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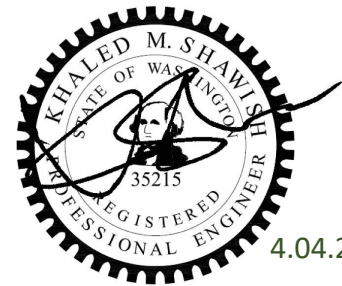
MEMORANDUM

DATE: April 4, 2025

TO: Abhi Sharma
VIA Email: abhisharma@outlook.com

FROM: Khaled M. Shawish, PE
Sarah L. Dunn, GIT, CESCL

RE: Geotechnical Engineering Memorandum – **REVISED**
Sharma Retaining Wall Evaluation
7905 West Mercer Way
Mercer Island, Washington
NGA File No. 1496924



INTRODUCTION

This memo presents our response to concerns raised by the City of Mercer Island regarding two utility easements located in the footprint of the proposed retaining wall at **7905 West Mercer Way on Mercer Island, Washington.**

We previously prepared a geotechnical report for the retaining wall dated March 7, 2024, followed by two comment responses dated May 14, 2024 and July 5, 2024. We also prepared a plan review dated April 23, 2024, followed by two subsequent revision dated July 25, 2024 and September 4, 2024, respectively.

We understand that project plans have been altered in response to the City's comments and that the City is now requesting that we provide recommendations for the proposed changes. Our opinions and recommendations are provided in the following sections.

CONCLUSIONS AND RECOMMENDATIONS

A 10.0-foot-wide utility easement is located at the south end of the proposed wall. In this area, we would recommend a 1 Horizontal to 1 Vertical (1H:1V) reinforced slope be utilized instead of the originally proposed block retaining wall. The 1H:1V slope should be reinforced with **Mirafi 3XT geogrid wrap** lined with **Mirafi N140 filter fabric**, or equivalent. The surface of the slope should be covered with heavy duty jute netting staked in place with metal steaks that are a minimum of 18 inches long. The top of the slope should be covered with 6 inches of compacted 1¼-inch clean crushed rock. We recommend that the 1H:1V slope be founded on a 12-inch-thick layer of 1¼-inch clean crushed rock. A schematic of the reinforced slope is shown in Figure 1.

The toe of the 1H:1V slope may extend beyond the face of the wall. We recommend that the toe of the reinforced slope maintain a minimum separation of 3.0 feet from the top of the underlying rockery. This setback, combined with the 12-inch layer of crushed rock, should be adequate to prevent surcharging the rockery.

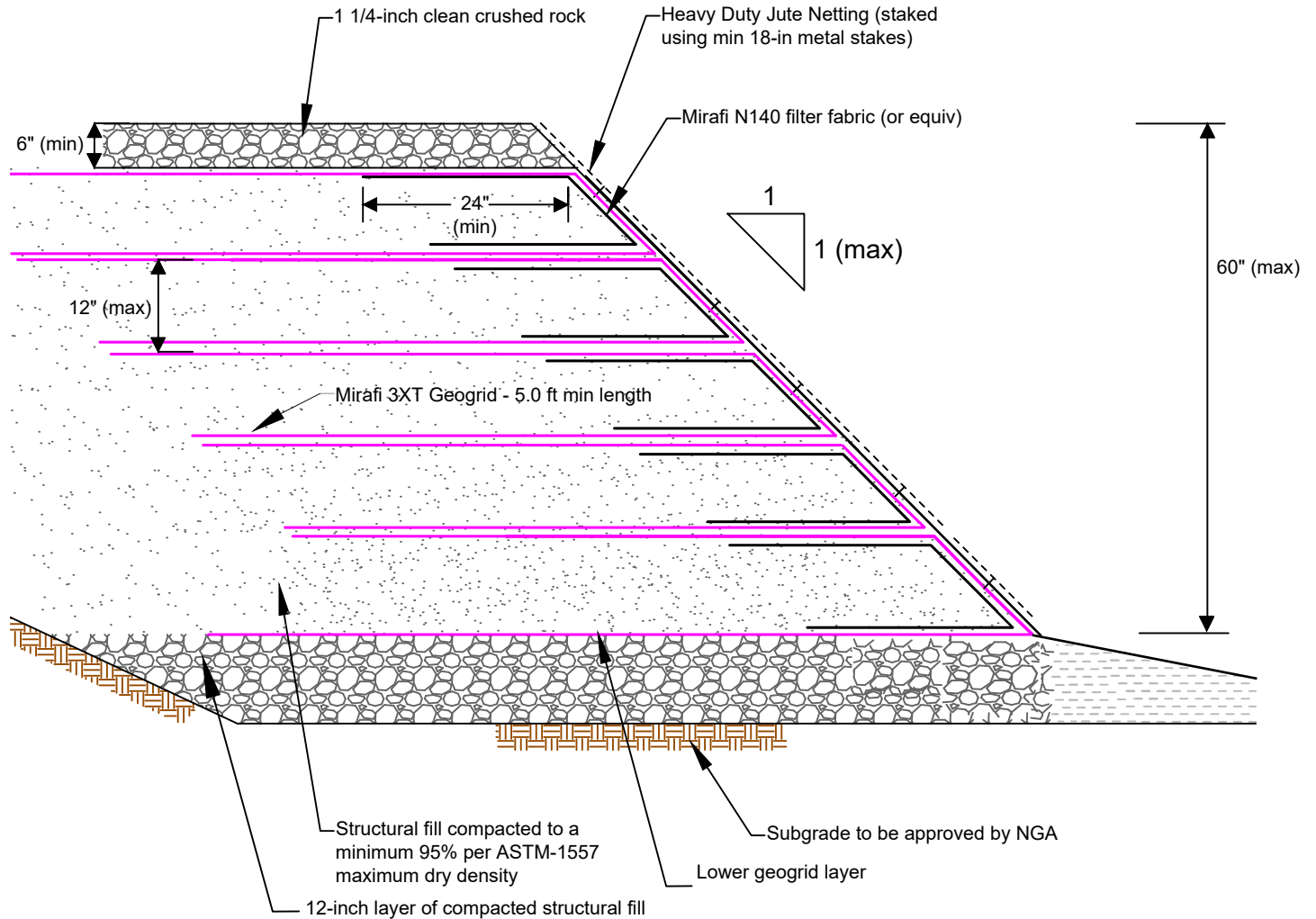
We trust this memorandum should satisfy your needs at this time. Please contact us if you have any questions or require additional services.

O-O-O

One Figure Attached

Schematic Slope Detail

Not to Scale



NOTE:
 Site improvement activity on or adjacent to reinforced fill should not result in cutting or disturbing of geogrid

Project Number
1496924

Sharma Reinforced Slope Detail



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No.	Date	Revision	By	CK
1	3/4/24	Original	ABT	DJO

Figure 1