

TRADE CORRIDORS IMPROVEMENT FUND
Amended and Restated PROJECT BASELINE AGREEMENT
Port of Los Angeles West Basin Road Rail Access Improvements
(replacing Project Baseline Agreement effective July 1, 2008)

1. PARTIES AND DATE

- 1.1** This Project Baseline Agreement (Agreement) for the West Basin Road Rail Access Improvements, effective on June 1, 2011, is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), and the City of Los Angeles (“City”), acting through its Board of Harbor Commissioners (Project Sponsor), sometimes collectively referred to as the “Parties”.

2. RECITAL

- 2.1** Whereas at its April 10, 2008 Meeting the California Transportation Commission programmed the Trade Corridors Improvement Fund and included in this program of projects the West Basin Road Rail Access Improvements, the parties are entering into this Amended Project Baseline Agreement to document the amended project cost, amended schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A, the West Basin Road Rail Access Improvements Project Study Report attached hereto as Exhibit B, and the Project Benefits Form attached hereto as Exhibit C, as the baseline for project monitoring by the California Transportation Commission and its Project Delivery Council. The undersigned Project Sponsor 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.

3. GENERAL PROVISIONS

The Project Sponsor and Caltrans agree to abide by the following provisions:

- 3.1** To meet the requirements of Government Code Section 8879.23(c)(1), as added by Proposition 1B, and of Government Code Section 8879.50, as enacted through implementing legislation in 2007 (Senate Bill 88 and Assembly Bill 193).
- 3.2** To adhere to the provisions of the California Transportation Commission Resolution TCIF-P-0708-01, “Adoption of Program of Projects for the Trade Corridors Improvement Fund (TCIF),” dated April 10, 2008.
- 3.3** To adhere to the California Transportation Commission’s Trade Corridors Improvement Fund Guidelines.
- 3.4** To adhere to the California Transportation Commission’s Accountability Implementation Plan and policies, and program and baseline amendment processes.

- 3.5 The Sponsoring Agency agrees to secure funds for any additional costs of the project. Any change to the funding commitments outlined in this agreement requires an amendment.
- 3.6 To report to the California Transportation Commission on a quarterly basis on the progress made toward the implementation of the project, including scope, cost, and schedule.
- 3.7 To report to the California Transportation Commission on the progress, on a quarterly basis, and outcomes, at the end of the environmental phase, of the environmental process with regard to air quality impacts due to emissions from diesel or other particulates and related mitigation strategies. Whereas the Bond Act mandates that the Commission shall allocate TCIF for trade infrastructure improvements in a manner that places emphasis on projects that improve trade corridor mobility while reducing emissions of diesel particulate and other pollutant emissions, the Department of Transportation, the Sponsoring Agency, and the Corridor Coalition understand and agree that the California Transportation Commission will only allocate TCIF to projects that can demonstrate compliance with applicable environmental requirements. If environmental clearance is conditioned to the implementation of mitigation measures, the sponsoring agency must commit, in writing, to the implementation of those mitigation measures.
- 3.8 To maintain and make available to the California Transportation Commission and/or its designated representative, all work related documents, including engineering and financial data, 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.
- 3.9 The California Transportation Commission and/or its designated representative, has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Sponsoring Agency, and any subconsultants at any time during the course of the project and for four years from the date of the final closeout of the project. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

4. SPECIFIC PROVISIONS AND CONDITIONS

4.1 Project Schedule and Cost (Amended June 2011)

See Project Programming Request Form, attached as Exhibit A.

4.2 Project Scope

See Project Study Report/Project Study Report Equivalent, attached as Exhibit B.

4.3 Project Benefits

See Project Benefits Form, attached as Exhibit C.

4.4 Other Project Specific Provisions and Conditions

- 4.4.1 This Amended Project Baseline Agreement is subject to the provisions of the Los Angeles City Charter which, among other things, precludes the City from making any expenditure of funds or incurring any liability, including contractual commitments, in excess of the amount currently appropriated. Nothing in this Amended Project Baseline Agreement shall be interpreted to conflict with such requirements. However, the Board of Harbor Commissioners, in approving this Amended Project Baseline Agreement has expressed its intended commitment to the specific projects covered by this Amended Project Baseline Agreement, subject to Section 4.4.2 herein, and the identified sources of funds and expects such funds to be available and to appropriate such funds in the fiscal years they are to be expended.
- 4.4.2 The approval of any project by the Board of Harbor Commissioners is subject to the requirements of the California Environmental Quality Act (CEQA) where applicable.
- 4.4.3 If the TCIF funds indicated in the attached schedules are not received in the identified amount and time, the City may amend such schedules to take into account delays caused by the lack of TCIF funding. Despite such amendments and delays, the projects shall remain eligible for future allocations of TCIF funds.

SIGNATURE PAGE
TO
TRADE CORRIDORS IMPROVEMENT FUND
Amended and Restated PROJECT BASELINE AGREEMENT
Port of Los Angeles West Basin Road Rail Access Improvements
(replacing Project Baseline Agreement effective July 1, 2008)

Geraldine Knatz, Ph.D. **Date**
Executive Director
The City of Los Angeles,
acting through its Board of Harbor Commissioners

Cindy McKim **Date**
Director
California Department of Transportation

Andre Boutros **Date**
Executive Director
California Transportation Commission

**WEST BASIN ROAD RAIL ACCESS
IMPROVEMENTS**

PROJECT PROGRAMMING REQUEST FORM

EXHIBIT A

PROJECT PROGRAMMING REQUEST

DTP-0001 (REV. 2/10)

General Instructions

					Date:	03/09/11	
Caltrans District		EA		PPNO		MPO ID	TCRP No.
07						LAF3170	
County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency			
LA				City of Los Angeles Harbor Department (Port of Los Angeles)			
				MPO		Element	
				SCAG		RAIL	
Project Mgr/Contact		Phone		E-mail Address			
Ron Groves		310-732-3648		rgroves@portla.org			
Project Title							
Port of LA Rail System: Alameda Corridor Terminus/West Basin Railyard							
Location, Project Limits, Description, Scope of Work, Legislative Description							
<p>The project is located in the West Basin district of the Port of Los Angeles, and accessed via Alameda Street, which is the eastern boundary of the Wilmington community (Alameda Street/Harry Bridges Boulevard is also a federally designated National Highway System Intermodal Connector Route). The project entails the following elements: Receiving/departures, storage, and repair tracks; Removal of two at-grade rail-highway crossings, which have been an impediment between the community and the waterfront; Relocation of an existing railroad switching/classification yard (Pier A Railyard); and • A 3,200' long/25' wide landscaped public access area that consists of a 16' wide bike/pedestrian path along a portion of the California Coastal Trail designated by the California Coastal Conservancy.</p>							
Component		Implementing Agency				Reimbursements	
PA&ED		POLA					
PS&E		POLA					
Right of Way		POLA					
Construction		POLA					
Legislative Districts							
Assembly:		54		Senate:		27	
Congressional:		46					
Purpose and Need							
<p>The POLA/POLB handled 11.8 million twenty-foot equivalent units (TEUs) in 2009. By 2035, the Ports are projected to handle 43 million TEUs. The rail system serving the Port of Los Angeles and Port of Long Beach (the San Pedro Bay Ports) is instrumental in enabling the efficient transportation of cargo, as rail service is both economically and environmentally beneficial. At 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, such as the West Basin Railyard, is critical. 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 West Basin Railyard is an integral element of the Rail System Program.</p>							
Project Benefits							
<p>The project maximizes use of on-dock rail; shifts container transport from trucks to on-dock rail; reduces 2,300 daily truck trips by increased use of on-dock rail, 81,000 truck (passenger car equivalent or PCE)-miles traveled and 5,280 vehicle-hours traveled; reduces criteria pollutants and green-house; improves safety via truck trip reductions on I-710 which has highest accident rate in California, and via the removal of two at-grade rail-roadway crossings that are impediments between a residential community and the waterfront area; combined with other Rail System train delays by around 50 train-hours/day, which also will reduce locomotive emissions; without the project, about \$9.1 billion/annum (\$16.7 billion in the Year 2035) in trade will be disrupted; benefits yield a benefit-cost ratio of 2.5; and construction Jobs: 1,987 in an "Economically Distressed Area" with 13% unemployment</p>							
Project Milestone					Existing	Proposed	
Project Study Report Approved						NA	
Begin Environmental (PA&ED) Phase						July, 2005	
Circulate Draft Environmental Document			Document Type	N/A		Jan, 2007	
Draft Project Report						NA	
End Environmental Phase (PA&ED Milestone)						March, 2008	
Begin Design (PS&E) Phase						April, 2008	
End Design Phase (Ready to List for Advertisement Milestone)						July, 2011	
Begin Right of Way Phase						NA	
End Right of Way Phase (Right of Way Certification Milestone)						NA	
Begin Construction Phase (Contract Award Milestone)						Dec, 2011	
End Construction Phase (Construction Contract Acceptance Milestone)						June, 2014	
Begin Closeout Phase						July, 2014	
End Closeout Phase (Closeout Report)						June, 2015	

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

PROJECT PROGRAMMING REQUEST

DTP-0001 (REV. 2/10)

Date: 03/09/11

County	CT District	PPNO	TCRP Project No.	EA
LA	07	0	0	0
Project Title: Port of LA Rail System: Alameda Corridor Terminus/West Basin Railyard				

Existing Total Project Cost									Implementing Agency
Component	Prior	10/11	11/12	12/13	13/14	14/15	15/16+	Total	
E&P (PA&ED)	6	0	0	0	0	0	0	6	POLA
PS&E	6,126	1,176	1,127	0	0	0	0	8,429	POLA
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	POLA
CON	0	0	4,331	31,598	32,375	2,262	0	70,566	POLA
TOTAL	6,132	1,176	5,458	31,598	32,375	2,262	0	79,001	

Proposed Total Project Cost									Implementing Agency
Component	Prior	10/11	11/12	12/13	13/14	14/15	15/16+	Total	
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	4,331	31,598	15,301	0	0	51,230	
TOTAL	0	0	4,331	31,598	15,301	0	0	51,230	

Fund No. 1:									Program Code
Existing Funding									Funding Agency
Component	Prior	10/11	11/12	12/13	13/14	14/15	15/16+	Total	
E&P (PA&ED)								0	METRO (USDOT RSTP)
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON				2,417	6,167			8,584	
TOTAL	0	0	0	2,417	6,167	0	0	8,584	
Proposed Funding									Notes
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	

Fund No. 2:									Program Code
Existing Funding									Funding Agency
Component	Prior	10/11	11/12	12/13	13/14	14/15	15/16+	Total	
E&P (PA&ED)								0	
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON								0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									Notes
E&P (PA&ED)								0	State TCIF
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON			4,331	31,598	15,301			51,230	
TOTAL	0	0	4,331	31,598	15,301	0	0	51,230	

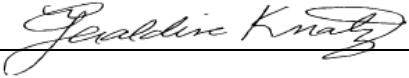
**WEST BASIN ROAD RAIL ACCESS
IMPROVEMENTS**

PROJECT STUDY REPORT EQUIVALENT

EXHIBIT B

METRO 2011 Call For Projects: PSRE
Port of Los Angeles Rail System: Alameda Corridor Terminus/West Basin Railyard

Approved by the Port of Los Angeles:

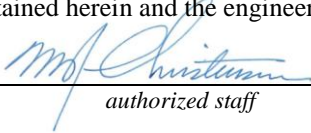


January 25, 2011

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

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.



authorized staff

January 25, 2011

DATE

C039199

If applicable California PE Stamp and Lic #



authorized staff

January 25, 2011

DATE

TR 1858

If applicable California PE Stamp and Lic #

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INTRODUCTION

The West Basin Railyard is a key component of the Ports of Los Angeles/Long Beach (POLA/POLB or Ports) Rail System Program. The project entails construction of an intermodal railyard, which includes staging and storage tracks for adjacent on-dock railyards for the two greenest container terminals in the nation (China Shipping/West Basin Container Terminal and Trans Pacific Container Service Corp. (TraPac)), and a short-line railroad that switches for the Union Pacific (UP) Railroad, Burlington Northern Santa Fe (BNSF) Railway, and other POLA/POLB terminals. The project also includes the removal of two at-grade rail-highway crossings. The West Basin Railyard functions as a critical link between the POLA and the **Alameda Corridor (which carries about 15% of all waterborne containers entering/exiting the entire United States)**, providing a staging and railcar storage area for trains entering from or departing to the Alameda Corridor.



TRANSPORTATION CHALLENGES/PROJECT NEED

The POLA/POLB handled 14.1 million twenty-foot equivalent units (TEUs) in 2010. By 2035, the Ports are projected to handle 43 million TEUs. The rail system serving the Port of Los Angeles and Port of Long Beach (the San Pedro Bay Ports) is instrumental in enabling the efficient transportation of cargo, as rail service is both economically and environmentally beneficial. At 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, such as the West Basin Railyard, is critical. 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 West Basin Railyard is an integral element of the Rail System Program.

Many intersections, roadways, freeways within the Ports' area, and I-710 Corridor currently operate at unacceptable levels of service. The poor operating conditions are expected to deteriorate within the next 20 years as determined in numerous recent studies, including the I-710 Corridor Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Given the expected cost of the proposed I-710 Corridor improvements, the scarcity of public funds, and the lengthy timeframe required for development/implementation, other types of transportation improvements, such as on-dock/near-dock intermodal railyards, are crucial to ensure the overall economic vitality of Southern California, the State, and the nation. On-dock/near-dock intermodal facilities reduce truck trips for a marine container terminal by about 35-50%.

The project increases the Ports' capacity to load and unload trains on-dock, and thereby maximizes the number of containers moved directly via rail (which is a goal in the draft *United States Department of Transportation Strategic Plan*). The project thus reduces truck trips on

streets and freeways within the Southern California Association of Governments (SCAG) area, including I-710, I-110, SR 47/103, and Alameda Street.

KEY PROJECT BENEFITS

- Maximizes use of on-dock rail; shifts container transport from trucks to on-dock rail
- Reduces 2,300 daily truck trips by increased use of on-dock rail, 81,000 truck (passenger car equivalent or PCE)-miles traveled and 5,280 vehicle-hours traveled
- Reduces criteria pollutants and green-house gases (*“Environmental Sustainability”*) as follows:

Emission Reductions (tons; over 20 years, 2013-2033)					
CO	CO ₂	NO _x	PM ₁₀	SO _x	VOC
1,411	589,985	2,221	95	6	264

- Improves safety via truck trip reductions on I-710 which has highest accident rate in California, and via the removal of two at-grade rail-roadway crossings that are impediments between a residential community and the waterfront area
- Combined with other Rail System train delays by around 50 train-hours/day, which also will reduce locomotive emissions (*“Environmental Sustainability”*)
- Without the project, about \$9.1 billion/annum (\$16.7 billion in the Year 2035) in trade will be disrupted
- The above benefits yield a benefit-cost ratio of 2.5
- Construction Jobs: 1,987 in an “Economically Distressed Area” with 13% unemployment

CONSTRUCTION ELEMENTS

This project is a State Proposition 1B Trade Corridors Improvement Fund (TCIF) Program project, as well as a USDOT TIGER II project. The project is located in the West Basin district of the Port of Los Angeles (POLA), and accessed via Alameda Street, which is the eastern boundary of the Wilmington community (Alameda Street/Harry Bridges Boulevard is also a federally designated National Highway System Intermodal Connector Route). Figures 1-3 illustrate the project and location, as it relates to the national, regional, and subregional rail system. Figure 4 illustrates the project site plan. The project entails the following elements:

- Receiving/departures, storage, and repair tracks
- Removal of two at-grade rail-highway crossings, which have been an impediment between the community and the waterfront
 - Augmenting these crossing closures and providing vehicular and pedestrian access to the area is an adjacent POLA rail-roadway grade separation project due to start construction in early 2012. When considering this grade separation at a cost of about \$75 million, along with the West Basin Railyard, the POLA is ostensibly providing a 90 percent local match

- Relocation of an existing railroad switching/classification yard (Pier A Railyard); Pier A Railyard also serves as the hub of operations for Pacific Harbor Line (PHL), a short-line railroad that provides rail car switching for (and under contract to) the POLA and Port of Long Beach (POLB)
- Rail equipment maintenance and servicing facilities, new administration and operations buildings, and various supporting utilities
- A 3,200' long/25' wide landscaped public access area that consists of a 16' wide bike/pedestrian path along a portion of the California Coastal Trail designated by the California Coastal Conservancy

Figure 1 - Project National Context



Figure 2 - Project Regional Context

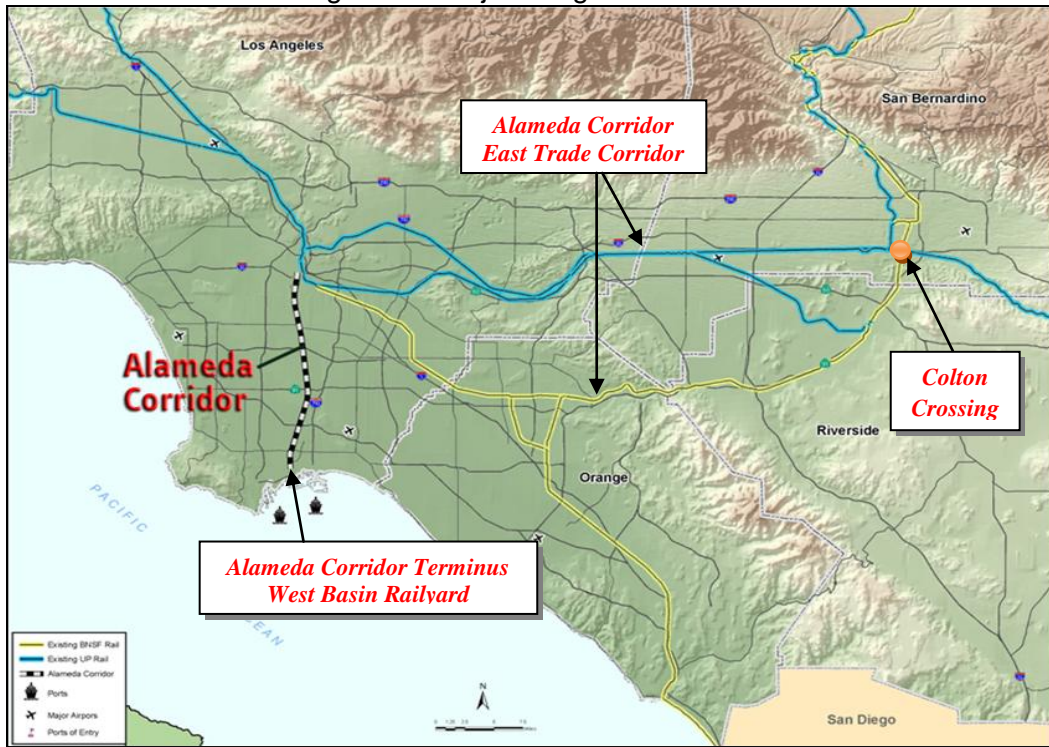
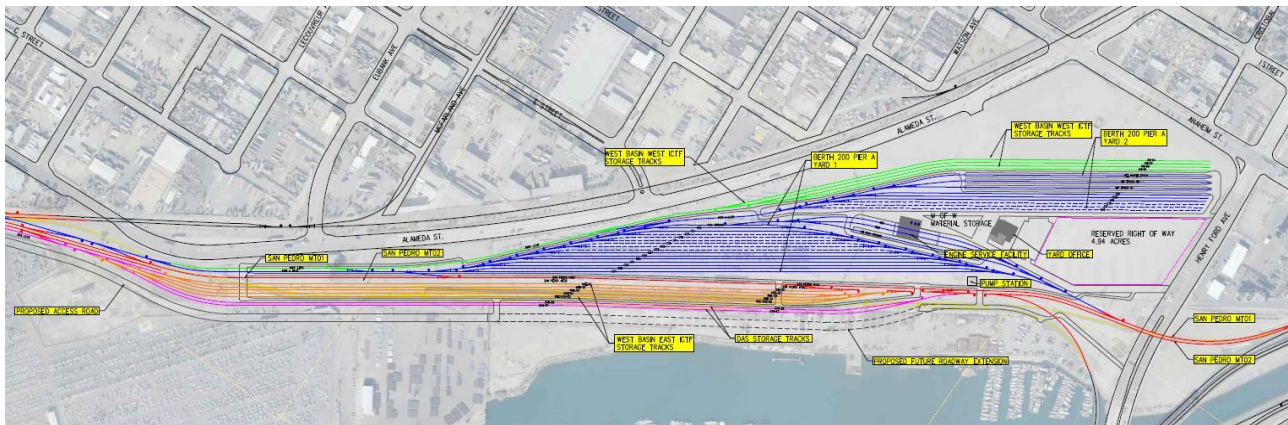


Figure 3 - Project Local Context



Figure 4 - Project Site Plan



SCHEDULE/COST ESTIMATE/FUNDING

The project is currently at the 80% level of the Plans, Specifications, and Estimates (PS&E) phase, to be completed by December 2011. Matching funds have been secured. An EIS/EIR was approved for the West Basin Railyard as a project element of a POLA container terminal project. The US Army Corps of Engineers was the NEPA lead agency and issued a Record of Decision for the permitted action related to the terminal wharf. The State Department of Transportation (Caltrans) issued a Categorical Exclusion for the West Basin Railyard element on December 21, 2010. The following summarizes the schedule:

Task	Start	Finish
1. Final Design (PS&E)	8/2007	12/2011
2. Construction Bid and Award	01/2012	7/2012
3. Construction: Railyard	7/2012	6/2014

**Table 1
 West Basin Railyard Capital Outlay (\$ in millions, 2010 dollars)**

	Prior FY	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	Total
Costs							
PA/ED & PS&E	\$6.132	\$1.433	\$1.987				\$9.552
Construction (includes CM & CE)				\$40.670	\$75.117	\$3.292	\$119.079
Totals	\$6.132	\$1.433	\$1.987	\$40.670	\$75.117	\$3.292	\$128.631
Funding Needs							
METRO RSTP				\$2.417	\$6.167		\$8.584
TCIF funds				\$23.300	\$27.930		\$51.230
USDOT TIGER II				\$8.000	\$8.000		\$16.000
Port funds	\$6.132	\$1.433	\$1.987	\$6.953	\$23.780	\$0.659	\$40.944
CFP Request					\$9.240	\$2.633	\$11.873
Funding Totals	\$6.132	\$1.433	\$1.987	\$40.670	\$75.117	\$3.292	\$128.631

PROGRAMMING DATA

FTIP (MPO/RTPA) 2008 FY See Table 1 \$ Programmed See Table 1 Page _____

Amendment No. 11-00 (11-05) FTIP PPNO N/A FHWA/FTA Approval Date 12/14/10 (pending)

Call for Projects Identification Number: F3170

Federal Funds \$ 24.584 M Phase PE _____ R/W _____ Const X

Air Basin _____ (CMAQ only)

BACKGROUND & PROJECT HISTORY

In November 2006, the Ports of Los Angeles and Long Beach approved the joint San Pedro Bay Ports Clean Air Action Plan (CAAP), the most comprehensive strategy to cut air pollution and reduce health risks ever produced for a global seaport complex (an update was published/approved by the Ports in November 2009). The maximization of on-dock rail use to reduce emissions is a key objective of the CAAP, which this project accomplishes. The CAAP was developed collaboratively with, and endorsed by, the South Coast Air Quality Management District (SCAQMD), the California Air Resources Board (CARB), and the US Environmental Protection Agency.

Extensive community outreach, in various forms and forums, was done for this and other related projects as follows:

- In 2006, the Mayors of Los Angeles and Long Beach established a task force of stakeholders comprised of representatives from: environmental organizations, community groups, labor, and industry. This task force developed and agreed upon a list of high priority freight related projects and environmental programs, for the purpose of seeking State Proposition 1B Funds. The West Basin Railyard is one of these high priority projects. Such concurrence represents significant and widespread support for this project. The project also has support from the entire Los Angeles City Council, State legislators in the area, and Members of Congress.
- In December 2007, the Los Angeles Board of Harbor Commissioners certified the TraPac container terminal EIR/EIS, in which the West Basin Railyard was included as an element of the project. For this EIR/EIS, extensive community outreach was conducted.
- The Port conducted an extensive multi-year community outreach program in conjunction with the approved TraPac terminal expansion, Wilmington Waterfront Development, I-110 Connectors Program, and Harry Bridges Boulevard projects.
- In November 2010, the Ports of Los Angeles and Long Beach approved an update to the CAAP, in which extensive community outreach program was again conducted.

ALTERNATIVES

The project was developed in conjunction with the planned TraPac container terminals, in which various alternatives were discussed and evaluated. The following summarizes the analyses conducted to satisfy purpose/need (ergo, benefits), cost, and schedule.

Traffic Analyses

The West Basin Railyard expansion is essential to the operations of terminal on-dock railyards. To develop the Rail System Program, the POLA/POLB have conducted detailed rail capacity and simulation studies. The simulation studies have indicated that the Rail System Program can reduce train delays by around 50 train-hours/day, which also will reduce locomotive emissions.

For the purposes of this application, and to be conservative, only two container terminals were accounted for in the quantification of increased on-dock capacity and resultant drayage truck trip reductions, even though the project serves the entire POLA/POLB complex. The total throughput and truck trips attributable to these two container terminals are as follows: 1.23 million TEUs and 11,100 trips in 2009, and 6.13 million TEUs and 16,000 trips in 2035. The West Basin Railyard and on-dock railyards reduce 2,300 daily truck trips to/from the following three off-dock railyards: Intermodal Container Transfer Facility (ICTF) located about four miles away on Sepulveda Boulevard in the City of Carson; BNSF Railway Hobart Intermodal Yard located about twenty miles away on Washington Boulevard, west of I-710; and UP Railroad East Los Angeles Intermodal Yard also located on Washington Boulevard, west of I-710. Truck trips will thereby be reduced on the I-710, I-110 and SR 47/103. The reduction of truck trips will have the following benefits: improvement in roadway traffic operating conditions; reduction in delays for all motorists; reduction in emissions; reduction in fuel consumption; improvement in roadway safety; and reduced pavement wear.

The following summarizes the truck trip reductions as a result of the West Basin Railyard:

		Truck Trip Reductions (passenger car equivalents: 2.0 PCE factor)			
Location of Trip Reduction	Daily	Peak Hours			
		8-9 am		3-4 pm (peak truck hour within SCAG model 3-7 pm period)	
		In	Out	In	Out
Totals	2,300 (4,600 PCE)	125 (250)	105 (210)	110 (220)	165 (330)

The above trip reductions would result in a decrease of 81,000 truck (PCE)-miles traveled and 5,280 vehicle-hours/day (280 and 435 VHT, during the morning and afternoon peak hours, respectively) throughout the region.

The future year traffic volumes were developed using the Ports of Long beach/Los Angeles travel demand model, which is based upon the SCAG 2008 RTP model. The Port travel demand model was originally developed for the *Ports of Long Beach and Los Angeles Transportation Study* and was subsequently revised and updated for several efforts including the *Port of Los Angeles Baseline Transportation Study* and the *Port of Los Angeles Roadway Study*. The use of the SCAG model to account for subregional and regional traffic growth beyond the general proximity of the

project site is an accepted practice by agencies/ jurisdictions. The SCAG model is used for the region's federally required RTP, as well as the SIP and SCAB AQMP.

SCAG Regional Model.

The SCAG Regional Model is the basis and "parent" of most sub-regional models in the southern California six-county region, comprised of Ventura, Los Angeles, Orange, San Bernardino, Riverside and Imperial counties. At the regional level, this model has the most comprehensive and up to date regional data –for both existing and future conditions- on housing, population, employment, and other socio-economic input variables used to develop regional travel demand forecasts. The model has over 4,251 zones, including 90 zones in the port area, and a complete network of regional transportation infrastructure, including over 3,520 miles of freeways and over 18,650 miles of major, primary, and secondary arterials.

For purposes of sub-regional transportation analysis (such as at the Port), the SCAG Regional model provides the most comprehensive and dynamic tool to forecast the magnitude of trips and distribution of travel patterns anywhere in the region. However, by virtue of its design and function, the Regional Model is not (and cannot be) very detailed and precise in any specific area of the region. This is also the case in the Ports of Long Beach and Los Angeles focus area. Therefore, the Port Travel Demand Model has been comprehensively updated and detailed in the Port focus area. In addition typical "post-processing" of model data is used to reflect local conditions.

The SCAG Regional Heavy Duty Truck (HDT) model was developed as an adjunct component to the SCAG Regional Travel Demand Model. The HDT model develops explicit forecasts for heavy duty vehicles with a gross vehicle weight (GVW) of 8,500 pounds and higher. The HDT model includes trip generation, trip distribution and network traffic assignment modules for heavy duty trucks stratified by three heavy duty truck gross vehicle weight classifications, as follows:

- Light-Heavy – 8,500 to 14,000 GVW
- Medium-Heavy – 14,000 to 30,000 GVW
- Heavy-Heavy – over 30,000 GVW

The HDT Model utilizes the SCAG Regional Model network for its traffic assignment process without major refinements and additions to the network. However, several network modifications are implemented including: link capacity enhancements, truck prohibitions, and incorporation of truck PCE factors. All of these were carried forward into the Port Travel Demand Model focus area. The presence of vehicles other than passenger cars in the traffic stream affects traffic flow in two ways: (1) these vehicles, which are much larger than passenger cars, occupy more roadway space (and capacity) than individual passenger cars, (2) the operational capabilities of these vehicles, including acceleration, deceleration and maintenance of speed, are generally inferior to passenger cars and result in formation of large gaps in the Traffic stream that reduce the highway capacity. On long, sustained grades, and segments with impaired capacities, where trucks operate considerably slower, formation of these large gaps can have a profound impact on the traffic stream. The Port Travel Demand Model takes all of these factors into account.

Regional background (ambient) traffic growth was estimated using data from the Port travel demand model, which includes cumulative Project traffic growth. Background traffic growth occurs as a result of regional growth in employment, population, schools and other activities. To determine the appropriate growth rates, the growth in non-port trips was determined using data from the SCAG regional model. All Ports of Long Beach and Los Angeles projected container and non-container terminal traffic growth are included in the Port Travel Demand Model.

Ports of Los Angeles and Long Beach Trip Generation. Future trip generation by the Ports of Los Angeles and Long Beach for the year 2035 was estimated by adding traffic resulting from the terminal expansion and associated throughput growth. The 2009 San Pedro Bay Cargo Forecast was used to determine the total port throughput for each future analysis year. Port-related trip generation was developed using the port's "QuickTrip" truck generation model. Port-related trip generation is separated into four classes of vehicles:

- Bobtails: tractor-only
- Chassis: tractor plus chassis
- Container: tractor and chassis with loaded or empty container
- Auto: employee automobile and other auto visitor trips

The West Basin Railyard will provide additional support/storage track for two adjacent container terminals' on-dock railyards, and thus will increase capacities and utilization of those two yards, which will in turn shift trucks to/from off-dock railyards to on-dock railyards, thereby eliminating truck trips. The on-dock capacity increases and utilization was quantified based upon detailed on-dock yard capacity/demand and rail system simulation analyses as described in the *San Pedro Bay Ports Rail Study Update* (see attachments and PSRE), and updated recently for several port container terminal projects.

Using Year 2035 container volume projections and these year 2035 on-dock railyard capacity increases/utilization for two terminals (TraPac and West Basin Container Terminal), the truck trip estimates and reductions have been quantified using the Ports of Long Beach/Los Angeles container (Ports) trip generation model, called "QuickTrip." This model was developed several years ago, and was recognized by the Institute of Transportation Engineers (ITE), garnering the awarding of the ITE 2002 "Innovative Intermodal Solutions for Urban Transportation" award. Under 2035 conditions, the direct intermodal demand exceeds the estimated capacity, and thus the change in capacity (in TEU) was used in the Quicktrip model. Reductions in truck-miles and truck-hours of travel have been quantified using the aforementioned Ports transportation and I-710 Corridor Project EIR/EIS models, which were both developed using the SCAG RTP models. Detailed intersection level of service results, obtained from several studies including the I-110 Connectors Caltrans Project Report traffic studies and the I- I-710 Corridor Project EIR/EIS, were also utilized to estimate reduced delays/travel time at intersections to/from the off-dock railyards.

Traffic Safety

The resulting reduction in truck trips on adjacent roadways/freeways, including the I-710, will result in improved safety. The I-710 between Ocean Boulevard in Long Beach and I-5 has the highest accident rate in the entire State. This segment of the I-710 has higher accident and fatal accident rates as 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 October 2004 - September 2007, there were 38 fatal accidents along the I-710 (including interchange ramps). The project also entails the closure of two at-grade railroad crossings that will also reduce the propensity for accidents. The reduction in accidents as a result of the project is accounted for in the benefit-cost analysis.

Project Costs and Benefits Analysis

The benefit-cost analysis (BCA) highlights the benefits to freight carriers and society (in terms of vehicle operating cost reductions, emissions reductions, and avoided accidents). The BCA includes quantifiable benefits and considers impacts and externalities of sufficient quality. The

POLA expects the West Basin Railyard to produce benefits beyond those captured by these benefit-cost ratios and calculations of net benefits, since not all benefits are quantifiable.

The benefit-cost analysis was conducted using the California Lifecycle Benefit/Cost Analysis Model (Cal-B/C v4.1). The California Department of Transportation (Caltrans) developed the model in the mid-1990s and it has been used to evaluate capital projects proposed for the State Transportation Improvement Program (STIP) since 1996. Cal-B/C is consistent with the procedures outlined in the Federal Highway Administration's Economic Analysis Primer (2003). The Cal-B/C standard assumptions and economic values have been modified to adhere to the requirements stipulated in 75 FR 30460 (2010-06-01). The standard Cal-B/C model uses a 20-year lifecycle to facilitate comparisons across projects. For the West Basin Railyard, POLA expects a longer lifecycle. However, POLA has chosen to retain the standard 20-year lifecycle as a conservative estimate of benefits. Depending on the discount rate chosen, adding years to the lifecycle could easily increase the total project benefits by 20% or more.

A typical benefit-cost analysis using Cal-B/C measures four primary categories of user benefits:

- Travel time savings
- Vehicle operating cost reductions
- Safety improvements
- Emission reductions, including greenhouse gases

Cal-B/C estimates annual user benefits over a 20-year lifecycle in constant dollars for each benefit category. Future benefits are discounted to present values using a real discount rate. Benefits are estimated separately for multiple groups defined by types of users, modes, facilities and times of day. Project costs are estimated annually from the start of construction to 20 years after the project opens. Project costs include right-of-way, construction, and project support costs as well as incremental operating and maintenance costs.

The net benefits quantified herein are considered to be understated, and thus the analysis is conservative since not all benefits are quantifiable. For example, the monetized benefits associated with potential reductions in inventory carrying costs, due to reduced travel times for in-transit cargo and reduced safety stock due to improved reliability (accident reduction and propensity for non-recurrent delay) have not been included, but they are legitimate benefits. As stated previously, the project would result in a decrease of 81,000 truck (PCE)-miles traveled and 2,370 vehicle-hours traveled. The benefits for the project are calculated as the reduction in vehicle operating costs and emissions due to the elimination of truck trips, and reductions in vehicle-hours and vehicle miles traveled. The improved traffic operations/levels of service on the I-710 that will result from the eliminated truck trips have not been accounted for, thus the benefit-cost analysis is considered conservative.

Summary of Results. The exhibits below shows the results of the benefit-cost analysis for the West Basin Railyard using 7% and 3% discount rates. In both cases, the project costs are slightly lower than the total project costs presented earlier due to discounting. The net benefit equals the total discounted benefits minus the total discounted costs, while the benefit-cost ratio represents the benefits divided by the costs. The exhibits show the total reduction in tons of CO₂ over the 20-year period as well as the value of the reductions in 2010 dollars using the methodology described earlier. Note that the exhibits show the reduction as "additional CO₂ emissions," so the reduction and the benefits are shown as negative numbers. These negative numbers are comparable to the positive benefits shown in the emission cost savings and are a subset of these savings (no double counting occurred).

Benefit-Cost Results (7% Discount Rate)

3 INVESTMENT ANALYSIS SUMMARY RESULTS				
Life-Cycle Costs (mil. \$)	\$113.4	ITEMIZED BENEFITS (mil. \$)	Average Annual	Total Over 20 Years
Life-Cycle Benefits (mil. \$)	\$194.4	Travel Time Savings	\$0.0	\$0.0
Net Present Value (mil. \$)	\$80.9	Veh. Op. Cost Savings	\$7.7	\$154.5
Benefit / Cost Ratio:	1.7	Accident Cost Savings	\$0.9	\$17.9
Rate of Return on Investment:	14.6%	Emission Cost Savings	\$1.1	\$21.9
Payback Period:	6 years	TOTAL BENEFITS	\$9.7	\$194.4
		Person-Hours of Time Saved	0	0
		Additional CO₂ Emissions (tons)	-29,499	-589,985
		Additional CO₂ Emissions (mil. \$)	-\$0.3	-\$6.9

Benefit-Cost Results (3% Discount Rate)

3 INVESTMENT ANALYSIS SUMMARY RESULTS				
Life-Cycle Costs (mil. \$)	\$120.2	ITEMIZED BENEFITS (mil. \$)	Average Annual	Total Over 20 Years
Life-Cycle Benefits (mil. \$)	\$295.1	Travel Time Savings	\$0.0	\$0.0
Net Present Value (mil. \$)	\$174.9	Veh. Op. Cost Savings	\$11.8	\$236.6
Benefit / Cost Ratio:	2.5	Accident Cost Savings	\$1.4	\$27.1
Rate of Return on Investment:	14.6%	Emission Cost Savings	\$1.6	\$31.4
Payback Period:	6 years	TOTAL BENEFITS	\$14.8	\$295.1
		Person-Hours of Time Saved	0	0
		Additional CO₂ Emissions (tons)	-29,499	-589,985
		Additional CO₂ Emissions (mil. \$)	-\$0.5	-\$10.9

SYSTEM PLANNING

National Significance

Firstly, this project is endorsed by the United States Department of Transportation, via an award of TIGER II funds. The West Basin Railyard functions as a critical link between the POLA and the **Alameda Corridor (which carries about 15% of all waterborne containers entering/exiting the entire United States)**. Given that the POLA comprises the largest container seaport in North America (and approximately 18% of all U.S. waterborne containers move through the POLA), the West Basin Railyard is a vital component of the nation's intermodal transportation system and trade network. The project serves about 3.3% of the entire nation's containers (with a value of \$52.7 billion). As such, the national significance and benefits of the project are compatible and consistent with President Obama's export initiative (which is underscored by the fact that the POLA moves more export containers than any other port in North America) and the draft *United States Department of Transportation Strategic Plan (FY2010-2015)*, in which the same strategic goals are being applied to the TIGER II guidelines. Figure 1 illustrates the location and significance of the project in relationship and independence to this national system.

National Economic Competitiveness. This project promotes the economic competitiveness of the United States, the State of California, Los Angeles County, and the City of Los Angeles. The

West Basin Railyard is important to the efficient movement of intermodal containers to/from the POLA/POLB and inland destinations east of the Rockies, which also entails maximizing use of the Alameda Corridor. The project serves about 3.3% of the entire nation's containers. Without this project, about \$9.1 billion/annum (\$16.7 billion in the Year 2035) in trade will be disrupted; i.e., these containers would be delayed as result of being trucked to off-dock railyards, as opposed to be loaded via on-dock railyards.

The containerized imports moving through the West Basin Railyard include not only final consumer goods, but also intermediate goods that go into products manufactured in the United States (e.g., computers). This project expands and improves the POLA/POLB rail infrastructure which is critical to accommodating intermodal containers that could otherwise divert to other ports outside of the United States. Failure to implement improvements in the United States rail network will make routes through the Canadian Pacific Northwest and through Mexico's west coast more attractive for international intermodal traffic.

The West Basin Railyard is a vital component of the nation's intermodal transportation system and trade network. As such, the national significance and benefits of the project are compatible and consistent with President Obama's export initiative. The project facilitates the movement from train to vessels of such key exports as: automobiles (the project directly serves an automobile terminal that exported 43,000 autos in 2009); waste paper products that are ultimately used to manufacture imports and their packaging materials; scrap metal that is ultimately used to manufacture imports; transportation equipment; chemicals and plastics; grains, fabrics including raw cotton; and animal feeds.

Additionally, this project eliminates drayage of containers to off-dock railyards via the highly congested I-710, and thus improves the velocity and reliability of cargo transportation for shippers, which in turn reduces the costs of goods by reducing transportation and inventory carrying costs. These truck trip reductions lessen congestion on freeways/roads in the region, which also improves velocity and reliability of domestic and regionally consumed international goods. For exporters in particular, lower transport costs will improve the competitiveness of U.S. products in world markets. Moreover, reductions in logistics costs have been found in numerous studies to generate significant increases in industrial output, improvements in industry productivity, and reductions in production costs. Such increases in industrial output and productivity lead to both increased hiring of workers as well as higher worker wages. These trip reductions will also improve mobility for commuters (ergo workers), and combined with proposed improvements on the I-710, will help to retain and attract new businesses to the area.

The West Basin Railyard also leverages other key capacity investments outside the POLA/POLB. Significant investments have been made in double-tracking the UP Sunset and the BNSF Transcon routes. Further, the federal government and others have made (and are making) significant investments in the Alameda Corridor East Trade Corridor. To realize the full extent of benefits possible from these other investments, the West Basin Railyard is needed.

State/Regional Significance

This project is endorsed by the Southern California Consensus Group (SCCG), a coalition of all the transportation agencies in Southern California and comprised of the following agencies (including the POLA):

- SCAG
- Five regional transportation planning/programming agencies (RTPA) in the SCAG region:
 - Los Angeles County Metropolitan Transportation Authority (METRO)
 - Orange County Transportation Authority

- Riverside County Transportation Commission
- San Bernardino Associated Governments
- Ventura County Transportation Commission
- Alameda Corridor-East Construction Authority
- Alameda Corridor Transportation Authority
- Southern California Regional Rail Authority (Metrolink)
- Ports of Long Beach and Hueneme

For the past several years, the SCCG agencies have collaborated to identify more than \$50 billion in multi-modal transportation projects to address mobility, safety, environmental, and quality of life impacts of goods movements. This project is also supported by industry, labor, and environmental organizations, and elected officials.

In addition to the aforementioned endorsements, the Rail System Program is part of the following programs/plans:

- State Goods Movement Action Plan
- State Proposition 1B Trade Corridors Improvement Fund (TCIF) program approved by the California Transportation Commission (CTC) in 2008
- Federally required SCAG Regional Transportation Plan (RTP) & Regional/Federal Transportation Improvement Programs (RTIP/FTIP)
- Multi-County Goods Movement Action Plan (for the Southern California region) that serves as input to the RTP
- METRO Long-Range Regional Transportation Plan

ENVIRONMENTAL RESOURCES/SUSTAINABILITY

As stated previously, an EIS/EIR was approved for the West Basin Railyard as a project element of a POLA container terminal project. The US Army Corps of Engineers was the NEPA lead agency and issued a Record of Decision for the permitted action related to the terminal wharf. The State Department of Transportation (Caltrans) issued a Categorical Exclusion for the West Basin Railyard element on December 21, 2010. This project is critical to improving air quality in the SCAG region, which is the worst in the nation. The project results in the reduction of truck trips and associated diesel emissions. These containers, that will now move via on-dock rail, will merely be added onto existing trains; i.e., this modal shift will not result in additional, new train movements (ergo train locomotives). It is expected that the increased trailing weight associated with these additional railcars will increase locomotive emissions in a nominal amount. Moreover, pursuant to the San Pedro Bay Ports CAAP, the railroads will be required to: operate the cleanest available technology for switcher, helper, and long-haul locomotives; and utilize idling shut-off devices, exhaust hoods, ultra-low sulfur diesel, or alternative fuels.

Emission reductions were quantified using the vehicle-miles-traveled estimates from the Ports' model and the CARB EMFAC2007 emission factors. They are also the same emissions computed in the benefit-cost analysis. It should be noted that the emission benefits are understated as the findings do not account for decreased rail locomotive operating hours as a result of the improved rail system infrastructure. The West Basin Railyard project will reduce criteria pollutants as follows:

Emission Reductions (tons; over 20 years, 2013-2033)					
CO	CO₂	NO_x	PM₁₀	SO_x	VOC
1,411	589,985	2,221	95	6	264

The following summarizes the sustainable elements of the project:

- Solar panels will be installed on the yard office building to meet LEED Gold requirements, and they will also power some mainline switches
- Use of recycled steel ties in some areas
- Train centralized traffic control (CTC) signal system LED lights
- Recycled asphalt concrete pavement will be used as base and/or or recycled asphalt pavement
- Drought-tolerant plant material will be used for landscaping, with efficient irrigation technologies
- Energy-efficient lighting will be designed to reduce the use of electricity
- Solar power may be used for irrigation controllers.

**WEST BASIN ROAD RAIL ACCESS
IMPROVEMENTS**

PROJECT BENEFITS

EXHIBIT C

Key Project Benefits

- Maximizes use of on-dock rail; shifts container transport from trucks to on-dock rail
- Reduces 2,300 daily truck trips by increased use of on-dock rail, 81,000 truck (passenger car equivalent or PCE)-miles traveled and 5,280 vehicle-hours traveled
- Reduces criteria pollutants and green-house gases as follows:

Emission Reductions (tons; over 20 years, 2013-2033)					
CO	CO ₂	NO _x	PM ₁₀	SO _x	VOC
1,411	589,985	2,221	95	6	264

- Improves safety via truck trip reductions on I-710 which has highest accident rate in California, and via the removal of two at-grade rail-roadway crossings that are impediments between a residential community and the waterfront area
- Combined with other Rail System train delays by around 50 train-hours/day, which also will reduce locomotive emissions
- Without the project, about \$9.1 billion/annum (\$16.7 billion in the Year 2035) in trade will be disrupted
- The above benefits yield a benefit-cost ratio of 2.5. (see PSRE for details)
- Construction Jobs: 1,987 in an “Economically Distressed Area” with 13% unemployment

