

December 17, 2021

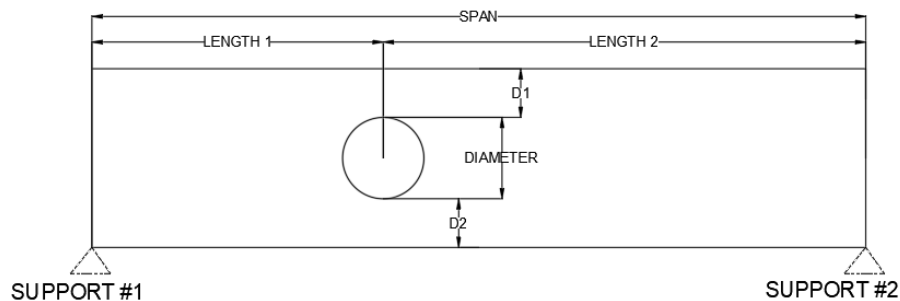
Summit Homes  
 120 SE 30<sup>th</sup> St.  
 Lee's Summit, MO 64082

**RE: Field Issue of over notched and holes within bottom 2" of floor joists for Lot# 25 - 3803 & 3807 SW Walsh Dr. Lee's Summit, MO 64082- PERMIT # PRRES20212857**

This letter addresses the over-notched joists for main floor system and the holes within bottom 2" of the floor joist throughout second floor system.

**Holes within bottom 2" of floor joists:**

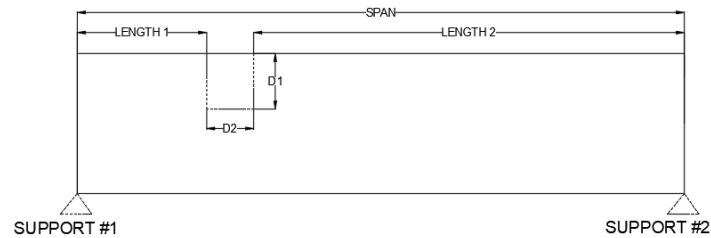
- There are multiple joists with 1" diameter holes to allow for electrical wiring. The distance from the bottom of the joists to edge of hole vary from 1" to 2" and are located at different positions along the joist span. The joists are located on the throughout the second floor floor system under Bed 2/3/4 and Bath #2. Additional information is given below.



- D1 – varies from 7.25" max to 6.25" min.
- D2 – varies from 1" min – 2" max
- Diameter of hole – 1"
- Length 1 - Varies
- Length 2 - Varies
- Span – Varies
- Support #1 – Varies
- Support #2 – Varies
- Location – Varies below Bed 2/3/4 and Bath #2.
- Loading -
  - Dead = 10 psf @ 16" oc
  - Live = 40 psf @ 16" oc
- All holes that are within the bottom 2" of floor joist shall have a 25" - CS16 strap centered over the hole along the bottom of the floor joist. Install CS16 strap per manufacturers specifications.
  - 25" total strap length
  - Install 10d (.148" x 3") nails – 20 nails per strap

### Over notched Floor Joist for unit 3807:

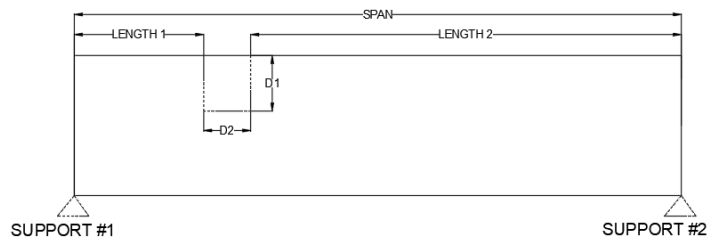
Floor joist has been over-notched to allow for electrical line. The notch is in the the middle third of the joist. The joist is located under the kitchen. Additional information is given below.



- D1 – 3.5"
- D2 – 7"
- Length 1 – 5'
- Length 2 – 5.5'
- Span – 10.5'
- Support #1 – (2) 2x10
- Support #2 – W8x13 Steel beam
- Location – Near foundation wall/ under kitchen.
- Loading -
  - Dead = 15 psf @ 16" oc
  - Live = 40 psf @ 16" oc
- Sister Douglas Fir Larch #2 2x10 to existing joist for 6' length with 4 fasteners per linear ft in "W" pattern with 2-1/2" structural screws.

### Over notched Floor Joist for unit 3803:

Floor joist has been over-notched to allow for electrical line. The notch is in the the middle third of the joist. The joist is located under the kitchen. Additional information is given below.



- D1 – 4"
- D2 – 7"
- Length 1 – 5'
- Length 2 – 5.5'
- Span – 10.5'
- Support #1 – (2) 2x10
- Support #2 – W8x13 Steel beam
- Location – Near foundation wall/ under kitchen.
- Loading -
  - Dead = 15 psf @ 16" oc
  - Live = 40 psf @ 16" oc
- Install CS14 strap centered over the notch along the bottom of the floor joist. Strap shall extend out 15" from the edge of the notch on both sides. Install CS14 strap per manufacturer's specifications.
  - 37" length total
  - Install 26 (.148" x 3") 10 d nails per strap

Sincerely,

Bradley Huxol, PE

