



August 9, 2022
ES-0593.03

Earth Solutions NW LLC

Geotechnical Engineering, Construction
Observation/Testing and Environmental Services

RM Homes, LLC
2913 – 5th Avenue Northeast, Suite 201
Puyallup, Washington 98372

Attention: Mr. James Kerby

**Subject: Groundwater Monitoring Program Results
Proposed Normandy Heights Residential Development
2007 Shaw Road
Puyallup, Washington**

Reference: Earth Solutions NW, LLC
Geotechnical Engineering Study
Project No. ES-0593, updated May 3, 2022

Dear Mr. Kerby:

As requested, Earth Solutions NW, LLC (ESNW) has prepared this summary letter to provide the results of the groundwater monitoring program completed for the subject site

Project Description

We understand the project is pursuing the construction of a residential development and associated infrastructure improvements. Stormwater management is currently proposed via a detention facility located within the north-central portion of the site. Current designs suggest that grade cuts up to about 20 feet will be required to achieve design elevations along the west facility edge and will decrease to the east and daylight along the easternmost edge of the system. The proposed stormwater management system will not utilize infiltration; as such, the monitoring was performed to evaluate potential groundwater exfiltration into the system.

Subsurface

Subsequent to initial site subsurface exploration completed on October 23, 2006, associated with preparation of the referenced geotechnical report, three supplementary borings were advanced on February 8, 2022, targeted to the proposed stormwater management Tract F within the north-central site area. The purpose of the borings was to facilitate the installation of observation wells in the area, which would allow us to perform groundwater monitoring for the site. The wells were installed to depths of between 16.5 feet to 21.5 feet below the existing ground surface. The approximate locations of the monitoring wells are illustrated in the attached Exploration Location Plan (Plate 1). Logs of each exploration are also provided as an attachment and can be reviewed for a more detailed description of the subsurface soil conditions.

Groundwater

Groundwater was not exposed within the test pit locations during the October 2006 field exploration; however, discrete perched groundwater seepage was exposed at depths of about 10 feet to 15 feet below the ground surface at B-2 during the February 2022 fieldwork. The seepage was characterized as very minor to minor.

Groundwater Monitoring

Groundwater monitoring was performed at each well location (B-1 to B-3). The observation wells were installed on February 8, 2022, and the monitoring program began immediately thereafter. Groundwater depths and fluctuations were recorded via weekly measurements through April 30, 2022. Groundwater was not observed at any of the observation locations during the monitoring period. Concerning the perched seepage encountered at B-2, it is our opinion that the groundwater represents discrete and discontinuous lenses that produced very little groundwater flows. It should be noted the rainfall received during the winter/spring 2021/2022 season (monitoring period) was higher than average. Based on the results of the groundwater monitoring program, we do not expect groundwater to exfiltrate or otherwise adversely affect the performance of the stormwater facility.

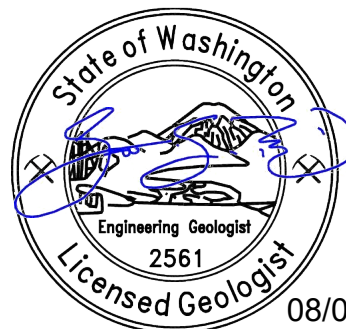
We trust this addendum letter meets your current needs. Should you have questions regarding the content herein, or require additional information, please call.

Sincerely,

EARTH SOLUTIONS NW, LLC



Chase G. Halsen, L.G.
Senior Project Geologist



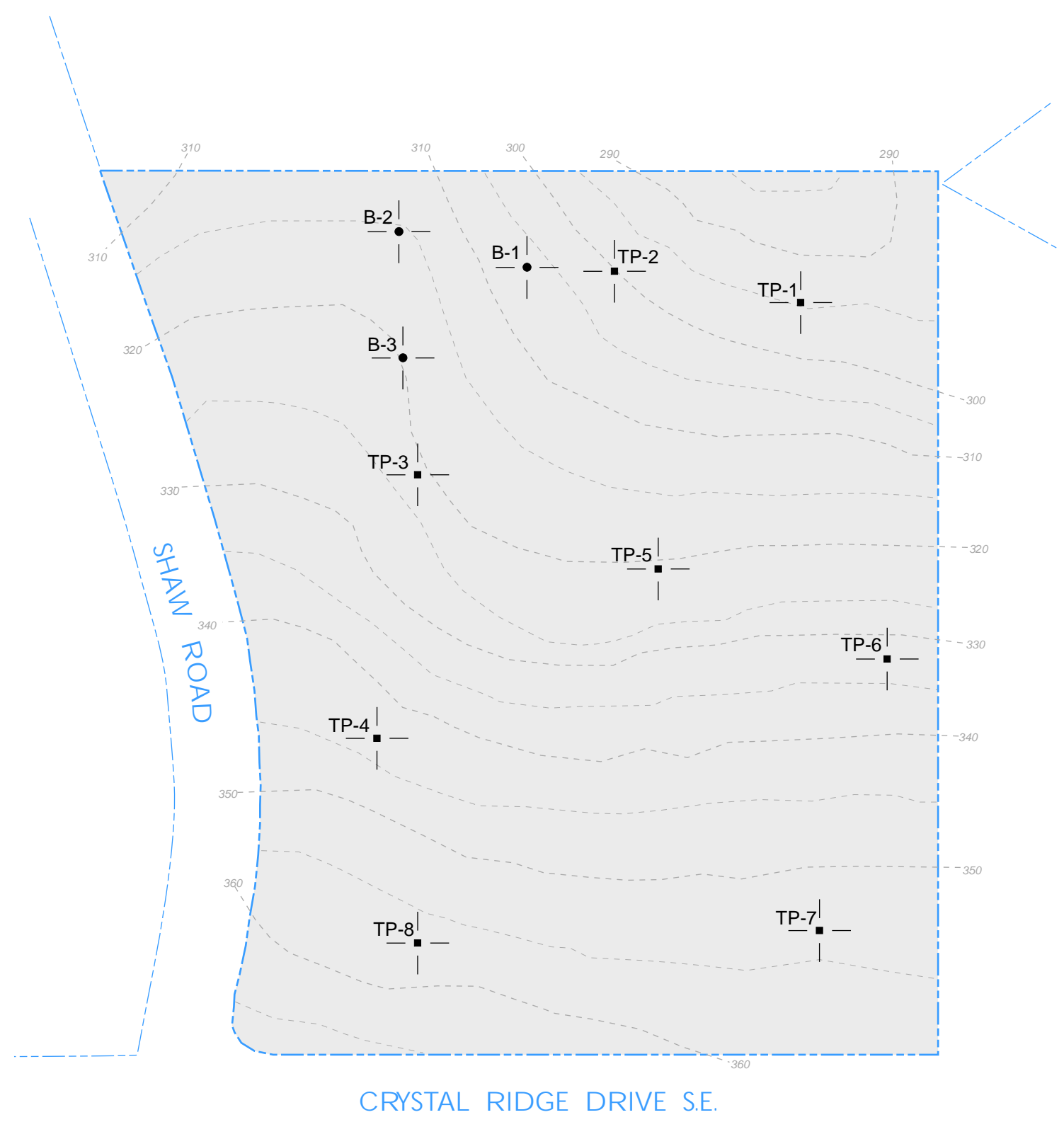
08/09/2022

Scott S. Riegel




Scott S. Riegel, L.G., L.E.G.
Associate Principal Geologist

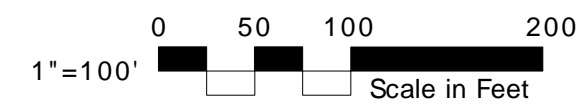
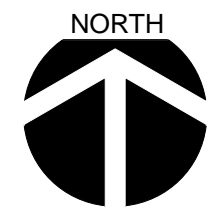
Attachments: Plate 1 – Subsurface Exploration Plan
Boring and Test Pit Logs

cc: Barghausen Consulting Engineers, Inc.
Attention: Ms. Cara Visintainer, P.E. (Email only)



LEGEND

- 
 Approximate Location of ESNW Boring, Proj. No. ES-0593.03, Feb. 2022
- 
 Approximate Location of ESNW Test Pit, Proj. No. ES-0593, Oct. 2006
- 
 Subject Site



NOTE: The graphics shown on this plate are not intended for design purposes or precise scale measurements, but only to illustrate the approximate test locations relative to the approximate locations of existing and / or proposed site features. The information illustrated is largely based on data provided by the client at the time of our study. ESNW cannot be responsible for subsequent design changes or interpretation of the data by others.

NOTE: This plate may contain areas of color. ESNW cannot be responsible for any subsequent misinterpretation of the information resulting from black & white reproductions of this plate.



Drwn. By
MRS

Checked By
CGH

Date
08/09/2022

Proj. No.
0593.03

Plate
1

CRYSTAL RIDGE DRIVE S.E.

Earth Solutions NW_{LLC}

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p>COARSE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p>GRAVEL AND GRAVELLY SOILS</p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p>SAND AND SANDY SOILS</p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SM	SILTY SANDS, SAND - SILT MIXTURES	
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
			<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
<p>FINE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY		
		<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			CH	INORGANIC CLAYS OF HIGH PLASTICITY		
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
<p>HIGHLY ORGANIC SOILS</p>				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

DUAL SYMBOLS are used to indicate borderline soil classifications.

The discussion in the text of this report is necessary for a proper understanding of the nature of the material presented in the attached logs.



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 Fax: 425-449-4711

PROJECT NUMBER ES-0593.03 PROJECT NAME Normandy Heights
 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Boretect1, Inc. LATITUDE 47.17139 LONGITUDE -122.25172
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: drill-pad

GENERAL BH / TP / WELL - 0593-3.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0							
2.5	SS	67	1-3-5 (8)	MC = 30.5%	SM		Brown silty SAND, loose, moist (Drill Pad Fill)
3.5							
5.0	SS	67	2-4-5 (9)	MC = 30.7% Fines = 85.5%	ML		Brown SILT, loose, moist -trace iron oxide staining [USDA Classification: LOAM]
7.5	SS	100	5-6-7 (13)	MC = 30.0%			-becomes medium dense, wet --~3" sand lens
10.0	SS	67	6-8-11 (19)	MC = 12.0%	SP-SM		Gray poorly graded SAND with silt, medium dense, moist
12.5							
15.0							



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PROJECT NUMBER ES-0593.03 PROJECT NAME Normandy Heights
 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Boretec1, Inc. LATITUDE 47.17139 LONGITUDE -122.25172
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: drill-pad

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
15.0							
	SS	67	8-8-12 (20)	MC = 21.8% Fines = 51.7%	ML		Gray sandy SILT, medium dense, moist [USDA Classification: LOAM]

16.5

Boring terminated at 16.5 feet below existing grade. No groundwater encountered during drilling. 2" PVC standpipe installed to bottom of boring. Lower 10.0 feet slotted. Well ID: B95510. Boring backfilled with sand/bentonite.



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PROJECT NUMBER ES-0593.03 PROJECT NAME Normandy Heights
 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Boretec1, Inc. LATITUDE 47.17148 LONGITUDE -122.25214
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: cleared brush

GENERAL BH / TP / WELL - 0593-3.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0							
2.5							Brown SILT, loose, moist
5.0	SS	100	1-3-4 (7)	MC = 28.5%			-becomes moist to wet
7.5					ML		
10.0	SS	100	1-3-4 (7)	MC = 33.4% Fines = 90.6%			-very minor perched groundwater seepage -zones of heavy iron oxide staining [USDA Classification: slightly gravelly LOAM]
12.5							
15.0							



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PROJECT NUMBER ES-0593.03 PROJECT NAME Normandy Heights
 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Borettec1, Inc. LATITUDE 47.17148 LONGITUDE -122.25214
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: cleared brush

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
15.0	SS	100	3-5-7 (12)	MC = 29.5%			Brown SILT, loose, moist (<i>continued</i>) -becomes medium dense, wet -minor perched groundwater seepage
17.5					ML		
20.0	SS	67	8-12-15 (27)	MC = 3.7% Fines = 5.4%	SP-SM		Gray poorly graded SAND, medium dense, moist [USDA Classification: slightly gravelly SAND]




Boring terminated at 21.5 feet below existing grade. Groundwater seepage encountered at 10.0 and 15.0 feet during drilling. 2" PVC standpipe installed to bottom of boring. Lower 10.0 feet slotted. Well ID: BM5511. Boring backfilled with sand/bentonite.



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 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Borettec1, Inc. LATITUDE 47.17121 LONGITUDE -122.25216
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: brush

GENERAL BH / TP / WELL - 0593-3.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0							
2.5					SM		Brown silty SAND, loose, moist
5.0	SS	100	4-5-6 (11)	MC = 5.0%			Gray poorly graded SAND, medium dense, moist
7.5					SP		
10.0	SS	100	4-6-8 (14)	MC = 11.1% Fines = 15.4%			Gray silty SAND, medium dense, moist [USDA Classification: loamy fine SAND]
12.5					SM		
15.0							



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PROJECT NUMBER ES-0593.03 PROJECT NAME Normandy Heights
 DATE STARTED 2/8/22 COMPLETED 2/8/22 GROUND ELEVATION _____
 DRILLING CONTRACTOR Borettec1, Inc. LATITUDE 47.17121 LONGITUDE -122.25216
 DRILLING METHOD HSA GROUND WATER LEVEL: _____
 LOGGED BY CGH CHECKED BY SSR AT TIME OF DRILLING _____
 NOTES Surface Conditions: brush

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
15.0							
	SS	67	6-9-10 (19)	MC = 12.0%			Gray poorly graded SAND with silt and gravel, medium dense, moist
17.5					SP-SM		
20.0	SS	67	18-30-11 (41)	MC = 4.1%			-becomes dense
						21.5	

Boring terminated at 21.5 feet below existing grade. No groundwater encountered during drilling. 2" PVC standpipe installed to bottom of boring. Lower 10.0 feet slotted. Well ID: BM5512. Boring backfilled with sand/bentonite.



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TEST PIT NUMBER TP-1
 PAGE 1 OF 2

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 295 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 12": forest duff

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 2.5%			Light brown to brown poorly graded GRAVEL with sand, loose to medium dense, moist
5.0		MC = 2.0%	GP-GM		
7.5					
9.0					286.0
10.0		MC = 3.9% Fines = 1.5%			Brown poorly graded SAND with gravel, medium dense, moist
12.5			SP		
14.0					281.0
15.0				GP	Brown poorly graded GRAVEL with sand, medium dense, moist


(Continued Next Page)



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TEST PIT NUMBER TP-1
 PAGE 2 OF 2

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 295 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 12": forest duff

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
15.0		MC = 2.6%			Brown poorly graded GRAVEL with sand, medium dense, moist (<i>continued</i>)
		MC = 2.9% Fines = 1.3%	GP		
				17.0	278.0

Test pit terminated at 17.0 feet below existing grade. No groundwater encountered during excavation.







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TEST PIT NUMBER TP-2

PAGE 1 OF 1

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 300 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 8": forest duff

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	
0.0						
2.5		MC = 6.9%	SM		Light brown silty SAND, medium dense, moist	
3.0						297.0
5.0		MC = 4.8%			Brown poorly graded SAND with silt, medium dense, moist	
7.5		MC = 4.8% Fines = 6.1%	SP-SM			
10.0		MC = 2.8% Fines = 2.2%				289.0
11.0					Gray poorly graded GRAVEL with sand, medium dense, moist	
12.5			GP			
13.0						287.0
15.0		MC = 9.3% Fines = 34.8%	SM		Gray silty SAND, medium dense, moist	
						285.0

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22

Test pit terminated at 15.0 feet below existing grade. No groundwater encountered during excavation.



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TEST PIT NUMBER TP-3

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 320 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 7"

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 2.7% Fines = 2.2%			Light brown to gray poorly graded SAND, medium dense, moist
5.0		MC = 4.8%	SP		
7.5					
10.0		MC = 6.3%		10.0	310.0

Test pit terminated at 10.0 feet below existing grade. No groundwater encountered during excavation.

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22



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TEST PIT NUMBER TP-4

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 345 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 8"

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 2.4%	SP		Gray poorly graded SAND with gravel, medium dense, moist
5.0		MC = 2.9% Fines = 1.6%			
7.5		MC = 2.5%			
10.0		MC = 3.7%			

Test pit terminated at 10.0 feet below existing grade. No groundwater encountered during excavation.

335.0

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22



Earth Solutions NW, LLC
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TEST PIT NUMBER TP-5

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 320 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 10"

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 4.6%	SP		Light brown poorly graded SAND with silt, loose to medium dense, moist
5.0		MC = 4.7%			
6.0					314.0
7.5		MC = 3.0%	GP		Gray poorly graded GRAVEL with sand, medium dense, moist
10.0		MC = 6.0%			310.0

Test pit terminated at 10.0 feet below existing grade. No groundwater encountered during excavation.

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22



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TEST PIT NUMBER TP-6

PAGE 1 OF 1

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 335 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 12"

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 1.7%	GP		Gray poorly graded GRAVEL with sand, medium dense, moist
5.0		MC = 3.1% Fines = 0.8%			Brown poorly graded SAND with gravel, medium dense, moist
7.5		MC = 2.4%	SP		
10.0		MC = 2.3%			

Test pit terminated at 10.0 feet below existing grade. No groundwater encountered during excavation.

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22



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TEST PIT NUMBER TP-7

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 350 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES Depth of Topsoil & Sod 6"

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	
0.0						
2.5		MC = 2.0%	GP		Light brown to gray poorly graded GRAVEL with sand, loose to medium dense, moist	
3.0						347.0
5.0		MC = 3.6% Fines = 1.0%	SP		Gray poorly graded SAND, medium dense, moist	
5.0		MC = 2.9%				345.0
7.5			GP		Gray poorly graded GRAVEL with sand, medium dense, moist	
7.5						343.0
8.0		MC = 6.2%	SP		Gray poorly graded SAND with gravel, medium dense, moist	
8.0						342.0

Test pit terminated at 8.0 feet below existing grade. No groundwater encountered during excavation.



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TEST PIT NUMBER TP-8

PROJECT NUMBER 0593 PROJECT NAME Normandy Heights
 DATE STARTED 10/23/06 COMPLETED 10/23/06 GROUND ELEVATION 355 ft
 EXCAVATION CONTRACTOR Aikins Excavating LATITUDE _____ LONGITUDE _____
 EXCAVATION METHOD _____ GROUND WATER LEVEL:
 LOGGED BY WLR CHECKED BY WLR AT TIME OF EXCAVATION _____
 NOTES _____

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0					
2.5		MC = 8.1%	SP-SM		Light brown to gray poorly graded SAND with silt, medium dense, moist
4.0		MC = 6.1%			Gray poorly graded SAND, medium dense, moist
5.0					
7.5		MC = 5.1% Fines = 1.6%	SP		
10.0					
12.0		MC = 4.7%			

Test pit terminated at 12.0 feet below existing grade. No groundwater encountered during excavation.

GENERAL BH / TP / WELL - 0593.GPJ - GRAPHICS TEMPLATE WITH LAT AND LONG.GDT - 5/3/22