



Residential Bridge Corralitos, California

Civil and Structural Engineering

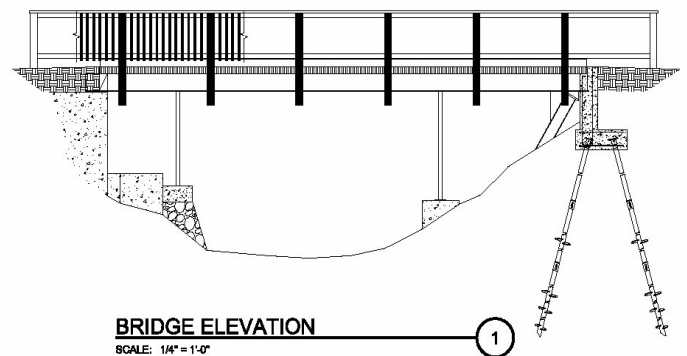


Mesiti-Miller Engineering provided the structural engineering services necessary to rehabilitate and upgrade this existing 33-ft span steel girder vehicular bridge to meet the requirements of the Santa Cruz County Fire Code which stipulate residential bridges must possess a 50,000 pound weight capacity.

Mesiti-Miller Engineering was contacted by the owner because previous design teams recommended complete replacement of the bridge and abutments. However, Mesiti-Miller Engineering's analysis indicated the deficiencies previously noted were cosmetic and/or not beyond repair. This determination enabled the owner to realize a construction cost savings on the order of \$50,000 greatly reduced construction time and minimize the impact on residents.

Mesiti-Miller's analysis determined the east bridge abutment did require replacement. However, deep seated helical pile foundations were selected for support of this abutment instead of the much more costly reinforced concrete cast-in-drilled-hole piles recommended by other design teams.

Mesiti-Miller innovative approach successfully addressed the structural design challenges presented, while producing a design which was both pleasing to the eye, and within the budgetary constraints of the owner.



Client Reference:

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Budget: \$80,000