STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN - OFFICE OF STRUCTURE OFFICE ENGINEER

COMPARATIVE BRIDGE COSTS

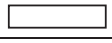
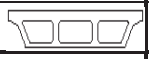
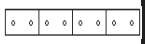
JANUARY 2015

The following tabular data provides some **general guidelines** for structure type selection and its relative cost. These costs should be used only for **preliminary estimates** until more detailed information is developed. The following factors must be taken into account when determining a price within the cost range:

Factors for Lower End of Cost Range	Factors for Higher End of Cost 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 Conditions (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 from 25% - 150% over the high end of the cost range

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

STRUCTURAL SECTION	(STR. DEPTH / MAX SPAN) SIMPLE	(STR. DEPTH / MAX SPAN) CONTINUOUS	COMMON SPAN RANGE (feet)	* COST RANGE (price/sqft)	REMARKS
RC SLAB 	0.06	0.045	16 - 44	90 - 200	CAST-IN -PLACE CONCRETE BRIDGES ACCOUNT FOR APPROXIMATELY 65% OF BRIDGES BUILT ON CALIFORNIA STATE HIGHWAYS
RC T-BEAM 	0.07	0.065	40 - 60	155 - 250	
RC BOX 	0.06	0.055	50 - 120	160 - 250	
CIP/PS SLAB 	0.03	0.03	40 - 65	115 - 200	
CIP/PS BOX 	0.045	0.04	100 - 250	110 -315	
PC/PS SLAB 	0.03 (+3" AC)	0.03 (+3" AC)	20 - 50	250 - 450	NO FALSEWORK REQUIRED
PC/PS T, TT, ⊥	0.06 (+3" AC)	0.055 (+3" AC)	30 - 120	No Current Cost Data	
BULB TEE GIRDER	0.05	0.045	90 - 145	115 - 290	
WIDE FLANGE GIRDER	0.045	0.04	90 - 180	125 -250	
PC/PS I	0.055	0.05	50 - 120	150 - 325	
PC/PS BOX 	0.06	0.045	120 - 200	120 - 270	
STRUCT STEEL I GIRDER 	0.045	0.04	60 - 300	250 - 450	NO FALSEWORK REQUIRED

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

* "Price/SQFT" is calculated using "Bridge Costs Only" as defined by the Federal Highway Administration. The "Bridge Cost Only" is the sum of the "Superstructure" and "Substructure" bridge items, listed in Chapter 11 of the Bridge Design Aids Manual, multiplied by the bid item price. The "Superstructure" and "Substructure" bridge items do not include items such as: time related overhead, mobilization, bridge removal, approach slabs, slope paving, soundwalls, or retaining walls.