



## CIVIL ENGINEERING CONSULTANTS

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December 11, 2017

Dreams and Designs

P.O. 7014

Lee's Summit, MO 64064

RE: MD2 Designs DD-7065-A  
Permit #PRRES-1691  
4717 NE Gateway Drive  
Lee's Summit, MO 64064  
Narrow wall - Engineering Analysis

Dear Mr. Stallings,

We are providing herewith analysis of the alternate braced wall design located at the rear of the Master Bedroom on the above referenced plan set. Specifically, in field a continuous header over the opening was not provided, and special anchors were not installed in the foundation plan at that location. Our analysis determined whether the portion of the wall (36" length) at the exterior most corner, as constructed, would be capable of resisting the applied lateral loads.

The narrow wall portion was analyzed per the National Design Standards shear wall capacity with applied loads per ASCE7-10. The as-built construction of the wall is described as: aspect ratio 3:1, 7/16" wood structural panel exterior sheathing, 10d nails @ 6 inches on center perimeter, with 5/8"x10" 'J' bolts at each end of the panel. The wall capacity and anchoring with the embedded 'J' bolts is adequate to resist the applied lateral loads at that wall line.

With the analysis, no contributing load capacity of the adjacent panel was required. The load capacity of the adjacent panel would be equivalent to the analyzed panel. We find the capacity of the narrow wall panel at the rear corner of the Master Bedroom on the referenced plan to be satisfactory to resist the applied loads.

If there are any questions regarding this analysis, please contact our Offices.

Very Truly Yours,

R.E.O. ENGINEERING, P.C.

By: , President  
Aaron D. Obermiller, P.E.

