



SOIL RETENTION

PRODUCTS INC.

DATE: Tuesday, October 21, 2014

TO: Laurie Berman, Director
Caltrans – District 11
4050 Taylor Street
San Diego, CA 92110
General Number: 619-688-6699

PROJECT: **Contract No. 11-0223U4**, Construction on State Highway in San Diego County in San Diego from 0.4 Mile South of Genesee Avenue Overcrossing to Sorrento Viaduct, in District 11 on Route 5

SUBJECT: Bid Protest Regarding Design of Geosynthetic Reinforced Embankment (GRE) Wall

For the subject project that bid on October 9, 2014, *Soil Retention* is protesting the design of the GRE Walls with a reinforced earth retaining wall system not included within the CALTRANS Pre-approved Alternate Earth Retaining Systems list, which is attached at the rear of text and also available through the following link:

(http://www.dot.ca.gov/hq/esc/approved_products_list/pdf/earth_retaining_syst.pdf).

The following pertinent information for the GRE Walls is summarized:

- The GRE Wall geometry designs consist of three separate geogrid reinforced walls with rock-filled temporary welded-wire basket facing within a larger overall slope complex. The walls consist of RW-13 at 30 feet high, RW-14 at 40 feet high, and RW-15 at 35 feet high. A permanent shotcrete facing is designed to be anchored to the face of the GRE Walls. The GRE Walls are designed with geogrid reinforcement solely within the wall area; not within the overall slope.
- These GRE Walls are classified as Mechanically Stabilized Earth (MSE) Walls and not a Reinforced Soil Slopes (RSS [or GRE]) due to the batter of the face being steeper than 20 degrees from vertical per Federal Highway Administration design guidelines:

(http://www.fhwa.dot.gov/engineering/geotech/library_listing.cfm - see FHWA-NHI-00-043 report).

- Per project specifications, the GRE Walls shall have a welded-wire basket and geogrid reinforcement that require a mechanical type connection that has been tested. A connection and facing design is required for an MSE Wall and not an RSS (GRE) geometry. These types of mechanical connections have already been evaluated for wall systems on the referenced CALTRANS Pre-approved Alternate Earth Retaining Systems list.
- The backfill material specification for the GRE Walls have fines contents up to 60% passing the No. 200 sieve. Per FHWA and CALTRANS, these materials are close but outside of the typical specification for RSS (GRE) design.
- The geometry of the proposed design is clearly an MSE Wall within a slope and not a GRE (RSS) design.

Soil Retention seeks answers that were not provided during the bidding process (see Inquires #12 and #28 attached) to the following questions for CALTRANS regarding the design of the GRE Walls as follows:

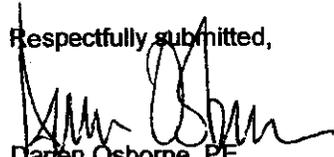
- Since the subject GRE Wall design is clearly an MSE Wall in a slope, why is CALTRANS District 11 designing retaining wall systems that are not listed on the CALTRANS Pre-approved Alternate Earth Retaining Systems list?
- Should the GRE Wall be revised to have an increased batter of 20° or more from vertical which will better accommodate use of the onsite material per FHWA and CALTRANS design criteria?

Soil Retention is the registered owner and manufacturer of the **Verdura**® Retaining Wall System which is included on the Pre-approved Alternative Earth Retaining Systems list from CALTRANS. We have dedicated countless resources over a multi-year period to go through the "required" pre-approval process for new products only to see District 11 unfairly specify retaining wall systems that have not gone through the same rigorous pre-approvals. It appears that preferential treatment has been given to specify products from a geosynthetic supplier.

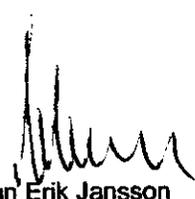
We seek resolution through redesign and rebid of the GRE Walls with additional batter and inclusion of products from the Pre-approved Alternative Earth Retaining Systems list from CALTRANS.

Please contact the undersigned with any questions.

Respectfully submitted,



Darien Osborne, PE
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Jan Erik Jansson
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Attachments: Pre-Approved Alternative Earth Retaining Systems
Bidders Inquiry for Contract No. 11-0223U4

Cc: Abbas Abghari - CALTRANS Geotechnical Design South 2 – Districts 8 & 11
Phil Stolarski – CALTRANS Geotechnical Group - Deputy Division Chief
Roy Bibbens – CALTRANS Geotechnical Program Manager
Brad Boehm – CALTRANS Structure Specifications Branches – Districts 7 & 8, 11 & 12
Gudmund Setberg – CALTRANS Structure Specifications Branches – Office Chief
Kaytheryn Griswell – CALTRANS ERS Specialist – Office of State Bridge Engineer Support
Michael Gibson – Higgs Fletcher & Mack