



TEXTURED BARRIER TYPE 60 - SLIP FORM METHOD

**California Department of Transportation
Landscape Architecture Program
October 2005**



THE PROJECT

The project is located in Caltrans District 5, north of the San Luis Obispo City limits along State Route 1 in San Luis Obispo County, California between KP 29.1/59.2 (PM 18.1/27.8). The newly completed textured concrete barrier is 13.3 kilometers long (8.26 miles) and is the first in the Nation to utilize the SlipStone extruded wall system technology. The random stone surface treatment meets the Federal Highway Administration approved guidelines for texture described in the report "Crash Testing of Various Textured Barriers", prepared by the California Department of Transportation.

BACKGROUND

The portion of the Route 1 Corridor in which the project is constructed is a State Scenic Highway and was recently designated a National Scenic Byway "All American Road". The local citizens and jurisdictional agencies of the community worked together to explore options to preserve the rural integrity and the visual character of the corridor while meeting the safety criteria of the project. The new texturing criteria and construction method enabled the team to formulate a cost-effective solution that is more consistent with the aesthetic goals of the community and has provided greater project satisfaction as a result.



CONSTRUCTION

Texture: The architectural texture was applied to both sides and top of the barrier. The random stone pattern was impressed into the sides of the slip formed wall as the concrete was extruded in place. The joints between stones vary in width and depth, with a maximum width of 20 mm. There is 5 mm maximum surface differential across the projected face of the concrete barrier between adjacent stones. The texture design repeats every 9 feet.

Color: The concrete mix included an integral color using "lamp black". Concrete surfaces were painted with grey-brown, earth tone colors similar to Federal Standard 595B



colors 20318, 26306, and 36134. Surface colors were applied within two hours after the concrete was extruded in a random pattern to simulate the look of natural stones.

COST

- Total concrete barrier cost - \$213.00 / M
- Cost of typical slip formed concrete barrier including rebar and finishing - \$130.00 / M
- Added cost of SlipStone method texture and color as per project specifications - \$70.00 / M

AASHTO Recognition

In July 2005 this project was honored as a Notable Practice by the AASHTO Center for Environmental Excellence in its Best Practices in Context Sensitive Solutions (CSS) Competition.

