CONSTRUCTION STATISTICS 2010

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES

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DIVISION OF ENGINEERING SERVICES

CONSTRUCTION STATISTICS BASED ON BID OPENINGS
2010

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Cover:
Arroyo Las Positas Bridge
04-ALA-84/580

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DIVISION OF ENGINEERING SERVICES

BRIDGE SQUARE FOOT COST SUMMARY

2010

Bridge Code	BRIDGE TYPE	TOTAL NUMBER OF BRIDGES	NUMBER OF BRIDGE WIDENED	SQ.FT. OF DECK	TOTAL AMOUNT	AVERAGE COST/SQ.FT.	FHWA AMOUNT	FHWA AVERAGE COST/SQ.FT.
10	RC SLAB	6	1	22,963	$4,845,829	$211	$3,604,396	$157
20	RC T-BEAM	2	2	8,786	$1,930,625	$220	$935,993	$107
21	RC U GIRDER	0	0	0	$0	$0	$0	$0
22	RC BOX GIRDER	3	2	27,001	$4,540,514	$168	$3,274,008	$121
30	CIP/PS U GIRDER	0	0	0	$0	$0	$0	$0
31	CIP/PS BOX GIRDER	45	13	1,480,091	$242,753,341	$164	$191,005,130	$129
32	CIP/PS SLAB	3	1	31,117	$4,376,176	$141	$3,422,251	$110
40	PC/PS SLAB	1	1	2,995	$456,766	$153	$288,256	$96
41	PC/PS "I" GIRDER	15	15	62,855	$13,119,142	$209	$9,440,233	$150
42	PC/PS "T" GIRDER	0	0	0	$0	$0	$0	$0
43	PC/PS 'INV T" GIRDER	0	0	0	$0	$0	$0	$0
44	PC/PS BOX GIRDER	1	0	4,752	$866,936	$182	$708,205	$149
45	PC/PS BULB "T" GIRDER	1	0	131,681	$21,112,509	$160	$18,951,514	$144
46	PC/PS BOX GIRDER-SEG	0	0	0	$0	$0	$0	$0
50	STEEL GIRDER	6	6	73,952	$21,527,386	$291	$16,689,140	$226
	TOTALS	**83**	**41**	**1,846,193**	**$315,529,224**		**$248,319,126**	**$135**

**Average Cost/SQFT and Amount are calculated using "Bridge Costs Only"
as defined by the Federal Highway Administration

2010 CONTRACT UNIT PRICES

Contract Cost Data and Standard Item Codes can be found on the California Department of Transportation website:

http://www.dot.ca.gov/

CONTRACT COST DATA

http://sv08data.dot.ca.gov/contractcost/

STANDARD ITEM CODES

http://www.dot.ca.gov/hq/esc/oe/awards/

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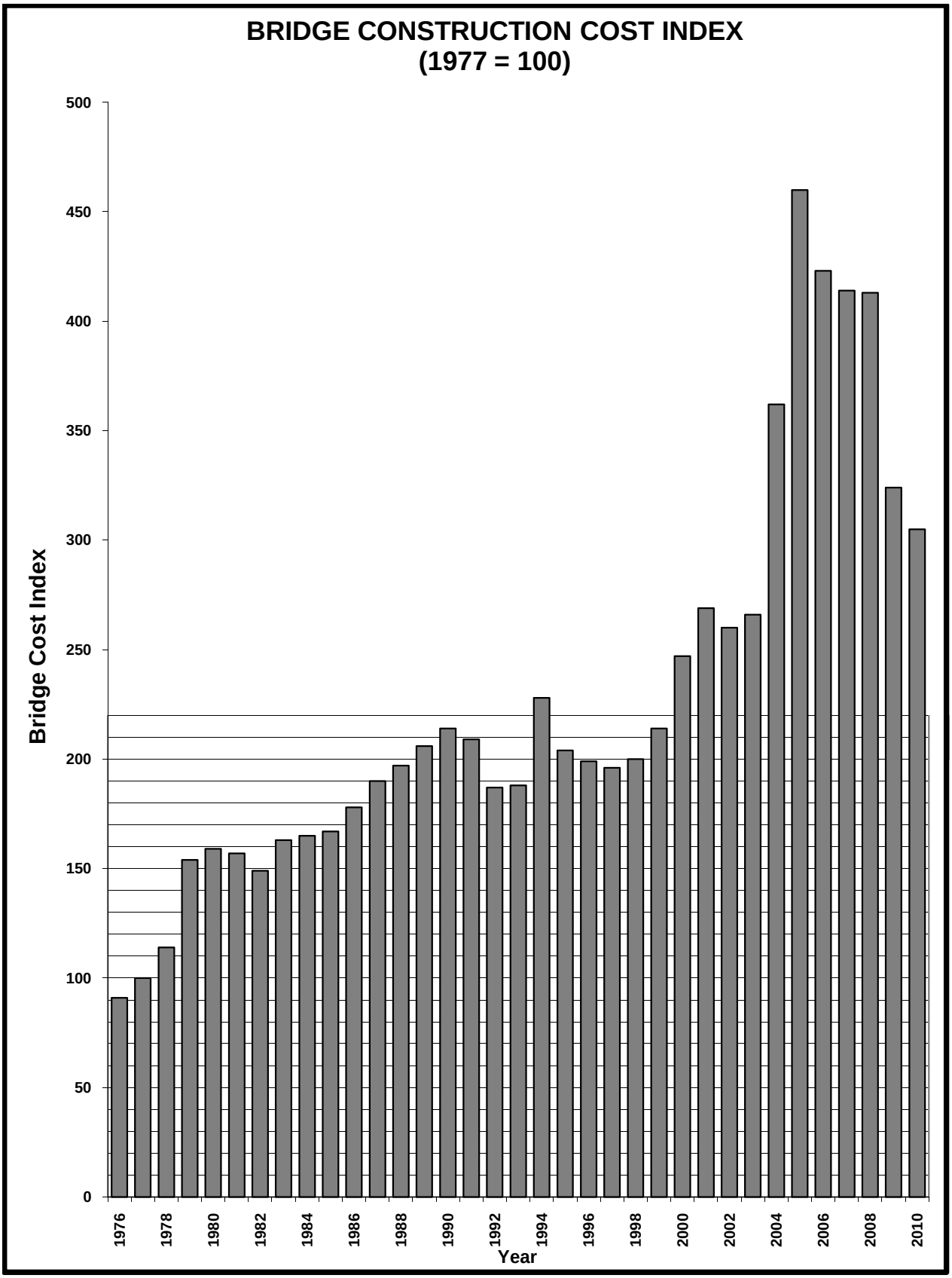
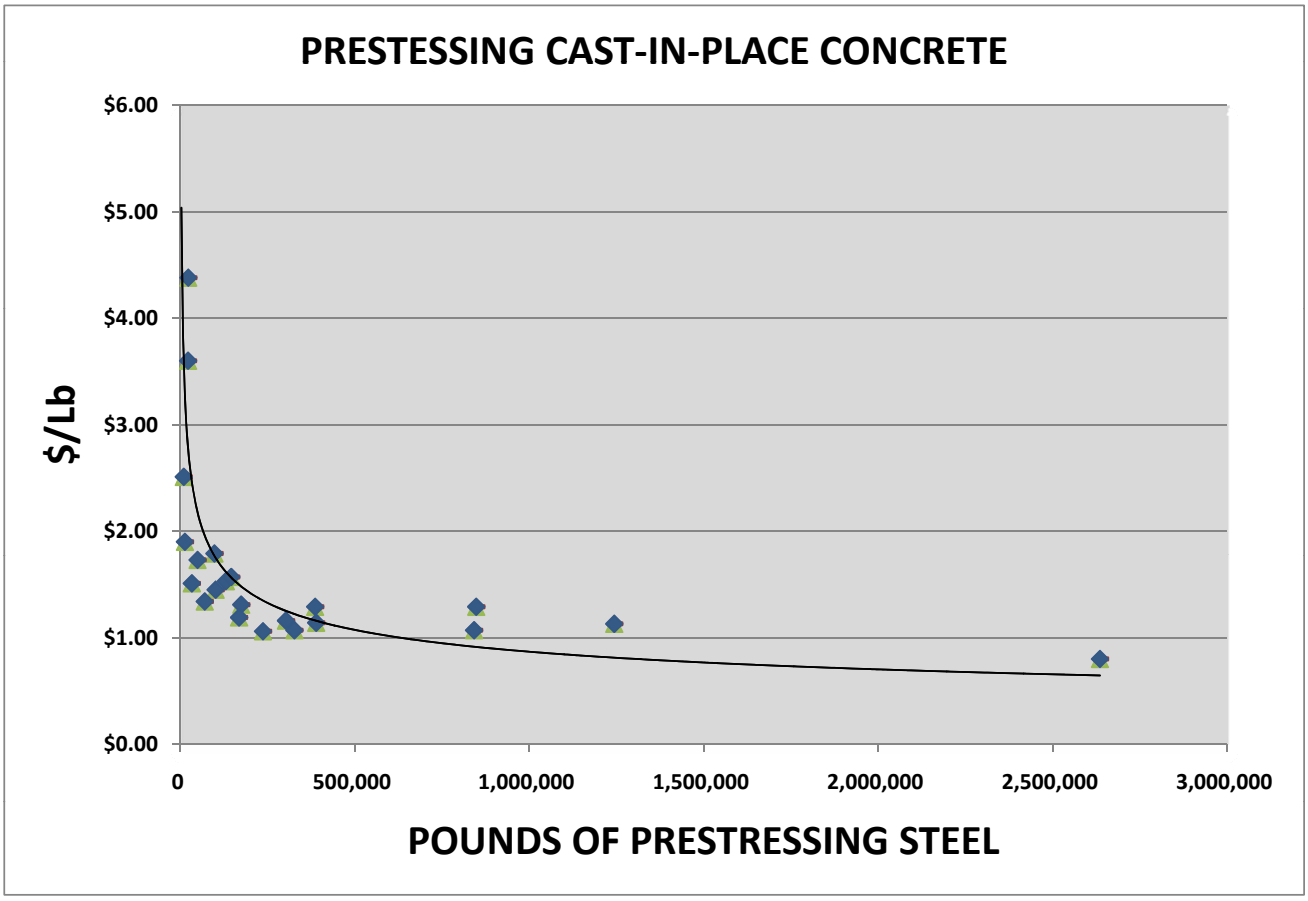
BRIDGE CONSTRUCTION COST INDEX

YEAR	1940 BASE INDEX VALUE	1967 BASE INDEX VALUE	1977 BASE INDEX VALUE
1940	100	105	45
1969	313	102	44
1970	376	123	53
1971	398	130	56
1972	419	137	59
1973	454	148	64
1974	689	225	97
1975	649	212	91
1976	646	212	91
1977	710	232	100
1978	809	264	114
1979	1093	357	154
1980	1129	369	159
1981	1115	364	157
1982	1058	346	149
1983	1157	378	163
1984	1172	383	165
1985	1186	387	167
1986	1264	413	178
1987	1349	441	190
1988	1399	457	197
1989	1463	478	206
1990	1519	496	214
1991	1484	485	209
1992	1328	434	187
1993	1335	436	188
1994	1619	529	228
1995	1448	473	204
1996	1413	462	199
1997	1392	455	196
1998	1420	464	200
1999	1519	496	214
2000	1754	573	247
2001	1910	624	269
2002	1846	603	260
2003	1889	617	266
2004	2570	840	362
2005	3266	1067	460
2006	3003	981	423
2007	2939	960	414
2008	2932	958	413
2009	2300	752	324
2010	2166	708	305


BRIDGE CONSTRUCTION COST INDEX
(1977 = 100)
Bridge Cost Index
500
450
400
350
300
250
200
150
100
50
0
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Year

Prestressing Cast-In-Place Concrete

Bid Open Date	Contract Number	Contract Price	Approximate lbs PS Steel	Contract Price Per LB
2/10/2010	04-228594	$350,000.00	302,910	$1.16
2/18/2010	07-1219U4	$1,100,000.00	848,155	$1.29
4/7/2010	03-1A4324	$25,000.00	13,180	$1.90
4/15/2010	12-071624	$1,400,000.00	1,243,800	$1.13
5/4/2010	05-349504	$25,000.00	9,942	$2.51
5/6/2010	07-224504	$22,500.00	3,185	$7.06
6/8/2010	06-471904	$100,000.00	22,800	$4.38
7/1/2010	12-071634	$2,100,000.00	2,635,900	$0.80
7/7/2010	05-330724	$350,000.00	327,150	$1.07
7/13/2010	10-3A66U4	$444,000.00	389,400	$1.14
7/15/2010	12-0F0324	$200,000.00	130,420	$1.53
7/22/2010	12-0F0314	$175,000.00	97,927	$1.79
7/27/2010	04-1A9804	$229,000.00	174,565	$1.31
8/12/2010	11-167894	$146,500.00	101,200	$1.45
10/5/2010	04-2285C4	$230,000.00	145,983	$1.57
10/14/2010	11-089754	$50,000.00	33,070	$1.51
10/19/2010	06-324504	$200,000.00	168,459	$1.19
10/21/2010	08-378704	$250,000.00	237,000	$1.06
10/21/2010	11-273404	$85,400.00	49,400	$1.73
11/3/2010	06-442524	$80,000.00	22,200	$3.60
11/16/2010	03-1A73U4	$45,000.00	4,310	$10.44
11/30/2010	05-0161E4	$500,000.00	386,450	$1.29
12/2/2010	08-478604	$93,600.00	70,010	$1.34
12/16/2010	11-2T0404	$900,000.00	842,042	$1.07



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
DIVISION OF STRUCTURE EARTHQUAKE ENGINEERING & DESIGN SUPPORT
OFFICE OF SPECIFICATIONS & ESTIMATES
P. O. BOX 942874
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COMPARATIVE BRIDGE COSTS

JANUARY 2011

The following tabular data gives some **general guidelines** for structure type selection and its relative cost. These costs should be used just for **preliminary estimates** until more detailed information is developed.

These costs reflect the **'bridge cost'** only and ***do not*** include items such as: time related overhead, mobilization, bridge removal, approach slabs, slope paving, soundwalls or retaining walls.

The following factors *must* be taken into account when determining a price within the cost range:

Factors for Lower end of Price Range	Factors for Higher end of Price Range
Short spans, Low Structure Height, No Environmental Constraints, Large Project, No Aesthetic Issues, Dry Conditions, No Bridge Skew	Long spans, High Structure Height, Environmental Constraints, Small Project, Aesthetic Issues, Wet Conditons (cofferdams required), Skewed Bridges
Urban Location	Remote Location
Seat Abutment	Cantilever Abutment
Spread Footing	Pile Footing (Large Diameter Piling)
No Stage Construction	2 Stage Construction

Factors that will increase the price over the high end of the Price Range 25%-150%

Structures with more than 2 construction stages
Unique substructure construction
Widenings less than 15 Ft.

STRUCTURAL SECTION	(STR. DEPTH / MAX SPAN) SIMPLE	CONTINUOUS	COMMON SPAN RANGE **feet**	**COST RANGE **$ / Square foot**	REMARKS
RC SLAB	0.06	0.045	16 - 44	100-300	THESE ARE THE MOST COMMON TYPES AND ACCOUNT FOR ABOUT 80% OF BRIDGES ON CALIFORNIA STATE HIGHWAYS.
RC T-BEAM	0.07	0.065	40 - 60	100-200	
RC BOX	0.06	0.055	50 - 120	110-180	
CIP/PS SLAB	0.03	0.03	40 - 65	90-200	
CIP/PS BOX	0.045	0.04	100 - 250	90-170	
PC/PS SLAB	0.03 (+3" AC)	0.03 (+3" AC)	20 - 50	100-250	NO FALSEWORK REQUIRED.
PC/PS	0.06 (+3" AC)	0.055 (+3" AC)	30 - 120	120-230	
BULB T GIRDER	0.05	0.045	90 - 145	120-200	
PC/PS I	0.055	0.05	50 - 120	110-190	
PC/PS BOX	0.06	0.045	120 - 200	140-250	
STRUCT STEEL I GIRDER	0.045	0.04	60 - 300	170-425	NO FALSEWORK REQUIRED.

NOTE: Removal of a box girder structure costs from $8 - $15 per square foot.

**Average Cost/SQFT are calculated using "Bridge Costs Only" as defined by the Federal Highway Administration