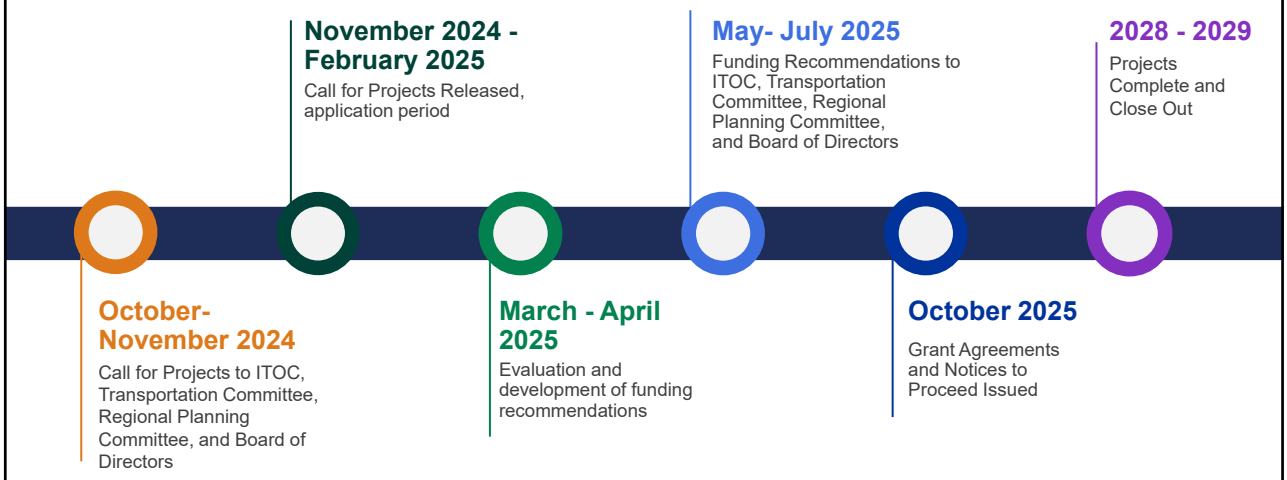
Draft Evaluation Criteria

Climate Action Plan Projects

- *New CAP*
- *CAP Updates*
- *CAP Implementation and Monitoring*

Climate Action Plan Projects	Percent
1. New Climate Action Plan or CAP Update Contents	20%
A. New CAP or CAP Update Timeline (4%)	
B. GHG Emissions Inventory and Near and Long Term Emissions Forecasts and Reduction Targets (8%)	
C. GHG Reduction Measures (8%)	
2. Implementation and Monitoring	25%
A. CAP Implementation (10%)	
B. CAP Monitoring (15%)	
3. Project Feasibility	25%
A. Efficient Use of Program Funds (15%)	
B. Community Engagement (10%)	
4. Board Policy No. 033	25%
5. Matching Funds	5%

Upcoming Timeline



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SANDAG

November 13, 2024

FY 2015, 2018, 2021, and 2024 TransNet Triennial Performance Audits Recommendations: Quarterly Update

Action: **Discussion**

Staff will present an overview of progress made to date on recommendations from the FY 2015, FY 2018, FY 2021, and FY 2024 TransNet Triennial Performance Audit (third, fourth, fifth, and sixth Triennial Performance Audits).

Fiscal Impact:

The TransNet Triennial Performance Audits are conducted by the ITOC and its independent performance auditor and funded through Overall Work Program Element No. 1500200 in the SANDAG Program Budget.

Schedule/Scope Impact:

TransNet Triennial Performance Audits include a review of all TransNet-recipient agencies involved in implementation of TransNet-funded projects and programs. The audit considers changes to contracting, construction, permitting, and related processes that could improve the efficiency and effectiveness of TransNet spending.

Overview

The Independent Taxpayer Oversight Committee (ITOC) accepted its third, fourth, fifth, and sixth TransNet Triennial Performance Audits (TPA) as follows:

- Fiscal Year (FY) 2015 TPA (third audit) on June 10, 2015
- FY 2018 TPA (fourth audit) on July 11, 2018
- FY 2021 TPA (fifth audit) on June 9, 2021
- FY 2024 TPA (sixth audit) on June 12, 2024

Key Considerations

Of the 110 audit recommendations generated from the prior TPAs, 66 have been fully implemented, while 44 have been initiated and are currently in-progress.

FY 2015 TransNet Triennial Performance Audit

In general, the auditor's review revealed there continued to be strong practices in place at SANDAG and its partner agencies to guide and implement the wide variety of complex programs envisioned under the TransNet Extension Ordinance and to continually improve operations, and proactively address recommendations for improvement.

The FY 2015 TPA included 17 recommendations. The auditor's assessment during the FY 24 TPA indicated that 2 recommendations were considered still in progress. Staff resumed the implementation of the 2 recommendations and anticipates that they will be completed by the end of the Fiscal Year 2025. However, the implementation of recommendation No. 17 will be an ongoing process.

FY 2018 TransNet Triennial Performance Audit

The FY 2018 TPA found SANDAG and its TransNet partners were on track toward meeting the primary goals of TransNet and noted solid practices were in place over areas such as capital construction, Environmental Mitigation Program activities, and transit services. The audit also noted areas where SANDAG and its partner agencies could strengthen the effectiveness of the program such as more rigorous monitoring of economic conditions that may impact sales tax revenues and project costs as well as the development of a performance framework to analyze TransNet progress against Ordinance goals, among others.

The FY 2018 TPA included 26 recommendations. However, most of the FY 2018 recommendations included multiple recommendations, making it a total of 43. The staff has completed 21 of these

recommendations in addition to partially completing 3 recommendations. Since the last update to the ITOC, staff has completed five recommendations Nos. 7a, 8, 9a, 10, and 25.

FY 2021 TransNet Triennial Performance Audit

Overall, the FY 2021 TPA concluded that SANDAG completed many planned Major Corridor projects as intended by the Ordinance. The audit also found that SANDAG was compliant with TransNet provisions, focused on transparency, and strengthened its financial models and controls. In addition, the audit noted areas for improvement such as better tracking and reporting against Ordinance goals, more enhanced quality control documentation, and the need for Board collaboration on Bike Early Action Program permitting issues, among other areas.

The FY 2021 TPA included 26 recommendations. The staff has completed 13 of these recommendations, and the rest are in the process of being addressed. Since the last update to the ITOC, staff has completed four recommendations Nos. 1, 2, 8, and 9. A few items contain ongoing efforts to ensure continuous process improvement.

FY 2024 TransNet Triennial Performance Audit

The FY 2024 TPA found that SANDAG reported the completion of approximately one-third of the major corridor projects outlined in the TransNet Ordinance. The audit recommends that SANDAG needs to more clearly show how projects meet the commitments outlined in the Ordinance. Among the recommendations was amending the TransNet Ordinance to align it with the latest Regional Plan. The audit also recommended that SANDAG act more strongly to implement prior audit recommendations.

The FY 2024 TPA included 24 recommendations. Staff has completed five of these, and the remaining are currently being addressed. This is the first status update since the FY 2024 TPA was accepted by the ITOC. The completed recommendations are Nos. 2, 4, 10, 20, and 21.

Despite challenges related to staffing and funding during the most recent audits, staff has developed a workplan to address current and prior audit recommendations and continues to work with the auditor to ensure that recommendations are understood and implemented.

Next Steps

The next quarterly update on the audit recommendation implementation status is anticipated for presentation to the ITOC in February 2025.

Susan Huntington, Director of Financial Planning, Budgets, and Grants

Attachments:
1. Implementation of TPA Recommendations: Progress Update Charts
2. Implementation of TPA Recommendations: Progress Update Matrix – In-Progress
3. Implementation of TPA Recommendations: Progress Update Matrix – Recently Completed
4. Implementation of TPA Recommendations: Completion Forms

SANDAG

OCTOBER 2024

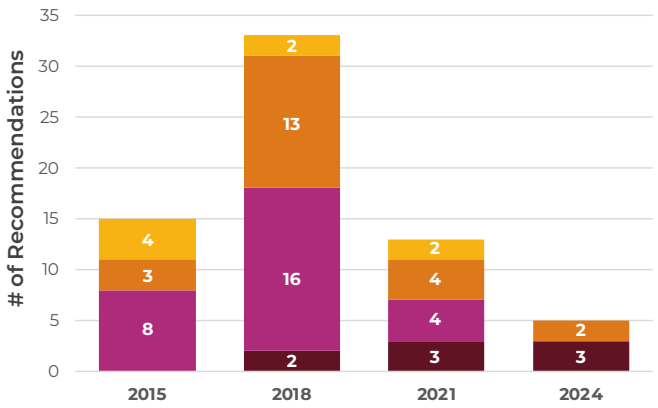
Triennial Performance Audit (TPA) Recommendations

Progress Update

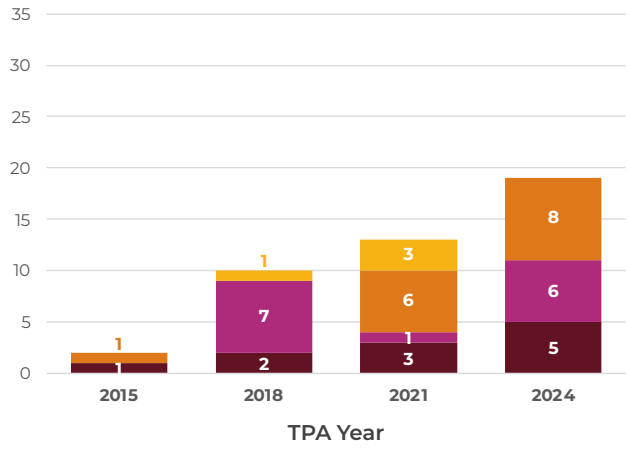
2015 – 2024 TPA Recommendations

Status and Priorities

Complete



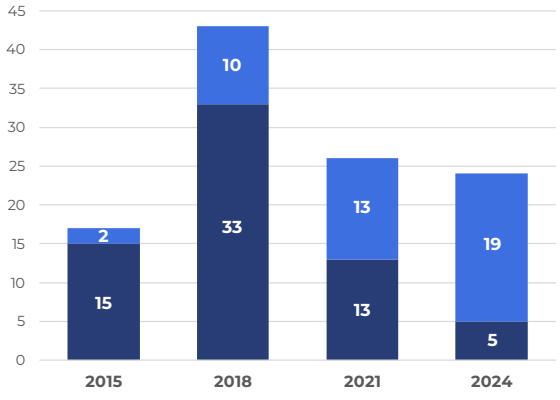
In Progress



Critical High Medium Low

2015 – 2024 TPA Recommendations

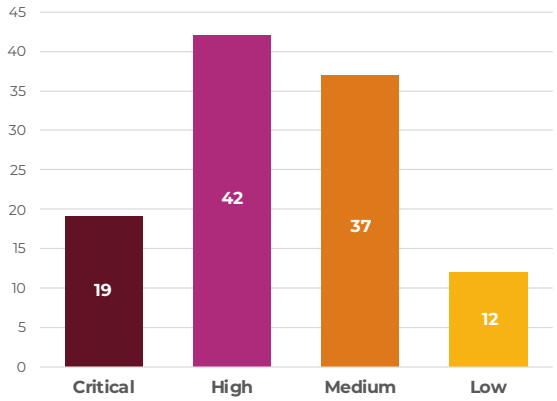
Status



Complete In Progress

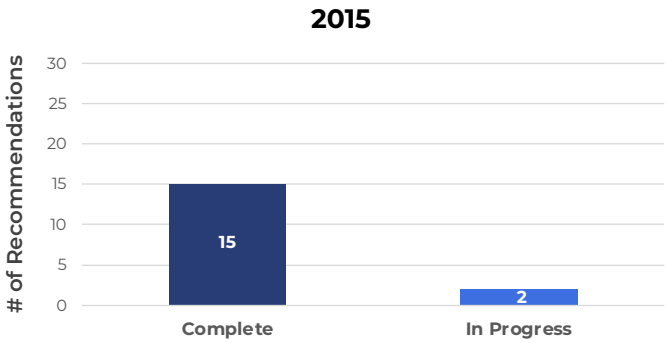
2015 – 2024 TPA Recommendations

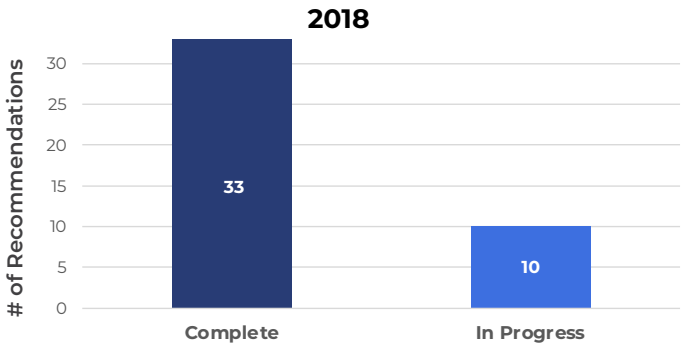
Priorities

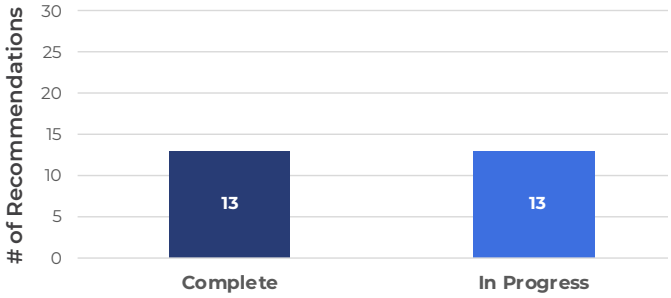


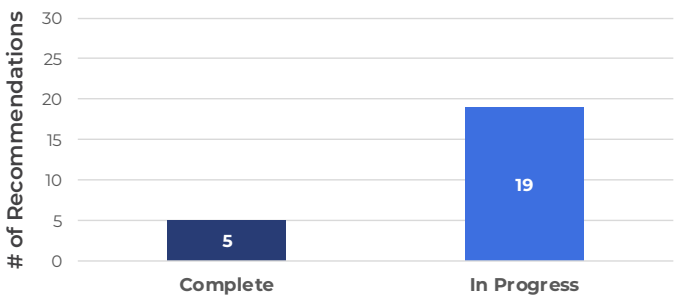
2015 – 2024 TPA Recommendations

Status by Year









Implementation of TPA Recommendations - In Progress

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2015	12	Track and report grant performance data to identify whether grants are achieving program goals, including: • For Active Transportation and Smart Growth Incentive grant programs, implement processes to gather and analyze baseline performance data against actual results to fully assess project performance in meeting goals. • For Senior Mini-Grant Program, capture and report on all other performance metrics captured in the quarterly progress reports, where applicable, and show performance over time.	Medium	In Progress	Jenny Russo	The next call for projects for the Active Transportation Grant Program (ATGP) will include performance measures that grantees will be required to meet and report on. The Program will be updated to include processes to report this data to ITOC and other Policy Advisory Committees. The date for the next call for projects is unknown at this time. The Smart Growth Incentive Program and Senior Mini-Grant Program were changed in 2021 to include performance measures, and processes were implemented to collect this data.	The timeline for the next Active Transportation Grant Program (ATGP) is still undetermined at this time. This item will be addressed in the ATGP during that next call for projects. The Smart Growth Incentive Program and Senior Mini-Grant Program were changed in 2021 to include performance measures, and processes were implemented to collect this data.	Staff will begin reporting the outcome of the performance measures on closed projects to ITOC and other Policy Advisory Committees in January 2025.	Prior to 2020, the grant programs were administered by separate teams in the Planning Department, and there was no oversight of the programs to ensure consistency across the programs or adherence to requirements beyond the general program requirements in the TransNet Ordinance. All of the grant programs were brought under a centralized team in 2020, and progress has been made since that time to being implementing performance measures with the release of a new competitive cycle. Staff was not aware of this prior audit recommendation that the performance data should be reported to ITOC until the 2024 TransNet Triennial Performance Audit Report was issued.	Winter 2024	
2015	17	Set performance indicators and capture data, such as: • Percent of projects delivered on schedule and ready for construction; • Percent of project awards not exceeding more than 10% of estimates; • Percentage of support costs and a percent of budget; • Percent of projects delivered on budget; • Miles of bike paths paved compared to total planned; or • Rate of serious or fatal bike crashes in areas where bike paths and lanes have been created.	Critical	In Progress	Chelsea Gonzales	Since the conclusion of FY 2017, staff has provided the ITOC Annual TransNet Status reports to capture the majority of this information. Staff includes planned versus actual milestone accomplishments for the Ready to Advertise and Open to Public construction milestones; percentage that construction project awards have exceeded engineer's estimates; support-to-capital ratio trends for major corridors and bikeway projects; outside funding leveraged from federal, state, and other local sources; and miles of bike path by phase and year of completion.	Staff has started preparing updates for the FY 2024 Annual TransNet Status Reports. The Capital Project Office will be collaborating with the Bikeway team to see whether there is readily available bike safety trend data that can be incorporated into this report or a future report. All other data points will continue to be produced.	The FY 2024 Annual TransNet Status Reports will be brought to ITOC by or before January 2025.	Majority of data requested has been produced since the FY 2017 Annual TransNet Status Reports. Since the majority of the bike Early Action Program projects are just completing or beginning construction, more data on improved bike safety will be available in the coming years.	Ongoing	
2018	3	Regularly track and report on the TransNet Program's financial capacity to complete projects and programs by implementing the following: a. Establishing a formal structured protocol to review funding sources and uses occurring in the last 10 to 20 years of the TransNet Extension Program to identify potential capacity and revenue constraints that would impact the ability to complete the major corridor projects by 2048 and assess options such as delaying projects, eliminating projects, or reducing scope as warranted. This capacity assessment should be formally revisited on a regular basis, so that decision makers are aware of periods in which the agency may have to consider delaying projects or reducing project scope as needed.	High	In Progress	Michelle Smith	Staff is working on the next POF and will analyze what Major Corridor projects will be impacted due to lack of future funding.	Staff established timeline for the 2024 POF and are working on updating costs and revenues to present to the BOD/ITOC in early 2025.	Working with PFM on new model runs and finalize report and presentation	The Executive Leadership's direction was not to present to the Board at the December 2023 meeting.	Winter 2024 (January 2025)	
2018	3	Regularly track and report on the TransNet Program's financial capacity to complete projects and programs by implementing the following: c. Identifying methods to assess options, if needed, to delay, eliminate, or reduce scope of projects and whether the method would follow the same priority process used in the San Diego Forward: The Regional Plan or a different process would be used.	High	In Progress	Tuere Fa'aola	An initial concept of transportation projects was presented to the Board of Directors in early 2024 which included an evaluation and prioritization of projects which would further regional goals of a sustainable and resilient future for our region and economy – supported by a transportation network that is convenient, equitable, healthy, and safe. These projects will be further assessed as the Regional Plan development continues.	TransNet ordinance projects are evaluated with each Regional Plan update using current data such as traffic volumes, population, housing, and jobs forecasts, transportation model performance measure results, compliance with the most recent federal and state requirements, and other factors related to project readiness, constructability timelines, and funding availability. This evaluation will be completed with every Regional Plan update.	Staff will continue to evaluate TransNet projects in the Regional Plan and refine their scope based on the project evaluation process. The evaluation process will be documented in the Regional Plan. Upon adoption of the Regional Plan, staff will develop a comparative table showing the differences between the TransNet ordinance project and the currently proposed project scope.	Staff had considered this item completed. The FY 2024 audit does not consider completed as per their interpretation. Staff who previously worked on this element is no longer with the agency. The item will be revisited in FY 2026.	Winter 2026	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2018	5	Establish a comprehensive performance framework by implementing the following: a. Setting targets to measure TransNet performance against the TransNet Extension Ordinance goals in-line with federally mandated deadlines or at a faster pace. At a minimum, some narrative could accompany performance reporting to help others understand whether data and results were favorable or unfavorable.	Critical	In Progress	Michelle Smith	Staff is working on aligning the State of the Commute Dashboard to the TransNet Ordinance.	Staff is working with updating the Goals and Provisions sheet to determine how the information should be displayed. Finance staff has been working with Data Science staff to see if data can be presented by Corridor and by fiscal year going back to FY 2009.	Continuing to work with Data Science staff on how data has been collected and how best to display the data so that the public can understand and to best align with TransNet Ordinance.	Staff interpreted this recommendation differently than what was the auditor's intent and will revisit how we can provide data to show compliance with TransNet Ordinance.	Spring 2025	
2018	5	Establish a comprehensive performance framework by implementing the following: b. Capturing performance outcome data related to safety metrics, pavement condition, and bridge condition for highways, local roadways, and bicycle (bike) and pedestrian modes. 1. Use the California Highway Patrols' Statewide Integrated Traffic Records System (SWITRS) to measure and monitor safety statistics—both for motorized and non-motorized fatalities and serious injuries—especially against the new safety targets developed by Caltrans and adopted by SANDAG. 2. Track and report highway pavement and bridge condition available from Caltrans on the SANDAG website or provide a hyperlink to where that information is available for taxpayers. Additionally, work with Caltrans to determine if bridge and pavement data can be isolated for San Diego County from the Imperial County data contained within the Caltrans District 11 reported data. 3. Track and report on local jurisdiction pavement condition by requiring local jurisdictions to provide pavement condition index data as soon as pavement condition surveys are performed and results become available. 4. Obtain and use private sector data to analyze congestion and delay on local streets and roads or evaluate status of Caltrans' Performance Measurement System (PeMS) to capture road performance including level of coverage of detection.	Critical	In Progress	Samual Sanford	5b3: staff initiated data review for the annual State of the Commute report, and researched SB1121 as a potential source of pavement data.	5b1 – Complete 5b2 – Complete 5b3 - The TransNet amendment discussion include requiring pavement data collection to support regional efforts, as the current data is infrequent and often spatially incomplete, highlighting the need for more comprehensive information. 5b4 - Complete	5b3: Staff will continue to support TransNet Ordinance update discussions and recommend inclusion of local roadway pavement data.	5b3: Resources are not available to identify specific data 5b1, 5b2, and 5b4 are complete.	Spring 2024	
2018	5	Establish a comprehensive performance framework by implementing the following: d. Providing regular performance monitoring reports that consider past performance in relation to TransNet goals through quarterly updates to the SANDAG Board and committees, annual public reports on the status of TransNet, and website postings.	High	In Progress	Grace Miño	Data Science team to meet with TransNet team to figure out next steps on aligning this with other audit items before June 2024.	Item 5d is linked to the new software outlined in 5a. Additionally, the staff must wait for the implementation of the TransNet Ordinance Amendments. It's important to secure a contract for the updated software to enhance performance monitoring. The team will keep collaborating with the TransNet team to refine the audit tracker.	It's important to secure a contract for the updated software to enhance performance monitoring. The team will keep collaborating with the TransNet team to refine the audit tracker.	Did not fully understand the auditor's recommendation but trying to address this with all data points that were added to the State of the Commute dashboard. Will work on TransNet team to ensure we're on the same page on how to address this.	Summer 2025	
2018	7	Enhance the Story Map tool, TransNet project status listing (shown in Appendix A), or develop a different tool to capture project output details and track TransNet accomplishments over time by implementing the following: b. Building upon planned output data currently captured through the Regional Transportation Improvement Program's automated ProjectTrak database and reported in the Annual Output and Outcome report by reconciling those planned outputs with actual accomplishments. Consider requiring local jurisdictions to provide a	High	In Progress	Richard Radcliffe	In spring 2024, Vendor Contract amendment was drafted and being processed through ERP system and Contracts dept.	Contract amendment has been executed, and coordination with vendor for platform upgrade has begun. Monthly upgrade coordination meetings to be scheduled, with the upgrade expected to be completed mid-2025. KPIs and improvements to data collection and analysis expected to follow implementation timeline.	Schedule monthly coordination meetings with vendor Eco Interactive for duration of upgrade implementation, including KPIs.	Timing of RTIP development cycle, negotiations with vendor, issues with ERP system implementation, contract amendment execution and approval.	Summer 2024 Contract amendment was executed in August 2024, while implementation of platform upgrade is expected to be completed in mid-2025.	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
		closeout report with updated, actual data as projects are completed.									
2018	12	Continue to monitor compliance with SANDAG Board Policy No. 031, Rule 21, until otherwise amended, by implementing the following: a. Following-up on the results from the SANDAG Board Policy No. 031, Rule 21 evaluation conducted by SANDAG in 2014:1. Use results from SANDAG Board Policy No. 031, local Rule 21 review to make identified changes to the Ordinance definitions and follow-up on areas of noncompliance noted during the review. 2. Work with locals to determine a method to demonstrate compliance with SANDAG Board Policy No. 031, Rule 21.3. Amend or establish a SANDAG Board Policy to require local jurisdictions to track and report on the number of bike and pedestrian facilities implemented using TransNet funds.	High	In Progress	Josh Clark	SANDAG staff are completing a TransNet Ordinance Amendments Subcommittee Report summarizing work on this item over the past 2 years.	The TransNet Ordinance Amendments Subcommittee Report was finalized, summarizing work on this item over the past two years.	SANDAG staff will share the outcomes from the Ordinance Amendments Subcommittee progress through 2024, the proposed amendments to the TransNet Ordinance will be brought to the Mobility Group, followed by ITOC and the Transportation Committee, then ultimately to the Board of Directors. SANDAG staff have discussed and will continue on next steps that would be required to incorporate these changes in existing, or forthcoming, tracking systems.	SANDAG Staff have worked at the pace of the Mobility Working Group and its Subcommittee to implement these recommendations and the process continues as a priority.	Summer 2024	
2018	12	Continue to monitor compliance with SANDAG Board Policy No. 031, Rule 21, until otherwise amended, by implementing the following: b. Conducting another review of local projects and considering whether any adjustments are warranted in light of SANDAG's Complete Streets Policy.	High	In Progress	Josh Clark	SANDAG staff are continuing review of the 2023 RTIP projects.	SANDAG staff are continuing review of the 2023 RTIP projects.	SANDAG staff aims to complete their review of local agencies' 2023 RTIP projects for consistency with Board Policy No. 031 Rule No. 21 Routine Accommodations for Bikes and Pedestrians in 2024. Adjustments in Board Policy No. 031 are warranted and the process is described above in 12.a, and will be consistent with Recommendation Nos. 5.a-e, 7b, or others as necessary with that work to be completed in 2024.	RTIP project reviews for consistency with Rule #21 have been conducted as staff resources allow. Staff from the Engineering and Construction Division have been prioritizing their work as lead agency implementers of SANDAG's RTIP projects amidst staff turnover, and this has been a higher priority.	Summer 2024	
2018	13	Continue to analyze major transit commute routes and services and report on whether commute times have improved or should be improved.	Low	In Progress	Connor Vaughs	Transition from old Passenger Counting Program to software system is underway and should be completed by summer 2024. Data Science team to meet with TransNet team to address this before June 2024.	In June 2024, the updated State of the Commute dashboard was released. Staff is working on a Transit Ridership Dashboard on building a comprehensive dashboard, accessibly both by public and staff.	The Public Transit Ridership Dashboard will be released by the end of calendar year 2024.	Did not fully understand the auditor's recommendation as we have been reporting the same commute routes for years. Will work with transit operators on this or will have to say simply cannot be completed as this isn't a measure the transit operators track.	Fall 2024	
2018	23	Regularly report on implementation of TransNet Extension Ordinance goals by annually publishing progress on SANDAG's website, annual report, or other easily visible reporting tool.	High	In Progress	Michelle Smith		Staff is working with updating the Goals and Provisions sheet to determine how the information should be displayed. Finance staff has been working with Data Science staff to see if data can be presented by Corridor and by fiscal year going back to FY 2009.	Continuing to work with Data Science staff on how data has been collected and how best to display the data so that the public can understand and to best align with TransNet Ordinance.		Spring 2025	
2021	3	Develop and adopt a formal process to address issues identified during annual Plan of Finance updates that discusses short-term and long-term funding scenarios and how options specifically impact the scope and schedule of remaining TransNet Extension Ordinance projects. The plan should include clear methodology, criteria, and triggers for making decisions on TransNet Extension Ordinance projects if funding does not materialize as expected and how to make choices to reduce scope, delay, or eliminate projects from the TransNet Extension Ordinance portfolio.	Critical	In Progress	Michelle Smith	Staff has started working on the next POF which will identify funding limitations. The results of this POF will be presented to the Board of Directors by the end of the fiscal year and will discuss which projects will need to be delayed or removed from the Ordinance.	Staff will document a process to analyze and recommend alternatives based on POF results.	Staff interpreted this recommendation differently than what was the auditor's intent. Per further discussion, staff will not shift priorities to start the development of a formal, written process on determining TransNet funding project selection as well as address any shortfalls and how they will impact current and future projects. A new staff position will be created to focus on this recommendation and will work with various departments to create a process. Also, staff is currently seeking additional funding to create a Project Prioritization Process to aid in this effort.	Staff interpreted this recommendation differently from what the auditor intended, and believed it was implemented through the Plan of Finance exercise.	Spring 2025	
2021	4	Develop a risk-based approach for Quality Assurance/Quality Control testing and indication of review to strengthen documentation of Quality Assurance/Quality Control activities employed and results to better demonstrate data verifications	Medium	In Progress	Mike Duncan	Staff continued development and use of detailed test plans and closeout memos to ensure that QA prioritization aligned with SMEs and that QA work was clearly documented.	In FY 2025 Q1, staff are focused on high priority, high risk projects related to Regional Plan inputs such as Regional Forecast SCS scenarios, revenue estimates and performance measures. Our emphasis continues to include thorough and detailed test plans, with ongoing communication with SMEs., incorporation of Python scripting to ensure repeatable and well documented QA processes, and	Staff will continue to use risk based QA prioritization. In response to Auditor comments, we will add a quantitative risk matrix to test plans in FY 2025 Q2, as we anticipate a wider variety of QA tasks.	Staff expected this recommendation to be implemented by Summer 2024. Based on the auditor's comment, staff continues to make additional improvements.	Fall 2024 (FY 2025 Q2)	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
							recommendation of best practices to SMEs regarding process methods and documentation.				
2021	5	Enhance organization of Peer Review Process supporting documents by providing a corresponding table to capture topics discussed, reference items to checklists, and close out memos to better link what was planned, what was done, and how issues were addressed.	Medium	In Progress	Mike Duncan	Staff has continued multiple peer reviews on 2025 Regional Plan components and topics such as Telework Assumptions and the expert review of the ABM3 Model. Staff are adding the auditor recommended summary table to link key peer review questions, discussion results, action items and action item resolution.	In FY25 Q1, staff has conducted or planned peer reviews on Commercial Vehicle Modeling, Vision Zero Action Plan Safety Corridor Network, transit study data analysis and the TransNet Plan of Finance update. Staff are incorporating recommended summary tables before finalizing peer review documents.	In response to Auditor comment, staff will continue to add a summary table to Peer Review documentation, including key topics covered, action items identified, and steps taken to address action items. To improve documentation, summary tables will be added to key peer reviews from calendar 2024, where they are not already present.	Making improvements to implement this recommendation has required multiple steps. Work will be completed during the development of the 2025 Regional Plan.	Winter 2024 FY 2025 Q3 - key peer reviews for 2025 Regional Plan will be complete with summary tables	
2021	6	Clearly describe to the Board the Quality Assurance/Quality Control sampling methodology employed, any limitations of the data, and associated cost-benefits or risks of the approach.	Low	In Progress	Mike Duncan	One Data Science presentation was made in the board retreat in March 2024. We continue to monitor any data requests and analysis that are presented to the board and ensure that they go through a rigorous QA review and that any data presented to the board is accurate and reliable.	As new items that have undergone QA and/or PRP review go to the Board, staff will add information on risk assessment, prioritization, limitations of data and sampling per auditor recommendations.	Recent focus has been to ensure that data presented to Board has undergone QA and/or PRP process. In response to Auditor comments, we will also add information on risk assessment, prioritization, limitations of data and sampling where relevant.	Based on the auditor's comment, staff continues to make additional improvements to implement this recommendation.	Winter 2024	
2021	10	Implement shorter-term steps to report on performance, while waiting on the longer-term Transportation Performance Management Framework, including continued development of SANDAG's proposed "Goals and Provisions" document to distribute to the Board and ITOC	High	In Progress	Michelle Smith	Staff is working on the document titled "TransNet Goals and Provisions" which align with the TransNet Extension Ordinance Goals. This document is currently under review and data is being gathered from the State of the Commute and budget information.	Staff is working with updating the Goals and Provisions sheet to determine how the information should be displayed. Finance staff has been working with Data Science staff to see if data can be presented by Corridor and by fiscal year going back to FY 2009.	Continuing to work with Data Science staff on how data has been collected and how best to display the data so that the public can understand and to best align with TransNet Ordinance.	Staff interpreted this recommendation differently from how the auditor intended. Staff will revisit how it can provide data that demonstrates compliance with the TransNet Ordinance.	Summer 2024	
2021	11	Create summarized graphics to quickly indicate TransNet Extension Ordinance status based on data in the revised quarterly reports for reporting to the Board and ITOC	Medium	In Progress	Chelsea Gonzales	Staff will be working on a new TransNet website to include information related to TransNet projects and Ordinance only. Currently staff provides this type of updates on the Capital program.	Staff has created a TransNet Ordinance Matrix and will be updating the Quarterly Reports to provide more graphical representations.	New staff will be hired in FY 2025 to focus on this recommendation and will work with the Communications team to provide a more graphical representation of TransNet Ordinance reporting.	Staff interpreted this recommendation differently from how the auditor intended. Staff will revisit how it can provide data that demonstrates compliance with the TransNet Ordinance.	Summer 2024	
2021	13	Consider and prepare a regional safety plan that complements Caltrans' Statewide Plan and details SANDAG's vision, goals, objectives, and strategies to address regional trends, road conditions, and driving behaviors	Medium	In Progress	Samual Sanford	Development of Vision Zero Action Plan elements, including the draft Safety Focus Network and Systemic Safety Network continue along with prioritization processes, action items development, and the draft plan document.	The development of key elements for the Vision Zero Action Plan, including in the Safety Focus Network and Systemic Safety Network, is completed. This work includes prioritization processes, action item development, and preparation of the draft plan. The Final Vision Zero Action Plan is scheduled to be presented to the Transportation Committee in Fall 2024. Once presented, this item may be considered complete.	After the presentation to the Transportation Committee, as an Information Item, this recommendation can be deemed complete.	Funding identification, successful grant application, grant agreement, and subsequent contraction required significant time.	Fall 2024	
2021	15	Estimate and communicate to the Board and ITOC the quantifiable impact of permit delays on individual Bike Early Action Program projects and the overall Regional Bikeway Program	Critical	In Progress	Josh Clark	SANDAG Bikeways staff will continue tracking estimate to actual project schedule milestones and report to ITOC in 2024.	SANDAG Bikeways staff are updating the format of the Quarterly Status Report and working with Project Managers to consistently track timelines/durations for permit approvals, estimates and actual.	SANDAG Staff will report on permit delays in quarterly reporting. SANDAG Staff will discuss whether there is a standard method for determining permit review times for common permit types, projects, and the permitting entities/departments, and at which point those delays can be tracked quantifiably.	There is no recommended methodology for "quantifying impacts of permit delays" beyond the program's schedules. Quantifying an impact would not be a straightforward exercise, and it would require assistance from SANDAG staff on the Economics team. This team has had many competing demands and staff turnover, so developing the needed custom analyses and reporting would be challenging.	Ongoing	
2021	16	Work with the Board to have leadership collaborate with its representatives from the City of San Diego to rectify critical Bike Early Action Program project permit issues	Critical	In Progress	Josh Clark	SANDAG and City executives continue to meet and discuss project permitting issues, Board leaders have been apprised of these matters and included in the process when appropriate.	SANDAG and City of San Diego Executive Meeting will take place Thursday September 5th with new SANDAG staff in leadership roles to assist in agency coordination and next steps.	Staff will continue looking for additional ways to deliver the Bike EAP more effectively and continue working with partner agencies and other stakeholders to better coordinate and expedite project delivery going forward. SANDAG is working with the Engineering and Capital Projects Division at the City of San Diego to improve project review efficiency.	SANDAG staff members have apprised Board members, as well as City of San Diego representatives, of project permit issues. This will continue as necessary, but Board leadership will decide when and how the recommended collaboration takes place.	Ongoing	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2021	19	Modify TransNet Dashboard data or Board reports to compare actual individual project data against original baseline budgets and schedule by project phase to more clearly show progress against initial plans and provide explanatory context in addition to aligning TransNet Dashboard project phase categories with those used in individual project management tools	Medium	In Progress	Chelsea Gonzales	Staff is currently evaluating near-term opportunities to strengthen the data reported on the TransNet Dashboard, including reporting on prior completed CIPs in addition to the active CIPS currently reported on the website. We are also considering possibilities for more clearly reporting Ordinance completion status and remaining scope/projects. SANDAG staff are discussing the internal capacity to institute these recommended changes following the end of the CORA Project Management vendor contract.	Collaboration has begun with IT, Communications, and the Capital Project Office for the design of a new TransNet Dashboard page on SANDAG.org. Staff is considering options for how to best display project information and categorize projects by phase.	We will continue working with IT and Communications teams to solidify plans for the revamped Dashboard.	Staff began implementation efforts with the Cora Project Management System. However, the system structure did not align with SANDAG budget development processes or the new ERP system. Staff is restarting procurement efforts for a new PPM.	Winter 2025	
2021	20	Track and analyze more granular internal project milestones within Bike Early Action Program project phases—such as planned and actual schematic design, detailed design, right-of-way, utility coordination, and construction documents, to better identify where possible impediments and delays occur and may need to be addressed	Medium	In Progress	Josh Clark	SANDAG staff continues to report on project milestones in quarterly reporting, most recently in the April 2024 Bikeways Quarterly Status Report.	SANDAG staff continues to report on project milestones in quarterly reporting, most recently in the July 2024 Bikeways Quarterly Status Report with revisions to the format in progress for project managers to use in the next (October) Quarterly Status Report to better facilitate this granular milestone tracking.	Staff will further analyze this recommendation to ensure best use of staff resources and whether there may be other reporting tools that may be more useful and cost-effective.	SANDAG staff have discussed the steps that would be required to incorporate these changes, per project, in existing Quarterly Status Reports or in the other existing PM tools within the agency. The appropriate solutions and resources do not yet exist to accommodate these changes.	Ongoing	
2021	25	Consider expanding the ITOC qualifications to include knowledge of emerging topics SANDAG presents before the committee such as multi-modal planning, active transportation, transportation system management and operations, transportation planning, performance measures, and legal issues	Low	In Progress	Adrian Paniagua	Based on the ITOC Chair's request, the first and second readings of the proposed Ordinance amendments were moved to Fall 2024, after ITOC presents the FY 2024 TransNet Performance Audit report to the Board.	On August 1, 2024, the ITOC Chair, Maryam Babaki, and the Subcommittee to Consider ITOC Ordinance Amendments met to discuss the next steps. The ITOC Subcommittee and Chair Babaki decided to postpone their presentation of the Ordinance amendments to the Board so that they can discuss additional revisions to the ITOC membership and the two additional categories.	The ITOC will be asked in September to appoint one subcommittee member. The subcommittee will discuss additional updates to the Ordinance amendments in Fall 2024. Depending on the outcomes of subcommittee discussions, the presentation to the Board is anticipated to be in Winter 2024. As a result, the target completion date is updated to Winter 2024.	The whole amendment process has taken more time than anticipated. Additionally, the Board approval process has added a considerable amount of time to the implementation of this recommendation.	Winter 2024	
2021	26	Explore options and feasibility of moving ITOC candidate screening and selection process outside of the SANDAG Board to maximize appointment transparency and minimize any perceived selection bias	Low	In Progress	Adrian Paniagua	Based on the ITOC Chair's request, the first and second readings of the proposed Ordinance amendments were moved to Fall 2024, after ITOC presents the FY 2024 TransNet Performance Audit report to the Board.	On August 1, 2024, the ITOC Chair, Maryam Babaki, and the Subcommittee to Consider ITOC Ordinance Amendments met to discuss the next steps. The ITOC Subcommittee and Chair Babaki decided to postpone their presentation of the Ordinance amendments to the Board so that they can discuss additional revisions to the ITOC membership and the two additional categories.	The ITOC will be asked in September to appoint one subcommittee member. The subcommittee will discuss additional updates to the Ordinance amendments in Fall 2024. Depending on the outcomes of subcommittee discussions, the presentation to the Board is anticipated to be in Winter 2024. As a result, the target completion date will be updated to Winter 2024.	The whole amendment process has taken more time than anticipated. Additionally, the Board approval process has added a considerable amount of time to the implementation of this recommendation.	Winter 2024	
2024	1	Ensure SANDAG Executive Management designated staff to have assigned responsibility for tracking against the Ordinance major corridor planned pledges at a detailed location boundary and scope level to be able to demonstrate what actual improvements were made.	Critical	In Progress	Dawn Vettese		Dawn Vettese is the Executive Manager. Dawn Vettese has temporarily appointed Chelsea for this position, they will be tracking against Ordinance major corridor planned pledges. Hiring process has begun to fill out the designated position, and we anticipate this position to be filled on the second quarter of FY 2025. This recommendation is similar to recommendation eight from FY 2024.	Hiring process has begun to fill out the designated position, we anticipate this position to be filled on the second quarter of FY 2025.		Winter 2024	
2024	3	Make sure the revamped or new tools or spreadsheets comparing actual to planned project delivery for Ordinance major corridor planned pledges at a detailed location boundary and scope level are accurate and supported through links to project fact sheets, budget documents, google maps, or other specific project-level documents validating completion as appropriate.	Critical	In Progress	Lisa Starace		SANDAG has been utilizing GIS data to update maps for projects which are related to the Ordinance as part of the FY 2025 Program Budget. Staff is developing online tools to improve how this information is presented in a detailed and understandable way to the public via the SANDAG website.	Staff is developing a new matrix, and while Public Affairs will be involved, they are also focusing on the new TransNet Dashboard page on sandag.org. The project information will be accessible online as part of the ongoing proof of concept.		Summer 2025	
2024	5	Update data in the TransNet Dashboard – or alternate public facing system designated in place of the Dashboard – on monthly basis to ensure up to date budget, expenditure, schedule, and status information is comprehensively available for both current	High	In Progress	Chelsea Gonzales		Staff is working with IT to develop a plan to include prior CIP completed TransNet Major Corridor and Bike projects to the Dashboard. Data is still available in SharePoint if needed.	Collaboration with IT and Communications and the Capital Project Office for the Design of a new TransNet Dashboard page on SANDAG.org is ongoing. In the interim, staff will find a way to upload the final CIP sheets to the current Dashboard.		Winter 2025	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
		in-progress major corridor projects and previous major corridor projects completed.									
2024	6	Work with MTS and NCTD to closely monitor ridership on the TransNet-funded routes against service frequency levels and report to the SANDAG Board and ITOC on the impact service adjustments may have on riders, including how actual services align with the original plans in the TransNet Ordinance.	Medium	In Progress	Brian Lane		A new ridership dashboard tool will be introduced to planners and the public in the fall of 2024 to provide planners with an improved way to monitor ridership against service levels. Ridership and service frequency levels and their impacts on ridership will be added to the annual State of Commute Report brought to the Board and ITOC. As part of Recommendation #7, the next TransNet Ordinance Amendment will include documentation on past and current service levels.	Ensure that the next TransNet Ordinance Amendment will include documentation on past and current service levels. Work with the Data Science team to add documentation to the next State of the Commute update.		Spring 2025	
2024	7	Ensure decisions made regarding funding MTS' and NCTD's transit operating service gaps or frequency expectations are documented with rationale supporting decisions and incorporated into Ordinance amendments as warranted.	Medium	In Progress	Brian Lane		At the quarterly Regional Short-Range Transit Planning (RSRTP) Task Force meetings, transit planning staff from SANDAG, MTS, and NCTD discuss the rationale for planned service levels as they relate to funding and ridership changes. Ridership and service frequency levels and their impacts on ridership will be added to the annual State of Commute Report brought to the Mobility Working Group, ITOC, and Board. As part of Recommendation #6, the next TransNet Ordinance Amendment will include documentation on past and current service levels.	Ensure that the next TransNet Ordinance Amendment will include documentation on past and current service levels. Work with the Data Science team to add documentation to the next State of the Commute update.		Spring 2025	
2024	8	Ensure Executive Management designate staff with the assigned responsibility for tracking future remaining major corridor projects against the Ordinance planned pledges at a detailed location boundary and scope level to be able to demonstrate what actual improvements are planned and which remaining major corridor projects will not be completed.	High	In Progress	Dawn Vettese		Dawn Vettese is the Executive Manager. Dawn Vettese has temporarily appointed Chelsea for this position, they will be tracking against Ordinance major corridor planned pledges. Hiring process has begun to fill out the designated position, and we anticipate this position to be filled on the second quarter of FY 2025. This recommendation is similar to recommendation 1 from FY 2024.	Hiring process has begun to fill out the designated position, we anticipate this position to be filled on the second quarter of FY 2025.		Winter 2024	
2024	9	Establish tools or mechanisms to track remaining Ordinance major corridor projects (boundaries and scope) clearly and accurately against the 2021 Regional Plan and future regional plans, including maintaining underlying supporting data reported.	High	In Progress	Chelsea Gonzales		The Matrix completes the first section of this recommendation as to tracking projects against the 2021 Regional Plan and future plans.	Working with the Planning team, this information will be updated in the TransNet Ordinance and Major Corridors Matrix.		Winter 2024	
2024	11	Provide a detailed listing to the Board and ITOC annually – or highlight those remaining original TransNet major corridor project boundaries and scope that will not be completed as pledged – starting in 2024 before completion of the future 2025 Regional Plan and regularly thereafter.	Critical	In Progress	Rachel Kennedy		In response to recommendations from the 2024 TransNet Triennial Performance Audit, SANDAG staff has prepared a new comprehensive matrix of TransNet Ordinance projects and the corresponding Regional Plan projects and Capital Improvement Projects (CIPs). The matrix will also be updated in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.	The matrix is reviewed quarterly for any needed updates. The matrix will also be updated in 2025 with finalization of the 2025 Regional Plan, to correlate the remaining projects to their associated project number in the 2025 Regional Plan.		Winter 2025	
2024	12	Present proposed amendment to the Board to align planned major corridor projects from the TransNet Ordinance with the current 2021 Regional Plan as required by the TransNet Ordinance.	Critical	In Progress			Staff is waiting on confirmation from Susan and Antoinette if we proceed with this audit recommendation.			Fall 2025	
2024	13	Present the details of the next Plan of Finance to the Board and ITOC including specific amounts of funding shortfalls by subprogram and program-wide, in addition	Critical	In Progress	Michelle Smith		Staff established timeline for the 2024 POF and are working on updating costs and revenues to present to the BOD/ITOC in early 2025.	Working with PFM on new model runs and finalize report and presentation		February 2025	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
		to the timeframe when shortages may begin to affect project delivery.									
2024	14	Develop specific options and corresponding timelines on possible actions to address funding shortfalls for the Board and ITOC that clearly state the impact of each option at the project- level, including how options will compare to what was originally pledged in the ordinance for each project.	High	In Progress	Michelle Smith		Funding shortfalls will be determined during the run of the 2024 POF.	Staff will present this information as part of the presentation of the 2024 POF in early 2025.		Spring 2025	
2024	15	Develop, implement, and use a format, transparent, and vetted methodology and strategy for reprioritizing pledged ongoing and future TransNet major corridor projects against limited funding – including how funds are moved between projects and factors are weighed for starting new projects when other ongoing projects may have unmet funding needs.	High	In Progress	Michelle Smith		Staff is creating a funding matrix for TransNet funded projects that will provide greater transparency to how projects are selected for TransNet funds.	Once the matrix is developed and approved. This matrix will help make decisions on what Capital projects will be funded moving forward following goals and provisions of the TransNet Ordinance.		Spring 2025	
2024	16	Revamp the smart growth grant application form to clearly identify quantified, detailed objectives and deliverables to allow for meaningful analysis.	Medium	In Progress	Jenny Russo		Grants staff have held discussions with Planning staff about possible updates that could be made and would be relevant to each particular project type. Staff also mentioned these updates would be made to the upcoming Cycle 6 call for projects during the Sustainable Communities, Mobility, and Social Equity Working group meetings in June 2024 as well as the Transportation Committee meeting in July as part of soliciting feedback for the call for projects. Sustainable Communities WG (Item 3): https://d3n9y02raazwpg.cloudfront.net/sandag/64d6695e-857c-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-1720209080.pdf Mobility WG (Item 5): https://d3n9y02raazwpg.cloudfront.net/sandag/07e9af30-1a19-11ef-b231-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-1718235850.pdf Social Equity WG (Item 5): https://d3n9y02raazwpg.cloudfront.net/sandag/35fa77cc-994d-11ee-a93d-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-1719502837.pdf Transportation Committee (Item 9): https://d3n9y02raazwpg.cloudfront.net/sandag/53d7c6c3-84c2-11ee-852f-0050569183fa-3a383fb0-7365-4b67-b96e-089bf81cce16-1721350591.pdf	Changes to the application template will be made in FY 2025 Q1 as part of the development of the cycle 6 call for projects.		Winter 2024	
2024	17	Require grantees to include a well- defined description of what will be constructed through the project to affect desired smart growth outcomes.	Medium	In Progress	Jenny Russo		Grants staff have held discussions with Planning staff about changes to the application template that could be made to address this item.	Changes to the application template will be made in FY 2025 Q1 as part of the development of the cycle 6 call for projects.		Winter 2024	
2024	18	Require grantees to report on the quantifiable performance metrics now required in grant awards related to promoting smart growth goals to create compact, walkable, bikeable, and transit-oriented communities and increase housing and transportation choices around the region as applicable.	Medium	In Progress	Jenny Russo		Grants and Planning staff have conducted research to identify performance measures that could be used and are working on adding these to the Cycle 6 call for projects.	Changes to the cycle 6 call for projects will be made in FY 2025 Q1.		Winter 2024	
2024	19	Put practice in place to summarize grantee performance data, analyze success of grant efforts, and reports to ITOC.	Medium	In Progress	Jenny Russo		Grants staff began requiring performance measures of all new grants awarded in 2022 or later. The data is being collected and will be reported to ITOC beginning in January 2025.	Update the Biannual grants report for ITOC in time for the January 2025 meeting.		Winter 2024	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2024	22	Require SANDAG Executive Management to take an active role in overseeing the implementation of the ITOC audit recommendations and hold staff accountable for timely corrective action.	High	In Progress	Dawn Vettese		Dawn Vettese is the Executive Manager. This recommendation is an ongoing effort.	SANDAG has developed a solicitation for a full-time position to oversee the new internal TransNet Program Steering Committee to ensure timely completion and implementation of audit recommendations.		Winter 2024	
2024	23	Set timelines for local agency consensus on proposed Ordinance amendments and then take the related amendments to the Board for consideration soon after.	Medium	In Progress	Michelle Smith		Staff is working with new Executive Leadership to reestablish a schedule and review of the TransNet Ordinance Amendments.	Staff will establish a new timeframe and reach out to the subcommittee for discussion.	In Spring 2024, SANDAG hired a new CEO and several staff and executive leadership roles were changed or eliminated.	Spring 2025	
2024	24	Immediately propose the amendments to the Board for the ITOC changes and other areas relating to the prior audit recommendations.	Medium	In Progress	Michelle Smith		This item has been delayed and a new subcommittee is being established to review these changes/updates.	An item has been added to the September ITOC agenda to create a new subcommittee to review the proposed changes and create a new schedule for this item.	ITOC Chair Frankel and subcommittee Chair House in August 2024 requested that the ITOC Ordinance Amendments be delayed due to further time needed to review. With the turnover of ITOC members, a new subcommittee was formed to review the proposed language for ITOC members.	Summer 2024	

Implementation of TPA Recommendations - Recently Completed

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2018	7	Enhance the Story Map tool, TransNet project status listing (shown in Appendix A), or develop a different tool to capture project output details and track TransNet accomplishments over time by implementing the following: a. Developing a comprehensive universe of TransNet projects completed, underway, and planned. Reconcile universe back to TransNet Extension Ordinance and what was expected to be delivered. Once universe is reconciled for historic projects, update universe as new projects are started and continue reconciliation of those new projects to the TransNet Extension Ordinance.	High	Complete	Chelsea Gonzales	Staff has started working on a new crosswalk to map each TransNet CIP with their associated 2021 Regional Plan project(s) and TransNet Ordinance. The purpose of this Ordinance crosswalk to clearly identify the scope and boundaries that have been completed, are still in process, or that are no longer planned. In addition, the crosswalk will include details on the initial planned cost for each Ordinance project, the current cost of each CIP grouped by Ordinance.	Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.	Staff interpreted this recommendation differently than what was the auditor's intent and believed the TransNet Storymap fulfilled the intended recommendation.	Summer 2024	June 2024
2018	8	Update and refine the project listing started in the 10-Year Look-Back Review to ensure all major corridor projects are tracked back to those in the TransNet Extension Ordinance. Regularly report on project and financial status using the project listing developed in 10-Year Look-Back Review as a foundation or develop an alternate tool to accomplish the goal of tracking against the TransNet Extension Ordinance.	Medium	Complete	Chelsea Gonzales	Staff has started working on a new crosswalk to map each TransNet CIP with their associated 2021 Regional Plan project(s) and TransNet Ordinance. As part of this Ordinance crosswalk, we will clearly identify the scope and boundaries that have been completed, are still in process, or that are no longer planned. In addition, the crosswalk will include details on the initial planned cost for each Ordinance project, the current cost of each CIP grouped by Ordinance.	Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan. Moving forward, this new matrix will supersede the previous 10 year look back review.	Staff interpreted this recommendation differently than what was the auditor's intent and believed the prior crosswalks and Dashboard improvements fulfilled the requested CIP-to-Ordinance project mapping.	Summer 2024	June 2024
2018	9	Begin gathering data on whether the Construction Manager/General Contractor (CMGC) method used on the Mid-Coast Corridor Transit project is delivering on expectations for cost savings, efficiencies, better quality, or collaboration to solve problems rather than using a typical silo-approach between design, construction, contractors, and owners by implementing the following: a. Comparing SANDAG's proposed metrics for assessing Mid-Coast Corridor project performance to the performance metrics and practices used by Caltrans' to determine whether there are any additional practices SANDAG may want to include or adopt, such as the Caltrans innovations log, to help formally track benefits, successes, and challenges.	Medium	Complete	Chip Finch	Collected information continues to be used to compare the Mid Coast project CM/GC delivery method with the MVE DBB and Caltrans NCC projects and develop benefit analysis metrics.	Work continues on benefits analysis and is nearing completion. Work is nearing completion on both a qualitative and quantitative analysis of the benefits of CM/GC as observed by the Mid-coast project.	Work continues on benefits analysis and is expected to be completed in late 2024. Work continues on developing both a qualitative and quantitative analysis of the benefits of CM/GC as observed by the Mid-coast project.	The team is waiting on final Mid-Coast information	Winter 2024	
2018	10	Gather and store documents to support "benefit" statistics tracked for the North Coast Corridor and the Mid-Coast Corridor whether using the innovations log utilized by Caltrans or another method used by SANDAG. Maintain supporting documentation, such as cost comparisons, in a centralized repository that is linked or reconciled with the log or summary statistics.	Medium	Complete	Chip Finch	Mid-Coast Corridor: Benefit statistics and supporting documentation has been collected and is being stored and utilized in the benefit analysis. NCC Corridor: To be provided by Caltrans.	Mid-Coast Corridor: Continue to store collected benefit statistics and supporting documentation and utilize the information to analyze benefits.	Mid-Coast Corridor: Continue to store collected benefit statistics and supporting documentation and utilize the information to analyze benefits. NCC Corridor: To be provided by Caltrans.	Team needed for CON on Mid-Coast to finish, which it did in December 2023. The team has all data needed to make the comparisons. This item can be deemed complete.	Fall 2024	
2018	25	Better link TransNet funding to project and program activities for general public awareness by implementing the following: a. More prominently featuring the TransNet logo on SANDAG and TransNet partner websites as well as through other media such as Facebook and Twitter.	Low	Complete	Andrea Villyard	In December 2023, SANDAG launched a small social media campaign highlighting achievements through TransNet as part of the 35th Anniversary; at this time, the home page tile featuring the TransNet program was updated to highlight the TransNet 35th Anniversary--which still prominently features key program and project information. When the 35th Anniversary comes to an end, the anniversary tile will be transitioned back the general TransNet program tile.	The recommendation is in-progress for closeout.	Next steps include continuing to use the TransNet program logo lockup on SANDAG social media posts about TransNet and to continue to feature TransNet on the sandag.org home page.	Through 2020-2022, SANDAG underwent a website redesign and rebranding efforts. Once both were complete, prominent placement of the TransNet on sandag.org and of the logo lockup on social media was implemented.	Spring 2024	

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2021	1	Clearly identify whether the remaining TransNet Extension Ordinance projects will be part of the 2021 Regional Transportation Plan, before the SANDAG Board approves the 2021 plan, and provide a similar identification for any key changes in future Regional Transportation Plans.	Critical	Complete	Chelsea Gonzales	Staff has started working on a new crosswalk to map the TransNet Capital Improvement Projects (CIP) with their associated 2021 Regional Plan project(s) and TransNet Ordinance. As part of this crosswalk, we will clearly identify for each Ordinance project the scope and boundaries that have been completed, are still in process, or that are no longer planned as part of the Regional Plan and/or CIP.	Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.	Staff believed previous reports resulted in this audit recommendation being implemented.	Summer 2024	June 2024
2021	2	Develop regular crosswalks to summarize and compare planned major corridor projects outlined in the TransNet Extension Ordinance with current improvement implementation status by identifying project progress in terms of “complete”, “in-progress”, “cancelled”, or “moved beyond 2048 and outside the TransNet Extension Ordinance period”. SANDAG should complete this reconciliation annually, at the minimum when it revises its Capital Improvement Program Budget, or when SANDAG makes a major update to the Regional Transportation Plan and explain deviations from the TransNet Extension Ordinance including scope expansions, reductions, or mergers with other project segments through a log that captures all explanations. When performing this reconciliation, SANDAG should utilize a consistent numbering format or key identifier for each project to facilitate the tracking of changes over time	High	Complete	Chelsea Gonzales	Staff has started working on a new crosswalk to map each TransNet CIP with their associated 2021 Regional Plan project(s) and TransNet Ordinance. As part of this Ordinance crosswalk, we will clearly identify the scope and boundaries that have been completed, are still in process, or that are no longer planned.	Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.	Staff previously developed a crosswalk of each TransNet Ordinance and the associated Capital Improvement Program (CIP)s based on the last audit. Also, the TransNet Dashboard shows the completion status of each TransNet Ordinance project. It was thought that these items fulfilled the requested information.	Summer 2024	June 2024
2021	8	Clearly and comprehensively report on actual progress and accomplishments (or lack thereof) against the TransNet Extension Ordinance on a regular, periodic basis—such as quarterly or annually— for project scope, costs, schedule, accomplishments, and outcomes against promises	Critical	Complete	Chelsea Gonzales	Staff has started working on a new crosswalk to map each TransNet CIP with their associated 2021 Regional Plan project(s) and TransNet Ordinance. As part of this Ordinance crosswalk, we will clearly identify the scope and boundaries that have been completed, are still in process, or that are no longer planned. In addition, the crosswalk will include details on the initial planned cost for each Ordinance project, the current cost of each CIP grouped by Ordinance.	Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. Staff also continues to provide quarterly reports to the ITOC on the TransNet program. Data presented in those quarterly reports includes recent milestone accomplishments, future planned milestones, project expenditures, funds leveraged, and other project and program highlights.	The crosswalk will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new crosswalk will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan. Staff will also continue to provide quarterly reports to the ITOC on the TransNet program.	Staff believed that the quarterly and annual project status reports for TransNet status provided the requested information on project scope, costs, schedules, and major accomplishments.	Summer 2024	June 2024
2021	9	Demonstrate compliance with the TransNet Extension Ordinance by identifying, tracking, and reporting on various requirements and provisions to the Board and ITOC on a regular, periodic basis—such as quarterly or annually	High	Complete	Chelsea Gonzales	Staff is working on the document titled "TransNet Goals and Provisions" which align with the TransNet Extension Ordinance Goals. This document is currently under review and data is being gathered from the State of the Commute and budget information.	Staff has completed a TransNet Ordinance vs. CIP Matrix and will present this to the ITOC in September 2024.	Once ITOC has reviewed and approved this matrix, staff will create a Quarterly update to provide to the ITOC for review.	Staff is ensuring that the Audit recommendations are understood and ITOC provides their comments before moving forward with a new report.	Summer 2024	September 2024
2024	2	Revamp or create new tools or spreadsheets to comprehensively track major corridor project delivery against Ordinance planned pledges at a detailed location boundary and scope level.	Critical	Complete	Chelsea Gonzales		Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.		Summer 2024	June 2024

TPA Year	Item No.	Audit Recommendation	Priority	Status	Staff Lead	FY 2024 Q4 Updates	New Quarterly Updates	Next Steps	Reasons for Delay	Target Completion Date	Actual Completion Date
2024	4	Provide the detailed listing – or highlight just those original TransNet major corridor project boundaries and scopes that were not completed as pledged – to the Board and ITOC for use as part of annual budget conversations as well as the 2025 Regional Plan, and future regional plans.	Critical	Complete	Chelsea Gonzales		In response to recommendations from the 2024 TransNet Triennial Performance Audit, SANDAG staff has prepared a new comprehensive matrix of TransNet Ordinance projects and the corresponding Regional Plan projects and Capital Improvement Projects (CIPs), available on the TransNet Dashboard. Information is included on completion status, project scope, project limits, initial cost estimates, current funding totals, and clarifying comments where needed. The matrix also will be updated in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.	The matrix will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. A new matrix will also be created in 2025 with the finalization of the 2025 Regional Plan to correlate the remaining projects to their associated project number in the 2025 Regional Plan.		Summer 2024	June 2024
2024	10	Make sure the new tools or mechanisms comparing remaining Ordinance major corridor projects to regional plans at a detailed location boundary and scope level are accurate and supported through links to planning documents, budget information or plans of finance, or other documents as appropriate.	Critical	Complete	Chelsea Gonzales		The matrix created in Item No. 3 links to the Regional Plan by referencing the RP Corridor ID.	A link will be added to the Matrix to send reader directly to the Appendix A with the RP projects.		Fall 2024	
2024	20	Review grantees final close out reports and investigate any items that grantees marked as “in-progress.”	Medium	Complete	Jenny Russo		A new Grant Closeout Checklist was implemented in June 2024 that requires all grants to be reviewed in detail prior to processing the final payment or closing out. Included in the checklist is a review of the final progress report to ensure all items are completed, all deliverables have been provided to SANDAG, and that there are no outstanding issues on the project that need to be resolved.	When grantees notify SANDAG that their project is complete and ready to be closed out, Grants staff will utilize the closeout checklist to ensure this is no longer an issue.		Summer 2024	June 2024
2024	21	Validate that smart growth grantees met all objectives and verify that grantees provided deliverables at project close-out during site visits.	Medium	Complete	Jenny Russo		A new Grant Closeout Checklist was implemented in June 2024 that requires all grants to be reviewed in detail prior to processing the final payment or closing out. A copy of the checklist is attached. For construction projects, a site visit is conducted where the Program Manager goes to the project site and verifies that all work was completed per the grant scope of work and documents this on a Capital Project Site Visit Report. The completed checklist and report files are included as an attachment in ERP when the final invoice and retention release requests are routed for approval to ensure that no final payments are made without the required documentation. These process changes will be included in the Standard Operating Procedures that are under development and will be completed in FY25.	When grantees notify SANDAG that their project is complete and ready to be closed out, Grants staff will utilize the closeout checklist to ensure this is no longer an issue.		Summer 2024	June 2024

SANDAG

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2018

Item Number: 7

Audit Recommendation:

Enhance the Story Map tool, TransNet project status listing (shown in Appendix A), or develop a different tool to capture project output details and track TransNet accomplishments over time by implementing the following:
a. Developing a comprehensive universe of TransNet projects completed, underway, and planned. Reconcile universe back to TransNet Extension Ordinance and what was expected to be delivered. Once universe is reconciled for historic projects, update universe as new projects are started and continue reconciliation of those new projects to the TransNet Extension Ordinance.

Justification for Completion:

Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2018

Item Number: 8

Audit Recommendation:

Update and refine the project listing started in the 10-Year Look-Back Review to ensure all major corridor projects are tracked back to those in the TransNet Extension Ordinance. Regularly report on project and financial status using the project listing developed in 10-Year Look-Back Review as a foundation or develop an alternate tool to accomplish the goal of tracking against the TransNet Extension Ordinance.

Justification for Completion:

Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

Docusign Envelope ID: D4A0B42F-2B07-4116-8D61-7EAAF1F3E97A

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2018

Item Number: 9

Audit Recommendation:

Gather data on whether the CM/GC method used on the Mid-Coast Corridor Transit project is delivering on expectations for cost savings, efficiencies, better quality, or collaboration to solve problems rather than using a typical silo-approach between design, construction, contractors, and owners.

Justification for Completion:

Benefits of the CM/GC method were evaluated utilizing design review, value engineering (VE) and innovation logs for the SANDAG Mid-Coast Corridor Transit Project (MCCTP) and Caltrans North Coast Corridor (NCC) Projects. Both agencies analyzed the CM/GC method to evaluate benefits including cost reduction, construction efficiency and collaboration. SANDAG also compared two Trolley extension projects, MCCTP and Mission Valley East (MVE) using CM/GC and low bid (silo-approach) contracting methods, respectively. This evaluation was documented in the attached benefit evaluation report. Information from project documents were used to prepare the benefit evaluation including the comparison of the CM/GC to low bid contracting delivery, the benefits of CM/GC collaboration, and the development of key lessons and best practices.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: DocuSigned by: Venkatesa Ganesan 8729F020E7714A1... DocuSigned by: 6D4240E59077473 Date 9/13/2024

Director Signature: Signed by: 64B2FD8F1E5545D... Date: 9/16/2024

ITOC Approval: Yes: ☐ No: ☐

Meeting Date: Agenda number:

Meeting Link:

Docusign Envelope ID: D4A0B42F-2B07-4116-8D61-7EAAF1F3E97A

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TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2018

Item Number: 10

Audit Recommendation:

Gather and store documents to support "benefit" statistics tracked for the North Coast Corridor and the Mid-Coast Corridor whether using the innovations log utilized by Caltrans or another method used by SANDAG. Maintain supporting documentation, such as cost comparisons, in a centralized repository that is linked or reconciled with the log or summary statistics.

Justification for Completion:

The Mid-Coast Corridor Transit Project (MCCTP) benefit evaluation and project documentation is maintained on SANDAG servers including construction documents and the attached benefits evaluation report. In addition, SANDAG reviewed the benefits statistics tracked for NCC and their innovations log and determined the MCCTP tracked similar statistics and innovation logs.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: DocuSigned by: Venkatesa Ganesan 8729F020E7714A1... DocuSigned by: 6D4240E59077473... Date 9/13/2024

Director Signature: Signed by: 64B2FD8F1E5545D... Date: 9/16/2024

ITOC Approval: Yes: ☐ No: ☐

Meeting Date: Agenda number:

Meeting Link:







MID-COAST CORRIDOR
TRANSIT PROJECT

Construction Manager/ General Contractor Benefit Evaluation Report

September 10, 2024

Prepared by

SANDAG

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MID-COAST CORRIDOR
TRANSIT PROJECT

Construction Manager/General Contractor (CM/GC)
Benefit Evaluation Report
prepared for
Independent Taxpayer Oversight Committee (ITOC)
September 10, 2024

Prepared for:
The San Diego Association of Governments (SANDAG)
SANDAG

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Version Control Table

Revision No.	Date of Revision	Revisions Made

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1.0 EXECUTIVE SUMMARY

The San Diego Association of Governments (SANDAG) Mid-Coast Corridor Transit Project (Mid-Coast) extended the San Diego Metropolitan Transit System's (MTS) San Diego Trolley, Inc. (SDTI) UC San Diego Blue Line Trolley (Blue Line) to the north of the Old Town Transit Center (OTTC). The new alignment extends 10.9 miles along the I-5 Corridor through the University of California San Diego (UC San Diego) to the UTC Transit Center Station and includes nine new stations.

The Mid-Coast Project was completed within the capital budget of $2.17 billion approved by the Board in FY 2017. The Project budget included funds from the Federal Transit Administration (FTA) through a Full Funding Grant Agreement (FFGA). The FFGA made up slightly less than half the project budget, with TransNet sale tax revenue and state funds making up the other half.

In the preliminary engineering phase of Mid-Coast, the SANDAG team assessed alternative construction delivery methods and recommended the Construction Manager General Contractor (CMGC) contracting method given the size, complexity and risk profile of the Mid-Coast corridor and the perceived advantages of CMGC to enhance project delivery.

Selection of the CMGC was through a proposal process where experience, personnel and cost are factors used to select the best proposer. The joint venture builder Mid-Coast Transit Constructors (MCTC) was the selected CMGC firm. Successful negotiations concluded with an agreed guaranteed maximum price (GMP) to construct the Mid-Coast Project. The GMP was the price MCTC was to build the project at based on the plans, specifications, and assumptions when the GMP was negotiated.

The Independent Taxpayer Oversight Committee (ITOC) requested a report to examine if SANDAG derived value from the CMGC construction method on Mid-Coast based on expected:

- cost savings,
- efficiencies,
- collaboration to solve problems, and
- improved quality.

CMGC preconstruction services were expected to deliver savings benefits to the project because SANDAG would gain earlier and better design, value engineering and innovation, cost, and schedule information directly from the builder.

The preconstruction services phase was also intended to improve efficiency. One aspect is the collaboration between the CMGC, SANDAG and its designer and stakeholders. During the preconstruction phase, MCTC worked with SANDAG, MTS, North County Transit District (NCTD), Caltrans, City of San Diego (City) and UC San Diego to explain construction access needs, work and equipment space needs, and the impacts of working limitations on construction with the goal of achieving efficiencies while minimizing impacts. Another aspect is review of the design to identify changes that support more efficient construction methods through design or material choices. As an example, MCTC in collaboration with the design team made changes to retaining wall and bridge type selections that led to more efficient construction.

Another efficiency within the CMGC method is the opportunity to negotiate early work packages prior to completing final design to relocate utilities, clear construction sites and procure long lead materials so that major construction activities start early, reducing overall construction time. MCTC attended early meetings with stakeholders including operators, utilities, the City, Caltrans, Navy, UC San Diego and community groups to explain what, when and where construction would happen. MCTC listened to these stakeholders and adjusted where possible to mitigate concerns. This collaboration also informed MCTC and SANDAG about potential cost impacts and mitigations.

CMCG delivered on the potential to improve design and construction quality. MCTC quality control plan submittals required in preconstruction and implemented in construction established a baseline for assessing and documenting quality. Quality control and quality assurance inspection, testing, and documentation demonstrated that quality of construction on the Mid-Coast project met or exceeded specification requirements described in contract documents.

Analysis indicates that CMGC delivery method was successful in achieving SANDAG's goals. MCTC was proactively involved in design and throughout construction by identifying and resolving problems that resulted in on-time delivery of this complex project. Specific examples are included in this report. The SANDAG Mid-Coast project team successfully collaborated with MCTC, project design consultants, and stakeholder teams to facilitate a "project first" approach. This cooperation resulted in actions that improved construction efficiency with a high level of safety for the public and workers to deliver a quality project without any claims. The CMGC delivery provided the benefit of having the contractor develop a schedule and initiate early work and procurement packages before major construction, thereby reducing the risk of delays to core construction activities. Overall, the Operations within the project limits commenced one year ahead of the FFGA revenue service date and within budget, and construction changes were successfully negotiated and implemented.

2.0 INTRODUCTION AND BACKGROUND

2.1 Project Description

The San Diego Association of Governments (SANDAG) Mid-Coast Corridor Transit Project (Mid-Coast) extended the San Diego Metropolitan Transit System's (MTS) San Diego Trolley, Inc. (SDTI) UC San Diego Blue Line Trolley (Blue Line) starting rail construction at the Old Town Transit Center (OTTC). The new alignment extends 10.9 miles along the I-5 Corridor through the University of California San Diego (UC San Diego) to the UTC Transit Center Station and includes nine new stations, as shown in Figure 1. The Project also included track, signal and intersection improvements between Santa Fe Depot and Old Town, and off-site and on-site environmental mitigation. The Mid-Coast Project light rail extension was the flagship project in the Mid-Coast Corridor that also included Coaster double tracking, bike improvements and street and highway improvements. The Mid-Coast Project opened for revenue service in November 2021 providing a one-seat ride from San Ysidro to UC San Diego and UTC.

Figure 1 - Mid-Coast Trolley Extension Map



The Mid-Coast Project was completed within the capital budget of $2.17 billion, approved by the Board in FY 2017. The Project budget included funds from the Federal Transit Administration (FTA) through a Full Funding Grant Agreement (FFGA). The FFGA made up slightly less than half the project budget, with TransNet sale tax revenue and state funds making up the other half. Mid-Coast opened for revenue service a year ahead of the FFGA schedule and within the approved budget.

Table 1 - Mid-Coast Funding Sources

Fund Source	Amount	Percent
FTA FFGA Grant	$1,043,380,000	
FTA Grant	$129,000	
Federal Subtotal:	$1,043,509,000	48%
TransNet	$921,255,000	
Other Local, Finance	$206,437,000	
Local Subtotal:	$1,127,692,000	52%
Total:	$2,171,201,000	

2.2 Evaluation Criteria

The Independent Taxpayer Oversight Committee (ITOC) requested this report to examine if SANDAG derived value from the CMGC construction method on Mid-Coast based on expected:

- cost savings,
- efficiencies,
- collaboration to solve problems, and
- improved quality.

CMGC, including preconstruction services, was expected to deliver savings benefits to the Project because SANDAG would gain an earlier and better design, value engineering and innovation, cost, and schedule information with input directly from the builder.

2.3 CMGC Delivery Method

In the preliminary engineering phase of Mid-Coast, the SANDAG team assessed three contracting delivery methods: Design-Bid-Build (DBB) (also known as low bid), Design-Build (DB) and Construction Manager General Contractor (CMGC). SANDAG staff recommended the CMGC contracting method given the size, complexity and risk profile of the Mid-Coast Corridor and the perceived advantages of CMGC to enhance project delivery including improved design and constructability, contractor innovation and value engineering, contractor informed cost and schedule information prior to construction, and better cooperative relationships between SANDAG, the contractor and stakeholders throughout the project.

Selection of a CMGC is through a proposal process where experience, personnel and cost are factors used to select the best proposer. The joint venture builder Mid-Coast Transit Constructors (MCTC) was the selected CMGC firm. Both preconstruction services and construction were separately negotiated prices and contracts. Negotiating the construction price was an open-book

process with SANDAG developing an independent cost estimate (ICE) by its ICE consultant. The ICE consultant developed separate detailed cost assumptions and pricing as a basis for negotiation. Successful negotiations concluded with an agreed guaranteed maximum price (GMP) for Mid-Coast. The GMP was the price MCTC was to build the project based on the plans, specifications, and assumptions when the GMP was negotiated. The GMP is subject to change if owner-initiated design, scope or assumptions change during construction.

3.0 EVALUATION

3.1 Cost Savings and Efficiencies

Cost saving and construction efficiencies that reduced time and improved production were anticipated with MCTC participation starting in preconstruction services and continuing through construction in the areas listed below.

- Design Development Reviews,
- Quantity and Cost Estimating,
- Risk Management,
- Value Engineering (VE) & Innovation, and
- Accelerated Start of Construction Utilizing Early Work Packages

3.1.1 Design Development Reviews

MCTC provided input through the review and comment process for the plans and specifications at 65% and 80% design reviews. The 80% design, after review comments were addressed, became a fixed set of plans and specifications used as the basis for GMP negotiations (80% GMP set). The plan set designations were an estimated average level of design across all disciplines. As an example, track alignment, civil work, and cast-in-place bridges were further in design; while retaining walls, station electrical, elevators, and the Nobel parking structure were at a lower level of design in the 65%, and 80% GMP design submittals.

MCTC comment review was interactive and continuous between 65%, 80% GMP and 100% issued for construction documents. MCTC and the designer addressed physical and dimensional conflicts, material and equipment questions and clarified contract requirements. The process included written comments and mark-ups of the plans and specifications followed with design review meetings at the discipline level to reach a final disposition. Below are examples of changes that resulted from MCTC design review input.

- Retaining Walls: The Mid-Coast Corridor included retaining walls in the LOSSAN segment between the Tecolote Road and Gilman Drive. MCTC worked directly with designers, SANDAG and MTS, to eliminate more costly cast-in-place walls for lower cost slope paving between Tecolote Road and the Clairemont Drive stations. Cast-in-place walls and mechanically stabilized earth (MSE) walls were replaced with precast counterfort walls at the Balboa overcrossing and north to the Rose Creek overcrossing. The counterfort walls are faster to construct, have less excavation and reuse on-site soil

for backfill. Between SR-52 and Gilman Drive, MCTC and its drilling subcontractor collaborated with the designer on soil nail walls in lieu of standard retaining walls to minimize excavation and forming costs.

- Bridge Type Selection: Bridge selection was another example where input by MCTC reduced cost, improved efficiency or reduced construction impacts. At the "flyover" bridge where the Trolley crosses from east of the Coaster tracks to the west, MCTC provided staging and construction sequencing input that resulted in the selection of a precast girder bridge in lieu of a cast-in-place bridge to reduce cost and impact to rail service. For the Genesee viaduct, MCTC proposed precast solutions to avoid extensive falsework that would have extended the schedule by months and impacted traffic and business access. MCTC initiated workshops to address design parameters for the precast viaduct including aesthetics, weight and transportation size limits and erection methods and sequencing acceptable to SANDAG.
- Elevators: Mid-Coast has four elevated stations with a minimum of two elevators per station. MTS required visibility into the elevator cabs for security. The 65% design was similar to the MTS Grantville Station with a glass clad steel frame elevator tower, glass elevator cab and overhead hoist. MCTC pursued this concept with the elevator industry. From this industry review, MCTC was unable to find an elevator supplier willing to bid the proposed design. In a low bid process, this situation would have been realized after the design was complete and the project bid. However, SANDAG, designers and MCTC worked directly with elevator suppliers to address their design, specification, and commercial issues.
- Insurance: In the CMGC model the contractor participates in reviewing the specifications. One advantage to SANDAG was in developing a construction insurance program. Construction can be insured with standard construction insurance, owner-controlled insurance program (OCIP), and contractor-controlled insurance program (CCIP). CCIP was proposed by MCTC. With CCIP, MCTC could extend coverage to its subcontractors including qualified DBE subcontractors that may not have been insurable to the limits SANDAG requires in standard contract. With CCIP, MCTC supported coverage for small businesses, supporting SANDAG DBE goals.

MCTC review and input into the detailed construction plans and specifications benefited construction efficiency and reduced SANDAG exposure to constructability claims for differing interpretation of plans and specifications including scope of work, site conditions and third-party requirements.

3.1.2 Quantity and Cost Estimating

The Mid-Coast preconstruction services included cost estimating and final pricing. MCTC provided cost estimates at 65% design, and a cost proposal at the 80% GMP design level. All estimating started with developing and reconciling quantities, followed by developing costs and then reconciling costs. SANDAG had three resources providing cost estimates, the designer, the ICE consultant, and the Construction Manager (CM). The designer provided Engineer's Estimates at 65%, 80% and final design. The ICE consultant is part of the SANDAG Project Management team. The ICE consultant, Stanton, specializes in construction estimating for owners using estimators with construction industry experience. The ICE and MCTC costs were "bottom-up" estimates using detailed labor, equipment, material, and overhead rates. Both used the same construction industry estimating software. At the 80% GMP design level the CM also prepared a separate cost estimate.

At 65% design, the Engineer's Estimate, ICE and the MCTC estimates were based on a "frozen" set of 65% plans to develop uniform quantities and estimates while design continued. These estimates provided three cost data points to inform early Project construction budgeting and contingency. Table 2 shows the 65% construction estimates. The Engineer's Estimate was based on historic unit cost data, and assumptions about material and subcontractor cost. The ICE and MCTC cost estimates were "bottoms-up" estimates with estimated "plug" amounts for subcontractor work.

Table 2 – Mid-Coast 65% Design Estimates

Source	Amount
Engineer's Estimate	$942 Million
ICE	$951 Million
MCTC Estimate	$1,043 Million

The 65% estimates allowed SANDAG to compare early cost differences and drivers within the three estimates. SANDAG was then able to analyze the estimates to evaluate pricing and adjust or initiate larger value engineering efforts to reduce cost. Below are examples implemented after the 65% design that improved efficiency or reduced exposure to unanticipated costs.

- Spoils: Due to the constrained alignment, Mid-Coast had large quantity of excess excavated soil "spoils" to haul off and dispose of during retaining wall and site grading operations. At the time, few locations in San Diego County were accepting soil. The cost for hauling, dumping, and disposing of the spoils depended on the distance to the haul site and dump fee at the disposal site. Prior to the GMP, SANDAG and MCTC worked collaboratively to identify cost effective options for spoils disposal at both public and private sites. During construction SANDAG, MCTC and the CM worked collaboratively to utilize the lowest cost spoil disposal options. In addition, MCTC and the CM reduced the quantity of haul by finding locations to spread soil within the project limits, adding to slopes and minimizing excavation where possible.
- Vibration Mitigation at La Jolla Colony: The design of the at-grade track adjacent to the La Jolla Colony Condominiums included vibration reduction elements. The cost of the mitigation based on initial design plans was expensive due to complex construction and expensive materials. The designer collaborated with MCTC and evaluated other mitigation options that resulted in a new design that reduced cost and time while meeting the mitigation criteria.

The 80% GMP process was like the 65% cost estimates, except that the MCTC estimate was the GMP cost proposal. At 80% MCTC had received most of its subcontractor pricing. At 80%, SANDAG had its CM prepare an estimate using a force account approach. The MCTC GMP proposal included several higher cost items for subcontractor work. The higher costs resulted from design complexities or a limited subcontractor market. After reviewing the GMP proposal, SANDAG and MCTC collaborated with designers and subcontractors to improve pricing. Below are two examples.

- Elevators, Cabs and Hoists: As indicated earlier in this report, the elevators were a source of concern from design and cost standpoints. Subcontractor pricing from the steel fabricators, glazers, and elevator suppliers at the time of GMP carried risk amounts for

incomplete design and constructability challenges. SANDAG, the designer and MCTC met with these subcontractors and gained a better understanding of the cost drivers including code requirements, availability of materials, fabrication limitations and market escalation. SANDAG design team clarification and revisions of design requirements, configuration, and materials improved elevator manufacturer interest in the work, increased price certainty and lowered contractor risk.

- Aerial Station Fall Protection: The four aerial stations include stainless-steel wire mesh protection fences around the stations' perimeter. The stainless mesh was selected to allow visibility to the station platforms to enhance safety, reduce maintenance cost and reduce the visual impact of the station. The fabricator/installer selected by MCTC submitted an unexpectedly higher price for steel support fabrication and wire mesh. In addition, the supplier was unable to find a mesh that met FTA Buy America requirements. SANDAG, the designer and MCTC worked with the supplier to reduce the fabrication and installation challenges. The designer and MCTC worked with the fabricator to identify Buy America compliant material suppliers.

Table 3 shows the GMP estimates, the MCTC cost proposal and negotiated GMP. CMGC preconstruction collaboration in developing quantities and negotiating costs and understanding cost drivers on the Project was key to reaching a fair GMP on the 80% design.

Table 3 - Mid-Coast GMP Estimates

	Amount	% Difference from ICE
Independent Cost Estimate	$906 million	
Force Account Estimate	$934 million	3.1%
MCTC Proposal	$981 million	8.3%
Recommended	**$927.5 million**	2.4%

3.1.3 Risk Management

With CMGC, SANDAG expected MCCTC to collaborate with SANDAG and its stakeholders to identify and mitigate risks. SANDAG had a running risk process and Risk Register to identify known and anticipated risks with the goal of mitigation. Appendix A shows pages from the Risk Register with highlighted risks where MCTC had responsibility to manage or collaborate on specific risks.

MCTC actively supported the risk management process and helped quantify cost and time impacts for construction risks.

Below are examples of risks from Appendix A where MCTC participation was important in identifying, scoping and mitigating a risk.

- Genesee Viaduct: The Genesee viaduct was a complex structure with safety, phasing, traffic control and public relation risks. MCTC analyzed building a cast-in-place viaduct and identified schedule and constructability risks that were mitigated by a precast beam solution.
- LOSSAN Corridor: MCTC participated in the management of specific risks in the register related to Trolley construction directly adjacent to the LOSSAN NCTD Coaster tracks. NCTD was responsible for maintaining operations and on-track construction safety. MCTC participation during preconstruction and construction was vital to achieving all NCTD track return to service obligations. Proof of safety and return to service commitments were keys to building trust with NCTD and led to improved work zone limits and hours. The Improved work limits and time allowed MCTC to be more efficient, limiting cost and schedule risk.
- Stakeholders: The risk register includes risk items driven by stakeholders. MCTC developed relationships with key stakeholders to manage risks by clarifying construction operations and working with them on mitigation or avoidance. This included working with UC San Diego, Caltrans, the City, and NCTD to develop construction solutions and execute the solutions to build confidence that MCTC could manage timely construction under difficult and constrained conditions.

In addition to the Risk Register, the CMGC contract included a Risk Matrix defining specific construction risk responsibilities. Risks, either known or potential, had a value and responsible party that was negotiated and assigned to either SANDAG or MCTC and was reflected in the GMP. The Mid-Coast Project Risk Matrix, Appendix B, proved to be an effective means of resolving cost responsibility during construction, including questions on:

- Storm water control
- GMP to IFC changes
- Obtaining Permits and Right of Way
- Utility relocations

The MCTC participation in the Mid-Coast risk process provided the forum for SANDAG and MCTC to collaboratively work to avoid or mitigate other risks in the register.

3.1.4 Value Engineering (VE) and Innovation

A benefit SANDAG expected from CMGC was contractor driven VE and innovation savings opportunities. Appendix C is the Value Engineering Study conducted by SANDAG prior to MCTC starting on the Project. During preconstruction, MCTC was tasked with reviewing this study and providing recommendations. Appendix D, is MCTC's response including VE's to pursue out of the SANDAG report. The MCTC recommendations became the basis for continued VE analysis and implementation of SANDAG accepted VE concepts. In addition, MCTC also maintained a value

engineering log of VE ideas proposed during the design review process. Appendix E is the MCTC VE log listing and tracking disposition of the innovations that were developed as a part of design review process.

Table 4 below is a Preconstruction and Construction VE/Innovation Summary prepared by the CM that lists the VE concepts implemented out of the design process and additional VE concepts implemented during construction. The complete innovation log which included VE concepts and innovations not implemented is included as Appendix F Mid-Coast Corridor Transit Project Innovation Log.

Table 4 – Mid-Coast Preconstruction and Construction VE Summary

Mid-Coast Corridor Transit Project Preconstruction				
Item	Description	Phase	Status	Cost Savings
1	1.1 Revised bridges from cast-in-place to precast girders at selected bridges	Preconst	Implemented	-$12,102,000
2	3.0 Post grouting instead of ground improvements	Preconst	Implemented	-$7,301,000
3	7.0 Shift Balboa Station	Preconst	Implemented	-$2,346,000
4	8.0 Use standard barrier railing at platform edge and ped bridge	Preconst	Implemented	-$1,260,000
5	11.0 Use soldier pile walls instead to Type 1 retaining walls	Preconst	Implemented	-$672,000
6	11.1 Use soil nail walls instead of Type 1 retaining walls at selected walls.	Preconst	Implemented	$0
7	13.0 Use slope paving in selected areas n Morena Blvd instead of Type 1 walls	Preconst	Implemented	-$952,000
8	15.0 Use Counterfort retaining walls in fill vs MSE walls	Preconst / Const	Implemented	$1,456,000
9	17.0 Use precast girders on the LOSSAN fly over bridge	Preconst	Implemented	-$1,294,000
10	18.0 Revise viaduct hinges to minimize falsework and traffic impacts	Preconst	Implemented	$0

11	24.0 Use precast girders instead of cast-in-place for the viaduct.	Preconst	Implemented	-$35,603,000
12	Advanced relocation contract work	Preconst	Implemented	$0
item		Preconst	Subtotal:	-$60,074,000

Mid-Coast Corridor Transit Project Construction

Item	Description	Phase	Status	Cost Savings
1	Eliminate Tecolote Access Road and Bridge	Preconstruction / Construction	Implemented	-$1,700,000
2	Green Line/Blue Line Tie-In - Converting Direct Fixation Track to Ballasted Track	Construction Change	Implemented	-$575,632
3	Delete Contract Work on Morena and Balboa that would be demolished in near-term by the City's Pure Water and Alvarez Pipeline Projects	Construction Change	Implemented	-$336,981
4	Change RW B300-B500 and B600-B900 from CIP to Counterfort to reduce the impacts to traffic on Balboa Ave and manage constructability challenges for the switch back ramp walls B600-B900.	Construction Change	Implemented	-$246,939
5	Modify Tecolote Creek Bridge Approaches from geofoam to lightweight cellular concrete	Construction Change	Implemented	-$244,211
6	Removal of Tecolote Station Communication Room - Radio transmission moved to Mount Soledad	Construction Change	Implemented	-$205,871
7	Tecolote Ped Ramp Removal (North) - Redundant Ramp not needed	Construction Change	Implemented	-$203,742
8	Damon Yard Excavation Reduction	Construction Change	Implemented	-$137,151

9	Knoxville Ramp - Direct ramp vs. Switchback with walls	Construction Change	Implemented	-$76,782
10	Morena/Ariane Drive Modifications - Minimize barrier and driveway changes	Construction Change	Implemented	-$40,000
11	Change RW 500 to Slope Paving	Construction Change	Implemented	-$25,788
12	Change RW762 to Slope Paving	Construction Change	Implemented	-$185,402
13	UTC TPSS Civil Modifications	Construction Change	Implemented	-$12,504
14	Revisions to Pepper Canyon Access Road - Pervious Concrete to ACP	Construction Change	Implemented	-$81,626
15	South Guideway and Inter-Track Fence Revisions	Construction Change	Implemented	-$206,000
16	North Fence Revisions	Construction Change	Implemented	-$80,649
17	Pepper Canyon Station Plaza Revisions	Construction Change	Implemented	-$650,000
18	Revised 2" DCW Service at UTC	Construction Change	Implemented	-$46,300
		Construction	Subtotal:	-$5,055,578

The preconstruction VE savings in Table 4 are estimates based on early designs and assumptions about site working conditions and limitations. Saving from preconstruction VE concepts were realized through design changes and GMP cost negotiations. The construction savings listed in Table 4 are the actual cost reductions through change orders.

Within Table 4, Construction VE's, several items are changes proposed during preconstruction that could not be implemented before construction started because designs were not complete or third-party approvals were required. Two examples are the changes at the Old Town Wye and LOSSAN retaining walls. The Old Town Wye was redesigned from direct fixation to ballasted track. The redesign extended past the GMP because technical concerns required detailed analysis to address the designer's, MCTC and MTS concerns. In the segment shared with the Coaster, NCTD and San Diego Gas and Electric each required agency review and approval of the precast counterfort and soil nail walls. These approvals were obtained after MCTC started construction. MCTC collaboratively sequenced other work and maintained schedule while the walls were approved and released for construction.

Also, several VE's that were implemented in construction led to other savings and efficiencies in addition to the change order savings in Table 4. As an example, Construction Item 2 in Table 4 captures the construction savings to SANDAG from revising the Old Town Wye from a direct fixation track slab to ballasted track. What is not captured is the savings to the Project for reduced MTS single tracking and busing needed through the work area. Ballasted track allowed faster construction and accommodated single tracking through the work zone reducing single track from months to 6 weeks and reduced weekend busing to three weekends.

Another example is the Trolley viaduct in the center of Genesee Avenue. The Genesee viaduct was changed from cast-in-place to a precast concrete girder structure. This change reduced the need for extensive erection and removal of falsework, reduced overall construction time and limited impact to the community. A key example of reduced impact was placing all the bridge beams across La Jolla Village Drive in a single weekend closure. A cast-in-place viaduct would have required at least two long closures of this intersection to erect and remove falsework seriously impacting a dense commercial and residential area. The precast girder innovation also saved time and community objections by reducing falsework that would have blocked turning movements and limited business access.

3.1.5 Accelerated Start of Construction Utilizing Early Work Packages

Another efficiency benefit of CMGC is the ability to have the CMGC start construction and procurement early to clear major work areas and procure long lead time materials. Early construction and procurement through low bid contracting requires separate contracts for advanced work. In a low-bid scenario, advanced contracts shift risk to SANDAG for timely completion of early work to meet follow-on construction. On Mid-Coast, SANDAG implemented a separate GMP with MCTC for advanced utility relocation work as the first supplement to the MCTC CMGC contract including MCTC responsibility for the schedule and interface risk. Starting utility relocations ahead of starting the core Trolley construction was critical to keeping the planned revenue service date. The advanced utility package relocated water, sewer and storm drain facilities, while the core Project final design and pricing was being completed. Early relocation not only cleared tracks and streets for major construction but also resolved unanticipated utility conflicts early when the conflicts could be resolved without delaying core construction.

3.2 Collaboration and Problem Solving

CMGC is intended to be a more collaborative method of contracting compared to low-bid. Preconstruction services include tasks and deliverables that call for contractor participation and active collaboration. Tasks, such as cost estimating, design review, value engineering and early schedule development are typical CMGC preconstruction requirements. These tasks and deliverables drive collaboration with stakeholders, subcontractors, and operators earlier and at a level not available in a low bid process. In the case of Mid-Coast, SANDAG also included scope for Disadvantage Business Enterprise outreach, public communication and stakeholder support. MCTC supported SANDAG in these areas by hosting subcontractor outreach events in collaboration with the SANDAG Office of Diversity and Equity. MCTC also collaborated with SANDAG Communication Department on public notifications of bike lane, street and highway closures, and participated with SANDAG in meetings with UC San Diego, Caltrans and private property owners on staging, access, and noise control.

In addition to good collaboration, co-location with the owner and designer was considered a best practice. Co-location for Mid-Coast preconstruction took the form of the SANDAG project management team locating in expanded SANDAG offices and the designer and MCTC expanding or locating their offices in the building with SANDAG at 401 B Street. In construction, SANDAG resident engineers and construction management consultants co-located at the MCTC field office in University City and at adjacent or nearby offices on Santa Fe Street. Measuring the collaborative benefits of co-location is subjective. The qualitative benefits included immediacy for SANDAG and MCTC key personnel to quickly address concerns by arranging meetings and having immediate one-on-one discussions.

Collaboration started with a CMGC orientation program. The program was meant to develop relationships and a collaborative environment between SANDAG, MTS and NCTD with a "project first approach." MCTC brought in a facilitator and held several workshops aimed at team building. The result was integration of management and discipline teams, familiarization with organizational structures, contact lists and resolution ladders for the team. Follow-on workshops were held again at the start of construction with a focus on developing collaborative relationships between the CM and MCTC.

An example of a non-technical collaborative benefit to SANDAG and the region from CMGC was outreach to the disadvantaged business enterprise (DBE) contractors and suppliers. MCTC worked closely with SANDAG to co-sponsor DBE outreach events that connected DBE contractors with MCTC. This outreach supported the SANDAG Project DBE goal and the MCTC contract DBE goal. Through this collaboration, MCTC was able to exceed its DBE goal and help local DBE contractors grow their businesses.

Below are examples of collaboration experienced on Mid-Coast that would not necessarily be expected on low-bid projects.

- Private Property: MCTC's superintendent for utility and street work on Genesee Avenue, was the face of the Project to property owners and managers. He met with owners and coordinated street and driveway closures to minimize impacts including advance notice, street signage, and working with businesses to schedule construction in front of properties during days and hours of least impact.
- LOSSAN Corridor: NCTD, had safety requirements at the start of construction that required all work to stop, and equipment and workers pulled back 25 feet from the tracks from SR 52 to the San Diego River every time a LOSSAN trains transited this approximately 6.5-mile segment. In this segment, MCTC was working in multiple separate areas on various construction activities. To reduce halting work for the entire time trains moved through this segment, MCTC coordinated with NCTD to add fencing to separate trains from workers and equipment, and segmented the track into separate work zones to reduce work restrictions to when trains were in an individual work zone. These coordinated safety measures increased the work time available near the railroad and significantly improved production efficiency and on-time completion of Mid-Coast construction in the LOSSAN corridor.
- UC San Diego, City and Caltrans: MCTC was in preconstruction meetings with operating stakeholders to address concerns, adjust construction methods and dates and times of work to minimize impacts to their operations. Once in construction, MCTC developed a track record of performing work on time to the stakeholder requirements. This performance supported MCTC in collaborating with these stakeholders to expedite approvals and revise work limitations to improve MCTC efficiency.
- Signals and Rail Activation: SANDAG and MCTC collaborated with MTS side-by-side to develop a testing plan and schedule to verity the quality and operational integrity of the railroad signals and communication systems and in developing and implementing a highly successful rail activation and testing program prior to revenue service. Out of this collaboration, the team early on identified a delay to project opening if the MCTC implemented system testing on the entire line with a linear approach. The team decided

that the best way to start testing on time was to break the line into a southern and northern segment. MCTC started and concentrated work in the completed southern segment while construction continued in the northern segment. MCTC worked with MTS to revise its work sequence and to coordinate MTS inspection and acceptance. Final testing and commissioning started on time in the southern segment and transitioned to the northern segment to complete on schedule. The “project first” approach resulted in a collaborative effort to overlap the critical path testing and commission activities to ensure MTS could start pre-revenue service in time to support Project opening.

3.3 Quality Improvement

CMGC preconstruction services were expected to improve the quality of the design, cost estimates, schedule, and risk profile of a project. Previous discussion demonstrated MCTC input improved the quality of cost estimates, schedule, and risk assessment with detailed contractor information particularly in verification of quantities, material availability and production rates. The quality of the design’s constructability and clarity were improved by MCTC participation.

Quality verification in construction has two main components. The contractor is expected to perform quality control (QC) which is front line verification and documentation of quality including dimensions, clearances, material origin, compliance to specifications, and functional operability. The second component is quality assurance (QA), a verification function that QC activities and documentation are being performed. QA and QC functions are similar in CMGC and low-bid construction; however, complex projects such as Mid-Coast have more detailed QC and QA requirements.

As an FTA funded project, SANDAG was required to prepare a QA plan (QAP) that included FTA’s fifteen-points of quality. Because of the size and complexity of Mid-Coast, the SANDAG team included a QA and Buy America Manager. The QA Manager oversaw the development of the SANDAG QAP and led audits of the QA and QC implementation. QA during construction was implemented by the CM. A QC plan (QCP) was developed by MCTC, accepted by SANDAG, and then implemented by MCTC.

Appendix G is extracted of pages from the Mid-Coast Construction Program Management Report, September 2021 showing the tracking of quality statistics and status. Appendix G shows tracking of Non-Conformance Reports (NCRs) and Quality Action Items (QAIs). NCRs were initiated and prepared by MCTC for work out of compliance with the plans or specifications, such as an excessive ADA ramp slope, work out of dimensional tolerance, failed tests or incorrect certifications or other nonconformance issues. NCRs were closed after acceptance of corrective action or through documented mitigation and acceptance by SANDAG. A QAI is a quality issue that if uncorrected could lead to an NCR. Appendix G also shows the testing statistics and status highlights for this CM report. Before final contract acceptance all NCRs and QAIs were closed.

Overall construction quality was at or above the contract requirements. The implementation of the QCP and day-to-day QC was executed well. Coordination with the CM consultant’s QA team and SANDAG QA Manager was cooperative. Quality issues that required design support were resolved with MCTC, the designer, and the CM’s QA team including developing corrective options. If responsibility for a QC issue was in question, MCTC was willing to move forward with implementing solutions while responsibility was determined. This level of cooperation and

commitment to moving the project forward was typical for MCTC but is not always expected with low-bid or for all CMGC contractors. A measure of the success of the quality of MCTC's work is that the Project had no claims.

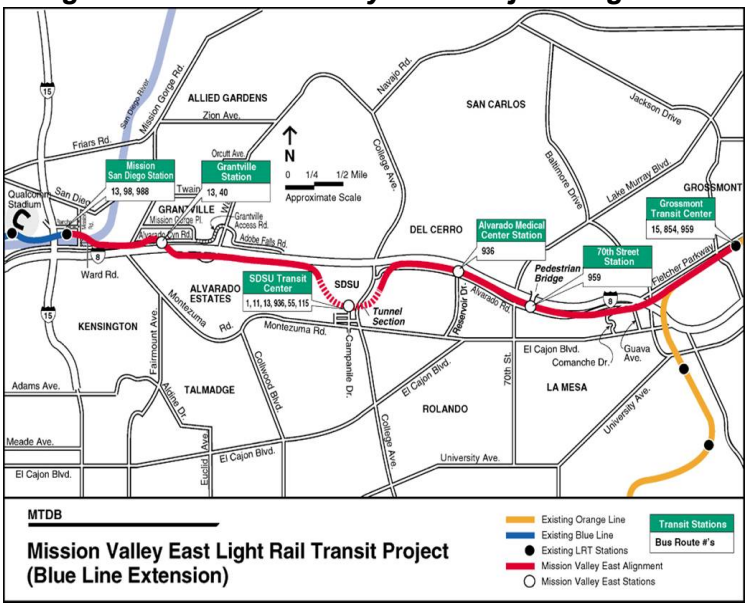
4.0 LOW-BID VS CMGC DELIVERY COMPARISON

Another analysis of savings and efficiency is to compare CMGC and low bid projects. Although such a comparison is imperfect as large rail transit projects are always unique with project specific scope and challenges, such a comparison provides insight into the effectiveness of CMGC. Therefore, this report has compared changes in cost at the budget level between the Mid-Coast and Mission Valley East (MVE) projects. A comparison at the budget level provides for reasonable comparison. Comparison at a more detailed level isn't feasible because of significant differences in scope, scale, design requirements and stakeholders.

4.1 Misson Valley East Background

MVE was built by MTS and opened in 2005. MVE was an approximately 5.8-mile extension of the MTS Trolley system from Mission San Diego Station connecting to the Orange Line in La Mesa. MVE was about half the length of Mid-Coast and at FFGA a quarter of the cost. MVE was constructed using five low-bid construction contracts (utility relocations, Grantville Segment, SDSU Segment, La Mesa Segment, Track and Systems).
Mid-Coast and MVE are the closest comparable projects in the region. Both were federally funded light rail extensions with complex structures and stations, similar track and systems design, and both have extensive structure and stations on public university campuses. Figure 2 shows the Mission Valley East Project starting in Mission Valley including the tunnel under the San Diego State University campus.

Figure 2 – Mission Valley East Project Alignment



Both projects were budgeted in each agency's Capital Improvement Program (CIP). MTS and SANDAG CIP budgets are divided into major line-item categories with a budget amount for each line item. Appendix H is the FY22 Mid-Coast CIP Budget which shows the line-item budget categories, which would be typical of large SANDAG CIP projects.

4.2 Mid-Coast Misson Valley East Line-Item Comparison

Table 5 is a budget level comparison of relevant line items between Mid-Coast and MVE with the same starting point, the budget at FFGA, and ending point, construction completion. Table 5 only compares the Construction line-item and three other line-items: Construction Management, Engineering (design) and Project Management. These three line-item amounts are tied to the value or change in value of the Construction line-item. Other budget line items such as Environmental, Vehicle, Right of Way, Contingency are project specific amounts that aren't comparable for this assessment. As an example, is vehicle procurement MVE included 11 new Trolley vehicles and Mid-Coast 36.

In Table 5, the percentage increases in Engineering line-item amount for Mid-Coast compared to MVE indicates that CMGC preconstruction design review was effective at improving design quality and reducing the level of design and CM support needed in construction. The comparison looked at percentage change in line-item amounts to try and normalize the comparison. Table 5 shows Mid-Coast had a 3% lower total percent increase than MVE for the four line-items compared. However, Mid-Coast had a 10% larger percent change in the Construction line-item than MVE. Mid-Coast experienced a slightly 4% higher percent increase in Administration cost than MVE. MVE had significantly larger 80% increases in Engineering and Construction Management.

Table 5 - Mid-Coast – Mission Valley East Budget Change Comparison

Mid-Coast - Mission Valley East Budget Change Comparison		
Items	Mid-Coast	Mission Valley East (MVE)
CONSTRUCTION		
Budget at FFGA	$927,500,000	$265,900,000
Budget at Complete	$1,168,199,174	$308,547,400
Budget Change	$240,699,174	$42,647,400
% Budget Change	26%	16%
ADMINISTRATION (PROJECT MANAGEMENT)		
Budget at FFGA	$71,560,828	$14,900,000
Budget at Complete	$86,392,019	$17,400,000
Budget Change	$14,831,191	$2,500,000
% Budget Change	21%	17%
ENGINEERING		
Budget at FFGA	$139,393,848	$21,300,000
Budget Complete	$166,847,048	$42,900,350
Budget Change	$27,453,200	$21,600,350
% Budget Change	20%	101%
CONSTRUCTION MANAGEMENT		
Budget at FFGA	$92,608,935	$21,300,000
Budget Complete	$131,615,670	$48,050,000
Budget Change	$39,006,735	$26,750,000
% Budget Change	42%	126%
Line Item Totals		
Budget at FFGA	$1,231,063,611	$323,400,000
Budget at Complete	$1,553,053,911	$416,897,750
Budget Change	$321,990,300	$93,497,750
% Budget Change	26%	29%

* MVE Budget Changes Table 7

** Adjusted per Table 6

The Mid-Coast Construction line-item includes owner directed scope that SANDAG initiated after the GMP was approved and not in the budget at FFGA. The Mid-Coast Construction amount in Table 5 has the owner directed scope subtracted out to provide a level comparison

with MVE by comparing the original construction cost at FFGA for both projects. The items and cost subtracted are shown in Table 6. The added scope included special trackwork south of Old Town requested by MTS, a parking structure at UTC as part of a right-of-way agreement, unbudgeted unsuitable soils quantities, expanded scope for elevators and fall protection at the four aerial stations, reconstruction of the Old Town Transit Center bus platforms, changes at the request of various stakeholders, and late sports fields and street improvements added as mitigations on the UC San Diego campus.

Table 6 – Mid-Coast Owner Directed Scope

Added Scope	Amount
Miscellaneous Access and Track Improvements	$1,306,893
UTC Parking Structure	$24,008,336
Unsuitable Soil	$8,600,408
Aerial Station Fall Protection	$12,129,515
Old Town Transit Center Bus Improvements	$5,827,867
Agency Changes (MTS, City, NCTD, Caltrans)	$3,884,680
UCSD	$14,348,538
Total	$70,106,237

The expectation is that Mid-Coast using the CMGC method should have resulted in a smaller Construction line-item increase than MVE. Several factors account for the larger Mid-Coast increase. One factor was the Mid-Coast design was incomplete when the GMP was negotiated. The items with incomplete design were included in the GMP as provisional sums, where the amount of the provisional sum was estimated based on the design level at the time of negotiation. Provisional sums were subject to renegotiation if there were significant changes when the final design was issued to MCTC. Several high value provisional sum items ultimately increased in scale and cost with final design. The provisional sums that increased in cost were landscaping and habitat restoration, an increase in the size of the Nobel Station parking structure, increase in electric substation site work, and higher than anticipated station site utility and electrical quantities and work.

In the future, project teams should advance the level of design prior to negotiating a GMP or include provisions in the construction contract to issue final plans and convert provisional sums within a short period time following GMP to mitigate costly changes in construction. This recommendation is included in the Mid-Coast Lessons Learned Reports Appendices I and J. Maintaining provisional sums well into the construction schedule should be avoided since cost

of inflation could significantly impact cost to complete construction and create a risk to project budget and completion schedule.

In this comparison, Engineering and Construction Management (CM) increases are closer to expectations for CMGC. MVE with low bid contracting, did not include contractor collaboration and needed more design and CM support in construction to resolve issues. It is not unusual for engineering costs to continue throughout construction to resolve unanticipated issues such as buildability constraints, utility conflicts, unanticipated site conditions and dimensional conflicts. Early participation by the CMGC in design review is expected identify more of these issues in design and reduce the level of reactive engineering needed in construction. This appears to be borne out in this comparison.

MVE Construction Management cost also increased more than Mid-Coast. The CMGC method is meant to shift more responsibility and risk to the contractor. On Mid-Coast, MCTC was tasked with developing a schedule, and phasing, quality and safety plans during preconstruction. In this comparison, CMGC preconstruction participation seems to support the expectation that CMGC reduces owner construction management. On the Mid-Coast Project, MCTC coordinated directly with stakeholders including Caltrans, UC San Diego and the Genesee Avenue community resulting in reduced construction management time and staff burden for coordinating with these stakeholders as would typically be done with low-bid construction contracts. In this regard, MCTC had early and active engagement with stakeholders to mitigate concerns such as nightwork, noise, traffic handling and access. On MVE, MTS and the CM consultant managed coordination with stakeholders while the contractor was in a more reactive secondary role with stakeholders.

4.3 Comparison Conclusions

In the Mid-Coast/MVE comparison, CMGC did not result in less construction change order cost versus low bid; however, SANDAG was able to evaluate construction cost and risk as SANDAG was setting construction and project budgets and included adequate contingencies. Thus, Mid-Coast finished within the total project budget at FFGA. The MVE budget was increased from $424 million at FFGA to $495.6 million over the life of the project, of which $42.6 million were budget increases for construction. Table 7, Mission Valley East Budget Total Change shows the MVE budget change as approved by MTS in April 2006.

Table 7 – Mission Valley East Budget Total Change

Mission Valley East Budget Line Item Changes April 2006				
Budget Line Items	@FFGA	@Complete*	Change	% Change
Administration**	$14,900,000	$17,400,000	$2,500,000	17%
Design**	$21,300,000	$42,900,350	$21,600,350	101%
Construction Management**	$21,300,000	$48,050,000	$26,750,000	126%
Professional Services	$2,400,000	$4,200,000	$1,800,000	75%
Right of Way	$31,200,000	$33,150,000	$1,950,000	6%
Construction**	$265,900,000	$308,547,400	$42,647,400	16%
Vehicles	$30,000,000	$37,850,000	$7,850,000	26%
Fare Collection	$1,100,000	$10,000	($1,090,000)	-99%
Communications	$1,100,000	$290,000	($810,000)	-74%
Start-Up	$2,400,000	$2,400,000	$0	0%
Contingency	$31,400,000	$0	($31,400,000)	-100%
Contaminated Soils	$1,000,000	$1,050,000	$50,000	5%
Total:	$424,000,000	$495,847,750	$71,847,750	

* Project Completion Prior to Close-out

** Compared Construction Related Line Items

This comparison indicates that CMGC preconstruction cost estimating and GMP pricing supported SANDAG in establishing an adequate construction and contingency budget line items. Mid-Coast may have reduced its construction change order increases below MVE had the level of design at GMP supported more accurate pricing and fewer provisional sums. In future projects, CMGC should be expected to reduce change order increases over low bid contracting if the design level at GMP negotiations is closer to 100%.

5.0 LESSONS LEARNED

Appendix I Final Design Phase Lessons Learned and Appendix J Construction Phase Lessons Learned were prepared by SANDAG to document CMGC best practices on Mid-Coast that were either applied during the project or should be considered in future CMGC projects.

In the design phase lessons learned, several recommendations proposed:

- Focus on early CMGC coordination of utility work and agreements. Early utility agreements facilitate early relocation that reduces the risk of utility conflicts during core project construction.
- SANDAG built Mid-Coast and eight additional corridor projects (Rose Creek Bikeway, San Diego River Bridge, Elvira to Morena Double Track, Voigt Drive Improvement, I-5 and Gilman Drive Improvements, I-5 Auxiliary Lane, Old Town Transit Center Improvements, and Lyman Roundabout) under one CMGC master contract with each project built as a supplement to

the master contract with its own GMP and technical specifications. Should SANDAG use this approach in the future, it is recommended that additional attention be paid to clarifying the specifications and differences/conflicts within the contract language between projects. Also, place emphasis on determining the cost allocation for shared resources such as offices, laydown areas and management and QA fairly in preconstruction.

- Another recommendation is engaging the ICE consultant earlier in preconstruction and clarifying the cost breakdown structure. For FTA funded projects, the FTA requires reporting in its Standard Cost Categories (SCC) such as stations, bridges and trackwork. Contractors and the ICE consultant develop costs based on quantities, crew size, equipment, materials, and production rates which don't readily match the SSC's. The CMGC and ICE estimates and payments need to be converted to SCCs per grant requirements. The recommendation is to determine the conversions to SCC in the preconstruction and carry through into construction.
- A recommendation implemented on Mid-Coast is documenting all value engineering costs including all SANDAG soft cost in evaluating VE proposals.

Recommendation 11 in Appendix I is a key lesson. Mid-Coast used provisional sums to advance to the GMP to meet critical dates. Provisional sums were placeholder prices used on specific project elements where designs were not sufficient for final pricing. As a result, final provisional sums were, in cases, renegotiated and exceeded the amounts estimated in the GMP. Therefore, to the extent possible, design should be advanced and provisional sums should be avoided or consider using unit pricing or other payment methods to limit renegotiating lump sum provisional prices in the GMP after executing the contract.

Other recommendations were to clarify the boilerplate, technical specifications, and definitions to avoid confusion on roles and responsibilities and better definition of agency versus contractor responsibilities for safety certification. Also, within the specifications, it was recommended that additional qualifications for the contractor QC staff be included.

SANDAG also reviewed CMGC evaluation documents from the Caltrans North Coast Corridor (NCC) Project which is adding HOV lanes on I-5 from Solana Beach to SR 78. This project is being constructed using the CMGC method. Caltrans District 11 developed an innovation log and processes to evaluate benefits and issues with CMGC for ITOC as part of the triennial review. There were similarities between the SANDAG Mid Coast and Caltrans NCC CMGC innovation log, cost tracking and payment methods, and Caltrans CMGC project management guidance and best practices could be incorporated into management practices used on future CMGC projects.

6.0 CONCLUSION

SANDAG considers CMGC to be a success for the Mid-Coast Corridor Project. Mid-Coast was completed within the project budget and prior to the revenue start date in the FFGA with no claims or pending construction litigation. FTA Region 9 Administrator, Ray Tellis, had called Mid-Coast the Region's gold star project. CMGC had specific benefits for the Mid-Coast that could be expected on other large, complex, or risky projects including:

- Ability to selection an experienced and proven contractor
- Contractor input into the design for value engineering and constructability
- Support with risk identification, avoidance, and mitigation
- Avoiding SANDAG coordination of multiple contractors to deliver a project
- Improved and early coordination and collaboration with operators, utilities, and stakeholder
- Improved cost and schedule information early and with better certainty

CMGC may not be appropriate for small or less complex projects where low bid may be more cost effective. For small and simpler projects, the cost of preconstruction services may not be offset by the design, constructability and risk avoidance benefits or the cost of the ICE consultant and negotiation process. CMGC may not be the best alternative for simple construction of parking structures, buildings or yard and maintenance facilities where design-build may be a preferrable option. A contracting decision process and memorandum should be considered for major capital projects to select the contracting method that best fits the project scope, budget and objectives. CMGC should be considered for high value and complex projects where contractor input would improve design, and cost and schedule certainty.

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix A

Mid-Coast Risk Register

DRAFT PROJECT RISK REGISTER

SANDAG Mid-Coast Project

ALL RISKS

Date Issue: June 21, 2023

Revision: 62

Mid-Coast Classifications

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Impact Scoring Breakdown

Impact Scores Legend	LOW 1	MEDIUM 2	HIGH 3
(P) Probability	<10%	>10% <50%	>50%
(C) Cost Impact	< $1 M	> $1M but < $5M	> $5M
(S) Schedule Impact	< 1 month	> 1 month but < 4 months	> 4 months
Rating	< = 6	7 - 12	13 - 18

Score = (Cost + Schedule) * Probability

Risk #	Linked Risk #	Mid-Coast Class.	SCC	FTA Risk Cat.	Seg.	Rea.	Status	Date Opened	Date Closed	Days Between	Risk Description (RD)	Consequence	P	C	S	Score	Interim Action	Action Finish Date (AFD)	Risk Mitigating Action (RMA)	RMA Target Finish Date (TFD)	Responsible Party (RP)
2			10.01	C	S1		Closed	6/1/2011	7/11/2013	771.00	The need to maintain service during track and platform modifications at Santa Fe. **(Confirmed Closed on 07/11/13)**	Could impact construction sequence or schedule							AVOIDED Santa Fe Depot not part of Project scope.		
6.1	6.1, 347, 356, 424	CON, CP, ENG	10.02	C	S2	R6, R7, R8, R9	Closed	6/1/2013	4/27/2017	1426.00	NCTD is requesting additional maintenance access along the right of way for Bridge access at Tecolote and West access road. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #347, #356, & #424**	Additional cost for access road.							ACCEPTED Will be paid for by Mid-Coast.		
9.1	7.1, 9.1, 9.2, Z16, Z17		10.04	C	S1		Closed	11/1/2011	7/11/2013	618.00	High traffic volumes at Taylor Street requires mitigation. Full grade separation required with bridge over Taylor St. **(Confirmed Closed on 07/11/13) - Link to Closed Risk #7.1, #9.2, #Z16, & #Z17**								REPLACED See Risk #9.2.		
21.1	17, 21.1, 235	CP, ENV	10.04	C	S1, S2, S3		Closed	11/1/2011	9/25/2013	694.00	There is potential for environmental impacts to endangered species at San Diego River Crossing, Rose Creek Canyon, SR52, and along I-5 near La Jolla Colony. The worst case could be that an endangered species is found in the San Diego River crossing that could require a Section 7 process that could take up to 120 days to complete, delaying construction for that long. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #17 & #235**	Potential delays and or costs in mitigating during construction.							REPLACED See Risk #235.		

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25.1	25, 25.1, 29.1, 217	CON, TP	10.04	C	S4	R14	Closed	10/22/2013	11/29/2016	1134.00	The traffic plans and street improvements along Genesee Ave need to be reviewed and accepted by City of San Diego. **(Confirmed Closed on 11/29/16) - Link to Closed Risk #25, #29.1, & #217**	City's review may result in additional restrictions or modifications to the construction plan which will cause cost and schedule delays.							MITIGATED Traffic plans and street improvements have been reviewed and accepted by the City.		
27.1	27.1, 244, 307, Z18	ENV, STR	10.04	C	S4		Closed	6/1/2013	10/22/2013	143.00	Aerial Structure - UCSD Viaduct: The elevated LRT encroaches on UCSD East property (Baseball Field). There is also a potential for archeological finds in the area. This also relates to UCSD refining sports	Potential delays.							MITIGATED Geotechnical boring have been completed.		
28.1	28.1, 217, Z18		10.04	C	S4		Closed	11/1/2011	9/25/2013	694.00	Aerial Structure - Genesee Viaduct: Constructability issues on Genesee given permanent and temporary lane reductions may increase the cost of the structures. The base assumption is that the project can take 1 lane in each direction and left turn pockets during construction. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #217& #Z18**	May increase the cost of the structures.							REPLACED See Risk #217.		
40			10.12	C	S1		Closed	6/1/2011	9/25/2013	847.00	Coordination of Santa Fe Depot Modifications to maintain existing rail service during construction has serious cost and schedule risks. This item addresses Special Trackwork. (Item #2 addresses guideway)	Cost and schedule risks.							MITIGATED Design has advanced.		
42			10.12	C	S1		Closed	6/1/2011	12/11/2013	924.00	Installation of turnout for Operational Enhancement of the MTS system at Santa Fe Depot is required to be in place prior to opening day of Mid-Coast. **(Confirmed Closed on 01/22/13)**	Possible delay to revenue service opening.							AVOIDED No changes are required for Mid-Coast operations.		
62			40.01	C	S3		Closed	11/1/2011	9/25/2013	694.00	One or two structures from STA 573+00 to 574+00 may be demolished. **(Confirmed Closed on 09/25/13)**	Demo/ relocation / legal costs may be incurred.							MITIGATED Design has advanced.		
63.1		CON, ENG, UTL	40.02	C	S1	R5	Closed	3/1/2013	8/15/2016	1263.00	There is potential for a construction impact to the 72" sewer line that runs parallel to tracks at the south end of the Clairemont Station. **(Confirmed Closed on 08/15/16)**	May require more protection than initially designed.							TRANSFERRED Risk was transferred to MCTC in the GMP.		
71	71, 263		40.03	C	All		Closed	11/1/2011	2/18/2015	1205.00	The environmental database allowed for a limited area on either side (400 feet) of the route and did not meet the recommended ASTM Phase I/AAI standards for radius of review. The potential that an offsite source of contamination has migrated to the alignment and is not found until construction could affect project cost/schedule. **(Confirmed Closed on 02/18/15) - Link to Closed Risk #263**	If not found until construction could affect project cost/schedule.							REPLACED See Risk #263.		
72	72, 263		40.03	C	All		Closed	4/1/2013	9/25/2013	177.00	Numerous hazardous materials/waste locations along the alignment have not been reviewed in any detail to determine if any of the sites pose a concern from contaminated materials from either								REPLACED See Risk #263.		
84.1	84.1, 223, 223.1, 229	TP	40.07	C	S4		Closed	4/1/2013	9/25/2013	177.00	(I) UTC Transit Center may not be completed by the time the Mid-Coast Corridor Transit Project begins operation. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #223,**	Thereby lacking the required (estimated 400) parking spaces.							REPLACED See Risks #223, #223.1, & #229.		
85.1		TP	40.08	C	S4		Closed	3/1/2013	9/24/2013	207.00	Difficult construction operations surrounding Pepper Canyon Station, especially in the constrained Pepper Canyon site. **(Confirmed Closed 09/24/13)**	May require additional mitigation from construction impacts, increasing contractor price or causing delay.							ACCEPTED Will be paid for by Mid-Coast.		
88	88, 399, 401	SU, SYS	50	C	All	All	Closed	9/24/2013	12/16/2021	3005.00	The duration specified in the schedule to perform system related tasks is considered optimistic. (Operational testing). **(Confirmed Closed on 12/16/21) - Link to Closed Risk #399 & #401**	The schedule may be affected.							MITIGATED Turnover is complete.		
110	110, 272, 350, 384, 395, 396, 400	ROW	60.01	C	All	All	Closed	11/1/2011	7/12/2017	2080.00	Acquisition through condemnation may take longer than anticipated in the project schedule. **(Confirmed Closed on 07/12/17) - Link to Closed Risk #272, #350, #384, #395, #396, & #400**	Schedule may be affected.							AVOIDED OPs are being obtained in a timely fashion.		
113.2	113.1, 113.2	CON, CP, ROW	60.02	C	S1	R2, R3, R4	Closed	3/22/2018	2/13/2019	328.00	The private rail car located adjacent to the existing commuter rail at the San Diego River Aerial Structure has not been moved and could affect schedule if not moved by mid-January 2019. **(Confirmed Closed on 02/13/19)**	There is a potential cost impact associated with relocation.							AVOIDED Private rail car was moved on January 7, 2019 and spur was cut/removed subsequently.		
132			10	C	All		Closed	4/1/2013	8/14/2013	135.00	With the proposed strategy of procurement of individual civil contracts based on geography and one Systems (all System elements) the systems contractor would need to coordinate with up to 8 civil contractors. **(Confirmed Closed on 08/14/13)**	This is expected to result in significant number of coordination and scheduling issues.							MITIGATED SANDAG Board approved the CMGC Project Delivery Method on 4/26/13.		
205	65, 205, 205.1, 205.2, 205.3, 205.4, 205.5, 205.6, 206, 219, 234, 250, 254, 350, 393, 394	UTL	40.02	C	All	All	Closed	9/24/2013	8/23/2018	1794.00	There could be delays in reaching an agreement between SANDAG and SDG&E regarding the liability determination and cost sharing relocations. **(Confirmed Closed on 08/23/18) - Link to Closed Risk #65, #205.1, #205.2, #205.3, #205.4, #205.5, #205.6, #206, #219, #234, #250, #254, #350, #393, & #394**	This may result in cost increases.							MITIGATED Liability determination agreement with SDG&E was executed REPLACED See Risks #205.5 & #205.6		
205.1	205, 205.1, 205.2, 205.3, 205.4, 206, 219, 234, 250, 254	UTL	40.02	C	All	All	Closed	2/4/2016	9/19/2017	593.00	There could be delays in reaching an agreement between SANDAG and Verizon regarding the liability determination and cost sharing of relocations. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #205, #205.2, #205.3, #205.4, #206, #219, #234, #250, & #254**	This may result in project delays.							MITIGATED Agreement with Verizon has been signed.		

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205.2	205, 205.1, 205.2, 205.3, 205.4, 206, 219, 234, 250, 254	UTL	40.02	C	All	All	Closed	2/4/2016	7/12/2017	524.00	There could be delays in reaching an agreement between SANDAG and AT&T regarding the liability determination and cost sharing of relocations. **(Confirmed Closed on 07/12/17) - Link to Closed Risk #205, #205.1, #205.3, #205.4, #206, #219, #234, #250, & #254**	This may result in project delays because AT&T may delay Mid-Coast construction.							MITIGATED Agreement has been signed.		
205.3	205, 205.1, 205.2, 205.3, 205.4, 206, 219, 234, 250, 254	UTL	40.02	C	All	All	Closed	6/23/2016	4/27/2017	308.00	There could be delays in reaching an agreement between SANDAG and Cox regarding the liability determination and cost sharing of the super trench. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #205, #205.1, #205.2, #205.4, #206, #219, #234, #250, & #254**	This may result in increases in project costs and schedule delays.							MITIGATED Agreement has been signed.		
205.4	205, 205.1, 205.2, 205.3, 205.4, 206, 219, 234, 250, 254	UTL	40.02	C	All	All	Closed	6/23/2016	4/27/2017	308.00	There could be delays in reaching an agreement between SANDAG and Charter (Time Warner) regarding the liability determination and cost sharing of the super trench. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #205, #205.1, #205.2, #205.3, #206, #219, #234, #250, & #254**	This may result in increases in project costs and schedule delays.							MITIGATED Agreement has been signed.		
205.5	205, 205.5, 234, 394	UTL	40.02	C	All	All	Closed	8/22/2018	6/21/2023	1764.00	SDG&E relocation costs could exceed the budget. **(Confirmed Closed on 6/21/23) - Link to Closed Risk #205, #234, & #394**	This would require use of contingency funds.							AVOIDED SDG&E final reconciliation complete and within budget.		
205.6	205, 205.6, 234	UTL	40.02	C	All	All	Closed	8/22/2018	2/13/2019	175.00	AT&T relocation costs could exceed the budget. **(Confirmed Closed on 02/13/19) - Link to Closed Risk #205 & #234**	This would require use of contingency.							AVOIDED AT&T completed relocation work within budget.		
206	205, 205.1, 205.2, 205.3, 205.4, 206	UTL	40.02	C	All	All	Closed	12/12/2013	8/15/2016	977.00	Out-of-town telecommunication companies may pose a risk to project schedule based upon timely feedback, designs, and agreement approvals. (Verizon) **(Confirmed Closed on 08/15/16) - Link to Closed Risk #205, #205.1, #205.2, #205.3, & #205.4**	Pose a risk to project schedule.							REPLACED See Risk #205.1.		
207	207, 239, 271.1, 271.2, 271.3, 271.4, 285	TP	80.06	C	All		Closed	3/1/2013	9/25/2013	208.00	There is a potential for late concurrence and processing by third parties. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #239, #271.1, #271.2, #271.3, #271.4, & #285**	This could delay the schedule.							REPLACED See Risks #271.1, #271.2, #271.3, #271.4, & #285		
208	208, 290, 360, 417	CON, CP	10.01	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	3/1/2013	1/27/2021	2889.00	Limited issuance of Form Bs & flagging resources on active railroads with the numerous other construction projects along the LOSSAN Corridor. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #290, #360, & #417**	This may create unforeseen work constraints and/or inefficiencies for the contractor which could potentially reduce construction productivity, increase costs, and overall construction duration.							MITIGATED Only minimal NCTD flagging resources are needed going forward.		
210	210, 210.1, 210.2, 221	CON, SAF, STA, SYS	50.02	C	S4	R14	Closed	7/1/2013	6/7/2018	1802.00	Delays in obtaining CPUC concurrence for pedestrian treatment at Executive Dr. and UTC Stations. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #210.1, #210.2, & #221**	May impact schedule and/or design.							MITIGATED Project received action from ALJ in May 2018.		
210.1	210, 210.1, 210.2	ENG, SYS	20	C	S1, S2, S3, S4	All	Closed	11/30/2016	4/27/2017	148.00	Delay to obtaining CPUC Resolution on acceptance of SSCP. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #210 & #210.2**	This could affect RSD.							MITIGATED CPUC has approved the SSCP.		
210.2	210, 210.1, 210.2	CON, SAF, STA, SYS	20	C	S4	R14	Closed	11/30/2016	12/19/2018	749.00	Delays to obtaining CPUC grade separation approval (Campus Point). **(Confirmed Closed on 12/19/18) - Link to Closed Risk #210 & #210.1**	This could affect RSD.							AVOIDED CPUC approval obtained on 11/29/2018.		

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213	105, 213, 213.1	CON, CP, ROW, UTL	40.02	C	S1	R4	Closed	3/1/2013	11/14/2017	1719.00	Coordination with the Navy for relocation of the jet fuel line near Tecolote Creek. **(Confirmed Closed on 11/14/17) - Link to Closed Risk #105 & #213.1**	This could delay project schedule and increase cost.							AVOIDED Coordination is complete. Remaining risk is completing the relocation. See Risk #213.1.		
213.1	213, 213.1	CON, ENG, ROW, UTL	40.02	C	S1	R4	Closed	11/13/2017	7/10/2019	604.00	Costs could exceed the budget for completing the relocation of the Navy fuel line near Tecolote Creek. **(Confirmed Closed on 07/10/19) - Link to Closed Risk #213**	This could increase costs.							MITIGATED Navy fuel line work completed and CCO executed.		
214	104, 137, 214, 214.1 410,	CON	40.08	C	All	All	Closed	7/1/2013	11/14/2017	1597.00	Timely access to laydown or staging areas along the corridor. **(Confirmed Closed on 11/14/17) - Link to Closed Risk #104, #137, #214.1, & #410**	This may impact schedule and cost.							ACCEPTED Change order has been negotiated for $9M for laydown and office space. $4M over provisional sum.		
215		CON, ENG	40.08	C	All	All	Closed	9/24/2013	2/15/2017	1240.00	Limited parking opportunities in the corridor. (Estimated construction workers on the project at the peak is 3,500 workers.) **(Confirmed Closed on 02/15/17)**	May impact community outreach and/or schedule.							TRANSFERRED Risk was transferred to MCTC in the GMP.		
217	25.1, 28.1, 217, 275, 415	CON, ENV	10.04	C	S4	R14	Closed	8/22/2013	1/29/2020	2351.00	The cost of mitigating construction related impacts (noise, vibrations, etc.) along Genesee and I-5 may exceed current project budget allowance **(Confirmed Closed on 01/29/20) - Link to Closed Risk #25.1, #28.1, #275, & #415**	Additional mitigation may be required. There could be cost and schedule impacts associated with staging.							MITIGATED No major public complaints have been received related to noise and vibrations. Work has been completed around the soundwall that would cause vibration and heavy noise.		
218	218, 253, 253.1, 253.2, 278, 281, 322, 375	UTL	40.02	C	All	All	Closed	12/12/2013	12/16/2021	2926.00	Unknown dry utility relocations may be necessary to accommodate the construction process. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #253, #253.1, #253.2, #278, #281, #322, & #375**	Resulting in additional project costs and schedule delays.							AVOIDED Work is complete.		
223	84.1, 223, 223.1, 229, 229.1, 230.9, 278, 363	STA, TP	40.08	C	S4	R14	Closed	7/1/2013	10/28/2015	849.00	If UTC constructs the bus transit center ahead of Mid-Coast. **(Confirmed Closed on 10/28/15) - Link to Closed Risk #84.1, #223.1, #229, #229.1, #230.9, #278, & #363**	Then construction staging impacts would occur between the Bus transit center and new LRT station (vertical circulation).							AVOIDED Construction is in progress and should be completed by June 2016.		
223.1	84.1, 223, 223.1, 229, 229.1, 408, 408.1	STA, TP	40.08	C	S4		Closed	7/1/2013	1/13/2015	561.00	If UTC does not construct the bus transit center in time for Mid-Coast. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #84.1, #223, #229, #229.1, #408, #408.1**	Mid-Coast will need to include the transit center and first floor access.							MITIGATED Construction to start in April 2015.		
224		TP	40.08	C	S4		Closed	3/1/2013	8/15/2013	167.00	If the Monte Verde vacant lot on the southwest quadrant of Genesee and La Jolla Village Dr. develops prior to construction of Mid-Coast, a valuable laydown/staging area will not be available. **(Confirmed Closed on 08/15/13)**								AVOIDED Design no long incorporates Monte Verde as a laydown area.		
225.3	225.2, 225.3	CON, SU, SYS, UTL	50.03	C	S4	R14	Closed	1/26/2021	12/16/2021	324.00	There is a risk of not completing construction of TPSS #15 (Fez St) in time for RSD. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #225.2**	There would be limited TPSS redundancies if TPSS #15 is not online during operations.							AVOIDED TPSS #15 is complete.		

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Score = (Cost + Schedule) * Probability

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233	4, 233	STR	40.05	C	S2		Closed	9/24/2013	1/13/2015	476.00	Proposed retaining wall and channel improvements at SR 52 potential conflicts with existing bridge foundation. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #4**	Potential design modifications and/or increased costs for construction.							MITIGATED Type selection is complete and bridge footing locations have been verified.		
234	205, 205.1, 205.2, 205.3, 205.4, 205.5, 205.6, 234, 234.1, 234.2, 394, 433	CON, UTL	10.01	C	All	All	Closed	3/1/2013	4/22/2021	2974.00	Coordination with utilities companies (relocations) fails to maintain project schedule creating delays. **(Confirmed Closed on 04/22/21) - Link to Closed Risk #205, #205.1, #205.2, #205.3, #205.4, #205.5, #205.6, #234, #234.1, #234.2, #394 & #433**	The resulting delays may impact construction schedule and cost.							AVOIDED Relocations complete that are required for operations. Small amount of work remains.		
234.1	234, 234.1	CON, UTL	40.02	C	S4	R14	Closed	11/14/2017	6/7/2018	205.00	Coordination and construction of the super trench on Genesee fails to maintain project schedule creating delays. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #234**	The resulting delays may impact construction schedule and cost.							AVOIDED Super trench construction complete and utility companies have cutover.		
234.2	234, 234.2	CON, SU, SYS, UTL	50.03	C	All	All	Closed	8/22/2018	12/16/2021	1212.00	There could be a delay in service connections by SDG&E. **- Link to Closed Risk #234**	This could affect construction schedule and increase costs.							AVOIDED Work is complete.		
235	21.1, 235, 235.1	CON, ENV	40.04	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	3/1/2013	10/23/2019	2427.00	If Western Mastiff Bats are found within the construction area during construction, implementation of the mitigation, minimization and avoidance measures may affect the construction schedule and cost. **- Link to Closed Risk #21.1 & #235.1**	Construction schedule and cost may be affected.							AVOIDED All bat surveys have been completed.		
235.1	235, 235.1, 235.2, 235.3	CON, ENV	40.04	C	All	All	Closed	10/28/2015	12/16/2021	2241.00	Implementation of the mitigation, minimization, and avoidance measures for bird nesting events may affect the construction schedule and cost. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #235, #235.2 & #235.3**	Construction schedule and cost may be affected.							AVOIDED All major construction work is complete.		
235.2	235.1, 235.2, 235.3	CON, ENV	40.04	C	All	All	Closed	10/28/2015	11/14/2017	748.00	Seasonal restrictions on clearing & grubbing specific vegetation types. **(Confirmed Closed on 11/14/17) - Link to Closed Risk #235, #235.2 & #235.3**	May delay certain construction activities.							MITIGATED Entire project is cleared and grubbed.		
235.3	235.1, 235.2, 235.3	CON, ENV	40.04	C	S1	R4	Closed	7/16/2020	1/27/2021	195.00	Ospreys are building a nest on top of the A1 Storage Sign that may need to be removed. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #235.1 & #235.2**	This could cause a delay in finishing construction at the intersection.							AVOIDED Sign will be left in place. If sign will be removed that will coordinated in the future between MTS and owner.		
236	122, 236, 356	CON, ENV	90	C	All	All	Closed	8/22/2013	11/29/2016	1195.00	There could be delay in obtaining FFGA (Sept 14, 2016). **(Confirmed Closed on 11/29/16) - Link to Closed Risk #122 & #356**	Which could delay the NTP for construction activities.							MITIGATED FFGA executed.		
240	81.1, 240	CON, SAF	50	C	All	All	Closed	9/24/2013	8/15/2016	1056.00	Additional measures to address Safety and Security risks associated with construction areas. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #81.1**	May cause impacts to budget.							MITIGATED MCTC's Construction Safety Plan submittal has been approved.		
241		CON	10.04	C	S2		Closed	12/12/2013	4/29/2015	503.00	Construction staging/false work over rail traffic may be complex. **(Confirmed Closed on 04/29/15)**	Negative consequences associated with inefficiencies in construction.							MITIGATED This structure has been changed to pre-cast.		

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244	27.1, 76, 244, 279, 307	CON, ENV	40.04	C	All	All	Closed	3/1/2013	12/16/2021	3212.00	Archeological resources could be present in the Area of Potential Effect (APE) and may be detected during construction. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #27.1, #76, #279, & #307**	Which may have impacts to the project construction schedule.							MITIGATED Underground work is complete.		
245		CON, ENV, SAF	40.03	C	S4	R13	Closed	3/1/2013	11/14/2017	1719.00	Potential risk of encountering unexploded ordnance on former Camp Matthews (UCSD campus). **(Confirmed Closed on 11/14/17)**	Could require further remedial actions that would increase cost and schedule.							AVOIDED Construction has progressed to the point where future subsurface impacts in this area are minor.		
249	105, 249, 340	UTL	40.02	C	S2	R6, R7, R8, R9	Closed	7/1/2013	10/28/2015	849.00	Long lead times for SDG&E gas transmission line relocation. **(Confirmed Closed on 10/28/15) - Link to Closed Risk #105 & #340**	May cause schedule impacts.							MITIGATED There is no seasonal restriction on the SDG&E gas tranmission line. Long lead items should be ordered by 11/01/15.		
250	105, 205, 205.1, 205.2, 205.3, 205.4, 250, 344	UTL	40.02	C	S1, S2	R2, R3, R4	Closed	7/1/2013	6/29/2016	1094.00	Long lead times for SDG&E 69 kV electrical transmission lines may cause schedule impacts. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #105, #205, #205.1, #205.2, #205.3, #205.4, & #344**	Schedule impacts.							AVOIDED Materials have been procured.		
251		SYS, UTL	40.02	C	All	All	Closed	8/22/2013	12/16/2021	3038.00	There is a risk for potential delays and costs associated with compliance with the Buy America regulations. **(Confirmed Closed on 12/16/21)**	This could have a cost and schedule impact.							AVOIDED No issues have been identified. All procurements have been made.		
253	218, 253, 253.1, 253.2, 278, 322	UTL	40.02	C	All		Closed	3/1/2013	11/19/2014	628.00	Delayed private utility company relocations. **(Confirmed Closed on 11/19/14) - Link to Closed Risk #218, #253.1, #253.2, #278, & #322**	Could cause construction scheduling delays.							REPLACED See Risks #253.1 & 253.2.		
253.1	218, 253, 253.1, 253.2, 254, 278, 322	CP, MC, UTL	40.02	C	All	All	Closed	1/22/2014	11/29/2016	1042.00	Limited SDG&E design and/or field resources. **(Confirmed Closed on 11/29/16) - Link to Closed Risk #218, #253, #253.2, #254, #278, & #322**	May delay utility relocations.							MITIGATED Resources were made available.		
253.2	218, 253, 253.1, 253.2, 254, 278, 322	CP, MC, UTL	40.02	C	All	All	Closed	1/23/2014	6/29/2016	888.00	Limited telecom design (AT&T, Cox) and/or field resources. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #218, #253, #253.1, #254, #278, & #322**	May delay utility relocations.							MITIGATED Design has coordinated and negotiating shared work.		
254	205, 205.1, 205.2, 205.3, 205.4, 253.1, 253.2 254	UTL	40.02	C	All	All	Closed	12/12/2013	6/29/2016	930.00	Private utility company manpower availability for the relocation process and service connections. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #205, #205.1, #205.2, #205.3, #205.4, #253.1, & #253.2**	May result in construction schedule delays.							REPLACED See Risks #205.1, #205.2, #205.3, #205.4.		
258	258, 259	CP	10.04	C	S1	R3	Closed	3/1/2013	4/6/2016	1132.00	If delayed, the LOSSAN San Diego River Bridge project would delay Mid-Coast bridge construction start date. **(Confirmed Closed on 04/06/16) - Link to Closed Risk #259**	This could impact and delay the Mid-Coast bridge which is scheduled to begin construction.							MITIGATED SDRB is environmental cleared.		
259	258, 259	CP, TP	10.04	C	S2		Closed	3/1/2013	1/13/2015	683.00	Modification/staging/blackout period of LOSSAN PTC. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #258**	May impact shoofly and construction schedule for Mid-Coast.							MITIGATED NCTD's change configuration procedures are known.		
262		ENV	80.06	C	All	All	Closed	9/24/2013	6/7/2018	1717.00	Unanticipated delays could be caused by resource permitting agencies. **(Confirmed Closed on 06/07/18)**	Affect the construction schedule and cost							AVOIDED USACE & Coastal Commission granted permission to proceed in May 2018.		

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263	71, 72, 263, 425	CON	40.03	C	All	All	Closed	12/12/2013	1/29/2020	2239.00	Hazardous materials such as undocumented underground storage tanks, contaminated soil, or asbestos-cement pipes may be encountered during construction. **(Confirmed Closed on 01/29/20) - Link to Closed Risk #71, #72, & #425**	Implementation of required best management practices may affect construction schedule and cost. Unforeseen conditions during construction.							AVOIDED Major in-ground construction complete.		
266	268, 297	CON, ENG, TP	10.02	C	S2, S3	R6, R11, R12	Closed	7/1/2013	4/27/2017	1396.00	Difficulties in timely plan preparation and processing for the Caltrans Encroachment Permit. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #297**	May delay construction.							MITIGATED Encroachment Permit was received in April 2017.		
271.3	207, 271, 271.1, 271.2, 271.3, 271.4, 296, 323	ROW, TP	60.01	C	S3	R13	Closed	6/1/2013	11/29/2016	1277.00	Potential delays associated with processing easement documents for the VA Medical Center property, including aerial and ground easement, and access. **(Confirmed Closed on 11/29/16) - Link to Closed Risk #207, #271, 271.1, 271.2, #271.4, #296, & #323**	Delays to start of service							MITIGATED Obtained Construction License.		
271.4	207, 271, 271.1, 271.2, 271.3, 271.4, 323	CON, ROW, TP	60.01	C	S3	R13	Closed	6/29/2016	8/15/2016	47.00	Potential delays to obtaining Revocable License for Non-Federal Use of Real Property on VA Medical Center property. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #207, #271, 271.1, 271.2, #271.3, & #323**	Delay to start of construction on the VA Medical Center property.							MITIGATED Revocable License Agreement is processing signatures the week of 08/12/16.		
275	217, 275		10.04	C	S4		Closed	7/1/2013	9/24/2013	85.00	Mitigation costs for construction impacts on Genesee Avenue may exceed planned budget (businesses and residents). **(Confirmed Closed on 09/24/13) - Link to Closed Risk #217**	Potential increase in costs for construction.							REPLACED See Risk #217.		
278	218, 223, 225.2, 253, 253.1, 253.2, 278, 322	CON, UTL	40.02	C	S3, S4		Closed	9/24/2013	4/29/2015	582.00	If Segments 3&4 design is delayed (project alignment, profile & catenary information) or delivered late to Utility Companies. **(Confirmed Closed on 04/29/15) - Link to Closed Risk #218, #223, #225.2, #253, #253.1, #253.2, & #322**	This may cause a delay in relocation designs and contract preparation, and may also affect the project's construction dates due to resource constraints.							MITIGATED Files have been transmitted to utility companies.		
281	218, 281	UTL	40.02	C	All	All	Closed	9/24/2013	4/22/2021	2767.00	There is a risk that field changes associated with dry utility relocation construction (particularly within the constrained locations) could result in design changes. **(Confirmed Closed on 04/22/21) - Link to Closed Risk #218**	This could result in construction delays.							AVOIDED The remaining utility work will not result in design changes.		
286	59, 106, 230.4, 286, 447	ROW, STR	30.01	C	S3		Closed	7/1/2013	1/22/2014	205.00	Shopping Center at Nobel Drive Station may not agree to a surface parking arrangement for transit patrons. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #59, #106, #230.4, & #447**	This could result in ROW issues, design delays and delayed access and possession of the Nobel Station, parking and viaduct within the Shopping Center property.							ACCEPTED Cost included in the budget.		
290	208, 290, 356, 357, 360, 361	CON, CP, TP	40	C	S1, S2		Closed	7/1/2013	9/3/2015	794.00	The project needs to coordinate with NCTD to develop agreed upon absolute work windows (AWW) and approval of "Form B" protection. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #208, #356, #357, #360, & #361**	This may affect the planned construction duration.							REPLACED See Risks #356, #357, & #361.		
297	266, 297	ENG, STR, TP	10.04	C	S1, S2, S3, S4	All	Closed	9/24/2013	4/27/2017	1311.00	Late acceptance of plans by Caltrans. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #266**	Could impact schedule and budget.							MITIGATED Caltrans has accepted the plans.		

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309		CP	10.04	C	All	All	Closed	8/22/2013	10/28/2015	797.00	Potential impact of delayed procurement of long-lead items such as steel girders, turnouts, and signal houses for CP Rose for the LOSSAN projects. **(Confirmed Closed on 10/28/15)**	Could create delays to the construction of Mid-Coast.							MITIGATED Items are purchased and in place.		
320	320, 320.1, 321, 354	CP, ENV, UTL	40.02	C	S1		Closed	10/22/2013	4/29/2015	554.00	Permitting of utility relocation by San Diego River Bridge project could delay Mid-Coast Construction. **(Confirmed Closed on 04/29/15) - Link to Closed Risk #320.1, #321, & #354**	Delay in schedule.							MITIGATED Master Utility Plan has been finalized.		
320.1	320, 320.1, 321, 354	CP, ENV, UTL	40.02	C	S2		Closed	10/22/2013	2/18/2015	484.00	Permitting of utility relocation by Elvira project could delay Mid-Coast Construction. **(Confirmed Closed on 02/18/15) - Link to Closed Risk #320, #321, & #354**	Delay in schedule.							MITIGATED Coordinating with SDG&E on the relocation of the 12kV route.		
322	218, 253, 253.1, 253.2, 278, 322	CON, ROW, UTL	60.01	C	All	All	Closed	10/22/2013	2/15/2017	1212.00	Potential utility relocations may require new utility right-of-way on various Genesee parcels. **(Confirmed Closed on 02/15/17) - Link to Closed Risk #218, #253, #253.1, #253.2, & #278**	May delay the start of construction and add potentially costs to ROW.							MITIGATED Relocations are reflected in appraisal maps and revised offers have been sent to owners.		
324	103.1, 324	SU, SYS	50.07	C	All	All	Closed	10/22/2013	12/16/2021	2977.00	Delays in Rail Operations Control Center upgrades. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #103.1**	Could delay revenue service.							AVOIDED This did not delay revenue service.		
325	225.2, 325, 325.1, 325.2, 325.3, 325.4, 370, 371	ENG, ROW, SU, SYS, TP, UTL	60.01	C	All	All	Closed	10/22/2013	1/27/2021	2654.00	Obtaining easements for substation feeds, power drops (stations & signal houses), and other power supply needs. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #225.2, #325.1, #325.2, #325.3, #325.4, #370, & #371**	This could increase costs or affect schedule.							MITIGATED All easements obtained except Fez St. and DGS, which are covered under separate risks. REPLACED See Risk #225.3 and #325.1.		
325.1	325, 325.1	ROW, SU, SYS, TP, UTL	60.01	C	S1	R1	Closed	8/22/2018	12/16/2021	1212.00	There could be a delay in SANDAG / SDG&E obtaining an easement to provide service to TPSS #5 on DGS property. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #325**	Which could result in a schedule delay.							MITIGATED All easement / payment processed, awaiting the easement record.		
325.2	325, 325.2	ENG, ROW, STA, SYS, TP, UTL	60.01	C	S3, S4	R12, R13	Closed	8/23/2018	4/23/2020	609.00	There could be a delay SANDAG obtaining easement for conduit for AT&T to provide service to LRT stations at UCSD and VA stations. **(Confirmed Closed on 04/23/20) - Link to Closed Risk #325**	Which could result in rework/change order.							MITIGATED AT&T has ability to use conduit on both UCSD and VA sites.		
325.3	325, 325.3	CON, ENG, ENV	40.04	C	S1	R4	Closed	7/9/2019	4/23/2020	289.00	There could be a delay in obtaining environmental clearance for TPSS #5 (Friars Road). **(Confirmed Closed on 04/23/20) - Link to Closed Risk #325**	This would require conduit workarounds.							AVOIDED Environmental clearance obtained.		

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325.4	325, 325.4	ENG, ROW, SU, SYS, TP, UTL	60.01	C	S2	R7	Closed	7/10/2019	1/27/2021	567.00	There could be a delay in SANDAG / SDG&E obtaining an easement to provide service to TPSS #9 on Avati property. **(Confirmed Closed on 01/27/21) - Link to Open Risk #325**	This could result in a schedule delay.							AVOIDED Easement obtained.		
329	242, 268.1, 268.3, 329	CP, SAF	10.02	C	S2		Closed	12/13/2013	9/3/2015	629.00	Additional mitigation for track separation. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #242, #268.1, & #268.3**	Likely will result in additional costs.							MITIGATED Track separation has been presented to NCTD and there are no ongoing issues.		
330		TP	80.04	C	S1, S2		Closed	12/13/2013	9/3/2015	629.00	Requirements to implement NCTD's change control process for PTC elements are in development. **(Confirmed Closed on 09/03/15)**	Lack of accepted implementation procedures may delay construction.							MITIGATED The change control process has been established.		
339	339, 339.1, 400	ROW	60.01	C	All	All	Closed	3/19/2014	9/19/2017	1280.00	The duration in the master project schedule for approval of administrative settlements may be exceeded. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #339.1 & #400**	Which will increase the duration of property acquisition.							MITIGATED FTA has been approving settlements in a timely fashion.		
354	320, 320.1, 321, 354	CP, ENV, UTL	40.02	C	S1		Closed	2/19/2015	4/29/2015	69.00	There may be a need for temporary relocation (or alternative permanent solution) for the 69 kV line at the south bridge abutment at Balboa Avenue. **(Confirmed Closed on 04/29/15) - Link to Closed Risk #320, #320.1, & #321**	Delay in schedule.							MITIGATED Master Utility Plan has been finalized.		
356	6.1, 236, 239, 290, 356, 385	ENG, CON	10	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	2/19/2015	4/27/2017	798.00	NCTDs timely approval of work plans to support construction schedule. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #6.1, #236, #239, #290, & #385**	Delay to construction schedule.							MITIGATED NCTD has accepted the design except for MSE walls. REPLACED See Risk #239 & #385.		
360	208, 290, 350, 360, 417	CON, CP	10.01	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	6/29/2015	1/27/2021	2039.00	The project may need to coordinate with NCTD to develop additional AWW which NCTD may not approve. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #208, #290, #350, #360, #417**	This may affect the construction duration.							MITIGATED In previous years, project was able to obtain additional AWWs from NCTD. No extra AWWs will be requested.		
364		SU, SYS	50.06	C	All	All	Closed	9/2/2015	12/16/2021	2297.00	New fare collection system equipment (TVM) may not be available in time for RSD. **(Confirmed Closed on 12/16/21)**	This may require the implementation of a contingency plan.							AVOIDED TVMs have been deployed.		
368		CON, CP	80.04	C	S1, S2	R2, R3, R4, R7, R8, R9	Closed	10/28/2015	11/29/2016	398.00	If the start of Mid-Coast construction is delayed, MCTC & CM Team may not achieve efficiencies in construction with multiple SANDAG projects. **(Confirmed Closed on 11/29/16)**	The costs may be higher than anticipated.							TRANSFERRED Risk was transferred to MCTC in the GMP.		
369	263, 369, 403, 409, 425	CON, ENV	40.03	C	All	All	Closed	10/28/2015	6/7/2018	953.00	Uncertainty in soil hauling location for excess material. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #263, #403, #409 & #425**	This could create a potential schedule delay during construction and cost increase.							TRANSFERRED / ACCEPTED Risk was transferred to MCTC in the GMP to IFC negotiations.		

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Risk #	Linked Risk #	Mid-Coast Class.	SCC	FTA Risk Cat.	Seg.	Rea.	Status	Date Opened	Date Closed	Days Between	Risk Description (RD)	Consequence	P	C	S	Score	Interim Action	Action Finish Date (AFD)	Risk Mitigating Action (RMA)	RMA Target Finish Date (TFD)	Responsible Party (RP)
370	325, 370	ENG, ROW, SU, SYS, TP, UTL	60.01	C	S3	R13	Closed	10/28/2015	1/27/2021	1918.00	There could be a delay in SANDAG / SDG&E obtaining an easement to provide service to TPSS #13 and Station at VA. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #325**	Which could result in a schedule delay.							AVOIDED Easement obtained. VA site to be energized following final coordination with SDG&E and is expected to occur in March 2021		
371	325, 371	ENG, ROW, SU, SYS, TP, UTL	60.01	C	S4	R13	Closed	10/28/2015	7/16/2020	1723.00	There could be a delay in SANDAG / SDG&E obtaining an easement to provide service to the TPSS #14 and stations on UCSD property. **(Confirmed Closed on 07/16/20) - Link to Closed Risk #325**	Which could result in a schedule delay.							MITIGATED SDG&E and UCSD have finalized agreement. SDG&E can pull and energize at the conclusion of conduit work.		
372		CON, TP	60.01	C	S3, S4	R13, R14	Closed	10/28/2015	8/15/2016	292.00	A delay in obtaining the Construction License Agreement with UCSD could potential delay the start of construction on UCSD property. **(Confirmed Closed on 08/15/16)**	The schedule may be affected.							MITIGATED UCSD Construction License Agreement was fully executed 06/13/16.		
374	333, 374	CON, SU, SYS	50.03	C	All	All	Closed	10/28/2015	10/22/2020	1821.00	Schedule coordination between contractor and supplier for TPSS delivery. **(Confirmed Closed on 10/22/20) - Link to Closed Risk #333**	This could affect the testing and start-up schedule.							AVOIDED All TPSS have been delivered except TPSS #15 which is covered under Risk 225.2.		
375	218, 375	CON, ENG	40.03	C	All	All	Closed	10/28/2015	1/29/2020	1554.00	Geotechnical conditions may be different than anticipated. **(Confirmed Closed on 01/29/20) - Link to Closed Risk #218**	This could result in increased costs and/or schedule delays.							AVOIDED Major in-ground construction complete.		
376		CON, ENG	10.01	C	S3	R13	Closed	10/28/2015	10/22/2020	1821.00	Coordination with the Concurrent VA Projects **(Confirmed Closed on 10/22/20)**	Could result in increased costs and/or schedule delays.							AVOIDED All facilities are in place.		
377		CON, ENG	10.04	C	S3	R10	Closed	10/28/2015	4/27/2017	547.00	Coordination with the Gilman Drive Project (Flatiron) **(Confirmed Closed on 04/27/17)**	Could result in increased costs and/or schedule delays.							TRANSFERRED MCTC has control of the Gilman Drive project.		
380		ENG, ENV, ROW, STA	40.03	C	S1	R5	Closed	4/6/2016	4/27/2017	386.00	Contaminated soils may be identified at Clairemont Station parking lot. **(Confirmed Closed on 04/27/17)**	Clean up of contaminated soil could create delays.							MITIGATED Agreement signed with property owner that owner's developer will provide parking and will address contaminated soils.		

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381	359, 381, 388 389, 398, 424	CON, ENG, ENV	80.02	C	All	All	Closed	4/6/2016	7/22/2021	1933.00	If there are changes (design or methodology) during construction from the environmentally approved project definition. **(Confirmed Closed on 07/22/21) - Link to Closed Risk #359, #388, #389, #398, & #424**	This could require additional environmental analysis. This may require circulation of supplemental environmental documentation, with new or increased environmental impact. This would affect the schedule.							AVOIDED Nothing foreseen that would require environmental document recirculation.		
382	382, 386, 397	CON	80.04	C	S1, S2	All	Closed	4/6/2016	2/15/2017	315.00	Coordination with new NCTD MOW vendor. **(Confirmed Closed on 02/15/17) - Link to Closed Risk #386 & #397**	May increase flagging and other costs							ACCEPTED Flagger costs are known and have been budgeted.		
386	382, 386, 397	CON, CP	80.06	C	S1, S2	All	Closed	6/30/2016	4/27/2017	301.00	Increased costs associated with the safety training. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #382 & #397**								ACCEPTED Will be paid for by Mid-Coast.		
387		CON, MC, QA	80.04	C	All	All	Closed	8/3/2016	4/22/2021	1723.00	Inadequacies in contractor's quality control plan and implementation resulting in quality deficiencies. **(Confirmed Closed on 04/22/21)**	A quality issue may arise, which would require additional staff.							AVOIDED Most QA/QC testing has been completed and MCTC is moving into Acceptance.		
388	381, 388	CON, MC, UTL	80.04	C	All	All	Closed	8/3/2016	4/27/2017	267.00	SANDAG and/or MCTC field personnel lacking a clear understanding of the GMP and contract terms. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #381**	This could result in schedule delays or added costs.							MITIGATED A process has been established and implemented to validate construction risk and potential CCOs.		
389	381, 388, 398	CON, ENV	40.04	C	All	All	Closed	8/3/2016	12/16/2021	1961.00	The coordination of environmental monitoring activities may be inadequate. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #381 & #398**	This could create excess monitoring costs.							AVOIDED All major construction work is complete.		
390	390, 390.1, 403,	CON, ENG, ENV	40.04	C	All	All	Closed	8/3/2016	4/25/2019	995.00	The IFC set may include items that affect permitting and environmental compliance. **- Link to Closed Risk #390.1 & #403 (Confirmed Closed on 04/25/19)**	This could affect project schedule							AVOIDED All IFC sets have been issued.		
390.1	390, 390.1	CON, CP, ENG, ENV	40.04	C	S1	R1	Closed	8/22/2018	10/23/2019	427.00	USACE could delay construction based on resolution of 408 permit stipulations concerning the SDRB levee. **- Link to Closed Risk #390 (Confirmed Closed on 10/23/19)**	Mid-Coast project is covered under this permit and therefore could delay Mid-Coast construction in the affected SDRB area.							AVOIDED All levee construction work complete. USACE sent email to City on August 23, 2019 stating levee repairs are acceptable		
391	301, 391	CON	80.03	C	All	All	Closed	8/3/2016	6/7/2018	673.00	The Prolog system is not sufficiently developed to support document requirements and contract administration (submittal reviews, etc.) **(Confirmed Closed on 06/07/18) - Link to Closed Risk #301**	This could create administrative delays.							AVOIDED Prolog is up and running. Cost module is ready for implementation.		

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392		CON	80.04	C	All	All	Closed	8/3/2016	8/15/2016	12.00	Insufficient documenting and tracking of Mid-Coast costs, specifically the environmental monitoring TO. **(Confirmed Closed on 08/15/16)**	This could result in unallowable costs to the FFGA.							AVOIDED		
393	205, 393, 394	ENG, UTL	40.02	C	S2		Closed	8/12/2016	4/27/2017	258.00	There could be a delay in the removal and relocation of SDG&E high-pressure gas lines. (HPG WO 4&5). **(Confirmed Closed on 04/27/17) - Link to Closed Risk #205 & #394**	This may delay the construction of Shoofly 1.							MITIGATED Work is progressing on HPG lines.		
394	205, 205.5, 234, 393, 394, 394.1, 433	CON, ENG, UTL	40.02	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	8/12/2016	10/23/2019	1167.00	There could be a delay in the removal and/or relocation of SDG&E electrical distribution lines. (ED WO11 A-E) **(Confirmed Closed on 10/23/19) - Link to Closed Risk #205, #205.5, #234, #393, #394.1 & #433**	This may result in schedule delays.							AVOIDED All relocations on WO11 A-E are complete.		
394.1	394, 394.1	CON, UTL	40.05	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	6/6/2018	8/23/2018	78.00	Delays to construction of RW 609 and RW 614 due to utility conflicts with the HPG. **(Confirmed Closed on 08/23/18) - Link to Closed Risk #394**	This could cause delays to construction.							MITIGATED Approval received from SDG&E		
395	110, 272, 384, 395, 395.1	CON, ROW	60.01	C	S3	R12	Closed	10/19/2016	8/23/2018	673.00	Access for the contractor to La Jolla Village Square for the Viaduct may be delayed. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #110, #272, #384, #395.1, & #395.1**	This could cause delays to construction.							MITIGATED Order of Possession was received on 07/02/2018 and access occurred on 08/13/2018.		
395.1	395, 395.1	CON, ENV, ROW	60.01	C	S3	R12	Closed	6/6/2018	12/19/2018	196.00	Site access and construction of the Nobel parking structure may require both NEPA clearance and ROW access for the contractor to begin construction. **(Confirmed Closed on 12/19/18) - Link to Closed Risk #395**	This could cause delays to construction and increase costs.							MITIGATED Order of Possession was received on 10/04/2018 and NEPA clearance occurred in November 2018.		
396	110, 272, 396	CON, ROW	60.01	C	S2	R7	Closed	10/19/2016	9/19/2017	335.00	Access for the contractor to Rose Canyon Business Park property may be delayed. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #110 & #272**	This could cause delays to construction.							MITIGATED Contractor has access to property.		
397	382, 386, 397	CON	80.04	C	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	10/19/2016	3/22/2018	519.00	Lack of available flagging resources. **(Confirmed Closed on 03/22/18) - Link to Closed Risk #382 & #386**	Could create delays and additional cost to the construction of Mid-Coast.							AVOIDED Bombardier is fulfilling their side of the agreement.		
398	381, 389, 398	CON, ENV	40	C	All	All	Closed	10/19/2016	12/16/2021	1884.00	Construction activities are performed outside of permit requirements. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #381 & #389**	Increased cost associated with fines and delays.							AVOIDED All major construction work is complete.		

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399	88, 399, 401	CON, ENG, SYS	80.04	C	S1, S2, S3, S4	All	Closed	11/30/2016	4/27/2017	148.00	Delay in delivery and acceptance of MCTC's baseline schedule. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #88 & #401**	This could delay project forecasting and updating of contingency drawdown curves. Project could be at a disadvantage for time related claims.							MITIGATED SANDAG accepted the final MCTC baseline construction schedule in January 2017.		
402	402, 418	CON, MC	10.01	C	All	All	Closed	4/26/2017	6/21/2023	2247.00	Complete negotiation of all CCOs. **(Confirmed Closed on 6/21/23) - Link to Closed Risk #418 & #453**	This could increase costs due to retained resources beyond contract date.							AVOIDED SANDAG and MCTC reached agreement on final CCO.		
403	369, 390, 401, 403, 411, 418, 421, 421.1, 421.2	CON, CP, ENG	10.01	C	All	All	Closed	4/26/2017	1/29/2020	1008.00	Reconciling differences between GMP and IFC (except provisional sums). **(Confirmed Closed on 01/29/20) - Link to Closed Risk #369, #390, #401, #411, & #418, #421, #421.1, & #421.2**	This will increase costs.							ACCEPTED Completed the GMP to IFC process and CCO signed on 11/22/2019.		
404		CON, TP, UTL	40.02	C	S1	R5	Closed	4/26/2017	9/19/2017	146.00	Timely completion of JUA or Consent to Common Use Agreement between SDG&E and Caltrans for Electrical Distribution WO7. **(Confirmed Closed on 09/19/17)**	This could delay schedule and create increased costs.							AVOIDED SDG&E will proceed with relocations prior to fully executed JUA with concurrence from Caltrans.		
405	405, 413	TP	80.06	C	All	All	Closed	4/26/2017	2/13/2019	658.00	There could be a delay in obtaining the MTS/City of San Diego MOU for LRT Street Use. **(Confirmed Closed on 02/13/19) - Link to Closed Risk #413**	This could delay project final completion.							AVOIDED City Council approved on January 30, 2019.		
406	406, 407, 422, 423	TP	80.06	C	S3	R13	Closed	4/26/2017	12/16/2021	1695.00	There could be a delay in obtaining the MTS O&M Agreement with the VA. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #407, #422, & #423**	This could delay revenue service.							AVOIDED Agreement has been finalized.		
407	406, 407, 422, 423	TP	80.06	C	S3, S4	R13	Closed	4/26/2017	7/22/2021	1548.00	There could be a delay in obtaining the MTS O&M Agreement with UCSD. **(Confirmed Closed on 07/22/21) -Link to Closed Risk #406, #422, & #423**	This could delay revenue service.							AVOIDED Agreement obtained		
408	223.1, 408, 408.1	CON, ENG	80.04	C	S4	R14	Closed	4/26/2017	11/14/2017	202.00	If UTC does not open the completed transit center in time to move the buses off Genesee, the widening on Genesee would not be able to proceed. **(Confirmed Closed on 11/14/17) - Link to Closed Risk #223.1 & #408.1**	This could delay construction and increase costs.							AVOIDED Transit center is open, and all bus routes have been switched except for one.		
408.1	223.1, 408, 408.1, 408.2, 437	CON, ENG, ENV, ROW, TP	80.04	C	S4	R14	Closed	11/13/2017	6/7/2018	206.00	Ongoing construction coordination with UTC. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #223.1, #408, #408.2, & #437**	This could create schedule delay.							REPLACED See Risk #408.2.		
408.2	408.1, 408.2, 437, 437.1, 447	CON, SU, TP	20.06	C	S4	R14	Closed	1/9/2018	12/16/2021	1437.00	There could be a delay in the construction of the parking structure at UTC to provide the required 260 parking spaces. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #408.1, #437, #437.1, & #447**	This could delay schedule and increase costs.							AVOIDED Parking structure is open for operations.		

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409	369, 409	CON, TP	40.03	C	All	All	Closed	4/26/2017	1/9/2018	258.00	Reaching agreement with Caltrans on acceptance of soil outside the Caltrans right-of-way. **(Confirmed Closed on 01/09/18) - Link to Closed Risk #369**	OPPORTUNITY This could decrease cost and improve schedule.							REPLACED See Risk #369.		
410	214, 410	CON, ROW, TP	60.01	C	All	All	Closed	4/26/2017	9/19/2017	146.00	There could be a delay in receiving formal approval from the Port for site use as a laydown site. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #214**	This could increase cost and create a delay to schedule.							AVOIDED Port site laydown area no longer required.		
411	29.1, 226, 361, 403, 411, 418, 421, 421.1, 421.2	CON, STA, STR	10.04	C	S3, S4	R14	Closed	7/11/2017	12/19/2018	526.00	Genesee Viaduct's provisional sum for pre-cast segments could increase costs. **(Confirmed Closed on 12/19/18) - Link to Closed Risk #29.1, #226, #361, #403, & #418, #421, #421.1, & #421.2**	This could create increased costs.							ACCEPTED Change order has been negotiated.		
412	412, 414	CON, ENV, ROW, TP	60.01	C	S2	R7	Closed	7/11/2017	1/9/2018	182.00	Obtaining City Council approval for added ROW at City Operations Yard. **(Confirmed Closed on 01/09/18) - Link to Closed Risk #414**	This could result in delay to start of construction to retaining wall #488.							AVOIDED Additional ROW not required.		
413	405, 413, 424.1	ROW, TP	40.06	C	S1	R4	Closed	7/11/2017	10/22/2020	1199.00	Delay in obtaining ROW clearance from the City of San Diego for the pedestrian ramp across from Tecolote Station. **(Confirmed Closed on 10/22/20) - Link to Closed Risk #405 & #424.1**	This would either require payment for additional ROW or Reverting to prior design and change order to the GMP.							AVOIDED Process is complete and awaiting mayoral signature.		
414	412, 414	CON, ENV, ROW, TP	60.01	C	S2		Closed	9/18/2017	1/9/2018	113.00	The change in footprint, at City Operations Yard, is not approved by City Council. **(Confirmed Closed on 01/09/18) - Link to Closed Risk #412**	This would require a return to previous design.							AVOIDED City concurrence received on soil nails.		
415	217, 415	CON	80.04	C	S3		Closed	9/19/2017	1/9/2018	112.00	There could be a delay in receiving and approving MCTC's noise control plan. (CON1 mitigation measure) **(Confirmed Closed on 01/09/18) - Link to Closed Risk #217**	The Contractor will be unable to proceed with night work.							AVOIDED MCTC noise control plan received and approved.		
416	416, 417	CON, TP	80.04	C	All	All	Closed	11/13/2017	12/16/2021	1494.00	Coordination with Community becomes strained. **- Link to Closed Risk #417**	This could degrade the relationship between SANDAG and Community, in effect increasing costs or delaying schedule.							AVOIDED All major construction work is complete.		
417	208, 360, 416, 417	CON, TP	80.04	C	All	All	Closed	11/14/2017	1/27/2021	1170.00	Coordination with Operators (NCTD, Amtrak, BNSF, and MTS) becomes strained. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #208, #360, & #416**	This could degrade the relationship between SANDAG and Operators, in effect increasing costs or delaying schedule.							AVOIDED Risk was written to cover coordination during construction which is complete (or minimal remaining) with NCTD, Amtrak, and BNSF. MTS coordination is covered under separate risks. REPLACED See Risk #364, #406, #407, #441, #442, & #445.		

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Risk #	Linked Risk #	Mid-Coast Class.	SCC	FTA Risk Cat.	Seg.	Rea.	Status	Date Opened	Date Closed	Days Between	Risk Description (RD)	Consequence	P	C	S	Score	Interim Action	Action Finish Date (AFD)	Risk Mitigating Action (RMA)	RMA Target Finish Date (TFD)	Responsible Party (RP)
418	402, 403, 411, 418, 421, 421.1, 421.2	CON, MC	10.04	C	All	All	Closed	11/14/2017	1/29/2020	806.00	The relationships between SANDAG and MCTC could degrade over cost negotiation and affect the team. **(Confirmed Closed on 01/29/20) - Link to Closed Risk #402, #403 & #411, #421, #421.1, & #421.2**	This could delay schedule and create increased costs.							AVOIDED Settlements with MCTC have proceeded well and in a timely manner.		
419	419, 421	CON, CP, SYS	10.01	C	All	All	Closed	1/8/2018	12/16/2021	1438.00	A shortage of labor, especially skilled labor, in a competitive construction market. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #421**	Could increase cost and create delay.							AVOIDED This did not delay revenue service.		
420		CON, ENG	10.04	C	S4	R14	Closed	1/8/2018	6/7/2018	150.00	Genesee Avenue void discovered under pavement south of La Jolla Village Drive. **(Confirmed Closed on 06/07/18)**	Additional subsurface work may be required by the City which may impact Mid-Coast schedule.							AVOIDED Column has been installed unaffected by void.		
421	403, 411, 418, 419, 421, 421.1, 421.2	CON	10.04	C	All	All	Closed	1/9/2018	7/22/2021	1290.00	Provisional sums (except Genesee Viaduct provisional sums Risk #411 and Soil Hauling provisional sums Risk #369) may exceed the budgeted amount. **(Confirmed Closed on 07/22/21) - Link to Closed Risk #403, #411, #418, #419, #421.1, & #421.2**	This could create increased costs.							MITIGATED Pricing has been agreed to. Landscaping (Risk #421.2) is the last remaining provision sum.		
421.1	403, 411, 418, 421, 421.1, 421.2	CON	40.06	C	All	All	Closed	10/22/2019	12/16/2021	786.00	Provisional sums for landscaping may exceed the budgeted amount. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #403, #411, #418, #421, & #421.2**	This could create increased costs.							ACCEPTED CCO has been initiated for landscaping and included in EAC.		
421.2	403, 411, 418, 421, 421.1, 421.2	CON, ENG	20	C	All	All	Closed	10/22/2019	7/22/2021	639.00	Provisional sums for misc. metals may exceed the budgeted amount and may not be executed in a timely manner. **(Confirmed Closed on 07/22/21) - Link to Closed Risk #403, #411, #418, #421, & #421.1**	This could create increased costs and delay construction.							MITIGATED Costs are agreed to. Misc. metals constructed for one (1) whole station. Understand current design is good and feasible. MCTC has bought schedule and some design risk.		
422	406, 407, 422, 423	STA, TP	80.06	C	S3	R11	Closed	1/9/2018	12/16/2021	1437.00	There could be a delay in obtaining the MTS O&M Agreement with private property owners (Nobel Station). **(Confirmed Closed on 12/16/21) - Link to Closed Risk #406, #407, & #423**	This could delay revenue service.							AVOIDED Agreement is obtained. SANDAG is continuing to operate under RON. Further risk is transferred ti MTS.		
423	406, 407, 422, 423	STA, TP	80.06	C	S4	R14	Closed	1/9/2018	6/28/2022	1631.00	There could be a delay in obtaining the MTS O&M Agreement with private property owners (UTC Station) **(Confirmed Closed on 6/28/2022) - Link to Closed Risk #406, #407, & #422**	This could delay project close-out.							AVOIDED SANDAG has completed all agreements.		
424	6.1, 381, 424	CON, ENG, ENV	40.04	C	S1	R4	Closed	3/21/2018	4/23/2020	764.00	There could be a delay in obtaining environmental clearance for Tecolote Access Road. **(Confirmed Closed on 04/23/20) - Link to Closed Risk #6.1 & #381**	Temporary access to heavy rail tracks would be required.							AVOIDED Environmental clearance obtained.		

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424.1	413, 424, 424.1	CON, ENG, ENV, ROW	40.07	C	S1	R4	Closed	7/16/2020	4/22/2021	280.00	The construction of the Tecolote Access Road needs to begin by March 2021. **(Confirmed Closed on 04/22/21) - Link to Closed Risk #413, #424, & #424.1**	Revision to the Coastal Commission CDP amendment will be required if construction is delayed beyond March 2021.							AVOIDED Permit extension was submitted in March. Work began on TAR in April 2021 around high-rail pad.		
425	263, 369, 425	CON, ENV, TP	40.03	C	S3	R13	Closed	3/21/2018	8/23/2018	155.00	There could be a delay in the environmental clearance of the Pepper Canyon soil placement site. **(Confirmed Closed on 08/23/18) - Link to Closed Risk #263 & #369**	Soil would need to be transported offsite.							MITIGATED Environmental clearance has been obtained.		
427	427, 427.1	CON, CP, ENG, STA, TP	20.02	C	S4	R13	Closed	8/22/2018	12/16/2021	1212.00	UCSD's multiple ongoing construction projects (i.e. Engineering and Innovation Building / Bike Path / Retention Basin) could interfere with station construction activities. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #427.1**	This may affect project schedule							AVOIDED Station construction work is complete.		
427.1	427, 427.1	CON, CP, ENG, STA, TP	20.02	C	S4	R13	Closed	4/25/2019	7/22/2021	819.00	Construction of Lyman Lane bus turnaround & roundabout may not be completed by revenue service. **(Confirmed Closed on 07/22/21) - Link to Closed Risk #427**	Temporary access to station would be required.							AVOIDED Road has been opened.		
428	428, 432	CON, CP, TP	40.07	C	S4	R13	Closed	8/22/2018	7/22/2021	1065.00	Construction of the Voigt Drive project could interfere with Mid-Coast construction activities. **(Confirmed Closed on 07/22/21) - Link to Closed Risk #432**	This may affect Mid-Coast construction schedule and the opening of Voigt Drive Station due to Campus Point realignment.							AVOIDED Road has been opened.		
429		CON, CP, STA, ROW, TP	20.01	C	S1	R4	Closed	8/23/2018	2/13/2019	174.00	Processing of street vacations on Tecolote Road could delay revenue service. **(Confirmed Closed on 02/13/19)**	This may affect project schedule							AVOIDED Street vacations are not required prior to construction.		
430		CON, CP, STA, ROW, TP	20.01	C	S2	R6	Closed	8/23/2018	2/13/2019	174.00	Processing of street vacations on Balboa Ave could delay revenue service. **(Confirmed Closed on 02/13/19)**	This may affect project schedule							AVOIDED Street vacations are not required prior to construction.		
431		CON, CP, STR	10.04	C	S2	R10	Closed	9/27/2018	10/23/2019	391.00	Construction of Bridge 257.2 for EMDT could interfere with Mid-Coast construction activities and affect MCTC access points. **(Confirmed Closed on 10/23/19)**	This may affect project schedule							AVOIDED MCTC will have work complete and out of the area well prior to NTP for Bridge 257.2.		
432	428, 432	CON, CP, TP	40.07	C	S4	R13	Closed	12/19/2018	10/23/2019	308.00	Construction of the I-5 SB Aux Lane (Voigt to LJVD) could interfere with Mid-Coast construction activities. **(Confirmed Closed on 10/23/19) - Link to Closed Risk #428**	This may affect project schedule							AVOIDED IFC Plans issued and MCTC excavation in this area is complete.		

Exhibit 1

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433	234, 394, 433	CON, ENG, ROW, STA, UTL	40.02	C	S1, S2	R5, R6, R7	Closed	2/12/2019	10/22/2020	618.00	Electrical Transmission (ET) WO6 may affect the construction sequencing for Balboa Station parking lot and walls. **(Confirmed Closed on 10/22/20) - Link to Closed Risk #234 & #394**	This may result in a schedule delay.							AVOIDED Work has been completed.		
434		CON, ROW, SYS	40.02	C	All	All	Closed	2/12/2019	4/25/2019	72.00	There is a risk that the Federal Govt closure could affect permitting and ROW needed to construct various components of Mid-Coast. (FAA Permit, FCC License, ROW Agreements) **(Confirmed Closed on 04/25/19)**	This may result in a schedule delay.							MITIGATED FCC License obtained and FAA Permit for Olive Street obtained.		
435		CON, STA, STR	20.02	C	S4	R13	Closed	2/13/2019	10/23/2019	252.00	The contractor asserts that there are specification deficiencies for the transverse beams at Voigt Station. **(Confirmed Closed on 10/23/19)**	This could result in reimbursement to MCTC.							MITIGATED Issue resolved with MCTC.		
436		SU, SYS, TP	80.08	C	All	All	Closed	7/10/2019	12/16/2021	890.00	There could be a delay in obtaining CPUC approval for system operations. **(Confirmed Closed on 12/16/21)**	This would result in a delay to revenue operations.							AVOIDED CPUC approval for revenue service obtained.		
437	408.2, 437, 437.1, 447	CON, ENG, TP	20.06	C	S1	R5	Closed	10/22/2019	6/21/2023	1338.00	There could be a delay in the construction of the Clairemont Station parking by the private developer. **(Confirmed Closed on 6/21/23) - Link to Closed Risk #408.2, #437.1, & #447**	This could increase capital costs. Lack of parking availability at this station could result in passengers traveling to nearby stations.							ACCEPTED SANDAG continues to monitor Developer progress. SANDAG could choose to construct parking, and has funds to construct, if Developer incurs financial hardship.		
437.1	408.2, 437, 437.1, 447	CON, ENG, ENV, SU, TP	20.06	C	S1	R5	Closed	4/23/2020	4/22/2021	364.00	The private developer may not proceed with the construction of the Clairemont Station parking lot. **(Confirmed Closed on 04/22/21) - Link to Closed Risk #408.2, #437, & #447**	This could increase capital costs.							ACCEPTED See Risk #437 to track future impacts.		
438		CON, ENV	40.04	C	S1	R1	Closed	10/23/2019	4/23/2020	183.00	MTS OTTC improvement project could impact Mid-Coast mitigation plan. **(Confirmed Closed on 04/23/20)**	This would require a modification to the mitigation plan.							AVOIDED Analysis complete and shows no adverse impacts.		
439		SAF, SU	80.08	C	All	All	Closed	4/23/2020	12/16/2021	602.00	There could be a delay in Safety & Security Certification activities and/or delay in producing required documentation that will need to be reviewed and/or approved by FTA prior to revenue operations. **(Confirmed Closed on 12/16/21)**	This could delay revenue service.							AVOIDED OP-54 Readiness obtained.		
440	440, 440.1	SU	80.08	C	All	All	Closed	4/23/2020	1/27/2021	279.00	There could be a delay in producing Pre-revenue Operations (PRO) Plans and documentation that will need to be reviewed by FTA and then accepted by CPUC prior to revenue operations. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #440.1**	This could delay revenue service.							AVOIDED CPUC has reviewed SIT PRO plans.		
440.1	440, 440.1	SU	80.08	C	All	All	Closed	4/23/2020	12/16/2021	602.00	There could be a delay in producing Public Awareness and Grand Opening Plans that will need to be reviewed by FTA prior to revenue operations. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #440**	This could delay revenue service.							AVOIDED OP-54 Readiness obtained.		
441		SU, SYS	80.08	C	All	All	Closed	4/23/2020	12/16/2021	602.00	There could be a delay in handover of completed construction segments from MCTC to MTS. **(Confirmed Closed on 12/16/21)**	This could delay SIT and driver training.							AVOIDED Turnover is complete.		

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442		SU	80.08	C	All	All	Closed	4/23/2020	12/16/2021	602.00	There may not be sufficient MTS O&M support to accommodate all start-up and integration testing activities as well as operations. **(Confirmed Closed on 12/16/21)**	This could delay SIT and/or revenue service.							AVOIDED SIT testing for revenue service is complete.		
443	443, 443.1	CON, SYS	80.08	C	All	All	Closed	4/23/2020	3/29/2022	705.00	Issues may arise during SIT that delay project close-out. (i.e. civil to systems handover, QA terms of traceability, transfer of care & custody). **(Confirmed Closed on 3/29/22) - Link to Closed Risk #443.1**	This could delay project close-out.							MITIGATED SIT test concluded 3/11/22 with CPUC concurrence. Issues identfied have been resolved or transferred to MTS.		
443.1	443, 443.1	CON, SU, SYS	80.08	C	All	All	Closed	4/22/2021	12/16/2021	238.00	There could be a delay in contractor acceptance testing. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #443**	This could delay turnover to MTS to begin SIT.							AVOIDED Work is complete. Turnover occurred to MTS in July. SIT completed that allowed MTS to proceed train operator training ahead of RSD.		
444		CON, STA	20.07	C	S3, S4	R12, R13, R14	Closed	4/23/2020	3/29/2022	705.00	Elevators arrive onsite and could be non-compliant with expected field requirements. **(Confirmed Closed on 3/29/22)**	This could delay substantial completion of stations.							AVOIDED Elevators are operational and permitted.		
445		STA, SU	20	C	S1, S3, S4	R1, R2, R3, R4, R5, R12, R13, R14	Closed	4/23/2020	12/16/2021	602.00	Coordination with MTS on re-signing of entire MTS system, as well as vehicle signage, could create delays. **(Confirmed Closed on 12/16/21)**	This could delay substantial completion of stations.							AVOIDED Signage is complete		
446		CON, ENV, SAF, SU, UTL	90	C	All	All	Closed	4/23/2020	12/16/2021	602.00	There could be potential impacts to schedule and cost due to the COVID-19 pandemic. **(Confirmed Closed on 12/16/21)**	This could delay material transportation & delivery, construction completion, and/or systems construction completion. This could result in a claim.							AVOIDED All major construction work is complete. Procurements have been made. COVID-19 did not present significant impact.		
447	59, 230.4, 286, 408.2, 437, 437.1, 447	CON, ROW, TP	20.06	C	S3	R12	Closed	4/23/2020	6/28/2022	796.00	There could be a delay in the completion of work within the TCE in vicinity of the Nobel Station parking lot. **(Confirmed Closed on 6/28/2022) - Link to Closed Risk #59, #230.4, #286, #408.2, #437, & #437.1**	This could increase costs.							AVOIDED Work in area is complete.		
448		CON, SYS, UTL	90	C	All	All	Closed	4/22/2021	6/21/2023	790.00	Completion of punchlist items in a timely manner (non-City items). **(Confirmed Closed on 6/21/23) - Link to Closed Risk #461**	This could delay project close-out.							MITIGATED All MCTC punchlist complete except minor striping.		
449	449, 450	CON, SU, STA, SYS, UTL	20.01	C	All	R4, R5, R13, R14	Closed	4/22/2021	12/16/2021	238.00	There could be a delay in AT&T connecting the Tecolote station communications. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #450**	This would delay operations							AVOIDED Tecolote station stations connected.		
450	449, 450	CON, SU, STA, SYS, UTL	20.02	C	All		Closed	4/22/2021	12/16/2021	238.00	There could be a delay in AT&T connecting the UTC station & parking garage communications. **(Confirmed Closed on 12/16/21) - Link to Closed Risk #449**	This could delay elevator certification & OSHA concurrence.							AVOIDED UTC station & parking garage are connected to achieve elevator certification and satisfy OSHA.		
451		CON, ENV	40.04	C	S1	R3, R4	Closed	4/22/2021	9/29/2022	525.00	Reestablishment of vegetation under bridges. **(Confirmed Closed on 09/29/22)**	This could increase costs to maintain SWPPP in the area.							MITIGATED. EMP Contractor now maintaining these areas.		
452		CON, ENG, ENV, ROW	40.07	C	S1		Closed	4/22/2021	12/16/2021	238.00	There could be a delay in reaching conclusion with FTA on either equipment purchase or construction of TAR. **(Confirmed Closed on 12/16/21)**								AVOIDED FTA has approved equipment purchase.		

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453		CON, UTL	20	C	All	All	Closed	7/22/2021	3/23/2023	609.00	Costs for completion of station electrical work may increase pending resolution between MCTC and subcontractor. **(Confirmed Closed on 3/23/23) - Link to Closed Risk #402**	This could increase costs.							MITIGATED GMP for station electrical finalized.		
454		CON, ENG, STA	90	C	All	R4, R5, R6, R12, R13, R14	Closed	7/22/2021	9/29/2022	434.00	ADA and Accessibility Review of the stations could identify items that require rework. **(Confirmed Closed on 09/29/22)**	This could increase costs.							AVOIDED. ADA review of stations is complete.		
455		CON, STA	20.02	C	S3		Closed	7/22/2021	12/16/2021	147.00	There could be a delay in the construction of the emergency egress stairwell at Pepper Canyon station. **(Confirmed Closed on 12/16/21)**	This would delay operations.							AVOIDED Stairwell is complete.		
456		CON, ENV, TP, ROW, UTL	60.01	C	S1		Closed	7/22/2021	6/28/2022	341.00	If SDG&E does not agree to easement for joint trench along LOSSAN then the trench may need to be relocated. **(Confirmed Closed on 6/28/2022)**	This would increase cost. No risk to schedule.							MITIGATED SDG&E has committed to an easement. Continuing to work on easement language with SDG&E.		
457		CON, ENV	40.05	C	All	All	Closed	7/22/2021	3/29/2022	250.00	Noise mitigation testing of sound walls may identify areas that require rework. **(Confirmed Closed on 3/29/22)**	This could increase cost.							AVOIDED Noise mitigation testing complete. No issues identified.		
458		CON, MC, ROW, TP	80.04	C	All	All	Closed	12/15/2021	6/21/2023	553.00	As the project reaches conclusion, staff attrition / reduction could result in inefficiencies in administrative activities and/or loss of knowledge to respond to open items in a qualified manner. **(Confirmed Closed on 6/21/23)**	This could delay project close-out.							AVOIDED Project close-out is virtually complete.		
459		CON, ENG, STA, SYS	20.07	C	S1, S3, S4	R4, R5, R6, R12, R13, R14	Closed	3/29/2022	12/13/2022	259.00	Modifications are required to the conduits for FAIDs in the elevator tower. **(Confirmed Closed on 12/13/22)**	This could delay renewal of elevator permits in November 2022.							MITIGATED. Modifications to conduits are complete.		
460		CON, ENG, STA	20.07	C	S4	14	Closed	3/29/2022	6/28/2022	91.00	Elevator 9-2 requires the addition of an intermediate landing. **(Confirmed Closed on 6/28/2022)**	This could increase costs.							ACCEPTED CCO has been executed.		
460.1		CON, ENG, STA	20.07	C	S4		Closed	6/28/2022	12/13/2022	168.00	There could be a delay in completing the modifications to Elevator 9-2. **(Confirmed Closed on 12/13/22)**	There could be a delay in the renewal of elevator permits in November 2022.							AVOIDED. Elevator 9-2 is in operations.		
461		CON, MC	80.06	C	All	All	Closed	3/29/2022	6/21/2023	449.00	The City of San Diego acceptance process takes longer than anticipated. **(Confirmed Closed on 6/21/23) - Link to Closed Risk #448**	This could increase costs through identified rework and delay project close-out.							AVOIDED City accepted S1,2,&3. Will accept S4 after striping. Remaining coordination with City is within remaining contingency.		
1.1	1.1, 204		10.01	D	All		Closed	3/1/2013	2/18/2015	719.00	Design not yet sufficiently progressed to ensure ADA. **(Confirmed Closed on 02/18/15) - Link to Closed Risk #204**	May result in additional design elements.							MITIGATED Design will include all ADA requirements.		
1.2		SAF	10.01	D	S1, S2, S3, S4	All	Closed	3/1/2013	8/15/2016	1263.00	Design not yet sufficiently progressed to ensure fire/life/safety (FLS). **(Confirmed Closed on 08/15/16)**	Modifications to the design							MITIGATED GMP design set complete.		
3.1			10.01	D	S2		Closed	11/1/2011	7/11/2013	618.00	Rose Creek North (middle) Aerial Structure: eliminate need to double track SDNR by providing NCTD access across LRT tracks **(Confirmed Closed on 07/11/13)**								MITIGATED Double tracking of LOSSAN tracks is now a separate project and will be funded in time for construction to occur concurrently with Mid-Coast		
4	4, 233	STR	10.01	D	S2		Closed	4/1/2013	12/11/2013	254.00	Interference of alignment under SR 52 with ramp piers and proposed multi-barrel culvert structures. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #233**								REPLACED See Risk #233.		
8			10.04	D	All		Closed	11/1/2011	5/7/2014	918.00	If loading diagram is not consistent with equipment that will be purchased or work train loading (i.e. track laying train; ballast cars). **(Confirmed Closed on 05/07/14) - Link to Closed Risk #209**	Increased structure capacity may be needed.							MITIGATED Design criteria was issued on 03/14/14.		

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10.1		CP	10.04	D	S1		Closed	11/1/2011	9/25/2013	694.00	Proposed tie-in of new LRT track to existing Green Line track near San Diego River (I-8) may require minor change in alignment to avoid encroaching on existing SDNR track, requiring modifications to track and proposed turnout. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
11.1	11.1, 300, 319		10.04	D	S1		Closed	6/1/2013	5/7/2014	340.00	Adding an additional light rail line in between existing light rail (Green Line) and heavy rail line may require minor realignment and an additional turnout for the existing light rail line on the current flyover. Will need to construct plinths and inserts. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #300 & #319**	Redesign the special trackwork.							AVOIDED Geometry has been reviewed.		
12	12, Z20, Z21	CP	10.04	D	S1		Closed	11/1/2011	9/25/2013	694.00	San Diego River box-girder bridge Drwgs TL-102 and TX-101 is approximately 910-ft long over the flood plain/channel of San Diego River, an environmentally sensitive area. Expected multiple-span bridge has no indication of bridge type, depth of structure, spans lengths, pier locations, foundation type, environmental / recreational / navigational approvals. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z20 & #Z21**								MITIGATED Design has advanced.		
13.1		CP	10.04	D	S1		Closed	11/1/2011	9/25/2013	694.00	Potential for unforeseen environmental impacts and/or liquefaction at San Diego River crossing, increasing cost of the structure. **(Confirmed Closed on 09/25/13)**	Expensive foundation improvement.							MITIGATED Design has advanced.		
14	14, Z11, Z24		10.04	D	S1		Closed	11/1/2011	9/25/2013	694.00	Drawings TL106 and TC-103 do not clearly identify Clairemont Drive bridge widening above the proposed Station. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z11 & #Z24**	If design indicates need for significant improvements to bridge, station would be moved and need for bridge widening deleted.							MITIGATED Design has advanced.		
15			10.04	D	All		Closed	11/1/2011	9/25/2013	694.00	Tracks cross over multiple existing drainage ditches (e.g. Sta 185, 202, 225, 254, 261, 270, 311, etc.) that are up to 55-ft wide and 8-ft deep. Although there are no structures indicated, it appears that either structural culverts or bridges may be necessary. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
16	16, Z20, Z21		10.04	D	S1		Closed	6/1/2013	7/11/2013	40.00	Single-span box-girder bridge approximately 220-ft long over Balboa Avenue has no indication of bridge type, depth of structure, or clearance above Balboa Avenue. A bridge type study may determine that a two-span bridge with pier in the median of Balboa Avenue may be more effective. **(Confirmed Closed on 07/11/13) - Link to Closed Risk #Z20 & #Z21**								MITIGATED APS has been completed.		
18	18, Z20, Z21		10	D	S2		Closed	11/1/2011	7/11/2013	618.00	Curved box-girder bridge approximately 235-ft long over Rose Creek expected to be a multiple-span bridge, has no indication of bridge type, depth of structure, spans lengths, pier locations, or foundation type in the area spanned. **(Confirmed for Closure on 07/11/13) - Link to Closed Risk #Z20 & #Z21**	Final design could impact environmental mitigation required (assumed to be an environmentally sensitive area)							MITIGATED Bridge type has been clarified.		
19	19, 242, 268.1 Z02 Z03		10.04	D	S2, S3, S4		Closed	11/1/2011	9/25/2013	694.00	Throughout NCTD single-tracked region, coordinate future heavy rail constructability with NCTD. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #242, #268.1, #Z02, & #Z03**								REPLACED See Risks #242 & #268.1		
20.1	20.1, 45.4, 133, 243	STR	10.04	D	S2		Closed	11/1/2011	5/7/2014	918.00	Rose Creek South: Based upon existing but limited knowledge of the Rose Canyon Fault Zone there is a possibility that there are faults located at the locations of the bridge structures. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #45.4, #133, & #243**	Further investigation is required, but could result in increased cost for the structures. Unknown conditions at this time could result in more expensive foundations.							AVOIDED Fault Rupture study concluded that the primary fault is not under Rose Canyon. SANDAG is proceeding with design to accommodate secondary faulting.		
21.2		CP, ENV	40.04	D	S1		Closed	9/24/2013	12/11/2013	78.00	There is a potential risk in identifying habitat for Light-footed Clapper Rail in LOSSAN Environmental Document. **(Confirmed Closed on 12/11/13)**	Conflicting findings may create an opportunity to challenge the conclusions.							MITIGATED Mid-Coast Environmental document has been modified.		
23.1			10.04	D	S3		Closed	6/1/2013	7/11/2013	40.00	Nobel Viaduct: There is some concern regarding the constructability of the structure where it crosses I-5 due to the required false work over the active highway. There is additional concern that the structure may need larger curvature when crossing I-5 (current radius is 350', may need 500'). **(Confirmed Closed on 07/11/13)**	Increased curvature would increase span length and cost.							ACCEPTED APS for Nobel Viaduct addresses vertical clearance below falsework and the cost of the viaduct has been included in the overall cost of the project.		
24.1	24.1, 292, Z19	TP	10.04	D	S3		Closed	11/1/2011	8/15/2013	653.00	Voigt Drive and UCSD (not Nobel) Viaduct: The project may be impacted by the planned HOV lanes (Direct Access Ramps) and could require the elevated structure to be longer. 30% premium on the crossing included. **(Confirmed Closed on 08/15/13) - Link to Closed Risk #292 & #Z19**								AVOIDED Worked out geometrics with Caltrans on LRT structure.		
25	25, 25.1	STR	10.04	D	S4		Closed	11/1/2011	12/11/2013	771.00	Aerial Structure Over Genesee Avenue is shown as a symmetric single-pier structure in the grass median strip. There are several intersections (Eastgate, Executive, La Jolla Village, Esplanade Ct) with single and double left turn lanes that will not allow this typical section. It is likely that a "twin-pier portal type" structure and foundation will be necessary. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #25.1**	We would have to have more massive single columns and deeper superstructure.							MITIGATED Design advanced to accommodate the left turn lanes.		

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26.1	26.1, Z18		10.04	D	S4		Closed	11/1/2011	9/25/2013	694.00	(I) I-5 Crossing at Voigt Drive: Encroachment on the ball field along Voigt Dr. based on a required widening of Voigt Dr. or the location of the light rail adjacent to the road. This includes physical encroachment of the structure as well as issues relating to the retaining walls. UCSD ball fields would not be a 4F issue therefore the risk is minimal. May require some modifications to the ball field for protection of the LRT. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z18**								MITIGATED Design has advanced.		
29.1	25.1, 29.1, 411 Z18	CON, STA	10.04	D	S4		Closed	3/1/2013	12/11/2013	285.00	Aerial Structure - Genesee Viaduct: Genesee Viaduct crossing La Jolla Village Drive poses difficult conditions (span and constructability) and may increase the cost of the structures. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #25.1, #411, & #Z18**	Doubling the cost would add about $3 million to this structure.							REPLACED See Risk #25.1.		
30.1	30.1, 226, Z18	STR	10.04	D	S4		Closed	3/1/2013	11/19/2014	628.00	Aerial Structure - Genesee Viaduct: Opportunity for segmental construction of Genesee Viaduct elements could reduce cost and shorten the construction schedule. **(Confirmed Closed on 11/19/14) - Link to Closed Risk #226 & #Z18**								AVOIDED CM/GC has reviewed the plans and has concurred with cast in place concrete for Genesse.		
31.1	31.1, Z18		10.04	D	S4		Closed	11/1/2011	8/14/2013	652.00	Aerial Structure - Genesee Viaduct: Potential for a landmark structure to be required at La Jolla Village Dr. (suspension bridge or other structure) **(Confirmed Closed on 08/14/13) - Link to Closed Risk #Z18**								MITIGATED No comments from UCPG.		
33			10.06	D	S4		Closed	11/1/2011	9/25/2013	694.00	Cut and Cover Structure at Gilman Drive (Sta 456): not clear why cut and cover tunnel (approximately 179-ft long) with boat structure transitions on both ends was selected as compared to aerial structure over Gillman Drive. Design has potential to change in response to additional studies to confirm the track profile, structure type and community impacts. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
34			10.06	D	S4		Closed	11/1/2011	9/25/2013	694.00	Cut and Cover Structure at Gilman Drive (Sta 559-565): not clear why a cut and cover tunnel (approximately 565-ft long) with retaining wall section and boat structure transitions was selected as compared to an aerial structure over Gillman Drive and adjacent parking lot. Cost and schedule design and construction risks include drainage, utilities, roadway and parking lot closure during construction, community concerns. Design has potential to change in response to additional studies to confirm the track profile, structure type and community impacts. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
35	35, Z07 Z12		10.06	D	S4		Closed	11/1/2011	9/25/2013	694.00	Cut and Cover Structure north of UCSD West Station (Sta 572-575): not clear why cut and cover tunnel (approximately 272-ft long) with boat transition section at both ends was selected as compared to a raised track profile. Design has potential to change in response to additional studies to confirm the track profile, structure type and community impacts. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z07 & #Z12**								MITIGATED Design has advanced.		
36			10.06	D	All		Closed	11/1/2011	9/25/2013	694.00	Tunnels (cut-and-cover) plans, profiles and sections are defined to a schematic level only. Tunnel features (emergency access and egress, lighting, systems elements such as ventilation, communications and traction power, construction access and laydown are not well defined. Tunnel drawings do not depict the static/dynamic envelope for the either the existing vehicles or new vehicles. Sight distances for the design speeds should be checked for adequacy at all tunnels on curves. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
37		STR	10.08	D	All		Closed	11/1/2011	1/22/2014	813.00	Retaining Structures (TX-101, TX-102, and TX-104) show standard cantilever retaining walls and other partially portrayed wall systems; however, LRT Design Criteria Manual (1999) may require alternative wall systems such as MSE. Design has potential to change (with cost/schedule impacts) in response to additional studies to determine the most appropriate and effective retaining systems to be used for various cut and fill conditions. **(Confirmed Closed on 01/22/14)**	Potential increase in costs for construction.							MITIGATED Design has advanced.		
38		STR	10.08	D	S2, S3		Closed	11/1/2011	1/22/2014	813.00	Retaining Structures in Steep Cuts: (TX-104) shows a retaining wall with steep existing slope (in excess of 50-deg) that appears to be in excess of 30-ft above grade. Design has potential to change in response to additional geotechnical, structural, drainage, and site conditions studies to confirm portrayed solution vs. benching of existing slopes to reduce the height of retaining structures. **(Confirmed Closed on 01/22/14)**	May result in positive or negative cost and schedule impacts.							MITIGATED Design has advanced.		
39			10.12	D	S4		Closed	11/1/2011	9/25/2013	694.00	Changing double crossover proposed on the aerial structure between UCSD East and Executive Stations to two single crossovers may result in positive cost and schedule risk advantages (fewer frogs, special trackwork, lower signal costs, etc.).								MITIGATED Design has advanced.		
41			10.12	D	All		Closed	11/1/2011	9/25/2013	694.00	Special trackwork is defined to a schematic level only. Likely that changes to alignment, profile, and operational concerns that occur as P.E. progresses may result in changes to special trackwork as well. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		

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43	43, 228		10	D	All		Closed	11/1/2011	7/11/2013	618.00	LRT Design Criteria Manual (dated March 25, 1999) contains criteria for new facilities and systems design. However, the Manual is more than 10 years old and does not reflect current code requirements. SANDAG intends to update the Manual during PE. Uncertainties in platform length, loading diagrams, static and dynamic envelopes, geotechnical test type-location-frequency, bridge type studies, load factors for bridges, ballasted vs. DF track on aerial structures, design criteria for tunnels and underground structures, use of latest issue of California Building Code **(Confirmed Closed on 07/11/13) - Link to Closed Risk #228**								REPLACED See Risk #228.		
44	44, Z39		10	D	All		Closed	6/1/2013	7/11/2013	40.00	Project limits not yet clearly shown on the plans. (Any work "Not in Project" should be clearly labeled). **(Confirmed Closed on 07/11/13) - Link to Closed Risk #Z39**	Uncertainty of scope results in uncertainty of cost and schedule							MITIGATED		
45.1	45.1, 45.2, 45.3		10.04	D	S1, S2		Closed	3/1/2013	1/13/2015	683.00	Drawings/documents do not provide any boring data. There is risk that drilled shaft depths may increase as boring results become available. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #45.2 & #45.3**	Modifications to the design, depth of foundations.							MITIGATED Borings are complete.		
45.2	45.1, 45.2		10.04	D	All		Closed	4/1/2013	7/11/2013	101.00	Drawings/documents do not provide any boring data. There is risk that drilled shaft depths may increase as boring results become available. There is also risk that active faults may be found in areas of aerial structures. **(Confirmed Closed on 07/11/13) - Link to Closed Risk #45.1**								REPLACED See Risk #45.1.		
45.3	45.1, 45.3		10.04	D	All		Closed	4/1/2013	7/11/2013	101.00	Drawings/documents do not provide any boring data. There is risk that drilled shaft depths may increase as boring results become available. There is also risk that active faults may be found in areas of aerial structures. **(Confirmed Closed on 07/11/13) - Link to Closed Risk #45.1**								REPLACED See Risk #45.1.		
45.4	20.1, 45.4, 133, 134		10.04	D	S2		Closed	7/1/2013	9/25/2013	86.00	There is also risk that active faults may be found in areas of aerial structures. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #20.1, #133, & #134**								REPLACED See Risks #20.1 & #134.		
46.1	46.1, 46.2, Z29	UTL	40.02	D	All		Closed	4/1/2013	8/14/2013	135.00	There is risk that alignment, drilled shaft spacing, pier type and utility relocation may increase as utility exploration and drawings are developed. **(Confirmed Closed on 08/14/13) - Link to Closed Risk #46.2 & #Z29**								MITIGATED Existing utilities have been mapped from record drawings and field surveys of surface features.		
46.2	46.1, 46.2, Z29	UTL	40.02	D	All		Closed	4/1/2013	1/22/2014	296.00	Not much dry utility information provided. There is risk that alignment, drilled shaft spacing, pier type and utility relocation may increase as utility exploration and drawings are developed. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #46.1 & #Z29**	Potential delay to utility relocation.							MITIGATED Verified mapping with utilities and initiated potholing		
47			10.09	D	All		Closed	4/1/2013	9/25/2013	177.00	Trackwork has been advanced to the level of single line schematics of track layout, plan and profile drawings, proposed location of turnouts and crossovers, and tabulation of track geometry (horizontal and vertical curve data). Likely that changes to alignment and profile during P.E. will result in changes to trackwork. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
48	48, 228		20	D	All		Closed	11/1/2011	9/24/2013	693.00	LRT Design Criteria Manual (March 1999) identifies station design criteria; however, in general, architectural details, dimensions, design interfaces and physical interfaces have not been consistently advanced to acceptable levels for this stage of design completion. **(Confirmed Closed on 09/24/13) - Link to Closed Risk #228**								REPLACED See Risk #228.		
49			20.01	D	S1		Closed	11/1/2011	9/25/2013	694.00	Clairemont Drive at-grade station has center/center track dimensions which results in platform widths being reduced to less than the 15-ft minimum required due to clearance required from the existing Clairemont Drive columns beyond. **(Confirmed Closed on 09/25/13)**	Cost/schedule impact if cannot be approved by the MTDB Director of Engineering.							MITIGATED Design has advanced.		
50	50, Z27		20	D	S4		Closed	11/1/2011	9/25/2013	694.00	No conceptual station site plans provided for the UCSD West and UCSD East Stations. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z27**								MITIGATED Design has advanced.		
51.1	51.1, 301		20.01	D	S4		Closed	4/1/2013	9/25/2013	177.00	(I) UCSD West Station: The Mid-Coast Project is reliant upon timely acceptance of plans by UCSD. If UCSD approvals are seen as being difficult to achieve, the project may need to accept delays. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #301**	Delay in Project.							REPLACED See Risk #301.		
52	52, 228	SAF, STA	20	D	All		Closed	4/1/2013	9/3/2015	885.00	Fire, life, safety (FLS) and maintenance requirements for new facilities should be further reviewed as design progresses to assure emergency egress is provided. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #228**								MITIGATED Emergency egress design was presented at April 2015 FLSSC meeting.		
53.1		CP	20.01	D	S1		Closed	11/1/2011	9/25/2013	694.00	(I) Potential for liquefaction at stations located between San Diego River and Clairemont. Piers or columns would be needed below the station. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		

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54			20.01	D	S1		Closed	11/1/2011	9/25/2013	694.00	There is a significant amount of site work at Balboa Station to add a new access/egress road from Balboa, new signalized intersection on Moreno, a proposed 220-space surface parking and roadway modifications to Moreno. It is not clear why a pedestrian walkway is included on the proposed guideway bridge crossing over Balboa Avenue. It may be more cost effective (positive cost and schedule impacts) to provide stairs and a ramp from Balboa Avenue connecting directly to the platform level (with track crossing between platforms) of the "at-grade" station which is on retained fill just south of Balboa. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
56.1		TP	20.01	D	S3		Closed	3/1/2013	1/22/2014	327.00	Project stakeholders may require a station at the VA Hospital. **(Confirmed Closed on 01/22/14)**	May add a station at the VA Hospital.							AVIODED VA station is included in the LPA.		
57			20.02	D	S4		Closed	6/1/2013	9/25/2013	116.00	Executive Drive Station Drawings TL123 and TC-111 do not indicate proposed access and egress provisions for the Station. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
58			20.04	D	S1		Closed	6/1/2011	9/25/2013	847.00	Coordination of Santa Fe Depot Modifications (new LRT track, phased relocation of existing MT1, MT2, MT3 and MT4 tracks, platform modifications, new special trackwork) to maintain existing rail service during construction has potential to impact the stations as well as the guideway and special trackwork. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
59	59, 286, 447	ROW	20.06	D	S3		Closed	11/1/2011	9/24/2013	693.00	Shopping center at Nobel Drive Station may not agree to a parking structure/shared parking arrangement on their property. **(Confirmed Closed on 09/24/13) - Link to Closed Risk #286 & #447**	Potential litigation resulting in significant design and construction cost and schedule risk.					Memories		REPLACED See Risk #286.		
60	60, 204		20.07	D	S1		Closed	4/1/2013	9/25/2013	177.00	There are no elevators indicated at Balboa Station from the platform level on retained fill down to the existing Balboa Avenue sidewalks, which appears to be a difference in elevation of about a 25-ft. This violates the current (1999) design criteria. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #204**	If required, would result in a cost risk to the project.							REPLACED See Risk #204.		
61			30	D	All		Closed	11/1/2011	9/25/2013	694.00	SCC Code 30: Support Facilities: No risks identified; to be definitively confirmed during PE. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
64		UTL	40.02	D	All		Closed	11/1/2011	9/25/2013	694.00	Locations of major utilities (e.g., high voltage overhead (crossed out in Nov. 2011 text: or underground power, underground major sewer, water, other pipeline, communications lines)) not yet plotted on plans. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
65	65, 205	UTL	40.02	D	All		Closed	6/1/2011	4/12/2013	681.00	Project specific utility agreements remain to be developed/finalized **(Confirmed Closed on 04/12/13) - Link to Closed Risk #205**								REPLACED See Risk #205.		
66			10	D	All		Closed	4/1/2013	9/25/2013	177.00	Drainage Design Criteria requires top of rail elevation to be above the 100-yr water surface elevation. If verification shows that not all tracks, bridge structures, and finished floor elevations are above the 100-year WSEL, is a potential cost/schedule impact. **(Confirmed Closed on 09/25/13)**	Potential cost/schedule impact.							MITIGATED Design has advanced.		
67			40.02	D	S1		Closed	11/1/2011	9/25/2013	694.00	Tecolote Creek Drawing TL-104 and prior Final EIS show the 100-year water surface elevation as elevation 12-ft. The track profile shows water surface as10.00-ft, with bottom of bridge steel at elevation 11.9-ft. The proposed design must satisfy the 100-year flood and freeboard requirement below the structure. (Note: any change in track profile may affect vertical clearances at the existing Tecolote Road bridge located 200-ft south of this creek crossing.) Possible risk to change in design scope and costs (earthwork, structure). **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
68			40.04	D	S1		Closed	11/1/2011	9/25/2013	694.00	Drawing TL-106 indicates a drainage ditch at Sta 202, but there is no box culvert shown in profile. Also, TL-108 indicates several drainage ditches (Sta 254, 261, 270, 311) on the profile but no structure or box culvert is shown. **(Confirmed Closed on 9/25/13)**								MITIGATED Design has advanced.		
69			40.04	D	S1, S2		Closed	11/1/2011	9/25/2013	694.00	Rose Creek Drawing TL-111 indicates a water surface at elevation at 44-ft and a 3.3-ft dimension. Is this the 100-year water surface elevation and a 3.3-ft minimum freeboard required? **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
70			40.04	D	All		Closed	11/1/2011	9/25/2013	694.00	The impacts of the stormwater regulations enacted since the issuance of the FEIR have not been evaluated at this point. **(Confirmed Closed on 09/25/13)**	These could impact design and cost/schedule.							MITIGATED Design has advanced.		
78			40.04	D	S2		Closed	11/1/2011	9/25/2013	694.00	The selected alternative requires construction along Rose Creek and the west facing slopes along the east side of I-5, which is indicated as having moderate potential to impact wildlife habitats during construction. Although identified, these actions have not been addressed in any detail. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
79			40.04	D	All		Closed	11/1/2011	9/25/2013	694.00	A number of potential environmental mitigation needs are addressed in the Final Comparative Evaluation of Alternatives. **(Confirmed Closed on 09/25/13)**	Which could impact project cost and schedule.							MITIGATED Design has advanced.		

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Rating	< = 6	7 - 12	13 - 18

Score = (Cost + Schedule) * Probability

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81.1	81.1, 240		50.05	D	S4		Closed	4/1/2013	9/25/2013	177.00	(I) UCSD West Station: Potential for requirement for improvements surrounding UCSD campus. This could include the already discussed addition of air-conditioning units surrounding the UCSD W station or a requirement that the project provide security personnel for the project to protect students from construction activities. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #240**								REPLACED See Risk #240.		
83	83, Z14	TP	40.07	D	All		Closed	11/1/2011	9/25/2013	694.00	Parking demand discrepancies (1,800 spaces per the Final Definition of Alternatives Report, 640 spaces shown in drawings, and as high as 3,000 spaces based on ridership) need to be resolved. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #Z14**	Could result in need for more parking.							MITIGATED Design has advanced.		
86			50	D	All		Closed	11/1/2011	9/25/2013	694.00	While running rail size is defined in the Conceptual Plans as 115RE per AREMA standards, the size of most special trackwork (crossovers/double crossovers) is not defined. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
87		SYS	50	D	All		Closed	11/1/2011	12/11/2013	771.00	Major equipment has not been identified and defined for the Control Room, Substations, crossings, tunnel ventilation and traction power. **(Confirmed Closed on 12/11/13)**								MITIGATED Design has advanced.		
90.1			50.01	D	S4		Closed	11/1/2011	5/7/2014	918.00	Additional signals required around UCSD West Station to accommodate blind spots around curves. **(Confirmed Closed on 05/07/14)**	Additional signals may be required.							MITIGATED Design revised.		
91	91, 92		50.01	D	S1		Closed	11/1/2011	5/7/2014	918.00	Operational analysis has not been done as yet for the most efficient location of the Crossovers and Interlockings. Braking tables have not been worked out. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #92**								MITIGATED The location of the crossovers and interlockings have been set.		
92	91, 92		50.01	D	All		Closed	11/1/2011	5/7/2014	918.00	The requirements and control limits of the Interlockings not determined/defined at this stage. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #91**								MITIGATED The location of the crossovers and interlockings have been set.		
93		SYS	50.01	D	All		Closed	11/1/2011	12/11/2013	771.00	The following have not yet been defined: Signal rail bonding; CIR, CIH and CIL locations and sizes; signal cable routing methodology, power supply and distribution; software and interface requirements; maintenance, testing and training requirements. **(Confirmed Closed on 12/11/13)**	Potential design changes.							MITIGATED Design has advanced.		
94			50.03	D	S1		Closed	4/1/2013	9/25/2013	177.00	The ratings of substations, distribution circuit of the utility not determined as yet. Adequacy or otherwise of the number and location of existing substation on the Blue Line and for the proposed extension of Blue Line has not determined through either simulation and or design study. May require 2 to 3 more substations to accommodate the project requirements. Approximately $1M/mile/substation. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
95		SYS	50.03	D	All	All	Closed	3/1/2013	6/29/2016	1216.00	The ratings of SDG&E substations, distribution circuit and redundancy provisions between substations of the utility not determined as yet. **(Confirmed Closed on 06/29/16)**	Could increase scope.							MITIGATED Issue is resolved in current design.		
96			50.03	D	All		Closed	4/1/2013	9/25/2013	177.00	Project cost estimates should be updated as necessary when traction power requirements are better defined and the design is advanced to an acceptable level. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
97			50.03	D	All		Closed	11/1/2011	9/25/2013	694.00	TPSS layout drawings as submitted show only minimal information. TPSS layouts should be advanced to show overall dimensions, space requirements, and vehicle access provisions for installation and maintenance of equipment. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
98			50.03	D	All		Closed	11/1/2011	9/25/2013	694.00	In general, TL and TC drawings do not identify size and vehicle access requirements for the substation, and contain discrepancies regarding presence/location of the TPSS. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
99.1			50.03	D	S1		Closed	11/1/2011	9/25/2013	694.00	(I) There is an opportunity to relocate the planned McGraw Street Substation to an alternate, less expensive location. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
100		SYS	50.04	D	All		Closed	11/1/2011	12/11/2013	771.00	The OCS has not yet been defined, but is expected to be similar to the existing Blue Line. SANDAG has not, as yet, studied the design requirements for out of service scenario. **(Confirmed Closed on 12/11/13)**	Additional design.							MITIGATED Plan has been established to replace older systems with newly updated system.		
101			50.04	D	All		Closed	4/1/2013	9/25/2013	177.00	The estimate currently has $1,250,000 for catenary, which is not considered adequate to meet the project requirements. Cost to be revised as the design progresses. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
102		SYS	50.05	D	All		Closed	4/1/2013	1/22/2014	296.00	The estimated cost of $500,000 of communication facilities at each station is not realistic to cover all the facilities. The cost would need to be revised upwards as the design progresses. **(Confirmed Closed on 01/22/14)**								MITIGATED Design has advanced and a more detailed estimate prepared.		
104	104, 214, 214.1	ROW	60.01	D	S2, S3, S4		Closed	11/1/2011	9/25/2013	694.00	Temporary easements for construction access and laydown areas are not defined at this time. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #214 & 214.1**	Will result in additional cost to the project.							REPLACED See Risk #214.		
105	105, 213, 249, 250	ROW	60.01	D	All		Closed	11/1/2011	9/25/2013	694.00	If SANDAG is responsible for providing replacement easements for utilities that are relocated. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #213, #249, & #250**	Could result in significant additional cost							REPLACED See Risks #213, #249, & #250.		

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106	106, 271.2 286 292 323	ROW	60.01	D	All		Closed	4/1/2013	12/11/2013	254.00	Current ROW pricing relies on the ability to reach favorable agreements with the City, Caltrans, the shopping center at Nobel Drive, along Genesee Ave., and UCSD. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #271.2, #286, #292, & #323**							REPLACED See Risks #271.2, #286, #292, & #323.		
107			60.01	D			Closed	11/1/2011	4/12/2013	528.00	SANDAG is considering using existing ROW as "Contribution in Kind". This would increase total project cost (but would offset the amount of local funds needed for the project) **(Confirmed Closed on 04/12/13)**	Would offset the amount of local funds needed for the project.						ACCEPTED Will be paid for by Mid-Coast and approved by FTA.		
108		ROW	60.01	D	S3		Closed	4/1/2013	9/25/2013	177.00	Public ROW Acquisition Drawing TR-400 is unclear if full taking been included for the new substation shown on drawing TL-120 (at Sta 566-Right). Siting of TPSS is currently for "placeholder" purposes and will likely change; cost can be affected. **(Confirmed Closed on 09/25/13)**							MITIGATED Design has advanced.		
111.1		ROW	60.01	D	S1		Closed	11/1/2011	9/25/2013	694.00	(I) There is an opportunity for reducing the Tecolote Road Station right-of-way costs at Anderson Nursery by only impacting the City right-of-way. **(Confirmed Closed on 09/25/13)**	Increased cost if MC needs to build a parking structure.						MITIGATED Design has advanced.		
112.1		ROW	60.01	D	S2		Closed	11/1/2011	9/25/2013	694.00	(I) Easements will be required within the narrow alignment for the Aerial Structure at Rose Creek South. There is likely no permanent loss of use at these properties. **(Confirmed Closed on 09/25/13)**							MITIGATED Design has advanced.		
113.1	113.1, 113.2	ROW	60.02	D	S1	R2, R3, R4	Closed	3/1/2013	10/28/2015	971.00	The private rail car located adjacent to the existing commuter rail at the San Diego River Aerial Structure has been moved but lingering issues may arise. **(Confirmed Closed on 10/28/15) - Link to Closed Risk #113.2**	Potential cost impact.						MITIGATED MTS is moving private rail car to MTS property. MTS has settlement agreement with owner.		
115			80.01	D	All		Closed	9/24/2013	12/11/2013	78.00	PE Phase Staffing Plan remains to be fully developed. **(Confirmed Closed on 12/11/13)**	There are not appropriate resources available to maintain the schedule.						MITIGATED Staffing Plan is current.		
116			80.03	D	All		Closed	11/1/2011	9/25/2013	694.00	PM Consultant not yet contracted. **(Confirmed Closed on 09/25/13)**	Impacts management of project.						MITIGATED Design has advanced.		
120			80.01	D	All		Closed	11/1/2011	9/25/2013	694.00	FTA Approval for Entry to PE takes longer than scheduled. **(Confirmed Closed on 09/25/13)**						Memories		MITIGATED Design has advanced.		
121		ENG	90	D	All		Closed	11/1/2011	4/29/2015	1275.00	FTA Approval for Entry into Engineering takes longer than scheduled. **(Confirmed Closed on 04/29/15)**	This could delay the start of final design which could delay the entire project.						MITIGATED The project received Entry into Engineering Approval on 04/02/15.		
122	122, 236		90	D			Closed	11/1/2011	4/12/2013	528.00	FTA Approval of the FFGA takes longer than scheduled. **(Confirmed Closed on 04/12/13) - Link to Closed Risk #236**	Resulting in impact to schedule and overall project costs.					Memories		REPLACED See Risk #236.		
125			80.06	D	All		Closed	11/1/2011	9/25/2013	694.00	San Diego City regulations, which require filing of a new zoning and planning applications, have not been addressed in the EIR. **(Confirmed Closed on 09/25/13)**	Could impact schedule.						MITIGATED Design has advanced.		
126			90	D	All		Closed	4/1/2013	5/8/2013	37.00	The MC project has not yet selected a Project Delivery Method. **(Confirmed Closed on 05/08/13)**						Memories		MITIGATED SANDAG Board approved the CMGC Project Delivery Method on 04/26/13.		
127			40.08	D	All		Closed	3/1/2013	9/29/2014	577.00	The MC project has not yet developed the actual set of project documents that will ultimately form the construction contracts – to finalize the GC. **(Confirmed Closed on 09/29/14)**							AVOIDED Draft GC has been circulated.		
129			80	D	All		Closed	11/1/2011	9/25/2013	694.00	SANDAG Construction Manual (April 2008) provides guidelines for administration of construction and procurement contracts. It is anticipated that project specific requirements may result in deviations to the guidelines. **(Confirmed Closed on 09/25/13)**							MITIGATED Design has advanced.		
133	20.1, 45.4, 133, 134, 243, 243.1		90	D	All		Closed	11/1/2011	9/25/2013	694.00	The Project is located in an area of intense seismic activity and may cross fault lines identified on Caltrans Engineering seismic hazard maps. **(Confirmed Closed on 9/25/13) - Link to Closed Risk #20.1, #45.4, #134, #243, & #243.1**							REPLACED See Risks #243 & #243.1		
134	45.4, 133, 134	CON, STR	40.03	D	All		Closed	7/1/2013	9/3/2015	794.00	The alignment in particular has many geologic and other subsurface conditions that have the potential to impact the design, construction and serviceability of structures such as bridges, buildings, retaining walls, ground slopes and rail lines. These include geologic faulting, landslide potential and slope stability, expansive and compressible soils, liquefaction potential and structural corrosion potential. Structural approach related to ground conditions, subsidence, etc. is conceptual only, based on Caltrans/local experience. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #45.4 & #133**	It is not clear that the potential impact of these many issues has been incorporated into the project cost and/or the project design/construction schedule.						MITIGATED Geotech analysis completed, findings incorporated into plans.		
135			10	D	All		Closed	11/1/2011	8/20/2013	658.00	The Basis of Design Report has not yet been finalized. This is scheduled to be complete by May 2013. **(Confirmed Closed on 08/20/13)**							MITIGATED BOD report is complete.		
136			10.06	D	All		Closed	11/1/2011	9/25/2013	694.00	Design concepts for support in open cut and tunnel sections have not been identified. **(Confirmed Closed on 09/25/13)**							MITIGATED Design has advanced		

Exhibit 1

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137	137, 214	STR	10.04	D	S2, S3, S4		Closed	3/1/2013	1/13/2015	683.00	Selection of structure construction methods is conceptual only. **(Confirmed Closed on 1/13/15) - Link to Closed Risk #214**	Changes in design could impact cost.							REPLACED See Risk #214.		
138			10	D	All		Closed	11/1/2011	9/25/2013	694.00	Mass balance diagrams for alignments on fill or cut were reportedly prepared for cost estimating purposes but detailed backup was not available for review. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced		
139	139, 350		100	D	All		Closed	9/24/2013	1/13/2015	476.00	Funding sources, budget limitations and finance costs can vary **(Confirmed Closed on 01/13/15) - Link to Closed Risk #350**								REPLACED See Risk #350.		
200	200, 200.1, 200.2, 271.1, 271.2	ENV, SYS	40.04	D	S4		Closed	3/1/2013	2/12/2014	348.00	There are potential EMF impacts to sensitive equipment on UCSD campus along the alignment. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #200.1, #200.2, #271.1, & #271.2**	This could result in further design refinements as well as budget and schedule impacts.							MITIGATED Design refined to eliminate the impact.		
200.1	200, 200.1, 200.2	ENV, SYS	40.04	D	S4		Closed	8/22/2013	1/22/2014	153.00	There are potential EMF impacts to sensitive equipment on Scripps/XIMED along the alignment. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #200 & #200.2**	This could result in further design refinements as well as budget and schedule impacts.							MITIGATED Alignment refined to avoid the EMF impacts.		
200.2	200, 200.1, 200.2	ENV	40.04	D	S4		Closed	8/22/2013	9/24/2013	33.00	EMF levels may be higher than anticipated and would result in a change in alignment. **(Confirmed Closed on 09/24/13) - Link to Closed Risk #200 & #200.1**	The environmental document would need to be recirculated.							REPLACED See Risks #200 & #200.1		
201		TP	10	D	S4		Closed	3/1/2013	1/22/2014	327.00	There is a potential for delayed concurrence from UCSD on alignment based upon LPA decision by transportation committee. This concurrence needs to be achieved by Fall 2013. **(Confirmed Closed on 01/22/14)**	Late approval on the LPA would delay the environmental document.							MITIGATED Received verbal approval from UCSD.		
204	1.1, 60, 204		20.07	D	S1		Closed	3/1/2013	2/18/2015	719.00	If elevators are added to the design of the Balboa Station it will increase costs. **(Confirmed Closed on 02/18/15) - Link to Closed Risk #1.1 & #60**	Cost increase.							AVOIDED Elevators will not be added to the Balboa Station.		
209	209, 209.1	CON, SAF, SYS	50.02	D	S1	R1	Closed	3/1/2013	8/15/2016	1263.00	Train Crossing / Grade Crossings: Additional studies related to patrons crossing the tracks at Old Town Transit Center (OTTC) / Taylor St. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #209.1**	Could result in design changes.							AVOIDED CPUC approval is not required at OTTC.		
209.1	209, 209.1		50.02	D	S1		Closed	7/1/2013	8/14/2013	44.00	Traffic Crossing/Grade Crossings: Additional studies related to traffic crossing the tracks at OTTC/Taylor St. **(Confirmed Closed on 08/14/13) - Link to Closed Risk #209**	Could result in delays to the environmental process.							REPLACED See Risk #209.		
211		STR	40.05	D	S1		Closed	3/1/2013	9/3/2015	916.00	Additional soil improvements (light-weight fill) beyond those planned to support retaining walls, UT Building, adjacent building, and utility crossings. **(Confirmed Closed on 09/03/15)**	Soil improvements may also impact the foundations of the adjacent buildings which could increase scope and costs.							MITIGATED Soil improvement recommendations have been included in the 65% plans.		
212			40.04	D	S2		Closed	3/1/2013	1/13/2015	683.00	Inaccurate mapping of current Floodplain conditions at Rose Creek near the Rose Creek LRT Overhead. **(Confirmed Closed on 01/13/15)**	Could cause delays to Conditional Letter of Map Revisions (CLOMR) approvals.							MITIGATED Approval has been received from FEMA on the existing conditions.		
226	30.1, 226, 411	CON, STA	10.04	D	S4		Closed	7/1/2013	1/13/2015	561.00	Viaduct spans may increase in length from current design. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #30.1 & #411**	Therefore increasing cost.							MITIGATED Change control process is currently being prepared to address changes in TPSS location.		
228	43, 48, 52, 228, 284	QA	10.04	D	S1, S2, S3, S4		Closed	9/24/2013	1/13/2015	476.00	LRT Design Criteria is out of date. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #43, #48, #52, & #284**	Design modifications may be required.							MITIGATED LRT Design Criteria was issued on 03/14/14 and the General Design Criteria was issued on 09/11/14.		
229.1	223, 223.1, 229, 229.1	ENG, STA, TP	20.01	D	S4	R14	Closed	7/1/2014	6/29/2016	729.00	UTC's completion of Westfield parking structure and elevators is delayed. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #223, #223.1, & #229**	This could delay the schedule of the LRT station design and construction.							AVOIDED Westfield project will be completed by June 2017.		

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232		CP, TP	10.04	D	S2		Closed	8/22/2013	1/22/2014	153.00	Poor coordination of project alternatives between Elvira and Mid-Coast. **(Confirmed Closed on 01/22/14)**	May impact the design of the Mid-Coast in Segment 2.							MITIGATED Designs have been coordinated		
238			10	D	All		Closed	N/A	8/20/2013	#VALUE!	SANDAG has not prepared or approved a project QA/QC Plan. **(Confirmed Closed on 08/20/13)**								MITIGATED Quality Plan submitted to FTA.		
239	207, 239, 356, 385	CON, CP, ENG	10.01	D	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	6/1/2013	9/19/2017	1571.00	There is a risk in the lack of timely plan review by NCTD. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #207, #356, & #385**	This may cause schedule impacts and costs associated with redesign and/or more expensive design solutions.							MITIGATED Project has changed to counterfort walls. No other approvals needed from NCTD.		
243	20.1, 133, 243	STR	50.05	D	S2		Closed	3/1/2013	5/7/2014	432.00	Identification of potential fault rupture under the tracks or structure within the Rose Canyon area. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #20.1 & #133**	May modify bridge design and may require adding detection components to the systems design.							MITIGATED Fault Rupture Study conclusions have been adopted into the Type Selection.		
243.1	133, 243.1	CP, STR	50.05	D	S1		Closed	7/1/2013	11/19/2014	506.00	Identification of potential fault rupture under the tracks or structure within the Balboa Avenue area. **(Confirmed Closed on 11/19/14) - Link to Closed Risk #133**	May modify bridge design and/or system design.							MITIGATED Geotech borings are largely complete. Type selection reports are done. Draft foundation report is done.		
255		TP	10.04	D	S4		Closed	N/A	8/15/2013	#VALUE!	UCSD is designing an extension of Gilman Dr. over I-5 and a realignment of Gilman Dr. UCSD's present design is not consistent with the Mid-Coast DSEIS/SEIR design and column locations. **(Confirmed Closed on 08/15/13)**	Mid-Coast may require design modifications in this area.							AVOIDED Coordination with UCSD has eliminated this risk.		
256	225.1, 230.7, 256	TP	10.04	D	S4		Closed	3/1/2013	9/25/2013	208.00	UCSD has proposed but not approved a design alignment for Voigt Drive and Campus Point that is not consistent with the Mid-Coast DSEIS/SEIR design and column locations. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #225.1 & #230.7**	MC may require design modifications in this area.							REPLACED See Risks #225.1 & #230.7		
257		CP, STR, TP	10.04	D	S2		Closed	3/1/2013	1/22/2014	327.00	NCTD is installing PTC main fiber line within the Mid-Coast main corridor and will complete construction in June 2013. **(Confirmed Closed on 01/22/14)**	Mid-Coast will have to incur portion of the expense of relocating what is currently being constructed in the reach of the LOSSAN Overhead to La Jolla Colony Dr.							ACCEPTED Cost included in the budget.		
268	268, 298, 319	CP, STR, TP	10.02	D	S1, S2		Closed	7/1/2013	1/13/2015	561.00	NCTD design coordination with regard to 50mph versus 55mph LOSSAN alignment. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #298 & #319**	Could result in delays in design and construction, and additional unanticipated cost. Including but not limited to 50 mph vs. 55 mph LOSSAN alignment. May impact current design of the Rose Creek LRT Overhead.							MITIGATED NCTD orally concurred with the 50 mph alignment.		
268.3	268.3, 329	CP	40.05	D	S1, S2		Closed	8/22/2013	9/29/2014	403.00	There is a risk in design coordination with NCTD, including but not limited to crash barrier agreement along the LOSSAN alignment. **(Confirmed Closed on 09/29/14) - Link to Closed Risk #329**	This could result in delays to design and construction, as well as additional unanticipated cost.							REPLACED See Risk #329.		
288		QA	80.03	D	All		Closed	9/24/2013	9/3/2015	709.00	Quality procedures are not followed when preparing plans. **(Confirmed Closed on 09/03/15)**	Could result in change orders.							MITIGATED PB has added full-time Quality Manager to the project which has aided the quality procedures oversight.		
289		TP	80.02	D	S1, S2		Closed	7/1/2013	2/12/2014	226.00	Inefficiencies in permitting and preconstruction coordination activities with NCTD. **(Confirmed Closed on 02/12/14)**	Could delay access to NCTD ROW resulting in delays to design.							MITIGATED Process has been defined and is working.		
291		STR, TP	40.02	D	S3		Closed	8/22/2013	1/22/2014	153.00	Nobel Viaduct I-5 crossing conflicts with 60" Caltrans storm drain. **(Confirmed Closed on 01/22/14)**	Resolution of this conflict could create additional costs.							ACCEPTED Storm drain has been located and we are designing around it and costs are included in the revised estimate.		
292	24.1, 106, 292	STR, TP	40.05	D	S3		Closed	8/22/2013	1/22/2014	153.00	Caltrans' plans for future projects and wall requirements may conflict with Mid-Coast retaining walls and bridge designs on Caltrans ROW. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #24.1 & #106**	Therefore Caltrans permitting may be delayed							ACCEPTED Cost is included in estimate and alignment has been worked out with Caltrans so there should be no schedule impacts.		
294		CON, CP, TP	40.04	D	S1, S2		Closed	7/1/2013	9/29/2014	455.00	Potential need for 408 permit near San Diego River & Rose Creek. Delay risk. **(Confirmed Closed on 09/29/14)**	Low schedule risk							AVOIDED USACE and City was non responsive on need for 408 permit.		

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295		ENG, TP	10.03	D	S1, S3, S4	R1, R2, R3, R4, R5, R6, R10, R11, R12, R13, R14	Closed	7/1/2013	11/29/2016	1247.00	Late changes to plans for the roadway improvements. **(Confirmed Closed on 11/29/16)**	Could impact schedule and budget due to City of San Diego comments.							MITIGATED City signed off all segments.		
298	268, 298, 319	CP	20.06	D	S2		Closed	4/1/2013	9/29/2014	546.00	In SR 52 area, existing LOSSAN rails are below 100yr WSE. **(Confirmed Closed on 09/29/14) - Link to Closed Risk #268 & #319**	The profile on this section may have to be raised. May require tracks rise to above 100yr.							ACCEPTED Project being designed above the 100yr WSE and is included in the December 2013 estimate.		
301	51.1, 301, 308, 327, 391	CP	10.04	D	S1, S2	All	Closed	8/22/2013	11/29/2016	1195.00	Potential complications associated with the impact of evolving concurrent designs; one project's design modifications may affect the design of the other project's plans. **(Confirmed Closed on 11/29/16) - Link to Closed Risk #51.1, #308, & #391**	Adding unexpected costs and delays.							MITIGATED Good coordination among the design teams has mitigated this risk.		
307	27.1, 244, 307	ENV, TP	40.04	D	S1, S2		Closed	8/22/2013	12/11/2013	111.00	If archeological borings identify any significant findings. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #27.1 & #244**	This could result in additional trenching and a Phase 2 investigation for SHPO.							MITIGATED Archeological investigations completed.		
308	301, 308, 349, 351	CP	80.02	D	All	R3, R6, R7, R8	Closed	8/22/2013	10/28/2015	797.00	Design rework to SDRB Double Track and EMDT due to CM/GC input. **(Confirmed Closed on 10/28/15) - Link to Closed Risk #301, #349, & #351**	This may delay the construction of Mid-Coast and/or require additional environmental analysis.							AVOIDED GMP negotiations are in progress on SDRB.		
310		CP, ENV	40.04	D	S1, S2, S3, S4	All	Closed	8/22/2013	2/15/2017	1273.00	Complexities associated with the environmental permitting of multiple projects. **(Confirmed Closed on 02/15/17)**	May affect permitting of the concurrent / sequential projects.							MITIGATED Mid-Coast permitting is not affected by other projects. Conditions met and awaiting final approval.		
311			40.03	D	S1, S2		Closed	9/24/2013	11/19/2014	421.00	There could be difficulty in obtaining access to private property for geotechnical borings. **(Confirmed Closed on 11/19/14)**	Delay in geotech borings, which would result in delay of the design.							MITIGATED Geotech borings are largely complete.		
312		STA, STR	20.01	D	S1, S3, S4		Closed	9/24/2013	11/19/2014	421.00	Schedule delay due to delay in canopy design selection. **(Confirmed Closed on 11/19/14)**	65% design of stations will be delayed if a decision on canopy selection is made after July 2014.							MITIGATED MTS board approved canopy design.		
313			20.01	D	S1, S3, S4		Closed	9/24/2013	1/13/2015	476.00	Incorporation of art into the station design at a late stage. **(Confirmed Closed on 01/13/15)**	Delay to PS&E.							AVOIDED Community and station designs do not include art.		
314		STA	20.01	D	S1, S3, S4		Closed	9/24/2013	11/19/2014	421.00	Delays in obtaining community input to station design. **(Confirmed Closed on 11/19/14)**	May require modifications to design elements.							MITIGATED Community outreach took place. Concepts need to be formalized and presented to MTS and SANDAG.		
315		ENV	40.04	D	All		Closed	9/24/2013	7/1/2014	280.00	SHPO consultation timeframe could exceed the timing allocated in the schedule. **(Confirmed Closed on 07/01/14)**	Final environmental document will be delayed.							AVOIDED SHPO concurrence was received on 04/09/14.		
316	316, 333	SYS	50.03	D	All		Closed	9/24/2013	2/12/2014	141.00	There is a risk of delayed procurement of TPSS through MTS' existing contract. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #333**	May need to add TPSS procurement to CM/GC contract with resulting additional cost and schedule delays.							TRANSFERRED MTS will procure the TPSS.		
317		SYS	50.04	D	All		Closed	9/24/2013	2/12/2014	141.00	Type of fiber cable to be installed between TPSS and Train Control Cases may not be selected in a timely manner. **(Confirmed Closed on 02/12/14)**	This could delay the advancement of systems design.							MITIGATED Design decision was made to separate fiber cables for TPSS and Comm back to Comm Cabinet at the stations.		
318			10.04	D	S1		Closed	10/22/2013	11/19/2014	393.00	Balboa Avenue width analysis needs to be completed to determine required bridge length for LOSSAN Bridge and Mid-Coast Bridge length. **(Confirmed Closed on 11/19/14)**	Potential schedule delay for Mid-Coast.							MITIGATED Design alternative has been presented to the City.		
321	320, 320.1, 321, 354	CON, CP, UTL	40.02	D	All	All	Closed	10/22/2013	10/28/2015	736.00	Within railroad corridor utility relocation design for wet utilities, could impact multiple project designs and dry utility owner relocation design. **(Confirmed Closed on 10/28/15) - Link to Closed Risk #320, #320.1, & #354**	This could create schedule delays to Mid-Coast.							MITIGATED Relocations have been coordinated.		
323	106, 271.1, 271.2, 271.3, 271.4, 323	ROW	60.01	D	S3, S4		Closed	10/22/2013	1/22/2014	92.00	Current schedule relies on the ability to reach favorable agreements with the VA, and UCSD. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #106, #271.1, #271.2, #271.3, & #271.4**	Schedule delays							REPLACED See Risk #271.3.		

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326		CP, STR	10.04	D	S1		Closed	10/22/2013	7/1/2014	252.00	Potential need to modify substructures of San Diego River Bridge and LOSSAN Bridge to mitigate seismic displacement issue due to the poor site soil conditions. **(Confirmed Closed on 07/01/14)**	Schedule impact due to modification of design to accommodate new substructure type.							MITIGATED SANDAG completed the geotechnical borings and the results of those borings allowed the analysis to be completed and confirmed.		
327	301, 327	CP	10.04	D	S1, S2		Closed	10/22/2013	10/22/2013	0.00	Develop new risk pertaining to the risk of potential alignment between Mid-Coast and ELMO. **(Confirmed Closed on 10/22/13) - Link to Closed Risk #301**								REPLACED See Risk #301.		
328	328, 328.1, 328.2, 328.3	ROW, TP	60.01	D	S4	R14	Closed	12/13/2013	6/29/2016	929.00	The Mid-Coast design includes widening of Genesse Ave; the widening of Genesse Ave. conflicts with Monte Verde Development plans (parking garage and walls). **(Confirmed Closed on 06/29/16) - Link to Closed Risk #328.1, #328.2, & #328.3**	Resolving this potential conflict may result in design modifications to the private development, Mid-Coast and/ or additional real estate costs.							REPLACED See Risks #328.2 & #328.3.		
328.1	328, 328.1, 328.2, 328.3	ROW, TP	60.01	D	S4	R14	Closed	12/13/2013	4/6/2016	845.00	The Mid-Coast design includes widening of Genesse Ave; the widening of Genesse Ave. may conflict with development plans for the La Jolla Canyon Condominiums (parking garage and development located at Genesse and Fez). **(Confirmed Closed on 04/06/16) - Link to Closed Risk #328, #328.2, & #328.3**	Payment of damages to property owner for potential easement.							REPLACED See Risks #328.2 & #328.3.		
328.2	328, 328.1, 328.2, 328.3	ROW	60.01	D	S4	R14	Closed	4/6/2016	8/15/2016	131.00	Redesign needed at Monte Verde, (for Genesee widening) due to changes to site conditions. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #328, #328.1, & 328.3**	This will delay ROW negotiation and potentially increase costs for additional ROW.							AVOIDED No redesign is needed.		
328.3	328, 328.1, 328.2, 328.3	CON, ROW	10.01	D	S4	R14	Closed	4/6/2016	9/19/2017	531.00	Conflict with Monte Verde Development construction project, (for Genesee widening). **(Confirmed Closed on 09/19/17) - Link to Closed Risk #328, #328.1, & #328.2**	There is potential to increase project costs related to construction phasing.							MITIGATED Agreement reached with Monte Verde.		
331		ROW, STA, TP	20.01	D	S3		Closed	12/13/2013	9/3/2015	629.00	There could be a delay in reaching an agreement with the Owner of the shopping center at Nobel Station and changes to site layout. **(Confirmed Closed on 09/03/15)**	This could delay the 95% design development for the parking garage and potentially delay start of construction at Nobel.							ACCEPTED Schedule assumes worst case through Order of Possession.		
332		STA, UTL	40.02	D	S1		Closed	12/13/2013	1/13/2015	396.00	Resolution with AT&T on the manhole located under Balboa Ave NB Platform. **(Confirmed Closed on 01/13/15)**	Delay in completing the 65% design.							MITIGATED Manhole will be relocated outside the platform		
332.1		UTL	40.02	D	S1		Closed	5/7/2014	4/29/2015	357.00	Resolution of the conflict with AT&T 24inch duct system located within abutment for Balboa Ave Bridge. **(Confirmed Closed on 04/29/15)**	Delay in completing the 65% design.							MITIGATED Project has received preliminary designs from AT&T.		
340	249, 340	CON, TP, UTL	40.02	D	S2	R6	Closed	3/20/2014	8/15/2016	879.00	Caltrans may not grant the Exception of the Longitudinal Encroachment Permit Policy Applications. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #249**	This would require SANDAG to develop a new relocation approach, which could delay the project.							MITIGATED Obtained Longitudinal Encroachment Permit from Caltrans.		
341		ENV	40.04	D	S1, S2, S3, S4		Closed	5/7/2014	9/29/2014	145.00	As design advances and incorporates CM/GC and VE recommendations, the project could require further limited environmental review for specific modifications. **(Confirmed Closed on 09/29/14)**	May create a delay to schedule or FFGA.							MITIGATED SANDAG will conduct cost and schedule benefit analysis before pursuing any recommended changes.		
342		ENV	40.04	D	All		Closed	7/1/2014	11/19/2014	141.00	The time to produce and review supplemental and subsequent environmental documents regarding the fairy shrimp impacts. **(Confirmed Closed on 11/19/14)**	May delay the ROD.							ACCEPTED ROD was delayed. Biological Opinion received on 09/05/2014. Supplement circulation completed on 09/02/2014 with minimal comment.		

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343		CON, CP, UTL	40.02	D	All	All	Closed	7/1/2014	4/6/2016	645.00	If schedule for early wet utility relocation is delayed. **(Confirmed Closed on 04/06/16)**	Heavy civil construction start may be delayed or require re-sequencing.							AVOIDED Work has started on wet utilities.		
344	250, 344	CP, ENV, UTL	40.02	D	All	All	Closed	7/2/2014	10/28/2015	483.00	There could be a delay in the development of dry utility design **(Confirmed Closed on 10/28/15) - Link to Closed Risk #250**	This may delay the permit process, which could delay the construction.							AVOIDED Following permits are not required: - USACOE - USF&W - Regional Board 401 - CDFW		
348		CON, CP, MC	80.03	D	S1, S2		Closed	9/30/2014	9/3/2015	338.00	The Configuration Management procedures are not consistent for the three concurrent SANDAG projects. **(Confirmed Closed on 09/03/15)**	This could result in gaps or duplication in project scope and/or design.							MITIGATED		
349	308, 349, 351	MC, QA	80.03	D	S1, S2, S3, S4		Closed	11/19/2014	9/3/2015	288.00	There is a risk that because of the compressed design schedule there may not be sufficient audit resources in place to carry out the required SANDAG QA audits. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #308 & #351**	Quality issues may not be identified early enough to adjust the design.							MITIGATED Additional resources were brought on to carry out audits.		
351	308, 349, 351	CON, MC	10	D	S1, S2, S3, S4		Closed	11/20/2014	9/3/2015	287.00	Delays to the 65% design due to slow approval process of the MCTC recommendations. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #308 & #349**	This could result in an incomplete 65% design and additional GMP risk.							MITIGATED 65% design is complete.		
355		ROW, SYS	60.01	D	S1	R1	Closed	2/19/2015	4/6/2016	412.00	TPSS #5 may need to be reoriented or relocated. **(Confirmed Closed on 04/06/16)**	This could require additional ROW taking.							MITIGATED Sites have been located.		
358		ENV, UTL	40	D	S1, S2	R1, R2, R3, R4, R5, R6, R7, R8, R9	Closed	6/17/2015	8/15/2016	425.00	The design of the shared trench may result in impacts to fairy shrimp or coastal wetlands. **(Confirmed Closed on 08/15/16)**	This could increase cost and schedule.							MITIGATED Storm drains redesigned at watershed where fairy shrimp may have been impacted.		
361	290, 361, 411	CON, STR	80.02	D	S3, S4		Closed	6/29/2015	9/3/2015	66.00	Switching the Genesse Viaduct design to pre-cast. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #290 & #411**	This could delay the 95% design and potentially delay the GMP negotiations.							ACCEPTED Project proceeding with pre-cast.		
362		ROW, SAF, TP	60.01	D	S1, S2, S3, S4		Closed	6/30/2015	9/3/2015	65.00	In order to ensure compliance with CPUC GO 175 (Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems) placement of retaining walls is being reviewed. **(Confirmed Closed on 09/03/15)**	This could potentially result in new ROW takings.							MITIGATED The walls have been moved. There are no new private property takes.		
363	223, 363	ENG, STA	20.06	D	S4	R14	Closed	8/12/2015	4/6/2016	238.00	UTC's improvements do not accommodate future Mid-Coast project. **(Confirmed Closed on 04/06/16) - Link to Closed Risk #223**	Rework of UTC's facility may be required as part of the Mid-Coast construction and potential disruption to bus service.							MITIGATED MOU completed with UTC and they will construct foundations for elevators and ramps for Mid-Coast work. Their plans accommodate Mid-Coast.		
365		CON, SAF	40.08	D	S2	R8, R9	Closed	9/3/2015	4/6/2016	216.00	The temporary bike path may need to have greater clearance than designed. **(Confirmed Closed on 04/06/16)**	The construction phasing will be affected by the wider separation.							AVOIDED Presentation was made to NCTD Safety Committee. Proximity to the track was accepted by NCTD.		
379	230.6, 230.7, 379	ENG, STA	20.02	D	S3, S4	R13	Closed	4/6/2016	6/7/2018	792.00	Address or resolve UCSD review comments. **(Confirmed Closed on 06/07/18) - Link to Closed Risk #230.6 & #230.7**	This could increase costs for the project or create delays to IFC plans.							MITIGATED Resolved all UCSD comments.		
384	110, 384, 395	ENG, ROW	20.04	D	S3	R12	Closed	6/29/2016	2/15/2017	231.00	Timely acquisition of the La Jolla Village Square property. **(Confirmed Closed on 02/15/17) - Link to Closed Risk #110 & #395**	This could delay construction.							REPLACED See Risk #395.		

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384.1		ENG, ENV, ROW	60.01	D	S3	R12	Closed	6/29/2016	8/15/2016	47.00	Additional ROW may be required for the design solution at La Jolla Village Square. **(Confirmed Closed on 08/15/16)**	This could exceed ROW budget for this parcel.							AVOIDED Project will not be taking additional property.		
385	239, 356, 385	ENG	40.05	D	S2	R7, R8, R9	Closed	6/29/2016	9/19/2017	447.00	NCTD lack of timely acceptance of MSE or other wall type. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #239 & #356**	This could impact schedule and cost.							MITIGATED Project has changed to counterfort walls.		
Z01			10.04	D			Closed	6/1/2011	11/1/2011	153.00	Nobel Viaduct: Construction activity may have an impact to the Whole Foods store located in close proximity to the planned aerial structure. If the alignment is forced to be closer to Whole Foods it may impact deliveries and other operations at the store. Assume this increases the cost of construction for approx. 200 to 500 feet of guideway **(Confirmed Closed on 11/01/11)**								MITIGATED Residual risk addressed in SCC 60.		
114			70.01	M	All		Closed	11/1/2011	9/25/2013	694.00	Vehicle costs do not appear to include staging and transportation and staging of vehicles during the phases of construction. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
128			40.08	M	All		Closed	9/24/2013	9/29/2014	370.00	General Conditions, Supplementary Conditions and Division 1 Specifications have not yet been prepared. **(Confirmed Closed on 09/29/14)**								AVOIDED Draft GC has been circulated.		
130	130, 264, Z37		10	M			Closed	11/1/2011	4/12/2013	528.00	With the U.S. economy currently in recession, market conditions have generally increased competition and availability of trade labor and equipment, while decreased demand for commodities (petroleum, concrete, steel) has created a downward trend in pricing. However, these trends may be short-term and could become mercurial as the project prepares for construction in upcoming years **(Confirmed Closed on 04/12/13) - Link to Closed Risk #264 & #Z37**								REPLACED See Risk #264.		
131			90	M	All		Closed	N/A	8/20/2013	#VALUE!	Conflicting projects in the SANDAG area could impact the otherwise sufficient and available labor work force. **(Confirmed Closed on 08/20/13)**								MITIGATED SANDAG Board approved the CMGC Project Delivery Method on 4/26/13.		
214.1	104, 214, 214.1, 410	CON, ROW	60.01	M	All	All	Closed	11/13/2017	1/29/2020	807.00	Fulfilling contractual obligations to acreage of laydown area. (3 of 7 acres needed) **(Confirmed Closed on 01/29/20) - Link to Closed Risk #104, #214, & #410**	This could increase costs.							MITIGATED Proceeding forward on CCO for additional laydown. Extended TCE at Clairemont. CCO to include language preventing future claim.		
219	205, 205.1, 205.2, 205.3, 205.4, 219	UTL	40.02	M	All	All	Closed	3/1/2013	8/15/2016	1263.00	Utility company material procurement and installation timing. (All excluding SDG&E) **(Confirmed Closed on 08/15/16) - Link to Closed Risk #205, #205.1, #205.2, #205.3, & #205.4**	May result in construction delays.							MITIGATED Confirmation the Utility Companies made the Material Orders.		
222	222, 366	CON, ENG, MC	80.04	M	All	All	Closed	9/24/2013	8/15/2016	1056.00	The GMP may take longer to negotiate than planned. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #366**	Which may take longer and/or be more costly than what has been assumed in the estimate.							MITIGATED Board Approved GMP.		
264	130, 264, 350		10.04	M	All		Closed	9/24/2013	1/13/2015	476.00	Uncertainty in escalation rates. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #130 & #350**	Cost increase.							REPLACED See Risk #350.		
272	110, 272, 395, 396, 400	ROW	60.01	M	All	All	Closed	9/24/2013	6/21/2023	3557.00	Right-of-Way costs could exceed the budget. **(Confirmed Closed on 6/21/23) - Link to Closed Risk #110, #395, #396, & #400**	Use of contingency funds above the current assumption.							AVOIDED Final right-of-way cost is within final EAC.		
333	316, 333, 374	SYS	50.03	M	All	All	Closed	3/19/2014	4/27/2017	1135.00	MTS will not be able to exercise the existing option to purchase the additional TPSS. **(Confirmed Closed on 04/27/17) - Link to Closed Risk #316 $ #374**	Additional procurement would happen after FFGA.							MITIGATED MTS has exercised the option.		
334		MC	80.03	M	All		Closed	3/19/2014	9/29/2014	194.00	Potential lack of adequate capacity to administer contracts and scope changes after the CM/GC comes on board. **(Confirmed Closed on 09/29/14)**	Delays to construction							AVOIDED A dedicated Contract Administrator was added to the Mid-Coast Project Staff.		

Exhibit 1

DRAFT PROJECT RISK REGISTER

SANDAG Mid-Coast Project

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Score = (Cost + Schedule) * Probability

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350	110, 139, 205, 264, 350, 360	CON, MC	10.04	M	S1, S2, S3, S4	All	Closed	11/20/2014	6/29/2016	587.00	If the overall project schedule is extended. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #110, #139, #205, #264, & #360**	There may be increased costs due to TRO.							REPLACED See Risk #360.		
352		CON, MC, UTL	40.02	M	S1, S2, S3, S4		Closed	2/19/2015	9/3/2015	196.00	Late changes to Sections 1-9 and Design & Construction Specifications (General Conditions) could have impacts to the utility GMP. **(Confirmed Closed on 09/03/15)**	The budget and schedule may be negatively impacted.							MITIGATED The first GMP is complete and General Conditions have been agreed upon.		
353		CON, MC	80.04	M	S1, S2, S3, S4		Closed	2/19/2015	9/3/2015	196.00	There is a risk of MCTC managing multiple contracts. **(Confirmed Closed on 09/03/15)**	There may be added administrative costs associated with multiple contracts.							MITIGATED MCTC is currently managing multiple contracts.		
366	222, 366	CON, ENG, MC	10	M	All	All	Closed	9/3/2015	8/15/2016	347.00	Failure to successfully negotiate GMP. **(Confirmed Closed on 08/15/16) - Link to Closed Risk #222**	This would require the Project to go out for bid.							MITIGATED Board Approved GMP.		
373		SYS, VEH	70.01	M	All	All	Closed	10/28/2015	11/29/2016	398.00	The price of the vehicles may vary from the cost estimate due to escalation and potential modifications.	The costs would increase.							MITIGATED Mid-Coast has the pricing for the vehicles.		
378		CON	10	M	All	All	Closed	10/28/2015	6/29/2016	245.00	Changes in the market may result in higher pricing than anticipated in the 65% estimate. **(Confirmed Closed on 06/29/16)**	Higher Cost							AVOIDED Project has finalized GMP negotiations.		
400	110, 272, 339, 400	CON, ENG, ROW	60.01	M	S4	R14	Closed	11/30/2016	9/19/2017	293.00	Decision on wall type at La Jolla Country Day School. **(Confirmed Closed on 09/19/17) - Link to Closed Risk #110, #272, & #339**	Could delay the widening of Genesee in that area and construction of retaining/privacy wall.							MITIGATED Wall has been constructed.		
401	88, 399, 401, 403	CON, SU, SYS	50	M	All	All	Closed	2/15/2017	1/27/2021	1442.00	Lack of specificity in the MCTC schedule regarding systems integration and testing. Clearer dates on required delivery on owner furnished materials is needed for timely delivery. **(Confirmed Closed on 01/27/21) - Link to Closed Risk #88, #399, & #403**	This could delay owner furnished material procurement, startup & testing, and RSD.							AVOIDED All owner furnished materials are on site.		
426		CON, STR	10.04	M	S3, S4	R10, R11, R12, R13, R14	Closed	6/6/2018	4/25/2019	323.00	The manufacturer of Viaduct Pre-Cast segments fails to meet schedule for delivery. **(Confirmed Closed on 04/25/19)**	This could delay construction.							AVOIDED All Viaduct Pre-cast segments were installed by mid-April 2019.		
5.1		ENV	10.01	R	S2		Closed	3/1/2013	1/22/2014	327.00	Potential need to mitigate visual and/or environmental impacts at the SR 52 interchange due to comments from community and agencies. **(Confirmed Closed on 01/22/14)**	Potential for more specific mitigation.							MITIGATED Visual analysis updated.		
7.1	7.1, 9.1, 9.2, 209, Z16, Z17		50.02	R	S1		Closed	11/1/2011	9/25/2013	694.00	Improvements may be required at crossings south of Old Town Station as a result of the increased train intervals required for the 2030 plan. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #9.1, #9.2, #209, #Z16, & #Z17**								REPLACED See Risk #209.		
9.2	7.1, 9.1, 9.2, Z16, Z17		10.04	R	S1		Closed	11/1/2011	8/14/2013	652.00	High traffic volumes at Taylor Street requires mitigation. Enhanced signalization is required **(Confirmed Closed on 08/14/13) - Link to Closed Risk #7.1, #9.1, #Z16, & #Z17**								AVOIDED No comments to Taylor Street on EIS document.		
17	17, 21.1, Z20, Z21		10.04	R	S2		Closed	11/1/2011	7/11/2013	618.00	Box-girder bridge approximately 360-ft long over Rose Creek, expected to be a multiple-span bridge, has no indication of bridge type, depth of structure, spans lengths, pier locations, or foundation type in the area spanned. **(Confirmed Closed on 07/11/13) - Link to Closed Risk #21.1, #Z20, & #Z21**	Final design could impact environmental mitigation required (assumed to be an environmentally sensitive area)							MITIGATED APS has been completed, environmental impacts addressed in Risk #21.1.		
22.1		CP, STR	10.04	R	S2		Closed	11/1/2011	12/11/2013	771.00	The LRT crossover structure is likely to be a high cost, with a lengthy span, difficult access, and must maintain the LOSSAN railway beneath. **(Confirmed Closed on 12/11/13)**	Construction of this structure could be impacted by any of these constraints and could result in higher cost or delayed completion of the structure.							ACCEPTED Will be paid for by Mid-Coast.		
32		ENV, STR	10.04	R	S2		Closed	11/1/2011	12/11/2013	771.00	In areas where the new guideway would be on an elevated structure, there is a high potential for visual impacts to the surrounding area, especially in areas of high visual quality, e.g., Rose Canyon or Rose Creek. **(Confirmed Closed on 12/11/13)**	Would be additional cost if visual impacts need to be mitigated.							MITIGATED Visual tech report is complete.		
55			20.01	R	S1		Closed	11/1/2011	9/25/2013	694.00	As currently designed, Clairemont Station is on a curve. Depending on outcome of ADA / Level Boarding approach, station platform location may need to be shifted to tangent track **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		

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73			40.04	R	All		Closed	11/1/2011	9/25/2013	694.00	The material presented in the FEIR and ROD represents only a portion of the current configuration of the rail line. The environmental impacts of the extension are not clearly defined at this point. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
74			40.04	R	All		Closed	11/1/2011	9/25/2013	694.00	The material presented and available in the AA/DEIS/DEIR and the FEIR are 10-15 years old and do not reflect current conditions or regulations. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
75		ENV	40.04	R	All		Closed	11/1/2011	2/12/2014	834.00	San Diego City has Land Development Manual – Biology guidelines that have been undergoing an update. The EIR does not address these regulations. **(Confirmed Closed on 02/12/14)**								AVOIDED The new guidelines were reviewed against 2004 guidelines and SANDAG did not find substantive differences that would affect the project.		
76	76, 244		40.04	R	All		Closed	6/1/2011	4/12/2013	681.00	Native American Heritage Commission identified Native American cultural resources within the Area of Potential Effect (APE) for the project and commented that cultural landscapes should be considered along with other resources evaluated. **(Confirmed Closed on 04/12/13) - Link to Closed Risk #244**	Avoiding significant cultural resources could impact project cost/schedule.							REPLACED See Risk #244.		
77			40.04	R	S2		Closed	4/1/2013	9/25/2013	177.00	A total of 109 comment submissions, more than for any other environmental topic, were related to parks and parklands. Opposition to the use of the parkland and potential to affect the Rose Canyon Preserve were also noted, and could impact project development. **(Confirmed Closed on 09/25/13)**	Could impact project development.							MITIGATED Design has advanced.		
80.1			40.05	R	S4		Closed	11/1/2011	9/25/2013	694.00	Noise generated from wheel squeal around UCSD West station curves could exceed acceptable limits. Additionally the station and curves are close to residential buildings and may require improvements (double panel windows together with air conditioning units to diminish noise from the trains). High likelihood that noise mitigations would be required. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
80.2			40.05	R	S4		Closed	11/1/2011	9/25/2013	694.00	(b) Only three noise walls are currently proposed (1200-lf) which may be inadequate mitigation. Additional walls could be required after analysis. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
80.3			40.05	R	All		Closed	11/1/2011	9/25/2013	694.00	(c) Final Comparative Evaluation of Alternatives, noted requests for sound mitigation in multiple locations not currently addressed. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
80.4			40.05	R	S3		Closed	11/1/2011	9/25/2013	694.00	(I) (d) There is a possibility that a sound wall or berm may be required at the Nobel Viaduct: on the west side of I-5 in order to counteract the planned sound wall on the east side. 1000' wall with 8' height. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
82	82, Z13		40.06	R	All		Closed	11/1/2011	1/22/2014	813.00	Further enhancements to pedestrian and bicycle access at the stations as well as recreational trail improvements near the project. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #Z13**	Could impact the project cost/schedule.							MITIGATED Draft EIR has been released and comments have been received.		
89			50	R	S1		Closed	11/1/2011	9/25/2013	694.00	It is not clear if the modifications to the system elements in the existing subsection-America Plaza to OTTC are to be executed in part or full by MTS force account forces. **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
103.1	103.1, 324	SYS	50.07	R	All		Closed	11/1/2011	9/3/2015	1402.00	There is a potential risk that additional improvements will be required to the Central Control. The estimate currently has $1M with a total of 30% contingency, so $1.3M total. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #324**	Higher Cost							REPLACED See Risk #324.		
109		ROW	60.01	R	All		Closed	11/1/2011	1/22/2014	813.00	"Additional Services"(ROW soft costs) estimated at 25% of acquisition costs may not be sufficient considering reasonably low overall budget. **(Confirmed Closed on 01/22/14)**								MITIGATED ROW costs included in estimate.		
117			80	R	All		Closed	9/24/2013	1/13/2015	476.00	Professional Services costs are based on CER percentages, which may vary when actual staffing plans are prepared. **(Confirmed Closed on 01/13/15)**	Professional Services costs may vary.							MITIGATED Professional Services are based on a bottoms-up estimate.		
118			40.04	R	All		Closed	4/1/2013	9/25/2013	177.00	The EIS/EIR should address temporary construction impacts including wetlands/wildlife impacts, groundwater and stormwater management. **(Confirmed Closed on 09/25/13)**	Unanticipated requirements could impact project cost/schedule.							MITIGATED Design has advanced.		
119			90	R	All		Closed	4/1/2013	9/25/2013	177.00	The need to consider transit access for and impacts to low-income and minority populations (Title VI). **(Confirmed Closed on 09/25/13)**	Could impact project concepts and design.							MITIGATED Design has advanced.		
123			10	R	All		Closed	11/1/2011	9/25/2013	694.00	FTA may not approve Equivalent Facilitation using deployable ramp for Mid-Coast **(Confirmed Closed on 09/25/13)**								MITIGATED Design has advanced.		
124		ENV	80.06	R	All		Closed	3/1/2013	8/14/2013	166.00	List of required permits - A more detailed plan that addresses all local, state and federal permits and the associated schedule associated with obtaining these permits needs to be developed. **(Confirmed Closed on 08/14/13)**								MITIGATED Identified permits.		
141	141, 282		80.02	R	All		Closed	3/1/2013	2/12/2014	348.00	Acquisition of project consultant services (management, design, project controls, etc.) via "on-call" agreements, which are established outside of the project, are subject to the cost and time capacity constraints of those agreements. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #282**	Insufficient time/cost capacity could cause project cost and schedule impacts arising from disruptions in project staffing or turnover of experienced team members and resultant repetitive learning curves.							REPLACED See Risk #282.		

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142			80.03	R	All		Closed	6/1/2011	9/25/2013	847.00	Until the project completes the selection and mobilization of the Project Management Consultant (PMC), the project team is lacking critical technical resources. **(Confirmed Closed on 09/25/13)**	Significant risks that project execution will not proceed on-budget and on-schedule.							MITIGATED Design has advanced.		
220			80.02	R	All		Closed	9/24/2013	1/13/2015	476.00	Potential need to re-compete the professional engineering services for 65% to FD. **(Confirmed Closed on 01/13/15)**	May delay the project and increase costs.							ACCEPTED Professional engineering services is being re-competed.		
221	210, 221	ROW, STA, TP	20.02	R	S4		Closed	7/1/2013	9/3/2015	794.00	Potential damages in excess of the budget associated with the design of (Executive Drive) station appurtenances within existing building right-of-way. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #210**	May cause cost and schedule impacts.							MITIGATED Station footprint established.		
225.1	225.1, 256	CON, ROW, SYS	50.04	R	S4		Closed	8/22/2013	4/29/2015	615.00	Difficulty in gaining UCSD acceptance of the location for the Voigt Drive TPSS. **(Confirmed Closed on 04/29/15) - Link to Closed Risk #256**	Potential need for additional real estate.							MITIGATED UCSD has accepted part of the appraisal with no opposition.		
225.2	225.2, 278, 325	ENG, ROW, SU, SYS, UTL	50.03	R	S4	R14	Closed	12/13/2013	4/22/2021	2687.00	There is a risk of not reaching resolution with SDG&E on the location of TPSS #15 (Fez St). **(Confirmed Closed on 04/22/21) - Link to Closed Risk #225.2, #278 & #325**	This may result in delay to internal revenue service date. Interim consequences: - Storage fees & handling associated with TPSS delivery. - Site selected will require additional environmental clearance. - Additional ROW and Capital costs							AVOIDED Construction is underway.		
227		ENV	40.04	R	All		Closed	7/1/2013	8/14/2013	44.00	Comments on the DSEIS/SEIR that require additional analysis or design. **(Confirmed Closed on 08/14/13)**	May delay the project schedule.							ACCEPTED Risk has occurred.		
229	84.1, 223, 223.1, 229, 229.1	STA, TP	20.01	R	S4		Closed	7/1/2013	9/29/2014	455.00	Delayed completion of Westfield UTC's final plans. **(Confirmed Closed on 09/29/14) - Link to Closed Risk #84.1, #223, #223.1, & #229.1**	Could delay the schedule of the LRT station design and construction.							REPLACED See Risk #229.1.		
230	230, 230.1, 230.2, 230.3, 230.4, 230.5, 230.6, 230.7, 230.8, 230.9		20	R	S1, S3, S4		Closed	7/1/2013	9/24/2013	85.00	Potential for scope creep in establishing station design. **(Confirmed Closed on 09/24/13) - Link to Closed Risk #230.1, #230.2, #230.3, #230.4, #230.5, #230.6, #230.7, #230.8, & #230.9**								REPLACED See Risks #230.1, #230.2, #230.3, #230.4, #230.5, #230.6, #230.7, #230.8, & #230.9.		
230.1	230, 230.1	ROW	20.01	R	S1		Closed	8/22/2013	2/12/2014	174.00	Tecolote Station: There may be ROW challenges with this station. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #230**	Potential delay associated with the development of an alternative design for the parking.							AVOIDED The Board has approved the parking.		
230.2	230, 230.2	TP	20.01	R	S1		Closed	8/22/2013	5/7/2014	258.00	Clairemont Station: Potential opportunity to reduce cost associated with pedestrian path. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #230**	Reduced costs.							AVOIDED This is neither a risk nor opportunity.		
230.3	230, 230.3	TP	20.01	R	S1		Closed	8/22/2013	5/7/2014	258.00	Balboa Station: Potential opportunity to reduce cost associated with pedestrian path. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #230**	Reduced costs.							AVOIDED This is neither a risk nor opportunity.		
230.4	230, 230.4, 286, 447	ROW	20.01	R	S3		Closed	8/22/2013	10/7/2013	46.00	Nobel Station: There may be ROW and parking challenges with this station. **(Confirmed Closed on 10/07/13) - Link to Closed Risk #230, #286, & #447**	Potential delay associated with the development of an alternative design for the parking and station design.							REPLACED See Risk #286.		
230.5	230, 230.5	TP	20.02	R	S3		Closed	8/22/2013	10/22/2013	61.00	VA Medical Center Station: Potential for design changes because of independent VA improvements. **(Confirmed Closed on 10/22/13) - Link to Closed Risk #230**	Potential delay associated with the development of an alternative design for drainage, accessible path of travel, grading.							MITIGATED Resolved retaining wall issues at 09/24/13 meeting with Caltrans.		
230.6	230, 230.6, 379	ENG, ROW, STA, TP	20.01	R	S4	R13	Closed	8/22/2013	4/6/2016	958.00	Pepper Canyon Station (UCSD West Campus): Delay in project schedule and increase complexity of station design. **(Confirmed Closed on 04/06/16) - Link to Closed Risk #230 & #379**	Potential delay associated with special design review and approval by UCSD.							MITIGATED Station design approved by UCSD Design Board.		
230.7	230, 230.7, 256, 379	CON, ENG, ROW, STA, TP	20.01	R	S4	R13	Closed	8/22/2013	4/6/2016	958.00	Voigt Drive Station (UCSD East Campus): Delay in project schedule and increase complexity of station design. **(Confirmed Closed on 04/06/16) - Link to Closed Risk #230, #256, & #379**	Potential delay associated with special design review and approval by UCSD.							MITIGATED Station design approved by UCSD Design Board.		

DRAFT PROJECT RISK REGISTER

SANDAG Mid-Coast Project

ALL RISKS

Date Issue: June 21, 2023

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230.8	230, 230.8	ROW	20.02	R	S4		Closed	8/22/2013	5/7/2014	258.00	Executive Drive Station: The straddle bent associated with this station may not be accepted by the community. **(Confirmed Closed on 05/07/14) - Link to Closed Risk #230**	Potential delays associated with finalizing station design.							AVOIDED Design is being modified to exclude a straddle bent.		
230.9	223, 230, 230.9	STA, TP	20.01	R	S4		Closed	8/22/2013	9/3/2015	742.00	Westfield UTC Station (Terminus): Delay in final design due to configuration of the station access and egress within Westfield's proposed parking structure and station. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #223 & #230**	There is a potential to delay final design.							MITIGATED 65% design plan includes the egress and station access and has been coordinated with Westfield architects.		
231		CP, TP	50.01	R	S1		Closed	7/1/2013	9/29/2014	455.00	Nearside station control at OTTC/Taylor St. will require design concurrence from partners and other third parties; (NCTD and CPUC). **(Confirmed Closed on 09/29/14)**	Which could delay the project schedule.							MITIGATED NCTD has agreed to Taylor St. nearside station control.		
242	19, 242, 268.1, 329	TP	10.02	R	S1, S2		Closed	7/1/2013	2/12/2014	226.00	There is a risk that the current assumptions regarding track separation requirements of different modes have been changed during reviews by various parties. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #268.1 & #329**	This could result in a redesign or mitigation may be required.							REPLACED See Risks #268.1 & #329.		
246	246, 280	ENV	80.02	R	All		Closed	7/1/2013	2/12/2014	226.00	Design development/refinement may result in significant impacts. **(Confirmed Closed on 02/12/14) - Link to Closed Risk #280**	If new significant impacts are identified it may require recirculation of the DSEIS/SEIR.							MITIGATED SANDAG has the Final SEIS/SEIR plan set.		
260			10.04	R	All		Closed	3/1/2013	2/12/2014	348.00	New Map 21 Requirements for cost effectiveness require a new method of calculation. **(Confirmed Closed on 02/12/14)**	To achieve new method of calculation will require new forecast modeling and revision of existing numbers. This effort is time sensitive to meet September, 2013 requisition for funding from FTA.							ACCEPTED		
268.1	19, 242, 268.1, 329	CP, TP	10.01	R	S1, S2		Closed	7/1/2013	9/29/2014	455.00	There is a risk of late concurrence from NCTD on track separation between heavy rail & light rail tracks. **(Confirmed Closed on 09/29/14) - Link to Closed Risk #242 & #329**	This would delay the project.							REPLACED See Risk #329.		
268.2		TP	10	R	S1, S2		Closed	9/24/2013	1/13/2015	476.00	The risk is a lack of concurrence from NCTD for vertical clearances. **(Confirmed Closed on 01/13/15)**	This would require a redesign.							MITIGATED NCTD orally concurred with clearances.		
269		TP	10.04	R	All		Closed	3/1/2013	8/16/2013	168.00	Development, negotiation and processing time for stakeholders/partners agreements exceed schedule assumptions. **(Confirmed Closed on 08/16/13)**								AVOIDED		
270		MC, TP	80.06	R	All		Closed	9/24/2013	9/29/2014	370.00	Limited legal resources. **(Confirmed Closed on 09/29/14)**	May create possible delays in processing third party agreements.							AVOIDED A dedicated legal position, and contracted legal support for right-of-way was added to the Mid-Coast Project Staff.		
271	271, 271.1, 271.2, 271.3	ROW	60.01	R	All		Closed	6/1/2013	9/25/2013	116.00	The project needs to gain agreement with the City of San Diego, UCSD, and VA for property without compensation. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #271.1, #271.2, & #271.3**	This process could hold up various MOU's.							REPLACED See Risks #271.1, #271.2, & #271.3.		
271.1	200, 207, 271, 271.1, 271.2, 271.3,	ROW, TP	60.01	R	S1, S2, S4		Closed	6/1/2013	9/3/2015	824.00	There are potential delays associated with transfer of the City of San Diego owned property. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #200, #207, #271, #271.2, #271.3, #271.4, &**	This may delay the FFGA. May cause schedule impacts.							MITIGATED City Council took action to transfer properties for project.		
271.2	106, 200, 207, 271, 271.1, 271.2, 271.3, 271.4, 323	CON, ROW, TP	60.01	R	S3, S4	R13, R14	Closed	6/1/2013	4/6/2016	1040.00	There are potential delays associated with the transfer of the UCSD owned property. **(Confirmed Closed on 04/06/16) - Link to Closed Risk #106, #200, #207, #271, #271.1, #271.3, #271.4, & #323**	This could delay the schedule and could delay the design because the parties have to agree on Gilman, Voigt, and UCSD real property terms.							MITIGATED Design approved by UCSD Design Board.		
274		ENV	80.06	R	S2	R6, R7, R8	Closed	9/24/2013	4/6/2016	925.00	Friends of Rose Canyon litigation. **(Confirmed Closed on 04/06/16)**	Potential delays, potential changes to the project scope and cost.							ACCEPTED Settlement is complete. Supplemental planting in Rose Creek area added to project. Ongoing monitoring program will be in place. Cost is far less than $1M.		
279	244, 279	ENV	80.01	R	All		Closed	7/1/2013	12/11/2013	163.00	Additional subsurface archeological investigations could take longer than anticipated. **(Confirmed Closed on 12/11/13) - Link to Closed Risk #244**	Thereby delaying completion of Section 106 consultation with the SHPO and affecting the timing of the Final SEIS/SEIR.							MITIGATED Archeological investigations completed.		
280	246, 280	ENV	80.02	R	All		Closed	7/1/2013	8/14/2013	44.00	Changes to project design that occur between the Draft SEIS/SEIR and the Final SEIS/SEIR plan set. **(Confirmed Closed on 08/14/13) - Link to Closed Risk #246**	May result in unforeseen adverse impacts that could trigger the need for an additional round of public/agency review.							REPLACED See Risk #246.		
282	141, 282	CON, MC, ST	80.03	R	All		Closed	7/1/2013	1/13/2015	561.00	Time to execute Professional Service Task Orders could result in delays. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #141**	This could impact development of 65% design and could affect the FFGA.							MITIGATED Task Orders have been issued.		
284	228, 284		20.01	R	All		Closed	9/24/2013	5/7/2014	225.00	Design criteria/guidelines are not established. (Process and response time). **(Confirmed Closed on 05/07/14) - Link to Closed Risk #228**	Designs could be delayed or could require redesign.							AVOIDED Design criteria was issued on 03/14/14.		
285	207, 271.1, 271.2, 271.3 285	TP	80.06	R	All		Closed	6/1/2013	9/25/2013	116.00	Permits and approvals by other agencies may not be provided in a timely manner and delay Project - City of San Diego, UCSD, and USACE. **(Confirmed Closed on 09/25/13) - Link to Closed Risk #207, #271.1, #271.2, & #271.3**	Delay in Project.							REPLACED See Risks #271.1, #271.2, & #271.3		
293		ROW, SYS	60.01	R	All	All	Closed	12/12/2013	10/28/2015	685.00	ROW requirements for signal systems may require further analysis. **(Confirmed Closed on 10/28/15)**	Potential needs for more ROW							AVOIDED All properties have been identified and these parcels were included in the 65% plan set.		

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296	271.3, 296	TP	10.03	R	S4		Closed	9/24/2013	1/13/2015	476.00	Late acceptance of plans by VA Medical Center. **(Confirmed Closed on 01/13/15) - Link to Closed Risk #271.3**	Could impact schedule and budget.							REPLACED See Risk #271.3.		
299		ENV	40.04	R	All		Closed	4/1/2013	12/11/2013	254.00	Preliminary determination is that Mid-Coast is not grandfathered into Map 21 from previous New Starts requirements. Project may have to be re-rated for cost effectiveness. May require recalibration of the Series 11 model to 2009 survey. Project may or may not rank as high with new Map 21 process. **(Confirmed Closed on 12/11/13)**								ACCEPTED Will be re-rated during application for Engineering.		
300	11.1, 300, 319	CP, STR	40.04	R	S2		Closed	8/22/2013	5/7/2014	258.00	The required iterative process to complete the hydraulic model (in areas where the two projects run parallel to Rose Creek) and the resulting modification to the vertical design of the heavy rail may delay	May delay design of both projects.							MITIGATED Hydraulic review is complete and SANDAG is proceeding with appropriate design.		
302		CP, ENG, ENV, TP, UTL	40.04	R	All	All	Closed	8/22/2013	6/29/2016	1042.00	New stormwater requirements by the Regional Water Quality Control Board (RWQCB) may have to be met by the project. **(Confirmed Closed on 06/29/16)**	The project may be required to design to meet new regulations, which would delay final design and increase costs.							AVOIDED SANDAG received approval from City in February 2016 for design standard.		
303		TP	40.04	R	S2		Closed	8/22/2013	9/20/2013	29.00	Delay to obtaining 401 permit from USACE. **(Confirmed Closed on 09/20/13)**								MITIGATED Design has advanced.		
304		TP	40.04	R	S2		Closed	8/22/2013	9/20/2013	29.00	Delay to obtaining 1600 permit from California Dept. of Fish and Wildlife. **(Confirmed Closed on 09/20/13)**								MITIGATED Design has advanced.		
305	305, 305.1	ENV	10.01	R	S1		Closed	8/22/2013	9/29/2014	403.00	Additional portions of project may be within Coastal Commission Jurisdiction. **(Confirmed Closed on 09/29/14) - Link to Closed Risk #305.1**	A delay associated with resolving Coastal Zone Boundary may have an impact on the schedule.							ACCEPTED The project is in the Coastal Zone.		
305.1	305, 305.1	ENV	10.01	R	S1		Closed	10/22/2013	1/22/2014	92.00	Potential requirement for Coastal Commission Construction Permit. **(Confirmed Closed on 01/22/14) - Link to Closed Risk #305**	Additional design elements and work restrictions to address permit requirements for construction.							REPLACED See Risk #305.		
306		ENV	40.04	R	All		Closed	8/22/2013	12/11/2013	111.00	Schedule extension due to comments received draft SEIS/SEIR. **(Confirmed Closed on 12/11/13)**	Schedule extension							ACCEPTED Two months have been added to the schedule.		
319	11.1, 268, 298, 300, 319	CP	10.04	R	S2		Closed	10/22/2013	5/7/2014	197.00	Hydraulic for open channel configuration is being assessed (under SR52). **(Confirmed Closed on 05/07/14) - Link to Closed Risk #11.1, #268, #298, & #300**	Rise in water surface elevation assumptions could change in design of LRT.							MITIGATED Hydraulic review is complete and SANDAG is proceeding with appropriate design.		
335			40.06	R	S1		Closed	3/19/2014	4/29/2015	406.00	Potential enhancements to the pedestrian crossing at Balboa Station, widening the Caltrans ramp, and addition of traffic signals. **(Confirmed Closed on 04/29/15)**	May increase costs							ACCEPTED Cost will be included in the 65% estimate.		
336		ROW, UTL	60.01	R	All		Closed	3/19/2014	4/29/2015	406.00	Delays to the design of dry utilities may postpone the acquisition of real estate. **(Confirmed Closed on 04/29/15)**	Not being able to start the property acquisition process							MITIGATED Project has a good understanding of requirements.		
337		MC, ROW	60.01	R	All		Closed	3/19/2014	4/29/2015	406.00	Delay in awarding new on-call real estate appraisal contracts. **(Confirmed Closed on 04/29/15)**	This could delay the acquisition necessary for the project.							MITIGATED Appraisal contracts are in place.		
345		SAF, STA	20	R	S1, S3, S4		Closed	7/1/2014	9/3/2015	429.00	Station designs to comply with CA Fire Code 433 and NFPA 130. Need to review station designs to ensure compliance. **(Confirmed Closed on 09/03/15)**	Redesign certain elements of the stations.							MITIGATED Designs are being based on both the CA Fire Code 433 and NFPA 130 whichever one is more stringent.		
346		ENG, ENV, ROW	10.13	R	S3	R11	Closed	9/30/2014	4/6/2016	554.00	OPPORTUNITY The cost of planned mitigation for vibration to existing condominiums at La Paz may be greater than anticipated.	Could necessitate alternative mitigation strategies.							AVOIDED Floating slab has been eliminated.		
347	6.1, 347	CP, ENV, SAF	50.02	R	S1		Closed	9/30/2014	9/3/2015	338.00	There will be a need for active control warning systems at two private at-grade crossings. Between Tecolote & Clairemont at Littlefield St, the other between Clairemont & Balboa at Baker St. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #6.1**	Additional costs associated and environmental impacts.							MITIGATED Crossings are proposed to be closed.		
357	290, 357	CON	10	R	S1, S2		Closed	2/19/2015	9/3/2015	196.00	Construction may not be able to effectively utilize the agreed upon AWW. **(Confirmed Closed on 09/03/15) - Link to Closed Risk #290**	Delay to construction schedule.							MITIGATED NCTD has provided more flexibility with the AWWs than originally anticipated.		

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359	359, 381	CON, ENV, SAF, TP	80.02	R	S1, S2, S3, S4	All	Closed	6/17/2015	6/29/2016	378.00	Changes to project definition may occur between the Final SEIS/SEIR plan set and 95% design plan set. **(Confirmed Closed on 06/29/16) - Link to Closed Risk #381**	This could require additional environmental analysis and may require circulation of supplemental environmental documentation. If change has new or increased impact, it could affect resource agency permitting and the overall schedule.							REPLACED See Risk #381.		
367		UTL	40.02	R	All	All	Closed	9/22/2015	11/29/2016	434.00	SDG&E Environmental clearance is delayed. **(Confirmed Closed on 11/29/16)**	There could be a delay in SDG&E relocations.							MITIGATED The project has SDG&E environmental clearance.		
383		CON, CP, ENV	80.06	R	S1	R2, R3	Closed	6/29/2016	11/29/2016	153.00	Delays to issuance of USACE 408 determination. **(Confirmed Closed on 11/29/16)**	Would delay the issuance of 404 and start of construction in San Diego River area.							MITIGATED 408 determination was achieved.		
140			80				Closed	6/1/2011	6/5/2013	735.00	It is likely that there will be insufficient capacity available with the currently assigned project management staff to address the magnitude of demands of this "mega-project" as it advances from the Planning phase into Preliminary Engineering, Final Design and Construction. Specific capacity concerns regarding the need to add a Senior Project Director and a Risk Manager have been identified. **(Confirmed Closed on 06/05/13)**						Memories		MITIGATED		
Z02	19, Z02		10.04				Closed	6/1/2011	11/1/2011	153.00	SANDAG Risk Assessment Report (Sept 2010) notes a plan to widen the existing NCTD bridge over Rose Creek to accommodate an additional heavy rail track and install an additional structure for 2 light rail tracks. It is also possible that these could be combined into a single structure for the 4 tracks. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #19**								REPLACED By Risk #19.		
Z03	19, Z03		10.04				Closed	6/1/2011	11/1/2011	153.00	Rose Creek NCTD: There is an opportunity to replace the existing wooden bridge with a bridge to accommodate 2 light rail and 2 heavy rail tracks. This could aid the environmental process by reducing future impact to Rose Creek. However, this is not likely a direct benefit to the Mid-Coast Corridor Transit Project. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #19**								REPLACED By Risk #19.		
Z04			10.04				Closed	6/1/2011	11/1/2011	153.00	I-5 Crossing at Voigt Drive: Running at grade in the median of Voigt Drive might require several safety improvements imposed by PUC and UCSD due to proximity to the high school, and Voigt Dr. becoming a 4 lanes facility when the direct access ramps on I-5 are constructed. Base assumes elevated. No cost impact **(Confirmed Closed on 11/01/11)**								AVOIDED Running at grade is not selected alternative		
Z05			10.04				Closed	6/1/2011	11/1/2011	153.00	Genesee Viaduct: The Mid-Coast project is reliant upon Voigt Drive realignment in the current design. There is a schedule risk if the realignment does not take place and redesign and approvals are needed at a later stage in design. **(Confirmed Closed on 11/01/11)**								AVOIDED Applies to at grade alternative, not selected		
Z06			10.06				Closed	6/1/2011	11/1/2011	153.00	Cut and Cover Structure north of UCSD West Station: is an opportunity for at-grade track (instead of cut-and-cover, Station 572-575) at future proposed soccer fields **(Confirmed Closed on 11/01/11)**								MITIGATED No opportunity available.		
Z07	35, Z07		10.06				Closed	6/1/2011	11/1/2011	153.00	USCD W Station: Lack of agreements with UCSD could cause need to redesign the West structure based on the University master plan. May not be a cost increase as the redesign could eliminate the cut and cover structures at both ends of the station. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #35**								REPLACED By Risk #35.		
Z08			10.07				Closed	6/1/2011	11/1/2011	153.00	Wetlands: The wetlands crossed in Alternative 5 are considered ecologically sensitive and could cause additional cost in addressing requirements. **(Confirmed Closed on 11/01/11)**								AVOIDED Applies to at grade alternative, not selected		
Z09			10.11				Closed	6/1/2011	11/1/2011	153.00	Trackwork may be overpriced in the current estimate **(Confirmed Closed on 11/01/11)**								MITIGATED Adjustments were already incorporated in latest cost estimate		
Z10			20.01				Closed	6/1/2011	11/1/2011	153.00	A station could potentially be located at Ashton St, eliminating the need for stations at both Tecolote Rd and Clairemont Dr. The need to accommodate or relocate existing Fire Station and provide a parking structure could result in net increase in cost **(Confirmed Closed on 11/01/11)**								MITIGATED Scoping has been completed; no additional station to be pursued		

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Z11	14, Z11		20.01				Closed	6/1/2011	11/1/2011	153.00	Clairemont Dr. Station requires widening of the Clairemont Drive/Morena Blvd Crossing. Caltrans approval is required for the planned signalization at the bus stop located on Clairemont Drive (WB) / I-5 (NB) on-ramp. This may require redesign if approval is not granted. The Project may need to design new bus loop route to serve the station. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #14**								REPLACED See Risk #14.		
Z12	35, Z12		20.01				Closed	6/1/2011	11/1/2011	153.00	USCD W Station: Lack of agreements with UCSD could cause need to redesign the West structure and station based on the University master plan. May not be a cost increase as the redesign could eliminate the cut and cover structures at both ends of the station. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #35**								REPLACED See Risk #35.		
Z13	82, Z13		40.06				Closed	6/1/2011	11/1/2011	153.00	Aerial Structure at Rose Creek North has potential for involvement by bicycle path stakeholders. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #82**						Memories		REPLACED See Risk #82.		
Z14	83, Z14		40.07				Closed	6/1/2011	11/1/2011	153.00	Project has assumed that the developer at the vacant shopping mall adjacent to the Clairemont Dr. Station will allow parking in a potential new development at this site. No Agreement exists at this time. The unconstrained travel demand model predicts that approximately 250+ parking spaces would be required at this station. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #83**								REPLACED See Risk #83.		
Z15			60.01				Closed	6/1/2011	11/1/2011	153.00	Right-of-way take and site improvements at the Union Tribune Building are no longer needed immediately North of the San Diego River Crossing. This represents an opportunity to remove these costs from the current estimate. **(Confirmed Closed on 11/01/11)**								MITIGATED Adjustments were already incorporated in latest cost estimate		
Z16	7.1, 9.1, 9.2, Z16, Z17		10.08				Closed	6/1/2011	11/1/2011	153.00	Potential need to grade separate at Old Town Station to address frequency of service could affect cost and schedule if performed as part of Mid-Coast project **(Confirmed Closed on 11/01/11) - Link to Closed Risk #7.1, #9.1, #9.2, & #Z17**								REPLACED See Risks #7.1 & #9.1		
Z17	7.1, 9.1, 9.2, Z16, Z17		10.08				Closed	6/1/2011	11/1/2011	153.00	Potential need to grade separate at Old Town Station to address frequency of service could affect interfaces and schedule if performed as separately funded project **(Confirmed Closed on 11/01/11) - Link to Closed Risk #7.1, #9.1, #9.2, & #Z16**								REPLACED See Risks #7.1 & #9.1		
Z18	26.1, 27.1, 28.1, 29.1, 30.1, 31.1, Z18		10.04				Closed	6/1/2011	11/1/2011	153.00	Aerial Structure - I-5 to UTC Transit Center significant risks include: the need to keep all major arteries (I-5, Voigt Drive, Genesee Ave) in service during construction; possible need for temporary easements; impact to businesses in the area; constructability issues including need for temporary supports, transportation and staging/laydown requirements, possible impact of pier type and location on existing utilities and/or left turn lanes; potential for re-design due to other infrastructure improvements planned in the area, and/or community requirements. **(Confirmed Closed on 11/01/11) - Link to Closed Risks #26.1, #27.1, #28.1, #29.1, #30.1, & #31.1**						Memories		REPLACED See Risks #26.1, #27.1, #28.1, #29.1, #30.1, & #31.1		
Z19	24.1, Z19		10.04				Closed	6/1/2011	11/1/2011	153.00	I-5 Proposed Direct Access Ramp (Sta 589): Drawing T-121: Is the work for Voigt Drive access ramp to/from I-5 in this contract or "By Others"? What is the timing of both contracts? Will the new LRV bridge piers conflict with the future I-5 access ramps? Ramps may preclude pier locations for the LRV structure. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #24.1**								REPLACED See Risk #24.1		
Z20	12, 16, 17, 18, Z20		10.04				Closed	6/1/2011	11/1/2011	153.00	Minimal actual design of aerial structures completed to date; cost estimate appears to be based on cast-in-placed post-tensioned concrete box sections. Bridge type studies for aerial structures could indicate alternative structures with possible significant impact to cost and schedule **(Confirmed Closed on 11/01/11) - Link to Closed Risk #12, #16, #17, & #18**								REPLACED By Risks #12, #16, #17, & #18.		
Z21	12, 16, 17, 18, Z21		10.04				Closed	6/1/2011	11/1/2011	153.00	Structural systems are generally not established and dimensioned to show number of spans, span lengths, substructure design, etc. The structural system concepts will be advanced and better defined during P.E. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #12, #16, #17, & #18**								REPLACED See Risks #12, #16, #17, & #18.		
Z22			20.01				Closed	6/1/2011	11/1/2011	153.00	Tecolote Road Station Drawing TL-103 indicates a substation east of the Station, but Drawing TC-102 does not indicate the substation. There is cost and schedule risk associated with the discrepancy **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z23			20.01				Closed	6/1/2011	11/1/2011	153.00	As a safety concern, design should consider adding train crash protection onto the existing bridge columns located on the westerly platform of Tecolote Station, which could affect minimum clearances for the station layout. **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z24	14, Z24		20.01				Closed	6/1/2011	11/1/2011	153.00	Clairemont Drive Station drawings do not clearly identify Clairemont Drive location and vertical clearance for above the proposed Station. If adding lanes to Clairemont Drive bridge, there will be substantial scope, cost and schedule impacts **(Confirmed Closed on 11/01/11) - Link to Closed Risk #14**								REPLACED See Risk #14.		

DRAFT PROJECT RISK REGISTER

SANDAG Mid-Coast Project

ALL RISKS

Date Issue: June 21, 2023

Revision: 62

Mid-Coast Classifications

CON = Construction
ENG = Engineering/Design
ENV = Environmental
MC = Management Capacity
ROW = Right-of-Way
STA = Stations
SYS = Systems
TP = Third Party
UTL = Utility

FTA Risk Categories

R = Requirements
D = Design
M = Market
C = Construction

Impact Scoring Breakdown

Impact Scores Legend	LOW 1	MEDIUM 2	HIGH 3
(P) Probability	<10%	>10% <50%	>50%
(C) Cost Impact	< $1 M	> $1M but < $5M	> $5M
(S) Schedule Impact	< 1 month	> 1 month but < 4 months	> 4 months
Rating	< = 6	7 - 12	13 - 18

Score = (Cost + Schedule) * Probability

Risk #	Linked Risk #	Mid-Coast Class.	SCC	FTA Risk Cat.	Seg.	Rea.	Status	Date Opened	Date Closed	Days Between	Risk Description (RD)	Consequence	P	C	S	Score	Interim Action	Action Finish Date (AFD)	Risk Mitigating Action (RMA)	RMA Target Finish Date (TFD)	Responsible Party (RP)
Z25			20.01				Closed	6/1/2011	11/1/2011	153.00	As a safety concern, design should consider adding train crash protection onto the existing bridge columns located between the tracks at Clairemont Drive Station, which could affect minimum clearances for the station layout. cost and schedule risks associated with this **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z26			20.01				Closed	6/1/2011	11/1/2011	153.00	Discrepancies in UCSD West Station: Drawings TX-112 and TL-120 indicate an at-grade station in an area of retained fill less than 12-ft deep, but Drawing TC-108 indicates an at-grade station in an extremely deep cut section with elevator and stair access to a plaza located above the station **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z27	50, Z27		20.02				Closed	6/1/2011	11/1/2011	153.00	UCSD East Station Drawing TL122 does not indicate the site plan below the aerial station, vehicle and pedestrian access to the area below the Station or accessible access to the Station. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #50**								REPLACED See Risk #50.		
Z28			20.07				Closed	6/1/2011	11/1/2011	153.00	There are no elevators indicated at USCD East Station (no site plan provided) for a difference in elevation of about 30-ft from the aerial platform level down to the existing surface parking lot level. If elevators are not provided, it will be a violation of the design criteria, and if provided would result in a cost risk to the project **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z29	46.1, 46.2, Z29		40.02				Closed	6/1/2011	11/1/2011	153.00	Site specific surveys and identification of buried utilities have not been fully performed. Coordination is required the respective utility companies. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #46.1 & #46.2**								REPLACED See Risks #46.1 & #46.2.		
Z30			40				Closed	6/1/2011	11/1/2011	153.00	Drawing GE-002 states that the vertical coordinate system is based on City of San Diego Mean Sea Level. LRT Design Criteria states National Geodetic Vertical Datum of 1929, second order accuracy or higher. Could create confusion and errors if design does not clearly identify datum for basis of design **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z31			50.03				Closed	6/1/2011	11/1/2011	153.00	Apparent discrepancies between number of TPSSs on the layout drawings and the cost estimate **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z32			50.03				Closed	6/1/2011	11/1/2011	153.00	Drawings TL-109 and TC-104 indicate two substations at Balboa Station approximately 950-ft apart **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z33			60.01				Closed	6/1/2011	11/1/2011	153.00	"Good will" (business damage) claims can be submitted by each individual tenant at the Nobel Dr. shopping center (but are not reimbursable by federal funding) **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z34	83, Z34		60.01				Closed	6/1/2011	11/1/2011	153.00	Additional ROW will be needed if significantly greater number of parking spaces are required to satisfy ridership needs **(Confirmed Closed on 11/01/11)**								REPLACED See Risk #83.		
Z35			60.02				Closed	6/1/2011	11/1/2011	153.00	California Housing and Community Development Code affects relocation costs that are reimbursable by SANDAG; if less than Uniform Act, budget needs to be increased to provide Uniform Act level **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z36			70.01				Closed	6/1/2011	11/1/2011	153.00	Concern that during peak periods many riders (students) may carry bicycles on board the trolley. The new SDEIS / SFEIS should discuss bicycle ridership, and if the number of bikes can be stored onboard the trolley **(Confirmed Closed on 11/01/11)**								MITIGATED Considered by Project Team		
Z37	130, Z37		70.01				Closed	6/1/2011	11/1/2011	153.00	Vehicle costs are based on current experience; actual market conditions at time of procurement could vary **(Confirmed Closed on 11/01/11) - Link to Closed Risk #130**								REPLACED See Risk #130.		
Z38			10				Closed	6/1/2011	11/1/2011	153.00	Final Definition of Alternatives Report (August 2010) shows weekday ridership (On/Off) for each station. Data in Table 5-2 is confusing. For example, UTC Transit Center shows daily riders on=3083 but daily riders off =1677. This is an end-of-line station where daily on would normally equal daily off. Another example is UCSD West Station where daily riders on =186+1132=1318, but daily off = 6846+1735 =8581. Clarification is needed. Could impact fare projections, parking requirements, etc. (NOTED IN SCC10) **(Confirmed Closed on 11/01/11)**								MITIGATED Corrected by Project Team		
Z39	44, Z39		10				Closed	6/1/2011	11/1/2011	153.00	Site boundary and existing conditions have occurred at conceptual level only and reportedly will be updated during P.E. Could impact design and construction. **(Confirmed Closed on 11/01/11) - Link to Closed Risk #44**								REPLACED See Risk #44.		
Z40	45, Z40		40.03				Closed	6/1/2011	11/1/2011	153.00	Geotech investigations are not completed. Project specific geotechnical data was not available for the current PMOC review. The Project Baseline Schedule (08/30/10) indicates Subsurface exploration and laboratory testing will be performed during PE. **(Confirmed Closed on 11/01/11)**								REPLACED See Risk #45.		

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix B

Mid-Coast Corridor Transit Project Risk Matrix

	RISK ALLOCATION AND CONTINGENCY LIST	ALLOCATED TO		COMMENTS
		SANDAG	Contractor	
	SCHEDULE			
1	Construction Implementation: Cost of acceleration and recovery and any liquidated damages assessed when caused by the Contractor including but not limited to: changes to construction sequences or staging, re-work of rejected or improperly sequenced work, late delivery by suppliers or subcontractors, low production rates, other delays caused by Contractor action or inaction.		X	Typical contractor risk included in standard SANDAG construction contract.
2	Return to Service: Prompt, efficient work during railroad shutdown "all work windows" (AWW's) is imperative in the active railroad corridor. Contractor has the cost and schedule consequences (risk) for any delay in return to service from scheduled AWW shutdowns or rail service delays caused by unscheduled and unapproved delays to regular service including fouling of tracks in the course of construction. This risk includes any and all penalties imposed by MTS or NCTD for return to service delay or cost of service disruption.		X	Typical contractor risk included in standard SANDAG construction contract.
3	Construction Access - Right-of-Way: Risk caused by delays in the delivery of access to property required to implement construction per the permanent easements, temporary construction easements, and property acquisition (ROW) availability indicated in the Mid-Coast supplement. The Contractor shall coordinate with SANDAG and take all reasonable measures to minimize cost and schedule impacts for any property delivered after the dates indicated.	X		Typical SANDAG risk included in standard SANDAG construction contract.
4	Construction Access - SANDAG Acquired Permits: Risk caused by delays in the delivery of access to construction in areas requiring resource agency permits per the permit availability indicated in the Mid-Coast supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any permits delivered after the dates indicated.	X		Typical SANDAG risk included in standard SANDAG construction contract.
5	Construction Access - SANDAG Acquired Agreements: Risk caused by delays in the delivery of access to construction areas controlled by third parties including but not limited to: UCSD, Caltrans, Veterans Administration and City of San Diego required to implement construction per the agreements availability indicated in the Mid-Coast supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any agreement delivered after the date(s) indicated.	X		Typical SANDAG risk included in standard SANDAG construction contract.
6	Third Party Utility Relocations: Risk caused by delays in the delivery of access to construction areas required to implement construction or delays to the Contractor's construction per the utility relocation work orders indicated in the Mid-Coast supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any utility relocation delivered after the date(s) indicated.	X		Typical SANDAG risk included in standard SANDAG construction contract.

7	Contractor Acquired Permits and Approvals: Risk caused by delays in acquiring permits included in or required by the Mid-Coast supplement including permits and approvals from SANDAG or a third party including but not limited to: UCSD, Caltrans, MTS, NCTD, RWQCB, and City of San Diego for right-of-entry, traffic control, dewatering, SWPPP, and other similar permits and approvals. SANDAG shall take reasonable measures to assist the Contractor in acquiring its permits and minimizing cost and schedule impacts. Where required, SANDAG will sign or approve completed Contractor required permit applications. SANDAG retains risk for failure to provide documents and materials needed to obtain permits.		X	Typical contractor risk included in standard SANDAG construction contract.
8	IFC/NTP Delay: Risk from delays in providing Issued for Construction (IFC) plans and specifications after execution of the Mid-Coast supplement as indicated in the supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any NTP or IFC plans and specifications delivered after the date(s) indicated.	X		SANDAG has the risk for late issuance of a change order that incorporates IFC plans and specification as indicated in the Mid-Coast supplement SANDAG has the risk to issue additional IFC plans and specification prior to agreed dates in the Mid-Coast supplement. SANDAG is scheduled to have the majority of IFC plans and specification complete prior to NTP and all remaining IFC plans complete in January 2017.
	OWNER/ENGINEER RELATIONS			
9	SANDAG Construction Approval Review: Risk caused by delays in the review of required deliverables within the review period specified in the Mid-Coast supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any deliverable returned after the specified review time limit. This includes, but is not limited to, RFI's, shop drawings, and various required plans. The Contractor has the risk for deliverables that are submitted late, non-compliant or incomplete.	X		Typical SANDAG risk included in standard SANDAG construction contract.
	PROJECT STAKEHOLDER RESTRICTIONS			
10	UCSD Campus Restrictions: A Construction License Agreement between SANDAG and UCSD provides terms and conditions for construction on UCSD campus including requirements for: access, exclusive contractor use areas, non-exclusive use areas, work day and hour requirements, UCSD construction activity reviews and approves, housekeeping and work area control requirements and other requirements specific to construction on an active university campus setting. This agreement will be included by reference in the Mid-Coast supplement. The risk for complying with the requirements of this agreement related to the conduct of construction is the Contractor's risk.		X	This agreement is in final draft, the Contractor was involved in resolving terms and work areas with the University and was aware of the requirements in negotiating the GMP.

11	UCSD West Campus Restrictions: Construction working hours and working days on UCSD from the VA station to the east R/W of I-5 (West Campus) will be restricted by UCSD. Hours and work weeks are 9:00 am to 7:30 pm, Monday through Friday, respectively (regular working days). In addition, work will be shutdown or restricted for six weeks in each calendar year (two full weeks in each of the 3 academic quarters for finals). Relief from these working hours and days restrictions may be granted on a case by case basis by UCSD. Requests for relief from restrictions and for additional Saturday work days are outlined in the Construction License Agreement with the University. The Contractor may prepare, and SANDAG will assist, with requests for additional working hours and days. In the GMP price, SANDAG has the risk that the Contractor will not be provided additional Saturday work days, to offset up to 20 days per calendar year that the Contractor is prohibited from working on UCSD West due to the restrictions reflected as part of this risk. The Contractor shall take all reasonable measures to minimize cost and schedule delays if the final restrictions exceeds 20 regular working days in a calendar year.	**X**		The University requires all loud construction and maintenance activities on campus to stop for the week prior to and during the week of finals for each of three academic quarters of the school year on the West Campus. SANDAG is in final negotiations with the University for at least ten additional Saturdays per calendar year to compensate for the finals weeks restrictions.
12	VA Medical Center: A Revocable License Agreement between SANDAG and the VA will provide terms and conditions for construction on the VA hospital campus including requirements for: access, contractor use areas work day and hour requirements, housekeeping, work area control requirements and other requirements specific to construction on an active hospital campus setting. This agreement will be included by reference in the Mid-Coast supplement. The risk for complying with the requirements of this agreement related to the conduct of construction is the Contractor's risk.		**X**	SANDAG has a cooperation MOU with the VA, and will have a license agreement with the VA for access and construction work areas. Additional work areas may be available depending on VA expansion plans and the Contractor will help to define the request of the VA. The work area provided will be as indicated in the draft Revocable License Agreement.
13	Caltrans: SANDAG and Caltrans have a Master Agreement, a Joint Use and Maintenance Agreement, and a signed Project Report (PR), which provide terms and conditions for construction on the I-5 freeway. These agreements and the PR allow the Contractor to acquire construction encroachment permits for access, contractor use areas, work day and hour requirements, housekeeping and work area control requirements, detours and traffic control, and other requirements specific to construction on an operating interstate freeway. These agreements will be included by reference in the Mid-Coast supplement. The risk is for complying with the requirements of these agreements and securing and complying with permits for construction and is the Contractor's risk.		**X**	Typical contractor risk included in standard SANDAG construction contract. SANDAG has an approved PR and agreements in place with Caltrans for the Project's construction in the I-5 right of way. The Contractor is required to obtain a "dual" permit from Caltrans. The Contractor is required to follow the terms of their Caltrans permits.
	ADJACENT PARTIES TO ALIGNMENT			
14	Adjacent Property Damage: Damage to adjacent private or third party agency property shall be the Contractors risk including the cost for repairs and other damages to make the adjacent owner whole.		**X**	Typical contractor risk included in standard SANDAG construction contract.

15	Street Condition and Repair: Risk for repair of damage to any public or private streets and staging areas used by the Contractor and damaged because of: improper loads, use of unapproved haul routes, failure to contain dirt and debris to the construction areas including tire mud and dirt, or other damage caused by construction activity.		X	Typical contractor risk included in standard SANDAG construction contract.
16	Added Street Reconstruction or Repair: Risk for repair of public or private streets outside the limits of street repair included in the GMP and Mid-Coast supplement plans and specifications which is requested by the owner of the street and approved by SANDAG.	X		Typical SANDAG risk included in standard SANDAG construction contract.
	PERMITS			
17	New Regulatory and Environmental Resource Agency Requirements: Risk caused by new or revised regulatory requirements not in permit conditions known at time of GMP. The contractor shall take all reasonable measures to minimize cost and schedule delays.	X		Typical SANDAG risk included in standard SANDAG construction contract.
18	Earthwork Export Risk: The GMP price for earthwork export was based on a haul and dispose cost of $300 per load. The additional cost of hauls over $300 per load would be at SANDAG expense. SANDAG assumes only the additional cost risk, all other risk is retained by the Contractor. The cost reduction of hauls less than $300 per load would be credited to SANDAG. The Contractor and SANDAG will coordinate efforts to identify spoil sites and Contractor will evaluate and select the lowest cost, practical site. The Contractor will provide information to SANDAG prior to hauls of the location of the disposal site, mileage, number of loads and estimate of per load cost. SANDAG will monitor haul and disposal sites and based upon Contractor provided open book cost information adjust the price per load and quantity to the haul sites used during project construction.	X	X	Negotiated cost risk split between SANDAG and the Contractor. SANDAG has risk if the cost per load of export soil goes over $300. SANDAG takes credit for cost per load under $300. SANDAG assumes no schedule risk. SANDAG and the Contractor agreed to coordinate in identifying a spoil location at less cost than $300 per load and to reduce the overall export necessary. SANDAG has identified a Caltrans site and a Port of San Diego site that require significant borrow.
19	RWQCB - SWPPP: Risk for compliance with and maintenance of construction stormwater control requirements including changes in water quality laws/regulations or SWPPP requirements.		X	The Risk related to this item was accepted fully by the Contractor during the GMP negotiations and SANDAG bears no risk for this item.
	TAXES, FEES			
20	Taxes: Change in tax rate or new assessment		X	This risk was accepted by the Contractor during GMP negotiations.
	SCOPE ELEMENTS			
21	Scope Revisions: This item covers the risk for any modifications made to the GMP Plans and Specifications that advances, details, clarifies and further delineates the work reflected in the GMP Plans and Specifications. SANDAG retains the risk related to the addition of entirely new work elements and/or material changes to an item of work from that on which the GMP Item price was originally negotiated.	X	X	SANDAG risk is for added scope or significant changes from the GMP plan set to IFC. Contractor risk is in design refinements from the GMP plan set.

22	Traffic Management: The Contractor is responsible for traffic management, including preparing detailed traffic control plans to be submitted to the jurisdiction for approval. SANDAG GMP and IFC plans only contain general traffic handling and phasing. This risk is for all project traffic management and implementation including the development of detailed traffic control information required by the jurisdictions to obtain traffic control permits.		X	Typical provisions for MOT is included in the GMP. COZEEP and Freeway Service Patrol will be furnished directly by SANDAG.
23	Vibration: Mitigation of construction vibration and the cost of damage or loss of use due to construction vibration is a Contractor risk at locations and for receptors indicated in the Mid-Coast supplement, except for construction vibration and the cost of damage or loss of use because of unforeseen conditions, which is a SANDAG risk.	X	X	Typical contractor risk for vibration is included in standard SANDAG construction contracts. SANDAG would have the risk for vibration mitigation if unforeseen conditions require pile driving, rock drilling or other vibration generating construction method.
24	Noise: Contractor has the risk for mitigation of construction noise and damages or loss of use due to construction noise at a sensitive receptor at the levels indicated in the Mid-Coast supplement. Control measures to be used by the Contractor include equipment selection, construction methods, work hours, sequencing, or other means. SANDAG retains the risk of additional measures required at sensitive receptors at locations where construction noise, after application of Contractor required noise control measures, are not adequate to meet levels for sensitive receptors.	X	X	Typical contractor risk for noise control is included in standard SANDAG construction contracts and follows the requirements of the local jurisdiction. In areas with residents, schools, or hospitals, SANDAG may determine there is a need to augment noise control.
25	Rock and Soil Conditions: Risk for rock or soil conditions not identified in plans or geotechnical reports provided to the Contractor or for conditions that can be reasonably determined by site investigations is a SANDAG risk. The Contractor shall take all reasonable measures to minimize cost and schedule impacts in the event unforeseen rock or soil conditions are encountered that require changes to construction means and methods.	X		Typical SANDAG risk included in standard SANDAG construction contract. Significant investigative sampling and reports have been provided to the Contractor.
26	Office and Laydown: The cost of the Contractor's construction offices and laydown areas is a SANDAG risk, as negotiated in the GMP. The Contractor will work with SANDAG cooperatively to identify reasonable and functional office and laydown facilities and minimize cost including the use of SANDAG property, private property and third party agency property.	X		Typically, this is a contractor risk item. The cost of offices and yards were removed from the GMP during negotiations. SANDAG will work with the Contractor to identify offices and laydown yards for the project. SANDAG has identified potential sites and is working with the Contractor on locations.
27	Power Connections: Risk for bringing power to connection points indicated on the GMP plans is a SANDAG cost. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for providing power connections.	X		Typical SANDAG risk included in standard SANDAG construction contracts. Power feed designs have not been completed by SDG&E.
	MATERIAL			
28	Escalation, Availability of Material and Equipment: Cost risk from escalation of labor, materials or equipment, and the availability of material or equipment.		X	Typical contractor risk included in standard SANDAG construction contract.

	SUBCONTRACTORS			
29	Subcontractor Risk: General subcontractor risk for unforeseen default, change in sequence, subcontracting scope gaps, resolution of small changes and issues, unexpected price increases after GMP, and/or underperforming subcontractor.		**X**	Typical contractor risk included in standard SANDAG construction contract.
	UTILITY RELOCATION & UTILITY SERVICES			
30	Unknown and/or abandoned utility: Contractor's risk is to locate and protect in place utilities not shown on the plans. SANDAG risk is for relocation of unknown utilities that cannot be protected in place and for unknown utilities that require relocation of the utility or redesign of a project element. The Contractor shall take all reasonable measures to minimize cost and schedule impacts related to resolving unknown and/or abandoned utilities encountered.	**X**	**X**	Typical contractor risk included in standard SANDAG construction contract. Contractor is to pothole all utilities marked out in the field with sufficient lead time to avoid delays.
31	Concurrent Dry Utility work: Contractor is to coordinate with utility companies to eliminate impacts due to concurrent work. SANDAG retains the risk for delays caused by action or inaction by SANDAG.		**X**	Typical contractor risk included in standard SANDAG construction contract. Contractor will work with and around and mitigate issues to the extent possible/reasonable.
	ENVIRONMENTAL			
32	Unanticipated Sensitive Resources: Schedule delay to a controlling item of work for unanticipated environmentally sensitive discoveries including archaeological, endangered species, paleontological, biological, etc. The Contractor shall take all reasonable measures to minimize cost and schedule impacts due to this type of discovery.	**X**		Typical SANDAG risk included in standard SANDAG construction contract. Contractor is to coordinate work to minimize impacts and to accelerate work as practical to minimize impacts. SANDAG responsible for major discoveries and major changes to environmental requirements.
	HAZARDOUS MATERIAL			
33	Contamination: Risk for encountering and mitigating unknown or unanticipated contaminated soils and water, underground storage tanks, lead paint, asbestos or other hazardous substances or contamination. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for proper removal of contamination.	**X**		Typical SANDAG risk included in standard SANDAG construction contract. SANDAG retained the risk for mitigation of hazardous materials or contamination. Soil sampling and analysis during the FSEIS/FSEIR preparation and experience with contaminated soils and groundwater on other projects indicate SANDAG's risk exposure is low.

34	Groundwater: Risk for managing ground water as identified in the plans, geotechnical and hydrological reports and logs provided to the Contractor. SANDAG has risk that the Contractor encounters ground water at location and depth other than that shown on plans or in the geotechnical logs and reports provided to the Contractor or as can be reasonably determined by site investigations. The Contractor shall take all reasonable measures to minimize cost and schedule impacts in the event undocumented groundwater conditions are encountered.	**X**	**X**	Typical SANDAG risk included in standard SANDAG construction contracts.
	OWNER SUPPLIED MATERIALS /EQUIPMENT			
35	Owner supplied materials and equipment: Risk caused by delays in the delivery of materials or equipment furnished by SANDAG per the delivery dates indicated in the Mid-Coast supplement. The Contractor shall take all reasonable measures to minimize cost and schedule impacts for any materials and equipment delivered after the dates indicated.	**X**		Typical SANDAG risk included in standard SANDAG construction contracts.

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix C

Final Value Engineering Study Report Executive Summary

TY·LIN INTERNATIONAL

Final Value Engineering Study Report



MID-COAST CORRIDOR TRANSIT PROJECT

Mid-Coast Corridor Transit Project

May 2014

Prepared by

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Subject: Final Value Engineering Study Report
Mid-Coast Corridor Transit Project

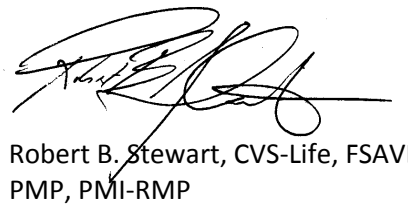
Dear Mr. Haggerty:

Value Management Strategies, Inc. is pleased to transmit this Final VE Study Report for the referenced project. This report summarizes the events of the study conducted March 3 through 7, 2014 in San Diego, California. The implementation disposition for all VE alternatives is also documented in this report.

It was a pleasure working with SANDAG and the project team on this study, and we look forward to future opportunities. If you have any questions or comments concerning this final report, please do not hesitate to contact us at (760) 741-5518 or email Rob@vms-inc.com / Greg@vms-inc.com.

Sincerely,

VALUE MANAGEMENT STRATEGIES, INC.



Robert B. Stewart, CVS-Life, FSAVE, PMP, PMI-RMP
VE Team Leader, President/CEO



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VE Team Leader, Director

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EXECUTIVE SUMMARY

A value engineering (VE) study, sponsored by San Diego Association of Governments (SANDAG) and facilitated by Value Management Strategies, Inc. (VMS), was conducted for the Mid-Coast Corridor Transit Project in San Diego, California. The study was held March 3-7, 2014 at the offices of Parsons Brinckerhoff in San Diego. This *Executive Summary* provides an overview of the project, key findings, and the alternatives developed by the VE team.

PROJECT SUMMARY

The Mid-Coast Corridor Transit Project will extend the Trolley Blue Line service from the Santa Fe Depot in Downtown San Diego north to the University City community, serving major activity centers such as Old Town, University of California San Diego (UCSD), and Westfield University Towne Center (UTC). The total project length is approximately 14.5 miles, which includes nearly 11 new miles of double track and 3.5 miles of existing Trolley tracks (from the Santa Fe Depot to north of the OTTC and south of the San Diego River). The proposed Refined Build Alternative includes 9 new stations (4 at grade and 5 elevated); 5 park-and-ride facilities with 1,070 parking spaces; 14 new and 2 upgraded traction-powered substations (TPSSs); and 36 new low-floor LRT vehicles. No new maintenance facilities are needed. New stations would be located at Tecolote Road, Clairemont Drive, Balboa Avenue, Nobel Drive, the VA Medical Center, UCSD West, UCSD East, Executive Drive, and the UTC Transit Center.

The project will connect corridor residents with other Trolley lines serving Mission Valley, East County, and South County. As an extension of the existing Blue Line, the project will offer a one-seat (no transfer) ride from the international border and communities south of Downtown San Diego all the way to University City. This new service will enhance direct public access to other regional activity centers and improve travel options to employment, education, medical, and retail centers for corridor residents, commuters, and visitors.

The San Diego Metropolitan Transit System (MTS) will be the operator, and the project will be funded in partnership by SANDAG and the Federal Transit Administration (FTA). Total project costs are currently estimated at $1,489,326,244. The VE study excluded all applicable vehicle costs, resulting in the observed costs for the VE study being $1,319,584,512.

PROJECT PURPOSE AND NEED

Freeways and arterials in the Mid-Coast Corridor are generally congested and traffic congestion is projected to increase as the region grows. The Mid-Coast Corridor Transit Project will expand transportation capacity in the corridor to accommodate existing and future travel demand, particularly for peak-period commute trips.

The project is needed to provide an effective alternative to congested freeways and roadways for travelers and to reduce vehicle miles traveled. The Mid-Coast Corridor Transit Project will provide efficient transit connections to University City, UCSD, and reliable, higher-speed trolley service throughout the corridor. Effective transit that is competitive with the automobile will attract riders to

transit, improve regional mobility, and help maintain and enhance quality of life for San Diego's residents.

VE STUDY TIMING

The VE study focused on the Final Environmental Impact Statement (FEIS) plan set. The project is expected to obtain a Record of Decision (ROD) in September 2014. Construction is scheduled to begin in November 2015 and be completed in May 2019.

VE STUDY OBJECTIVES

The primary objective of the VE study effort was to identify value-improving alternatives that will reduce project cost, schedule and/or risk, while maintaining or improving performance. Additional objectives of the study included:

- Validate the identified and prioritized project risks
- Validate the current project cost estimate and level of contingency
- Explore options to achieve scheduling efficiencies in delivery

KEY PROJECT ISSUES

The items listed below are the key drivers, constraints, or issues being addressed by the project and considered during this VE study to identify possible improvements.

- Noise and traffic impacts along Genesee Avenue and other major areas in the project should be minimized whenever possible; these impacts will affect residences, shopping, merchants, and UCSD, among others.
- The project will face challenges in relation to permitting with external agencies such as North County Transit District (NCTD), UCSD, and the City of San Diego.
- Utility relocations will be a complex and significant component of this project, further complicated by the Buy America requirements.
- Constructability issues related to the aerial guideway must be carefully considered.
- Maintaining bicycle and pedestrian access during construction must be considered.

EVALUATION OF BASELINE CONCEPT

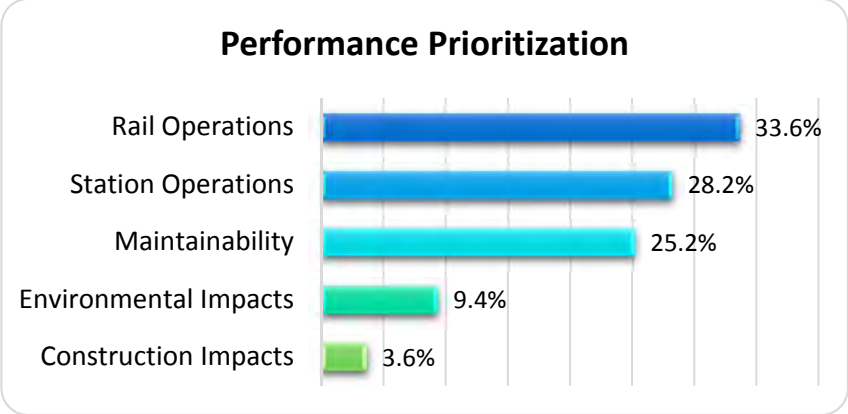
During the course of the VE study, a number of analytical tools and techniques were applied to develop a better understanding of the baseline concept. A major component of this analysis was Value Metrics which seeks to assess the elements of cost, performance, time, and risk as they relate to project value. These elements required a deeper level of analysis, the results of which are detailed in the *Project*

Performance Attributes
Rail Operations
Station Operations
Maintainability
Environmental Impacts
Construction Impacts

Analysis section of this report. The key performance attributes identified for the project are listed in the table, "Performance Attributes."

Below is a summary of the major observations and conclusions identified during the evaluation of the baseline concept which led the VE team to develop the alternatives and recommendations presented in this report.

A pre-study meeting was held February 3rd, 2014 at the offices of Parsons Brinkerhoff in San Diego, CA. During this meeting, VMS facilitated a performance assessment of the current project. John Haggerty of SANDAG and Tom Tupta of MTS provided their input as the owner/operator representatives for the project. The performance requirements and attributes were discussed during this meeting and definitions and scales were identified. The attributes were then prioritized in terms of their importance to the project. Rail and Station Operations were considered to be the most critical followed by Maintainability.



Following the prioritization, the overall performance of the project was evaluated for each attribute by the SANDAG and MTS representatives to provide a high-level assessment. A summary of these priorities is provided on the right.

Rail Operations: The project is performing fairly well at this stage in terms of rail operations given the existing constraints relative to physical challenges and realistic expectations.

Station Operations: The station locations are satisfactory. There are some concerns remaining about the details related to final station configuration, circulation, and access.

Maintainability: Many elements of the project are perceived as strong with respect to operations and maintenance; however, there are some aspects that have not been completely defined. Areas of concern may include station finishes and fixtures and the 4.5 miles of elevated structure. There are also some long stretches of alignment with limited access from a maintenance perspective (from Gilman Drive to the end of the alignment).

Environmental Impacts: The project is not optimal in terms of biological impacts; however, it is doing about as well as could be expected at this time for a project of this size and scope. The current alignment (both vertical and horizontal) provides a good solution in terms of minimizing human impacts (i.e., use of aerial guideway in highly urbanized areas in Segments 3 and 4; located along I-5 corridor and existing rail alignment in Segments 1-3). The project relates very well to existing land uses; however, it has the potential for impacts and conflicts with existing land uses in Segment 4.

Construction Impacts: Traffic impacts are expected primarily in Segment 4 along Genesee Avenue, and these may be substantial. The rest of the project has fairly limited impacts to existing traffic. Temporary environmental mitigation measures should be effective, feasible, and reasonable for the

project. Bicycle and pedestrian circulation is largely unaffected for the project; however, there are a couple of areas where impacts occur. These include SR 52 in Segment 2 and along Genesee Avenue.

ACCEPTED VE ALTERNATIVES

The VE team developed 29 alternatives for improvement of the project. At the time of this Final VE Report, 5 VE alternatives are accepted for implementation into the project and 8 additional VE alternatives are pending further study. VE alternatives are presented in the following tables, which separate those VE alternatives that have been formally accepted for implementation from those alternatives that are pending further analysis and study. Discussion regarding VE alternative acceptance, rejection, and additional considerations for those VE alternatives pending further study is presented in the *Value Engineering Alternatives* section of this report.

The following table presents the accepted alternatives, along with the associated initial cost savings, change in schedule, and a brief discussion of each. Please note that because the cost data depicted below represent *savings*, a number in parentheses represents a cost *increase*.

Alternative No. and Description	Initial Cost Savings	LCC Savings	Change in Schedule
2.0 Perform load test to optimize depth of piles	**$3,783,000**	**--**	**-2 months**
The cast-in-drilled-hole (CIDH) pile design for the baseline concept follows Caltrans guidelines for the estimation of CIDH pile resistance. The alternative concept recommends performing O-Cell testing to eliminate excessive conservatism in estimation of CIDH pile resistance. This proposal reduces the cost of foundation by reducing drilled shaft length, reduces construction duration associated with CIDH pile construction, and reduces risk associated with drilled shaft construction.			
3.0 Perform base grouting for piles to eliminate ground improvements	**$7,301,000**	**--**	**No change**
The alternative concept proposes base grouting below the tip of the CIDH piles to allow the end bearing contribution of the CIDH pile to be considered in the determination of the nominal pile resistance. In addition to providing modest cost savings to the project, this concept would reduce the cost of foundation by reducing drilled shaft length, reduce the schedule associated with CIDH pile construction, reduce the risk associated with drilled shaft construction, and eliminate the need for ground improvement for San Diego River Bridge.			
7.0 Shift Balboa Avenue Station south to improve transit patron access	**$2,346,000**	**--**	**No change**
The alternative concept moves the Balboa Avenue Station platform approximately 150 feet south to balance patron access from the Bus Transit Center and patron parking. A significant percentage of the ridership will be by bus. The relocated platform balances pedestrian access for bus, park-and-ride, and kiss-and-ride patrons. This alternative will provide more convenient access to the platform from the bus transit center, improve access from ADA parking, move the north station platform entrance closer to a majority of the patron parking, and reduce a lengthy ramp on the north side of Balboa Avenue along with the attached pedestrian bridge.			

Alternative No. and Description	Initial Cost Savings	LCC Savings	Change in Schedule
8.0 Use standard barrier railing at platform edges and pedestrian bridges	**$1,260,000**	**--**	**No change**

Where adjacent trackway or freeway noise is not an issue, the alternative concept suggests that the use of extensive glass panel be reduced, eliminated or replaced with a more easily maintained material. This alternative recommends metal mesh, pickets or similar, to provide the protection that is required for safety considerations. This alternative removes the more maintenance-intensive and vandalism-prone material from the project and slightly reduces project cost.

18.0 Assess viaduct hinge locations to minimize falsework at traffic intersections	**$0**	**--**	**No change**

In the baseline concept, hinges in the viaduct superstructure are located adjacent to spans over intersections at La Jolla Village Drive and Executive Drive in such a way that the falsework in the intersection needs to stay in place after the structure is complete, until the adjacent frame is also complete and the load from the adjacent frame is loaded on the hinge. If the hinge location is moved away from the intersection or to the opposite end of the span in which it is located, this support requirement would be taken out of the intersection, significantly reducing the duration that falsework would need to be placed in the intersection. This alternative recommends alternatives for optimizing the hinge placement in order to reduce the amount of time the falsework is in the intersections to reduce the impacts to traffic.

VE ALTERNATIVES FOR FURTHER STUDY

The following table provides a summary of the 8 VE alternatives that require further study and analysis for possible future implementation into the project. The potential cost savings, change in schedule, and performance impacts will be further evaluated and refined as the project solicits the services and expertise of a Construction Manager/General Contractor (CM/GC) and progresses into the final phase of design. As soon as the following VE alternatives can be sufficiently validated for technical implementation into the project design, the cost savings, change in schedule, and performance impacts will be carried forward in the project cost and schedule estimates.

Alternative No. and Description	Initial Cost Savings	LCC Savings	Change in Schedule
1.1 Use precast girders for bridge structures	**$12,102,000**	**--**	**-4 months**

The alternative concept proposes the use of precast-prestressed (PC-PS), and post-tensioned spliced girders as an alternative superstructure type for the project bridges and viaducts. Caltrans utilizes PC-PS girders for highway bridges and Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) encourages the use of precast for their superstructures. This method takes advantage of a shorter construction schedule and reduction in the need for falsework in congested areas or waterways. Girder casting can be performed in parallel with other construction phasing items causing less conflict. The proposed method would provide many benefits to the project in addition to the stated cost reduction and schedule improvement.

Alternative No. and Description	Initial Cost Savings	LCC Savings	Change in Schedule
1.2 Use precast segmental box girder for select structures	**($1,749,000)**	**--**	**-6 months**

The alternative concept would utilize a precast segmental concrete box superstructure for the viaduct bridges. This type of superstructure has been used successfully on highway bridges and many light rail systems around the world and looks similar to a cast-in-place box girder bridge. The super-structure is constructed off the project site at a precasting yard in short segments, using special formwork that is adjusted to match the alignment and profile of the bridge. Advantages of this concept include improved quality and durability of the concrete, minimized disturbance to traffic, and improvements to the project's construction schedule.

5.0 Reduce design speed on Genesee Avenue to 40 mph and eliminate crash cushions	**$1,589,000**	**--**	**No change**

The current design speed for Genesee Avenue is 45 mph. Due to current standards, a crash barrier is in place for this design speed because the columns would be located within the roadway clear recovery zone. This concept proposes to reduce the design speed of Genesee Avenue to 40 mph to allow a reduction in clear recovery zone, therefore eliminating the requirement for concrete barriers.

6.0 Modify station platform canopies and integrate photovoltaic panels	**$22,025,000**	**$23,223,000**	**No change**

The alternative concept recommends constructing 12-foot by 52-foot canopies with an integrated photovoltaic (PV) roof. The basic structural system is similar to the canopy configuration shown on the baseline concept FEIS Plan Set. However, the roof would be formed by PV panels. No additional roofing surface would be required. This system, known as building integrated photovoltaics (BIPV) generates electricity that can be used to offset the cost of electricity consumed by the rail system. The BIPV system will provide savings in materials and electricity costs, reduce the use of fossil fuels and emissions, and generate a positive public image.

11.0 Utilize soldier pile and lagging wall in lieu of the Type 1 retaining wall at select locations	**$672,000**	**--**	**No change**

A portion of Retaining Wall No. 402R-C is designed on foundation piles from Sta. 396+60 to 402+39. A temporary shoring system must be designed and installed in order to construct this permanent Type 1 retaining wall. This alternative proposes to construct a soldier beam and lagging (precast concrete panel) retaining wall for this section of wall to eliminate the need for temporary shoring and provide a modest cost savings to the project.

14.0 Eliminate retaining wall at VA Medical Center Station and build station on elevated structure	**($2,530,000)**	**--**	**No change**

The alternative concept would eliminate Retaining Wall No. 648R-F and replace it with a much smaller cut wall along the west side of the station. The station would then be constructed as an elevated structure, similar to the other five elevated stations on the north end of the project. This concept would allow excavated material from under the structure to be used elsewhere since the project is short of fill material.

Alternative No. and Description	Initial Cost Savings	LCC Savings	Change in Schedule
22.0 Shift the alignment adjacent to I-5 edge of shoulder at Nobel Drive using Caltrans right-of-way	**$19,147,000**	**--**	**No change**

The alternative concept would move the proposed station eastward from the baseline concept location towards the freeway, and place it entirely within Caltrans right-of-way. Since it is still immediately adjacent to the shopping center parking lot, ingress and egress would be through the parking lot via stairs and elevators accessing the parking lot. Since the viaducts and station would no longer be over the existing parking lot, the impacts of the new facility to the parking lot would be limited to those existing parking spaces impacted by the footprints of the ingress and egress facilities and the newly proposed parking structures. This drastically reduces the number of parking spaces needed in the new parking structures from 800 stalls to roughly 390 stalls.

The proposed station is located over the ultimate freeway on-ramp from Nobel Drive. To perform construction in this location, the ultimate freeway on-ramp should be constructed with the station construction. This will require one cut retaining wall adjacent to the shopping center parking lot as shown on the Caltrans ultimate freeway configuration drawings. Lastly, moving the station eastward drastically improves/straightens the LRT alignment and reduces the overall viaduct length by 28 feet. This also opens up the alignment for alternate construction methods and bridge types, such as using precast structures, etc.

24.0 Evaluate alternative bridge types at viaducts and alignment changes to provide economy of schedule during concurrent construction	**$35,603,000**	**--**	**-8 months**

A cast-in-place prestressed concrete box girder has been selected as the primary typical superstructure type for the project bridges and viaducts. This is the most common superstructure type in California as it provides effective construction cost, predictable seismic performance, and a desirable visual appearance. In the proposed alternative concept, the structures were evaluated to determine the most effective structure type to provide efficiency in schedule. Three viaducts are recommended for alternate structure type. The Nobel Drive Viaduct is recommended to be constructed as a precast girder superstructure. UCSD is recommended to be constructed as a cast-in-place prestressed box girder superstructure. The Genesee Avenue Viaduct is recommended to be constructed as a precast girder superstructure. The schedule is still recommended to have the viaducts constructed concurrently.

By adjusting the alignments to the west at Genesee Avenue and the alignment to the centerline of I-5, 6 stages of construction can be eliminated – therefore allowing more of the project to be constructed in parallel instead of series. This staging change will reduce the overall project schedule by roughly 5 months. This alternative captures the cumulative schedule benefits for a number of the key alternatives included in the “Recommended Alternatives” set, including escalation and time related overhead cost savings.

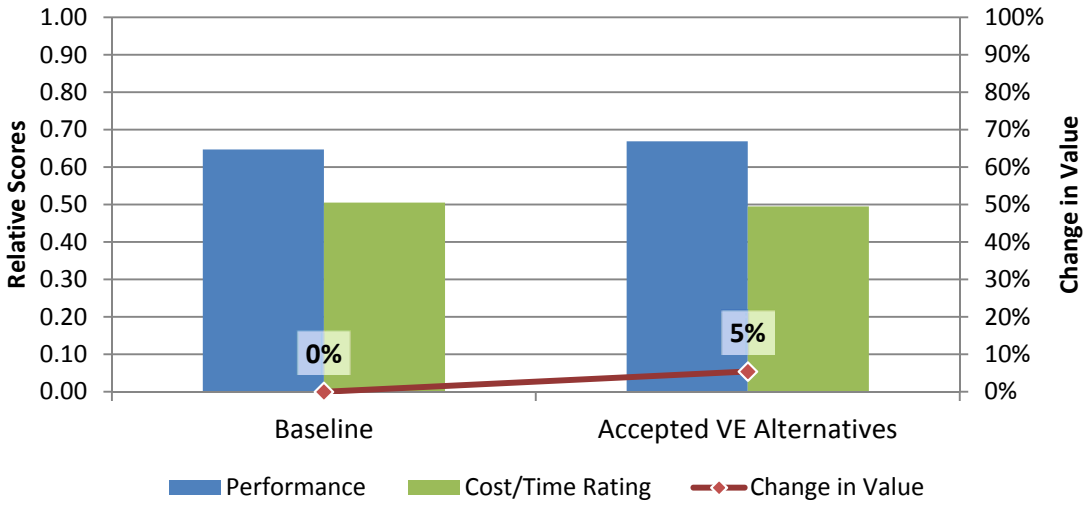
FINAL VE STUDY RESULTS

A summary of the results of the accepted VE alternatives is provided in the following chart and table. The accepted alternatives provide a value improvement of roughly 5%, which includes approximately $14.7 million in first cost reductions, a 2-month reduction in the critical path project schedule, and modest performance improvements of 3%. Performance benefits are primarily realized in temporary traffic operations during construction through modifying the hinge locations on the viaduct structure, improved station operations via enhanced intermodal connectivity and circulation at the Balboa Avenue Station, and improved maintainability as a result of reducing the extent of glass paneling and standardizing barrier railings at platform and barrier edges at select locations throughout the corridor.

The VE alternatives that were determined to require further study would, if implemented, add an additional cost savings up to $67.3 million and 6 months in time savings from the project's construction critical path schedule. If all alternatives undergoing further study are combined with the accepted VE alternatives presented above, the net value improvement would yield an approximate 7% increase in overall project performance and a combined reduction in cost and time of roughly 9%. This would result in a potential 17% net value improvement or a 12% *additional* improvement in value.

The chart below illustrates the relative trade-offs between performance (shown by the blue columns) versus cost and schedule (shown by the green columns). The red value line indicates the net percent change in total value for the accepted VE alternatives relative to the baseline concept. Please refer to the *Project Analysis* section of this report for additional details on this analysis.

Comparison of Value – Baseline Concept and Accepted Value Alternatives



Net Effect of Accepted VE Alternatives

Accepted Alternatives	Initial Cost Savings	LCC Savings	Change in Schedule	Performance Change	Value Change
2.0, 3.0, 7.0, 8.0, 18.0	$14,690,000	$0	-2 months	+3 %	+5 %

VE TEAM

VE Study Team

Name	Organization	Title
Rob Stewart	VMS, Inc.	VE Team Leader - Segments 1/2
Greg Brink	VMS, Inc.	VE Team Leader - Segments 3/4
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Pete Smith	TY Lin	Structural Design
Steve Smith	TY Lin	Civil/Utilities
John Buckley	TY Lin	Constructability
Rob Barton	TY Lin	Structural Design
Jason Lemons	TY Lin	Civil/Traffic
Wade Durant	TY Lin	Constructability
Denis LaClaire	Estrada Land Planning	Urban Planner
Steve O'Neil	Hatch Mott MacDonald	Estimator
Gordon MacDonald	Hatch Mott MacDonald	Systems
Eric Brown	Earth Mechanics	Geotechnical
Shamoun Mahgerefteh	Parsons Brinckerhoff	Estimator

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John Trautmann	Parsons Brinckerhoff	Stations
Rex Plummer	Parsons Brinckerhoff	Segments 1/2
Jack Boda	Kimley Horn	Segments 3/4

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix D

Pre-Construction Services Task 08 Deliverable 08 Comments on SANDAG Value Engineering Study Report

Preconstruction Services Task 08

Deliverable 08

Comments on SANDAG Value Engineering Study Report

Prepared by:

Mid-Coast Transit Constructors

MCTC
Mid-Coast Transit Constructors
Stacy and Witbeck . Herzog . Skanska

Prepared for:

The San Diego Association of Governments (SANDAG)

SANDAG

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Executive Summary

While this report specifically addresses the task set forth in the preconstruction contract it captures only a current snapshot of the ongoing collaboration and list of alternative engineering ideas being developed as the preconstruction partnership phase develops. As the CPM construction schedule process continues new ideas are being discovered to save the project not only money but particularly time on a project hard pressed for it.

The VE report which contains accepted solutions, alternative concepts and other design suggestions has been thoroughly analyzed by MCTC and is addressed in this report in a variety of ways. Structures VE concepts outside of this study are principally captured in a separate VE matrix log submittal that analyzes the type selection of each. This general analysis of the VE study emphasizes the items that provide the most value to the project. There are several alternatives that MCTC felt needed to be further explored before being specifically addressed, these may be addressed in the VE log in the near future. Ideas or features that warrant further discussion are expanded in narrative detail. Presently structures VE workshops and meetings have been established to further develop these structures VE ideas. Additionally, cost analysis of proposed changes will be forthcoming in near term updates to the wall and structures VE Matrices and will be reflected in the monthly progress update of the VE matrix.

Walls and Structures

Many of the VE alternatives have been captured in the ongoing wall and structure matrices/logs that MCTC has developed to help progress the design of these structures.

Retaining Walls

The current retaining wall VE matrix to be submitted as a part of the VE matrix/log shows the current wall type, the newly proposed type and comments on this process. It continues to be progressed and as the baseline construction cost estimate (Task 17) is developed the wall VE matrix will be populated with potential cost and time savings to the project. This information will be useful for three reasons: 1) It will help to establish cost savings and design direction for each wall type 2) It can be used as a tool to show stakeholders such as NCTD the value (cost, schedule, environmental impact, etc) of using a certain wall type 3) It will establish a schedule comparison against currently designed wall types vs those proposed by MCTC to potentially aid reductions in schedule durations.

Accepted VE Alternatives

VE alternatives 2.0, 3.0, 7.0, 8.0 and 18.0 have been accepted as design alternatives and are being incorporated into design progression. MCTC concurs with the acceptance of these alternatives and will continue to provide support as they are further developed. However, some are still expanded upon in the following VE Alternatives section.

VE Alternatives

As mentioned previously, MCTC focused on the largest potential cost and schedule savings to the project as well as components that did not require design support. These are listed below.

1.1 Use precast girders for bridge structures

Baseline Concept:

Typical superstructure types for LRT bridges were identified in the advanced planning study as cast-in-place pre-stressed concrete box girder. It's the most common bridge superstructure type in southern California due to the following factors:

- It is cost effective. The unit cost ($/SF) is lower than other bridge superstructure types
- It has a preferable and predictable seismic performance
- Proven history of construction success for this bridge type in California
- It has a pleasing and recognizable visual appearance
- Long spans and low depth/span ratio allow reducing substructure elements

Alternative Concept:

Precast pre-stressed girders for the simple-span method is the most economical concept for short spans up to 140 ft. The longest non-spliced precast girders used in Southern California on a Caltrans job were 158 ft long. Advantages of this alternative concept are as follows:

- The fast erection of precast girders can speed up bridge construction and potentially reduce schedule. Precast girders can be cast in advance of placement and simultaneously with constructing bridge substructure to allow further schedule advantages
- Installation in urban areas can occur in off-peak and at night to minimize traffic interruptions

- It eliminates falsework except at pier caps
- Improves safety of traffic and construction workers
- Increase product quality
- Maximize vertical clearance
- Leveling resources, especially at viaduct structures to allow staggering and better distribution of labor and materials (falsework and superstructure forms)

The simple-span girders become very heavy and the handling and transportation are complicated for longer spans and post-tensioned spliced girders have to be considered. Some additional advantages for this concept are as follows:

- Longer spans will reduce the number of bents/CIDH piles.
- Minimize bridge superstructure depth to obtain required vertical clearance for traffic or rail road. For the same span the spliced-girder may have much thinner and lighter sections and each precast element is much shorter versus the simple span girder
- Helpful in eliminating superstructure joints to improve structural performance including seismic performance

The disadvantage of precast girders is seen when matching outside curvature and is aesthetically less pleasing when compared against base line concept CIP structures, especially those bridges to be built in highly visible areas. However, precast bath-tub girders provide a flexible option to match bridge curvature where aesthetics and urban geometrics are a significant design consideration.

Economical consideration for choosing the construction concept:

- **San Diego River Bridge.** This is a low level bridge in a wide open area and proposed cast-in-place construction is the most cost effective approach. Span 1 is very close to the existing LRT bridge and construction access in this area is very tight making the installation of precast girders quite challenging. The proposed cast-in-place concept is the preferred superstructure type.

- **Tecolote Creek Bridge.** The currently proposed CIP slab two-span bridge will require extensive work in the flood control channel and eliminating the center bent will result in a cost savings and reduction in the construction schedule. Using precast elements would accelerate construction and eliminate falsework in the channel. Single span bridge with precast elements (girders or void slabs) is the most constructive and cost effective concept for this structure.

- **Balboa Road Bridge.** Single CIP spans of 134 ft can be replaced with precast girders, making this bridge another viable candidate for the

simple-span precast concept. However there is a constructability issue with the abutments and this needs to explored and discussed in greater detail prior to selecting the bridge superstructure type. Currently designed abutments consist of typical bents with a single CIDH pile, columns and bent caps with Type 5 retaining walls immediately behind the abutments. Simplifying abutments and constructing a full height seat abutment would lengthen the span and require post-tensioned spliced girders.

- **Rose Creek South & North Bridges.** Short spans on these two bridges, up to 112' in length, can be accommodated with the simple-span precast concept. Advantage of this concept is eliminating falsework in the environmentally sensitive Rose Creek area. However the construction access and sequencing will make it a challenging candidate for delivery and erection of long precast girders and the best concept has to be further analyzed.

- **Rose Creek LRT Overhead.** The proposed cast-in-place box girder concept has the following disadvantages :
    - Extensive and complicated falsework. The entire Frame 3 is a tunnel falsework section over the LOSSAN corridor
    - Working within the environmentally sensitive Rose Creek area
    - The entire bridge is within the prohibited railroad zone and it will cause inefficient productions driving labor costs up.
    - Safety concern for workers and falsework near live trains
    - The construction work within Frame 3 will depend on rail road AWW's as they will be required for each phase of the falsework construction – erection, grading and stripping. There are a limited number of available AWW's and limited seasons that are not controlled by the CM/GC that could impact the schedule in a near critical path area of the project
    - The cast-in-place construction of rail road grade separations is discouraged by the railroad agencies and the proposed construction may require special approval which could impact construction start
    - Falsework will have a negative impact on vertical temporary clearance and it could result in changing profile grades and extending substructure depths
    - An extended construction schedule will have a negative impact on the overall project schedule as preliminary CPM schedules depict this bridge very close to the project critical path

  The simple-span precast concept will mitigate or eliminate the above concerns. It will potentially accelerate the construction schedule several months in this area although not necessarily positively impact the critical path. It, eliminate falsework except at outrigger bents, and reduce an impact to the LOSSAN corridor during bridge construction.

Disadvantage of the precast concept is the need for additional CIDH piles and substructure in order to keep spans within 140 ft, the maximum simple span for precast girders. The cost comparison has to be further studied upon receiving preliminary plans for the precast concept.

- **Charmant Drive South & North.** Span lengths are up to 134 ft long and they would allow single girders without splices. Both bridges are in the highly visible area adjacent to I-5 and they lead to the cast-in-place viaducts. They would require a special treatment of the outside girders to match the cast-in-place construction which will drive the construction cost higher than the proposed concept. The proposed cast-in-place concept is the preferred superstructure type.

- **Nobel Drive Viaduct.** Complicated and curved geometry with tight radii as low as 500 ft, long spans over I-5 and on the entire viaduct, tight crane access in some areas will make the precast concept extremely hard to implement. The proposed cast-in-place concept is the preferred superstructure type.

- **UCSD Viaduct.** The proposed cast-in-place concept is the preferred superstructure type for the same reasons listed for the Nobel Drive Viaduct.

- **Genesee Avenue Viaduct.** This viaduct is the best candidate for the precast concept for the following reasons:
    - Bridge geometry with radii equal or greater than 1,000 ft will allow using long linear precast elements
    - Easy access from the freeway to the job site and ability to drive up the bridge will help the installation of precast girders.
    - Falsework is not required and it will maximize temporary vertical clearance over traffic
    - Eliminating the hinge construction which with current design will require keeping falsework in place for an extended period of time
    - Precast girder installation can occur in off-peak and at night to minimize traffic interruptions in this congested traffic area
    - The foot print area below the bridge is reduced and it will allow better traffic flow and keeping turn pockets open
    - Changing the superstructure type will level material and labor resources
    - Accelerating the construction in this reach would potentially create a positive impact on adjacent businesses and schools
    - This viaduct is on the project critical path and faster precast construction could benefit the entire project schedule

Matching the curved shape of the cast-in-place box girder bridge is the biggest challenge here. MCTC is pursuing different precast options to provide an aesthetically pleasing structure in this high profile area:

- Enhancing precast girders with aesthetics features on the outside face such as logos, murals and other details specific to the community.
- Attaching a precast concrete façade as shown in the 35% structural drawings.
- Using precast bath-tub girders to match the cast-in-place bridge curvature.

MCTC will continue pursuing the above listed concepts and will be listed in the VE Matrix/Log to be updated for bi-weekly meetings with designers and constructability reviews of structures plans as they come in. A cost comparison between different bridge concepts will be provided to SANDAG for their review as our continuous effort and commitment to reduce costs on the project.

1.2 Use precast segmental box girder for select structures

Baseline Concept:

Typical superstructure type for LRT bridges were identified in the Advance Planning Study as cast-in-place pre-stressed concrete box girder. It's the most common bridge superstructure type in Southern California due to the following factors:

- Cost effective. Unit cost ($/SF) is lower than other bridge superstructure types
- Preferable and predictable seismic performance
- Long history of building this type of the bridge in California
- Pleasing and recognizable visual appearance
- Long spans and low depth/span ratio allow reducing substructure elements

Alternative Concept:

Precast segmental concrete box girders for the viaduct bridges is a concept that is not considered for shorter cast-in-place bridges south of the Nobel Drive Viaduct. They are simply too short to justify the large fixed expense of the precast segmental construction that would include numerous mobilizations. There are advantages to using this alternative concept on longer spans, they are as follows:

- The fast erection of precast segments can speed up bridge construction and reduce schedule. Precast segments can be cast in advance of placement and simultaneously with constructing bridge substructure to allow further schedule advantages.
- Installation in urban areas can occur in off-peak times and at night to minimize traffic interruptions
- It eliminates falsework except at pier caps
- Improves safety of traffic and construction workers
- Increased product quality; casting at an off-site facility in controlled environment results in higher concrete quality and durability.
- Maximizes vertical clearance
- Longer spans will reduce the number of bents/CIDH piles

Economic considerations for choosing this construction concept:

- Higher construction cost
- The spliced-girder bridge versus the precast segmental bridge with the same span has a thinner and lighter section and requires much less prestressing. In most cases the spliced-girder bridge will be less expensive than the precast segmental bridge, in addition to having the advantage of thinner super structure.
- The segmental construction requires a large precasting yard with storage capacity. The viaducts are located in the urban area without an open area suited for the precast yard
- This is not typical bridge construction in Southern California and local precast fabricators are not set up for casting precast segments
- Specialized equipment and knowledge for this type of the bridge construction is not available locally and it will drive up the cost
- Precasting segmental units will require a high level of survey accuracy and QC/QA control
- A more complex viaduct design will increase engineering efforts and cost
- Smaller radii curves on the Nobel and UCSD viaducts will be difficult to construct
- Caltrans may have concerns with the precast segmental construction over I-5
- The segmental construction is linear and less flexible and any issues with CIDH piles or substructure will delay the superstructure work
- Significant up front capital expenses make it infeasible to work in several headings

Economical consideration for choosing the construction concept:

The alternative precast segmental bridge concept is not considered as the preferred superstructure option on the project due to the above listed disadvantages.

2.0 Perform load test to optimize depth of piles

Baseline Concept:

The CIDH pile design is based on Caltrans Guidelines given in the 1999 (O'Neill and Reese) method which is the most commonly used method in practice to calculate the side resistance of CIDH piles. The value of the side resistance varies with the soil and construction method. Empirical factors are multiplied into design equations to account for the variability in side resistance. However, factors or equations chosen for design are at the discretion of designers and chosen code and design values will vary and are intentionally left conservative. It is well accepted that the 1999 method provides a conservative ultimate side resistance and for this reason Caltrans typically does not require load testing of CIDH piles when the 1999 method is used to determine side resistance.

Alternative Concept:

It is anticipated that the side resistance of CIDH piles on the project will be greater than the side resistance obtained by the conservative 1999 method. The design length of CIDH piles is dependent on the soils encountered and soil conditions that will be encountered on the project, particularly at the viaduct structures. These soils are expected to have a significantly higher capacity than would be estimated by the 1999 method.

Performing actual load test with O-cell will providing specific soil data that will establish the value of side resistance mobilized during the load test and the actual level of conservatism of the 1999 method. This concept will provide the following benefits for the project:

- Reducing CIDH lengths and overall foundation cost.
- Dependent upon results, potential reduction in overall viaduct construction schedule due to the shortening of these CIDH piles
- Potential reduction in risk associated with the CIDH construction

Economical consideration for choosing the construction concept:

MCTC recommends implementing the alternative concept and will work closely with designers on developing the load test protocol. MCTC has already forwarded information from UTA's North Temple Bridge to the designers to assist in developing this program. The load testing is a critical early work item that needs to be performed prior to engaging in full construction to allow using load test data to develop design parameters and methodology for the CIDH pile design. Performing the testing early will maximize savings in material procurement, often times the majority of these materials are already purchased prior to production piling so at that time this will be sunk cost.

3.0 Perform base grouting to eliminate load grout improvements

Baseline Concept:

End bearing of CIDH piles is based on Caltrans recommendations for the following types of the CIDH construction:

- "Wet", below groundwater level. End bearing is neglected.
- "Dry". End bearing is limited to a fraction of the total available soil capacity.

This approach is very conservative and neglecting end bearing will extend CIDH pile lengths.

Alternative Concept:

A post grouting of the base of CIDH piles below the tip elevation will decrease displacement and significantly increase the axial capacity. Post grouting will ensure adequate end bearing to be considered in the nominal pile resistance.

Performing actual load test with O-cell will provide specific soil data and it will establish the magnitude of the end bearing and load-deflection curve for the end bearing after post-grouting. This concept will provide the following benefits for the project:

- Reducing CIDH lengths and overall foundation cost.
- Accelerate overall bridge schedule due to shortening CIDH piles.
- Reducing a risk associated with the CIDH construction.
- Eliminating ground improvements at bents for the San Diego River Bridge.

Economical consideration for choosing the construction concept:

MCTC will implement the alternative concept and work closely with designers on developing the post-grouting protocol and provide info from current Caltrans jobs that employ this concept.

4.0 Shift Genesee Avenue Viaduct from centerline of road to southbound side

MCTC agrees with the assessment of VE alternative 4.0. Changing the location of the viaduct on Genesee would cause a major redesign of both dry and wet utilities as well as roadway construction. This would negatively impact the schedule and overall coast of the project. Further review of this alternative shows that the right of way needs would impact a significant amount of properties along the corridor.

5.0 Reduce design speed on Genesee Avenue to 40 mph and eliminate crash cushions

Upon review of proposed VE Alternative 5.0 to eliminate the concrete barrier along Genesee Avenue, MCTC believes that this is a viable VE opportunity that should be further explored. In addition to the cost savings associated with this VE, the general aesthetics along Genesee Avenue would be greatly improved with the removal of the barrier while eliminating future maintenance for the city as these areas over time often collect trash and debris between the barriers that must be periodically removed. With these benefits in mind MCTC recommends that this VE alternative be further discussed to better understand the pros and cons.

6.0 Modify station platform canopies and integrate photovoltaic panels

In reviewing the method for calculating the initial cost savings associated with this VE alternative it appears that there is in error in the cost calculations. Essentially the roofing material which is either a glazed roof or an architectural sheet metal design would be the only thing removed from the cost of shelter structure. These roof styles may range from $40/SF to $100/SF. Thus one 12ft x 52ft canopy at a median range of $70/SF would cost $43,680 compared to the $207,000 for Large Shelters and $352,000 for Large Canopy Glazed Roofs used in the comparison. Please see the following table representing the adjusted initial cost savings per our understanding.

Stations	Unit	Qty	Cost/Unit	Total
Tecolote	Ea	6	$43,680	$262,080
Clairemont	Ea	6	$43,680	$262,080
Balboa	Ea	6	$43,680	$262,080
VA Medical Center	Ea	6	$43,680	$262,080
UCSD East	Ea	6	$43,680	$262,080
UCSD West	Ea	6	$43,680	$262,080
Nobel	Ea	6	$43,680	$262,080
Executive	Ea	6	$43,680	$262,080
UTC	Ea	6	$43,680	$262,080
Subtotal Baseline				$2,358,720
Proposed Solar Canopies				
Steel Support Frame	Ea	54	$9,000	$486,000
Solar Panels	Ea	54	$17,000	$918,000
Power Storage Facilities	Ea	9	$15,000	$135,000
Subtotal Solar Panels				$1,539,000
Total Savings				$819,720

The lifecycle cost savings are subject to the maintenance needs of the solar panels and the infrastructure for storing and changing the energy into usable power. On page 98 of the VE report the cost savings in power costs alone with replacing the panels every 20 years is significant enough to continue to explore this VE alternative although it may add time to the overall CPM schedule.

9.0 Reduce the width of platforms from 15 feet to 13.5 feet

To better analyze this VE alternative it should be split into two categories; at grade platforms and aerial platforms. One difference between the aerial and at grade platforms is that the aerial platforms are only ankle height above tracks that are embedded in the concrete making it simpler to reduce congestion on a 13.5' platform by merely expanding the pedestrian track crossings and ramps. See figure 2.

In the projects current design there are actually four at grade stations (5 listed in VE alternative) and five aerial stations as opposed to the four listed in the VE alternative. MCTC believes that the cost savings may be less than listed in the initial cost estimate as the cost for the aerial substructure is combined in the SF cost savings of the platform. If SANDAG wishes to pursue this VE MCTC would assist in doing a cost estimate to further support an investigation of this alternative.

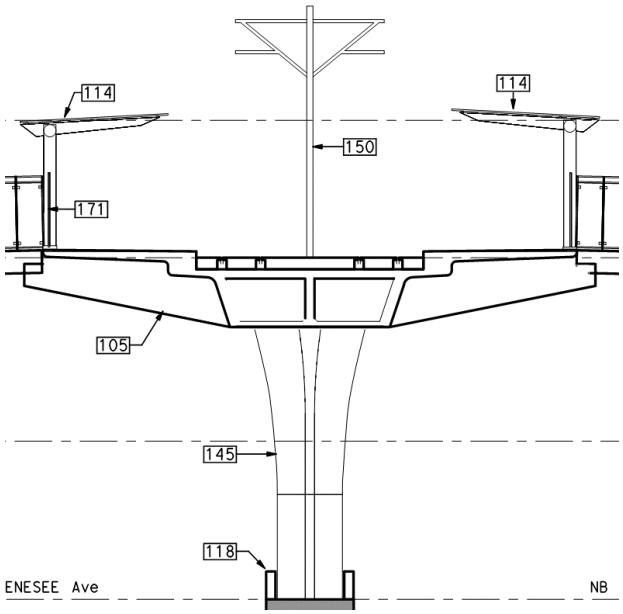


Figure 1 depicts the short platform height and embedded track on an aerial platform

10.1 Integrate Nobel parking station aerial structure with parking structure

MCTC has no additional comment about this concept.

10.2 Locate parking under aerial structure at Nobel Drive Station

MCTC has no additional comment about this concept.

11.0 Utilize soldier pile and lagging wall in lieu of the Type 1 retaining wall at select locations

MCTC believes that a soil nail option is generally preferable in a grade cut situation. This alternative is under evaluation for some of the walls, however, any wall requiring shoring for a Type 1 wall would be considered to change to a soldier pile if a soil nail wall is not feasible. In regards to retaining wall 402R-C, which was changed to wall 500R-C in the 35% documents, the wall was shortened and the piles in the original design were eliminated from the footing.

12.0 Eliminate Type 1 gravity retaining wall at bike path and install fence only

Before concurring with the rejection of this alternative MCTC would like to work with the project teams to investigate if lowering the bike path and eliminating this gravity wall would add an additional row of soil nails in the west walls 609L-C and 614L-C. This has been previously discussed in our Retaining Wall VE

Meetings to date. If final clarification points to additional nails needed than MCTC would agree that it would be better to build the gravity wall.

13.0 Eliminate retaining wall No. 271R-C along Morena Boulevard

From discussions with Parsons Brinckerhoff, this alternative has been partially incorporated into the latest design by using slope paving to reduce the amount of ROW needed and MCTC agrees with this direction of the design and will review the new design once the plans have been completed.

14.0 Eliminate retaining wall at VA Medical Center Station and build station on elevated structure

MCTC is investigating this concept in further detail and will provide comment in the VE matrix update.

15.0 Use T-wall retaining walls in lieu of standard MSE retaining walls in fill situations

This alternative is a concept that should still be considered due to the fact that NCTD concurrence for using MSE designed retaining fill walls for support of the Lossan tracks is yet to be attained. With this fact in mind, T-Walls could be considered for all fill walls supporting LOSSAN Heavy Rail tracks. The cost of T-Walls and cellular fill is more expensive than MSE walls with standard backfill, but if this is the only acceptable alternative it would make sense to use this wall type.

16.0 Shift Rose Creek Channel to the east

This concept would require a major re-design to this area which is a near critical path portion of the project and would potentially cause major delay to the start of work in this area and subsequently the project finish date. MCTC agrees with the rejection of this concept at this stage in the project design.

17.0 Use drop in bridge construction at Rose Creek to allow single stage construction

Baseline Concept:

The proposed superstructure type for the Rose Creek LRT Overhead Bridge was identified in the Type Selection Memo as Cast-in-place pre-stressed concrete box girder. It's the most common bridge superstructure type in Southern California due to the following factors:

- Cost effective. Unit cost ($/SF) is lower than other bridge superstructure types.
- Preferable and predictable seismic performance
- Long history of building this type of the bridge in California
- Pleasing and recognizable visual appearance
- Long spans and low depth/span ratio allow reducing substructure elements

Alternative Concept:

Using precast pre-stressed girders in Frame 3 for the spans over the LOSSAN tracks. Advantages of this alternative concept are as follows:

- The fast erection of precast girders can speed up bridge construction and potentially reduce schedule. Precast girders can be cast in advance of placement and simultaneously with construction of the bridge substructure to allow for schedule advantages
- Eliminates complicated falsework over the live LOSSAN tracks
- Improves safety of traffic and construction workers
- Maximizes vertical clearance and eliminates a negative impact of the cast-in-place construction on the basis' of vertical temporary clearance
- The precast construction of rail road grade separations is recommended by the Railroad Agencies
- The cost for falsework at this location is significantly higher than average due to the operational considerations which force falsework tunnels. Additionally working around live track will negatively impact production at this location, because of these factors precast girders should not cause a cost increase at this location.

Economical consideration for choosing the construction concept:

The proposed alternative concept is an extension of VE Alternative 1.1 with a limited use of the precast girder construction. MCTC proposed using precast girders on the entire bridge as it was outlined in VE Alternative 1.1.

18.0 Assess viaduct hinge locations to minimize falsework at traffic intersections

Baseline Concept:

Hinges at the viaducts are located adjacent to spans over busy intersections which will require keeping falsework over these intersections for a long period until the hinge construction is completed.

Alternative Concept:

Modify hinge locations by moving them away from intersections to reduce the duration that falsework needs to be in place. Advantages of this alternative concept are as follows:

- Reduces the amount of time that falsework is in place at busy intersections
- Improve safety and flow of traffic

Economical consideration for choosing the construction concept:

Hinge locations selected to be modified in this alternative are located on the Genesee Viaduct. MCTC proposed using precast elements at this bridge as it was outlined in VE Alternative 1.1. This concept will eliminate the construction of hinges and falsework throughout the entire Genesee structure.

MCTC will work closely with designers and provide constructability reviews of hinge locations on upcoming structures plans in order to minimize impacts on busy intersections.

19.1 Elevate alignment over La Jolla Colony Drive

MCTC does not see this as a benefit to the project. The significant change to the alignment of LRT would cause a conflict with existing overhead utilities and not provide any added benefit to the impacted housing complex. This alternative would add a large retaining wall that would limit access to the right of way.

19.2 Elevate alignment over La Jolla Colony Drive and shift Lossan flyover north

This idea was proposed some time ago, and MCTC proposed a similar alternative for shifting the LRT flyover south to Balboa. The current location of the LRT flyover structure is necessary in order to improve track geometry and increase operating speeds in this area on the LOSSAN tracks. MCTC understands the importance of addressing this issue and concurs with the rationale.

20.0 Move Guideway to centerline of I-5 between just south of Gilman to Nobel Drive Station

Although the concept shows significant initial cost savings MCTC concurs that this would be a very difficult concept to sell to Caltrans not only due to impacts during construction but also because the alignment would be a permanent easement potentially limiting future capacity of the freeway. Additionally the

freeway improvement that would be needed, as well as access and constructability issues associated with this space, would add costs that may cut into the potential savings shown. Finally as mentioned in the VE alternative summary, additional noise impacts to the surrounding community would be significant as traffic travel was much closer to communities through the area.

21.0 Lower the grade over Nobel Dr. Station

Although there seems to be some value in this VE alternative the estimated concrete volume savings seem to be based on high calculations and real quantity savings may not be as high as projected. If SANDAG wishes to pursue this VE MCTC can provide additional quantification and pricing when additional information is available.

22.0 Shift the alignment adjacent to I-5 edge of shoulder at Nobel Drive using Caltrans right-of-way

The proposed alternative appears to be an improvement over the base line concept considering it reduces impact to the shopping center and eliminates half of the parking structure. Similar to VE 20.0 this is a complete redesign and it will requiring Caltrans approval that could delay the project.

23.0 Reduce the vertical profile of Executive Drive Station

MCTC has no additional comment about this concept.

24.0 Evaluate alternative bridge types at viaducts and alignment changes to provide economy of schedule during concurrent construction

Baseline Concept:

The proposed superstructure type for the project bridges was identified in the Advance Planning Study as Cast-in-place pre-stressed concrete box girder. It's the most common bridge superstructure type in Southern California due to the following factors:

- Cost effective. Unit cost ($/SF) is lower than other bridge superstructure types.
- Preferable and predictable seismic performance
- Long history of building this type of the bridge in California
- Pleasing and recognizable visual appearance
- Long spans and low depth/span ratio allow reducing substructure elements

Alternative Concept:

Using precast pre-stressed girders and adjusting alignments along the viaducts will reduce the overall project schedule.

Economical consideration for choosing the construction concept:

MCTC proposed using precast elements at selected bridges as it was outlined in VE Alternative 1.1 to reduce the project duration.

MCTC will work closely with designers and provide constructability reviews of bridge alignments on upcoming structures plans to further improve the schedule.

25.0 Utilize microwave towers in lieu of PTC fiber optic cable during construction

MCTC has no additional comment about this concept.

26.0 Eliminate plinth and use grout patches for direct fixation

Although this concept might be a good option in conjunction with a precast segmental structure, it doesn't seem to make sense without utilizing that concept. VE Alternatives 1.1 and 1.2 don't recommend precast segmental as the preferable option for any of the bridges or viaducts on the project.

Other Considerations

MCTC also reviewed and commented on several of the other design considerations listed in the VE report. They are discussed in further detail below.

DS-2 Evaluate project impacts due to concurrent construction activities

MCTC agrees that the proposed construction schedule included in the VE Report indicates an aggressive duration that requires work in many areas to start and progress simultaneously, representing elevated risk and a significant resource draw. Our approach to the work will utilize a balanced approach to address this concern including; 1) proposing an optimized overall construction duration 2) utilizing a comprehensive contracting plan to augment our own self-perform crews with subcontract resources for bridge and other work items and 3) employing early work packages where possible to reduced schedule risk.

DS-3 Coordinate work windows and other construction in the corridor

MCTC agrees that the railroad related coordination along the LOSSAN corridor is critical to successfully completing the Mid Coast Segments 1 and 2, SDRDT, and EMDT projects. MCTC has initiated monthly working sessions with SANDAG, NCTD, and TASI to lay the foundation for successful coordination. The intent of the ongoing work session is to create broad understanding of the proposed improvements, the current operating patterns and procedures, and generally foster a team oriented work environment. Discussions include draft staging plans, potential temporary track alignments, projections of flagging needs, adjacent projects, optimization of the AWW opportunities, and innovative solutions such as physical barriers.

DS-4 Fast track the LOSSAN project through early work packages to CM/GC

MCTC agrees that there are several advantages to advancing early work packages including, but not limited to utilities. Advanced work items can benefit critical path work sequences and reduce the ultimate volume of work that must be done concurrently, as stated in DS-2. Intangible benefits include the momentum shift and urgency that is created by beginning to move the project forward. In addition to the utility early work package(s), MCTC is proposing early work including at a minimum

1) CP Rose installation,
2) Wall installation at Balboa Park and Ride to facilitate embankment and utility work,
3) Wall installation and bike trail relocation at 52/5 to facilitate utility relocations,
4) Drilled shafts especially at the viaduct,
5) SDRBDT and ELMDT – the entire projects as early work, etc.

DS-5 Maximize benefit of CM/GC

MCTC agrees that it is a project goal to maximize the benefits of the CM/GC method including contractor design review, cost certainty through iterative cost estimates, team oriented solutions in all areas, and schedule benefits through early work.

DS-6 Implement a Utility Task Force approach to manage utility relocations

Design Coordination

SANDAG, PMC and the Designers have done a great job performing research via historical records, pothole exploration and coordination with wet and dry utility owners. MCTC supports the recommendations of the VE report to "Elevate the utility coordination position to a high level in order to ensure improved visibility and authority."

Wet Utilities

MCTC met with the PMC and PB design team to discuss the water and sewer systems and proposed relocations. MCTC made comments and recommendations during the formal constructability reviews to reduce the scope of work for various water and sewer relocations to reduce project cost and schedule. The largest savings opportunities exist for systems S37.1, S50.1, S50.2, S63.1, and S63.2.

Dry Utilities

PB is developing a composite utility plan for wet and dry utilities. MCTC recommends all dry utility relocation drawings are sent to MCTC for constructability reviews, and to the PB/HDR/KSW utility mapping team for composite utility mapping and civil teams for conflict analysis with the permanent railroad infrastructure.

SDG&E electric and/or gas relocations are required for the Mid-Coast project in Segments 1&2, Segments 3&4, EMDT, SDRDT and the Rose Canyon Cycle Track projects. Current SDG&E relocation coordination meetings are attended by team members from SANDAG, PMC, PB/KHA, Dokken, Butsko, and MCTC. MCTC recommends the SANDAG project managers nominate one SDG&E champion to coordinate with the SDG&E designers, PB/HDR/KSW and keep Greg Gastelum, Frank Owsiany, Sharon Humpheries, Pete Dablaing and Chris Carterette informed of the SDG&E relocation progress. A candidate for this champion is Andrew Holmquist from MCTC.

New or relocated electrical services are required for the Mid-Coast, EMDT and SDRDT projects. MCTC recommends the SANDAG project managers nominate Chip

Finch to coordinate with SDG&E for new services for the TPS sites, stations and other low voltage drops.

Construction Coordination

MCTC looks forward to developing a management and supervision org chart for construction with SANDAG.

Wet Utilities

MCTC will self-perform or sub-contract the water and sewer relocations. If SANDAG and MCTC elect to sub-contract all water and sewer relocations, MCTC recommends mobilizing MCTC supervision to manage the wet utility sub-contractors. The wet utility sub-contractors might need some support from MCTC that could include crane picks, pioneering/access, yard development, traffic control, and general support.

Dry Utilities

MCTC recommends mobilizing MCTC supervision to manage the dry utility contractors. MCTC recommends that the project surveys and maps the as-built locations of the dry utility poles and structures installed as a part of the dry utility relocations. If the dry utility relocation will be a ductbank installed under the guideway, MCTC recommends the project provides supervision to ensure the dry utility is installed at a prescribed depth as to not interfere with the heavy rail and light rail guideway section or the joint trench duct bank.

Recommendation

The current utility coordination team is very large and might have trouble effectively managing the constructability review and construction oversight of the utility relocations. MCTC has developed a utility matrix that is inclusive of the priority, description of utility, real estate requirements, scheduled need by dates, environmental clearances, environmental resource agency permits, construction permits, and cost sharing responsibility for each dry utility work order and wet utility system. MCTC is best suited to manage the wet and dry utility relocations via use of this tool and meetings with appropriate persons. MCTC will work with SANDAG to manage the cost and schedule risks. The wet utility early work steps and schedule is included with this submittal, the dry utility matrix is also at the end of this report and will also be included as a part of the VE log/matrix submittal.

Other Coordination

MCTC recommends SANDAG project managers for Mid-Coast Segments 1&2, EMDT, and SDRDT nominate one person to oversee and perform coordination with NCTD.

MCTC recommends SANDAG project managers for Mid-Coast, EMDT, and SDRDT nominate one person to oversee and perform coordination with MTS.

MCTC recommends SANDAG project managers for Mid-Coast Segments 1&2, Mid-Coast Seg 3&4 and the Rose Canyon Cycle Track projects nominate one person to oversee and perform coordination with Caltrans.

MCTC recommends SANDAG project managers for Mid-Coast Segments 1&2, Mid-Coast Segments 3&4 and the Rose Canyon Cycle Track projects nominate one or two people to perform coordination with the City of San Diego water, sewer, storm drain, BMPs, bike paths, roadway, traffic, street lights, street trees, real estate and park & recreation departments.

Idea Evaluation

The idea evaluation section of the VE Report provides a roadmap of the evaluation process, criteria selection and summary of idea valuations. Many of the initial ideas developed in early brainstorming sessions and listed in this section have been accepted and are being incorporated, are being developed as a VE alternative, or have been dismissed as a viable option for the project. MCTC has identified multiple concepts to discuss further or even resurrect as a viable option for a limited piece of work on the project. These ideas are listed below.

GT-2 Consider ballasted track in lieu of direct fixation on structures (DIS)

As noted in the VE idea summary list, ballasted track across bridges is typically more cost effective than direct fixation track on structures less than five hundred feet in length. However, this is not always the case. Direct Fixation track eliminates about 1.5 tons of dead load per track foot and can also save six to twelve inches of head height for traveling rail cars. Utilizing this concept can sometimes allow precast girders to be used to create longer bridge spans and eliminate piers. MCTC recommends this approach be proposed at the Tecolote Creek Bridge to eliminate the center bent in the creek bed. This approach is not

unique to light rail construction. Commuter and freight can use the same principals to reduce dead load on longer bridges. The LB Foster Load Master DF Fastener is rated for commuter and freight applications and a slightly heftier plinth will still eliminate the above stated 1.5 tons per track foot of dead load. If this idea is used in combination with a bulb tee design and slab track style DF track arrangement spans of one hundred feet can be reached while still saving the six inches to 12 inches of head height.

IMCO-7 Reduce number of shooflys by optimizing the construction staging

MCTC agrees with this concept, and it is directly tied to the approach for building a single LOSSAN track in permanent location first. Analyzing existing meet points and control points along this corridor there are 5 places (CP Friar, CP Tecolote, CP Cudahy, CP Morena and CP Elvira) where trains can change tracks to facilitate construction. Upon completion of the LOSSAN improvements through the EMDT contract there are only 2 places (CP Cudahy and CP Rose) within the project limits that would allow trains to change tracks. Subsequently the construction of Mid-Coast LRT must be phased in with the EMDT work to mitigate major impacts to a new double track alignment and avoid impacting headways and major meet points as trains come into Old Town Station and the downtown area.

Conclusion

As ideas are created, explored and fully vetted the process will continue to produce new concepts to shorten schedule and reduce costs while providing a quality product as well as minimizing impacts to the nearby community. In addition to this deliverable MCTC is developing the baseline estimate which will produce valuable information including accurate quantities, production rates, and additional insights that will be incorporated into VE matrix updates. The CM/GC team will continue to partner together with design and owner teams to address newly encountered challenges such as NCTD concurrence of design concepts, difficult project conditions such as constrained ROW and other difficult engineering issues such as scour from adjacent waterways and structures immersed in unsuitable soils. This process will continue to happen on a daily basis to help mature the designs of the various contracts. MCTC understands the importance of prioritizing with the project teams and insuring that feedback regarding past experience, constructability feasibility, cost analyses and other supporting input is incorporated as the teams develop new VE concepts.

MID-COAST CORRIDOR TRANSIT PROJECT

EARLY WET UTILITIES WORK STEPS AND SCHEDULE

ESTIMATED START: FEBRUARY 2, 2015

Team	Step	Item	Responsible	Week Starting Date: Before 13-Oct-14	6-Oct-14	13-Oct-14	20-Oct-14	27-Oct-14	3-Nov-14	10-Nov-14	17-Nov-14	24-Nov-14	1-Dec-14	8-Dec-14	15-Dec-14	22-Dec-14	29-Dec-14	5-Jan-15	12-Jan-15	19-Jan-15	26-Jan-15	2-Feb-15	9-Feb-15	16-Feb-15	23-Feb-15	2-Mar-15	9-Mar-15	16-Mar-15	23-Mar-15	30-Mar-15	Down the Road
Env. Clearance	1	MCCTP Environmental Clearance	Leslie								Env																			
	2	SDG&E Environmental Clearance	????																											
	3	SDRDT Environmental Clearance	Cheryle	Env																										
	4	EMDT Environmental Clearance	Cheryle																		Env									
Resource Agencies	5	Field Meeting with Resource Agencies	Keith G & Cheryle		Field																									
	6	California Coastal Commission	Adrianne (LSA), Erich (BRG)								Submit																		Approve	
	7	Army Corps of Engineers (404, Individual or Nationwide)	Adrianne (LSA), Erich (BRG)								Submit																		Approve	
	8	California Dept of Fish & Wildlife	Adrianne (LSA), Erich (BRG)								Submit																		Approve	
	9	Regional Water Quality Control Board (401)	Adrianne (LSA), Erich (BRG)								Submit																		Approve	
	10	US Fish & Wildlife	Adrianne (LSA), Erich (BRG)								Submit																		Approve	
	11	Mitigation Plan	Keith G																		Mit Plan									
Design	12	Seg A1 95% Design to Navy	Dan A & Brad						Mtg				A1																	
	13	Seg A2 (MCCTP) 95% Design to City of SD (S. of Balboa)	Dan A & Brad										A2																	
	14	City of SD 510 Form	Sharon																											
	15	Seg A3 (EMDT) 95% Design to City of SD (Balboa to SR52)	Dan A & Brad																A3											
	16	City of SD Environmental Approval of 36" Water	Dan A & Brad																Env App											
	17	Seg B 95% to City of SD	Dan A & Brad						B																					
	18	Seg B Design Exception by SANDAG, MTS, City of SD	Dean, Brett, Tim A, Ziad, Eric R, Dan A & Brad					B																						
	19	Seg C 95% to UCSD	Dan A & Brad					C																						
	20	Seg D (Genesee) 95% Design to City of SD	Dan A & Brad						D																					
	21	MTS Acceptance	Bart & Brett			MTS																								
	22	NCTD Acceptance	Bart & Brett					NCTD																						
	23	SANDAG Approved for Construction	Bart & Brett							SANDAG																				
Cost Sharing & Agreements	24	Define Financial Responsibility	Dean, Frank, Laura & Allison															Fin Resp.												
	25	Notice to Utility Owners	Dean, Frank, Laura & Allison																Notices											
	26	Cost Allocation Agreements	Dean, Frank, Laura & Allison																	Allocation										
	27	Submit Purchase Order - Seg A/B	Dean & Laura						PO																					
	28	Submit Purchase Order - Seg D	Frank & Laura					PO																						
	29	Develop Capital Improvement Program (LOSSAN)	Allison & City of SD	CIP								Thanksgivin					Christmas	New Year												
	30	Develop Capital Improvement Program (Mid-Coast)	Allison & City of SD								CIP																			
	31	Submit Reimbursement Agreement to City of SD (LOSSAN), Committee Reivew, Council Reivew, Mayoral Veto	Sharon, Allison & City of SD																											City of SD
	32	Submit Reimbursement Agreement to City of SD (Mid-Coast), Committee Reivew, Council Reivew, Mayoral Veto	Dean, Frank, Allison & City of SD																											City of SD
	33	Utility Design Oversight Reimbursement Agreement with UCSD	Frank, Patti, Allison & UCSD																		UCSD									
	34	Construction Agreement with US Navy	Patti & Navy																											Navy
Contract/GMP	35	Develop Draft General Provisions	Dan H				GP																							
	36	SANDAG Construction Management Review of General Provisions	Dan H					CM																						
	37	SANDAG Legal Review of General Provisions	Dan H						Legal	Legal	Legal																			
	38	SANDAG Contracts Review of General Provisions	Dan H										Contracts	Contracts	Contracts															
	39	Develop Contract	Dan H						Contract	Contract	Contract		Contract	Contract	Contract															
	40	Develop RFI and Product Submittal Process	Dan H												RFI															
	41	Develop Change Management Process	Dan H												CO															
	42	Sign up ICE - Hatch Mott McDonald	Dan H			ICE																								
	43	Advertise to Subs	Andrew								Advertise																			
	44	Assemble Sub Bids	Andrew										Estimate	Estimate	Estimate			Estimate	Estimate											
	45	Negotiate GMP	Dan H, ICE, MCTC																	Negotiate										
	46	Execute Contract	John, Greg, Sharon, Angela & Clayton																		Execute									
Construction Permits	47	MTS/NCTD Joint Entry Permit	Brett & Andrew												Joint ROE															
	48	City of SD Excavation Permit	Andrew												City of SD															
	49	PEER Report to Caltrans	Karen, Nirupa & Allison								CT Sub																			
	50	Caltrans Longitudinal Encroachment Permit	Karen, Allison & Andrew																						CT App					
	51	UCSD Construction Agreement	Frank, Patti & Andrew																		UCSD									
	52	Private Right of Entry (Navy & W58.1 at Santa Fe Cul-du-Sac)	Chip W & Andrew				ROE																							
Construction	53	Construction Schedule	Andrew					Schedule																						
	54	Mobilize Supervision	Terry M.															Mobilize												
	55	Construction Work Plan	Angel, Brad & Andrew																	Work Plan										
	56	Go to Work	Angel, Brad & Andrew																			Construct								

UTILITIES MATRIX

Counter	MCTC Priority List			Utility							Description of Work	Proposed Description of Work	Real Estate Agreements		Schedule									Environmental Clearances			Resource Agencies			Construction Permits												Cost Sharing
Andrew	Andrew			Andrew							Brad and Darwin	Andrew	Chip W., Tim, Patti and Allison		Andrew and Allison									Cheryle, Leslie and Adrianne			Cheryle, Leslie and Adrianne			Andrew, Chip W., Patti, and Allison												Andrew, Bart, and Laura E.
No.	Wet Utility Early Work	Get GMP but Put on Shelf	Dry Utility Priority No.	Segment	Reach	Owner	WO Number	System	Work Performed By	Location	PB's Description of Work	MCTC Proposed Disposition	MTS/NCTD Real Estate Agreement	Predecessor Real Estate Parcel No.	Wet Utility ELB Duration	Wet Utility Total Duration	Required Start Date	Dry Utility EPC Duration (Months)	Dry Utility EPC Duration (Calendar Days)3	MCTC Need By Date for Dry Utility Relocation	Predecessor Activity	Successor Activity	MCCTP	SDRDT	EMDT	California Coastal Commission	Army Corps of Engineers	California Dept of Fish and Wildlife	MTS/NCTD Joint Entry Permit	NCTD All Work Windows	City of SD Excavation Permit	City of SD Right of Entry Permit	City of SD Parks and Rec.	Caltrans Longitudinal Encroachment Permit	Caltrans Exception to Policy (Access Control)	UCSD Permit	US Navy	Private R/W	APN	Cost Responsibility
1			5	A	4	AT&T	WO-1	Communication	Others	2 Locations; (1) Anna Avenue, (2) Tecolote Station	2 Locations; (1) OH Crossing. Check GO 95 btwn Comm and OCS, (2) Move Equipment,						October 2, 2015	9	270	June 28, 2016		(1) RW-xx, RW-xx, RW-xx, Rough Grading, (2) Tecolote Station Parking Lot	X						X		X	X						X			
2			n/a	A	5	AT&T	WO-2	Communication	Others	Clairemont Station to Baker Street	Remove as Required.						March 16, 2016	1	30	April 15, 2016		Rough Grade, Roadway Construction	X						X		X										
3			4	A	5	AT&T	WO-3	Communication	Others	Ticonderoga Street	Check GO 95. Relocate PP as Required.		255.50-267-13-296-LINK				July 20, 2015	9	270	April 15, 2016		Rough Grading	X						X												
4			1	A	5, 6, 7	AT&T	WO-4	Communication	Others	Parallel Balboa to Damon	Relocate Overhead as Required.		NL-257.23, 260.42-43-LI				April 25, 2015	9	270	January 20, 2016		Balboa Bridge Sub-Structure, Station Platform, Station Parking Lot and Rough Grading			X				X		X	X									
5			6	A	7	AT&T	WO-5	Communication	Others	Ariane Drive	Relocate Overhead as Required.		NL-257.23, 260.42-43-LI				October 3, 2015	9	270	June 29, 2016		RW-xx and Rough Grading	X								X										
6			n/a	C	13	AT&T	WO-6	Communication	Others	6th and Lyman	PIP							0	n/a	December 23, 2019		n/a	X														X				
7			n/a	C	13	AT&T	WO-7	Communication	Others	Voigt and Campus Point	PIP							0	n/a	March 3, 2016		UCSD Viaduct Sub-Structure	X								X						X				
8			7	D	14	AT&T	WO-8	Communication	Others	Clairemont Station	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
9			8	D	14	AT&T	WO-9	Communication	Others	Genesee Avenue	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
10			9	A/B	7, 8, 9	AT&T	WO-10	Communication	Others	Balboa to Gillman	Remove as Required.		NL-257.23, 260.42-43-LI					0	n/a	March 7, 2016		EMDT Rose Creek North and South Bridges, Flyover, RW-xx, Rough Grading			X				X		X			X	X						
11			2	B	8, 9	AT&T	WO-11	Communication	Others	Rose Canyon Bike Path	Relocate Underground as Required.						June 11, 2015	9	270	March 7, 2016	Joint Trench	Rough Grading																			
12			n/a	B	9	AT&T	WO-12	Communication	Others	Rose Canyon Sub-Station	PIP							0	n/a	December 23, 2019		n/a																			
13			3	B	10, 11	AT&T	WO-13	Communication	Others	Gillman/La Jolla Colony	Relocate Underground as Required.						July 19, 2015	9	270	April 14, 2016	Cox WO-2	Rough Grading																			
14			3	A	5	AT&T LNS	WO-1	Communication	Others	Balboa Avenue	Relocate Underground as Required.						February 16, 2018	9	270	November 13, 2018		Parking Lot									X	X									
15			1	B	10, 11	AT&T LNS	WO-2	Communication	Others	SR52 to Gillman, Gillman to Charmant	Relocate Underground as Required.						June 23, 2015	12	360	June 17, 2016		RW-xx, Gillman Box	X						X		X										
16			2	D	14	AT&T LNS	WO-3	Communication	Others	Voigt and Genesee	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Roadway Widening																			
17			1	D	14	AT&T Legacy T	WO-1	Communication	Others	Genesee Avenue from Esplanade to Nobel	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Roadway Widening																			
18			2	A	4, 5	Cox	WO-1	Communication	Others	Morena Boulevard 100 feet south of Asher Street	PIP during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction	X								X										
19			1	B	9, 10, 11	Cox	WO-2	Communication	Others	SR52 to Gillman, Gillman to Charmant	Relocate Underground as Required.						April 20, 2015	12	360	April 14, 2016		RW-xx, Gillman Box	X						X		X			X							
20			4	C	13	Cox	WO-3	Communication	Others	Voigt Drive from Lyman to 250 feet west of Gilman Drive	PIP							0	n/a	December 23, 2019		n/a	X															X				
21			5	C/D	13, 14	Cox	WO-4	Communication	Others	Voigt and Campus Point	PIP							0	n/a	November 11, 2018		Genesee Roadway Widening	X								X										
22			3	A	5	Cox	WO-5	Communication	Others	Balboa Avenue	PIP during Roadway Construction. Adjust Structures to Grade.						July 21, 2018	1	30	August 20, 2018		Balboa Parking Lot	X									X										
23			2	A	5	Crown Castle	WO-1	Communication	Others	Morena Boulevard at W. Morena Boulevard	PIP during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction	X						X		X										
24			3	A	5	Crown Castle	WO-2	Communication	Others	Balboa Avenue	PIP during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction		X							X	X									
25			1	D	14	Crown Castle	WO-3	Communication	Others	Genesee Avenue from Regents Road to Nobel Drive	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
26			2	D	14	Level 3	WO-1	Communication	Others	Genesee Avenue from Executive Drive to La Jolla Village Drive	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
27			1	A	5	Level 3	WO-2	Communication	Others	Clairemont Station	PIP during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction	X								X										
28			1	A/B	3 thru 14	Verizon/MCI	WO-1	Communication	Others	2 Locations; (1) Parallel Conflict from SDR South Abutment to Gillman, (2) CP Rose	Relocate Underground as Required.						March 18, 2014	24	720	March 7, 2016		Rough Grading, Bridge Sub-Structures (SDRDT, Tecolote, Balboa, Rose Creek South, Rose Creek North, Flyover), CP	X						X										
29			1	D	14	Verizon/MCI	WO-2	Communication	Others	Genesee Avenue	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X																		
30			1	D	14	Qualcomm	WO-1	Communication	Others	Genesee Avenue	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X																		
31			6	A	2	SDG&E	WO-1	Electric Transmission	Others	2 Locations; South I-8 FWY and btwn I-8 FWY, South of SDR Abutments	De-Energize During Construction		NL-263.82-65-LI and NL-263.82-66-LI				June 7, 2015	9	270	March 3, 2016		Mobilize Equipment	X						X												
32			3	A	4	SDG&E	WO-2	Electric Transmission	Others	San Diego River North	Check GO 95. Relocate PP as Required.						October 2, 2015	9	270	June 28, 2016		SRBDT North Abutment, RW-xx, RW-xx, RW-xx, Rough Grading	X						X		X							X			
33			n/a	A	4, 5	SDG&E	WO-3	Electric Transmission	Others	Anna Avenue	PIP							0	n/a	December 23, 2019		n/a	X							X		X							X		
34			4	A	4, 5	SDG&E	WO-4	Electric Transmission	Others	Morena Blvd from Tecolote Station to Asher Street - ESP Procure	Relocate Overhead & Power Poles for 3,000 LF		NL-262.74-26-LI and NL-262.51-67-LI				October 23, 2014	18	540	April 15, 2016		Rough Grading, Morena Blvd Road Construction	X						X		X	X									
35			n/a	A	5	SDG&E	WO-5	Electric Transmission	Others	Morena Boulevard at Asher Street	PIP		NL-260.45-66-LI					0	n/a	December 23, 2019		n/a	X							X		X									
36			1	A	5	SDG&E	WO-6	Electric Transmission	Others	Balboa Station - ESP Procure	Check GO 95. Relocate PP as Required.						September 10, 2014	18	540	March 3, 2016		MCCTP and EMDT Balboa Bridges South Abutments			X				X												
37			2	B	9	SDG&E	WO-7	Electric Transmission	Others	Rose Creek Sub-Station	Relocate Overhead as Required.		NL-254.11, 257.44-11-LI				March 13, 2015	12	360	March 7, 2016		RW-xx, Rough Grading			X				X		X			X	X	X					
38			5	D	14	SDG&E	WO-8	Electric Transmission	Others	Genesee Avenue	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X																		
39			11	A	4	SDG&E	WO-1	Electric Distribution	Others	Tecolote Station	Remove Equipment.		263.00-0187-ES-CL				December 21, 2015	6	180	June 18, 2016		Tecolote Station, Rough Grading	X									X									X	
40			9	A	4	SDG&E	WO-2	Electric Distribution	Others	San Diego River North	Check GO 95. Relocate PP as Required.		NL-263.63-69-LI and 263-80-73-LI				September 22, 2015	9	270	June 18, 2016		SRBDT North Abutment, RW-xx, RW-xx, RW-xx			X				X		X									X	
41			n/a	A	5	SDG&E	WO-3	Electric Distribution	Others	Btwn Tecolote and Clairemont	PIP							0	n/a	December 23, 2019		n/a	X							X										
42			13	A	5	SDG&E	WO-4	Electric Distribution	Others	Asher Street	PIP during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction	X						X												
43			12	A	5	SDG&E	WO-5	Electric Distribution	Others	Littlefield Street	Relocate Equipment		NL-262.24-68-LI				March 11, 2016	6	180	September 7, 2016		Roadway Construction	X						X		X										
44			6	A	5	SDG&E	WO-6	Electric Distribution	Others	Clairemont Station to McGraw	Relocate Overhead as Required.		NL-261.67-72-LI and NL-261.17-68-LI				July 20, 2015	9	270	April 15, 2016		Clairemont Station Parking Lot, Roadway Construction and Rough Grading	X								X										
45			7	A	5	SDG&E	WO-7	Electric Distribution	Others	2 Locations; (1) McGraw Street, (2) near Baker	2 Locations; (1) Refocate PP as Required, (2) Refocate PP as Required.		NL-261.35-72-LI				July 20, 2015	9	270	April 15, 2016		Rough Grading	X						X		X										
46			10	A	5	SDG&E	WO-8	Electric Distribution	Others	Baker St	Relocate Equipment		NL-260.17-60-LI				December 12, 2015	9	270	September 7, 2016		Roadway Construction	X						X												
47			3	A	5	SDG&E	WO-9	Electric Distribution	Others	Balboa Avenue	Relocate Underground as Required.		NL-258.77-72-LI				January 25, 2015	12	360	January 20, 2016		(1) Rough Grading, Roadway Construction, (2) EMDT Balboa Center Bent CIDH			X				X		X			X							
48			n/a	A	7	SDG&E	WO-10	Electric Distribution	Others	Ariane Drive	PIP							0	n/a	March 9, 2016		Rough Grading			X				X		X										
49			1	A/B	6 thru 9	SDG&E	WO-11	Electric Distribution	Others	Balboa to SR52	Relocate Overhead & Power Poles for 5,000 LF		NL-257.70-0376-ES-SDG&E				January 30, 2014	24	720	January 20, 2016		Rough Grading, MCCTP and EMDT Balboa Bridges, RW-xx, EMDT Rose Creek North, EMDT Rose Creek South,			X				X		X			X	X	X					
50			2	B	9	SDG&E	WO-12	Electric Distribution	Others	SR52 to Gillman	Relocate Overhead & Power Poles for 2,500 LF		NL-257.72-76-LI				July 29, 2014	18	540	January 20, 2016		Rough Grading			X				X					X	X	X					
51			8	B	9	SDG&E	WO-13	Electric Distribution	Others	Gillman Box	Relocate Overhead as Required.		NL-257.14-60-LI				June 23, 2015	12	360	June 17, 2016		Gillman Box			X				X						X	X				
52			4	B	10, 11	SDG&E	WO-14	Electric Distribution	Others	SR52 to Gillman, Gillman to Charmant	Relocate Underground as Required.						June 23, 2015	12	360	June 17, 2016		Gillman Box, RW-xx			X				X						X	X				
53			5	B	10	SDG&E	WO-15	Electric Distribution	Others	Rose Creek Sub-Station	Relocate Overhead as Required.						July 19, 2015	9	270	April 14, 2016		RW-xx, Rough Grading	X								X										
54			n/a	B	12	SDG&E	WO-16	Electric Distribution	Others	Nobel Drive	PIP							0	n/a	December 23, 2019		n/a	X									X									

UTILITIES MATRIX

Counter	MCTC Priority List			Utility						Description of Work	Proposed Description of Work	Real Estate Agreements		Schedule								Environmental Clearances			Resource Agencies			Construction Permits												Cost Sharing
Andrew	Andrew			Andrew						Brad and Darwin	Andrew	Chip W., Tim, Patti and Allison		Andrew and Allison								Cherylr, Leslie and Adrianne			Cheryle, Leslie and Adrianne			Andrew, Chip W., Patti, and Allison												Andrew, Bart, and Laura E.
No.	Wet Utility Early Work	Get GMP but Put on Shelf	Dry Utility Priority No.	Segment	Reach	Owner	WO Number	System	Work Performed By	Location	PB's Description of Work	MCTC Proposed Disposition	MTS/NCTD Real Estate Agreement	Predecessor Real Estate Parcel No.	Wet Utility ELB Duration	Wet Utility Total Duration	Required Start Date	Dry Utility EPC Duration (Months)	Dry Utility EPC Duration (Calendar Days)3	MCTC Need By Date for Dry Utility Relocation	Predecessor Activity	Successor Activity	MCCTP	SDRDT	EMDT	California Coastal Commission	Army Corps of Engineers	California Dept of Fish and Wildlife	MTS/NCTD Joint Entry Permit	NCTD All Work Windows	City of SD Excavation Permit	City of SD Right of Entry Permit	City of SD Parks and Rec.	Caltrans Longitudinal Encroachment Permit	Caltrans Exception to Policy (Access Control)	UCSD Permit	US Navy	Private R/W	APN	Cost Responsibility
55			n/a	B	12	SDG&E	WO-17	Electric Distribution	Others	La Jolla Village Drive	P/P							0	n/a	December 23, 2019		n/a	X								X				X							
56			n/a	C	12	SDG&E	WO-18	Electric Distribution	Others	6th and Lyman	P/P							0	n/a	March 3, 2016		UCSD Viaduct Sub-Structure	X														X					
57			n/a	C	13	SDG&E	WO-19	Electric Distribution	Others	Voigt and I-5	P/P							0	n/a	March 3, 2016		UCSD Viaduct Sub-Structure	X														X					
58			14	D	14	SDG&E	WO-20	Electric Distribution	Others	Genesee Avenue and Regents	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
59			n/a	A	4	SDG&E	WO-1	Gas Transmission	Others	Anna Avenue	Extend Casing		NO-263.63-70-LI and NL-263.35-52-LI				September 22, 2015	9	270	June 18, 2016		RW-xx, RW-xx, Rough Grading	X						X		X										
60			n/a	A	4, 5	SDG&E	WO-2	Gas Transmission	Others	From Anna Avenue to Littlefield Street	Wreck as Required.		NL-262.92-264.94-32-LI				April 15, 2016	0	0	April 15, 2016		RW-xx, RW-xx, RW-xx, Rough Grading	X						X												
61			n/a	A	7	SDG&E	WO-3	Gas Transmission	Others	From Damon Avenue to 1,000 feet north of Damon Avenue	P/P during Roadway Construction. Adjust Structures to Grade.	Protect Gas in Place					February 8, 2016	1	30	March 9, 2016		Rough Grading			X				X		X										
62			1	B	9	SDG&E	WO-4	Gas Transmission	Others	Santa Fe Cul-du-Sac to North of SR52	Jack and Bore 2300 LF	Install Under Proposed Bike Path.					September 14, 2014	18	540	March 7, 2016		RW-xx, RW-xx, RW-xx, Rough Grading			X				X		X										
63			2	B	9	SDG&E	WO-5	Gas Transmission	Others	SR52 to Gillman	Relocate 1,680 LF and Sleeve Crossing.	Do not move 42" SS. Protect Gas in Place. Add Relocation at Gillman Box.					October 26, 2014	18	540	April 18, 2016		Construct S63.2, Rw-xx, Gillman Box			X				X		X		X	X	X						
64			3	A	5	SDG&E	WO-1	Gas Distribution	Others	2 Locations; (1) Tecolote Station Parking Lot, (2) Littlefield	2 Locations; (1) P/P during Roadway Construction. (2) Extend Casing and Adjust Structures to Grade.		NL-263.35-52-LI				July 20, 2015	9	270	April 15, 2016		(1) Tecolote Station Parking Lot, (2) Rough Grading	X						X		X	X									
65			5	A	5	SDG&E	WO-2	Gas Distribution	Others	Morena Boulevard at Clairemont Station	P/P during Roadway Construction. Adjust Structures to Grade.		NL-262.97-66-LI, NL-261-80, 262.85-87-LI and L6598-0-02				August 8, 2016	1	30	September 7, 2016		Roadway Construction	X								X										
66			4	A	5	SDG&E	WO-3	Gas Distribution	Others	Morena Boulevard 1,000 feet south of Baker Street	Extend Casing		L6598-0-02 and L6598-0-03				July 20, 2015	9	270	April 15, 2016		Rough Grading	X						X		X										
67			n/a	A	5 thru 7	SDG&E	WO-4	Gas Distribution	Others	Santa Fe Street at Damon Avenue	Relocate for S37.1		NL-260.63-62-LI and NL-260.24-60-LI				January 9, 2015	9	270	October 6, 2015		Construct S37.1, RW-xx and Rough Grading			X				X		X	X									
68			2	A	7	SDG&E	WO-5	Gas Distribution	Others	3-Locations; Rose Creek North, Rose Creek South and Santa Fe Cul-de-Sac	Extend Casing		NL-259.41-73-LI and NL-259.08-66-LI				June 13, 2015	9	270	March 9, 2016		(1) Rough Grading, (2), Rough Grading, (3) Rough Grading			X				X												
69			1	B	10, 11	SDG&E	WO-6	Gas Distribution	Others	Gillman to Charmant	Relocate Underground as Required.		NL-257.29-61-LI				April 20, 2015	12	360	April 14, 2016		Gillman Box, RW-xx	X								X										
70			6	D	14	SDG&E	WO-7	Gas Distribution	Others	Genesee Avenue between Regents Road and Nobel Drive	Relocate Underground as Required.	Protect Pipeline in Place. Adjust Vents to Curb and Valves to Grade.					October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
71			3	A	2 thru 5	Telepacific	WO-1	Communication	Others	4 Locations; (1) I-8 FWY, (2) Morena at Tecolote Station, (3) Morena at Asher, (4) Clairemont Station	4 Locations; (1) OH Crossing - P/P During Construction, (2) Adjust to Grade for Road Widening, 3) Adjust to Grade for Road Widening, (4) P/P						June 7, 2015	9	270	March 3, 2016		(1) Mobilize Equipment, (2) Roadway, (3) Roadway (4) Roadway	X						X		X										
72			4	A	5	Telepacific	WO-2	Communication	Others	Ticonderoga Street	Check GO 95. Relocate P/P as Required.						July 20, 2015	9	270	April 15, 2016		Rough Grading	X						X		X										
73			1	A/B	6 thru 9	Telepacific	WO-3	Communication	Others	Balboa to SR52	Relocate Overhead & Power Poles for 5,000 LF. Underbuilt on SDGE Electric Distribution 11		NL-257.23, 260.42-43-LI				March 18, 2014	24	720	March 7, 2016		Rough Grading, Relocate Poles, P/P and EMDT Balboa Bridges, RW-xx, EMDT Rose Creek North, EMDT Rose Creek South,			X				X		X										
74			2	D	14	Telepacific	WO-4	Communication	Others	Balboa Avenue	Relocate Underground as Required.						March 9, 2015	12	360	March 3, 2016		UCSD Viaduct Sub-Structure, Genesee Roadway Widening	X								X										
75			n/a	B	12	TimeWarner Cable	WO-1	Communication	Others	Nobel Drive	P/P							0	n/a	December 23, 2019		n/a	X																	
76			n/a	C	13	TimeWarner Cable	WO-2	Communication	Others	Campus Point Drive and Voigt Drive	P/P							0	n/a	December 23, 2019		n/a	X								X				X					
77			2	D	14	TimeWarner Cable	WO-3	Communication	Others	Genesee Avenue from Regents Road to Eastgate Mall	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
78			3	D	14	TimeWarner Cable	WO-4	Communication	Others	Genesee Avenue from Eastgate Mall to Nobel Drive	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
79			1	A	5	TimeWarner Cable	WO-5	Communication	Others	Balboa Avenue	Relocate Underground as Required.						December 12, 2015	9	270	September 7, 2016		Roadway Construction	X								X										
80			1	D	14	TimeWarner Telecom	WO-1	Communication	Others	Genesee Avenue	Relocate Underground as Required.						April 14, 2018	6	180	October 11, 2018		Genesee Roadway Widening	X								X										
81			n/a	C	13	UCSD	WO-1	Electric Distribution	Others	3 Locations; (1) Sixth Lane at Lyman Avenue; (2) Voigt and I-5; (3) Voigt at Campus Point Drive	UCSD Locations 1 and 3; (1) Move Traffic Signal Conduit; (3) Relocate Underground as Required						February 2, 2016	1	30	March 3, 2016		UCSD Viaduct Sub-Structure	X															X				
82			n/a	C	13	UCSD	WO-1	Gas	Others	3 Locations; (1) Sixth Lane at Lyman Avenue; (2) Voigt and I-5; (3) Voigt at Campus Point Drive	UCSD Locations 2 and 3; (2) Check Gas Proximit to CIDH; (3) Relocate Underground as Required						February 2, 2016	1	30	March 3, 2016		UCSD Viaduct Sub-Structure	X															X				
83			n/a	C	13	UCSD	WO-1	Communication	Others	3 Locations; (1) Sixth Lane at Lyman Avenue; (2) Voigt and I-5; (3) Voigt at Campus Point Drive	UCSD Location 3; (3) Relocate Underground as Required						February 2, 2016	1	30	March 3, 2016		UCSD Viaduct Sub-Structure	X															X				
84			1	D	14	XO Communication	WO-1	Communication	Others	Genesee Avenue at Executive Drive	Relocate Underground as Required.						October 16, 2017	12	360	October 11, 2018		Genesee Roadway Widening	X								X										
85			2	A	5	XO Communication	WO-2	Communication	Others	Clairemont Station	P/P during Roadway Construction. Adjust Structures to Grade.						August 8, 2016	1	30	September 7, 2016		Roadway Construction	X																			
86	X			A1	4	US Navy	AF24.1	Point Loma Fuel	Petrol Specialty	Tecolote Creek	Relocate 8" Aviation Fuel			436-020-42-00	10	20						Tecolote Creek Bridge Sub-Structure	X			X	X	X	X		X			X			X	X				
87	X			A2	4	City of SD	S21.1	Sewer	Sewer 1	Anna Avenue	Encase Existing		NL-263.57-59		2	15						RW-1, RW-217L-C, Rough Grading	X			X			X												City of SD
88	X			A2	4	City of SD	S23.1	Sewer	Sewer 1	Tecolote Station	Replace four 16" Sewer Vent Pipes		NL-259.79, 263.21-91		5	15						RW-XX, Rough Grading	X			X			X												City of SD
89	X			A2	4	City of SD	S24.1	Sewer	Sewer 1	Tecolote Creek	Temporary 27" Sewer	Do nothing to existing pipe. Remove S24.1 from Plan Set.			4	15						Construct S24.2	X			X	X	X	X												City of SD
90	X			A2	4	City of SD	S24.2	Sewer	Sewer 1	Tecolote Creek	Replace in Place 27" Sewer and Abandon Temporary 27" Sewer	Protect Existing Pipeline in Place. Add Concrete Encasement per AREMA 2002, Section 5.3.2.a (3) if structural loading	NL-263.04-75		2	15					Construct S24.1	Rough Grading	X			X	X	X	X												City of SD
91	X			A2	4, 5	City of SD	S24.3	Sewer	Sewer 1	Tecolote Creek	New Odor Control Apparatus on Sewer Siphon Gate Vaults				2	15						n/a	X			X			X												SANDAG
92		Wait for Grading		A2	5	City of SD	S24.4	Sewer	Sewer 1	Tecolote Creek	Adjust MH Frame to Final LRT Grade				2	15					Rough Grading	n/a	X			X			X												SANDAG
93	X			A2	5	City of SD	S35.1	Sewer	Sewer 1	Baker St	Abandon 8" Sewer	Do Nothing to existing pipe that is already Abandoned.	NL-260.94-50		2	15						Rough Grading	X			X			X												City of SD
94		Wait for Gas in Santa Fe		A3	5 thru 7	City of SD	S37.1	Sewer	Sewer 1	Santa Fe Street at Balboa	Relocate 8" Sewer	Recommend locating 36" W37.1 in a different alignment and Protect ex SS in Place. Remove S37.1 from Plan Set.			10	20					SDGE GD WO4	Construct W37.4			X	X			X		X									SANDAG
95	X			A3	7	City of SD	S50.1	Sewer	Sewer 1	North End of SDG&E Yard	Relocate 10" Sewer. Connect to 55' Deep Manhole.	Option 1 is to Relocate. Add a Shaft Plan Set. Protect in Place existing SS shown in system S50.2. Option 2 - See description			30	40						Construct S50.2			X							X								City of SD
96	X			A3	7	City of SD	S50.2	Sewer	Sewer 1	North End of SDG&E Yard	Abandon 8" Sewer for 10" Connection Above.	Option 1 - Protect Existing Pipeline in Place with Concrete Encasement or Protection Slab per AREMA 2002.	NL-259.79, 263.21-91		12	22					Construct S50.1	Rough Grading			X				X			X								City of SD
97	X			A2	4	City of SD	W21.1	Water	Water 1	Anna Avenue	Replace in Place 8" Water, extend casing (2 ea)	Limit Scope to Extending Casing	New		8	18						RW-1, RW-212R-F, RW-217L-C, Rough Grading	X			X			X		X										City of SD
98	X			A2	5	City of SD	W23.1	Water	Water 1	Tecolote Station	Replace in Place 10" and 2" Waters, extend casing (2 ea)	Limit Scope to Extending Casing	NL-263.21.74		8	18						RW-XX, Rough Grading	X			X			X												City of SD
99		Wait for Road Construction		A2	4	City of SD	W23.2	Water	Water 1	Tecolote Station	Relocate Fire Hydrant				2	15						Roadway Construction	X								X										SANDAG
100	X			A2	5	City of SD	W25.1	Water	Water 1	Morena Blvd at West Morena Blvd	Relocate 12" Water		New		10	20						Rough Grading and Roadway Construction	X			X			X		X										City of SD
101	X			A2	5	City of SD	W35.1	Water	Water 1	Morena Blvd at Ticonderoga	Replace in Place 8" Water	Limit Scope to Extending Casing	NL-260.85-49		5	15						Rough Grading	X			X			X		X										City of SD
102	X	Wait for Gas and SS in Santa Fe		A3	5	City of SD	W37.1	Water	Water 2	Balboa Station	Relocate 20" Water and Install PRV	Decouple grading operation and pipeline installation. Realign pipeline to a location outside of parking lot footprint, possibly in			16	26					RW-xx, Rough Grading, Construct W37.4	Construct W37.2, Parking Lot Construction, Roadway Construction			X				X		X	X								SANDAG
103	X	Wait for Gas and SS in Santa Fe		A3	5 thru 7	City of SD	W37.2	Water	Water 2	Balboa Station	Abandon 20" Water				2	15					Construct W37.1	Balboa Bridge Sub-Structure			X				X		X	X								City of SD
104	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W37.3	Water	Water 2	Balboa Station	Abandon 12" Water				1	15					Construct W37.5	Roadway Construction and Station Site Work			X				X		X	X								City of SD
105	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W37.4	Water	Water 2	Balboa Station	Relocate 36" Water	Move Proposed 36" Water Adjacent To or Underneath Ex 16" Water. Protect in Place existing 2" Gas and 8" Sewer.			40	50					Construct S37.1, SDGE GD WO4	Construct W37.1, W37.5, W37.6			X	X			X		X									City of SD
106	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W37.5	Water	Water 2	Balboa Station	Relocate 12" Water and Install PRV	Move PRV on Balboa west to a location btwn SantaFe and Caltrans R/W			10	20					Construct W37.4	Construct W37.3			X	X			X		X									City of SD
107	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W37.6	Water	Water 2	Balboa Station	New 12" Water	Realign pipeline to a location outside of steep slope, possibly in Morena Blvd. Tie into existing main in City of SD yard. See			20	30					Construct W37.1, W37.4, W37.5, W37.6	Construct W37.7, Construct W48.1			X				X		X	X								City of SD
108	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W37.7	Water	Water 2	Balboa Station	Abandon 30" Water		NL-260.36-50		3	15					Construct W37.1, W37.4, W37.5, W37.6	RW-481L-F, Rough Grade			X				X		X	X								City of SD

Counter	MCTC Priority List			Utility							Description of Work	Proposed Description of Work	Real Estate Agreements		Schedule								Environmental Clearances			Resource Agencies			Construction Permits											Cost Sharing
Andrew	Andrew			Andrew							Brad and Darwin	Andrew	Chip W., Tim, Patti and Allison		Andrew and Allison								Cheryle, Leslie and Adrianne			Cheryle, Leslie and Adrianne			Andrew, Chip W., Patti, and Allison										Andrew, Bart, and Laura E.
No.	Wet Utility Early Work	Get GMP but Put on Shelf	Dry Utility Priority No.	Segment	Reach	Owner	WO Number	System	Work Performed By	Location	PB's Description of Work	MCTC Proposed Disposition	MTS/NCTD Real Estate Agreement	Predecessor Real Estate Parcel No.	Wet Utility ELB Duration	Wet Utility Total Duration	Required Start Date	Dry Utility EPC Duration (Months)	Dry Utility EPC Duration (Calendar Days)2	MCTC Need By Date for Dry Utility Relocation	Predecessor Activity	Successor Activity	MCCTP	SDRDT	EMDT	California Coastal Commission	Army Corps of Engineers	California Dept of Fish and Wildlife	MTS/NCTD Joint Entry Permit	NCTD All Work Windows	City of SD Excavation Permit	City of SD Right of Entry Permit	City of SD Parks and Rec.	Caltrans Longitudinal Encroachment Permit	Caltrans Exception to Policy (Access Control)	UCSD Permit	US Navy	Private R/W	APN	Cost Responsibility
109	X	Wait for Gas and SS in Santa Fe		A3	7	City of SD	W48.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 16" Water		NL-260.28.57		2	15					Construct W37.6, W58.1	Rough Grading			X								X	X								City of SD
110	X			A3	7	City of SD	W48.2	Water	Water 2	Btwn Balboa & End of Santa Fe	New 12" Water				20	30						Construct W55.2				X								X									City of SD
111	X			A3	7	City of SD	W49.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 8" Water		NL-260.13-59		2	15					Construct W58.1	RW-488R-C, Rough Grading			X								X									City of SD
112	X			A3	7	City of SD	W51.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 12" Water		NL-259.78-73		2	15					Construct W58.1	Rough Grading			X								X									City of SD
113	X			A3	7	City of SD	W52.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 12" Water		NL-259.08, 259.53-73		2	15					Construct W58.1	Rough Grading			X		X	X					X									City of SD
114	X			A3	7	City of SD	W55.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 12" Water		NL-259.08, 259.53-73		2	15					Construct W58.1	Rough Grading			X		X	X					X									City of SD
115	X			A3	7	City of SD	W55.2	Water	Water 2	Btwn Balboa & End of Santa Fe	New 12" Water				20	30						Construct W58.1				X								X									City of SD
116	X			A3	7	City of SD	W56.1	Water	Water 2	Btwn Balboa & End of Santa Fe	Abandon 12" Water		NL-258.80-69		2	15					Construct W58.1	Rough Grading			X		X	X					X									City of SD
117	X			A3	8	City of SD	W58.1	Water	Water 2	Btwn Balboa & End of Santa Fe	New 12" Water	Option 1 - Move Crossing to Public Right-of-Way. Option 2 - extend proposed casing on east side of project to get out of	New	359-010-41-00	12	22						Construct W48.1, W49.1, W51.1, W52.1, W55.1, W56.1				X				X				X								City of SD
118	X			B	8	City of SD	S59.1	Sewer	Sewer 2	Flyover/Strauss Brewery	Relocate 21" Sewer	Protect Existing Sewer in Place. Coordinate with Retaining Wall Designers. Add encasement to protect			8	18						RW-600R-F, Rough Grading	X				X	X					X									SANDAG
119	X			B	9	City of SD	S60.1	Sewer	Sewer 2	U-Channel	Replace 36" Sewer in Place with 18" Sewer	Option 1 - Concrete Encase Existing Sewer. Option 2 - Change proposed pipe material to VCP with concrete			18	28						Construct U-Channel	X				X	X	X				X	X								City of SD
120	X			B	9	City of SD	S62.1	Sewer	Sewer 2	Btwn 52 & Gillman	Abandon 21" Sewer				1	15						RW-629L-F, Rough Grading	X				X	X	X				X	X								City of SD
121		Wait for Shoofly		B	9	City of SD	S63.1	Sewer	Sewer 2	Btwn 52 & Gillman	Relocate 60" Sewer	Protect in Place in Existing Alignment. Abandon Manholes as required by rail configuration. Add offset manholes is City	RR-280942		55	65					2-Stage with Shoofly	RW-624R-F, RW-629L-F, Rough Grading	X				X	X	X				X	X	X							City of SD
122		Wait for 16" Gas		B	9	City of SD	S63.2	Sewer	Sewer 2	Btwn 52 & Gillman	Relocate 42" Sewer	Protect in Place in Existing alignment. Abandon Manholes as required by rail configuration. Add offset manholes is City			25	35					SDGE GT WO5	Drainage 60.1, RW-640L-C, Rough Grading, Bike Path	X						X					X	X							SANDAG
123	X			B	9	City of SD	S64.1	Sewer	Sewer 2	Btwn 52 & Gillman	Modify and Abandon MH	Add Sheet to Segment B 95% Drawings.	NL-257.22-70		2	15						Rough Grading	X					X													City of SD
124	X			C	13	UCSD	S96.1	Sewer	Sewer 3	UCSD West Station	Relocate 12" Sewer				8	18						UCSD West Viaduct Sub-Structure	X													X					SANDAG
125	X			C	13	UCSD	W97.1	Water	Water 3	UCSD Lyman and 6th Ln	Relocate 8" Water				5	15						UCSD West Viaduct Sub-Structure	X													X					SANDAG
126	X			D	14	City of SD	S106.1	Sewer	Sewer 3	Genesee Avenue at Esplanade Ct	Relocate 6" Sewer Lateral	Move CIDH to Miss SS. Or Join Adjacent Lateral at Back of Walk.			10	20						Genesee Viaduct Sub-Structure	X										X									SANDAG
127	X			D	14	City of SD	S106.2	Sewer	Sewer 3	Genesee Avenue at Esplanade Ct	Relocate 6" Sewer Lateral	Protect in Place			10	20						Genesee Viaduct Sub-Structure	X										X									SANDAG
128	X			D	14	City of SD	S106.3	Sewer	Sewer 3	Genesee Avenue at Esplanade Ct	Relocate 6" Sewer Lateral	Protect in Place			10	20						Genesee Viaduct Sub-Structure	X										X									SANDAG
129	X			D	14	City of SD	S107.1	Sewer	Sewer 3	Genesee Avenue at Nobel Dr	Relocate 12" Sewer Lateral	Connect to 18" Pipe by Monte Verde.			5	15						Genesee Viaduct Sub-Structure	X										X									SANDAG
130	X			D	14	City of SD	W101.1	Water	Water 4	Genesee Avenue and Regents	Relocate 10" Water to 12" Water	Protect Majority of Pipeline in Place. Coordinate with Bridge Designers for Isolation Casings to Protect Water Line in			35	45						Genesee Viaduct Sub-Structure	X										X									SANDAG
131	X			D	14	City of SD	W101.2	Water	Water 4	Genesee Avenue and Regents	Relocate 24" Water	Protect Majority of Pipeline in Place. Coordinate with Bridge Designers for Isolation Casings to Protect Water Line in			3	15						Genesee Viaduct Sub-Structure	X										X									SANDAG
132		Wait for Road Construction		D	14	City of SD	W103.1	Water	Water 5	Genesee Avenue	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG
133		Wait for Road Construction		D	14	City of SD	W104.1	Water	Water 5	Genesee Avenue at Executive Dr	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG
134		Wait for Road Construction		D	14	City of SD	W104.2	Water	Water 5	Genesee Avenue at Executive Dr	New Backflow Assembly				2	15						Roadway Widening	X										X									SANDAG
135		Wait for Road Construction		D	14	City of SD	W104.3	Water	Water 5	Genesee Avenue at Executive Dr	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG
136		Wait for Road Construction		D	14	City of SD	W104.4	Water	Water 5	Genesee Avenue at Executive Dr	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG
137		Wait for Road Construction		D	14	City of SD	W105.1	Water	Water 5	Genesee Avenue at La Jolla Village Dr	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG
138	X			D	14	City of SD	W105.2	Water	Water 4	Genesee Avenue at La Jolla Village Dr	Relocate 16" Water	Protect Majority of Pipeline in Place. Coordinate with Bridge Designers for Isolation Casings to Protect Water Line in			28	38						Genesee Viaduct Sub-Structure	X										X									SANDAG
139	X			D	14	City of SD	W105.3	Water	Water 4	Genesee Avenue at La Jolla Village Dr	Relocate 30" Water	Protect in Place			8	18						Genesee Viaduct Sub-Structure	X										X									SANDAG
140		Wait for Road Construction		D	14	City of SD	W107.1	Water	Water 5	Genesee Avenue at Nobel Dr	Relocate Fire Hydrant				2	15						Roadway Widening	X										X									SANDAG

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix E

Mid-Coast Corridor Value Engineering Log

MCTC
Mid-Coast Transit Constructors
Stacy and Witbeck . Herzog . Skanska

Mid-Coast Corridor Transit Project Value Engineering Log

VE #	VE Name	Change	Authorization	VE ROM	Items to Resolve	Drop Dead Date	Design Schedule Remaining	Anticipated Redesign Cost	Design Cost Tracking	MCTC Action Item(s)	Design Team Action Item(s)	SANDAG Action Item(s)
WA.9	Wall 767	Change from Soldier Pile w/ Tiebacks and CIP fascia to Ground Anchor Wall w/ sculpted shotcrete fascia	**GO**	$1,300,000	IN IFC SET		_____	$80,000				
STR.5	Viaduct Sidewalk Chase	Change from CIP support/Precast Panel to CIP sidewalk with embedded conduits	**GO**	$1,950,000	IN IFC SET FOR NOBEL & UCSD		_____	$50,000		**CONFIRM THIS DETAL ENDS UP IN GENESEE DESIGN**		
WA.19	Wall 332	Change from CIP Wall w/ shoring to Slope Paving; ~~address GO175 with maintenance refuges every 300'~~	**GO**	$4,800,000	IN IFC SET		_____	$100,000				
WA.15	Sculpted Shotcrete Fascia	Change cut walls 488, 609, 614, 767, TP-GEN3 from CIP fascia to sculpted shotcrete fascia	**GO**	$600,000	IN IFC SET		_____	$60,000		**DO WE HAVE TP-GEN3 YET?**		**Decide on Boulderscapes stain color - THRU SUBMITTAL PROCESS**
WA.5	Change Wall 750 type	In cut section of the wall (~150' off Gilman Box), change to soil nail wall. Remainder of wall can stay CIP.	**GO**	$200,000	IN IFC SET	3/1/2017		$150,000				
WA.11 &12	Change Wall CL-1 & TP110 type	Wall CL-1 is designed to retain fill for the Clairmont Park-n-Ride parking lot, and Wall TP110 is designed to retain fill for a maintenance driveway to TPSS No.11. Currently CIP walls, change to MSE block wall	**GO**	$100,000	**WAITING ON TP110 IFC PLANS FROM PB**	3/1/2017		$30,000		**REVISED VE ROM WITH CL-1 WALL DELETION (-$200,000)**		
WA.21	Wall 267	Similar to the Wall 332 VE, change Wall 267 from CIP to sculpted slope paving	**GO**	$700,000	IN IFC SET			$50,000				
WA.22	Eliminate Southern Morena/Tecolote Switchback Ramps and Stairs	Eliminate the switchback pedestrian ramp and stairs on the south side of Tecolote overpass of Morena, and replace with stairs on grade and a graded pedestrian ramp up to Tecolote. Maintain the ped ramp and stairs on the north side. Results in deletion of Walls MOR-2-10.	**GO**	$550,000	IN IFC SET			$75,000		**CONFIRM ALL WALLS DELETED AS ORIGINALLY PROPOSED**		
WA.23	Wall 756	Change wall from CIP w/ shoring to soil nail wall	**GO**	$750,000	**WAITING ON IFC PLANS FROM PB TRACKING FOR 4/3/17**	4/1/2017		$50,000				
STA.11	Change stainless steel finish	Provide a No.8 glass bead blasting finish on stainless steel in lieu of No.4 brushed finish. Cost savings + maintenance savings	**GO**	$100,000	**WAITING ON IFC PLANS FROM PB**	3/1/2017		$0		**CHECK TO SEE IF IN IFC PLANS OR SPECS YET**		
				$11,050,000								
STA.7a	Change decorative fencing at stations	Use custom Tartan rigid woven mesh 2" x 2" opening in lieu of Tartan 1" x 1" 12 GA wire for BF-2	Work to Do	$600,000	Buy america issue with keeping Jakobs mesh	10/1/2016		$25,000		show SANDAG samples to present to MTS for approval	Architectural team approval	MTS approval
STA.7b	Change decorative fencing at stations	Use custom Tartan rigid woven mesh 2" x 2" opening in lieu of Tartan 1" x 1" netting mesh for BF-3, BF-5, BF-6, FP-1, FP-2, FP-3, FP-6, FP-7	Work to Do	$200,000		10/1/2016		$25,000		show SANDAG samples to present to MTS for approval	Architectural team approval	MTS approval

WA.24	Wall 592	Change Wall 592 from Soldier Pile/Ground Anchor Wall to Precast Counterfort Wall w/ Secant Wall	Work to Do	$325,000	*NCTD approval	10/1/2016				~~need to discuss with PB~~		SANDAG to propose to NCTD
STR.32	Eliminate Charmant Bridges	Eliminate Charmant North and Charmant South Bridges; instead embank the guideway and retain toe with retaining wall (or daylight if acceptable)	**Hold**	$300,000 (CIP on foundations) $1,100,000 (MSE)	*impacts to environmental footprint? *adjacent residents	we have until March 2017 for decision		$100,000		~~Revise price based on PB concept & compare against MSE wall.~~ Also analyze schedule: design change vs dirt flow & adjacent wall schedules	would need to complete a CT structure foundation report for straps in the ROW Look at existing storm drain and how it'd be impacted	
STR.4	Construct Gilman Box in 1 Phase	Shut down the roadway for a longer duration and construct the entire Gilman Box in 1 phase. Savings include temporary traffic signals, traffic control, production efficiencies, etc.	**Hold**	TBD	*city approval *community approval	9/1/2016		$10,000		Look at project schedule to see if we have float & Redefine ROM	confirm zero cost for re-design	
~~WA.20~~	~~Eliminate Northern Morena/Tecolote Ramps and Stairs~~	~~Eliminate the pedestrian ramp walls and stairs on the north side of Tecolote overpass of Morena. Build the ramp on embankment. Results in deletion of Walls MOR-11, 12, 13, 14, 15, 16, 17, 18 (none of which were shown in the GMP plans, but were all added in 95% plans)~~	~~Hold~~	~~No VE Savings, rather Design Scope Growth Savings of $750K~~	~~*enviro doc issue? *already committed to community, if removed there may be contest~~	~~4/1/2017~~		~~$50,000~~		~~Revise ROM based on PB's conceptual layout~~	~~Look at sidewalk connection~~	~~Need to ask John H. & Leslie~~
~~RO.7~~	~~Reduce width/section of RC Bikepath~~	~~Reduce width of Rose Creek Bikepath, and minimize AC paving and aggregate base sections~~	~~Hold~~	~~TBD~~		~~43191~~		~~20000~~		~~Look at reducing from 16' to 14' wide~~		
~~R9~~	~~Reach 9 / Gas Line~~	~~Elevate LRT section underneath SR-52, eliminate/reduce walls, reduce excess material, reduce scope of gas line modification~~	~~GO (limited to Structural GP)~~	~~$1,500,000.00~~	~~*Caltrans approval of protection slabs *SDG&E approval of gas line trenched install / leave in place *Schedule changes *gas line inspection/access~~	~~4/1/16 (Caltrans structural approval)~~		~~$500,000.00~~	~~estimated $15K for structural GP~~	~~What If Schedule~~	~~General Plan for structural protection slab; submit to CT~~	~~Tim to discuss with Andy (SDG&E)~~
	~~"Monte Verde Hole"~~	~~Fill in "Monte Verde Hole" with project excess dirt. (Genesee & La Jolla Village)~~	~~Work to Do~~	~~TBD~~								

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix F

MCTC Innovation Log

Mid-Coast Corridor Transit Project
Innovation Log

Item	Description	Phase	CCO (if applicable)	Realized Cost Savings	Innovative Idea Not Pursued	Status	Notes
1.1	Revised bridges from cast in place to precast girders at selected bridges	Pre-Construction		$12,102,000		Implemented	The precast girder approach reduced construction cost and reduced construction schedule by 4 months and was applied to specific bridges and viaduct segments.
1.2	Use precast segmental box girder for select structures.	Pre-Construction			Anticipated increase in cost of $1,749,000	Not Implemented	CM/GC considered this alternative, but found precast girders to be a better solution considering alignment constraints and common construction methods used in California. While this solution may have reduced the schedule by 6 months it would have increased cost by $1,749,000.
2	Pile load tests	Pre-Construction		$3,783,000		Implemented	Verify if O-Cell testing at CIDH pile locations were done.
3	Post grouting instead of ground improvements	Pre-Construction		$7,301,000		Implemented	Verify if pre or post ground improvement were used or if either method was included in the spec's.
4	Shift Genessee Avenue Viaduct from centerline of road to the southbound side.	Pre-Construction			Anticipated increase in project costs and schedule delays	Not Implemented	CM/GC contractor and design team concluded, changing the location of the viaduct on Genesee would cause a major redesign of both dry and wet utilities as well as roadway construction. This would negatively impact the schedule and overall coast of the project. Further review of this alternative showed that significant impacts to properties along the corridor would result in increased right of way accusition of private property not addressed in the Draft SEIS/SEIR.
5	Reduce design speed on Genesee Avenue 40 mph and eliminate crash cushions	Pre-Construction			Estimated at $1,589,000	Not Implemented	This innovative concept proposed to reduce the design speed of Genesee Avenue to 40 mph to allow a reduction in clear recovery zone, therefore eliminating the requirement for concrete barriers. The reduction in design speed was not supported by the authority having jurisdication over the roadway, City of San Diego, and thus was not implemented.
6	Modify station platform canopies and integrate photovoltaic panels	Pre-Construction			Anticipated increase in project implementation costs and schedule delays	Not Implemented	Incorporating this concept into the MidCoast project would have generated sustainable renewable energy and would have resulted in increased design, construction, and maintenance costs. It would have also increased viaduct construction complexity, stray current potential, and introduced implementation, schedule and long term maintenance risks. Solar panels on canopy structures would be located in close proximity to bare traction power overhead contact system conductors. Access to solar panel mounted on canopies on aerial structure over surface streets would be difficult once rail operations commenced, likely resulting maintenance activities during non-revenue service hours when overhead conductors could be deenergized. A decision was made not to pursue this VE alternative.
7	Shift Balboa Station south to improve transit patron access.	Pre-Construction		$1,996,000		Implemented	Balboa Station was shifted to the proposed location. VE also recommended eliminating sidewalk and ADA ramps to north side of Balboa Ave. Pedestrian access to the north side of Balboa Avenue would have been significantly adversely impacted, thus the team did not accept this portion of the VE recommendation. VE Initial cost savings was estimated at $2,346,000. Ramps cost $350,000, thus savings was reduced to $1,996,000.
8	Use standard barrier railing at platform edge and ped bridge	Pre-Construction		$1,260,000		Implemented	Glass panels were eliminated and standard barrier railings and metal mesh were incorporated at aerial stations at Nobel Drive, UCSD, Executive Drive and UTC Stations.
9	Reduce the width of platforms from 15 feet to 13.5 feet.	Pre-Construction			Less than $1,500,000	Not Implemented	The VE initial cost savings estimate of $2,115,00. Designer estimated construction cost savings of about $1,500,000. 15 feet is the common platform width used at MTS stations. Revising design plans would have increased design costs not accounted for in the construction saving estimate. Concerns were raised regarding circulation at station ADA ramps and deviations from MTS and SANDAG design criteria. Team did not pursue this VE proposal.
10.1	Integrate Nobel Drive Station Aerial Structure with Parking Structure	Pre-Construction			N/A	Not Implemented	This VE proposal was reviewed by the design team. Significant design concerns were raised that related to structural integrity during a seismic event due to the mixing of guideway and building structures and safety and security concerns. The design teams assessment of this proposal concluded it would required significant structural analysis and likely result in increased cost to implement.
10.2	Locate parking structure under aerial structure at Nobel Drive Station	Pre-Construction			N/A	Not Implemented	Deign and program office concluded right of way acquision schedule risks and increased engineering design integration efforts would be required to implement this VE recommendation.
11	Use soldier pile walls instead to Type 1 retaining walls	Pre-Construction		$672,000		Implemented	Type 1 retaining walls require backcuts and, with the limited MCC right of way, shoring. Soldier piles walls eliminate shoring and reduced the wall cost. Soil nail walls eliminated shoring and were in specific locations more economical that Soldier piles walls.
12	Instead of Type 1 retaining walls at bike path use soil nail walls.	Pre-Construction		$420,000		Implemented	See comment above.
13	Use slope paving in selected areas n Morena Blvd instead of Type 1 walls	Pre-Construction		$952,000		Implemented	In locations with sufficient space for slopes and stable soil, slope paving was less expensive and faster than building Type 1 walls.
14	Eliminate retaining wall at VA Medical Center and use aerial structure	Pre-Construction			Anticipated increase in cost of $2,530,000	Not Implemented	This VE concept was expected to increase the cost of the project and increase the time required to construct the VA Medical Center Station. VE team thought alignment could be improved to enhance operation speed, however, trolleys reduce speeds through stations and thus the operational benefits would not be realized.
15	Use T retaining walls in fill vs MSE walls	Pre-Construction / Construction		$1,456,000		Implemented	schedule for construction of the VA Medical Center Station,

16	Shift Rose Creek Channel to the east	Pre-Construction			N/A	Not Implemented	Evaluation of the proposed alternative concepts indicate there would be far too many undesirable impacts relating to cost, maintenance, environmental and construction impacts to continue pursuing them.
17	Use pre-cast girders on the LOSSAN fly over bridge	Pre-Construction		$1,294,000		Implemented	With work restrictions in the operating LOSSAN corridor and limited access the LOSSAN fly over bridge was changed to from cast in place to pre-cast girders.
18	Revise viaduct hinges to minimize falsework and traffic impacts	Pre-Construction		$0		Implemented	
19.1	Elevate alignment over La Jolla Colony Drive	Pre-Construction			Anticipated Increase in Cost	Not Implemented	While the proposed concept was technically feasible, it would result in many undesirable impacts and environmental challenges that would adversely impact Rose Canyon and result in increased costs. This alternative would add cost, cause greater visual impacts to Rose Canyon, and would require tall retaining walls in order to reduce the length of the bridge. It would still touch grade north of La Jolla Colony Drive, and therefore would not reduce impacts to the La Paz complex housing units. Such a structure would also impact the 69 kV lines that cross the freeway south of La Jolla Colony Drive.
19.2	Elevate alignment over La Jolla Colony Drive and shift Lossan flyover north	Pre-Construction			Anticipated Increase in Cost	Not Implemented	This concept was determined to be technically infeasible, because the clearance requirements for the LOSSAN MT2 track could not be met. The MidCoast teams selected the location of the LRT flyover structure to improve track geometry using larger radius horizontal curves allowing for higher operating speeds on both the LRT and LOSSAN tracks. The CMGC understood the importance of this benefit and concured with the rationale.
20	Realign alignment to I-5 centerline between Gilman to Nobel Dr. Station	Pre-Construction			Significant Adverse Environmenal Impacts	Not Implemented	This VE concept would introduce significant visual and noise impacts that would have adversely affected the Rose Canyon park and communities long the west side of I-5. In addition, alignment would adversely impacted utility transmission lines, constructability ,and resulted in complete redesign and other concerns resulting in additional costs not considered as part of initial estimates.
21	Lower the Grade at Nobel Drive Station	Pre-Construction			Significant Technical Challenges with Concept	Not Implemented	The VE alternative concept was not accepted due to the grade requirements of the station and clearance requirements for the crossing over of I-5. In addition, the CMGC estimated concrete volume savings in inital VE study seemed to be based on high calculations and real quantity savings may not be as high as projected.
22	Shift the alignment adjacent to I-5 edge of shoulder at Nobel Drive using Caltrans right-ofway	Pre-Construction			Significant Technical Challenges with Concept	Not Implemented	The proposed alternative appears to be an improvement over the base line concept considering it reduces impact to the shopping center and eliminates half of the parking structure. While this concept appeared to be beneficial to the guideway it would have resulted in a complete redesign requiring Caltrans approval that could delay the project. Caltrans raised material concerns related to planned I-5 widening, thus this concept was not pursued.
23	Reduce the vertical profile of Executive Drive Station	Pre-Construction			Significant Technical Challenges with Concept	Not Implemented	This alternative was not pursued due to minimal savings in cost and prior coordination of the platform elevation with UTC Transit Center Station and UTC Shopping Center. The proposed vertical profile reduction would not result in significant project cost savings due to the ductility requirements of the columns. The existing design requires isolation casings in order to create a more flexible column. By making the columns shorter, the depth of isolation casings must be increased, thus adding costs that were not accounted for by the VE team. The savings in cost is therefore, only associated with the reduced height of stairs and elevators.
24	Use pre-cast girders instead of cast in place for the viaduct.	Pre-Construction		$35,603,000		Implemented	With work and time restrictions and requirements to maintain traffic operations on Genesee Ave and cross streets the viaduct was changed to pre-cast girders from cast in place to reduce falsework, daily traffic control and reduce construction time.
25	Utilize microwave towers in lieu of PTC fiber optic cable during construction	Pre-Construction			Increase cost over joint ductbank alignment pursued	Not Implemented	Existing fiber optic cable infrastructure owned by both NCTD and Verizon. Savings from this alternative could not be substantiated without significant additional engineering efforts that would result in significant associated costs in engineering development. CMGC and SANDAG project team developed a joint use ductbank alignment alternative that enabled ductbank to be relocated once to it's permanent location.
26	Eliminate plinth and use grout patches at direct fixation track	Pre-Construction			Undersirable with type of bridge construciton selected	Not Implemented	The CMGC reviewed this alternaive concept and thought it might be a good option in conjunction with a precast segmental structure, however, precast segmental bridge construction was not selected as the preferable option for any of the bridges or viaducts on the project. Plynths are desirable for use with cast in place construction.
27	Advanced relocation contract work	Pre-Construction		$0		Implemented	Prior to final design and GMP, SANDAG issued a construction supplement to the base construction contract to start utility relocations to reduce risk of conflicts that would delay major roadway, track or structure work.
28	Eliminate Tecolote Access Road and Bridge	Pre-Construction / Construction		$1,700,000		Implemented	Road and Bridge deleted from plan during design review by CMC and MCTC. SANDAG and NCTD agreed to additional maintenance vehicles in lieu of road. Cost shown in approximate amount saved through not implementing the full plan.
29	Green Line/Blue Line Tie-In - Converting Direct Fixation Track to Ballasted Track	Construction	4087	$575,632		Implemented	
30	Delete Contract Work on Morena and Balboa that would be demolished in near-term by the City's Pure Water and Alvarez Pipe Line Projects	Construction	4194	$336,981		Implemented	
31	Change RW B300-B500 and B600-B900 from CIP to Counterfort to reduce the impacts to traffic on Balboa Ave and manage constructability challenges for the switch back ramp walls B600-B900.	Construction	4126	$246,939		Implemented	

32	Modify Tecolote Creek Bridge Approaches from geofoam to lightweight cellular concrete	Construction	4105	$244,211		Implemented	
33	Removal of Tecolote Station Communication Room - Radio transmission moved to Mount Soledad	Construction	4127	$205,871		Implemented	
34	Tecolote Ped Ramp Removal (North) - Redundant Ramp not needed	Construction	4165	$203,742		Implemented	
35	Damon Yard Excavation Reduction	Construction	4069	$137,151		Implemented	
36	Knoxville Ramp - Direct ramp vs. Switchback with walls	Construction	4165	$76,782		Implemented	Design was revised to use direct ramp and eliminate walls required for switchback design.
37	Morena/Ariane Drive Modifications - Minimize barrier and driveway changes	Construction	4187	$40,000		Implemented	
38	Change retaining wall (RW 500) to Slope Paving	Construction	4058	$25,788		Implemented	
39	Change retaining wall (RW762) to Slope Paving	Construction	4549	$185,402		Implemented	
40	UTC TPSS Civil Modifications	Construction	4593	$12,504		Implemented	
41	Revisions to Pepper Canyon Access Road - Pervious Concrete to ACP	Construction	4607.1	$81,626		Implemented	
42	South Guideway and Inter-Track Fence Revisions	Construction	4750	$206,000		Implemented	
43	North Fence Revisions	Construction	4750	$80,649		Implemented	
44	Pepper Canyon Station Plaza Revisions	Construction	4750	$650,000		Implemented	
45	Revised 2" DCW Service at UTC	Construction	4750	$46,300		Implemented	
	Total Cost Savings Realized			$71,894,578			

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix G

Mid-Coast Quality Control/ Assurance September 21 Monthly Report

Quality Assurance

Work Accomplished this Period

NCR / QUALITY ACTION ITEMS LOGS

Non-Conformance Reports	Open	Closed	TOTAL
NCR's Processed This Month	2	0	2
NCRs To Date	29	394	423
Resolution Time Summary:	Since no NCRs were closed this month, no resolution average time to closure data is available for the month; however, the average time to disposition for the 394 NCR's closed on the project to date was 87 days. Average time to closure for all 394 NCR's was 175 days.		
Quality Action Items	**Open**	**Closed**	**TOTAL**
QAIs processed this month	1	0	1
QAIs to date	22	319	341

AUDIT / SURVEILLANCE LOG

Audit / Surveillance No.	Date Issued	Description	Observations	Due Date	Status

Five (5) total three-phase reports completed and transmitted this period:

- South Stations Signage Placement review
- QC Walk to Produce QC Punchlist and QA Spreadsheet at Nobel Plaza
- QC Walk to Produce QC Punchlist and QA spreadsheet at Nobel Parking Lot
- Mid-coast Program-Wide Quality Concerns report/resolution
- UTC Preparatory Meeting for Mechanical

One additional report is nearing completion which is the documentation of safety and security item T-6. Two areas needed re-measuring. It was found that there were design changes during construction that changed the dimensions. A design exception is being written for these two areas so that item T-6 can be completed.

TESTING SUMMARY

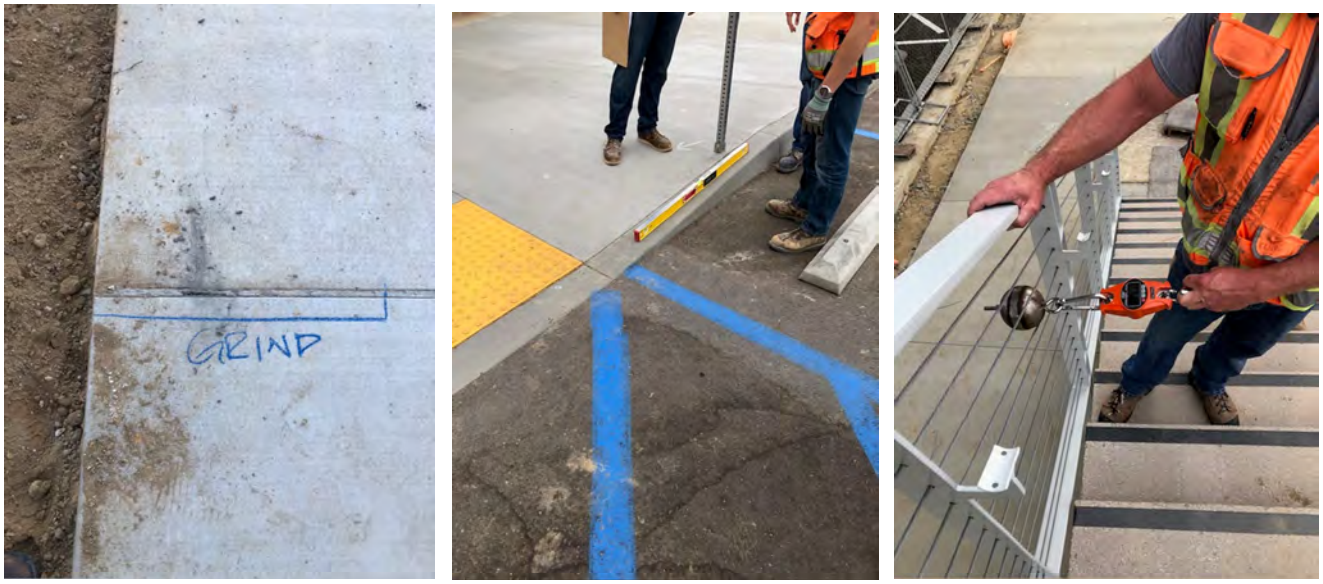
PROJECT	QA TESTS	QC TESTS
MCLRT 3&4	25	61
Gilman	0	0
ADWETN	0	0
ELMODT	0	0
SDRBDT	0	0
MCLRT 1&2	0	15
ADWETS	0	0
Bikeway	0	0
Aux Lane	0	0
Voigt	0	0
RTA, Voight and Lyman	0	5
Total:	**25**	**81**
	30.9%	

Minor concrete, asphalt, and soils work for stations parking and sidewalks made up the majority of tests for this period.

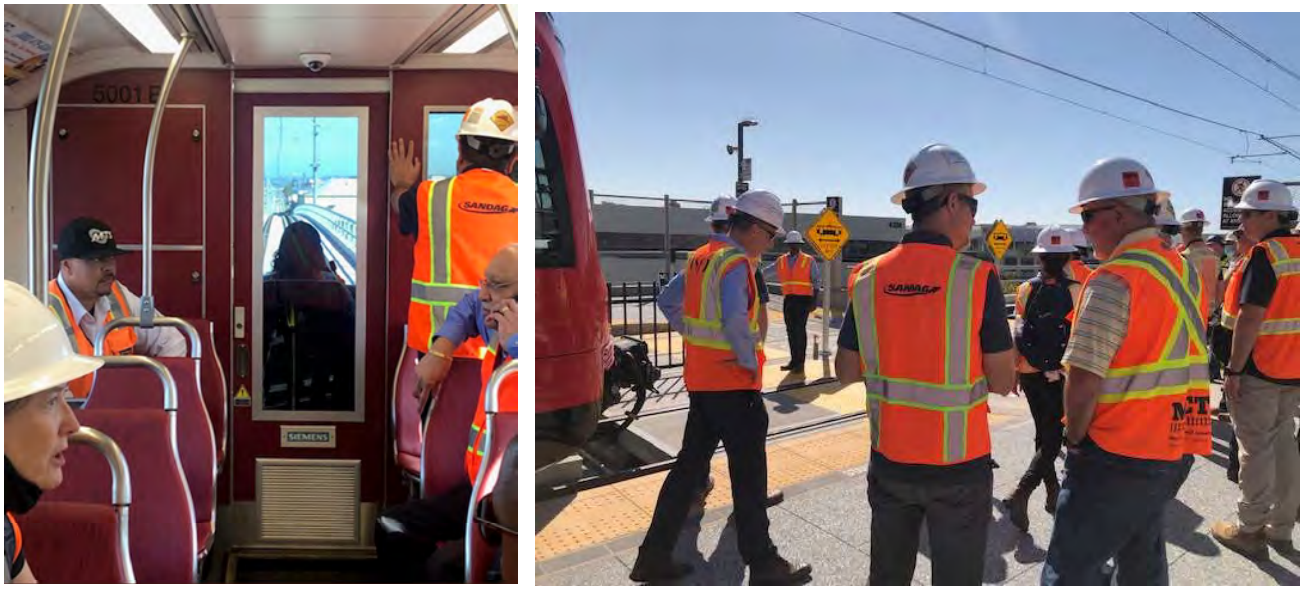
Highlights for the Month:

- QAMs clarifying key elements of closeout process via addendums to the document control plan:
  - New procedure for paper file checks versus electronic prior to recycling/shredding
  - New audit form developed to document checks of paper documents
  - The addendum has been agreed upon by the RE's and SANDAG and is being rolled out.
- First project being focused on for closeout is SDRBDT – QAMS assisting with process:
  - Verifying 170 item checklist of contract requirements as a part of closeout
  - Assisting with adding key support documents not captured on Prolog to RFI's, Submittals, and NCR resolutions.
  - Working with Admin staff on paper file shredding and recycling after verification
- Safety and Security field inspections and task force meetings continued
  - QAMs involved in resolving issues for various certifiable items needing additional measurements or design involvement.
  - QAMs presented at monthly Safety Security/Fire Life Safety meeting updating SANDAG and MTS on status and projection of certifiable item completions
  - Tracking meetings and task force meetings are continuing
- South stations punchlist work progressing, North stations final contract items in process
  - QAMs keeping/updating the CMC punchlist and verifying it matches MCTC punchlist
  - Attending QC punchlist walkdowns as well as both pre-final and final walkdowns and documenting as 3 phase surveillances and/or adding to CMC punchlist
- NCR and Observation closeouts continuing – QAMs keeping master log of status of NCR's
  - Providing weekly log at RE meeting of all open NCRs with whose court they are in
- QAMs coordinating with MTS on turnover documents.
  - 3 large packages of files have been transmitted to MTS. The QAM's have organized the effort of getting all of these documents into Prolog, fully reviewed, and packaged with summary notes for transmitting. These include all ultrasonic test reports on rail, all rail grinding reports, all shop drawing related documents for rail, destress reports, and flash butt weld reports.
- A list of systems related turnover items for MTS is being developed. The plan is for these to be handled the same as the other turnover documents whereby they go through Prolog for full review by the CMC and any summary notes are made before formally transmitting so that they are organized and clear.

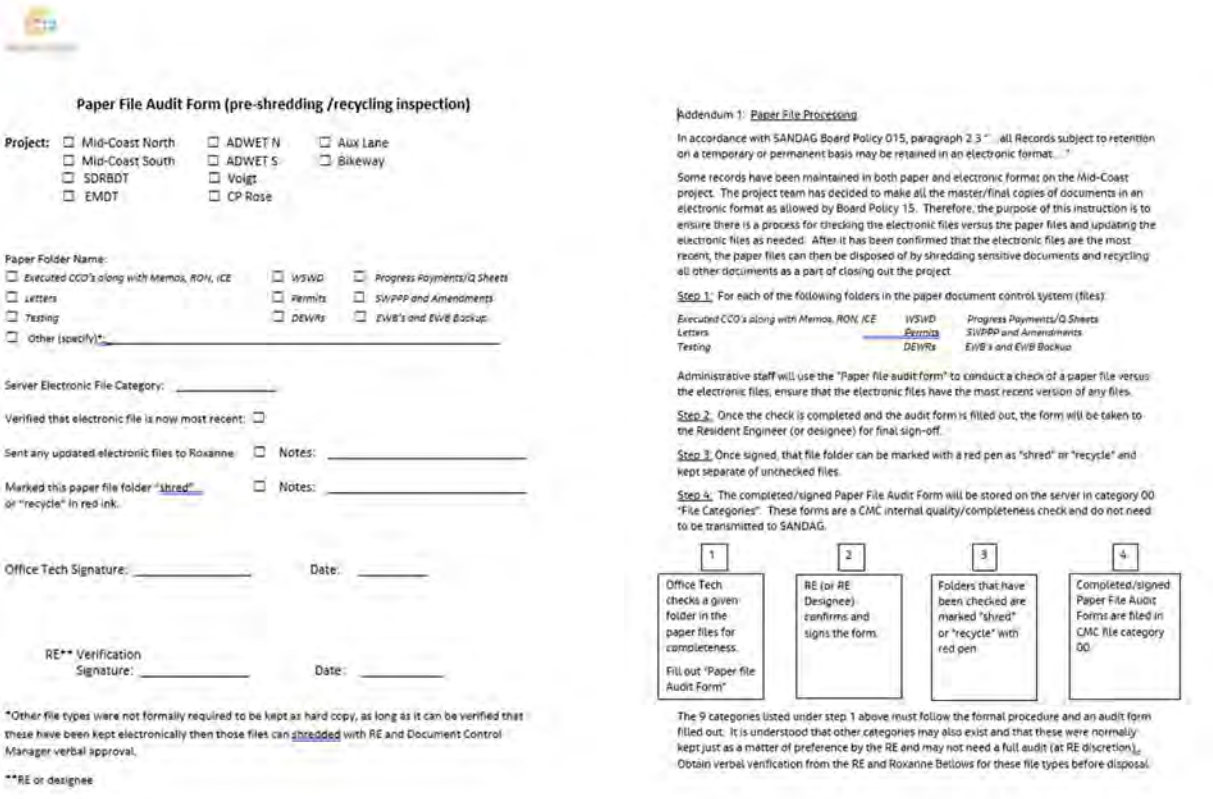
- Assisting with design related punchlist items. During punchlist walks there are items that are not true punchlist/unfinished work items but rather need a design change or clarification on how to handle. It was found that MCTC was not tracking these with formal punchlist item numbers. QAM's are coordinating many of these items to ensure they are on a list and get carried out.
- Continuing to add to the lessons learned spreadsheet to capture improvements for future projects.
- QAMS working with SANDAG QA/QC Manager to develop a tracking tool to look at percentage complete of major closeout items



Punchlist walks are ongoing to include marking areas for repair (left), slope and dimensional verifications (center), and testing (right – cable handrail tension test)



9/23/21 - Trolley ride and station review provided for Fire Life Safety and Safety/Security Groups. Stops allowed for review of items and good discussions



Paper File Audit Form (pre-shredding /recycling inspection)

Project: ☐ Mid-Coast North ☐ ADWET N ☐ Aux Lane
☐ Mid-Coast South ☐ ADWET S ☐ Bikeway
☐ SDRBDT ☐ Voigt
☐ EMDT ☐ CP Rose

Paper Folder Name:
☐ *Executed CCO's along with Memos, RON, ICE* ☐ *WSWD* ☐ *Progress Payments/Q Sheets*
☐ *Letters* ☐ *Permits* ☐ *SWPPP and Amendments*
☐ *Testing* ☐ *DEWRs* ☐ *EWB's and EWB Backup*
☐ Other (specify)*: _____

Server Electronic File Category: _____

Verified that electronic file is now most recent: ☐

Sent any updated electronic files to Roxanne ☐ Notes: _____

Marked this paper file folder "shred" or "recycle" in red ink. ☐ Notes: _____

Office Tech Signature: _____ Date: _____

RE** Verification Signature: _____ Date: _____

*Other file types were not formally required to be kept as hard copy, as long as it can be verified that these have been kept electronically then those files can shredded with RE and Document Control Manager verbal approval.

**RE or designee

Addendum 1: Paper File Processing

In accordance with SANDAG Board Policy 015, paragraph 2.3 " ...all Records subject to retention on a temporary or permanent basis may be retained in an electronic format..."

Some records have been maintained in both paper and electronic format on the Mid-Coast project. The project team has decided to make all the master/final copies of documents in an electronic format as allowed by Board Policy 15. Therefore, the purpose of this instruction is to ensure there is a process for checking the electronic files versus the paper files and updating the electronic files as needed. After it has been confirmed that the electronic files are the most recent, the paper files can then be disposed of by shredding sensitive documents and recycling all other documents as a part of closing out the project.

Step 1: For each of the following folders in the paper document control system (files):

Executed CCO's along with Memos, RON, ICE	*WSWD*	*Progress Payments/Q Sheets*
Letters	*Permits*	*SWPPP and Amendments*
Testing	*DEWRs*	*EWB's and EWB Backup*

Administrative staff will use the "Paper file audit form" to conduct a check of a paper file versus the electronic files, ensure that the electronic files have the most recent version of any files.

Step 2: Once the check is completed and the audit form is filled out, the form will be taken to the Resident Engineer (or designee) for final sign-off.

Step 3: Once signed, that file folder can be marked with a red pen as "shred" or "recycle" and kept separate of unchecked files.

Step 4: The completed/signed Paper File Audit Form will be stored on the server in category 00 "File Categories". These forms are a CMC internal quality/completeness check and do not need to be transmitted to SANDAG.

1	2	3	4
Office Tech checks a given folder in the paper files for completeness. Fill out "Paper file Audit Form"	RE (or RE Designee) confirms and signs the form.	Folders that have been checked are marked "shred" or "recycle" with red pen	Completed/signed Paper File Audit Forms are filed in CMC file category 00.

The 9 categories listed under step 1 above must follow the formal procedure and an audit form filled out. It is understood that other categories may also exist and that these were normally kept just as a matter of preference by the RE and may not need a full audit (at RE discretion). Obtain verbal verification from the RE and Roxanne Bellows for these file types before disposal.

Above: New audit form and procedure for paper file processing/recycling and shredding

See attached MCTC's NCR and QAI logs.

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix H

Mid-Coast FY22 CIP Budget

Project Number: 1257001
RTIP Number: SAN23
Project Name: Mid-Coast Light Rail Transit (LRT)
Corridor Director: John Haggerty
Project Manager: Sharon Humphreys
PM Phone Number: (619) 595-5350

Project Scope

A new 10.9-mile extension of the Trolley Blue Line with stations at Tecolote Road, Clairemont Drive, Balboa Avenue, Nobel Drive, Veterans Administration Medical Center, Pepper Canyon and Voigt Drive on the UC San Diego campus, Executive Drive, and University Towne Center (UTC).

Project Limits

On and along existing coastal rail corridor from Old Town Transit Center to Gilman Drive, along I-5 from Gilman Drive to UC San Diego, and along Voigt Drive and Genesee Avenue to UTC

Site Location



Progress to Date

Light rail construction is 95% complete.

Major Milestones

Draft Environmental Document	May-13
Final Environmental Document	Nov-14
Ready to Advertise	Jan-16
Begin Construction	Jun-16
Open to Public	Nov-21
Construction Complete	Jun-26

SANDAG Expenditure Plan ($000)

Budget Phase	Prior Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	Total
Administration	$63,665	$8,940	$4,457	$1,000	$750	$500	$250	$0	$0	$0	$0	$79,562
Environmental Document	28,411	300	1,650	0	0	0	0	0	0	0	0	30,361
Design	158,293	8,102	2,000	50	50	50	10	0	0	0	0	168,555
Right-of-Way Support	8,516	2,552	700	0	0	0	0	0	0	0	0	11,768
Right-of-Way Capital	107,715	5,000	10,091	0	0	0	0	0	0	0	0	122,806
Construction Support	84,634	32,355	4,699	250	250	250	250	0	0	0	0	122,688
Construction Capital	925,131	218,956	89,140	0	0	0	0	0	0	0	0	1,233,227
Vehicles	142,007	21,972	0	0	0	0	0	0	0	0	0	163,979
Legal Services	1,586	548	235	0	0	0	0	0	0	0	0	2,369
Communications	1,306	210	1,786	0	0	0	0	0	0	0	0	3,302
Project Contingency	0	0	15,000	10,000	575	0	0	0	0	0	0	25,575
Total SANDAG	$1,521,264	$298,935	$129,758	$11,300	$1,625	$800	$510	$0	$0	$0	$0	$1,964,192
Finance Cost	$62,431	$29,550	$18,991	$17,376	$14,491	$11,685	$51,913	$0	$0	$0	$0	$206,437
Total SANDAG	$1,583,695	$328,485	$148,749	$28,676	$16,116	$12,485	$52,423	$0	$0	$0	$0	$2,170,629

Caltrans Expenditure Plan

Budget Phase	Prior Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	Total
Environmental Document	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Design	220	0	0	0	0	0	0	0	0	0	0	220
Right-of-Way Support	0	0	0	0	0	0	0	0	0	0	0	0
Right-of-Way Capital	0	0	0	0	0	0	0	0	0	0	0	0
Construction Support	0	0	0	0	0	0	0	0	0	0	0	0
Construction Capital	322	30	0	0	0	0	0	0	0	0	0	352
Total Caltrans	$542	$30	$0	$0	$0	$0	$0	$0	$0	$0	$0	$572
Total SANDAG & Caltrans	$1,584,237	$328,515	$148,749	$28,676	$16,116	$12,485	$52,423	$0	$0	$0	$0	$2,171,201
TransNet Pass-Through	$427	$69	$76	$0	$0	$0	$0	$0	$0	$0	$0	$572
Caltrans RE Services	$6,000	$2,500	$1,000	$148	$0	$0	$0	$0	$0	$0	$0	$9,648

Funding Plan ($000)

Funding Source	Prior Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	Total
Federal												
72600001 FTA FFGA CA-2016-02[1]	$530,025	$100,000	$100,000	$100,000	$100,000	$100,000	$13,355	$0	$0	$0	$0	$1,043,380
73030001 FTA-CA-03-0784	129	0	0	0	0	0	0	0	0	0	0	129
Local												
91000100 *TransNet*-MC	478,297	298,965	129,758	11,300	1,625	800	510	0	0	0	0	921,255
91000100 *TransNet*-MC AC[2]	513,355	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	(13,355)	0	0	0	0	0
Finance Costs	62,431	29,550	18,991	17,376	14,491	11,685	51,913	0	0	0	0	206,437
Total	$1,584,237	$328,515	$148,749	$28,676	$16,116	$12,485	$52,423	$0	$0	$0	$0	$2,171,201

[1]Total project cost including finance charge is estimated at $2.17 billion, the FTA is anticipated to contribute a total of $1.04 billion over the life of the project but is generally limited to $100 million on an annual basis. The last year of receipt is anticipated to be 2026.

[2]The *TransNet*-MC AC line represents the advance of *TransNet* in the form of bond proceeds to cover the difference until the federal contribution is received.

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix I

Lessons learned Design Phase

Mid-Coast Corridor Transit Project – Final Design Phase – Lessons Learned

Appendix A SANDAG

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
1	Management	Utility Agreements – Early agreement with franchise utilities on cost sharing for relocations.	Strive for early agreements with franchise utilities that are impacted by the project so that cost sharing agreements can be identified early.
2	Management	Utility Coordination	Need a dedicated team to coordinate utility relocations that have experience with utility requirements.
3	Management	Master Special Provisions	Develop master special provisions that coordinate the technical specifications, either common or specific, between multiple projects that are implemented by the CM/GC. This should minimize the use of different specifications for similar work.
4	Cost	Cost Allocation – Between projects	Develop a cost allocation methodology and report for interfacing projects in the same corridor where scope was designed by one designer (e.g. grading and drainage) and shown on one project, but the costs are borne by the other. This allowed for more efficient design and minimized design conflicts between projects, however additional cost allocation tracking is necessary to ensure costs are charged to the appropriate project.
5	Cost	Cost Estimating – Independent Cost Estimator	Engage an Independent Cost Estimator on board early and with sufficient expertise and resources to price the project along with the CM/GC.
6	Cost	Cost Estimating – Guidelines and Bid List	The Engineer's Estimates and the CM/GC's and Independent Cost Estimator's bottoms-up estimates are difficult to reconcile. Need to spend time and agree on pricing guidelines and pricing items up front. The detailed work breakdown structure for costs can vary, but the rolled up, high level cost categories need to be able to reconcile. Also need to ensure early review and emphasis that cost estimates assign the appropriate FTA Standard Cost Category (SCC) codes to items of work to avoid future transfer of costs from one SCC code to another such that costs can be compared from one milestone to the other.
7	Schedule	Use of CM/GC to implement interfacing projects within the project corridor	Having the same CM/GC construct other projects that interface within the project corridor allowed for streamlined coordination of design and minimized potential conflicts, delays and associated impacts between the interfacing projects.

Mid-Coast Corridor Transit Project – Final Design Phase – Lessons Learned

Appendix A SANDAG

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
8	Scope	Document resolution of CM/GC design review comments	During Pre-construction services, CM/GC is involved in the design review. Documentation of the resolution of the CM/GC's comments is important for reference and clarification as design develops and pricing is being evaluated, including for subcontractors that may not have been involved in early pricing efforts. This also provides a reference for supporting the GMP, as well as VE proposal review and tracking.
9	Management	Value Engineering – Early CM/GC involvement	Engage the CM/GC early in VE efforts to develop ideas and validate cost estimates to determine whether potential savings are reasonable to implement.
10	Management	Value Engineering – Design costs	Need to evaluate and include the estimated cost of redesign efforts required to implement the VE. The design costs can offset potential construction savings.
11	Management	Minimize the use of Provisional Sums in CM/GC GMP	Including provisional sums on major elements of work, provides the CM/GC another "bite of the apple" and reduces the amount of leverage an owner may have to negotiate the best price, if there is no opportunity to go in another direction. Agree on the sufficient level of design to properly price the Guaranteed Maximum Price (GMP) to minimize final design risk and avoid provisional sums that defer final pricing. If design level is not deemed sufficient to provide a GMP for certain elements of work, then need to agree on the minimum level to advance the design to in order to avoid use of provisional sums. If provisional sums are used, reserve the use to minor elements of work, to work elements that can be pulled and bid out, or consider additional contingency to cover potential cost increases that exceed typical construction contingency.

Mid-Coast Corridor Transit Project – Final Design Phase – Lessons Learned

Appendix A SANDAG

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
12	Scope	Provisions for potential future revisions to ADA design/code standards for transit parking	When designing transit parking, should consider potential for future code revisions that may increase ADA space requirements. Additional ADA spaces for electric vehicle charging stations were needed at two park and ride lots to meet the latest code requirements. The initial parking lot design maximized the number of spaces that the site could accommodate which allowed these spaces to be added with minimal revisions while maintaining the total number of spaces required.
13	Scope	Architectural/Aesthetic Treatment of Retaining Walls	Need to review the wall architectural treatment throughout the project to ensure there is consistency in aesthetics and that the design intent, property agreements, environmental and community commitments are met. Multiple wall designs with different ownership/maintenance, wall types and architectural treatment (patterns and color) created inconsistent and contrasting architectural treatment throughout the project corridor. Including operations and maintenance representatives aided in the final decision-making process.
14	Risk	Project Risk Assessment – Team involvement	Engaging CM/GC, CM and design into risk assessment process helped early risk identification and assign appropriate party to manage
15	Management	CM/GC Risk Analysis	Important for integrated project team to jointly develop and analyze risks, create a risk matrix/register and agree on risk ownership. The risk register was included as part of the contract.
16	Management	Collaboration	Procurement of CM Consultant and CM/GC earlier in the design phase fosters greater opportunities to refine design, enhance project phasing, identify risks, and forces the CM/GC and CM Consultant to take some ownership in the development of design solutions. It creates an environment where collaborative problem solving, and transparency are employed for the greater good of the project.

Mid-Coast Corridor Transit Project – Final Design Phase – Lessons Learned

Appendix A SANDAG

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
17	Management	General conditions and technical specifications	Develop boilerplate GC's and technical specification content and formatting early. Solicit input and feedback from others who have blazed a trail before you. If you're an agency with little to no prior experience in developing or administering alternative delivery contracts, and you wait, you may find yourself developing documents that fall short of the standards you are used to.

MID-COAST CORRIDOR
TRANSIT PROJECT

Appendix J

Lessons Learned Construction Phase

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
1	Management	Specifications - Some language from the Caltrans standard specifications was not modified to accommodate a CMGC delivery method.	This project used Caltrans Standard Specifications as a basis, which are written for a Design/Bid/Build format and have specific responsibilities for what testing will be done by "The Engineer", "METS", "Department", and "Caltrans". Several issues arise from this. First, the special provisions need to outline/define who will do the testing when one of these four terms above is used. Secondly, with the intention of the CMCG project being to shift more responsibility to the contractor, some of these references to testing done by "The Engineer" should be assigned to the contractor. Third, in some instances when Caltrans specifications define tests to be carried out by "The Engineer" it becomes unclear as to who is performing the acceptance testing and who is responsible for managing the risk. Specific examples (not a complete list) of material inspection and testing that are affected: hoops, strand, couplers, PTFE bearings, all structural source inspection, and CBC special inspection and testing. Ensure that the special provisions for alternative delivery projects clearly define roles and responsibility shifts regarding Caltrans Specifications. Specifically, some possible ways to improve the process are: 1) Recommend requiring a Source Inspection Quality Management Plan (SIQMP) as outlined by Caltrans so that methods and frequency of off-site operations by the Contractor are defined. 2) To place the agency and/or CMC in a true oversight role with the Contractor's QC performing acceptance testing, the terms "Engineer", "METS", "Department" and "QA" should either be defined as Contractor Roles, or within the special provisions a statement similar to: "Whenever samples, testing, or inspection are specified to be carried out by the Engineer, METS, the Department, or QA, this sampling, testing, and/or inspection shall be performed by the Contractor with the Contractor's results being the acceptance tests. These tests are in addition to manufacture/fabricator testing. The CMC will perform inspection and testing at their discretion, and the CMC results being for verification purposes."
2	Management	Special Provisions (Specifications)	This project had multiple supplements with their own special provisions. However, these separate special provisions were not "stand-alone" and would sometimes refer to a larger supplement special provisions which had numerous non-applicable items and caused confusion in many cases. CMC staff recommend SANDAG require one of the following for future large projects with multiple supplements: 1) Have stand-alone special provisions for each supplement. Examples are that the Aux Lane and Voigt projects which did have their own special provisions, but then referenced Mid-Coast which had numerous items that were not used (i.e. track, bridge specs etc.) but did not have the desired roadway paving specifications. This caused confusion and many RFIs had to be generated which added work. 2) An alternative to having independent special provisions for each supplement would be to have one special provisions for all the whole program. Site specific requirements could be added, but one special provisions would govern. The Mid-Coast Program was planned to use one set of special provisions but due to the varied design stages for each supplement and multiple design teams it was not always clear which specification was to be used. If all the work is known and at the same design stage, this option would be best. This project morphed into something between the two recommendations above where the supplement 4 special provisions were the main specs, but there were smaller supplement standalone special provisions that then referenced the supplement 4 special provision.

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
3	Management	Contractor Quality Control Program/Responsibilities	1) There have been a few value engineering changes (VECs) that took place during the project. When these occurred, the Contractor provided the design. The specification did not require a quality control plan for the design work. Additionally, several items of work on the project were Design-build. These should also require a design and construction quality control plan. Recommend the FTA 15 element format be required for all QC plans. For the Contractor designed elements we didn't have specifications in place to require the contractor to submit full design quality plans in FTA format so we leaned on FTA requirements and the Contractor cooperated, but the process was challenging and for future projects language to cover the QC plans is recommend. 2) For this project, the parking structures were added as a change order which allowed for a design-build within the CMGC. The special provisions did not account for this scenario. The requirements for the quality program were not defined for a design-build scenario. As a result, the cost, risk, and responsibility for the CBC inspection and testing fell to the owner. 3) QC Staff Qualifications - There were no specific requirements for QC inspection staff who were to be involved in specialized items such as bridge construction or track. As a result, some of the personnel hired by the Contractor were less experienced in these specialty items. It is recommended that for future CMGC, the specifications are more clear with regard to the number of years of experience and qualifications needed to be proposed and used as a QC inspector. In addition, because items like SWPPP and Traffic Control were not specifically called out as needing to be under the QC Program, the Contractor broke them out. So issues related to these specialty items were not subject to the QC Plan and ran separately of that program which created issues. Additionally, requiring a dedicated person on the QC staff who has significant Caltrans Spec and bridge building knowledge would have greatly improved the quality of submittals coming from the contractor. The number of revise and resubmit submittals was not ideal for a CMGC project because of a lack of experience specifically with the Caltrans specifications by those putting together the submittal.
4	Management	Outdated/Unclear Specifications	Several specified items were found to require additional clarification or revisions during the project: 1) Rail tie fabrication for light rail - 134 11 33.13 - Rail tie fabrication specifications are out of date and could use overhaul. LB Foster owns CXT, they have been making rail ties at that location since the 1980's and are heavily involved in specifications with AREMA. They requested some changes from the specifications based upon industry standard and their belief that many of the items in the specifications were outdated. 2) Rail Tie fabrication for Heavy Rail 234 11 33 13 2.02.J.1 - It appears that the Duggan test is outdated and ASTM C1778 will replace it for AREMA concrete tie durability/alkali-aggregate reaction testing in the future. May want to delete Duggan test in future heavy rail specifications or make it optional to supply either Duggan or ASTM C1778. 3) Carbon Equivalency in Steel Piles 49-2.02B(1)(a) - Carbon equivalency is calculated as a general measure of weldability in the piling specifications. There are two different formulas that give different results. The industry indicated they prefer using the ASTM rather than AWS formula. The lesson is that since our specifications call for the more stringent AWS formula, this needs to be communicated before ordering by the Contractor. Alternatively, we could consider a specification change to be in line with using the industry norm of ASTM A709 CE formula. 4) Rail thermite weld specs - The specifications had some contradictory information regarding acceptance criteria. Specifically, the acceptance criteria in the specifications and calibration block were not clear. Different inspectors had different interpretations and we needed design and expert input to make the decision. Also, the specifications need to state that a scan plan is required to prove that the calibration block provides full volumetric coverage.

LL #	CATEGORY Management, Scope, Schedule, Cost, Risk	SUBJECT	LESSON LEARNED
5	Management	CMC Organization	Discuss Contractor and CMC organization during pre-construction phase and align the organizations to allow for maximum efficiency. In the case of this project, since the contractor broke the project into North and South, instead of having multiple REs for each supplement, have 1 RE over the North and 1 over the South, but additional Office Engineers. For future recommend that both the CMC and Contractor set up in a similar way for best communication rather than having the CMC set up differently than the Contractor.
6	Management	Safety and Security Certification	1) More direction could have been provided detailing what the contractor was responsible for in regard to Safety and Security Certification. It was not clear that the contractor was responsible for documenting and submitting certifiable items and running the program in the contract documents. 2) Early preparation of a safety certification plan, as well as a safety and security committee early on led to collaboration between Contractor, CMC, PMC, SANDAG, MTS and CPUC. The verification of all safety and security items was a success. The formation of a safety certification plan near the project beginning which included a spreadsheet of all certifiable items and means of verification was extremely helpful when safety and security checks began. In addition, a sub-committee to discuss methods of tracking the progress was formed over a year before project opening, which helped in deciding to house all records in Prolog, determine how to track via spreadsheets, and in discussing any ambiguities with the means of verification or requirements so they could be tracked to closure and the verifications completed.
7	Management	Preconstruction Involvement by CM Staff: Design and specification constructability reviews, GMP Negotiations	Recommend including CMC staff early in the preconstruction process: 1) Thorough review of specifications and detailed constructability review by CMC staff during preconstruction would have resolved some issues and reduced RFIs/CCOs prior to getting into construction. 2) Including CMC staff in the GMP negotiations would help with a better understanding of what scope and risks were included and excluded. Thorough documentation of all changes, agreements, and discussions are important for change management throughout the project. An additional recommendation for both Contractor and CMC field level staff (Superintended and RE) to be included in constructability reviews. Reviews by this level of staff will provide the full benefit of the CMGC process.

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: FY 2018

Item Number: 25

Audit Recommendation:

Better link TransNet funding to project and program activities for general public awareness by implementing the following:

a. More prominently featuring the TransNet logo on SANDAG and TransNet partner

Justification for Completion:

In 2019, staff made improvements to SANDAG.org/transnet (previous website) which included links to the TransNet dashboard and TransNet grant program pages. On social media, #TransNetSD was added to posts that referenced TransNet-funded projects. A review of the TransNet logo on partner agency websites was conducted and then provided to the project team in 2021. Additional enhancements to more prominently feature the TransNet program on the SANDAG.org website were integrated into the redesign of the SANDAG.org website which was underway from 2020-2022. Simultaneously, SANDAG underwent a brand redesign, including an updated SANDAG and TransNet logo lockup that was launched consistent with the new brand guide in mid-2022. With the launch of the new SANDAG.org website in December 2022, TransNet was prominently located on the home page of the website under the main "At-a-Glance" call-to-action-grid. It is also listed as a prominent Tier 1 page under the Funding tab of the main site navigation. Since September

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Andrea Villyard Digitally signed by Andrea Villyard Date: 2024.09.13 16:26:58 -07'00' Date 9/13/24

Director Signature: Robyn J. Wapner Date: 9/18/24

ITOC Approval: Yes: ☐ No: ☐

Meeting Date: Agenda number:

Meeting Link:

Supporting Documents

TPA Year: FY 20218

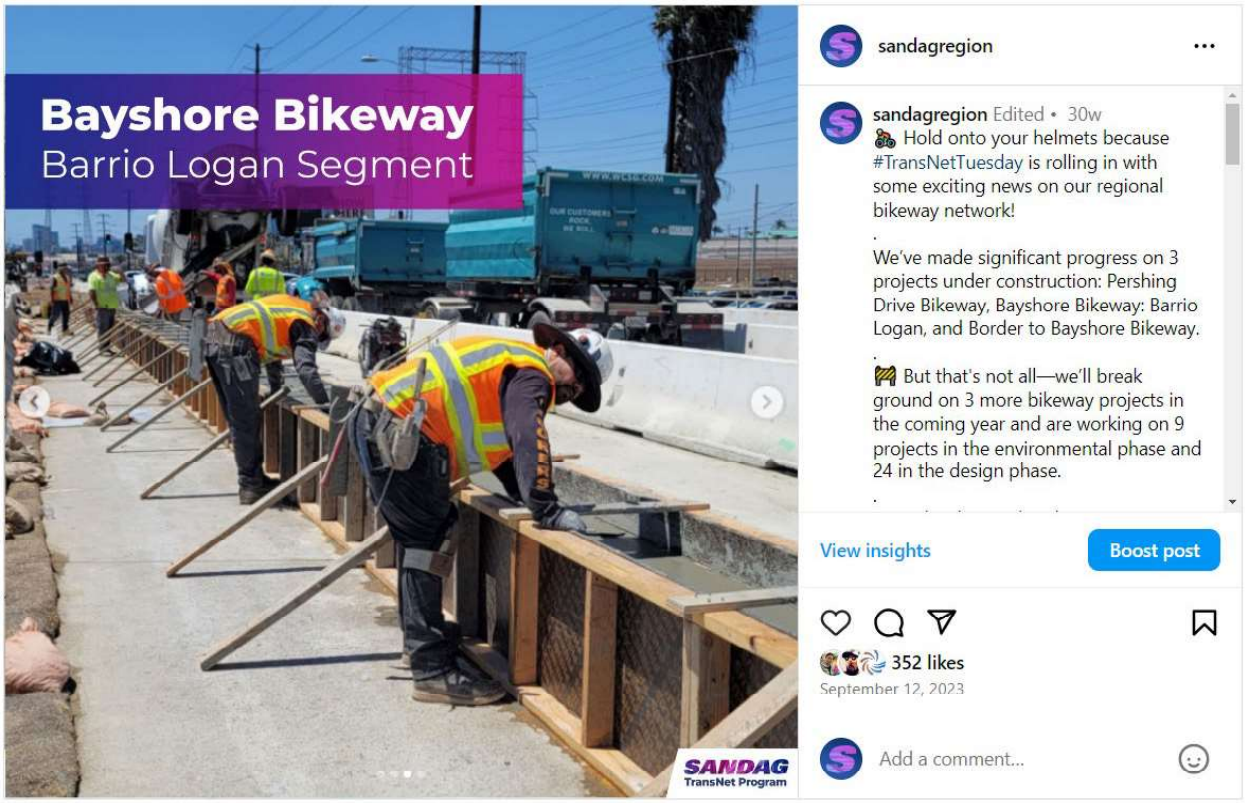
Item Number: 25

Social Media Posts (Sample)

September 5, 2023:



September 12, 2023:



September 19, 2023:

SANDAG - San Diego Association of Governments
Published by Sprout Social · September 19, 2023 ·

Take a trip down memory lane as we reminisce about the construction of the State Route 52 (SR 52) East extension in Santee!

The SR 52 extension was a collaborative effort funded by local TransNet, state, and federal sources. This project prioritized traffic flow and preserving our environment.

Some of its benefits included:
- ✅ New four lane road between SR 125 and SR 67, with direct connectors
- ✅ A third lane added between I-15 and Mast Boulevard
- ✅ New interchanges at Fanita Drive, Magnolia Avenue, and Cuyamaca Street
- ✅ Direct access to job centers from East County communities

The SR 52 freeway extension through Santee into East County opened on March 29, 2011.

Want to dive deeper into the transformation of SR 52 and more like this? Visit:
https://transnetmap.sandag.org/

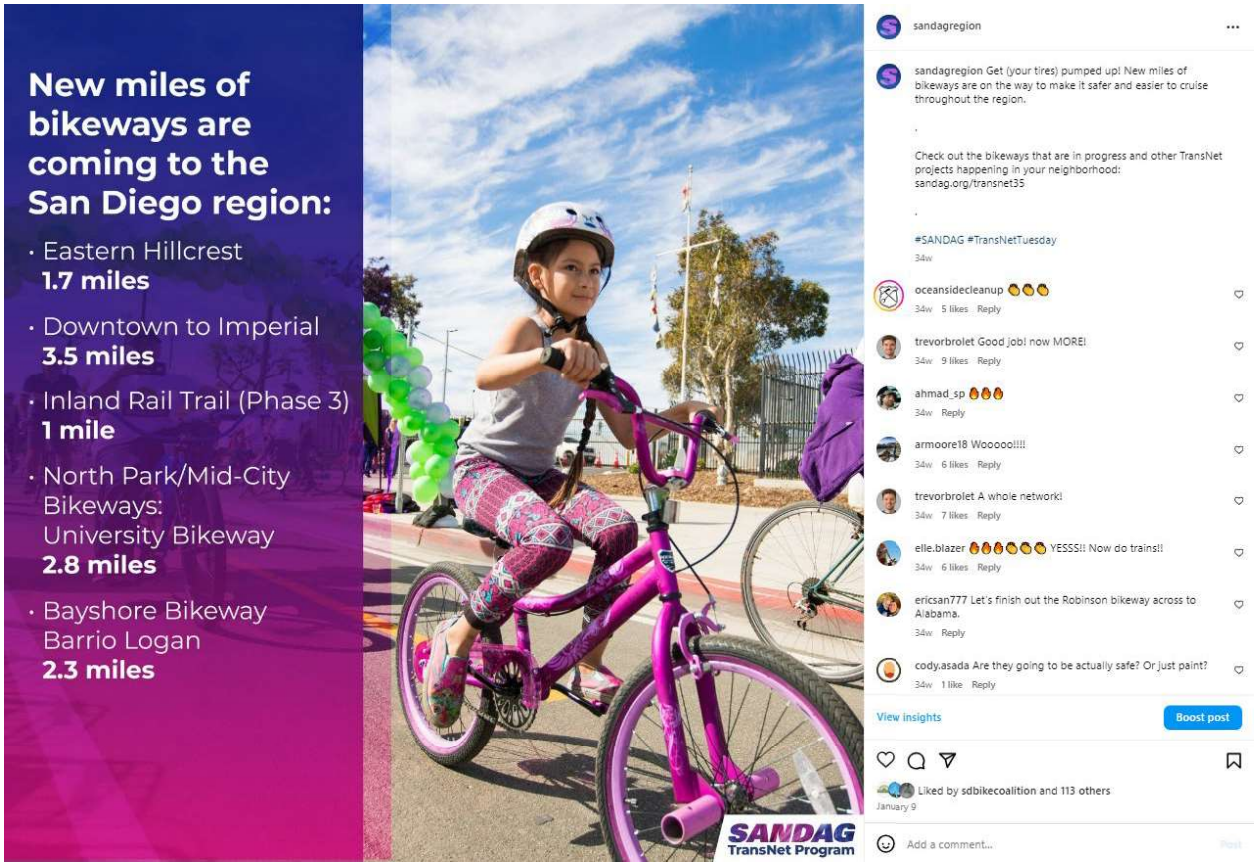
#TransNetTuesday #SR52 #SANDAG #Throwback #Santee



January 2, 2024:



January 9, 2024:



January 24, 2024:

San Diego Association of Governments (SANDAG)
17,186 followers
7mo • Edited •

This #TransNetTuesday, we are shining the spotlight on our Specialized Transportation Grant Program (STGP). With the help of TransNet, this program provides grants to local nonprofit organizations and public agencies that ...more

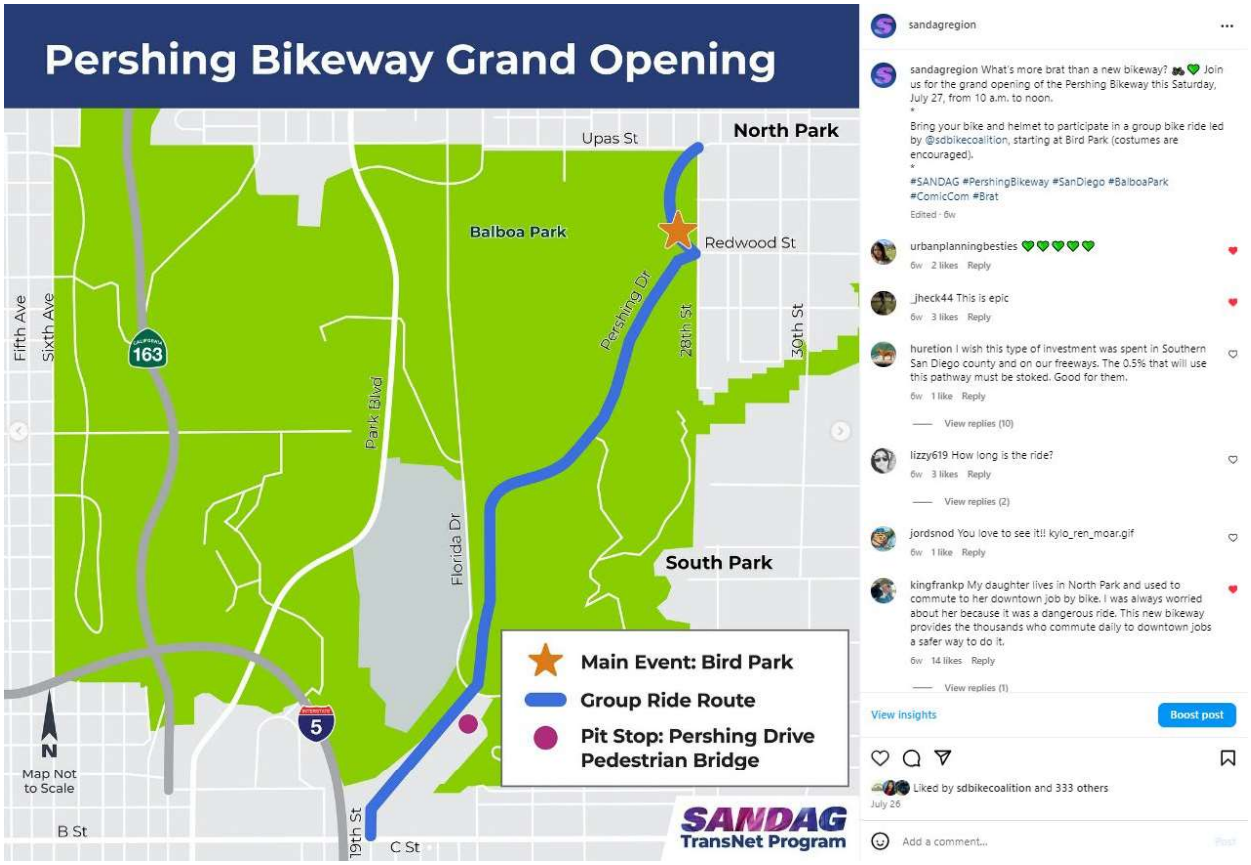


17 3 reposts

June 28, 2024:


SANDAG
TransNet Program
Imperial Avenue Bikeway Project
UNDER CONSTRUCTION
SANDAG.org
SANDAG
TransNet Program
sandagregion
sandagregion 10w
This week, we celebrated the start of construction on the Imperial Avenue Bikeway. The 3.5-mile project will add features to make it safer to walk, bike, and drive between Downtown and Southeastern San Diego. Learn more at the link in our bio.
.
#SANDAG #ImperialAvenueBikeway #Construction
hijadechente 10w
Woohoo!!!
4 likes Reply
View insights
Boost post
155 likes
June 28
Add a comment...

July 26, 2024:


Pershing Bikeway Grand Opening
Upas St
North Park
Balboa Park
Redwood St
Pershing Dr
28th St
30th St
Fifth Ave
Sixth Ave
163
Park Blvd
Florida Dr
South Park
Main Event: Bird Park
Group Ride Route
Pit Stop: Pershing Drive Pedestrian Bridge
N
Map Not to Scale
5
B St
19th St
C St
SANDAG
TransNet Program
sandagregion
sandagregion What's more brat than a new bikeway? Join us for the grand opening of the Pershing Bikeway this Saturday, July 27, from 10 a.m. to noon.
Bring your bike and helmet to participate in a group bike ride led by @sdbikecoalition, starting at Bird Park (costumes are encouraged).
#SANDAG #PershingBikeway #SanDiego #BalboaPark #ComicCon #Brat
Edited · 6w
urbanplanningbesties
6w 2 likes Reply
_jheck44 This is epic
6w 3 likes Reply
huretion I wish this type of investment was spent in Southern San Diego county and on our freeways. The 0.5% that will use this pathway must be stoked. Good for them.
6w 1 like Reply
View replies (10)
lizzy619 How long is the ride?
6w 3 likes Reply
View replies (2)
jordsnod You love to see it!! kylo_ren_moar.gif
6w 1 like Reply
kingfrankp My daughter lives in North Park and used to commute to her downtown job by bike. I was always worried about her because it was a dangerous ride. This new bikeway provides the thousands who commute daily to downtown jobs a safer way to do it.
6w 14 likes Reply
View replies (1)
View insights
Boost post
Liked by sdbikecoalition and 333 others
July 26
Add a comment...

August 2, 2024:

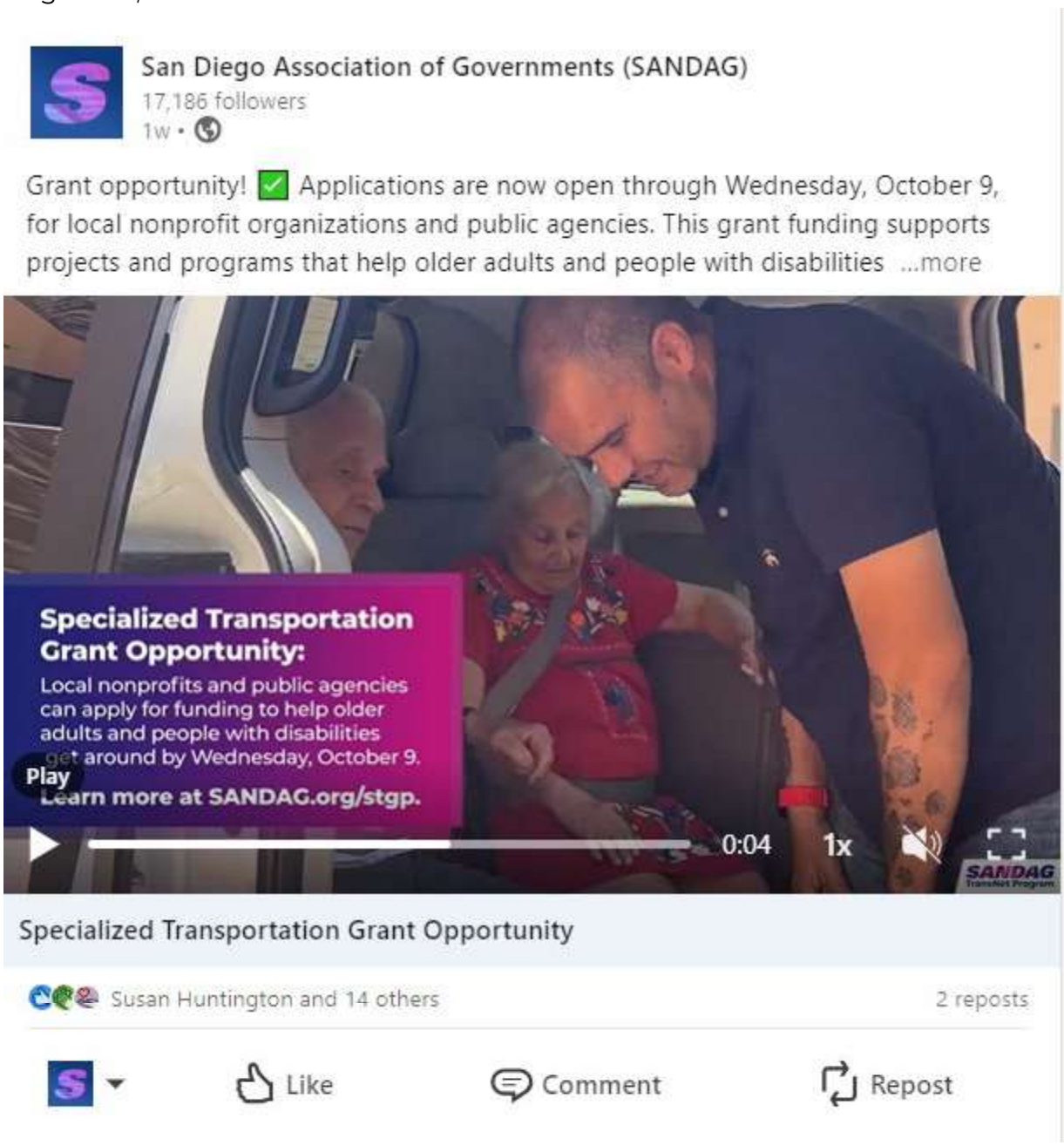
San Diego Association of Governments (SANDAG)
17,186 followers
1mo •

Do you have ten or more years of experience in managing large-scale construction projects? Apply to join the SANDAG TransNet Independent Taxpayer Oversight Committee (ITOC) by Wednesday, August 14. ITOC helps ensure ...more



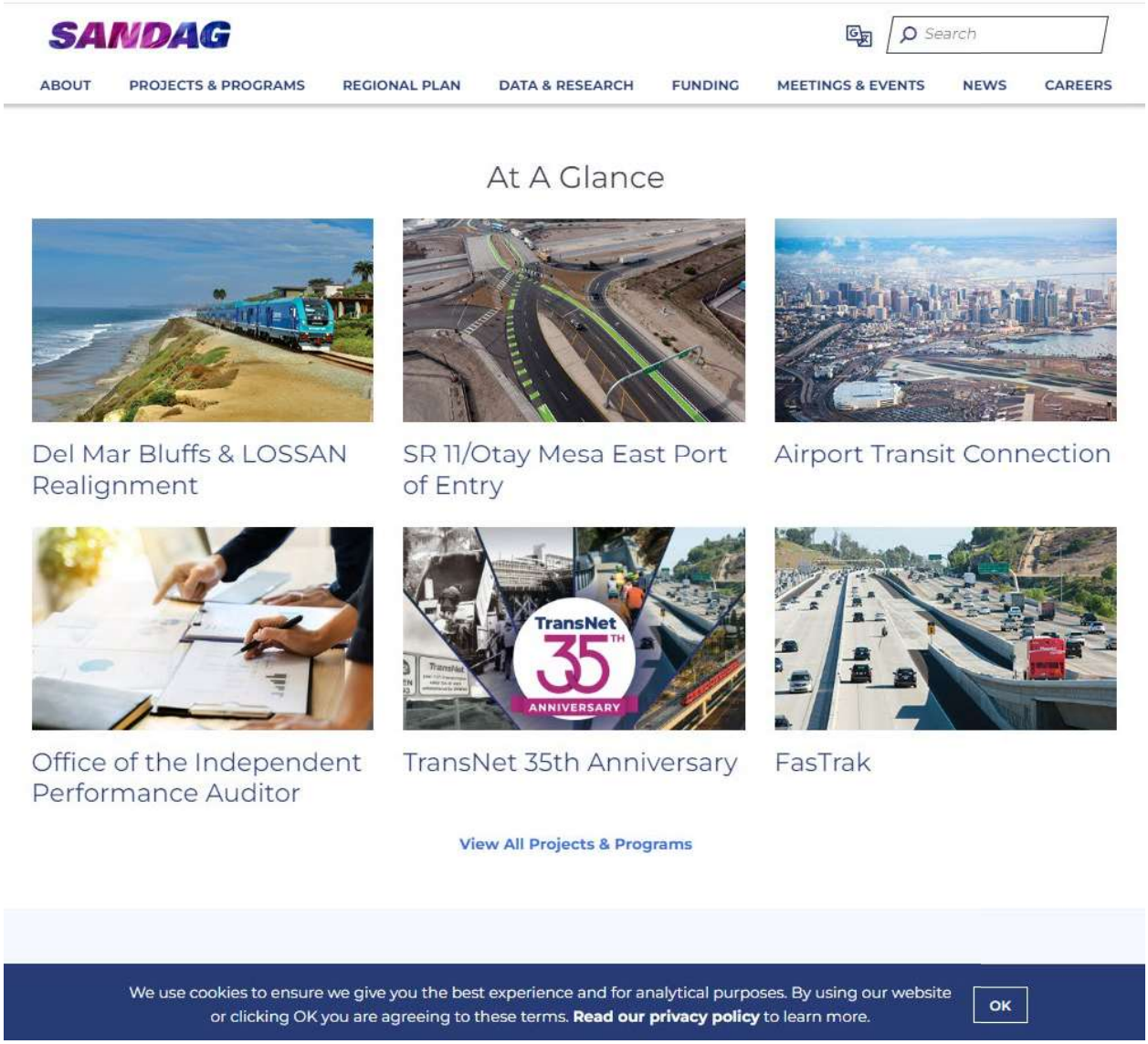
SANDAG TransNet Independent Taxpayer Oversight Committee

August 30, 2024:

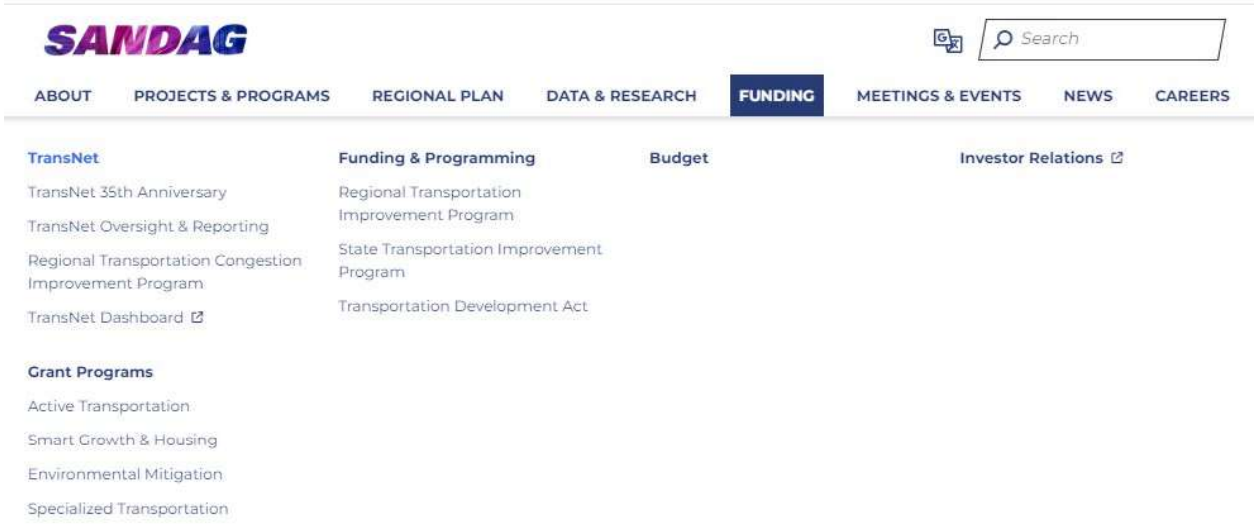


SANDAG Website

Home Page:



Navigation Menu:



SANDAG Brand Guidelines

Projects & Programs Visual Identity:



TransNet Program Signage:

TransNet Program Signage

As a TransNet funded project, it is important to notify the public about project construction, responsible parties/funding sources, and where to find more information. TransNet signage has been developed to ensure the public is informed before, during, and for a period after project construction.

See the TransNet Program Signage Design Guidelines for more details.





Color Palette

PANTONE 3590 C	PANTONE 2380 C
#3C57A1 RGB: 60, 87, 161 CMYK: 96, 82, 9, 1	#343A4A RGB: 52, 58, 74 CMYK: 82, 70, 50, 46

TPA Recommendation Completion Form

Final Audit Report 2024-09-18

Created:	2024-09-13
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"TPA Recommendation Completion Form" History

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TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2021

Item Number: 1

Audit Recommendation:
Clearly identify whether the remaining TransNet Extension Ordinance projects will be part of the 2021 Regional Transportation Plan, before the SANDAG Board approves the 2021 plan, and provide a similar identification for any key changes in future Regional Transportation Plans.

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2021

Item Number: 2

Audit Recommendation:

Develop regular crosswalks to summarize and compare planned major corridor projects outlined in the TransNet Extension Ordinance with current improvement implementation status by identifying project progress in terms of "complete", "in-progress", "cancelled", or "moved beyond 2048 and outside the TransNet Extension Ordinance period". SANDAG should complete this reconciliation annually, at the minimum when it revises its Capital Improvement Program Budget, or when SANDAG makes a major update to the Regional Transportation Plan and explain deviations from the TransNet Extension Ordinance including scope expansions, reductions, or mergers with other project segments through a log that captures all explanations. When performing this reconciliation, SANDAG should utilize a consistent numbering format or key identifier for each project to facilitate the tracking of changes over time

Justification for Completion:

Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2021

Item Number: 8

Audit Recommendation:
Clearly and comprehensively report on actual progress and accomplishments (or lack thereof) against the TransNet Extension Ordinance on a regular, periodic basis—such as quarterly or annually— for project scope, costs, schedule, accomplishments, and outcomes against promises

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The crosswalk will be reviewed and updated, as needed, quarterly and maintained on the TransNet Dashboard at: https://transnetdashboard.sandag.org/.

Staff also continues to provide quarterly reports to the ITOC on the TransNet program. Data presented in those quarterly reports includes recent milestone accomplishments, future planned milestones, project expenditures, funds leveraged, and other project and program highlights.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2021

Item Number: 9

Audit Recommendation:
Demonstrate compliance with the TransNet Extension Ordinance by identifying, tracking, and reporting on various requirements and provisions to the Board and ITOC on a regular, periodic basis—such as quarterly or annually

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed.

Staff presented this new matrix to the ITOC in September 2024. Staff will continue making updates quarterly and maintaining the latest version on the TransNet Dashboard at: https://transnetdashboard.sandag.org/.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2024

Item Number: 2

Audit Recommendation:
Revamp or create new tools or spreadsheets to comprehensively track major corridor project delivery against Ordinance planned pledges at a detailed location boundary and scope level.

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2024

Item Number: 4

Audit Recommendation:
Provide the detailed listing – or highlight just those original TransNet major corridor project boundaries and scopes that were not completed as pledged – to the Board and ITOC for use as part of annual budget conversations as well as the 2025 Regional Plan, and future regional plans.

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/. It will continue to be updated quarterly and upon completion of the 2025 Regional Plan.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2024

Item Number: 10

Audit Recommendation:
Make sure the new tools or mechanisms comparing remaining Ordinance major corridor projects to regional plans at a detailed location boundary and scope level are accurate and supported through links to planning documents, budget information or plans of finance, or other documents as appropriate.

Justification for Completion:
Staff completed a new matrix to map the TransNet Ordinance projects to the respective TransNet Capital Improvement Projects (CIPs) and associated 2021 Regional Plan project(s). The matrix identifies the CIP numbers, RP numbers, scope and boundaries of each Ordinance that have been completed, are still in process, or planned in the future. Information is also included on initial cost estimates, current funding totals, and clarifying comments where needed. The matrix was posted in June 2024 on the TransNet Dashboard at: https://transnetdashboard.sandag.org/.

In September, a link was added to the matrix to send the reader directly to Appendix A of the 2021 RP. This revised matrix can be accessed on the TransNet Dashboard link above.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Chelsea Gonzales Date 9/17/24

Director Signature: Susan Huntington Date:

ITOC Approval: Yes: ☑ No: ☐

Meeting Date: 9/11/24 Agenda number: 9

Meeting Link: https://d3n9y02raazwpg.cloudfront.net/sandag/a0c04063-8311-11ee-852f-0050569183fa-f2c587d1-16b7-4e64-ab4a-ccb44a00ed21-172599843(

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2024

Item Number: 20

Audit Recommendation:

Review grantees final close out reports and investigate any items that grantees marked as in-progress.

Justification for Completion:

A new Grant Closeout Checklist was implemented in June 2024 that requires all grants to be reviewed in detail prior to processing the final payment or closing out. Included in the checklist is a review of the final progress report to ensure all items are completed, all deliverables have been provided to SANDAG, and that there are no outstanding issues on the project that need to be resolved. A copy of the checklist is attached. When grantees notify SANDAG that their project is complete and ready to be closed out, Grants staff will utilize the closeout checklist to ensure compliance with this audit recommendation. The completed checklist will be included as an attachment in ERP when the final invoice and retention release requests are routed for approval to ensure that no final payments are made without the completed checklist. This process change will be included in the Standard Operating Procedures that are under develop and will be completed in FY25.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Jenny Russo Digitally signed by Jenny Russo Date: 2024.08.19 12:38:50 -07'00' Date 8/19/24

Director Signature: Susan Huntington Digitally signed by Susan Huntington Date: 2024.08.21 09:53:35 -07'00' Date: 8/21/24

ITOC Approval: Yes: ☐ No: ☐

Meeting Date: Agenda number:

Meeting Link:

Grant Project Closeout Checklist

The San Diego Association of Governments (SANDAG) has developed this Grant Closeout Checklist to assist in the closeout process for SANDAG grant-funded projects. The Checklist is used by the Program Manager prior to closing out a project to make sure the correct project closure activities are carried out, and the Grantee's performance under the Agreement is documented. **This Checklist is to be completed prior to processing the final invoice for payment and releasing any retention. A copy of this completed and signed Checklist must be included when the final invoice and retention release payment requests are routed for approval.**

PART 1: GRANT AGREEMENT AND PROJECT INFORMATION

Instructions: Complete the table below.

Topic or Question	Response
1. Today's Date	Click or tap to enter a date.
Grant Agreement Information	
2. Grant Program Name	Choose an item.
3. Cycle Number	[Enter cycle number]
4. Agreement Number	[Enter grant agreement number]
5. Grantee Name	[Enter Grantee Name]
6. Project Name	[Enter Project Name]
7. Notice to Proceed Date	Click or tap to enter a date.
8. Agreement Expiration Date	Click or tap to enter a date.
9. Grantee Project Manager Name	[Enter Grantee Project Manager Name]
10. SANDAG Program Manager Name	[Enter Program Manager Name]
Grant Amounts	
11. Total Grant Award	$[Enter Total Grant Award From The Grant Agreement]
12. Grant Amount Paid To Date	$[Enter Amount From ERP Plus Any Payments From Onesolution]
13. Grant Amount Held in Retention	$[Enter Amount From ERP Plus Any Amounts From One Solution]
14. Amount of Grant Remaining (before final invoice and retention release)	$[Enter Amount From Question 10 Minus The Value From Questions 11 And 12]
Matching Funds	
15. Total Required Matching Funds	$[Enter Total Matching Funds From The Grant Agreement]
16. Matching Funds Provided To Date	$[Enter Amount]
17. Amount of Matching Funds Remaining to Be Provided	$[Enter Amount From Question 14 Minus The Value From Question 15]

PART 2: COMPLETION OF PROJECT TASKS, DELIVERABLES, AND PERFORMANCE MEASURES

Instructions: Complete the tables in each section below using information from the Project reports and other SANDAG records. Then, respond to the questions in each section by selecting a response from the list of options. Any "No" responses to the questions below indicate an area where the Grantee is deficient in its obligations under the Grant Agreement and should be reviewed and discussed with the Grantee.

A. Project Tasks and Deliverables

Instructions: If a Task includes multiple deliverables, list each deliverable in a separate row and indicate whether each deliverable was received (if a tangible item) or completed (if a non-tangible item).

Task No.	Task Description	Was the Task Completed?	Deliverables	Was Deliverable Received/Completed?
1		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
2		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
3		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
4		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
5		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.

6		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
7		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
8		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
9		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
10		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.

B. Performance Measures

Instructions: Mark the box next to the applicable statement, indicating whether the Agreement included performance measures. If applicable, complete the table outlining the Grantee's performance.

[For Agreements without performance measures only]

☐ This Grant did not include any required performance measures, and therefore, this section is not applicable.

[For Agreements with performance measures]

☐ This Grant included required performance measures, and the following table illustrates the Grantee's achieved outcomes.

No.	Performance Measure	Baseline Data[1]	Achieved Result	Was the Performance Measure Met?
1				Choose an item.
2				Choose an item.
3				Choose an item.
4				Choose an item.
5				Choose an item.

[1]*Baseline data as defined in the Agreement.*

PART 3: COMPLIANCE ASSESSMENT

Instructions: Each question below is derived from the Grant Agreement, and therefore, a question marked "No" indicates that the Grantee is out of compliance with the terms of the Grant Agreement. For any "No" response, provide additional comments in Part 5.

Topic or Question	Response
Scope of Performance and Project Changes	
1. If substantive changes to the Project occurred, did the Grantee notify SANDAG in writing?	Choose an item.
2. If the Grantee encountered or anticipated difficulty in meeting the Project Schedule, did the Grantee notify SANDAG in writing?	Choose an item.
3. If the Grantee requested an amendment to the Project Schedule in writing, did the notification include the reason(s) for the delay in performance and the date by which the Grantee expected to complete performance or delivery?	Choose an item.

4. If the Grantee needed to transfer more than 10% of the total grant award between tasks in the Project Budget, did the Grantee request the change in advance and adequately justify the need for the change?	Choose an item.
5. If there were any changes to the Grantee's Project Manager, did the Grantee provide SANDAG with updated contact information in a timely manner?	Choose an item.
California Public Utilities Commission (CPUC) Compliance [For AFA-funded projects only]	
6. Did the Grantee provide advance written notice to SANDAG if the Grantee or its third-party contractors would utilize vehicles that have a seating capacity of more than seven passengers?	Choose an item.
7. Did the Grantee and its third-party contractors place the International Symbol of Accessibility on every vehicle as required by the Grant Agreement?	Choose an item.
8. Did the Grantee provide sufficient evidence that it and its third-party contractors perform national criminal background checks on all drivers and do not utilize drivers that are a threat to public safety as described in the Grant Agreement?	Choose an item.
9. Did the Grantee provide sufficient evidence that it and its third-party contractors provide controlled substance and alcohol testing of drivers?	Choose an item.
Complaints [For AFA-funded projects only]	
10. Did the Grantee record and track complaints made by employees, volunteers, clients, or the general public, including complaints related to Title VI, ADA, and service quality, or any other grievance pertaining to the Project?	Choose an item.
11. Did the Grantee report complaints it received to SANDAG on the SANDAG Quarterly Progress Report?	Choose an item.
12. Did the Grantee notify SANDAG in writing within 72 hours of receiving a Title VI or ADA complaint?	Choose an item.
San Diego Management and Monitoring Program (SDMMP) Compliance [For EMP LMG-funded projects only]	
13. Did the Grantee create a Project Page on the San Diego Management and Monitoring Program (SDMMP) webpage, SDMMP.com, prior to submitting billing to the project?	Choose an item.
14. Was State of Preserve and Performance Measures data submitted to SDMMP on a quarterly/annual basis?	Choose an item.

Compliance Information System (CIS) [For EMP LMG-funded projects only]	
15. Did the Grantee report payment details using the SANDAG web-based CIS by the 15th of each month following receipt of payment by SANDAG?	Choose an item.
16. Did the Grantee ensure its third-party contractors and/or subcontractors consistently reported payments or confirmed receipt of payment in the CIS?	Choose an item.
Insurance [For non-governmental grantees only]	
17. Did the Grantee maintain compliance with the insurance requirements throughout the term of the Agreement?	Choose an item.
Third-Party Contracting	
18. Did the Grantee provide evidence of a competitive procurement or obtain prior written approval of SANDAG to utilize a noncompetitive procurement for each third-party contract over $10,000?	Choose an item.
19. [For HAP, Section 5310, and AFA-funded projects only] Did the Grantee include the funding agency (REAP, FTA, or CPUC) pass-through provisions in each third-party contract over $10,000?	Choose an item.
Payments/Invoicing [For all projects except STGP vehicle projects]	
20. Did the Grantee typically (at least 80% of the time) submit its invoices in the required format and on time?	Choose an item.
21. Did the Grantee respond in a timely manner to requests to make invoice corrections if errors were found?	Choose an item.
22. If the Grantee was requested to make invoice corrections, did the Grantee take sufficient steps to see that future errors were not made on the same issue?	Choose an item.
23. Were all items included in Grantee invoices eligible under the Grant Agreement?	Choose an item.
24. Were sufficient backup materials, including required documentation, consistently provided with each invoice packet?	Choose an item.
25. If the Grantee invoiced for indirect costs, were they consistent with the indirect cost requirements in the Agreement?	Choose an item.
26. Did the Grantee's invoices include its matching fund contribution, along with supporting, descriptive, and explanatory documentation for the matching funds reported to have been made?	Choose an item.

Quarterly Reports	
27. Did the Grantee typically (at least 80% of the time) submit its quarterly reports in the required format and on time?	Choose an item.
28. Were quarterly reports typically (at least 80% of the time) filled out correctly and free of errors?	Choose an item.
29. Did the quarterly reports sufficiently detail accomplishments and progress, pending issues and actions toward resolution, and the status of the budget, schedule, and Performance Measures?	Choose an item.
30. If applicable to the Scope of Work, did the Grantee provide project milestone information such as presentations to community groups, other agencies, and elected officials to support media and communications efforts?	Choose an item.
31. If applicable to the Scope of Work, did the Grantee provide photo documentation required by the Grant Agreement?	Choose an item.
32. If applicable to the Scope of Work, did the Grantee provide SANDAG with agendas and meeting summaries for all community meetings?	Choose an item.
Vehicle and Other Equipment Purchases	
33. If the Grantee purchased vehicles or other equipment with the grant funding, did the Grantee maintain ownership of the equipment and use the equipment only for the purposes set forth in the Agreement?	Choose an item.
34. If the Grantee purchased vehicles or other equipment with grant funding, did the Grantee keep an inventory record for each item and maintain it in good operating order consistent with the purposes for which it was acquired?	Choose an item.
35. [For STGP-funded vehicle grants only] If a site visit was conducted, did the Grantee resolve any issues that were identified at the site visit?	Choose an item.
Capital Projects Involving Construction [For EMP LMG, ATGP, SGIP, and HAP-funded capital projects only]	
36. Did the Grantee coordinate with SANDAG staff on the development of a baseline data collection plan?	Choose an item.
37. Did the Grantee provide the TransNet signage? Did the signage comply with the Agreement requirements, including specifications, placement, and prior approval by SANDAG?	Choose an item.
38. Was a Capital Project Site Visit completed? Has the Grantee resolved any issues that were identified at the site visit?	Choose an item.

39. Did the Grantee and its subcontractors who are not employees of a public entity comply with all DIR and state/federal labor code requirements, including: • Complete Public Works Contractor Registration and the payment of an annual registration fee to the DIR • Include the payment of prevailing wages to all workers performing prevailing wage work • Use the DIR's Electronic Certified Payroll Reporting (eCPR) System to furnish certified payroll records to the California Labor Commissioner • Keep complete and accurate records and comply with the requirements of the California Labor Code	Choose an item.
40. Did the Grantee provide advanced notification to SANDAG that it was going to begin prevailing wage-covered work so SANDAG could prepare for labor compliance monitoring?	Choose an item.
41. Did the Grantee respond in a timely matter and proactively work to resolve any labor compliance issues raised by SANDAG or its labor compliance consultant?	Choose an item.
42. If the Grantee's project required an investigation by the Department of Industrial Relations (DIR), was the Grantee found to be responsible for any of the issues?	Choose an item.

PART 4: PROJECT COMPLETION AND CLOSEOUT

Instructions: Any question marked "No" below may require resolution by the TransNet Independent Taxpayer Oversight Committee (ITOC), a Policy Advisory Committee, or the Board of Directors before the project can be closed and final payment can be made. Contact the SANDAG Grants Program Manager to identify a recommended resolution.

Agreement Compliance

Question	Response
1. Based on the information provided in Part 2A, did the Grantee complete the entire project as described in the Scope of Work prior to the termination date of the Agreement?	Choose an item.
2. Based on the information provided in Part 2B, did the Grantee meet the Performance Measures included in the Grant Agreement?	Choose an item.
3. If applicable, did the Grantee provide the required match amount?	Choose an item.
4. [For EMP LMG-funded projects only] Has the Contracts & Procurement Department indicated that the Grantee has reported all of its payments and that the project can be closed in the CIS?	Choose an item.

5. [For all projects except STGP vehicle projects] Did the Grantee provide a final invoice of project expenses and a final progress report within 90 calendar days following Project completion or termination by SANDAG?	Choose an item.
6. Did the Grantee and its subcontractors have all necessary licenses, permits, qualifications, and approvals to perform the services under the Agreement?	Choose an item.
7. If this was a capital project involving construction, has SANDAG released all withheld payments that were due to labor compliance issues on the Project? Note: Final payment and release of retention cannot occur until all labor compliance issues are resolved.	Choose an item.
8. If this was a capital project involving construction, was the final constructed project consistent with the Agreement Scope of Work and the original project application?	Choose an item.
9. If this was a capital project involving construction, will the project improvements continue to be used for at least five years after completion of construction?	Choose an item.

PART 5: SUMMARY AND ADDITIONAL COMMENTS

Instructions: Use the space below to provide additional details on any responses to the prior sections where the response was "No."

Part No.	Question No.	Notes

Additional Comments

Instructions: Include in the space below any additional comments regarding the project or the Grantee.

PART 6: GRANTEE SIGNATURE

By signing below, I confirm receipt of this completed Grant Closeout Checklist and acknowledge that this Project Closeout checklist does not invalidate any requirements included in the Agreement.

Grantee Project Manager Name (Print)	Signature	Date

TransNet Triennial Performance Audit Recommendation Completion Form

TPA Year: 2024

Item Number: 21

Audit Recommendation:

Validate that smart growth grantees met all objectives and verify that grantees provided deliverables at project close-out during site visits.

Justification for Completion:

A new Grant Closeout Checklist was implemented in June 2024 that requires all grants to be reviewed in detail prior to processing the final payment or closing out. A copy of the checklist is attached. For construction projects, a site visit is conducted where the Program Manager goes to the project site and verifies that all work was completed per the grant scope of work and documents this on a Capital Project Site Visit Report. The completed checklist and report files are included as an attachment in ERP when the final invoice and retention release requests are routed for approval to ensure that no final payments are made without the required documentation. These process changes will be included in the Standard Operating Procedures that are under development and will be completed in FY25.

*** Supporting Documents:** Please attach any supporting documents or related links.

Approvals

PM Signature: Jenny Russo Digitally signed by Jenny Russo Date: 2024.08.19 13:00:25 -07'00' Date 8/19/24

Director Signature: Susan Huntington Digitally signed by Susan Huntington Date: 2024.08.21 09:52:40 -07'00' Date: 8/21/24

ITOC Approval: Yes: ☐ No: ☐

Meeting Date: Agenda number:

Meeting Link:

Grant Project Closeout Checklist

The San Diego Association of Governments (SANDAG) has developed this Grant Closeout Checklist to assist in the closeout process for SANDAG grant-funded projects. The Checklist is used by the Program Manager prior to closing out a project to make sure the correct project closure activities are carried out, and the Grantee's performance under the Agreement is documented. **This Checklist is to be completed prior to processing the final invoice for payment and releasing any retention. A copy of this completed and signed Checklist must be included when the final invoice and retention release payment requests are routed for approval.**

PART 1: GRANT AGREEMENT AND PROJECT INFORMATION

Instructions: Complete the table below.

Topic or Question	Response
1. Today's Date	Click or tap to enter a date.
Grant Agreement Information	
2. Grant Program Name	Choose an item.
3. Cycle Number	[Enter cycle number]
4. Agreement Number	[Enter grant agreement number]
5. Grantee Name	[Enter Grantee Name]
6. Project Name	[Enter Project Name]
7. Notice to Proceed Date	Click or tap to enter a date.
8. Agreement Expiration Date	Click or tap to enter a date.
9. Grantee Project Manager Name	[Enter Grantee Project Manager Name]
10. SANDAG Program Manager Name	[Enter Program Manager Name]
Grant Amounts	
11. Total Grant Award	$[Enter Total Grant Award From The Grant Agreement]
12. Grant Amount Paid To Date	$[Enter Amount From ERP Plus Any Payments From Onesolution]
13. Grant Amount Held in Retention	$[Enter Amount From ERP Plus Any Amounts From One Solution]
14. Amount of Grant Remaining (before final invoice and retention release)	$[Enter Amount From Question 10 Minus The Value From Questions 11 And 12]
Matching Funds	
15. Total Required Matching Funds	$[Enter Total Matching Funds From The Grant Agreement]
16. Matching Funds Provided To Date	$[Enter Amount]
17. Amount of Matching Funds Remaining to Be Provided	$[Enter Amount From Question 14 Minus The Value From Question 15]

PART 2: COMPLETION OF PROJECT TASKS, DELIVERABLES, AND PERFORMANCE MEASURES

Instructions: Complete the tables in each section below using information from the Project reports and other SANDAG records. Then, respond to the questions in each section by selecting a response from the list of options. Any "No" responses to the questions below indicate an area where the Grantee is deficient in its obligations under the Grant Agreement and should be reviewed and discussed with the Grantee.

A. Project Tasks and Deliverables

Instructions: If a Task includes multiple deliverables, list each deliverable in a separate row and indicate whether each deliverable was received (if a tangible item) or completed (if a non-tangible item).

Task No.	Task Description	Was the Task Completed?	Deliverables	Was Deliverable Received/Completed?
1		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
2		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
3		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
4		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
5		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.

6		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
7		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
8		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
9		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.
10		Choose an item.		Choose an item.
				Choose an item.
				Choose an item.

B. Performance Measures

Instructions: Mark the box next to the applicable statement, indicating whether the Agreement included performance measures. If applicable, complete the table outlining the Grantee's performance.

[For Agreements without performance measures only]

☐ This Grant did not include any required performance measures, and therefore, this section is not applicable.

[For Agreements with performance measures]

☐ This Grant included required performance measures, and the following table illustrates the Grantee's achieved outcomes.

No.	Performance Measure	Baseline Data[1]	Achieved Result	Was the Performance Measure Met?
1				Choose an item.
2				Choose an item.
3				Choose an item.
4				Choose an item.
5				Choose an item.

[1]*Baseline data as defined in the Agreement.*

PART 3: COMPLIANCE ASSESSMENT

Instructions: Each question below is derived from the Grant Agreement, and therefore, a question marked "No" indicates that the Grantee is out of compliance with the terms of the Grant Agreement. For any "No" response, provide additional comments in Part 5.

Topic or Question	Response
Scope of Performance and Project Changes	
1. If substantive changes to the Project occurred, did the Grantee notify SANDAG in writing?	Choose an item.
2. If the Grantee encountered or anticipated difficulty in meeting the Project Schedule, did the Grantee notify SANDAG in writing?	Choose an item.
3. If the Grantee requested an amendment to the Project Schedule in writing, did the notification include the reason(s) for the delay in performance and the date by which the Grantee expected to complete performance or delivery?	Choose an item.

4. If the Grantee needed to transfer more than 10% of the total grant award between tasks in the Project Budget, did the Grantee request the change in advance and adequately justify the need for the change?	Choose an item.
5. If there were any changes to the Grantee's Project Manager, did the Grantee provide SANDAG with updated contact information in a timely manner?	Choose an item.
California Public Utilities Commission (CPUC) Compliance [For AFA-funded projects only]	
6. Did the Grantee provide advance written notice to SANDAG if the Grantee or its third-party contractors would utilize vehicles that have a seating capacity of more than seven passengers?	Choose an item.
7. Did the Grantee and its third-party contractors place the International Symbol of Accessibility on every vehicle as required by the Grant Agreement?	Choose an item.
8. Did the Grantee provide sufficient evidence that it and its third-party contractors perform national criminal background checks on all drivers and do not utilize drivers that are a threat to public safety as described in the Grant Agreement?	Choose an item.
9. Did the Grantee provide sufficient evidence that it and its third-party contractors provide controlled substance and alcohol testing of drivers?	Choose an item.
Complaints [For AFA-funded projects only]	
10. Did the Grantee record and track complaints made by employees, volunteers, clients, or the general public, including complaints related to Title VI, ADA, and service quality, or any other grievance pertaining to the Project?	Choose an item.
11. Did the Grantee report complaints it received to SANDAG on the SANDAG Quarterly Progress Report?	Choose an item.
12. Did the Grantee notify SANDAG in writing within 72 hours of receiving a Title VI or ADA complaint?	Choose an item.
San Diego Management and Monitoring Program (SDMMP) Compliance [For EMP LMG-funded projects only]	
13. Did the Grantee create a Project Page on the San Diego Management and Monitoring Program (SDMMP) webpage, SDMMP.com, prior to submitting billing to the project?	Choose an item.
14. Was State of Preserve and Performance Measures data submitted to SDMMP on a quarterly/annual basis?	Choose an item.

Compliance Information System (CIS) [For EMP LMG-funded projects only]	
15. Did the Grantee report payment details using the SANDAG web-based CIS by the 15th of each month following receipt of payment by SANDAG?	Choose an item.
16. Did the Grantee ensure its third-party contractors and/or subcontractors consistently reported payments or confirmed receipt of payment in the CIS?	Choose an item.
Insurance [For non-governmental grantees only]	
17. Did the Grantee maintain compliance with the insurance requirements throughout the term of the Agreement?	Choose an item.
Third-Party Contracting	
18. Did the Grantee provide evidence of a competitive procurement or obtain prior written approval of SANDAG to utilize a noncompetitive procurement for each third-party contract over $10,000?	Choose an item.
19. [For HAP, Section 5310, and AFA-funded projects only] Did the Grantee include the funding agency (REAP, FTA, or CPUC) pass-through provisions in each third-party contract over $10,000?	Choose an item.
Payments/Invoicing [For all projects except STGP vehicle projects]	
20. Did the Grantee typically (at least 80% of the time) submit its invoices in the required format and on time?	Choose an item.
21. Did the Grantee respond in a timely manner to requests to make invoice corrections if errors were found?	Choose an item.
22. If the Grantee was requested to make invoice corrections, did the Grantee take sufficient steps to see that future errors were not made on the same issue?	Choose an item.
23. Were all items included in Grantee invoices eligible under the Grant Agreement?	Choose an item.
24. Were sufficient backup materials, including required documentation, consistently provided with each invoice packet?	Choose an item.
25. If the Grantee invoiced for indirect costs, were they consistent with the indirect cost requirements in the Agreement?	Choose an item.
26. Did the Grantee's invoices include its matching fund contribution, along with supporting, descriptive, and explanatory documentation for the matching funds reported to have been made?	Choose an item.

Quarterly Reports	
27. Did the Grantee typically (at least 80% of the time) submit its quarterly reports in the required format and on time?	Choose an item.
28. Were quarterly reports typically (at least 80% of the time) filled out correctly and free of errors?	Choose an item.
29. Did the quarterly reports sufficiently detail accomplishments and progress, pending issues and actions toward resolution, and the status of the budget, schedule, and Performance Measures?	Choose an item.
30. If applicable to the Scope of Work, did the Grantee provide project milestone information such as presentations to community groups, other agencies, and elected officials to support media and communications efforts?	Choose an item.
31. If applicable to the Scope of Work, did the Grantee provide photo documentation required by the Grant Agreement?	Choose an item.
32. If applicable to the Scope of Work, did the Grantee provide SANDAG with agendas and meeting summaries for all community meetings?	Choose an item.
Vehicle and Other Equipment Purchases	
33. If the Grantee purchased vehicles or other equipment with the grant funding, did the Grantee maintain ownership of the equipment and use the equipment only for the purposes set forth in the Agreement?	Choose an item.
34. If the Grantee purchased vehicles or other equipment with grant funding, did the Grantee keep an inventory record for each item and maintain it in good operating order consistent with the purposes for which it was acquired?	Choose an item.
35. [For STGP-funded vehicle grants only] If a site visit was conducted, did the Grantee resolve any issues that were identified at the site visit?	Choose an item.
Capital Projects Involving Construction [For EMP LMG, ATGP, SGIP, and HAP-funded capital projects only]	
36. Did the Grantee coordinate with SANDAG staff on the development of a baseline data collection plan?	Choose an item.
37. Did the Grantee provide the TransNet signage? Did the signage comply with the Agreement requirements, including specifications, placement, and prior approval by SANDAG?	Choose an item.
38. Was a Capital Project Site Visit completed? Has the Grantee resolved any issues that were identified at the site visit?	Choose an item.

39. Did the Grantee and its subcontractors who are not employees of a public entity comply with all DIR and state/federal labor code requirements, including: • Complete Public Works Contractor Registration and the payment of an annual registration fee to the DIR • Include the payment of prevailing wages to all workers performing prevailing wage work • Use the DIR's Electronic Certified Payroll Reporting (eCPR) System to furnish certified payroll records to the California Labor Commissioner • Keep complete and accurate records and comply with the requirements of the California Labor Code	Choose an item.
40. Did the Grantee provide advanced notification to SANDAG that it was going to begin prevailing wage-covered work so SANDAG could prepare for labor compliance monitoring?	Choose an item.
41. Did the Grantee respond in a timely matter and proactively work to resolve any labor compliance issues raised by SANDAG or its labor compliance consultant?	Choose an item.
42. If the Grantee's project required an investigation by the Department of Industrial Relations (DIR), was the Grantee found to be responsible for any of the issues?	Choose an item.

PART 4: PROJECT COMPLETION AND CLOSEOUT

Instructions: Any question marked "No" below may require resolution by the TransNet Independent Taxpayer Oversight Committee (ITOC), a Policy Advisory Committee, or the Board of Directors before the project can be closed and final payment can be made. Contact the SANDAG Grants Program Manager to identify a recommended resolution.

Agreement Compliance

Question	Response
1. Based on the information provided in Part 2A, did the Grantee complete the entire project as described in the Scope of Work prior to the termination date of the Agreement?	Choose an item.
2. Based on the information provided in Part 2B, did the Grantee meet the Performance Measures included in the Grant Agreement?	Choose an item.
3. If applicable, did the Grantee provide the required match amount?	Choose an item.
4. [For EMP LMG-funded projects only] Has the Contracts & Procurement Department indicated that the Grantee has reported all of its payments and that the project can be closed in the CIS?	Choose an item.

5. [For all projects except STGP vehicle projects] Did the Grantee provide a final invoice of project expenses and a final progress report within 90 calendar days following Project completion or termination by SANDAG?	Choose an item.
6. Did the Grantee and its subcontractors have all necessary licenses, permits, qualifications, and approvals to perform the services under the Agreement?	Choose an item.
7. If this was a capital project involving construction, has SANDAG released all withheld payments that were due to labor compliance issues on the Project? Note: Final payment and release of retention cannot occur until all labor compliance issues are resolved.	Choose an item.
8. If this was a capital project involving construction, was the final constructed project consistent with the Agreement Scope of Work and the original project application?	Choose an item.
9. If this was a capital project involving construction, will the project improvements continue to be used for at least five years after completion of construction?	Choose an item.

PART 5: SUMMARY AND ADDITIONAL COMMENTS

Instructions: Use the space below to provide additional details on any responses to the prior sections where the response was "No."

Part No.	Question No.	Notes

Additional Comments

Instructions: Include in the space below any additional comments regarding the project or the Grantee.

PART 6: GRANTEE SIGNATURE

By signing below, I confirm receipt of this completed Grant Closeout Checklist and acknowledge that this Project Closeout checklist does not invalidate any requirements included in the Agreement.

Grantee Project Manager Name (Print)	Signature	Date

Capital Project Site Visit Report

The San Diego Association of Governments (SANDAG) monitors each recipient of TransNet Smart Growth Incentive Program (SGIP) and Active Transportation Grant Program (ATGP) funding, referred to as a "Grantee." This Capital Project Site Visit Report is used to assess the performance of the Grantee in providing the project included in the Grant Agreement, and the Grantee's compliance with the terms of the Grant Agreement. The Report will be completed by the SGIP/ATGP Program Manager at three specific timeframes – before construction begins ("Pre-Construction Review"), during construction ("Active Construction Review"), and when construction is nearing completion ("Construction Completion Review"). SANDAG will send the completed Report to the Grantee within one week of the date of the review.

PART 1: GRANT AGREEMENT AND PROJECT INFORMATION

Instructions: Complete the tables below.

Grant Agreement Information

Grant Program Name	Choose an item.
Agreement Number	[Enter grant agreement number]
Grantee Name	[Enter Grantee Name]
Notice to Proceed Date	Click or tap to enter a date.
Agreement Expiration Date	Click or tap to enter a date.
Grantee Project Manager Name	[Enter Grantee Project Manager Name]
SANDAG Program Manager Name	Tracy Ferchaw

Project Information

Project Name	[Enter Project Name]
Project Description/Summary	[Enter Project Description Or Summary From The Grant Agreement]
Project Limit/Location	[Enter Project Location From The Grant Agreement]
Total Grant Award	$[Enter Total Grant Award From The Grant Agreement]

PART 2: SITE VISIT PREPARATION

Instructions: Complete the tables in each section below using information from the Agreement. Then respond to the questions in each section by selecting a response from the list of options.

Prior to the site visit, the SGIP/ATGP Program Manager reviewed the Grant Agreement (Agreement), amendments to the Agreement (Amendments), quarterly reports, invoices, and correspondence with Grantee. Any "No" responses to the questions below indicate an area in which the Grantee could be deficient in meeting its obligations under the Grant Agreement and should be reviewed and discussed with the Grantee at the site visit.

Project Scope of Work

Task No.	Task Description	Deliverable	Deliverable Met?	Task Status
1	[Enter Task Description]	[Enter Deliverable]	Choose an item.	Choose an item.
2	[Enter Task Description]	[Enter Deliverable]	Choose an item.	Choose an item.
3	[Enter Task Description]	[Enter Deliverable]	Choose an item.	Choose an item.
4	[Enter Task Description]	[Enter Deliverable]	Choose an item.	Choose an item.
5	[Enter Task Description]	[Enter Deliverable]	Choose an item.	Choose an item.

Question	Response
1. Has the Grantee identified any problems that could or have had an impact on the Project?	Choose an item.
2. Has the Grantee provided realistic actions that could resolve problems that could or have impacted the Project?	Choose an item.

Project Schedule

Task No.	Task Description	Anticipated Completion Date	Actual Completion Date	Task Status
1	[Enter Task Description]	[Enter Date Based On NTP]	[Enter Date Or Write TBD]	Choose an item.
2	[Enter Task Description]	[Enter Date Based On NTP]	[Enter Date Or Write TBD]	Choose an item.
3	[Enter Task Description]	[Enter Date Based On NTP]	[Enter Date Or Write TBD]	Choose an item.
4	[Enter Task Description]	[Enter Date Based On NTP]	[Enter Date Or Write TBD]	Choose an item.
5	[Enter Task Description]	[Enter Date Based On NTP]	[Enter Date Or Write TBD]	Choose an item.

Question	Response
1. Have any amendments been issued to extend the original Agreement expiration date?	Choose an item.
2. Has the Grantee indicated that any of the Project tasks are falling behind schedule?	Choose an item.
3. Has the Grantee provided realistic timeframes for when delayed tasks could be completed?	Choose an item.
4. Has the Grantee provided realistic actions that could resolve problems impacting the Schedule?	Choose an item.

5. Does the Grantee anticipate that an amendment to the Project Schedule is needed or could be needed in the future?	Choose an item.

Project Budget

Current Grant Amount Expended	$[Enter Amount From Most Recent Invoice]
Current Grant Amount Remaining	$[Enter Amount From Most Recent Invoice]

Question	Response
1. Has the Grantee received approval for transfers of funds between tasks?	Choose an item.
2. Has the Grantee been submitting invoices on time?	Choose an item.
3. Have invoices been filled out correctly and been free of errors?	Choose an item.
4. Have all invoiced items been eligible under the Agreement?	Choose an item.
5. Have sufficient backup materials been consistently provided with each invoice?	Choose an item.
6. If the Grantee has invoiced for indirect costs, have they been consistent with the Grantee's indirect cost allocation plan in effect at the time of invoice?	Choose an item.
7. Have the Grantee's invoices included its matching fund contribution, along with supporting, descriptive and/or explanatory documentation for the matching funds provided?	Choose an item.

Reports

1. Does the Grantee submit quarterly reports on time?	Choose an item.
2. Are the Grantee's reports filled out correctly and free of errors?	Choose an item.
3. Do the Grantee's reports sufficiently detail accomplishments in the quarter, anticipated progress next quarter, pending issues and actions toward resolution, and status of budget, schedule, and Performance Measures?	Choose an item.
4. Does the Grantee provide project milestone information such as presentations to community groups, other agencies and elected officials, groundbreakings, and ribbon-cuttings to support media and communications efforts?	Choose an item.
5. Did the Grantee coordinate with SANDAG staff on the development of a baseline data collection plan?	Choose an item.
6. Does the Grantee provide the TransNet signage and comply with the signage requirements including specifications, placement, and requesting prior approval by SANDAG?	Choose an item.
7. Does the Grantee provide with its reports appropriate photo documentation, including existing conditions photos and project milestone photos?	Choose an item.
8. Does the Grantee provide SANDAG with agendas and meeting summaries for all community meetings?	Choose an item.
9. Has the Grantee provided a timely, written notice to the SANDAG Program Manager if there was a change to the Grantee's Project Manager?	Choose an item.

Other

Question	Response
1. Is the Grantee reporting payment details using the SANDAG Compliance Information System (CIS) by the 15th of each month following receipt of payment by SANDAG?	Choose an item.
2. Does the Grantee ensure its third-party contractors and/or subcontractors consistently report payments and confirm receipt of payment in the CIS?	Choose an item.
3. Does the Grantee provide evidence of a competitive procurement and obtain prior written approval of SANDAG to utilize a noncompetitive procurement for each third-party contract over $10,000?	Choose an item.
4. Is SANDAG withholding any payments due to labor compliance issues on the Project?	Choose an item.
5. Does the Grantee respond in a timely matter and proactively work to resolve any labor compliance issues raised by SANDAG or its labor compliance consultant?	Choose an item.
6. Has the Grantee maintained ownership of any equipment purchased using Agreement funding and used the equipment only for the purposes set forth in the Agreement?	Choose an item.
7. Does the Grantee keep an inventory record for each piece of equipment purchased under the Agreement and maintain each piece of equipment in good operating order consistent with the purposes for which they were intended?	Choose an item.
8. Did the Grantee submit project design drawings to SANDAG for review and comment at 30 percent, 60 percent, 90 percent, and 100 percent design?	Choose an item.

PART 3: SITE VISIT SUMMARY

Instructions: Complete the table below. Then respond to the questions in the relevant section pertaining to the Type of Review (Pre-Construction, Active Construction, or Construction Completion).

Date of Site Visit	Click or tap to enter a date.
Type of Review	Choose an item.
SANDAG Staff in Attendance	[Enter name], [Enter title]
Grantee Staff in Attendance	[Enter name], [Enter title] [Enter name], [Enter title] [Enter name], [Enter title]
Grantee Prime Contractor Name	[Enter Prime Contractor Name]
Construction Start Date	[Enter Anticipated or Actual Start Date]
Construction End Date	[Enter Anticipated or Actual End Date]

Pre-Construction Review

1. Include in the space below a summary of the items noted in Part 2 of this Report that were discussed with the Grantee, and any other items that were discussed during the Site Visit.

[Enter items discussed]

2. Include in the space below any corrective action measures the Grantee will take to resolve issues identified in Part 2 of this Report, and other issues discussed during the Site Visit.

[Enter corrective actions]

3. Include in the space below a description of the current Project site, including current conditions and future activities that will take place during the Grant period. This section should be complimented by photographs taken by SANDAG staff.

[Enter site observations]

4. Include in the space below whether there are any concerns about the Grantee being able to complete the entire Project and/or provide all required deliverables included in the Agreement.

[Enter concerns]

Active Construction Review

1. Include in the space below a summary of the items noted in Part 2 of this Report that were discussed with the Grantee, and any other items that were discussed during the Site Visit.

[Enter items discussed]

2. Include in the space below any corrective action measures the Grantee will take to resolve issues identified in Part 2 of this Report, and other issues discussed during the Site Visit.

[Enter corrective actions]

3. Include in the space below a description of the current Project site, including current conditions and future activities that will take place during the Grant period. This section should be complimented by photographs taken by SANDAG staff.

[Enter site observations]

4. Include in the space below whether there are any concerns about the Grantee being able to complete the Project and/or provide all required deliverables included in the Agreement.

[Enter concerns]

Construction Completion

1. Include in the space below a summary of the items noted in Part 2 of this Report that were discussed with the Grantee, and any other items that were discussed during the Site Visit.

[Enter items discussed]

2. Include in the space below any corrective action measures the Grantee will take to resolve issues identified in Part 2 of this Report, and other issues discussed during the Site Visit.

[Enter corrective actions]

3. This section should include a description of the final Project, including the amenities built and ready for public use. Quantities of items should be added, when appropriate. This section should be complimented by photographs taken by SANDAG staff.

[Enter site observations]

4. Was the final constructed project consistent with the Agreement?

Choose an item.

5. Is there any indication that continued use of the Project for the purposes stated in Grantee's application for a period of at least five years after completion of construction will not occur?

Choose an item.

PART 4: GRANTEE SIGNATURE

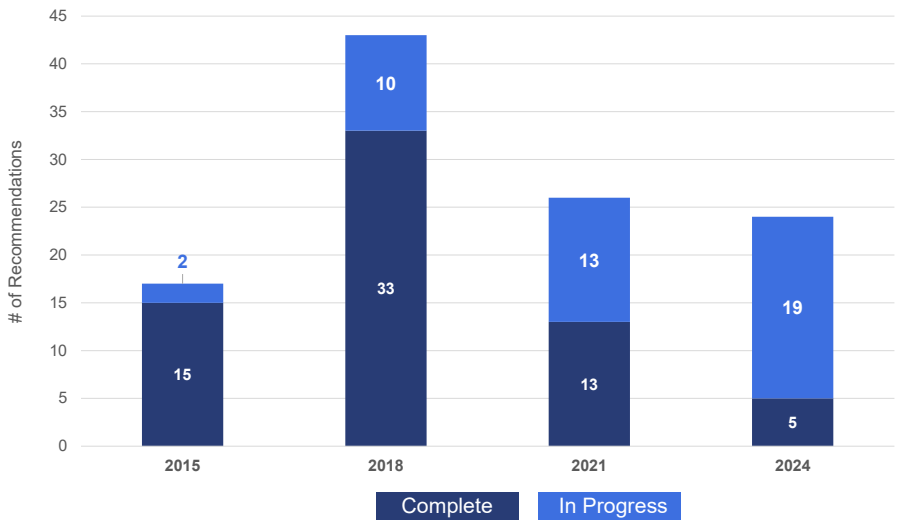
By signing below, I confirm receipt of this completed Site Visit Report.

Grantee Project Manager Name (Print)	Signature	Date

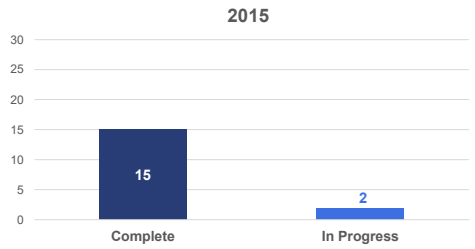
FY 2015, 2018, 2021 & 2024 TransNet Triennial Performance Audit Recommendations

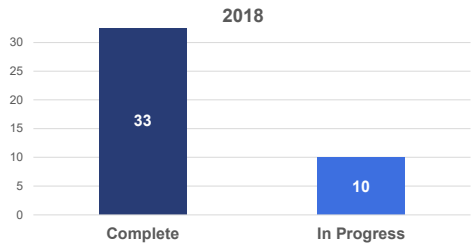
Independent Taxpayer Oversight Committee | Item 10
Adrian Paniagua, Vanessa Leon
November 13, 2024

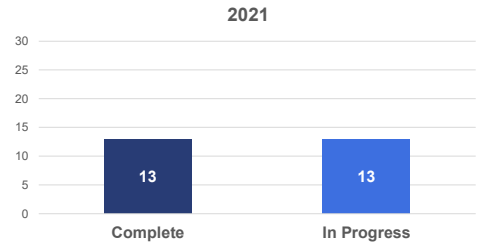
Status
2015-2024 TPA Recommendations

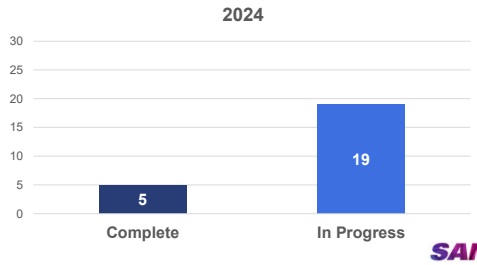


Status by Year
2015-2024 TPA Recommendations

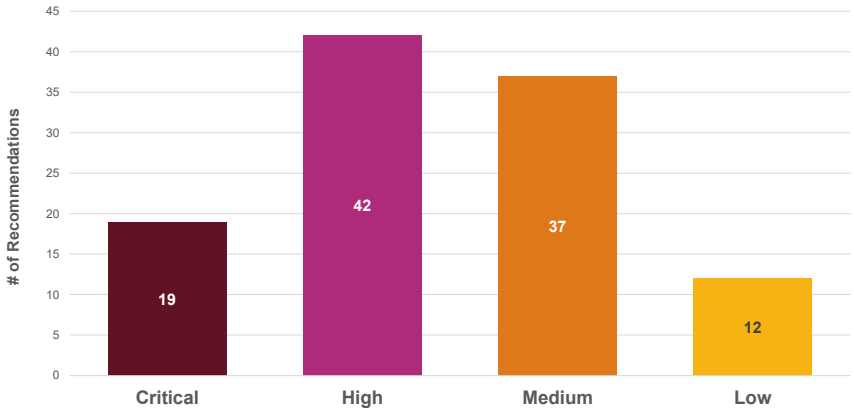




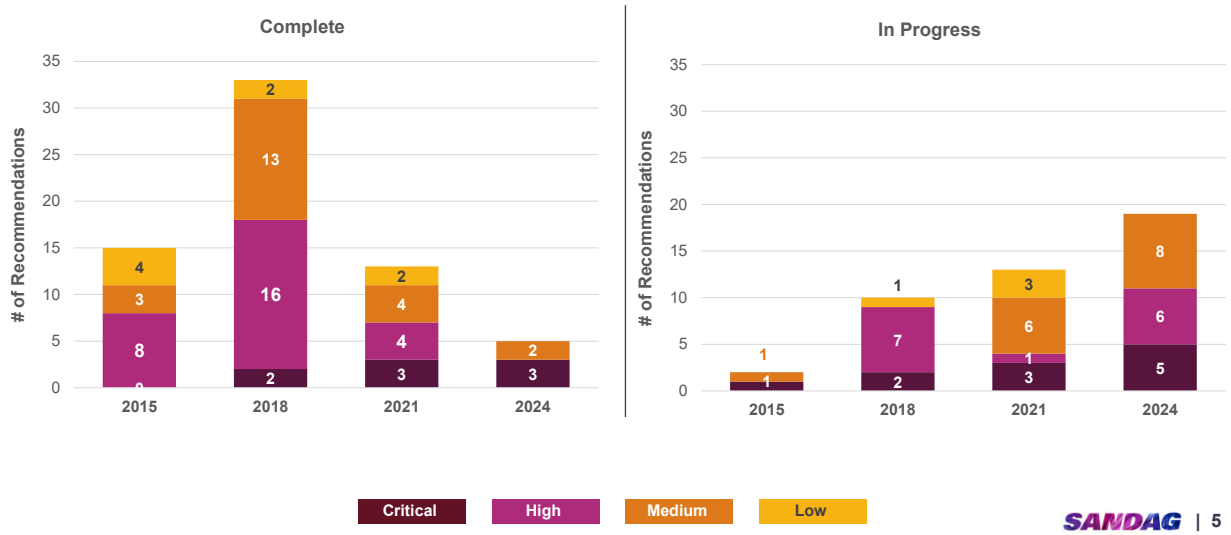




Priorities
2015-2024 TPA Recommendations



Status and Priorities
2015-2024 TPA Recommendations



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SANDAG

November 13, 2024

FY 2025 ITOC Goals

Action: **Discussion**
Staff will present the ITOC goals for the remainder of FY 2025 for discussion.

Fiscal Impact:
None

Schedule/Scope Impact:
The ITOC will be asked to consider adopting its Goal Plan at its January 2025 meeting.

Overview

The TransNet Extension Ordinance established an Independent Taxpayer Oversight Committee (ITOC) to help ensure voter mandates are carried out and recommendations for improvements to the financial integrity and performance of the program are made.

At its September 2022 meeting, the ITOC renewed the goals for FY 2023 - FY 2024. Attachment 1 presents the progress made on the FY 2023-2024 goals to date.

To support ITOC initiatives for FY 2025, Chair Maryam Babaki has asked SANDAG staff to maintain focus on established goals and seek ongoing improvements. She stresses the need for collaboration between ITOC committee members and SANDAG staff to strengthen these goals and align with the agency's vision and regional objectives.

Key Considerations

Attachment 2 provides a preliminary draft of the FY 2025 goals for ITOC consideration. These draft goals propose continuing the FY 2023-2024 goals, with an ongoing focus on implementing recommendations from the performance audit. Additionally, the goals aim to enhance operational efficiencies in collaboration with the ITOC.

Next Steps

Pending ITOC feedback, the ITOC would be asked to approve its FY 2025 Goal Plan at the January 2025 meeting.

Susan Huntington, Director of Financial Planning, Budgets, and Grants

Attachments: 1. FY 2023-2024 ITOC Goals and Progress Tracker
2. Draft ITOC Goals for FY 2025

ITOC/SANDAG Goals for FY 2023-2024

GOAL			
ITOC Goals for FY 2023-2024	**METRIC**	**TIMELINE**	**PROGRESS**
1. Invite transit agencies, municipalities, grantees, and other recipients of TransNet funds to attend ITOC meetings and highlight their TransNet program successes and/or challenges in delivering TransNet-funded projects.	At least one presentation from such organizations per quarter	June 30, 2024	05/08/2024-Item 6 Staff from the City of San Diego presented an update on the City's TransNet Local Street and Road Program. 01/10/2024-Item 6 Staff from the City of Encinitas presented an update on the City's TransNet Local Street and Road Program. 07/12/2023-Item 9 The City of National City presented an update on the City's TransNet Local Street and Road Program. 06/14/2023-Item 11 The City of San Diego, along with staff, presented an overview of the implementation of the Regional Bike Early Action projects. 03/08/2023-Item 8 Caltrans staff presented an update on the North Coast Corridor program of projects. 02/08/2023-Item 14 City of San Diego presented update on TransNet Program and Transportation Improvement Program Update. 01/11/2023-Item 10 Staff presented an update on the progress and status of the Central Mobility Hub project. 11/09/2022-Item 9 City of Chula Vista presented update on the City's TransNet Local Street and Road Program. 11/09/2022-Item 11 Caltrans staff presented an update on the SR 94/125 Interchange and Arterial Operational Improvement project and scope modification. 11/09/2022-Item 12 Staff presented an update on the progress and status of the Bus on Shoulders project.

ITOC/SANDAG Goals for FY 2023-2024

GOAL			
ITOC Goals for FY 2023-2024	**METRIC**	**TIMELINE**	**PROGRESS**
2. Enhance effectiveness and impact of ITOC in achieving its mission to ensure voter mandates are carried out and develop recommendations for improvements to the financial integrity and performance of the program.	Obtain ordinance amendments based on ITOC recommendation	June 30, 2024	01/10/2024-Item 7 The ITOC discussed the updates to the proposed Amendments to the TransNet Extension Ordinance specific to ITOC membership and selection process and recommended that the Board of Directors approve the updated proposed amendments. 10/13/2023-Item 7 Chair Frankel presented an overview of the TransNet ITOC, including its mandates, responsibilities, and the 2023 TransNet ITOC Annual Report. 10/11/2023 The ITOC Ordinance Amendments Subcommittee proposed draft revised amendments. The revised amendments are anticipated to be brought back to the ITOC in January 2024. 09/21/2023 The ITOC Ordinance Amendments Subcommittee discussed potential revisions to the amendment language. 09/13/2023-Item 9 The ITOC discussed the next steps for the TransNet Ordinance and ITOC Bylaws amendments specific to the membership and selection process for the ITOC. 06/23/2023 Chair Frankel met with several BOD members and talked about ITOC's role and responsibilities, as well as the purpose and importance of ITOC's proposed amendments to TransNet Ordinance: ITOC Membership and Selection Process. 04/12/2023-Item 10 The ITOC discussed the next steps for the Proposed TransNet Ordinance Amendments. Members decided performing outreach and getting feedback from board members who voted against the proposed amendments would be the best course of action. 3/08/2023-Item 10 Chair Frankel presented the amendments item and BOD action on this item to ITOC members to discuss the next steps. The ITOC members requested this item be brought back at a future meeting to ensure all committee members were present for discussion. 01/27/2023-Item 11

ITOC/SANDAG Goals for FY 2023-2024

GOAL			
ITOC Goals for FY 2023-2024	**METRIC**	**TIMELINE**	**PROGRESS**
			Chair Frankel presented the second reading of proposed amendments to TransNet Extension Ordinance and ITOC Bylaws amendments to the BOD; however, the motion did not reach the required vote. 01/13/2023-Item 11 Chair Frankel presented the first reading of proposed amendments to TransNet Extension Ordinance related to ITOC membership and selection process to the BOD. 01/11/2023-Item 4 Chair Jonathan Frankel presented amendments to ITOC Bylaws that ITOC members proposed consistent with TransNet Ordinance amendments.
ITOC Goals for FY 2023-2024: SANDAG			
1. Consider how the TransNet program is supporting the 2021 Regional Plan priorities and policies.	Advance TransNet Ordinance amendments for ITOC and Board consideration	June 30, 2024	05/09/2024-Item 3 Staff presented an update of the TransNet Ordinance Amendments to Mobility Working Group. 11/08/2023-Item 12 Staff presented an update on the draft work plan, tasks, and estimated schedule for amending the TransNet Ordinance. 07/30/2023 Mobility Working Group Subcommittee continued meeting to discuss amendments to several topics including Dig Smart, Smart Growth Incentive Program, and Accommodation of Bicyclists and Pedestrians – Board Policy No. 31, Rule #21. 05/10/2023-Item 10 Staff brought a consent item providing an update on the changes occurring within the ordinance amendment subcommittee. The report included the new draft work plan, tasks, and estimated schedule for amending the TransNet Ordinance. 03/08/2023 A Subcommittee of the Mobility Working Group has been formed to discuss amendments to the TransNet Extension Ordinance. The subcommittee met several times and discussed various topics such as Transit Operations and Transit Operator Eligibility; Bicycle, Pedestrian, and Neighborhood Safety; Local Streets and Road Program; and Dig Smart. Other topics to be discussed in the future.

ITOC/SANDAG Goals for FY 2023-2024

GOAL			
ITOC Goals for FY 2023-2024	**METRIC**	**TIMELINE**	**PROGRESS**
2. Work closely with ITOC to develop and implement streamlining measures to enhance communication practices that continue increasing transparency and accountability, and simplify information provided to make it more digestible for ITOC members and the public.	Simplify agendas and consider ways to more efficiently provide TransNet Ordinance-required reporting	June 30, 2024	The streamlining efforts will be continuously maintained. 06/30/2023 Staff has been implementing and maintaining streamlining efforts for ITOC meetings. ITOC agendas now have links to the items' reports and attachments. A Table of Contents is also available on the agendas to provide quick and simple access to each agenda item and attachments. 10/12/2022-Item 8 ITOC discussed and gave direction to staff on how to enhance communication practices and streamline ITOC meetings. Changes to the ITOC meeting have been made by staff and streamlining efforts will be continuously maintained.

Proposed ITOC/SANDAG Goals for FY 2025

ITOC Goals for FY 2025	METRIC	TIMELINE
1. Invite transit agencies, municipalities, grantees, and other recipients of TransNet funds to attend ITOC meetings and highlight their TransNet program successes and/or challenges in delivering TransNet-funded projects.	At least one presentation from such organizations per quarter	June 30, 2025
2. Enhance effectiveness and impact of ITOC in achieving its mission to ensure voter mandates are carried out and develop recommendations for improvements to the financial integrity and performance of the program.	Obtain ordinance amendments based on ITOC recommendation	June 30, 2025
SANDAG Goals for ITOC		
1. Consider how the TransNet program is supporting the Regional Plan priorities and policies.	Advance TransNet Ordinance amendments for ITOC and Board consideration	June 30, 2025
2. Work closely with ITOC to develop and implement streamlining measures to enhance communication practices that continue increasing transparency and accountability, and simplify information provided to make it more digestible for ITOC members and the public.	Simplify agendas and consider ways to more efficiently provide TransNet Ordinance-required reporting	June 30, 2025

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