



November 20, 2014
Job No. 0128-098-14

Mr. Lucas Davis
State of Utah, DFCM
4110 State Office Building
Salt Lake City, Utah

Mr. Davis:

Re: Report
Infiltration Study
Proposed Durable Housing
Approximately 800 East 900 North, American Fork, Utah
(40.3948° North: 111.7773° West)

1. INTRODUCTION

1.1 GENERAL

This report presents the results of our infiltration study performed at the proposed Durable Housing Project located at approximately 800 East 900 North, American Fork, Utah. GSH Geotechnical, Inc. (GSH) completed a geotechnical study for the site dated July 22, 2014¹.

1.2 OBJECTIVES AND SCOPE

The objectives and scope of our study were planned in discussions between Mr. Lucas Davis of the DFCM and Mr. Alan Spilker of GSH.

In general, the objectives of this study were to:

1. Accurately define and evaluate the subsurface soil and groundwater conditions at the test pit location.
2. Provide appropriate infiltration test information and recommendations to be utilized in the design and construction of the proposed storm water runoff system.

¹ "Report, Geotechnical Study, Proposed Durable Housing, Approximately 800 East 900 North, American Fork, Utah, (40.3948° North: 111.7773° West)." GSH Job Number 0128-098-14.

In accomplishing these objectives, our scope has included the following:

1. A field program consisting of the excavating, logging, and sampling of 1 test pit to a depth of 10 feet. The test pit location was placed near Test pit B-7 of the July 22, 2014 report.
2. An office program consisting of the correlation of available data, engineering analyses, and the preparation of this summary letter report.

1.3 AUTHORIZATION

Authorization was provided verbally in accordance with our Professional Services Agreement No. 14-1129 dated November 17, 2014.

1.4 PROFESSIONAL STATEMENTS

Supporting data upon which our recommendations are based are presented in subsequent sections of this report. Recommendations presented herein are governed by the physical properties of the soils encountered in the exploration test pit and projected groundwater conditions. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are implemented, GSH must be informed so that our recommendations can be reviewed and amended, if necessary.

Our professional services have been performed, our findings developed, and our recommendations prepared in accordance with generally accepted engineering principles and practices in this area at this time.

2. INVESTIGATIONS

2.1 FIELD PROGRAM

In order to define and evaluate the subsurface soil and groundwater conditions at the site and conduct infiltration testing, a test pit was explored to a depth of 10 feet below existing grade.

The field portion of our study was under the direct control and continual supervision of an experienced member of our geotechnical staff. During the course of the excavation operations, a continuous log of the subsurface conditions encountered was maintained. In addition, samples of the typical soils encountered were obtained for subsequent examination. The soils were classified in the field based upon visual and textural examination. These classifications have been supplemented by subsequent inspection in our laboratory.

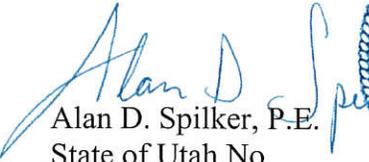
2.2 INFILTRATION TESTS

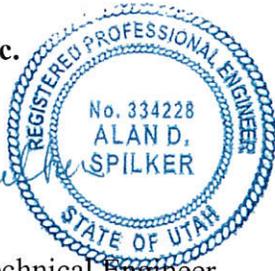
One infiltration test was performed at a depth of 5 feet within the test pit. Generally, clay soils were encountered at this depth. An average calculated infiltration rate of 11 minutes per inch best reflects current natural site soil conditions at 5 feet within the test pit. Static groundwater was not encountered at the site to a depth of 20 feet during our July 22, 2014 geotechnical study. Accordingly, due to long term siltation, we recommend a design infiltration rate of 30 minutes per inch be used for design purposes.

If you have any questions or would like to discuss these items further, please feel free to contact us at (801) 685-9190.

Respectfully submitted,

GSH Geotechnical, Inc.


Alan D. Spilker, P.E.
State of Utah No. [redacted]
President/ Senior Geotechnical Engineer



Reviewed by:


Bryan N. Roberts, P.E.
State of Utah No. 276476
Senior Geotechnical Engineer

ADS/BNR:jlh

Addressee (email)