

Construction Stages

The retrofit of the North Torrey Pines Road Bridge began in December 2010. Since the bridge crosses over the second-busiest passenger rail corridor in the United States, construction crews had to work around schedules for passenger rail, commuter rail, and freight rail users. Items such as demolition, which required temporary closure of the rail corridor, needed to work around strictly scheduled weekend closure windows.

Pedestrian, bicycle, and vehicular traffic needed to be maintained during the approximate 2-year duration of construction. Therefore, the bridge was constructed in two phases, where traffic was shifted to one side, half was demolished and rehabilitated/retrofit; then traffic was shifted to the new portion, and the other side was demolished and rehabilitated/retrofit.

To allow for the two-lane bridge to remain open to two lanes during construction, the engineering and construction teams developed a temporary steel bridge structure that could be placed on one side of the bridge and moved to the other side in a subsequent stage. The temporary structure was braced laterally against the seismically deficient bridge, which required extensive analysis to ensure safety during construction.

The North Torrey Pines Road Bridge retrofit was completed by December 2013 on time, on budget, and to the satisfaction of the city of Del Mar, its stakeholders, and the community. The bridge is now stabilized against corrosion, structurally and seismically sound per the current bridge standards, and—most important—preserved with its historic character for future generations. **A**

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Precast concrete girders erected on rehabilitated substructure.

AESTHETICS COMMENTARY

by Frederick Gottemoeller



The North Torrey Pines Bridge is typical of its era, a time when owners were willing to build aesthetic details like recessed column corners and haunched T girders into their bridges in order to give them an aesthetic “personality” suitable for their locations, in this case along a beautiful seashore. The bridge reminds me of Conde McCullough’s famous bridges along the Oregon coast, bridges also of the same era. No wonder it has retained the affection of its community for 83 years.

So it is heartening to see that the members of its community decided to spend a bit more than the cost of a new bridge in order to restore the old one. They recognized that aesthetics and historic preservation have a value and that they are worth spending money on to accomplish community goals. It is a rare attitude in today’s climate of relentless cost cutting. This step is perhaps easier to take for a city that does not have to reconcile competing claims from across a state.

It is also heartening that the designers took a “both. . .and” approach to balancing aesthetic criteria and the undoubtedly difficult technical requirements of the seismic retrofit. Frequently, technical needs are given first priority, and aesthetic features made to fit into whatever space remains. In this case the designers kept working on technical solutions until they found ones that accomplished both the seismic requirements and the aesthetic criteria, at the same time. For years to come the citizens of Del Mar will bless them for their persistence.