

# Senate Committee on Transportation and Housing

Testimony of  
Steve Heminger, Chair  
Toll Bridge Program  
Oversight Committee

State Capitol, Sacramento

January 24, 2014



THE SAN FRANCISCO-OAKLAND  
**BAY BRIDGE**  
SEISMIC SAFETY PROJECTS



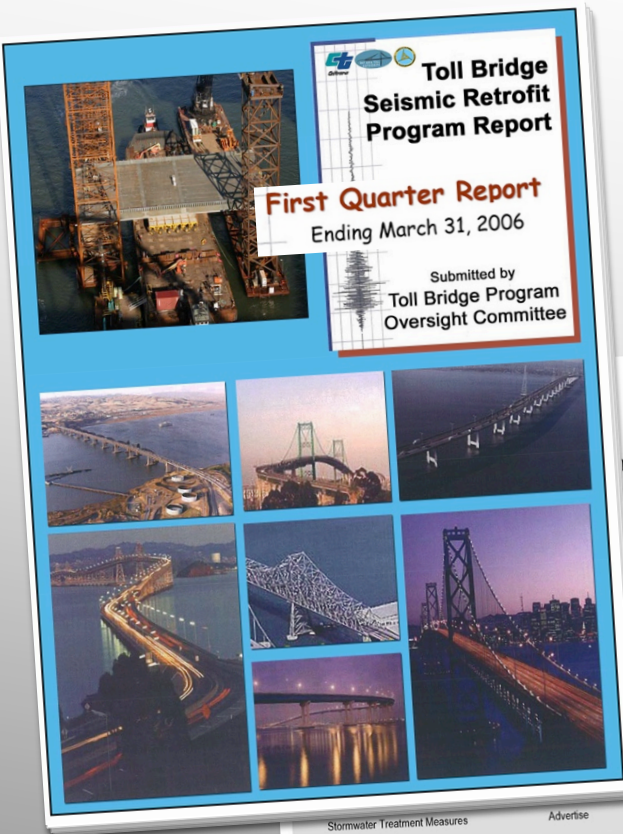
# Tale of Two Projects: Pre-TBPOC

<b>Year</b>	<b>Measure</b>	<b>Est. Program Cost (\$ millions)</b>
<b>1996</b>	<b>Proposition 192</b>	<b>\$650</b>
<b>1997</b>	<b>SB 60 (Kopp)</b>	<b>\$2,620</b>
<b>2001</b>	<b>AB 1171 (Dutra)</b>	<b>\$5,085</b>
<b>2005</b>	<b>AB 144 (Hancock)</b>	<b>\$8,685</b>



# TBPOC Keyed On-Time and On-Budget Delivery

2006 First Quarter Report – Toll Bridge Seismic Retrofit Program



2006 First Quarter Report – Toll Bridge Seismic Retrofit Program

## Retrofit Program—Cost Summary (\$Millions)

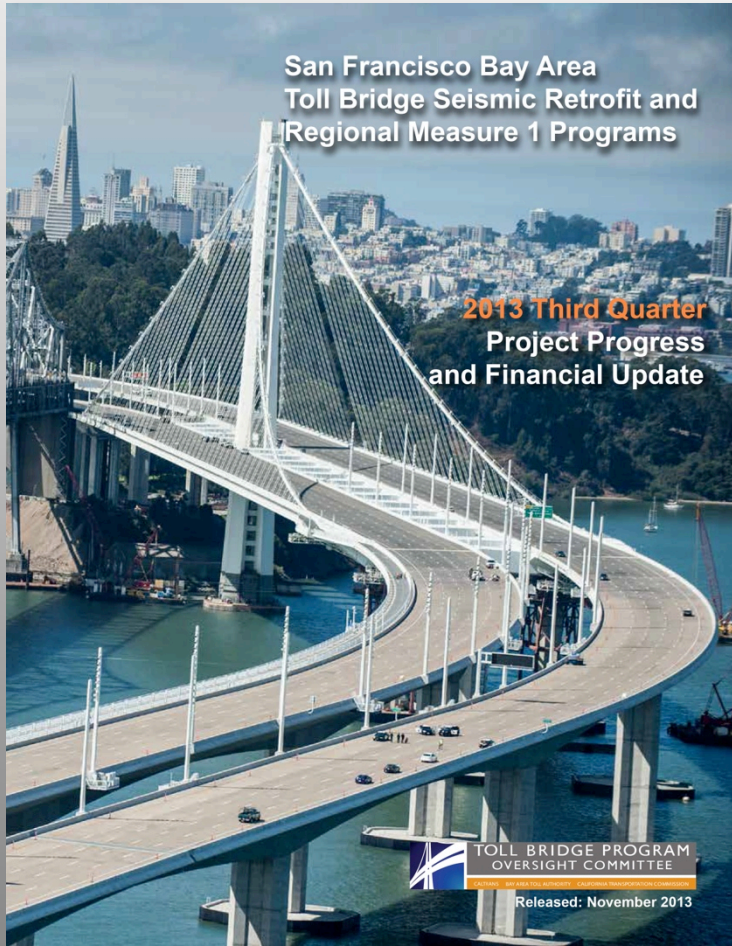
144 / 66 Budget 005	Approved Changes	Current Approved Budget (03/2006)	Actual Cost To Date (03/2006)	1 <sup>st</sup> Quarter 2006 Forecast	At-Completion Variance	Cost Status
d	e = c + d	f	g	h = g - e	i	
959.4	-	959.4	418.9	977.1	17.7	●
293.0	-	1,293.0	999.9	1,293.0	-	●
753.7	-	1,753.7	-	1,767.4	13.7	●
313.5	-	313.5	100.6	313.5	-	●
299.3	-	299.3	-	318.5	19.2	●
783.8	-	283.8	-	272.7	(11.1)	●
131.9	-	131.9	32.3	133.7	1.8	●
39.2	-	239.2	-	222.0	(17.2)	●
15.0	-	15.0	-	15.0	-	●
90.3	-	90.3	89.1	90.3	-	●
72.4	-	72.4	38.7	72.4	-	●
35.1	-	35.1	-	11.0	(24.1)	●
Other Budgeted Capital	-	5,486.6	1,679.5	5,486.6	-	●
<b>Total SFOBB East Span Replacement Project</b>	-					●
<b>SFOBB West Approach Replacement</b>	Construction					
Capital Outlay Support	-	120.0	120.0	74.9	120.0	-
Capital Outlay Construction	-	309.0	309.0	186.0	309.0	-
<b>Total SFOBB West Approach Replacement</b>	-	<b>429.0</b>	<b>429.0</b>	<b>260.9</b>	<b>429.0</b>	-
<b>Richmond-San Rafael Bridge Retrofit</b>	Construction					
Capital Outlay Support	-	134.0	134.0	124.9	127.0	(7.0)
Capital Outlay Construction	-	780.0	780.0	663.7	698.0	(82.0)
<b>Total Richmond-San Rafael Bridge Retrofit</b>	-	<b>914.0</b>	<b>914.0</b>	<b>788.6</b>	<b>825.0</b>	<b>(89.0)</b>
<b>Program Completed Projects</b>	Complete					
Capital Outlay Support	-	219.8	219.8	219.2	219.8	-
Capital Outlay Construction	-	705.6	705.6	698.1	705.6	-
<b>Total Program Completed Projects</b>	-	<b>925.4</b>	<b>925.4</b>	<b>917.3</b>	<b>925.4</b>	-
Miscellaneous Program Costs	-	30.0	30.0	25.6	30.0	-
Program Contingency	-	900.0	900.0	-	-	-
<b>Total Toll Bridge Seismic Retrofit Program</b>	-	<b>8,685.0</b>	<b>8,685.0</b>	<b>3,671.9</b>		<b>8.685.0</b>

● Within Approved Schedule and Budget  
 ● Potential Cost and Schedule Impacts: Possible 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 86 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2006)	Project Complete Schedule Forecast (03/2006)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
SFOBB East Span Replacement Skyway	Apr 07	-	Apr 07	Apr 07	-	●	A schedule extension due to hinge pipe beam fabrication, service platforms electrical apparatuses, polyester concrete, etc., is currently under evaluation and subject to negotiations with the contractor. Forecast completion date is TBD.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	Bids were opened on March 22, 2006. Contract award expected by April 18, 2006.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	In March 2006, the TBPOC approved the split of the YBI contract into three contracts. Schedules and estimates for the split contracts are being developed.
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a	-	Jul 07	Oct 07	3	●	Advertise date postponed pending execution of cooperative agreement with City of San Francisco.
• OTD Westbound	n/a	-	Jul 09	Oct 09	3	●	Advertise date postponed to provide additional time for utility coordination and contract formation.
• OTD Eastbound	n/a	-	Nov 14	Nov 14	-	●	
YBI South/South Detour	Jul 07	-	Jul 07	Jul 07	-	●	Schedule is being assessed. Forecast completion date is TBD.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	
Stormwater Treatment Measures	Mar 08	-	Mar 08	May 07	(10)	●	Forecast based on actual award date and duration in contractor's A-B bid.
Open to Traffic Date: West Bound	Sep 11	12	Sep 12	Sep 12	-	●	
Open to Traffic Date: East Bound	Sep 12	12	Sep 13	Sep 13	-	●	
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Aug 09	-	●	
Richmond-San Rafael Bridge							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of this contract on October 28, 2005.
• Public Access Project	n/a	-	Dec 06	May 07	5	●	

# TBPOC Keyed On-Time and On-Budget Delivery



Toll Bridge Program Oversight Committee  
Toll Bridge Seismic Retrofit Program Cost Summary (Millions)

Contract Status	AB 144/SB 66 Budget (September 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (September 2013)	Cost to Date (September 2013)	Current Cost Forecast (September 2013)	Cost Variance	Cost Status
	a	b	c = a + b	d	e	f = e - c	
<b>SFOBB East Span Seismic Replacement</b>							
<b>Capital Outlay Construction</b>							
Skyway							
SAS Marine Foundations	Completed	1,293.0	(55.8)	1,237.2	1,237.3	1,237.2	●
SAS Superstructure	Completed	313.5	(38.7)	274.8	274.8	278.6	●
YBI Detour	Construction	1,753.7	293.1	2,046.8	1,864.0	2,082.8	●
YBI Transition Structures (YBITS)	Completed	131.9	334.2	466.1	466.1	473.3	●
YBITS 1	Completed	299.3	0.1	299.4	212.1	323.7	●
YBITS 2 Cantilever Dismantling	Awarded			203.7	200.1	210.6	●
YBITS Landscaping	Design			92.4	12.0	109.8	●
Oakland Touchdown (OTD)				3.3		3.3	●
OTD 1	Completed	283.8	35.9	319.7	267.6	331.4	●
OTD 2	Construction			205.0	204.8	203.3	●
Detour	Completed			62.0	29.4	73.6	●
OTD Electrical Systems	Construction			47.0	27.7	44.9	●
Submerged Electric Cable	Completed			-	-	-	●
Existing Bridge Dismantling	Design			5.7	5.7	9.6	●
*Cantilever Section	Awarded	239.2	(0.1)	239.1	-	241.0	●
*504/288 Sections	Design			61.6	-	60.6	●
*Marine Foundations	Design			-	-	88.4	●
Stormwater Treatment Measures	Completed			-	-	92.0	●
Other Completed Contracts	Completed	15.0	3.3	18.3	16.9	17.0	●
Capital Outlay Support		90.4	(0.5)	89.9	90.0	90.5	●
Right-of-Way and Environmental Mitigation		959.3	262.3	1,221.6	1,172.3	1,301.7	●
Other Budgeted Capital		72.4	-	72.4	51.7	80.4	●
<b>Total SFOBB East Span Replacement</b>		<b>35.1</b>	<b>(32.8)</b>	<b>2.3</b>	<b>0.7</b>	<b>80.4</b>	●
Antioch Bridge Seismic Retrofit		5,486.6	801.0	6,287.6	5,653.5	6,465.3	●
Capital Outlay Construction and Mitigation	Completed					177.7	●
Capital Outlay Support		51.0		51.0	47.0	50.3	●
Total Antioch Bridge Seismic Retrofit		31.0		31.0	23.6	23.8	●
Dumbarton Bridge Seismic Retrofit		82.0		82.0	70.6	74.1	●
Capital Outlay Construction and Mitigation	Completed					7.9	●
Capital Outlay Support		92.7		92.7	63.6	68.2	●
Total Dumbarton Bridge Seismic Retrofit		56.0		56.0	43.8	46.0	●
Other Program Projects		148.7		148.7	107.4	114.2	●
Miscellaneous Program Costs		2,268.4	(63.6)	2,204.8	2,164.3	2,192.5	●
<b>Net Programmatic Risks</b>		<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>25.5</b>	<b>30.0</b>	●
<b>Program Contingency</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	●
<b>Total Toll Bridge Seismic Retrofit Program<sup>2</sup></b>		<b>900.0</b>	<b>(571.1)</b>	<b>328.9</b>	<b>-</b>	<b>36.4</b>	●
		<b>8,685.0</b>	<b>397.0</b>	<b>9,082.0</b>	<b>8,021.3</b>	<b>169.5</b>	●
					<b>9,082.0</b>	<b>(159.4)</b>	●



# Why does the new East Span cost so much more than the old one?

## 1. Detours and Demolition (\$ millions)

YBI Detour	\$473
OTD Detour	45
Old Span Demolition	241
<b>Subtotal</b>	<b>\$759</b>

## 2. COS Comparison

1936 East Span (@20%)	\$ 100
2013 East Span (@20%)	1,302
<b>DELTA</b>	<b>\$1,202</b>



# Why does the new East Span cost so much more than the old one?

## 3. Width Comparison (\$ millions)

- New east span is 50% wider than 1936 bridge, with addition of 4 traffic shoulders and the bike/pedestrian path

New east span net capital cost (Less previous items 1 & 2)	<b>\$ 4,504</b>
X 50%	<b>\$ 2,252</b>

## 4. Political Delays

Design (3% net cost x 2 years)	<b>\$270</b>
Construction (x1 year)	<b>135</b>
<b>Subtotal</b>	<b>\$405</b>



# Why does the new East Span cost so much more than the old one?

<b>5. Grand Total</b>	<b>(\$ millions)</b>
1936 East Span Escalated Cost	<b>\$ 500</b>
2013 East Span Projected Cost	<b>6,465</b>
<b>DELTA</b>	<b>5,965</b>
Less Items 1-4	<b>4,618</b>
1. Detours and Demolition	
2. Higher COS Costs	
3. Increased Width	
4. Political Delays	
<b>Revised DELTA</b>	<b>\$1,347</b>



# Outcomes not Monetized

- Superior Seismic Performance
- Superior Architectural Design
- 150 vs. 75 year Lifespan
- Bicycle/Pedestrian Access
- 0 vs. 24 Construction Fatalities







**For more information:**

**<http://bata.mtc.ca.gov/reports.htm>**



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