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## **MEMORANDUM**

**DATE:** March 17, 2023

**TO:** Adam Clark, 2812 Architecture

**FROM:** Khaled M. Shawish, PE  
Alex Rinaldi, LG, EIT

**RE:** Geotechnical Plan Review  
**Kendall Subaru Development**  
**16xxx Smokey Point Boulevard**  
**Marysville, Washington**  
NGA File No. 1378422



3.17.2023

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### **Introduction**

We previously prepared a geotechnical engineering evaluation for the proposed Kendall Subaru automotive dealership dated July 12, 2022, and supplemental memo regarding adjusted bearing capacity for isolated foundations, dated July 19, 2022.

The site consists of three adjacent parcels covering about 15.7 acres. The site is currently vacant; however, initial clearing and grading is in progress. The proposal includes development of a 69,881 square foot automotive dealership along with associated pavement areas and subsurface utility installation.

For use in preparing this memorandum we have been provided with the latest submittal package titled "Kendall Subaru," including civil, landscape, architectural, and structural documentation dated February 21, 2023.

A geotechnical review of the plans was requested to verify the geotechnical aspects of the project meet the design recommendations provided by NGA.

## **Plan Review**

Per Civil Sheet C2.0, overall site grading should be relatively minor with finished floor of the planned building at approximately 115.5 feet and existing grades ranging from approximately 114 to 116 feet, however some imported fill will be placed along the building pad. Temporary sediment and erosion control measures appear to be adequate for the site and are shown to consist of silt fencing along the perimeter, standard construction entrance along the west central portion of the site, stockpile coverings, inlet protection, construction stormwater interceptor trench, and mulch or straw.

All stormwater generated from the proposed development is shown to be directed towards existing drainage infrastructure within Smokey Point Boulevard for the western portion of the site or 39<sup>th</sup> Avenue NE to the southeast of the site. Significant storm, sewer, and water infrastructure is planned for the development. Standard Detail 6 on Civil Sheet C6.2 specifies trench backfill should consist of crushed rock, gravel or excavated material. Fill placed in structural areas should be placed as structural fill and be evaluated in the field by NGA.

Standard and heavy pavement sections are shown on Civil Sheet C3.7. Detail 3 indicated standard pavement sections are to consist of 6-inches of base course rock overlain by 2-inches of Class B HMA, while heavy pavements include 8-inches of base course overlain by 3-inches of HMA. Pavement subgrade and base should be evaluated by NGA prior to paving and any loose areas identified should be repaired per the recommendations in our previous report.

Structural Sheet S1.0 outlines the geotechnical parameters utilized for the structural design. The values indicated in the plans reviewed appear to meet the recommendations provided in our original report and supplemental memorandum. Building foundations will consist of slab-on-grade, thickened edge slab footings, and column foundations. Foundation drainage is indicated to be present along the building foundations elements in the architectural plans.

## **Closure**

We have reviewed the geotechnical aspects of the latest plans and found them to be in accordance with our report and supplemental documentation. We should be retained during construction to very conditions meet the anticipated conditions documented during our initial soil explorations, as well as monitor and evaluate subgrade preparation and fill placement below and behind structural elements and pavement areas.

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