



HD Engineering & Design

Solutions for all your engineering and design needs

Starr Homes
7555 W. 160th St.
Overland Park, KS 66085

**Re: Milligan Residence
512 NE Promised View Dr.
Lee's Summit, MO**

At your request, our firm visited the location listed above to verify the placement and termination of the drilled piers.

Our firm verified the excavation of 42 piers on 1/24/23, 28 piers on 1/26/23, 19 piers on 1/27/23, 45 piers on 2/1/23, and 30 piers on 2/2/23. Approximately 34 piers were 24 inch diameter and socketed into limestone two to three feet deep. These 24 inch diameter piers were located in the southwest portion of the excavation at the detached garage and unfinished storage areas. The remaining piers were found to have a consistent 18" diameter over the full depth. The average pier depths decreased from 10 feet deep on the west to 5 feet deep on the east side of the excavation. Eight piers were added to the pier design on site in the patio and golf simulator areas. At the time of our inspections, several piers were taking on water so the piers were inspected in a drill-and-fill condition. All piers terminated on original limestone in compliance with the pier design provided.

In total, our firm verified 164 piers and approved 164 piers for the placement of concrete.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted engineering practices. No warranties, either expressed or implied, are intended or made.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact us.

Very truly yours,
HD ENGINEERING & DESIGN, INC.

John Hulse, Principal



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STRUCTURAL REVIEW
HD ENGINEERING & DESIGN
HD: 42639 DATE: 2/6/2023