

October 20, 2025
Job No. 3108-01A-25

Kathy Miner
c/o Great Basin Engineering
P.O. Box 181
Spanish Fork, Utah

Ms. Miner:

Re: Addendum No. 1 – Summary Letter
Additional Test Pits
Lot 31 Soldier Summit Estates – Single-family Residential Structure
22596 East Snowbird Drive
Near Spanish Fork, Utah

Introduction

GSH Geotechnical, Inc (GSH) performed a geotechnical study¹ for the above-referenced site dated September 15, 2020. GSH was requested to perform additional explorations at the site within the septic tank and drain field areas as requested by Utah County Health Department. The purpose of the additional explorations is due to the design of the septic system being placed further away from the proposed single-family residential structure than anticipated at the time of the referenced geotechnical study.

This letter presents the results of our additional explorations. The general location of the site with respect to existing roadways, as of 2025, is presented on Figure 1, Vicinity Map. A more detailed layout of the site showing proposed facilities, existing roadways, and the test pits excavated in conjunction with this study is presented on Figure 2, Site Plan.

Field Program

To further define and evaluate the subsurface soil and groundwater conditions, 3 test pits were completed within the proposed drain field areas. The Test Pit TP-1 was completed to a depth of approximately 5 feet, and Test Pits TP-2 and TP-3 were completed to a depth of approximately 10 feet with a full size, steel tracked excavator.

1 “Report, Geotechnical Study, Proposed Single-family Residential Structure, Lot 31 – Soldier Summit, Utah County, Utah.

Subsurface Soil

The test pits were excavated to depths ranging from approximately 5.0 to 10.0 feet. The soil conditions encountered in each of the test pits, to the depths explored, were generally similar across the test pit locations.

- Approximately 12 inches of topsoil was encountered in all test pit locations. The topsoil consisted of black, medium stiff, slightly moist, silty sand with varying amounts of clay and gravel. Topsoil thickness is frequently erratic and thicker zones of topsoil should be anticipated.
- Natural soils were encountered below the ground surface in all test pit locations. The natural soils consisted primarily of clay with varying silt and sand content, and sand and gravel with varying silt and clay content.
- Materials causing excavation refusal were encountered within the dense natural soils consisting of dense gravel to cobble in Test Pit TP-1 at a depth of 5.0 feet below the existing grade. However, based on the Test Pits TP-2 and TP-3, the gravel/cobble layer encountered is penetrable, especially with larger machinery and ability to excavate larger than 1 to 2 bucket widths.

The natural clay soils were stiff, slightly moist, and brown in color. The natural clay soils are anticipated to exhibit moderate strength and moderate compressibility characteristics.

The natural sand and gravel soils were medium dense to very dense, slightly moist, and gray and brown in color. The natural sand and gravel soils are anticipated to exhibit moderately high strength and moderately low compressibility characteristics.

For a more descriptive interpretation of subsurface conditions, please refer to Figures 3A through 3C, Test Pit Logs. Soils were classified in accordance with the nomenclature described on Figure 4, Key to Test Pit Log (USCS). The lines designating the interface between soil types on the test pit logs generally represent approximate boundaries. In situ, the transition between soil types may be gradual.

Groundwater

Groundwater was not encountered at the time of excavation and is anticipated to exist at significant depths at this site. However, perched groundwater conditions may occur within the spring/fall months of the year. GSH may be contacted if further groundwater monitoring is desired.

Groundwater levels vary with changes in season and rainfall, construction activity, irrigation, snow melt, surface water run-off, and other site-specific factors.

Partial Gradation and Moisture Testing

To aid in classifying the granular soils, partial gradation tests were performed. Results of the tests are tabulated below and presented on the test pit logs, Figures 3A through 3C:

Test Pit No.	Depth (inches)	Percent Passing No. 200 Sieve	Moisture Content Percent	Soil Classification
TP-1	0.5	84.1	14.8	CL
TP-1	1.5	85.5	13.8	CL
TP-1	2.5	57.5	11.9	SM/ML
TP-1	4.0	45.1	9.0	GM

Closure

Based on our observations and subsequent laboratory testing, the soils encountered within the additional test pits are consistent with the soils encountered within the referenced geotechnical study, specifically Test Pit TP-4, the location of the septic percolation test. Additionally, as part of the additional test pits, it was discovered that the cobble layer identified at the time of the field work and within the referenced geotechnical study is penetrable, thus the depth to bedrock is greater than 10 feet below the ground surface.

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.

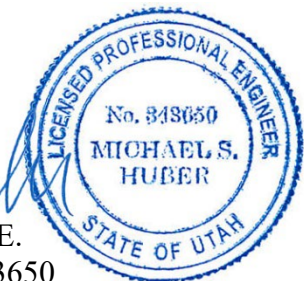


Tristen Leberknight
 Staff Engineer, E.I.T.

Reviewed by:

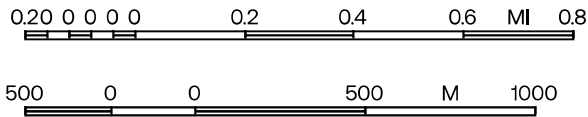


Michael S. Huber, P.E.
 State of Utah No. 343650
 Vice President/Senior Geotechnical Engineer



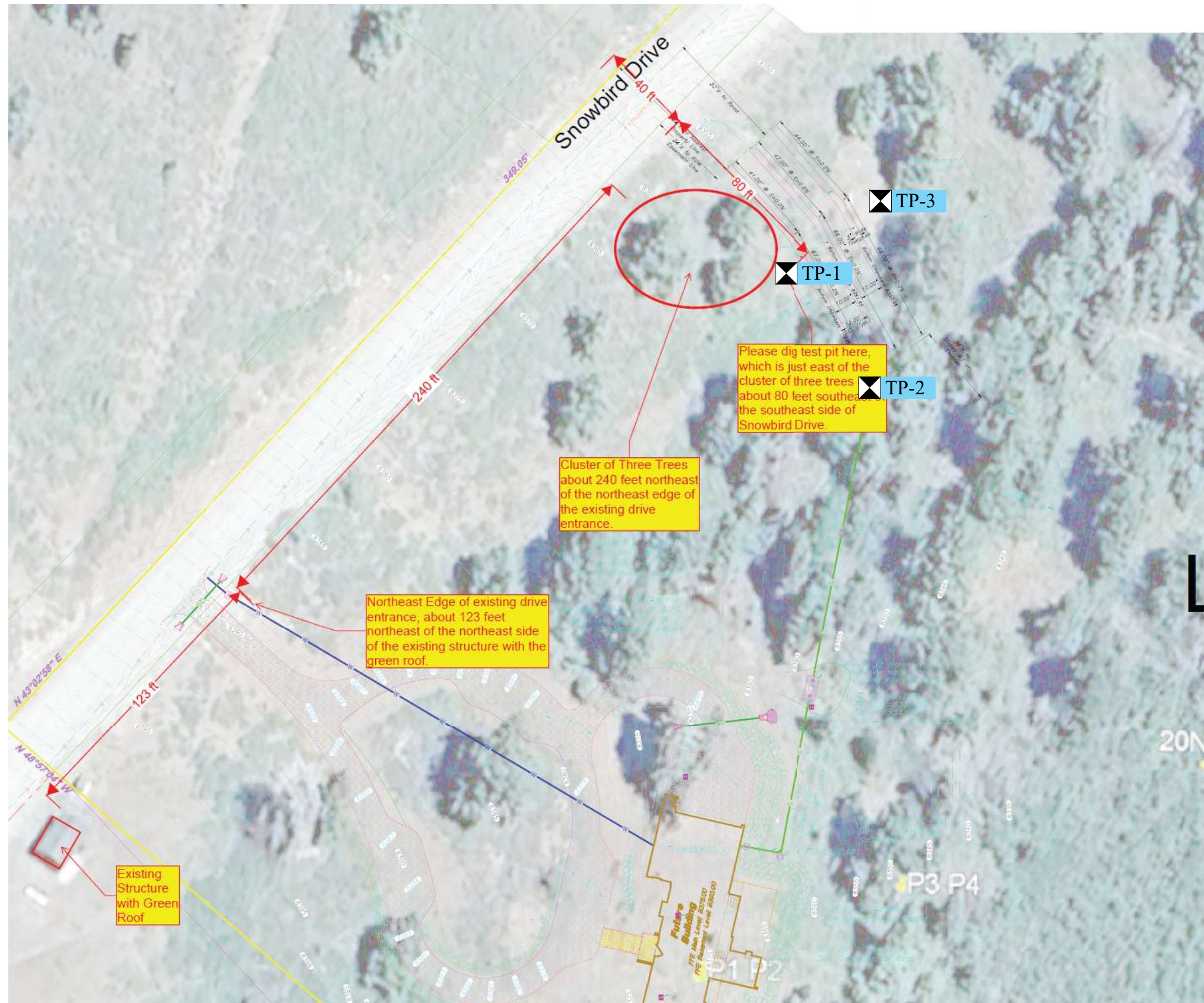
TL/MSH:jmt

- Encl. Figure 1, Vicinity Map
- Figure 2, Site Plan
- Figures 3A through 3C, Test Pit Logs
- Figure 4, Key to Test Pit Log (USCS)



REFERENCE:
ALL TRAILS - NATIONAL GEOGRAPHIC TERRAIN
DATED 2025

FIGURE 1
VICINITY MAP
 GSH



REFERENCE:
ADAPTED FROM DRAWING ENTITLED
"SEPTIC SYSTEM UTILITY PLAN" BY GREAT
BASIN ENGINEERING, DATED 9/11/2025



GSH

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-1

CLIENT: Ms. Kathy Miner

PROJECT NUMBER: 3108-01A-25

PROJECT: Lot 31 Soldier Summit Estates SFR Structure

DATE STARTED: 10/9/25

DATE FINISHED: 10/9/25

LOCATION: 22596 East Snowbird Drive, Near Spanish Fork, Utah

GSH FIELD REP.: DN

EXCAVATING METHOD/EQUIPMENT: Excavator

GROUNDWATER DEPTH: Not Encountered (10/9/25)

ELEVATION: ---

WATER LEVEL	U S C S	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	CL	SANDY CLAY with major roots (topsoil) to 12"; dark brown		▲	14.8		84.1			slightly moist medium stiff
	SM/ ML	SILTY/CLAYEY FINE TO COARSE SAND brown		▲	13.8		85.5			slightly moist medium dense
	GM	SILTY GRAVEL with sand and trace clay		▲	11.9		57.5			slightly moist dense
		End of Exploration at 5.0' No significant sidewall caving. No groundwater encountered at time of excavation.	5							
			10							
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 3A



GSH

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-2

CLIENT: Ms. Kathy Miner

PROJECT NUMBER: 3108-01A-25

PROJECT: Lot 31 Soldier Summit Estates SFR Structure

DATE STARTED: 10/9/25

DATE FINISHED: 10/9/25

LOCATION: 22596 East Snowbird Drive, Near Spanish Fork, Utah

GSH FIELD REP.: DN

EXCAVATING METHOD/EQUIPMENT: Excavator

GROUNDWATER DEPTH: Not Encountered (10/9/25)

ELEVATION: ---

WATER LEVEL	U S C S	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	CL	SANDY CLAY with major roots (topsoil) to 12"; dark brown								slightly moist medium stiff
	GM	SILTY FINE AND COARSE GRAVEL with cobbles; gray								slightly moist very dense
			5							
	CL	SILTY CLAY with fine to coarse sand and trace gravel; brown								slightly moist stiff
			10							
		End of Exploration at 10.0' No significant sidewall caving. No groundwater encountered at time of excavation.								
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 3B



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TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-3

CLIENT: Ms. Kathy Miner

PROJECT NUMBER: 3108-01A-25

PROJECT: Lot 31 Soldier Summit Estates SFR Structure

DATE STARTED: 10/9/25

DATE FINISHED: 10/9/25

LOCATION: 22596 East Snowbird Drive, Near Spanish Fork, Utah

GSH FIELD REP.: DN

EXCAVATING METHOD/EQUIPMENT: Excavator

GROUNDWATER DEPTH: Not Encountered (10/9/25)

ELEVATION: ---

WATER LEVEL	U S C S	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	SM/ SC	SILTY FINE TO COARSE SAND with major roots (topsoil) to 12"; dark brown								slightly moist medium dense
	GM	SILTY FINE AND COARSE GRAVEL with cobbles; brown	5							slightly moist very dense
	CL	SILTY CLAY with trace fine gravel; brown	10							slightly moist stiff
		End of Exploration at 10.0' No significant sidewall caving. No groundwater encountered at time of excavation.	15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 3C

