

January 11, 2021

DAVIS URBAN
Mr. Aaron Gray
3316 Tejon Street
Denver, Colorado 80211

Subject: Rock Coring and Assessment of Rock Cores
6129 Woodbine
Littleton, Colorado
Project Number 20-1260

At your request, Best Engineering Solutions and Technologies, LLC (BEST) visited the subject site on December 18, 2020 to provide additional subsurface exploration at the subject site. Specifically, a rock core was obtained from surficial exposed sandstone in an area where planned columns will be placed. Our conclusions and recommendations are presented in this letter.

FIELD OBSERVATIONS: At the time of our visit, we observed that the sandstone bedrock appears to be similar in nature and continuous across the site area, where it is exposed in some locations and covered with near surface soils in other locations. In our geotechnical engineering study, project number 20-1260, dated December 2, 2020, of the site we noted that the allowable bearing pressures on the sandstone bedrock is 4,000 pounds per Square Foot (psf). Soils above the bedrock had allowable bearing pressures of 2,500 psf.

BEST completed a core of the sandstone bedrock on December 18, 2020. The bedrock core was extended to a maximum depth explored of 14 feet below existing grade (BEG). The core samples were retained by BEST for assessment of rock quality and to give a Rock Quality Designation (RQD) for the sandstone bedrock based on the core obtained. The core was visually assessed, and continuous sections of the core were measured and overall RQD was calculated to determine allowable bearing pressures on the sandstone.

RECOMMENDATIONS: Based on our assessment, the RQD for the top 4 feet of rock is 30, from 4 to 8 feet the RQD is <10 and from 6 to 14 feet BEG is 40. The overall RQD for the core is 20. Based on our assessment a bearing capacity of 10 tons per square foot (TSF) is allowed for direct bearing on the sandstone. If foundations are recessed into the rock allowable bearing pressures are 7.5 TSF. Foundations not extended to rock may have an allowable soil bearing pressure of 2500 PSF. All foundation excavations should be verified prior to placement of reinforcing steel and concrete by a representative of the engineer to verify allowable bearing capacity.

LIMITATIONS: This study has been conducted in accordance with generally accepted geotechnical engineering practices in this area for exclusive use by the client for design purposes. Copying of this report or portions of this report without the express written permission of Best Engineering Solutions and Technologies, LLC (BEST), is specifically prohibited. We make no warranty either express or implied. The conclusions and recommendations submitted in this report are based upon data obtained from the field exploration as indicated in this report, and the proposed construction. This report may not reflect subsurface variations that occur between or beneath the explorations. The nature and extent of variations across the site may not become evident until site grading and excavations are performed. If fill, soil, rock, or water conditions appear to be different from those described herein, BEST should be advised at once so that a re-evaluation of the recommendations presented in this report can be made. BEST is not responsible for liability associated with interpretation of subsurface data by others.

The scope of services for this project does not include any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. In addition, this study does not include determination of the presence, prevention, or possibility of mold or other biological contaminants developing in the future. If the owner is concerned about the potential for such contamination, other studies should be undertaken.

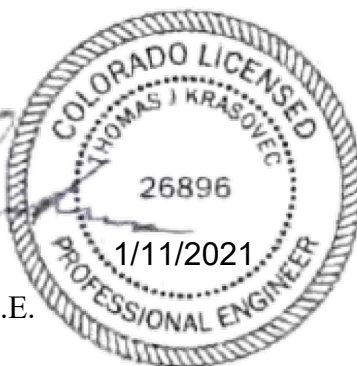
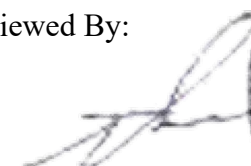
If you have any further questions, please feel free to contact us.

Respectfully submitted,
BEST ENGINEERING



Mathew Best P.E.
Senior Engineer

Reviewed By:



Thomas J. Krasovec, P.E.
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