

# Alameda Corridor Transportation Project

*a National Priority*

## Plan of Finance

January 1994

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# Alameda Corridor Transportation Project

## Plan of Finance

- Tab 1      Fourth Draft Plan of Finance  
*an overview of the Plan of Finance*
- Tab 2      Financial Feasibility Cashflow  
*detail of the financial model*
- Tab 3      Application for Federal Funds  
*as submitted to the U.S. Congress*
- Tab 4      Expanded Preliminary Model  
*an econometric evaluation of pricing*
- Tab 5      Alameda Corridor Project Information  
*National Priority brochure & fact sheet*

Supplemental Report -

San Pedro Cargo Forecasting Project 2020

Prepared by WEFA Group - November 1993



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# **Alameda Corridor Transportation Authority**

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*4th Draft Plan of Finance*

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January 31, 1994

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## **The Alameda Corridor Project**

The Ports of Long Beach and Los Angeles, which comprise the Nation's largest combined port complex, are an essential intermodal gateway to facilitate the global flow of international and domestic commerce. The Alameda Corridor project will greatly improve railroad and highway access to and from the Ports. The Corridor will enable the Ports to efficiently meet the increasing international trade flow demands; generate significant local, regional and national economic benefits; improve surface transportation flows and traffic safety; and provide environmental benefits.

The cornerstone of the Project is the consolidation of 90 miles of the three existing rail lines into an efficient, single, direct access, dedicated high speed 20 mile corridor. The Corridor will eliminate all 200 at grade rail/street crossings. In addition to the elimination of the at grade crossings, further efficiencies will result from a double track railroad line with a state-of-the-art centralized control system.

In order to eliminate the grade crossings, the most urban portion of the Corridor (the thirteen miles north of highway 91) will be constructed in a depressed (below grade) railway. Vehicular traffic will utilize at grade bridges to transverse the Corridor. The southern portion will remain at grade level. Highway overpasses will be utilized to bypass the Corridor in the southern section.

The Project will also result in several enhancements to the main thoroughfare along the Corridor, Alameda Street. To ease street traffic flows, the southern portion of Alameda Street will be widened to six lanes from the existing four. Cross streets will be grade separated from highway and rail, further facilitating the flow of traffic.

Enhancements to the northern portion of Alameda Street include a modernized traffic signal synchronization system and the addition of left turn lanes at key intersections. Access to local business will be maintained through preservation of the parallel "Little Alameda" Street. The street improvements take advantage of existing rights-of-way.

# Overview of Project

## *Alameda Corridor Consolidates Rail Traffic*

- ✓ **3 Lines Replaced with One Integrated Route**
- ✓ **Eliminates 200 At Grade Intersections with Surface Streets**
- ✓ **Creates High Speed Double Track Main Line with Centralized Control**
- ✓ **Builds Depressed Railway Trench from State Route 91 North to Los Angeles**
- ✓ **Provides East-West Street Overpasses South of State Route 91**

## *And Rejuvenates Highway System*

- ✓ **Reconstructs Alameda Street from Interstate 10 South to State Route 91**
- ✓ **Widens Alameda Street from 4 to 6 lanes South of Route 91 to Ports Complex**
- ✓ **Enhances Signalization and Left Turn Pockets Improve Traffic Flow**
- ✓ **Makes Use of Existing Right-of-Way**

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**The Alameda  
Corridor will  
Create Many  
Important Benefits**

The Alameda Corridor will create economic, competitive, and environmental benefits which will have regional, national, and global impacts. As an essential component of the Ports' strategic capital programs, the Corridor will enable both the region and the Nation to take advantage of trade expansion opportunities. Most noteworthy among the benefits will be the creation of substantial increases in employment in the local and national economies. Local, state and federal revenues will also experience substantial growth.

The environmental benefits resulting from more efficient rail operations include substantial reduction in: surface traffic delays and hazards, track noise particularly in residential neighborhoods, train stoppages and hours of operation, and air pollution. The Project will also enhance the redevelopment potential of communities along the Corridor.

## Benefits of the Alameda Corridor Project

- ✓ Generates Direct Economic Benefit for Southern California and Nation
- ✓ Expands Trade-Related Employment
- ✓ Reduces Air Pollution
- ✓ Enhances Redevelopment Opportunities
- ✓ Makes Rail Operations More Efficient
- ✓ Improves Roadway and Emergency Vehicle Safety
- ✓ Reduces Roadway Traffic Congestion



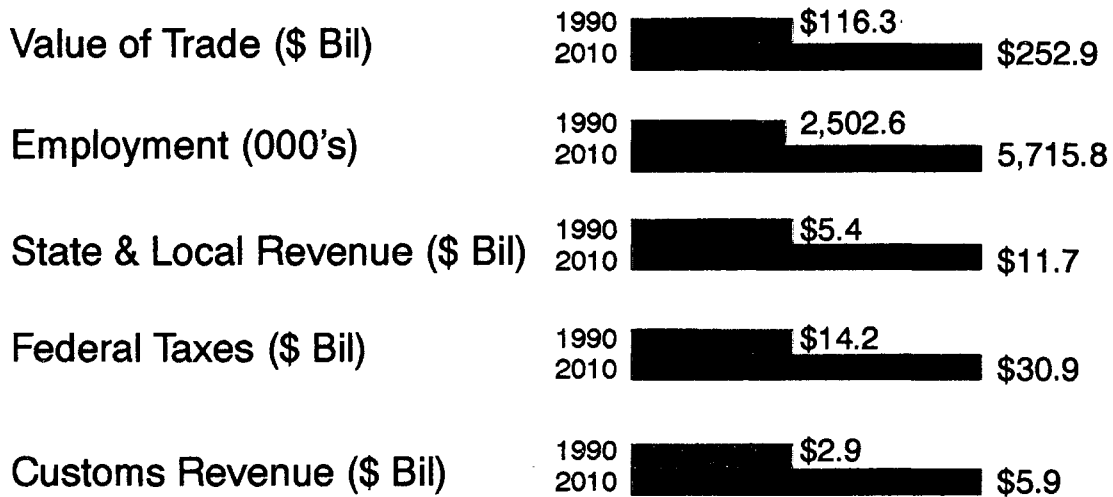
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**The San Pedro  
Bay Ports Have  
Far Reaching  
Impact**

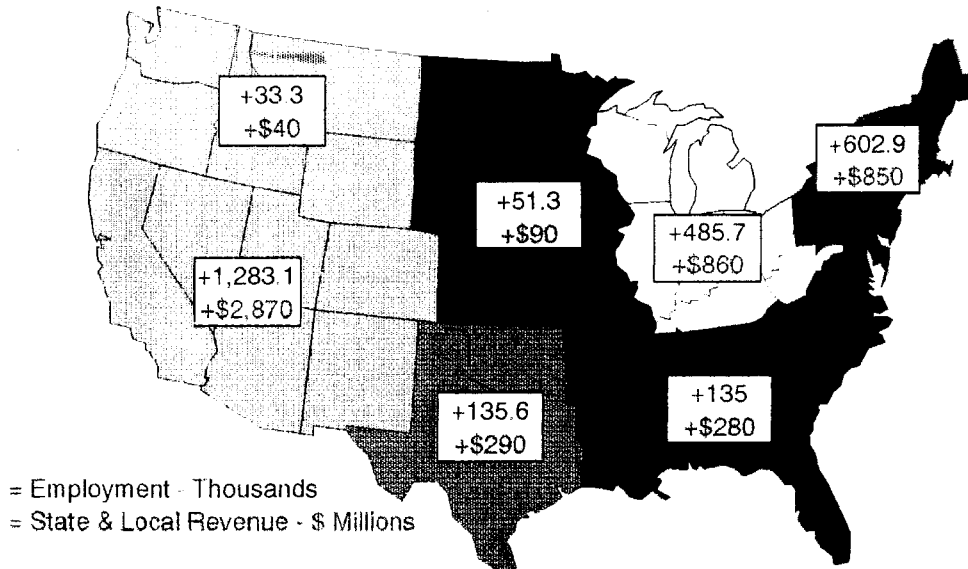
By 2010, the Corridor will enable the value of goods flowing through the Ports to more than double. Nationwide employment gains are estimated to increase from the 2.5 million level in 1990 to 5.7 million in 2010. The Project will generate substantial increases in trade related state and local as well as federal tax and customs revenues. It is important to note that the Ports facilitate trade activity throughout the Nation and thus positively impact every region as depicted in the chart.

# Impact on Trade of San Pedro Bay Ports

## National Impact



## Growth in Employment and Revenues by Region 1990 to 2010



**The Alameda  
Corridor Project is  
Financially  
Feasible**

A crucial aspect of the Project is that it is financially feasible. The estimated cost of the noteworthy public purpose project is approximately \$1.8 billion. Construction of the Corridor will be underway in 1995 with operations commencing in 2001. The finance plan is comprised of a diverse set of funding components including a substantial equity contribution from the two Ports; debt financing from tax-exempt bonds; committed state, local and federal funds. The success of the plan will also require additional government funding.

The vast majority of the capital costs are related to construction and will provide strong economic and employment stimuli. It should be noted that both the costs for operating the Corridor and the debt service on the bonds will be supported with user fees.

*stimuli (plural)*

# Key Elements of Finance Plan

## *Project is Financially Feasible*

### ● **Total Cost of Project**

- \$1,575.0 Million (1993 dollars)
- \$1,835.0 Million (inflated dollars)
- 86.2% of Costs Related to Construction
- 13.8% of Costs for Right-of-Way

### ● **Timing of Construction**

- Begins 1995
- Operational 2001

### ● **Diverse Sources of Funding**

- Substantial Equity Contribution by Ports
- Tax-Exempt Bonds
- Some State, Local, and Federal Funds  
Already Committed
- Additional Government Funding is Needed

### ● **Operating Costs and Debt Service Paid with User Fees**

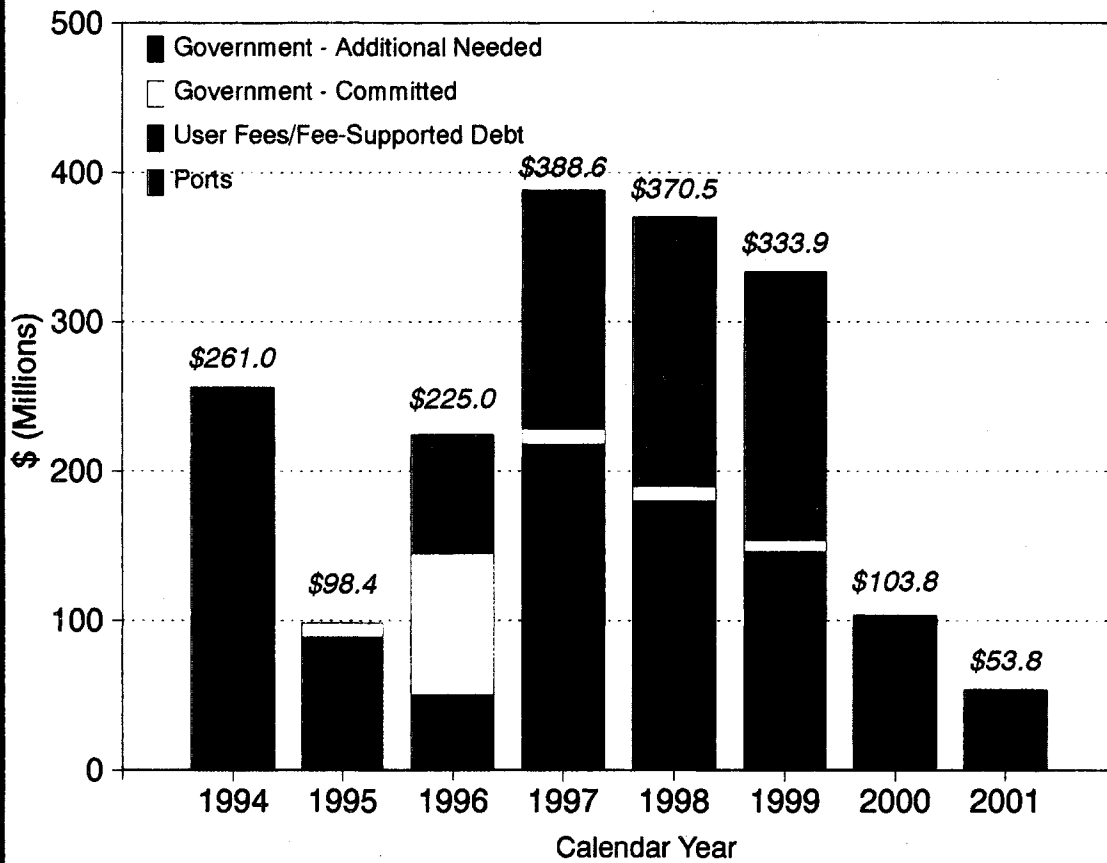
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**Funding From  
Port and User  
Fees is Drawn  
Upon First**

In addition to providing a substantial equity contribution to the Project, the Ports are also committing the first sources of funding. As indicated in the chart, nearly all of the critical dollars committed in the first two years are provided by Port equity. By year three, fees imposed on users of the Ports are initiated. This structure allows for the maximum deferral of the additional government funding required.

# Timing and Source of Expenditures

## *Port and User Fees Spent First*



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**Majority of  
Funding Provided  
by Port Users, but  
Additional  
Government  
Funding Also  
Needed**

The Ports and Port users will provide approximately \$1.0 billion of the of costs of the Corridor. This equitable distribution will result in over 50% of the funding sources being derived from Port-related sources. \$400 million will be directly contributed by the Ports and \$600 million from Port user fees to support debt service. (Port users will also be responsible for Corridor operating costs.)

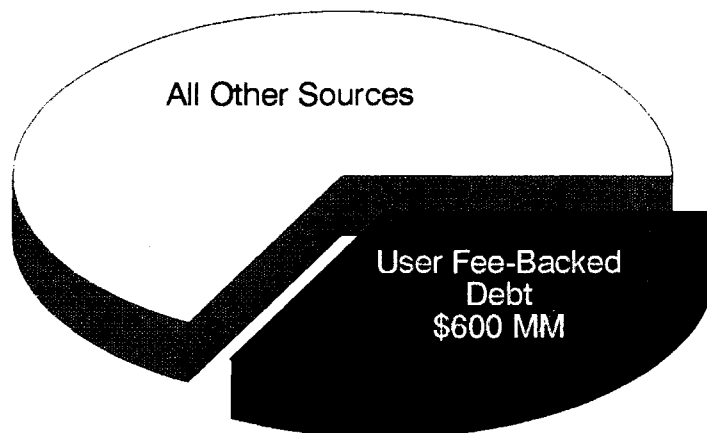
The project will also require an additional \$700 million from governmental sources. The Corridor estimates that these governmental monies would need to be authorized in Federal fiscal year 1995/96. Annual government appropriations to the Corridor would be made in fiscal years 1995/96 through 2000/01.

# User Fee-Backed Debt

*Users Contribute One-Third of Project Cost*

- **Debt Service Paid Solely by User Fees**
- **Financing Contributes \$600 Million to Cost of Project**

*Total Project Funding \$1,835 Million*





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**Prudent Use of  
User Fees**

In determining the appropriate user fee level, careful consideration was given to creating a structure which provides security for the bonds while at the same time maintaining the Ports' competitiveness. The user fees are divided into two categories: 1) a gross wharfage surcharge commencing in 1996 and 2) a Corridor usage fee commencing in 2001.

# Description of User Fees

## *Prudent Level of Charges Maintains Ports' Competitiveness*

### **Gross Wharfage Surcharge Beginning in 1996**

- Levied on Users of Ports
- Tied to Existing Gross Wharfage Charges
- Emphasis on Containerized Cargo

### **Corridor Usage Fee Beginning in 2001**

- Levied on Rail Users of Corridor
- Varies by Type of Cargo

### **Impact on Ports**

- Reviewed by Independent Experts
- No Material Diversion of Cargo from Ports

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**Detail on User Fees**

The Gross Wharfage Surcharge will be levied on users of the Ports. Beginning in 1996, the existing surcharges will be increased by about 4%. The emphasis will be on containerized cargo enabling the Ports to capture a high dollar, high volume source of revenue.

The Corridor Usage Fee will begin in 2001 (to coincide with initial Corridor operations) and will be levied on rail users, a key beneficiary of the Project. The amount of the levy will vary by cargo type to result in an equitable allocation. This will allow for an appropriate matching of value derived versus fees assessed.

The user fees proposed by the Corridor have been reviewed for feasibility by independent consultants. They have advised the Corridor that the proposed levels are prudent and should not result in a material level of diversion of cargo from the Ports.

# User Fees

## Gross Wharfage Surcharge

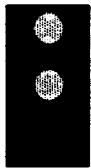
- Imposed in 1996
- 4.0% Surcharge on Existing Gross Wharfage Charges
- Emphasis on Containerized Cargo

## Corridor Usage Fee

- Imposed in 2001
- 40' Containers
  - Full* \$30
  - Empty* \$8
- Railcars carrying *Autos* \$40
- Railcars carrying *Other Products* \$10

# Schedule

## *Revenue-Generating Operations Can Begin by 2001*



- ✓ Completion of State Environmental Impact Report      Certified January 1993
- ✓ Purchase of Railroad Right-of-Way      Early 1994
- ✓ Engineering      1994 - 1995
- ✓ Certification of Federal Environmental Impact Statement      Late 1994
- ✓ Construction Begins      Early 1995
- ✓ Corridor Operational      2001

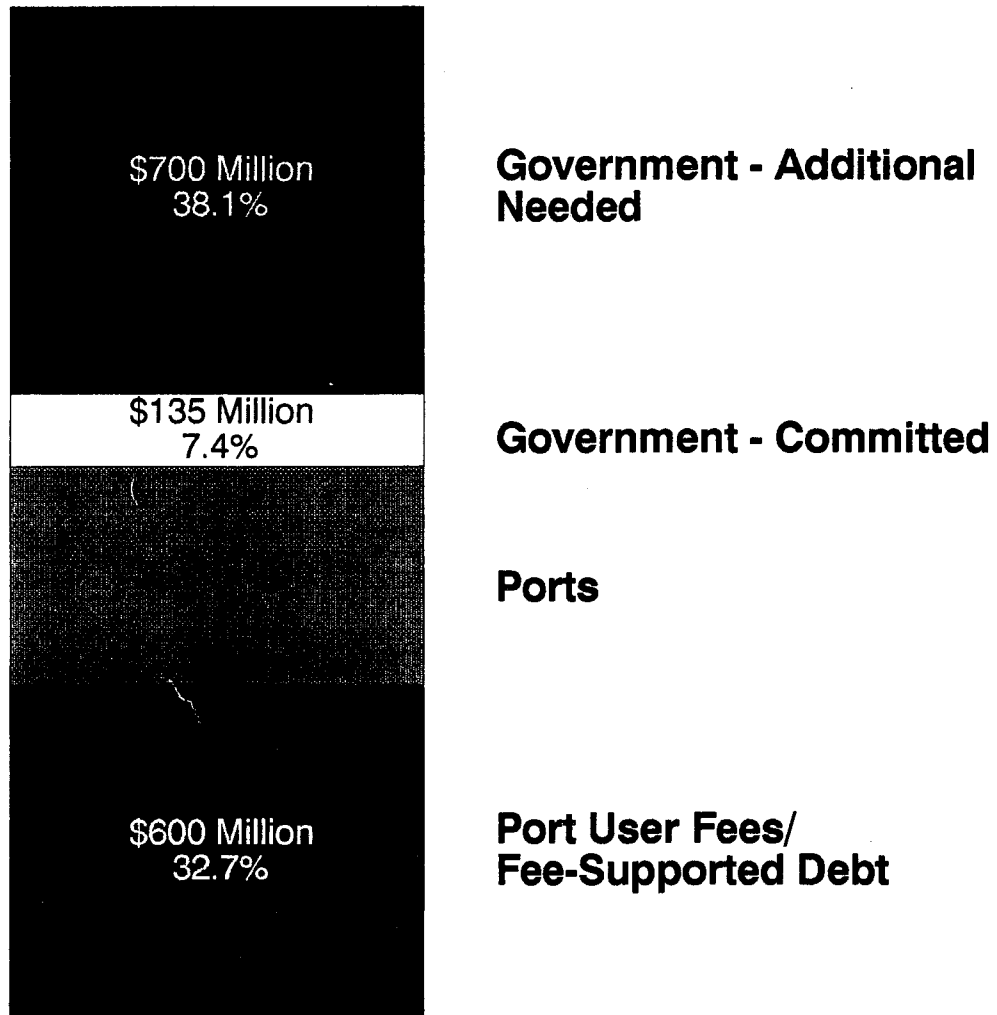
# Next Steps

*Immediate Action is Required*

- ✓ **Complete Railroad Operating Agreement**
- ✓ **Complete Purchase of Railroad Right-of-Way**
- ✓ **Pass Legislation to Facilitate Tax Exempt Financing**
- ✓ **Secure Additional Government Funding Commitment**

# Funding Sources

*Over 50% of Funding is Provided by  
Ports and Port Users*



**Total = \$1,835 Million**

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**\$535 Million  
Already  
Committed to  
Project**

Existing governmental commitments total \$135 million. These commitments are comprised of \$47 million in Federal ISTEA and Department of Commerce funds, \$80 million from the State of California, and \$8 million from the Los Angeles County Metropolitan Transportation Authority. The total committed (Port and government) funding is \$535 million.

The Project will also require an additional \$700 million from government sources.



# Description of Committed Funding

*\$535 Million in Hand*



- **Local and State**

- \$200 Million Port of Los Angeles
- \$200 Million Port of Long Beach
- \$8.0 Million Los Angeles County Metropolitan Transportation Authority (LACMTA)
- \$80 Million in State Funds from Proposition 116



- **Federal**

- \$45 Million Intermodal Surface Transportation Efficiency Act (ISTEA)
- \$2.0 Million Department of Commerce Economic Development Administration

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**Users Contribute  
One Third of  
Project Cost  
Through User Fee  
Backed Debt**

The users of the Ports will contribute one third of the Project's costs. This will be accomplished by assessing a fee which will be sufficient to secure debt service on the bonds required to fund the Project. The Project will require bonds in the combined amount of \$680 million which will generate \$600 million in construction proceeds plus capitalized interest, reserves and costs of issuance.



Alameda Corridor Transportation Authority  
Summary Sources and Uses of Funds - Quarterly Breakdown

Project Description	Total Costs	1994				1995				1996				
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Street Improvements	509,000,000			8,754,490	8,754,490	8,754,490	8,754,490	19,319,920	19,319,920	19,319,920	19,319,920	19,319,920	19,319,920	19,319,920
Rail Improvements	805,000,000			13,845,510	13,845,510	13,845,510	13,845,510	30,555,080	30,555,080	30,555,080	30,555,080	30,555,080	30,555,080	30,555,080
Right-of Way Acquisition Southern Pacific Railroad	240,000,000	240,000,000												
Right-of Way Acquisition Union Pacific Railroad	12,000,000	12,000,000												
Right-of Way Acquisition Santa Fe Railroad	2,000,000	2,000,000												
Conceptual Design & Preliminary Engineering	23,000,000	15,000,000	2,666,667	2,666,667	2,666,667	2,666,667								
<b>Totals</b>	<b>1,591,000,000</b>	<b>269,000,000</b>	<b>2,666,667</b>	<b>25,266,667</b>	<b>25,266,667</b>	<b>22,600,000</b>	<b>22,600,000</b>	<b>49,875,000</b>	<b>49,875,000</b>	<b>49,875,000</b>	<b>49,875,000</b>	<b>49,875,000</b>	<b>49,875,000</b>	<b>49,875,000</b>
Inflated Construction Draws	1,851,640,486			27,133,456	27,376,300	24,706,139	24,927,259	55,503,279	56,000,034	56,501,234				
Capitalized Interest	113,608,909	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Construction and Capitalized Interest Draws</b>	<b>1,965,184,378</b>	<b>269,000,000</b>	<b>2,838,287</b>	<b>27,133,456</b>	<b>27,376,300</b>	<b>24,706,139</b>	<b>24,927,259</b>	<b>55,503,279</b>	<b>56,000,034</b>	<b>56,501,234</b>				
<b>Dedicated Sources of Cash</b>		<b>Q3 1994</b>	<b>Q4 1994</b>	<b>Q1 1995</b>	<b>Q2 1995</b>	<b>Q3 1995</b>	<b>Q4 1995</b>	<b>Q1 1996</b>	<b>Q2 1996</b>	<b>Q3 1996</b>				
Proposition 116	80,000,000							17,527,000	47,289,000	15,184,000				
LACMTA and EDA	10,000,000			1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667				
ISTEA	45,000,000					2,812,500	2,812,500	2,812,500	2,812,500	2,812,500				
Ports of Los Angeles/Long Beach	400,000,000	269,000,000	2,839,000	25,467,000	25,709,000	23,040,000	20,448,000	33,497,000						
Other Governmental Sources	700,000,000										0			
Equity from Previous Cashflow Surplus	103,094,463		0	717	933	301	832	743	4,232,792	4,233,087				
<b>Total Sources of Dedicated Revenue</b>	<b>1,338,094,463</b>	<b>269,000,000</b>	<b>2,839,000</b>	<b>27,134,384</b>	<b>27,376,599</b>	<b>24,706,967</b>	<b>24,927,999</b>	<b>55,503,910</b>	<b>56,000,958</b>	<b>56,501,587</b>				
Funded From Bond Proceeds	627,089,915	0	-713	-928	-299	-828	-740	-630	-924	-553				
<b>Total Sources of Funds</b>	<b>1,965,184,378</b>	<b>269,000,000</b>	<b>2,126,287</b>	<b>26,206,456</b>	<b>27,076,300</b>	<b>23,878,139</b>	<b>24,187,259</b>	<b>54,873,280</b>	<b>55,079,934</b>	<b>55,949,034</b>				

Alameda Corridor Transportation Authority  
 Summary Sources and Uses of Funds - Quarterly Breakdown Continued - Q4/1996 through Q2/1999

Project Description	Q4 1996	Q1 1997	Q2 1997	Q3 1997	Q4 1997	Q1 1998	Q2 1998	Q3 1998	Q4 1998	Q1 1999	Q2 1999
Street Improvements	19,319,920	32,199,867	32,199,867	32,199,867	32,199,867	29,623,877	29,623,877	29,623,877	29,623,877	25,759,893	25,759,893
Rail Improvements	30,555,080	50,925,133	50,925,133	50,925,133	50,925,133	46,851,123	46,851,123	46,851,123	46,851,123	40,740,107	40,740,107
Right-of Way Acquisition Southern Pacific Railroad											
Right-of Way Acquisition Union Pacific Railroad											
Right-of Way Acquisition Santa Fe Railroad											
Conceptual Design & Preliminary Engineering											
Totals	49,875,000	83,125,000	83,125,000	83,125,000	83,125,000	76,475,000	76,475,000	76,475,000	76,475,000	66,500,000	66,500,000
Inflated Construction Ddr Time Zero = 1/1/93 Annual Inflation Rate= 3.58%	57,006,920	95,861,887	96,719,851	97,585,493	98,458,884	91,392,883	92,210,850	93,036,137	93,868,810	82,355,597	83,092,679
Capitalized Interest	0	0	9,794,633	0	9,794,633	0	9,794,633	0	9,794,633	7,279,425	9,794,633
Total Construction and Capitalized Interest Draws	57,006,920	95,861,887	106,514,484	97,585,493	108,253,517	91,392,883	102,005,483	93,036,137	103,663,443	89,635,021	92,887,312
Dedicated Sources of Cash	Q4 1996	Q1 1997	Q2 1997	Q3 1997	Q4 1997	Q1 1998	Q2 1998	Q3 1998	Q4 1998	Q1 1999	Q2 1999
Proposition 116	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500
LACMTA and EDA	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500
ISTEA	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500
Ports of Los Angeles/Long Beach	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500	2,812,500
Other Governmental Sources	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000
Equity from Previous Cashflow Surplus	4,232,513	4,232,158	4,514,014	4,514,014	4,514,014	4,514,014	4,709,571	4,709,571	4,709,571	4,709,571	4,906,794
Total Sources of Dedicated Revenue	49,045,013	49,044,658	49,326,514	49,326,514	49,326,514	49,326,514	49,522,071	49,522,071	49,522,071	49,522,071	49,719,294
Funded From Bond Proceeds	7,961,907	46,817,229	57,187,970	48,258,980	58,927,003	42,066,370	52,483,412	43,514,066	54,141,372	40,112,950	43,168,018
	10/1/96	1/1/97	4/1/97	7/1/97	10/1/97	1/1/98	4/1/98	7/1/98	10/1/98	1/1/99	4/1/99

Alameda Corridor Transportation Authority  
 Summary Sources and Uses of Funds - Quarterly Breakdown Continued - Q3/1999 through Q2/2002

Project Description	Q3 1999	Q4 1999	Q1 2000	Q2 2000	Q3 2000	Q4 2000	Q1 2001	Q2 2001	Q3 2001	Q4 2001	Q1 2002	Q2 2002
Street Improvements	25,759,893	25,759,893	7,727,968	7,727,968	7,727,968	7,727,968	3,863,984	3,863,984	3,863,984	3,863,984	0	0
Rail Improvements	40,740,107	40,740,107	12,222,032	12,222,032	12,222,032	12,222,032	6,111,016	6,111,016	6,111,016	6,111,016	0	0
Right-of Way Acquisition Southern Pacific Railroad												
Right-of Way Acquisition Union Pacific Railroad												
Right-of Way Acquisition Santa Fe Railroad												
Conceptual Design & Preliminary Engineering												
<b>Totals</b>	66,500,000	66,500,000	19,950,000	19,950,000	19,950,000	19,950,000	9,975,000	9,975,000	9,975,000	9,975,000	0	0
Inflated Construction Draw Time Zero = 1/1/93 Annual Inflation Rate= 3.58%	83,836,359	84,586,694	25,603,123	25,832,271	26,063,470	26,296,738	13,266,047	13,384,778	13,504,572	13,625,438	0	0
Capitalized Interest	7,279,425	9,794,633	7,279,425	12,861,706	7,279,425	12,861,706	0	0	0	0	0	0
Total Construction and Capitalized Interest Draws	91,115,783	94,381,327	32,882,548	38,693,977	33,342,895	39,158,444	13,266,047	13,384,778	13,504,572	13,625,438	0	0
<b>Dedicated Sources of Cash</b>	Q3 1999	Q4 1999	Q1 2000	Q2 2000	Q3 2000	Q4 2000	Q1 2001	Q2 2001	Q3 2001	Q4 2001	Q1 2002	Q2 2002
Proposition 116												
LACMTA and EDA												
ISTEA	2,812,500											
Ports of Los Angeles/Long Beach												
Other Governmental Sources	42,000,000	42,000,000	23,000,000	29,000,000	23,000,000	28,000,000	4,000,000	4,000,000	4,000,000	4,728,000		
Equity from Previous Cashflow Surplus	4,906,794	4,906,794	4,906,794	5,023,331	5,023,331	5,023,331	5,023,331	3,181,850	3,181,850	3,181,850	0	0
Total Sources of Dedicated Revenue	49,719,294	46,906,794	27,906,794	34,023,331	28,023,331	33,023,331	9,023,331	7,181,850	7,181,850	7,909,850	0	0
Funded From Bond Proceeds	41,396,489	47,474,533	4,975,754	4,670,647	5,319,564	6,135,113	4,242,716	6,202,928	6,322,722	5,715,588	0	0
	7/1/99	10/1/99	1/1/00	4/1/00	7/1/00	10/1/00	1/1/01	4/1/01	7/1/01	10/1/01	1/1/02	4/1/02

Operation and Maintenance Expenses

	Year 1-4 (\$1991)	Miles	Year 5+ (\$1991)	Inflator	2001	2002	2003	2004	2005	2006	2007	2008	Rate		Benefits %		Inflator	
													Heads	Rate	5+	Rate	5+	Rate
Maintenance	\$100,000	20	\$150,000	4.35%	4,792,236	5,000,699	5,218,229	5,445,222	5,682,089	5,929,260	6,187,183	6,456,325						
Utilities	\$10,000	20	\$10,000	4.35%	319,482	333,380	347,882	363,015	378,806	395,284	412,479	430,422						
Dispatching	\$50,000	20	45.00%	4.35%	2,316,248	2,417,004	2,522,144	2,631,857	2,746,343	2,865,809	2,990,472	3,120,557						
Administration	\$50,000	5	45.00%	4.35%	579,062	604,251	630,536	657,964	686,586	716,452	747,618	780,139						
Supplies and Rent	\$100,000 Fixed			4.35%	159,741	166,690	173,941	181,507	189,403	197,642	206,239	215,211						
<b>Total Operating Expenses</b>					<b>8,166,770</b>	<b>8,522,024</b>	<b>8,892,732</b>	<b>9,279,566</b>	<b>9,683,227</b>	<b>10,104,448</b>	<b>10,543,991</b>	<b>11,002,655</b>						

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>O &amp; M - Continued</b>												
Maintenance	6,737,176	7,030,243	7,336,058	7,655,177	7,988,177	8,335,663	8,698,264	9,076,639	9,471,472	9,883,481	10,313,413	10,762,046
Utilities	449,145	468,683	489,071	510,345	532,545	555,711	579,884	605,109	631,431	658,899	687,561	717,470
Dispatching	3,256,302	3,397,951	3,545,762	3,700,002	3,860,952	4,028,904	4,204,161	4,387,042	4,577,878	4,777,016	4,984,816	5,201,656
Administration	814,075	849,488	886,440	925,001	965,238	1,007,226	1,051,040	1,096,760	1,144,470	1,194,254	1,246,204	1,300,414
Supplies and Rent	224,573	234,341	244,535	255,173	266,273	277,855	289,942	302,555	315,716	329,449	343,780	358,735
<b>Total Operating Expenses</b>	<b>11,481,270</b>	<b>11,980,705</b>	<b>12,501,866</b>	<b>13,045,697</b>	<b>13,613,185</b>	<b>14,205,359</b>	<b>14,823,292</b>	<b>15,468,105</b>	<b>16,140,967</b>	<b>16,843,100</b>	<b>17,575,774</b>	<b>18,340,321</b>

Note: All Operating Expenses Assumed Covered by Income per MOU

Summary of Fees and Parity Test

Float Account - Interest Income

Year	% Gross Wharfrage Fee	Corridor Usage Fee/FEU (\$/Full Box)	Renewal and Replacement Account	Accumulated Surplus	Cumulative Bonds Outstanding	Uncovered Bonds	Quarter	Year	Previous Quarter		Equity		Quarter Ending	
									Balance	2,000,000 %	Balance	%	Balance	Balance
1994			0	0	#N/A	#N/A	Q3	1994	0	0	0	0	0	0
1995			0	0	#N/A	#N/A	Q4	1994	713	4	0	0	717	
1996	3.350%		0	0	#N/A	#N/A	Q1	1995	928	5	0	0	933	
1997	3.350%		0	0	#N/A	#N/A	Q2	1995	299	1	0	0	301	
1998	3.350%		0	0	#N/A	#N/A	Q3	1995	828	4	0	0	832	
1999	3.350%		0	0	#N/A	#N/A	Q4	1995	740	4	0	0	743	
2000	3.350%		0	0	669,080,000	669,080,000	Q1	1996	630	3	4,232,158	4,232,158	4,232,792	
2001	3.350%	38.38	12,727,400	0	669,080,000	669,080,000	Q2	1996	924	5	4,232,158	4,233,087	4,233,087	
2002	3.350%	38.38	28,345,387	0	658,710,000	658,710,000	Q3	1996	353	2	4,232,158	4,232,513	4,232,513	
2003	3.350%	38.38	46,869,112	0	647,815,000	647,815,000	Q4	1996	0	0	4,232,158	4,232,158	4,232,158	
2004	3.350%	38.38	66,879,857	0	636,345,000	636,345,000	Q1	1997	0	0	4,514,014	4,514,014	4,514,014	
2005	3.350%	38.38	89,800,422	0	624,250,000	624,250,000	Q2	1997	0	0	4,514,014	4,514,014	4,514,014	
2006	3.350%	38.38	115,667,756	0	611,480,000	611,480,000	Q3	1997	0	0	4,514,014	4,514,014	4,514,014	
2007	3.350%	38.38	144,486,007	0	597,985,000	597,985,000	Q4	1997	0	0	4,514,014	4,514,014	4,514,014	
2008	3.350%	38.38	174,536,632	0	583,715,000	583,715,000	Q1	1998	0	0	4,709,571	4,709,571	4,709,571	
2009	3.350%	38.38	207,672,907	0	568,595,000	568,595,000	Q2	1998	0	0	4,709,571	4,709,571	4,709,571	
2010	3.350%	38.38	243,802,066	0	552,575,000	552,575,000	Q3	1998	0	0	4,709,571	4,709,571	4,709,571	
2011	3.350%	38.38	283,371,447	0	535,575,000	535,575,000	Q4	1998	0	0	4,906,794	4,906,794	4,906,794	
2012	3.350%	38.38	326,392,804	0	517,525,000	517,525,000	Q1	1999	0	0	4,906,794	4,906,794	4,906,794	
2013	3.350%	38.38	373,191,506	0	498,345,000	498,345,000	Q2	1999	0	0	4,906,794	4,906,794	4,906,794	
2014	3.350%	38.38	423,515,238	0	477,945,000	477,945,000	Q3	1999	0	0	4,906,794	4,906,794	4,906,794	
2015	3.350%	38.38	479,738,599	0	456,235,000	456,235,000	Q4	1999	0	0	4,906,794	4,906,794	4,906,794	
2016	3.350%	38.38	539,626,074	0	433,130,000	433,130,000	Q1	2000	0	0	5,023,331	5,023,331	5,023,331	
2017	3.350%	38.38	605,506,591	0	408,535,000	408,535,000	Q2	2000	0	0	5,023,331	5,023,331	5,023,331	
2018	3.350%	38.38	676,028,320	0	382,350,000	382,350,000	Q3	2000	0	0	5,023,331	5,023,331	5,023,331	
2019	3.350%	38.38	700,000,000	52,642,006	354,465,000	301,822,994	Q4	2000	0	0	5,023,331	5,023,331	5,023,331	
2020	3.350%	38.38	700,000,000	133,694,712	324,760,000	191,065,288	Q1	2001	0	0	3,181,850	3,181,850	3,181,850	
							Q2	2001	0	0	3,181,850	3,181,850	3,181,850	
							Q3	2001	0	0	3,181,850	3,181,850	3,181,850	

Construction Draws Starting:

Financing	Quarter	Date	Rating	Par Value	True T.I.C.	Cost of Capital C.O.C.	Reinvestment Rate	Interest Escalator (Percent)	Annual DYS Growth Rate	Costs of Issuance	Underwriter's Discount	DSRF Neg. Arb.	AMT Penalty	1st Prin. Pmt.	Capitalized Interest Through
First	Beginning	10/1/96	A	332,520,000	6,2935	6,6260	4.4611	0.5000	0.00%	0.10%	1.00%	1.00%	0.15	4/1/01	10/1/00
	Ending	6/30/98													
Second	Beginning	7/1/98	A	239,150,000	6.5331	6.8632	4.4787	0.7500	0.00%	0.10%	1.00%	1.00%	0.15	4/1/01	10/1/00
	Ending	9/30/99													
Third	Beginning	10/1/99	A	97,410,000	6.7811	7.1182	5.1729	1.0000	0.00%	0.10%	1.00%	1.00%	0.15	4/1/01	10/1/00
	Ending	7/1/02													
				669,080,000											



WEFA Cargo Forecast (Million Metric Tons)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Containers</b>											
OCP Container	9.50	10.10	10.70	11.40	12.00	12.60	13.20	13.80	14.40	15.10	15.60
Other Container	14.20	15.10	16.00	17.00	18.10	18.90	19.80	20.70	21.60	22.60	23.40
	23.70	25.20	26.70	28.40	30.10	31.50	33.00	34.50	36.00	37.70	39.00
<b>Dry Bulk</b>											
Coal	2.10	2.40	2.80	3.20	3.60	3.60	3.50	3.50	3.50	3.40	3.60
White Bulk and Other	2.40	2.50	2.60	2.60	2.70	2.70	3.00	3.00	3.20	3.50	3.60
Scrap Steel	2.20	2.20	2.10	2.10	2.10	2.10	2.10	2.20	2.20	2.20	2.20
Pet Coke	4.20	4.30	4.30	4.40	4.50	4.60	4.60	4.70	4.70	4.70	4.90
	10.90	11.40	11.80	12.30	12.90	13.00	13.20	13.40	13.60	13.80	14.30
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	2.40	2.30	2.20	2.20	2.10	2.10	2.10	2.20	2.20	2.30	2.30
Other	1.80	1.90	2.10	2.10	2.20	2.30	2.30	2.30	2.40	2.40	2.50
	4.20	4.20	4.30	4.30	4.30	4.40	4.40	4.50	4.60	4.70	4.80
<b>Liquid Bulk</b>											
Total Liquid Bulk	42.60	42.60	42.50	42.50	42.40	42.80	43.20	43.50	43.90	44.30	44.80
<b>Auto</b>											
OCP Auto	0.23	0.24	0.24	0.24	0.24	0.25	0.25	0.26	0.27	0.28	0.28
Other Auto	0.70	0.71	0.71	0.72	0.73	0.74	0.76	0.78	0.80	0.83	0.84
	0.93	0.95	0.95	0.96	0.97	0.99	1.01	1.04	1.07	1.11	1.12
<b>Other Commodities</b>											
Total - all Commodities	82.83	84.95	86.85	89.06	91.07	93.09	95.21	97.34	99.57	101.91	104.32

Containers (Million TEU's)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Full Containers (TEU's)</b>											
OCP Container	1.20	1.30	1.40	1.50	1.60	1.60	1.70	1.80	1.90	1.90	2.00
Other Container	1.90	2.00	2.10	2.20	2.30	2.40	2.60	2.70	2.80	2.90	3.00
	3.10	3.30	3.50	3.70	3.90	4.00	4.30	4.50	4.70	4.80	5.00
<b>Empty Containers (TEU's)</b>											
OCP Container	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.50	0.50
Other Container	0.40	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80
	0.70	0.80	0.80	0.90	0.90	1.00	1.00	1.00	1.10	1.30	1.30

WEFA Cargo Forecast (Million Metric Tons)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Containers</b>											
OCP Container	16.20	16.70	17.30	18.00	18.50	19.10	19.70	20.30	20.90	21.80	22.70
Other Container	24.30	25.10	26.00	26.90	27.80	28.60	29.50	30.40	31.40	32.70	34.00
	40.50	41.80	43.30	44.90	46.30	47.70	49.20	50.70	52.30	54.50	56.70
<b>Dry Bulk</b>											
Coal	4.10	4.60	5.00	5.50	6.00	6.60	7.20	7.90	8.60	9.30	10.10
White Bulk and Other	3.90	4.10	4.30	4.60	4.90	5.10	5.30	5.70	5.80	6.10	6.40
Scrap Steel	2.30	2.30	2.40	2.40	2.50	2.50	2.60	2.60	2.70	2.80	2.90
Pet Coke	5.00	5.00	5.10	5.20	5.20	5.30	5.40	5.40	5.50	5.60	5.70
	15.30	16.00	16.80	17.70	18.60	19.50	20.50	21.60	22.60	23.80	25.10
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	2.30	2.40	2.40	2.40	2.30	2.30	2.40	2.40	2.40	2.40	2.30
Other	2.60	2.60	2.70	2.90	3.10	3.30	3.40	3.60	3.80	4.00	4.20
	4.90	5.00	5.10	5.30	5.40	5.60	5.80	6.00	6.20	6.40	6.50
<b>Liquid Bulk</b>											
Total Liquid Bulk	45.40	45.90	46.50	46.90	47.70	48.50	49.20	50.00	50.70	51.80	52.80
<b>Auto</b>											
OCP Auto	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.31	0.31	0.31	0.31
Other Auto	0.85	0.86	0.87	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.94
	1.13	1.15	1.16	1.17	1.19	1.20	1.21	1.23	1.24	1.25	1.25
<b>Other Commodities</b>	0.20	0.30	0.20	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.10
<b>Total - all Commodities</b>	107.43	110.15	113.06	116.07	119.19	122.50	125.91	129.63	133.04	137.75	142.45

Containers (Million TEU's)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Full Containers (TEU's)</b>											
OCP Container	2.10	2.20	2.20	2.30	2.40	2.50	2.50	2.60	2.70	2.80	2.90
Other Container	3.10	3.20	3.40	3.50	3.60	3.70	3.80	3.90	4.00	4.20	4.40
	5.20	5.40	5.60	5.80	6.00	6.20	6.30	6.50	6.70	7.00	7.30
<b>Empty Containers (TEU's)</b>											
OCP Container	0.50	0.50	0.60	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.70
Other Container	0.80	0.80	0.80	0.80	0.90	0.90	0.90	1.00	1.00	1.00	1.00
	1.30	1.30	1.40	1.40	1.50	1.50	1.60	1.70	1.70	1.70	1.70

WEFA Cargo Forecast (Million Metric Tons)	2013	2014	2015	2016	2017	2018	2019	2020
<b>Containers</b>								
OCP Container	23.60	24.60	25.60	26.60	27.80	28.90	30.10	31.40
Other Container	35.40	36.90	38.30	40.00	41.60	43.40	45.20	47.10
	59.00	61.50	63.90	66.60	69.40	72.30	75.30	78.50
<b>Dry Bulk</b>								
Coal	10.90	11.90	12.90	13.70	14.60	15.60	16.60	17.80
White Bulk and Other	6.90	7.10	7.40	7.80	8.30	8.70	9.20	9.50
Scrap Steel	2.90	3.00	3.10	3.20	3.30	3.40	3.50	3.60
Pet Coke	5.70	5.80	5.90	6.00	6.10	6.20	6.30	6.40
	26.40	27.80	29.30	30.70	32.30	33.90	35.60	37.30
<b>Break Bulk/Other</b>								
Iron and Steel Shapes	2.30	2.20	2.20	2.20	2.10	2.10	2.00	2.00
Other	4.40	4.70	4.80	5.00	5.20	5.40	5.60	5.80
	6.70	6.90	7.00	7.20	7.30	7.50	7.60	7.80
<b>Liquid Bulk</b>								
Total Liquid Bulk	53.90	55.00	56.10	57.40	58.70	60.10	61.40	63.00
<b>Auto</b>								
OCP Auto	0.32	0.32	0.32	0.33	0.33	0.34	0.34	0.35
Other Auto	0.95	0.96	0.97	0.98	1.00	1.01	1.03	1.05
	1.27	1.28	1.29	1.31	1.33	1.35	1.37	1.40
<b>Other Commodities</b>								
Total - all Commodities	147.47	152.68	157.99	163.71	169.63	175.75	181.87	188.00

Containers (Million TEU's)	2013	2014	2015	2016	2017	2018	2019	2020
<b>Full Containers (TEU's)</b>								
OCP Container	3.00	3.10	3.30	3.40	3.60	3.70	3.90	4.00
Other Container	4.50	4.70	4.90	5.10	5.30	5.60	5.80	6.00
	7.50	7.80	8.20	8.50	8.90	9.30	9.70	10.00
<b>Empty Containers (TEU's)</b>								
OCP Container	0.80	0.80	0.80	0.80	0.80	0.90	0.90	1.00
Other Container	1.20	1.20	1.20	1.30	1.40	1.30	1.40	1.50
	2.00	2.00	2.00	2.10	2.20	2.20	2.30	2.50

Conversion Factor To Railcars and % Cargo by Corridor	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Containers</b>											
OCP Container = 1 FEU/Car @ 14.4MT/FEU	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00
Other Container - Truck											
<b>Dry Bulk</b>											
Coal	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
White Bulk and Other	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
Scrap Steel											
Pet Coke - (Truck)											
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66
Other - (Truck)											
<b>Liquid Bulk</b>											
Total Liquid Bulk	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01
<b>Auto</b>											
OCP Auto - 15 Units/Car - 1.38MT/Unit	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00
<b># of Railcars</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Containers (FEU's)</b>											
Full OCP Container	600,000	650,000	700,000	750,000	800,000	800,000	850,000	900,000	950,000	950,000	1,000,000
Empty OCP Container	150,000	150,000	150,000	150,000	150,000	200,000	200,000	200,000	200,000	250,000	250,000
Dry Bulk											
Coal	24,706	28,235	32,941	37,647	42,353	42,353	41,176	41,176	41,176	40,000	42,353
White Bulk and Other	28,235	29,412	30,588	30,588	31,765	31,765	35,294	35,294	37,647	41,176	42,353
Scrap Steel											
Pet Coke											
Break Bulk/Other											
Iron and Steel Shapes	18,635	17,859	17,082	17,082	16,306	16,306	16,306	17,082	17,082	17,859	17,859
Other											
<b>Liquid Bulk</b>											
Total Liquid Bulk	5,012	5,012	5,000	5,000	4,988	5,035	5,082	5,118	5,165	5,212	5,271
<b>Auto</b>											
OCP Auto	3,333	3,478	3,478	3,478	3,478	3,623	3,623	3,768	3,913	4,058	4,058
Other Auto											
<b>Total - all Commodities</b>	679,922	733,996	789,090	843,796	898,890	899,082	951,482	1,002,439	1,054,984	1,058,305	1,111,893

Conversion Factor To Railcars and % Cargo by Corridor	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<u>Containers</u>											
<u>OCF Container = 1 FEU/Car @ 14.4MT/FEU</u>	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00
Other Container - Truck											
<u>Dry Bulk</u>											
Coal	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
White Bulk and Other	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
Scrap Steel											
Pet Coke - (Truck)											
<u>Break Bulk/Other</u>											
Iron and Steel Shapes	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66
Other - (Truck)											
<u>Liquid Bulk</u>											
Total Liquid Bulk	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01
<u>Auto</u>											
OCF Auto - 15 Units/Car - 1.38MT/Unit	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00	20.75-MT/3.00
<u># of Railcars</u>	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<u>Containers (FEU's)</u>											
Full OCP Container	1,050,000	1,100,000	1,100,000	1,150,000	1,200,000	1,250,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000
Empty OCP Container	250,000	250,000	300,000	300,000	300,000	300,000	350,000	350,000	350,000	350,000	350,000
<u>Dry Bulk</u>											
Coal	48,235	54,118	58,824	64,706	70,588	77,647	84,706	92,941	101,176	109,412	118,824
White Bulk and Other	45,882	48,235	50,588	54,118	57,647	60,000	62,353	67,059	68,235	71,765	75,294
Scrap Steel											
Pet Coke											
<u>Break Bulk/Other</u>											
Iron and Steel Shapes	17,859	18,635	18,635	18,635	17,859	17,859	18,635	18,635	18,635	18,635	17,859
Other											
<u>Liquid Bulk</u>											
Total Liquid Bulk	5,341	5,400	5,471	5,518	5,612	5,706	5,788	5,882	5,965	6,094	6,212
<u>Auto</u>											
OCF Auto	4,058	4,203	4,203	4,203	4,348	4,348	4,348	4,493	4,493	4,493	4,493
Other Auto											
<u>Total - all Commodities</u>	1,171,376	1,230,591	1,237,721	1,297,179	1,356,054	1,415,560	1,425,850	1,489,010	1,548,505	1,610,399	1,672,681

Conversion Factor To Railcars and % Cargo by Corridor	2013	2014	2015	2016	2017	2018	2019	2020
<b>Containers</b>								
OCP Container = 1 FEU/Car @ 14.4MT/FEU	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00	14.40-MT/1.00
Other Container - Truck								
<b>Dry Bulk</b>								
Coal	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
White Bulk and Other	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00	85.00-MT/1.00
Scrap Steel								
Pet Coke - (Truck)								
<b>Break Bulk/Other</b>								
Iron and Steel Shapes	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66	85.00-MT/0.66
Other - (Truck)								
<b>Liquid Bulk</b>								
Total Liquid Bulk	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01	85.00-MT/0.01
<b>Auto</b>								
OCP Auto - 15 Units/Car - 1.38MT/Unit	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300	20.75-MT/1.300
<b># of Railcars</b>	2013	2014	2015	2016	2017	2018	2019	2020
<b>Containers (FEU's)</b>								
Full OCP Container	1,500,000	1,550,000	1,650,000	1,700,000	1,800,000	1,850,000	1,950,000	2,000,000
Empty OCP Container	400,000	400,000	400,000	400,000	400,000	450,000	450,000	500,000
<b>Dry Bulk</b>								
Coal	128,235	140,000	151,765	161,176	171,765	183,529	195,294	209,412
White Bulk and Other	81,176	83,529	87,059	91,765	97,647	102,353	108,235	111,765
Scrap Steel								
Pet Coke								
<b>Break Bulk/Other</b>								
Iron and Steel Shapes	17,859	17,082	17,082	17,082	16,306	16,306	15,529	15,529
Other								
<b>Liquid Bulk</b>								
Total Liquid Bulk	6,341	6,471	6,600	6,753	6,906	7,071	7,224	7,412
<b>Auto</b>								
OCP Auto	4,638	4,638	4,638	4,783	4,783	4,928	4,928	5,072
Other Auto								
<b>Total - all Commodities</b>	1,738,249	1,801,720	1,917,144	1,981,559	2,097,406	2,164,186	2,281,210	2,349,190

Railcar	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Usage Fee</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>	<b>3,580%</b>
<b>Inflation Rate =</b>											
Containers											
Full OCP Container	30.00	30.00	30.00	30.00	31.07	32.19	33.34	34.53	35.77	37.05	38.38
Empty OCP Containers	8.00	8.00	8.00	8.00	8.29	8.58	8.89	9.21	9.54	9.88	10.23
Dry Bulk											
Coal	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
White Bulk and Other	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Scrap Steel	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Pet Coke	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Break Bulk/Other											
Iron and Steel Shapes	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Other	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Liquid Bulk											
Total Liquid Bulk	10.00	10.00	10.00	10.00	10.36	10.73	11.11	11.51	11.92	12.35	12.79
Auto											
OCP Auto	40.00	40.00	40.00	40.00	41.43	42.92	44.45	46.04	47.69	49.40	51.17
Other Auto	40.00	40.00	40.00	40.00	41.43	42.92	44.45	46.04	47.69	49.40	51.17
<b>Railcar Usage Revenues</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Containers											
Full OCP Container	18,000,000	19,500,000	21,000,000	22,500,000	24,859,200	25,749,159	28,337,915	31,079,025	33,980,080	35,196,567	38,375,372
Empty OCP Container	1,200,000	1,200,000	1,200,000	1,200,000	1,242,960	1,716,611	1,778,065	1,841,720	1,907,654	2,469,934	2,558,358
Dry Bulk											
Coal	247,059	282,353	329,412	376,471	438,692	454,397	457,590	473,972	490,940	493,987	541,770
White Bulk and Other	282,353	294,118	305,882	305,882	329,019	340,798	392,220	406,262	448,860	508,516	541,770
Scrap Steel											
Pet Coke											
Break Bulk/Other											
Iron and Steel Shapes	186,353	178,588	170,824	170,824	168,896	174,943	181,206	196,631	203,670	220,551	228,446
Other											
Liquid Bulk											
Total Liquid Bulk	50,118	50,118	50,000	50,000	51,668	54,023	56,480	58,908	61,578	64,364	67,420
Auto											
OCP Auto	133,333	139,130	139,130	139,130	144,111	155,490	161,057	173,495	186,618	200,458	207,635
Other Auto											
<b>Total - all Commodities</b>	<b>20,099,216</b>	<b>21,644,307</b>	<b>23,195,248</b>	<b>24,742,307</b>	<b>27,234,546</b>	<b>28,645,420</b>	<b>31,364,533</b>	<b>34,230,013</b>	<b>37,279,400</b>	<b>39,154,377</b>	<b>42,520,772</b>

Railcar Usage Fee	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Inflation Rate =	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%	3.580%
<b>Containers</b>											
Full OCP Container	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38
Empty OCP Containers	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23
<b>Dry Bulk</b>											
Coal	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
White Bulk and Other	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
Scrap Steel	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
Pet Coke	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
Other	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
<b>Liquid Bulk</b>											
Total Liquid Bulk	13.25	13.72	14.22	14.72	15.25	15.80	16.36	16.95	17.56	18.18	18.84
<b>Auto</b>											
OCP Auto	53.00	54.90	56.86	58.90	61.01	63.19	65.45	67.80	70.22	72.74	75.34
Other Auto	53.00	54.90	56.86	58.90	61.01	63.19	65.45	67.80	70.22	72.74	75.34
<b>Railcar Usage Revenues</b>											
<b>Containers</b>											
Full OCP Container	40,294,141	42,212,909	42,212,909	44,131,678	46,050,447	47,969,215	47,969,215	49,887,984	51,806,753	53,725,521	55,644,290
Empty OCP Container	2,558,358	2,558,358	3,070,030	3,070,030	3,070,030	3,070,030	3,581,701	3,581,701	3,581,701	3,581,701	3,581,701
<b>Dry Bulk</b>											
Coal	639,105	742,715	836,200	952,750	1,076,572	1,226,625	1,386,042	1,575,240	1,776,209	1,989,548	2,238,045
White Bulk and Other	607,929	661,985	719,132	796,845	879,201	947,847	1,020,281	1,136,566	1,197,908	1,304,972	1,418,167
Scrap Steel											
Pet Coke											
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	236,625	255,752	264,908	274,392	272,373	282,124	304,929	315,846	327,153	338,865	336,371
Other											
<b>Liquid Bulk</b>											
Total Liquid Bulk	70,769	74,110	77,767	81,244	85,587	90,138	94,713	99,699	104,714	110,816	116,999
<b>Auto</b>											
OCP Auto	215,068	230,724	238,984	247,539	265,242	274,738	284,574	304,587	315,491	326,786	338,485
Other Auto											
<b>Total - all Commodities</b>	44,621,995	46,736,553	47,419,929	49,554,477	51,699,452	53,860,717	54,641,455	56,901,622	59,109,929	61,378,209	63,674,058



Railcar	Inflation Rate =									
	2013	2014	2015	2016	2017	2018	2019	2020	2013	2020
Usage Fee	3,580%	3,580%	3,580%	3,580%	3,580%	3,580%	3,580%	3,580%	3,580%	3,580%
<b>Containers</b>										
Full OCP Container	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38	38.38
Empty OCP Containers	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23
<b>Dry Bulk</b>										
Coal	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
White Bulk and Other	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
Scrap Steel	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
Pet Coke	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
<b>Break Bulk/Other</b>										
Iron and Steel Shapes	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
Other	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
<b>Liquid Bulk</b>										
Total Liquid Bulk	19.51	20.21	20.93	21.68	22.46	23.26	24.09	24.96	24.96	24.96
<b>Auto</b>										
OCP Auto	78.04	80.83	83.72	86.72	89.83	93.04	96.37	99.82	99.82	99.82
Other Auto	78.04	80.83	83.72	86.72	89.83	93.04	96.37	99.82	99.82	99.82
<b>Railcar Usage Revenues</b>										
2013	2014	2015	2016	2017	2018	2019	2020	2013	2020	
<b>Containers</b>										
Full OCP Container	57,563,058	59,481,827	63,319,364	65,238,133	69,075,670	70,994,439	74,831,976	76,750,745	76,750,745	
Empty OCP Container	4,093,373	4,093,373	4,093,373	4,093,373	4,093,373	4,605,045	4,605,045	5,116,716	5,116,716	
<b>Dry Bulk</b>										
Coal	2,501,784	2,829,086	3,176,617	3,494,392	3,857,268	4,269,013	4,705,295	5,226,063	5,226,063	
White Bulk and Other	1,583,698	1,687,942	1,822,245	1,989,508	2,192,830	2,380,795	2,607,754	2,789,191	2,789,191	
Scrap Steel										
Pet Coke										
<b>Break Bulk/Other</b>										
Iron and Steel Shapes	348,414	345,196	357,554	370,355	366,176	379,285	374,156	387,551	387,551	
Other										
<b>Liquid Bulk</b>										
Total Liquid Bulk	123,712	130,756	138,146	146,407	155,083	164,466	174,039	184,967	184,967	
<b>Auto</b>										
OCP Auto	361,912	374,869	388,289	414,758	429,606	458,471	474,884	506,352	506,352	
Other Auto										
<b>Total - all Commodities</b>	66,575,951	68,943,049	73,295,588	75,746,925	80,170,007	83,251,514	87,773,148	90,961,585	90,961,585	

Vessel Tonnage Charge	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Avg.											
Loaded Containers	Wharfage \$										
OCP Container	109.95	per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Other Container	109.95	per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Empty Containers											
OCP Container	7.39	per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Other Container	7.39	per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Dry Bulk											
Coal	1.00	per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
White Bulk and Other	1.00	per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Scrap Steel	2.10	per MT	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Pet Coke	1.01	per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Break Bulk/Other											
Iron and Steel Shapes	4.71	per MT	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Other	0.00	per MT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquid Bulk											
Total Liquid Bulk	0.42	per MT	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Auto											
OCP Auto	15.07	per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Other Auto	15.07	per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Vessel Tonnage Charge		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Avg. Wharfage \$</b>												
Loaded Containers		3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %	3.3500 %
OCP Container	109.95 per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Other Container	109.95 per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Empty Containers												
OCP Container	7.39 per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Other Container	7.39 per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Dry Bulk												
Coal	1.00 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
White Bulk and Other	1.00 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Scrap Steel	2.10 per MT	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Pet Coke	1.01 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Break Bulk/Other												
Iron and Steel Shapes	4.71 per MT	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Other	0.00 per MT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquid Bulk												
Total Liquid Bulk	0.42 per MT	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Auto												
OCP Auto	15.07 per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Other Auto	15.07 per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Vessel Tonnage Charge	Avg.	2013	2014	2015	2016	2017	2018	2019	2020
<b>Loaded Containers</b>	<b>Wharfage \$</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>	<b>3.3500%</b>
OCP Container	109.95 per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Other Container	109.95 per TEU	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
<b>Empty Containers</b>									
OCP Container	7.39 per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Other Container	7.39 per TEU	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
<b>Dry Bulk</b>									
Coal	1.00 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
White Bulk and Other	1.00 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Scrap Steel	2.10 per MT	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Pet Coke	1.01 per MT	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
<b>Break Bulk/Other</b>									
Iron and Steel Shapes	4.71 per MT	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Other	0.00 per MT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Liquid Bulk</b>									
Total Liquid Bulk	0.42 per MT	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Auto</b>									
OCP Auto	15.07 per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Other Auto	15.07 per MT	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Vessel Tonnage Revenue/ Gross Wharfage Surcharge Revenue	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<u>Loaded Containers</u>											
OCP Container	4,419,990	4,788,323	5,156,655	5,524,988	5,893,320	5,893,320	6,261,653	6,629,985	6,998,318	6,998,318	7,366,650
Other Container	6,998,318	7,366,650	7,734,983	8,103,315	8,471,648	8,839,980	9,576,645	9,944,978	10,313,310	10,681,643	11,049,975
<u>Empty Containers</u>											
OCP Container	74,270	74,270	74,270	74,270	74,270	99,026	99,026	99,026	99,026	123,783	123,783
Other Container	99,026	123,783	123,783	148,539	148,539	148,539	148,539	148,539	173,296	198,052	198,052
<u>Dry Bulk</u>											
Coal	70,350	80,400	93,800	107,200	120,600	120,600	117,250	117,250	117,250	113,900	120,600
White Bulk and Other	80,400	83,750	87,100	87,100	90,450	90,450	100,500	100,500	107,200	117,250	120,600
Scrap Steel	154,770	154,770	147,735	147,735	147,735	147,735	147,735	154,770	154,770	154,770	154,770
Pet Coke	142,107	145,491	145,491	148,874	152,258	155,641	155,641	159,025	159,025	159,025	165,792
<u>Break Bulk/Other</u>											
Iron and Steel Shapes	378,684	362,906	347,127	347,127	331,349	331,349	331,349	347,127	347,127	362,906	362,906
Other	0	0	0	0	0	0	0	0	0	0	0
<u>Liquid Bulk</u>											
Total Liquid Bulk	599,382	599,382	597,975	597,975	596,568	602,196	607,824	612,045	617,673	623,301	630,336
<u>Auto</u>											
OCP Auto	116,114	121,163	121,163	121,163	121,163	126,211	126,211	131,260	136,308	141,357	141,357
Other Auto	353,392	358,440	358,440	363,488	368,537	373,585	383,682	393,779	403,876	419,021	424,070
Total - all Commodities	13,486,802	14,259,325	14,988,520	15,771,773	16,516,435	16,928,632	18,056,054	18,838,283	19,627,178	20,093,323	20,858,889

**Vessel Tonnage Revenue/  
Gross Wharfage Surcharge Revenue**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Loaded Containers</b>											
OCP Container	7,734,983	8,103,315	8,103,315	8,471,648	8,839,980	9,208,313	9,208,313	9,576,645	9,944,978	10,313,310	10,681,643
Other Container	11,418,308	11,786,640	12,523,305	12,891,638	13,259,970	13,628,303	13,996,635	14,364,968	14,733,300	15,469,965	16,206,630
<b>Empty Containers</b>											
OCP Container	123,783	123,783	148,539	148,539	148,539	148,539	173,296	173,296	173,296	173,296	173,296
Other Container	198,052	198,052	198,052	198,052	222,809	222,809	222,809	247,565	247,565	247,565	247,565
<b>Dry Bulk</b>											
Coal	137,350	154,100	167,500	184,250	201,000	221,100	241,200	264,650	288,100	311,550	338,350
White Bulk and Other	130,650	137,350	144,050	154,100	164,150	170,850	177,550	190,950	194,300	204,350	214,400
Scrap Steel	161,805	161,805	168,840	168,840	175,875	175,875	182,910	182,910	189,945	196,980	204,015
Pet Coke	169,175	169,175	172,559	175,942	175,942	179,326	182,709	182,709	186,093	189,476	192,860
<b>Break Bulk/Other</b>											
Iron and Steel Shapes	362,906	378,684	378,684	378,684	362,906	362,906	378,684	378,684	378,684	378,684	362,906
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Liquid Bulk</b>											
Total Liquid Bulk	638,778	645,813	654,255	659,883	671,139	682,395	692,244	703,500	713,349	728,826	742,896
<b>Auto</b>											
OCP Auto	141,357	146,405	146,405	146,405	151,454	151,454	151,454	156,502	156,502	156,502	156,502
Other Auto	429,118	434,167	439,215	444,264	449,312	454,361	459,409	464,457	469,506	474,554	474,554
<b>Total - all Commodities</b>	21,646,263	22,439,288	23,244,719	24,022,244	24,823,075	25,606,228	26,067,211	26,886,835	27,675,616	28,845,058	29,995,615

Vessel Tonnage Revenue/ Gross Wharfage Surcharge Revenue	2013	2014	2015	2016	2017	2018	2019	2020
<b>Loaded Containers</b>								
OCP Container	11,049,975	11,418,308	12,154,973	12,523,305	13,259,970	13,628,303	14,364,968	14,733,300
Other Container	16,574,963	17,311,628	18,048,293	18,784,958	19,521,623	20,626,620	21,363,285	22,099,950
<b>Empty Containers</b>								
OCP Container	198,052	198,052	198,052	198,052	198,052	222,809	222,809	247,565
Other Container	297,078	297,078	297,078	321,835	346,591	321,835	346,591	371,348
<b>Dry Bulk</b>								
Coal	365,150	398,650	432,150	458,950	489,100	522,600	556,100	596,300
White Bulk and Other	231,150	237,850	247,900	261,300	278,050	291,450	308,200	318,250
Scrap Steel	204,015	211,050	218,085	225,120	232,155	239,190	246,225	253,260
Pet Coke	192,860	196,243	199,627	203,010	206,394	209,777	213,161	216,544
<b>Break Bulk/Other</b>								
Iron and Steel Shapes	362,906	347,127	347,127	347,127	331,349	331,349	315,570	315,570
Other	0	0	0	0	0	0	0	0
<b>Liquid Bulk</b>								
Total Liquid Bulk	758,373	773,850	789,327	807,618	825,909	845,607	863,898	886,410
<b>Auto</b>								
OCP Auto	161,550	161,550	161,550	166,599	166,599	171,647	171,647	176,696
Other Auto	479,603	484,651	489,700	494,748	504,845	509,893	519,990	530,087
<b>Total - all Commodities</b>	30,875,674	32,036,037	33,583,861	34,792,621	36,360,635	37,921,079	39,492,443	40,745,280



A Joint Venture

January 27, 1994

Mr. James Preusch  
Port of Los Angeles  
425 South Palos Verdes Street  
San Pedro, California 90731

**Re: Alameda Corridor  
Financial Plan**

Dear Mr. Preusch:

I have reviewed the January 24, 1994 Cash Flow Analysis Model, prepared by Paine Webber and the January 25, 1994 Corridor Financial Plan-Base Case, prepared by the Port of Long Beach. I find that the estimated Project Costs used are consistent with the estimates prepared by our office and made part of the Conceptual Plan for Alameda Corridor, dated February 28, 1992.

Please contact me if additional information is desired.

Respectfully submitted,

A handwritten signature in cursive script, reading "David R. Milner".

David R. Milner  
Project Coordinator

DRM:yk





# **Alameda Corridor**

*Application for Federal Funds*



Submitted to:

The Honorable Nick J. Rahall, II  
Chairman  
Subcommittee on Surface Transportation  
Committee on Public Works and Transportation  
U. S. House of Representatives

*January 7, 1994*

# **Alameda Corridor**

## **Application for Federal Funds**

**1. *Identify the State or other qualified recipient responsible for carrying out the project.***

Alameda Corridor Transportation Authority (ACTA)  
6550 Miles Avenue  
Room 113  
Huntington Park, CA 90255

ACTA is a joint powers authority created in August of 1989. ACTA's responsibility is to design and construct the Alameda Corridor project, a 20-mile freight rail and highway corridor between downtown Los Angeles and the Ports of Los Angeles and Long Beach.

ACTA has a 16-member Governing Board, with representatives from the cities of Los Angeles and Long Beach, the Ports of Los Angeles and Long Beach, Caltrans, the Los Angeles County Board of Supervisors, the Los Angeles County Metropolitan Transportation Authority, the Southern California Association of Governments, and the cities of Vernon, Huntington Park, South Gate, Lynwood, Compton, and Carson.

**2. *Describe the design, scope and objectives of the project, including the phase or phases proposed for funding.***

The Alameda Corridor will dramatically improve highway and railroad access to the largest seaport complex in the United States and the third largest in the world. The Ports of Los Angeles and Long Beach -- also known as the San Pedro Bay ports -- handled nearly 100 million metric tons of cargo in 1991. Rapid growth in Pacific Rim trade will increase tonnage through the ports to nearly 200 million tons by the year 2020.

The challenge facing the ports and the nearby communities is how to manage the ever increasing truck and train traffic to/from the ports. By the year 2020, the ports will generate nearly 50,000 truck trips and 100 train trips per day. Major improvements to the highway and railroad system serving the ports will be required to accommodate this demand and to mitigate the impacts of the traffic on communities north of the ports.

The objective of the Alameda Corridor is to facilitate port access while mitigating potentially adverse impacts of port growth, such as vehicle delays and accidents at grade crossings, traffic congestion, noise in residential areas, and air pollution. The project represents a "win-win" solution involving enormous economic and environmental benefits. These benefits are described in the response to Question #14 below.

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The corridor is approximately 20 miles long running between downtown Los Angeles and the ports. (See Figure 1.) The project has a highway and a railroad component. The rail element involves consolidating the port-related traffic of three railroads -- the Atchison, Topeka and Santa Fe Railway, the Union Pacific Railroad Company, and the Southern Pacific Transportation Company -- onto a fully grade-separated right-of-way. Currently the three railroads use four separate tracks which cross nearly 200 busy streets between downtown Los Angeles and the ports. This project will eliminate these highway-railroad conflicts.

North of State Route 91, the railroad corridor will be depressed; i.e., in a trench about 33 feet deep and 47 feet wide. East-west streets will bridge straight across this trench. South of Route 91, the tracks will be at-grade and east-west streets will be raised above the tracks and Alameda Street. The project will be designed to accommodate future electrification of the rail line.

The highway component involves widening Alameda Street south of Route 91 from four to six lanes. New pavement, signals and left-turn pockets will be installed along the segment of Alameda Street between Route 91 and I-10.

**3. *Is the project eligible for the use of Federal-aid funds?***

Yes. All of the highway work, grade separations, and other structures designed to separate highways from the railroad tracks are eligible. Caltrans and the U.S. Department of Transportation have included Alameda Street (from I-10 to the ports) in the recommended National Highway System.

**4. *What is the total project cost and source of funds?***

The estimated cost of the project is \$1.835 billion. This figure includes all engineering and construction costs, right-of-way, inflation, contingencies and a project reserve. The sources of funds for the project are shown in Table 1. Funds that have been committed are shown with an asterisk (\*).

As shown in the financial plan, nearly 55 percent of the funds would come from local sources. The new federal commitment that we are seeking would be about 38 percent of the total project costs. For this project to be financially viable, a partnership of state, local, and federal governments and the private sector will be necessary.

**5. *Will there be private sector funding for a portion of the project and, if so, how much private sector financing is being made available for the project?***

There will be a substantial private sector contribution, in the form of revenue bonds. As shown in Table 1, the amount of debt financing applied to construction would be \$600 million. The actual amount of debt issued may be higher when capitalized interest and other financing costs are included. Debt service for these bonds will be paid through fees (based on cargo volume and rail traffic) collected from the private sector users of the corridor (i.e., railroads) and the users of the ports (i.e., steamship companies).

**6. *Will the completion costs for the project exceed the amounts requested for the project?***

As noted in the response to question #4, the total completion costs are \$1.835 billion. The amount of additional authorization requested from the federal government (\$700 million) is an essential component of the overall financial plan, as shown in Table 1.

**7. *Has early work, such as preliminary engineering and environmental analysis been done on the project?***

Conceptual design (3 to 5 percent of total design) has been completed. On January 14, 1993, ACTA's Governing Board certified the Environmental Impact Report (EIR), satisfying the requirements of the California Environmental Quality Act (CEQA).

Preliminary engineering is expected to begin in early 1994. An Environmental Impact Statement (EIS), satisfying the requirements of the National Environmental Policy Act (NEPA), will be completed by December 1994. The Federal Highway Administration and the Federal Railroad Administration are joint federal lead agencies for the EIS.

**8. *What is the proposed schedule and status of work on the project?***

The goal is to begin construction in 1995, and to have the corridor operational by the year 2000. As described in the response to question #7, conceptual design has been completed, the EIR has been certified, and a Record of Decision on the EIS is expected in December 1994.

**9. *Is the project included in the metropolitan and/or State transportation improvement plan(s), and if so, scheduled for funding?***

Yes. The Alameda Corridor is in the Regional Mobility Plan (RMP) and is a Transportation Control Measure (TCM) in the Air Quality Management Plan (AQMP). Port access improvements have been recognized as high-priority projects in transportation re-authorization legislation in 1982, 1987, and 1991. As a result, several key elements of the Alameda Corridor project have been included in the Regional Transportation Improvement Program (RTIP).

**10. *Is the project considered by State and/or regional transportation officials as critical to their needs?***

Yes. The project is a high priority for the Southern California Association of Governments (SCAG), Caltrans, the South Coast Air Quality Management District (SCAQMD), and the Los Angeles County Metropolitan Transportation Authority (LACMTA). The project has also been unanimously approved by the member cities and agencies of ACTA, as identified in the response to question #1.

The Governor of California, the Honorable Pete Wilson, strongly supports the project. Thomas Sayles, California's Secretary of Business, Transportation, and Housing, and Daniel Fessler, President of the California Public Utilities Commission, also endorse the project.

The following state and federal lawmakers have taken the lead in promoting the Alameda Corridor: U.S. Senator Dianne Feinstein, U.S. Senator Barbara Boxer, Congressman Walter Tucker, Congresswoman Lucille Roybal-Allard, Congresswoman Maxine Waters, Congressman Stephen Horn, Congresswoman Jane Harman, Congressman Xavier Becerra, Congressman Julian Dixon, State Assembly members Martha Escutia, Betty Karnette, and Juanita McDonald. Federal transportation officials, including Secretary Federico Peña, have also strongly endorsed the project. During a recent visit to Los Angeles, President Clinton stated that the Alameda Corridor was a key national priority.

**11. *Why have State and/or regional transportation officials not given this project sufficient priority to obtain funding through the normal ISTEA funding process?***

As shown in Table 1, the project has received \$45 million in federal funding from the ISTEA of 1991. In 1993, ACTA competed for additional funds through the LACMTA's "Call for Projects". In this Call, LACMTA combined funds from a variety of sources, including County Proposition C funds (1/2 cent sales tax), state Flexible Congestion Relief (FCR), and the Congestion Management and Air Quality (CMAQ) and Surface Transportation Program (STP) programs of the ISTEA.

The LACMTA ranked the Alameda Corridor very high in the evaluation of alternative projects. The LACMTA awarded the project \$8 million in preliminary engineering funds from Proposition C, and also recommended \$34 million in State FCR funds. However, because the State Transportation Improvement Program (STIP) has a \$3 billion shortfall, the California Transportation Commission (CTC) decided not to award any new FCR funds this year. The LACMTA also allocated most of the available CMAQ and STP funds to its own bus replacement program and to Caltrans' High Occupancy Vehicle Program.

**12. *Has the proposed project encountered, or is it likely to encounter, any significant opposition or other obstacles based on environmental or other types of concerns?***

No. There is a strong regional consensus that the project must be built. ACTA's Governing Board unanimously approved the EIR, and there have been no legal challenges to the EIR.

**13. *How will the project objectives be attained?***

Project objectives, as adopted by the ACTA Governing Board, are: 1) reduce highway traffic delays, 2) improve safety, 3) improve rail operations, 4) mitigate environmental impacts, 5) improve the economy, 6) maximize cost-effectiveness, and 7) minimize construction impacts.

The elimination of highway-railroad conflicts at nearly 200 grade crossings in the highly developed Los Angeles area will greatly reduce congestion and improve safety. This will

be particularly evident as the train traffic grows from about 29 trains per day currently to 97 trains per day by the year 2020. The widening of Alameda Street south of Route 91 and the highway channelization and signalization improvements north of Route 91 will significantly improve traffic flow.

Through the use of state-of-the-art train control systems, double tracking, and the elimination of crossings, railroad speeds will double from 20 miles per hour currently to over 40 miles per hour when the project is completed.

Noise in residential areas will be greatly reduced through the consolidation of rail traffic along the predominantly industrial Alameda Street corridor. Noise in the corridor itself will be mitigated by the depressed railway design, sound walls at selected locations, new base material, and the use of continuous welded rail.

The project will reduce air pollution through reduced congestion and delay of trains and vehicles. Bridges have been designed with enough vertical clearance to allow for future electrification of the rail line. SCAG and the SCAQMD are thoroughly evaluating the viability of various technologies for reducing locomotive emissions, including electrification, liquified natural gas, fuel cells, etc. Although the region has not yet chosen a technology, ACTA will design the Alameda Corridor so as not to preclude electrification or any other strategy for emission reduction.

The Alameda Corridor will facilitate economic development through port growth, construction employment, and by improved business and development opportunities along the corridor itself. The corridor traverses areas affected by the civil unrest of April 1992 -- areas which are in great need of economic recovery.

Cost-effectiveness will be assured through an intensive "value engineering" effort throughout the design process. Construction impacts will be minimized through the use of the "Mitigation Monitoring Program" adopted at the time of EIR certification. This program includes traffic management techniques, effective communication with businesses along the corridor, and other approaches to construction management and environmental impact mitigation.

**14. *Describe the economic, energy efficiency, environmental, congestion mitigation and safety effects associated with completion of the project.***

By the year 2020, the growth of the ports and the Alameda Corridor will generate an additional \$31.9 billion in federal taxes per year, including \$5.2 billion per year in additional customs receipts. Growth of the harbors will generate an additional 700,000 jobs regionwide and 2.2 million jobs nationwide by the year 2020. Construction of the project itself will employ 10,000 workers in the central Los Angeles area between 1995 and 2000. Economic development along the corridor will be enhanced because of improved traffic conditions, including reduced delay for customers, employees and residents of the area.

Delays at grade crossings will be reduced by 90 percent. Every day, over 15,000 hours of highway traffic delay will be eliminated. Noise from trains will be reduced by 90 percent. Railroad emissions (mostly NOx) will be reduced by 28 percent. Locomotive hours of operation will be reduced by 30 percent and train stoppages (when a train blocks the operation of another train) will be reduced by 75 percent. Safety will be greatly improved through sophisticated train control systems and by the elimination of conflicts at nearly 200 grade crossings.

**15. Will the project require an additional investment in other infrastructure projects? If so, how will these projects be funded?**

No. However, the ports are making significant investments of their own to expand the harbor and to grade-separate rail lines in the immediate port area. These projects, which are needed whether or not the corridor is built, will be funded with port funds only.

**16. In lieu of the proposed project, what other transportation strategies have been considered by State and local transportation officials?**

A thorough alternatives analysis was conducted as part of the environmental review process. Alternatives included the "No Project" alternative, the Union Pacific route and the Los Angeles River as alternative alignments, and several design options for the Alameda alignment. The EIR identified the Alameda alignment, with a lowered railway between 25th Street and Route 91, as the "environmentally superior alternative."

**17. Is the authorization requested an increase to a previously authorized amount for this project, or would this be the first authorization for this project? Has this project previously received federal funding, commitments regarding future federal funding (such as an LOI or Full Funding Agreement), or appropriations?**

This would be the first authorization for the Alameda Corridor project as a whole and for the Alameda Corridor Transportation Authority as the implementing agency. However, various stand-alone components of the project have been funded through previous federal demonstration funds provided in the Surface Transportation Assistance Act of 1982 (STAA), the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA), and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). These demonstration projects, all located south of Route 91, include Alameda Street widening and various grade separations. All of the demonstration projects are being administered by the individual jurisdictions involved (i.e., City of Carson, City and Port of Los Angeles, City and Port of Long Beach, the County of Los Angeles, and Caltrans).

**18. If Highway Trust Fund revenues are not made available for the project, would you support general fund revenues for it?**

Yes.



Figure 1

# The Alameda Corridor

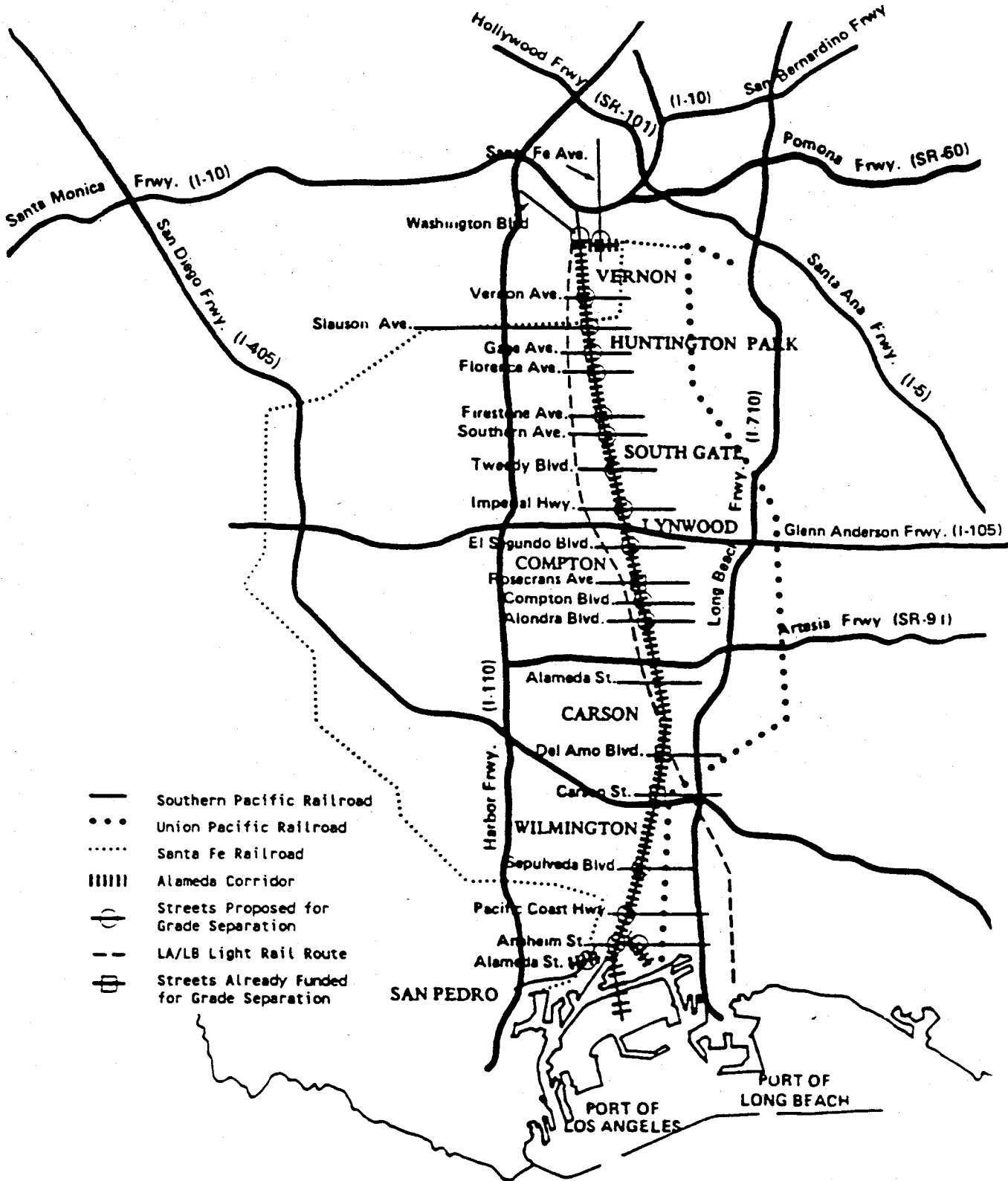


Table 1

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**Alameda Corridor – Financial Plan**  
(\$ Millions)

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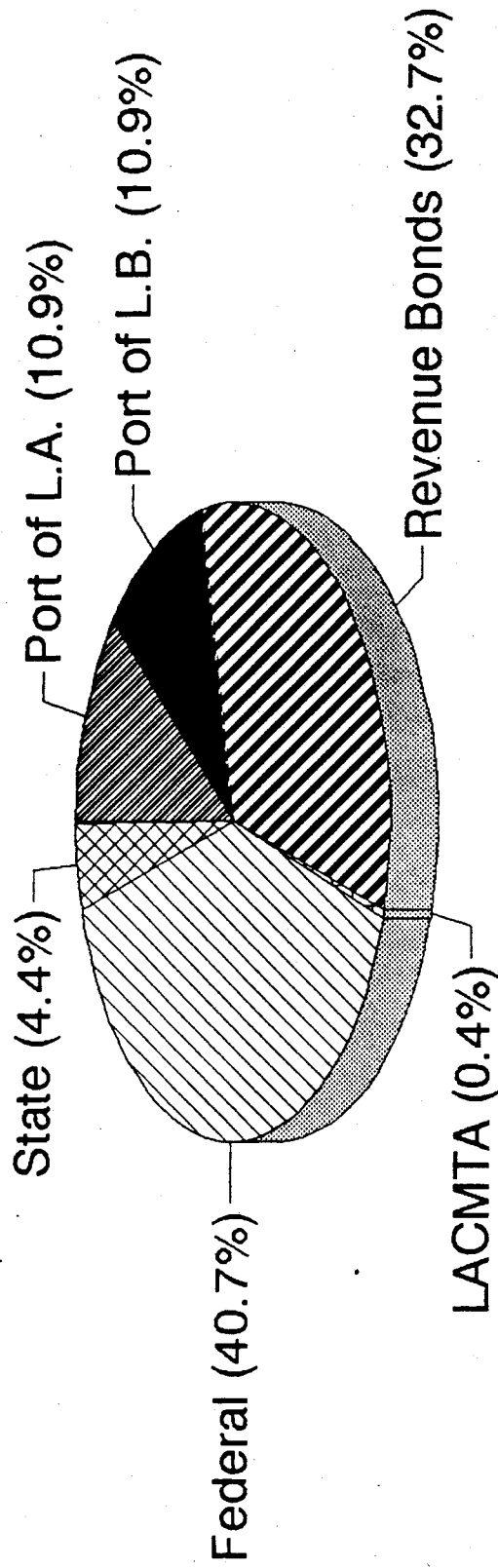
<b>Local Sources</b>		<b>% of Grand Total</b>
Port of Los Angeles *	\$200	10.9%
Port of Long Beach *	\$200	10.9%
LACMTA (Proposition C) *	\$8	0.4%
Revenue Bonds **	\$600	32.7%
<i>Total Local Sources</i>	<i>\$1,008</i>	<i>54.9%</i>
<b>State Sources</b>		
Proposition 116 *	\$80	4.4%
<i>Total State Sources</i>	<i>\$80</i>	<i>4.4%</i>
<b>Federal Sources</b>		
Economic Development Administration *	\$2	0.1%
ISTEA 1991 *	\$45	2.5%
New Authorizations	\$700	38.1%
<i>Total Federal Sources</i>	<i>\$747</i>	<i>40.7%</i>
<b>Grand Total</b>	<b>\$1,835</b>	<b>100.0%</b>

\* Committed Funds    \*\* Applied to construction (excludes capitalized interest and other financing costs)

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# Alameda Corridor

## Financial Plan -- Sources of Funds





**EXECUTIVE REPORT  
EXPANDED PRELIMINARY MODEL  
ALAMEDA CORRIDOR**

**PREPARED FOR  
PAINWEBBER INCORPORATED AND GOLDMAN, SACHS & CO.**

**PREPARED BY  
TRANSPORTATION MANAGEMENT SYSTEMS, INC.**

**MARCH 10, 1993**

## **1. INTRODUCTION**

The expanded preliminary analysis of the Port Competition Model for the San Pedro Ports has been concerned with identifying a more disaggregate set of commodity elasticities than the single "all commodity" elasticity initially estimated for the Ports. The analysis is still somewhat aggregate in character in that it only considers:

- West Coast Port competition and not the Gulf and Atlantic Ports which are important to the Gulf and Atlantic Seaboard regions.
- Asia as a single market and does not distinguish, in particular, between North and South Asia.
- Inland transportation on the basis of the prime mode (truck or rail) for each commodity.

While further disaggregation will result in higher elasticities than identified in this analysis for some commodities and, in particular, for Atlantic Seaboard traffic, it is unlikely that the overall weighted elasticity for the Ports would change significantly. However, it could well be that, with the development of the Interim Model as more is known with respect to regional market competition and modal split conditions, specific commodity charging potentials and revenues will need to be revised.

## **2. DATABASE**

In developing the West Coast Port Competition Model, it was not possible in the short time allocated for the analysis to access the Ports' own databases except where the information was already formatted and directly available.

As a result, TMS developed a commodity disaggregation database using independent sources. The prime traffic flow database used was the U.S. Department of Commerce, Bureau of Census U.S. Import and Export of Merchandise database for the year 1991. This database provided import and

export traffic flows to and from the West Coast Ports and Asia. To identify the movement of goods inland from the Ports, an inland distribution database was developed using the PIERS analytical tables that form part of the 1987 WEFA database assembled for the San Pedro Ports as part of the San Pedro Bay Cargo Forecasting Project 2020. This database did not distinguish between Bay Area and Pacific Northwest Ports; a commodity split was developed using the Bureau of Census data and other commodity shipping data derived from PIERS.

## **2.1 TRANSPORTATION COSTS**

Information on transportation costs for both inland and sea movements was derived from a variety of sources. Data on mileage to inland regional centers and associated transportation costs were derived from:

- Rail and truck routing programs.
- Telephone survey of shippers.
- BST and Klick, Kent & Allen reports.
- Klick, Kent & Allen review of inland rail costs.

Data on sea movement mileage and associated costs were derived from:

- Telephone survey of shipping brokers, shipping agents and shipping lines.
- "Ocean Passages for the World" as produced by the Royal Navy Hydrographer Department.

Data on transfer movements at the West Coast Ports were derived from:

- San Pedro Port Authorities.
- Telephone survey of shippers.
- Manalytics database.

The database was assembled in a West Coast Ports Competition Model data bank as two separate files: a traffic movement database and a transportation movement cost database. The various companies contacted in the telephone survey are given in Exhibit 1.

**Exhibit 1**  
**Shipper Survey Sources for Transportation Cost Database**

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<b>Shipping Companies</b>	American President Lines Cascade Shipping Columbus Line Evergreen Marine Corp. Hanjin Shipping General Steamship Korean Shipping America Inc.	K Line Maersk Line Matson Navigation NYK Line Norton Lilly Co. Star Shipping Sealand Inc.
<b>Shipping Agencies</b>	Atlantic Richfield Inc. EAC Steamship Agency Canada Maritime Agency City Shipping Brokers Fritz Maritime Agencies	McGregor Sea & Air Oil Trading Inc. (Texico) Transmarine Navigation Group Williams Dimond
<b>Other</b>	Grand Trunk Western RR General Motors Corp. Mazda Motor Corp.	Port of Seattle Snider International Stateswide Trucking

**3. WEST COAST COMPETITION**

The character of West Coast competition was developed using both Bureau of the Census Import and Export of Merchandise data and PIERS inland distribution data. With respect to import and export data, only trade with Asia was considered. As noted in TMS' Executive Report on the Preliminary Revenue Potential Analysis, Asian traffic dominates the West Coast Ports, accounting for 60 to 70 percent of overall traffic. Japan, Taiwan and South Korea alone provide nearly 50 percent of the traffic (see Exhibit 2). The next largest trading partners are Europe with 17 percent, and Canada and Latin America which combined represent a further 17 percent of West Coast traffic.



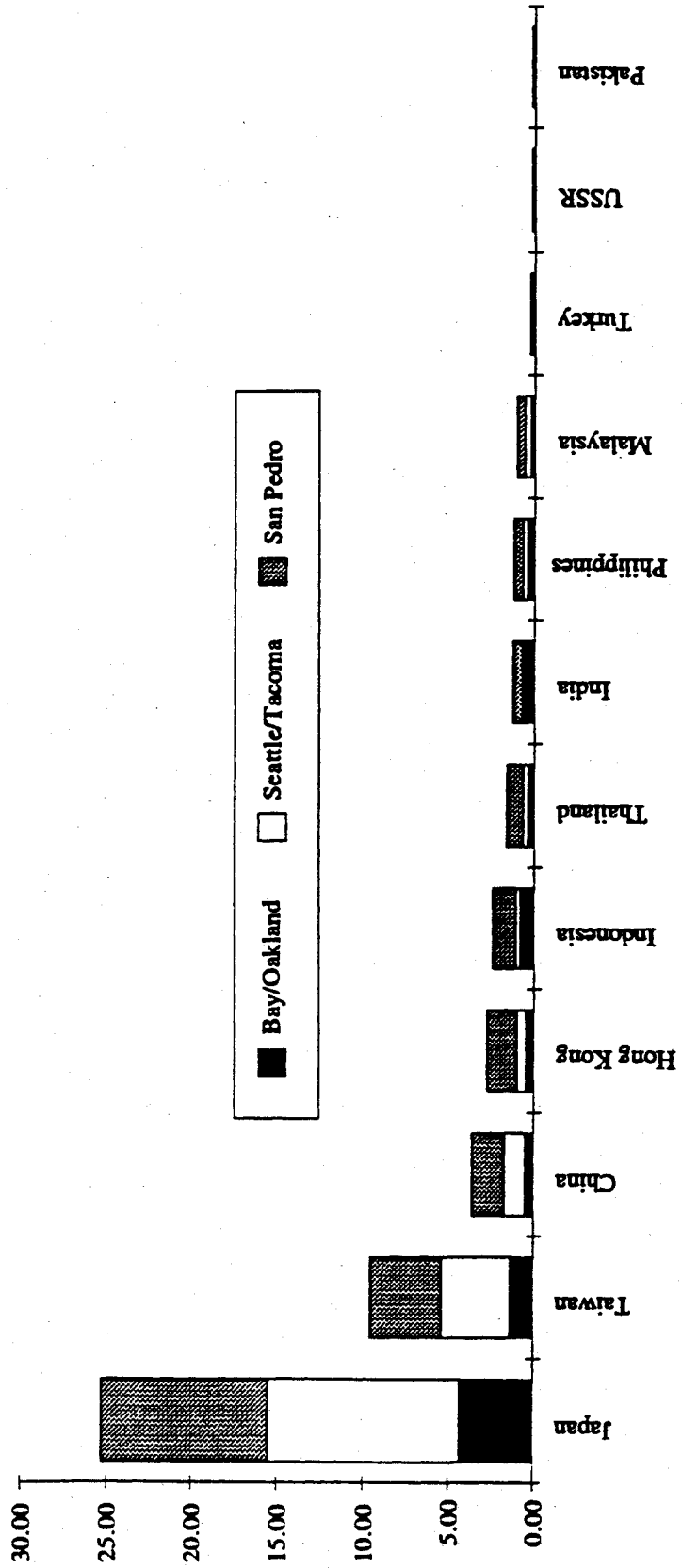
**Exhibit 2****Import and Export Trading Partners for West Coast Ports  
(1990 Volumes as reported by The WEFA Group)**

	<b>Imports</b>		<b>Exports</b>	
	<b><u>Millions of Tons</u></b>	<b><u>% of Total</u></b>	<b><u>Millions of Tons</u></b>	<b><u>% of Total</u></b>
Japan	5004.3	19.72	8362.6	38.45
Taiwan	3331.9	13.13	1195.8	5.50
Republic of Korea	2361.8	9.31	2167.7	9.97
China	650.2	2.56	95.1	0.44
Hong Kong	475.1	1.87	346.5	1.59
Asian Countries	3651.5	14.39	464.5	2.14
South Asia	428.6	1.69	284.5	1.31
Latin America	4864.4	19.17	1618.5	7.44
Europe	2632.8	10.37	5525.2	25.40
Arabian Gulf	82.8	0.33	93.4	0.43
Africa	489.7	1.93	223.4	1.03
Oceania	382.0	1.51	815.0	3.75
Canada	1026.1	4.04	558.8	2.57

Exhibit 3 shows the import and export volumes in millions of tons of the Asian trading partners of the U.S. and their use of different West Coast Ports. It can be seen that Japan is the largest trading partner and that its traffic is split evenly between the San Pedro Ports and the Seattle Ports, i.e., 39 and 43 percent market shares respectively, with the Bay Area Ports trailing with a 17 percent market share. While a similar picture exists for Taiwan, the San Pedro Ports' market share for China, Hong Kong, Indonesia, Thailand, and the South Asian countries increases substantially, e.g., 64 percent for Hong Kong at the expense of the Seattle Ports and the Bay Area Ports.

In terms of the different commodities, it can be seen in Exhibit 4 that the San Pedro Ports are dominant in containers, with a 63 percent market share compared with 21 percent for the Bay Area Ports and 16 percent for the Seattle Ports, dominant in auto import and export, with 47 percent compared with 31 percent for the Bay Area and 22 percent for Seattle, and dominant in

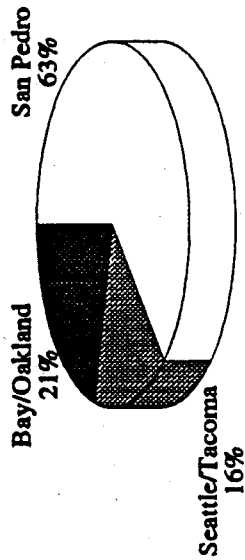
**Exhibit 3  
Asian Trading Partners and West Coast Port Usage**



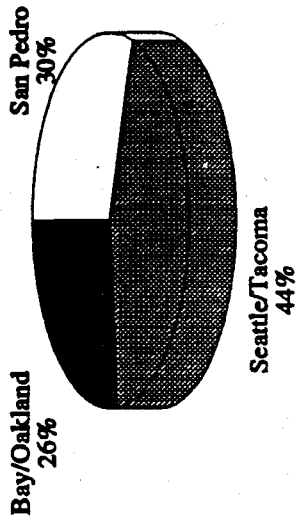
**Exhibit 4**

**Split between Ports for Asian Import and Export Traffic for Each Commodity Group**

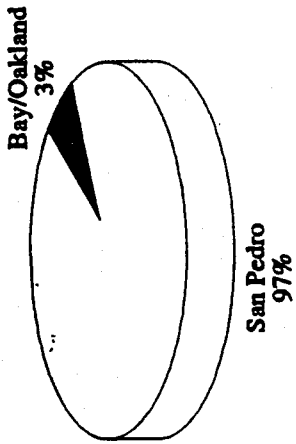
**Containers**



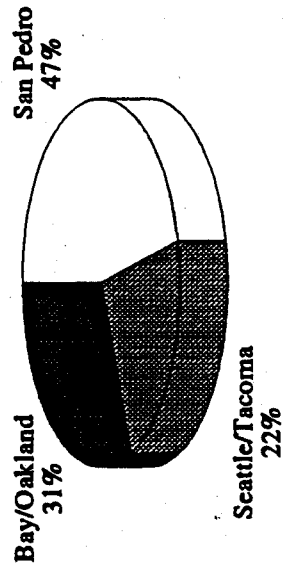
**Petroleum**



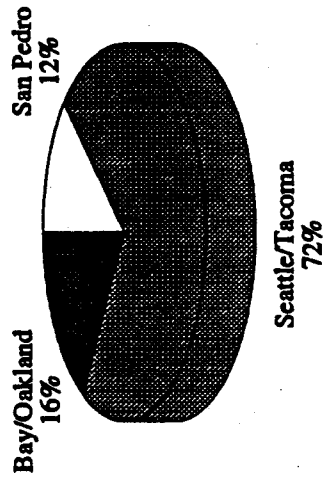
**Coal**



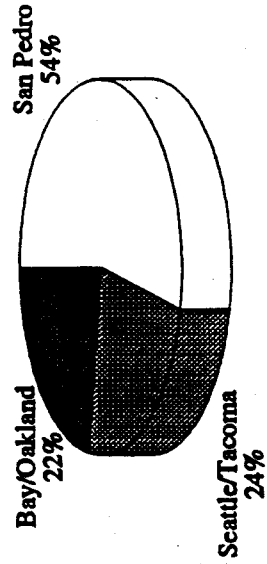
**Auto**



**Other Dry Bulk**



**HazMat/Steel**



hazmat/steels with 53 percent compared with 22 percent for the Bay Area and 25 percent for Seattle. The coal trade appears to be totally dominated by the San Pedro Ports which have 97 percent of the total market. The Seattle Ports dominate liquid bulk petroleum movements with 44 percent of the market, compared with 30 percent for the San Pedro Ports and 26 percent for the Bay Area Ports. The Seattle Ports also dominate the other dry bulk movements with 72 percent of the market, compared with 12 percent for the San Pedro Ports and 16 percent for the Bay Area Ports. The most important markets for the Bay Area Ports are auto, petroleum, containers, and other dry bulk.

#### **4. WEST COAST PORT COMPETITION MODEL**

The Expanded Preliminary Port Competition Model considered both import and export traffic disaggregated by the eight commodity types shown in Exhibit 5. The reason for disaggregating by these commodities was based on an assessment of each commodity's:

- Revenue potential.
- Elasticity.
- Nexus (mode).

**Exhibit 5**  
**Commodity Disaggregation for**  
**West Coast Expanded Preliminary Model**

<u>Group</u>	<u>Commodity Classification</u>	<u>Revenue Potential</u>	<u>Elasticity</u>	<u>Nexus (Mode)</u>
1.	OCP Container	High	Medium	Rail
2.	Other Container	High	Low	Truck
3.	Liquid Bulk-Petroleum	High	Low	Pipeline
4.	Dry Bulk-Coal	High	High	Rail
5.	OCP Auto	High	Medium	Rail
6.	Other Auto	High	High	Truck
7.	Dry Bulk-Petcoke, Cement, Etc.	Medium	Low	Truck
8.	Liquid Bulk-HazMat, Etc.	Low	Medium	Rail
8.	Dry Bulk-White Mat	Low	Medium	Rail-Short
8.	Steel Slab	Low	Medium	Rail
8.	Steel Rolled	Low	Medium	Truck & Rail
8.	Steel Scrap	Low	Low	Truck

Commodities with high revenue potential were given priority in the disaggregation, followed by commodities with low elasticities and high nexus or corridor use. The commodities with high revenue potential and potentially high or moderately high elasticity values needed particular attention, which was the reason for separating out coal and other automobile traffics. While petroleum which is shipped from the ports by pipeline was separated from other liquid bulk commodities because of its high revenue potential and low elasticity, its nexus with the Alameda Corridor is not altogether as clear as with commodities being shipped by truck or rail. Finally, steel and other liquid and dry bulk commodities were classified together for the Preliminary Expanded Model because of their relatively low nexus with the Alameda Corridor and their low revenue potential. The only exception to this was the petcoke and cement dry bulk group, which was evaluated as having a medium potential revenue, a low elasticity, and reasonable nexus with the corridor despite being moved by truck.

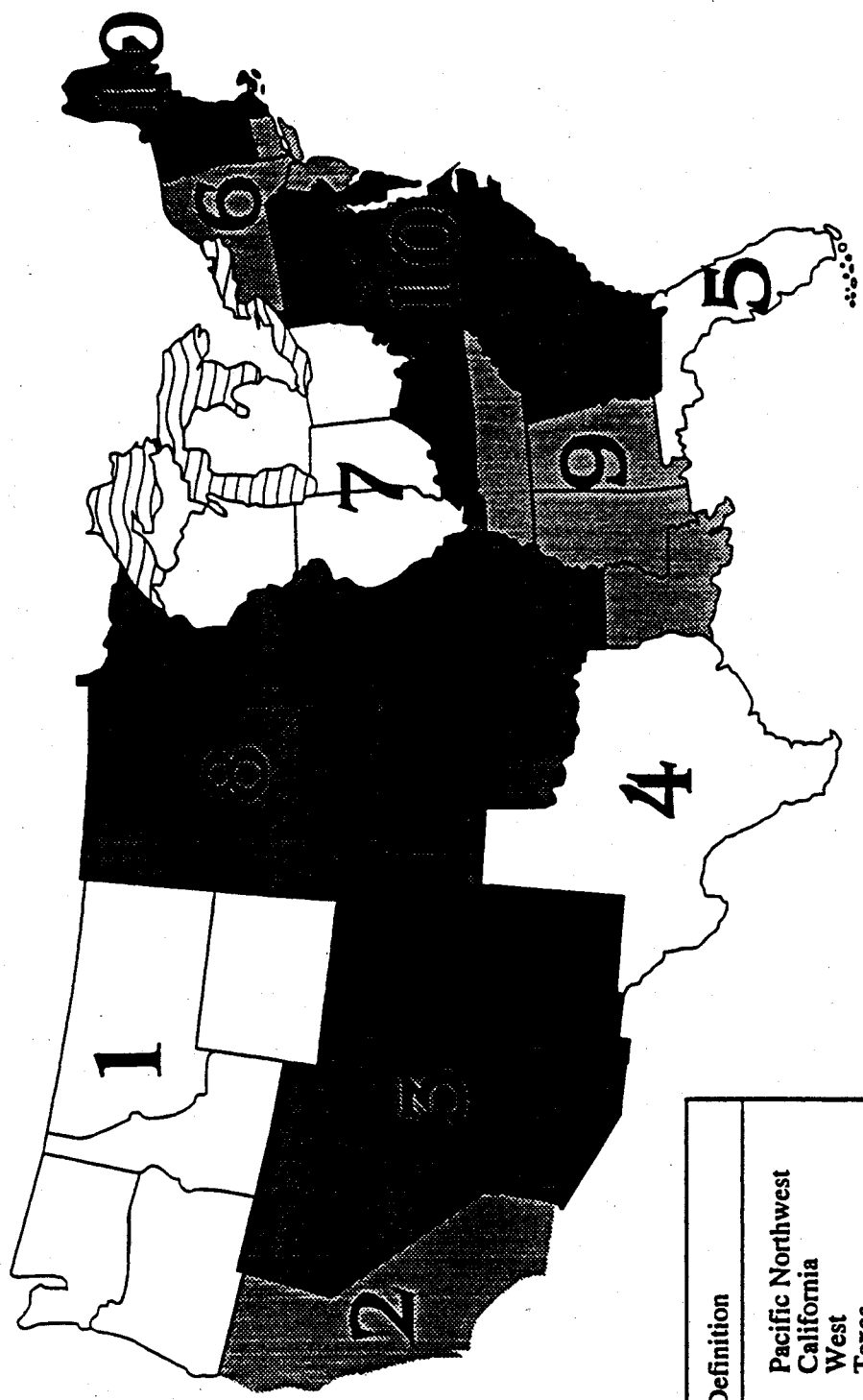
Once the commodity disaggregation was established, a Port Competition Model was built for each commodity type. In each case, the transportation analysis established the cost of moving from the Asian trading partner (Japan, China, Hong Kong, etc.) to each of the ten inland regions established in the preliminary port model analysis (see Exhibit 6).

The inland distances in miles are shown in Exhibit 7. The centroid connectors for each inland zone were refined following the preliminary analysis in order to provide a more realistic estimate of the center of activity for each zone. In particular, Zone 1: Pacific Northwest and Zone 4: Texas were modified. It is considered that a further breakdown of zones will be needed for the Interim Model to provide a more realistic estimate of inland distribution costs, in particular, for bulk commodities which have a less homogeneous distribution pattern. The costs per ton mile for sea and land movements and port transfers are shown in Exhibit 8.

It should be noted that the container movement costs are FEU costs divided by two. This was used as the TEU cost, as it is believed that most container movements are in FEU boxes. It should also be noted that the container and auto other commodities are for movements in Zones 1, 2, and 3 and, as such, are more than the local market of each port. It was not possible at this stage to model the local markets within Zones 1, 2, and 3. Inland costs are to the weighted mean distance of inland movements which, because of the impact of Zones 1, 2, and 3, means a location west of Chicago.

The inland distribution (excluding the Pacific Northwest and California) of Asian traffic in millions of tons is shown in Exhibit 9. As might be expected, the Pacific Northwest region is dominated by the Seattle Ports, while California is dominated by the San Pedro Ports. With respect to inland distribution, it can be seen that the Atlantic and Grain Belt regions are the most significant areas for Asian traffic and that the San Pedro Ports are dominant in each of these markets.

**Exhibit 6**  
**San Pedro Ports Inland Zone System**



Regional Definition
Region 1 Pacific Northwest
Region 2 California
Region 3 West
Region 4 Texas
Region 5 Florida
Region 6 New York Metroplex
Region 7 Upper Midwest
Region 8 Grain Belt
Region 9 Gulf Area
Region 10 Atlantic

**Exhibit 7**  
**Distance in Miles between West Coast Ports and Inland Regions**

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Pacific Northwest	282	993	1341	2131	3303	2841	2052	1858	2317	2816
San Francisco	927	183	1255	1752	3093	2930	2173	1861	2116	2902
San Pedro	1249	211	1031	1399	2716	2794	2048	1577	1807	2703

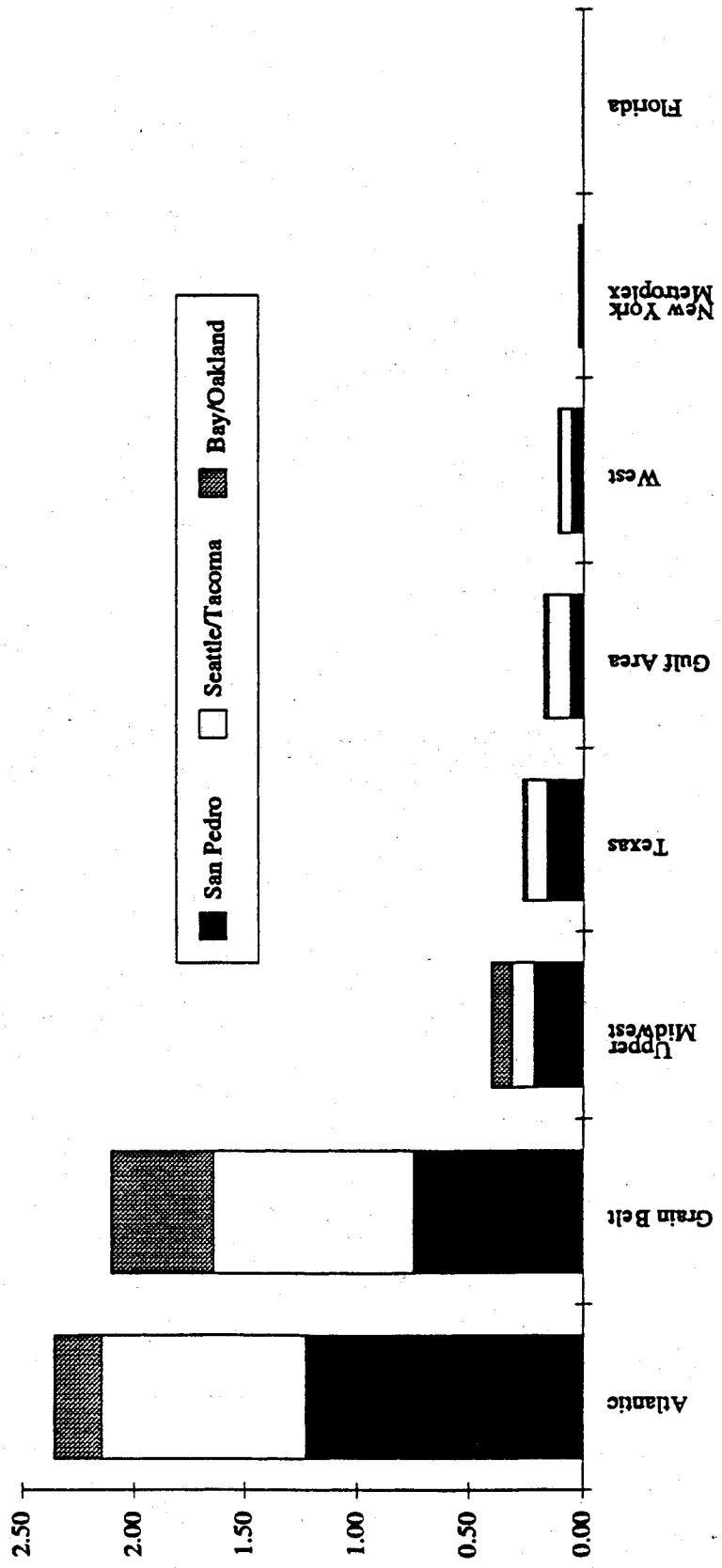
**Exhibit 8**  
**Total Transportation Cost by Key Commodity**  
**(Average Cost to and from Asia and U.S. Destination)**

<u>Commodity</u>	<u>Units</u>	<u>Sea Cost</u>	<u>Port Charges</u>	<u>Inland Cost</u>	<u>Total Cost</u>
Containers-OCP	TEU	1909.00	141.00 <sup>(1)</sup>	323.35	2373.35
Containers-Other <sup>(2)</sup>	TEU	1909.00	141.00 <sup>(1)</sup>	90.20	2140.20
Coal	Metric Ton	30.00	4.20	40.93	75.13
Liquid Bulk	Metric Ton	27.00	0.37 <sup>(3)</sup>	15.99	43.36
Auto-OCP	Auto	298.86	26.14 <sup>(3)</sup>	96.31	421.31
Auto-Other	Auto	298.86	26.14 <sup>(3)</sup>	22/94	347.94
PetCoke/Other Dry Bulk	Metric Ton	30.00	6.50	25.53	62.03
HazMat/Steel Slab & Scrap	Metric Ton	50.00	8.16	22.53	80.69

- <sup>(1)</sup> One day's drive from the port.  
<sup>(2)</sup> Excludes dockrail.  
<sup>(3)</sup> Does not include any handling charges.



**Exhibit 9  
 Inland Import and Export Traffic by West Coast Port  
 (Excluding Pacific Northwest and California Regions)**



Using the transportation movement cost database and the traffic movement database, the Port Competition Model was calibrated for each of the prime commodity groups. The model establishes the probability of selecting a given port versus other ports, given a change in any component of the transportation costs. The general form of the model is:

$$P(r) = \frac{1}{1 + e^{\beta_0 + \beta_1(GC_1 - GC_2)}}$$

where  
P(r) = Probability of port(r)  
 $\beta_0$  and  $\beta_1$  = Parameters to be estimated  
 $GC_1$  and  $GC_2$  = Generalized transportation costs associated with different ports

The model was formulated with a nested hierarchical function in which the San Pedro Ports and Bay Area Ports in California were first separated from the Pacific Northwest Ports; at the second level of the hierarchy, the San Pedro Ports were separated from the Bay Area Ports. The hierarchical structure of the model is shown in Exhibit 10. This type of nested structure, which uses a binary split at all levels of the model, avoids the IIA problem of a multinomial model and makes the assumption that the California Ports have larger cross elasticities than either of the California Ports have with the Pacific Northwest Ports, i.e., the California Ports are a better substitute for each other than the Seattle Ports.

**Exhibit 10**  
**Hierarchical Nested Choice Structure**  
**West Coast Port Competition Model**

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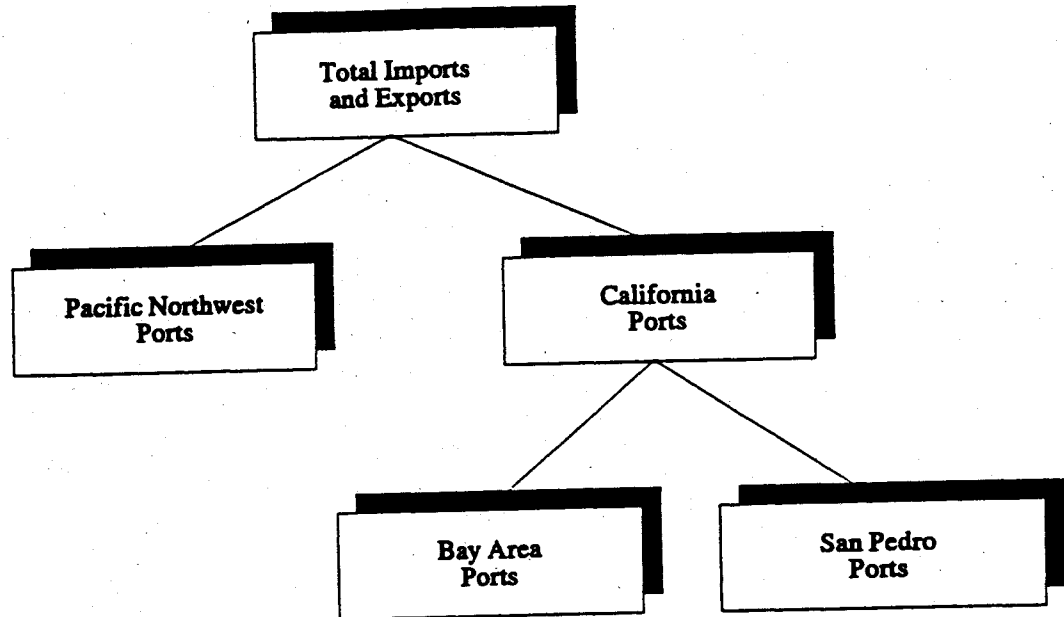


Exhibit 11 shows the Port Competition Model coefficients and biases, as well as the overall revenue elasticity for each commodity. The results of the analysis confirm the port competition structure, with the largest cross elasticity being achieved at Level 2 rather than Level 1. In terms of the revenue elasticities which are the result of applying the whole structure to the Asian traffic flows, it can be seen that coal had the highest revenue elasticity at 0.7, followed by container OCP at 0.59 and container other at 0.36. Auto elasticities were surprisingly small at just above 0.1, while the remaining dry bulk and liquid bulk elasticities were very small except for hazmat and steels which have an elasticity of 0.11.

**Exhibit 11**  
**West Coast Port Model Coefficients and Parameters<sup>(1)</sup>**

<u>Commodities</u>	<u>Model Elasticities</u>		<u>Revenue Elasticities</u>	<u>Bias</u>	
	<u>Level 1</u>	<u>Level 2</u>		<u>Level 1</u>	<u>Level 2</u>
Containers OCP	0.00023	0.00137	0.5866	13.46%	3.79%
Containers Other	0.00074	0.00149	0.3621	34.29%	40.24%
Coal	0.01026	0.00421	0.6985	-49.38%	49.83%
Liquid Bulk	0.00042	0.00292	0.0022	23.42%	34.72%
Auto OCP	0.00048	0.00218	0.1391	21.69%	34.88%
Auto Other	0.00074	0.00193	0.1101	19.23%	37.45%
Petcoke/Other Dry Bulk	0.00056	0.00180	0.0264	30.09%	36.08%
HazMat/Steel Slab & Scrap	0.00099	0.00519	0.1073	32.16%	45.34%

<sup>(1)</sup> Level 1: Seattle/Tacoma Ports versus California Ports; Level 2: Bay/Oakland Ports versus San Pedro Ports.

In terms of biases, there is a strong bias towards the California Ports over the Pacific Northwest Ports except for coal which is biased towards the Pacific Northwest Ports. A detailed assessment of the bias for the Pacific Northwest Ports found that, while the bias was large, it was very sensitive to the balance of transportation costs between the Pacific Northwest Ports and the California Ports. As a result, it is felt that some caution must be used in considering the revenue potential of coal and further analysis is necessary to fully understand the market. The bias towards the California Ports is weakest for OCP containers (only 13 percent) and much weaker to the San Pedro Ports over the Bay Area Ports (only 4 percent) than for other commodities.

With respect to coal, the results suggest that considerable care will be needed in applying any Alameda Corridor usage charges. More detailed analysis of the coal market itself and the influence of alternative non-West Coast port competition needs to be carefully considered. Equally, the impact of Atlantic Seaboard and Gulf competition should be fully assessed for the OCP container market. For bulk and auto traffic, however, there is little doubt as to the revenue raising potential and the advantage offered by the San Pedro Ports for this traffic.

## **5. CONCLUSIONS**

The expanded preliminary analysis has concluded that:

- Except for coal and certain OCP container regional markets, there is considerable potential for revenue surcharges on San Pedro Ports' traffic to pay for the Alameda Corridor.
- The market for coal is clearly highly competitive, with service factors other than merely cost and time of shipment playing a key role in the decision making process.
- A greater understanding of the impact of regional competition is required in order to deal with the clear differences that exist between the immediate hinterlands of the ports, the inland non-coastal areas, and the Atlantic Seaboard and Gulf areas. A further disaggregation of the regions to states or parts of states is proposed for the Interim Model.
- Given the scale of change in traffic volumes over time and the likely responses of shippers, more consideration should be given in the Interim Model to changes in elasticities over time.

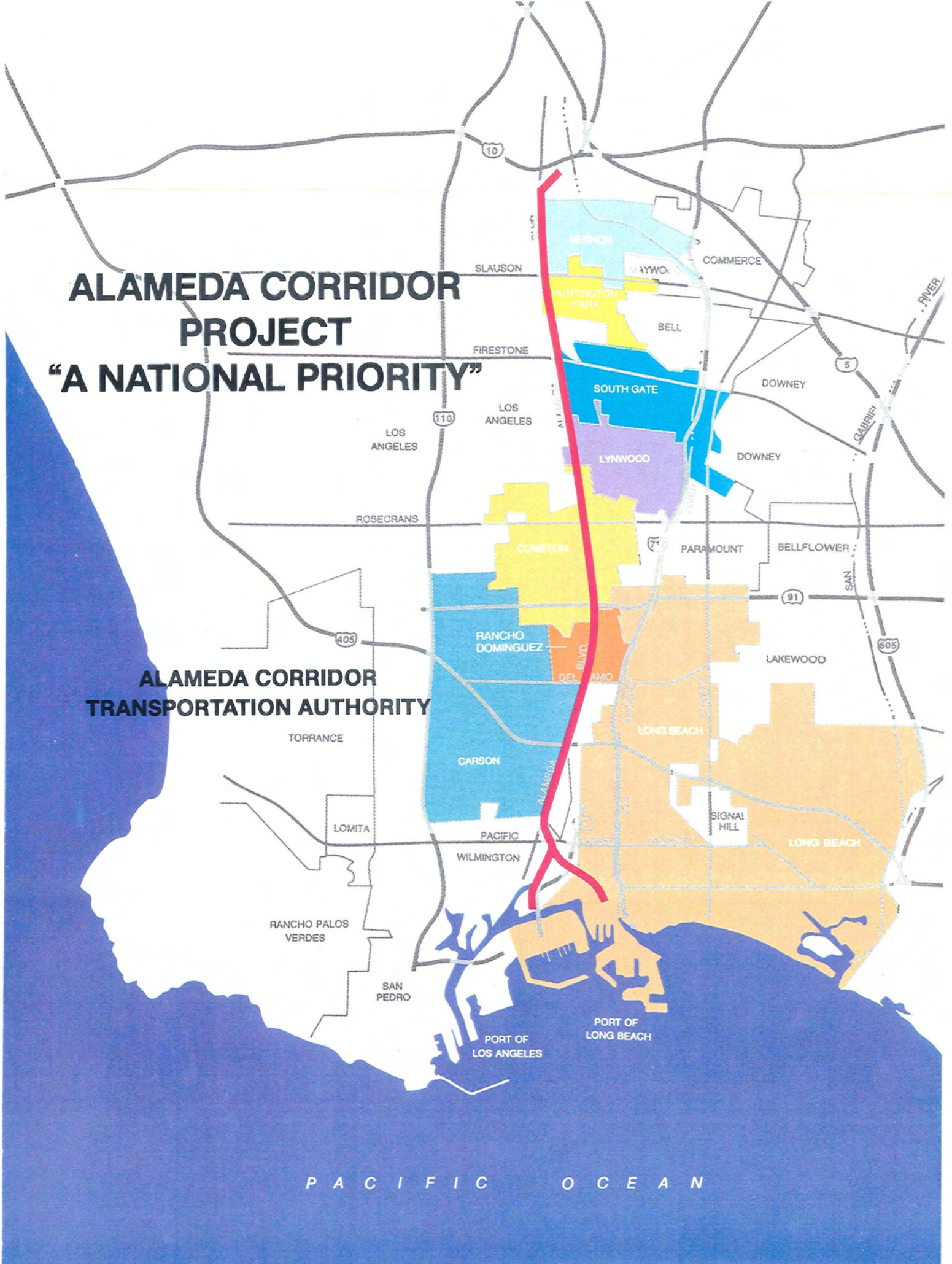
In particular, consideration should be given to:

- New shipping services and discounted tariffs.
- Increased or changing port capacity.
- Changing industrial structure of the transportation industry.



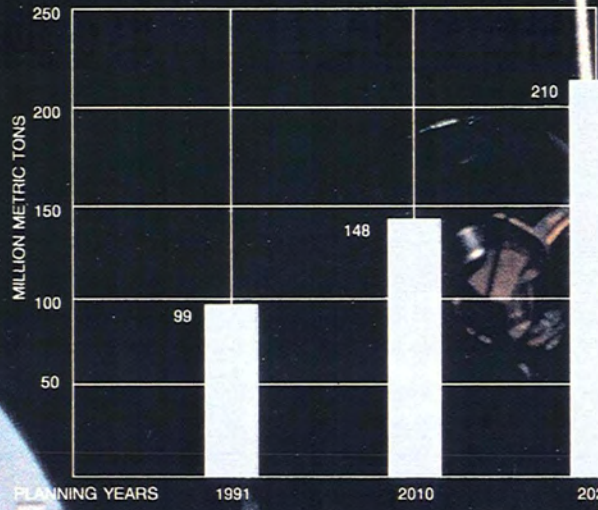
# ALAMEDA CORRIDOR PROJECT "A NATIONAL PRIORITY"

ALAMEDA CORRIDOR  
TRANSPORTATION AUTHORITY



P A C I F I C O C E A N

CARGO



**Total Cargo Forecast  
Ports of Long Beach and Los Angeles**





## FORWARD

The Alameda Corridor will dramatically improve railroad and highway access to the Ports of Long Beach and Los Angeles. The two ports comprise the San Pedro Bay Ports, the largest port complex in the United States. The complex is located on the doorstep of the Pacific Rim – the largest and fastest growing marketplace in the world.

As a result of the dedication of the two ports and their staffs and the other members of the joint powers authority that make up the Alameda Corridor Transportation Authority (ACTA), the corridor was developed to consolidate the operations of the three freight railroad carriers into one high-speed, high-capacity corridor. The route, to be constructed along Alameda Street, will include the elimination of all at-grade highway crossings of the railroad, while consolidating 90 miles of branch line tracks into one 20-mile corridor. A distinct improvement to the region will be the elimination of traffic conflicts at nearly 200 at-grade highway crossings of the tracks, saving an estimated 15,000 hours of delay per day for vehicles sitting and waiting to cross as the trains pass. In addition, Alameda Street will be improved to provide better access from the Ports to freeway ramps. In doing so, the Alameda Corridor will accommodate the increase in rail and truck traffic associated with the Ports' growth, while significantly reducing the negative impacts of that growth on the environment and neighboring communities.

The implementation of this program will have far-reaching impacts of national significance for the economic vitality of Southern California and the Nation.



## Project Site Plan



**Present Condition  
At-Grade Highway  
Crossing**



## PROJECT DEFINITION

### RAILROAD COMPONENT

- Consolidation of Railroad Traffic
- Double Track Railroad with Centralized Control
- Depressed Trainway from 25th Street to Route 91
- At-Grade Railway with Highway Grade Separations South of Route 91
- Continuous At-Grade Drill Track to Serve Local Industries

### HIGHWAY COMPONENT

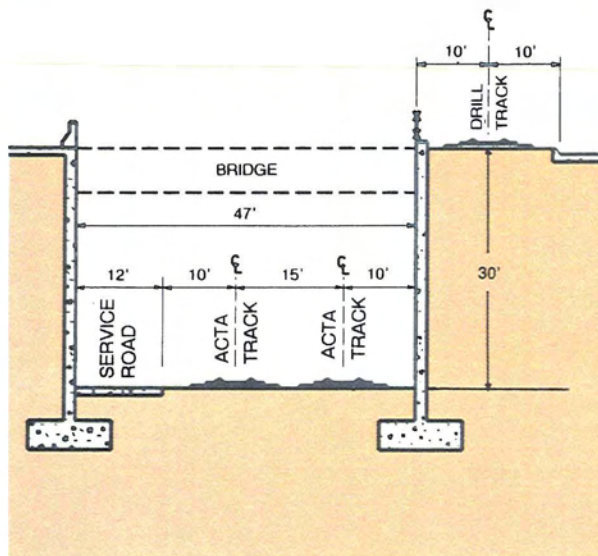
- Reconstruction of Alameda Street with Left-turn Pockets and New Signalization from I-10 to Route 91
- Alameda Street Widened to Six Lanes from Route 91 to Ports

### PROJECT LIMITS

- North Terminus: At Junction of Main Line Railroad Tracks East of the L.A. River, North of Washington Boulevard
- South Terminus: Terminal Island and San Pedro Ports

# NORTHERN PORTION (North of Route 91)

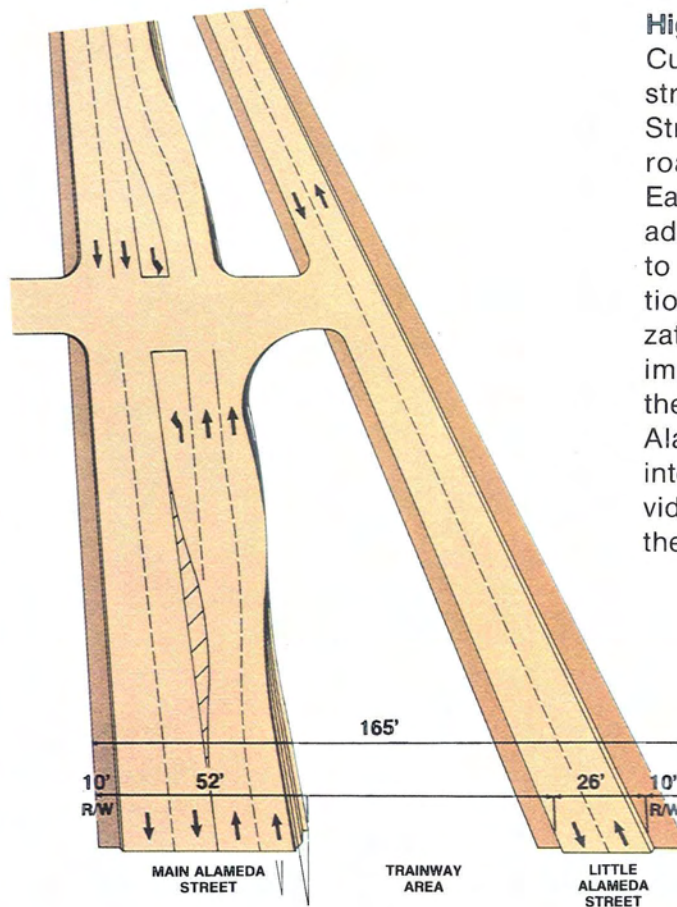
Through  
Cities of:  
Los Angeles  
Vernon  
Huntington Park  
Lynwood  
South Gate  
Compton  
and  
Los Angeles  
County



*Typical Trench for Depressed  
(below grade) Trainway*

## Rail Component

The improvements include depressing the two main line railroad tracks approximately 30 ft (below grade) between vertical concrete walls to be located 47 ft apart. Within the trench limits, a 12-ft-wide maintenance road will be provided. The main cross streets will be constructed on short bridges over the trench. The distance to the tracks below grade would provide for future railroad electrification. An at-grade drill track would be provided to maintain rail service to industries situated along the corridor. The lowered railroad will be provided with proper security fencing and access for emergency response.



*Prospective View of Highway  
Improvements*

## Highway Component

Current plans will require the reconstruction of the existing Alameda Street and the east side frontage road, commonly called Alameda East or "Little" Alameda Street. In addition, left-turn lanes will be added to the major cross street intersections. New and improved signalization will be provided to promote improved traffic operations along the four-lane Alameda Street. "Little" Alameda Street would remain as an intermittent two-lane local street providing access to businesses along the route.



*At-Grade Trainway*

### **Rail Component**

The planned corridor tracks will remain at-grade through this southern portion, in order to maintain access to the Dolores Railroad Classification Yard and access to the Intermodal Container Transfer Facility (ICTF). This will also allow the corridor to cross over the Compton Creek. The construction of highway overpasses will eliminate traffic delays at intersections caused by trains.



*Cross Street Grade Separation*

### **Highway Component**

Alameda Street will be widened from four to six lanes, between SR91 and the ports. East-west streets will be grade-separated from the highway and rail components along Alameda Street.

*On-Dock Crane Handling of Container*



## **SOUTHERN PORTION (South of Route 91)**

Through  
Cities of:

Carson

Los Angeles

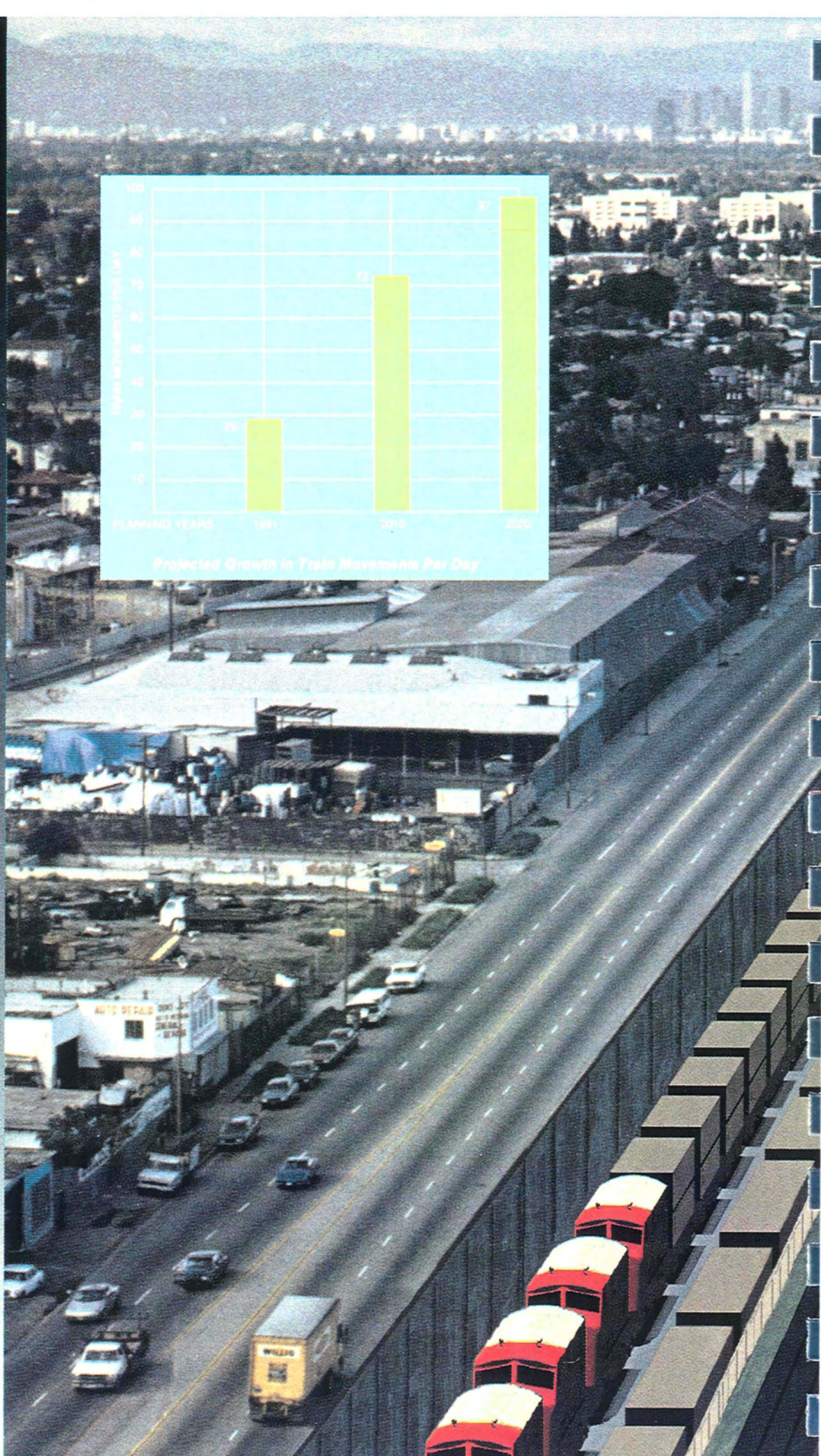
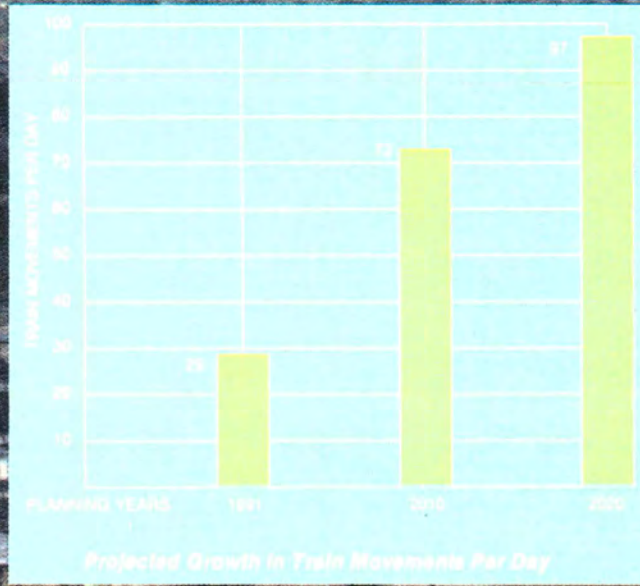
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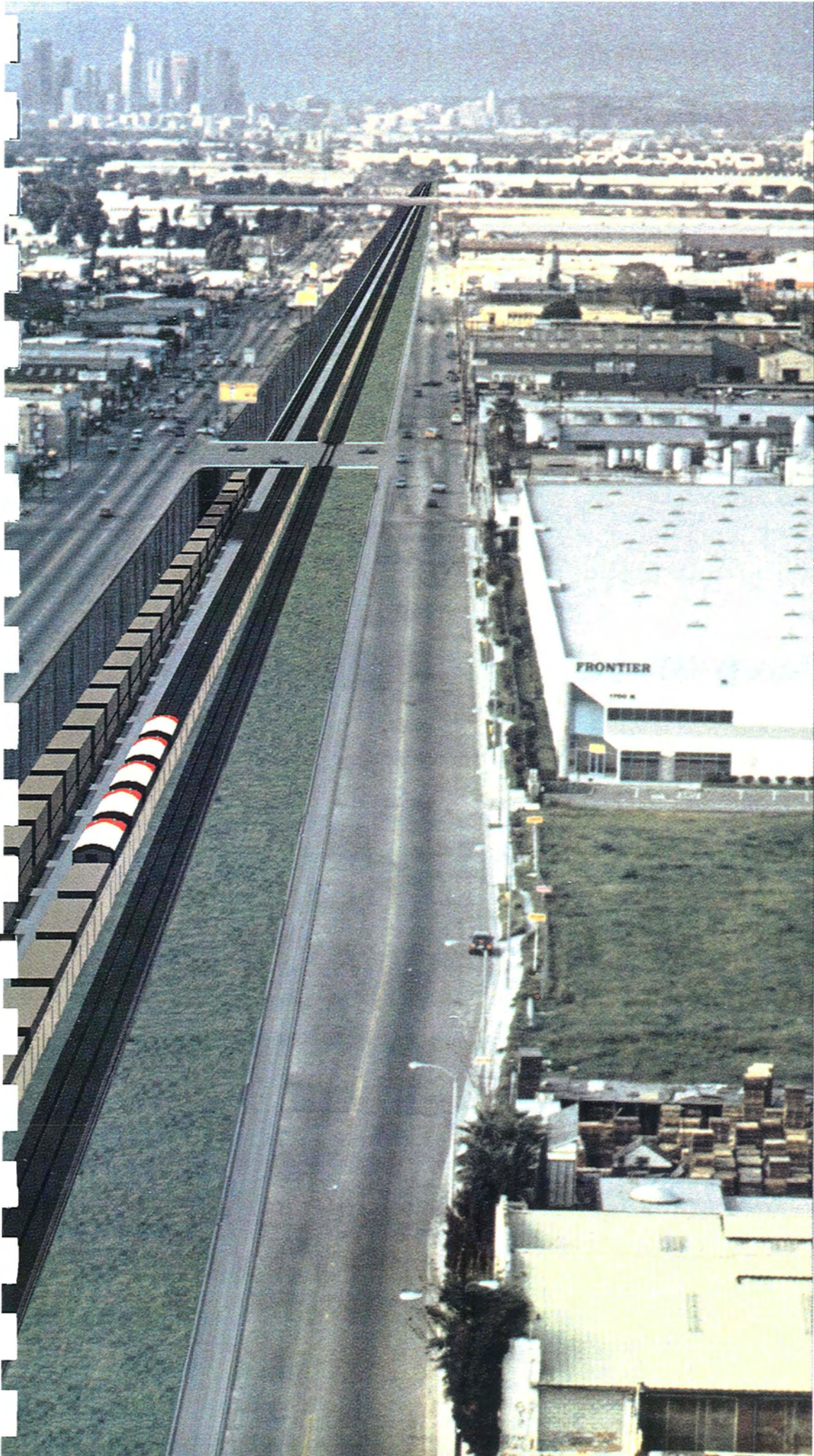
Los Angeles

County

# ALAMEDA CORRIDOR

*Alameda Street (Alameda Corridor) in 21st Century*





## SUMMARY OF PROJECT BENEFITS

The Southern California region will realize distinct benefits from the development of the Alameda Corridor.

Key benefits:

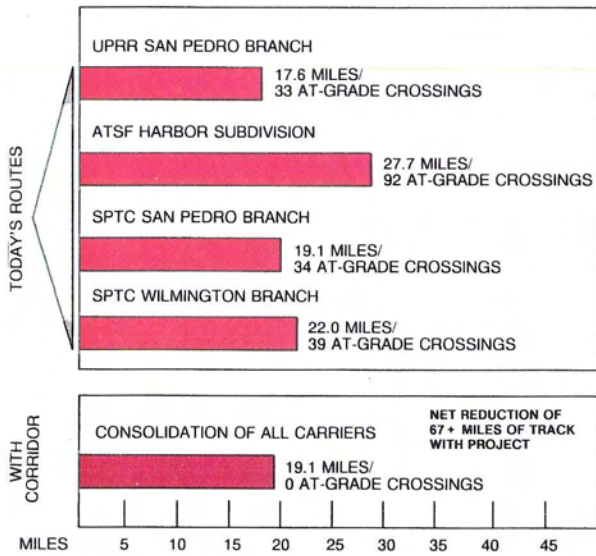
- Highway traffic delays and congestion will be significantly reduced.
- Rail, vehicular, and pedestrian traffic operations will be safer.
- Significant economic and environmental benefits will be realized.
- Railroad operations will be significantly improved.



*Union Pacific Double Stack  
Container Train*

*Rail Carriers Serving the San Pedro Bay Ports - Southern Pacific Transportation Co.; Atchison, Topeka, and Santa Fe Railway; and Union Pacific Railroad*





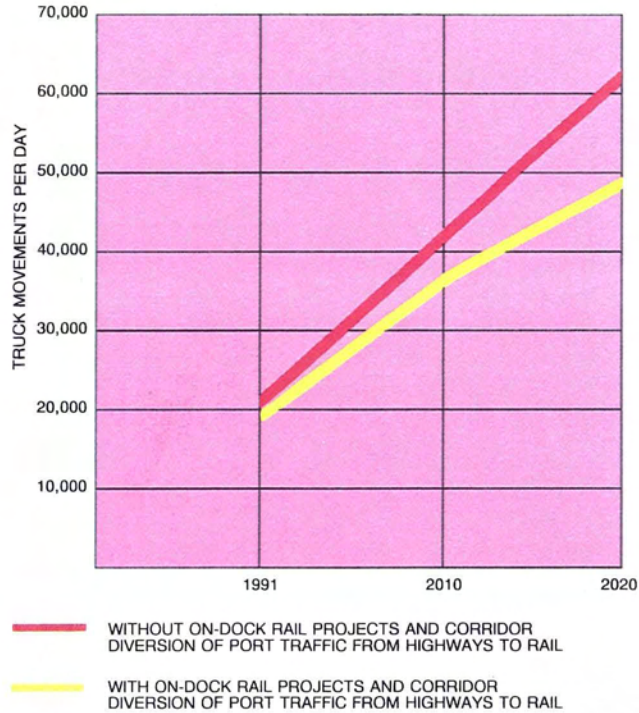
77% reduction of track-miles

Elimination of conflicts at nearly 200 at-grade highway crossings

State-of-the-art train and traffic control systems

**Rail Service Distance from Downtown Rail Yards to Ports**

Shifting of container movements from highway to rail with the construction of on-dock rail facilities



**Growth in Truck Service to the Ports**



# ECONOMIC BENEFITS

The Ports of Los Angeles and Long Beach move the goods that are vital to manufacturers, distributors, and consumers in the Los Angeles area, California, and the Nation. Today, about 40 percent of the Ports' container traffic moves by railroad to points across the Nation. This figure will grow to 50 percent within the next decade. Long-range expansion plans of the two ports provide for the overall development strategy necessary for Southern California and the Nation to reap the full economic benefits of the explosive Pacific Rim trade. Combined with the Alameda Corridor project, these development plans will provide:

### Employment (through the year 2020)

An additional 700,000 local jobs  
An additional 2 million jobs nationwide

### Construction Jobs

10,000 construction-related local jobs

### Development

New business opportunities for the region and better development planning in the local communities along the corridor.



ECONOMIC BENEFITS OF PORT EXPANSION/ALAMEDA CORRIDOR		
Projected Increases From 1987 to 2020	Southern California	Nationwide
Annual Output (\$ Billions)	\$69.4	\$168.8
Annual State and Local Taxes (\$ Billions)	\$2.2	\$5.2
Annual Federal Taxes Income and Business Taxes (\$ Billions)	\$11.3	\$26.7
Customs Receipts (\$ Billions)	\$5.2	-
Total Federal Taxes	\$16.5	\$31.9

## ENVIRONMENTAL BENEFITS

The summary of environmental benefits are:

### **Traffic Delays at Grade Crossings Reduced by 90 Percent**

Every day, over 15,000 hours of vehicle delay will be eliminated by consolidating rail traffic and eliminating highway grade crossings.

### **Noise and Vibration Reduced by 90 Percent**

The construction of tracks in the below-grade trench, track construction on new base material, and the use of continuous welded track will help to promote a quieter operation. Also, noise walls will be provided, where appropriate, to mitigate vehicle noise along Alameda Street, in residential neighborhoods and other sensitive areas.

### **Train Stoppages Reduced by 75 Percent**

Assisted by state-of-the-art technology in centralized traffic-control systems, the double-track corridor will reduce the number of times trains have to stop and wait for other trains to pass. Today, when an 8,000-ft-long unit train stops, the congestion and related pollution from train and vehicle backup can have a significant impact on the area's air quality. This project will be a real benefit to the area by eliminating a significant number of these occurrences.

### **Locomotive Hours of Operation Reduced by 30 Percent**

Train speeds will double and the stoppage and idling of locomotives will be reduced.

### **Railroad Emissions Reduced by 28 Percent**

This benefit is realized by the advent of the benefits noted above, as well as by the consolidation of rail traffic itself. As an example, the Atchison, Topeka, and Santa Fe Railway would no longer travel the additional distance along the Harbor Subdivision route to reach the Port area. The corridor could also be electrified in the future.

### **Truck Traffic Reduced by 23 Percent**

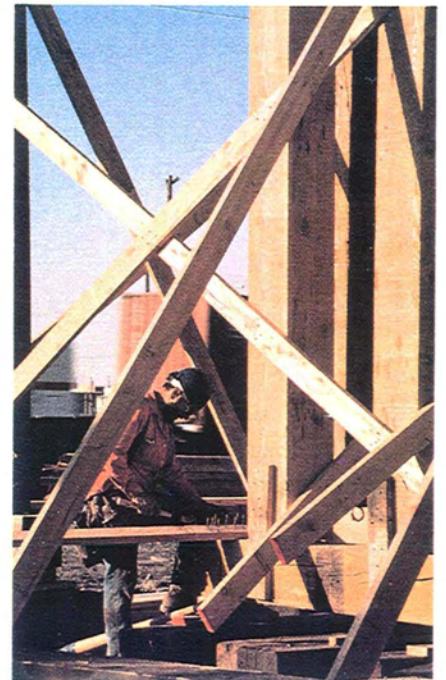
The construction of on-dock rail facilities and the increase in cargo (containers) on rail will reduce the truck traffic.

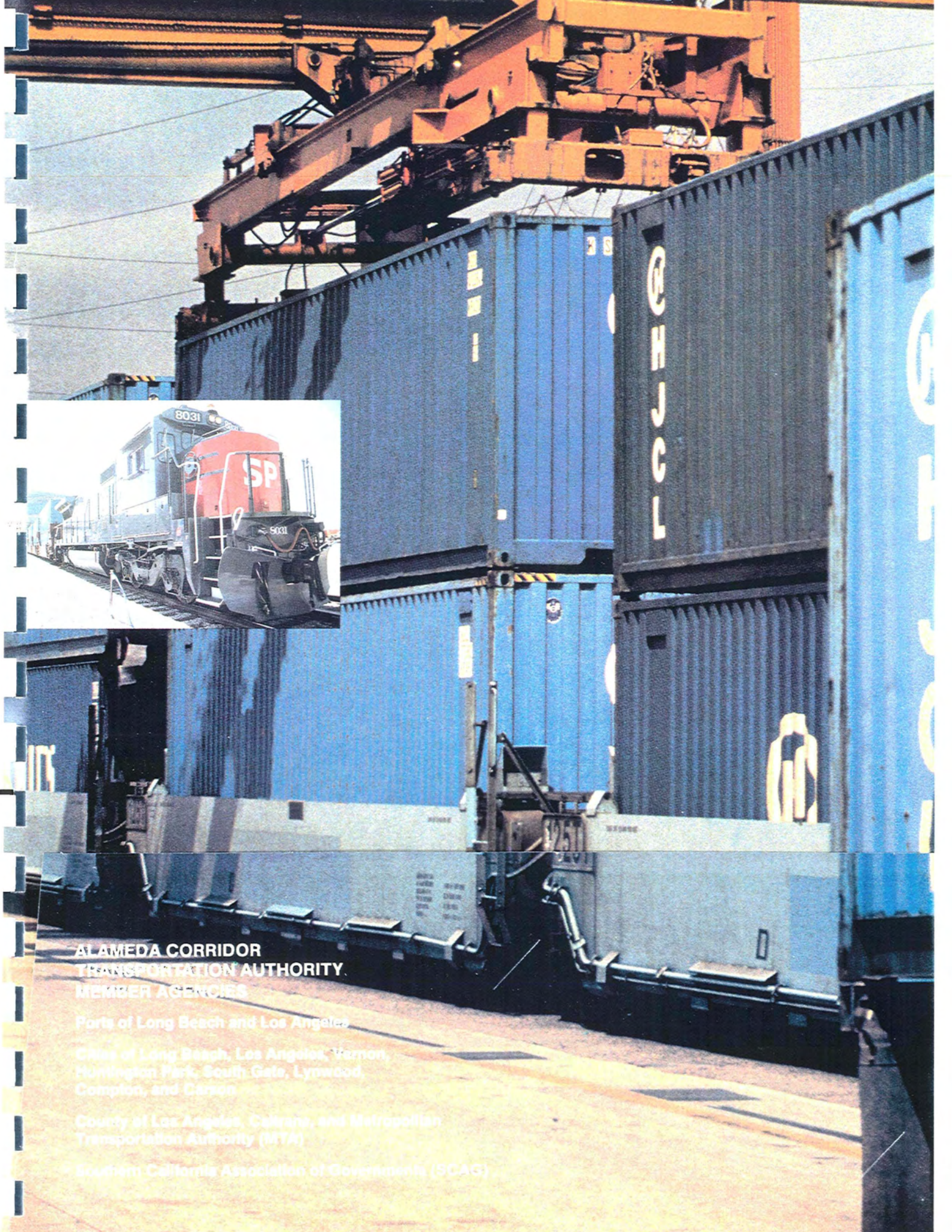
## COST AND SCHEDULE

The total project cost is estimated at \$1.8 billion. This cost includes budgets for design, right-of-way acquisition, utility relocations, and construction to develop the Alameda Corridor rail and highway improvements.

A partnership of federal, state, local, and private interests is required to move this project forward. A combination of government grants, port reserves, and/or revenue bonds will be used to address the funding requirements.

It is anticipated that the corridor will be completed and open for operation by the year 2000.





**ALAMEDA CORRIDOR  
TRANSPORTATION AUTHORITY  
MEMBER AGENCIES**

Ports of Long Beach and Los Angeles

City of Long Beach, Los Angeles, Vernon,  
Huntington Park, South Gate, Lynwood,  
Compton, and Carson

County of Los Angeles, Caltrans, and Metropolitan  
Transportation Authority (MTA)

Southern California Association of Governments (SCAG)

# Alameda Corridor Fact Sheet

The Alameda Corridor Project consolidates port-related truck and train traffic onto a 20-mile high-capacity transportation corridor linking the Ports of Long Beach and Los Angeles, the largest port complex in the United States, with the national railroad system and interstate highway system.

Truck and train volumes required to move cargo to and from the Ports are straining the capacity of the road and rail infrastructure currently providing access to the Ports. With international cargo flows projected to triple in the next 20-25 years, the Alameda Corridor Project will meet the short and long-term access needs of the Ports, while mitigating the adverse impacts of this growth, including highway traffic congestion, air pollution, vehicle delays at grade crossings, and noise in residential areas.

## Major Components

- Consolidation of four rail lines constituting 90 miles of rail with 200 at-grade roadway crossings into a single 20-mile high-capacity rail facility. This facility will be completely grade-separated, double-tracked, and equipped with centralized control.
- Construction of the rail facility below grade level north of Route 91, and at grade level south of Route 91, with highway bridges built over the facility.
- Construction of a railroad drill track (operating siding) to serve local industries adjacent to the Corridor.
- Widening and improvement of Alameda Street, the major truck route adjacent to the rail facility, from four to six lanes south of Route 91, and reconstruction with left-turn pockets and new signalization north of Route 91.

## Project Benefits

- Reduces Traffic Congestion and Improves Roadway Safety by permitting the development of near-dock and on-dock rail, reducing train-related traffic delays at grade crossings by 90 percent, and improving the capacity of Alameda Street to attract truck traffic from freeways and highways.
- Improves Railroad Operations by increasing train speeds from 10-20 miles per hour to 30-40 miles per hour, reducing train operating hours by 30 percent, and reducing the number of times train have to stop for other trains (also causing severe traffic blockages) by 75 percent.
- Improves Air Quality by reducing train and truck traffic emissions and emissions associated with traffic delays at grade crossings. The project also improves the feasibility of electrifying freight rail operations.
- Reduces Train-Related Noise and Vibrations in residential areas by 90 percent.

## Economic Impacts

- Expands International Trade-Related Employment by permitting the Ports expand their throughput capacity and capitalize on the projected increase in international trade, generating an *additional* 700,000 jobs in Southern California and over 2.2 million jobs nationwide by the year 2020.
- Enhances Redevelopment Opportunities in the area hardest-hit by last year's civil unrest by improving access and economic viability of locating and expanding business near the Corridor. Moreover, about 9,000 construction-related jobs will be created in the next 2-7 years by constructing the Corridor.

## Financial Plan

The Alameda Corridor will cost approximately \$1.8 billion (escalated dollars) to design and construct, including the cost of right-of-way acquisition. The following funding has already been identified or earmarked for the Project:

- 1991 ISTEA (earmarked in bill)	\$44.9 million
- U.S. Department of Commerce, Economic Development Administration	2.0 million
- Los Angeles County Metropolitan Transportation Authority (LACMTA)	8.0 million
- Prop. 116 Rail Bonds (California)	80.0 million
- Ports of Long Beach and Los Angeles	<u>400.0 million</u>
<b>Total Funding Commitments</b>	<b><u>\$534.9 million</u></b>

Approximately \$1.3 billion in additional funds will be required to complete the Project, a significant share of which is anticipated from the Federal Government. The Ports and ACTA have been unsuccessful since the inception of ISTEA to get the State and LACMTA to program discretionary ISTEA funds for this project.

To date, the Ports have expended \$25 million to advance this project: \$7 million for conceptual design and environmental clearance, and \$18 million for acquisition of right-of-way from the Union Pacific Railroad. They expect to expend approximately \$242 million in the near future for the balance of required rights-of-way from the Southern Pacific and Santa Fe railroads.

## Project Status/Schedule

- Alternatives Analysis and Conceptual Design were completed in Fall 1992.
- Environmental Impact Report and Preferred Alternative were adopted by the ACTA Board in January 1993. The Federal EIS process is expected to be complete in December 1994.
- Railroad Rights-of-Way required to implement the Corridor are being acquired by the Ports. About four miles were acquired from Union Pacific in December 1992, and negotiations are underway for about 7/10ths of a mile required from Santa Fe. A purchase agreement is being finalized with Southern Pacific for approximately 26 miles of right-of-way constituting the backbone of the Corridor.
- Initial Construction can begin in 1995.
- Completion of the Corridor is targeted for 2000.

(Updated January 1994)

# Alameda Corridor

