

California State Auditor

B U R E A U O F S T A T E A U D I T S

California Department of Transportation:

*It Manages the State Highway Operation
and Protection Program Adequately, but It
Can Make Improvements*



August 2002
2002-103

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CALIFORNIA STATE AUDITOR

ELAINE M. HOWLE
STATE AUDITOR

STEVEN M. HENDRICKSON
CHIEF DEPUTY STATE AUDITOR

August 6, 2002

2002-103

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 requested by the Joint Legislative Audit Committee, the Bureau of State Audits presents its audit report concerning the California Department of Transportation's (Caltrans) process for managing State Highway Operation and Protection Program projects.

This report concludes that Caltrans manages projects adequately, but not all project personnel follow departmental policies for maintaining project records that the State needs to be able to assess and collect damages if disputes with contractors arise. Also, Caltrans does not review the financial statements of surety insurers that issue performance bonds to contractors to determine whether the insurer's assets are adequate to cover the amount of the bond before it awards contracts, as state law permits. However, even if Caltrans reviewed insurers' financial statements, this determination may not always indicate when an insurer is financially unstable. Other indicators such as operating losses shown on an insurer's financial statements or credit ratings may raise flags about an insurer's financial stability. Finally, Caltrans does not have a well-coordinated strategy for its district staff to address the public's concerns with its projects.

Respectfully submitted,

ELAINE M. HOWLE
State Auditor

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SUMMARY

Audit Highlights . . .

Our review of the California Department of Transportation's (Caltrans) management of its State Highway Operation and Protection Program (SHOPP) found that:

- Most SHOPP projects do not exceed their original funding allocation. Also, although most of the 20 projects we reviewed experienced time delays, the causes for the delays appear reasonable.*
 - Resident engineers did not always maintain complete records of project events. Without these records, Caltrans is vulnerable to contractor claims for more money and cannot accurately assess contractors for liquidated damages.*
 - Caltrans does not evaluate the financial stability of the surety insurers that issue performance and payment bonds to its contractors.*
 - Caltrans lacks comprehensive policies and procedures instructing district staff on how to document and address complaints from the public regarding projects.*
-

RESULTS IN BRIEF

With more than 23,000 employees, the California Department of Transportation (Caltrans) operates and maintains the 15,000-mile State Highway System. California's ever-busier highways require increasing amounts of upkeep, so the Legislature in 1989 created the Caltrans State Highway Operation and Protection Program (SHOPP) to allocate the almost \$4 billion Caltrans spends each year on capital improvements to preserve the highway system. In 2000 and 2001, a SHOPP-funded project in Ventura County encountered design and execution problems with the construction of a concrete median barrier along Highway 33 (Highway 33 project). Numerous delays in this project extended motorists' inconvenience for more than a year longer than planned.

Public outrage over the Highway 33 project delays prompted our review of Caltrans' management of construction projects under SHOPP. Our review found several factors contributing to the Highway 33 project delays, including Caltrans' use of outdated information to develop its design plans, its failure to monitor the contractor's performance properly, and its failure to terminate the contract immediately after problems with the contractor's performance arose. However, our review of 19 other projects did not reveal large-scale problems like those of the Highway 33 project, leading us to conclude that Caltrans manages the SHOPP adequately. Although some of the other projects did exceed their funding allocations and project completion dates, the additional costs were minimal and the causes of delays were reasonable.

However, Caltrans could not always account for construction delays because many resident engineers, who are responsible for managing project construction costs and contracts, failed to maintain complete and accurate records of contractor activities and weather conditions. For example, the resident engineers for 5 of the 20 reviewed projects did not maintain complete daily records of project events. These records support the engineers' weekly statements of days when contractors could not work because of factors such as the weather and days when contractors chose not to work on the scheduled tasks. Without

these records, Caltrans is vulnerable to contractor claims for more money and cannot accurately assess contractors for liquidated damages (monetary charges that Caltrans can assess against a contractor who does not complete the project in the time allowed under the contract).

A surety insurer guarantees the behavior of persons or the performance of contracts through the issuance of a bond. State law permits Caltrans to obtain financial statements from surety insurers and to determine whether the insurer's assets exceed liabilities in an amount equal to or more than the bond. Caltrans can protect the State further against project losses by reviewing other aspects of an insurer's financial statements and using the Internet and other resources to verify its financial status before accepting a performance or payment bond and again during the project work, especially when a contractor is having trouble fulfilling the contract terms. In the Highway 33 project, when Caltrans dismissed the contractor, its surety insurer proved to be insolvent. Caltrans did not obtain and review the financial statements of the Highway 33 project surety insurer. Our review of the calendar year 1999 financial statements of that surety insurer found that, although the assets exceeded the liabilities by more than the bond amount, the income statement showed an operating loss of about \$7.9 million. Also, before Caltrans approved the Highway 33 performance bond, Standard & Poor's (S&P) had revised its opinion of this surety insurer from stable to negative. It continued to downgrade the insurer's credit rating in the year 2000, while the Highway 33 project itself was floundering. Caltrans maintains that the problem with the Highway 33 project insurer is unusual and contends that it does not have the authority to use financial information to challenge the sufficiency of an insurer. However, the small amount of effort required to check the surety insurer's financial statements and other financial indicators is worth the protection from major losses when contractors fail to perform according to their contracts.

Finally, although it uses methods such as press releases and flyers to inform the public of projects, Caltrans lacks comprehensive policies and procedures instructing district staff on how to document and address complaints from the public. Without a well-coordinated strategy, the Caltrans public information officer for the Highway 33 project could not effectively monitor and respond to the public outcry that grew without Caltrans headquarters even knowing about the negative publicity surrounding this project.

RECOMMENDATIONS

To ensure that it can defend itself adequately against contractor claims and to assess contractors accurately for liquidated damages, Caltrans should ensure that the resident engineers and assistant resident engineers maintain complete and accurate daily records of all relevant events on working days and nonworking days and ensure that resident engineers complete the weekly statements accurately.

To ensure that Caltrans can collect on a performance bond, the Legislature should consider expanding Caltrans' ability to use other indicators included within the financial statements and information available from companies such as S&P as a basis for determining the sufficiency of an insurer before accepting performance bonds. Further, the Legislature should clarify Caltrans' authority to use the information it obtains from financial statements and other financial indicators to object to the sufficiency of an insurer throughout the bond term.

To ensure that districts handle complaints consistently, Caltrans should develop comprehensive public relations policies and procedures that address the process to use when responding to complaints, the documents that should be maintained, and the method district offices should use to assess their public relations efforts. Further, Caltrans should monitor the district offices' public relations efforts periodically.

AGENCY COMMENTS

Caltrans agrees with our findings and recommendations related to its management of construction projects and handling of public concerns regarding its projects. However, Caltrans believes that when considering our recommendation, the Legislature should focus its attention on granting the Department of Insurance authority to review the sufficiency of insurers and share its findings with relevant state agencies, including Caltrans. Further, Caltrans believes that the Legislature should consider the cost of such a policy relative to the likely benefits in view of how rarely situations arise where a contractor fails to perform and its surety becomes insolvent. ■

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INTRODUCTION

BACKGROUND

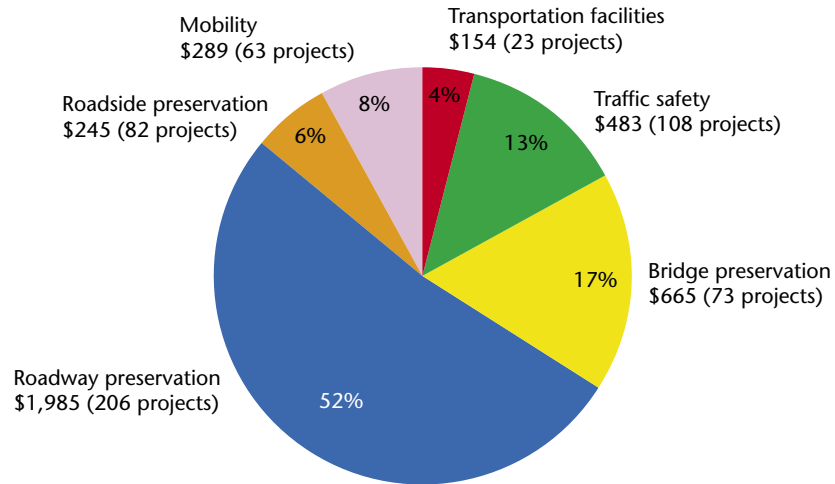
In 1989 the Legislature created the California Department of Transportation's (Caltrans) State Highway Operation and Protection Program (SHOPP) to allocate funds for major capital improvements necessary to preserve and protect the State's highway system. Caltrans prepares a list of SHOPP improvement projects, including those related to maintenance, safety, and rehabilitation of state highways and bridges, that it expects to complete within the next four fiscal years. It includes this list in its 10-year plan for the rehabilitation and reconstruction of all state-owned highways and bridges. State law requires Caltrans to prepare this 10-year plan for the governor and Legislature.

Every two years, the California Transportation Commission (CTC), consisting of nine members appointed by the governor with the advice and consent of the Senate, and two non-voting ex-officio members from the Legislature, approves the SHOPP's funding level. On April 4, 2002, the CTC approved Caltrans' list of SHOPP projects for fiscal years 2002–03 through 2005–06. Figure 1 on the following page shows the 2002 SHOPP projects by program category and funding. Almost 70 percent of SHOPP's budget for 2002 is for preserving California's roadways and bridges, which need an enormous amount of upkeep, such as repairing roadways and strengthening bridges to meet permit loadings. Generally, a SHOPP project's funding has the following four components:

- The contractor's bid amount.
- The amount of materials and expenses the State agrees to incur, such as providing office space and construction zone traffic control services of the California Highway Patrol.
- The amount estimated for unforeseen changes, such as repairing irrigation pipes damaged during the rainy season.
- The amount of any work of an uncertain nature or amount that is not done on a contract item basis (supplemental work), such as soil sampling for lead content.

FIGURE 1

**Funding, Percentage of Funding, and Number of
2002 SHOPP Projects Approved by Category
(In Millions of Dollars)**



Source: California Department of Transportation.

Note: The four categories in the 2000 SHOPP were expanded to six categories to provide additional detail for the 2002 SHOPP. In the 2000 SHOPP, bridge preservation projects were under the roadway rehabilitation category and mobility and transportation facilities were under the operations category. Mobility focuses on reducing delays and improving the movement of goods by trucks. Transportation facilities focuses on improving Caltrans' maintenance and shop facilities to meet regulatory standards.

Although the CTC approves the SHOPP's level of funding, it allows Caltrans to adjust the funding allocation for projects under certain conditions. For example, beginning in December 1998, the CTC delegated to Caltrans the authority to adjust construction projects costing more than \$750,000. However, for projects less than \$1 million, this adjustment cannot exceed \$200,000; and for projects more than \$1 million, the adjustment cannot exceed \$200,000 plus 10 percent of the CTC's allocation. In addition, Caltrans can adjust minor capital projects (between \$111,001 and \$750,000) if the adjustment does not exceed the CTC's allocation by more than \$150,000.

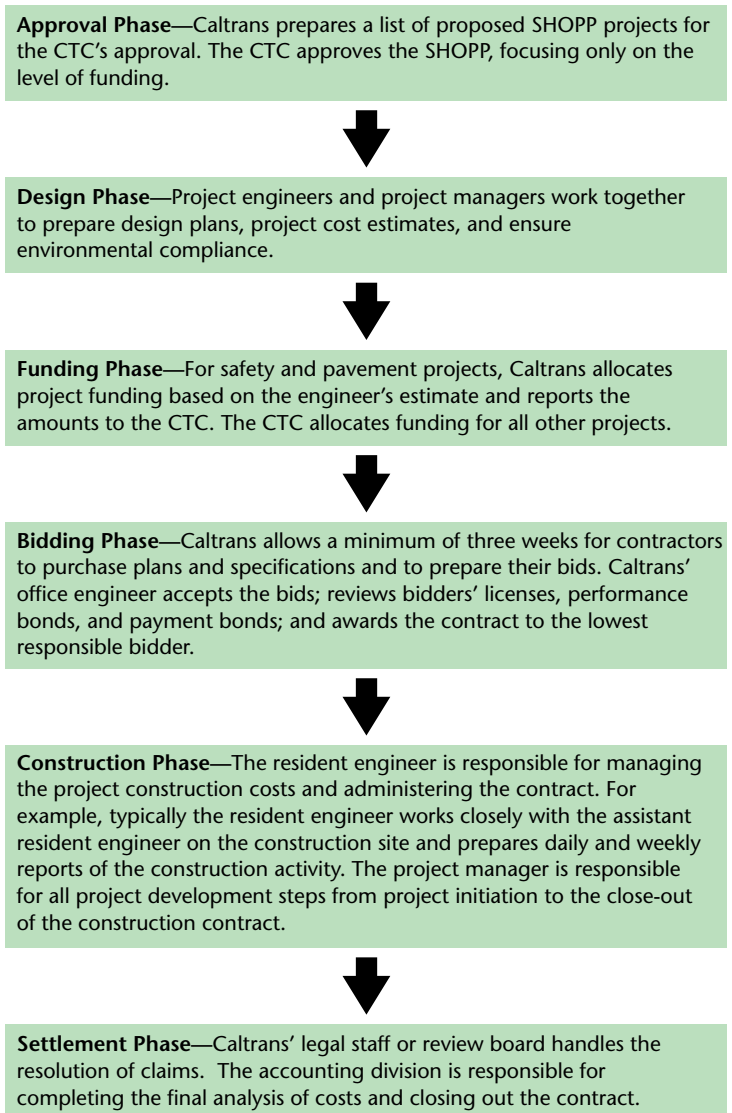
A project contract specifies the approved project allocation and the estimated number of working days Caltrans allows a contractor to complete the project. Weekends and holidays are excluded from the working days. As a project progresses, Caltrans tracks these working days by counting down from the total until the project is complete. Caltrans does not count down on days when it suspends the

project, when the weather conditions do not permit the contractor to work, and when it prohibits lane closures. Caltrans counts all other days as working days—so if a contractor decides not to work on the scheduled tasks, the countdown continues.

After a project is approved for funding, Caltrans advertises the project, accepts bids, and awards the contract to the lowest responsible bidder. The phases of a SHOPP project are shown in Figure 2.

FIGURE 2

SHOPP Project Lifecycle



Source: California Department of Transportation.

SCOPE AND METHODOLOGY

The Joint Legislative Audit Committee (audit committee) requested that the Bureau of State Audits examine Caltrans' process for managing SHOPP projects. Specifically, we were asked to determine whether Caltrans is managing projects to ensure the following:

- Minimal or no cost overruns and time delays.
- Contractors have valid performance bonds from solvent companies.
- Staff follow Caltrans' public relations policies and procedures.

For the purpose of our analysis, we considered any amount spent that exceeds a project's original funding allocation to be an overrun.

To understand Caltrans' role in managing SHOPP projects, we interviewed its headquarters and district staff. We also reviewed applicable state laws, and departmental policies, procedures, manuals, and guides. In addition, we interviewed a representative of the CTC to understand its role in monitoring Caltrans' management of SHOPP projects.

To evaluate cost overruns and time delays for the Highway 33 project, we reviewed the construction file and interviewed the resident engineer assigned to the project. Using population data, average daily traffic data, and the number of SHOPP projects within each county and their percentage of completion, we also selected a sample of 19 other projects (all 20 projects are described in Appendix A) from 7 of Caltrans' 12 district offices that are located in nine counties. For these 19 projects, we reviewed contracts, accounting records, and selected project administration documents, including progress payment vouchers, engineers' daily reports and weekly statements of working days, and contract change orders. We also analyzed Caltrans' cost data for our 20 projects and on all projects closed between July 1, 1999, and June 20, 2002.

Further, to determine whether Caltrans is able to minimize its risk arising from unreliable performance bonds, we interviewed Caltrans' legal staff and reviewed state law and Caltrans' policies, procedures, and practices.

Finally, to determine the adequacy of Caltrans' public relations efforts, we reviewed Caltrans' public relations goals and procedures. We also spoke with the public information officers in Caltrans' 12 district offices about how they inform the public about construction projects and how they handle inquiries and complaints. Further, we reviewed the districts' press releases and information on their Web sites. Moreover, we reviewed public relations documents found in the files for our sample of projects shown in Appendix A. ■

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AUDIT RESULTS

MOST SHOPP PROJECTS COST LESS THAN THEIR ORIGINAL ALLOCATION

Roughly 1,200 State Highway Operation and Protection Program (SHOPP) projects were completed between July 1, 1999, and June 20, 2002. On average, the majority of the projects, 915 or 76 percent, had costs that were \$141,000 (9 percent) less than their original project allocation (cost underrun). However, 280 projects had average cost overruns of about \$609,500, or 14 percent, of their original allocations. One project broke even. Table 1 shows the total net cost overrun or underrun (total overruns combined with total underruns) compared with the total originally allocated for the projects completed in the respective periods.

TABLE 1

**Net Cost Over or Under Original Allocation for Projects Closed
Between July 1, 1999, and June 20, 2002**

Fiscal Year	Number of Projects	Total Original Project Allocations	Total Amounts Paid to Contractors	Total Cost Over (Under) Original Allocation	Percentage Cost Over (Under)
1999–2000	352	\$ 822,733,749	\$ 823,834,263	\$ 1,100,514	0.13%
2000–01	588	1,026,477,405	1,013,221,248	(13,256,157)	(1.29)
2001–02	257	823,825,797	877,518,613	53,692,816	6.52

Source: California Department of Transportation.

Note: Amounts do not include state-furnished materials and other expenses, such as resident engineer office space and utility relocation contract payments. For fiscal years 1999–2000, 2000–01, and 2001–02 these costs do not represent a significant portion of project costs totaling \$1,992,490, \$6,444,648, and \$19,941,579, respectively.

In determining the amount of funding for a project, the California Department of Transportation (Caltrans) generally minimizes the occurrence of cost overruns by setting aside funds to allow for unforeseen changes. State law allows for funding of up to 10 percent of the project’s estimated cost for unforeseen changes. Caltrans typically sets aside 5 percent of a project’s subtotal of the contractor’s bid, supplemental work, and state-furnished materials and expenses as a contingency

for any unexpected expenses. Table 2 shows that expenditures exceeded the project allocation for only 2 of the 10 completed projects we reviewed.

TABLE 2

Summary of Costs for the Completed Projects We Reviewed

SHOPP Project Number	Project Category*	Original Project Allocation	Total Amount Spent	Percentage Spent Over (Under) Original Project Allocation
247901	Roadway rehabilitation	\$ 1,077,000	\$1,040,884	(3.4%)
429611	Operations	534,700	543,104	1.6
1A5201	Roadway rehabilitation	1,365,500	1,137,515	(16.7)
1A180K	Roadside rehabilitation	1,346,000	1,234,108 [†]	(8.3)
279601	Roadway rehabilitation	3,227,000	3,136,200	(2.8)
18340K	Safety	1,708,500	1,587,689	(7.1)
453001	Operations	10,450,000	9,762,134	(6.6)
18280K	Roadway rehabilitation	2,301,000	2,023,237	(12.1)
18320K	Safety	3,242,000	2,750,509	(15.2)
134604	Safety	2,875,500	3,398,730 [‡]	18.2

Source: California Department of Transportation, 2000 State Highway Operation and Protection Program.

Note: Refer to Appendix A for more complete project descriptions.

* 2000 SHOPP categories differ from 2002 SHOPP categories as discussed in the Introduction.

[†] As of July 2002, the final cost for this project had not been determined.

[‡] Includes cost incurred by another contractor to complete the project.

As shown, for the Highway 33 project (number 134604), Caltrans spent almost 20 percent more than budgeted. This overrun resulted because the original contractor was fired and another contractor was hired to complete the project. We discuss the Highway 33 project and its exceptional circumstances in more detail in Appendix B. The other project resulting in a cost overrun involved the construction of more than 200 curb ramps on various roadway and freeway interchanges in Sacramento and Placer counties. This project incurred cost overruns of roughly \$8,400, or 1.6 percent, because the design plans did not match the site conditions at 50 locations. Specifically, the design plans did not account for the need to adjust the existing asphalt concrete to meet certain accessibility requirements of the Americans with Disabilities Act.

The project's design engineer told us he had no previous experience with projects aimed solely at building curb ramps. He also explained that, as part of the routine maintenance from prior years, some of the curb ramp locations were overlaid with asphalt concrete, causing them to have steeper slopes than shown on the design plans. Although he told us that he inspected every curb ramp location, the engineer also said he failed to review thoroughly Caltrans' standard design plans for curb ramps and did not identify the locations with steeper slopes. Caltrans requires its engineers to ensure that the maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp, and continuous passage to the curb ramp do not exceed 5 percent within 1.22 meters of the top or bottom of the curb ramp to allow individuals in wheelchairs easy access to sidewalks and crosswalks. However, the engineer did not modify the design plans for the curb ramps accordingly, so additional labor and materials were needed to remove the existing concrete and replace it using the correct slope measurements. Because of these changes, the resident engineer had to request additional funding and four extra working days to complete the project.

MOST CONSTRUCTION DELAYS WERE FOR VALID REASONS

Although most of the 20 projects we reviewed experienced delays, the causes appear reasonable—except for the Highway 33 project. Weather conditions and Caltrans' own policy on lane closures are some of the justified causes of project delays. Although reasonable, these delays cause projects to be completed later than estimated and may cost the State additional funds. For example, one incomplete project has been delayed 303 days, but delays on 261 of those days resulted because temperatures were below the 68 degrees Fahrenheit that Caltrans requires for placing open-graded asphalt concrete. Caltrans suspended the project until the weather conditions were acceptable, so the contractor removed equipment from the project location and returned it once the work resumed. As part of its construction contracts, Caltrans allows contractors to charge costs related to moving the necessary personnel, equipment, and supplies to the project site. Although the contractor did not charge Caltrans for mobilization costs because his equipment yard was nearby, delays potentially can increase the State's costs if multiple suspensions occur and contractors continually have to move their equipment. In addition to delays resulting from unfavorable weather conditions, other factors can contribute

Weather conditions and Caltrans' own policy on lane closures are two of the justified causes of project delays.

to project delays and extend the estimated project completion date. For example, Caltrans does not allow lane closures during certain holidays so traffic can flow without any restrictions.

Although the delays related to weather conditions and holiday traffic do not extend the contract's specified number of working days, these delays do extend the estimated completion date of the project. As the Introduction explains, for each contract, Caltrans specifies the number of working days necessary to complete all construction work successfully and uses that number to project an estimated construction completion date. A working day is generally any day except Saturday, Sunday, and legal holidays. For example, in our previous example of the project that was delayed 303 days, the contract terms specified 150 working days. Starting with the first day of construction on October 31, 2000, Caltrans counted 150 working days and projected an estimated completion date of June 7, 2001. However, because of unsuitable weather conditions and traffic restrictions, Caltrans does not expect to complete the project until August 26, 2002.

Construction completion dates also are extended when Caltrans adds days to the contract, using contract change orders to modify the number of working days. Caltrans added extra days that were used by contractors to the contracts for 10 of the 20 projects we reviewed. In six cases, extra days were added primarily because of unforeseen incidents that resulted in additional work. For example, when the rainy season caused blocked drainage at one construction site, Caltrans had to add seven days to the project to resolve the drainage problem. For 4 other projects, Caltrans added days to correct errors in the design plans. For example, Caltrans had to add eleven working days to 1 project we reviewed because it failed to calculate correctly the slope of a portion of the roadway and the low point of a drainage system.

Construction completion dates can also be extended for unforeseen incidents, such as blocked drainage caused by the rainy season, or for errors in the design plans.

In Table 3 we compare the planned and actual project completion dates for the 10 completed projects we reviewed. Most projects are not completed on the original contract completion date, for the reasons previously mentioned. In contrast, we found three projects for which contractors were able to complete the construction ahead of schedule. For two of these projects, the contracts specified 200 working days to complete the construction. One project was completed in 151 working days.

TABLE 3**Planned and Actual Project Completion Dates**

Project Number	Project Category*	Originally Projected Contract Completion Date	Actual Contract Completion Date	Project Completed Within Working Days Allowed Under Contract
247901	Roadway rehabilitation	8/22/00	10/27/00	Yes
429611	Operations	11/8/00	11/27/00	Yes
1A5201	Roadway rehabilitation	11/29/00	4/13/01	Yes
1A180K	Roadside rehabilitation	11/23/01	1/7/02	Yes
279601	Roadway rehabilitation	1/14/00	9/11/00	Yes
18340K	Safety	11/20/01	10/5/01 [†]	Yes
453001	Operations	1/25/02	3/15/02	Yes
18280K	Roadway rehabilitation	4/4/02	12/5/01 [†]	Yes
18320K	Safety	11/13/01	9/28/01 [†]	Yes
134604	Safety	10/23/00	12/13/01 [‡]	No

Source: California Department of Transportation, 2000 State Highway Operation and Protection Program.

Note: Refer to Appendix A for more complete project descriptions.

* 2000 SHOPP categories differ from the 2002 SHOPP categories as discussed in the Introduction.

[†] Contractor completed project early.

[‡] Includes time incurred by another contractor to complete the project.

The other was completed within the 200 days allowed under the contract, although the contractor did no work for 71 days while Caltrans decided whether additional work was necessary. For the third project, Caltrans allowed 180 working days to complete the project, but the contractor was able to finish within 95 days.

Caltrans realizes that it can improve its process of estimating contract working days to minimize the disparities between the number of days in a contract and the number of days it takes a contractor to complete a project. Specifically, since 1995 Caltrans has been developing procedures and guidelines that require contractors to bid competitively both working days and construction costs, thus encouraging them to develop more detailed and organized work plans. Caltrans plans to fully implement its revised guidelines by September 2002.

SOME RESIDENT ENGINEERS DO NOT ADHERE TO CALTRANS' POLICIES FOR MANAGING PROJECTS

Caltrans must document each project's delays and the reasons for them. However, some resident engineers, who manage the project construction costs and administer the contracts, are failing to keep adequate records of days with adverse weather conditions and days that contractors choose not to work on scheduled tasks. Thus, the State lacks necessary records of the causes for project delays and may not be able to assess and collect damages in disputes with contractors about days when they did not work. Also, some resident engineers do not get the required prior approval from the Division of Construction or the district director for construction change orders, which can lead to delays in processing the change orders and to interest charges for late payments to contractors.

Some resident engineers are failing to keep adequate records, exposing the State to the risk of not being able to assess and collect liquidated damages if disputes with contractors occur.

As explained in the Introduction, each contract specifies the number of working days Caltrans allows a contractor to complete the project's designated work. Each working day when weather or other conditions do not prevent work is counted against the total number of contract days. According to Caltrans' construction manual, the resident engineer must prepare a daily report for each contract day during the project's life. The daily report should include pertinent information, such as important discussions and agreements reached with the contractor, a general statement about the type of work done, and any facts concerning the work's progress, exceptional weather conditions, and the reasons why no construction activity occurs on a particular day. The resident engineer also must prepare a weekly statement of working days, based on the daily reports, to report the status of contract time to the contractor. Assistant resident engineers also must complete daily reports, but are not specifically required to include information about weather conditions.

For 5 of the 20 projects we reviewed, the resident engineers did not maintain required daily records of project activities and events, and the assistant resident engineers for 2 of these 5 projects did not keep complete daily records. One resident engineer for a landscaping project told us that, instead of preparing a daily report for this particular small project, most reporting and record keeping was through written communication with the contractor. In addition, he prepares a bimonthly report. However, our review of his bimonthly report found that it is not an adequate substitute for the daily report because it does not track data on weather conditions.

The resident engineer's weekly statement indicated that the estimated construction completion date for this project was delayed 35 working days, primarily because of rain. The resident engineer told us he got the number of nonworking days resulting from rainy days for his weekly statement from the assistant resident engineer. However, our review of the project file found that the assistant resident engineer did not have daily records in the file to support the majority of these days. For this project, the assistant resident engineer wrote down the dates of all rain days on Post-It Notes and gave the notes to the office engineer to prepare the weekly statements. Clearly, using Post-It Notes instead of daily reports to capture important data on weather conditions does not comply with Caltrans'

Conditions That Prevent Contractors From Working

- Rain or wet ground prevents paving.
- Cold weather prevents placing open-graded asphalt.
- Hot weather prevents producing concrete that meets specified temperature.
- Caltrans prohibits lane closures.

policy. For an additional six projects, the resident engineers' records and the records of three assistant resident engineers were incomplete. For example, one resident engineer responsible for a project that took 59 days to complete could provide daily reports for only 6 days.

In addition, for 14 projects, the resident engineers' weekly statements of working days did not correctly report days on which the contractor could have worked but did not. For example, on a project to construct a concrete barrier at the median of Route 118 in Ventura County, the resident engineer's weekly statements and daily reports conflict: the daily reports showed that the contractor chose not to work on 14 scheduled working days, yet the weekly statements showed only 10 days. Caltrans requires contractors to complete construction within the number of working days set forth in the contracts and resident engineers to track the working days when contractors choose not to work on projects.

Caltrans must maintain accurate and complete records of working days to defend itself against contract disputes about the number of working days shown in the weekly statements and to assess liquidated damages, which is the amount contractors either lose from their payments or reimburse the State for each day's delay in completing work agreed upon in the contract. Although the above resident engineer correctly counted down the number of working days remaining under the contract, the engineer failed to report four days that the contractor did not do the scheduled work.

We found discrepancies in the number of working days recorded by Caltrans in another landscaping project. Here, the assistant resident engineer's daily reports showed the contractor had worked as scheduled on two days, but the resident engineer recorded these days on the weekly statement as nonworking days. Consequently, the number of working days the contractor had to complete the project as shown on the weekly statement was inflated by these two days. The resident engineer told us that he would consider this error when determining the final project costs. These types of errors, if undetected, leave Caltrans unable to account for liquidated damages accurately because of inadequate record keeping.

Further, the resident engineers for nine projects did not always complete the weekly statement of working days in a timely manner. Caltrans requires resident engineers to forward the original weekly statement to the contractor by the middle of the following week. However, we found that a few resident engineers waited as long as a month to complete their weekly statements. Delays in completing the weekly statements can hinder Caltrans' ability to resolve any contractor disputes expeditiously.

Some resident engineers waited as long as a month to complete their weekly statements of working days, which can hinder Caltrans' ability to expeditiously resolve any contractor disputes.

Finally, not all resident engineers adhere to Caltrans' policy on obtaining prior approvals for construction change orders. For five projects, the resident engineers did not obtain prior approval for 15 of 25 change orders before authorizing the contractor to proceed with additional work. One resident engineer did not get the necessary approvals for 6 change orders in a timely manner and obtained approvals for 4 of the orders after the project completion date of October 27, 2000. Because of these delays in completing and processing the change orders, Caltrans did not pay the contractor promptly and incurred \$996 in interest charges on the late payments.

Caltrans recognizes that its staff require more training to improve their knowledge and skills in managing construction projects. Specifically, Caltrans told us that it had hired roughly 6,000 employees between 1998 and 2001, and implemented a three-year capital project skill development plan in fiscal year 2000–01. Caltrans also told us that in fiscal year 2001–02, it devoted more than 146,000 hours to train construction and other capital project staff in roughly 20 contract administration and technical construction courses. However, although it expects to develop 30 more courses in fiscal year 2002–03, Caltrans has no plans to continue with this extensive training when the existing plan expires.

ALTHOUGH SOMEWHAT LIMITED BY STATE LAW, CALTRANS CAN REDUCE THE RISK OF LOSS TO THE STATE FROM POOR CONTRACTOR PERFORMANCE

Caltrans relies on state-required performance and payment bonds issued by a surety insurer (insurer) for loss protection when contractors fail to do the work as specified in the contract. However, although state law permits Caltrans to obtain financial statements from insurers, Caltrans believes it lacks authority to use those statements. Thus, it does not examine the insurer's financial statements, either at the beginning of or during a project, to evaluate its ability to cover possible project losses. Also, state law prevents Caltrans from knowing that the State's Department of Insurance (DOI) is investigating an insurer that is on its list of approved insurers. Therefore, it is important that Caltrans does its own checking of insurer's financial statements to reduce its risk of loss.

Although state law permits Caltrans to obtain financial statements from insurers, staff verify only that the performance bond amount is appropriate and that the issuing insurer is on the most recent list of insurers approved by the Department of Insurance.

State law requires contractors to provide Caltrans with separate performance and payment bonds issued by an admitted insurer, each in an amount equal to at least one-half of the contract price. An admitted insurer guarantees the behavior of persons or the performance of contracts through the issuance of a bond. State law deems an insurer sufficient if the following conditions are met: the bond is executed properly, the DOI authorizes the issuing insurer to transact surety insurance in the State, and the insurer's financial statements show that its assets exceed its liabilities by at least the amount of the bond. However, Caltrans' legal counsel has concluded that Caltrans cannot rely on that state law to challenge the sufficiency of an insurer based on the financial statements. Thus, when considering a bidder for a contract, Caltrans' office engineer staff verify only that the performance bond amount is appropriate and that the issuing insurer is on the most recent list of insurers approved by the DOI. Caltrans does not obtain and review financial statements to determine whether the insurer's available assets are adequate to cover the amount of the bond. Moreover, because a determination that an insurer's assets exceed its liabilities by at least the amount of the bond may not always indicate when an insurer is financially unstable, Caltrans could protect the State's interests better if it were able to object to the sufficiency of an insurer based on other indicators of financial instability.

On September 20, 2001, Caltrans terminated its contract with the Highway 33 project contractor because of his inadequate workforce, quality of workmanship, and failure to pay his

Caltrans could better protect the State's interests if it was able to object to the sufficiency of an insurer based on additional indicators of financial stability.

subcontractors. Caltrans was unaware that on March 30, 2000, the DOI had designated the contractor's insurer a troubled company. The DOI was unable to share this information with Caltrans because under state law its examination reports and supporting documents are confidential and can be shared only with other states' insurance departments, law enforcement officials, or the National Association of Insurance Commissioners to further legal and regulatory actions. The information was not made available to Caltrans and the public until August 29, 2001, when the court issued an order appointing the DOI's commissioner as the insurer's conservator. By November 30, 2001, the court had issued another order to appoint the DOI's commissioner as liquidator because the insurer was insolvent.

State laws allow Caltrans to object to the sufficiency of an admitted insurer on a bond and its director to order a contractor whose insurer is deemed insufficient by law to obtain a new, additional, or supplemental bond from a sufficient surety insurer. Caltrans believes it must award the contract to the lowest responsible bidder if an admitted insurer in the State issues that bidder's performance bond and if the bidder complies with all other contracting requirements. Our legal counsel advised us that, although state law allows Caltrans to obtain certain information from a contractor's insurer, including financial statements, Caltrans' authority to object to the sufficiency of an insurer is limited to circumstances specifically set forth in state law. For example, Caltrans could object to an insurer's sufficiency only if the financial statements reveal that the insurer's assets do not exceed its liabilities by the amount of the bond.

Nonetheless, even if Caltrans had reviewed financial statements from the insurer providing the performance bond for the Highway 33 project, that review would have shown that the insurer's assets exceeded its liabilities by the amount of the bond, and thus would not have provided Caltrans with a basis to object to the sufficiency of that insurer. However, other financial indicators raised flags that the insurer was facing financial difficulties. For example, the insurer's financial statements for calendar year 1999 showed a net operating loss of about \$7.9 million. Also, as early as November 5, 1999, before Caltrans' approval of the performance bond, Standard & Poor's (S&P) had revised its outlook for the insurer and its

Other financial indicators such as a \$7.9 million net operating loss and a downgraded credit rating raised flags that the insurer on the Highway 33 project was facing financial difficulties.

parent company from stable to negative. Moreover, beginning in calendar year 2000, S&P and A.M. Best Company continued to downgrade the insurer's and its parent company's credit rating. If Caltrans had greater authority to object to the insurer's financial stability throughout the bond term, based on its review of other information contained in the financial statements or poor ratings by S&P and A.M. Best Company, it might have been able to identify potential problems and order the contractor to substitute another insurer. Caltrans told us that it would file a proof of claim notice with the DOI before August 30, 2002, to recover its costs and damages resulting from the contractor's termination.

Caltrans believes projects such as Highway 33, with a terminated contractor and an insolvent insurer, are rare. Moreover, Caltrans' legal counsel has construed the director's authority to require a substitute or supplemental insurer as limited to those circumstances in which the DOI has suspended or revoked the insurer's certificate of authority, for example, because the insurer has become insolvent or when Caltrans receives other notifications regarding the bankruptcy or insolvency of an insurer. Further, Caltrans' legal counsel has concluded that Caltrans does not have authority to use financial statements to evaluate the sufficiency of an insurer because the DOI, by admitting an insurer to practice in California, has endorsed the sufficiency of that insurer. Thus, Caltrans believes it is entitled to rely on the fact that the DOI has listed the insurer on its Web site, without making further inquiries about the insurer's financial stability.

However, we believe Caltrans should review financial statements of insurers both before and during the course of a bond to protect the State's interests to the full extent permitted by law. Moreover, we believe Caltrans is in the best position to review the financial statements in the context of an insurer's ability to cover possible project losses because Caltrans, unlike DOI, knows the amount of a specific bond and can evaluate the sufficiency of the insurer as it pertains to that bond. It seems reasonable that, by using information easily available on the Web sites of companies such as A.M. Best Company and S&P or other sources of information regarding the financial stability of a bond's insurer, Caltrans could reassure itself that the insurer is staying financially stable throughout the term of the bond and could minimize the risk of loss when a contractor performs poorly or does not fulfill the contract requirements.

CALTRANS CAN IMPROVE ITS PUBLIC RELATIONS PROCESS TO AVERT NEGATIVE PUBLICITY

Caltrans can better meet its goal of communicating effectively with the public about construction projects that inconvenience drivers. Caltrans provides guidance to the district offices, but it relies primarily on them to determine when and how to communicate with the public. Unfortunately, most district public information officers do not track the nature and resolution of the complaints they receive, so public dissatisfaction can grow unbeknown to either the public information officers or Caltrans' headquarters. For example, the deputy director of external affairs at Caltrans' headquarters told us he was not aware of complaints surrounding the Highway 33 project until our audit began. Clearly, public reaction to projects such as the Highway 33 project can spiral out of control and damage Caltrans' image and credibility.

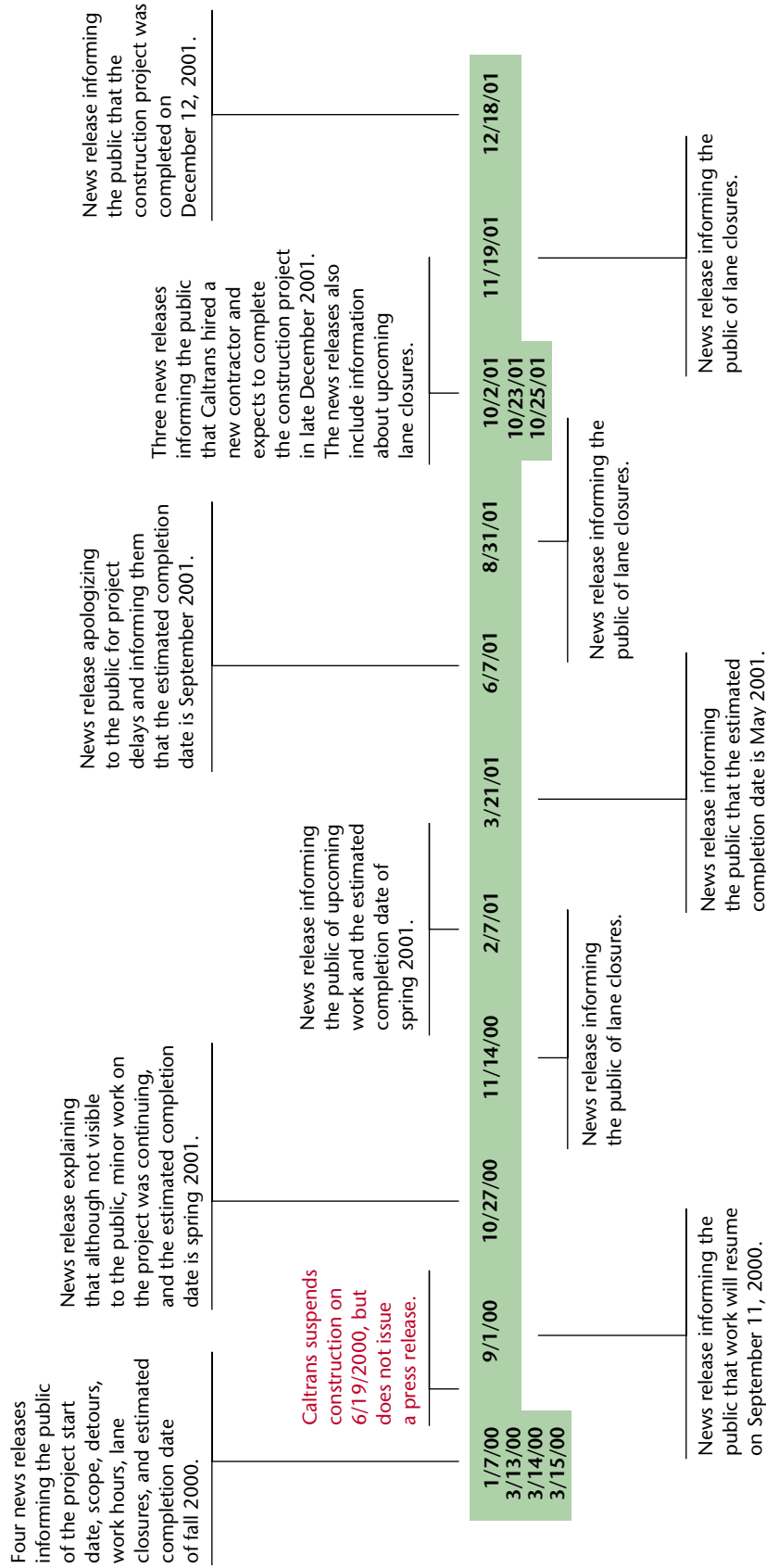
Because most district public information officers do not track the nature and resolution of the complaints they receive, public dissatisfaction can grow unbeknown to either the public information officers or Caltrans' headquarters.

Caltrans procedures suggest that resident engineers contact the district public information officer early in the project if construction information must be conveyed to a large number of highway users. Caltrans further suggests that the public information officer should make full use of the press, radio, Internet, and television to publicize the upcoming work and changing project conditions. The district offices use various means, including district Internet Web sites, press releases, and flyers, to inform the public about the progress of construction projects. For example, District 12 in Orange County uses flyers, message signs near the construction site, and press releases to inform the public. Generally, these documents contain information such as the scope and location of the project, the date and time construction will take place, and who to contact regarding the project.

However, Caltrans has not provided its district offices with procedures on how to document and address complaints regarding the status of construction projects. Caltrans received a significant amount of bad publicity because of its perceived failure to notify the public adequately about a lengthy delay in completing the Highway 33 project, although Caltrans did issue press releases for the project, as Figure 3 shows.

FIGURE 3

Timeline of News Releases for the Highway 33 Project



Despite 16 press releases, the public relations effort failed to address effectively public outrage over the project delays, as evidenced by complaints to city and state officials. Caltrans' headquarters remained unaware of the growing dissatisfaction, and evidently the district office never analyzed complaints and tailored effective responses. The public information officer for the Highway 33 project told us she handled all the complaints and inquiries relating to the project either personally or by referring them to the resident engineer or project manager. However, she did not keep records of the number and final disposition of the telephone calls and e-mails received. If the public information officer had kept a record of this activity, she might have been able to monitor and mitigate the public's dissatisfaction with Caltrans' public relations efforts and make headquarters aware of this dissatisfaction. Moreover, we found that at least seven public information officers in other districts also do not maintain records for complaints regarding their construction projects. This lack of records prevented us from adequately assessing the district offices' public relations efforts related to the projects we reviewed.

RECOMMENDATIONS

To ensure an adequate defense against contract disputes and to properly assess liquidated damages, Caltrans should ensure that resident engineers and assistant resident engineers maintain complete and accurate daily records of all relevant events occurring on working and nonworking days and that resident engineers complete the weekly statements accurately and in a timely manner.

To avoid incurring any unnecessary costs, including interest for late payments to the contractor, and to ensure that managers agree that proposed changes are necessary, Caltrans should ensure that its staff obtain prior approval for construction change orders in a timely manner.

To aid staff in properly managing construction projects, Caltrans should continue implementing its capital project skill development plan and ensure that staff continue to receive training after the plan expires.

To ensure that Caltrans can collect on a performance bond if a contractor does not perform, the Legislature should consider expanding Caltrans' ability to use other financial indicators

included within the financial statements and information available from companies such as A.M. Best Company and S&P as a basis for determining the sufficiency of an insurer, before accepting performance bonds. Further, the Legislature should clarify Caltrans' authority to use the information it obtains from financial statements and other financial indicators to object to the sufficiency of an insurer throughout the bond term.

To ensure that districts handle complaints and inquiries consistently, Caltrans should develop comprehensive public relations policies and procedures that specify the process to use when responding to complaints, the documents that should be maintained, and the method that district offices should use to assess their public relations efforts. Further, Caltrans should monitor the district offices' public relations efforts periodically.

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,



ELAINE M. HOWLE
State Auditor

Date: August 6, 2002

Staff: Joanne Quarles, CPA, Audit Principal
Debra L. Maus, CPA
Kris D. Patel
Loretta T. Wright

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APPENDIX A

Descriptions of the 20 Projects We Reviewed

We reviewed 20 projects that were selected from the 2000 State Highway Operation and Protection Program (SHOPP) approved by the California Transportation Commission. In Table A.1 we present a brief description of each project.

TABLE A.1

SHOPP Category	SHOPP Project Number	Project Description	Project Status as of April 2002
Roadway rehabilitation	247901	Rehabilitate the bridge deck and approach slabs and replace joint seals in Alameda County near Livermore at Greenville overhead.	Complete
Operations	429611	Construct curb ramps on existing roadways in Sacramento and Placer counties.	Complete
Roadway rehabilitation	1A5201	Rehabilitate pavement in San Joaquin County in and near Manteca from west of Route 99 and 120 separation to west of Jack Tone Road.	Complete
Roadside rehabilitation	1A180K	Concrete paving and masonry work on Interstate 5 from north of Land Park underpass to O Street overcrossing and near Route 50.	Complete
Roadway rehabilitation	279601	Asphalt concrete surfacing in San Joaquin County near Stockton Boulevard from Route 99 east of Fine Road and from Calaveras River Bridge to Calaveras County line.	Complete
Safety	18340K	Construct a median barrier in Los Angeles County in Palmdale from Avenue S to Avenue L.	Complete
Operations	453001	Construct a truck-climbing lane southbound on Route 215 and 60 separation in Riverside County.	Complete
Roadway rehabilitation	18280K	Rehabilitate roadway in Ventura County in and near Santa Paula from west of South Hallock Drive to Sespe Ranch undercrossing number one.	Complete
Safety	18320K	Construct a concrete barrier at the median in Ventura County in Moorpark and Simi Valley from Princeton Avenue undercrossing to Kuehner Drive undercrossing.	Complete
Safety	134604	Replace a median barrier in Ventura County in and near Ventura from Main Street undercrossing to south of North Ventura overhead.	Complete

continued on next page

SHOPP Category	SHOPP Project Number	Project Description	Project Status as of April 2002
Roadway rehabilitation	1A8501	Modify interchange, freeway, and structures near Folsom west of Sunrise Boulevard overcrossing to Latrobe Road undercrossing in Sacramento and El Dorado counties.	Ongoing
Operations	082701	Install a fiber optic cable system, closed circuit television cameras, and changeable message signs in Orange County in Costa Mesa on Route 55 from Wilson Street to Main Street and on Route 405 at Route 405 and 55 separation and in San Juan Capistrano on Route 5 north of Route 74.	Ongoing
Roadside rehabilitation	176800	Highway planting and irrigation in Alameda and Contra Costa counties in Dublin, San Ramon, and Danville at various locations from Dublin Boulevard undercrossing to south of Greenbrook Drive overcrossing.	Ongoing
Roadway rehabilitation	4180U1	Rehabilitate pavement in Riverside County in and near Murrieta and Perris on Route 15 at Route 15 and 215 separation and on Route 215 from Route 15 and 215 separation to south of Ethanac Road overcrossing.	Ongoing
Safety	07210K	Highway planting in San Diego from east of Nimitz Boulevard to Route 8 and 5 separation.	Ongoing
Roadside rehabilitation	00302K	Highway planting and irrigation in Los Angeles County in Monterey Park, Montebello, Rosemead, and South El Monte at various locations from west of Paramount Boulevard overcrossing to San Gabriel River Bridge.	Ongoing
Roadside rehabilitation	06610K	Replace planting and upgrade irrigation system in San Diego and National City on Route 805 from 22 nd Street pedestrian overcrossing to Market Street overcrossing and on Route 252 from 43 rd Street to Junction 805.	Ongoing
Roadway rehabilitation	437801	Rehabilitate Route 9 to Route 85 for relinquishment to the cities of Cupertino, San Jose, and Saratoga.	Ongoing
Roadside rehabilitation	134911	Highway planting and irrigation in Santa Clara from south to north of San Tomas and Montague Expressway overcrossing.	Ongoing
Roadway rehabilitation	09690K	Grind and replace concrete slabs, replace approach slabs, and seal bridge decks in Dana Point in Orange County and San Juan Capistrano on Route 5 at Route 5 and 1 separation; at Camino Capistrano on-ramp undercrossing; and in Westminster, Garden Grove, Santa Ana, and Orange on Route 22 from west of Route 22 and 405 separation to west of Route 22 and 55 separation.	Ongoing

APPENDIX B

Description of the Highway 33 Project

Several factors contributed to the long delay in completing the construction of a concrete median barrier along a nearly three-mile stretch of Highway 33, which serves as a link between the cities of Ventura and Ojai in Ventura County. Although scheduled to begin on January 7, 2000, the contractor did not begin working on the project until February 17, 2000. The project was completed more than one year after the proposed completion date because of design errors, contractor performance issues, and numerous delays—including those for typical reasons such as weather and holidays and for less typical reasons such as a 63-day work suspension to allow California Department of Transportation (Caltrans) design staff to review and change the project design plans. Consequently, as of July 2002, Caltrans has spent about \$321,000 more than its project allocation and incurred negative publicity.



The first contractor used concrete mix that was too wet and the barrier crumbled. The second contractor had to redo some of this work.

In preparing the project design plans, Caltrans' staff used the original design plans containing outdated information on the height of the barrier and the elevation of the road, two variables that must be adjusted to each other if the barrier is to provide adequate protection from oncoming traffic. According to the engineer responsible for designing the project (design engineer), after the existing barrier was constructed, an asphalt concrete overlay project had raised the elevation of some sections of the road. He also said the original design plans were used because of an unusually high workload, an accelerated schedule, and the knowledge that a survey for the project could not be completed in a short time. However, in his instructions to the resident engineer, the design engineer recommended conducting a survey of the existing terrain before construction. According to the resident engineer, the project was not complex and the design differences should not have presented a significant problem for the contractor. However, the contractor experienced repeated problems with a large piece of equipment used to build concrete barriers and financial difficulties that contributed to the delay. Table B.1 on the following pages presents a chronological list of the key events contributing to the project completion delay.

TABLE B.1**Chronology of Key Events Affecting the Highway 33 Project**

Date	Event
September 22, 1999	The project design engineer informs the resident engineer that a survey of the existing terrain and soil testing were not done during design phase.
December 9, 1999	Caltrans awards the contract.
January 7, 2000	The project is scheduled to begin, but the contractor does not start working.
January 20, 2000	Caltrans begins its survey of the existing terrain and discovers that a prior asphalt concrete overlay project had raised the elevation of some sections of the road.
January 31, 2000	The contractor signs a construction change order to perform soil testing.
February 17, 2000	The contractor's first day on the job—28 days late.
March 31, 2000	Caltrans substantially completes the survey of existing terrain.
April 7, 2000	Soil testing is completed and Caltrans approves the contractor's excavation of the soil.
May 30, 2000	Caltrans design staff visit the project site, where the contractor discusses his concern regarding potential drainage problems.
June 19, 2000–September 15, 2000	Caltrans suspends the project for 63 days to assess the drainage problem. Throughout the summer, various informal communications occur between Caltrans design and construction staff. The design staff recommends raising the median elevation to account for the asphalt overlay.
September 8, 2000	Caltrans sends a letter to the contractor warning that if he does not resume work on the project by September 11, 2000, it will terminate the contract.
October 3, 2000	The contractor asks Caltrans' surveyors to place survey stakes to mark the placement of the new median barrier.
November 28, 2000	Caltrans completes the construction staking and delivers the survey information to the contractor, instructing him to proceed with the construction of the barrier.
December 1–7, 2000	The contractor questions the accuracy of Caltrans' survey and does not work on the project, stating that he is awaiting an explanation from Caltrans. However, Caltrans instructs the contractor to return to work.
December 8–15, 2000	The contractor returns to work, but does not work on 3 of 6 days, stating that he is awaiting Caltrans' explanation of survey discrepancies.
December 21, 2000	Caltrans' staff visits the site and discovers that the contractor already had built several drainage inlets that allow water to flow into a pipeline under the barrier before requesting that Caltrans place survey stakes to indicate the placement of the barrier.
December 22, 2000–March 9, 2001	The contractor does not work on the project for 25 of 51 days, including 18 days due to poor weather and 7 days that the contractor chooses not to work.
April 5, 2001	The contractor exceeds the number of working days allowed by the contract and is subject to liquidated damages.
August 2000–September 2001	Numerous problems occur with equipment and concrete suppliers, and nine subcontractors file Stop Notices against the contractor claiming unpaid invoices totaling more than \$902,000.
April 30, 2001	Caltrans instructs the contractor to continue constructing the median barrier as shown on its plans, and requests an updated schedule for completing the project.

Date	Event
May 21, 2001	Caltrans' staff meets with contractor and discusses his unsatisfactory progress and substandard work.
June 15, 2001	Caltrans sends a letter to the contractor ordering him to resolve all Stop Notices and provide a detailed work plan.
June 26, 2001	Caltrans sends another letter to the contractor warning him to resolve all Stop Notices by July 5, 2001, or contract termination procedures will begin.
August 2001	Caltrans sends four letters requesting the contractor to submit a plan outlining the measures he will take to complete the project by September 10, 2001.
September 5, 2001	Caltrans sends a letter notifying the contractor that the contract will be terminated unless it takes certain actions immediately.
September 20, 2001	Caltrans terminates the contract.
October 5, 2001	Caltrans authorizes the district office to undertake informal bid procedures to seek a qualified contractor to complete the project.
October 18, 2001	Caltrans awards a contract to a second contractor.
December 12, 2001	The second contractor completes the project 7 days ahead of schedule. However, as of July 2, 2002, the cost overrun for the project approaches \$321,000.

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Agency's comments provided as text only.

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

July 26, 2002

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 (Department) response to your draft report, Department of Transportation: It Adequately Manages the State Highway Operation and Protection Program, But Can Make Improvements (#2002-103). Although we recognize that there were some isolated problems associated with the Highway 33 Project, I am pleased to see that you have concluded the Department adequately manages the State Highway Operation and Protection Program. As with any program of this magnitude, there is always room for improvement, and I am confident the Department will continue to mitigate the shortcomings you have identified by implementing the recommendations you have made to the Department.

Regarding the issues related to surety insurers, I agree with the Department's position that the responsibility for assessing the financial integrity of an insurer should remain with the experts in the Department of Insurance (DOI). Assigning this responsibility to non-experts at the various state agencies and departments would lead to potentially inconsistent or incorrect conclusions on their parts. Such subjectivity could render a department liable if, for example, its conclusion to deem an insurer insufficient had an adverse effect on the insurer as a going concern, yet the insurer had been fully accepted by another state agency. Therefore, the attention of the Legislature would seem to be more appropriately placed on the authority of the DOI to review the sufficiency of insurers and share its findings with relevant state agencies, including the Department, rather than on the authority of each of the agencies. Additionally, it would appear appropriate that the Legislature consider the cost of such a policy relative to the likely benefits in view of how rarely it occurs that a contractor fails to perform and its surety insurer becomes insolvent.

Elaine M. Howle
July 26, 2002
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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
Sacramento, CA 95814

July 24, 2002

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 titled "California Department of Transportation: It Adequately Manages the State Highway Operation and Protection Program, but Can Make Improvements."

Because of public concerns regarding delays that occurred on a Highway 33 project, the Joint Legislative Audit Committee requested that BSA review the California Department of Transportation's (Department) State Highway Operation and Protection Program (SHOPP). BSA stated in its draft audit report that several factors contributed to the Highway 33 delays: the "Department's use of outdated information to develop its design plans, its failure to properly monitor the contractor's performance, and its failure to terminate the contract immediately after problems first arose with the contractor's performance." However, BSA's review of 19 other projects did not reveal large-scale problems like those on Highway 33. This led to BSA concluding that the Department adequately manages its SHOPP program.

Nevertheless, the Department will continue to improve its handling of public concerns and its management of construction projects. This will include continued training of project personnel and better coordination between headquarters and district public affairs offices. However, to address the surety issues, the Department recommends that the Legislature consider granting the Department of Insurance the ability to review and share with identified State departments the sufficiency of an insurer instead of having the Department perform a sufficiency review.

Maria Contreras-Sweet
July 24, 2002
Page 2

During the last two fiscal years, the Department has averaged about 700 construction contracts per fiscal year. In fiscal year 2002, two sureties defaulted; however, only one was associated with a contract the Department terminated, Highway Project 33. During fiscal year 2001, the Department did not experience any sureties defaulting. Because the occurrence of both the contractor and the surety defaulting on the same construction contract over the last two fiscal years was less than one percent, we believe that it is not cost beneficial for the Department to perform sufficiency reviews on insurers throughout the term of their bonds. Lastly, the Department's Legal Counsel has determined that the Department has no authority to determine the financial stability of a surety insurer by reference to surety rating services.

The BSA draft audit report contains five findings and three recommendations. Findings 1 and 2 did not contain recommendations requiring a Department response. Please see the attachment for further details. If you have any questions, or require further information, please contact Gerald Long, External Audit Coordinator, at (916) 323-7122.

Sincerely,

(Signed by: Jeff Morales)

JEFF MORALES
Director

ATTACHMENT

Finding 1: Most SHOPP Projects Had Cost Underruns

Of the roughly 1,200 projects completed between July 1, 1999, and June 20, 2002, 915 projects had average cost underruns that were \$141,000 less than their original allocation. However, 280 projects had average cost overruns of about \$609,500. Although State law allows for unforeseen changes of 10 percent of the estimated cost, the Department sets aside 5 percent.

Of the 10 completed projects the BSA reviewed, only two had overruns. The first project, the Highway 33 project, the Department spent almost 20 percent more than budgeted. This was primarily attributed to the firing of the original contractor and the hiring of another contractor to complete the project. The second project, which involved the construction of more than 200 curb ramps, contained cost overruns of \$8,400 or 1.6 percent. This was attributed to design plans not matching site conditions at 50 locations. Even though some of the projects exceeded their funding allocations, the additional costs were minimal.

Recommendation:

No recommendation.

Finding 2: Most Construction Delays Were For Valid Reasons

The BSA noted that, although most of the 20 projects experienced time delays, the causes appear to be reasonable except for the Highway 33 project. However, BSA noted that for the 19 other projects reviewed, they did not reveal large-scale problems like those of Highway 33, thereby leading BSA to conclude that the Department adequately manages the SHOPP program. Even though some of the other projects exceeded their project completion dates, the causes of delay were reasonable.

Recommendation:

No recommendation.

Finding 3: Some Resident Engineers Do Not Adhere To Caltrans' Policies For Managing Projects

The Department could not always account for construction delays because many resident engineers (RE) failed to maintain complete and accurate records of contractor activities and weather conditions. For example, REs for five of the 20 projects reviewed did not maintain complete daily records of project events, which are records that support their weekly statement of days when contractors could not work because of factors such as weather, and days when contractors could not work on scheduled tasks. Without these records, the Department is vulnerable to contractor claims for more money and cannot accurately assess contractors for liquidated damages.

Recommendations:

To ensure an adequate defense against contract disputes and properly assess liquidated damages, the Department should ensure that REs and assistant REs maintain complete and accurate daily records of all relevant events on working days and nonworking days and ensure that REs accurately complete the weekly statements.

In addition, to avoid incurring any unnecessary costs, including interest for late payments to the contractor, and to ensure that managers agree that proposed changes are necessary, the Department should ensure that its staff obtains prior approval for construction change orders in a timely manner.

Further, to aid staff in properly managing construction projects, the Department should continue implementing its capital project skill development plan and ensure that staff continue to receive training after the plan expires.

Department Response:

The Department's Construction Division agrees to implement the audit recommendations, and will continue to improve contract administration processes as part of its ongoing quality effort. The Department will reiterate its current construction policies and manuals, which require:

- Complete and accurate daily records of all relevant events that result in accurate and timely weekly statements of working days.
- Contract change orders be necessary and be approved in a timely manner.

Further, the Construction Division will continue to conduct contract administration procedure evaluations (CAPE), focusing on these areas of concern, and will continue to support staff training in key contract administration areas that CAPE efforts and training surveys reveal.

Finding 4: Although Somewhat Limited By State Law, Caltrans Can Reduce The Risk Of Loss To The State From Poor Contractor Performance.

BSA is noting that the Department did not obtain and review the financial statements of the Highway 33 project surety insurer. When the Department dismissed the contractor, the contract surety insurer proved to be insolvent. BSA notes that State law permits the Department to obtain financial statements from surety insurers and to determine whether the insurer's assets exceed liabilities in an amount equal to or in excess of the bond. BSA's review of the calendar year 1999 financial statements of that surety insurer found that, although the assets exceeded the liabilities by more than the bond amount, the income statement showed an operating loss of about \$7.9 million. Also, BSA is noting that prior to the Department's approving the Highway 33 performance bond, the Standard and Poor's (S&P) had revised its opinion of this surety insurer from stable to negative and continued to downgrade the insurer's credit rating in the year 2000, while the Highway 33 project was floundering.

Recommendation:

To ensure that the Department can collect on a performance bond if a contractor does not perform, the Legislature should consider expanding Caltrans' ability to use other financial indicators included within the financial statements and information available from companies such as A.M. Best Company and S&P as a basis for determining the sufficiency of an insurer, before accepting performance bonds. Further, the Legislature should clarify the Department's authority to use the information it obtains from financial statements and other financial indicators to object to the sufficiency of an insurer throughout the bond term.

Department Response:

The Department is one of many State departments that is responsible for public works contracts. If the Legislature considers expanding the use other financial indicators for determining the sufficiency of an insurer, all departments with public works programs should have the same ability to determine the sufficiency of an insurer. As recommended, the Department could determine an insurer's bond to be deficient while another department, such as the Department of Water Resources, is obligated to accept the insurer's bond. However, expanding the authority of all departments with public works programs may lead to inconsistent determinations by the various departments. The Department recommends that the Legislature consider granting the Department of Insurance the ability to review and share with identified State departments any and all data related to the sufficiency of an insurer. Further, the Department of Insurance should make available to departments with public works programs updated lists on insurers' sufficiency.

Moreover, during the last two fiscal years, the Department has averaged about 700 construction contracts per fiscal year. In fiscal year 2002, two sureties defaulted; however, only one was associated with a contract the Department terminated, Highway Project 33. During fiscal year 2001, the Department did not experience any sureties defaulting. Because the occurrence of both the contractor and the surety defaulting on the same construction contract over the last two fiscal years was less than one percent, we believe that it is not cost beneficial for the Department to perform sufficiency reviews on insurers throughout the term of their bonds.

Lastly, the Department's Legal Counsel has determined that the Department has no authority to determine the financial stability of a surety insurer by reference to surety rating services.

Finding 5: Caltrans Can Improve Its Public Relations Process To Avoid Negative Publicity

BSA noted that, although the Department uses methods such as press releases and flyers to inform the public of projects that may affect them, the Department lacks comprehensive policies and procedures instructing district staff on how to document and address complaints from the public regarding its projects. Without a well-coordinated strategy, the Department public information officer for the Highway 33 project could not effectively monitor and respond to the public outcry that grew without the Department's headquarters even knowing about the negative publicity surrounding this project.

Recommendation:

To ensure that districts are consistent in their handling of complaints and inquiries, the Department should develop comprehensive public relations policies and procedures that specify the process to use when responding to complaints and inquiries, the documents district offices should maintain, and the method district offices should use to assess their public relations efforts. Further, the Department should periodically monitor the district offices' public relations efforts.

Department Response:

The Department's Public Affairs Offices (PAO) are committed to providing timely and accurate information and responses to public inquiries and complaints on all issues. The Offices further understand that the Caltrans Construction Manual is the proper document to identify the roles that various units within the Department should take on construction projects. Consequently, the Department's headquarters PAO along with the district PAO will identify and work with units responsible for construction projects to ensure that the existing policy is coordinated between field staff and district PAO's, and that complaints are responded to and carried out promptly and correctly.

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