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May 30, 2014

Town of Parker, Public Works Department  
Attn: Mike Waugh  
20120 East Mainstreet  
Parker, Colorado 80138

Job No. 2142217A

Subject: Review of Subgrade Investigation and Pavement Design, Horseshoe Ridge, Lot 1, Block 17.

Dear Mr. Waugh:

The report by CTL/Thompson, Project No. DN 46,355.001-135 dated April 30, 2014, presents the pavement section for unnamed streets, about 850 lineal feet of residential streets. An ESAL value of 64,640 was used for the streets serving 33 DU.

Four borings were drilled. It is stated that the grading and water and sewer lines were installed at the time of the investigation, although no date was given for the investigation. The soils were described as clayey sand fill overlying sandy clay at depth 7 feet. Based on laboratory testing, the soils classify as A-6 and A-7-6 with a group index varying from 4 to 7. Swell tests were performed on samples from 3 borings and the results varied from a swell of 0.2 to 0.6 percent when wetted under a surcharge of 200 psf. The subgrade soils were considered to be one group. A standard Proctor test result for a composite sample gave a maximum dry density of 118.0 pcf and an optimum moisture content of 12.5 percent. An R-value of 5 was determined from that composite sample resulting in a calculated resilient modulus of 3,025 psi, which was used for thickness design.

Swell Mitigation is not required for the reported swell values. All but one of the in-place moisture contents of these soils were below optimum.

The design results give a full depth AC section of 6.5 inches or a composite section of 5 inches of AC over 6 inches of ABC.

Based on the data presented, it is recommended that the design for the composite section be approved. Compaction reports for grading should be reviewed for compliance. Future reports need to show the street names and give the date when the field investigation was performed.

Please call with any questions.

Sincerely,

HEPWORTH-PAWLAK GEOTECHNICAL, Inc.

Richard C. Hepworth, P.E.

cc. Tom Williams, P.E.

