United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Transportation, Committee on Appropriations, House of Representatives

May 1996

EMERGENCY RELIEF

Status of the Replacement of the Cypress Viaduct

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United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-270494

May 6, 1996

The Honorable Frank R. Wolf
Chairman, Subcommittee on
Transportation and Related Agencies
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

In October 1989, the Loma Prieta earthquake struck northern California, causing severe damage to the San Francisco and Oakland area. The earthquake killed 67 people, injured 3,757, left 12,000 homeless, and caused property damage in excess of $10 billion. In Oakland, the earthquake collapsed a two-tiered portion of Interstate 880 known as the Cypress Viaduct, killing 42 people. Because the Cypress Viaduct was an integral component of the area's transportation system, its destruction has caused severe congestion, mobility problems, and financial losses.

Six and one-half years after the earthquake, replacement of the Cypress Viaduct is not complete. Concerned about reports of delays and high growth in its cost, you requested that we review the current status of the project. Specifically, you requested information on the (1) status of construction, expected completion date, and reasons for any delays; (2) estimated cost of the project and reasons for any growth in its cost; and (3) guidance governing the Federal Highway Administration's (FHWA) use of emergency relief funds.

Results in Brief

The California Department of Transportation (Caltrans) has completed about one-third of the construction. Currently, Caltrans expects to complete one portion of the project in 1997 and the entire project in 1998. Although the emergency relief program is designed to assist states in quickly repairing highways to their predisaster condition, several factors have slowed the replacement of the Cypress Viaduct. Construction did not begin until early 1994 because Caltrans had to (1) address public opposition to replacing the existing structure in its original location, (2) complete an environmental review to select a new alternative that would address the public's concerns, and (3) negotiate with and compensate the railroads for building the project on railroad property. Since construction began, most of the components of the project have progressed on schedule.

Caltrans estimates that the project's total cost will be $1.13 billion. Of this amount, $1.01 billion, or about 90 percent, will be federally financed through the emergency relief program, which provides financial assistance to help states repair or rebuild federal-aid highways damaged during natural disasters. California will finance the remainder. The current cost estimate is about $210 million higher than the estimates Caltrans prepared during 1990-91, primarily because Caltrans underestimated the costs of constructing the freeway, managing traffic, and relocating the rail yards. Furthermore, although Caltrans does not anticipate further cost increases, the risk of an increase remains because major projects worth about $560 million are still in the early stages of construction.

FHWA's regulations limit the use of emergency relief funds for improvements to or changes in the character of a destroyed facility. The regulations allow for funding "betterments"—such as relocation, replacement, upgrades, or added features that did not exist prior to the disaster—only when they are clearly economically justified to prevent recurring damage. In the case of the Cypress Viaduct, FHWA did not consider the relocation a betterment and approved funding to significantly relocate the Cypress Viaduct without (1) making a finding that the relocation was economically justified to prevent recurring damage or (2) placing limits on the use of the emergency relief funds. Instead, FHWA based its funding decision, in part, on its Emergency Relief Manual, which provides inconsistent information on how to address improvements required as a result of an environmental review and whether improvements and costs above those required to fix or replace a structure should be funded with emergency relief funds or with traditional transportation funds. The alternative that FHWA approved resulted in more extensive construction, higher costs, and greater risks of delays than would have occurred in replacing the structure along its original alignment.

Background

The Loma Prieta earthquake, measuring 7.1 on the Richter scale, struck northern California on October 17, 1989, causing many deaths and widespread property damage. It also severely damaged several major transportation structures in the Bay Area, including the Embarcadero Freeway, the Bay Bridge, and the Cypress Viaduct. To help the area cope with the earthquake's impact on transportation, the Congress appropriated $1 billion in federal transportation emergency relief assistance in fiscal year 1990 and an additional $315 million in fiscal year 1994. California

allocated over three-fourths of this assistance to the Cypress Viaduct project.

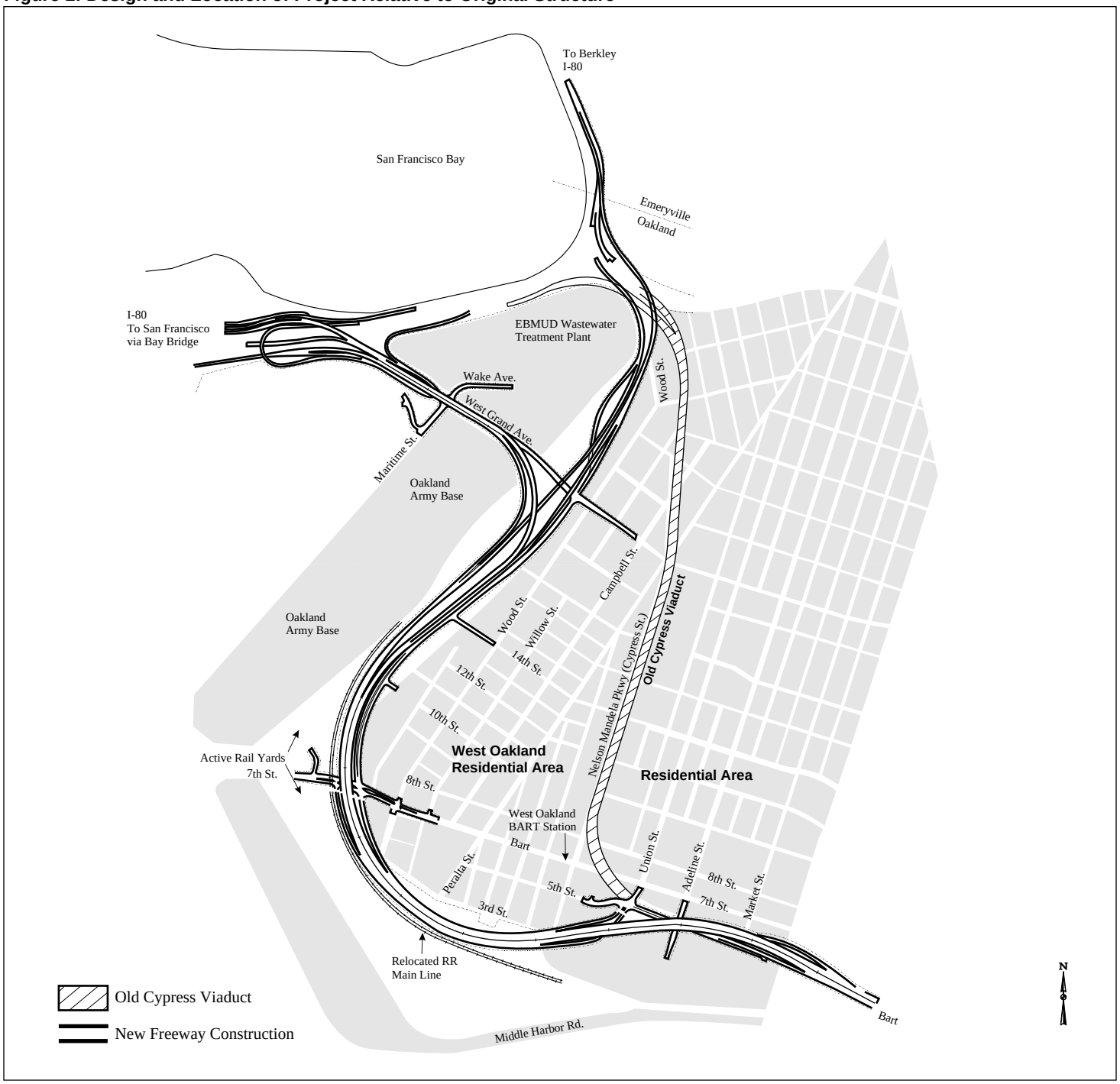
The emergency relief program, administered by FHWA, provides financial assistance to states and local highway agencies to help repair federal-aid highways seriously damaged during natural disasters—hurricanes, earthquakes, volcanoes, and floods—or by catastrophic failures. As a kind of insurance against catastrophe, the program provides states with funding above and beyond their regular federal highway funding. The program's funds are not subject to a state's yearly funding limit and thus pay for projects that do not have to compete against other needs within the state. By law, FHWA can provide a state with up to $100 million in emergency relief funding for each natural disaster found eligible for funding. However, the Congress has passed special legislation lifting this cap for specific disasters.

The criteria for administering emergency relief funds are set out in 23 C.F.R. section 668. In addition, FHWA's Emergency Relief Manual provides FHWA's division offices, located in each state, with the operating procedures for implementing the program. These offices process state highway agencies' applications for funding and make decisions on the eligibility of specific projects. During the first 180 days following a disaster, the program covers up to 100 percent of emergency repairs to restore essential highway traffic service and protect remaining facilities. In addition, for the Cypress Viaduct replacement project, the Congress made all repairs during the first 180 days 100 percent eligible for emergency relief funding. For permanent restoration work or repairs after the first 180 days, the federal share of costs varies with the type of federal-aid highway. For projects on the interstate system, the federal share generally is 90 percent of eligible costs.

The Cypress Viaduct project reestablishes a link in the Bay Area's freeway system, which connects the East Bay area (including Oakland) with San Francisco via the Bay Bridge and with Interstate 80 to the north. The project replaces the 1.5-mile connection that was lost during the earthquake with roughly 5 miles of new freeway segments, providing direct access to both the Bay Bridge and Interstate 80. It also includes several new interchanges and improves access to the Port of Oakland. It realigns the original freeway to the west, taking it out of a residential neighborhood and into active rail yards (see fig. 1). The project comprises seven separate major construction projects, each covering a specific segment of the work and ranging in value from $22 million to $162 million.

(App. I shows the location, scope, and status of each segment of the project.)

Figure 1: Design and Location of Project Relative to Original Structure



(Figure notes on next page)

Note: The indication of north is approximate.

Source: Based on a Caltrans illustration.

After 6 Years, Construction Is About One-Third Complete

Although the emergency relief program is designed to assist states in quickly repairing highways to predisaster conditions, several factors have slowed the replacement of the Cypress Viaduct. Part of the delay in constructing the project has resulted from public opposition to replacing the old, doubled-decked structure in its original location. In response to public concerns, Caltrans identified several alternative alignments that it studied in a 2-year environmental review. In 1991, Caltrans and FHWA decided to replace the destroyed 1.5-mile structure, which had bisected a residential area, with a new 5-mile structure running through active rail yards. Further delays occurred because Caltrans needed additional time to negotiate right-of-way issues with the railroads and because constructing the highway amid the rail yards created logistical problems.

As of March 1996, FHWA had obligated nearly $1 billion to the project, or about 35 percent of all the emergency relief obligations FHWA has made nationwide since 1989. These obligations also represent over 95 percent of the emergency relief funding for the project. To date, Caltrans has awarded contracts for all of the major construction projects. As table 1 shows, the seven projects are at various stages: one project is complete, five are under way, and one is just beginning. According to Caltrans officials, taken as a whole, the project is about one-third complete. As of March 1996, Caltrans estimated that it will not complete the entire project until 1998. However, by offering contractors incentives for early completion, Caltrans expects to complete one major portion of the project in 1997. Completing this portion will allow traffic using Interstate 880 access to the Bay Bridge, thus reestablishing a critical link lost during the earthquake.

Table 1: Status of the Project's Major Construction Segments

Project	Date contract awarded	Estimated completion date	Percentage completed as of March 1996	Cost (dollars in millions)
Project A	01/09/95	05/97	37	$105
Project B	05/08/95	07/97	18	92
Project C	01/11/94	12/95	100	22
Project D	01/28/94	08/96	84	39
Project E	04/11/95	06/97	36	155
Project F	08/18/95	01/98	25	162
Project G	03/21/96	10/98	0	46

Note: Appendix I shows the location of each project.

Source: Based on information from Caltrans.

Although it will take Caltrans about 9 years from the time of the earthquake to complete the entire project, most of the delays occurred before construction began. Immediately following the earthquake, FHWA and Caltrans planned to replace the Cypress Viaduct as it existed prior to the earthquake, with a new double-decked structure. However, immediate replacement of the viaduct was not possible because the original structure had divided an Oakland neighborhood, and local residents objected to replacing the structure as it had been before the earthquake. For example, numerous residents objected to rebuilding in the pre-earthquake location because they said doing so would cause pollution and congestion and reduce growth. In addition, in December 1989 the Oakland City Council passed a resolution opposing any construction in the viaduct's original corridor, stating that rebuilding would continue to divide the community and hinder its economic and social growth.

Consequently, Caltrans had to identify several new alternative alignments for the structure. Because of the size and complexity of the alternative alignments proposed, Caltrans had to assess their impact in an environmental impact statement (EIS),[1] which it prepared in 1990-91. In January 1992, FHWA finalized the environmental review by issuing a record of decision on the project.

When, as a result of the environmental review, Caltrans and FHWA selected an alignment that shifted the project out of the residential neighborhood and

[1]An EIS must include an analysis of the social, economic, and environmental impact of proposed alternates.

into the area of active rail yards, Caltrans had to undertake extensive and protracted negotiations with the Southern Pacific and Santa Fe railroads to work out the details of removing and relocating the rail yards. Between 1992 and 1994, as it developed the final engineering plans for major segments of the project, Caltrans and the railroads were reaching agreement on how to relocate the existing rail yards, what type of track and railroad standards would be needed, and what the total cost of relocating the rail yards would be.

In early 1994, while these negotiations continued, Caltrans began constructing two major segments of the project. However, Caltrans has periodically had to halt construction to allow trains to pass through the site. Project B, in particular, has experienced construction delays because of the need to accommodate rail traffic. According to Caltrans officials, project B, which is currently 18 percent complete, is the only major project that is experiencing problems with its schedule. However, they expect project B, as well as all of the other major projects, to meet the estimated completion dates shown in table 1.

Cost of Replacing the Cypress Viaduct Has Increased Significantly

As of March 1996, Caltrans estimated that the total cost of replacing the Cypress Viaduct will be $1.13 billion. Of this amount, $1.01 billion, or about 90 percent, will be federally financed through the emergency relief program; California will finance the remainder. This estimate is significantly higher—as much as $824 million—than the previous estimates documented in a 1989 post-earthquake damage assessment and in the EIS completed in 1991. The increases have occurred because of significant changes in the project's scope and refinements from the earlier estimates. The current estimate is also $210 million higher than the baseline cost estimates[2] prepared during 1990-91, prior to FHWA's approval of the current project's design. Most of these increases have occurred because Caltrans incurred additional costs for construction, traffic management, and relocation of the rail yards once construction began. Furthermore, although Caltrans does not anticipate further cost growth, an increase could occur because major construction projects worth about $560 million are still in the early stages.

[2]"Baseline cost estimates" refers to several separate estimates that Caltrans prepared for different activities.

FHWA and Caltrans Have Continually Refined the Cost Estimates

On October 30, 1989, FHWA engineers, following the agency's Emergency Relief Manual, inspected the collapsed Cypress Viaduct. On the basis of this inspection, they prepared a damage assessment, estimating that replacing the destroyed structure along its predisaster alignment would cost $306 million. This estimate was a conceptual estimate based on the inspection rather than on detailed engineering. It included the costs for items such as removing the old structure, managing traffic, building a new structure, and engineering. In the estimate, FHWA recognized that more detailed engineering would be required to refine the project's estimated costs.

However, after preparing this initial estimate, FHWA and Caltrans did not complete a detailed estimate for rebuilding the Cypress Viaduct as it existed prior to the earthquake. Instead, as noted earlier, public opposition to rebuilding the structure at its original location led Caltrans to prepare an EIS and ultimately to select a new alignment for the project. In the EIS, the costs for this alternative were estimated at $695 million, or about $400 million more than the estimate based on the damage assessment, primarily because of additional costs for acquiring rights-of-way and relocating the rail yards. Furthermore, the estimate in the EIS included only the capital costs—for construction, rights-of-way, and relocation of the rail yards—and excluded the costs for engineering and traffic management. As a result, it did not provide a comprehensive initial, or baseline, cost estimate for the project.

According to Caltrans and FHWA officials, the estimate in the EIS did not include the noncapital costs because there was no requirement to present them. To arrive at a complete baseline cost estimate, we worked with Caltrans to identify other cost estimates that it had developed while preparing the EIS, including estimates for engineering, traffic management, and several other items. By adding these cost estimates to the estimate in the EIS of $695 million, we calculated a baseline cost estimate of $919 million for the project.

Most Costs Increased Once Construction Began

Caltrans' current estimate of $1.13 billion is about $210 million higher than the baseline estimate of $919 million. Table 2 identifies the cost increases from the baseline estimate by project element.

Table 2: Cost Increases by Project Element

Dollars in millions

	Estimated cost		
Project element	**Baseline**	**Current**	**Difference**
Emergency opening	$ 18.2[a]	$ 20.0	$ 1.8
Preliminary engineering	110.7	110.2	(0.5)
Construction	534.8[b]	663.7	128.9
Rights-of-way and relocation assistance	130.0	140.8	10.8
Railroad relocation	100.0	122.2	22.2
Traffic management	25.5	50.9	25.4
Performance agreement	0	17.3	17.3
Other archeological work	0	4.0	4.0
Total estimated cost	**$919.2**	**$1,129.1**	**$209.9**

[a]All costs are in nominal dollars.

[b]This cost figure is 15 percent higher than Caltrans' estimate for construction ($465 million) in the EIS because it includes estimated costs for construction engineering.

Source: GAO's analysis of data from Caltrans.

As table 2 shows, construction is the major element contributing to the cost increases. The increases are primarily due to the unplanned costs of controlling and disposing of contaminated soil and groundwater (approximately $40 million), additional requirements for seismic strengthening (approximately $35 million to $40 million), and provisions for contract incentives to speed up construction (approximately $24 million). Other major increases resulted because Caltrans underestimated the costs of managing traffic and relocating the rail yards. For example, Caltrans underestimated by about $22 million the costs of replacing the existing track and structures with equivalent facilities built to the rail industry's current standards. In addition, after completing the EIS, Caltrans agreed to compensate the city of Oakland with a package of benefits, known as the performance agreement, to mitigate some of the financial impact of losing the Cypress Viaduct.

The final cost could increase beyond the current estimate of $1.13 billion because major projects worth about $560 million are still in the early stages of construction. In addition, cost increases on the project have contributed to a shortfall in the emergency relief available for other damage caused by the Loma Prieta earthquake. According to Caltrans, it will be seeking an additional $112.5 million in emergency relief funding for

three projects in San Francisco County that are eligible for funding through the emergency relief program.

FHWA's Guidance Provides Inconsistent Information on Using Emergency Relief Funds

FHWA's regulations allow the use of emergency relief funds for betterments.[3] According to the regulations, such betterments are eligible for emergency relief funding only when they are clearly economically justified to prevent future recurring damage.[4] FHWA officials told us they had approved funding to significantly realign the Cypress Viaduct without making such a finding because they did not consider the relocation of the project to be a betterment within the terms of their regulations.

As a result of this interpretation, the agency based its funding decisions, in part, on guidance in its Emergency Relief Manual—guidance that provides inconsistent information on how to address improvements recommended as a result of an environmental review. While the design approved by FHWA may be a reasonable approach for addressing environmental concerns, the decision to fund the entire project with emergency relief funds raises questions about the appropriateness of using emergency relief funds to fully pay for future projects in similar circumstances.

The emergency relief program is aimed at helping states quickly repair damage to federal-aid highways resulting from disasters. The program establishes limits on the use of the funds and precludes using the funds to correct non-disaster-related deficiencies or to improve replacement highway facilities beyond meeting the current standards. The emergency relief regulations do not address situations in which projects entail an environmental review. In addition, FHWA's Emergency Relief Manual states that environmental reviews will not be a major factor for most emergency relief projects and that most emergency relief projects will be exempt from such reviews.

The replacement of the Cypress Viaduct highlights a dilemma between quickly replacing a damaged facility using emergency relief funds and addressing environmental considerations. When FHWA officials, following the Emergency Relief Manual, assessed the damage to the Cypress Viaduct shortly after the earthquake and prepared the initial cost estimate of $306 million to rebuild it along the same alignment, their decision was consistent with the goals of the program—quickly replacing the destroyed

[3]The regulations describe betterments as "relocation, replacement, upgrading or other added features not existing prior to the disaster."

[4]23 C.F.R. section 668.109(b)(6).

facility and restoring predisaster traffic service. However, when community opposition and environmental concerns precipitated a call for alternatives, FHWA did not approve the relocation on the basis of the emergency relief regulations, which allow for relocations only when they are clearly economically justified to prevent recurring damage. Instead, FHWA approved the relocation on the basis of the results of the EIS, without preparing an economic justification.

FHWA said that because the relocation was not a betterment, the emergency relief regulations, which place limits on funding improvements to or changes in the character of a destroyed facility, were not applicable. Instead, the agency relied on its Emergency Relief Manual to determine which of the project's costs should be paid with emergency relief funds. However, the manual provides vague and inconsistent guidance on how to administer the program, particularly when a more expensive alternative is selected as a result of an environmental review. For example, one section of the manual states that betterments, including relocations, must be quickly justified without extensive public hearings or environmental, historical, right-of-way, or other encumbrances. However, the manual also states that betterments resulting from environmental or permit requirements beyond the control of the highway agency are eligible for emergency funds. Therefore, even if FHWA had determined that relocating the structure was a betterment, it would have faced inconsistent guidance in determining whether to fully fund the project with emergency relief funds. These and other inconsistencies confront FHWA officials when they are determining if emergency relief funds can be used to pay for highway improvements that enhance the postdisaster transportation network rather than return it to its predisaster condition. (App. II cites sections in FHWA's manual that present inconsistent information.)

According to FHWA officials, given the severe destruction and trauma of the disaster and the inconsistencies in the emergency relief guidance, it was difficult for them to make decisions about eligibility on the basis of hard and fast rules. Therefore, the officials used maximum discretion to ensure that the project was fully funded.

Currently, the Department of Transportation (DOT) is contemplating changes to the emergency relief regulations (23 C.F.R. section 668). DOT's notice of proposed rulemaking has focused on expanding the eligibility of the program by, for example, permitting a state to use emergency relief funds to repair roadways damaged as a result of overusing the existing roadways to reach and repair a disaster site. The proposal does not clarify

the appropriate limits of the emergency relief program or address the inconsistencies in the current guidance concerning environmental reviews.

Conclusions

The project to replace the Cypress Viaduct has taken longer and cost more to complete than initially estimated because local opposition, environmental requirements, and railroad relocation activities have delayed construction and expanded the scope of the project. Although the project is nearly one-third complete and most of the emergency relief funds have been obligated, the project can still offer some valuable lessons about FHWA's regulations and guidance for administering the emergency relief program.

We acknowledge the need to replace the Cypress Viaduct in a manner that addressed public concerns, and we do not take issue with the decision to shift the project from its predisaster location to its new location. However, we question whether the improvements and costs resulting from the significant relocation and changes in scope should have been funded through the emergency relief program rather than the traditional transportation programs. Under its regulations, FHWA could have required a baseline cost estimate for replacing the Cypress Viaduct along its original alignment and limited the use of emergency relief funds to those replacement costs.

FHWA's funding decisions raise questions about whether the agency's regulations and guidance establish clear limits on funding projects through the emergency relief program, particularly when an environmental review recommends enhancements to a facility beyond its predisaster condition. As DOT rethinks its emergency relief program, it has an opportunity to clarify what costs are eligible for funding through the emergency relief program rather than the traditional federal-aid highway programs. Answering this question is important because emergency relief funds are provided to states above and beyond their annual highway allocations and are not subject to the states' limitations on obligations. Clearly laying out the appropriate uses of emergency relief funding in situations involving environmental reviews would help define the limits of the program, enabling FHWA officials to better control the costs of major and complex emergency relief projects.

Recommendation

We recommend that the Secretary of Transportation direct the Administrator, Federal Highway Administration, to modify the emergency relief guidance to (1) make the agency's emergency relief regulations and manual consistent and (2) clearly define what costs can be funded through the emergency relief program, particularly when an environmental review recommends improvements or changes to the features of a facility from its predisaster condition in a manner that adds costs and risks to the project.

Agency Comments

We provided a draft of this report to DOT for review and met with DOT and FHWA officials, including the Associate Administrator for Program Development and the Acting Chief of the Federal Aid and Design Division, to discuss their comments on the draft. The FHWA officials reemphasized the importance of the environmental review process in their funding decisions. They also disagreed with our characterization of the project as a betterment and, therefore, disagreed with our conclusion about their funding decision.

The FHWA officials explained that the Cypress Viaduct was damaged beyond repair by the Loma Prieta earthquake and that a replacement facility was eligible for emergency relief funding; however, because of the catastrophic failure of the original double-decked structure and reservations about the appropriate seismic design for a replacement structure, construction of a double-decked facility was neither practical nor feasible. In addition, these officials commented that a new double-decked structure would not have complied with the requirements of the environmental review process. Accordingly, these officials told us, various alternatives that provided functions and service comparable to those of the destroyed facility were developed and assessed through that process.

In the view of these officials, replacing the facility as originally constructed was not a viable option and because the facility now under construction is comparable in service and function to the destroyed facility, the new structure is not a betterment. As a result, they disagreed with our conclusion that emergency relief funding should have been limited to the cost of replacing the destroyed facility in its original location. Finally, the officials indicated that it was not within FHWA's statutory authority to cap emergency relief funding, as we suggested, at the amount of the estimated cost for replacing the facility in its original location.

As we noted in our conclusions, we acknowledge the need to replace the Cypress Viaduct in a manner that addressed the environmental and public concerns, and we do not take issue with the decision to shift the facility to its new location. However, we believe that significantly altering the original alignment—a major relocation—is a betterment because (1) the emergency relief regulations describe a betterment as "relocation, replacement, upgrading or other added features not existing prior to the disaster"; (2) the scope of the replacement project changed the character of the facility by expanding the destroyed 1.5-mile structure to 5 miles of new highway structure; and (3) the new freeway segment adds several interchanges that improve access to local streets and port facilities.

Although FHWA stated that it could not limit emergency relief funds, we believe that the existing regulations provided the agency with sufficient authority to limit the use of emergency relief funding on this replacement project. The existing regulations state that "emergency relief reimbursement is limited to the cost of a new facility to current design standards of comparable capacity and character to the destroyed facility." Following the regulations, FHWA could have estimated the costs of replacing the Cypress Viaduct with a facility built to current design standards along the original alignment and limited the use of emergency relief funding to those costs. The state would then have had to use its federal-aid highway apportionments to cover any costs not funded through the emergency relief program.

Finally, FHWA did not comment on our recommendation that it modify its emergency relief guidance by making the regulations and manual consistent and clearly defining what costs can be funded through the emergency relief program in cases involving environmental reviews. We believe that the existing regulations and manual contain inconsistencies, particularly in addressing environmental review requirements. If this issue is not clarified, questions will remain as to whether emergency relief funds or federal-aid highway funds are the appropriate means of funding highway improvements that are recommended by an environmental review and that either correct conditions not related to the disaster or enhance a facility.

The FHWA officials also suggested technical and editorial changes to the report. Where appropriate, we incorporated these changes into the report.

We performed our review from October 1995 through April 1996 in accordance with generally accepted government auditing standards. To accomplish our objectives, we gathered schedule and cost information from FHWA and Caltrans and assessed FHWA's procedures for implementing the emergency relief program. Appendix III contains more detailed information on our scope and methodology.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to interested congressional committees; the Secretary of Transportation; and the Administrator, Federal Highway Administration. We will also make copies available to other upon request.

Please call me at (202) 512-2834 if you or your staff have any questions. Major contributors to this report are listed in appendix IV.

Sincerely yours,

John H. Anderson, Jr.
Director, Transportation and
Telecommunications Issues

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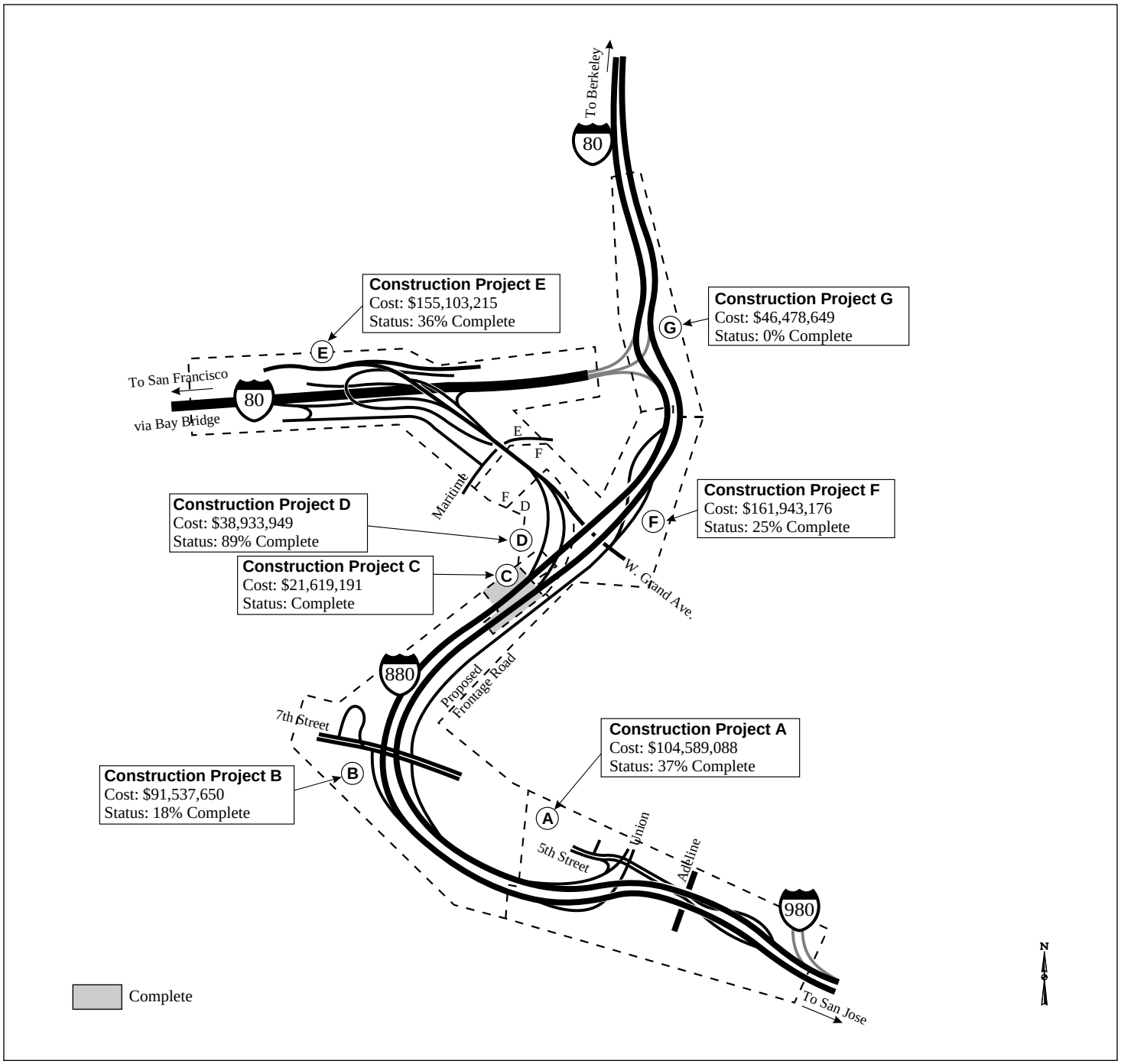
Abbreviations

Caltrans	California Department of Transportation
DOT	Department of Transportation
EIS	environmental impact statement
ER	emergency relief
FHWA	Federal Highway Administration

Location, Scope, and Status of Major Construction Projects



Note: Artist's rendition; not to scale. The indication of north is approximate.

Source: Based on a Caltrans illustration.

Inconsistencies in FHWA's Emergency Relief Manual

During our review of the Federal Highway Administration's (FHWA) Emergency Relief Manual,[5] which FHWA officials state is their principle source of guidance for administering the emergency relief program, we noted several sections on the criteria for funding eligibility that were inconsistent with other sections related to the environmental review process. In this appendix, we present those sections of the manual that are inconsistent with other sections when applied to the Cypress Viaduct project. These inconsistencies highlight the question as to whether emergency relief funds are the appropriate means of funding highway improvements that are recommended by an environmental review and that either correct conditions not related to the disaster or enhance a facility.

Statements Inconsistent With FHWA's Actions on the Cypress Viaduct Project

"Emergency Relief (ER) funds are not intended to replace other Federal-aid, State, or local funds for new construction to increase capacity, correct non-disaster related deficiencies, or otherwise improve highway facilities."

"ER participation may be prorated to the cost of a comparable facility when the proposed replacement project exceeds the capacity or character of the destroyed facility."

"A betterment is defined as any additional feature, upgrading, or change in the capacity or character of the facility from its predisaster condition. Betterments are generally not eligible for ER funding unless justified on the basis of economy, suitability, and engineering feasibility and reasonable assurance of preventing future similar damage. Betterments should be obviously and quickly justifiable without extensive public hearing, environmental, historical, right-of-way, or other encumbrances. The justification must weigh the costs of the betterment against the probability of future recurring eligible damage and repair costs."

"Where relocation is necessary, each case must be considered carefully to determine what part of the relocation is justified for construction with the participation of ER funds."

"Extensive relocation of a replacement bridge is an ineligible betterment and ER participation will be normally limited to the cost of the structure and a reasonable approach length."

"Excessive delays in completing the environmental process may jeopardize an otherwise reasonable project by removing it from an eligible category under 23 U.S.C. 125. In other words, if a situation persists with no corrective action for an extended period of time, it may be unreasonable to continue to classify it as a disaster related emergency, but rather as a long-term need to be funded with regular Federal-aid."

[5]Emergency Relief Manual, Federal Highway Administration, U.S. Department of Transportation, Jan. 1994.

Statements Consistent With FHWA's Actions on the Cypress Viaduct Project

"In cases where a categorical exclusion classification is not appropriate, an environmental assessment or environmental impact statement must be prepared."

"Betterments resulting from environmental or permit requirements beyond the control of the highway agency are eligible for ER funds if these betterments are normally required when the Agency makes repairs of a similar nature in its own work."

Scope and Methodology

For information on the current status of the project, its estimated completion date, and the reasons for any delays, we interviewed officials at FHWA and the California Department of Transportation (Caltrans), performed in-depth file reviews, and reviewed Caltrans' construction status reports.

To identify the current estimated cost of the project and the reasons for any growth in costs, we interviewed officials at FHWA and Caltrans. We also conducted detailed file reviews at Caltrans' headquarters and FHWA's division office in California to identify the construction projects that constitute the overall Cypress project and to document their current estimated costs. We further obtained and reviewed cost information from FHWA's financial system to independently validate Caltrans' cost data. Where we found discrepancies, we conducted follow-up interviews with project managers and budget staff to reconcile the numbers. To identify any growth in the cost, we obtained baseline cost estimates prepared for the project and compared them with the current cost estimates. Working with Caltrans and FHWA officials, we categorized the cost growth by the specific dimensions of the project.

To obtain and assess information on how FHWA has carried out its oversight responsibilities under the emergency relief program, we conducted interviews with FHWA headquarters personnel to understand the program's requirements. We also reviewed legislation establishing the program, the program's regulations, and FHWA's Emergency Relief Manual to obtain details on the program's requirements. In addition, we obtained and reviewed documents such as the environmental impact statement and FHWA's work authorizations to document FHWA's decisions about eligibility. We then compared the guidance and regulations with the actions FHWA took on the project.

Major Contributors to This Report

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