PROJECT DELIVERY REPORT
Trade Corridors Improvement Fund

The submitting agency will be responsible for maintaining documentation of the information entered on this report.
(Please type your response, handwritten reports will not be accepted)

A. Project Information

Date: 2/13/2018

TCIF # (Segment): 93 SVDT Other Project Identifier (EA, Project #, PPNO, etc): 0013000256

Project Title: Sorrento Valley Double Track Project

Delivery Report: ☒ Final- Due within six months of project becoming operable.
☒ Supplemental - Due at the conclusion of all project activities.

Location: County: San Deigo City: San Diego

Project Description: The project constructed a 1.1 mile section of new passing track, new bridge, culverts, and signals from LOSSAN railway milepost (MP) 247.8 to LOSSAN MP 248.9 in Sorrento Valley in San Diego

B. Contact Information

Implementing Agency: SANDAG Caltrans District Number: 11

Contact Person: Bruce Smith Phone: 619-699-1907

Email Address: bsm@sandag.org

C. Cost	Adopted Program Amount ($)	Current Approved Amount ($)	Actual Expended Amount ($)	Net Difference (Dollars)
Environmental				
Total Amount	$3,352,000	$3,352,000	$3,393,340	$41,340
Design				
Total Amount	$1,653,000	$1,653,000	$1,513,118	-$139,882
Right of Way				
Total Amount	$345,000	$345,000	$396,445	$51,445
Construction				
TCIF	$14,313,000	$12,994,000	$12,055,199	-$938,801
Local	$2,486,000	$1,889,000	$1,752,197	-$136,803
Federal	$15,551,000	$14,577,000	$13,524,154	-$1,052,846
Other				$0
Totals	$37,700,000	$34,810,000	$32,634,453	-$2,175,547

D. Schedule	Adopted Program Date	Current Approved Date	Actual Begin/End Date	Net Difference (Months)
Environmental Phase				
Begin	07/01/09	07/01/09	07/01/09	0
End	07/01/12	07/01/12	07/01/12	0
Design (PS&E) Phase				
Begin	07/01/10	07/01/10	07/01/10	0
End	04/30/13	04/30/13	04/30/13	0
Right of Way Phase				
Begin	01/01/12	01/01/12	01/01/12	0
End	04/01/13	04/01/13	04/01/13	0
Construction Phase				
Begin	11/01/13	11/01/13	10/25/13	0
End	11/01/15	11/01/15	08/26/16	10
Closeout Date				
Begin	11/01/15	11/01/15	08/26/16	10
End	11/01/20	11/01/20	06/30/17	-40

E. Amendments
List approved amendments

Amendment #	CTC Meeting	Summary of Changes (Scope, Cost, Schedule)
75A0395 A01	March 2014	Deallocate $1,319,000 as contractor bid was lower than engineers' estimate

F. Project Benefits
Describe and compare project benefits with those included in the approved Baseline Agreement.

Outcomes	Adopted Program	Current Approved	Actual
Safety	Increased public safety by reducing truck traffic by approx. 9,540 truck trips along regional and inter-regional highway network. Reducing potential injury crashes by up to 1/year	Increased public safety by reducing truck traffic by approx. 9,540 truck trips along regional and inter-regional highway network. Reducing potential injury crashes by up to 1/year	NHTSA data supports the reduction of truck related injury or fatality crashes of 32.45 Incidences per 100 million VMT nationally and with a 7.2% of all large truck crashes occurring in the region. The diverted 9,540 truck trips in 2015 equates to 0.37 eliminated crashes per year and 6 eliminated crashes by 2030 due to freight rail removing trucks from regional and inter-regional highway networks[1]
Velocity	Train speeds to increase from 20 mph to 24 mph	Train speeds to increase from 20 mph to 24 mph	Train speed today is 55 mph for freight trains.
Throughput	Improvements will increase train capacity from four to five trains per day, or approx. 5,627 train cars per year	Improvements will increase train capacity from four to five trains per day, or approx. 5,627 train cars per year	Freight train capacity was increased from 4 to 5 freight trains per day, approx. 5,627 train cars per year
Reliability	Reduce variability and unpredictability of travel time from unanticipated train meets, maintenance, and work windows; on ave. at least 10 min. per freight train.	Reduce variability and unpredictability of travel time from unanticipated train meets, maintenance, and work windows; on ave. at least 10 min. per freight train.	The increase track capacity reduced standing time for trains waiting for train meets and maintenance and with the raised track bed, unanticipated delays from flooding are also reduced or eliminated. The annual saved time ave. to at least 10 min./ freight train.
Congestion Reduction	Increased capacity tp eliminate 9,540 truck trips per year and approx. 1,144,880 truck VMT within the corridor	Increased capacity to eliminate 9,540 truck trips per year and approx. 1,144,880 truck VMT within the corridor	Eliminated 9,540 truck trips in 2015 which is approx. 1,144,880 VMT within the regional and interregional-highway network. Reduced trucks allowed for greater capacity on the network.
Emissions Reductions	Reduction of 9,540 truck trips by 2030 will result in approx reductions of Nox 200lb/day, CO2 1.32 mil lb/day, PM10 260 lb/day, CO 500 lb/day	Reduction of 9,540 truck trips by 2030 will result in approx reductions of Nox 200lb/day, CO2 1.32 mil lb/day, PM10 260 lb/day, CO 500 lb/day	The annual reduction of 9,540 truck trips is on-track and the projected goals of total reduced emissions is projected to be achieved by 2030.

1 https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812373

G. Differences/Variances
Describe differences/variances (if any) and reason for, between approved scope, cost, schedule, and actual.
1. Design and Environmental Budget & Expenditures. Note that the original budget had preliminary engineering (PE) and environmental document costs (ED) in the environmental line. The previously submitted quarterly reports have all engineering under Design and only environmental work in Environmental per our accounting system reports.
2. The original Project Construction Budget included a platform extension and another bridge which was later removed from this project at NCTD's request, thus reducing the overall cost of the project. The bridge is being built as part of the Penasquitos bridges Project. The Platform extension is on hold pending additional planning efforts.
3. Construction Schedule. Delay in completing construction due to storm damage in January 2016 that washed away the mitigation site plants and temporary irrigation system along the creek side. Repair work added time to complete the revegetation mitigation repair work. However the passing track was placed in service in May 2015 on schedule.
4. Close out schedule duration has been reduced as the mitigation site maintenance has been transferred from the Capital Project to the Environmental Mitigation Program at SANDAG.

H. Lessons-Learned/Best Practices
Describe lessons-learned and best practices for future projects.
1. For this project we receive a bid lower than the Engineers Estimate. We then deallocating funds on award to maintain a 10% Contingency. Having a larger contingency would have been beneficial in dealing with change orders and claims arising during construction when bids come in lower than engineers estimate.
2. Project teams need to always be looking for cost reduction proposals. The Construction Manager came up with several cost reduction proposals which were implemented.
3. Should difficulties be accounted doing boreholes then geoetechnical consultants need to consider using a large diameter hole at a bridge site to ascertain what caused the difficult drilling conditions.
4. Dewatering requirements need to be coordinated between different specification sections to maintain consistency.
5. Advanced planning on utility relocation should be started at 30% design so as to avoid utility conflicts during construction.
6. Planning for absolute work windows which shut down the rail passenger operations need to be well planned. Have a detailed work plan that has been reviewed by all team members and have a contingency plan incase the unexpected happens.

Certification Signature

Implementating Agency
I hereby certify to the best of my knowledge and belief, the information in this report is a true and accurate record. The work was performed in accordance with the CTC approved scope, cost, schedules, and benefit information in the Baseline Agreement.

Bruce Smith
(Print name) Project Manager

B Smith 4/2/2018
(Signature) Project Manager Date

Caltrans

The TCIF Division Program Coordinator and/or the Project Manager from the California Department of Transportation has reviewed the information contained in this report and has verified the information presented is correct.

Phillip Hoebeke
(Print Name) TCIF Division Program Coordinator/Project Manager

Phillip D Hoebeke 4/5/18
(Signature) TCIF Division Program Coordinator/Project Manager Date

The TCIF Program Lead from the California Department of Transportation has reviewed the information contained in the report and concurs with the approval.

Antonio Cano
(Print Name) TCIF Program Lead

4/10/18
(Signature) TCIF Program Lead Date

Distribution: 1) Local Agency, 2) Division Program Coordinator/Project Manager, 3) TCIF Program Lead, 4) CTC