

Department of Transportation:

*Its Seismic Retrofit Expenditures Generally
Comply With the Bond Act, and It Has
Begun to Reimburse the Interim Funding for
Fiscal Years 1994–95 and 1995–96*



December 2001
2001-010

The first five copies of each California State Auditor report are free. Additional copies are \$3 each, payable by check or money order. You can obtain reports by contacting the Bureau of State Audits at the following address:

**California State Auditor
Bureau of State Audits
555 Capitol Mall, Suite 300
Sacramento, California 95814
(916) 445-0255 or TDD (916) 445-0255 x 216**

OR

**This report may also be available
on the World Wide Web
<http://www.bsa.ca.gov/bsa/>**

The California State Auditor is pleased to announce the availability of an online subscription service. For information on how to subscribe, please visit our Web site at www.bsa.ca.gov/bsa. If you need additional information, please contact David Madrigal at (916) 445-0255, ext. 201.

Alternate format reports available upon request.

Permission is granted to reproduce reports.



CALIFORNIA STATE AUDITOR

ELAINE M. HOWLE
STATE AUDITOR

STEVEN M. HENDRICKSON
CHIEF DEPUTY STATE AUDITOR

December 18, 2001

2001-010

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

As required by Chapter 310, Statutes of 1995, the Bureau of State Audits presents its audit report concerning the Department of Transportation's (department) revenues and expenditures authorized by the Seismic Retrofit Bond Act of 1996 (Bond Act).

This report concludes that the department, in general, has ensured that seismic retrofit projects funded with bond proceeds are consistent with the purpose of the Bond Act. In addition, the department has begun to reimburse the State Highway Account (highway account) and the Consolidated Toll Bridge Fund (toll bridge fund) for expenditures incurred during fiscal years 1994-95 and 1995-96 as required by the Bond Act. As of June 30, 2001, the department has reimbursed the highway account \$26.3 million and, according to the department, it intends to complete the reimbursement process for the highway account and the toll bridge fund before the Bond Act expires in 2005.

Respectfully submitted,

Elaine M. Howle

ELAINE M. HOWLE
State Auditor

BUREAU OF STATE AUDITS

CONTENTS

<i>Summary</i>	1
----------------	---

<i>Introduction</i>	3
---------------------	---

Audit Results

The Department Has Continued to Make Progress Toward Completing Its Seismic Retrofit Projects	7
---	---

The Department Inappropriately Charged Some Expenditures to Seismic Retrofit Projects	7
---	---

The Department Has Begun to Reimburse Early Seismic Retrofit Expenditures	8
---	---

<i>Recommendation</i>	9
-----------------------	---

Appendix A

Bond Act Issuances as of June 30, 2001	11
--	----

Appendix B

Status of the Seismic Retrofit Program	13
--	----

Appendix C

Bond Act Expenditures as of June 30, 2001	15
---	----

Appendix D

Bond Act Reimbursements as of June 30, 2001	17
---	----

Response to the Audit

Business, Transportation and Housing Agency, Department of Transportation	19
---	----

SUMMARY

In March 1996 California voters approved the Seismic Retrofit Bond Act (Bond Act), which authorized the State to sell \$2 billion in general obligation bonds to reconstruct, replace, or retrofit state-owned highways and bridges. Legislation passed in 1995 requires the Bureau of State Audits to ensure that projects funded by the Bond Act are consistent with that measure's purposes. This is the sixth in a series of annual reports on the Department of Transportation's (department) revenues and expenditures authorized by the Bond Act.

Overall, the department has moved forward toward its goal of retrofitting more than 1,150 state-owned highway bridges and 7 state-owned toll bridges. As of June 30, 2001, the department had spent \$1.49 billion for retrofit projects and had completed work on 98.1 percent of the highway bridges. It had also finished retrofitting 2 of the 7 toll bridges, while the other 5 bridges were either in retrofit design or under construction.

In general, the department has done a good job of ensuring that its seismic retrofit projects meet the criteria for funding outlined by the Bond Act. However, we did find two instances in which the department charged expenditures to the Bond Act that were not eligible for such funding. In both instances, department staff stated that they were unaware of the department's policies requiring the allocation of certain types of facility costs. As a result, the staff inappropriately charged approximately \$6,800 for a lease payment and a repair bill entirely to seismic projects rather than allocating the amount among seismic and nonseismic projects that benefited from the expenditure.

The department has also begun to reimburse other accounts for interim funding obtained during fiscal years 1994–95 and 1995–96. During those years, the State Highway Account (highway account) and the Consolidated Toll Bridge Fund (toll bridge fund) provided a total of \$114 million for the retrofitting of California's bridges. Although the Bond Act requires that the department use bond proceeds to reimburse these expenditures, the State Treasurer's Office objected to reimbursing these funds directly because it believes such an action could jeopardize the bonds' tax-exempt status. To avoid this problem, the department decided to use Bond Act proceeds to fund future projects that would normally have been paid for by the highway

account and toll bridge fund. As of June 30, 2001, the department had used this method to reimburse the highway account \$26.3 million. It intends to fully reimburse both the highway account and the toll bridge fund before the Bond Act expires in 2005.

RECOMMENDATION

To ensure that Bond Act proceeds are used only to pay for eligible expenditures under the Bond Act, the department should direct its staff to follow its policy of allocating facility costs among all projects benefiting from the expenditure.

AGENCY COMMENTS

The department agrees with the report and recommendation and states that it is taking steps to correct the identified problems. ■

INTRODUCTION

BACKGROUND

After the Sylmar earthquake struck the Los Angeles area in 1971, the Department of Transportation (department) established a program to seismically retrofit bridges throughout the State. Seismic retrofit involves structural analysis to determine a bridge's potential vulnerability during earthquakes and a strategy meeting with engineers to discuss retrofit approaches and to determine the final retrofit design. This design may involve strengthening the bridge columns by encircling them with steel casings, fortifying some of the bridge footings by placing additional pilings in the ground or by using steel tie-down rods to better anchor the footings to the ground, and enlarging the hinges that connect sections of the bridge decks to help prevent them from separating during severe ground movement.

Prior to the January 1994 Northridge earthquake, the department classified all state-owned highway bridges except toll bridges into two groups: single-column bridges and multiple-column bridges. After the Northridge earthquake, the department reclassified the bridges into Phase I and Phase II categories. Phase I bridges included those that were identified prior to January 1, 1994, as requiring retrofitting, while Phase II bridges included all of the remaining state-owned bridges, excluding toll bridges. In March 1996 California voters approved the Seismic Retrofit Bond Act (Bond Act), which authorized the State to sell \$2 billion in general obligation bonds to reconstruct, replace, or retrofit Phase II bridges and the seven state-owned toll bridges.

The Bond Act initially required the department to use \$650 million of the bond proceeds to retrofit the toll bridges and the remaining \$1.35 billion to retrofit Phase II bridges. However, on August 20, 1997, the governor signed into law Chapter 327, Statutes of 1997, which shifted the allocation of expenditures to \$790 million for the toll bridges and \$1.21 billion for Phase II bridges. Since the department estimated in 1997 that the cost to retrofit or replace state-owned toll bridges would be \$2.62 billion, the legislation also authorized additional retrofitting funds from various state and toll bridge revenue accounts.

As of June 30, 2001, the department estimated the total cost to retrofit the State's seven toll bridges at \$4.64 billion, or \$2.02 billion more than its 1997 estimate. In addition, the department does not expect to complete the east and west spans of the San Francisco-Oakland Bay Bridge until 2007 and 2008, respectively, which is at least three years later than it estimated in 1997. As amended by Chapter 327, Statutes of 1997, the Bond Act will remain in effect until all construction activities for the retrofit of the toll bridges are complete or until June 30, 2005, whichever is sooner.

The Bond Act also required the department to use bond proceeds to reimburse the State Highway Account and the Consolidated Toll Bridge Fund for approximately \$114 million in interim funding that it expended for retrofits of Phase II and toll bridges during fiscal years 1994–95 and 1995–96. We discuss these reimbursements in greater detail in the Audit Results.

STATUS OF THE BOND ISSUANCES

Since the inception of the seismic retrofit program, the State has issued 15 general obligation bonds under the Bond Act. Appendix A shows the date and amount of each issuance.

SCOPE AND METHODOLOGY

Chapter 310, Statutes of 1995, requires the Bureau of State Audits to annually audit revenues and expenditures authorized by the Bond Act to ensure that the projects funded are consistent with the act's purpose.

To gain an understanding of the seismic retrofit program, we reviewed the Bond Act's provisions, its amendment by Chapter 327, Statutes of 1997, and the related policies and procedures developed by the department. We also interviewed administrators and staff to determine their responsibilities for implementing provisions of the Bond Act and their approach to meeting those responsibilities.

To determine how fully the department complied with the requirements of the Bond Act, we reviewed a sample of seismic retrofit projects from fiscal year 2000–01 and assessed whether

these projects should have been eligible for funding. In addition, we reviewed a sample of seismic retrofit expenditures incurred by the department in fiscal year 2000–01.

We also followed up on the issues raised by the State Treasurer’s Office regarding the federal tax implication of using bond proceeds to reimburse Phase II and toll bridge seismic retrofit expenditures from the fiscal years 1994–95 and 1995–96. We reviewed the department’s records and interviewed administrators to determine if the steps the department has taken satisfy the reimbursement requirement of the Bond Act and resolve federal tax concerns.

Finally, we reviewed bond-issuance records available through June 2001 to determine the status of the bond issuances and their use. ■

Blank page inserted for reproduction purposes only.

AUDIT RESULTS

THE DEPARTMENT HAS CONTINUED TO MAKE PROGRESS TOWARD COMPLETING ITS SEISMIC RETROFIT PROJECTS

As of June 30, 2001, Department of Transportation's (department) records showed that it had retrofitted 98.1 percent of the Phase II bridges, or a total of 1,133 bridges. Of the 22 Phase II bridges that still required retrofitting, the department had begun construction on 4 and was in the process of deciding upon retrofit designs for the remaining 18. In addition, the department was moving forward appropriately on the retrofits of 6 of the 7 state-owned toll bridges. In fact, it had finished retrofitting 2 of these 6 bridges while the other 4 bridges are currently under construction.

The department also made progress on the seventh toll bridge, the San Francisco-Oakland Bay Bridge. As of June 30, 2001, the department had awarded 3 of the approximately 12 contracts needed for the Bay Bridge's retrofitting, and it projected that it would award the remaining 9 contracts by the end of 2001. Although the department began construction on the Bay Bridge in 1994 and planned to finish in late 2004, it more recently estimated that work would not be complete until 2008.

Appendix B shows the status of the seismic retrofit program. As of June 30, 2001, the department had recorded approximately \$1.49 billion in expenditures for retrofit projects funded with Bond Act proceeds. Appendix C shows the breakdown of these expenditures.

THE DEPARTMENT INAPPROPRIATELY CHARGED SOME EXPENDITURES TO SEISMIC RETROFIT PROJECTS

We reviewed a sample of 46 of the department's seismic retrofit projects and found that all were appropriate under the terms of the Seismic Retrofit Bond Act of 1996 (Bond Act). We also analyzed 40 expenditures totaling more than \$5 million that the department charged to seismic retrofit projects during fiscal year

2000–01. Although the majority of these costs were eligible for Bond Act funds, the department inappropriately charged the entire amount of some laboratory expenditures to seismic retrofit projects rather than allocating the costs among several projects.

According to departmental policies, laboratory supervisors are responsible for allocating facility costs such as rent and utilities on a proportionate basis to all construction projects assigned to that particular laboratory. However, we found that some staff were not aware of this policy and inappropriately charged the entire amount of a laboratory lease payment totaling \$6,601 to a seismic retrofit project rather than allocating the cost among three projects—one seismic project and two nonseismic projects. We also found an office repair bill for \$221 that the department charged to a seismic project that it should have allocated among eight projects. If it does not properly allocate its expenditures, the department cannot ensure that Bond Act proceeds are used only for intended purposes.

THE DEPARTMENT HAS BEGUN TO REIMBURSE EARLY SEISMIC RETROFIT EXPENDITURES

Article 2 of the Bond Act requires that the department use bond proceeds to reimburse the State Highway Account (highway account) and the Consolidated Toll Bridge Fund (toll bridge fund) for seismic retrofit expenditures they incurred during fiscal years 1994–95 and 1995–96. According to department records, these expenditures totaled \$114 million, including \$103 million from the highway account and \$11 million from the toll bridge fund. However, during the department’s initial attempt to comply with the Article 2 requirement, the State Treasurer’s Office (STO) raised the concern that reimbursing these past expenditures with bond proceeds could jeopardize the bonds’ federal tax-exempt status.

To address this issue, the department proposed that, rather than reimbursing the highway account and toll bridge fund directly, it would instead use bond proceeds to pay for future projects that would not otherwise be eligible for funding under the terms of the Bond Act. Specifically, the department proposed that \$103 million of the bond proceeds would be applied to state transportation projects that would normally be funded with

highway account funds and that another \$11 million would be applied to construction work that would normally be paid for by the toll bridge fund. By paying for these projects with bond proceeds, the department would in effect reimburse the highway account and toll bridge funds for their earlier seismic retrofit expenditures. The State's bond counsel believed that the proposed plan would satisfy federal tax concerns.

According to the department, it needed to select projects scheduled for construction and completion within the life of the Bond Act in order to implement its proposed plan. Thus, on July 20, 2000, the department reported to the California Transportation Commission—the agency responsible for evaluating plans for transportation programs—that it had elected to use Bond Act proceeds to fund \$103 million of minor State Highway Operations and Protection Program (SHOPP) projects that would normally have been funded by the highway account. As shown in Appendix D, our review found that as of June 30, 2001, the department had reimbursed the highway account \$26.3 million by using Bond Act proceeds to pay for active SHOPP projects.

The department also moved forward with its plan to reimburse the toll bridge fund. It selected three toll bridge fund projects to finance with bond proceeds: the new Benicia-Martinez project, the Timber Fender System project, and the Arch Span Traveler project. As of June 30, 2001, the department had not yet reimbursed the toll bridge fund for any of its \$11 million of seismic retrofit expenditures. However, according to the department, it intends to complete the reimbursement process for both the highway account and the toll bridge fund before the Bond Act expires in 2005.

RECOMMENDATION

To ensure that Bond Act proceeds are used only to pay for eligible expenditures under the Bond Act, the department should direct its staff to follow its policy to allocate certain types of costs, such as lease payments and repair bills, among all projects benefiting from the expenditure.

We conducted this review under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted government auditing standards. We limited our review to those areas specified in the audit scope section of this report.

Respectfully submitted,

A handwritten signature in black ink that reads "Elaine M. Howle". The signature is written in a cursive, flowing style.

ELAINE M. HOWLE
State Auditor

Date: December 18, 2001

Staff: Denise L. Vose, CPA
Jerry A. Lewis
Chris Lief

APPENDIX A

Bond Act Issuances as of June 30, 2001

TABLE 1

Seismic Retrofit Bond Act General Obligation Bond Issuances

Bond Series*	Date Sold	Amount Sold (In Millions)
A	03/18/97	\$50.0
B	10/08/97	300.0
C	10/07/98	344.9
D	02/23/99	100.0
E	04/07/99	76.0
F	06/09/99	20.0
G	10/20/99	66.0
H	04/19/00	134.5
I	10/17/00	50.0
K	11/29/00	45.0
M	02/27/01	48.0
O	06/12/01	28.0
Total		\$1,262.4

* Series J, L, and N were refunding series that were issued to retire already outstanding bonds. Because these issues did not increase the overall amount sold, we did not include them.

Blank page inserted for reproduction purposes only.

APPENDIX B

Status of the Seismic Retrofit Program

Tables 2 and 3 depict the status of the seismic retrofit program for Phase II and toll bridges as of June 30, 2001.

TABLE 2

Status of Phase II Bridges

District	Retrofit Complete	Under Construction	In Design	Totals
1	64	1	4	69
2	12	0	0	12
3	36	0	0	36
4	143	2	6	151
5	105	1	1	107
6	77	0	0	77
7	292	0	1	293
8	124	0	6	130
9	7	0	0	7
10	40	0	0	40
11	172	0	0	172
12	61	0	0	61
Totals	1,133	4	18	1,155

Source: Quarterly Seismic Retrofit Report, 4th quarter, 2000–2001, issued by the Department of Transportation.

TABLE 3**Status of Toll Bridges**

Toll Facility	Number of Projects	Current Status	Current Retrofit Completion Date
San Francisco-Oakland Bay Bridge			
East Bay Span*	4	Design	Spring 2007
West Bay Span	8	Construction/Design	Spring 2008
Benicia-Martinez Bridge	2	Construction	Winter 2002
San Mateo-Hayward Bridge	3	Completed	Spring 2000
Richmond-San Rafael Bridge	1	Construction	Spring 2005
Carquinez Bridge (eastbound)†	1	Construction	Fall 2001
Vincent Tomas Bridge	1	Completed	Spring 2000
San Diego-Coronado Bridge	4	Construction	Winter 2002

Source: Quarterly Seismic Retrofit Report, 4th quarter, 2000-2001 issued by the Department of Transportation.

* Although the department has completed an interim retrofit of the East Bay Span, it intends to construct a new bridge.

† The retrofit of the westbound Carquinez Bridge will be accomplished by a new bridge.

APPENDIX C

Bond Act Expenditures as of June 30, 2001

TABLE 4

Breakdown of Seismic Retrofit Expenditures (In Thousands)

Expenditures	Fiscal Year							Totals
	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	
Phase II bridges								
State operations								
Administration	0	0	\$ 7,248	\$ 18,314	\$ 24,038	\$ 10,010	\$ 6,055	\$ 65,665
Legal	0	0	0	0	0	0	0	0
Operations	0	0	0	0	1	17	2	20
Capital outlay—support	\$12,452	\$19,248	70,609	80,542	34,928	21,321	17,675	256,775
Subtotals	12,452	19,248	77,857	98,856	58,967	31,348	23,732	322,460
Capital outlay								
Major construction	0	0	0	0	0	0	0	0
Major contracts	4,085	1,880	185,215	172,184	65,256	63,250	41,713	533,583
Minor construction	0	0	0	0	0	0	0	0
Minor contracts	1,043	1,961	4,615	1,718	219	796	380	10,732
Right-of-way	57	259	562	1,118	443	373	69	2,881
Subtotals	5,185	4,100	190,392	175,020	65,918	64,419	42,162	547,196
Total Phase II	17,637	23,348	268,249	273,876	124,885	95,767	65,894	869,656
Toll bridges								
State operations								
Administration	0	0	3,490	11,789	15,694	6,536	3,953	41,462
Legal	0	0	0	0	0	0	0	0
Operations	0	0	0	0	0	0	0	0
Capital outlay—support	14,978	48,447	44,548	47,511	7,339	23	3	162,849
Subtotals	14,978	48,447	48,038	59,300	23,033	6,559	3,956	204,311
Capital outlay								
Major construction	0	0	0	0	0	0	0	0
Major contracts	877	7,285	5,938	39,572	161,658	120,082	51,888	387,300
Minor construction	0	0	0	0	0	0	0	0
Minor contracts	0	0	0	0	0	0	0	0
Right-of-way	2	0	492	7,334	15,512	38	429	23,807
Subtotals	879	7,285	6,430	46,906	177,170	120,120	52,317	411,107
Total toll bridges	15,857	55,732	54,468	106,206	200,203	126,679	56,273	615,418
Grand Totals	\$33,494	\$79,080	\$322,717	\$380,082	\$325,088	\$222,446	\$122,167	\$1,485,074

Blank page inserted for reproduction purposes only.

APPENDIX D

Bond Act Reimbursements as of June 30, 2001

TABLE 5

**Status of Reimbursements for Interim Funding
(In Thousands)**

	State Highway Account	Consolidated Toll Bridge Fund	Totals
Expenditures Fiscal Years 1994–95 and 1995–96	\$103,048	\$11,003	\$114,051
Reimbursements Fiscal Year 2000–01	26,302	0	26,302
Balance to Be Reimbursed	\$ 76,746	\$11,003	\$ 87,749

Blank page inserted for reproduction purposes only.

Agency's comments provided as text only.

Business, Transportation and Housing Agency
980 9th Street, Suite 2450
Sacramento, CA 95814-2719

December 5, 2001

Elaine M. Howle
State Auditor
Bureau of State Audits
555 Capitol Mall, Suite 300
Sacramento, CA 95814

Dear Ms. Howle:

Attached is the Department of Transportation's (Caltrans) response to your draft report, *Department of Transportation: Its Seismic Retrofit Expenditures Generally Comply With the Bond Act, and It Has Begun to Reimburse the Interim Funding for Fiscal Years 1994-95 and 1995-96* (#2001-010). I am pleased that Caltrans indicates it has already begun action to address the finding and recommendation to direct staff to follow its policy of allocating costs to all projects benefiting from the expenditure.

Thank you for acknowledging the progress Caltrans has made both in retrofitting more than 1,150 state-owned highway bridges and the 7 state-owned toll bridges and in reimbursing the interim funding obtained during fiscal years 1994-95 and 1995-96. I look forward to Caltrans' continued advance toward its goals of finishing the retrofits and completing the fund reimbursement.

I appreciate the opportunity to respond to your audit report. If you need additional information, please do not hesitate to contact me, or Michael Tritz, Chief of the Office of Internal Audits within the Business, Transportation and Housing Agency, at (916) 324-7517.

Sincerely,

(Signed by: Maria Contreras-Sweet)

MARIA CONTRERAS-SWEET
Secretary

Attachment

Department of Transportation
Office of the Director
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

December 4, 2001

MARIA CONTRERAS-SWEET, Secretary
Business, Transportation and Housing Agency
980 - 9th Street, Suite 2450
Sacramento, CA 95814

Dear Secretary Contreras-Sweet:

I am pleased to provide our response to the Bureau of State Audits' (BSA) draft audit report entitled, "*Department of Transportation: Its Seismic Retrofit Expenditures Generally Comply With the Bond Act, and It Has Begun to Reimburse the Interim Funding for Fiscal Years 1994-95 and 1995-96.*"

The report noted that the Department inappropriately charged some expenditures (lab costs in District 4) to seismic retrofit projects. BSA is recommending that to ensure that Bond Act proceeds are only used to pay for eligible expenditures under the Bond Act, the Department should direct its staff to follow its policy to allocate certain types of costs, such as lease payments and repairs, among all projects benefiting from the expenditure.

Although the total discrepancy was only \$6,822 and was the result of an administrative oversight, the Department takes the finding seriously, and has taken steps to correct the identified problems. The Department has reminded its District 4 construction lab personnel of its current procedures for prorating lab costs to multiple projects. Further, the Department will update its current supplemental administrative guidelines (i.e., "Blue Memos") used in its District 4 construction offices for charging practices. The update will be consistent with the Department's current Deputy Directive DD-41 entitled "Departmental Charging Practices" issued by the Department's Headquarters office on April 11, 1995. Specifically, DD-41 requires that all employees use proper departmental charging practices when coding source documents and input to automated systems. Once the Blue Memo is updated, District staff will be given specific guidance on required charging techniques. This will be done through quarterly Resident Engineer meetings in the District.

If we can provide further information, or if you have any questions, please contact Gerald Long, External Audit Coordinator, at (916) 323-7122.

Sincerely,

(Signed by: Jeff Morales)

JEFF MORALES
Director

cc: Members of the Legislature
Office of the Lieutenant Governor
Milton Marks Commission on California State
Government Organization and Economy
Department of Finance
Attorney General
State Controller
State Treasurer
Legislative Analyst
Senate Office of Research
California Research Bureau
Capitol Press