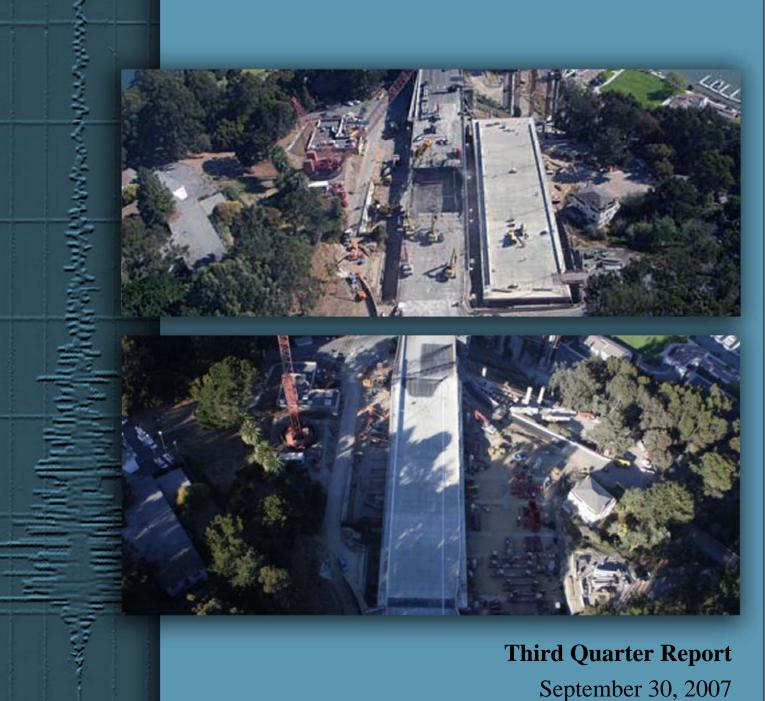
# **Toll Bridge Seismic Retrofit Program Report**



# 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
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November 14, 2007

Mr. James C. Ghilmetti, Chair California Transportation Commission 1120 N Street, Room 2221 Sacramento, CA 95814

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

Dear Commissioners Ghilmetti and Chalker:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2007 Third Quarter "Toll Bridge Seismic Retrofit Program Report," prepared pursuant to California Streets and Highways Code Section 30952.2. The Third Quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through September 30, 2007.

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.

The TBPOC is pleased to report that the 2007 Labor Day Weekend work to reconstruct a portion of the upper roadway deck of the San Francisco-Oakland Bay Bridge near the Yerba Buena Island Tunnel was a great success. The roll-in of the deck was completed 11 hours

Gregory Schmidt E Dotson Wilson November 14, 2007 Page 2

ahead of schedule, which gave returning Labor Day drivers early access to the bridge. Overall, traffic impacts over the weekend were manageable with a high degree of cooperation and teamwork with the California Highway Patrol and local transit operators.

Over the next two quarters, Caltrans plans to complete additional major milestones on the San Francisco-Oakland Bay Bridge East Span Seismic Replacement Project with the planned completion of the Skyway structures in December 2007 and the E2/T1 foundations of the Self Anchored Suspension Span in March 2008. Other work wrapping up on the project includes the stormwater run-off mitigation and the submerged electrical cable replacement contracts.

Work is also proceeding ahead of schedule on the San Francisco-Oakland Bay Bridge West Approach Project that replaces the bridge approach structures in San Francisco. Caltrans is forecasting that mainline Interstate 80 traffic will be shifted onto its final alignment in April 2008. Overall, the contract is forecast to be completed in January 2009.

Also since the last quarter report, the New Benicia-Martinez Bridge was opened to traffic on August 25, 2007. The new bridge features two additional northbound lanes and the Bay Area's first open road FasTrak<sup>®</sup> tolling lanes. Caltrans also opened bids on a contract to modify the existing Benicia-Martinez Bridge to southbound only traffic on October 31, 2007. The apparent low bid was \$23.8 million less than the engineer's estimate.

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

November 14, 2007

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

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

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STEVE HEMINGER Executive Director Bay Area Toll Authority

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# **Executive Summary**

The Toll Bridge Program Oversight Committee (TBPOC) submits the 2007 Third Quarter Report ending September 30, 2007 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 June 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.

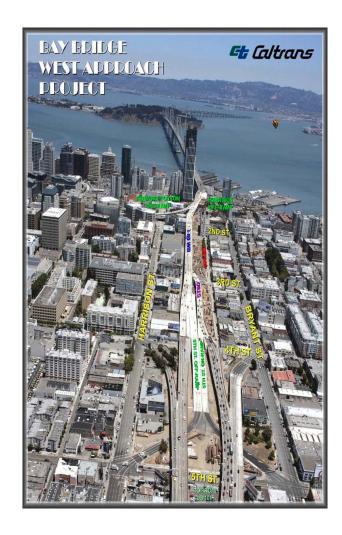
#### **Major Milestones during the Third Quarter 2007**

Significant progress on the completion of the seismic retrofit projects continued during this past quarter. Only one of the seven toll bridges in the TBSRP remains to be retrofitted. Appendix D includes a gallery of photos of construction activities on the bridge projects. The major milestones achieved during the quarter include:

• The San Francisco-Oakland Bay Bridge (SFOBB) West Approach Project is 84 percent complete as of September 20, 2007 and is forecasted for an early completion in January 2009. The Harrison Street Off Ramp deck was completed in July 2007. Major ongoing work during the quarter includes the rebuilding of the new EB 80 structure with column installation continuing throughout the summer and falsework installation to follow. An extensive public outreach effort continues and will be necessary until the spring of 2008 for the construction of the EB 80 adjacent to the Stillman Street area. Frame 7U temporary supports and falsework will continue through September 2007,

and work on Frame 6U has commenced during this report period (See project diagram on page 13).

- The SFOBB East Span Seismic Replacement Project Skyway contract is expected to be completed in December 2007. Remaining work includes final post-tensioning of the bridge segments and spans, installation of cantilevered bicycle/pedestrian pathway and service platforms, electrical, polyester overlay, painting, punch list work and delivery and erection of the two hinge pipe beams at the end of westbound Skyway.
- The SFOBB East Span Seismic Replacement Project Self-Anchored Suspension (SAS) Marine Foundation East Pier and Tower Pier (E2/T1) contract is on schedule to be completed by March





First Shipment of Steel Arriving from Korea

2008. Caltrans and its contractor have completed most of the eastbound E2 foundation and column. At the Tower Pier (T1), all steel foundation casings and rock sockets have been installed. The basketball court-sized T1 footing box was set into place on March 17, 2007. The T1 bottom slab concrete has been placed and the bottom lift rebar cages for the E2 pier columns have been fabricated.

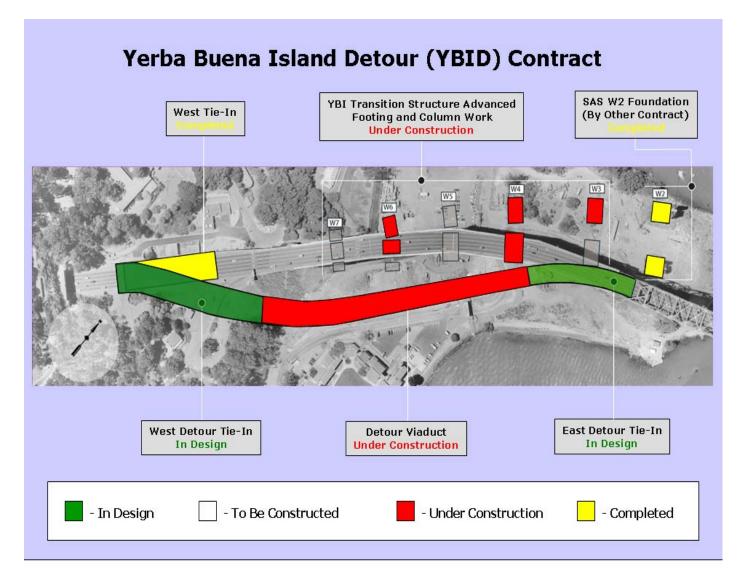
For the SFOBB East Span Seismic Replacement Project SAS Superstructure contract, American Bridge/Flour (ABF), the prime contractor for the project, has mobilized staff to their field offices at Pier 7 in Oakland and in China. ABF has completed the design of the crane barge to be used to lift the heavy tower and deck sections. Barge fabrication is on going in Oregon, while crane fabrication has started in China. Civil construction work has started at the W2 foundation with falsework for the pier table. The fabricators for the temporary towers and trusses have been selected by the contractor and fabrication is underway. Zhenhua Port Machinery Company (ZPMC) of Shanghai, China, who was contracted to supply and fabricate all the major steel structures in SAS including the tower, orthotropic box girders, and bike paths, is currently setting up their facilities to begin fabrication of the SAS tower and deck sections. ZPMC has prepared initial test mockups of the bridge sections and plans to begin production

- fabrication later in the fall of 2007 as final shop drawing submittals are approved.
- On the Yerba Buena Island Detour (YBID) temporary structures contract, Caltrans is designing the East and West tie-ins from the existing bridge and tunnel to the detour structure. The construction of the tie-ins are being managed by Caltrans to be completed in conjunction with the SAS schedule to minimize impacts to the traveling public. YBI Detour Viaduct fabrication continues in Korea and the first shipment of the detour viaduct has been received at the Port of San Francisco on September 26, 2007.
- Construction has also begun on the advanced Yerba Buena Island Transition Structures (YBITS) foundation work. Work on the foundation of W4 L/R and W6 L/R is in progress. Caltrans and their contractor successfully rolled into place the pre-cast replacement upper roadway deck section near the YBI tunnel as part of the West Tie-in Phase I. The work was completed 11 hours early during the full Bay Bridge closure over the Labor Day Weekend. These actions are significantly advancing the permanent SFOBB East Span structure construction on Yerba Buena Island to reduce overall risk to the SFOBB East Span Seismic Retrofit Project.



Overview of Upper Roadway Deck Replacement

- The SFOBB East Span Seismic Replacement Project Oakland Touchdown (OTD) Submarine Cable contract has replaced the existing submerged electrical cable from Oakland to Treasure Island. All field work has been completed and the contractor has demobilized. Contract closeout is in progress.
- The SFOBB East Span Seismic Replacement Project Oakland Touchdown #1 (OTD #1) contract, which will construct the westbound approach structure from the toll plaza to the new Skyway and a significant portion of the eastbound approach structure, was awarded to MCM Construction on July 17, 2007. The first working day of the contract was August 22, 2007, with contract completion schedule for January 2010.
- In March 2007, the TBPOC approved a number of changes to the Yerba Buena Island Detour contract to better integrate the detour work into the current project schedule and to reduce overall project risks by advancing Yerba Buena Island Transition Structures (YBITS) foundation work into the YBI Detour contract. These changes increased the YBI Detour contract budget by \$202.5 million and decreased the YBITS contract by \$23.2 million. The net project increase will be funded from the existing program contingency and does not change the overall Toll Bridge Seismic Retrofit Program budget.



# **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 SFOBB West Approach and new East Span Seismic Replacement projects remain to be seismically retrofitted.

The Third Quarter 2007 forecast for those projects indicates that they 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.



San Diego-Coronado Bridge

**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 (09/2007)	Cost To Date (09/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	С	d	e = c + d	f	g	h = g - e	i
SFOBB East Span Replacement Project								
Capital Outlay Support		959.4	-	959.4	534.5	977.1	17.7	
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,187.3	1,293.0	-	•
SAS E2/T1 Foundations	Construction	313.5	-	313.5	248.1	313.5	-	•
SAS Superstructure	Construction	1,753.7	-	1,753.7	301.5	1,767.4	13.7	•
YBI Detour	Design/Const	131.9	202.5	334.4	106.3	334.4	-	•
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	18.7	302.5	18.7	
* OTD Submarine Cable	Complete				7.8	9.6		•
* OTD No. 1 (Westbound)	Construction				10.9	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	14.5	18.3	-	•
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	•
Other Budgeted Capital		35.1	(3.3)	31.8	0.6	7.7	(24.1)	
Total SFOBB East Span Replacement Project		5,486.6	179.2	5,665.8	2,539.5	5,674.7	8.9	
SFOBB West Approach Replacement	Construction							•
Capital Outlay Support		120.0	-	120.0	98.0	120.0	-	
Capital Outlay Construction		309.0	-	309.0	257.3	309.0	-	•
Total SFOBB West Approach Replacement		429.0	-	429.0	355.3	429.0	-	
Richmond-San Rafael Bridge Retrofit	Complete							•
Capital Outlay Support		134.0	(7.0)	127.0	126.6	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(82.0)	698.0	666.6	698.0	-	
Total Richmond-San Rafael Bridge Retrofit		914.0	(89.0)	825.0	793.2	825.0	-	
Program Completed Projects	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
Total Program Completed Projects		925.4	-	925.4	917.5	925.4	-	
Miscellaneous Program Costs		30.0	-	30.0	24.7	30.0	-	
Program Contingency		900.0	(90.2)	809.8		800.9	(8.9)	
Total Toll Bridge Seismic Retrofit Program		8,685.0	-	8,685.0	4,630.2	8,685.0	-	

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 (09/2007)	Project Complete Schedule Forecast (09/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	С	d = b + c	е	f = e – d	g	h
SFOBB East Span Replacement Project Skyway	t Apr 07	8	Dec 07	Dec 07	-	•	
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	•	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	•	See Note.
YBI Detour	Jul 07	36	Jun 10	Jun 10	-	•	
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14		•	
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	•	
OTD Submarine Cable	n/a		Jan 08	Jan 08	-	•	
OTD Westbound	n/a		Jan 10	Jan 10	- 	•	
OTD Eastbound	n/a	40	Nov 14	Nov 14	-	•	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	•	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Mar 08	-	•	
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			
Richmond-San Rafael Bridge		-					
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 baseline 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 Third Quarter 2007 forecast for the program remains steady at the \$8.685 billion budget. The Third Quarter 2007 forecast for the SFOBB East Span Project is \$5.675 billion, which includes a revised construction cost estimate on the OTD #1 and YBI Detour contracts.

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.



East Span Deck Replacement

# Table 4-Toll Bridge Seismic Retrofit Program Baseline (AB 144/SB 66) and Forecasts (\$ Millions)

Contracts	AB 144 / SB 66 Baseline Budget	Approved Changes	Current Approved Budget	3 <sup>rd</sup> Quarter 2007 Forecast	Difference from Current Approved Budget
Completed Projects					
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	-
Ongoing Projects					
Richmond-San Rafael	914.0	(89.0)	825.0	825.0	-
SFOBB West Approach	429.0	-	429.0	429.0	-
SFOBB East Span	5,486.6	179.2	5,665.8	5,674.7	(8.9)
Miscellaneous Program Costs	30.0	-	30.0	30.0	-
Subtotal	7,785.0	90.2	7,875.2	7,884.1	(8.9)
Program Contingency	900.0	(90.2)	809.8	800.9	8.9
Total Program	8,685.0	-	8,685.0	8,685.0	-

# **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 retrofitting 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 September 2007 schedule calls for achieving seismic safety and opening to traffic the SFOBB new East Span in 2013.

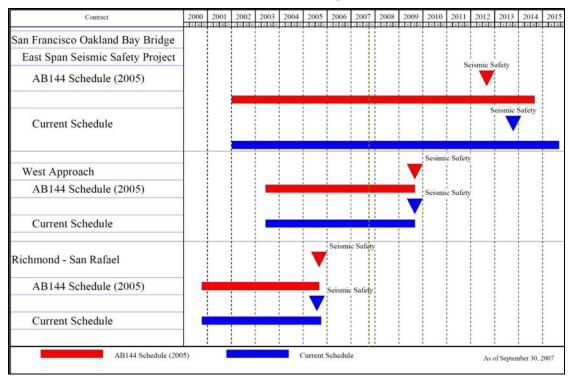
The 12 months of schedule extension was granted by addendum to the SFOBB East Span Seismic Replacement Project SAS contract based on bidder inquiries received during advertisement. While the 12 month schedule extension for the SAS has also extended the schedules for YBITS and OTD

contracts accordingly, the TBPOC is scheduling the contracts to accommodate the possibility of early SAS completion-based incentives also included in the SAS addendum.

On the YBI Detour contract, the TPBOC has approved a forecast completion extension to 2010 to reduce overall program risks, including advancing work from future YBITS contracts into the YBI Detour contract and to coordinate work with SAS completion. The extension will not impact the open-to-traffic date for the new East Span and facilitate possibilities to accelerate opening of the new bridge.

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-Toll Bridge Seismic Retrofit Program Schedule*, shows the baseline, AB 144/SB 66 project schedule versus the projected completion schedules for the TBSRP projects under construction.

Chart 1-Toll Bridge Seismic Retrofit Program Schedule Baseline AB 144/SB 66 vs. Projected Schedule



# **Program Funding and Financing**

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

Table 5-Program Budget as of September 30, 2007 (\$ Millions)

	Budgeted	Funding Available & Contributions
inancing	3	
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
Subtotal - Financing	5,252.0	5,252.0
ontributions		
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" (4)	130.0	2.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
Subtotal - Contributions	3,433.0	2,505.9
otal Funding	8,685.0	7,757.9
located to date		6,369.7
emaining Unallocated		1,388.2

<sup>(1)</sup> The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.

Notes: Program budget includes \$900 million program contingency.

<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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>(4)</sup> To date, \$2 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" for 2005-06 identified under AB 144. Approximately \$128 million remains to be distributed as scheduled by the CTC.

## **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 September 30, 2007 (\$ Millions)

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
Transfers to TBSRA:	
Motor Vehicle Account	75.0
State Highway Account <sup>(4)</sup>	745.0
Public Transportation Account <sup>(5)</sup>	90.0
State Highway Account "Efficiency Savings" (6)	2.0
Total Revenues and Transfers	4,268.7
Expenditures :	
Capital Outlay	3,626.9
State Operations	1,003.3
Total Expenditures	4,630.2
Encumbrances:	
Capital Outlay	1,722.9
State Operations	16.6
Total Encumbrances	1,739.5

- (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.
- (2) \$80 Million in Commercial Paper issued on or about April 5, 2005.
- (3) No additional funding is expected from the Vincent Thomas Toll Revenue Account.
- (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.
- (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.
- (6) To date, \$2 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" for 2005-06 identifed under AB 144. Approximately \$128 million remains to be distributed as scheduled by the CTC.

# **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 4th 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 84 percent complete as of September 20, 2007 and is forecasted for early completion in January 2009 with an Open to Traffic date forecasted for April 2008 for the mainline. The Harrison Off Ramp deck was completed in July 2007 and its falsework removed in August 2007. Major ongoing work during this quarter includes rebuilding of the new EB 80 structure, with column installation followed by falsework installation. An extensive public outreach effort continues and will be necessary until the spring of 2008 for the construction of the EB80 adjacent to the Stillman Street area. Frame 7U temporary supports and falsework will continue through September 2007 and work on Frame 6U has commenced during this report period.

## **Project Funding**

The AB 144/SB 66 baseline budget totals \$429 million for the project with \$309 million for CO and \$120 million for COS. See *Table 7-Baseline and Estimated Budget Need for SFOBB West Approach* 

Table 7-Baseline and Estimated Budget Need for SFOBB West Approach (\$ Million)

	AB 144/ SB 66 Budget	3rd Quarter 2007 Forecast	Difference
COS	120.0	120.0	-
CO	309.0	309.0	-
Total	429.0	429.0	-

## **Major Risk Issues**

Caltrans' West Approach Risk Response Team is continuing with its efforts to manage project risks. Updated risk assessments have been regularly performed during the Third Quarter as a standard project management practice.

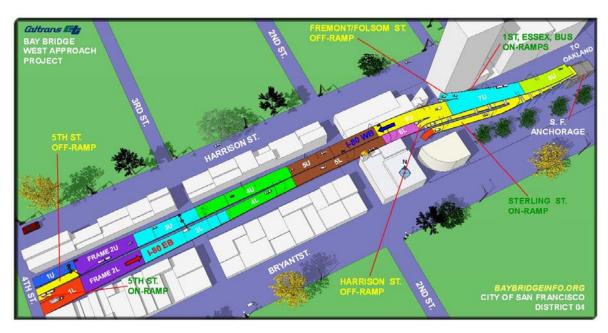
Lessons learned to this point in the project continue to be important aspects of the implementation plans designed to mitigate risk, for example:

- The aggressive informational campaigns have proven successful in keeping the public fully informed of upcoming demolition operations that would affect traffic, thereby mitigating adverse public perception. Regional and local information campaigns were launched during spring 2007 to proactively address public concerns related to upcoming work on the interim eastbound detour and subsequent demolition work.
- Equipment and labor resources were increased during low traffic times such as nights and weekends. This strategy reduced inconveniences to the surrounding residents and

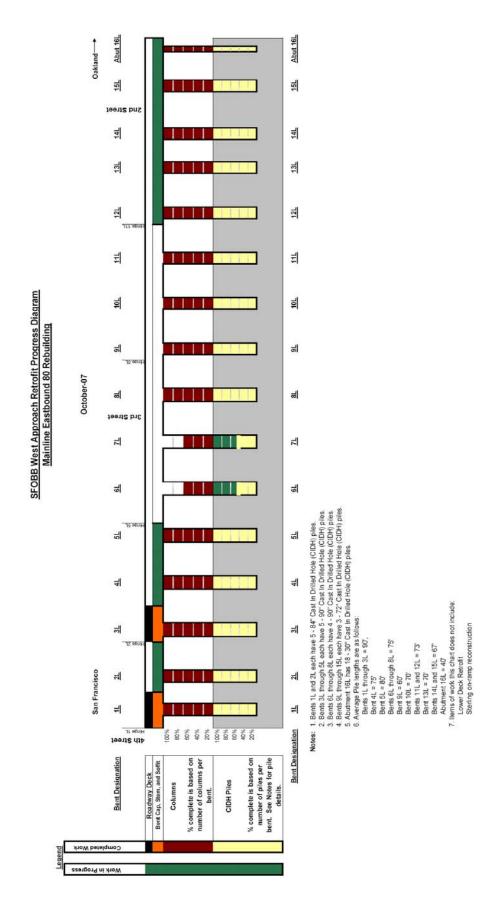
businesses and minimized impact to the regional motorists while maintaining the level of production required for the project to remain on the target schedule.



West Approach



West Approach New I-80 Eastbound Westbound Model (Under Construction)



#### **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; an SAS bridge consisting of a 510-foot tower supporting a bridge deck connecting the Skyway bridge to YBI, transition structures on YBI and 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: Nine 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

Table 8-SFOBB East Span Seismic Replacement Project Schedule Summary

Contract	AB 144/SB 66 Baseline Pro	Approved Changes	Current Approved Schedule	3rd Quarter 2007 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.

Six contracts are under **construction**: Note that percent complete figures for construction contracts are based on actual payments made divided by the contract amount.

- Skyway contract (98 percent complete)
- YBI Detour (61 percent complete)
- SAS Marine Foundations (E2/T1) (89 percent complete)
- SAS Superstructure (21 percent complete)
- Stormwater Treatment Measures (92 percent complete)
- OTD #1 contract (3 percent complete)

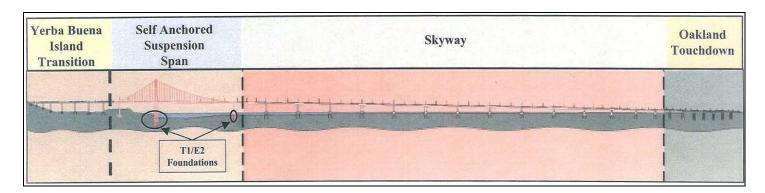
#### Six contracts are in **design**:

- 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.
- YBITS #1 (design 90 percent complete to date)
- 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 completion of the Skyway contract has been revised from April 2007 to December 2007 as approved by the TBPOC due to a Contract Change Order executed with the Contractor that resolves a variety of construction issues. 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**

- The Skyway contract is 98 percent complete as of September 2007. The eastbound and westbound structures are 100 percent complete with the erection of all 452 segments. Remaining work includes final post-tensioning of the bridge segments and spans, installation of cantilevered bicycle/pedestrian pathway and service platforms, electrical, polyester overlay, painting, punch list work and delivery and erection of the two hinge pipe beams at the end of westbound Skyway.
- Various Notices of Potential Change (NOPCs)
  have been issued by the Contractor on behalf of
  their Steel Orthotropic Box Girder (SOBG)
  fabrication subcontractor concerning issues
  related to that work scope. Caltrans and its
  contractor are negotiating to resolve the claim.
  No changes to the contract budget or schedule
  are anticipated to resolve issues.

#### **Self Anchored Suspension Bridge Contract**

- The E2/T1 contract is 89 percent complete as of September 2007. At the East Pier (E2), foundation pile driving has been completed. The contractor has completed most of the eastbound E2 foundation and column. Interior concrete at E2W footing is in progress. Rebar cage assembly is complete for the E2W column. At the Tower Pier (T1), all steel foundation casings have been fabricated. All 13 rock sockets that tie the SAS tower foundation (T1) to bedrock have been installed. The T1 footing box was delivered and installed at the project site on March 17, 2007. The lightweight (LW) concrete has been placed in the inner cells of E2E. Rebar for the footing wall is in progress.
- The SFOBB East Span Seismic Replacement Project SAS Superstructure contract is 21 percent complete based on payments to the Contractor as of September 2007. 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. ABF has completed the design of the crane barge to be used to lift the heavy tower and deck sections. Barge fabrication is on going in Oregon and crane fabrication has started in China. Civil construction work has started at the W2 foundation with falsework for the pier table. The fabricators for the temporary towers and trusses have been selected by the contractor and fabrication is underway. Caltrans is also taking risk mitigation measures to address potential issues during construction due to structural steel plate conflicts and welding methods.

#### Yerba Buena Island Contracts

- For the Yerba Buena Island Detour (YBID) contract, Caltrans and its consultants have assumed design responsibilities from the Contractor for the design of the East and West tie-ins from the existing bridge and tunnel to the detour structure. Completion of their design is being managed by Caltrans and is to be completed in conjunction with the SAS schedule to minimize impacts to the traveling public. The viaduct segment is being fabricated in South Korea and the first shipment has arrived at the Port of San Francisco.
- Caltrans and its contractor successfully rolled into place the precast replacement upper roadway deck section near the YBI tunnel as part of the West Tie-in Phase I. The work was completed 11 hours early during the full Bay Bridge closure over the 2007 Labor Day Weekend.

- As part of the YBI Advanced work, which was added to the YBID contract, work is continuing on the foundations and columns of W4 L&R and W6 L&R. A need was identified to accelerate work on pier W3L due to the SAS contractor need for access to that area. The YBI Detour contractor has completed that work and the SAS contractor has been granted access to that area ahead of schedule.
- 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 element of structure construction. Early construction of the foundations would significantly reduce risk to the East Span corridor schedule. Preparation of the final YBITs #1 PS&E package is currently underway.
- 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. Determination of the extent of the U.S. Coast Guard area to be landscaped is still pending. Development of the final plans has not been completed.



East Span Demolition



OTD1 - Access Trestle Construction

#### **Oakland Touchdown Contracts**

- The OTD Submarine Cable contract replaced the existing submarine electrical cable from Oakland to Treasure Island. The cable relocation contract placed a new electrical cable(s) between the East Bay and Treasure Island, because the existing electrical cable providing power to the island was close to the foundation work necessary for the construction of the OTD #1 contract. All field work has been completed and the contractor has demobilized. Contract closeout is in progress.
- 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. Field work has started with the conditional approval of the Stormwater Pollution Protection Plan (SWPPP) by the Regional Quality Control Board. The

- Contractor has driven test piles and delivered soldier and sheet piles to the site.
- 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 on going.

#### **Other Contracts**

The Stormwater Treatment Measures contract is 92 percent complete as of September 2007 The Stormwater Project, in and around the Toll Plaza and bridge approach area, was required as part of the environmental mitigation package for the SFOBB Seismic Safety Project by the Regional Water Quality Control Board. The project will reduce the concentration of stormwater runoff pollutants including industrial chemicals, asbestos from brake pads, hydrocarbons, and heavy metals, from entering into the adjacent Emeryville Crescent. The Emeryville Crescent is a 558-acre tidal marsh and cove that supports up to 14,000 shorebirds and thousands of other birds including the endangered clapper rail, which nests and forages in the vegetative cover of the marsh. This area has been described as supporting the largest number of shorebird species regularly occurring at one place within San Francisco Bay (Bodega Bay Institute, 1978). The project will provide water treatment of at least 85% of the average annual runoff from a 155-acre shed area in the vicinity of the SFOBB Toll Plaza. By removing toxins from the SFOBB runoff, Caltrans will enhance the habitat quality of the Emeryville Crescent and by extension, the San Francisco Bay. Current work includes construction of the Bioretention basins, completion of the drainage systems along Emeryville crescent area, shoulder paving on WB 80 electrical work for pump stations, and highway lighting.

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**

# Baseline and Projected Budget and Schedule

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 3<sup>rd</sup> Quarter 2007 forecast of \$5.675 billion for the project includes the following revisions:
- A forecast increase in the cost of COS to \$977.1 million as a result of a detailed staffing and consultant contract cost forecast 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.
- A forecast \$13.7 million increase for the SAS Superstructure contract to cover actions taken to encourage additional bidders for the project, including the bidder's stipend for the lowest three responsive bidders.

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

Contract	AB 144/SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (09/2007)	3rd Quarter 2007 Forecast	Variance
a	b	C	d = b + c	e (07/2007)	f	g = f - d
Capital Outlay Support	959.4	-	959.4	534.5	977.1	17.7
Capital Outlay	-	-	-	-	-	-
Skyway	1,293.0	-	1,293.0	1,187.3	1,293.0	-
SAS E2/T1 Foundations	313.5	-	313.5	248.1	313.5	-
SAS Superstructure	1,753.7	-	1,753.7	301.5	1,767.4	13.7
YBI Detour	131.9	202.5	334.4	106.3	334.4	-
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	18.7	302.5	18.7
* OTD Submarine Cable				7.8	9.6	
* OTD Westbound				10.9	226.5	
* OTD Eastbound				-	62.0	
* OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment	15.0	3.3	18.3	14.5	18.3	-
East Span Completed	90.3	-	90.3	89.2	90.3	-
Right-of-Way and	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	(3.3)	31.8	0.6	7.7	(24.1)
TOTAL	5,486.6	179.2	5,665.8	2,539.5	5,674.7	8.9

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

- 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. The forecast for the SFOBB East Span has increased by \$8.9 million to \$5.675 billion.

The current September 2007 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 inquires received during advertisements.
- In March 2007, the TBPOC approved a number of changes to the YBI Detour contract to better integrate the detour work into the current project schedule, to modify the detour viaduct and tie-in designs, and to reduce overall project risks by advancing YBITS foundation work and tunnel viaduct replacement into the SSD contract. These changes increased the overall YBI Detour contract budget by \$202.5 million and decreased the YBITS contract by \$23.2 million.
- While the 12 month schedule extension for the

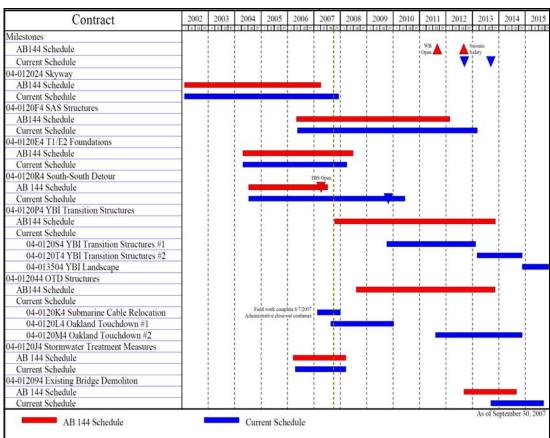


Chart 2-San Francisco-Oakland Bay Bridge East Span Corridor Schedule Baseline AB 144/SB 66 vs. Current Projected



SAS - W2 Bent Cap

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 21. 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 25 for more information).

## **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 the active construction areas, in addition to California clapper rail nest monitoring. A nest survey was also conducted on Yerba Buena Island during the last week in August, before vegetation clearing occurred for the Self-Anchored Suspension Contract.
- Turbidity monitoring was conducted without incident in July, during installation of the cables at Treasure Island and at the Oakland Mole for the Navy submarine cable replacement project.



California Clapper Rail



Stormwater Project - Planting Basin

- It was initially anticipated that dredging for barge access channels near the Oakland Touchdown would create temporary and permanent impacts to eelgrass beds. However, at the Oakland Touchdown, a temporary construction trestle for construction access is being built as an alternative to utilizing barges and has eliminated the need for dredging. Subsequently, a comprehensive eelgrass survey of the construction area was conducted by Merkel Associates in September to determine actual impacts. The actual impacts, as assessed by the eelgrass survey, will be compared to the amount of impacts for which the project has been mitigated, which originally included more extensive dredging.
- On September 6, 2007, Caltrans submitted Amendment No.18 to BCDC Permit No.8-01 to address mitigation measures for the Stormwater Project.

## **Completed Projects**

Seismic retrofit and project close-out has been completed on the 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, Third Quarter 2007 Forecast and Expenditures through September 2007 for Completed Projects on the next page.

The Richmond-San Rafael Bridge project expenditures have not been completely closed because Caltrans is in discussions with regulatory agencies regarding potential mitigations for impacts on fish in the project area. Caltrans has completed a contract for the construction of a public access lot on the Marin side of the Richmond-San Rafael Bridge to comply with a Bay Conservation and Development Commission (BCDC) permit condition.

The Richmond-San Rafael Public Access Project provides public access to the Bay shoreline at the north end of the Richmond-San Rafael Bridge in Marin County. This contract was completed in August 2007 and the lot is opened to public use.

To close out the Richmond-San Rafael Seismic Retrofit Project, Caltrans faces potential exposures concerning the environmental mitigation for negative impacts on fish, which is currently being discussed with regulatory agencies. Final savings for the Richmond-San Rafael Bridge project will be based on the resolution of pending negotiations



Richmond-San Rafael Bridge Project

with environmental permitting agencies regarding the cost of pile driving mitigation. Initial project cost savings in the amount of \$89 million have been transferred to the Toll Bridge Seismic Retrofit Program Contingency, as directed by the TBPOC.



Table 10-Cost Comparison AB 144/SB 66, Third Quarter 2007 Forecast and Expenditures through September 30, 2007 for Completed Projects (\$ Millions)

Proect	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (09/2007)	3rd Quarter 2007 Forecast	Variance
a	b	С	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	793.2	825.0	-
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	-
TOTAL	1,839.4	(89.0)	1,750.4	1,710.7	1,750.4	-

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 still ongoing.

# **Risk Management Program**

The following is a summary of risk management developments during the Third Quarter of 2007.

#### **Corridor Schedule**

The Corridor Schedule Team (CST) continues to identify ways to enhance completion dates while 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. To date, the CST has provided recommendations that have streamlined many of the contract tasks, realized opportunities, and reduced risks to the corridor schedule.

Of note is the early completion of installation on the new viaduct at Yerba Buena Island over the Labor Day weekend. The CST worked closely with the contractor to optimize schedule opportunities to construction operations on that weekend, and to ensure that equipment and plans were in place to deal with any contingencies. With work limited to three days, it was essential that there be a high confidence level that work could be completed in that timeframe. The contractor finished the work 11 hours ahead of schedule.

# **Corridor Schedule Opportunity and Risk Response**

Ongoing corridor schedule opportunity and risk analysis refines the probability of meeting key milestones

While schedule opportunity and risk analysis is ongoing, Caltrans assesses initial results to prioritize response actions. Opportunity and risk response focus teams have been formed to address six critical schedule risk areas:

- Self-Anchored Suspension (SAS) Tower and Deck Fabrication
- SAS Cable Installation
- SAS Barge Crane Procurement and Delivery

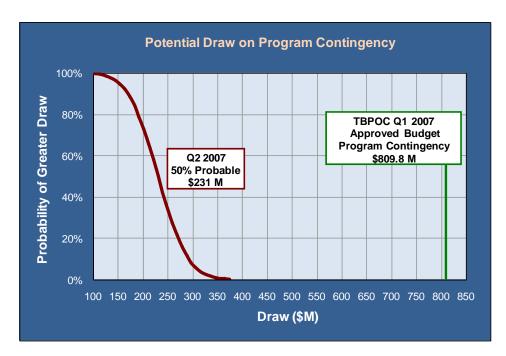


Figure 1. Potential Draw on Program Contingency

- Corridor Electrical/Mechanical Systems Integration
- SAS Tower Erection
- SAS Hinge Closure Construction.

The teams are charged with formulating and implementing opportunity and risk response strategies in these areas.

#### **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 second quarter 2007, the potential draw on Program Contingency ranges from about \$100 million to \$350 million, as shown in the diagram below. As the draw value increases, the probability of a greater draw decreases. The entire range of the potential draw curve is much less than the \$809.8 million Program Contingency balance in the TBPOC Q1 2007 Approved Budget, indicating that

the reserve is adequate as of the end of the second quarter 2007.

#### **Major Risk Management Accomplishments**

#### **Team China**

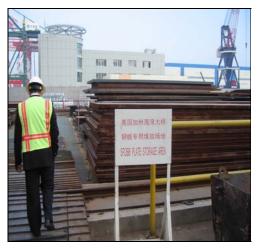
In an effort to mitigate fabrication concerns in China, Caltrans formed "Team China". The team comprises experts from Design, Construction and Material Engineering and Testing Services (METS). Team China is tasked with monitoring machines, information, manpower, materials and the fabrication environment to resolve any issues locally and to ensure that tower and deck sections shipped to the Bay Area will conform to specifications and standards before they leave the facility.

#### **New Power Cable Contract Completed Early**

Installation of the new power cable from Oakland to Treasure Island was completed ahead of schedule. Caltrans focused risk mitigation efforts on ensuring that the cable would arrive on site in time to meet a critical environmental schedule window of opportunity to lay submarine cable in the Bay.







China – ABF Tower Mock Up

China - New Tower Fabrication Facility 26 of 44

China - Delivered Steel Shipment for SAS Bridge



The Dumbarton Bridge

# **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.

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 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.

#### **Cost and Schedule**

A preliminary 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. Current progress indicates that the Caltrans' designers will complete, as scheduled, the development of retrofit strategies for both bridges 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 and 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 few 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 bridge's

foundations are held in the soil. The drilling operations are complete at both bridge sites; information is being shared with the seismologic team and the bridge structure team. 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. Geological, geotechnical, and

## **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 September 30, 2007* shows expenses through *September 30, 2007*, for TBPOC functioning, support, and monthly and quarterly reporting.

seismological information from the work areas mentioned previously is being incorporated into the bridge evaluations. The design team is currently analyzing the design of the existing structures. Caltrans is also working with the Peer Review Committee to obtain approval of the proposed design.



The Antioch Bridge

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

Expenses: July 1, 2005 through September 30, 2007 (\$ Millions)

Agency/Program Activity	Expenses
ВАТА	0.4
Caltrans	0.8
стс	0.3
Reporting	1.5
Total Program	3.0

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# **Appendices**

- A. TBSRP All Bridges AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through September 30, 2007 (A-1 and A-2).
- B. TBSRP East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through September 30, 2007.
- C. CTC Third Quarter Schedule.
- D. Project/Contract Photographs.

# Appendix A-1.

#### Toll Bridge Seismic Retrofit Program

AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through September 30, 2007

	AB 144/SB 66 TI	(\$ millions) <b>BPOC Current Se</b>	cond Quarter	Third Quarter	Variance	Expenditures
Bridge	Baseline	Approved Budget	2007 Forecast	2007 Forecast	3rd Q07-2nd Q07)	Through Sept 200'
Benicia-Martinez						
Capital Outlay Support	38.1	38.1	38.1	38.1	-	38.
Capital Outlay	139.7	139.7	139.7	139.7	-	139.
Total	177.8	177.8	177.8	177.8	-	177.
arquinez						
Capital Outlay Support	28.7	28.7	28.7	28.7	-	28.
Capital Outlay	85.5	85.5	85.5	85.5	-	85.
Total	114.2	114.2	114.2	114.2	-	114.
an Mateo-Hayward						
Capital Outlay Support	28.1	28.1	28.1	28.1	-	28.
Capital Outlay	135.4	135.4	135.4	135.4	-	135.
Total	163.5	163.5	163.5	163.5	-	163.
incent Thomas						
Capital Outlay Support	16.4	16.4	16.4	16.4	_	16.
Capital Outlay	42.1	42.1	42.1	42.1	_	42
Total	58.5	58.5	58.5	58.5	-	58
an Diego-Coronado						
Capital Outlay Support	33.5	33.5	33.5	33.5	<u>-</u>	33
Capital Outlay	70.0	70.0	70.0	70.0	_	69
Total	103.5	103.5	103.5	103.5	_	102
ichmond-San Rafael						
Capital Outlay Support	134.0	127.0	127.0	127.0	_	126
Capital Outlay	780.0	698.0	698.0	698.0	_	666
Total	914.0	825.0	825.0	825.0	_	793
						.,,,
Vest Span Retrofit Capital Outlay Support	75.0	75.0	75.0	75.0	_	74
Capital Outlay	232.9	232.9	232.9	232.9		226
Total	307.9	307.9	307.9	307.9	-	301
	307.5	307.5	307.5	301.5		301
est Approach	120.0	120.0	120.0	120.0		98
Capital Outlay Support					-	
Capital Outlay Total	309.0 429.0	309.0 429.0	309.0 429.0	309.0 429.0	-	257 355
	429.0	429.0	429.0	429.0	-	333
FOBB East Span	050.4	050.4	077.1	055 1		50.4
Capital Outlay Support	959.4	959.4	977.1	977.1	-	534
Capital Outlay Other Budgeted Capital	4,492.1	4,674.6	4,689.9	4,689.9	-	2,004
Other Budgeted Capital Total	35.1 5,486.6	31.8 5,665.8	7.7 5,674.7	7.7 5,674.7	-	2,539
				3,074.7	-	2,339
Miscellaneous Program Costs	30.0	30.0	30.0	30.0	-	24
Subtotal Capital Outlay Support	1,463.2	1,456.2	1,473.9	1,473.9	-	1,003
Subtotal Capital Outlay	6,321.8	6,419.0	6,410.2	6,410.2	-	3,627
Subtotal Toll Seismic Retrofit	7,785.0	7,875.2	7,884.1	7,884.1	-	4,630
Program Contingency	900.0	809.8	800.9	800.9	-	
Total Toll Seismic Retrofit Program	8,685.0	8,685.0	8,685.0	8,685.0	-	4,630

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.

		(\$ in millions)			
Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of Sept 2007 See Note (1)	Estimated Costs not yet Spent or Encumbered as of Sept 2007	Total Forecast as of Sept 2007 (Columns C +D)
Other Completed Projects					
Capital Outlay Support	144.9	144.9	144.7	0.2	144.9
Capital Outlay	472.6	472.6	472.6	0.1	472.7
Total	617.5	617.5	617.3	0.3	617.6
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.6	0.4	127.0
Capital Outlay	698.0	698.0	673.3	24.7	698.0
Project Reserves Total	82.0 914.0	825.0	799.9	25.1	825.0
West Span Retrofit	714.0	823.0	199.9	23.1	623.0
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
West Approach					
Capital Outlay Support	120.0	120.0	99.2	20.8	120.0
Capital Outlay	309.0	309.0	299.8	9.2	309.0
Total	429.0	429.0	399.0	30.0	429.0
SFOBB East Span -Skyway	107.0	107.0	150.4	24.6	107.0
Capital Outlay Support	197.0	197.0	172.4	24.6	197.0
Capital Outlay Total	1,293.0 1,490.0	1,293.0 1,490.0	1,338.2 1,510.6	(45.2) (20.6)	1,293.0 1,490.0
SFOBB East Span -SAS- Superstructure	1,490.0	1,490.0	1,510.0	(20.0)	1,490.0
Capital Outlay Support	214.6	214.6	56.1	158.5	214.6
Capital Outlay	1,753.7	1,753.7	1,489.6	277.8	1,767.4
Total	1,968.3	1,968.3	1,545.7	436.3	1,982.0
SFOBB East Span -SAS- Foundations					
Capital Outlay Support	62.5	51.5	34.2	17.3	51.5
Capital Outlay	339.9	339.9	303.7	36.2	339.9
Total	402.4	391.4	337.9	53.5	391.4
Small YBI Projects	10.6	10.6	10.2	0.4	10.6
Capital Outlay Support Capital Outlay	10.6 15.6	10.6 15.6	10.2 16.2	(0.5)	10.6 15.7
Total	26.2	26.2	26.4	(0.1)	26.3
YBI Detour	20.2	20.2	20.4	(0.1)	20.5
Capital Outlay Support	29.5	39.5	30.9	8.6	39.5
Capital Outlay	131.9	334.4	211.6	122.8	334.4
Total	161.4	373.9	242.5	131.4	373.9
YBI - Transition Structures					
Capital Outlay Support	78.7	78.7	16.0	62.7	78.7
Capital Outlay	299.4	276.1	0.1	276.0	276.1
Total	378.1	354.8	16.1	338.7	354.8
Oakland Touchdown	74.4	74.4	20.5	(2.6	02.1
Capital Outlay Support Capital Outlay	74.4 283.8	74.4 283.8	28.5 219.1	63.6 83.4	92.1 302.5
Total	358.2	358.2	247.6	147.0	394.6
East Span Other Small Project	330.2	330.2	247.0	147.0	374.0
Capital Outlay Support	212.3	213.3	197.2	16.1	213.3
Capital Outlay	170.8	170.8	92.7	53.9	146.6
Total	383.1	384.1	289.9	70.0	359.9
Existing Bridge Demolition					
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
Miscellaneous Program Costs	30.0	30.0	28.9	1.1	30.0
Total Capital Outlay Support (2)	1,463.2	1,456.2	1,020.0	453.9	1,473.9
Total Capital Outlay	6,321.8	6,419.0	5,349.7	1,060.5	6,410.2
Program Total	7,785.0	7,875.2	6,369.7	1,514.4	7,884.1

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

<sup>(2).</sup> 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 September 30, 2007

(\$ millions)									
East Span Contract	AB 144/SB 66 Baseline	TBPOC Current Approved Budget See Note (1)	Second Quarter 2007 Forecast	Third Quarter 2007 Forecast	Variance (3rd Q07 - 2nd Q07)	Expenditur Throu Sept 20			
SFOBB East Span -Skyway									
Capital Outlay Support	197.0	197.0	197.0	197.0		17			
Capital Outlay Support	1,293.0	1,293.0	1,293.0	1,293.0	-	1,18			
Total	1,490.0	1,490.0	1,490.0	1,490.0	-	1,35			
SFOBB East Span -SAS- E2/T1 Foundations									
Capital Outlay Support	52.5	41.5	41.5	41.5	-	2			
Capital Outlay	313.5	313.5	313.5	313.5	-	24			
Total	366.0	355.0	355.0	355.0	-	2			
SFOBB East Span -SAS- Superstructure									
Capital Outlay Support	214.6	214.6	214.6	214.6	-				
Capital Outlay	1,753.7	1,753.7	1,767.4	1,767.4	-	30			
Total	1,968.3	1,968.3	1,982.0	1,982.0	-	3:			
SFOBB East Span -SAS- W2 Foundations									
Capital Outlay Support	10.0	10.0	10.0	10.0	-				
Capital Outlay	26.4	26.4	26.4	26.4	-				
Total	36.4	36.4	36.4	36.4	-				
YBI Detour									
Capital Outlay Support	29.5	39.5	39.5	39.5	-				
Capital Outlay	131.9	334.4	334.4	334.4	-	1			
Total	161.4	373.9	373.9	373.9	-	1			
YBI - Transition Structures (Total, including the									
Capital Outlay Support	78.7	78.7	78.7	78.7	-				
Capital Outlay Total	299.3 378.0	276.1 354.8	276.1 354.8	276.1 354.8	-				
	378.0	334.6	334.6	334.8					
YBI- Transition Structures Contract No. 1 Capital Outlay Support				45.0					
Capital Outlay				214.3					
Total				259.3					
YBI- Transition Structures Contract No. 2									
Capital Outlay Support				16.0					
Capital Outlay				58.5					
Total				74.5					
YBI- Transition Structures Contract No. 3 - La	andscape			1.0					
Capital Outlay Support				1.0					
Capital Outlay Total				3.3 4.3					
				4.3					
Oakland Touchdown (Total, including the following the foll			02.1	02.1					
Capital Outlay Support	74.4	74.4	92.1	92.1	-				
Capital Outlay Total	283.8 358.2	283.8 358.2	302.5 394.6	302.5 394.6	-				
Oakland Touchdown Contract - Submarine C									
Capital Outlay Support	able		3.0	3.0					
Capital Outlay  Capital Outlay	-	-	9.6	9.6	-				
Total	-	-	12.6	12.6	-				
Oakland Touchdown Contract No. 1 (Westbo	d)								
Capital Outlay Support	rund)	-	49.9	49.9	-				
Capital Outlay	_	_	226.5	226.5	_				
Total	-	-	276.4	276.4	-				
Oakland Touchdown Contract No. 2 (Eastboo	and)								
Capital Outlay Support	-	-	15.8	15.8	-				
Capital Outlay	-	-	62.0	62.0	-				
Total	-	-	77.8	77.8	-				
Oakland Touchdown Contract - Electrical Sy	stems								
Capital Outlay Support	-	-	1.4	1.4	-				
Capital Outlay	-	-	4.4	4.4	-				
Total	-	-	5.8	5.8	-				

#### Appendix B. (Cont'd.)

#### Toll Bridge Seismic Retrofit Program - SFOBB East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through September 30, 2007

(\$ millions) Second Quarter 2007 Third Quarter 2007 AB 144/SB 66 TBPOC Current Expenditures **East Span Contract** Approved Budget (3rd Q07 - 2nd Q07) Forecast Through **Baseline Forecast** Sept 2007 See Note (1) YBI/SAS (Archeology) 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 22 22 2.2 2.2 YBI - USCG Rd Relocation 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 6.0 6.0 6.0 Total 6.0 5.5 YBI - Substation and Viaduct Capital Outlay Support 6.5 6.5 6.5 6.5 6.4 Capital Outlay 11.6 11.3 18.1 17.7 Total 18.1 18.1 18.1 Oakland Geofill 2.5 2.5 2.5 Capital Outlay Support 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 Pile Installation Demonstration Project 1.8 1.8 1.8 1.8 Capital Outlay Support 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 Existing Bridge Demolition 0.3 79.7 79.7 79.7 79.7 Capital Outlay Support Capital Outlay 239.2 239.2 222.0 222.0 Total 318.9 318.9 301.7 301.7 0.3 Stormwater Treatment Measures Capital Outlay Support 6.0 8.0 8.0 8.0 7.4 Capital Outlay 15.0 18.3 18.3 18.3 14.5 Total 21.0 26.3 26.3 26.3 21.9 Right-of-way and Environmental Mitigation Capital Outlay Support Capital Outlay 72.4 72.4 72.4 72.4 38.8 72.4 72.4 72.4 72.4 38.8 Total Sunk Cost - Existing East Span Retrofit 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 70.3 70.3 70.3 70.3 70.3 Total Environmental Phase (Expended) Capital Outlay Support 97.7 97.7 97.7 97.7 97.7 Project Expenditures, Pre-splits Capital Outlay Support 44.9 44.9 44.9 44.9 44.9 Non-project Specific Costs Capital Outlay Support 20.0 19.0 19.0 19.0 3.2 977.1 977.1 Subtotal East Span Capital Outlay Support 959.4 959.4 534.5 Subtotal East Span Capital Outlay and Sunk Costs 4.492.1 4.674.6 4.689.9 4.689.9 2.004.4 Other Budgeted Capital 35.1 31.8 7.7 7.7 0.6 Total SFOBB East Span 5,486.6 5,665.8 5,674.7 5,674.7 2,539.5

<sup>(1)</sup> 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.

# 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
	Total	547	273	100	43	99	153	150	165	300	1830

<sup>\*</sup> Caltrans Efficiency Savings

<sup>\*\*</sup> SFOBB East Span Demolition Cost

# Appendix D. Project/Contract Photographs SFOBB East Span Replacement Project Skyway Contract



Skyway - Barge used for the Box Girder Soffit Repairs



Skyway- Looking West



Skyway - Overlay Operation



Skyway - Painting Bike Path Railing

## **Skyway Contract (Cont'd.)**



Skyway - Overlay Operation



Skyway - Stairs Leading to the Substation



Skyway - Looking West



Skyway - Bridge Looking East from Yerba Buena Island



Skyway - Painting the OBG

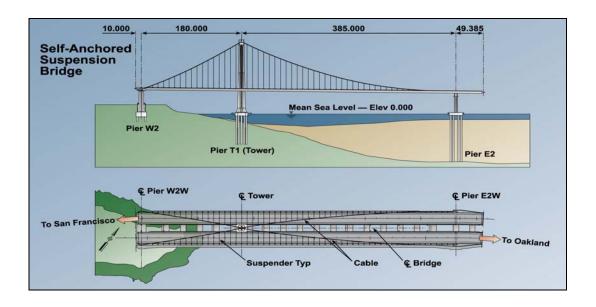


Skyway - Painting the OBG

## **SAS Superstructure Contract**

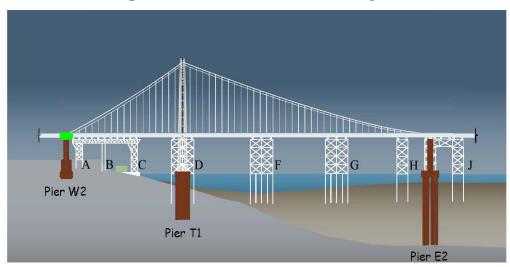


SAS Superstructure Artist Rendition



## **SAS Superstructure Contract (Cont'd.)**

# **SAS Superstructure Contruction Progress**



Field work to be completed

Field work in progress

Completed field work

Part of W2 and E2/T1 contract

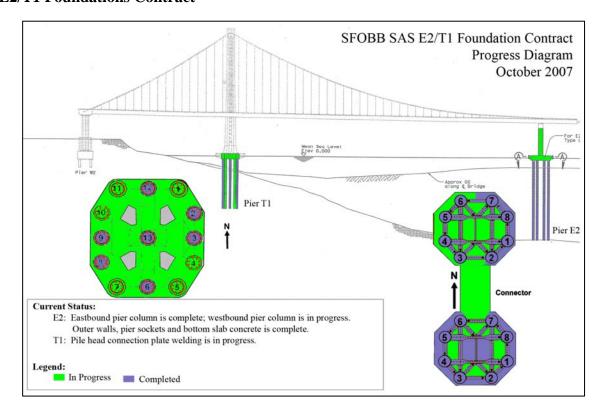




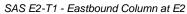
YBI W2 & W3 Bents for the Transition Structure

YBI W2 Bent for the Transition Structure

#### **SAS E2/T1 Foundations Contract**









SAS E2-T1 - Westbound Column at E2

#### **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



SAS - W2 Bent Cap



E2-T1 Forming Second Lift of Westbound E2

#### **YBID** and Stormwater Contracts



YBID - Advanced Work and Viaduct Columns



YBID - Viaduct First Steel Shipment



YBID - Viaduct First Steel Shipment



YBID - Viaduct First Steel Shipment

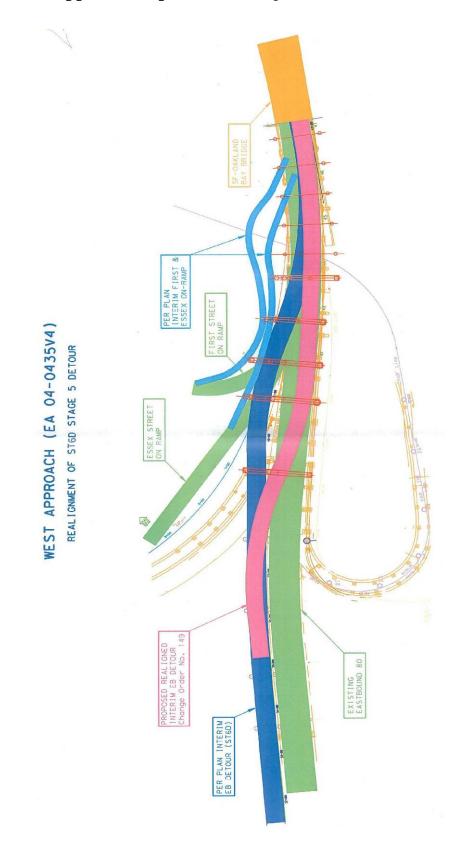


Stormwater Erosion Control

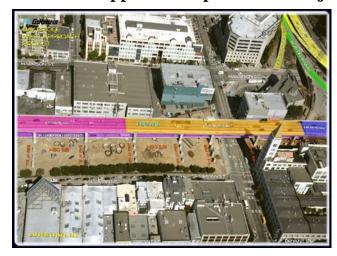


Stormwater 2 Erosion Control

## **SFOBB West Approach Replacement Project**



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



West Approach - Overhead of 2nd St.



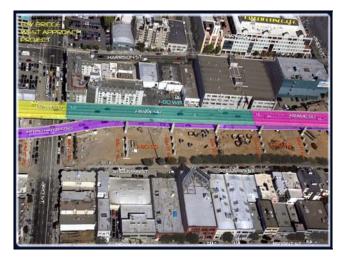
West Approach - Overhead of the 5th St. Off Ramp



West Approach -Overhead of the 5th St. Off Ramp



West Approach -Harrison St. Off Ramp



West Approach - Overhead Between 2nd Street and 3rd Street

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



West Approach Overhead View Looking East at Yerba Island



West Approach Overhead View Looking North