



ENGINEERING, INC.

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May 5, 2020

Mr. Chris Shaw
Shaw Construction
P.O. Box 281
Bates City, MO 64011

**Re: Soil Inspection – 1631 SW Blackstone Place, Lee's Summit, MO
Lot 143 Napa Valley – 3rd Plat**

Mr. Shaw,

At your request, I have inspected the soil conditions at the above referenced site. The inspection took place earlier today and concentrated on the area of the perimeter footings and the interior spread footings. A 4' long soil probe and visual inspection were used to evaluate the soil conditions.

The building pad is situated on what appears to be a previously undeveloped site and has been excavated to subgrade for the basement. The rear wall of the foundation was excavated approximately 3 feet below the balance of the excavation. Probe resistance was moderately soft to moderately stiff at all perimeter (except at the rear) and interior footing locations. Probe resistance was soft at the rear footing location. I would estimate that a safe bearing pressure is 1500 psf which would mean perimeter footings 24" wide with 3 #4 continuous. At the interior footings, a safe bearing pressure is 1500 psf which means that footing sizes would need to be 1.33 times the area of what would have been designed for 2000 psf. As an example, a 42" square pad called out on the drawing would need to be 54" square with 6 #4 each way and a 48" square pad called out on the drawing would need to be 60" square with 7 #4 each way. At the rear footing, a safe bearing pressure is 1000 psf. I recommend a footing width of 32" with 4 #4 continuous.

If there are any questions, please let me know.

Yours truly,

Albert Hermans, P.E.

