

# Toll Bridge Seismic Retrofit Program Report



## TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION



**First Quarter Report**

May 14, 2008





# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

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

May 13, 2008

Mr. John Chalker, Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Mr. Robert Alvarado, Vice-Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Dear Commissioners Chalker and Alvarado:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2008 First Quarter "Toll Bridge Seismic Retrofit Program Report," prepared pursuant to California Streets and Highways Code Section 30952.2. The First Quarter Report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through March 31, 2008.

California Streets and Highways Code Section 30952.1 established the TBPOC to exercise project oversight and control over the Toll Bridge Seismic Retrofit Program. The TBPOC is composed of the Director of the Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission (CTC). The TBPOC's program oversight and control activities include review and approval of contract bid documents, review and resolution of project issues, evaluation and approval of project change orders and claims, and the issuance of monthly and quarterly program progress reports.

In the first quarter, the TBPOC is pleased to report the completion of two major milestones on the San Francisco-Oakland Bay Bridge East Span Seismic Replacement Project with the completion of the Skyway structure and the E2/T1 foundations of the Self-Anchored

John Chalker  
Robert Alvarado  
May 13, 2008  
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In this current quarter, the TBPOC opened the new eastbound approach to the San Francisco-Oakland Bay Bridge on April 12, 2008. Constructed as part of the San Francisco-Oakland Bay Bridge West Approach Replacement Project, the traffic realignment off the temporary detour structure represents the last major traffic switch of the project. The TBPOC has budgeted an increase to the final cost of the West Approach Project for a number of changes made to complete this very complex project in a safe and constructible manner with the least impact to the traveling public. The contract is forecast to be completed seven months early in January 2009.

In this report, the TBPOC is noting a cost forecast increase for the Yerba Buena Island Detour Contract, which will construct a temporary viaduct from the tunnel to the existing east span to facilitate construction of the new bridge. Significant construction risks have been identified that will require additional funds to be budgeted for the project.

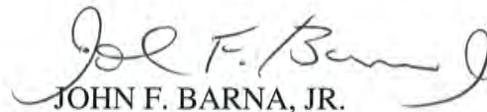
The forecast and budget changes can be funded from redirected project savings and from the TBSRP program contingency, and will result in no change to the overall TBSRP program budget.

The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the Toll Bridge Seismic Retrofit Program. If there are any questions or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,



WILL KEMPTON  
Director  
California Department of Transportation  
Chair, TBPOC



JOHN F. BARNA, JR.  
Executive Director  
California Transportation Commission



STEVE HEMINGER  
Executive Director  
Bay Area Toll Authority



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Toll Bridge Program Oversight Committee  
Department of Transportation  
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Sacramento, CA 94273-0001

May 13, 2008

Mr. Gregory Schmidt  
Secretary of the Senate  
State Capitol, Room 3044  
Sacramento, CA 95814

Mr. E. Dotson Wilson  
Chief Clerk of the Assembly  
State Capitol, Room 3196  
Sacramento, CA 95814

Dear Messrs. Schmidt and Wilson:

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The aforementioned forecast and budget changes can be funded from redirected project savings and from the TBSRP program contingency, and will result in no change to the overall TBSRP program budget.

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WILL KEMPTON  
Director  
California Department of Transportation  
Chair, TBPOC



JOHN F. BARNA, JR.  
Executive Director  
California Transportation Commission



STEVE HEMINGER  
Executive Director  
Bay Area Toll Authority

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## Executive Summary

The Toll Bridge Program Oversight Committee (TBPOC) submits the 2008 First Quarter Report ending March 31, 2008 for the Toll Bridge Seismic Retrofit Program (TBSRP) in accordance with Assembly Bill (AB) 144 and Senate Bill (SB) 66.

This report provides the following:

1. Information on the progress of each project in the program.
2. Baseline budget for Capital Outlay (CO) and Capital Outlay Support (COS).
3. Current projected costs for CO and COS.
4. Expenditures to date.
5. Comparison of the baseline schedule to the December 2007 projected schedule.
6. Summary of the milestones achieved during the quarter.
7. Major risk assessment for the remaining projects.
8. Summary of expenses incurred by the TBPOC in performing its duties.

### Major Highlights during the First Quarter 2008

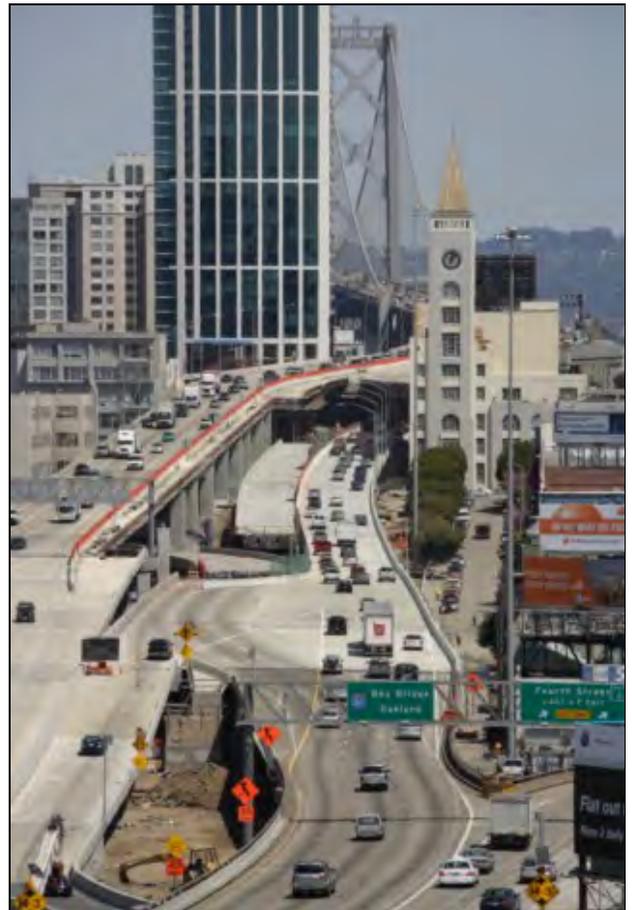
Of the seven toll bridges in the TBSRP, only the San Francisco-Oakland Bay Bridge remains to be retrofitted. Highlights of major milestones and actions made during the quarter include:

- On the San Francisco-Oakland Bay Bridge (SFOBB) West Approach Project, a rebuilt eastbound Interstate 80 (I-80) approach structure from 5<sup>th</sup> Street in San Francisco to the west spans of the SFOBB was opened. The new eastbound approach opened to traffic on April 12, 2008, and takes traffic off the temporary detour structure that weaved beneath the rebuilt westbound approach structure. This traffic switch represents the last major traffic realignment for the project and will improve access to the bridge from San Francisco.

The project is forecast to be completed seven months ahead of schedule in January 2009. To achieve the early project completion and minimize impacts to the local community and the traveling public, the TBPOC has approved a number of contract changes that have increased

the final cost of the project (see page 5 – Table 2). The costs of these changes are within the TBSRP program contingency and will result in no change to the overall program budget. (see project notes on page 12).

- On the SFOBB East Span Seismic Replacement Project, the Skyway contract constructed twin pre-cast concrete segmental bridges that will connect the Oakland approach traffic to the new SAS. The contract was substantially completed by the end of 2007 and Caltrans accepted the Skyway Contract on March 24, 2008 upon completion of final punchlist items. The TBPOC is forecasting that the \$1,293.0 million Skyway contract will be closed-out with \$38.9 million in project savings that can be returned to the program contingency.
- On the SAS Contract, the contractor has started civil work with construction of the W2 pier cap on YBI and erection of the temporary support



West Approach – Opened to Traffic April 12, 2008

structures on YBI. Fabrication of the barge that will carry the heavy lift shear leg crane has been completed in Oregon over the last quarter. After transporting materials to Southern California, the barge was shipped and will arrive in China where the Zhenhua Port Machinery Company (ZPMC) will attach the crane to the barge. ZPMC is also subcontracted to fabricate the major steel tower and roadway deck sections of the SAS. Test mock-ups of the tower are still in construction, while fabrication has started on components of the roadway deck sections.

- All foundations for the SAS have now been completed with the acceptance of the E2/T1 SAS Marine Foundation contract in January 2008. The E2/T1 contract completed the main tower foundation at T1 and the foundations and columns of the first pier east of main tower at E2. The TBPOC is forecasting that the \$313.5 million E2/T1 contract will be closed-out with \$32.6 million in project savings that can be returned to the program contingency. The W2 land foundations and columns for the SAS were completed under a separate earlier contract.
- On the Yerba Buena Island Detour Contract (YBID) that is constructing a temporary detour structure from the Yerba Buena Island tunnel to the existing east span, the contract is making progress on the temporary detour viaduct and on advanced work on a number of foundations for the future transition structure from the SAS to

the tunnel. Clearly visible to the traveling public, the double deck steel truss of the temporary detour viaduct is being pieced together just south of the existing bridge.

The contract originally intended to put traffic on a temporary detour in 2006 to meet an earlier east span replacement schedule. The current revised schedule will not have traffic on the temporary detour until 2009. To better integrate the contract into the revised project schedule, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day Weekend 2007, advancing future transition structure foundation work, and making design enhancement to the temporary detour structure—the west and east tie-in areas from the temporary viaduct to the existing structures.

Significant construction risks have been identified that will require additional funds to be budgeted for the project. In March 2008, the TBPOC approved a revised forecast for the project that is \$126.8 million higher than the previous estimate. The TBPOC has included additional contingencies to cover the risks and has redirected project savings from the E2/T1, Skyway, Richmond-San Rafael Bridge contracts and the TBSRP Program contingency to cover the increases (see page 4 – Table 2 and project notes on page 17).



*The West Approach SFOBB Opening Ceremony with Gavin Newsome, Arnold Schwarzenegger and Will Kempton*

## Program Overview

Seven of the nine state-owned toll bridges were identified for seismic retrofit in the TBSRP:

1. Benicia-Martinez Bridge
2. Carquinez Bridge
3. San Mateo-Hayward Bridge
4. Vincent Thomas Bridge
5. San Diego-Coronado Bridge
6. Richmond-San Rafael Bridge
7. SFOBB (West Span, West Approach replacement, and East Span replacement)

Seismic retrofit of these complex structures presents an extremely difficult engineering challenge and nowhere in the world has a bridge seismic safety program of this size been undertaken.

Although the Dumbarton and the Antioch bridges were not included in the program, Caltrans is continuing to work on seismic vulnerability studies to assess the potential for necessary retrofit work on these structures. (See discussion on page 27).

As shown in *Table 1-TBSRP Project Status*, a significant portion of the TBSRP is complete. Only the East Span Seismic Replacement projects remain to be seismically retrofitted.

The First Quarter 2008 forecast for East Span Seismic Replacement indicates that it will be completed within the current TBPOC approved cost and schedule estimates. *Tables 2 and 3* on the following pages provide a summary of the cost, schedule and status of all the TBSRP projects.

**Table 1-TBSRP Project Status**

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Carquinez Bridge Eastbound Seismic Retrofit	Complete
Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

**Table 2-Toll Bridge Seismic Retrofit Program—Cost Summary (\$Millions)**

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget 03/2008	Cost To Date 03/2008	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
Capital Outlay Support		959.4	-	959.4	587.8	977.1	17.7	●
Capital Outlay Construction								
Skyway	Complete	1,293.0	-	1,293.0	1,230.6	1,254.1	(38.9)	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	272.8	280.9	(32.6)	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	402.0	1,767.4	13.7	●
YBI Detour	Design/Const	131.9	202.5	334.4	159.5	461.2	126.8	●
YBI Transition Structures		299.3	(23.2)	276.1	-	276.1	-	●
* YBITS Contract No. 1	Design				-	214.3		
* YBITS Contract No. 2	Design				-	58.5		
* YBITS Contract No. 3 - Landscape	Design				-	3.3		
Oakland Touchdown (OTD)		283.8	-	283.8	71.6	302.5	18.7	
* OTD Submarine Cable	Complete				7.9	9.6		●
* OTD No. 1 (Westbound)	Construction				63.7	226.5		●
* OTD No. 2 (Eastbound)	Design				-	62.0		●
* OTD Electrical Systems	Design				-	4.4		●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Construction	15.0	3.3	18.3	16.1	18.3	-	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	39.0	72.4	-	●
<b>Total SFOBB East Span Replacement Project</b>								
<b>SFOBB West Approach Replacement</b>	Construction							●
Capital Outlay Support		120.0	-	120.0	104.3	120.0	-	
Capital Outlay Construction		309.0	24.7	333.7	273.2	350.7	17.0	●
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	<b>24.7</b>	<b>453.7</b>	<b>377.5</b>	<b>470.7</b>	<b>17.0</b>	
<b>Richmond-San Rafael Bridge Retrofit</b>	Complete							●
Capital Outlay Support		134.0	(7.0)	127.0	126.7	127.0	-	
<b>Total Richmond-San Rafael Bridge Retrofit</b>		<b>914.0</b>						
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
<b>Total Program Completed Projects</b>		<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>	
<b>Program Contingency</b>		900.0	(114.9)	785.1	-	712.4	(72.7)	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,982.3</b>	<b>8,685.0</b>	<b>-</b>	

● Within Approved Schedule and Budget  
 ● Potential Cost and Schedule Impacts: Likely future need for Program Contingency Allocation  
 ● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming  
 Note: Details may not sum to totals due to rounding effects.

**Table 3-Toll Bridge Seismic Retrofit Program—Schedule Summary**

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2008)	Project Complete Schedule Forecast (03/2008)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
<b>SFOBB East Span Replacement Project</b>							
					-		
					-		
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	See Note.
					-		
					-		
					-		
					-		
					-		
					-		
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note.
		-			-		
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Jan 2009	(7)	●	
Open to Traffic Date: Mainline		-		April 2008			Open To Traffic
		-					
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of contract October 28, 2005. \$89 million has been transferred to Program Contingency.
• Public Access Project	n/a	-	May 07	Sept 07	4	●	

*Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB 144/SB 66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract in response to bidder inquiries and to reduce costs.*

## Program Costs

### Baseline and Projected Budget

The 2005 AB 144/SB 66 budget is \$7.785 billion for CO and COS plus \$900 million in program contingency for a total baseline budget of \$8.685 billion. The First Quarter 2008 forecast for the program remains steady at the \$8.685 billion budget. The First Quarter 2008 forecast for the SFOBB East Span Project is \$5.730 billion and is based on revised construction estimates as generated from the fourth quarter 2007 risk management effort.

Additional cost estimate and expenditure detail for the TBSRP are included in Appendices A-1 and A-2. The details of the cost estimates and expenditures for the SFOBB East Span are shown in Appendix B.



YBI Detour

**Table 4-Toll Bridge Seismic Retrofit Program Cost (\$ Millions)**

Contracts	AB 144 / SB 66 Baseline Budget	Approved Changes	Current Approved Budget	1 <sup>st</sup> Quarter 2008 Forecast	Difference from Current Approved Budget
<b>Completed Projects</b>					
Benicia-Martinez	177.8	-	177.8	177.8	-
Carquinez	114.2	-	114.2	114.2	-
San Mateo-Hayward	163.5	-	163.5	163.5	-
Vincent Thomas	58.5	-	58.5	58.5	-
San Diego-Coronado	103.5	-	103.5	103.5	-
SFOBB West Span	307.9	-	307.9	307.9	-
<b>Ongoing Projects</b>					
Richmond-San Rafael	914.0	(89.0)	825.0	816.5	(8.5)
SFOBB West Approach	429.0	24.7	453.7	470.7	17.0
SFOBB East Span	5,486.6	179.2	5,665.8	5,730.0	64.2
Miscellaneous Program Costs	30.0	-	30.0	30.0	-
<b>Subtotal</b>	<b>7,785.0</b>	<b>114.9</b>	<b>7,899.9</b>	<b>7,972.6</b>	<b>72.7</b>
Program Contingency	900.0	(114.9)	785.1	712.4	(72.7)
<b>Total Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>-</b>

# Program Schedule

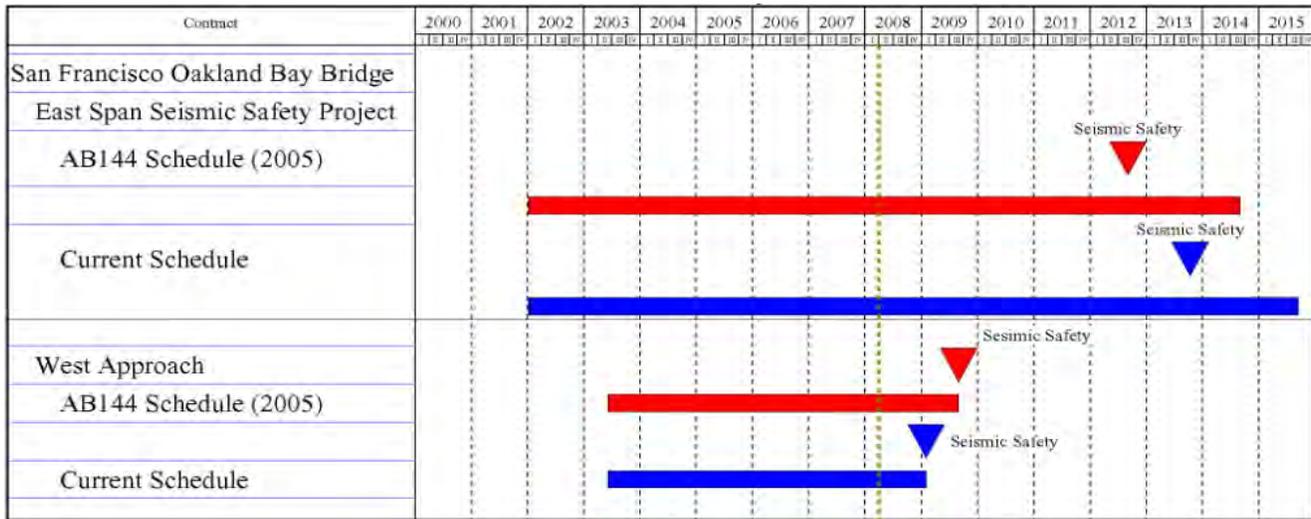
## Baseline and Projected Schedule

Seismic retrofit on six of the seven toll bridges in the TBSRP is complete. These structures include the Benicia-Martinez, Carquinez, Richmond-San Rafael, San Mateo-Hayward, Vincent Thomas and San Diego-Coronado bridges. Seismic retrofiting of the SFOBB west span was completed in June 2004. The SFOBB West Approach and East Span Seismic Replacement projects are currently under construction. The current forecast completion date of the West Approach is 2009. The mainline

opening of the new west bound is forecasted for September 2012 and the east bound for September 2013.

It is estimated that all of the construction activities for the SFOBB East Span Seismic Replacement project will be completed by 2015, marked by the planned demolition of the existing SFOBB East Span. *Chart 1-Schedule of Remaining Projects*, shows the Baseline AB 144/SB 66 project schedule versus the projected completion schedules for the TBSRP projects currently under construction.

**Chart 1-Schedule of Remaining Projects**



## Program Funding and Financing

AB 144 established a funding level of \$8.685 billion for the TBSRP. The bill specifies program funding sources, as shown in *Table 5-Program Budget*

**Table 5-Program Budget as of March 31, 2008 (\$ Millions)**

<b>Program Budget</b>		
(\$ Millions)		
	<b>Budgeted</b>	<b>Funding Available &amp; Contributions</b>
<b>Financing</b>		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
BATA Consolidation	820.0	820.0
<b>Subtotal - Financing</b>	<b>5,252.0</b>	<b>5,252.0</b>
<b>Contributions</b>		
Proposition 192	790.0	789.0
San Diego Coronado Toll Bridge Revenue Fund	33.0	33.0
Vincent Thomas Bridge	15.0	6.9
State Highway Account <sup>(1)(2)</sup>	745.0	745.0
Public Transportation Account <sup>(1)(3)</sup>	130.0	130.0
ITIP/SHOPP/Federal Contingency	448.0	-
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	642.0	600.0
SHA - East Span Demolition	300.0	
SHA - "Efficiency Savings" <sup>(4)</sup>	130.0	10.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
<b>Subtotal - Contributions</b>	<b>3,433.0</b>	<b>2,513.9</b>
<b>Total Funding</b>	<b>8,685.0</b>	<b>7,765.9</b>
<b>Allocated to date</b>		<b>6,720.8</b>
<b>Remaining Unallocated</b>		<b>1,045.1</b>
<p><sup>(1)</sup> The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.</p> <p><sup>(2)</sup> To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.</p> <p><sup>(3)</sup> To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.</p> <p><sup>(4)</sup> To date, \$10 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$120 million remains to be distributed as scheduled by the CTC.</p>		
<p><b>Notes:</b> Program budget includes \$900 million program contingency.</p>		

## Funding Status

The program's financial status of revenues and expenditures is summarized in the table below, *Table 6-Toll Bridge Seismic Retrofit Program Financial Status*. The figures include the surcharge revenues collected, transfers from the SHA and the PTA, and expenditures from the Toll Bridge Seismic Retrofit Account (TBSRA) and the Seismic Retrofit Bond Act of 1996 (Proposition 192).

**Table 6-Toll Bridge Seismic Retrofit Program Financial Status as of March 31, 2008 (\$ Millions)**

<b>Toll Bridge Seismic Retrofit Program Financial Status</b>	
<b>As of March 31, 2008</b>	
(\$ Millions)	
<b>Revenues:</b>	
Toll Surcharge <sup>(1)</sup>	687.9
SMIF Interest	97.9
Bond Revenue (Seismic Bond of 1996)	789.0
Bond Revenue (Toll Revenue Bonds)	1,062.0
Commercial Paper <sup>(2)</sup>	80.0
SANDAG	33.0
Vincent Thomas <sup>(3)</sup>	6.9
Federal Highway Bridge Replacement and Rehabilitation	600.0
<b>Transfers to TBSRA:</b>	
Motor Vehicle Account	75.0
State Highway Account <sup>(4)</sup>	745.0
Public Transportation Account <sup>(5)</sup>	130.0
State Highway Account "Efficiency Savings" <sup>(6)</sup>	10.0
Total Revenues and Transfers	<b>4,316.7</b>
<b>Expenditures :</b>	
Capital Outlay	3,919.3
State Operations	1,063.0
Total Expenditures	<b>4,982.3</b>
<b>Encumbrances:</b>	
Capital Outlay	1,732.3
State Operations	6.2
Total Encumbrances	<b>1,738.5</b>
<b>Total Expenditures and Encumbrances</b>	<b>6,720.8</b>
<p>(1) The Toll Surcharge is dedicated to repayment of bonds beginning September 1, 2003. Toll Surcharge shown here is only toll revenue collected prior to that date.</p> <p>(2) \$80 Million in Commercial Paper issued on or about April 5, 2005.</p> <p>(3) No additional funding is expected from the Vincent Thomas Toll Revenue Account.</p> <p>(4) To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.</p> <p>(5) To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.</p> <p>(6) To date, \$10 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$120 million remains to be distributed as scheduled by the CTC.</p>	

## Program Financing

As discussed above, AB 144 consolidated the administration of all toll revenues collected on the state-owned Bay Area toll bridges and financing of the TBSRP under the jurisdiction of BATA. BATA has direct programmatic responsibilities for the administration of all toll revenues collected on the state-owned bridges in the Bay Area and responsibilities for financial management of the TBSRP program, including:

- Administrative responsibility for collection and accounting of all toll revenues.
- Authorization to increase tolls on the state-owned bridges by \$1.00 effective January 1, 2007.
- Project level toll-setting authority as necessary to cover additional cost increases beyond the funded program contingency in order to complete the TBSRP.
- Assumption of funding all of the roadway and bridge structure maintenance from Caltrans once bridge seismic retrofit projects are completed.

In accordance with its responsibilities provided under the law, in September 2005 BATA adopted a finance plan for the TBSRP. The major components of the finance plan include:

- Issuing \$6.2 billion in debt, including defeasance of \$1.5 billion in outstanding state Infrastructure Bank bonds and commercial paper.
- Increasing tolls on the state-owned bridges by \$1.00 (from \$3.00 to \$4.00 for two-axle vehicles), effective January 1, 2007.
- Securing the maximum amount of state funding early in the construction schedule to most efficiently use toll funds (see the following discussion concerning the CTC funding schedule).
- Locking in current interest rates to the extent possible in order to improve the chances that the entire toll program construction and the operations and maintenance can be delivered within the \$4.00 auto toll level.

In September 2005, BATA approved a Finance Plan for the TBSRP and other toll bridge improvement programs dependent on toll revenues from the state-owned bridges. The finance plan called for \$6.2 billion in new debt issuances, including defeasance of the existing outstanding I-Bank bonds. Consistent

with the finance plan in December 2005, BATA approved the issuance of up to \$1 billion of 2006 toll bridge revenue bonds in February 2006. The bond issuance will provide adequate cash flow to fund the SAS contract for the East Span Replacement project, which was awarded on May 3, 2006.

Furthermore, in March 2006, BATA approved the issuance of \$1.2 billion in bonds to defease the I-Bank bonds approved in October 2005. Additionally, pursuant to the law, BATA held two public hearings- one in October and one in November 2005 - to receive public testimony regarding the proposed \$1.00 seismic surcharge toll increase beginning on January 1, 2007 on the state-owned toll bridges in the Bay Area. BATA approved the toll increase on January 25, 2006.

Pursuant to AB 144, on September 29, 2005, the CTC adopted a schedule - revised in December 2005 - for the transfer of state funds to BATA to fund the TBSRP. The schedule contains the timing and sources of the state contributions, which began in Fiscal Year (FY) 2005-06, and distributes the contributions over the years of project construction to ensure a timely balance between state sources and the contributions from toll funds. In December 2005, the CTC re-adopted the schedule to reflect opportunities to maximize the use of available PTA funds and correct prior transfer transactions. The CTC's December 2005 revised schedule for the transfer of funds allows BATA to pledge the state fund contribution to the financing of the TBSRP per BATA's adopted finance plan. The CTC schedule is included in Appendix C.

In May 2007, BATA issued \$811 million in 2007 Toll Bridge Revenue Bonds. The financing will be used primarily to fund seismic retrofit projects. In October 2007, BATA approved the issuance of \$500 million in 2007 Toll Revenue Bonds. The financing will be used primarily to fund seismic retrofit projects. Upon issuance of the 2007 bonds, BATA's total debt will be 5.2 billion.



West Approach

## Project Status

### Ongoing Construction Projects

#### SFOBB West Approach

The SFOBB West Approach Seismic Retrofit Project will remove and replace the west approach to the SFOBB, which includes all of the westbound mainline and most of the eastbound mainline from 4<sup>th</sup> Street to the SFOBB west anchorage, and all of the connecting entrances and exit ramps in downtown San Francisco. Upon completion of the retrofit project, the west approach mainline and ramps will have the same number of traffic lanes as before, but with improved highway geometrics. The mainline eastbound and westbound structures will be adjacent to each other at 4<sup>th</sup> Street and transition to a double-deck configuration with their own independent support system from Rincon Hill to the anchorage in order to tie into the existing SFOBB.

## Milestones Achieved

The San Francisco-Oakland Bay Bridge (SFOBB) West Approach Project is 93 percent complete as of March 20, 2008 and is forecasted for early completion in January 2009. The mainline eastbound traffic was switched to the permanent structure on April 12, 2008. Major ongoing work during this quarter includes demolition of the eastbound detour and completion of remaining parts of the westbound and eastbound structures. An extensive public outreach effort continues and will be necessary until the spring of 2008. Removal of all the falsework from frames 6U to 7U, including the Harrison Off ramp, has been completed.

## Project Funding

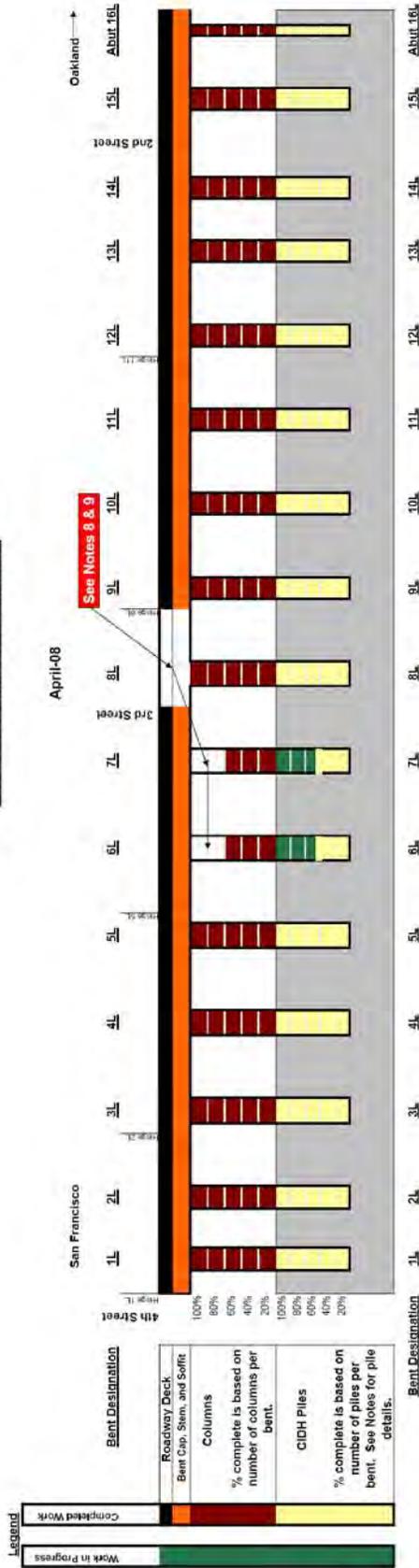
The TBPOC has budgeted and forecasted an increase to the final cost of the West Approach Project; however, costs are within the TBSRP program contingency and will not result in a change to the overall program budget. The current approved budget for the project is \$453.7 million with \$333.7 million for Capital Outlay (CO) and \$120.0 million for Capital Outlay Support (COS) (See Table 7-Current West Approach Project Budget and Forecast).

The forecasted cost for the West Approach for the COS totals \$470.7 million for the project with CO of \$350.7 million and \$120.0 million for COS, however, projects savings from the sale of excess Right of Way should offset the potential additional costs.

**Table 7-Current West Approach Project Budget and Forecast (\$ Million)**

	Current Approved Budget	1st Quarter 2008 Forecast	Difference
COS	120.0	120.0	-
CO	333.7	350.7	17
<b>Total</b>	<b>453.7</b>		<b>17</b>

**SFOBB West Approach Retrofit Progress Diagram**  
**Mainline Eastbound 80 Rebuilding**



Notes:

1. Bents 1L and 2L each have 5 - 84" Cast in Drilled Hole (CIDH) piles.
2. Bents 3L through 5L each have 5 - 90" Cast in Drilled Hole (CIDH) piles.
3. Bents 6L through 8L each have 4 - 90" Cast in Drilled Hole (CIDH) piles.
4. Bents 9L through 15L each have 3 - 72" Cast in Drilled Hole (CIDH) piles.
5. Abutment 16L has 18 - 30" Cast in Drilled Hole (CIDH) piles.
6. Average Pile lengths are as follows:  
 Bents 1L through 3L = 90'  
 Bent 4L = 75'  
 Bent 5L = 80'  
 Bents 6L through 8L = 75'  
 Bent 9L = 60'  
 Bent 10L = 70'  
 Bents 11L and 12L = 73'  
 Bent 13L = 70'  
 Bents 14L and 15L = 67'  
 Abutment 16L = 40'
7. Items of work this chart does not include:  
 Lower Deck Retrofit  
 Sterling on-ramp reconstruction

8. The final mainline traffic switch is currently scheduled to occur on April 13, 2008, wherein Stage 6 work will start work.  
 9. No change will be made on the progress diagram until Stage 6 work start after the final traffic switch is made on April 13, 2008.

## **SFOBB East Span Seismic Replacement**

The SFOBB East Span Seismic Replacement project will be seismically retrofitted through the complete replacement of the existing span. The project includes construction of the Skyway portion of the bridge (See *SFOBB East Span Replacement Project* table below), which consists of two parallel concrete structures, each approximately 1.3 miles in length; a SAS bridge consisting of a 510-foot tower supporting parallel bridge decks connecting the Skyway bridge to YBI, transition structures on YBI to the tunnel and an approach structure on the east end of the bridge connecting to the toll plaza area, and demolition of the existing east span.

The SFOBB East Span Project now consists of 21 contracts. Construction of the Oakland Touchdown (OTD) Approach Structures and the Yerba Buena Island Transition Structures (YBITS) has been split into multiple contracts to facilitate construction flow and acceleration of work

elements off the critical path for the completion of the new east span.

The current SFOBB East Span contracts are identified on the following pages: Twelve contracts are **complete**:

- Interim Retrofit (Existing Bridge)
- East Span Retrofit (Existing Bridge)
- Pile Installation Demonstration
- OTD Geofill
- YBI Archaeology
- United States Coast Guard (USCG) Road Relocation on YBI
- SAS Land Foundations (W2)
- YBI Electrical Substation
- OTD Submarine Cable
- Skyway
- SAS Marine Foundations (E2/T1)
- Stormwater Treatment Measures

**Table 8-SFOBB East Span Seismic Replacement Project Schedule Summary**

Contract	AB 144/SB 66 Baseline Pro	Approved Changes	Current Approved Schedule	1 <sup>st</sup> Quarter 2008 Forecast Project Completion Date	Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (OTD)	December 2013	12	December 2014	December 2014	-
OTD Submarine Cable	n/a		January 2008	January 2008	-
OTD No. 1 (Westbound)	n/a		January 2010	January 2010	-
OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	December 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

*Note: The new east span forecast to be fully open to traffic in September 2013. Construction activities will continue beyond that date to complete the project, including demolition of the existing structure.*

Three contracts are under **construction**: Note that percent complete figures for construction contracts are based on actual payments made divided by the contract amount, including executed Contract Change Orders (CCOs).

- YBI Detour
- SAS Superstructure (26 percent complete)
- OTD #1 contract (26 percent complete)

Six contracts are in **design**:

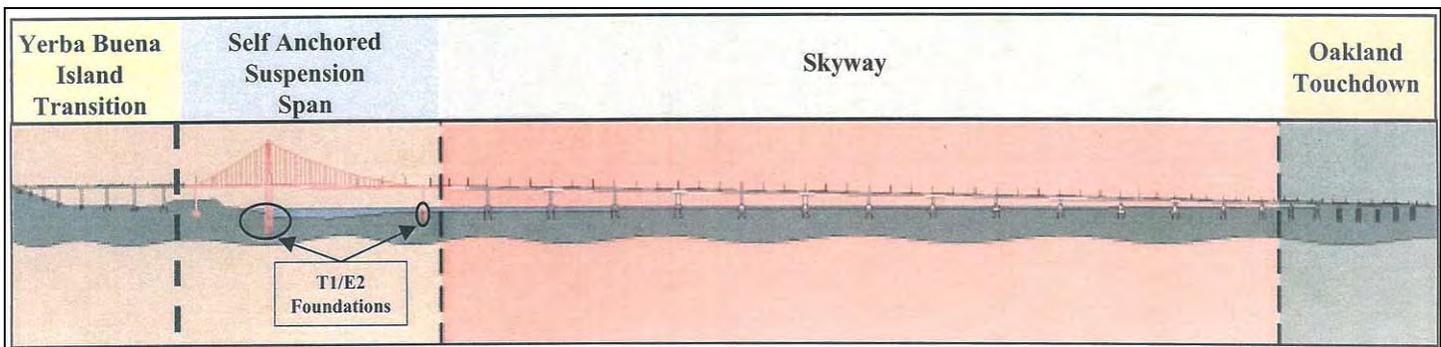
- OTD #2 contract: The contract is planned to be advertised in summer 2010
- OTD portions of the corridor electrical contract: This scope may be executed as a separate contract, or alternatively, may be included within OTD #2 contract and/or the other contracts within the east span corridor. A 35% PS&E package will be ready for review by summer 2008 at which point an informed decision can be made on whether to include the corridor electrical work into the OTD contract, or to have it as a separate contract.
- YBITS #1: The contract is now being prepared for advertisement in Headquarters.
- YBITS #2 (design 80 percent complete to date)
- YBITS #3 Landscaping contract

- Existing Bridge Demolition design (10 percent complete to date)

The forecast completion date as compared to the AB 144/SB 66 baseline completion date for each of the major components of the SFOBB East Span Seismic Replacement project is shown in *Table 8-SFOBB East Span Seismic Replacement Project Schedule Summary* on page 15.

The approved East Span opening date has been extended by 12 months by the TBPOC through addendum issued on the SAS contract based on bidder inquiries received during advertisement. The current approved schedule does not include the potential for schedule reduction based on an early completion incentive on the SAS contract of six months that was also included in the addendum.

The schedule for the YBI Detour contract has been extended to take into account the 12-month change to the SAS contract schedule and the incorporation of additional work scope from the YBITS contract. This extension is not expected to impact the new East Span open-to-traffic date.



SFOBB East Span Replacement Project

## Milestones Achieved – East Span Contracts

### Skyway Contract

- Substantially completed by the end of 2007, Caltrans accepted the Skyway Contract on March 24, 2008 upon completion of final punchlist items. The contract constructed the twin pre-cast concrete segmental bridge that will carry traffic from the Oakland approach to the new SAS. The TBPOC is forecasting that the \$1,293.0 million Skyway contract will be closed-out with \$38.9 million in project savings that can be returned to the program.

### Self-Anchored Suspension Bridge Contracts

- The SFOBB East Span Seismic Replacement Project SAS Superstructure contract is 26 percent complete based on payments to the contractor as of March 2008. Development of various administrative submittals, including schedule updates, is continuing.

The contractor has finalized agreements with various manufacturers, fabricators, suppliers and subcontractors, including Zhenhua Port Machinery Company (ZPMC), of Shanghai, China, to supply and fabricate all the major steel structures in the SAS. Caltrans has set up facilities and has organized resources in China that will ensure an effective Owner’s presence in the steel fabrication shops operated by ZPMC. Barge fabrication has been completed in Oregon, and will arrive in China by the 2<sup>nd</sup> week of April, and crane fabrication has started in China.

Civil construction work has started at the W2 and the contractor has poured the first lift for the pier table. The temporary towers subcontractor has started field work on temporary towers A, B, and D. Caltrans is also taking risk mitigation measures to address potential issues during construction due to structural steel plate conflicts and welding methods.

- All foundations for the SAS have now been completed with the acceptance of the E2/T1 SAS Marine Foundation contract in January 2008. The E2/T1 contract completed the main tower foundation at T1 and the foundations and columns at the first pier east of main tower at E2. The TBPOC is forecasting that the \$313.5 million E2/T1 contract will be closed-out with \$32.6 million in project savings that can be returned to the program. The W2 land foundations and columns for the SAS were completed under a separate earlier contract.

### Yerba Buena Island Contracts

- The YBI Detour Contract was awarded in early 2004 to construct a temporary detour structure providing for, at that time, a new bridge opening in 2006. Due to the re-advertisement of the SAS superstructure contract in 2005, the bridge opening was rescheduled to 2013, which necessitated a temporary suspension of the YBI Detour contract and design changes. The required suspension of work and design revisions has resulted in increased cost for the YBI Detour contract.

In 2006, the TBPOC approved a plan to pace work on the project, to have Caltrans assume design responsibility over the east and west tie-



YBI Advanced Work – Bent 4R

ins, and to make changes to the detour structures to allow it to stand in place alone for a longer duration than originally intended. The YBI Detour contract is now forecast to be completed in 2010 consistent with the planned westbound opening date of 2012 for the new bridge.

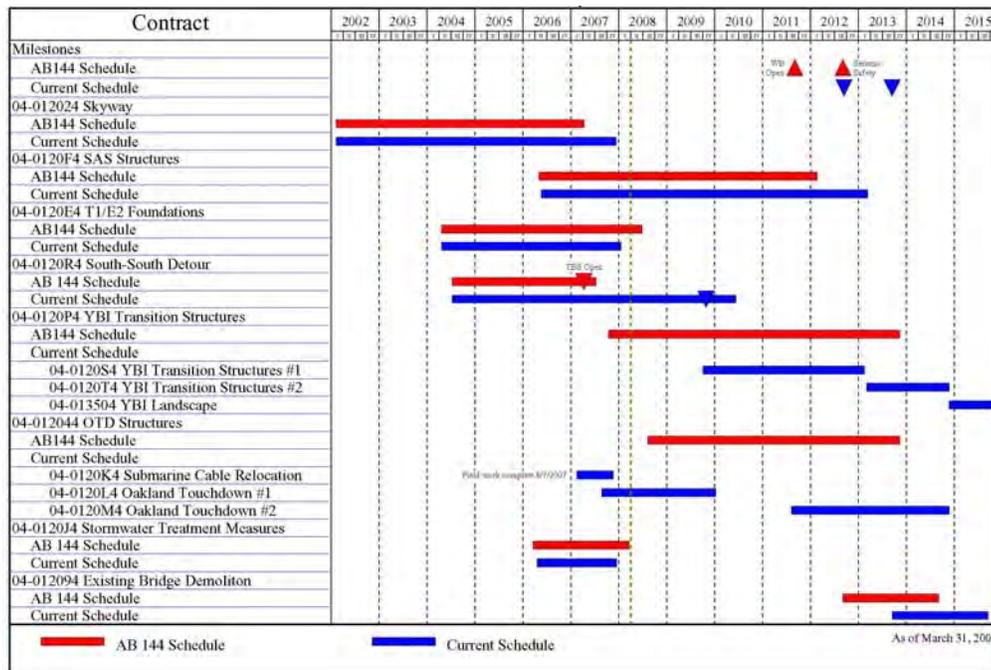
In addition to the revised contract completion date, the TBPOC approved on February 15, 2007 to advance foundation and retrofit work from the Yerba Buena Island Transition Structures (YBITS) contract to the YBI Detour contract. Advancing the work will reduce overall project schedule risk by taking work off the critical path for the East Span project while making more effective use of the extended YBI Detour contract duration, and will enable potential acceleration of the SAS construction pending negotiation with American Bridge.

As part of the YBI Advanced work, which was added to the YBI Detour contract, excavation of W3R is on going, work on W4L is complete, and work is continuing on the foundations and columns of W4 R and W6 L&R. A need was

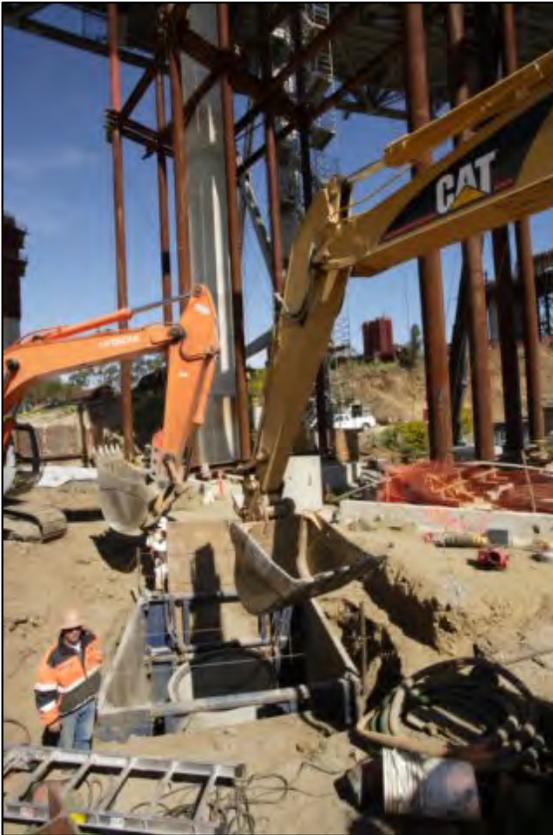
identified to accelerate work on pier W3L due to the SAS contractor’s need for access to that area. The YBI Detour contractor has completed half of the column for bent W3L and the SAS contractor has been granted access to that area ahead of schedule.

Significant construction risks have been identified that will require additional funds to be budgeted for the project. In March 2008, the TBPOC approved a revised forecast for the project with additional contingencies to cover the risks and has redirected project savings from the E2/T1, Skyway, and Richmond-San Rafael Bridge contracts and TBSRP program contingency to cover the increases.

- The YBITS #1 contract will construct structures necessary to connect the new SAS to the existing YBI tunnel. To minimize schedule and construction risk, the TBPOC approved the option to accelerate portions of YBITS #1 work, including shifting critical path work to the YBID contractor. The YBITS foundation work was added to the YBID contract because foundation work is always the highest risk



**Chart 2-San Francisco-Oakland Bay Bridge East Span Corridor Schedule Baseline AB 144/SB 66 vs. Current Projected**



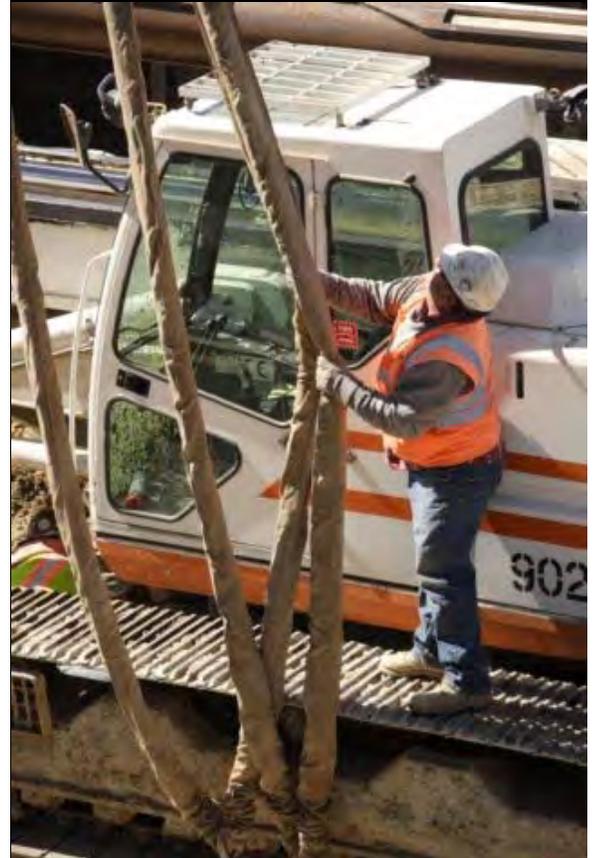
YBID

element of structure construction. Early construction of the foundations would significantly reduce risk to the East Span corridor schedule. The final YBITS #1 PS&E package is scheduled for April 1, 2008.

- The YBITS #2 contract includes demolition of the YBI Detour temporary structure, completion of the new eastbound on-ramp, completion of the bike path section on YBI and reconstruction of local and affected facilities at YBI. The majority of the design work is complete. Preparation of detailed plans and quantity calculations are in progress.
- The YBITS #3 contract is for landscaping, and includes slope restoration, vegetation restoration and plant maintenance for the areas affected by YBI construction. A planting concept and preliminary plans have been developed for a majority of the area.

## Oakland Touchdown Contracts

- The OTD #1 contract involves constructing bents 17 through 23 marine foundations. It also includes the westbound bridge section and roadway approach to the new Skyway from west of the Oakland Toll Plaza. Caltrans awarded the contract to MCM Construction on July 17, 2007. The first contract day of the project is August 22, 2007, with the completion of the “Designated Portion of Work (Oakland Approach Structure – Westbound)” scheduled by June 2009, and contract completion by November 2009.



YBI Advanced Work



*YBI Advanced Work*

The project is currently at 26 percent completion as of March 31, 2008. The main and the north side fingers of the trestle construction are substantially complete, while the south side trestle fingers are currently being constructed. Footing and pedestal work, including cofferdam installation, structural excavation, pile driving, pile and shear ring welding, rebar and concrete pouring, is ongoing for the westbound structure. Other work in progress includes electrical work for temporary underground and roadway at grade, construction of the electrical ductbank and surveying of manhole locations.

- The OTD #2 contract involves constructing the remaining eastbound bridge section from the new Skyway to the roadway west of the Oakland Toll Plaza. This work will occur once the westbound traffic is shifted onto the new SAS. Design work for the structures portion of the OTD #2 contract is substantially complete. Design work on the roadway portion is ongoing.



*YBI Advanced Work*

## Other Contracts

- Design of the Existing Bridge Demolition contract is 10 percent complete. Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension.

## Project Funding

The AB 144/SB 66 baseline budget for the SFOBB East Span is \$5.487 billion. The current approved budget for SFOBB East Span is \$5.666 billion. See *Table 9-SFOBB East Span Replacement Cost Summary*.

The TBPOC re-evaluates project and contract cost forecasts continuously. The current First Quarter 2008 forecast of \$5.730 billion for the project, based upon the Fourth Quarter 2007 risk management effort, includes the following revisions:

- A forecast \$38.9 million decrease for the Skyway contract from project savings after contract close-out.
- A forecast \$32.6 million decrease for the SAS E2/T1 Foundations contract from project savings after contract close-out.
- A forecast \$126.8 million increase for the YBI Detour contract for construction risks and contingencies identified for the contract based on the 4<sup>th</sup> Quarter 2007 risk management effort. These risks are focused on higher construction costs to tie in the detour viaduct to the existing east spans and schedule risks.
- A forecast increase in the cost of COS to \$977.1 million, as a result of a detailed staffing and consultant contract cost forecast, was completed as of the end of the First Quarter 2007. This forecast includes considerations of revised and increased construction contract schedules as mentioned elsewhere in this report that require coverage by staff and consultants.

**Table 9-SFOBB East Span Replacement Cost Summary (\$ Millions)**

Contract	AB 144/SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (03/2008)	1 <sup>st</sup> Quarter 2008 Forecast	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	587.8	977.1	17.7
Capital Outlay	-	-	-	-	-	-
Skyway	1,293.0	-	1,293.0	1,230.6	1,254.1	(38.9)
SAS E2/T1 Foundations	313.5	-	313.5	272.8	280.9	(32.6)
SAS Superstructure	1,753.7	-	1,753.7	402.0	1,767.4	13.7
YBI Detour	131.9	202.5	334.4	159.5	461.2	126.8
YBI Transition Structures	299.3	(23.2)	276.1	-	276.1	-
* YBITS 1				-	214.3	
* YBITS 2				-	58.5	
* YBITS 3 - Landscape				-	3.3	
Oakland Touchdown	283.8	-	283.8	71.6	302.5	18.7
* OTD Submarine Cable				7.9	9.6	
* OTD Westbound				63.7	226.5	
* OTD Eastbound				-	62.0	
* OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	3.3	18.3	16.1	18.3	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	39.0	72.4	-
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
<b>TOTAL</b>	<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,869.3</b>	<b>5,730.0</b>	<b>64.2</b>

Note: Details may not sum to totals due to rounding effects.

- A forecast \$13.7 million increase for the SAS Superstructure contract to cover actions taken to encourage additional bidders for the project, including the bidders' stipend for the lowest three responsive bidders.
- A forecast \$18.7 million increase in the CO for the OTD contract due to an approved Engineer's Estimate for the OTD #1 contract. The COS for the contract was also increased to cover the additional work to split the contract and to administer four separate contracts over a longer duration rather than the original single contract.
- A forecast \$17.2 million decrease for the Bridge Demolition Contract due to a re-evaluation of the cost escalation rates for the project.
- All of the variances discussed above can be funded from a combination of other budgeted capital and Toll Bridge Seismic Retrofit Program Contingency.

## Project Schedule

The current schedule calls for achieving seismic safety and opening to traffic the SFOBB new East Span in 2013. The 12 months of schedule extension from the AB144 baseline schedule was granted by addenda to the SFOBB East Span Seismic Replacement Project SAS contract based on bidder inquiries received during advertisements.

- While the 12-month schedule extension for the SAS has also extended the schedules for YBITS and OTD contracts accordingly, the TBPOC is scheduling the contracts to accommodate the possibility of an early SAS completion based on incentives also included by the SAS addenda.

It is estimated that all of the construction activities for the SFOBB East Span Seismic Replacement project will be completed by 2015.

The comparison of the AB 144/SB 66 baseline schedule and the current projected schedule is shown in *Chart 2-SFOBB East Span Corridor Schedule, Baseline AB 144/SB 66 vs. Current*

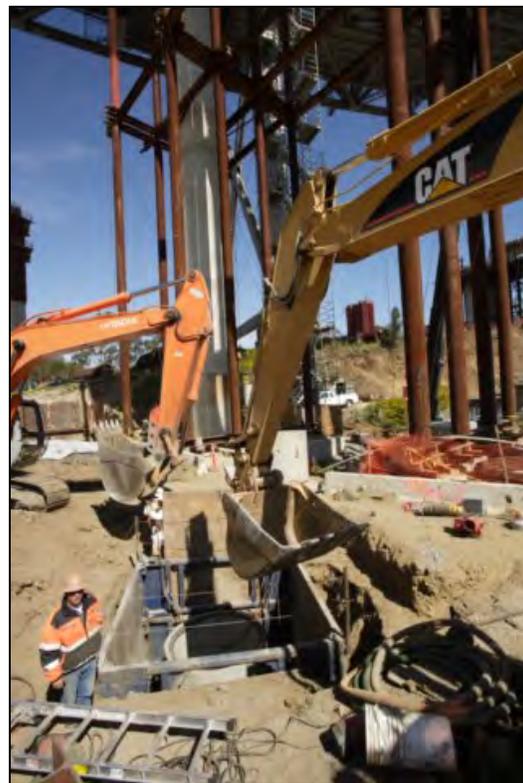
*Projected* on page 16. It should be noted that the schedules shown in *Chart 2* do not at this time account for the potential "worst-case" issues that may affect the schedule identified in the SFOBB East Span Seismic Retrofit Project Risk Management Plan.

## Major Risk Issues

### SFOBB East Span Project Replacement Risk Management Plan

Caltrans continues to implement comprehensive risk management on all SFOBB East Span Seismic Replacement Project contracts in accordance with AB 144. Currently, Caltrans and BATA have embarked on an initiative to manage risk jointly.

Risk response efforts continue to focus on encouraging responsive bids for future contracts and mitigating the estimated cost/schedule impact of identified risks. (See "Risk Management Program" on page 23 for more information).



*The Pump Station*

## Quarterly Environmental Compliance Highlights

SFOBB East Span environmental tasks for the current quarter are focused on mitigation monitoring. All weekly, monthly, and annual compliance reports to resource agencies have been delivered on time with no comments from receiving agencies. Key successes this quarter are as follows:

- Bird Monitoring was conducted weekly in active construction areas.
- American Peregrine falcon monitoring for the 2007/2008 nesting season was also conducted weekly in active construction areas. Several Falcon sightings during the month of February suggest that the East Span peregrine falcon territory is occupied.
- Turbidity monitoring was conducted without incident during pile driving for the temporary access trestle and for cofferdam clean out at the Oakland Touchdown westbound contract location.



*The Peregrine Falcon*



*Emeryville Crescent Tidal Marsh with the San Francisco Bay Bridge in the Background*

**Completed Projects**

Seismic retrofits and project close-out have been completed on the Richmond-San Rafael, Benicia-Martinez, Carquinez, San Mateo-Hayward, Vincent Thomas, San Diego-Coronado toll bridges and on the west span of the SFOBB. See Table 10-Cost Comparison AB 144/SB 66, First Quarter 2008 Forecast and Expenditures through March 2008 for Completed Projects on the next page.

The TBPOC is forecasting additional project savings on the Richmond-San Rafael Bridge Seismic Retrofit Project with the completion of the public access project and resolution of final negotiations with regulatory agencies regarding the cost of pile driving mitigation and impact to fisheries. An additional \$8.5 in project savings can be returned to the program, for a total project savings of \$97.5 million.



The Richmond-San Rafael Bridge

**Table 10-Cost Comparison AB 144/SB 66, First Quarter 2008 Forecast and Expenditures through March 31, 2008 for Completed Projects (\$ Millions)**

Project	AB 144/ SB 66 Budget	Approved Changes	Current Approved	Cost To Date (03/2008)	1 <sup>st</sup> Quarter Forecast	Variance
a	b	c	d = b + c	e	f	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.1	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Richmond-San Rafael Bridge Retrofit Project	914.0	(89.0)	825.0	793.4	816.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
<b>TOTAL</b>	<b>1,839.4</b>	<b>(89.0)</b>	<b>1,750.4</b>	<b>1,710.8</b>	<b>1,741.9</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined. Although seismic retrofit of the Richmond-San Rafael and San Diego-Coronado bridges are complete, environmental mitigation/monitoring work is ongoing.

## Risk Management Program

The following is a summary of risk management developments during the first quarter of 2008.

### Completed Contracts - Skyway

The Skyway project was accepted on March 24, 2008 with no claims outstanding and significant savings in both Capital Outlay and Capital Outlay Support. From a risk management perspective, it is noteworthy that the first quarter 2006 quantitative risk analysis predicted a 95% probability that the Skyway cost would come in below its \$1,293 million budget. Now, two years later, the actual costs will come in below budget and the savings will be returned to the Program Contingency. The outcome on the Skyway contract demonstrates the value of using risk management to mitigate risks and quantitative risk analysis to develop reliable project forecasts.



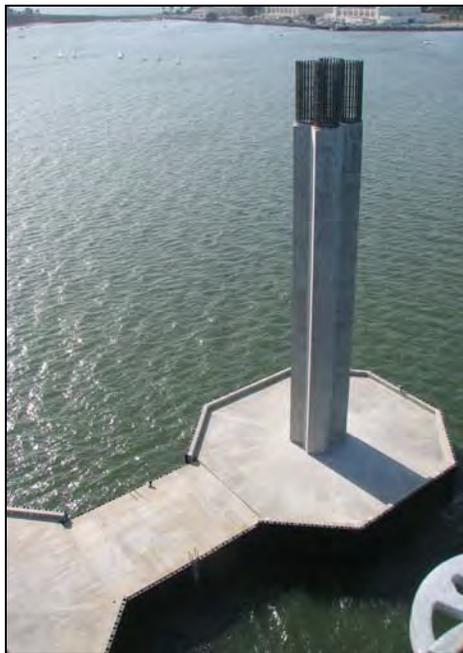
*The Completed Skyway*

### Completed Contracts – E2-T1

The E2-T1 contract built the foundations for the Self-Anchored Suspension (SAS) bridge. After the SAS contract was awarded in 2006, comparison of schedules for the E2-T1 and SAS contracts revealed that E2-T1 might deliver the foundations later than required by the SAS contract. Project management was in preliminary negotiations to re-start the E2-T1 contract, and was considering accelerating completion. The decision question was whether or not a change order be issued to the E2-T1 contractor to accelerate his completion for considerable compensation.

A cross-functional risk management team performed a schedule risk analysis of the interaction of the two schedules, taking into account the risks in each. The analysis revealed that there was less than a 5% chance that the SAS contract could be delayed. With this input, Project Management made the risk-based decision not to spend money to accelerate the E2-T1 contract.

Since then, the E2-T1 risk management team has used the risk management processes to update risks and risk mitigation actions. The risk management effort was successful in that the E2-T1 contract was completed in December 2007 ahead of schedule and under budget.



*Completed E2*

## Corridor Schedule

The Corridor Schedule Team (CST) continues to identify ways to enhance completion dates while



*Completed T1*

providing recommendations to program management on scheduling decisions and mitigating potential schedule risks. The CST evaluates opportunities, risks and uncertainties in corridor schedule activities as input in the quantitative corridor schedule risk analysis. The CST continues to provide recommendations to streamline many of

the contract tasks, realize opportunities, and reduce risks to the corridor schedule.

## Corridor Schedule Opportunity and Risk Response

While risk identification, updating and mitigation activities are ongoing on all contracts in the project, Caltrans has identified six risk areas that are critical to the corridor schedule:

- Self-Anchored Suspension (SAS) Tower and Deck Fabrication
- SAS Cable Installation
- SAS Barge Crane Procurement and Delivery
- Corridor Electrical/Mechanical Systems Integration
- SAS Tower Erection
- SAS Hinge Closure Construction

Caltrans has received opportunity and risk response strategies from each of the focus teams assigned to these areas. The submissions are being studied and will be updated in the second quarter.



*Skid Bents with YBID in the Background*

**Adequacy of Program Reserves**

AB144 states that Caltrans must “regularly reassess its reserves for potential claims and unknown risks, incorporating information related to risks identified and quantified through its risk assessment processes.”

Each contract has a contingency allowance within its budget. The sum of these contingency allowances is compared to the total of capital outlay, capital outlay support and program risks. Any excess of the risks over the contingency allowances represents a potential draw on the Program Contingency (the reserve). As of the end of the First Quarter 2008, the potential draw on Program Contingency ranges from about \$175 million to \$520 million, as shown in the diagram below. While the 50% probable cost of risks decreased by \$43 million from the previous quarter, the contingency available from contracts diminished

by \$53 million due largely to contract change orders on the Skyway and SAS contracts. Thus, the 50% probable potential draw has increased by \$10 million from the previous quarter. However, the entire range of the potential draw cure is much less than the \$809.8 million Program Contingency balance in the TBPOC Q4 2007 Approved Budget, indicating that the reserve is adequate as of the end of the First Quarter 2008.

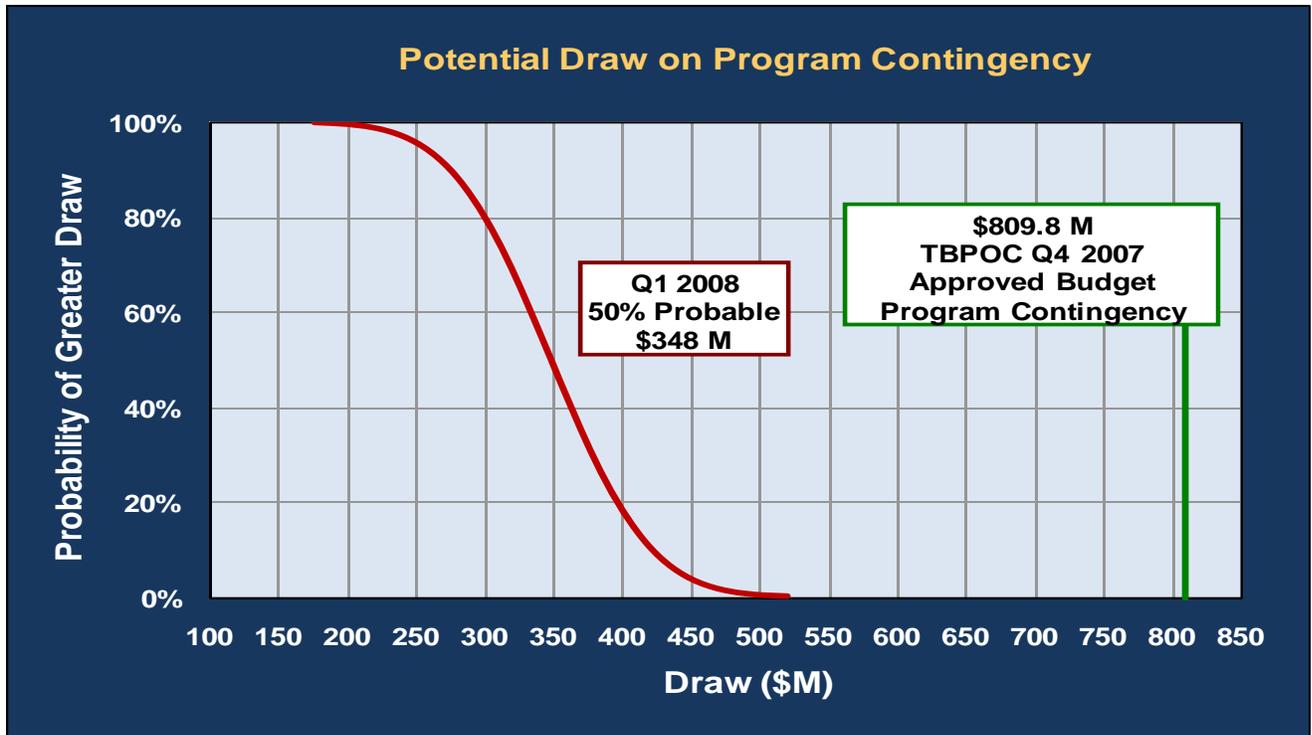
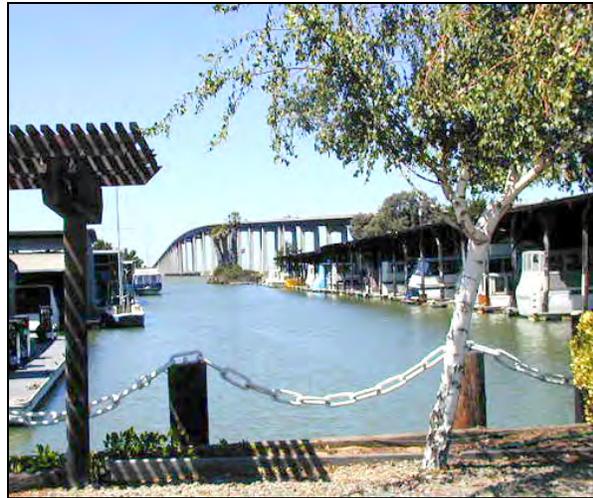


Figure 1. Potential Draw on Program Contingency

# Other Toll Bridges

## Dumbarton and Antioch Bridges

State Route 84 crosses the southern region of San Francisco Bay between the cities of Newark to the east and East Palo Alto to the west. The Route consists of three lanes in each direction and an eight-foot bicycle/pedestrian lane. The AADT of the Route is near 81,000. The bridge is over 2 km in length and is positioned in an approximately normal geometry between two seismic faults which the USGS has reported to pose most of the significant seismic threat to the San Francisco Bay Area: the San Andreas Fault, some 15 km to the west of the bridge; and the Hayward Fault, some 13 km to the east of the bridge.



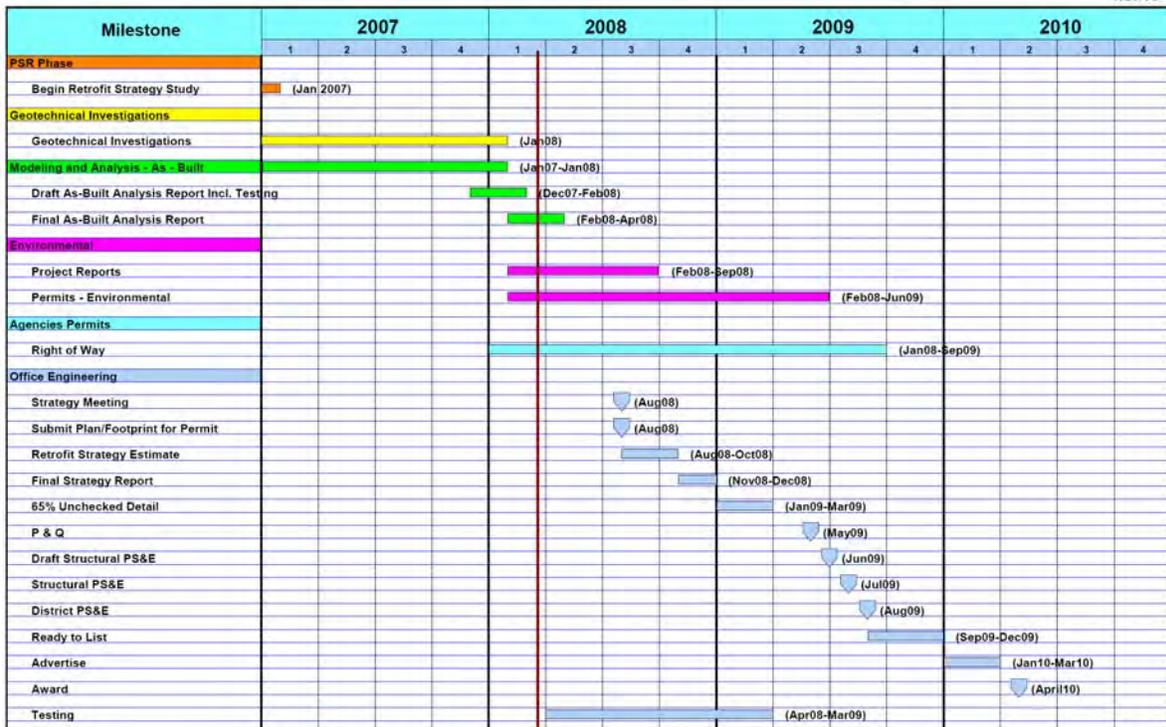
The Antioch Bridge

Bridge carries a single lane of traffic in each direction. The AADT for the Route is slightly over 13,000 vehicles per day. The bridge is threatened by the Bird's Landing Seismic Zone, Cost Range/Sierra Nevada Boundary Zone and the San Andreas Fault.

State Route 160 crosses the San Joaquin River between the city of Antioch and Sherman Island (leading to Rio Vista) via the Antioch Bridge. The

**Antioch/Dumbarton Bridge Baseline Schedule**  
Seismic Retrofit Strategy  
Date: 3/20/08

3/20/08



## Cost and Schedule

A cost estimate, schedule, and an initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. In June 2006, BATA approved \$17.8 million in funding to proceed with the comprehensive seismic analysis of the bridges. The current forecast of expenditures is within the \$17.8 million budgeted.

In September 2006, BATA entered into contract with a geotechnical and geophysical consultant to evaluate the bridges. In April 2007, the field-drilling program was completed and the majority of the laboratory testing was completed by June 2007. Minor laboratory testing to fill in data gaps may be required in the future. Alternative strategies and associated cost estimates of each alternative with the retrofit design duration to complete the PS&E package will be included in the final strategy report and is expected to be completed by early 2009.

## Current Progress

These bridges are currently being evaluated for seismic safety and post-earthquake performance. Work is underway in three specific areas: seismology, geology and geotechnical engineering and bridge structural engineering.

Work in the area of seismology is defining the seismic ground motions used for design. Recommended Safety Evaluation (SE) level motions have been developed for both bridges and are currently under review by an external and independent Seismic Safety Peer Review Panel (SSPRP). SE motions represent future large earthquakes. Work in this area to be completed in the near future includes finalizing the SE motions, developing lower level Functional Evaluation (FE) motions, and multiple earthquake time-histories that can be used in the checking phase of the projects. Draft reports have been released. The SE motions have been reviewed by the Toll Bridge Seismic Safety Peer Review Panel on a couple of occasions.

Work in the area of geology and geotechnical engineering includes field drilling and studying of

soil samples to identify soil types, locations and engineering properties. This work supports work in defining how the soil at the bridge sites move during earthquakes and how the rigidly the bridges' foundations are held in the soil. The drilling operations are complete at both bridge sites; information is being shared with the seismologic and bridge structure teams. Draft reports have been released.

Work in the area of bridge structural engineering is continuing for both bridges. The structures team, to date, has been collecting and evaluating structural information on the bridges, reducing that information for use in computer models of the bridges, and initiating early computational runs of the models. The structures team has begun the design process for both bridges. The design team will meet with other experienced retrofit experts in late March to review the design strategy that has been developed by the designers, and a risk management section has been scheduled in early April to discuss and develop the risk management plans for both projects. The environmental process has begun for both projects, and once the design strategy is completed, the design team will meet with the regulatory agencies to discuss the retrofit project and also submit the permit application.



*The Dumbarton Bridge*

**Summary of TBPOC Expenses**

Pursuant to Streets and Highways Code Section 30952.1 (d), expenses incurred by Caltrans, BATA, and the California Transportation Commission (CTC) for costs directly related to the duties associated with the TBPOC are to be reimbursed by toll revenues. *Table 11-Toll Bridge Program Oversight Committee Actual Expenses: July 1, 2005 through March 31, 2008* shows expenses through *March 31, 2008* for TBPOC functioning, support, and monthly and quarterly reporting.

**Table 11-Toll Bridge Program Oversight Committee**

**Expenses: July 1, 2005 through March 31, 2008 (\$ Millions)**

Agency/Program Activity	Expenses
BATA	0.4
Caltrans	1.0
CTC	0.6
Reporting	1.8
<b>Total Program</b>	<b>3.8</b>

## **Appendices**

- A. TBSRP All Bridges AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through March 31, 2008 (A-1 and A-2).
- B. TBSRP East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through March 31, 2008.
- C. CTC First Quarter Schedule.
- D. Project/Contract Photographs.

## Appendix A-1.

<b>Toll Bridge Seismic Retrofit Program</b>							
<b>AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2008</b>							
(\$ millions)							
<b>Bridge</b>	<b>AB 144/SB 66 Baseline</b>	<b>TBPOC Current Approved Budget</b>	<b>Fourth Quarter 2007 Forecast</b>	<b>First Quarter 2008 Forecast</b>	<b>Variance 1st Q08-4th Q07)</b>	<b>Expenditures Through Mar 2008</b>	
<b>Benicia-Martinez</b>							
Capital Outlay Support	38.1	38.1	38.1	38.1	-	38.1	
Capital Outlay	139.7	139.7	139.7	139.7	-	139.7	
Total	177.8	177.8	177.8	177.8	-	177.8	
<b>Carquinez</b>							
Capital Outlay Support	28.7	28.7	28.7	28.7	-	28.8	
Capital Outlay	85.5	85.5	85.5	85.5	-	85.4	
Total	114.2	114.2	114.2	114.2	-	114.2	
<b>San Mateo-Hayward</b>							
Capital Outlay Support	28.1	28.1	28.1	28.1	-	28.1	
Capital Outlay	135.4	135.4	135.4	135.4	-	135.3	
Total	163.5	163.5	163.5	163.5	-	163.4	
<b>Vincent Thomas</b>							
Capital Outlay Support	16.4	16.4	16.4	16.4	-	16.4	
Capital Outlay	42.1	42.1	42.1	42.1	-	42.0	
Total	58.5	58.5	58.5	58.5	-	58.4	
<b>San Diego-Coronado</b>							
Capital Outlay Support	33.5	33.5	33.5	33.5	-	33.2	
Capital Outlay	70.0	70.0	70.0	70.0	-	69.4	
Total	103.5	103.5	103.5	103.5	-	102.6	
<b>Richmond-San Rafael</b>							
Capital Outlay Support	134.0	127.0	127.0	127.0	-	126.7	
Capital Outlay	780.0	698.0	698.0	689.5	(8.5)	666.6 *	
Total	914.0	825.0	825.0	816.5	(8.5)	793.3	
<b>West Span Retrofit</b>							
Capital Outlay Support	75.0	75.0	75.0	75.0	-	74.8	
Capital Outlay	232.9	232.9	232.9	232.9	-	226.3	
Total	307.9	307.9	307.9	307.9	-	301.1	
<b>West Approach</b>							
Capital Outlay Support	120.0	120.0	120.0	120.0	-	104.3	
Capital Outlay	309.0	333.7	350.7	350.7	-	273.2	
Total	429.0	453.7	470.7	470.7	-	377.5	
<b>SFOBB East Span</b>							
Capital Outlay Support	959.4	959.4	977.1	977.1	-	587.8	
Capital Outlay	4,492.1	4,674.6	4,689.9	4,745.2	55.3	2,280.8	
Other Budgeted Capital	35.1	31.8	7.7	7.7	-	0.7	
Total	5,486.6	5,665.8	5,674.7	5,730.0	55.3	2,869.3	
Miscellaneous Program Costs	30.0	30.0	30.0	30.0	-	24.7	
Subtotal Capital Outlay Support	1,463.2	1,456.2	1,473.9	1,473.9	-	1,062.9	
Subtotal Capital Outlay	6,321.8	6,443.7	6,451.9	6,498.7	46.8	3,919.4	
Subtotal Toll Seismic Retrofit	7,785.0	7,899.9	7,925.8	7,972.6	46.8	4,982.3	
Program Contingency	900.0	785.1	759.2	712.4	(46.8)	-	
<b>Total Toll Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>-</b>	<b>4,982.3</b>	

Notes: \* Budget for Richmond-San Rafael Bridge include \$16.9 million of deck joint rehabilitation work that's considered to be eligible for seismic retrofit program funding. (Due to the rounding of numbers, the totals above are shown within \$0.1).

## Appendix A-2.

### Toll Bridge Seismic Retrofit Program - SAS Alternative AB 144 Baseline Budget, Forecasts and Expenditures Through March 31, 2008

(\$ in millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of Mar 2008 See Note (1)	Estimated Costs not yet Spent or Encumbered as of Mar 2008	Total Forecast as of Mar 2008
<b>(Columns C +D)</b>					
<b>Other Completed Projects</b>					
Capital Outlay Support	144.8	144.8	144.6	0.3	144.9
Capital Outlay	472.7	472.7	472.6	0.1	472.7
Total	617.5	617.5	617.2	0.4	617.6
<b>Richmond-San Rafael</b>					
Capital Outlay Support	134.0	127.0	126.7	0.3	127.0
Capital Outlay	698.0	698.0	673.3	16.2	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	825.0	800.0	16.5	816.5
<b>West Span Retrofit</b>					
Capital Outlay Support	75.0	75.0	74.8	0.2	75.0
Capital Outlay	232.9	232.9	232.8	0.1	232.9
Total	307.9	307.9	307.6	0.3	307.9
<b>West Approach</b>					
Capital Outlay Support	120.0	120.0	104.8	15.2	120.0
Capital Outlay	309.0	333.7	300.1	50.6	350.7
Total	429.0	453.7	404.9	65.8	470.7
<b>SFOBB East Span -Skyway</b>					
Capital Outlay Support	197.0	197.0	178.5	2.5	181.0
Capital Outlay	1,293.0	1,293.0	1,358.2	(104.1)	1,254.1
Total	1,490.0	1,490.0	1,536.7	(101.6)	1,435.1
<b>SFOBB East Span -SAS- Superstructure</b>					
Capital Outlay Support	214.6	214.6	77.5	137.1	214.6
Capital Outlay	1,753.7	1,753.7	1,649.6	117.8	1,767.4
Total	1,968.3	1,968.3	1,727.1	254.9	1,982.0
<b>SFOBB East Span -SAS- Foundations</b>					
Capital Outlay Support	62.5	51.5	37.0	4.0	41.0
Capital Outlay	339.9	339.9	308.7	(1.4)	307.3
Total	402.4	391.4	345.7	2.6	348.3
<b>Small YBI Projects</b>					
Capital Outlay Support	10.6	10.6	10.2	0.4	10.6
Capital Outlay	15.6	15.6	16.2	(0.5)	15.7
Total	26.2	26.2	26.4	(0.1)	26.3
<b>YBI Detour</b>					
Capital Outlay Support	29.5	39.5	39.7	26.3	66.0
Capital Outlay	131.9	334.4	327.9	133.3	461.2
Total	161.4	373.9	367.6	159.6	527.2
<b>YBI - Transition Structures</b>					
Capital Outlay Support	78.7	78.7	16.4	62.3	78.7
Capital Outlay	299.4	276.1	0.1	276.0	276.1
Total	378.1	354.8	16.5	338.3	354.8
<b>Oakland Touchdown</b>					
Capital Outlay Support	74.4	74.4	33.6	58.5	92.1
Capital Outlay	283.8	283.8	219.1	83.4	302.5
Total	358.2	358.2	252.7	141.9	394.6
<b>East Span Other Small Project</b>					
Capital Outlay Support	212.3	213.3	200.1	13.2	213.3
Capital Outlay	170.8	170.8	93.0	53.6	146.6
Total	383.1	384.1	293.1	66.8	359.9
<b>Existing Bridge Demolition</b>					
Capital Outlay Support	79.7	79.7	0.3	79.4	79.7
Capital Outlay	239.2	239.2	-	222.0	222.0
Total	318.9	318.9	0.3	301.4	301.7
<b>Miscellaneous Program Costs</b>					
	30.0	30.0	25.0	5.0	30.0
<b>Total Capital Outlay Support (2)</b>	<b>1,463.1</b>	<b>1,456.1</b>	<b>1,069.2</b>	<b>404.7</b>	<b>1,473.9</b>
<b>Total Capital Outlay</b>	<b>6,321.9</b>	<b>6,443.8</b>	<b>5,651.6</b>	<b>847.1</b>	<b>6,498.7</b>
<b>Program Total</b>	<b>7,785.0</b>	<b>7,899.9</b>	<b>6,720.8</b>	<b>1,251.8</b>	<b>7,972.6</b>

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). Total Capital Outlay Support includes program indirect costs.

(Due to the rounding of numbers, the totals above are shown within \$0.1).

## Appendix B.

**Toll Bridge Seismic Retrofit Program - SFOBB East Span Only**  
**AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2008**

(\$ millions)

East Span Contract	AB 144/SB 66 Baseline	TBPOC Current Approved Budget See Note (1)	Fourth Quarter 2007 Forecast	First Quarter 2008 Forecast	Variance 1st Q08 - 4th Q07)	Expenditures Through Mar 2008
<b>SFOBB East Span -Skyway</b>						
Capital Outlay Support	197.0	197.0	197.0	181.0	(16.0)	177.9
Capital Outlay	1,293.0	1,293.0	1,293.0	1,254.1	(38.9)	1,230.6
Total	1,490.0	1,490.0	1,490.0	1,435.1	(54.9)	1,408.5
<b>SFOBB East Span -SAS- E2/T1 Foundations</b>						
Capital Outlay Support	52.5	41.5	41.5	31.0	(10.5)	27.6
Capital Outlay	313.5	313.5	313.5	280.9	(32.6)	272.8
Total	366.0	355.0	355.0	311.9	(43.1)	300.4
<b>SFOBB East Span -SAS- Superstructure</b>						
Capital Outlay Support	214.6	214.6	214.6	214.6	-	74.7
Capital Outlay	1,753.7	1,753.7	1,767.4	1,767.4	-	402.0
Total	1,968.3	1,968.3	1,982.0	1,982.0	-	476.7
<b>SFOBB East Span -SAS- W2 Foundations</b>						
Capital Outlay Support	10.0	10.0	10.0	10.0	-	9.2
Capital Outlay	26.4	26.4	26.4	26.4	-	25.8
Total	36.4	36.4	36.4	36.4	-	35.0
<b>YBI Detour</b>						
Capital Outlay Support	29.5	39.5	39.5	66.0	26.5	38.6
Capital Outlay	131.9	334.4	334.4	461.2	126.8	159.5
Total	161.4	373.9	373.9	527.2	153.3	198.1
<b>YBI - Transition Structures (Total, including the following split contracts and prior-to-split expenses)</b>						
Capital Outlay Support	78.7	78.7	78.7	78.7	-	18.9
Capital Outlay	299.3	276.1	276.1	276.1	-	-
Total	378.0	354.8	354.8	354.8	-	18.9
<b>YBI- Transition Structures Contract No. 1</b>						
Capital Outlay Support			45.0	45.0		1.7
Capital Outlay			214.3	214.3		-
Total			259.3	259.3		1.7
<b>YBI- Transition Structures Contract No. 2</b>						
Capital Outlay Support			16.0	16.0		0.8
Capital Outlay			58.5	58.5		-
Total			74.5	74.5		0.8
<b>YBI- Transition Structures Contract No. 3 - Landscape</b>						
Capital Outlay Support			1.0	1.0		-
Capital Outlay			3.3	3.3		-
Total			4.3	4.3		-
<b>Oakland Touchdown (Total, including the following split contracts and prior-to-split expenses)</b>						
Capital Outlay Support	74.4	74.4	92.1	92.1	-	32.9
Capital Outlay	283.8	283.8	302.5	302.5	-	71.6
Total	358.2	358.2	394.6	394.6	-	104.5
<b>Oakland Touchdown Contract - Submarine Cable</b>						
Capital Outlay Support	-	-	3.0	3.0	-	0.9
Capital Outlay	-	-	9.6	9.6	-	7.9
Total	-	-	12.6	12.6	-	8.8
<b>Oakland Touchdown Contract No. 1 (Westbound)</b>						
Capital Outlay Support	-	-	49.9	49.9	-	11.5
Capital Outlay	-	-	226.5	226.5	-	63.7
Total	-	-	276.4	276.4	-	75.2
<b>Oakland Touchdown Contract No. 2 (Eastbound)</b>						
Capital Outlay Support	-	-	15.8	15.8	-	0.4
Capital Outlay	-	-	62.0	62.0	-	-
Total	-	-	77.8	77.8	-	0.4
<b>Oakland Touchdown Contract - Electrical Systems</b>						
Capital Outlay Support	-	-	1.4	1.4	-	0.1
Capital Outlay	-	-	4.4	4.4	-	-
Total	-	-	5.8	5.8	-	0.1

## Appendix B. (Cont'd.)

<b>Toll Bridge Seismic Retrofit Program - SFOBB East Span Only</b>							
<b>AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2008</b>							
(\$ millions)							
East Span Contract	AB 144/SB 66 Baseline	TBPOC Current Approved Budget See Note (1)	Fourth Quarter 2007 Forecast	First Quarter 2008 Forecast	Variance 1st Q08 - 4th Q07)	Expenditures Through Mar 2008	
<b>YBI/SAS (Archeology)</b>							
Capital Outlay Support	1.1	1.1	1.1	1.1	-	1.1	
Capital Outlay	1.1	1.1	1.1	1.1	-	1.1	
Total	2.2	2.2	2.2	2.2	-	2.2	
<b>YBI - USCG Rd Relocation</b>							
Capital Outlay Support	3.0	3.0	3.0	3.0	-	2.7	
Capital Outlay	3.0	3.0	3.0	3.0	-	2.8	
Total	6.0	6.0	6.0	6.0	-	5.5	
<b>YBI - Substation and Viaduct</b>							
Capital Outlay Support	6.5	6.5	6.5	6.5	-	6.4	
Capital Outlay	11.6	11.6	11.6	11.6	-	11.3	
Total	18.1	18.1	18.1	18.1	-	17.7	
<b>Oakland Geofill</b>							
Capital Outlay Support	2.5	2.5	2.5	2.5	-	2.5	
Capital Outlay	8.2	8.2	8.2	8.2	-	8.2	
Total	10.7	10.7	10.7	10.7	-	10.7	
<b>Pile Installation Demonstration Project</b>							
Capital Outlay Support	1.8	1.8	1.8	1.8	-	1.8	
Capital Outlay	9.2	9.2	9.2	9.2	-	9.2	
Total	11.0	11.0	11.0	11.0	-	11.0	
<b>Existing Bridge Demolition</b>							
Capital Outlay Support	79.7	79.7	79.7	79.7	-	0.3	
Capital Outlay	239.2	239.2	222.0	222.0	-	-	
Total	318.9	318.9	301.7	301.7	-	0.3	
<b>Stormwater Treatment Measures</b>							
Capital Outlay Support	6.0	8.0	8.0	8.0	-	7.9	
Capital Outlay	15.0	18.3	18.3	18.3	-	16.1	
Total	21.0	26.3	26.3	26.3	-	24.0	
<b>Right-of-way and Environmental Mitigation</b>							
Capital Outlay Support	-	-	-	-	-	-	
Capital Outlay	72.4	72.4	72.4	72.4	-	39.0	
Total	72.4	72.4	72.4	72.4	-	39.0	
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support	39.5	39.5	39.5	39.5	-	39.5	
Capital Outlay	30.8	30.8	30.8	30.8	-	30.8	
Total	70.3	70.3	70.3	70.3	-	70.3	
<b>Environmental Phase (Expended)</b>							
Capital Outlay Support	97.7	97.7	97.7	97.7	-	97.7	
<b>Project Expenditures, Pre-splits</b>							
Capital Outlay Support	44.9	44.9	44.9	44.9	-	44.9	
<b>Non-project Specific Costs</b>							
Capital Outlay Support	20.0	19.0	19.0	19.0	-	3.2	
Subtotal East Span Capital Outlay Support	959.4	959.4	977.1	977.1	-	587.8	
Subtotal East Span Capital Outlay and Sunk Costs	4,492.1	4,674.6	4,689.9	4,745.2	55.3	2,280.8	
Other Budgeted Capital	35.1	31.8	7.7	7.7	-	0.7	
<b>Total SFOBB East Span</b>	<b>5,486.6</b>	<b>5,665.8</b>	<b>5,674.7</b>	<b>5,730.0</b>	<b>55.3</b>	<b>2,869.3</b>	

(1) Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority.

(Due to the rounding of numbers, the totals above are shown within \$0.1).

**Appendix C.**

**CTC TBSRP Contributions  
Adopted December 2005**

**Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ million)**

Source	Description	2005-06 (Actual)	2006-07 (Actual)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
AB 1171	SHA	290									290
	PTA	80	40								120
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342
	Contingency				1	99	100	100	148		448
AB 144	SHA*	2	8				53	50	17		130
	Motor Vehicle Account (MVA)	75									75
	Spillover		125								125
	SHA**									300	300
	<b>Total</b>	<b>547</b>	<b>273</b>	<b>100</b>	<b>43</b>	<b>99</b>	<b>153</b>	<b>150</b>	<b>165</b>	<b>300</b>	<b>1830</b>

\* Caltrans Efficiency Savings

\*\* SFOBB East Span Demolition Cost

**Appendix D.**

**Project/Contract Photographs**

**SFOBB East Span Replacement Project**

**Aerials**



*Photos by Bill Hall Courtesy of Caltrans, District 4*

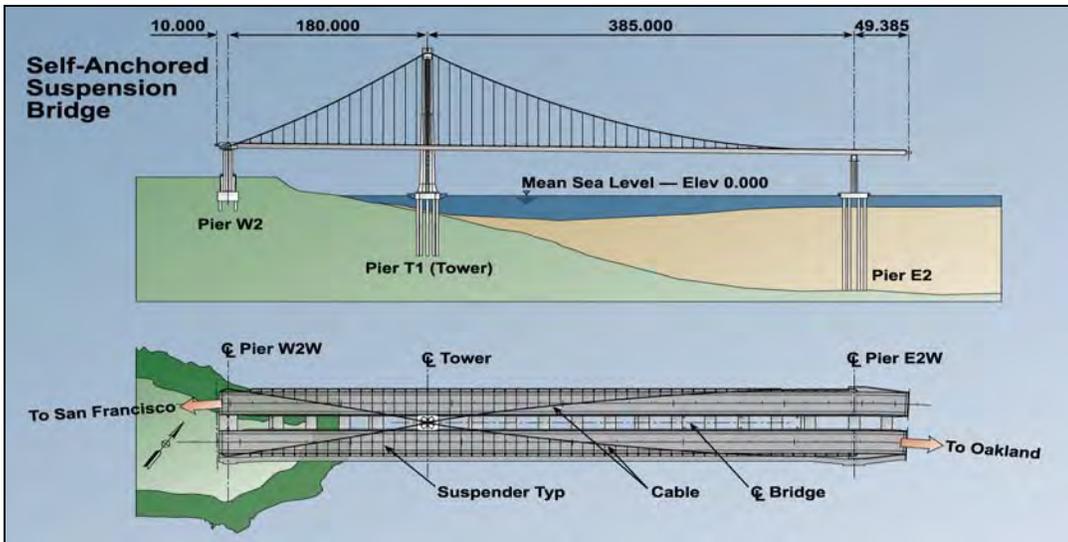


*Photo by Bill Hall Courtesy of Caltrans, District 4*

## SAS Superstructure Contract

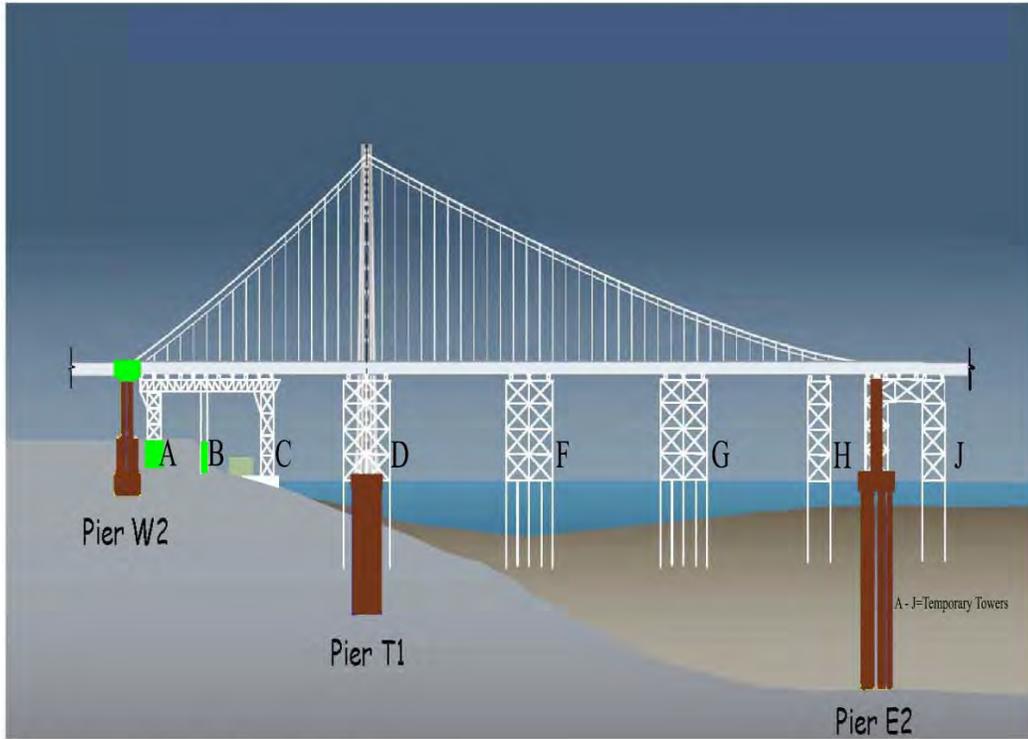


SAS Superstructure Artist Rendition



## SAS Superstructure Contract (Cont'd.)

### SAS Superstructure Construction Progress



-  Field work to be completed
-  Field work in progress
-  Completed field work
-  Part of W2 and E2/T1 contract

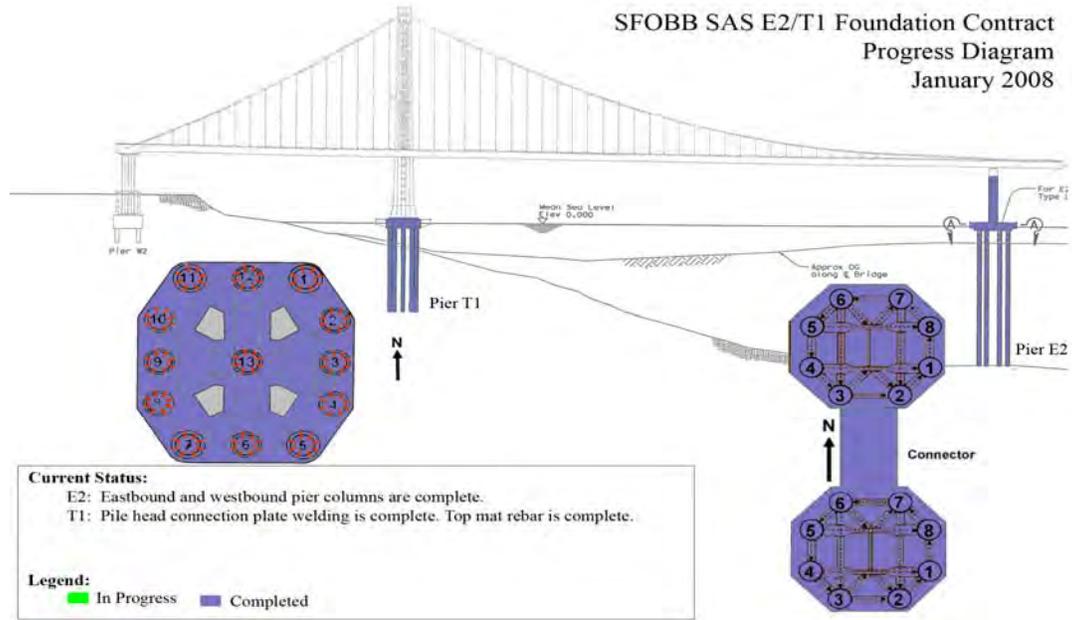


SAS - W2 Steel Reinforcement



SAS - W2 Steel Reinforcement

**SAS E2/T1 Foundations Contract**



SAS E2-T1 - Completed E2 Column Westbound

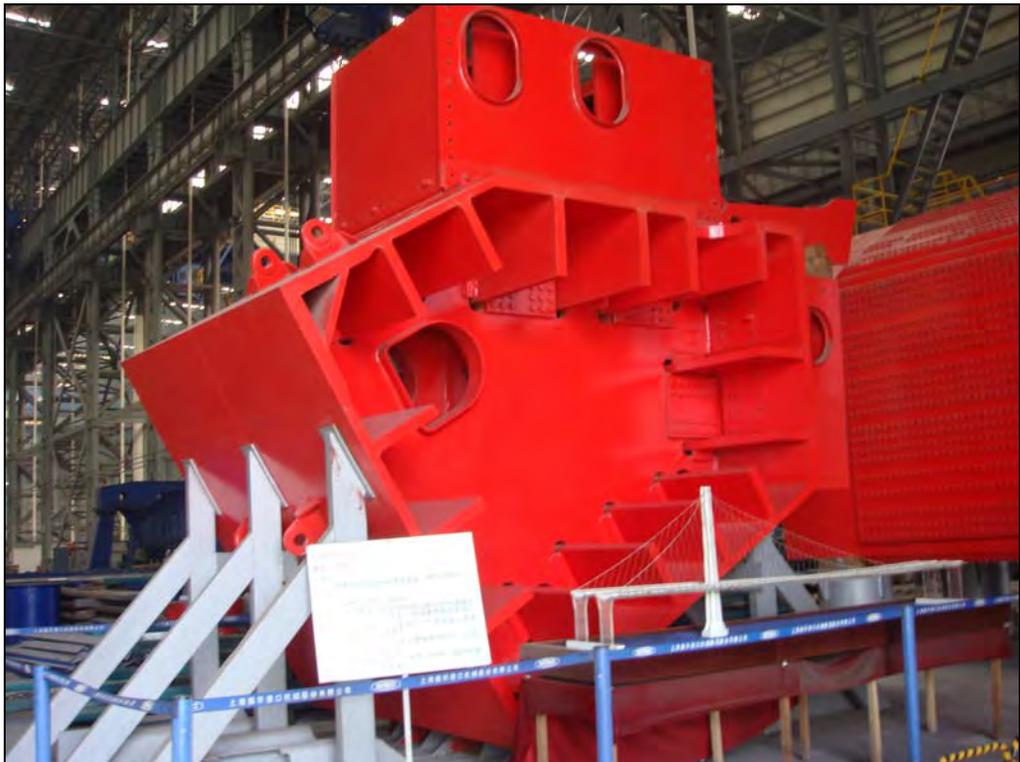


SAS E2-T1 - Completed E2 Column Eastbound T1 Foundation

## Contract Photographs from Changxing Island, China



China - SFOBB OBG Diaphragm



China - SFOBB Tower Mock-up

### Contract Photographs from Changxing Island, China (cont.)



*The Tower Diaphragm*



*OBG Assembly*



*Welding Head on Closed Rib Welding Machine*



*Tower Mock-Up*



*OBG Segment Assembly Workshop for SFOBB*

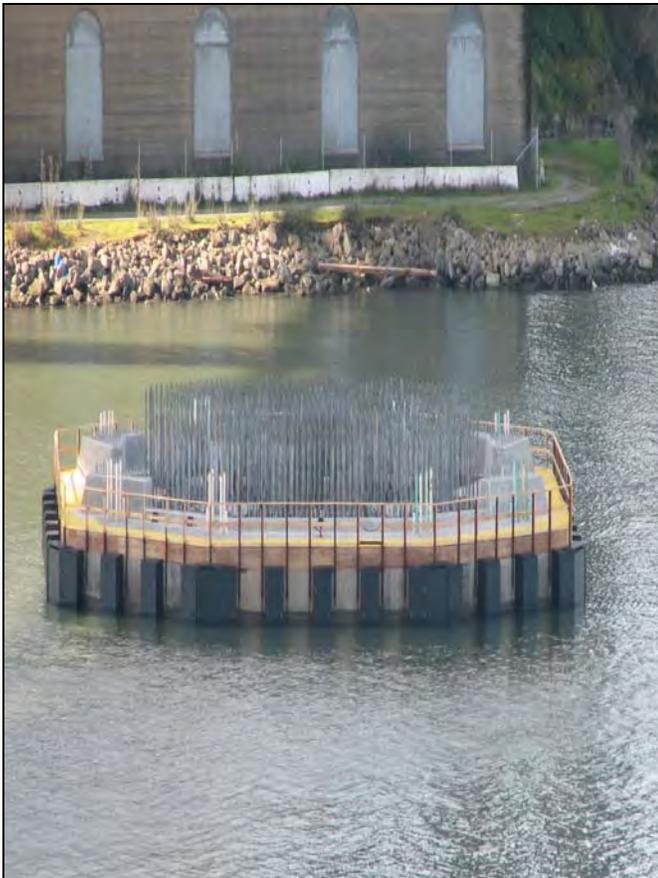


*OBG Segment Assembly Workshop for SFOBB*

### SAS E2/T1 Foundations Contract (Cont'd.)



*T1 = Foundation for the 530-foot steel tower  
E2 = Eastern Support of the suspension roadway  
W2 = Western Support of the suspension roadway*



*E2-T1 - Completed T1 Footing*



*E2-T1 - Completed E2 Columns*

## YBID and Stormwater Contracts



*YBID – Bent W4L Construction YBI Advanced Work*



*YBID - Bent W6 Construction YBI Advanced Work*



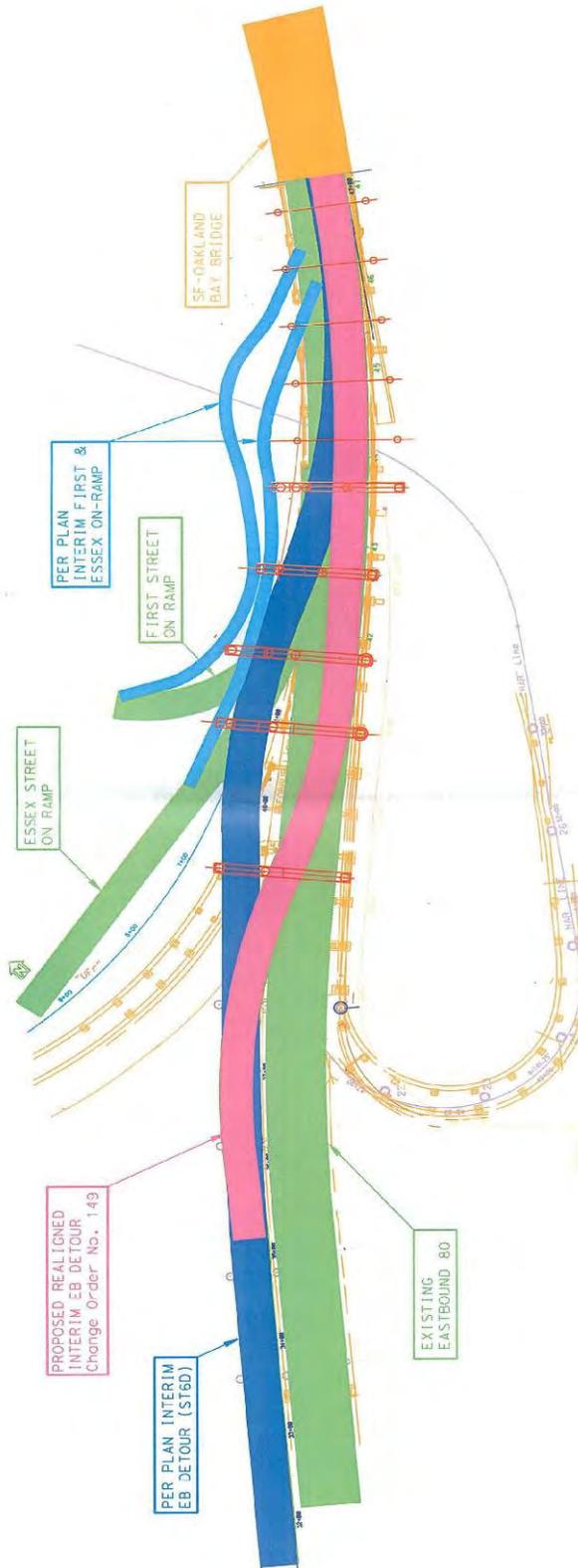
*Stormwater - Forebay Location 5*



*Stormwater - Radio Road Planting*

# SFOBB West Approach Replacement Project

## WEST APPROACH (EA 04-0435V4) REALIGNMENT OF ST6D STAGE 5 DETOUR



## SFOBB West Approach Replacement Project (Cont'd.)



*West Approach – Gavin Newsome, Arnold Schwarzenegger and Will Kempton Approaching the Chain Opening Ceremony*



*West Approach – The Cake*



*The Newly Opened West Approach*

## SFOBB West Approach Replacement Project (Cont'd.)



*West Approach - The Governor Congratulates the Teams*



*West Approach Opening Ceremony*

*Photos by Bill Hall Courtesy of Caltrans, District 4*