STATE OF CALIFORNIA - CALIFORNIA TRANSPORTATION COMMISSION
CTC-0001 (NEW 07/2018)

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
Fenix Terminal Railyard Expansion & Modernization Project

Resolution _____
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☐ State Highway Operation and Protection Program
- ☒ Trade Corridor Enhancement Program

2. PARTIES AND DATE

2.1 This Project Baseline Agreement (Agreement) for the *Fenix Terminal Railyard Expansion & Modernization Project*, effective on, _____ (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *City of Los Angeles, Harbor Department*, and the Implementing Agency, *City of Los Angeles, Harbor Department*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its December 2, 2020 meeting the Commission approved the Trade Corridor Enhancement Program, and included in this program of projects the *Fenix Terminal Railyard Expansion & Modernization Project*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated
- ☒ Resolution *Insert Number*, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated

4.3 All signatories agree to adhere to the Commission's Trade Corridor Enhancement Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 The City of Los Angeles, Harbor Department agrees to secure funds for any additional costs of the project.

4.6 The City of Los Angeles, Harbor Department agrees to report to Caltrans on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 The City of Los Angeles, Harbor Department agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost
See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

In the event of a cost overrun the state will cover a share proportionate to the state contribution of the TCEP funding identified in the Project Programming Request (PPR) submitted with this baseline agreement. (For example, if the state/regional TCEP funding share was a 40/60 ratio, the state may fund no more than 40% of the cost overrun.)

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Fenix Terminal Railyard Expansion & Modernization Project

Resolution _____

APPROVED AS TO FORM AND LEGALITY
9-13 2021
MICHAEL N. FEUER, City Attorney
By _____
Deputy City Attorney

_____ _____
Eugene D. Seroka **Date**
Executive Director
Project Applicant
Implementing Agency

ATTEST:

_____ _____
Amber Klesges **Date**
Board Secretary
Project Applicant

_____ _____
Tony Tavares **Date**
District Director
Califonia Department of Transportation

_____ _____
Toks Omishakin **Date**
Director
Califomia Department of Transportation

_____ _____
Mitchell Weiss **Date**
Executive Director
California Transportation Commission

Exhibit No. 1 – Project Programming Request

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

Amendment (Existing Project) ☐ YES ☒ NO				Date	07/25/2021 10:05:17
Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☐ TCEP ☐ STIP ☒ Other					
District	**EA**	**Project ID**	**PPNO**	**Nominating Agency**	
07				Caltrans HQ	
County	**Route**	**PM Back**	**PM Ahead**	**Co-Nominating Agency**	
Los Angeles				Port of Los Angeles	
				MPO	**Element**
				SCAG	Rail
Project Manager/Contact			**Phone**	**Email Address**	
Kerry Cartwright			310-732-7702	kcartwright@portla.org	

Project Title

Port of Los Angeles - Fenix Terminal Railyard Expansion & Modernization Project

Location (Project Limits), Description (Scope of Work)

The project is located entirely on the Fenix marine container terminal at the Port of Los Angeles (POLA) and makes improvements to the existing on-dock railyard at the Fenix terminal. The Fenix terminal and the entire POLA are also part of the United States Department of Transportation (USDOT) designated National Multimodal Freight Network (NMFN).

The improvement project will increase capacity by adding five new working tracks just north of/parallel to the existing railyard, including tail track, pavement & turnouts.

Component	Implementing Agency
PA&ED	Port of Los Angeles
PS&E	Port of Los Angeles
Right of Way	Port of Los Angeles
Construction	Port of Los Angeles

Legislative Districts					
Assembly:	70	Senate:	35	Congressional:	44

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase		06/15/2020
Circulate Draft Environmental Document Document Type (ND/MND)/FONSI		03/31/2021
Draft Project Report		02/28/2021
End Environmental Phase (PA&ED Milestone)		08/31/2021
Begin Design (PS&E) Phase		04/01/2020
End Design Phase (Ready to List for Advertisement Milestone)		09/30/2022
Begin Right of Way Phase		12/31/2021
End Right of Way Phase (Right of Way Certification Milestone)		08/31/2022
Begin Construction Phase (Contract Award Milestone)		07/01/2023
End Construction Phase (Construction Contract Acceptance Milestone)		06/30/2025
Begin Closeout Phase		07/01/2025
End Closeout Phase (Closeout Report)		12/31/2025

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

Date 07/25/2021 10:05:17

Purpose and Need

The capacity of the existing Fenix on-dock railyard will be reached by 2022. The PROJECT will increase on-dock railyard capacity and commensurate use by a projected 520,00 twenty-foot equivalent units (TEU), which will relieve an NMFN capacity constraint.

NHS Improvements ☐ YES ☒ NO	Roadway Class NA	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Other	Port Improvements	EA	1

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

Date 07/25/2021 10:05:17

Additional Information

Project Benefits:

- Net present value benefit of $389,705,226; benefit-cost ratio = 10.2
- Reduced cargo dwell and transit times by as much as two days for the shifted 520,000 TEU/year, which in turn improves reliability, and reduces transportation and inventory carrying costs
- Reduced truck trips (-2,000/day & 27,400 miles-traveled) on Congressionally approved (via the FAST Act of 2015) NHFN/Primary Highway Freight System (PHFS) routes, including I-710, I-110, SR 47, and several other National Highway System Intermodal Connector Routes, which in turn reduces travel times for port and domestic cargo movement, as well as all other motorists (-4,600 vehicle-hours/day)
- Reduced truck trips reduces accident potential inside the terminal and on external roadways
- Reduced emissions of 6,550 tons/year (including greenhouse gas reductions): in numerous State designated "Disadvantaged/Low Income Communities" and the State's highest ranked communities in the California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0, 2018); and on numerous State/PHFS routes; and in the UPRR ICTF and BNSF Hobart off-dock railyards (not quantified/ included in emission reduction amount cited above)

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

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ePPR-0723-2020-0010 v0

Performance Indicators and Measures

Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	19,442,200	19,446,800	-4,600
	TCEP	Daily Truck Trips	# of Trips	6,800	8,800	-2,000
	TCEP	Daily Truck Miles Traveled	Miles	574,999,500	575,026,900	-27,400
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	0	0	0
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	1,443,000	923,000	520,000
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	3,206,000	3,206,000	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	0	0	0
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	19,442,200	19,446,800	-4,600
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	19,442,200	19,446,800	-4,600
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	-1	0	-1
			PM 10 Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	-6,531	0	-6,531
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	2	0	2
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	-19	0	-19
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	-1	0	-1
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.93	0.93	0
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	-78	0	-78
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	69	69	0
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	415	0	415
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	10.2	0	10.2

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

District	County	Route	EA	Project ID	PPNO
07	Los Angeles				

Project Title

Port of Los Angeles - Fenix Terminal Railyard Expansion & Modernization Project

Existing Total Project Cost ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Implementing Agency
E&P (PA&ED)									Port of Los Angeles
PS&E									Port of Los Angeles
R/W SUP (CT)									Port of Los Angeles
CON SUP (CT)									Port of Los Angeles
R/W									Port of Los Angeles
CON									Port of Los Angeles
TOTAL									
Proposed Total Project Cost ($1,000s)									**Notes**
E&P (PA&ED)	30	270						300	
PS&E	50	906	1,540	690				3,186	
R/W SUP (CT)									
CON SUP (CT)				531	2,257	398		3,186	
R/W									
CON				19,194	13,245	13,244		45,683	
TOTAL	80	1,176	1,540	20,415	15,502	13,642		52,355	

Fund #1:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									California Transportation Commissio
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)									TCEP State
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON				7,678				7,678	
TOTAL				7,678				7,678	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

Fund #2:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									California Transportation Commissio
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									TCEP Regional
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON				11,516				11,516	
TOTAL				11,516				11,516	
Fund #3:	Federal Disc. - Port Infrastructure Development Program (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									U.S.D.O.T. Grant
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON					9,092	9,092		18,184	
TOTAL					9,092	9,092		18,184	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
PROJECT PROGRAMMING REQUEST (PPR)
PRG-0010 (REV 08/2020)

PPR ID
ePPR-0723-2020-0010 v0

Fund #4:	Local Funds - Port Funds (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Port of Los Angeles
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)	30	270						300	
PS&E	50	906	1,540	690				3,186	
R/W SUP (CT)									
CON SUP (CT)				531	2,257	398		3,186	
R/W									
CON					4,153	4,152		8,305	
TOTAL	80	1,176	1,540	1,221	6,410	4,550		14,977	

Exhibit No. 2 – Project Study Report Equivalent

PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

PROJECT STUDY REPORT EQUIVALENT (PSRE)

THE PORT OF LOS ANGELES

PSRE

FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT Approved by the Port of Los Angeles: September 2, 2021
Agency Chief Executive (i.e. Mayor, City Manager, CEO, CAO, PW Dir, City Eng., Gen. Mgr., or equivalent)

PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

Approved by the Port of Los Angeles:

D. Sm. Wall

Agency Chief Executive (i.e. Mayor, City Manager, CEO, CAO, PW Dir, City Eng., Gen. Mgr., or equivalent)

09/07/21

DATE

This Project Study Report Equivalent has been prepared under the direction of the following staff authorized by the sponsoring agency to sign for the work. The person signing below attests to and certifies the technical information contained herein and the engineering data upon which the recommendations, conclusions, and decisions are based.

Adrienne Newbold

Authorized Staff

9/07/2021

Date

C75602

If applicable California PE Stamp and LIC #

PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

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PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

INTRODUCTION

The **FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT** is located on Terminal Island in the Port of Los Angeles (POLA). The existing TI Railyard currently serves six on-dock railyards, located in six container terminals in both the POLA/Port of Long Beach (POLB). Figures 1 thru 3 illustrate the movement of goods from both ports as it relates to the national, regional, and subregional intermodal transportation system.

Figure 1 – Project National Context

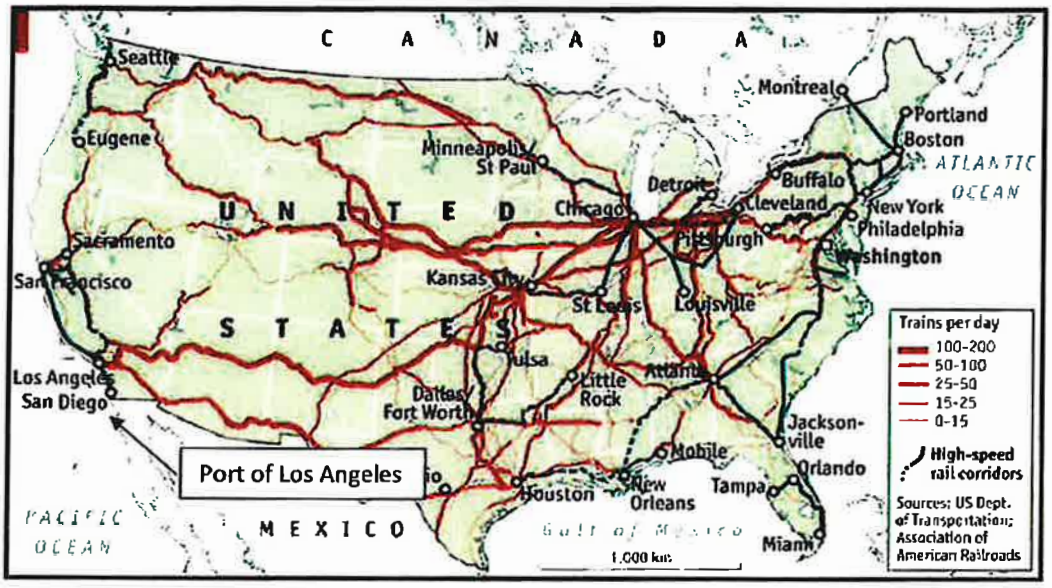


Figure 2 – Project Regional Context

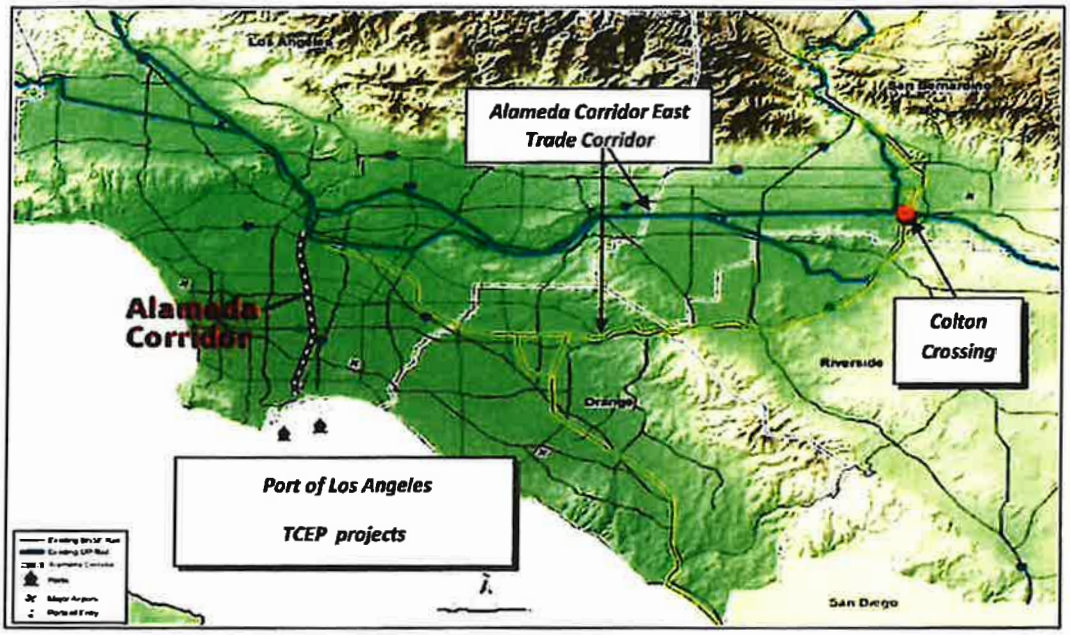
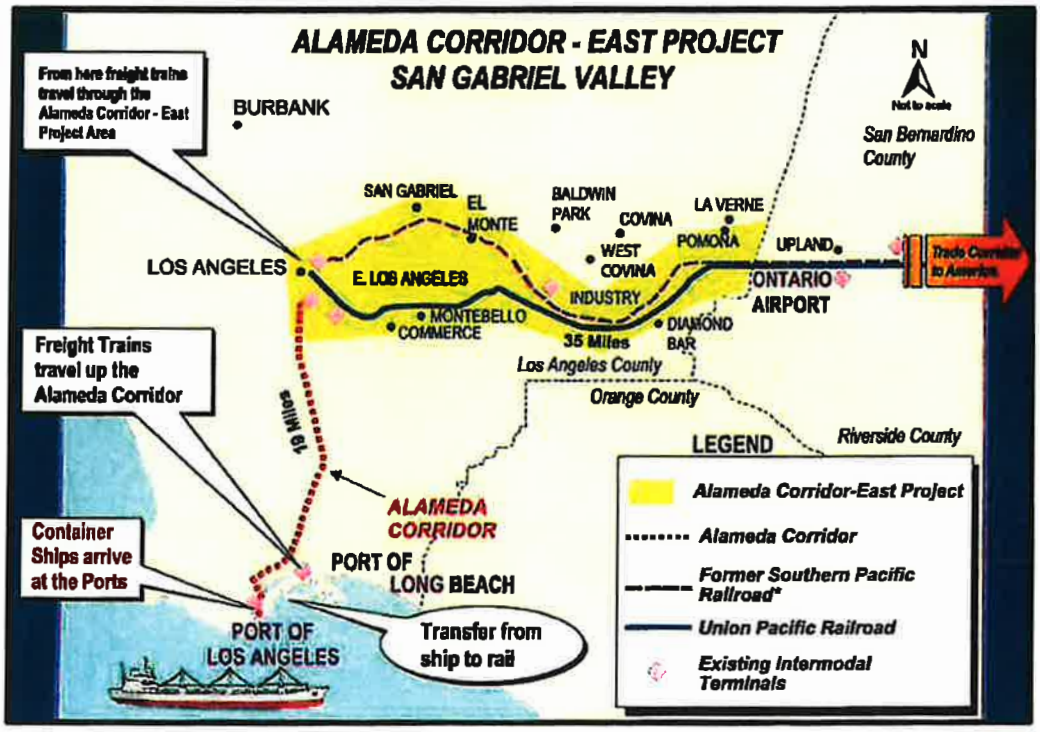


Figure 3 – Project Regional Context



PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

The capacity of the existing Fenix on-dock railyard will be reached by 2022. The Fenix terminal handled over 2 million twenty-foot equivalent units (TEU) in 2018, which represents 4% of all containers moving through all U.S. ports, in which over half of the rail cargo moves to/from the Midwest and Southeast. Figures 4-6 show the project location in the local context. This project entails the construction of five new tracks and tail track (approximately 16,230 track feet) and power switches to the existing Fenix Container Terminal Railyard. The construction work will also include removals, grading, paving, drainage, utility relocation/modification, striping, fencing, and lighting infrastructure. The project will increase on-dock intermodal railyard capacity and commensurate use by a projected 520,00 Twenty Foot Equipment Units (TEU), which represents about a 10% increase in overall on-dock rail capacity in the Port of Los Angeles.

Figure 4- Project Local Setting-A

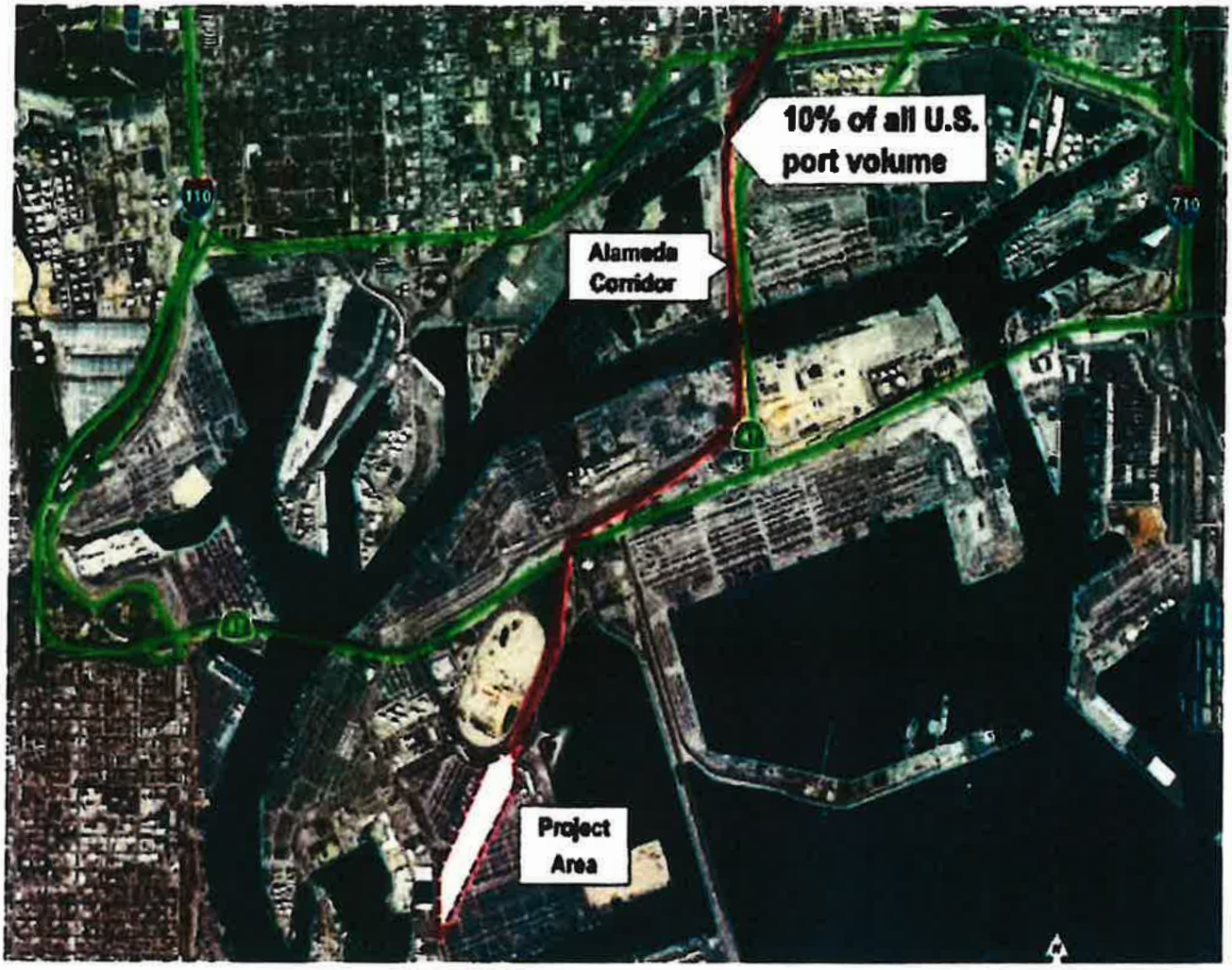


Figure 5- Berth 302-305 On-Dock Railyard Expansion

PSRE
FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

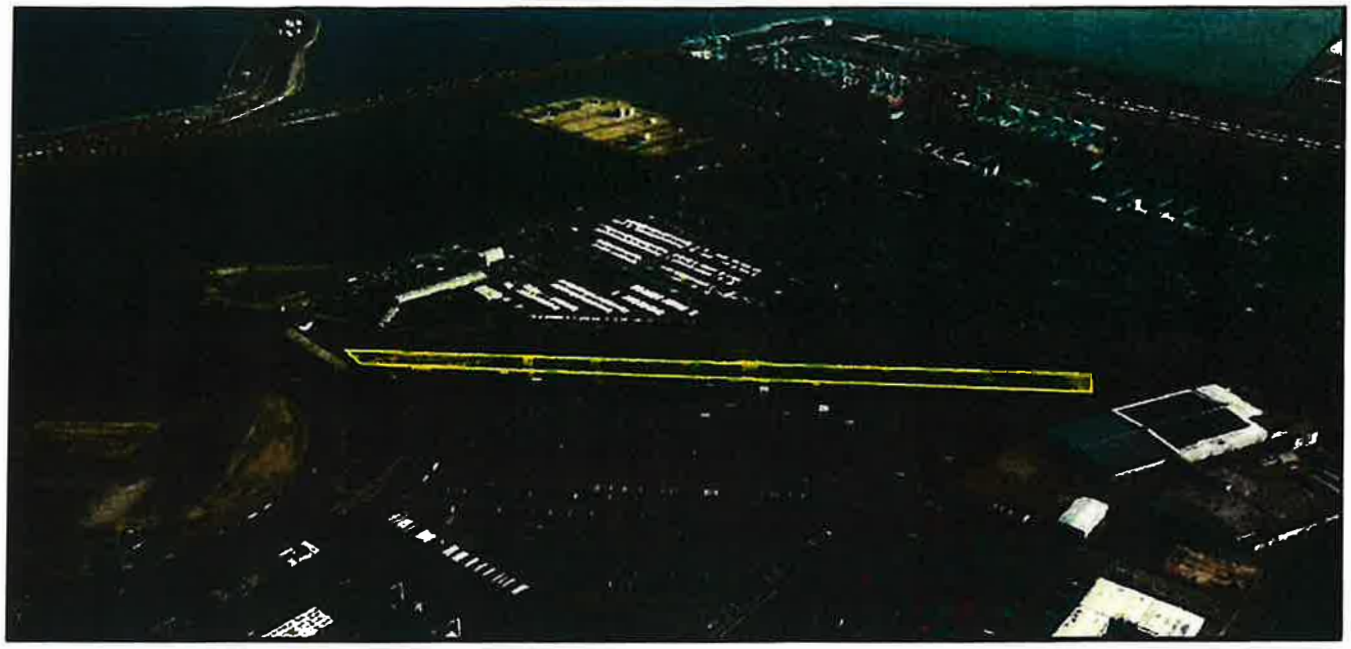


Figure 6 – FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT Site Plan

TRANSPORTATION CHALLENGES/PROJECT NEED

Transportation

For several economic, environmental, and efficiency reasons, the San Pedro Bay Ports have committed to a goal of maximizing on-dock rail use. On-dock rail enables cargo containers to be moved to/from vessels and trains, within the confines of the port terminals, thus minimizing truck trips inside the terminals, and outside on the State Highway System. The POLA/POLB handled 16.9 million twenty-foot equivalent units (TEUs) in 2017. By 2035, the POLA/POLB is projected to handle over 35 million TEUs, which will further strain the nation's most important freight transportation network.

FENIX CONTAINER TERMINAL INTERMODAL RAILYARD PROJECT

The existing Fenix on-dock railyard, which handled 762,000 TEU in 2019, is expected to reach its capacity of 925,000 TEU in the year 2022. The project will increase on-dock intermodal railyard capacity and commensurate use by a projected 520,000 TEU. Thus, the project relieves a national multimodal freight network (NMFN) capacity constraint, which enables more cargo to be loaded onto trains via the on-dock railyard within the terminal, instead of via off dock railyards, located as far as 27 miles away from the Fenix Terminal. Shifting the loading of these containers to on-dock rail enables the BNSF Railway and Union Pacific Railroad (UPRR) to transport import and export containers to/from the POLA and the rest of the nation more safely, rapidly, efficiently, and cost-effectively, via the Alameda Corridor.

As documented in the recently released "I-710 Corridor Project Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (State of California, July 2017;

http://www.dot.ca.gov/d7/env-docs/docs/710corr-eir/) and numerous POLA documents (https://www.portoflosangeles.org/environment/public_notices.asp), many intersections, roadways, freeways within the Port, and I-710 Corridor currently operate at unacceptable levels of service. The poor operating conditions are expected to deteriorate within the next 20 years. Given the scarcity of public funds for major roadway improvements, and the lengthy timeframe required for development and implementation, other types of transportation improvements, such as on-dock intermodal railyards, are crucial to ensure the overall economic vitality of the State and the nation.

Project Parties, Operations & Maintenance

Two Class I railroads, the BNSF and UPRR, and one short-line railroad, Pacific Harbor Line (PHL), will have operating rights on this new trackage. These operating rights are defined by existing operating agreements with all three rail providers, which will be amended to include the new rail infrastructure. Additionally, the POLA contracts directly with the PHL to operate on all trackage in the POLA. The PHL in turn contracts with non-container customers, the BNSF, and UPRR for switching services with and adjacent to the POLA. The Fenix Terminal operator, which has a lease with the POLA, will be responsible for all maintenance of this new trackage.

PROJECT BENEFITS

Throughput/Velocity/Congestion Reduction

The project will improve rail throughput, rail cargo velocity, and reliability by shifting from off-dock to on-dock movement. Based upon detailed capacity modeling and intermodal analysis, the project will increase on-dock railyard capacity and commensurate use by a projected 520,000 TEU/year. The capacity modeling also entailed use of the "Rail Traffic Controller" (RTC) simulation model, a model utilized universally by Class I railroads, ports, and commuter passenger rail agencies throughout North America. Based upon projected container volume forecasts the capacity of the existing Fenix on-dock railyard, 925,000 TEU, will be reached by 2022. Thus, the project relieves a NMFN capacity constraint, and enables more cargo to be moved via on-dock rail. The expanded Fenix on-dock railyard is projected to reach its capacity of 1,443,000 TEU by the year 2032. This increased capacity and use of the Fenix terminal on-dock railyard will result in shifting containers from off-dock railyards located between 11 and 27 miles away from the POLA. A benefit-cost analysis (BCA) model quantified benefits in the opening year and twenty years thereafter and is reasonable in not overestimating the 20-year stream of benefits. This shifting from off-dock to on-dock operations yields the following outcomes (benefits):

- Reduced cargo dwell and transit times by as much as two days for the shifted 520,000 TEU/year, which in turn improves reliability and reduces transportation and inventory carrying costs

- Reduced truck trips on the NMFN-Primary Highway Freight System (PHFS) routes in turn reduces travel times for other port and domestic cargo movement, as well as all other motorists

  - Using comprehensive port-specific truck trip generation and travel demand the following summarizes these specific reductions:

Table 1 – Daily Mobility Benefits

Year	Truck Trips	Cargo Transit Time on Roadways (Vehicle-hrs.)	Other Cargo/Motorist Transit Time (Vehicle hrs.)
2023	-230	-10	-510
2043	-2,000	-100	-4,500

- The anticipated reduced delay of other vehicles on roadways, attributable to the direct truck trip reductions, will also decrease the potential for accidents (this particular accident potential reduction has not been monetized in the BCA).
- Trucking costs will be reduced due to this shifting (this particular benefit has not been monetized in the BCA).

- Reduced truck trips reduces accident potential inside the terminal and on external roadways

  - Reduced truck trips to/from the terminal reduces gate queues/queuing time and terminal truck movements and terminal times, which in turn also reduces terminal operating costs (this particular benefit has not been monetized in the BCA).

- The reduced terminal truck movements and gate queues also improves the movement of import containers that are subsequently transloaded to domestic rail containers and loaded onto trains;

  - Transloaded intermodal cargo consists of import containers trucked to logistics facilities where their contents are transferred into larger, domestic containers (typically 53 feet long) and then trucked to railyards for loading onto trains destined for inland US locations.

Environmental Sustainability/Emission Reduction

The POLA is located in the South Coast Air Basin (SCAB), an extreme nonattainment area. This basin has some of the worst air quality in the nation, which represents a serious health concern for its residents. Currently, the SCAB is designated by the U.S. Environmental Protection Agency as being in nonattainment of the National Ambient Air Quality Standards for ozone and for particulate matter less than 2.5 microns ($PM_{2.5}$). Additionally, the project is located in one of the most "disadvantaged" communities in the entire State and nation. Studies show that tens of thousands of people living in communities around the ports face an increased risk of cancer, asthma, birth defects, and decreased lung function. These communities are also heavily populated by immigrants, minorities, and economically disadvantaged people.

This Environmental Assessment (EA) has been prepared on behalf of POLA to address the potential environmental impacts relative to the proposed improvements to its existing on-dock railyard at Berth 300 currently operated by Fenix Marine Services (FMS) (formerly American President Lines [APL] and Eagle Marine Services). At approximately 291 acres, the Pier 300 terminal is the second largest cargo container terminal at POLA. FMS is the permit holder and terminal operator. The Pier 300 terminal has four berths with approximately 4,000 feet of wharf, 16 wharf cranes and an on-dock rail yard that can accommodate nearly three full intermodal unit trains. Additionally, the shifting of the amount of containers moved via off-dock to on-dock is one of the key strategies of the San Pedro Bay Ports Clean Air Action Plan (CAAP) 2017 Update, California Sustainable Freight Action Plan (CSAP), and CFMP. The CAAP has involved extensive community/public outreach over many years, with the involvement of the

California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), and United States Environmental Protection Agency (USEPA).

As shown in Table 2 and Figure 6, the project will reduce emissions in numerous State designated "Disadvantaged" and "Low Income Communities around the POLA/POLB and throughout the South Bay and Gateway Cities subregions, including but not limited to San Pedro, Wilmington, Long Beach, Carson, and all cities abutting the I-710 and I-110. These two POLA rail projects are key strategies of the POLA/POLB 2017 CAAP. The CAAP involved extensive community/public outreach over two years, with the involvement of CARB, SCAQMD, and EPA.

Table 2 – Truck Emission Reductions (annual tons)

	VOC	CO	NOx	SOx	PM10	PM2.5	CO2e
Year 2043	--	-2	-24	--	-1	--	-7860
2024-2043 Total	-2	-22	-256	--	-15	-5	-90983

Figure 6 – Emission Reductions in Disadvantaged/Low-Income Communities

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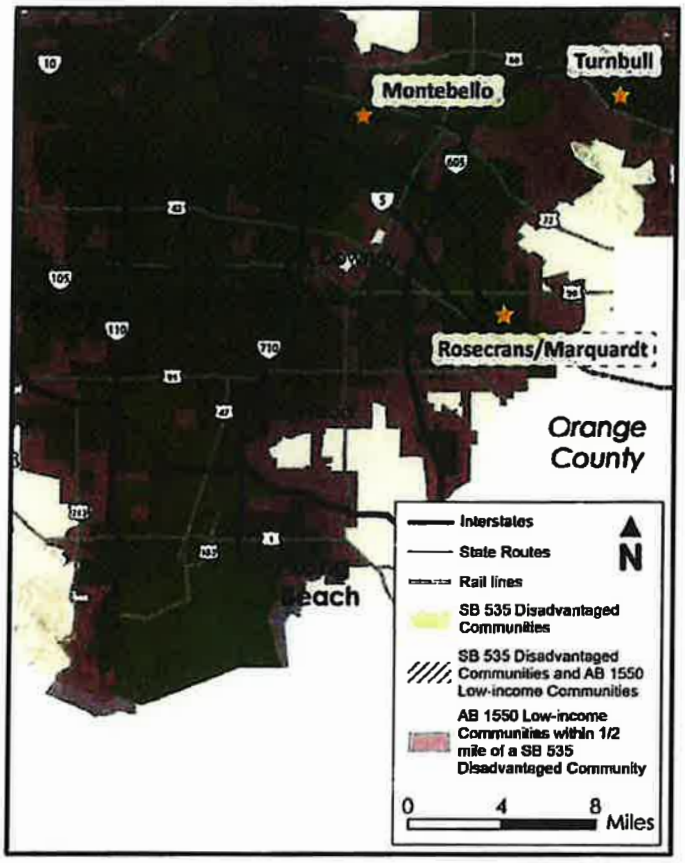

Economic/Jobs Growth

The capacity of the existing Fenix on-dock railyard will be reached by 2022. The PROJECT will increase on-dock intermodal railyard capacity and commensurate use by a projected 520,00 TEU. Thus, the PROJECT relieves a NMFN capacity constraint, which enables more cargo to be loaded onto trains via the on-dock railyard within the terminal, instead of via offdock railyards, located as far as 27 miles away from. Shifting the loading of these containers to on-dock rail enables the BNSF Railway and Union Pacific Railroad (UPRR) to transport import and export containers to/from the POLA and the rest of the nation more safely, rapidly, efficiently, and cost-effectively, via the Alameda Corridor. The Fenix terminal moves 4% of all containers moving thru U.S. ports. This project not only improves rail for U.S heartland exports, but also benefits agriculture, manufacturing, energy, and retail. In addition, this project will prevent diversion to Canada and Mexico, reduces roadway maintenance, and improves a 22-year old infrastructure.

This project prevents containers from diverting to ports in Canada and Mexico. Such a diversion would have real, direct financial, and economic losses to the POLA, hindering needed CIP construction and bond debt payment for not only the POLA but the Alameda Corridor. The current bond debt for the POLA and Alameda Corridor is $754 million and $2.06 billion, respectively. The UPRR and BNSF pay fees for moving on-dock and off-dock containers via the Alameda Corridor. Cargo diversion will also hurt the U.S economy due to loss of revenue, jobs, tax revenue, and business/consumer spending.

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The construction of PROJECT will create an estimated 320 direct/indirect/induced jobs (one year per full-time equivalent) in "Economically Distressed Areas" (EDA) with 13 percent unemployment. An EDA, as established by 42 U.S.C. § 3161 and used by the Federal Highway Administration, are areas where unemployment is one percent or more above the national average, or where the per capita income is 80 percent or less than the national average.

SCHEDULE, COST ESTIMATE, AND FUNDING

The tables below show the estimated schedule, cost estimate, and funding plans for the project.

Table 3 – Project Schedule

FENIX Rail Schedule

ID	Task Name	Duration	Start	Finish
1	Environmental - CEQA	351d	Mon 6/15/20	Mon 5/31/21
2	Environmental- NEPA	90d	Wed 3/3/21	Mon 5/31/21
3	Final Design	580d	Sun 2/28/21	Fri 9/30/22
4	Caltrans Allocation Deadline	0d	Fri 6/30/23	Fri 6/30/23
5	Caltrans E-76	92d	Sat 10/1/22	Sat 12/31/22
6	Bid and Award	180d	Sun 1/1/23	Thu 6/29/23
7	Construction	731d	Sat 7/1/23	Mon 6/30/25

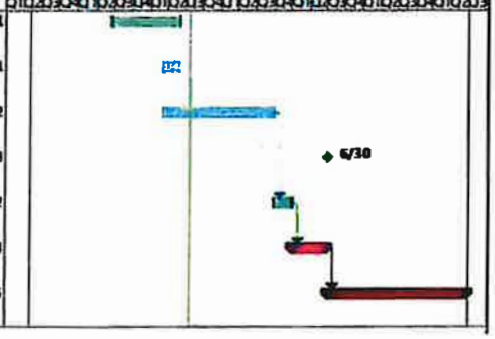

Table 4 – Project Cost Estimate/Funding

by Fiscal Year	FY20	FY21	FY22	FY23	FY24	FY25	Total
Costs							
Environmental	$ 30,000	$ 270,000					$ 300,000
Design	$ 50,000	$ 906,000	$ 1,540,000	$ 690,000			$ 3,186,000
Construction				$ 7,464,000	$ 32,396,000	$ 5,823,000	$ 45,683,000
Construction Management				$ 531,000	$ 2,257,000	$ 398,000	$ 3,186,000
Totals	$ 80,000	$ 1,176,000	$ 1,540,000	$ 8,685,000	$ 34,653,000		$ 52,355,000
Funding Sources							
TCEP	$ -	$ -	$ -	$ 19,194,000	$ -	$ -	$ 19,194,000
USDOT - Construction	$ -	$ -	$ -	$ -	$ 9,092,000	$ 9,092,000	$ 18,184,000
POLA - Construction					$ 4,153,000	$ 4,152,000	$ 8,305,000
POLA - CM	$ -	$ -	$ -	$ 531,000	$ 2,257,000	$ 398,000	$ 3,186,000
POLA - Environmental/Design	$ 80,000	$ 1,176,000	$ 1,540,000	$ 690,000	$ -		$ 3,486,000
POLA Total	$ 80,000	$ 1,176,000	$ 1,540,000	$ 1,221,000	$ 6,410,000	$ 4,550,000	
Totals	$ 80,000	$ 1,176,000	$ 1,540,000	$ 20,415,000	$ 15,502,000	$ 13,642,000	$ 52,355,000

PROGRAMMING DATA

See Exhibit A of Baseline Agreement for the Project Programming Request (PPR)

ALTERNATIVES

Refer to the Project Benefits section for information on the project as a build option.

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The tables and section below summarize the quantification of the various evaluation criterion, and the resulting benefit-cost results of the proposed project.

Table 5 – Benefits/Costs

Benefits/Costs ($ CY2019)			
Outcome	**Project Effect/ Remedy**	**Outcome Metric**	**7% Rate**
Safety & Efficiency	• Increased on-dock capacity (520,000 TEU) = shift from off-dock to on-dock = reduced cargo transit time & terminal dwell time (by 2 days) = improved reliability & reduced costs	• Private logistics cost reduction (e.g.; inventory carrying costs)	Not monetized
	• Increased on-dock capacity = shift from off-dock to on-dock = reduced truck trips (2,000/day) & hours of travel on NHFN & in terminals (100 hrs/day)	Travel time (& cost) reduction	$189,650,828
	• Increased on-dock capacity = shift from off-dock to on-dock = reduced truck trips & hours of travel on NHFN & in terminals = reduced accident potential	Accident (& cost) reduction	$7,307,480
	• Reduced truck trips = reduced hours of travel for other trucks & motorists on NHFN (-4,500/hrs/day)	Travel time (& cost) reduction	in "Travel Time Reduction"
State of Good Repair	• Reduced truck trips/hours of travel = reduced fuel consumption (net reduction for trucks & trains)	Fuel consumption (& cost) reduction	$17,782,488
	• Reduced truck trips/hours of travel = reduced roadway repairs (extends useful life of NHFN & terminal pavement)	Roadway O&M (& cost) reduction	$5,428,777
Energy Trade & Movement	For containerized petroleum products (POLA CY18=16,900 TEU), increased rail capacity = reduced total cargo dwell/transit times = reduced transportation costs = improved reliability & predictability	Travel time (& cost) reduction	in "Travel Time Reduction"
Export Movement	For export containers (POLA CY18=1.904 million TEU = 15% of all US ports), increased rail capacity = reduced total cargo dwell/transit times = reduced transportation costs = improved reliability & predictability	Travel time (& cost) reduction	in "Travel Time Reduction"
Food & Agricultural Cargo Movement	For containers moving food & agricultural cargo (POLA CY18=0.645 million TEU), increased rail capacity = reduced total cargo dwell/transit times = reduced transportation costs = improved reliability & predictability	Travel time (& cost) reduction	in "Travel Time Reduction"
Quality of Life	Reduced truck trips/hours of travel = reduced emissions and noise	• Emission cost reduction	$2,332,309
		• Noise reduction	$1,350,860
		• Improved health; reduced health care costs	Not monetized
		Present Value Benefits	**$223,852,742**
		Present Value Net Costs (inc. residual value of infrastructure & O&M costs	**$30,100,645**
		Net Present Value	**$193,752,097**
		Benefits/Costs	**7.9**

Safety

The Fenix Railyard Enhancement will reduce truck-miles traveled, which thus will reduce the potential for accidents, which when trucks are involved, often result in injuries and fatalities. The estimated accident reduction benefit for both projects are summarized above in Table 5. The anticipated reduced vehicular delay on roadways attributable to these truck trip reductions will also decrease the potential for accidents.

However, this latter accident potential reduction has not been monetized in the BCA. Reduced truck trips also reduces accident potential inside the terminals, but this has not been monetized in the BCA.

The project reduces truck-miles travelled and thus pavement wear. Additionally, by lessening the pavement wear they could potentially lessen the potential for accidents. These potential secondary safety benefits have not been included in the benefit-cost calculations.

SYSTEM PLANNING

Interregional Benefits

The project will have a significant and measurable impact on both inter-regional and national transportation system efficiency and reliability, allowing the West Coast to continue to serve as the primary gateway for national and international trade, as the most attractive, resilient, and competitive option. Continued investment in California's premier corridor is necessary to continue to support the ancillary investments made regionally through warehousing, transloading, and distribution centers. The improvements will improve efficiency for the movements of freight and people. Increasing capacity and reducing travel times on both systems will provide more choices for freight shippers and commuters. If shippers have more options for moving goods, competition increases between modes, and long-term costs will be reduced, creating a more efficient operating environment for both trucking and rail.