



Mr. Russ Scharlin, PE
Environmental Soil Stabilization, LLC
4025 Woodland Park Blvd., Suite 165
Arlington, TX 76013-4377

April 7, 2003

Subject: Remediation of Expansive Soils
North Las Vegas, Nevada

Dear Mr. Scharlin:

As we discussed, TerraPacific Consultants has recently re-inspected approximately forty (40) homes in North Las Vegas that were impacted by expansive soil, and then subsequently remediated. The primary damage mechanism was water-induced ground swelling and edge-lift of post-tensioned slabs.

Beginning in January 2002, the supporting soil at fifteen (15) homes was stabilized using EcSS 3000 electrochemical stabilizer. This included exterior perimeter injection near the foundation and, in one (1) instance, interior injection through ports drilled in the slab. In all cases, the treatment depth was approximately seven (7) feet below ground surface. The remaining twenty-five (25) homes were addressed in a variety other ways, including: simple performance monitoring; rigorous cosmetic repair; drainage improvement; replacement of landscape/irrigation; stiffened framing at crack locations; horizontal moisture barrier (concrete flatwork), and installation of concrete vertical cut-off walls.

Based on our recent inspection, the residences stabilized with EcSS 3000 have performed very well to date. In fact, the performance of these homes has been generally better than those using other techniques, including cut-off walls (some alternatively repaired homes have shown low-level slab movement and isolated minor cracking of interior drywall). Although EcSS 3000 chemical stabilization appears to be outperforming the other improvements adopted at this site, we recognize that a 12 to 14-month monitoring period is rather short. Please feel free to call us for periodic updates to our performance monitoring program.

Respectfully submitted,
TerraPacific Consultants

A handwritten signature in black ink, appearing to read "K. Jordan", with a horizontal line extending to the right.

Kevin M. Jordan, PE, GE
President/Principal Engineer