## Skeens Consulting Services, LLC

Engineering, Inspections & Design Build



Michael H. Skeens, PE

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Date: April 18. 2024

To: Pfeifer Homes, Inc, 1550 SW Market St., Suite 210 Lee's Summit, MO 64081 Attn: Rick Holbrook

Project: Review and evaluation of The existing soils and grading for the new foundations 2120 NW O'Brien Street. L.S. MO Woodside Ridge



Dear Rick,

Visited 2120 NW O'Brien Street in Lees Summit, Missouri to observe the initial grading and soils condition for the residence. Is my understanding that the excavator was concerned since there appeared to be some soft spots on the west side of the site. My initial review of the area indicates different soils materials and the presence of some tree roots. I believe there are some existing soils which or darker in color and more organic plus some clays that appear to be fill materials. Some of the fill material and a spot in the middle of the upper level appears to have some moisture present. appears to be a lower area and most of that area most likely has some film materials in it. Further observation indicated that the soils on the northwest corner may have rock or some page rook pieces. Basically, there are numerous soils conditions along the west and from the existing grades fill material had to be placed along the west side.

It is my recommendation that the pier foundations should be used along the entire west side and those piers should extend on the south and north sides since there is a transition to the upper level in those areas. Along the entire west side recommendations are 16-inch round piers down to refusal or limestone or other stone materials. The piers will be reinforced concrete piers with the standard reinforcing steel for residential piering. There should be at least two pairs on the northwest side and the southwest side at the transitions or footing steps. Diagonal reinforcing steel should also be placed in the wall at the foundation steps.

The foundations on the upper level are sound foundation materials and are well above the required 1500 psf soil bearing capacity. If you should have any issues or concerns during the drilling of the peers or the pier does not appear to have any substantial bearing material, please be sure to contact me for directions. Also, let me know if any of the pier excavations are holding water. If there are any retaining walls scheduled for this project the soils should be evaluated to ensure proper design and sound soils bearing materials.

Please let me know if you have any questions or concerns regarding this item.

Sincerely,

Michael 74. Skeens

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