

## TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

> July 11, 2023 Project No. T-5915-3

Mr. Stephen Nornes Presbyterian Homes & Services and Senior Housing Partners 2823 Hamline Avenue N Roseville, Minnesota 55113

Subject: Supplemental Site Exploration

Wesley Homes Expansion – Care Center Building

Puyallup, Washington

References: Letter, Care Center Foundation Support Alternative, Wesley Homes Expansion, Puyallup,

Washington, prepared by Terra Associates, Inc., Project No. T-5915-3, dated June 13, 2023

Letter, Response to Comments, Geotechnical Report Addendum, Wesley Homes Expansion, Puyallup, Washington, prepared by Terra Associates, Inc., Project No. T-5915-3, dated May 22,

2023

Geotechnical Report Addendum, Wesley Homes Expansion, Puyallup, Washington, prepared by

Terra Associates, Inc., Project No. T-5915-3, dated December 29, 2022

Geotechnical Report, Wesley Homes Puyallup, 39<sup>th</sup> Avenue SE, Puyallup, Washington, , prepared by Terra Associates, Inc, Project No. T-5915-3, revised date November 14, 2016

## Dear Mr. Nornes:

In accordance with our recommendations, on June 22, 2023, we completed supplemental soil exploration at the subject site. This supplemental work consisted of drilling two soil test borings along the western side of the Care Center building located west of the existing Lodge building. The purpose of the test borings was to obtain deeper soil data in order to confirm estimated driven pipe pile tip elevations that will be used to support the western portion of the Care Center building as discussed and recommended in the referenced June 13, 2023 letter.

The results of the test borings confirmed the presence of undocumented fill material to depths of approximately 13 feet below current site grades. The fill is composed mostly of silty sand with varying gravel content. Fill soils observed below depths of 7 to 8 feet also contained organic inclusions. Below the fill soils, native soils composed of silty sand with gravel were encountered to boring completion depths of 30 feet. Relative density of these native glacial soils was in the dense to very dense range. Groundwater was encountered at each boring at a depth of 20 feet.

A site plan showing the test boring locations is attached as Figure 1. Test boring logs providing a detailed description of the soil conditions encountered are also attached as Figures 2 and 3. Based on these results pipe pile tip elevations where pile driving refusal criteria should be met is estimated to be in the range of 15 to 20 feet below current site grades. This is consistent with estimates provided in our referenced November 14, 2016 geotechnical report.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,

TERRA ASSOCIATES, INC.

Theodore J. Schepper, P.E.

Senior Principal Engineer

Attachments: Figure 1 – Exploration Location Plan

Figures 2 and 3 – Test Boring Logs

7-11-23

Cc: Ms. Jill Krance, In Site Architects

Mr. Dan Balmelli, P.E., Barghausen Consulting Engineers

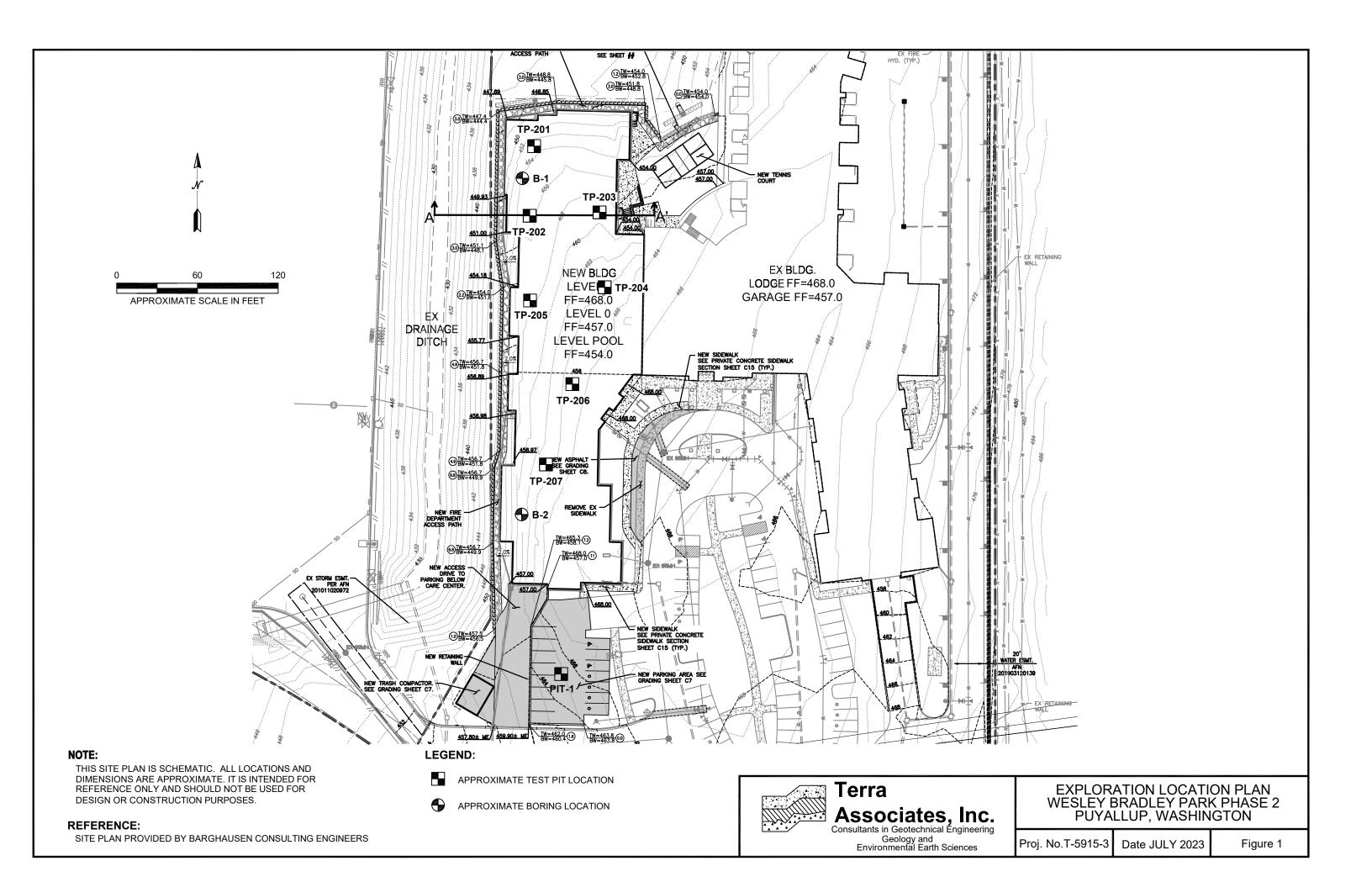


Figure No. 2

**Project No:** <u>T-5915-3</u> Date Drilled: June 22, 2023 Project: Wesley Homes Puyallup Client: Wesley Homes **Driller:** Boretec Logged By: JCS Location: Puyallup, Washington Depth to Groundwater: 20 ft Approx. Elev: 454 Sample Interval Content (%) Consistency/ SPT (N) Soil Description Relative Density Blows/foot 10 30 Medium Dense Fill: Brown silty SAND with gravel, fine sand, fine to coarse gravel, 11 moist. (SM) Fill: Dark brown silty SAND, fine grained, trace of fine to coarse gravel, moist to wet, scattered dark brown organic pockets, trace of 10 wood fragments. (SM) Loose Brown grading to gray silty SAND, fine grained, trace of fine gravel, moist. (SM) 50/3" 15 I -Overstated blow counts due to gravel and cobbles (inferred from Very Dense drilling action). Gray silty SAND with gravel, fine to medium sand, fine to coarse gravel, wet, trace of fine to medium sand layers between 20 and 21.5 **▼**20 34 feet. (SM) Dense 25 50/3" 工 Very Dense 30 50/5"  $\mathbf{I}$ Boring terminated at 30.4 feet. Wet soils encountered at below 20 feet. 35

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpeted as being indicative of other areas of the site



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Figure No. 3

**Project No:** T-5915-3 Date Drilled: June 22, 2023 Project: Wesley Homes Puyallup Client: Wesley Homes **Driller:** Boretec Logged By: JCS Location: Puyallup, Washington Depth to Groundwater: 20 ft Approx. Elev: 460 Sample Interval Content (%) Consistency/ SPT (N) Soil Description Relative Density Blows/foot 10 30 Medium Dense Fill: Gray-brown SAND with gravel, fine to medium sand, fine to 15 coarse gravel, dry to moist. (SP) Fill: Brown to gray-brown SAND with silt and gravel to silty SAND with gravel, fine to medium sand, fine to coarse gravel, moist, 10 scattered dark brown organic pockets. (SP-SM/SM) 32 Dense Gray-brown silty SAND with gravel to sandy SILT with gravel, fine sand, fine to coarse gravel, moist, scattered iron-oxide stained 51 15 pockets between 15 and 16.5 feet. (SM/ML) Very Dense **▼**20 50/5" - Becomes wet below 20 feet. 50/5" 25 I Boring terminated at 25.4 feet. Wet soils enountered below 20 feet. 30

NOTE: This borehole log has been prepared for geotechnical purposes. This information pertains only to this boring location and should not be interpeted as being indicative of other areas of the site



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