State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

M e m o r a n d u m

To: CHAIR AND COMMISSIONERS

CTC Meeting: December 13-14, 2006

Reference No.: 3.8
Information Item

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Chief Financial Officer

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Project Management

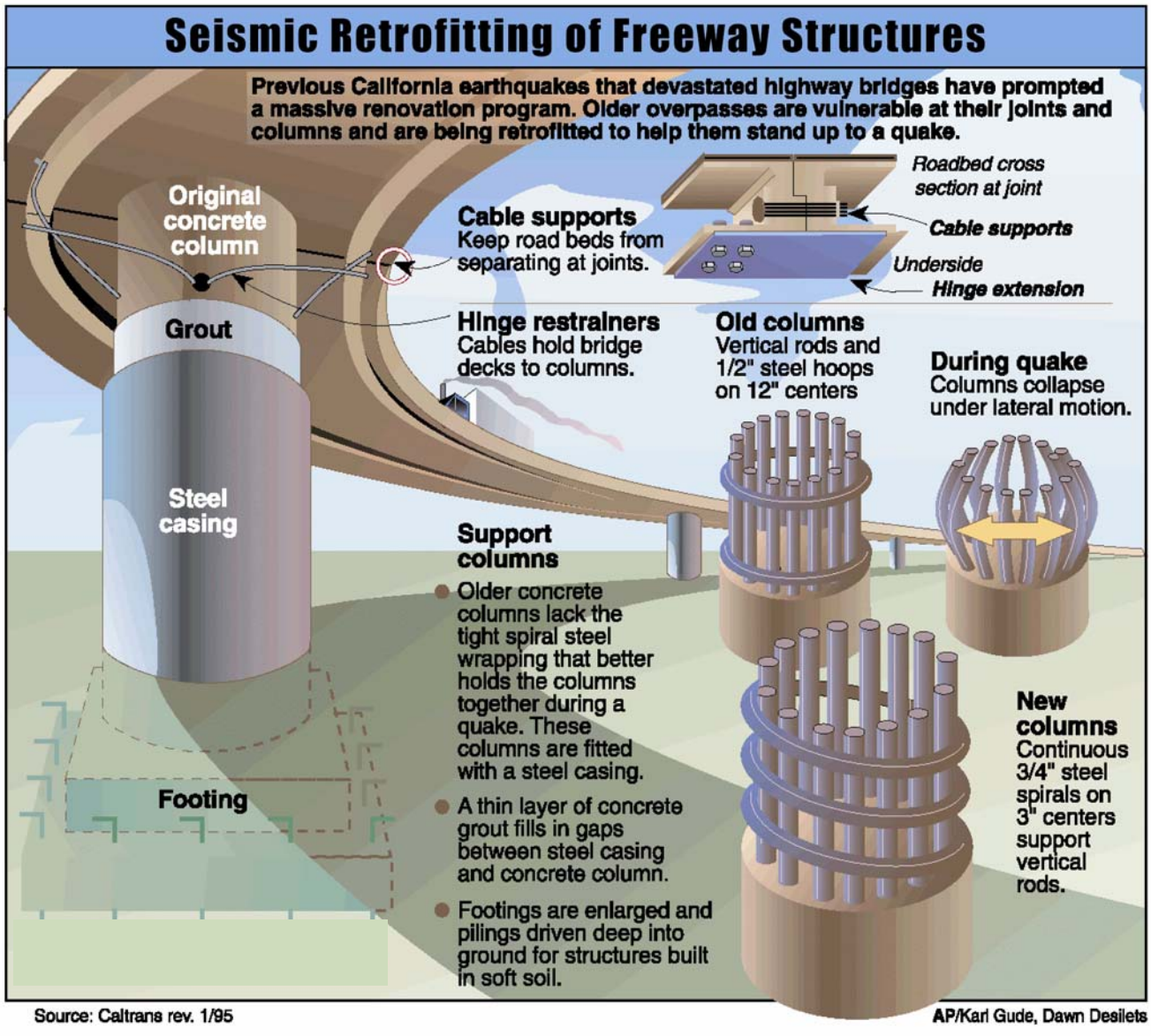
Subject: **2006 3rd QUARTER NON-TOLL SEISMIC RETROFIT PROGRAM REPORT**

Attached is the Department of Transportation's 3rd Quarter Non-Toll Seismic Retrofit Program Report for calendar year 2006.

Attachment

CALIFORNIA DEPARTMENT OF TRANSPORTATION

THIRD QUARTER 2006 NON-TOLL SEISMIC RETROFIT PROGRAM QUARTERLY REPORT



Reporting Period Ending September 30, 2006

Executive Summary

The purpose of this report is to provide information on the status and progress in delivering the California Department of Transportation's (Department) non-toll seismic retrofit programs. The Phase 1 Seismic Retrofit Program is complete and is no longer being reported on. The Toll Bridge Seismic Retrofit Program Report is prepared and submitted separately by the Toll Bridge Program Oversight Committee as outlined in Section 30952.2 (b) (1) of the Streets and Highways Code.

This report fulfills the Department's statutory reporting requirement outlined in Assembly Bill (AB) 144 (Chapter 71, Statutes of 2005), which amended Section 188.5 (g) of the Streets and Highways Code as follows:

"(1) Commencing on January 1, 2004, and quarterly thereafter until completion of all applicable projects, the Department shall provide quarterly seismic reports to the transportation committees of both houses of the Legislature and to the commission for other seismic retrofit programs.

(2) The reports shall include all of the following:

(A) A progress report for each program.

(B) The program baseline budget for support and capital outlay construction costs.

(C) The current or projected program budget for support and capital outlay construction costs.

(D) Expenditures to date for support and capital outlay construction costs.

(E) A comparison of the current or projected schedule and the baseline schedule.

(F) A summary of milestones achieved during the quarterly period and any issues identified and actions taken to address those issues."

The Department currently has two active non-toll seismic retrofit programs as outlined below.

Phase 2 Seismic Retrofit Program:

The program consists of additional (beyond Phase 1) State-owned bridges that were determined to need seismic retrofit based on additional screening.

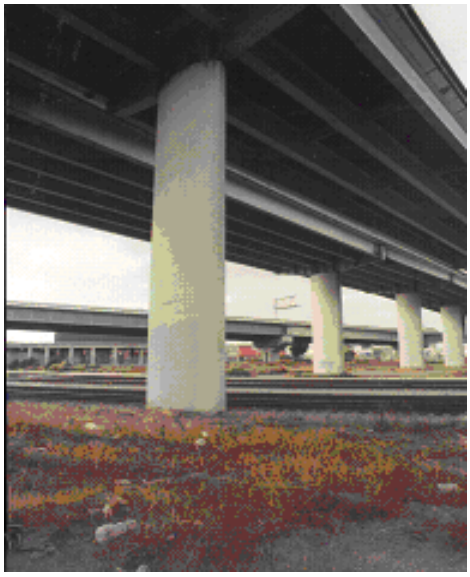
Local Bridge Seismic Retrofit Program:

The program consists of seismic retrofit of locally-owned and Department of Water Resources (DWR) bridges. This program is funded and implemented by the agencies having jurisdiction over the bridges.

Seismic Retrofit Program Overview

In California, there are more than 12,000 State-owned bridges on the State Highway System, plus an additional 11,500 city and county-owned bridges not on the State Highway System. Each bridge is inspected at least once every two years. Since the 1971 Sylmar earthquake struck the Los Angeles area, the Department has been engaged in an ongoing bridge Seismic Retrofit Program. Following the 1989 Loma Prieta earthquake, the Department's current Seismic Retrofit Program was established to identify and strengthen bridges that needed to be brought up to seismic safety standards.

Using research developed following the 1971 Sylmar earthquake, the Department initially identified 1,039 State-owned bridges in need of being retrofitted to meet seismic safety standards, called Phase 1. The Phase 1 program consisted of mostly single-column bridges that were considered the most vulnerable during an earthquake. The work was funded by State gas taxes.



After the 1994 Northridge earthquake, the Department identified another 1,155 State-owned bridges that became the Phase 2 program consisting of mostly multi-column bridges. Funding for this $1.35 billion program came from a $2 billion bond (Proposition 192), which was passed in 1996.

When the Seismic Retrofit Program was established, there were also seven State-owned toll bridges that required retrofit work. The status and progress of the Toll Bridge Seismic Retrofit Program is reported separately in the quarterly Toll Bridge Seismic Retrofit Program Report.

There are a total of 1,235 locally-owned and DWR bridges statewide in the Local Bridge Program. Lead agencies are responsible for assessing the need for seismic retrofit work on locally-owned bridges. The majority of funding comes from gas tax revenues utilizing subvention funds through the Department's Local Assistance Program and requires additional local funds.

SEISMIC EVALUATION

Based on the 1971 Sylmar earthquake research, the Department implemented new bridge design criteria. From 1986 to 1989, a retrofit program developed by the Department identified single-column bridges as being potentially the most vulnerable to earthquake damage. Research sponsored by the Department at the University of California, San Diego, led to a retrofit procedure that uses steel jackets to increase the strength of columns. Following the 1989 Loma Prieta earthquake, the Department sponsored accelerated retrofit research primarily conducted at the University of California, Berkeley, and the University of California, San Diego.

The Seismic Retrofit Program now involves strengthening the columns of existing bridges by encircling certain columns with a steel casing or, in a few instances, an advanced woven fiber casing. In addition to the column casing, some of the bridge footings are made bigger and given more support by placing additional pilings in the ground, or by using steel tie-down rods to better anchor the footings to the ground. In a few projects, bridge abutments are made larger and the existing restrainer units are made stronger because encasing the columns makes them stiffer and can change the way forces are transmitted within the bridge. Many seismic retrofits involve "hinge seat extensions" which enlarge the size of the hinges that connect sections of bridge decks and help prevent them from separating during severe ground movement. The design of each bridge to be retrofitted is "site specific" based on the maximum credible earth movement expected at that location. The design details depend on many factors, including the nearest active earthquake fault, type of geology beneath the bridge, and the original bridge design.

Phase 2 Seismic Retrofit Program

Progress Report

The Phase 2 Seismic Retrofit Program is currently 99 percent complete. To date 1,147 State-owned bridges, out of a total of 1,155 planned bridges, have been retrofitted under the Phase 2 program. Of the remaining eight bridges, one is under construction, two are advertised for construction, and five bridges are in design.

Milestones Achieved This Quarter

Two projects were advertised for construction this quarter. They are:

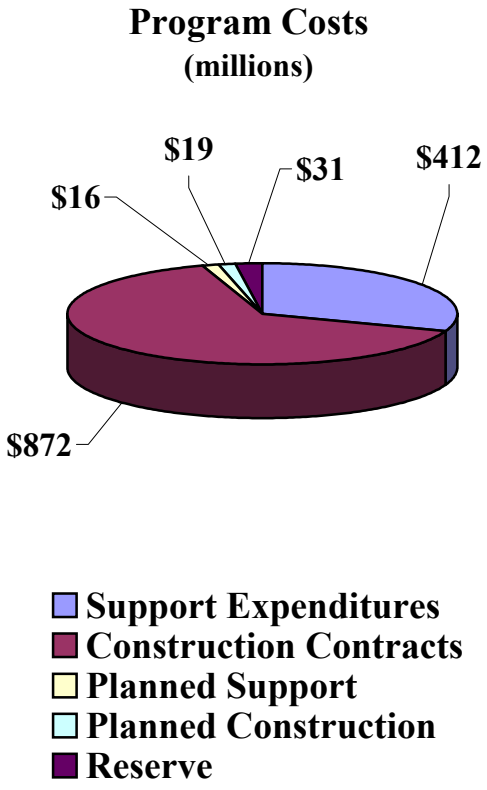
- Ten Mile River Bridge on Route 1 in Mendocino County.
- Hollister Overcrossing on Route 101 in Goleta, Santa Barbara County.

Program Budget and Expenditures

The total budget for Phase 2 is $1.35 billion. A total of $872 million has been allocated for construction and right-of-way, and an additional $412 million has been expended for support. The total of $1.284 billion committed to date utilizes approximately 95 percent of the available program funds.

Updated program costs reflect minor cost changes and a decision to proceed with an interim retrofit to provide enhanced seismic safety to the approach slabs for the Schuyler Heim Bridge. The added cost of approximately $10 million is being funded from the existing program reserve.

Of the remaining balance of $66 million, $19 million is planned to be allocated for construction and right-of-way, and $16 million is planned for support, leaving a reserve of $31 million. This reserve is intended to cover cost changes, higher than anticipated bid results, any potential supplemental funds that may be needed, and arbitration settlements. No program cost overruns are anticipated. All remaining funds will be utilized to complete the Phase 2 program.



Program Funds

The funding for the Phase 2 program for seismic retrofit comes from three sources. Proposition 192, which the voters approved in March of 1996, provides bonds for $1.21 billion. As shown in the table below, an additional $0.14 billion was expended from a combination of State ($99.8 million) and Federal ($40.2 million) funds prior to the passage of Proposition 192. The total budget for Phase 2 is $1.35 billion.

Seismic Retrofit Funds

Funds (millions)	Budgeted	Allocated
State	$99.8	$99.8
Federal	$40.2	$40.2
Bond	$1,210.0	$1,144.0
Total	$1,350.0	$1,284.0
Available		$66.0

As bridges were evaluated for seismic retrofit design strategies, it was determined that for some bridges it would be more cost effective to replace the bridge than to retrofit. This is particularly true when the existing bridge needed non-seismic improvements for bridge repair or rehabilitation.

The additional cost for replacement is beyond the scope of funds available for the retrofit program. Consequently, bridge replacement costs were programmed in the State Highway Operations and Protection Program (SHOPP).

Additional Bridge Replacement Funds Funded from SHOPP

Replacement Bridges	Program Year	Const $	R/W $
Ten Mile	2005-06	$ 22.3	$ 0.2
Projects Allocated from SHOPP - $22.5 million			
5th Avenue Overhead	2005-06	$ 122.1	$ 19.8
High Street Separation	2005-06	$ 73.2	$ 20.1
Schuyler Heim	2005-06	$ 250.0	$ 5.0
Projects Programmed in SHOPP - $490.2 million			

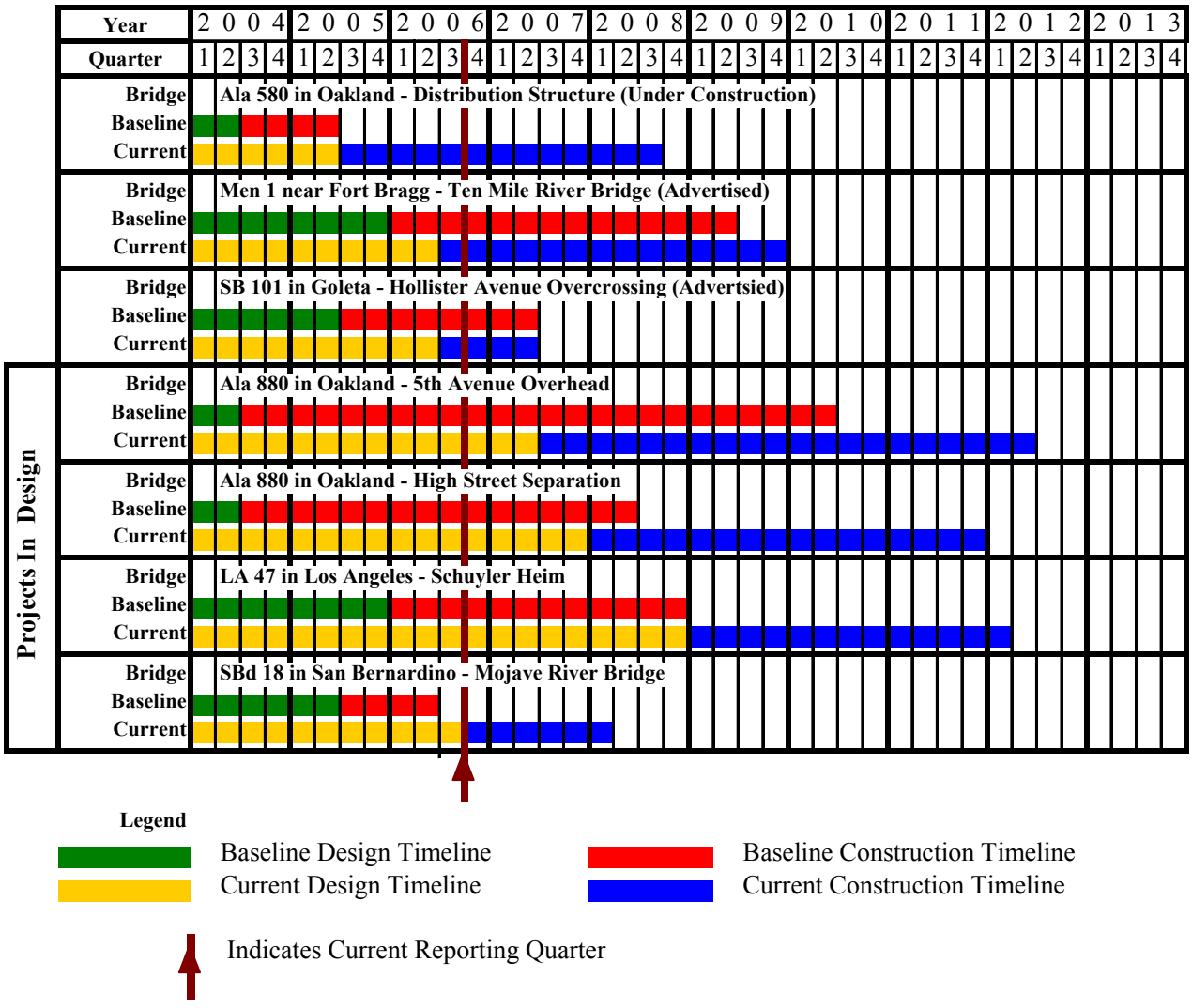
Program Delivery by Region / District

Bridges By Region	#	Percent of Total	$ million	Percent of Total
North Coast	81	7	$ 154	11
Bay Area	151	13	$ 527	39
Central Valley	267	23	$ 184	14
Southern California	656	57	$ 485	36
Total	1,155	100	$ 1,350	100

Bridges By District Office	#	Percent of Total	$ million	Percent of Total
1 (Redding)	69	6	$ 139	11
2 (Eureka)	12	1	$ 15	1
3 (Marysville)	36	3	$ 40	3
4 (Oakland)	151	13	$ 527	39
5 (San Luis Obispo)	107	9	$ 82	6
6 (Fresno)	77	7	$ 18	1
7 (Los Angeles)	292	25	$ 301	22
8 (San Bernardino)	131	11	$ 86	6
9 (Bishop)	7	<1	$ 2	<1
10 (Stockton)	40	4	$ 42	3
11 (San Diego)	172	15	$ 82	6
12 (Irvine)	61	6	$ 16	1
Total	1,150	100	$ 1,350	100

Comparison of Current and Baseline Schedule

While the program is 99 percent complete, the few remaining bridges (1 percent) are taking substantially longer than originally planned because they are either total bridge replacement projects, or are follow-up contracts to earlier contracts. The bridge replacement contracts face delivery challenges, including environmental protection, construction under heavy traffic conditions, and securing public and external agency input and acceptance for project approval.



Baseline date is planned schedule as of November 2001 (AB1171 approved)

Projects Being Advertised or Under Construction

Distribution Structure – Project #3 / 3
In Alameda County at the junction of Interstates 80 and 580 in Oakland.

This project is the third project to retrofit a portion of the bridges at this location. There have been multiple projects due to right-of-way utility relocation and constructability issues.

Retrofit Strategy: Reinforce columns and expand footings.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Mid 04	Early 05	
Current Schedule	Mid 05	Late 08	
Construction			$13.3
Right-of-Way			$ 0.0
Support			$ 5.3
Total			$18.6

Number of Bridges to be Retrofitted – 1
33 0061L EB 80 / EB 580

Work has just begun on this contract. The contract is currently 8percent completed.

The scope of this project includes seismic retrofit of 18 columns at the distribution structure. The project initially included another column; however, the retrofit strategy was not suitable for this column, and it was eliminated from the project plans. The Department plans to retrofit the last remaining column by initiating a change order next year to add it back into the current project, if appropriate, based on securing the right-of-way needed.

Hollister Avenue Overcrossing
In Santa Barbara County on Route 101 in Goleta.

Retrofit Strategy: Replace Bridge.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Mid 05	Mid 07	
Current Schedule	Mid 06	Mid 07	
Funding:			Total
Construction			$1.0
Right-of-Way			$0.0
Support			$0.3
Total			$1.3

Number of Bridges to be Retrofitted – 1
51 0123X Hollister Avenue Overcrossing

This project was advertised for construction on September 18, 2006 with a bid opening date of October 17, 2006.

Ten Mile River Bridge
In Mendocino County on Route 1 North of Fort Bragg and South of Westport.

Retrofit Strategy: Replace Bridge.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Late 05	Early 09	
Current Schedule	Late 06	Late 09	
Funding:	SHOPP	Seismic	Total
Construction	$22.3	$25.0	$47.3
Right-of-Way	$ 0.2	$ 0.0	$ 0.2
Support	$11.1	$10.0	$21.1
Total	$33.6	$35.0	$68.6

Number of Bridges to be Retrofitted – 1
10-0161 Ten Mile

This project was advertised for construction on August 14, 2006 with a bid opening date of November 17, 2006.

Not all of the permits required have been obtained, and a few risks do remain for the project. The project was approved for a risk vote and advertisement. The Department recently secured the water quality permit. The only permit still needed is the Coastal Development Permit, which is anticipated soon.

Projects in Design

High Street Separation

In Alameda County on Interstate 880 in Oakland.

Retrofit Strategy: Replace Bridges.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Mid 04	Mid 08	
Current Schedule	Late 07	Late 11	

Funding:	SHOPP	Seismic	Total
Construction	$73.2	$ 0.0	$73.2
Right-of-Way	$20.1	$12.0	$32.1
Support	$32.4	$10.0	$42.4
Total	$125.7	$22.0	$147.7

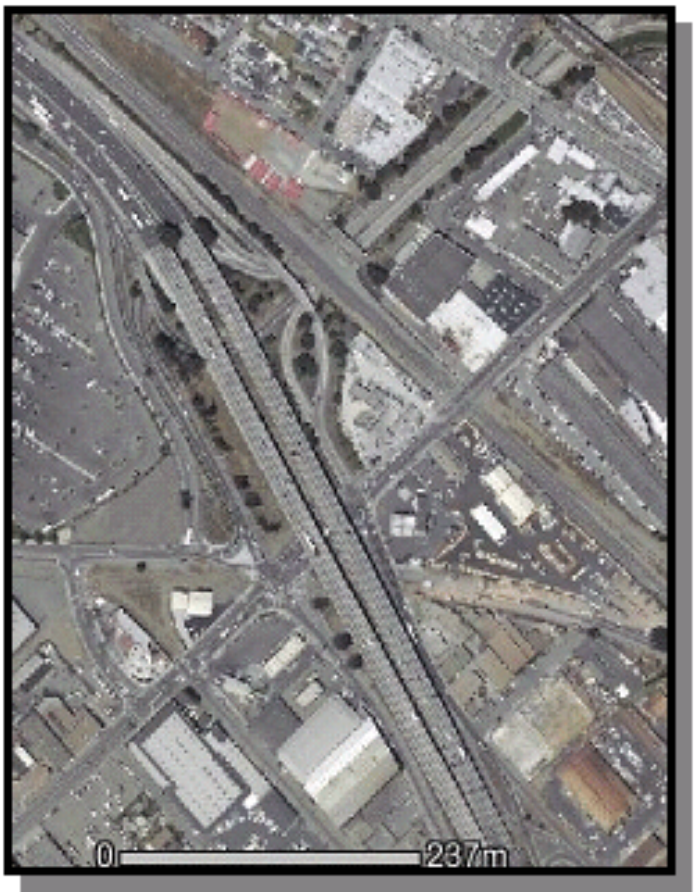
Number of Bridges to be Retrofitted – 2
33 0040L High Street Separation Overhead
33 0040R High Street Separation Overhead

Design plans for the bridge have been completed, and the roadwork plans are being finalized. Final contract plans are scheduled for late this year.

The major issue delaying the implementation of this project has been the project's right-of-way requirements.

One parcel presents a challenge to keeping the business in operation while another location is secured or the option to cut and reface the building is reevaluated.

Another schedule risk is that condemnation will likely be needed to secure one other parcel along with potential street modifications and approvals from the City and we may be required to secure a third parcel. The current schedule to advertise in December 2007 may be impacted depending on the outcomes of these issues.



Fifth Avenue Overhead
In Alameda County on Interstate 880 in Oakland.
Retrofit Strategy: Replace Bridge.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Mid 04	Early 10	
Current Schedule	Mid 07	Mid 12	
Funding:	SHOPP	Seismic	Total
Construction	$122.1	$ 0.0	$122.1
Right-of-Way	$ 19.8	$17.2	$ 37.0
Support	$ 15.3	$ 7.0	$ 22.3
Total	$157.2	$24.2	$181.4

Number of Bridges to be Retrofitted – 1
33 0027 Fifth Avenue Overhead

The major issue delaying the implementation of this project has been the ability to negotiate and finalize the railroad requirements with Union Pacific Railroad (UPRR). The project impacts UPRR facilities on both sides of the freeway.

Top management has been involved in reaching final decisions on the railroad requirements. The Department is now working to finalize a construction and maintenance agreement with UPRR to reflect these decisions. The current schedule is to advertise in September 2007. This schedule should accommodate the risks stated above.

Schuyler Heim Bridge
In Los Angeles County on Route 47 in Long Beach.
Retrofit Strategy: Replace Bridge.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Late 05	Late 08	
Current Schedule	Late 08	Early 12	

Funding:	**SHOPP**	**Seismic**	**Total**
Construction	$250.0	$6.0	$256.0
Right-of-Way	$ 5.0	$0.0	$ 5.0
Support	$ 25.1	$6.0	$ 31.1
Total	$280.1	$12.0	$292.1

Number of Bridges to be Retrofitted – 1
53 2618 Schuyler Heim Bridge

Note: Current schedule tied to local improvements schedule.

Initially, the Department designed a major retrofit project to rehabilitate and seismically retrofit this bridge. The contract plans were completed in 1998, and the Department submitted a funds request for $46 million to the California Transportation Commission (CTC) for allocation. Because of the significant cost to retrofit, the Department reevaluated its decision to retrofit the bridge and subsequently decided it would be more cost effective to replace the structure.

The Department made a decision this quarter to initiate an interim retrofit project to enhance safety of the approach slabs to the bridge. This will provide an increased level of safety on an interim basis while the bridge replacement project is implemented.

The Alameda Corridor Transportation Authority (ACTA) has been evaluating an elevated Truck Corridor Expressway to tie into a replacement bridge. The draft environmental document for the combined project is being finalized. The air quality analysis and studies need to be revised to reflect changes in scope including the addition of a flyover ramp. The public hearing is now anticipated to be in December 2006.

Because of the scope and magnitude of the combined project, there is a substantial amount of risk in delivering this project on the proposed schedule. Project risks are outlined below:

- Environmental issues (noise, air quality, and traffic impacts).
- Property impacts to pier operations.
- Residents may oppose the project.
- Time to address construction issues and complications due to maintaining and reconstructing, as needed, numerous utilities, railroad operations, and pier and port operations.
- Hazardous waste studies and remedial action.

Mojave River Bridge – Project #2 of 2
In San Bernardino County on Route 18 in San Bernardino.

This project is the second project to retrofit a portion of the bridge at this location. The second project was initiated as a result of unforeseen subsurface conditions encountered during construction that did not allow the first project to be completed.

Retrofit Strategy: Construct seismic anchor slabs and install steel-braced frames.

	Construction Begins	Construction Ends	Budget (millions)
Baseline Schedule	Mid 05	Mid 06	
Current Schedule	Late 06	Early 08	

Funding:	Total
Construction	$7.8
Right-of-Way	$0.2
Support	$1.5
Total	$9.5

Number of Bridges to be Retrofitted – 1
54 0307 Mojave River Bridge

This bridge was to be seismically retrofitted under the initial contract that went out to construction in 1998. During construction, it was discovered that the retrofit could not be completed at one of the footing locations due to existing site conditions, which consisted of cobblestones around the footing. This was not suitable to contain the potential for liquefaction in the riverbed during a seismic event. A follow-up project was initiated.

Subsequent delays have been incurred on the follow-up project as the Department has sought to finalize the seismic retrofit strategy to complete retrofit of this bridge. Securing environmental permits to evaluate the footing, and arriving at a workable solution, proved to be difficult.

The Department reevaluated the retrofit strategy and is now proceeding with a retrofit strategy that secures the bridge by anchoring the abutments, constructing seismic anchor slabs, and installing steel-braced frames.

The project is on track for advertisement November 2006. Previous risk factors including railroad approvals have been resolved and the project is on track.

Seismic Retrofit Program Budget, Expenditures, and Current Estimates

(Phase 2 Funds Only)

Bridges	Projects	Baseline Budget*	Current Budget*	Expenditures To Date*
1,147	**Completed Projects**			
	Capital Outlay Support		$ 385.9	$ 388.2
	Capital Outlay	$ 824.0	$ 811.1	$ 805.0
	Total		$ 1,197.0	$ 1,193.2
	Projects Being Advertised or In Construction			
1	**580 Distribution Structure**			
	Capital Outlay Support		$ 5.3	$ 0.5
	Capital Outlay	$ 15.0	$ 13.3	$ 0.0
	Total		$ 18.6	$ 0.5
1	**Hollister Avenue Overcrossing**			
	Capital Outlay Support		$ 0.3	$ 0.1
	Capital Outlay	$ 0.0	$ 1.0	$ 0.0
	Total		$ 1.3	$ 0.1
1	**Ten Mile River Bridge**			
	Capital Outlay Support		$ 10.0	$ 2.9
	Capital Outlay	$ 25.0	$ 25.0	$ 0.0
	Total		$ 35.0	$ 2.9
	Projects in Design			
1	**5th Avenue Overhead**			
	Capital Outlay Support		$ 7.0	$ 5.6
	Capital Outlay (R/W Only)	$ 0.0	$ 17.2	$ 7.5
	Total		$ 24.2	$ 13.1
2	**High Street Separations**			
	Capital Outlay Support		$ 10.0	$ 10.0
	Capital Outlay (R/W Only)	$ 0.0	$ 12.0	$ 12.0
	Total		$ 22.0	$ 22.0
1	**Schuyler Heim**			
	Capital Outlay Support		$ 6.0	$ 4.0
	Capital Outlay	$ 66.0	$ 6.0	$ 0.0
	Total		$ 12.0	$ 4.0
1	**Mojave River Bridge**			
	Capital Outlay Support		$ 1.5	$ 0.9
	Capital Outlay	$ 1.0	$ 8.0	$ 0.0
	Total		$ 9.5	$ 0.9
1,155	**Program Totals**			
	Capital Outlay Support	$ 419.0	$ 426.0	$ 412.2
	Capital Outlay	$ 931.0	$ 893.6	$ 824.5
	Total	$1,350.0	$1,319.6	$1,236.7

* *Note: All costs shown are in millions, and include only the seismic retrofit program's portions of costs and expenditures.*

Program Cost Adjustments

The preceding table compares baseline capital costs to current costs and shows that there have been a number of cost adjustments made between projects which have also been reflected in the Department's SHOPP. These are highlighted here to help explain the differences between current costs and baseline costs reported in other versions of this report. Below is a summary of changes and the reasons for them:

- Funds for Schuyler Heim were transferred to 5th Avenue and High Street to cover right-of-way costs in Fiscal Year 2003/04 when the Department's right-of-way plan for programmed projects was constrained due to cash flow.
- Other cost changes reflect the most current cost estimate for each project.

Program Risks

There are three major risks facing the remaining Phase 2 projects.

- Recent bids indicate significant increases in project costs. Of particular concern are rising steel and concrete prices. The Department continues to update current costs and manage money as needed to secure funding. Any cost increases for remaining bridges will be funded from the SHOPP.
- In instances where the Department needs an external project approval, delays are being incurred as the mitigation conditions are negotiated and finalized to satisfy the approving agencies. The Department is working diligently with the external agencies to secure their approvals. Efforts include identifying issues and requirements early and following up on these conditions.
- California Environmental Quality Act (CEQA) exemption legislation expired in June 2005. The Department has been seeking legislation to reinstate the CEQA exemption to potentially aid in delivery of some of the remaining seismic retrofit projects. AB 1039 provides CEQA exemption to specified levee, highway, and bridge seismic retrofit projects. However, the provisions of the bill would not be effective unless the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 is approved by the voters at the November 7, 2006, statewide general elections.

Local Bridge Seismic Retrofit Program

Progress Report

The Local Bridge Seismic Retrofit Program (LBSRP) is currently 57 percent complete. To date, 698 local bridges, out of a total of 1,235 planned bridges, have been retrofitted under the LBSRP. Currently, there are 45 bridges under construction, 296 bridges under design, and 196 bridges in a pre-strategy phase.

This program was initially mandated by emergency legislation (SB 36X) after the October 17, 1989 Loma Prieta earthquake. A combination of Federal and State funding was used to fund these projects through the Department's Local Assistance Program.

Then Governor Davis signed AB 2996 in late 2002, removing the program as a State mandate and made the programming of State match funds discretionary to local agencies through the State Transportation Improvement Program (STIP) programming process. The Department considers this program a high priority and continues to work with local agencies to encourage timely completion of these seismic retrofit projects.

Section 114 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) increased the Federal share of eligible bridge costs for projects off the Interstate System from 80.00 percent to 88.53 percent.

If the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 is approved, bond funds will provide $125 million for State matching funds to complete the LBSRP.

Milestones Achieved This Quarter

The status of local bridges by phase is as follows:

	2002	2003	2004	2005*	Q3
Complete	549	559	589	692	698
Construction	105	121	128	46	45
Design	278	266	248	291	296
Pre-Strategy	302	288	269	206	196
Total	1,234	1,234	1,234	1,235	1,235

**One bridge was added to the retrofit list in 2005.*

Program Budget and Expenditures

The estimated budget for the LBSRP is $1.36 billion. A total of $616.8 million has been encumbered (spent) to date.

The funding for the LBSRP comes from Federal, State, and local sources. Federal funds are provided through the Department's Local Assistance Program. State funds were provided through the annual budget process as a match for Federal funds until 2002. Since 2002, local agencies must provide matching funds from local funds or program State funds through the STIP process.

Funds (millions)	Spent	Plan	Total
State	$72.2	$0.0	$72.2
Local	$0.0	$86.0	$86.0
Federal	$544.6	$659.9	$1,204.5
Total	$616.8	$745.9	$1,362.7

Program Delivery by Agency Group

Bridges By Agency Group	Number Of Agencies	Pre Strategy	In Design	In Construction	Complete or No Retrofit	Total # Bridges	Percent Program
All Other Agencies	193	16	158	30	593	797	65%
Los Angeles Region (City and County)	2	1	66	15	104	186	15%
Department of Water Resources	1	15	9	0	1	25	2%
BART	1	164	63	0	0	227	18%
Total	197	196	296	45	698	1,235	100%

Since the program is 57 percent complete, the program information has been sorted in the table above by the number of program projects per agency to better understand which bridges have been completed and those that are remaining.

Based on the information presented above, the following points are noted:

- One agency, Bay Area Rapid Transit (BART) is responsible for 84 percent of projects in the pre-strategy phase. They are also responsible for 227 bridges (18 percent of the entire program) that are not completed.
- DWR presented the status of their program to the CTC in February 2006. Analysis of nine of their bridges was completed in July 2006 and final design has started this quarter. Construction is planned in 2008. The United States Bureau of Reclamation (USBR) owns the remaining 15 DWR bridges. USBR will begin analysis once a letter of agreement with DWR is signed. USBR plans to start final design in April 2007.
- BART's Seismic Retrofit Program consists of: Segment 1 - from the Montgomery Station in San Francisco to the Berkeley Hills tunnels, and Outside Segment 1. The environmental document approval originally anticipated in December 2005 for Segment 1 is still pending. Construction is anticipated in March 2007. The preliminary engineering phase for Outside Segment 1 just began. Preliminary engineering was authorized in August 2005.
- Excluding BART, DWR, and Los Angeles region bridges, the other local agencies have completed 593 bridges out of a total of 797 bridges, which represents a 74 percent completion rate.
- Los Angeles area bridges are lagging slightly behind other agencies (excluding BART and DWR) for completion; however, a significant number are in design and should be proceeding to construction soon.