

COMPARATIVE BRIDGE COSTS

JANUARY 2023

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	COMMON SPAN RANGE (feet)	* COST RANGE (price/sqft)	REMARKS
RC SLAB	16 - 44	190-500	CAST-IN -PLACE CONCRETE BRIDGES ACCOUNT FOR APPROXIMATELY 55% OF BRIDGES BUILT ON CALIFORNIA STATE HIGHWAYS
RC T-BEAM GIRDER	40 - 60	170-600	
RC BOX GIRDER	50 - 120	165-350	
CIP/PS SLAB	40 - 65	200-400	
CIP/PS BOX GIRDER	100 - 250	150-400	NO FALSE WORK REQUIRED
PC/PS SLAB	20 - 50	300-700	
PC/PS T GIRDER	30 - 120	No Current Cost Data	
BULB TEE GIRDER	90 - 145	200-300	
WIDE FLANGE GIRDER	90 - 180	325-500	
PC/PS I GIRDER	50 - 120	325-550	
ADJACENT PC/PS GIRDER	50 - 110	400-525	
PC/PS BOX GIRDER	120 - 200	200-600	
STRUCTURAL STEEL I GIRDER	60 - 300	250-550	

NOTE: Removal of a box girder structure costs from \$25 - \$45 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 multiplied by the bid item price. The "Superstructure" and "Substructure" bridge items do not include items such as: time related overhead, mobilization, contingency, bridge removal, approach slabs, slope paving, soundwalls, or retaining walls.