
Office of Inspector General

Audit Report

*Review of the
Alameda Corridor Project*

*Federal Highway Administration
Federal Railroad Administration*

Report Number: TR-2000-004
Date Issued: October 22, 1999



EXECUTIVE SUMMARY



Memorandum

**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

Office of Inspector General

Subject: ACTION: Report on Review of the Alameda Corridor Project
Report No. TR-2000-004

Date: October 22, 1999

From: Alexis M. Stefani *AM Stefani*
Assistant Inspector General for Auditing

Reply to: JA-1
Attn of:

To: Federal Highway Administrator
Federal Railroad Administrator

The attached report provides the results of our review of the Alameda Corridor Project. The comments and suggestions you provided in response to our draft report have been considered and incorporated in our final report, where appropriate.

We request that you provide written comments within 30 days. If you concur with our final recommendations, please indicate for each recommendation the specific actions taken or planned and the target dates for completion. If you do not concur, please provide your rationale. Furthermore, you may provide alternative courses of action that you believe would resolve the issues presented in this report.

If you have questions, or require additional information, please contact me at (202) 366-1992 or Patricia J. Thompson, Deputy Assistant Inspector General for Highways and Highway Safety, at (202) 366-0687.

Attachment

#

EXECUTIVE SUMMARY

OIG Mega Project Review of

Alameda Corridor Project

*Federal Highway Administration
Federal Railroad Administration*

OBJECTIVES

The following is a mega project review of the Alameda Corridor Project in southern California. The purpose of our mega project reviews is to track the progress of transportation projects of national significance, which will enable us to report on projects experiencing cost, schedule, or financing issues. The specific objectives of our review of the Alameda Corridor Project were to (1) determine current cost, funding and schedule status and the reasonableness of related data; and (2) identify whether the project was at risk of exceeding costs; not having adequate Federal, state, and local funding; or not meeting the scheduled completion date.

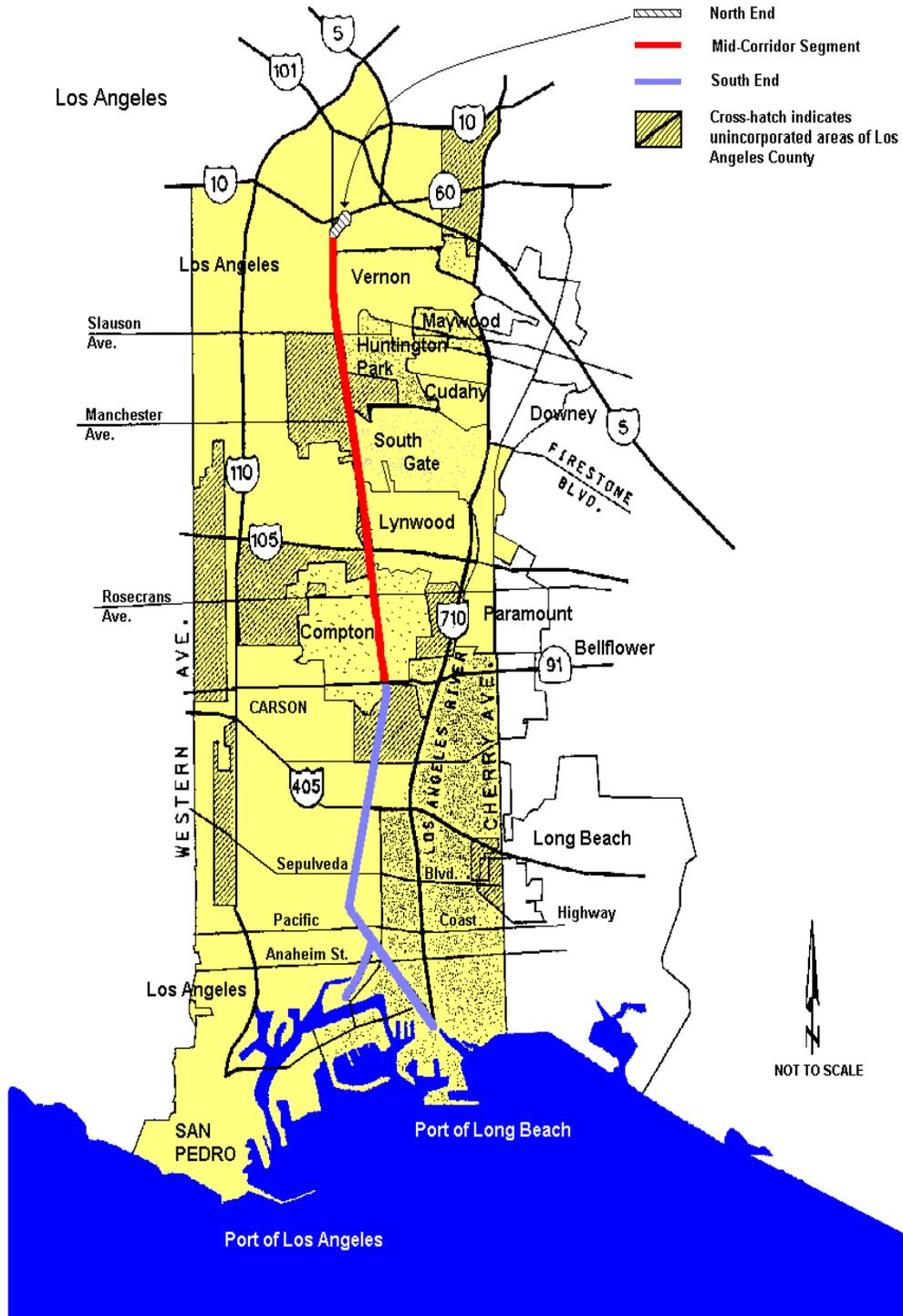
BACKGROUND

The Alameda Corridor Project (Project) is a \$2.4 billion project to build a 20-mile, high-capacity rail corridor that will consolidate rail traffic between the Ports of Los Angeles and Long Beach (Ports) and the rail yards near downtown Los Angeles (see map at Figure 1). These Ports, together, represent the third largest shipping container complex in the world. Twenty-five percent of all waterborne, international trade in the United States passes through these Ports. The Cities of Los Angeles and Long Beach created the Alameda Corridor Transportation Authority (ACTA) in August 1989 to fund, construct, and operate the Alameda Corridor. Both the Federal Highway Administration (FHWA) and the Federal Railroad Administration (FRA) are involved on the Project. FHWA has construction oversight responsibility, and FRA has responsibility for funds distribution.

The Project consists of three segments: the North End Segment is about 3 miles long, the South End Segment is about 7 miles long, and the Mid-Corridor Segment is 10 miles long. For construction purposes, ACTA divided the overall Project into 15 subprojects. The North End Segment has eight subprojects, the South End

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Figure 1
The Alameda Corridor



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Segment has six subprojects, and the Mid-Corridor Segment has one subproject. Together, these 15 subprojects are designed to improve connections to existing railroad main lines and create grade separations to eliminate rail-highway crossings. Construction has begun on all segments of the Project. ACTA estimates the Corridor will be open to rail traffic in April 2002 and construction of the overall Project will be completed in December 2002.

Primary sources of funding for the Project include a revenue bond offering, a Federal loan, significant contributions of Federal-aid Highway pass-through funds and state and local tax revenues from the Los Angeles County Metropolitan Transportation Authority (MTA), and contributions from the Ports.

When completed, the Corridor is expected to improve rail operations linking the Ports to destinations throughout the United States. The Corridor will provide the railroads with a maximum practical capacity to carry 12.7 million shipping containers per year. By comparison, the railroads carried about 3.5 million shipping containers over existing tracks in 1998. In addition, ACTA expects the Corridor to reduce local motor vehicle congestion by eliminating rail-highway crossings.

RESULTS

We concluded that ACTA's \$2.4 billion estimate of the total costs should be adequate to complete the Project. Further, its finance plan identifies sufficient funding to meet costs, but it does not identify known risks from two funding sources. First, a consent decree may require MTA to redirect funds to purchase additional buses. Second, ACTA has accepted an inherent risk that use fee revenues and port contributions will be insufficient in later years to cover bond and loan repayments. Finally, we concluded that the Project is on schedule and the estimated completion date in December 2002 is reasonable. Table 1 provides project statistics of the Project.

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Table 1 ALAMEDA CORRIDOR PROJECT STATISTICS	
Location	Los Angeles, CA
Corridor Length	20 Miles
Track Miles	90 Miles
Costs	\$ 2,431 Million
Costs Expended as of June 30, 1999	\$ 797 Million
Funding:	
Revenue Bonds	\$ 1,229 Million <u>a/</u>
Federal	428 Million <u>b/</u>
Los Angeles County Metropolitan Transportation Authority's Contribution	355 Million <u>c/</u>
Ports Contributions	394 Million
Railroads Contributions	18 Million
State	<u>7 Million</u>
Total	\$ 2,431 Million
Completion Date	December 2002
Current Daily Usage	9,600 shipping containers
Average Daily Capacity on Completion	34,700 shipping containers

a/ Includes interest earned on revenue bond proceeds.

b/ Includes interest earned on a DOT loan.

c/ Includes \$71 million in Federal-aid funding and \$284 million in state funding.

Cost Estimates are Reasonable. We concluded that the estimated cost of \$2.4 billion will be adequate to complete the Project, based on four factors. First, ACTA included \$200 million in the budget, or 8 percent of Project costs, for potential cost growth. Second, contracts awarded through June 1999 were \$82 million less than estimated, which indicates that ACTA's cost estimates for these contracts were conservative. Third, change order activity on ongoing and completed contracts have increased costs by only 3.7 percent to date. Fourth, the Mid-Corridor subproject, a 10-mile trench that represents more than 50 percent of all construction costs on the Project, was awarded as a design-build contract. Since design-build contracts generally involve fewer change orders than projects with one design consultant and numerous contractors for the construction, this large contract is likely to remain close to the awarded cost.¹

Finance Plan Identifies Sufficient Funding, but not Known Risks. We concluded that ACTA has identified sufficient funding to finance the estimated Project costs of \$2.4 billion, including debt repayment requirements. ACTA uses pro-forma cash flow statements prepared by Goldman, Sachs & Co. as its finance

¹ As noted in the Transportation Equity Act for the 21st Century (TEA-21), there is an expectation that design-build contracting establishes greater accountability and firmer knowledge of costs, as well as decreases the time to complete the project. This translates to an expectation that cost growth using design-build will be significantly less than using traditional contracting methods.

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plan for the Project. These cash flow statements provide a comprehensive analysis of sources and uses of funds to construct the Project and to make debt service payments. Goldman, Sachs & Co. issued its last set of statements in February 1999 when ACTA sold \$1.2 billion in revenue bonds. ACTA officials stated that there are no plans to further update these cash flow statements (finance plan).

ACTA plans to make debt service payments by collecting fees charged for shipments along the new corridor. These “use fees” will be based on the annual number of shipping containers and railcars that use the Corridor. If these use fees are insufficient to meet the annual debt service requirement (estimates range from \$60 million to \$198 million), the Ports have agreed to pay up to 40 percent of the annual debt service requirement to assist in meeting any shortfall.

ACTA’s finance plan does not indicate how ACTA will address its two known funding risks. First, ACTA recognizes that an October 1996 consent decree requiring MTA to purchase buses could affect about \$76 million of the \$355 million MTA has committed to the Project. However, ACTA’s position is that MTA has a legally binding commitment to provide funding for the Project, because MTA’s funding commitment to ACTA precedes the bus consent decree. In our opinion, these funds are at risk. MTA may need to redirect these funds and/or funds from other projects to meet the terms of the bus consent decree. A recent September 24, 1999 court order directed MTA to purchase at least 248 additional buses within 30 days. Second, ACTA has accepted an inherent risk that use fee revenues and port contributions may be insufficient in later years to cover debt repayment. We note that ACTA, as well as several bond rating agencies, concluded that ACTA is in a favorable position to address this risk in its future revenue streams.

FHWA’s oversight of the Project includes preparing an “Annual Project Status and Credit Assessment Report” that is updated on a quarterly basis. The annual report includes an overview of the financial status of the Project. However, the annual report, dated December 31, 1998, did not include ACTA’s cash flow analysis that was prepared by Goldman, Sachs & Co., and subsequent quarterly reports also have not incorporated this type of information.

The Project is on Schedule. Although the Project is in the early stages of its construction schedule, ACTA expects to complete the Project in December 2002 as planned. ACTA has completed 2 of the 15 subprojects (the Los Angeles River Bridge subproject in the North End Segment and the Union Pacific Filler Bridge subproject in the South End Segment). It has started construction on 6 of the remaining 13 subprojects--3 in the North End Segment, 2 in the South End Segment, and the trench in the Mid-Corridor Segment.

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ACTA has planned for conditions such as underground utilities, groundwater, hazardous wastes, and archeological discoveries that could delay the Project. For example, on the Mid-Corridor Segment, the contractor is proceeding with a partial-depth exploratory trench well in advance of the full-depth excavation, to locate any previously unidentified utilities, arrange for their relocation, and avoid interruptions during the construction of the trench. The OIG engineer concluded that this approach is reasonable.

OTHER MATTERS

During our audit of the Project, ACTA's internal controls failed to prevent two erroneous fund transfers (non-Federal funds) to a personal account, totaling over \$3 million. Although ACTA identified its error within a few hours and transferred the funds back to its account, the transactions showed that existing internal controls failed to prevent the errors. ACTA has taken action to address these erroneous fund transfers (e.g., using pre-printed bank transfer forms, which contain the appropriate bank and project information). It has also contracted with a consulting firm to make a risk assessment of the agency's internal controls. The consultant presented its findings and recommendations to ACTA's governing board on October 14, 1999. We will review the consultant's report and ACTA's response to determine whether further actions are warranted.

RECOMMENDATIONS

We recommend:

- (1) FHWA require ACTA to update and submit to FHWA its finance plan (i.e., cash flow statements) annually.
- (2) If ACTA does not receive the full funding it expects, such as MTA's commitment to provide funding to the Project or the Ports' contribution is insufficient to meet debt service payment, FHWA require ACTA to specifically reflect in its finance plan how it plans to address these risks.
- (3) FHWA incorporate ACTA's cash flow analysis information in its "Project Status and Credit Assessment Report."

MANAGEMENT POSITION AND OFFICE OF INSPECTOR GENERAL COMMENTS

We provided our draft report to FHWA, FRA and ACTA. FHWA and ACTA generally concurred with our report and recommendations and made suggestions.

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We have incorporated their comments, where appropriate. For example, FHWA suggested we acknowledge its role in working with ACTA to develop mitigation procedures if archeological discoveries such as Native American remains are uncovered during construction. In addition, FHWA suggested we note that the two erroneous fund transfers were revenue bond proceeds and not Federal funds. As suggested by ACTA officials, we clarified their position regarding MTA's funding commitment to the Project. In addition, they suggested we change our report to reflect that the Project is only one of several projects that could be at risk of having its funds redirected to meet the terms of the bus consent decree. FRA acknowledged receipt of our draft report, but did not believe that it was appropriate to provide comments because of its limited role in the Project.

ALAMEDA CORRIDOR PROJECT

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TRANSMITTAL MEMORANDUM

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Section 1

INTRODUCTION

BACKGROUND

The Cities of Los Angeles and Long Beach created the Alameda Corridor Transportation Authority (ACTA) through their respective harbor commissions in August 1989 to fund, construct, and operate the Alameda Corridor. Both the Federal Highway Administration (FHWA) and the Federal Railroad Administration (FRA) are involved on the Alameda Corridor Project (Project). FHWA has construction oversight responsibility, and FRA has responsibility for funds distribution. The Project is a \$2.4 billion, 20-mile, high-capacity rail corridor project that will consolidate rail traffic between the Ports of Los Angeles and Long Beach (Ports) and the rail yards near downtown Los Angeles. These Ports together represent the third largest shipping container complex in the world. Twenty-five percent of all waterborne, international trade in the United States passes through these Ports.

The Project consists of three segments: the North End Segment, the South End Segment, and Mid-Corridor Segment. ACTA has divided the overall Project into 15 subprojects among these segments. The North End Segment has eight subprojects, and the South End Segment has six subprojects. These 14 subprojects will improve connections to existing railroad main lines, create grade separations, and improve local drainage systems. The Mid-Corridor Segment has one subproject, a 10-mile-long trench, built under a design-build contract.² ACTA estimates the Corridor will be open to rail traffic in April 2002 and construction of the overall Project will be completed in December 2002.

When completed, the Project is expected to provide several benefits. It is expected to improve the efficiency of Union Pacific and Burlington Northern Santa Fe (railroads) rail operations linking the Ports to destinations throughout the United States. The Corridor is expected to have a maximum practical capacity of 12.7 million shipping containers per year. By comparison, the railroads carried about 3.5 million shipping containers over existing tracks in 1998. Finally, the Project is expected to reduce local area vehicle congestion currently crossing railroad tracks in the Corridor.

² The design-build contracting approach combines responsibility for the design and construction phases of a project under one contractor. By contrast, under the traditional "design-bid-build" contracting approach, a project's design is contracted and performed separately from, and prior to bidding the construction contract.

OBJECTIVES, SCOPE, AND METHODOLOGY

This review of the Project is one of a series of “mega” infrastructure project reviews by the Department of Transportation, Office of Inspector General (OIG). The OIG defines mega projects as projects with estimated costs of \$1 billion or more, and/or having congressional interest.

The specific objectives of our review of the Project were to (1) determine current cost, funding and schedule status and the reasonableness of related data; and (2) identify whether the project was at risk of exceeding costs; not having adequate Federal, state, and local funding; or not meeting the scheduled completion date.

We conducted our review from January through September 1999. Our review covered funding commitments as of June 1999 and all project costs incurred through June 1999, unless otherwise indicated.

Goldman, Sachs & Co., one of ACTA’s bond underwriters, prepared pro-forma cash flow statements showing that use fees, combined with port contributions known as “shortfall advances,” are sufficient to meet debt service requirements. We analyzed the February 1999 cash flow statement to identify revenue streams to meet annual debt service requirements. Our review evaluated the risks associated with the revenue streams from the Ports and the railroads. Our analysis of cash flows, based on February 1999 data (the latest analysis performed), assumed that ACTA would complete the Project on time.

The OIG Engineer reviewed ACTA’s construction schedule and ACTA’s analysis of the conditions that could delay this schedule, including hazardous materials or utilities.

The review was conducted at ACTA offices in Carson, California, and at FWHA offices in Sacramento, California. We conducted this review in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States.

PRIOR REPORTS

OIG issued a previous report, Review of Alameda Corridor Project (Report Number TR-1999-010, dated October 16, 1998). At the request of Congresswoman Juanita Millender-McDonald, the OIG reviewed concerns related to a program to train and hire local residents on the Project. We reported that ACTA’s claim that the Project would create 10,520 jobs could be misinterpreted. We also reported that the Project would not employ 10,520 people at any one time; rather, there would be an average of 1,300 to 1,500 jobs per year over the Project’s 7-year life, and about 400 jobs per year would be filled from local communities. In addition, we reported that ACTA needed controls to ensure

Corridor residents have access to its training program, and that all trainees are Corridor residents. In response to our report, ACTA has hired a consultant to monitor the job training program that is operated by one of its contractors. The consultant's monthly activities include monitoring contractor utilization of minorities and women on the Project, and compiling statistics on the demographics of workers for all construction contracts.

Section 2

COST, FUNDING, AND SCHEDULE STATUS

Table 2 below provides a summary of the Project's costs, funding, and schedule.

Table 2 SUMMARY OF ALAMEDA CORRIDOR COSTS, FUNDING, AND SCHEDULE					
Total Costs at Completion by Funding Source (in millions)					Completion Date
<u>Revenue Bonds</u>	<u>Federal</u>	<u>State/Local</u>	<u>Other</u>	<u>Total</u>	
\$1,229 <u>a/</u>	\$499 <u>b/</u>	\$291	\$412	\$2,431	December 2002 <u>c/</u>

a/ Includes \$69 million in interest earned on revenue bond proceeds.

b/ Includes \$19 million in interest on Federal loan proceeds. DOT funds are \$400 million in a direct Federal rail loan, \$71 million in Federal-aid Highway funds, and \$7 million in Transportation Equity Act for the 21st Century funds. The Department of Commerce also provided \$2 million to ACTA.

c/ ACTA estimates the Corridor will be usable and can begin collecting railroad use fees as of April 2002.

PROJECT COSTS

ACTA's governing board approved a revised \$2.4 billion budget in June 1999. Table 3 provides a breakdown by major cost elements. It also shows actual costs as of June 30, 1999, and the costs remaining.

Table 3			
SUMMARY OF ALAMEDA CORRIDOR PROJECT COSTS			
(in millions)			
Cost Element	Total Expected Costs	Expenditures	
		As of June 30, 1999	Remaining Costs
Program Management	\$ 142	\$ 77	\$ 65
Design	27	23	4
Construction <u>a/</u>	1,274	83	1,191
Right of Way	154	38	116
Professional Services	24	12	12
General & Administrative, Bond Issuance Costs, & Settlements with Cities	100	83	17
Debt Service Payment	237	15	222
Ports Contributions	473	466	7
Total	\$2,431	\$797	\$1,634

a/ Construction cost element includes complete cost of design-build contract for the Mid-Corridor Segment and Owner-Controlled Insurance Program for the entire project, which provides insurance coverage for the Project.

As of June 30, 1999, ACTA expended \$797 million on the Project. Our review concluded that these cost estimates and actual costs are reasonable. The significant cost categories are discussed below.

Program Management Costs

ACTA budgeted \$142 million for program management expenditures. About \$13.5 million was for early preliminary engineering functions and \$128.5 million for program management and administration, engineering support costs, and other support costs.

Design Costs

Design costs of \$27 million include expenditures for design and engineering services not included under other cost categories, such as program management. The design costs represent the amounts ACTA awarded to eight firms to design subprojects in the North End and South End segments.

Construction Costs

Construction costs of \$1,274 million represent 53 percent of the \$2.4 billion budget, which include expenditures for construction management services, actual construction costs, and project contingencies. The construction costs for subprojects in the North End and South End segments total \$337 million. ACTA awarded a contract to Tutor-Saliba for the Project's Mid-Corridor Segment, totaling \$712.2 million (56 percent) of construction costs. Of this amount, Tutor-

Saliba is receiving \$589 million to design and construct the trench for the Mid-Corridor Segment. In addition, it is receiving another \$123 million for non-trench work (i.e., to construct a bypass track and install signalization for the entire Project).

To date, eight contracts have been awarded that show savings over engineering cost estimates. Engineering cost estimates for these eight contracts totaled \$907 million. In contrast, award amounts for these contracts totaled \$824 million, \$82.5 million (9 percent) less than estimated.

As of June 30, 1999, there were 30 change orders on the Project that had increased costs by \$963,000. Two change orders totaling \$216,000 were for non-trench work on the Mid-Corridor Segment, and 28 change orders totaling \$747,000 for the North and South End segments. To project potential future increases for work performed outside of the trench, we compared the value (\$26 million) of the approved change orders to payments made for completed construction work on these contracts through the same period. This provided an approximation of the rate at which cost increases are being incurred. We calculated that the construction contract changes increased by about 3.7 percent during the performance of construction contract work. If the remaining projected construction expenditures for these eight contracts (\$212.1 million) also grow by 3.7 percent during performance of the work, it could add another \$7.9 million to the cost of the Project. In our opinion, this growth rate for contract change orders is reasonable. Further, ACTA officials told us that they would use contingency funds to handle change order cost increases.

Construction of the Mid-Corridor Segment's 10-mile trench represents more than 50 percent of the estimated costs for the entire Project, and its design requirements are very different from design efforts for the two initial bridge subprojects. Moreover, the contractor is designing and constructing the trench under a design-build contract that acts to curtail change order activity.³

Owner-Controlled Insurance Program. ACTA accepted a risk management consultant's recommendation to use an owner-controlled insurance program (OCIP). The construction cost category in the Project budget includes \$25.2 million for an owner-controlled insurance pool.

ACTA's OCIP provides for the following insurance coverage: workers' compensation, general liability, excess liability, railroad protective liability,

³ As noted in TEA-21, there is an expectation that design-build contracting establishes greater accountability and firmer knowledge of costs, as well as decreases the time to complete the project. This translates to an expectation that cost growth using a design-build method will be significantly less than using traditional contracting methods.

environmental impairment, and owner’s protective professional liability insurance. ACTA’s OCIP has two workers’ compensation policies. ACTA’s insurance broker negotiated a low price for the primary workers’ compensation policy by agreeing to include a high deductible provision. ACTA opted to purchase a second policy, which pays the first policy’s deductible. ACTA’s two workers’ compensation policies provide the required coverage with no deductible requirement.

ACTA relies on a rigorous safety program to promote onsite safety consciousness, and this approach may serve to control costs in workers’ compensation claims. Insurance claims activity to date has been low, but the project is in the early stages of construction. As of July 1999, ACTA had received only three workers’ compensation claims, and paid \$6,000 to close them. Also, ACTA had received one liability claim under its OCIP and closed it for \$500.⁴

Project Contingencies. ACTA has set aside about \$200 million (8 percent) of the Project’s budget for potential cost growth. The contingency budget is an engineering estimate to cover potential growth in construction costs. If cost growth materializes, ACTA can transfer contingency funds to specific cost categories to cover the increased expenditures. Likewise, ACTA can transfer unexpended budget amounts from other cost categories to cover cost increases.

Right-of-Way Costs

ACTA’s right-of-way cost category covers several cost elements, including costs for acquiring properties, relocating utilities, and remediating hazardous material (see Table 4).

Table 4 BREAKDOWN OF RIGHT-OF-WAY COSTS (in millions)			
Right-of-Way (ROW) Cost Category	Right-of-Way Budget	Expenditures As of June 30, 1999	Remaining ROW Budget
Administration	\$ 88	\$ 28	\$ 60
Utility Relocation	48	9	39
Hazardous Materials Remediation	18	1	17
Total	\$154	\$ 38	\$116

Administration Costs. ACTA has established a Right-of-Way Administration cost element with an \$88 million budget. This cost element includes a \$74 million

⁴ Prior to adopting its OCIP, ACTA received one other liability claim for \$24,565. ACTA has paid \$18,763 to date on this claim, and it remains open.

budget to purchase property. The cost element includes another \$14 million for right-of-way services, engineering, environmental consultants, demolition, and other costs. This cost element does not include the cost of railroad property within the Corridor that the Ports purchased for the Project.

As of June 1999, ACTA had acquired 113 right-of-way parcels. ACTA has identified another 197 parcels along the Corridor that it may have to acquire. However, changes in requirements may occur as ACTA finalizes the design for each segment.

Utility Relocation Costs. Major construction projects commonly include a requirement to identify and relocate utilities, such as electrical, telephone, gas, water, and sewer lines. ACTA has budgeted \$48 million for utility relocation costs and had expended \$9 million as of June 1999. Utility relocations pose risks for schedule delay and cost growth. Because utility companies may not be able to identify all service lines along the Corridor, the number of utility relocations will change as construction continues.

ACTA has taken steps to mitigate the risk that unexpected utility relocations will accelerate costs and/or create delays in the project's construction schedule. It has signed Memorandums of Understanding with utility owners throughout the Corridor, which identify the responsibilities that ACTA and each utility owner will assume for relocation work.

Hazardous Materials Remediation Costs. ACTA has contracted environmental consultants to identify hazardous waste contamination in the Project. ACTA has budgeted \$32.5 million to clean up properties--\$18 million for the North End and South End segments and \$14.5 million for the Mid-Corridor Segment.

Professional Services

ACTA budgeted \$24 million for professional services. This category provides funds for contracted legal, audit, financial, risk management, railroad management consulting, and other professional services, such as identifying archaeological discoveries.

Archeological Discoveries. Using historical records, studies, and preliminary investigations, ACTA budgeted \$2.9 million to cover expenditures for archeological discoveries. Identifying archeological discoveries (e.g., Native American remains) could delay the Project. For example, if remains of Native Americans are uncovered, construction in the immediate area must stop until the

site is surveyed and the remains are removed. ACTA has taken several steps to minimize potential schedule delays and is working with FHWA to develop mitigation procedures. ACTA hired an archeologist and a consultant to develop a pre-excavation plan. ACTA also invited Indian tribal representatives to assist in identifying potential burial sites. Contractors are also prepared to work on alternate activities within the subproject site during the archeological excavations; thereby, reducing potential schedule disruptions.

Debt Service Payment

ACTA budgeted \$237 million for debt service costs during construction. ACTA estimates it will expend \$231 million of this amount in interest during construction before it begins collecting use fees. Another \$6 million is set aside for other financing costs. As of June 30, 1999, ACTA had paid \$15 million in interest.

ACTA's revenue bonds accrue interest during both the construction and debt repayment phases. Because ACTA will not have use fee revenues during the construction phase, ACTA established special capitalized interest⁵ accounts. ACTA will draw funds from these capitalized interest accounts to meet bond debt payment requirements during construction (interest payments during this time range from \$45 million to \$60 million per year).

Port Contributions

The Ports are contributing \$473 million for the Project. The Ports expended \$394 million for railroad property purchases and land acquisition costs. In addition, the Ports expended \$79 million for preliminary engineering costs for the Project, and four associated projects, such as the Alameda Street Grade Separation and traffic signalization work, that ACTA agreed to include in the Project.

PROJECT FUNDING

ACTA has identified sufficient funding to finance project costs and meet debt repayment requirements. It obtained \$1.2 billion through a revenue bond offering, and DOT has provided a \$400 million Federal loan. ACTA has received \$394 million in contributions from the Ports, \$355 million in Federal, state and local funds provided through the Los Angeles County Metropolitan Transportation

⁵ Capitalized interest is a portion of bond proceeds set aside to make bond payments through FY 2002 and part of FY 2003, after which use fee collections and Port shortfall advances are projected to cover debt service requirements.

Authority (MTA) and \$18 million in contributions from the railroads that will use the Corridor. Once ACTA completes the Corridor, it will apply use fee revenues to annual debt service commitments.

MTA's funding commitment to the Project, \$355 million (15 percent), includes about \$76 million that may be at risk. Since MTA also must provide funding to comply with a consent decree requiring improvements in bus services, these funds presently committed to other projects, including the Alameda Corridor, may have to be redirected to purchase additional buses. ACTA's position is that MTA has a legally binding commitment to provide these funds, since MTA's funding commitment to ACTA precedes the MTA consent decree. However, the OIG believes that these funds are at risk. MTA may need to use these funds and other project funds to meet the terms of the bus consent decree, as a result of the September 24, 1999, court order directing MTA to purchase at least 248 additional buses within 30 days.

ACTA has also accepted inherent risks that use fee revenues and Port contributions may not be sufficient in later years to repay revenue bond and Federal loan debt. Despite these risks, ACTA, as well as several bond rating agencies, concluded that ACTA is in a favorable position to address risks in its future revenue streams.

Funding Through Completion of Project Construction

Table 5 provides a breakdown of ACTA's funding through completion of project construction in 2002.

Table 5 ALAMEDA CORRIDOR REVENUE SOURCES 1996-2002 (in millions)		
REVENUE BONDS:		
Revenue Bonds	\$1,160	
Interest on Bonds	69	
Subtotal		\$1,229
FEDERAL:		
Department of Transportation (DOT) Loan	400	
Interest on DOT Loan	19	
Transportation Equity Act for 21 st Century (FY1998 – FY 2003)	7	
Department of Commerce	2	
Subtotal		428
MTA CONTRIBUTION:		
Federal	71	
State/Local	284	
Subtotal		355
STATE		
		7
PORTS and RAILROAD:		
Ports	394	
Railroads	18	
Subtotal		412
TOTAL		
		\$2,431

The significant revenue sources for the Project are bonds, Federal funding, MTA contributions, and port and railroad funding.

Revenue Bonds Provide \$1.2 Billion. ACTA issued revenue bonds which, when combined with interest earnings, provide about \$1.2 billion (51 percent) in project funding. Revenue bonds are municipal bonds that are secured and repaid only from a specified stream of non-tax revenues. ACTA will rely mainly on use fees to make debt service payments. Goldman, Sachs & Co. and PaineWebber Incorporated, the underwriters for the bond sale, offered bonds with a face value totaling about \$1.17 billion. Actual proceeds totaled \$1.16 billion, after considering bond discounts and other costs. In addition, ACTA expects to earn about \$69 million in interest on the bond receipts.

Federal Funding Provides \$428 Million. ACTA is receiving \$428 million directly from Federal sources. The Federal Omnibus Consolidated Appropriations Act for FY 1997 specifically authorized a \$400 million direct Federal loan for the Project under the Railroad Revitalization and Regulatory Reform Act of 1976. Since ACTA receives these loan proceeds before it makes expenditures, it expects to earn about \$19 million in interest on these funds before it disburses them for

project payments. ACTA has included these interest earnings in its budget for the Project. ACTA is also receiving \$7 million in Transportation Equity Act for the 21st Century (TEA-21) funding and \$2 million for local business improvements from the Department of Commerce's Economic Development Administration.

MTA Provides \$355 Million. MTA committed \$355 million (15 percent) for the Project. MTA is providing \$71 million of Federal-aid Highway pass-through funds and \$284 million of state and local funds. The state funding includes \$199 million in state gas tax revenues and \$85 million in local revenues generated from a Los Angeles County .5 percent sales tax.

ACTA may not receive the full \$85 million of local funding based on sales tax revenues that MTA has indicated it would provide. ACTA has received about \$9 million of this amount to date. However MTA may have to redirect the remaining \$76 million to other MTA obligations. Specifically, MTA must dedicate funding for bus services to comply with a consent decree imposed by the U.S. District Court for the Central District of California. The October 1996 consent decree, which resolved litigation filed by multiple plaintiffs in September 1994 and remains in effect for 10 years, requires MTA to give priority to bus service over other MTA transit projects and programs. Specifically, MTA is required to reallocate sufficient funds from other MTA programs if it fails to meet target bus load factors.⁶

MTA's failure to achieve its target bus load factors for December 1997 and January 1998 may add pressure on MTA to redirect funding from other projects, including the Project, to buy buses. A court-appointed Special Master has ordered MTA to purchase 481 more buses, costing about \$188 million, in addition to the 2,095 new buses that it planned to obtain through an accelerated bus procurement plan. This order will require MTA to expend more funds for new buses than planned.

ACTA considers all MTA funding for the Project as firm. The ACTA General Counsel stated that the MTA funding commitment to ACTA is a legally binding commitment, preceding the MTA consent decree. He stated that ACTA has consistently maintained the absolute and unconditioned basis of the MTA's funding commitment in all its communications with the MTA, and the MTA has never communicated otherwise. He also indicated that any action to redirect or limit the MTA funding commitment to ACTA would be vigorously contested.

⁶ Target load factors are a measurement of MTA's performance in meeting the objective of responding to consumer demand for bus services by reducing the levels of crowding. MTA is to establish a 5-year goal to reduce the maximum load factor ceiling (i.e., the average number of people standing on a regular 43-seat bus) for all bus routes from 1.45 (19 people standing) to 1.2 (9 people standing).

Notwithstanding ACTA's position, we noted that the U.S. District Court for the Central District of California made a ruling on September 24, 1999, that may affect the funding that MTA has committed to ACTA. Of the 481 additional buses that the Special Master ordered MTA to purchase, MTA must purchase 248 buses within 30 days. The Court further ordered the Special Master to determine whether an additional 49 buses should be purchased as spares. MTA has indicated that it would purchase 297 buses (248 plus 49 spares). Until final funding decisions for these buses are made, we believe funding for the Project remains at risk.

Ports and Railroad Funding Provides \$412 Million. Combined, the Ports and the railroads have provided \$412 million for the Project. The Ports provided \$394 million. The railroads that will be using the Corridor have contributed \$18 million in project funding.

ACTA began acquiring the majority of property in 1994 and 1995 when the Ports advanced \$394 million to acquire existing rail rights-of-way from the railroads. As established in the Use and Operating Agreement, ACTA will reimburse the Ports for only \$200 million of these acquisition costs after it meets annual bond and Federal loan commitments. The Ports contributed this amount as a non-interest-bearing loan to ACTA.

Project Revenue for Debt Service Costs

After it completes the Project, ACTA will use its revenue stream to meet annual debt service requirements. ACTA will rely on use fees that the railroads will pay as they use the Corridor. If actual use fees received are not enough to meet the annual debt service requirement, the Ports have agreed to pay up to 40 percent of the annual debt service requirement to meet a shortfall. However, ACTA's funding plan does not specify how it will obtain other funding if ACTA requires a larger contribution than the Ports can provide, or if the Ports cannot meet their commitment to make a contribution of up to 40 percent of the annual debt payment required.

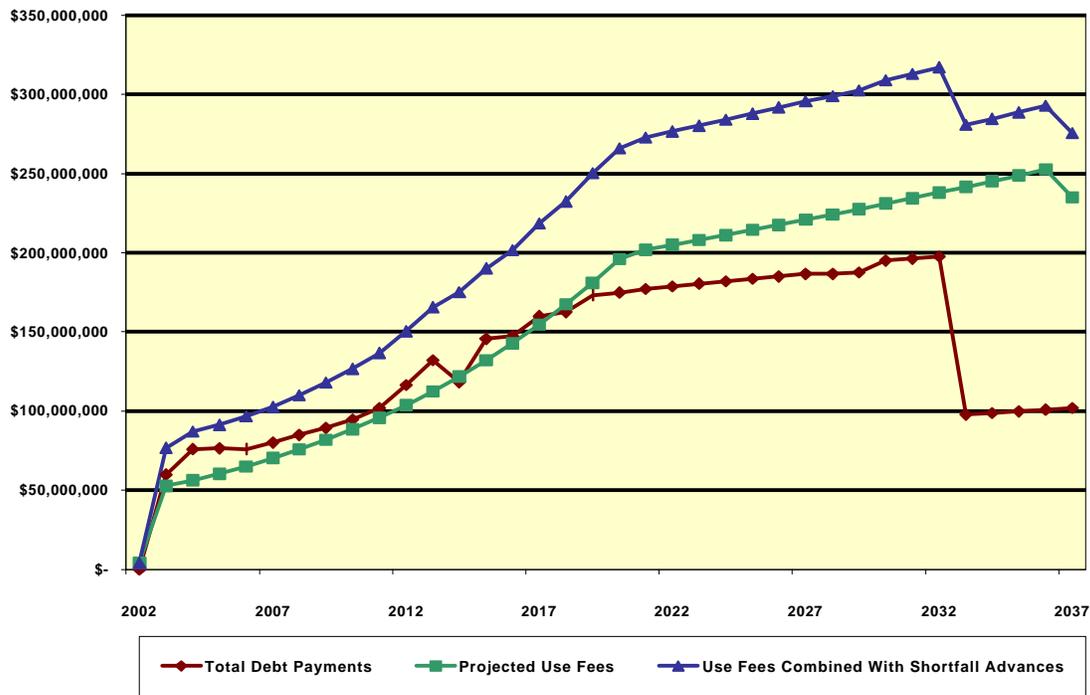
The Federal loan agreement allows ACTA to defer loan payments during construction. During construction, interest accrues on the loan at a rate based on the rate for 30-year U.S. Treasury instruments. ACTA will make annual Federal loan repayments for 30 years after it completes the Corridor.

Cash Flow Analysis. Goldman, Sachs & Co., one of ACTA's bond underwriters, prepared pro-forma cash flow statements in February 1999 showing that use fees, combined with port contributions known as "shortfall advances," are sufficient to

meet debt service requirements. These repayments are currently estimated between \$60 million to \$198 million per year.

We reviewed the cash flow analysis and concur that sufficient funds should be available to cover debt payments. Our review evaluated the risks associated with the revenue streams from the Ports and the railroads. Our analysis of cash flows, based on February 1999 data, assumed that ACTA would complete the Project on time. Figure 2 shows the projection of use fees and annual debt service payments.

**Figure 2
Debt Payments
Versus Use Fees**



ACTA’s cash flow model indicates that use fees and Port shortfall payments will be sufficient to meet annual debt service costs. ACTA’s cash flow model indicates that, until FY 2018, use fees alone will not cover all debt service costs. Port shortfall contributions, however, will cover the amount the use fees cannot provide. From FY 2018 through FY 2037, projected use fees will be sufficient to pay for debt service costs without turning to the Ports for annual contributions.

Finance Plan. Finance plans provide a reasonable assurance that sufficient financial resources are available to implement and/or complete projects as planned. In addition, finance plans also address the potential for unanticipated changes in expected funds and the impact on the project. For projects started after August 1998, TEA-21 required that an annual finance plan be submitted to the Secretary of Transportation for those projects with an estimated total cost of \$1 billion or more. Although this provision did not apply to ACTA because its project began before August 1998, ACTA uses pro-forma cash flow statements prepared by Goldman, Sachs & Co. as its finance plan for the Project. These cash flow statements provide a comprehensive analysis of sources and uses of funds to construct the Project and to make debt service payments through FY 2037.

ACTA's finance plan does not indicate how ACTA will address its two known funding risks. For example, if ACTA does not receive the full funding it expects, such as MTA's commitment to provide funding to the Project or the Ports' contribution is insufficient to meet debt service payment, ACTA's finance plan does not specifically reflect how it plans to address these risks. Goldman, Sachs & Co. issued its last set of statements in February 1999 when ACTA released its revenue bond issue. ACTA officials stated that there are no plans to further update its finance plan unless needed.

FHWA's oversight of the Project includes preparing an "Annual Project Status and Credit Assessment Report" that is updated on a quarterly basis. The annual report includes an overview of the financial status of the Project. However, the annual report, dated December 31, 1998, did not include ACTA's cash flow analysis that was prepared by Goldman, Sachs & Co., and subsequent quarterly reports also have not incorporated this type of information.

SCHEDULE STATUS

For the overall project as of May 1999, ACTA had completed about 36 percent of design work and 4 percent of construction work. Individual subprojects of the Project were in various design and construction stages. As of September 1999, ACTA had completed two subprojects: the Los Angeles (LA) River Bridge in the North End and the Union Pacific (UP) Filler Bridge in the South End. It had started construction on 6 of the remaining 13 subprojects—3 in the North End Segment, 2 in the South End Segment, and the trench in the Mid-Corridor Segment.

ACTA does not expect right-of-way acquisitions or unknown subsurface conditions will delay the Project's construction schedule. Right-of-way activities

are proceeding according to schedule for all segments. ACTA has planned for conditions such as underground utilities, groundwater, hazardous wastes, and archeological discoveries that could delay the Project. For example, on the Mid-Corridor trench subproject, the contractor is excavating a partial-depth exploratory trench, well in advance of the full-depth trench excavation, to locate any previously unidentified utilities, arrange for relocation, and avoid interruptions during the full-depth trench excavation. The OIG Engineer concluded that this approach is reasonable and that construction delays should be minimized.

North End

The North End Segment consists of eight construction subprojects. As of May 1999, ACTA had completed 94 percent of design work and 9 percent of construction work. Table 6 shows the construction schedule for each North End subproject, and indicates that ACTA will complete all subprojects by October 2001.

Table 6 CONSTRUCTION SCHEDULE NORTH END SEGMENT				
Subproject Name	Start Date		Finish Date	
LA River Bridge	April	1997	October	1998
LA County Box Culvert	April	1999	October	1999
Redondo Junction	April	1999	April	2001
Washington Blvd. Grade Separation <u>a/</u>	June	1999	September	2001
Santa Fe Grade Separation <u>a/</u>	June	1999	September	2001
Downey Road Bridge	March	2000	May	2001
Union Pacific RR Connector	August	2000	October	2001
Burlington Northern Santa Fe Connector	December	2000	May	2001

a/ These two subprojects are being constructed under the same contract.

South End

The South End Segment consists of six subprojects. As of May 1999, ACTA had completed 75 percent of design work and 2 percent of construction work. Table 7 shows the construction schedule for each South End subproject, and indicates that ACTA will complete all subprojects by April 2002.

**Table 7
CONSTRUCTION SCHEDULE
SOUTH END SEGMENT**

Subproject Name	Start Date		Finish Date	
Union Pacific Filler Bridge	September	1998	May	1999
Storage Track	March	1999	October	2001
Compton Creek Bridge	April	1999	September	2000
Dominguez Channel Bridge/Civil Work	July	1999	November	2000
Henry Ford Grade Separation	September	1999	February	2002
Long Beach Bridge/Civil and Track Work	November	2000	April	2002

One schedule change has occurred for subprojects in the South End Segment. First, the bid advertisement for the Dominguez Channel Bridge/Civil Work was delayed by 3 weeks. This delay was a result of findings in a value engineering report on drainage work required during construction. The report disclosed a more cost-effective method for completing the work; the ACTA Board approved the approach, which resulted in a 3-week delay in bid advertisement.

The Program Manager for the South End identified environmental and pollution issues and the discovery of archeological remains as factors that could delay subproject construction schedules.

Mid-Corridor

The Mid-Corridor Segment consists of one subproject, a 10-mile-long trench, being built under a design-build contract. As of May 1999, ACTA had completed 20 percent of design work, and 4 percent of construction work. ACTA expects to complete the Mid-Corridor Segment in December 2002.

OTHER MATTERS

During our audit of ACTA's activities, the agency's internal controls failed to prevent two erroneous fund transfers totaling over \$3 million, of revenue bond proceeds. However, ACTA identified the error within a few hours and transferred the funds back to its account.

ACTA holds funds in several construction fund accounts at trustee banks until it needs to make payments of project costs. It then transfers funds from these construction accounts to a checking account at another bank for disbursement.

The errors occurred when the ACTA Controller, using an agency-provided, hand-held computer, entered the wrong account number for two fund transfers. The Controller had a personal checking account at the same bank that maintains ACTA's checking account for payment transactions. On Friday, February 19, 1999, the Controller entered dollar amounts and other required data for two transactions into the hand-held computer to begin the fund transfer. She then transferred the information on the two transactions from the hand-held computer to a desktop computer. The information included the personal checking account number rather than ACTA's account number.

After transferring data to the personal computer, the Controller generated transfer certification documents. These documents contained specific instructions for the transfers from an ACTA trustee account to ACTA's checking account for disbursements. Since ACTA's internal controls require two management officers to sign transfer certification documents, the Controller first submitted the transfer certification documents to ACTA's Director of Construction and Engineering for his review and signature. The Controller then reviewed and signed the documents. On the next business day, the Controller faxed the signed documents to the bank and the actual transfer occurred on the following day.

The Controller discovered the erroneous transfer later the same day. She checked the balance in her personal checking account and discovered it had \$3 million more than she expected. She called the bank, which maintained both checking accounts, explained the error, and decided to transfer the funds from her personal checking account to the ACTA checking account. Since the bank needed a written authorization for the transfer, the Controller lined out the incorrect account number, wrote in the correct ACTA checking account number and faxed the revised transfer certification letters to the bank. After correcting the problem, the Controller began calling ACTA management officials to inform them of the situation.

OIG's Office of Investigations reviewed the incident. The OIG's inquiry substantiated that the Controller quickly identified the error, the funds were expediently transferred to the appropriate ACTA account, and no interest accrued in the Controller's personal account. OIG investigators closed the investigation with no further action recommended.

The OIG found that the erroneous fund transfers resulted from four weaknesses in ACTA's internal controls. First, ACTA did not have a written policy on maintaining personal and company information on ACTA-provided hand-held computers, and on maintaining personal bank accounts at banking institutions that maintain ACTA accounts. Second, although ACTA required two officers to independently review printed transactions before signing transfer documents,

those officers did not catch the incorrect account number. Third, ACTA had not provided the name and account number of its checking accounts to each trustee bank that maintains ACTA's construction accounts. Fourth, the Controller did not resubmit the revised transfer certification documents to the Director of Construction and Engineering for review and signature before she faxed the documents to the bank holding the two checking accounts.

ACTA has taken actions to prevent erroneous fund transfers from occurring in the future. First, it now preprints ACTA's checking account number and other identifying information on transfer certification documents. Second, ACTA has issued letters to the banks maintaining ACTA's construction accounts notifying them to transfer funds only between ACTA accounts. Any other transfer requires pre-approval in writing from ACTA. Third, ACTA has also contracted a private consulting firm, KPMG LLP, to make a risk assessment of the agency's internal controls. KPMG presented its findings and recommendations to ACTA's governing board on October 14, 1999. We will review the consultant's report and ACTA's response to determine whether further actions are warranted.

Section 3

**OIG RECOMMENDATIONS
AND MANAGEMENT POSITION**

RECOMMENDATIONS

We recommend:

- (4) FHWA require ACTA to update and submit to FHWA its finance plan (i.e., cash flow statements) annually.
- (5) If ACTA does not receive the full funding it expects, such as MTA's commitment to provide funding to the Project or the Ports' contribution is insufficient to meet debt service payment, FHWA require ACTA to specifically reflect in its finance plan how it plans to address these risks.
- (6) FHWA incorporate ACTA's cash flow analysis information in its "Project Status and Credit Assessment Report."

MANAGEMENT POSITION AND OIG COMMENTS

We provided our draft report to FHWA, FRA and ACTA. FHWA and ACTA generally concurred with our report and recommendations and made suggestions. We have incorporated their comments, where appropriate. For example, FHWA suggested we acknowledge its role in working with ACTA to develop mitigation procedures if archeological discoveries such as Native American remains are uncovered during construction. In addition, FHWA suggested we note that the two erroneous fund transfers were revenue bond proceeds and not Federal funds. As suggested by ACTA officials, we clarified their position regarding MTA's funding commitment to the Project. In addition, they suggested we change our report to reflect that the Project is only one of several projects that could be at risk of having its funds redirected to meet the terms of the bus consent decree. FRA acknowledged receipt of our draft report, but did not believe that it was appropriate to provide comments because of its limited role in the Project.