

associated  
earth sciences  
incorporated

February 12, 2026  
Project No. 20210371E001

Herzl-Ner Tamid Conservative Congregation  
3700 East Mercer Way  
Mercer Island, Washington 98040

Attention: Audrey Covner

Subject: Response to Third-Round Building Plan Review Comments  
Barnabie Point Project  
Herzl-Ner Tamid Conservative Congregation  
3700 East Mercer Way  
Mercer Island, Washington

Reference: Recommendations for Temporary Soldier Pile Shoring Wall Design  
Barnabie Point Project  
Herzl-Ner Tamid Conservative Congregation  
3700 East Mercer Way  
Mercer Island, Washington  
AESI Letter dated November 14, 2025

Dear Audrey Covner:

Associated Earth Sciences, Inc. (AESI) has reviewed the third-round building plan review comments provided by the City of Mercer Island. The geotechnical-related comments are restated below followed by our response.

City Review Comments:

*Please revise the extent of excavation to accommodate a BOE of elevation 85 feet as expected by the geotechnical engineer of record.*

*The BOE is anticipated to range from elevation 88 to 85 feet. Please revise shoring wall design to accommodate this anticipated overexcavation. The geotechnical engineer of record indicated a maximum retained wall height of 16 feet in their temporary shoring wall design recommendations letter dated November 14, 2025. Please submit revised plans and calculations for review.*

AESI Response:

The retained height of the shoring wall during foundation and basement level construction will be limited to approximately 10 feet as indicated on the submitted shoring wall plans, as the maximum excavation depth needed to reach design bottom of footing (BOF) is at elevation 90 feet. The maximum overexcavation depth to elevation 85 feet is a conservative estimate for earthwork and foundation contingency planning. Rather than revising the shoring wall design to accommodate a conservative BOE of 85 feet along the entire wall alignment, AESI recommends that any required overexcavation be completed in “slot cuts” as determined in the field by an AESI representative at the time of foundation construction.

For this project, a slot cut is defined as the excavation of a narrow trench directly below the building footing to reach suitable native bearing soils and immediately backfilling the trench with controlled density fill (CDF). Depending on the variability in depth to reach suitable native soils below the design BOF, multiple slot cuts and strategic sequencing may be needed along the shoring wall alignment.

Attached to this letter is a schematic of the recommended slot cut sequencing (see red, blue, and green boxes which represent the slot cut trenches). This schematic represents a worst-case scenario where the entire shoring wall alignment requires overexcavation. Each slot cut would have a maximum width of 4 feet, and the edge of each slot cut would start at the center line of a soldier pile. The slot cuts should be limited to a maximum depth of 6 feet. Any loose soils remaining at the base of the trench can be compacted in place with a vibratory plate compactor attached to the excavator arm. The position of each slot cut as shown in the schematic was selected so that each soldier pile will have only partial removal of passive resistance within the limits of the slot cut excavation, and each series of slot cuts (red, blue, and green boxes) are positioned every other pile to minimize disturbance to the overall shoring wall system.

The slot cut sequencing would involve the following steps:

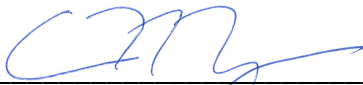
1. Excavate the red slot cuts first, as needed, and immediately backfill the slot cuts with CDF. Confirm the CDF achieves a minimum unconfined compressive strength of 100 pounds per square inch (psi) before proceeding to Step 2.
2. Excavate the green slot cuts next, as needed. Follow the same CDF procedure as Step 1.
3. Excavate the blue slot cuts next, as needed. Follow the same CDF procedure as Step 1.
4. Excavate all remaining slot cuts and immediately backfill with CDF.

We have coordinated with Ground Support PLLC on the slot cut procedure described above and understand that the shoring wall design has been revised to reduce the passive pressure to 200 pounds per cubic foot (pcf) from elevation 90 to 85 feet (neglecting the upper 2 feet below BOF), and that all pile lengths have been increased by 1 foot to accommodate potential slot cuts. From a geotechnical standpoint, it is AESI’s opinion that no additional revisions to the

shoring wall design are necessary provided that the slot cut procedure and sequencing described in this letter are properly followed under continuous observation by AESI.

We appreciate the opportunity to continue assisting the design team in this phase of the project. If you should have any questions or require further assistance, please do not hesitate to call.

Sincerely,  
**ASSOCIATED EARTH SCIENCES, INC.**  
Kirkland, Washington



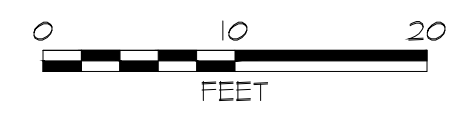
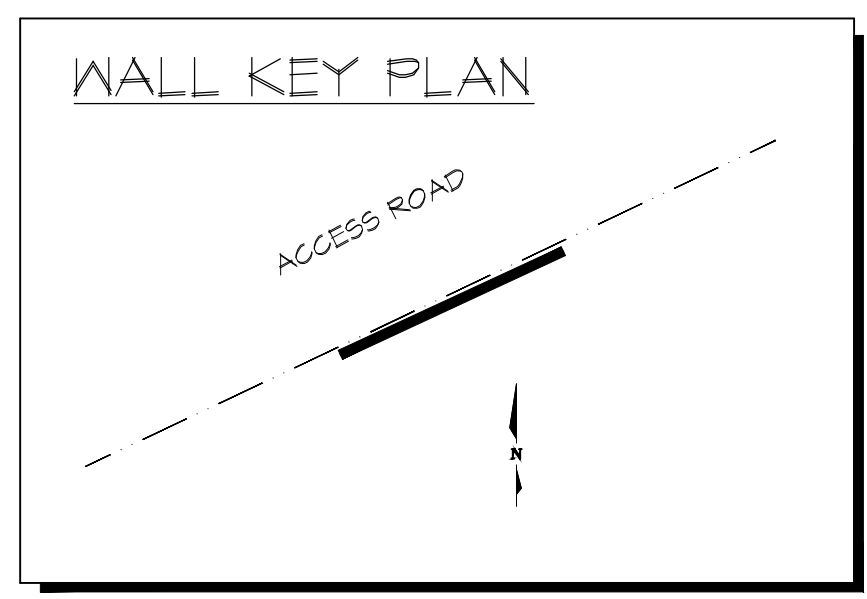
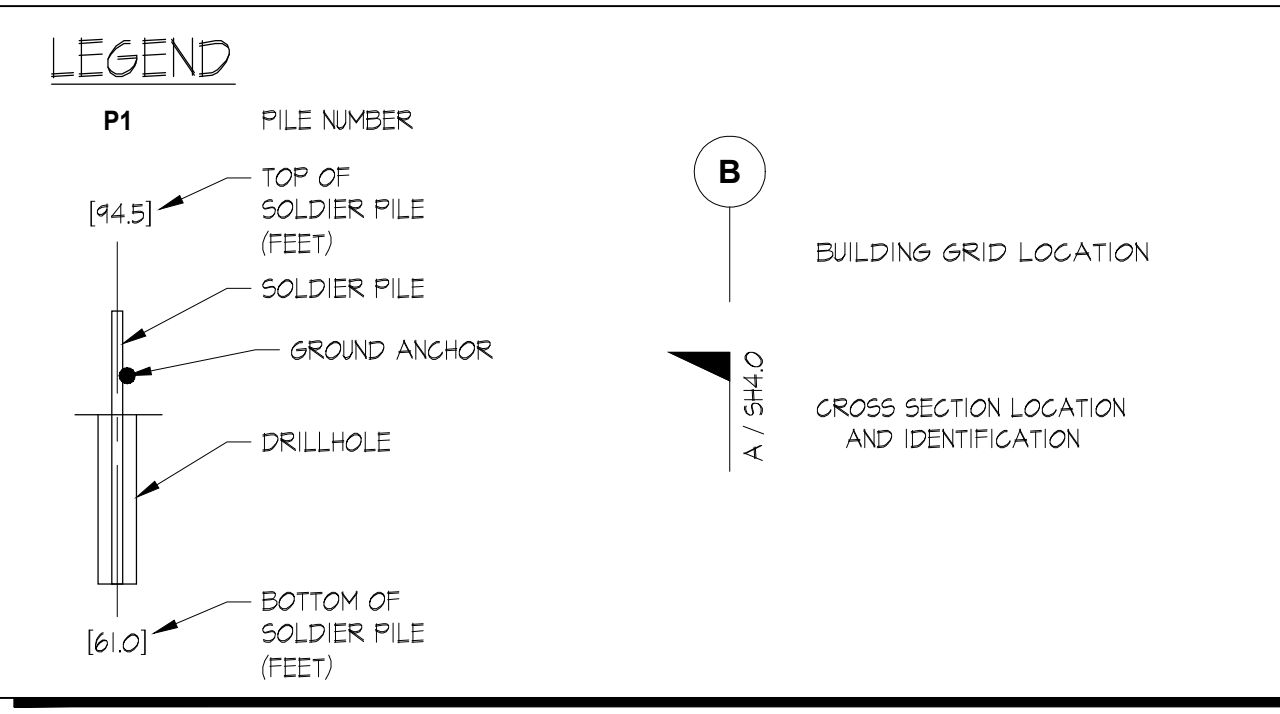
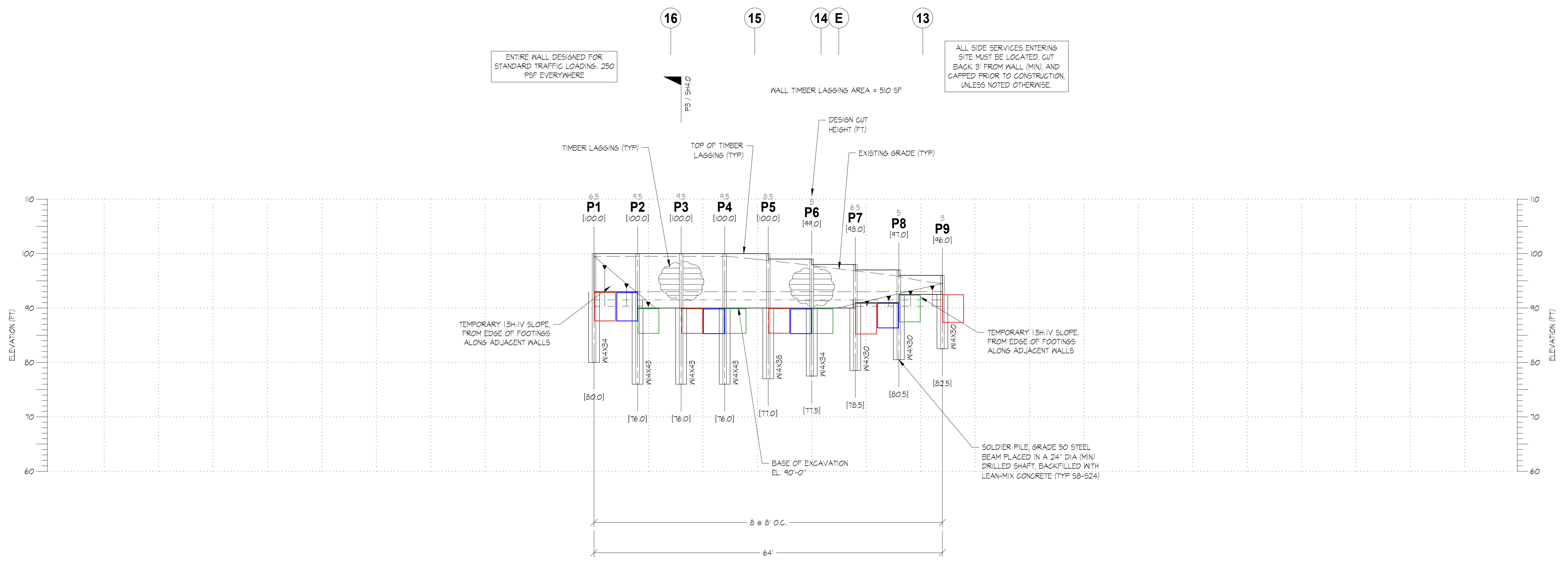
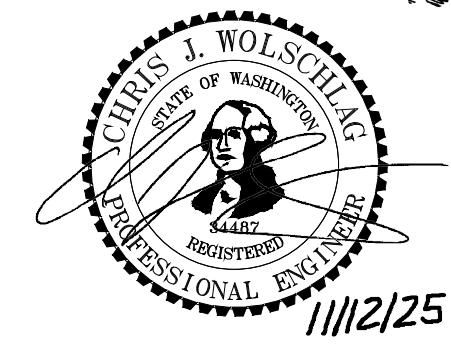
Carrie M. Mozingo, L.G., L.E.G., P.E.  
Principal Engineering Geologist/Engineer



G. Bradford Drew, P.E.  
Associate Engineer

## ATTACHMENTS

Shoring Wall Slot Cut Schematic



NO.	DATE	DESCRIPTION
	4 JUNE 2025	BUILDING PERMIT
PROJECT:		

WALL ELEVATION

SH3.0