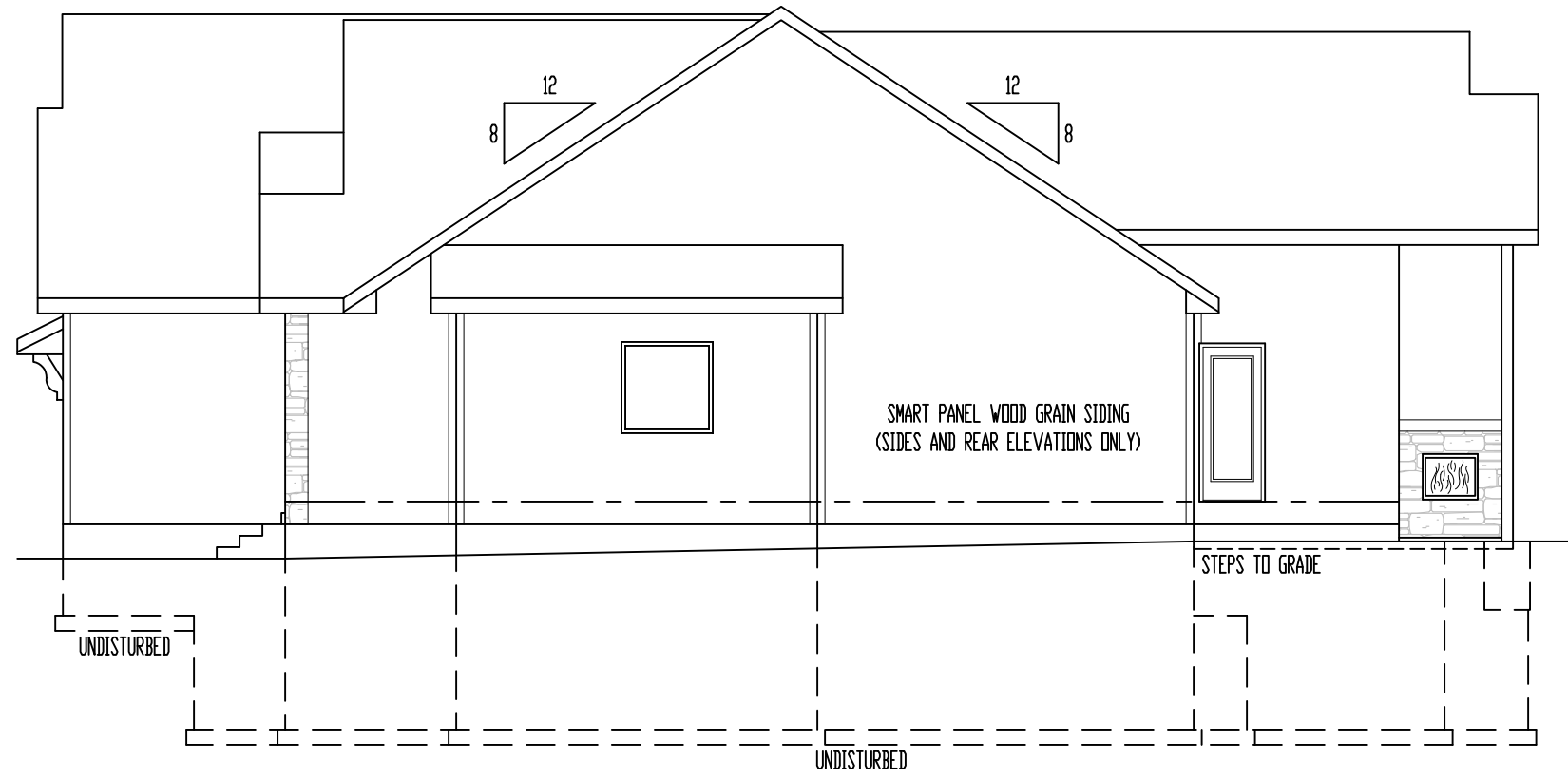
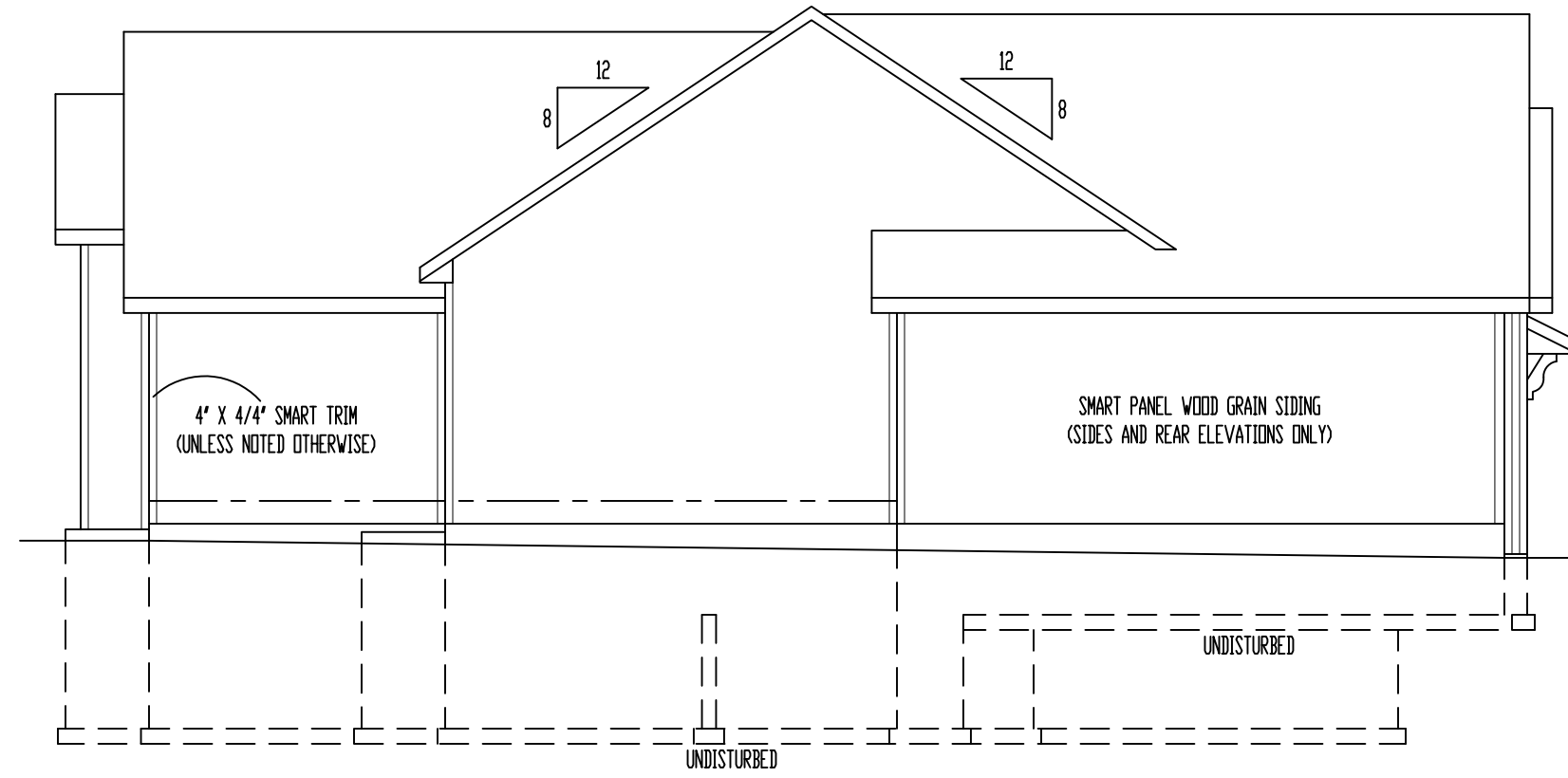


NOTE: GOVERNING CODES  
TAKE PRECEDENCE OVER THESE PLANS.

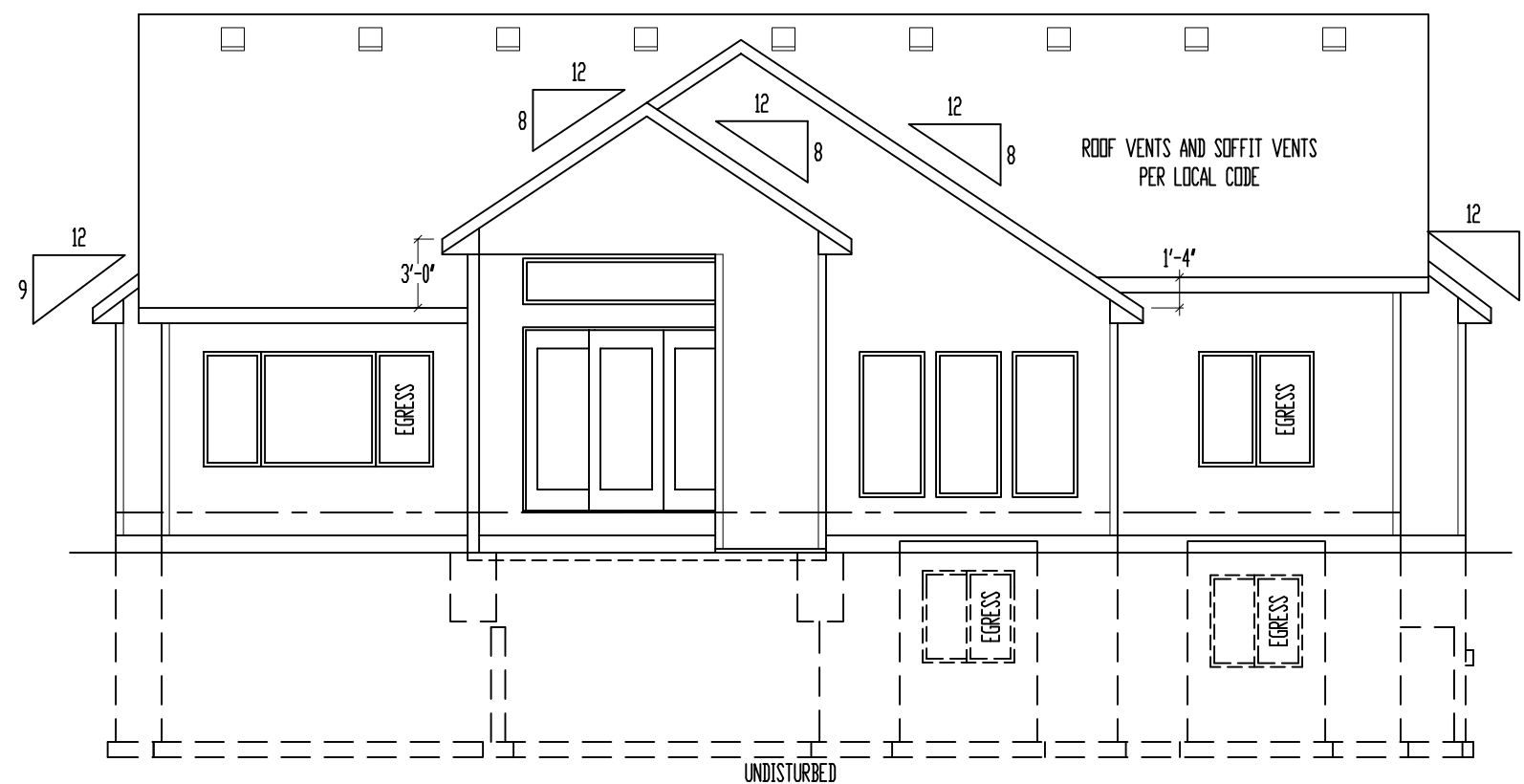


RIGHT ELEVATION  
SCALE: 1/8" = 1'-0"

FRONT ELEVATION  
SCALE: 1/4" = 1'-0"



LEFT ELEVATION  
SCALE: 1/8" = 1'-0"



REAR ELEVATION  
SCALE: 1/8" = 1'-0"

ELEVATIONS:  
SMART PANEL WOOD GRAIN SIDING ON SIDES AND REAR ELEVATIONS  
COMPOSITION ROOF SHINGLES  
LOCATE ROOF AND SOFFIT VENTS PER CODE  
ADJUST FOUNDATION TO GRADE

RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
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"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).

**VIEWPOINT**  
RESIDENTIAL DESIGN LLC

Office: (816) 547-4437 Email: jpreifer@viewpointdesign.net

Drawing Title:  
**The HEATHER  
"Craftsman"**

Site Description:  
**Lot 196, The  
Retreat at Hook  
Farms, 2nd Plat**

Street Address:  
**2750 SW Heartland  
Rd., Lee's Summit,  
Missouri**

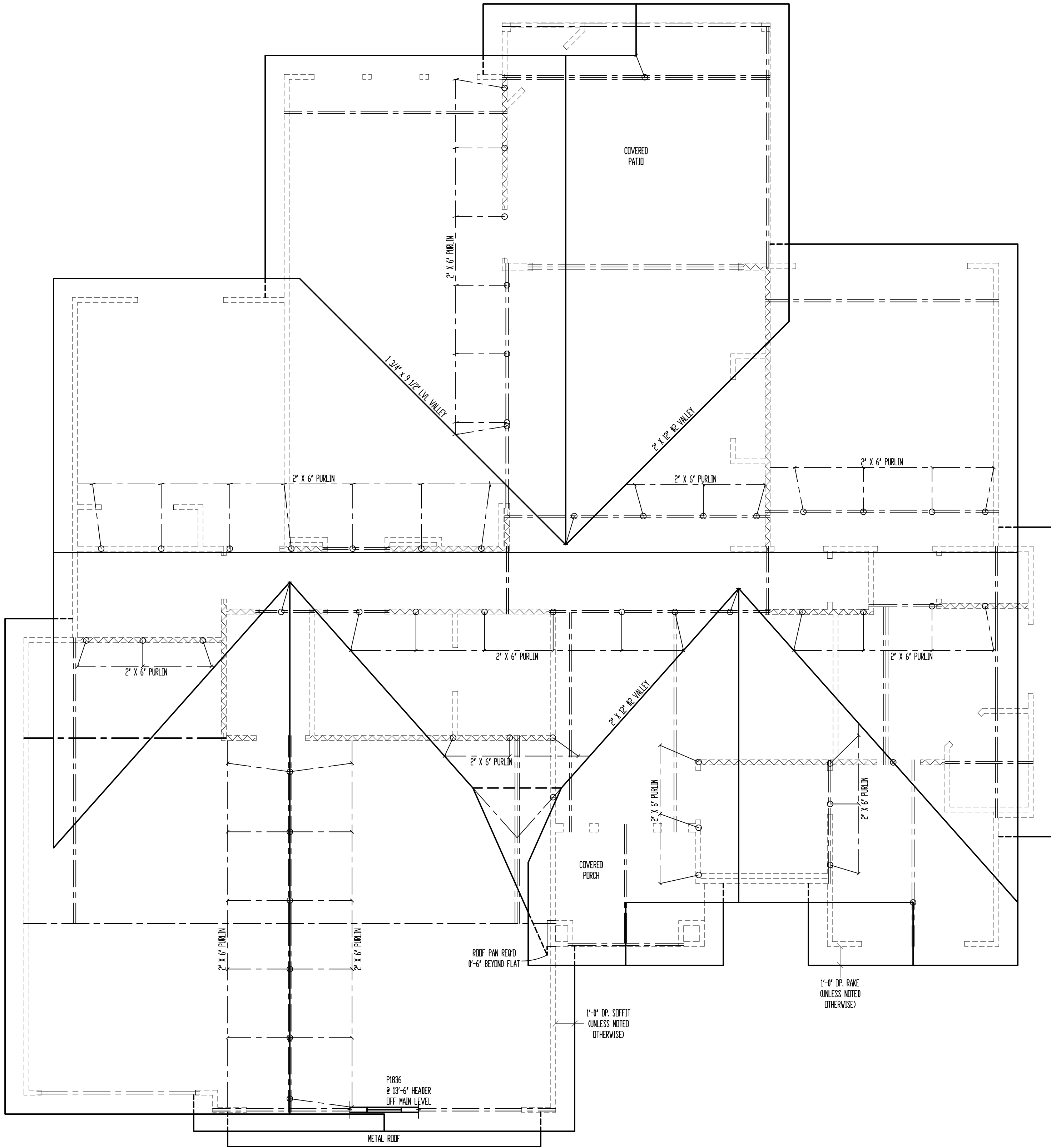
General Contractor:  
**Walker Custom  
Homes, LLC**



Date: 9 - 8 - AD 2025  
Rev. 1: \_\_\_\_\_  
Rev. 2: \_\_\_\_\_  
Rev. 3: \_\_\_\_\_

Sheet Title:  
**ELEVATIONS**

Sheet No.:  
**A-1** of 4



# ROOF

SCALE: 1/4" = 1'-0"

\*ALL RAFTERS SHALL BE 2" X 6' #2 @ 16' O.C., UNLESS NOTED OTHERWISE.

SEE DETAIL 7/S32 FOR ALTERNATE RAFTER BEARING DETAIL WHEN RAFTERS ARE REQUIRED TO BEAR HIGHER THAN THE WALL DOUBLE TOP PLATE.

FLASHING NOTE:  
DRIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD.

ROOF NOTES:  
ROOF DESIGNED FOR LIGHT ROOF COVERING  
30psf TOTAL LOAD (10psf DL, 20psf LL (SL))

\* RAFTERS (HEM-FIR, DOUG-FIR, OR EQUAL):  
SEE SPAN CHARTS BELOW

| CODE MINIMUM | RAFTERS | SPACING   | MAX HORIZONTAL CLEARSPAN |
|--------------|---------|-----------|--------------------------|
| »»           | #2-2x6  | #24' O.C. | 11'-7"                   |
|              | #2-2x6  | #16' O.C. | 14'-2"                   |
|              | #2-2x8  | #24' O.C. | 14'-8"                   |
|              | #2-2x8  | #16' O.C. | 17'-11"                  |
|              | #2-2x10 | #24' O.C. | 17'-10"                  |
|              | #2-2x10 | #16' O.C. | 21'-11"                  |

NOTE: CODE MINIMUM ALLOWS FOR A RAFTER DEFLECTION OF L/180 TOTAL LOAD

| HIGHER PERFORMANCE (RECOMMENDED) | RAFTERS | SPACING   | MAX HORIZONTAL CLEARSPAN |
|----------------------------------|---------|-----------|--------------------------|
| »»                               | #2-2x6  | #24' O.C. | 8'-6"                    |
|                                  | #2-2x6  | #16' O.C. | 9'-9"                    |
|                                  | #2-2x8  | #24' O.C. | 11'-3"                   |
|                                  | #2-2x8  | #16' O.C. | 12'-9"                   |
|                                  | #2-2x10 | #24' O.C. | 14'-3"                   |
|                                  | #2-2x10 | #16' O.C. | 16'-3"                   |

DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD

- \* VAULTS TO BE 2x10 DEPTH
- \* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)
  - #2- 2X8 UP TO 10/12 PITCH
  - #2- 2X10 OVER 10/12 PITCH
- \* ALL HIP & VALLEYS ARE: (UNLESS OTHERWISE NOTED)
  - #2- 2X8 UP TO 10/12 PITCH
  - #2- 2X10 OVER 10/12 PITCH
- \* PURLINS ARE 2X6 MIN.
  - PURLIN STRUTS ARE AT 4'-0" O.C.
  - PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL
  - ALL PURLIN STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0"
  - PURLIN STRUTS SHALL BE CONSTRUCTED IN A "I" CONFIGURATION AND PER THE FOLLOWING CHART:

| PURLIN STRUT         | MAX PURLIN STRUT LENGTH |
|----------------------|-------------------------|
| (2) 2x4              | 8'-0"                   |
| (1) 2x4 & (1) 2x6    | 12'-0"                  |
| (1) 2x6 & (1) 2x8    | 20'-0"                  |
| (2) 2x6 & (1) 2x8    | 30'-0"                  |
| CONSULT ARCH/ENGR. > | 30'-0"                  |

- \* RIDGE BRACES ARE SAME AS PURLIN BRACES- SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)
- \* HIP & VALLEY BRACES ARE SAME AS PURLIN SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)

- \* VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY
- \* SLASH IS TOP END OF BRACE ( / ), DOT IS BOTTOM OF BRACE ( o ).
- \* ~~~~~ DENOTES BEARING WALL
- \* --- DENOTES ROOF BRACE
- \* --- DENOTES PURLIN
- \* --- DENOTES BEARING STRUCTURE

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VIEWPOINT

RESIDENTIAL DESIGN LLC

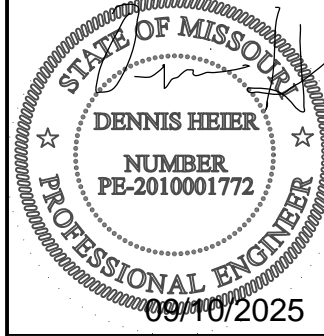
Office: (816) 547-4437 Email: jpfifer@viewpointdesign.net

Drawing Title:  
**The HEATHER "Craftsman"**

Site Description:  
**Lot 196, The Retreat at Hook Farms, 2nd Plat**

Street Address:  
**2750 SW Heartland Rd., Lee's Summit, Missouri**

General Contractor:  
**Walker Custom Homes, LLC**



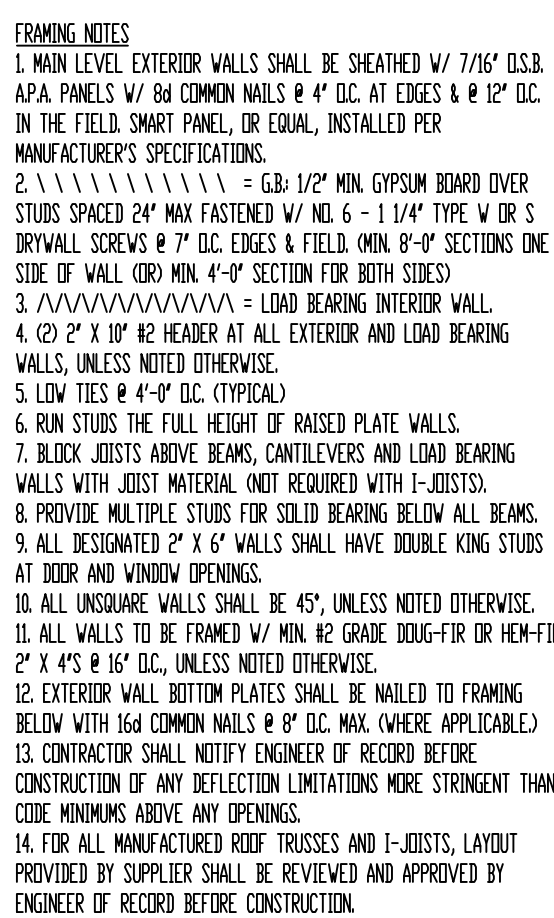
Date: 9 - 8 - AD 2025  
Rev. 1: \_\_\_\_\_  
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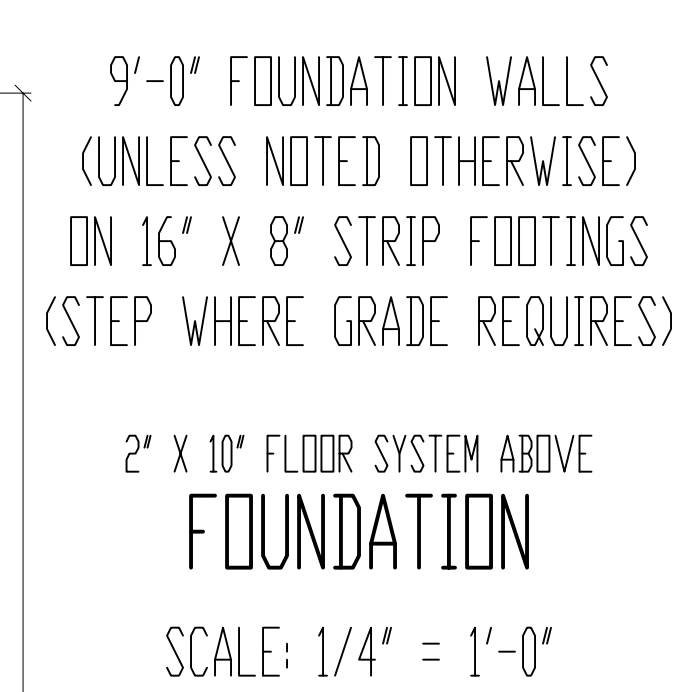
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




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












| STEEL COLUMN & PAD FOOTING SCHEDULE   |  |
|---|--|
|  | 3" SCH. 40 STEEL COLUMN<br>DN 30" x 30" x 10" PAD FOOTING<br>W/ (4) #4 BARS EACH WAY     |
|  | 3" SCH. 40 STEEL COLUMN<br>DN 36" x 36" x 10" PAD FOOTING<br>W/ (4) #4 BARS EACH WAY     |
|  | 3" SCH. 40 STEEL COLUMN<br>DN 42" x 42" x 12" PAD FOOTING<br>W/ (5) #4 BARS EACH WAY     |
|  | 3 1/2" SCH. 40 STEEL COLUMN<br>DN 48" x 48" x 12" PAD FOOTING<br>W/ (6) #4 BARS EACH WAY |
|  | 3 1/2" SCH. 40 STEEL COLUMN<br>DN 54" x 54" x 14" PAD FOOTING<br>W/ (7) #4 BARS EACH WAY |
|  | 3 1/2" SCH. 40 STEEL COLUMN<br>DN 60" x 60" x 14" PAD FOOTING<br>W/ (8) #4 BARS EACH WAY |

| PIER FOOTING SCHEDULE   |                 |
|---|-----------------|
|  | 12" Ø PIER FTG. |
|  | 16" Ø PIER FTG. |
|  | 18" Ø PIER FTG. |
|  | 24" Ø PIER FTG. |

| JOIST SCHEDULE  |   |
|---|---|
|  | 2" x 10" #2 TREATED FLOOR JOIST<br>@ 12" O.C.   |
|  | 2" x 10" #2 FLOOR JOIST<br>@ 16" O.C.           |
|  | 2" x 10" #2 FLOOR JOIST<br>@ 16" O.C. - DOUBLED |

|   |  |  |
|---|--|--|
| <p><b>VIEWPOINT</b><br/>RESIDENTIAL DESIGN LLC</p> <p>Office: (816) 547-4437 Email: <a href="mailto:jpeifer@viewpointdesign.net">jpeifer@viewpointdesign.net</a></p>  | <p>"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).</p> | <p>These plans and specifications are protected under federal copyright laws.<br/>Copyright A.D. 2025 Viewpoint Residential Design, LLC.</p> <p>Care and effort have gone into the creation and design of this plan. However, the designer is not an architect or engineer and construction from these plans should not be undertaken without the assistance of a construction professional, architect or engineer. Because of the impossibility of any on site consultation and supervision, Viewpoint Residential Design, LLC, and designer assume no responsibility for any damages, including structural failures, due to any deficiencies, omissions or error in the design or blueprints. Also, site conditions may vary from those illustrated on this plan. Designer does not warrant the suitability of these plans for use on your specific site. Consult your architect to determine the suitability of these plans for your specific site and application.</p> |
| <p>Drawing Title:<br/><b>The HEATHER</b><br/><b>"Craftsman"</b></p> <p>Site Description:<br/><b>Lot 196, The Retreat at Hook Farms, 2nd Plat</b></p> <p>Street Address:<br/><b>2750 SW Heartland Rd., Lee's Summit, Missouri</b></p> <p>General Contractor:<br/><b>Walker Custom Homes, LLC</b></p> |  |  |
| <p></p> <p>Date: <u>9 - 8 - AD 2025</u><br/>Rev. 1: _____<br/>Rev. 2: _____<br/>Rev. 3: _____</p>  |  |  |
| <p>Sheet Title:<br/><b>FOUNDATION PLAN</b></p>  |  |  |
| <p>Sheet No. _____</p>  |  |  |



| FASTENER SCHEDULE FOR STRUCTURAL MEMBERS  |   |   |
|---|---|---|
| DESCRIPTION OF BUILDING ELEMENTS  | NUMBER AND TYPE OF FASTENER   | SPACING AND LOCATION  |
| ROOF <sup>1</sup>   |   |   |
| BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL                             | 4-8d (2 1/2" x 0.113")  | TOENAIL   |
| CEILING JOISTS TO PLATE, TOE NAIL   | 4-8d (2 1/2" x 0.113")  | PER JOIST, TOENAIL  |
| CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL       | 4-10d (3" x 0.128")   | FACE NAIL   |
| CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT)   | TBLE R802.5.2   | FACE NAIL   |
| COLLAR TIE TO RAFTER, FACE NAIL OR 1 1/2" x 20 GA. RIDGE STRAP TO RAFTER              | 4-10d (3" x 0.128")   | FACE NAIL, EACH RAFTER  |
| RAFTER OR ROOF TRUSS TO PLATE   | 3-16d BOX NAILS (3 1/2" x 0.135") OR 3-10d COMMON NAILS (3" x 0.148")                 | 2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS         |
| ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM | 4-16d (3 1/2" x 0.135") - TOENAIL; 3-16d BOX (3 1/2" x 0.135") - END NAIL             | TOENAIL, END NAIL   |
| WALL  |   |   |
| STUD TO STUD (NOT AT BRACED WALL PANELS)  | 10d (3" x 0.128")   | 16" O.C. FACE NAIL  |
| STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL, CORNERS (AT BRACED WALL PANELS) | 16d (3 1/2" x 0.135")   | 12" O.C. FACE NAIL  |
| BUILT-UP HEADER, TWO PIECES WITH 1/2" SPACER  | 16d (3 1/2" x 0.135")   | 12" O.C. EACH EDGE FACE NAIL  |
| CONTINUOUS HEADER TO STUD   | 4-8d (2 1/2" x 0.131")  | TOENAIL   |
| TOP PLATE TO TOP PLATE  | 10d (3" x 0.128")   | 12" O.C. FACE NAIL  |
| DOUBLE TOP PLATE SPLICE   | 8-16d COMMON (3 1/2" x 0.162")  | FACE NAIL ON EACH SIDE OF END JOINT (MIN. 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT) |
| BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) | 16d COMMON (3 1/2" x 0.162")  | 16" O.C. FACE NAIL  |
| BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANEL)      | 3-16d BOX (3 1/2" x 0.135")   | 3 EACH 16" O.C. FACE NAIL   |
| TOP OR SOLE PLATE TO STUD, END NAIL   | 4-8d BOX (2 1/2" x 0.113") - TOENAIL; 3-16d BOX (3 1/2" x 0.135") - END NAIL          | TOENAIL, END NAIL (SEE LEFT)  |
| TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS   | 3-10d BOX (3" x 0.128")   | FACE NAIL   |
| 1" BRACE TO EACH STUD AND PLATE   | 3-8d BOX (2 1/2" x 0.113")  | FACE NAIL   |
| 1"x6" SHEATHING TO EACH BEARING   | 3-8d BOX (2 1/2" x 0.113")  | FACE NAIL   |
| 1"x8" SHEATHING TO EACH BEARING   | 3-8d BOX (2 1/2" x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 1/2" x 0.113") | FACE NAIL   |
| FLOOR   |   |   |
| JOIST TO SILL, TOP PLATE, OR GIRDER   | 4-8d BOX (2 1/2" x 0.113")  | TOE NAIL  |
| RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)      | 8d BOX (2 1/2" x 0.113")  | 4" O.C. TOE NAIL  |
| 1" x 6" SUBFLOOR OR LESS TO EACH JOIST  | 3-8d BOX (2 1/2" x 0.113")  | FACE NAIL   |
| 2" SUBFLOOR TO JOIST OR GIRDER  | 3-16d BOX (3 1/2" x 0.135")   | BLIND AND FACE NAIL   |
| 2" PLANKS (PLAN & BEAM - FLOOR AND ROOF)  | 3-16d BOX (3 1/2" x 0.135")   | AT EACH BEARING, FACE NAIL  |
| BAND OR RIM JOIST TO JOIST  | 3-16d COMMON (3 1/2" x 0.162")  | END NAIL  |
| BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS                                      | 10d BOX (3" x 0.128")   | 24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES                        |
| LEDGER STRIP SUPPORTING JOISTS OR RAFTERS   | 4-16d BOX (3 1/2" x 0.135")   | AT EACH JOIST OR RAFTER, FACE NAIL  |
| BRIDGING OR BLOCKING TO JOIST   | 2-10d BOX (3" x 0.128")   | EACH END, TOENAIL   |

| FASTENER SCHEDULE FOR STRUCTURAL MEMBERS   |  | INTERMEDIATE SUPPORTS (INCHES) |    |
|--|--|--------------------------------|----|
| DESCRIPTION OF BUILDING MATERIAL   | DESCRIPTION OF FASTENER  | EDGE SPACING (INCHES)          |    |
| WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING <sup>1</sup> |  |                                |    |
| $\frac{3}{4}$ " - $\frac{1}{2}$ "  | 8d COMMON (2" x 0.113") NAIL<br>(SUBFLOOR, WALL) 8d COMMON NAIL<br>(ROOF)  | 6                              | 12 |
| $\frac{3}{8}$ " - 1"   | 8d COMMON NAIL ( $2\frac{1}{2}$ " x 0.131")  | 6                              | 12 |
| $1\frac{1}{8}$ " - $1\frac{1}{4}$ "  | 10d COMMON (3" x 0.148") NAIL OR 8d<br>( $2\frac{1}{2}$ " x 0.131") DEFORMED NAIL  | 6                              | 12 |
| OTHER WALL SHEATHING <sup>1</sup>  |  |                                |    |
| $\frac{3}{4}$ " STRUCTURAL CELLULOSIC<br>FIBERBOARD SHEATHING  | 1 $\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{8}$ "<br>HEAD DIAMETER, OR 1 $\frac{3}{4}$ " LONG 16 GA.<br>STAPLE WITH $\frac{7}{8}$ " OR 1" CROWN | 3                              | 6  |
| $\frac{5}{8}$ " STRUCTURAL CELLULOSIC<br>FIBERBOARD SHEATHING  | 1 $\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{8}$ "<br>HEAD DIAMETER, OR 1 $\frac{3}{4}$ " LONG 16 GA.<br>STAPLE WITH $\frac{7}{8}$ " OR 1" CROWN | 3                              | 6  |
| $\frac{1}{2}$ " GYPSUM SHEATHING   | 1 $\frac{1}{2}$ " GALVANIZED ROOFING NAIL;<br>STAPLE GALVANIZED, $1\frac{1}{4}$ " LONG; $1\frac{1}{4}$ "<br>SCREWS, TYPE W OR S                          | 7                              | 7  |
| $\frac{5}{8}$ " GYPSUM SHEATHING   | 1 $\frac{1}{2}$ " GALVANIZED ROOFING NAIL;<br>STAPLE GALVANIZED, $1\frac{1}{4}$ " LONG; $1\frac{1}{4}$ "<br>SCREWS, TYPE W OR S                          | 7                              | 7  |
| WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING   |  |                                |    |
| $\frac{3}{8}$ " AND LESS   | 6d DEFORMED (2" x 0.120") NAIL OR 8d<br>COMMON ( $2\frac{1}{2}$ " x 0.131") NAIL   | 6                              | 12 |
| $\frac{1}{4}$ " - 1"   | 8d COMMON ( $2\frac{1}{2}$ " x 0.131") NAIL OR 8d<br>DEFORMED ( $2\frac{1}{2}$ " x 0.120") NAIL  | 6                              | 12 |
| $1\frac{1}{8}$ " - $1\frac{1}{4}$ "  | 10d COMMON (3" x 0.148") NAIL OR 8d<br>DEFORMED ( $2\frac{1}{2}$ " x 0.120") NAIL  | 6                              | 12 |

1. IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION LISTED IN THIS TABLE

## FOUNDATION NOTES

1. CONCRETE SHALL BE AIR-ENTRAINED BETWEEN 5%-7% WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS-ON-GRADE, 3000 PSI FOR FOUNDATION WALLS, AND 3500 PSI FOR PORCHES AND GARAGE FLOOR SLABS
2. THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION STANDARDS
3. PROVIDE A MINIMUM 4"-DIAMETER PERFORATED DRAIN PIPE ALONG PERIMETER OF USABLE SPACE AT FOOTING LEVEL OR OTHER EQUIVALENT MATERIALS PER IRC SECTION R405.1. THE PIPE SHALL BE COVERED WITH A MINIMUM OF 6" OF GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT BELOW FOOTING LEVEL OR TERMINATE IN A MINIMUM 20 GALLON SUMP PIT.
4. FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUND ON COMPETENT ORIGINAL SOIL AS DETERMINED AND CONFIRMED BY A LICENSED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUND ON ANY SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES.
5. FOOTINGS SHALL BE A MINIMUM OF 16" WIDE x 8" DEEP AND SHALL HAVE A MINIMUM OF (2) CONTINUOUS GRADE 40 #4 BARS WITH 3" BOTTOM CLEARANCE. BOTTOM OF FOOTING SHALL BE LOCATED A MINIMUM OF 3'-0" BELOW GRADE FOR FROST PROTECTION.
6. CONCRETE PADS SUPPORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 10" DEEP WITH A MINIMUM OF (2) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE. REFERENCE CALLOUTS ON PLANS FOR FOOTING SIZES.
7. FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HORIZONTAL GRADE 40 #4 BARS AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0
8. REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)
9. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB
10. BASEMENT FLOOR SLAB SHALL BE A MINIMUM OF 4" THICK ON A MINIMUM BASE COURSE OF 4" TO 6" OF SAND, GRAVEL OR CRUSHED ROCK. BETWEEN THE BASE COURSE AND FLOOR SLAB SHALL BE PLACED A 6-MIL POLY VAPOR RETARDER WITH MINIMUM OVERLAP OF 6" AT DISCONTINUITIES
11. IF A FLOOR IS TO BE SUPPORTED BY A MINIMUM OF 2'-0" OF GRANULAR FILL OR 8" OF EARTH, BASEMENT SLAB SHALL BE DESIGNED BY A LICENSED ENGINEER
12. SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH  $\frac{1}{2}$ " Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF 7" INTO THE WALL. WINDOW AND DOOR SILL PLATES SHALL BE INSTALLED AT A MAXIMUM OF 2'-0" O.C. (OR AS NOTED ON PLANS) AND SHALL BE INSTALLED WITHIN 6" TO 12" OF EACH END OF EACH SILL PLATE LENGTH, PER IRC SECTION R405.1.6
13. FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET S2.0
14. THE GARAGE FLOOR SHALL SLOPE TOWARD THE VEHICLE DOORS OR TO A TRENCH OR UNTRAPPED DRAIN THAT DISCHARGES TO THE EXTERIOR, ABOVE GRADE

## FRAMING NOTES

15. ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS
16. ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 - 2x10's, UNLESS NOTED OTHERWISE ON PLANS
17. BLOCK OUT BEAMS AND AT CANTILEVERS AND DOOR JAMBS
18. INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A MINIMUM 2" AIR GAP
19. ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED OTHERWISE
20. WHERE JOISTS SPAN PARALLEL TO FOUNDATION, BLOCKING SHALL BE PROVIDED IN THE TWO SPACES MOST ADJACENT TO THE FOUNDATION WALL AT 4'-0" O.C. FOR THE PURPOSE OF TRANSFERRING LATERAL FOUNDATION WALL LOAD TO THE FLOOR DIAPHRAGM. FASTEN JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10d NAILS. IF MECHANICAL DUCTWORK IS INSTALLED IN ONE OF THESE FIRST TWO BAYS, FASTEN 2x4's FLAT AT 4'-0" O.C. BETWEEN JOIST(S) AND/OR SILL AND PROVIDE BLOCKING AS DESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS.
21. ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT MATERIAL
22. JOISTS UNDER BEARING PARTITIONS ON STEEL BEAMS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD.
23. JOISTS FRAMING INTO THE FACE OF A PLANE OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE COLD-FORMED STEEL JOIST HANGERS
24. JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT ENDS BY FULL-DEPTH SOLID BLOCKING MIN. 1½" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
25. ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3
26. ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.
27. ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4'-0" O.C. IN UPPER ½" OF VERTICAL DISTANCE BETWEEN CEILING AND ROOF
28. BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED
29. PER IRC SECTION 501.3, BOTTOM OF ALL FLOOR ASSEMBLIES ABOVE UNFINISHED AREAS SHALL BE PROVIDED WITH A ½" GYPSUM BOARD MEMBRANE OR RESIDENTIAL FIRE SPRINKLER SYSTEM WHEN FLOOR SYSTEM IS CONSTRUCTED OF OTHER THAN DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUIVALENT TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)
30. ENGINEERED LVL'S SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi
31. ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi
32. COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP TOP CAP WITH ALL FOUR TABS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. ½" x 2" BOLTS SHALL THEN BE INSTALLED WITH FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1:92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY A AWS-CERTIFIED INSPECTOR.
33. WHEN MECHANICAL EQUIPMENT IS LOCATED IN AN ENCLOSED ROOM, THERE SHALL BE (2) 14"x12" VENTS LOCATED IN A WALL COMMON WITH ADDITIONAL LIVING AREA. ONE VENT SHALL BE LOCATED SUCH THAT THE BOTTOM OF THE VENT BEGINS 12" FROM THE FLOOR AND THE OTHER VENT SHALL BE LOCATED SUCH THAT THE TOP OF THE VENT BEGINS 12" FROM THE CEILING.
34. ALL ROOF SHEATHING SHALL BE #5 OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD
- GLAZING NOTES**
35. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS: GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 2'-0" ARC OF THE DOOR IN A CLOSED POSITION; AND FOR WHICH THE BOTTOM EDGE IS WITHIN 5'-0" OF THE DOOR WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 5'-0" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPools, GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING NINE SQUARE FEET AND FOR WHICH THE BOTTOM EDGE IS LESS THAN 1'-6" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 3'-0"
36. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

## ATTIC VENTILATION

37. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH  $\frac{1}{8}$ " TO  $\frac{1}{4}$ " OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS ARE LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED - THE REQUIRED AREA MAY BE REDUCED TO 1/300.

## EMERGENCY EGRESS

38. PROVIDE A MINIMUM OF ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPENABLE HEIGHT OF 2'-0" AND A MINIMUM WIDTH OF 1'-9". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 3'-8" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP.
39. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR, INCLUDING BASEMENT (IF APPLICABLE). ALARMS SHALL BE HARDWIRED TOGETHER SO THAT THE ACTIVATION OF ONE SMOKE ALARM WILL ACTIVATE ALL SMOKE ALARMS IN THE DWELLING. PROVIDE CARBON MONOXIDE DETECTORS OUTSIDE EACH SLEEPING AREA.
- MASONRY VENEER**
40. MASONRY VENEER SHALL BE ANCHORED TO THE SUPPORTING WALL STUDS WITH CORROSION-RESISTANT METAL TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1½", WITH NOT LESS THAN ¾" MORTAR OR GROUT COVER TO OUTSIDE FACE.
41. VENEER TIES, IF STRAND WIRE, SHALL NOT BE LESS IN THICKNESS THAN NO. 9 U.S. GAGE WIRE AND SHALL HAVE A HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY ¾" CORRUGATED.
42. EACH TIE SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NOT MORE THAN 32 INCHES ON CENTER HORIZONTALLY AND 24 INCHES ON CENTER VERTICALLY.
43. VENEER TIES AROUND WALL OPENINGS: ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

44. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 1½" SOLID CORE OR HONEY-COMBED STEEL DOOR WITH 20-MINUTE FIRE RATING EQUIPPED WITH A SELF-CLOSING DEVICE
45. VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM F 330-96 PER IRC 2018

| MULTIPLE-PLY WOOD BEAM FASTENING SCHEDULE |   |                                |                                       |                                |  |
|---|---|--------------------------------|---------------------------------------|--------------------------------|--|
| DIMENSIONAL LUMBER BEAM SIZE/TYPE         | FASTENERS   | LVL BEAM SIZE/TYPE             | FASTENERS                             | LVL BEAM SIZE/TYPE             | FASTENERS  |
| (2) 2x                                    | (2) ROWS 10d @ 12" O.C. ONE SIDE  | (2) 1 3/4" UP TO 11 7/8" DEPTH | (2) ROWS 16d @ 12" O.C. ONE SIDE      | (3) 1 3/2" x 14"+ DEPTH        | (3) ROWS 16d @ 12" O.C. BOTH SIDES   |
| (3) 2x                                    | (2) ROWS 10d @ 12" O.C. BOTH SIDES  | (2) 1 3/4" 14"+ DEPTH          | (3) ROWS 16d @ 12" O.C. ONE SIDE      | (4) 1 3/4" UP TO 11 7/8" DEPTH | (2) ROWS 7/8" x 5" SIMPSON SDS OR SDWS SCREWS @ 16" O.C. STAGGERED TOP & BOTTOM BOTH SIDES |
| (4) 2x                                    | (2) ROWS 7/8" x 5" SIMPSON SDS SCREWS @ 16" O.C. STAGGERED TOP & BOTTOM, BOTH SIDES | (3) 1 3/4" UP TO 11 7/8" DEPTH | (2) ROWS OF 16d @ 12" O.C. BOTH SIDES | (4) 1 3/2" x 14"+ DEPTH        | (3) ROWS 7/8" x 5" SIMPSON SDS OR SDWS SCREWS @ 16" O.C. STAGGERED TOP & BOTTOM BOTH SIDES |

## GARAGE NOTES (CONTINUED)

44. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM  $\frac{5}{8}$ " GYP. BOARD APPLIED TO THE GARAGE SIDE OF FRAMING. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE, THE GARAGE CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM  $\frac{5}{8}$ " TYPE X GYP. BOARD. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH  $\frac{5}{8}$ " GYP. BOARD. THE DOOR HEAD SHALL BE 1" MIN. THICK. 50% OF THE DOOR HEAD SHALL BE BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING AND SHALL BE FASTENED WITH  $2\frac{1}{2}$ " x 120" NAILS AT 7" O.C. STAGGERED WITH (7)  $3\frac{1}{2}$ " x 120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x6 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

DESIGN LOADING (PER TABLE R301.5)

| MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (PSF)       |                  |                                  |
|--|------------------|----------------------------------|
| USE  | LIVE LOAD        | DEAD LOAD                        |
| UNINHABITABLE ATTICS WITHOUT STORAGE                 | 10               | 10                               |
| UNINHABITABLE ATTICS WITH LIMITED STORAGE            | 20               | 10                               |
| HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS | 30               | 10                               |
| BALCONIES (EXTERIOR) AND DECKS                       | 40               | 10 <sup>d</sup>                  |
| FIRE ESCAPES   | 40               | 10                               |
| GUARDRAILS AND HANDRAILS <sup>a</sup>                | 200 <sup>c</sup> | -                                |
| GUARDRAIL IN-FILL COMPONENTS <sup>b</sup>            | 50 <sup>c</sup>  | -                                |
| PASSENGER VEHICLE GARAGES                            | 50               | DEPENDENT UPON SLAB CONSTRUCTION |
| ROOMS OTHER THAN SLEEPING ROOM                       | 40               | 10 <sup>d</sup>                  |
| SLEEPING ROOM  | 30               | 10 <sup>d</sup>                  |
| STAIRS   | 40               | 10 <sup>d</sup>                  |

- a. A single concentrated load applied in any direction at any point along the top.
- b. Guard-in-fill components (all except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to one square foot. This load shall not be applied to the rail or handrail.
- c. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the infill components. These loads shall be determined independently of one another, and loads are assumed to occur simultaneously.
- d. An additional dead loading of 10 psf shall be applied where thinset tile floor is to be installed. An additional dead loading of 50 psf shall be applied where mudset tile floor is to be installed.

## INSULATION/EFFICIENCY

1. BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N102.1.1 OR THE 2018 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)
2. CATHEDRAL - VAULTED CEILING FRAMING SHALL BE FRAMED WITH A MINIMUM INSULATION VALUE OF R-38. IF VAULTED RAFTERS DO NOT PROVIDE REQUIRED DEPTH TO ACHIEVE R-38 INSULATION BUILDER SHALL FUR DOWN RAFTERS PER DETAILS PROVIDED ON SHEET S3.1.

| INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (TABLE N1102.1.1) |                            |
|---|----------------------------|
| CLIMATE ZONE  | 4-A                        |
| FENESTRATION U-FACTOR   | 0.35                       |
| SKYLIGHT U-FACTOR   | 0.55                       |
| GLAZED FENESTRATION SHGC  | 0.40                       |
| CEILING R-VALUE   | 49                         |
| WOOD FRAME WALL R-VALUE   | 15                         |
| MASS WALL R-VALUE   | 8 / 13                     |
| FLOOR R-VALUE   | 19                         |
| BASEMENT WALL R-VALUE   | 10-CONTINUOUS OR 13-CAVITY |
| SLAB R-VALUE AND DEPTH  | 10 AT 2'-0"                |
| CRAWL SPACE WALL R-VALUE  | 10-CONTINUOUS OR 13-CAVITY |
| DUCTWORK EXPOSED TO OUTSIDE AIR R-VALUE                                 | 8                          |
| DUCTWORK NOT EXPOSED TO OUTSIDE AIR R-VALUE                             | 6                          |
| CATHEDRAL VAULTED CEILING R-VALUE                                       | 38                         |

## DUCT SEALING

**N1103.2.2 (R403.2.2) SEALING (MANDATORY).** DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF 2018 IRC.

**EXCEPTIONS:**

**EXCEPTIONS:**

1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS.
2. WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A LEAK EFFECT.
3. CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES OF WATER COLUMN PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.

DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING:

1. POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
2. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF AN AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.

| MECHANICAL VENTILATION SYSTEM FAN EFFICACY |                                |                                |                                |
|--|--------------------------------|--------------------------------|--------------------------------|
| FAN LOCATION                               | AIR FLOW RATE<br>MINIMUM (CFM) | MINIMUM EFFICACY<br>(CFM/WATT) | AIR FLOW RATE<br>MAXIMUM (CFM) |
| RANGE HOODS                                | ANY                            | 2.8                            | ANY                            |
| IN-LINE FAN                                | ANY                            | 2.8                            | ANY                            |
| BATHROOM, UTILITY<br>ROOM                  | 10                             | 1.4                            | 90                             |
| BATHROOM, UTILITY<br>ROOM                  | 90                             | 2.8                            | ANY                            |



**VISTA**  
—**STRUCTURAL**—  
ENGINEERING, LLC

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CLIENT: WALKER CUSTOM HOMES, INC.

JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI



| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
|     |      |          |    |
|     |      |          |    |
|     |      |          |    |
|     |      |          |    |
|     |      |          |    |
|     |      |          |    |

DRAWING TITLE

# STRUCTURAL NOTES

|                       |                        |
|-----------------------|------------------------|
| <b>ENGINEER:</b> DMH  | <b>CHECKED BY:</b> DMH |
| <b>JOB NO.</b>        | <b>DRAWN BY:</b> DMH   |
| <b>DATE:</b> 09-10-25 |                        |
| <b>SHEET NUMBER</b>   |                        |

1.0 RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
00/10/2025 4:48:17



| DETERMINE WEIGHT OF HOUSE:         |                  |                  |                         | INPUT | CALCULATED VALUE |
|------------------------------------|------------------|------------------|-------------------------|-------|------------------|
| LOCATION                           |                  | DEAD LOAD (psf)  | AREA (ft <sup>2</sup> ) |       | WEIGHT (lbs.)    |
| ROOF                               |                  | 10               | 3130                    |       | 31300            |
| CEILING                            |                  | 10               | 2798                    |       | 27980            |
| FIRST FLOOR                        |                  | 10               | 2798                    |       | 27980            |
|                                    | WALL LENGTH (ft) | WALL HEIGHT (ft) | WALL UNIT WT. (psf)     |       | WEIGHT (lbs)     |
| FIRST FLOOR EXT. WALL DL           | 246.688          | 10               | 24688.8                 |       |                  |
| FIRST FLOOR INT. PARTITION WALL DL |                  | DEAD LOAD (psf)  | AREA (ft <sup>2</sup> ) |       | WEIGHT (lbs)     |
|                                    |                  | 6                | 2798                    |       | 16788            |

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.  
 $q_{z10} = 0.00256 K_z K_{zt} K_d V^2$  (ASCE7-16 Velocity Pressure)  $q_{z10\_ASD} = 0.6 q_{z10}$  (Design Velocity Pressure for ASD analysis under ASCE7-16 and IRC/IBC 2018)

71613.4  
12.0%  
1.6  
0.128  
6.5  
A

| Sheathing Location                     | Min. Sheathing Schedule   | Fastening Schedule   | Allowable Shear (#/LF) | Code Reference           |
|--|---|--|------------------------|--------------------------|
| Exterior ( <a href="#">Option #1</a> ) | 7/16" APA Rated Plywood/OSB   | 1-1/2" 15ga. Staples w/ 1" penetration @ 6" O.C. Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 18" stud spacing  | 155                    | per IBC, Table 2308.3(f) |
| Exterior ( <a href="#">Option #2</a> ) | 7/16" APA Rated Plywood/OSB   | 1-1/2" 15ga. Staples w/ 1" penetration @ 4" O.C. Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 18" stud spacing  | 230                    | per IBC, Table 2308.3(f) |
| Exterior ( <a href="#">Option #3</a> ) | 7/16" APA Rated Plywood/OSB   | 1-1/2" 15ga. Staples w/ 1" penetration @ 3" O.C. Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 18" stud spacing  | 310                    | per IBC, Table 2308.3(f) |
| Exterior ( <a href="#">Option #4</a> ) | 7/16" APA Rated Plywood/OSB or shipap panel sheathing, or 3/8" shipap panel sheathing with tighter nail spacing                                     | 8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shipap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shipap panel sheathing | 220                    | AWC SDPWS Table 4.3A     |
| Exterior ( <a href="#">Option #5</a> ) | 7/16" APA Rated Plywood/OSB or shipap panel sheathing, or 3/8" shipap panel sheathing with tighter nail spacing                                     | 8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shipap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shipap panel sheathing | 320                    | AWC SDPWS Table 4.3A     |
| Exterior ( <a href="#">Option #6</a> ) | 7/16" APA Rated Plywood/OSB or shipap panel sheathing, or 3/8" shipap panel sheathing with tighter nail spacing and double studs at each panel edge | 8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. Field  | 410                    | AWC SDPWS Table 4.3A     |
| Interior                               | 1/2" Gypsum Board   | No. 6- 1 1/4" Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field   | 60                     | per IBC, Table 2306.4.4  |
| Interior                               | 16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)   | (3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S-3)  | 325                    |                          |

|                           |       |
|---------------------------|-------|
| WIDTH OF 1ST STORY (FT.)  | 64.50 |
| DEPTH OF 1ST STORY (FT.)  | 58.83 |
| BACK WALL OF GARAGE (FT.) | 0     |
| GAR. WALL: 1=F-B, 2=S-S   | 2     |

|                         | ADDITIONAL RESISTANCE REQUIRED |      |
|-------------------------|--------------------------------|------|
|                         | SEISMIC                        | WIND |
| 1ST FLOOR FRONT-TO-BACK | 0                              | 0    |
| 1ST FLOOR SIDE-TO-SIDE  | 0                              | 2859 |
| BASEMENT FRONT-TO-BACK  | 0                              | 0    |
| BASEMENT SIDE-TO-SIDE   | 0                              | 0    |

| Anchor Bolt Spacing (in.) |       |
|---------------------------|-------|
| diameter (in.)            | 0.5   |
| Shear value (per NDS)     | 944   |
| Spacing F-B (inches)      | 125.8 |
| spacing S-S (inches)      | 144.7 |

| 16d Nail Spacing req'd at bottom plate (in.) |    |
|--|----|
| 1st Floor F-B                                | 19 |
| 1st Floor S-S                                | 22 |

1ST FLOOR FRONT-TO-BACK  
1ST FLOOR SIDE-TO-SIDE  
BASEMENT FRONT-TO-BACK  
BASEMENT SIDE-TO-SIDE

\*\*NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE),  
 2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING  
 PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER

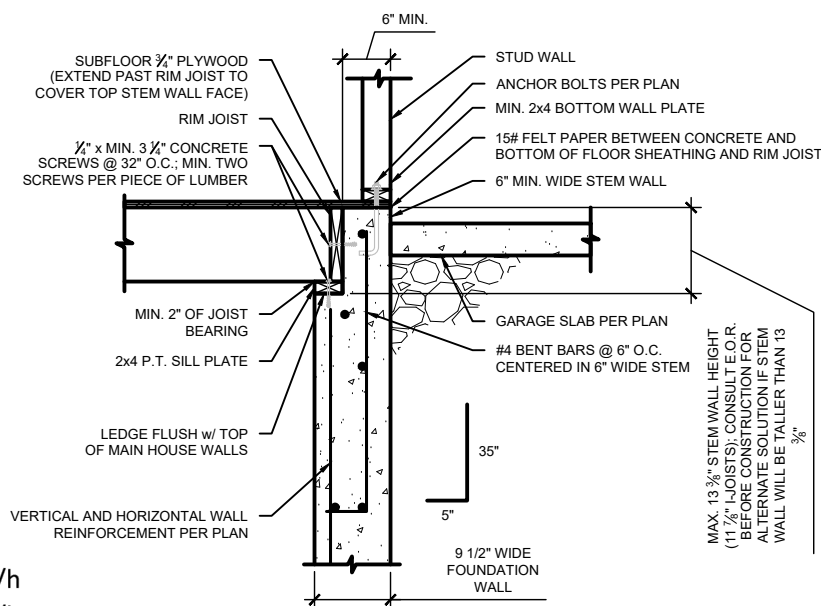
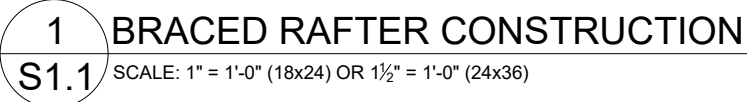
|                         |  |       |           |
|-------------------------|--|-------|-----------|
| ALONG PERIMETER         | TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS) | -5.1  | UPLIFT OK |
| **INSIDE EXTERIOR WALLS | RESISTANCE DUE TO DEAD WEIGHT & (3) 10d TOENAILS     | 251.6 |           |

**NOTE FOR CONSTRUCTION:**  
 THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

**NOTE FOR CONSTRUCTION:**  
THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

**NOTE FOR DESIGN:**  
ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2018 IBC SECTION 2306 AND AWC SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

**NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION**



## Combustion Air Calculation

Per 2018 IRC Section G2407.5

|              |              |
|--------------|--------------|
| Appliance #1 | Furnace      |
| Appliance #2 |              |
| Appliance #3 | Water Heater |

Total BTU/hr

Area of Combined Space (floor where appliances are located)  
Ceiling Height in Usable Space

Note: Per 2018 IRC Section G2407.5.3.2, The volumes of spaces in different stories shall be considered as communicating spaces where such spaces are connected by one or more openings in doors or floors having a total minimum free area of 2 square inches per 1,000 BTU/h of total input rating of all appliances

Is floor where appliances are located open to adjacent level?  
If Yes, what is the area of open space adjacent to appliance area?

Per 2018 IRC Section G2407.5.1 (Standard Method), the minimum required volume shall be 50 cubic feet per 1,000 BTU/hr  
(Total BTU/hr / 1,000 BTU/hr x 50 ft<sup>3</sup> )

Required air space in combined areas:

Required combined area:

Area of Combined Space > Required combined area?

Per Section 62407.5.3.1, each opening shall have a minimum free area of 1 square inch per 1,000 BTU/hr of the total input rating of all appliances in the space, but not less than 100 square inches. One opening shall commence within 12 inches of the top and one opening shall commence within 12 inches of the bottom of the enclosure. The minimum dimension of air openings shall be not less than 3 inches.

Minimum required opening area: 150 in<sup>2</sup>  
 Minimum grill size: 14 x 11 (inches)  
 Note: two grills required - one within 12" of floor, one within 12" of clg.

CLIENT: WALKER CUSTOM HOMES, INC.

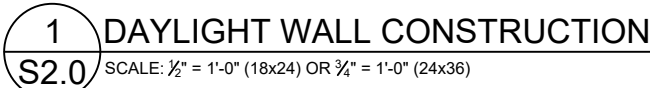
JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI

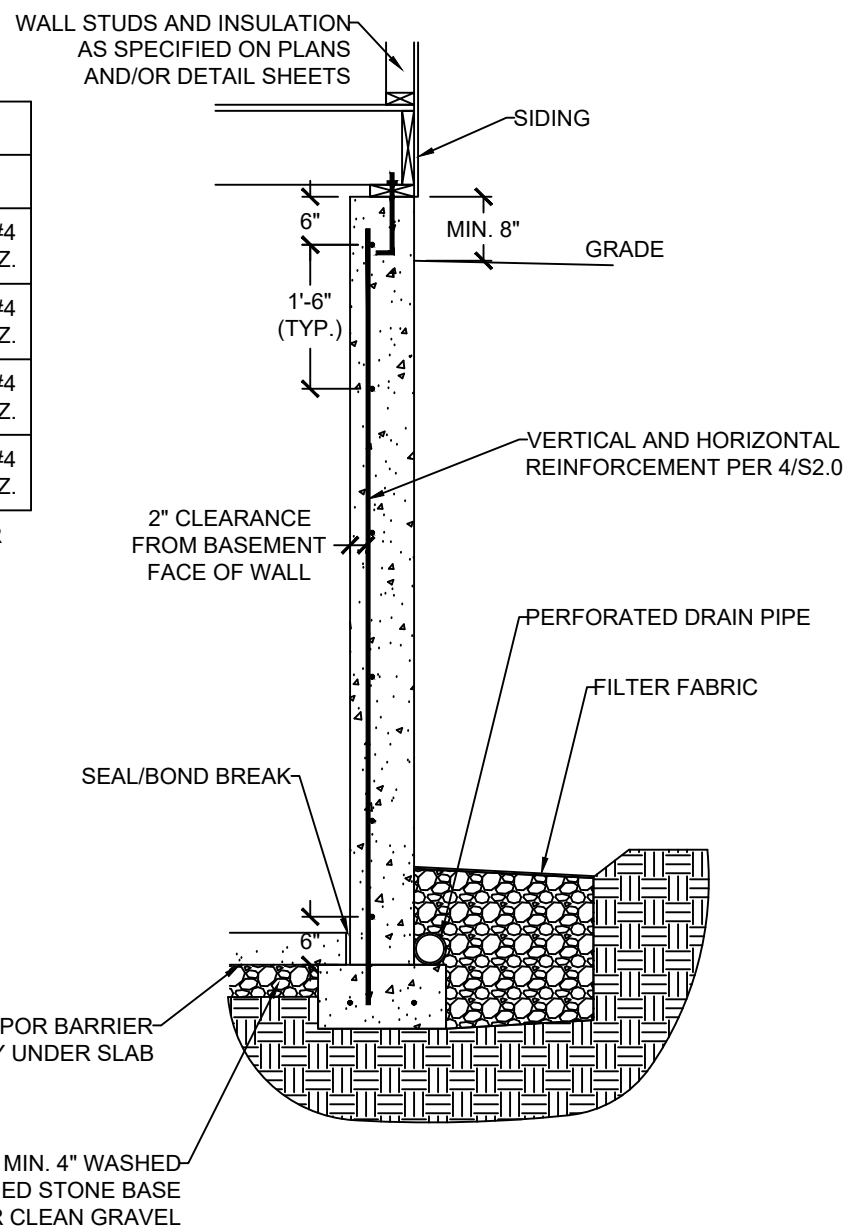
STATE OF MISSOURI  
DENNIS HEIER  
NUMBER  
PE-2010091772  
PROFESSIONAL ENGINEER  
9-10-2025

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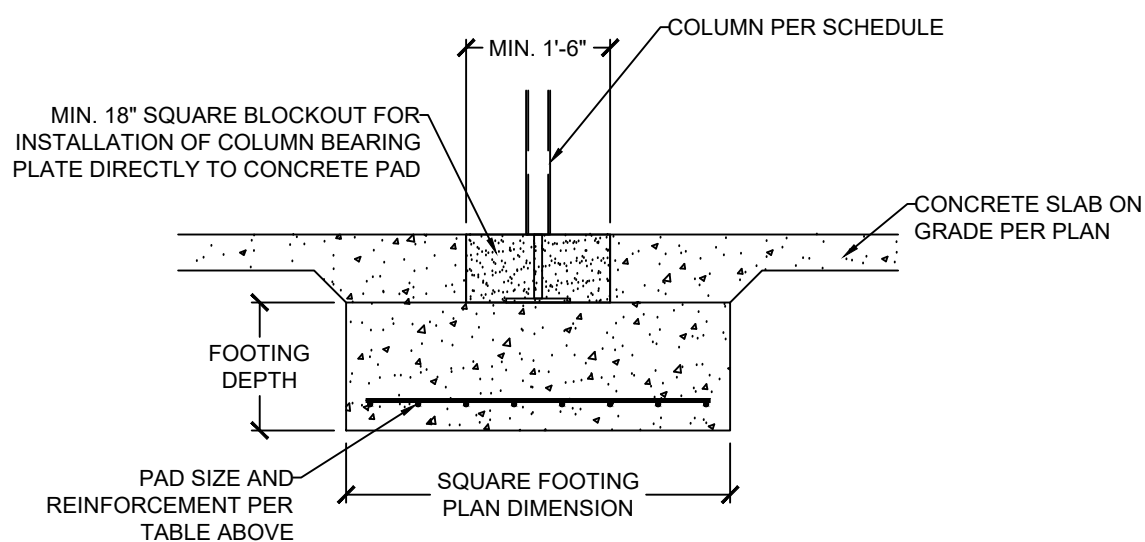




\* LESS THAN OR EQUAL TO HEIGHT LISTED. IF WALL WILL BE TALLER THAN THIS HEIGHT, GO TO NEXT TALLEST WALL HEIGHT

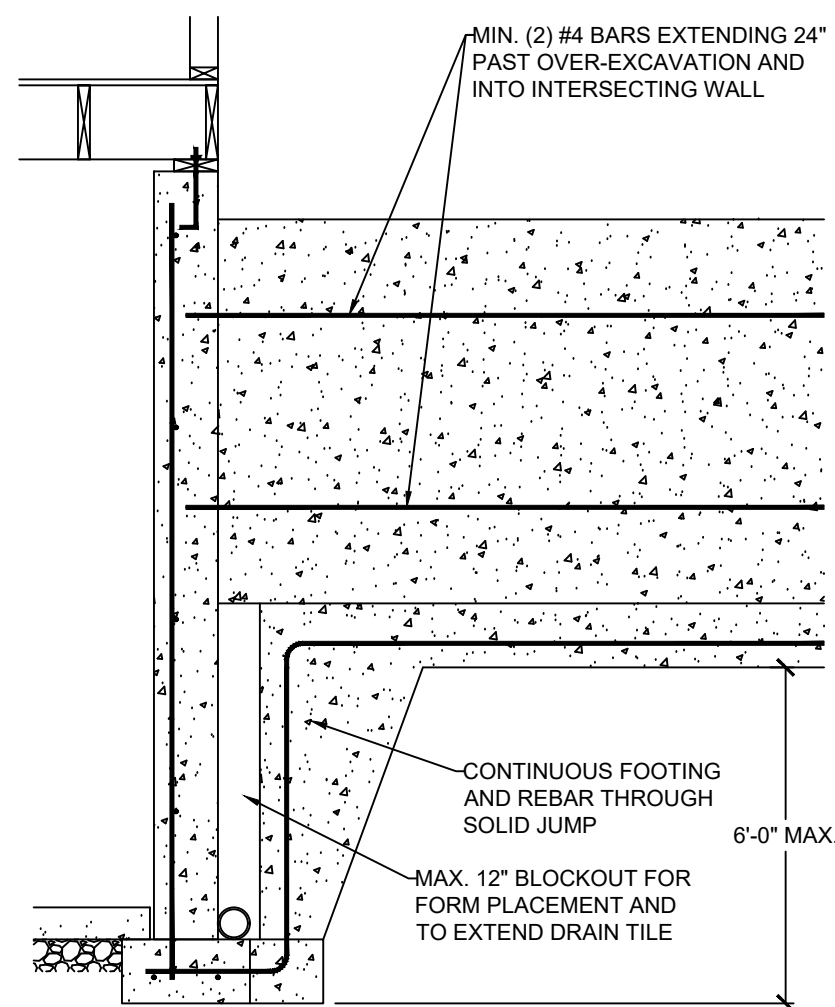


3 CONCRETE WALL SECTION  
S2.0 SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)

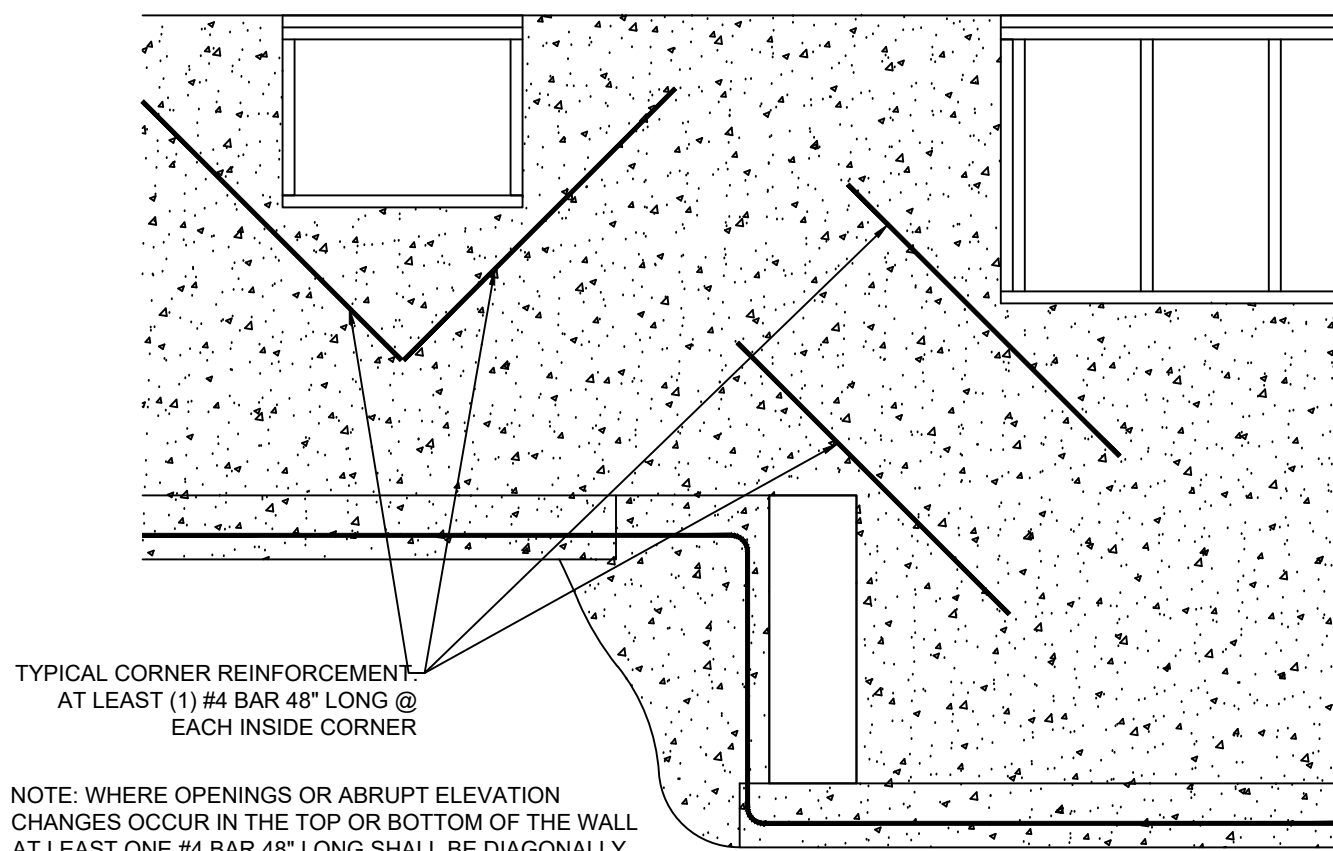


## 2 COLUMN AND BEARING PAD SCHEDULE

SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)



**5 SOLID JUMP**  
**S2.0** SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)



**6 REINFORCEMENT AT OPENING CORNERS**  
**S2.0 AND STEP CORNERS @ INSIDE CORNERS**  
 SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)

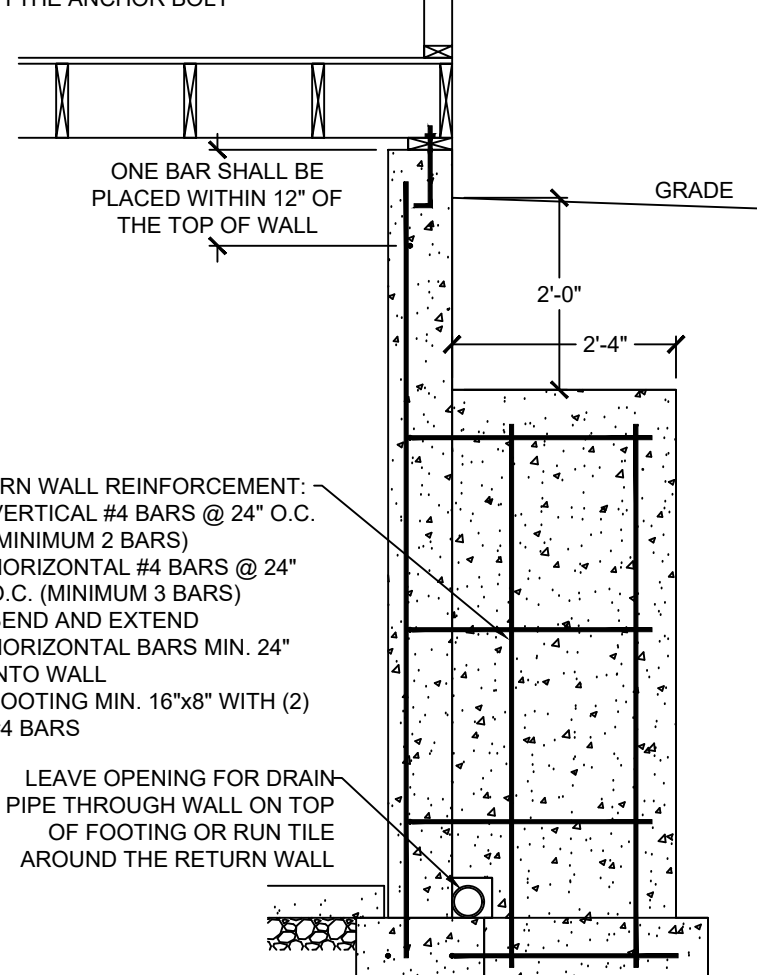
| VERTICAL REINFORCEMENT SPACING                       |               |      |      |                |      |      |
|--|---------------|------|------|----------------|------|------|
| CONCRETE STRENGTH/GRADE<br>REINFORCEMENT (#4 BARS)   | 8" THICK WALL |      |      | 10" THICK WALL |      |      |
|  | 8'            | 9'   | 10'  | 8'             | 9'   | 10'  |
| 3,000 PSI/ GRADE 40                                  | 24            | 24   | 16   | 24             | 24   | 18   |
| 3,500 PSI/ GRADE 40                                  | 24            | 24   | 16   | 24             | 24   | 18   |
| 3,000 PSI/ GRADE 60                                  | 24            | 24   | 16   | 24             | 24   | 18   |
| 3,500 PSI/ GRADE 60                                  | 24            | 24   | 16   | 24             | 24   | 18   |
| HORIZONTAL REINFORCEMENT - MINIMUM GRADE 40 STEEL    |               |      |      |                |      |      |
| ONE BAR 12" FROM TOP OF WALL;<br>MAX. SPACING 24" OC | 6-#4          | 7-#4 | 7-#4 | 6-#4           | 7-#4 | 7-#4 |

FOOTNOTES:

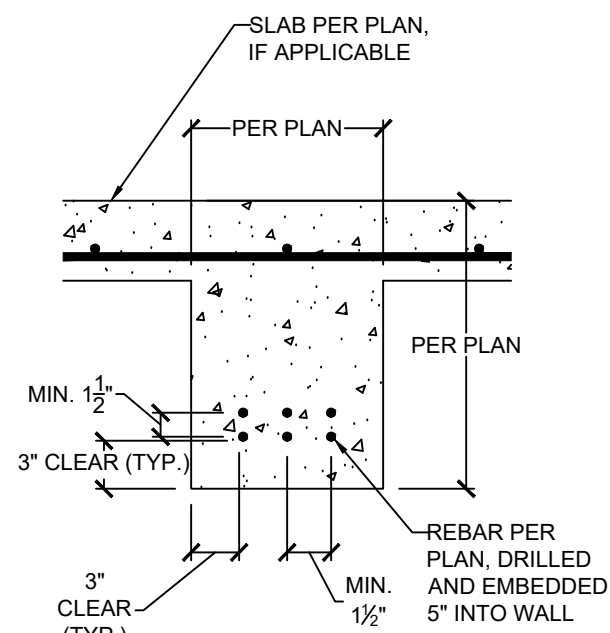
- 1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB
- 2) VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:
  - A) 8" WALL - MINIMUM 5" FROM THE OUTSIDE FACE
  - B) 10" WALL - MINIMUM 6 1/2" FROM THE OUTSIDE FACE
  - C) EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL
- 3) REINFORCEMENT CLEARANCES:
  - A) CONCRETE EXPOSED TO EARTH - MINIMUM 1 1/2"
  - B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) - 3/4"
  - C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY SLABS) - 1 1/2"
- 4) HORIZONTAL REINFORCEMENT:
  - A) ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL
  - B) OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC
  - C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE INSIDE)
  - D) SUPPLEMENTAL REINFORCEMENT AT CORNERS - PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.
- 5) REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.
- 6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 3 1/2". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 12" OC TO WITHIN 6" OF THE TOP OF THE WALL.
- 7) STRAIGHT WALLS MORE THAN 5' TALL AND MORE THAN 16 FEET LONG SHALL BE PROVIDED WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS
- 8) WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

# 4 FOUNDATION WALL REINFORCEMENT TABLE

NOTE: WHERE FLOOR JOIST RUNS PARALLEL  
TO FDN WALL, SOLID BLOCK OUTSIDE 3  
JOIST SPACES @ 36" OC ALIGNING BLOCKING  
WITH THE ANCHOR BOLT



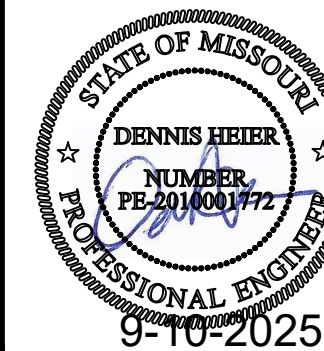
7 RETURN WALL DETAIL  
S2 0 SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)



8 CONCRETE GRADE BEAM  
S2.0 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



CLIENT: WALKER CUSTOM HOMES, INC.  
JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT  
LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI



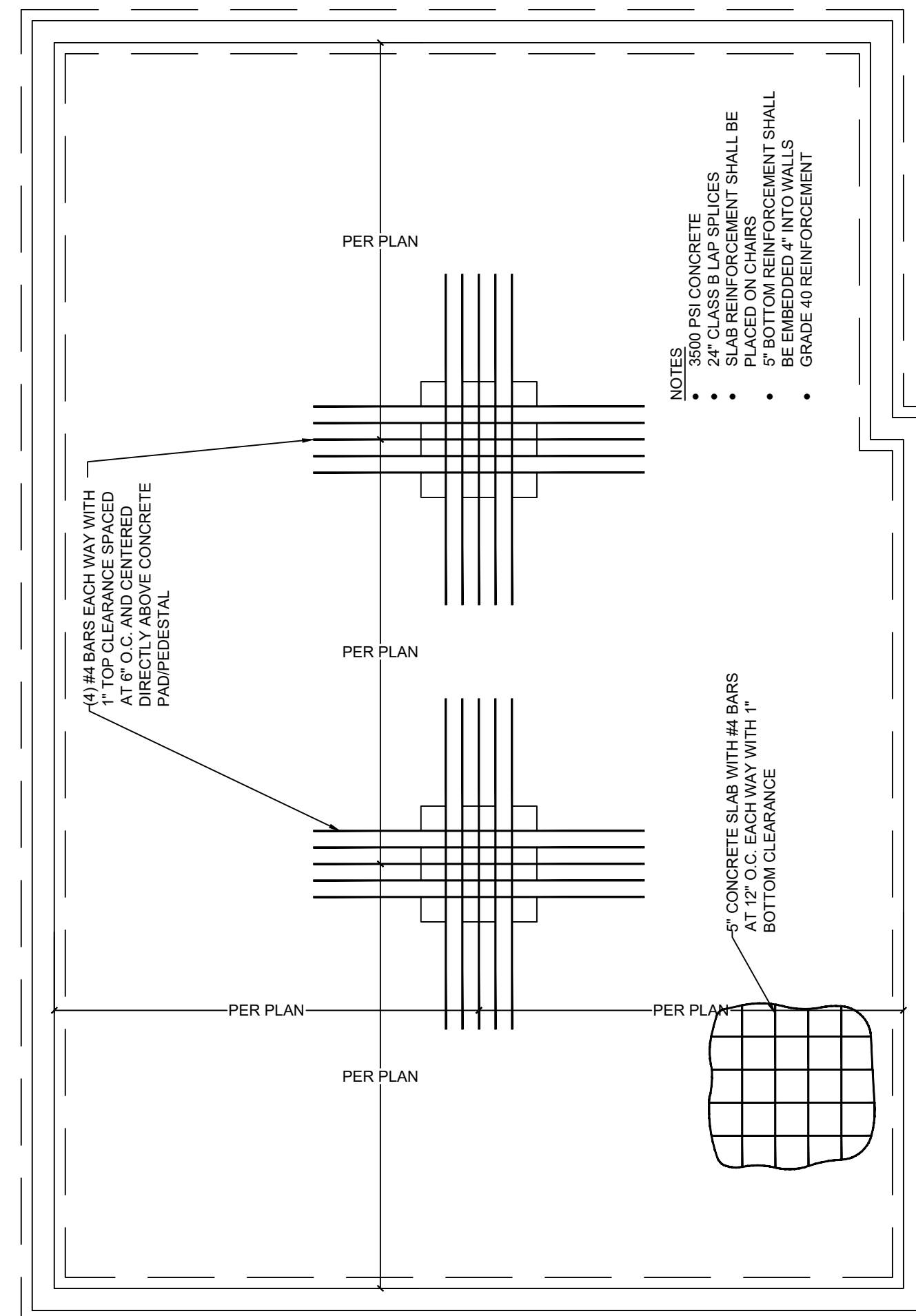
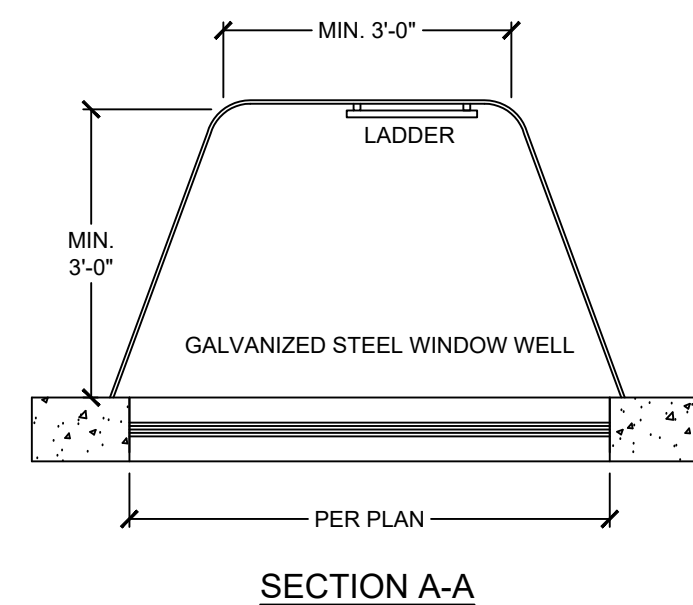
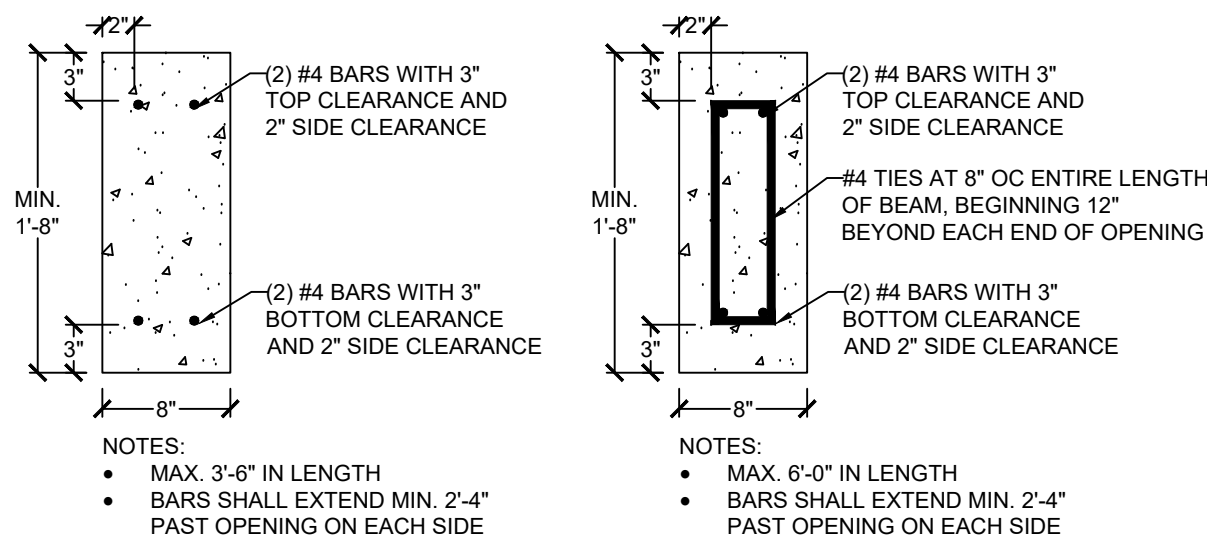
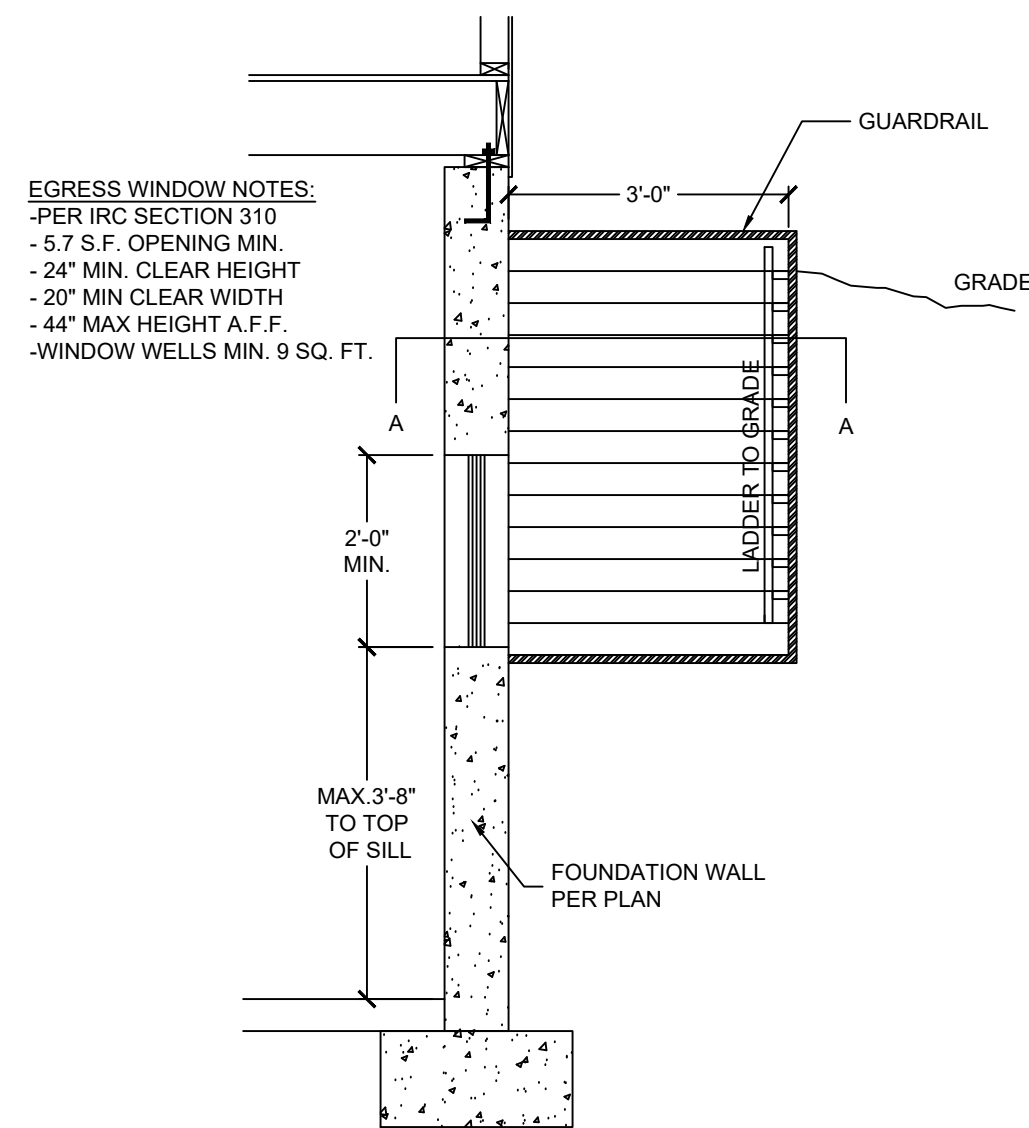
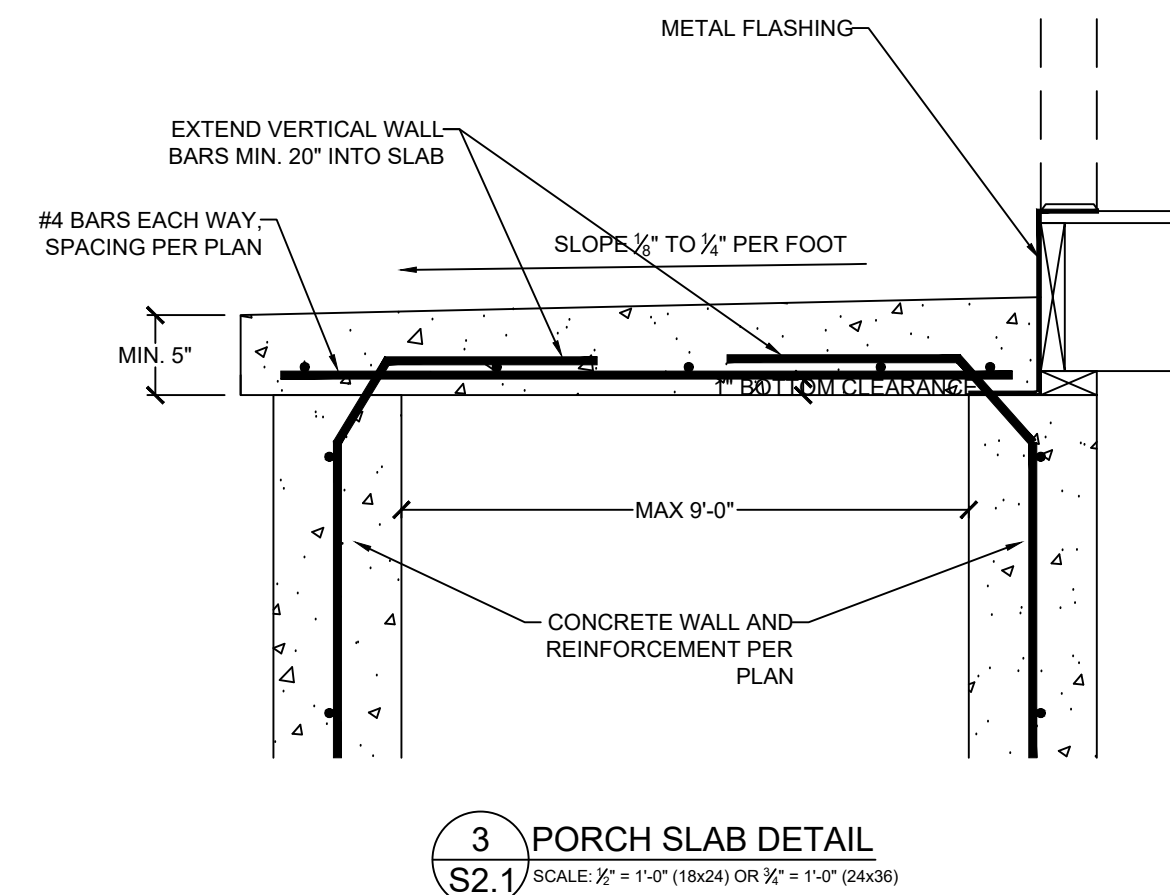
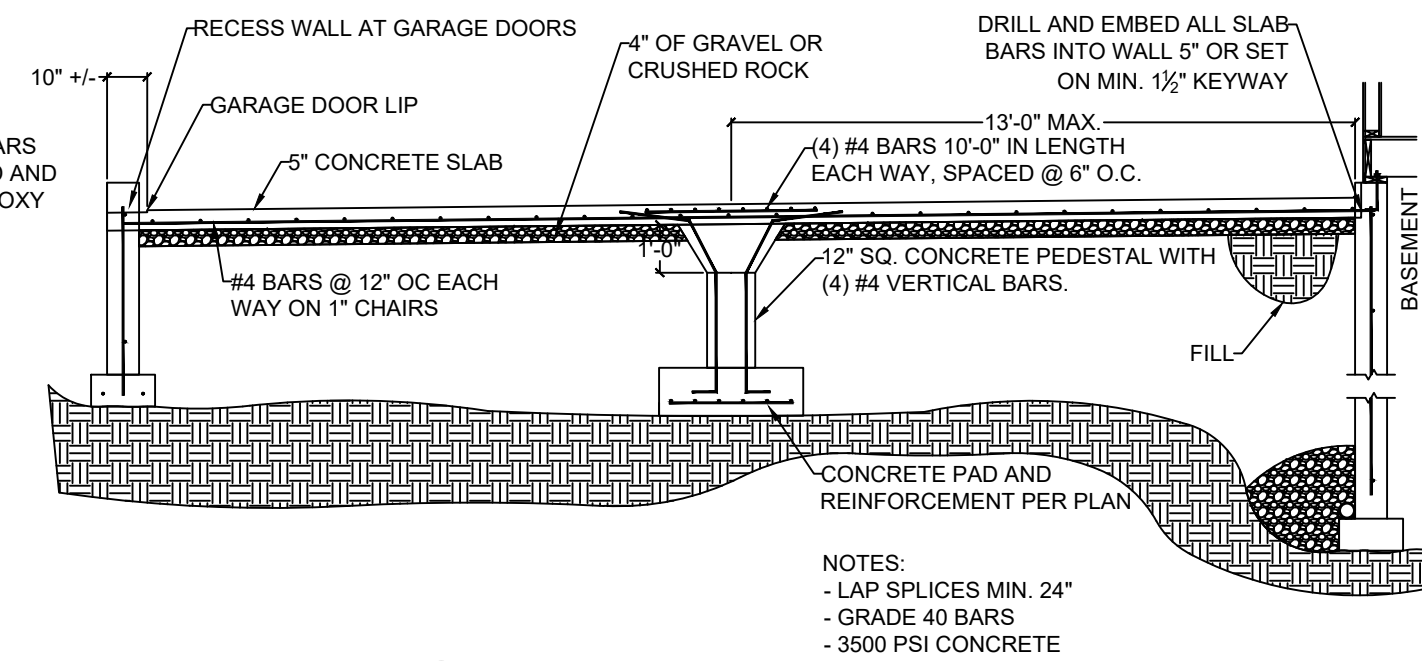
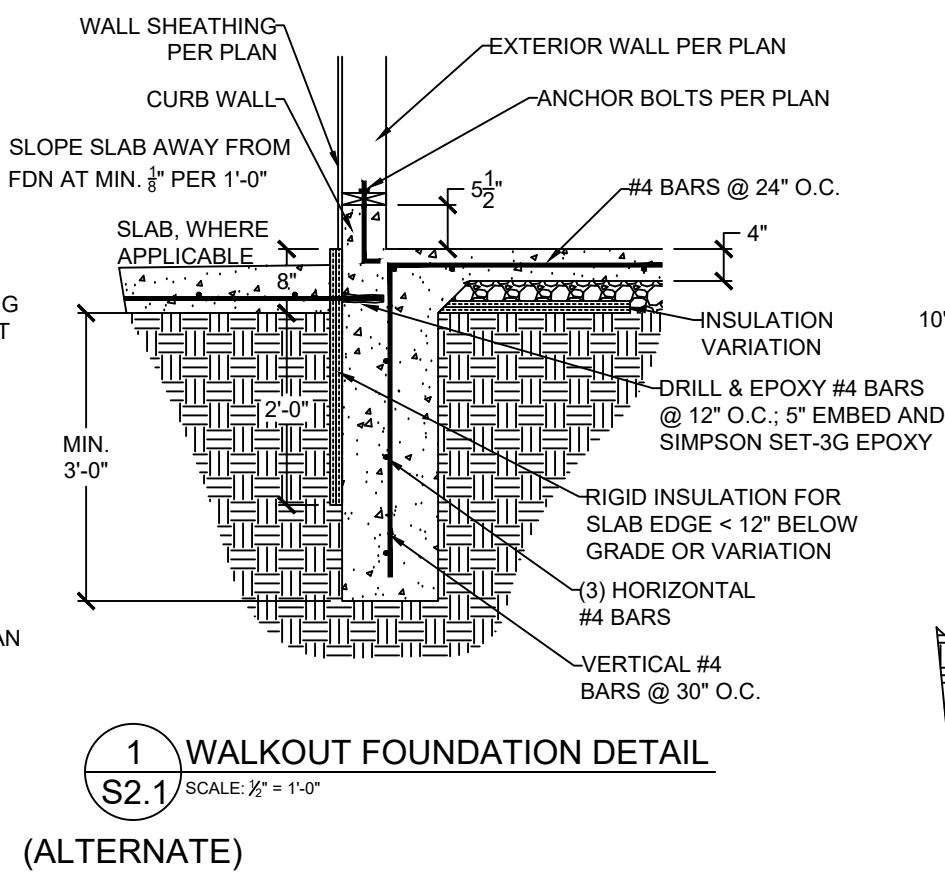
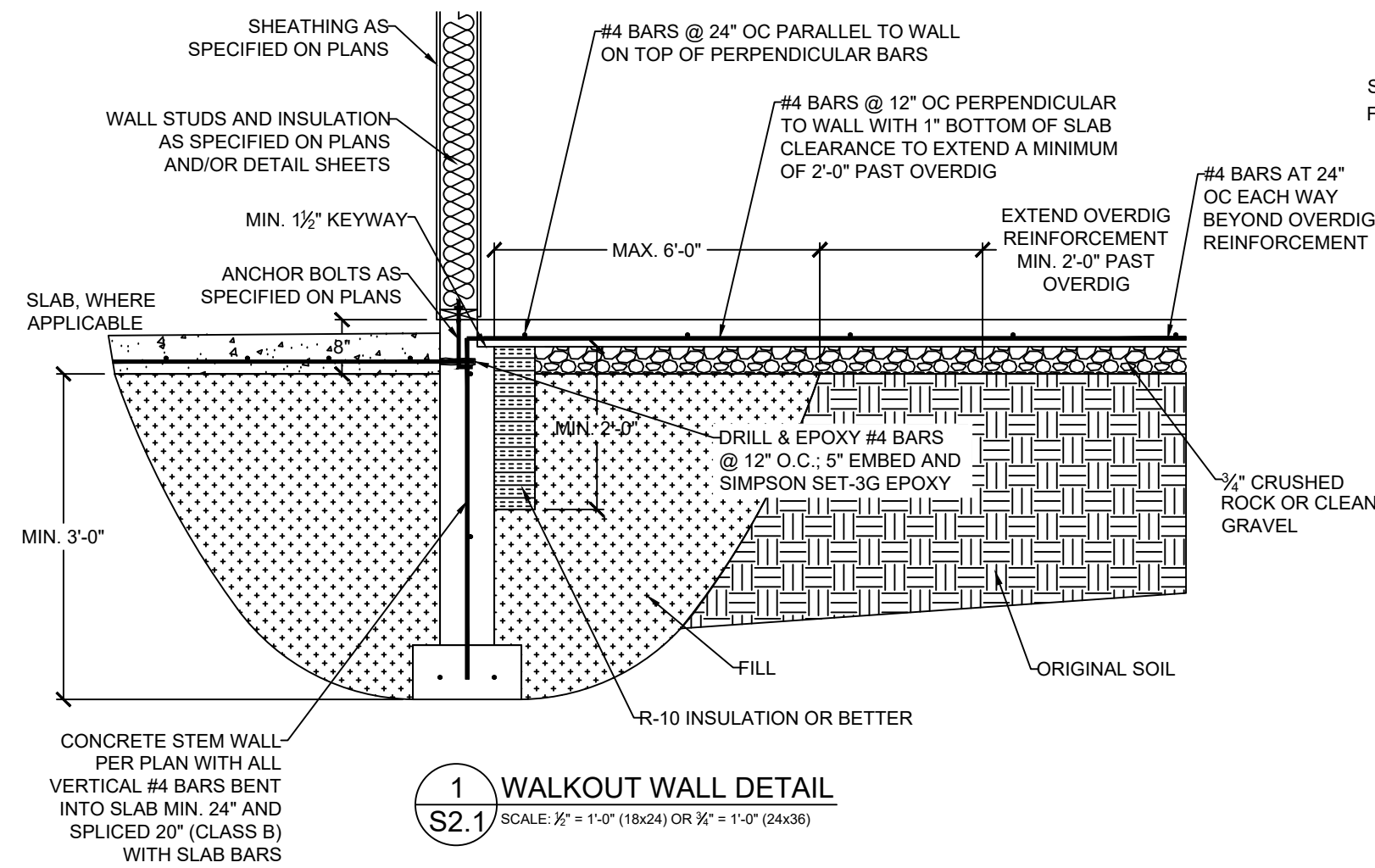
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DRAWING TITLE

# FOUNDATION DETAILS

|                |                 |
|----------------|-----------------|
| ENGINEER: DMH  | CHECKED BY: DMH |
| JOB NO.        | DRAWN BY: DMH   |
| DATE: 09-10-25 |                 |
| SHEET NUMBER   |                 |

2025 RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/19/2025 4:48:17



**VISTA**  
—**STRUCTURAL**—  
**ENGINEERING, LLC**

11575 SW PACIFIC HWY # 2262 \* TIGARD, OREGON 97223  
OFFICE: 971.233.6099 \* MOBILE: 971.233.6099 \*  
EMAIL: DENNIS@VISTASTRUCTURAL.COM

CLIENT: WALKER CUSTOM HOMES, INC.

JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
DENNIS HEIER  
★  
NUMBER  
PE-2010001772  
★  
PROFESSIONAL ENGINEER  
9-10-2025

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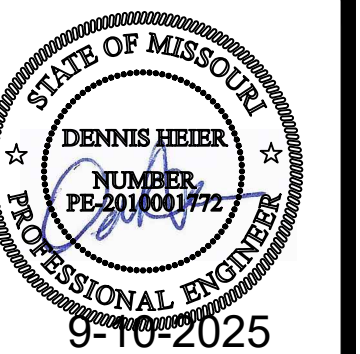
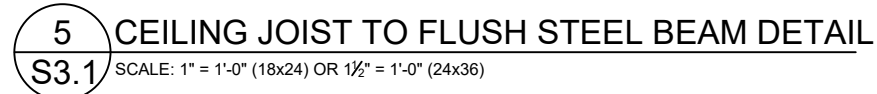
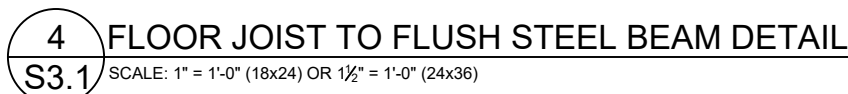
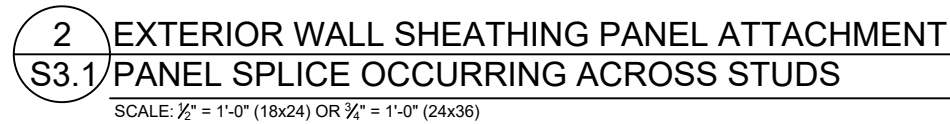
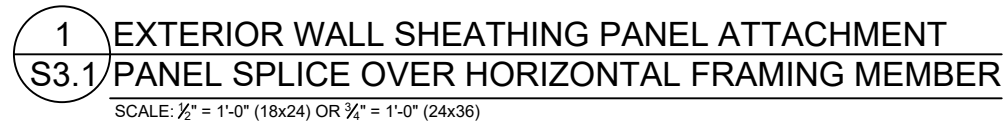
S21

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS FOR DEVELOPMENT SERVICE LEE'S SUMMIT, MISSISSAUGA  
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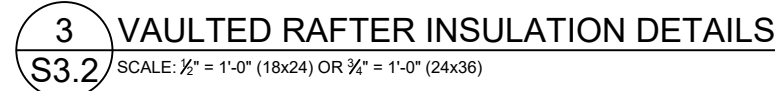
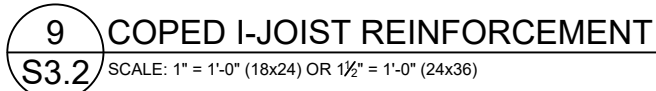
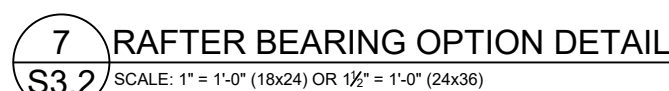
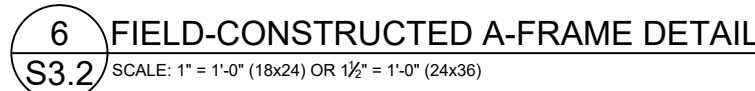
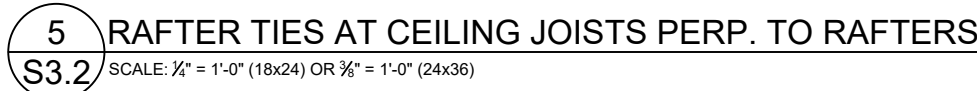
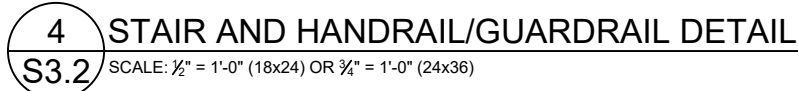
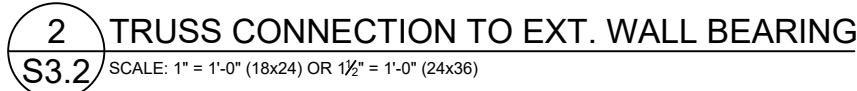
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RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
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RELEASE FOR CONSTRUCTION  
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LEE'S SUMMIT, MISSOURI  
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NOTES:

- 1) DR = DESIGN REQUIRED
- 2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED
- 3) THIS TABLE DOES NOT APPLY FOR STUDS SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

CLIENT: WALKER CUSTOM HOMES, INC.

JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI



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DRAWING TITLE

# FRAMING DETAILS

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| ENGINEER: DMH  | CHECKED BY: DMH |
| JOB NO.        | DRAWN BY: DMH   |
| DATE: 09-10-25 |                 |
| SHEET NUMBER   |                 |

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|                  |   |
|------------------|---|
| DECK JOIST SPAN  | ½" Ø GALV. LAG OR ¾" Ø LEDGER-LOK SPACING |
| 10'-0" OR LESS   | 16" OC                                    |
| 10'-0" - 13'-11" | 12" OC OR @ 16" OC DOUBLED EVERY OTHER    |
| 14'-0" - 18'-0"  | 8" OC OR @ 16" OC DOUBLED                 |

**1 LEDGER ATTACHMENT**  
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



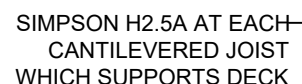
5 LET-IN (COVERED) DECK BEAM CONNECTION  
S33 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



10 BEAM W/ DISCONTINUOUS POST ABOVE & BELOW  
S3 3 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



## 2 CANTILEVER WITH DECK ATTACHMENT

SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



6 GUARDRAIL CONNECTION  
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

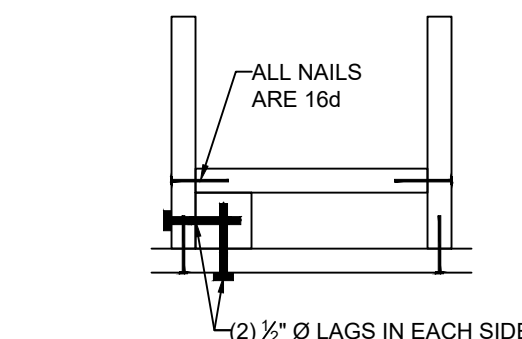


## 8 GUARDRAIL DETAIL

SCALE:  $\frac{1}{2}" = 1'-0"$  (18x24) OR  $\frac{3}{4}" = 1'-0"$  (24x36)

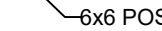


SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



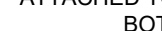
## 4 REINF. POST CONNECTIONS

SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



## 7 ALTERNATE COVERED DECK/PORCH INTERSECTION S3.3 CORNER BEAM CONNECTION

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



9 STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH)

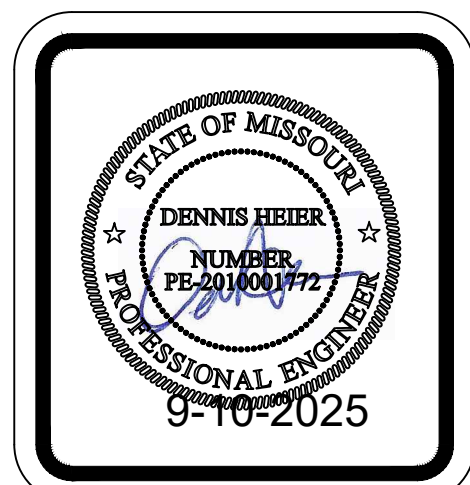
SCALE:  $\frac{1}{8}" = 1'-0"$  (18x24) OR  $\frac{3}{16}" = 1'-0"$  (24x36)



CLIENT: WALKER CUSTOM HOMES, INC.

JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI



| NO. | DATE | REVISION | BY |
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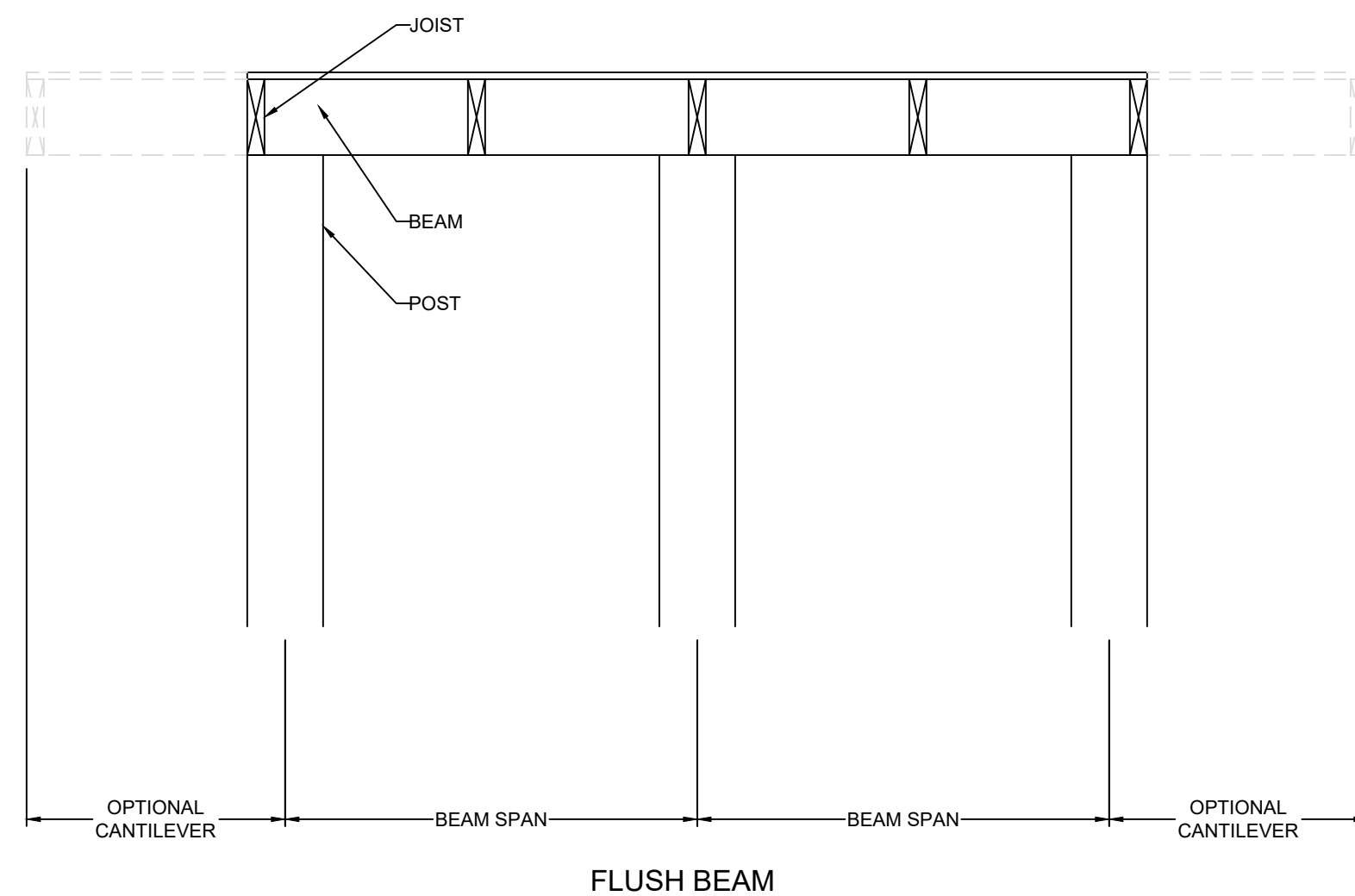
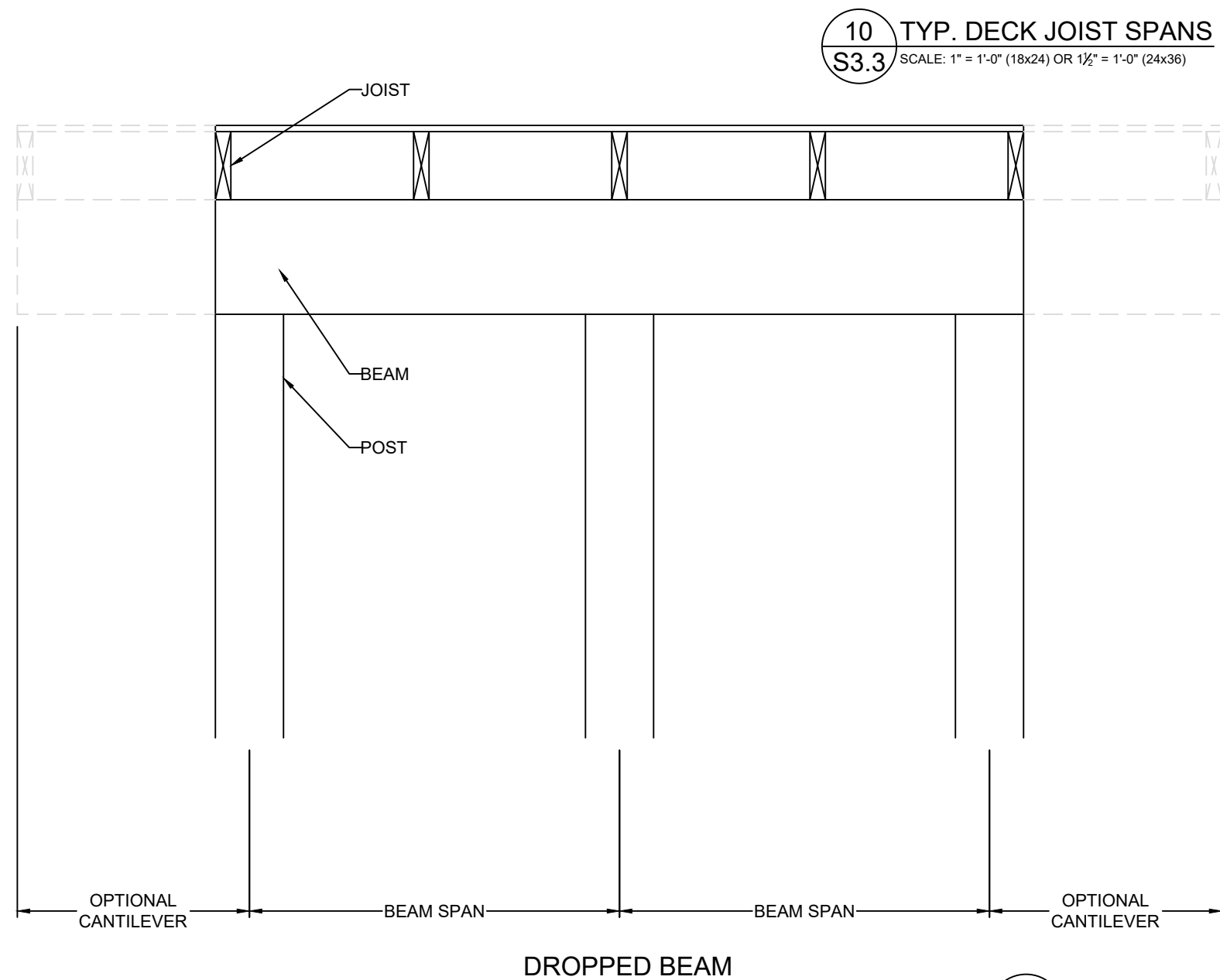
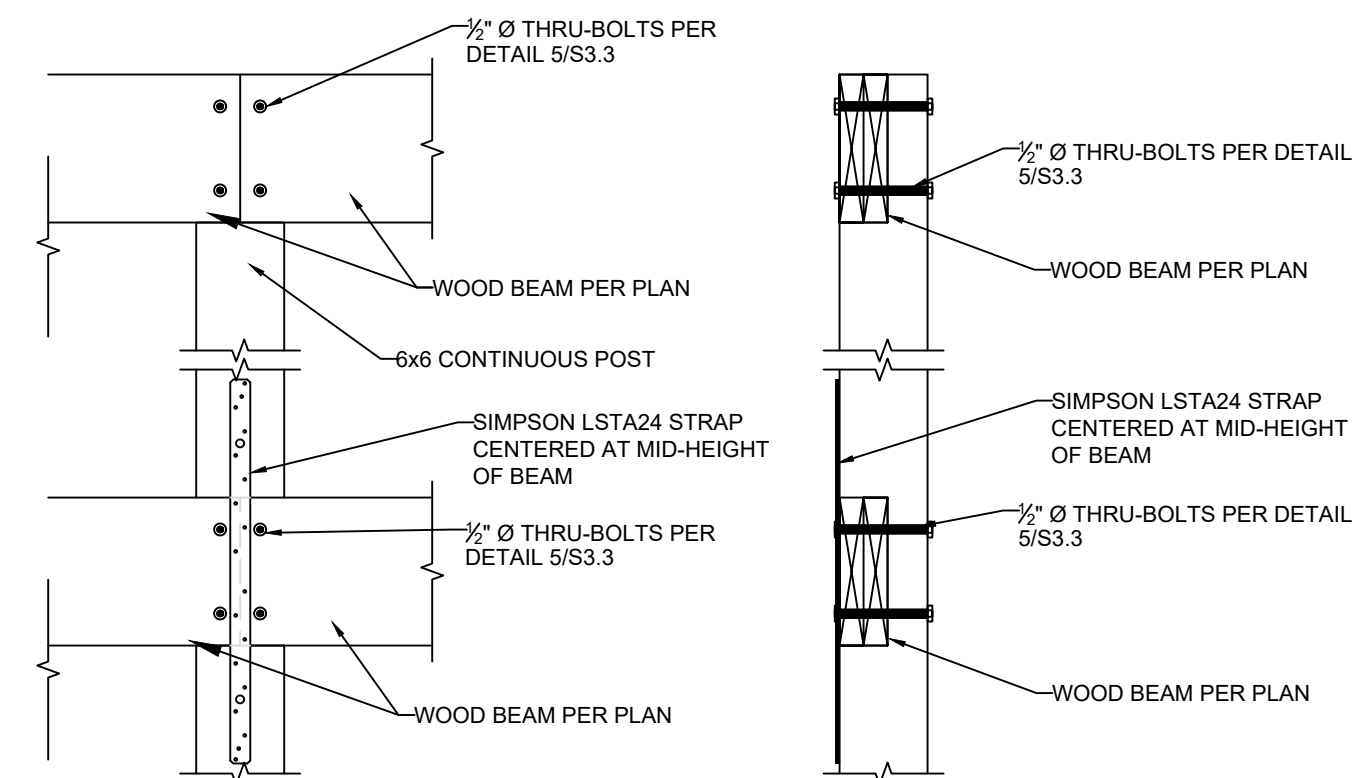
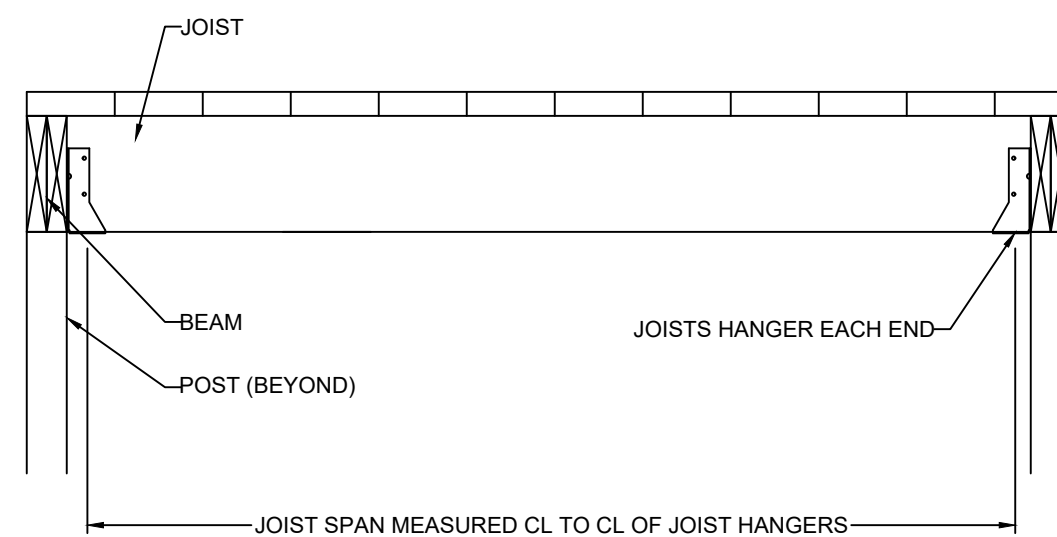
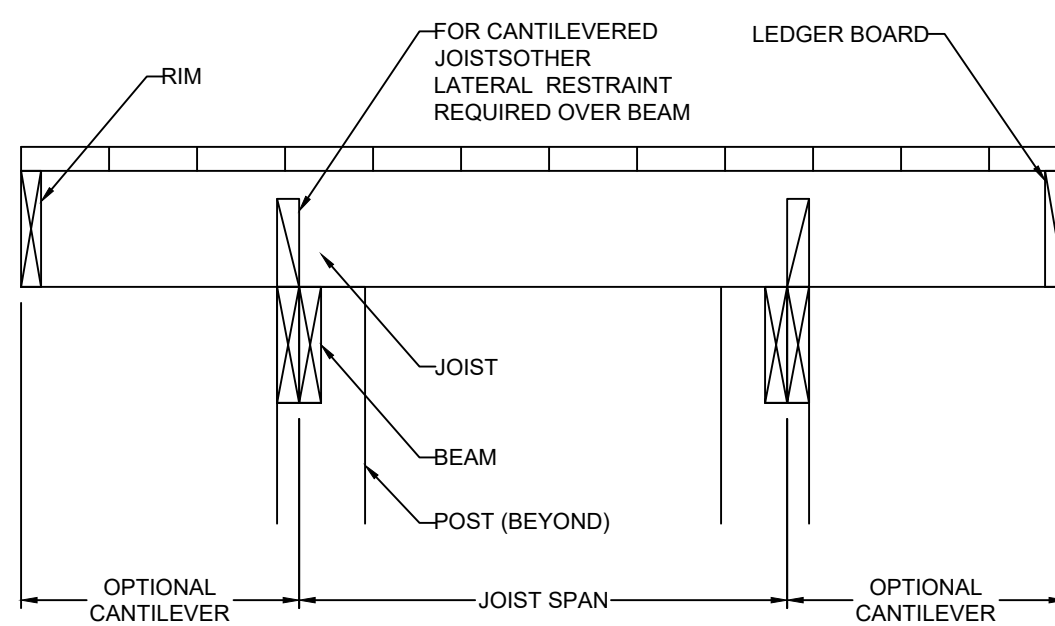
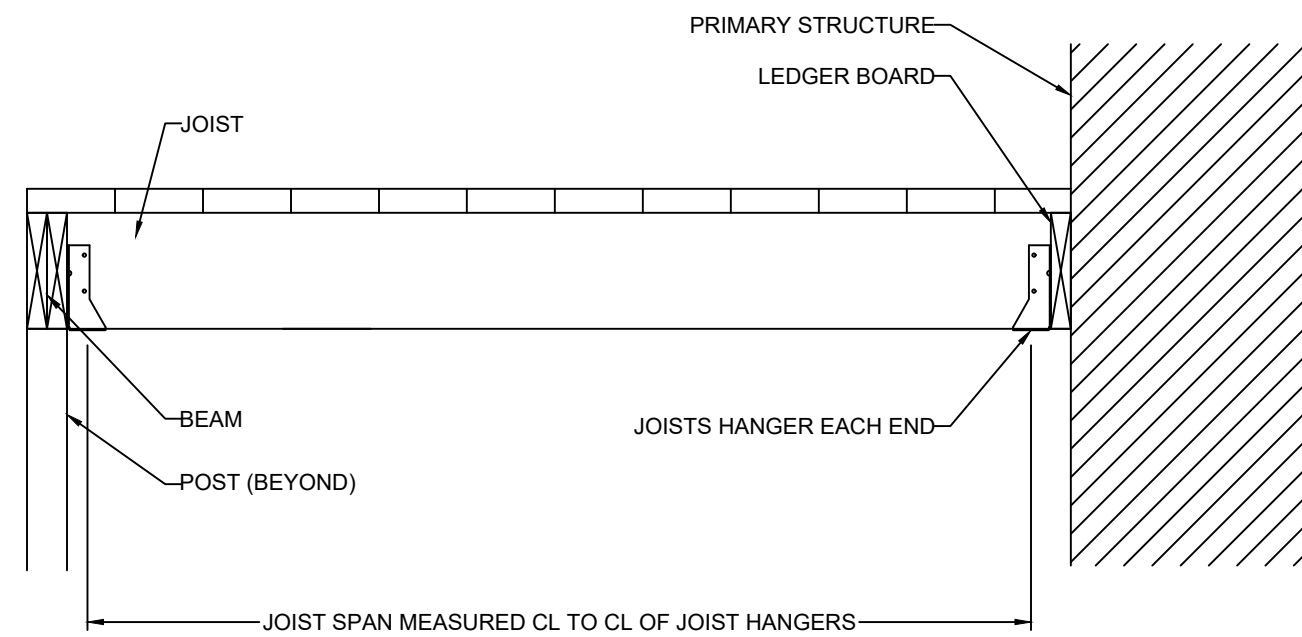
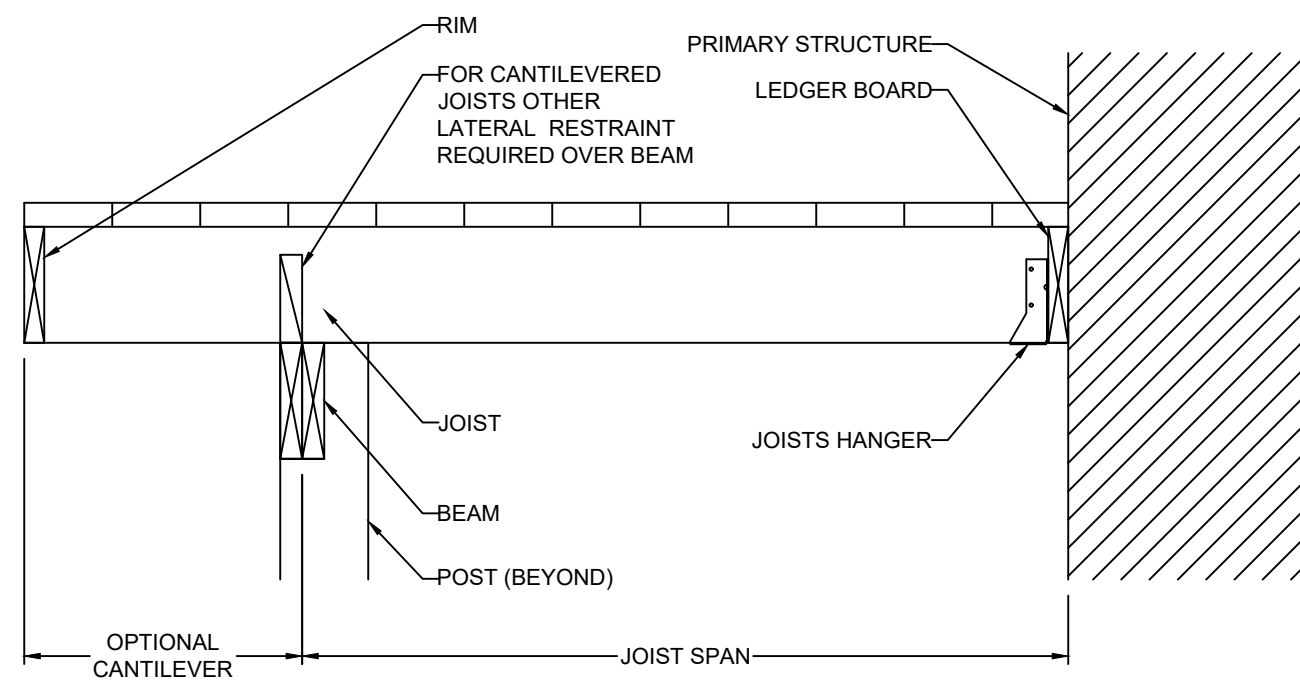
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**FRAMING  
DETAILS**

|                       |                        |
|-----------------------|------------------------|
| ENGINEER: <b>DMH</b>  | CHECKED BY: <b>DMH</b> |
| JOB NO.               | DRAWN BY: <b>DMH</b>   |
| DATE: <b>09-10-25</b> |                        |
| SHEET NUMBER          |                        |

33a  
RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
09/19/2025 4:48:18





**VISTA**  
—STRUCTURAL—  
ENGINEERING, LLC



11515 SW PACIFIC HWY # 2262 \* TIGARD, OREGON 97123  
OFFICE: 971.233.6099 \* MOBILE: 971.233.6099 \*  
EMAIL: DENNIS@VISTASTRUCTURAL.COM

CLIENT: WALKER CUSTOM HOMES, INC.

JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT

LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI

DENNIS HEIER

NUMBER

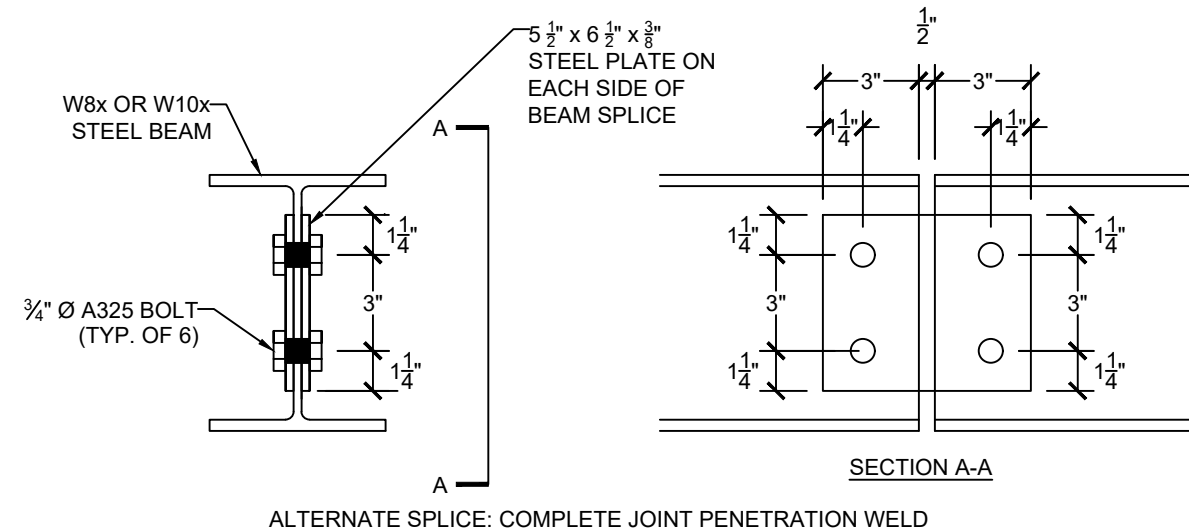
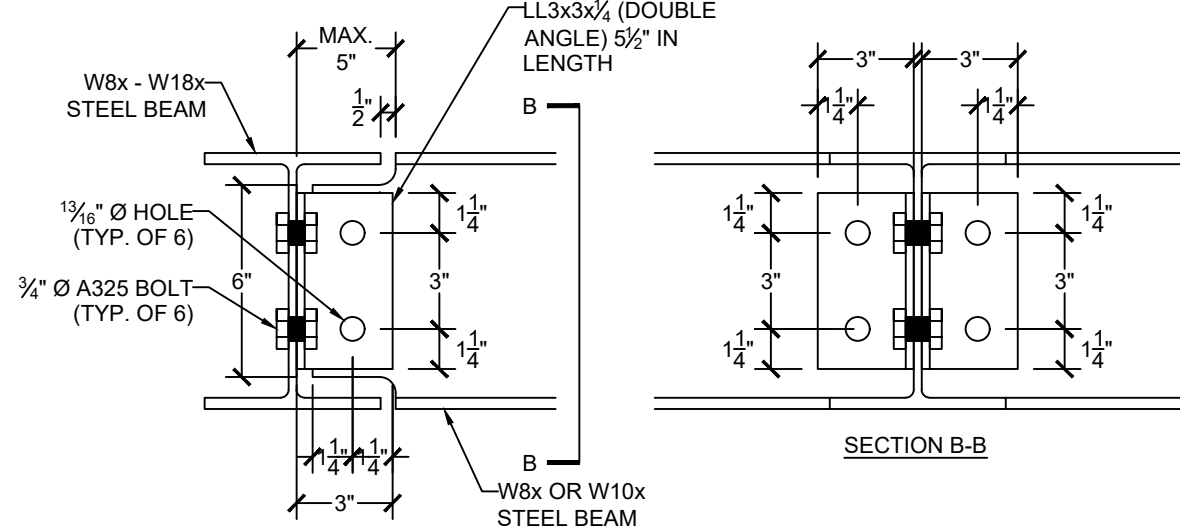
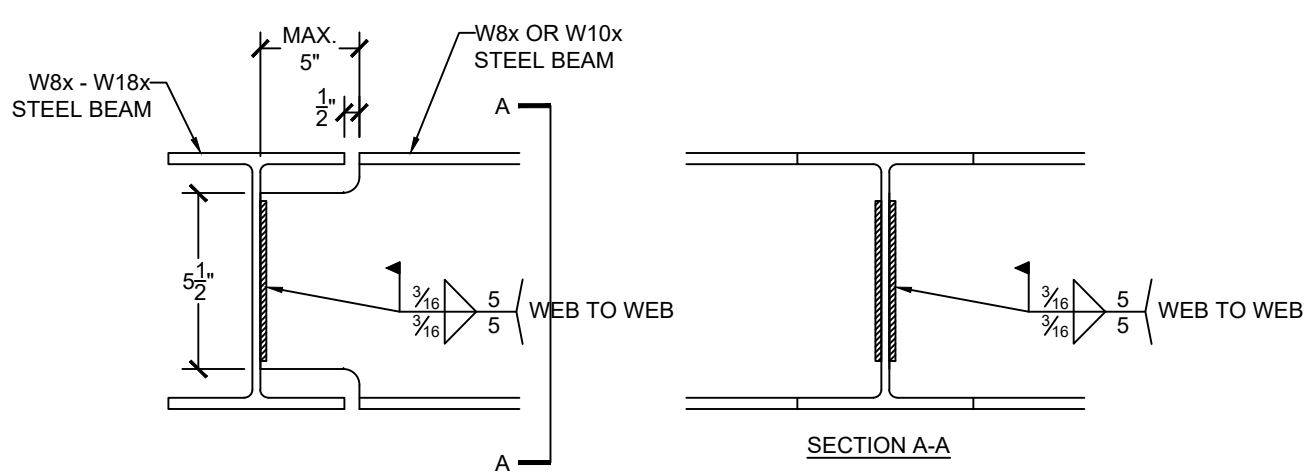
PE-2010001772

PROFESSIONAL ENGINEER

9-10-2025

| NO.                                     | DATE | REVISION        | BY |
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| DRAWING TITLE<br><b>FRAMING DETAILS</b> |      |                 |    |
| ENGINEER: DMH                           |      | CHECKED BY: DMH |    |
| JOB NO.                                 |      | DRAWN BY: DMH   |    |
| DATE: 09-10-25                          |      |                 |    |
| SHEET NUMBER<br><b>S333b</b>            |      |                 |    |

RELEASE FOR CONSTRUCTION NOTED ON PLANS &  
DEVELOPMENT SERVICE  
LEE'S SUMMIT MSH

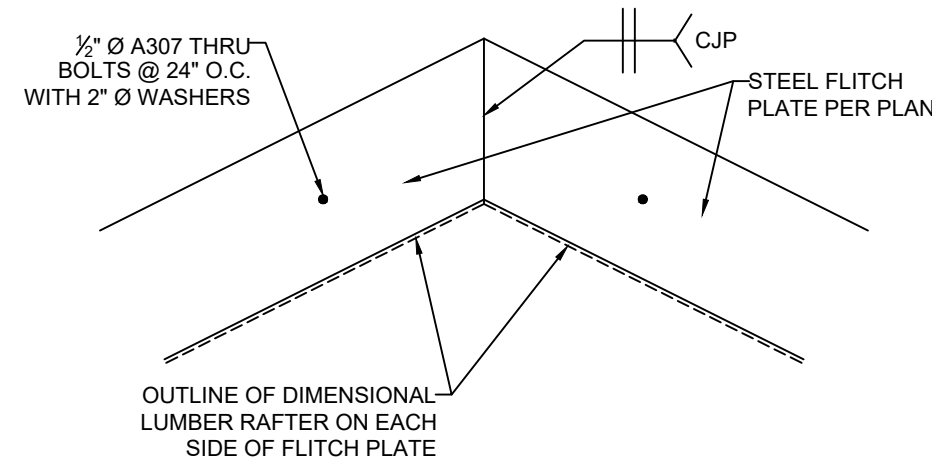
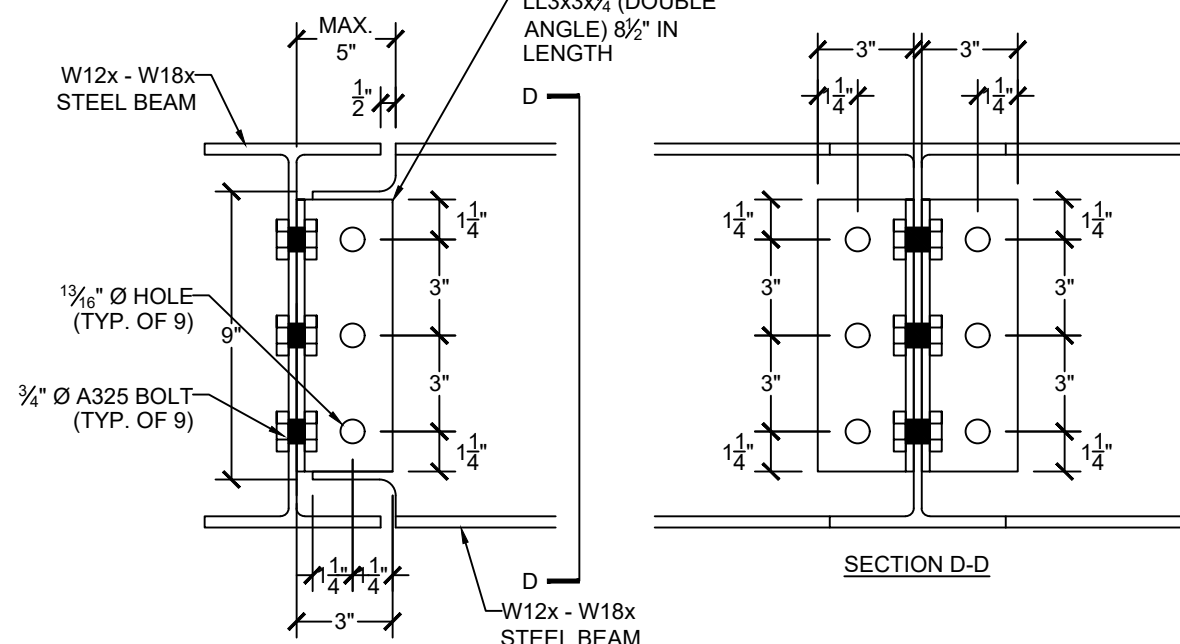
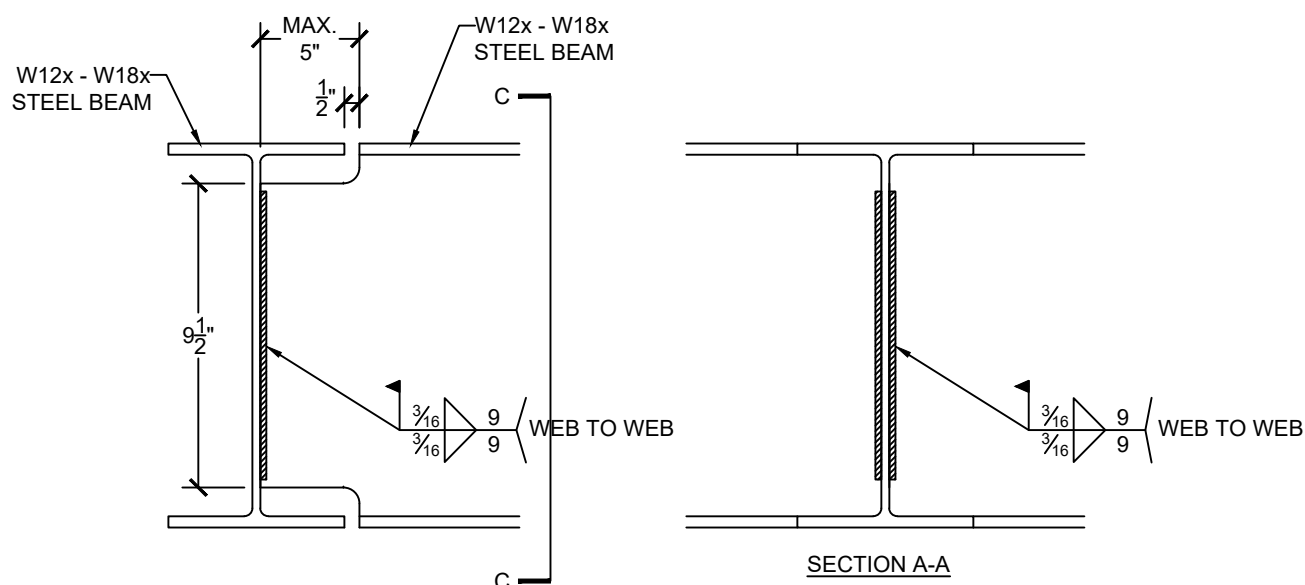


**1** WELDED T-BEAM CONNECTION FOR W8x AND W10x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

**1** BOLTED T-BEAM CONNECTION FOR W8x AND W10x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

**3** BEAM SPLICE CONNECTION FOR W8x AND W10x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

(OPTION #1)

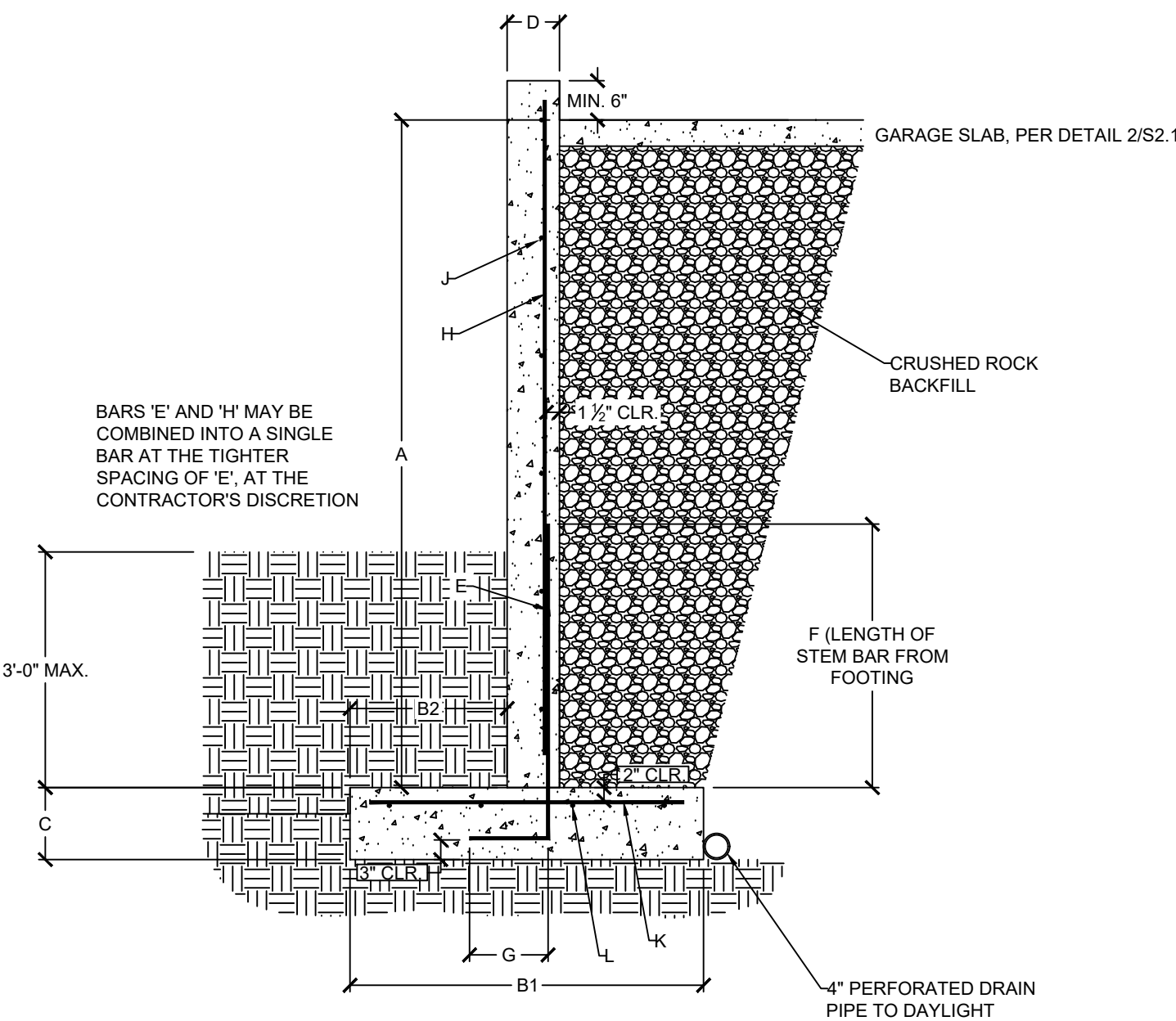
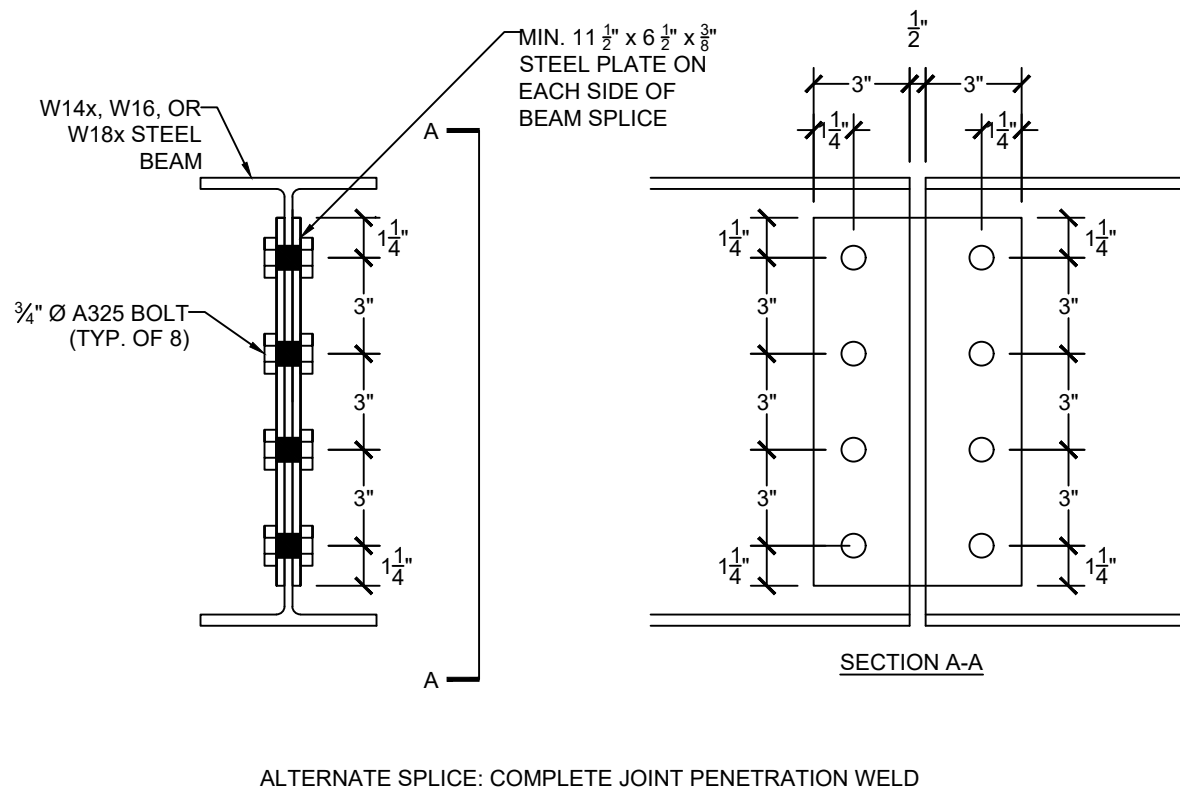
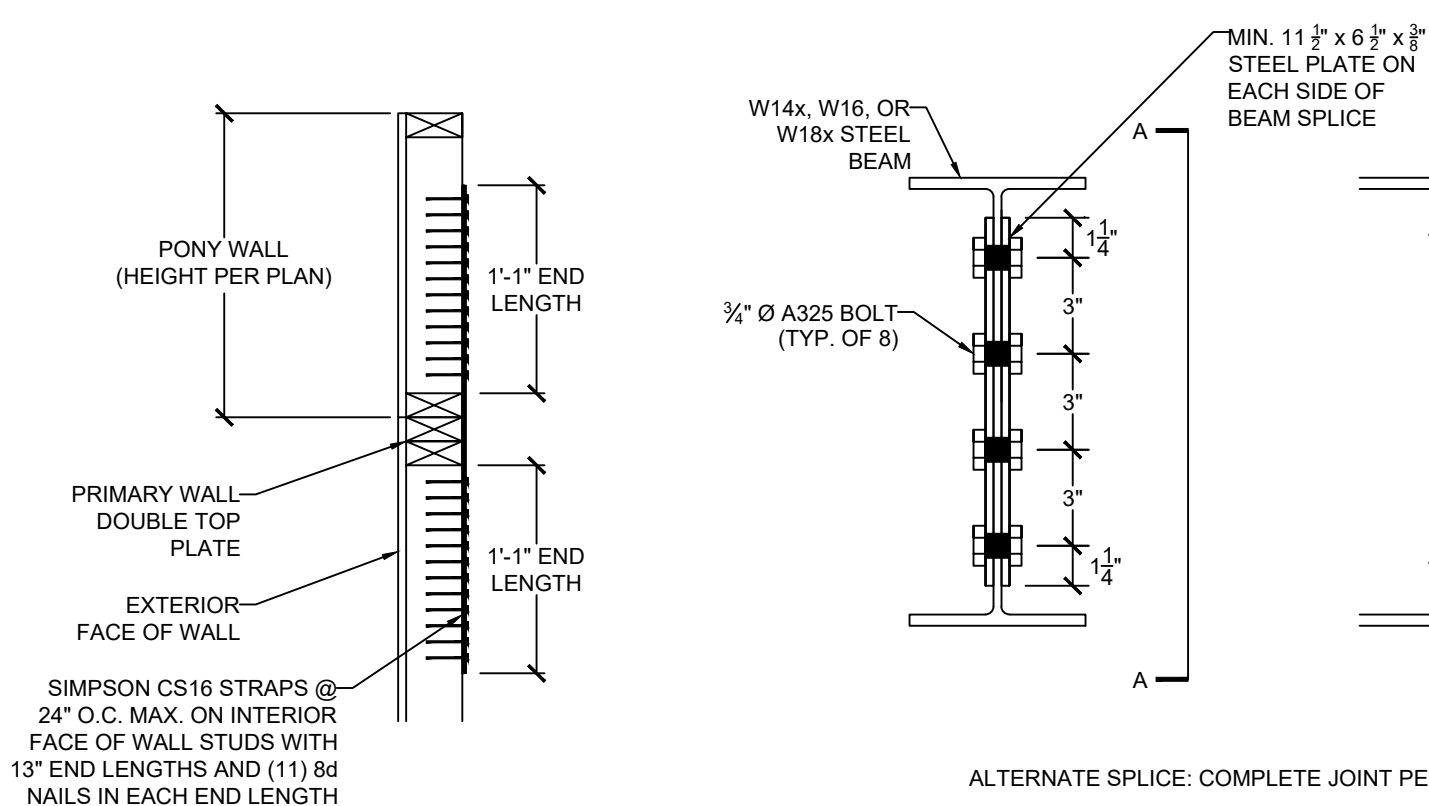


**4** RAFTER FLITCH PLATE DETAIL  
S3.4 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

**2** WELDED T-BEAM CONNECTION FOR W12x, W14x, W16x & W18x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

**2** BOLTED T-BEAM CONNECTION FOR W12x, W14x, W16x & W18x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

(OPTION #1)



**5** SPliced WALL CONNECTION  
S3.4 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

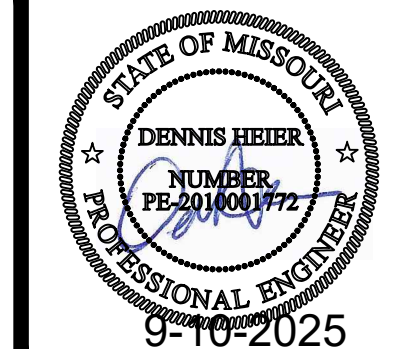
**6** BEAM SPLICE CONNECTION FOR W14x THROUGH W18x BEAMS  
S3.4 SCALE: 2" = 1'-0" (18x24) OR 3" = 1'-0" (24x36)

**7** CANTILEVERED RETAINING WALL SECTION AT GARAGE  
S3.4 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

| CANTILEVERED RETAINING WALL SCHEDULE |       |       |       |       |               |         |       |               |               |              |              |
|--------------------------------------|-------|-------|-------|-------|---------------|---------|-------|---------------|---------------|--------------|--------------|
| A                                    | B1    | B2    | C     | D     | E             | F       | G     | H             | J             | K            | L            |
| 10'-0"                               | 6'-9" | 0'-9" | 1'-2" | 0'-8" | #5 @ 8" O.C.  | 3' - 0" | 1'-0" | #4 @ 8" O.C.  | #4 @ 12" O.C. | #4 @ 6" O.C. | (11) #4 BARS |
| 8'-0"                                | 4'-4" | 0'-9" | 0'-9" | 0'-8" | #4 @ 6" O.C.  | 3'-0"   | 1'-0" | #4 @ 12" O.C. | #4 @ 12" O.C. | #4 @ 8" O.C. | (6) #4 BARS  |
| 6'-0"                                | 3'-0" | 1'-2" | 0'-9" | 0'-8" | #4 @ 12" O.C. | 3'-0"   | 1'-0" | #4 @ 12" O.C. | #4 @ 12" O.C. | N/A          | (3) #4 BARS  |



CLIENT: WALKER CUSTOM HOMES, INC.  
JOB TITLE: THE HEATHER, "CRAFTSMAN"  
LOT 196, THE RETREAT AT HOOK FARMS,  
2ND PLAT  
LOCATION: 2750 SW HEARTLAND RD.,  
LEE'S SUMMIT, MISSOURI



| NO. | DATE | REVISION | BY |
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DRAWING TITLE  
**STEEL BEAM CONNECTIONS**  
ENGINEER: DMH CHECKED BY: DMH  
JOB NO. DRAWN BY: DMH  
DATE: 09-10-25  
SHEET NUMBER

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