

# California Highway Barrier Aesthetics

## California Highway Barrier Aesthetics Report

A report titled “California Highway Barrier Aesthetics” is available on the Web at <http://projdel.dot.ca.gov/design/landscape/>. The report identifies current barrier design options for highway projects and encourages appropriate aesthetic considerations that are context sensitive.



Various materials and styles can be used to provide an opportunity to select the most appropriate barrier for a particular condition. Barrier types discussed in the report include: Thrie Beam Barrier, Three-Cable Barrier, Concrete Barrier (Type 60), Timber Guardrail, Precast Concrete Guardwall, Stone Masonry Guardwall, Barriers and Landscaping.

## Texture and Coloring of Concrete Barriers

Integral color, paint, stain, and textures for concrete barriers placed on highway transportation projects are allowed.

Caltrans standard Concrete Barrier (Type 60) has been crash tested with various surface textures. This research resulted in guidelines that govern the textural treatment that may be applied to a concrete barrier. Attached is a memorandum of the approved guidelines for applying texture to a Concrete Barrier (Type 60).

## Innovative Construction of Textured Concrete Barriers or Walls



This photo depicts Concrete Barrier (Type 60) with color and texture that is being slip formed.

The statewide average cost, based on 2002 data, for a Concrete Barrier (Type 60) is \$115 per linear meter. Texture and color would increase this cost by an estimated \$50 to \$85 per linear meter above the average cost of a non-textured, non-colored barrier

A potential drawback to providing texture to concrete walls, especially a Concrete Barrier (Type 60), is the construction process. In the recent past, this would require labor-intensive formwork to be used. This problem can be overcome thanks to an innovative slip form concrete texturing process. Today's concrete barriers are commonly built using a machine that can extrude concrete through a slip form that eliminates the need for costly formwork. By adding a drum roller with texture to the typical slip form concrete machine a texturing of an extruded concrete wall can be achieved.

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