

September 2, 2016
Job No. 278-004-16

Summit County
% NV5
5217 South State Street, Suite 200
Murray, Utah 84107

Attention: Ms. Mindy Low

Ladies and Gentlemen:

Re: Addendum No. 1
Preliminary Geotechnical Investigation
Parcels PP-46-A and PP-46-C
2854 and 2952 West Rasmussen Road
Summit County, Utah

This is an addendum to Gordon Geotechnical Engineering, Inc.'s July 5, 2016¹ preliminary geotechnical investigation for the above-referenced project in Summit County, Utah and should be attached thereto. The following items of clarification were requested by Richard Miller with NV5.

Subsequent to Summit County's review of the July 5, 2016 report, the following question was raised by Derrick Radke with Summit County.

2. There is reference in the geotechnical report of a varying water table and moderate strength and compressible soils in some areas. I know we did not give any specifics on possible structures or other infrastructure mostly because we don't really have any. That said, can you ask Gordon Geotechnical, as your sub, to offer an opinion on whether structured parking and/or multi-level housing would be able to be constructed on those areas sampled and if so, what precautions or other construction measures would have to be taken in order to do so.

Soil conditions encountered in the borings from the July 5, 2016 ranged from silt to fat clay to fine to coarse sand/gravel. Site specific studies would be needed, but in our opinion, the natural soils

¹ "Report, Preliminary Geotechnical Investigation, Parcels PP-46-A and PP-46-C, 2854 and 2952 West Rasmussen Road, Summit County, Utah," G² Job No. 278-004-16, Dated July 5, 2016.

encountered will be suitable for support of one to three-level structures established on conventional spread and continuous wall foundations. The primary concern will be the potential for slightly expansive fat clay soils in the upper 10 feet. If encountered, expansive clay soils will need to be over-excavated from below foundations. Heavily loaded parking garage foundations may require one to three feet of underlying structural fill to control settlements.

Structures greater than three to four levels in height may potentially need to be supported upon deep foundations or soils improved with the installation of rammed aggregate piers/Geopiers®.

In preparing this addendum, it was noticed that some of the lab testing was not available at the time of the original report. Please replace the following laboratory testing sections from the original report.

3.2.4 Atterberg Limit Tests

To aid in classifying the soils, an Atterberg limit test was performed on a sample of the fine-grained cohesive soils. Results of the test are tabulated below:

Boring No.	Depth (feet)	Liquid Limit (percent)	Plastic Limit (percent)	Plasticity Index (percent)	Soil Classification
B-2	4.0	58	23	35	CH
B-6	2.5	25	Non-Plastic	Non-Plastic	ML

3.2.6 Chemical Tests

To determine if the site soils will react detrimentally with concrete, chemical tests were performed on a representative sample of the soils encountered at the site. The results of the chemical tests are tabulated below:

Boring No.	Depth (feet)	Soil Classification	pH	Total Water Soluble Sulfate (mg/kg-dry)
B-2	4.0	CH	8.15	1,050

All other recommendations in the July 5, 2016 report remain valid.

If you have any questions or require additional information, please do not hesitate to contact us.

Respectfully submitted,

Gordon Geotechnical Engineering, Inc.



Patrick R. Emery, State of Utah No. 7941710
Senior Engineer

PRE:sn

Addressee (email)