

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:

<u>Factors for Lower end of Price Range</u>	<u>Factors for Higher end of Price Range</u>
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 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)		COMMON SPAN RANGE feet	**COST RANGE \$/ Square foot	REMARKS
	SIMPLE	CONTINUOUS			
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