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: 10/8/2018

TCIF # (Segment): 86 Other Project Identifier (EA, Project #, PPNO, etc.):

Project Title: ALAMEDA CORRIDOR WEST TERMINUS INTERMODAL RAILYARD - WEST BASIN RAILYARD EXTENSION (TraPac Terminal On-Dock Railyard) Contract No. 75A0394

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

Location: County: Los Angeles City: Wilmington

Project Description: The construction of a semi-automated on-dock rail yard with eight working tracks, infrastructure for 136 foot gauge rail mounted gantry cranes, access roadway, storm drainage, electrical and lighting, utility work, and fencing.

B. Contact Information

Implementing Agency: Port of Los Angeles Caltrans District Number: 7

Contact Person: Christina Sar Phone: (310) 732-3627

Email Address: csar@portla.org

C. Cost	Adopted Program Amount ($)	Current Approved Amount ($)	Actual Expended Amount ($)	Net Difference (Dollars)
Environmental				
Total Amount	$0	$0	$0	$0
Design				
Total Amount	$2,292,000	$3,292,000	$3,113,062	$178,938
Right of Way				
Total Amount	$0	$0	$0	$0
Construction Support				
TCIF	$1,883,000	$1,883,000	$1,883,000	$0
Local (POLA)	$1,883,000	$5,430,000	$6,952,372	-$1,522,372
Construction				
TCIF	$18,829,000	$18,829,000	$18,829,000	$0
Local (POLA)	$18,829,000	$43,553,000	$41,974,395	$1,578,605
Federal				
Other				
Totals	$43,716,000	$72,987,000	$72,751,829	$235,171

D. Schedule	Adopted Program Date	Current Approved Date	Actual Begin/End Date	Net Difference (Months)
Environmental Phase				
Begin	Oct 2003	Oct 2003	Oct 2003	0
End	Dec 2007	Dec 2007	December 6, 2007	0
Design (PS&E) Phase				
Begin	Aug 2011	Aug 2011	August 23, 2012	12
End	Jun 2013	Jun 2013	September 8, 2013	3
Right of Way Phase				
Begin	Jan 2013	Jan 2013	March 26, 2013	2
End	Jun 2013	Jun 2013	April 26, 2013	-2
Construction Phase				
Begin (Award)	Oct 2013	Nov 2013	November 21, 2013	0
End	Apr 2015	Feb 2016	April 22, 2016	2
Closeout Date				
Begin	Apr 2015	Feb 2016	April 23, 2016	2
End	Apr 2016	Feb 2017	February 2019	-24

E. Amendments
List approved amendments

Amendment #	CTC Meeting	Summary of Changes (Scope, Cost, Schedule)
TCIF-P-1213-04B	6/11/2013	Item # 121 - Baseline Agreement Amendment (update cost and schedule)

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

The POLA/POLB handled 14 million twenty-foot equivalent units (TEUs) in 2011. By 2035, the Ports are projected to handle about 40 million TEUs. The rail system serving the POLA/POLB is instrumental in enabling the efficient transportation of cargo, as rail service is both economically and environmentally beneficial. At the POLA/POLB, about 40-45% of all containers are loaded onto trains via on-dock and off-dock railyards. Of this 40%, about 24% is loaded via on-dock railyards. It is the policy of the Ports to maximize the movement of containers via on-dock rail, and thus providing sufficient infrastructure. To accommodate the growth in rail traffic, which is estimated to increase from about 95 to 315 trains/per day between now and 2035, the POLA/POLB has developed a comprehensive Rail System Program estimated to cost about $2 billion over the next 10-15 years. The Alameda Corridor West Terminus Intermodal Railyard - West Basin Railyard Extension is an integral element of the Rail System Program.

Outcomes	Adopted Program	Current Approved	Actual
Safety	The reduction in truck trips on adjacent roadways/freeways, including the I-710, will result in improved safety. The I-710 between Ocean Blvd in Long Beach and the I-5 has higher accident and fatal accident rates compared to the State average. The high truck volumes, combined with auto volumes, contribute to the severity of accidents occurring along the I-710. Truck related accidents account for about 31% of accidents. In a three year period from Oct 2004-Sept 2007, there were 38 fatal accidents along the I-710 (including interchange ramps).	The reduction in truck trips on adjacent roadways/freeways, including the I-710, will result in improved safety. The I-710 between Ocean Blvd in Long Beach and the I-5 has higher accident and fatal accident rates compared to the State average. The high truck volumes, combined with auto volumes, contribute to the severity of accidents occurring along the I-710. Truck related accidents account for about 31% of accidents. In a three year period from Oct 2004-Sept 2007, there were 38 fatal accidents along the I-710 (including interchange ramps).	The semi-automated on-dock railyard, in conjunction with the Alameda Corridor West Terminus Intermodal Railyard, improves safety by reducing the number of truck trips on roadways and highways, thereby reducing truck related accidents.
Velocity	Reduction in truck trips on the I-710 and other roadways/highways will help to improve speeds on these facilities. Direct on-dock loading increases velocity of containers via use of Alameda Corridor.	Reduction in truck trips on the I-710 and other roadways/highways will help to improve speeds on these facilities. Direct on-dock loading increases velocity of containers via use of Alameda Corridor.	The semi-automated on-dock railyard, in conjunction with the Alameda Corridor West Terminus Intermodal Railyard, improves velocity by reducing the number of truck trips on roadways/highways, thereby improving speeds on these facilities. In addition, velocity of loading containers is increased by the 3 semi-automated/electric Rail Mounted Gantry (RMG) Cranes, automated shuttle carriers, Terminal Logistic System (TLS), and Terminal Operating System (TOS), which optimizes operation.

Throughput	On-dock railyard allows for the direct loading of 614,400 TEU/year; reducing drayage of these containers.	On-dock railyard allows for the direct loading of 614,400 TEU/year; reducing drayage of these containers.	The semi-automated on-dock railyard, with 3 semi-automated/electric RMG Cranes and automated shuttle carriers, improves and optimizes throughput. Automation increases terminal capacity.
Reliability	Direct on-dock loading increases velocity of containers via use of Alameda Corridor; which improves relliability. Reduction in truck trips on the I-710 and other roadways/highways will help to improve reliability for all other traffic.	Direct on-dock loading increases velocity of containers via use of Alameda Corridor; which improves relliability. Reduction in truck trips on the I-710 and other roadways/highways will help to improve reliability for all other traffic.	The semi-automated on-dock railyard, with 3 semi-automated/electric RMG Cranes, automated shuttle carriers, TLS, and TOS, improves reliability. The equipment is pre-programmed to move containers with optimal efficiency.
Congestion Reduction	Reduction in 3,000 daily truck trips (due to mode shift).	Reduction in 3,000 daily truck trips (due to mode shift).	The semi-automated on-dock railyard, in conjunction with the Alameda Corridor West Terminus Intermodal Railyard, reduces the number of truck trips on roadways/highways, thereby reducing congestion.
Emissions Reductions	An air quality analysis was conducted to determine the change in emissions. The analysis showed the following Emission Reductions (tons; over 20 years) 1,848 772,569 2,908 124 346	An air quality analysis was conducted to determine the change in emissions. The analysis showed the following Emission Reductions (tons; over 20 years) 1,848 772,569 2,908 124 346	The semi-automated on-dock railyard, in conjunction with the 3 semi-automated/electric RMG Cranes, automated shuttle carriers, and Alameda Corridor West Terminus Intermodal Railyard reduces the number of truck trips on roadways and highways, as described in the air quality analyses, which resulted in the following Emission Reductions (tons; over 20 years) 1,848 772,569 2,908 124 346

G. Differences/Variances

Describe differences/variances (if any) and reason for, between approved scope, cost, schedule, and actual.

The project contingency was not utilized, therefore the overall project cost is under the original budgeted (Program Adopted & Approved) amount.

H. Lessons-Learned/Best Practices

Describe lessons-learned and best practices for future projects.

1. Location of rail switches must be better defined in the project bid documents. PUC requirements dictate locations and should be incorporated into the project design drawings.
2. RailComm equipment requirements should have been identified as part of the bid documents.
3. The results of compaction testing should be maintained by Inspection for future reference.
4. Specifications for the building address signage should be included in the project bid documents.
5. The project phasing limits were in conflict with the limits identified in adjacent projects. It is better to limit the number of simultaneous projects occurring in the same vicinity of one another.
6. The specifications should include the supply of fire extinguishers and a first aid kit in the office trailers.
7. The specifications allow for pulverizing existing pavement materials. This leads to confusion as the Contractor wants to pulverize existing materials and leave them in place instead of supply base materials. Pulverizing must be better defined in terms of what is allowable for future projects.
8. The requirement to galvanize exposed steel members must be better defined in future projects. Galvanizing requirements are not noted on the structural plans.
9. LADWP and POLA guard post requirements should be better defined to eliminate confusion. It should be clear on the drawings which guard post detail is being referred to.
10. The plans should be clearer about the requirements to seal all exposed concrete expansion/contraction joints. Sealant should be required in all cases.
11. The specifications only indicated one source for base material. The project needed to utilize an alternate source for base material because the specified source ran out of material.
12. The specifications did not require a full time Rail Supervisor. This should be changed to eliminate mistakes and re-work in the field.
13. The Cast-In-Drilled-Hole specifications should allow for permanent casing for the drilled piers. Slipping the casing can cause voids which create issues with the Gamma Gamma testing.
14. The specifications require a full-time scheduler for the project which adds cost to the project as the scheduler may not be fully utilized doing schedule-related work.
15. The specifications state that fencing posts on the rail border with the backlands can be driven into AC. The plans do not show that condition therefore we need to fix the conflict in the details.
16. The derail notes and details may be in conflict. Be sure that the derails are in the direction away from the switch machine, not into it.
17. Flangeway details should be added to our paving details adjacent to the track rail.
18. Details for the rail crossing area were lacking. Provide adequate striping and signage details in future projects.
19. The project plans need to show all locations for required wheel detectors, not merely state that wheel detectors should be installed per the manufacturer.
20. Electrical wire spools need to be inspected prior to installation of the wire.
21. The Contractor should provide physical wire samples as a submittal.
22. Project plans need to include the requirement for plywood backboard for telephone applications.
23. Plugging of wood ties in the field versus at the plant needs to be clarified in future projects.
24. Conduit should be installed for rail signal system wiring rather than direct bury. The Contractor was often digging too deep adjacent to recent rail construction. Additionally, conduit would allow for easier repair work if/when a wheel detector needed to be replaced.
25. Include a spool piece in the future for the Contractor to install since LADWP will not connect directly to the customer service side of the meter.
26. AREMA and POLA rail welding requirements are not the same. POLA standards should govern but this information needs to be placed on the project plans.
27. PUC walkway rock requirements should be enforced throughout the plans and specifications.

Certification Signature

Implementing 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.

Christina U. Sar (formerly Daniel Samaro)
(Print name) Project Manager

Christina U. Sar
(Signature) Project Manager — Date: 10/15/2018

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

(Signature) TCIF Division Program Coordinator/Project Manager — Date: 10/18/18

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

Tony Cano
(Print Name) TCIF Program Lead

Tony Cano
(Signature) TCIF Program Lead — Date: 10/18/18

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