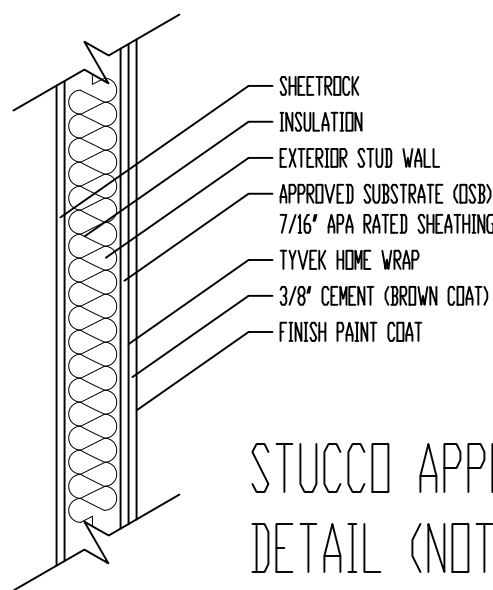
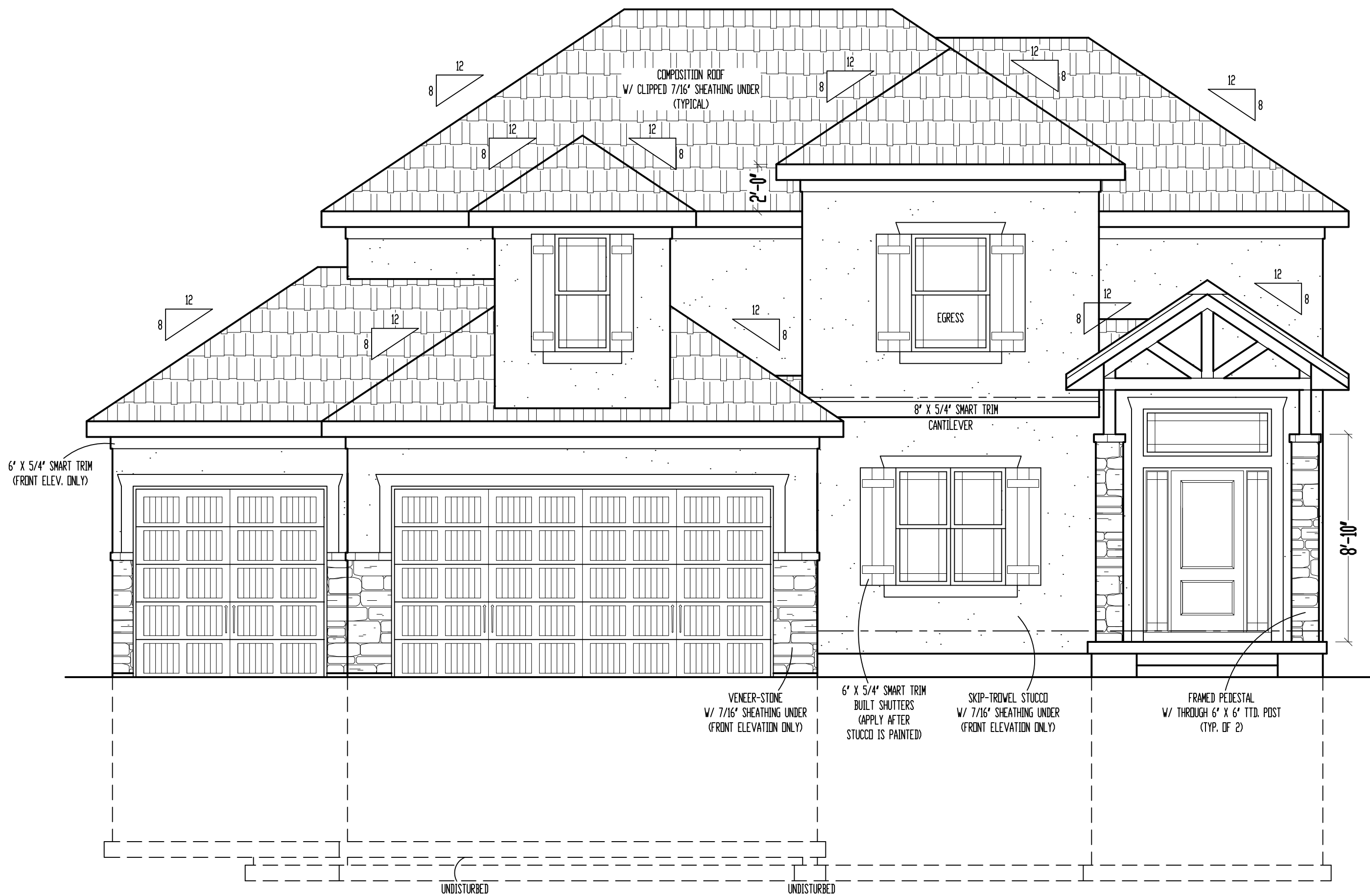


ONE-TIME-BUILD LICENSE AGREEMENT

NOTE: GOVERNING CODES &  
GENERAL CONTRACTOR'S WRITTEN SPECIFICATIONS  
TAKE PRECEDENCE OVER THESE PLANS.



FRONT ELEVATION

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

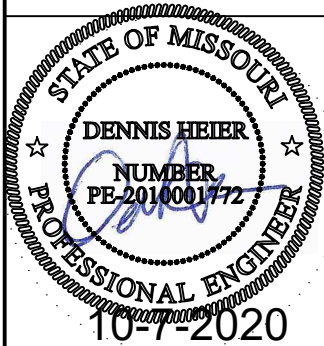
RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020

"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

M/T: (816)547-4437 E: Plans@ViewpointDesign.net

Drawing title:  
**The OAKMONT**  
Elevation: A  
Description:  
**Lot 744, Eagle Creek**  
Property Address:  
**2349 SW Hickory Ln.,  
Lee's Summit,  
Missouri**  
General Contractor:  
**IQ Construction**

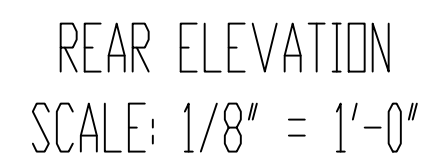
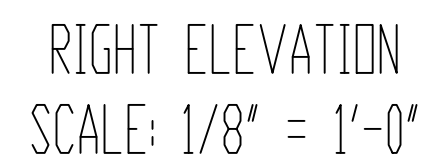


Date: 10 - 5 - AD 2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**FRONT  
ELEVATION**

Sheet No.:  
**A-1** of 6

These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Viewpoint Residential Design, LLC.  
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.



DECK:  
DECK CONSTRUCTION TO COMPLY WITH MUNICIPALITY'S  
RESIDENTIAL DECK STANDARDS  
2" X 10" #2 T.D. @ 16" O.C. FLOOR JOISTS (MAX. SPAN: 14'-0")  
2" X 6" T.T.D. DECKING  
6" X 6" T.T.D. POSTS  
2" X 2" T.T.D. SPINDLES  
2" X 6" T.T.D. TOP RAIL  
DETERMINE OPTIONAL STAIRS ON SITE

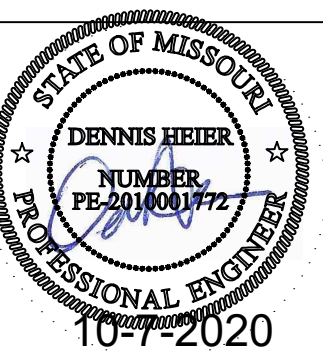
*"For God so loved  
the world, that he  
gave his only  
begotten Son,  
that whosoever  
believeth in him  
should not perish,  
but have  
everlasting life"  
(John 3:16).*

[illegible]

Drawing title:  
***The***  
***OAKMONT***  

---

***Elevation: A***  
Description:  
***Lot 744, Eagle***  
***Creek***  
Property Address:  
***2349 SW Hickory Ln.,***  
***Lee's Summit,***  
***Missouri***  
General Contractor:  
***IQ Construction***







Date: 10 - 5 - AD 2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**SIDES & REAR  
ELEVATIONS**

Sheet No.:  
**A-2** of 6



- \* 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

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020**

M/T: (816)547-4437 E: [Plans@ViewpointDesign.net](mailto:Plans@ViewpointDesign.net)

Sheet No.:  
**A-3** of 6





\*\*\*\*\* = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS ON SHEET S11.

FRAMING NOTES

1. MAIN LEVEL EXTERIOR WALLS SHALL BE SHEATHED W/ 7/16" O.S.B. APA PANELS W/ 8d COMMON NAILS @ 6" O.C. AT EDGES & 12" O.C. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

2. \\\\\\\\\\\\\\\\\\\生 = G.B. 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ NDL 6 - 1 1/4" TYPE W DR S DRYWALL SCREWS @ 7" O.C. EDGES & FIELD. MIN. 8'-0" SECTIONS ONE SIDE OF WALL (OR MIN. 4'-0" SECTION FOR BOTH SIDES)

3. \\\\\\\\\\\\\\\\\\\生 = LOAD BEARING INTERIOR WALL.

4. (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.

5. LOW TIES @ 4'-0" O.C. (TYPICAL)

6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.

7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).

8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.





9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.

11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4'S @ 16" O.C., UNLESS NOTED OTHERWISE.

12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 8" O.C. MAX. (WHERE APPLICABLE.)


13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

JOIST SCHEDULE	
	2" X 10" #3 FLOOR JOIST @ 16' O.C.
	2" X 10" #2 FLOOR JOIST @ 16' O.C.
	2" X 6" #3 CEILING JOIST @ 16' O.C.
	2" X 6" #2 CEILING JOIST @ 16' O.C.

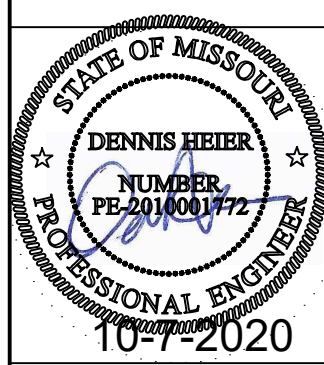
**RELEASE FOR  
CONSTRUCTION**  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
  
10/08/2020

These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Viewpoint Residential Design, LLC.

*"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  
 M/T: (816)547-4437      E: [Plans@ViewpointDesign.net](mailto:Plans@ViewpointDesign.net)

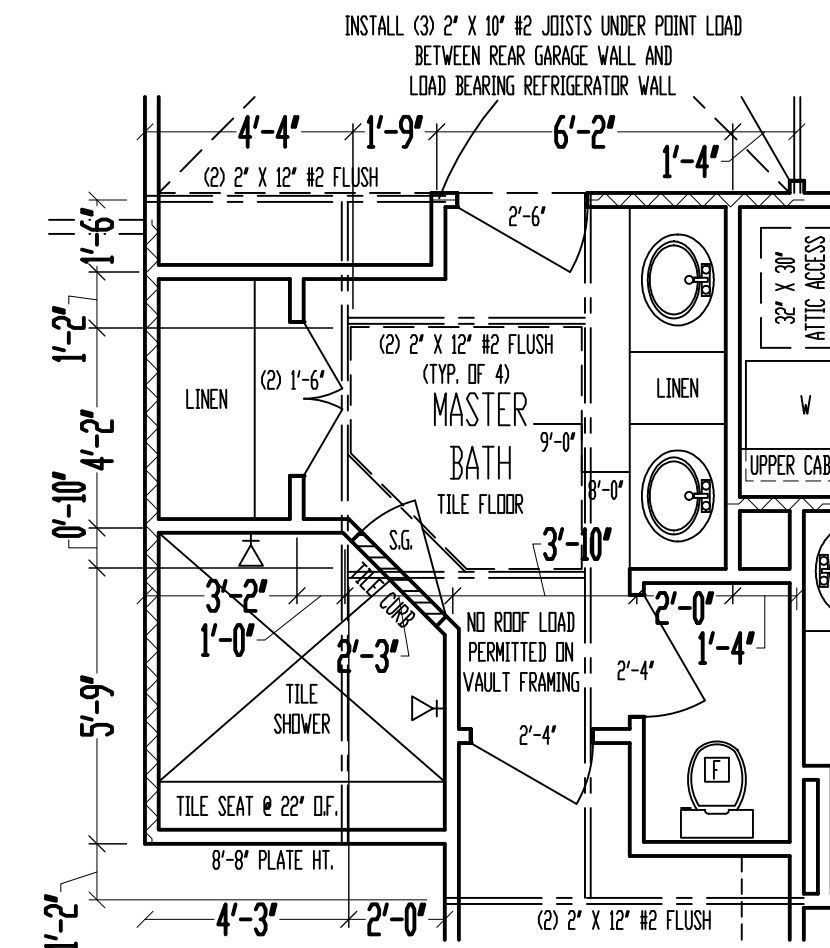
Drawing title:  
***The  
OAKMONT***  
Elevation: A  
Description:  
***Lot 744, Eagle  
Creek***  
Property Address:  
***2349 SW Hickory Ln.  
Lee's Summit,  
Missouri***  
General Contractor:  
***IQ Construction***



Date: 10 - 5 - AD 2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**MAIN LEVEL  
PLAN**

Sheet No.:  
**A-4** of 6



8'-0" CEILING  
SECOND LEVEL  
SCALE: 1/4" = 1'-0"  
SECOND LEVEL: 1221 SQ. FT.

+++++ = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS  
ON SHEET S11.

## FRAMING NOTES


- FRAMING NOTES**
1. SECOND LEVEL EXTERIOR WALLS SHALL BE SHEATHED W/ 7/16" U.S.B. APA PANELS W/ 8d COMMON NAILS @ 6" O.C. AT EDGES & 12" O.C. IN THE FIELD. STAIN PAPER, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
  2. / / / / / / / / / / = G.B.; 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX. FASTENED W/ #10 6" - 1 1/4" TYPE W OR S DRYWALL SCREWS @ 7" O.C. EDGES & FIELD. (MIN. 8"-0" SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0" SECTION FOR BOTH SIDES)
  3. / / / / / / / / / / = LOAD BEARING INTERIOR WALL.
  4. (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
  5. LOW TIES @ 4'-0" O.C. (TYPICAL)
  6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
  7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
  8. PROVIDE MULTIPLE STUDS FOR LOAD BEARING BELOW ALL BEAMS.
  9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.
  10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
  11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4'S @ 16" O.C., UNLESS NOTED OTHERWISE.
  12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 16" O.C. MAX. (WHERE APPLICABLE.)
  13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

JOIST SCHEDULE	
C	2' X 6' #3 CEILING JOIST @ 16' O.C.
D	2' X 6' #2 CEILING JOIST @ 16' O.C.

**RELEASE FOR  
CONSTRUCTION**  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020

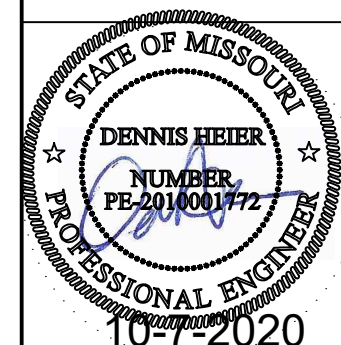
These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Viewpoint Residential Design, LLC.

*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

Drawing title:  
***The  
OAKMONT***  
Elevation: ***A***  
Description:  
***Lot 744, Eagle  
Creek***  
Property Address:  
***2349 SW Hickory Ln.,  
Lee's Summit,  
Missouri***  
General Contractor:  
***IQ Construction***

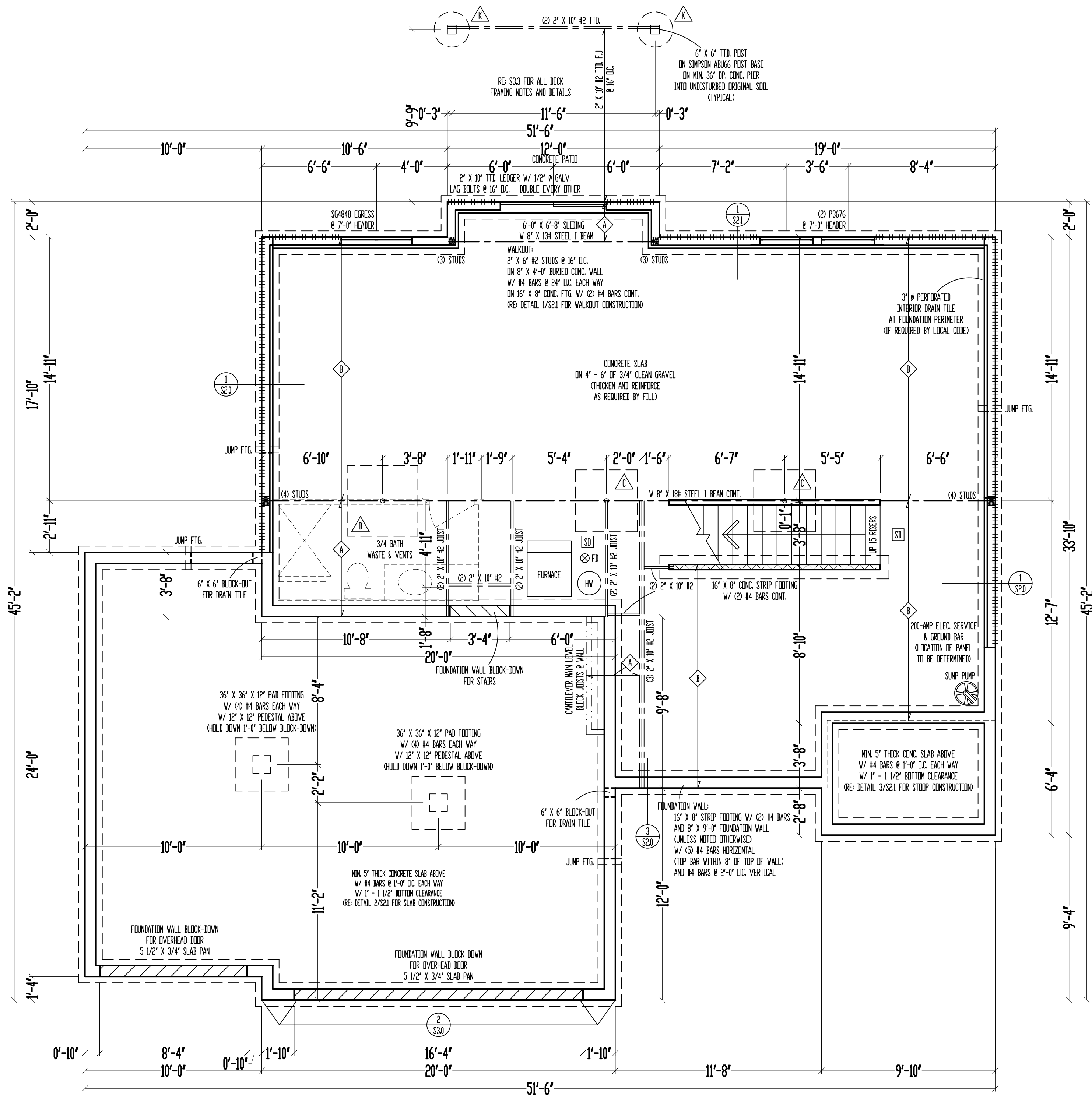


Date: 10 - 5 - AD 2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**SECOND LEVEL  
PLAN**

Sheet No.:  
**A-5** of 6





9'-0" FOUNDATION WALLS  
(UNLESS NOTED OTHERWISE)  
ON 16" X 8" STRIP FOOTINGS  
(STEP WHERE GRADE REQUIRES)

2" X 10" FLOOR SYSTEM  
FOUNDATION  
SCALE: 1/4" = 1'-0"

\*\*\*\*\* = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS ON SHEET S11.

- FRAMING NOTES:
- BASEMENT LEVEL EXTERIOR WOOD-FRAMED WALLS SHALL BE SHEATHED W/ 7/16" O.S.B. APA PANELS @ 8" COMMON NAILS @ 3" O.C. AT EDGES & @ 12" O.C. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
  - ////////// = GB: 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ NO. 6 - 1 1/4" TYPE W OR S DRYWALL SCREWS @ 7" O.C. EDGES & FIELD. (MIN. 8'-0" SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0" SECTION FOR BOTH SIDES)
  - \\\\\\\\\\\\\\\\\\\\ = LOAD BEARING INTERIOR WALL.
  - (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
  - LOW TIES @ 4'-0" O.C. (TYPICAL)
  - RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
  - BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
  - PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
  - ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.
  - ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
  - ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4'S @ 16" O.C., UNLESS NOTED OTHERWISE.
  - 1/2" Ø ANCHOR BOLTS W/ MIN. 7" EMBEDMENT @ 48" O.C. MAX. & WITHIN 6" - 12" OF END OF EACH PLATE LENGTH.
  - NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING CAPACITY OF 1500 PSF. A GEOTECHNICAL ENGINEER IS RECOMMENDED FOR VERIFICATION OF THESE CONDITIONS DURING THE EXCAVATION PHASE. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUND ON ANYTHING SHORT OF THE AFOREMENTIONED REQUIREMENTS.
  - CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

STEEL COLUMN & PAD FOOTING SCHEDULE	
A	3" X 11 GA. STEEL COLUMN ON 30" X 30" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (12.5k)
B	3 1/2" X 11 GA. STEEL COLUMN ON 36" X 36" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (18.0k)
C	3" SCH. 40 STEEL COLUMN ON 42" X 42" X 12" PAD FOOTING W/ (5) #4 BARS EACH WAY (24.5k)
D	3 1/2" SCH. 40 STEEL COLUMN ON 48" X 48" X 12" PAD FOOTING W/ (6) #4 BARS EACH WAY (32.0k)
E	3 1/2" SCH. 40 STEEL COLUMN ON 54" X 54" X 14" PAD FOOTING W/ (7) #4 BARS EACH WAY (40.5k)
F	3 1/2" SCH. 40 STEEL COLUMN ON 60" X 60" X 14" PAD FOOTING W/ (8) #4 BARS EACH WAY (50.0k)

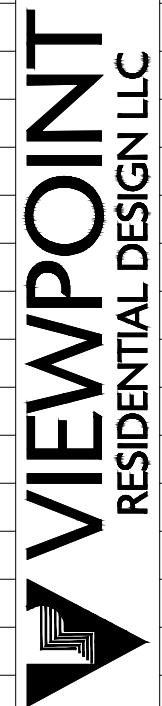
PIER FOOTING SCHEDULE	
G	12" Ø PIER FTG.
H	16" Ø PIER FTG.
J	18" Ø PIER FTG.
K	24" Ø PIER FTG.

JOIST SCHEDULE	
A	2" X 10" #3 FLOOR JOIST @ 16" O.C.
B	2" X 10" #2 FLOOR JOIST @ 16" O.C.

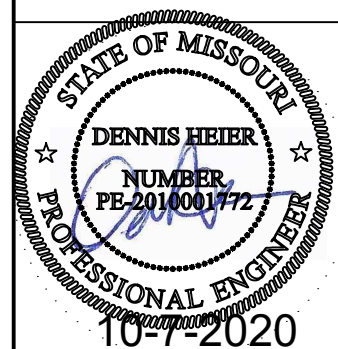
RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020

These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Viewpoint Residential Design, LLC.

"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)



Drawing title:  
**The OAKMONT**  
**Elevation: A**  
Description:  
**Lot 744, Eagle Creek**  
Property Address:  
**2349 SW Hickory Ln., Lee's Summit, Missouri**  
General Contractor:  
**IQ Construction**



Date: 10 - 5 - AD 2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**FOUNDATION PLAN**

Sheet No.:  
**A-6** of 6



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 (2½" x 0.113")	TOENAIL
CEILING JOISTS TO PLATE, TOE NAIL	4-8d (2½" 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 ¼" 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 (3½" 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
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 (3½" x 0.135")	12" O.C. FACE NAIL
BUILT-UP HEADER, TWO PIECES WITH ½" SPACER	16d (3½" x 0.135")	12" O.C. EACH EDGE FACE NAIL
CONTINUOUS HEADER TO STUD	4-8d (2½" 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 ½" 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 ½" 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 ½" x 0.135")	3 EACH 16" O.C. FACE NAIL
TOP OR SOLE PLATE TO STUD, END NAIL	4-8d BOX (2 ½" x 0.113") - TOENAIL; 3-16d BOX (3 ½" 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 ½" x 0.113")	FACE NAIL
1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113")	FACE NAIL
1"x8" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 ½" x 0.113")	FACE NAIL
FLOOR		
JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 ½" x 0.113")	TOE NAIL
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 ½" x 0.113")	4" O.C. TOE NAIL
1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 ½" x 0.113")	FACE NAIL
2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 ½" x 0.135")	BLIND AND FACE NAIL
2" PLANKS (PLAN & BEAM - FLOOR AND ROOF)	3-16d BOX (3 ½" x 0.135")	AT EACH BEARING, FACE NAIL
BAND OR RIM JOIST TO JOIST	3-16d COMMON (3 ½" 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 ½" 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

FASTNER SCHEDULE FOR STRUCTURAL MEMBERS			
DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER	EDGE SPACING (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING <sup>1</sup>			
¾" - ½"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12
⅝" - 1"	8d COMMON NAIL (2½" x 0.131")	6	12
1⅞" - 1¼"	10d COMMON (3" x 0.148") NAIL OR 8d (2½" x 0.131") DEFORMED NAIL	6	12
OTHER WALL SHEATHING <sup>1</sup>			
½" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 ¾" GALVANIZED ROOFING NAIL, ⅝" HEAD DIAMETER, OR 1 ¾" LONG 16 GA. STAPLE WITH ⅝" OR 1" CROWN	3	6
⅝" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 ¾" GALVANIZED ROOFING NAIL, ⅝" HEAD DIAMETER, OR 1 ¾" LONG 16 GA. STAPLE WITH ⅝" OR 1" CROWN	3	6
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
⅝" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
¾" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131") NAIL	6	12
¾" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12
1⅞" - 1¼"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" 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

- 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
- THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION STANDARDS
- 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.
- FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUNDED 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 FOUNDED ON ANY SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES.
- 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.
- CONCRETE PADS SUPPORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 1'-0" DEEP WITH A MINIMUM OF (4) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE
- FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HOIZONTAL GRADE 40 #4 BARS AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0
- REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)
- INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB
- 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
- 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
- SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH ½" Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF 7" INTO CENTER OF WALL STEM AND SHALL BE INSTALLED AT A MAXIMUM OF 6'-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 R403.1.6
- FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET S2.0
- 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

- ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS
- ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 - 2x10's, UNLESS NOTED OTHERWISE ON PLANS
- BLOCK OVER BEAMS AND AT CANTILEVERS AND DOOR JAMBS
- INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A MINIMUM OF ½"
- ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED OTHERWISE
- 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 PRESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS.
- ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT MATERIAL
- JOISTS UNDER BEARING PARTITIONS ON PLANS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD.
- JOISTS FRAMING INTO THE FACE OF A STEEL OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE COLD-FORMED STEEL JOIST HANGERS
- JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT EN DS BY FULL-DEPTH SOLID BLOCKING MIN. 1½" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
- ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3
- ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3
- ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4'-0" O.C. IN UPPER ½ OF VERTICAL DISTANCE BETWEEN CEILING AND ROOF
- BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED
- 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 EQUAL TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)
- ENGINEERED LVL's SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi
- ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi
- COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS 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 A 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 AN AWS-CERTIFIED INSPECTOR.
- 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.
- ALL ROOF SHEATHING SHALL BE ⅝" OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD
- 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 OPENABLE 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 FLOOR, 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 OPENABLE 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"
- ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

GLAZING NOTES

- 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 OPENABLE 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 FLOOR, 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 OPENABLE 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"
- ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

ATTIC VENTILATION

- 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 ¼" TO ½" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/160 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

- 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.
- 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

- 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.
- 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 ½" CORRUGATED.
- 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.
- 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.

GARAGE NOTES

- 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
- VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC 2018

GARAGE NOTES (CONTINUED)

- THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM ¾" 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 ¾" 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 ¾" GYP. BOARD.
- GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING AND SHALL BE FASTENED WITH 2½" x 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 3½" x 0.120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x8 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 single concentrated load applied in any direction at any point along the top.
- Guard in-fill components (all those except the handrail), ballusters 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 need not be assumed to act concurrently with any other live load requirement.
- 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 not to occur with any other live load.
- An additional dead loading of 10 psf shall be applied where thinslet 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

- BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2012 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)
- 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 FENSTRATION 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:

- AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS.
- 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 HINGE EFFECT.
- 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:

- 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.
- 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 THE 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.

EXCEPTION: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

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

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

10/08/2020

VISTA

STRUCTURAL

ENGINEERING, LLC



14718 NW DELIA STREET  
OFFICE: 971.645.0901  
MOBILE: 971.645.0901  
EMAIL: PENNIS@VISTASTRUCTURAL.COM

CLIENT: IQ CONSTRUCTION

JOB TITLE: EGC744 SPEC - OAKMONT LOT 744, EAGLE CREEK

LOCATION: LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI

DENNIS HEIER

NUMBER

FE-2014001772

PROFESSIONAL ENGINEER

10-7-2020

NO.	DATE	REVISION	BY

DRAWING TITLE

STRUCTURAL NOTES

ENGINEER: DMH	CHECKED BY: DMH
JOB NO: 2810	DRAWN BY: DMH
DATE: 10-7-2020	
SHEET NUMBER	

S1.0



Diagram illustrating the components and connections of a roof truss system, including labels for structural elements and dimensions:

- RAFTER SPANS
- RAFTER SPANS
- HEIGHT OF ROOF (HR)
- HEIGHT OF CEILING (HC)
- CEILING JOIST
- TOP PLATE(S)
- BEARING WALL
- BEARING PARTITIONS
- RAFTER TO JOIST CONNECTION
- BEARING WALL
- CEILING JOIST LAP
- PURLIN AND PURLIN BRACE
- RAFTERS PER PLAN
- RAISED RAFTER TIE FOR ADJUSTED RAFTER SPANS ( $HC/HR \approx \frac{1}{2}$  MAX)
- RIDGE BOARD OR BEAM
- SIMPSON CS20 RIDGE STRAPS WITH MIN. 12" END LENGTHS OR 1x4 COLLAR TIES @ 4'-0" OC MAX WITH (3) 10d NAILS AT EACH END IN UPPER THIRD OF RAFTER HEIGHT
- 45° MIN.



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

4718 NW DELIA STREET \* PORTLAND, OREGON 97229  
OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
EMAIL: DENNIS@VISTASTRUCTURAL.COM

CLIENT: IQ CONSTRUCTION

JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK

LOCATION: LEE'S SUMMIT, MISSOURI



40838.88
75460.76
12.0%
1.6
0.128
6.5

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (#/LF)	Code Reference
Exterior <i>(Option #2)</i>	7/16" APA Rated Plywood/OSB	1-1/2" 16gs. Staples w/ 1" penetration @ 9" O.C. Edges, 8" O.C. Field For 24" stud spacing, 12" O.C. Field For 18" stud spacing	155	per IBC, Table 2306.3(1)
Exterior <i>(Option #3)</i>	7/16" APA Rated Plywood/OSB	1-1/2" 16gs. Staples w/ 1" penetration @ 4" O.C. Edges, 8" O.C. Field For 24" stud spacing, 12" O.C. Field For 18" stud spacing	230	per IBC, Table 2306.3(1)
Exterior <i>(Option #3)</i>	7/16" APA Rated Plywood/OSB	1-1/2" 16gs. Staples w/ 1" penetration @ 3" O.C. Edges, 8" O.C. Field For 24" stud spacing, 12" O.C. Field For 18" stud spacing	310	per IBC, Table 2306.3(1)
Exterior <i>(Option #4)</i>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap 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 shiplap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	220	AF&PA SDPWS Table 4.3A
Exterior <i>(Option #5)</i>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap 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 shiplap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	320	AF&PA SDPWS Table 4.3A
Exterior <i>(Option #6)</i>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap 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	AF&PA 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 S3)	325	

WIDTH OF 1ST STORY (FT.)	51.5	WIDTH OF 2ND STORY (FT.)	41.5
DEPTH OF 1ST STORY (FT.)	45.17	DEPTH OF 2ND STORY (FT.)	43.17
BACK WALL OF GARAGE (FT.)	0		
GAR. WALL: 1=F-B, 2=S-S	2		

	ADDITIONAL RESISTANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)	
	SEISMIC	WIND	diameter (in.)	0.5	2nd Floor F-B	34
2ND FLOOR FRONT-TO-BACK	0	0	Shear value (per NDS)	944	2nd Floor S-S	41
2ND FLOOR SIDE-TO-SIDE	0	0	Spacing F-B (inches)	115.1	1st Floor F-B	17
1ST FLOOR FRONT-TO-BACK	0	0	spacing S-S (inches)	143.9	1st Floor S-S	21
1ST FLOOR SIDE-TO-SIDE	0	0				

\*\*\*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  
ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED

**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

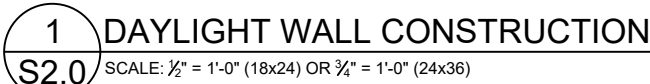
**NOTE FOR DESIGN:**  
ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. 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**

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020**

NO.	DATE	REVISION	BY
DRAWING TITLE			
STRUCTURAL CALCULATIONS			
ENGINEER: DMH		CHECKED BY: DMH	
JOB NO. 2810		DRAWN BY: DMH	
DATE: 10-7-2020			
SHEET NUMBER			
S1.1			

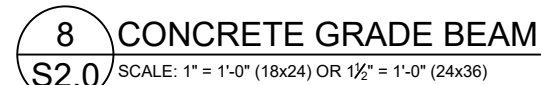
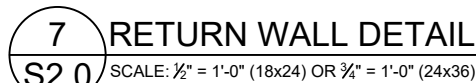
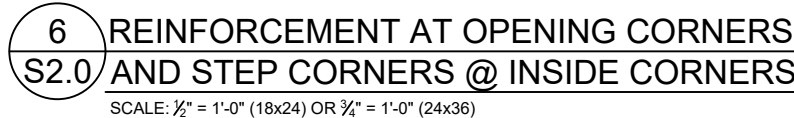
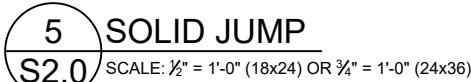
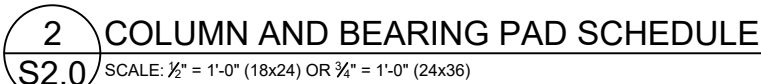




This technical cross-section diagram illustrates the construction details for a basement wall foundation waterproofing system. The diagram shows the following components and dimensions:

- SIDING**: Located at the top of the exterior wall.
- GRADE**: Indicated by a horizontal line representing ground level.
- 6"**: Dimension for the vertical distance from the siding to the grade.
- 8"**: Dimension for the vertical distance from the grade to the top of the foundation wall.
- 1'-6" (TYP.)**: Typical dimension for the height of the foundation wall above grade.
- VERTICAL AND HORIZONTAL REINFORCEMENT PER 4/S2.0**: Reinforcement bars shown within the concrete foundation wall.
- 2" CLEARANCE FROM BASEMENT FACE OF WALL**: The gap between the interior face of the wall and the reinforcement.
- PERFORATED DRAIN PIPE**: A pipe installed vertically through the foundation wall.
- FILTER FABRIC**: A fabric layer placed over the drain pipe to prevent soil clogging.
- SEAL/BOND BREAK**: A break in the sealant or bond between the wall and the footing.
- CARRIER SLAB**: The base slab supporting the foundation wall.
- 6"**: Dimension for the thickness of the carrier slab.
- WASHED ONE INCH GRAVEL**: A layer of gravel placed below the carrier slab.

3 CONCRETE WALL SECTION  
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



**RELEASE FOR  
CONSTRUCTION**  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020

VERTICAL REINFORCEMENT SPACING						
CONCRETE STRENGTH/GRADE 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; MAX. SPACING 24" OC	6-#4	7-#4	7-#4	6-#4	7-#4	7-#4

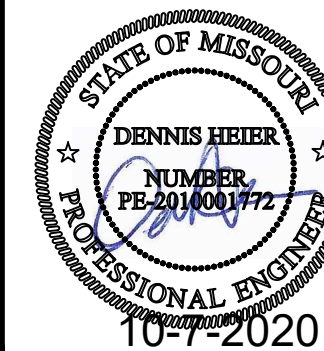
FOOTNOTES:

- 1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB
- 2) HORIZONTAL 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 6¾" 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 1½"
  - B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) - ¾"
  - C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY SLABS) - 1½"
- 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 3¾". 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. 24" OC TO WITHIN 8" 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 S20 FOUNDATION WALL REINFORCEMENT TABLE NO SCALE



CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI



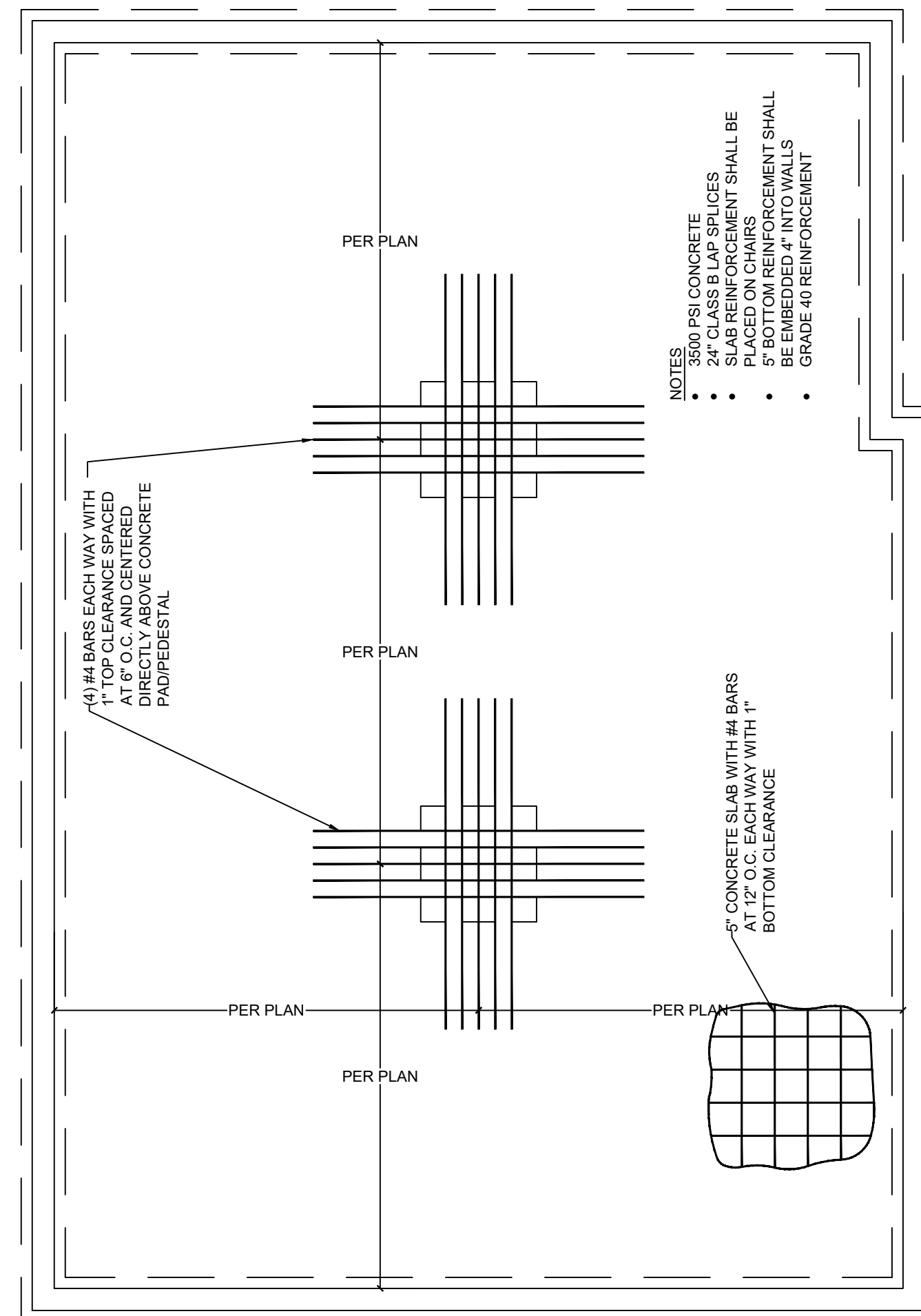
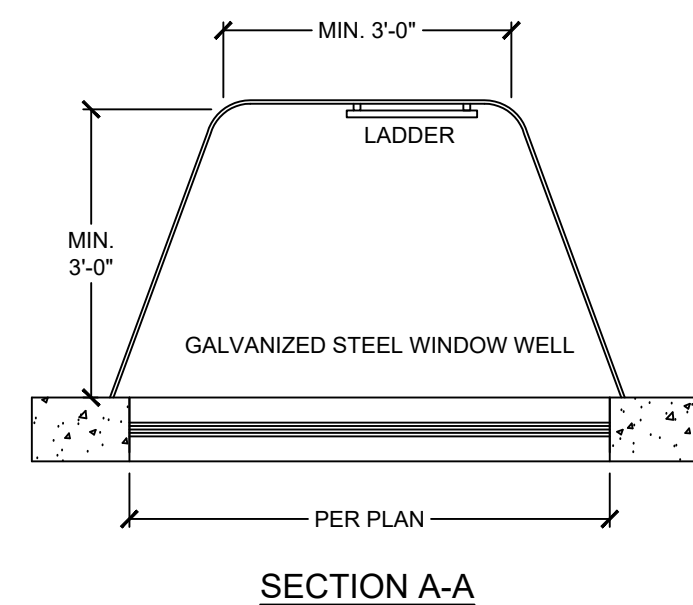
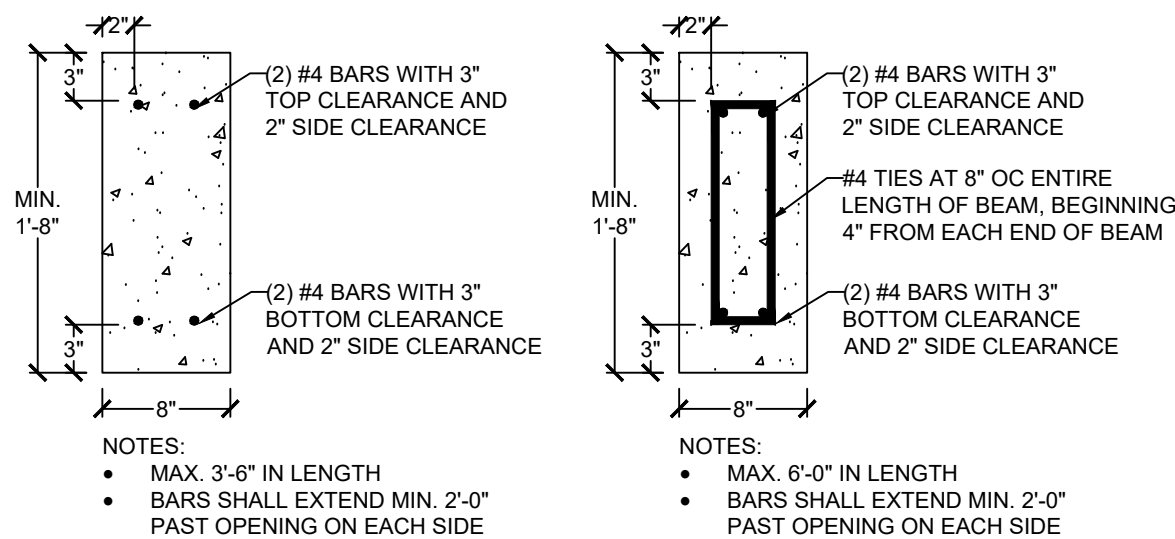
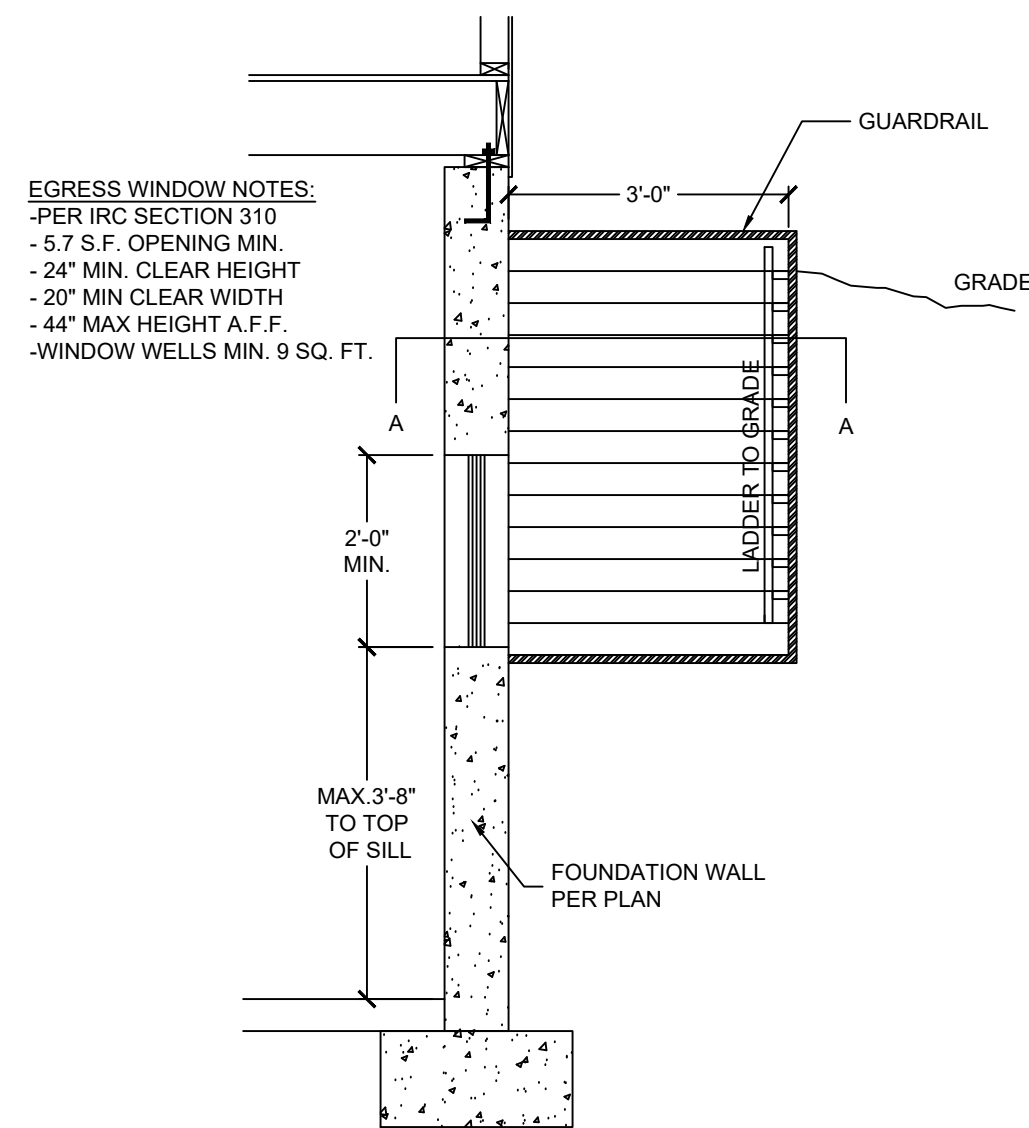
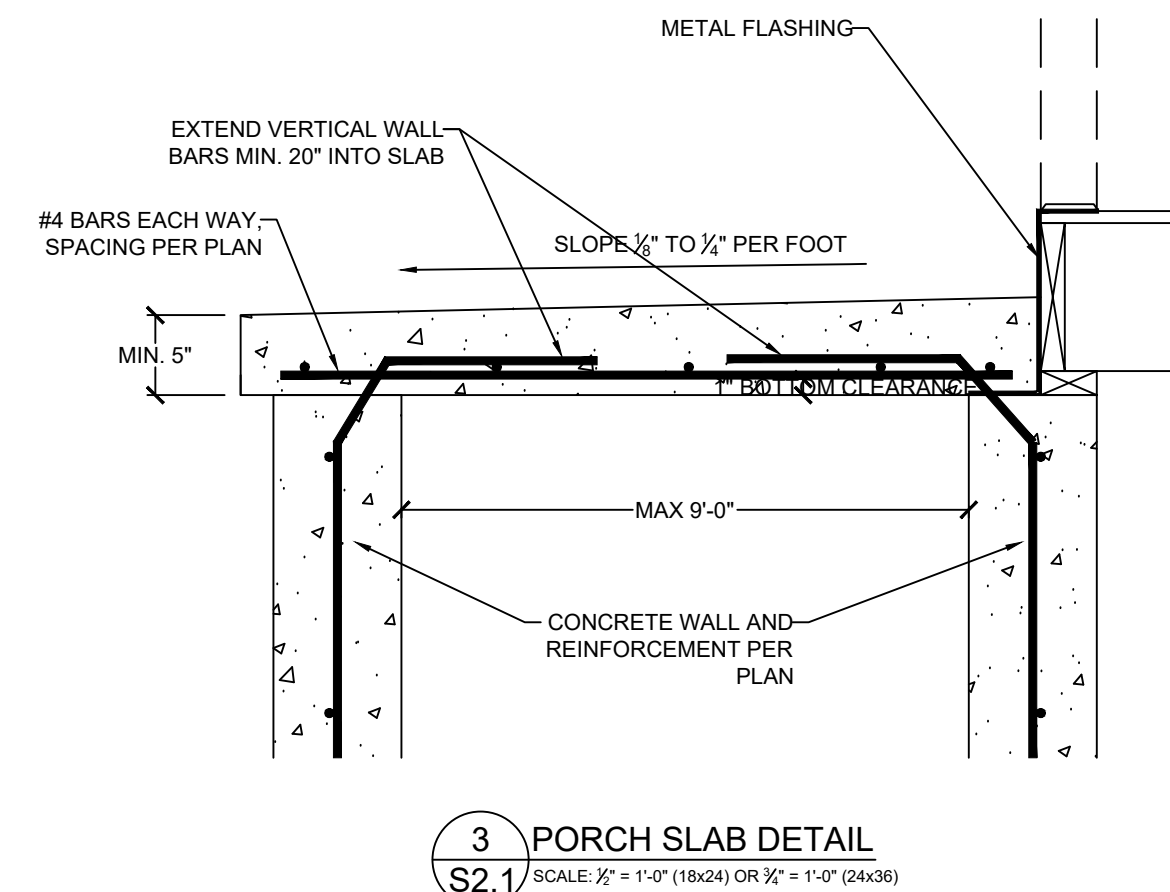
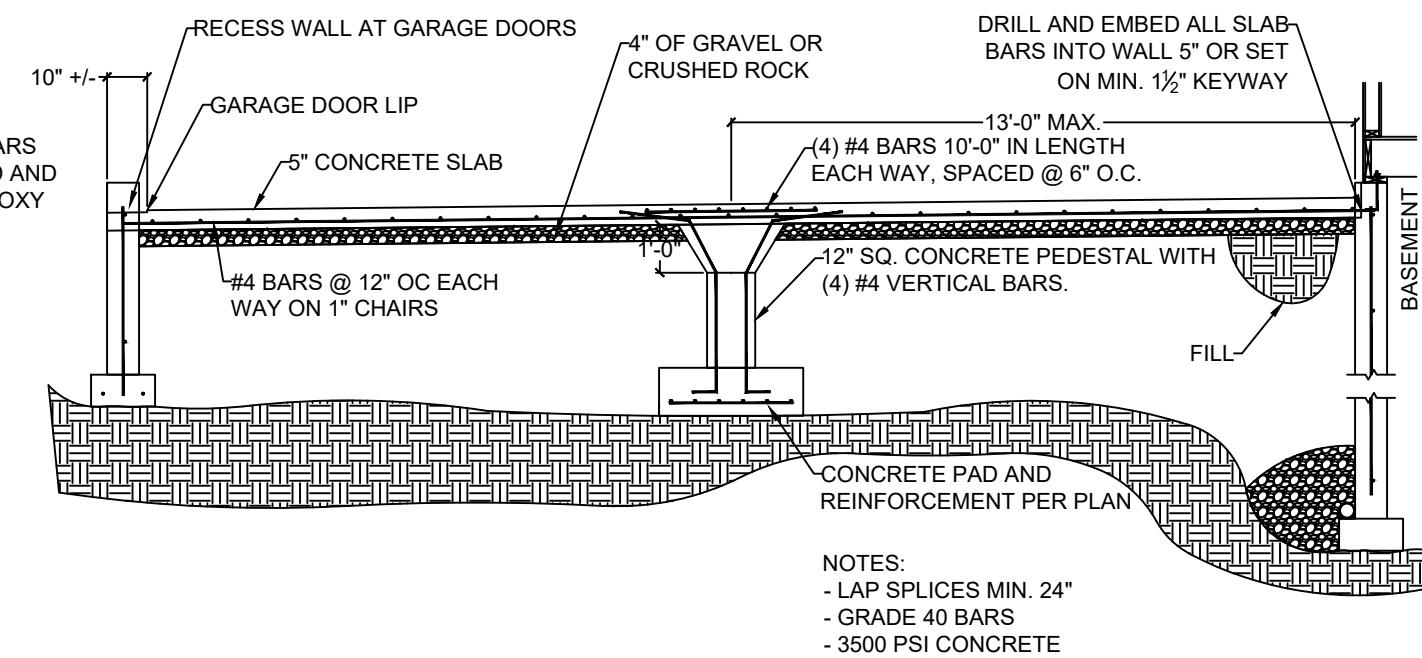
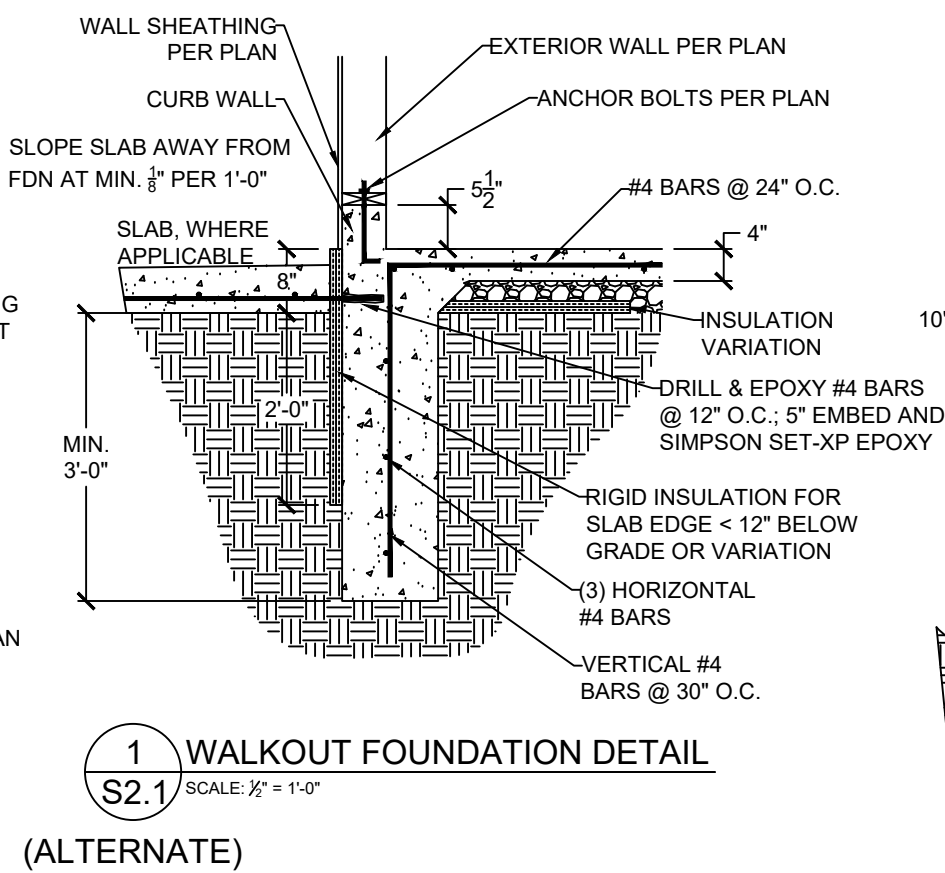
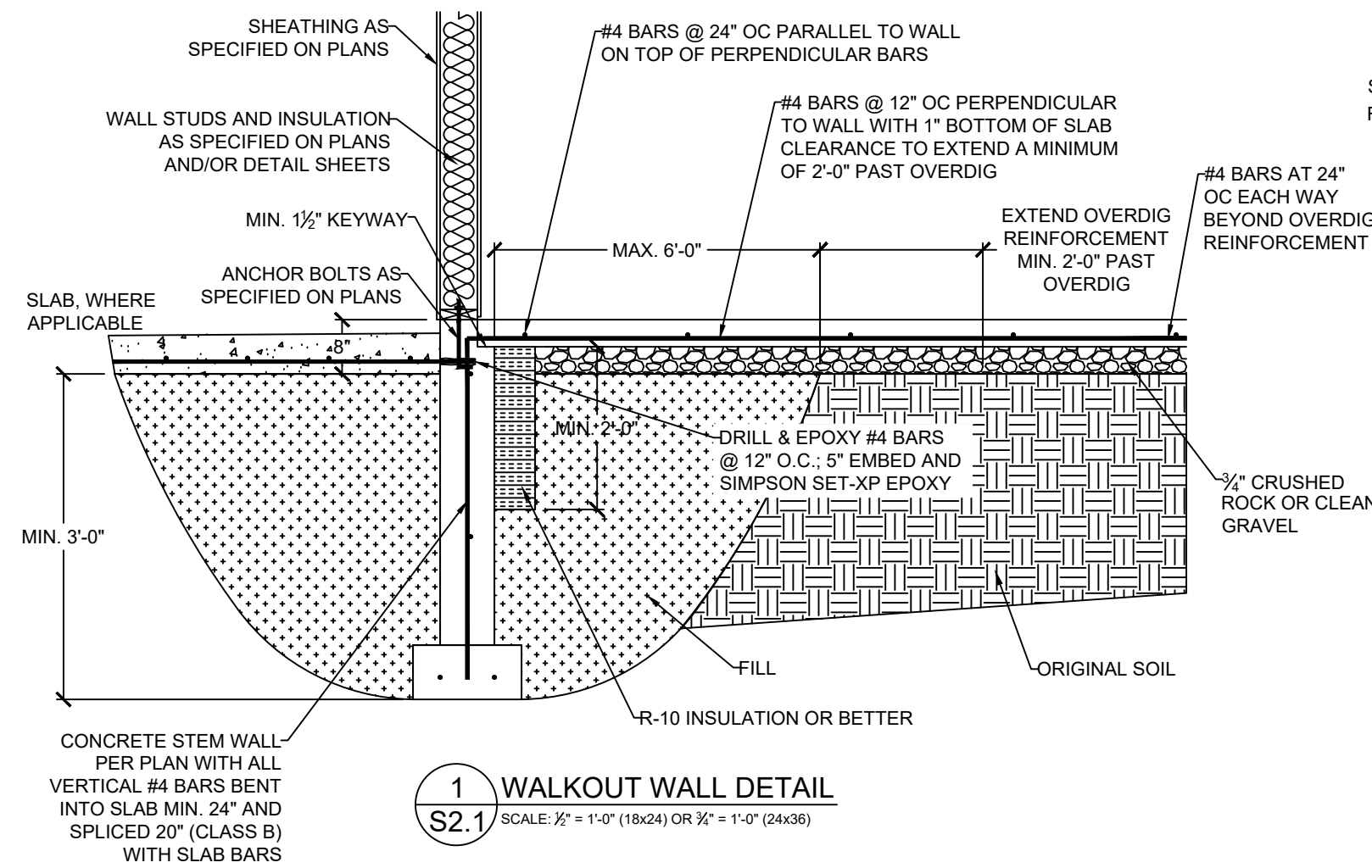
NO.	DATE	REVISION	BY

DRAWING TITLE

# FOUNDATION DETAILS

ENGINEER: DMH	CHECKED BY: DMH
JOB NO. 2810	DRAWN BY: DMH
DATE: 10-7-2020	
SHEET NUMBER	

## S2.0



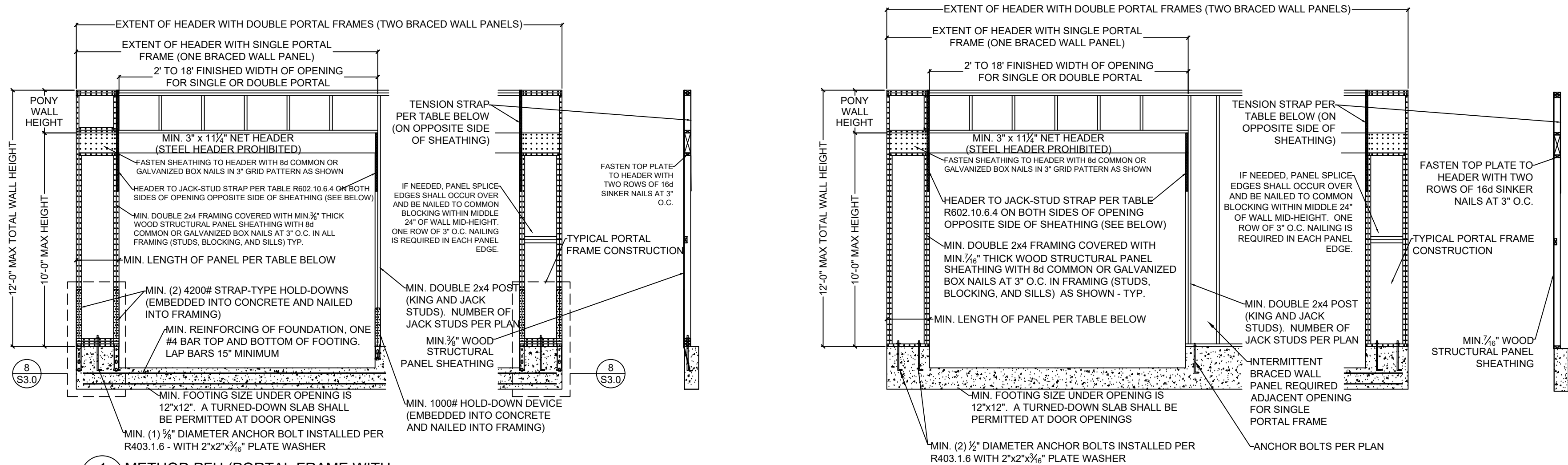
CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY
DRAWING TITLE			
FOUNDATION DETAILS			
ENGINEER: DMH		CHECKED BY: DMH	
JOB NO. 2810		DRAWN BY: DMH	
DATE: 10-7-2020			
SHEET NUMBER			

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020



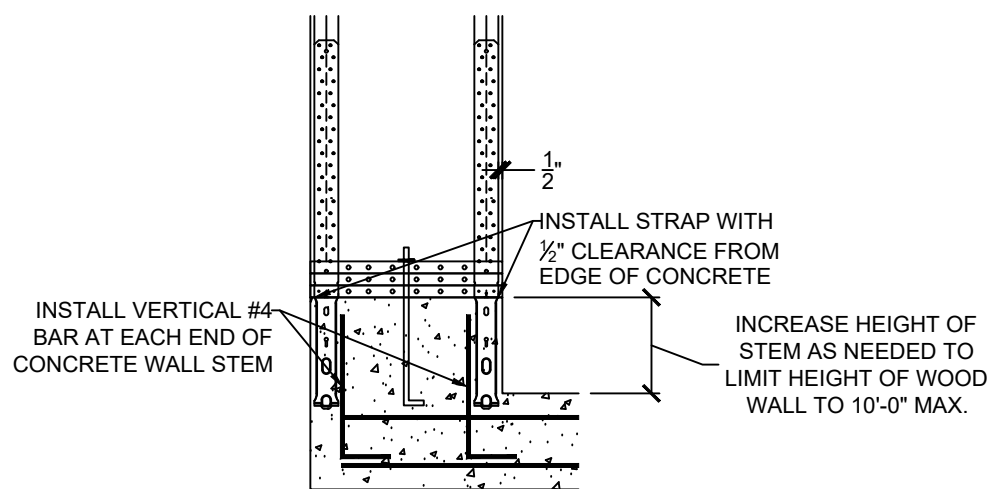
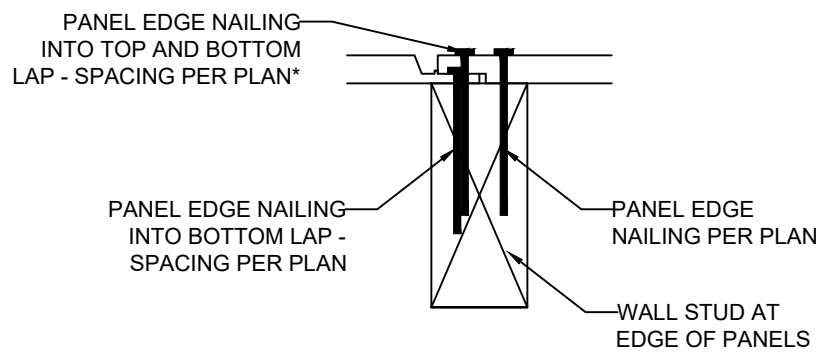
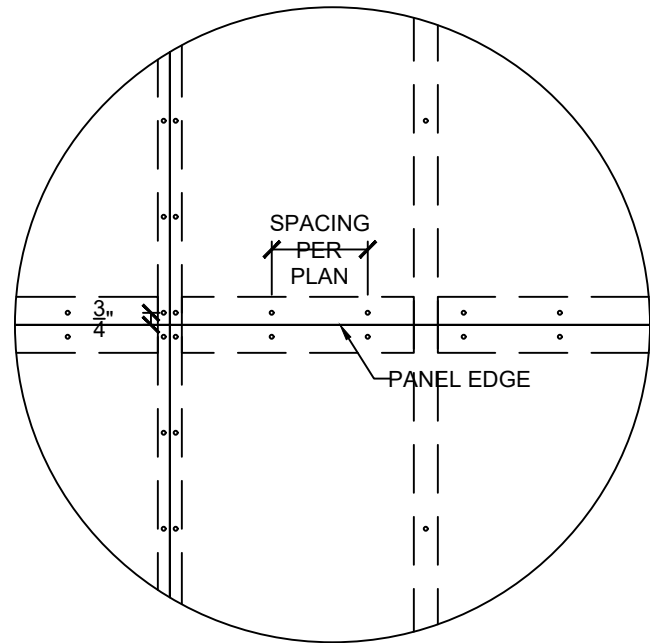
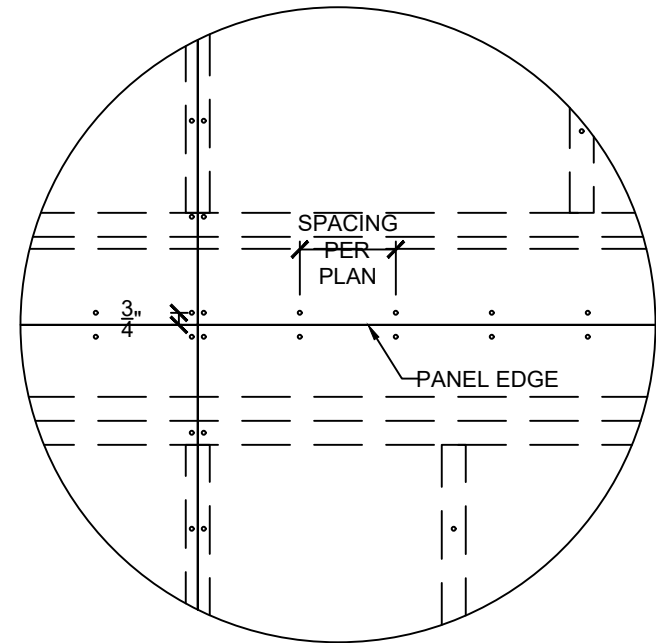
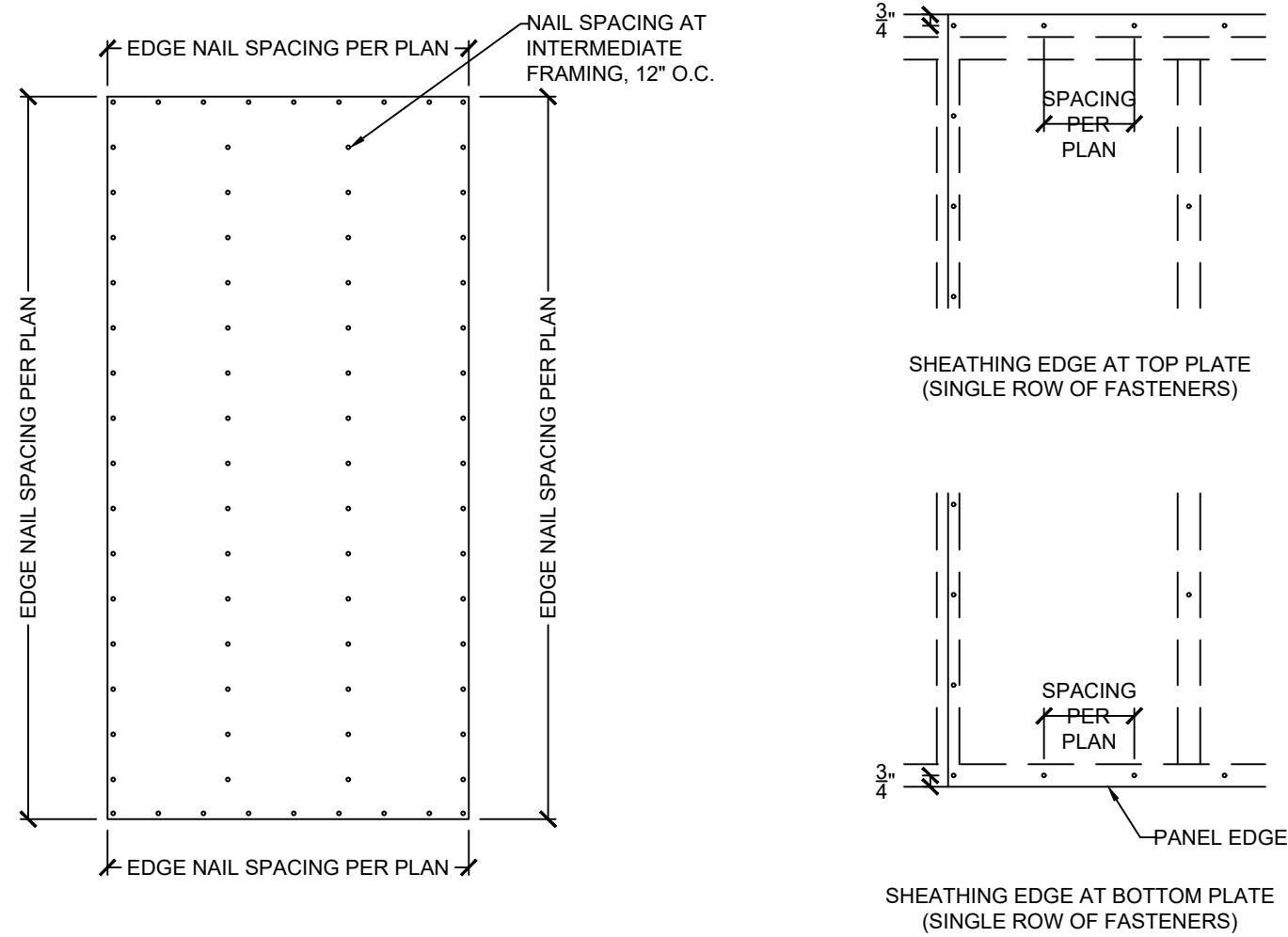


	MINIMUM PANEL LENGTH FOR DETAIL 1/S3.0 (INCHES)				
	WALL HEIGHT				
	8 FEET	9 FEET	10 FEET	11 FEET	12 FEET
SUPPORTING ROOF ONLY	16	16	16	18	20
SUPPORTING ONE STORY AND ROOF	24	24	24	27	29

MAX GARAGE OPENING (FT.)	PONY WALL WALL HT. (FT.)	REQUIRED SIMPSON STRAP	MIN. STRAP END LENGTH	NAILS REQUIRED IN EACH STRAP END LENGTH
18'-0"	0'-0"	CS20	0'-9"	(7) 8d
9'-0"	1'-0"	CS20	0'-9"	(7) 8d
18'-0"	1'-0"	CS14	1'-4"	(15) 8d
9'-0"	2'-0"	CS18	0'-11"	(9) 8d
18'-0"	2'-0"	CMSTC16	1'-8"	(25) 16d SINKER
9'-0"	4'-0"	CMSTC16	1'-8"	(25) 16d SINKER
16'-0"	4'-0"	CMST14	2'-6"	(33) 10d

MINIMUM PANEL LENGTH FOR DETAIL 2/S3.0 (INCHES)				
WALL HEIGHT				
8 FEET	9 FEET	10 FEET	11 FEET	12 FEET
24	27	30	33 <sup>a</sup>	36 <sup>a</sup>

a. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall



RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 10/08/2020



CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY

DRAWING TITLE

**FRAMING DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
JOB NO: 2810 DRAWN BY: DMH  
DATE: 10-7-2020  
SHEET NUMBER

**S3.0**

VISTA

STRUCTURAL

ENGINEERING, LLC

14718 NW DELIA STREET

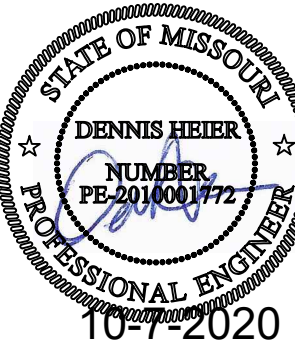
PORTLAND, OREGON 97229

OFFICE: 971.645.0901

MOBILE: 971.645.0901

EMAIL: DENNIS@VISTASTRUCTURAL.COM

CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY

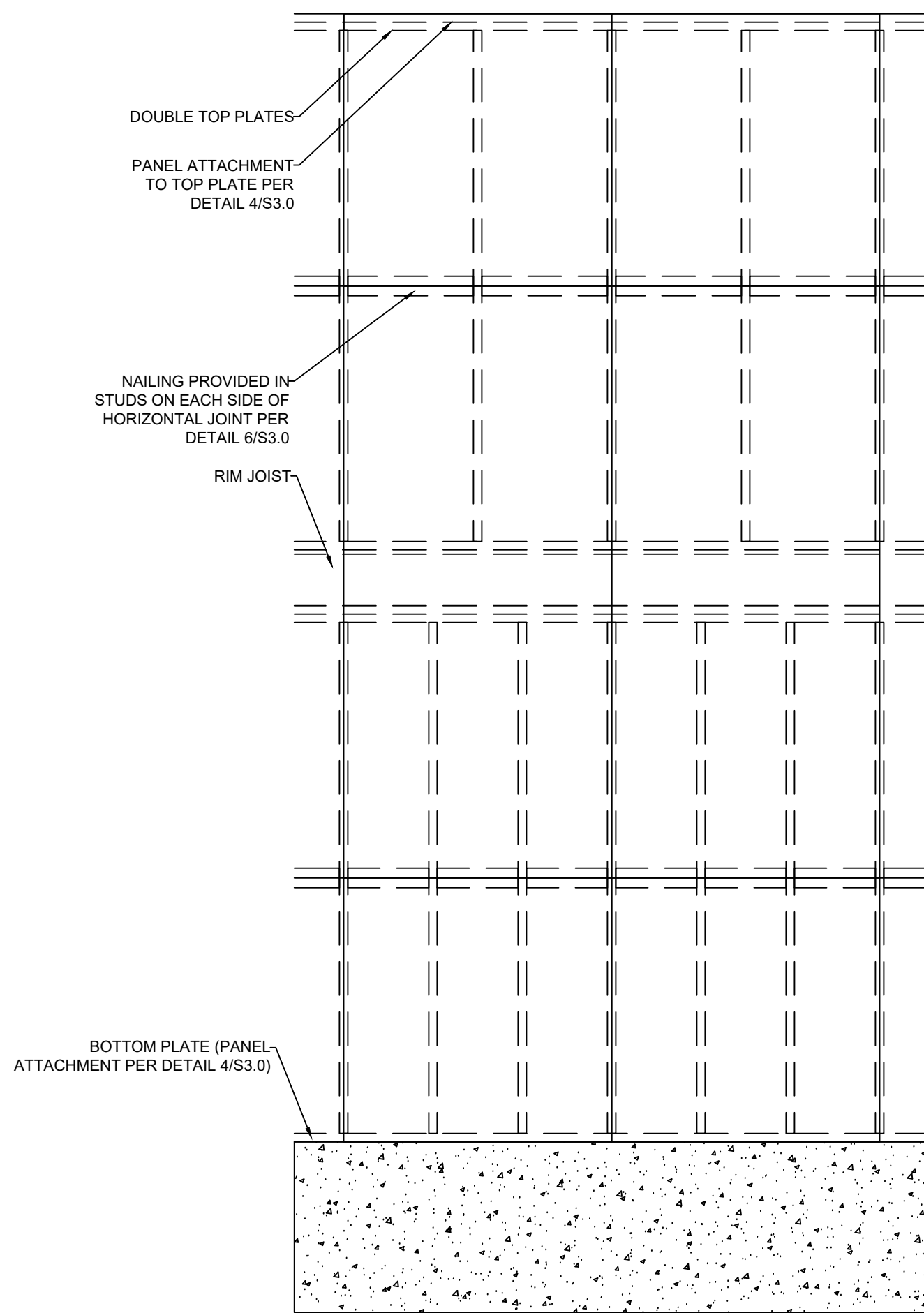
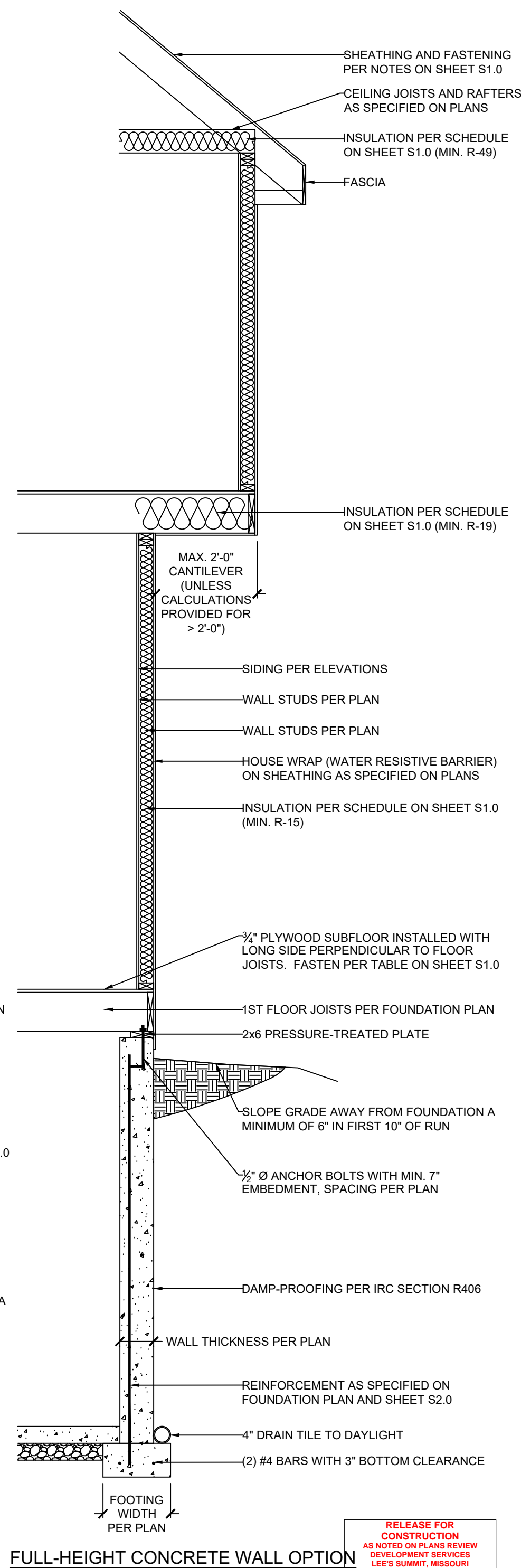
DRAWING TITLE

# FRAMING DETAILS

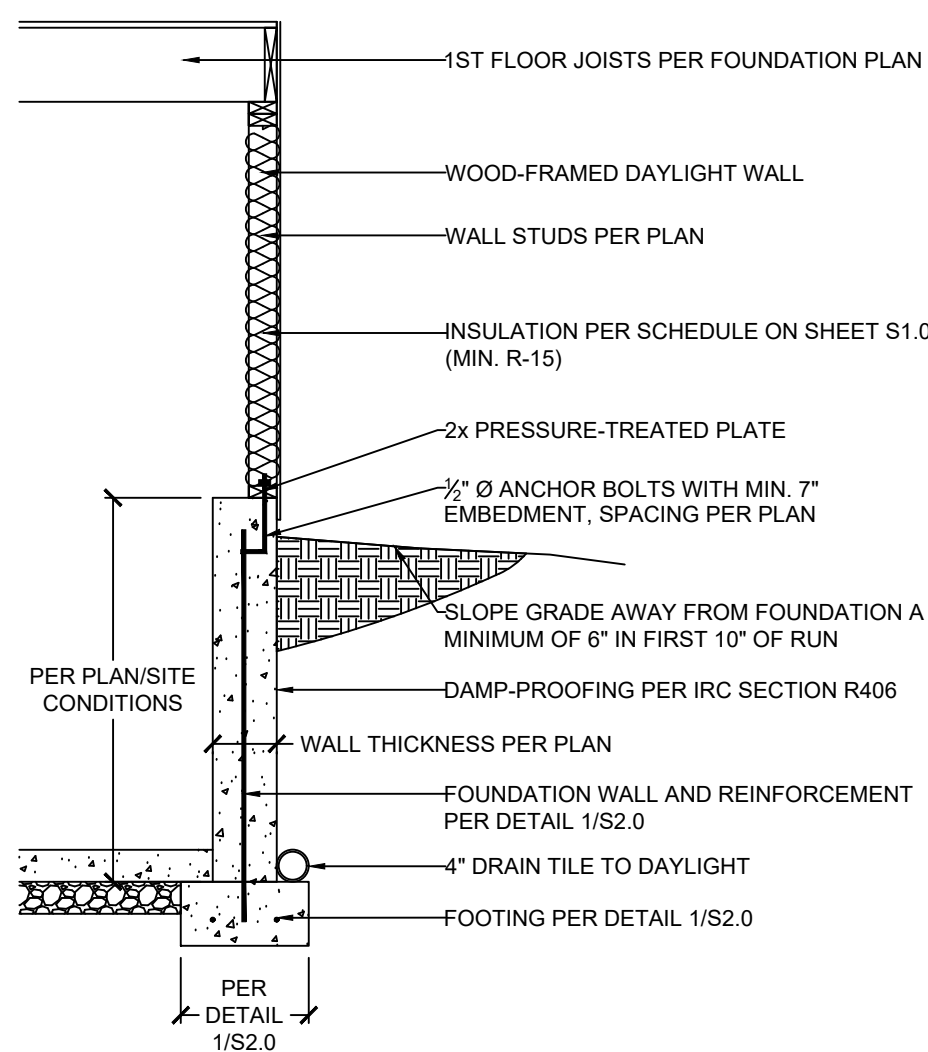
ENGINEER: DMH	CHECKED BY: DMH
JOB NO. 2810	DRAWN BY: DMH
DATE: 10-7-2020	
SHEET NUMBER	

# S3.1

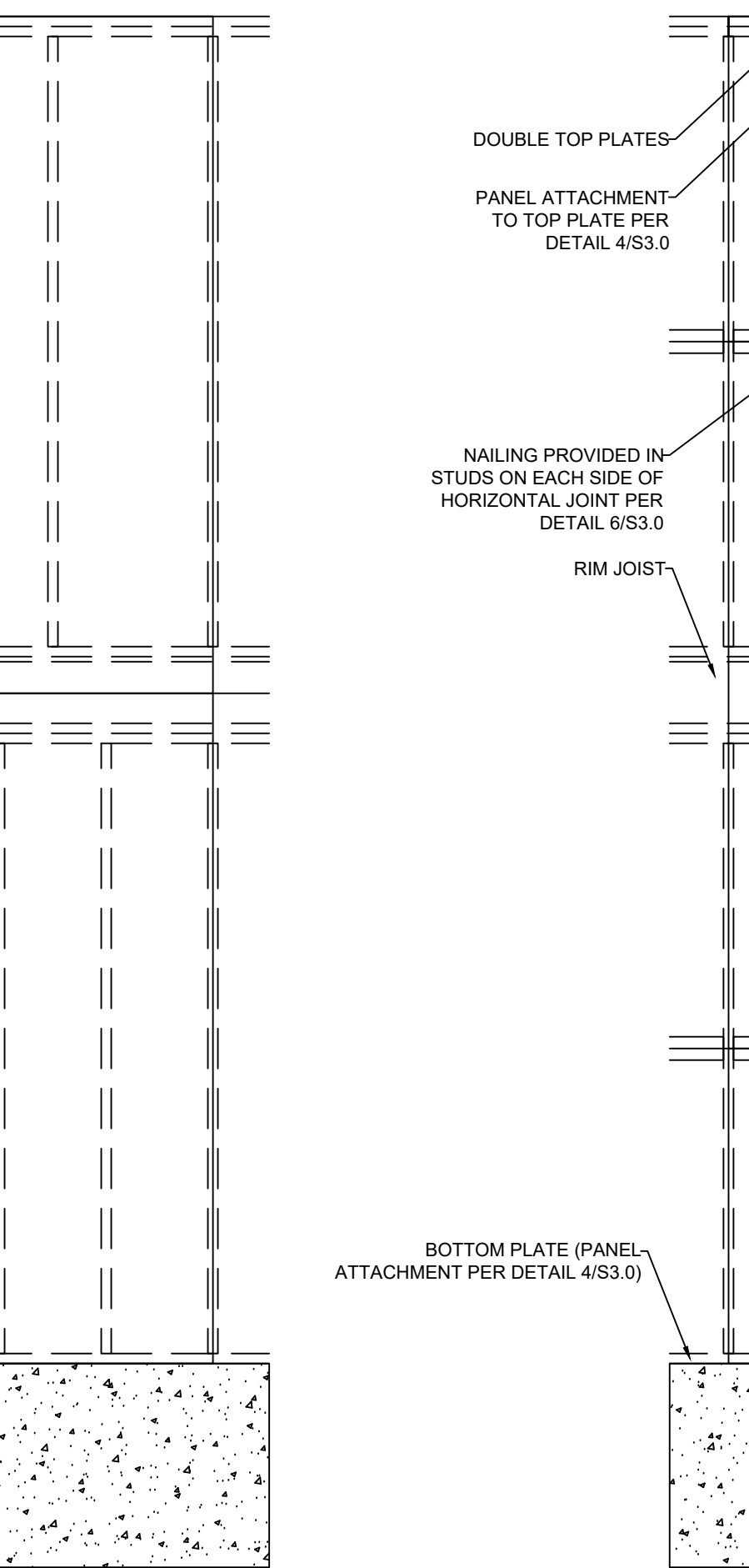
RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020



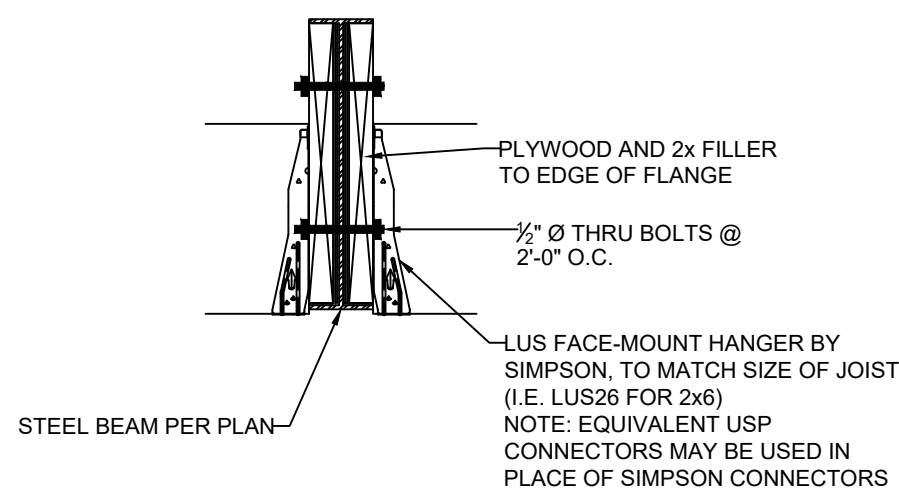
2 EXTERIOR WALL SHEATHING PANEL ATTACHMENT  
S3.1 PANEL SPLICE OCCURRING ACROSS STUDS  
SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



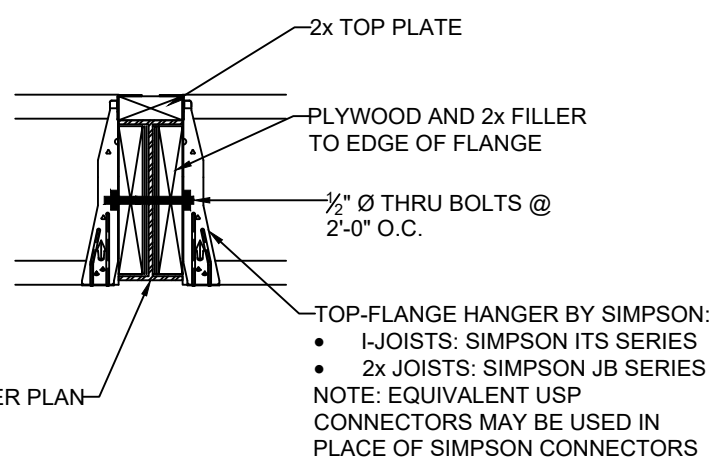
DAYLIGHT BASEMENT OPTION



1 EXTERIOR WALL SHEATHING PANEL ATTACHMENT  
S3.1 PANEL SPLICE OVER HORIZONTAL FRAMING MEMBER  
SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



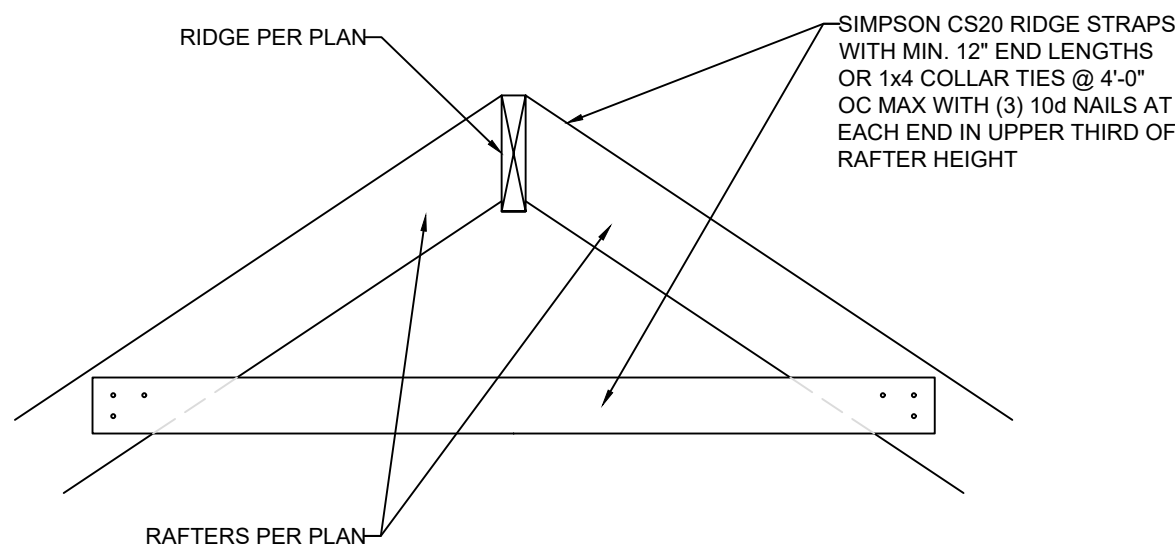
5 CEILING JOIST TO FLUSH STEEL BEAM DETAIL  
S3.1 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



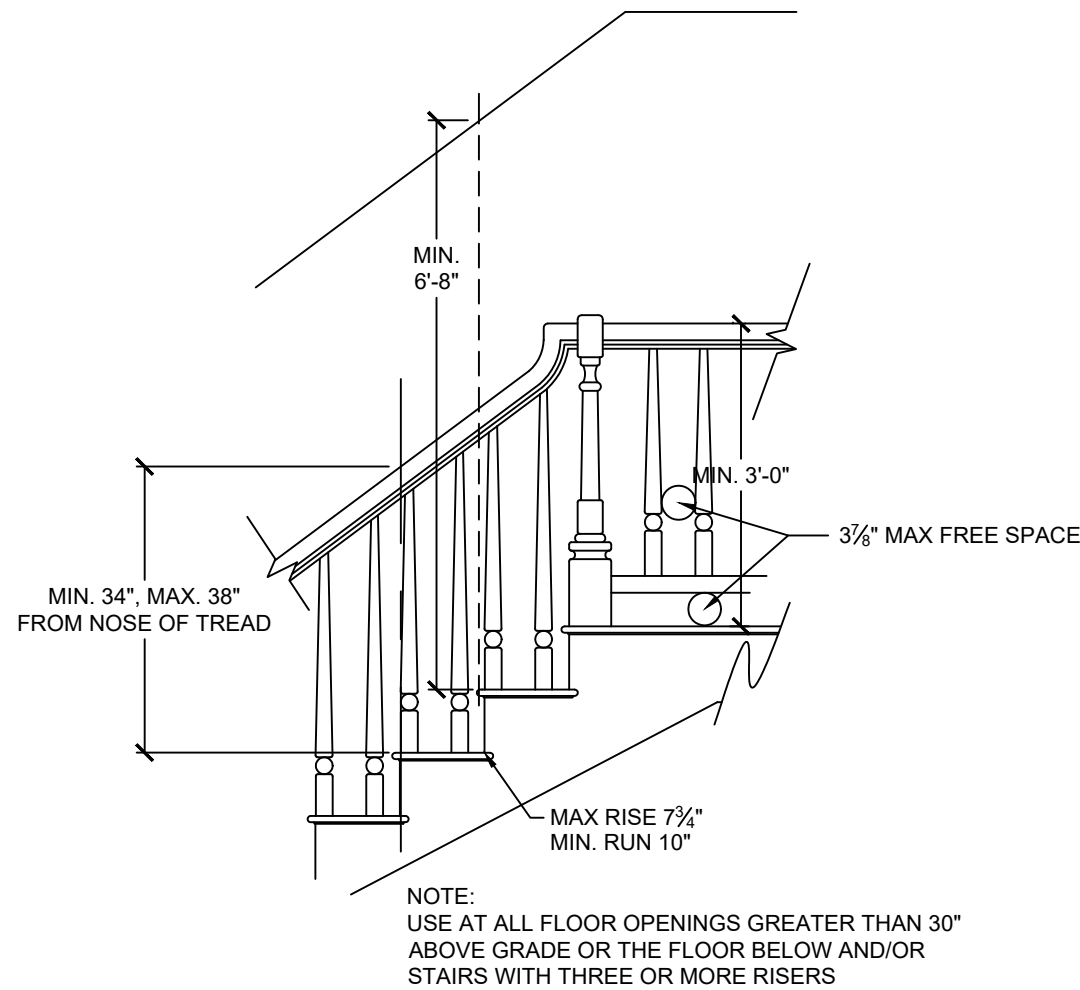
4 FLOOR JOIST TO FLUSH STEEL BEAM DETAIL  
S3.1 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

3 EXTERIOR WALL SECTION  
S3.1 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

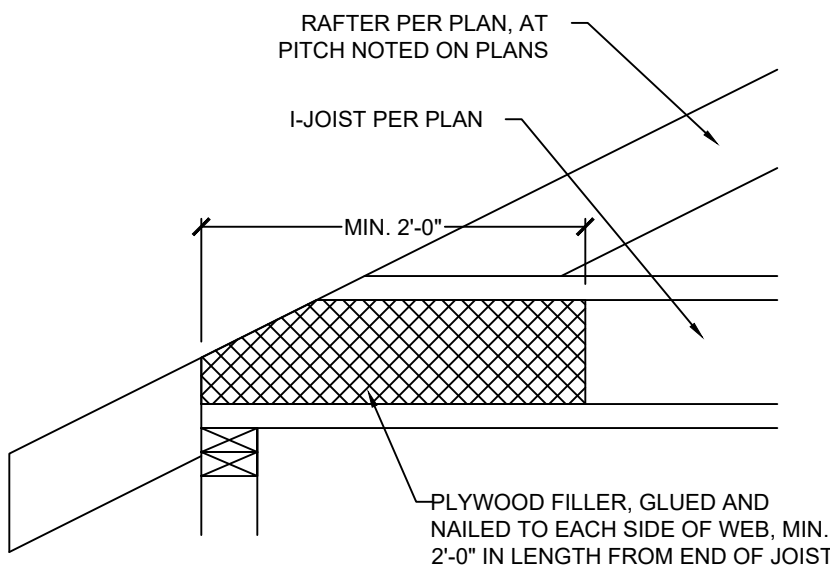




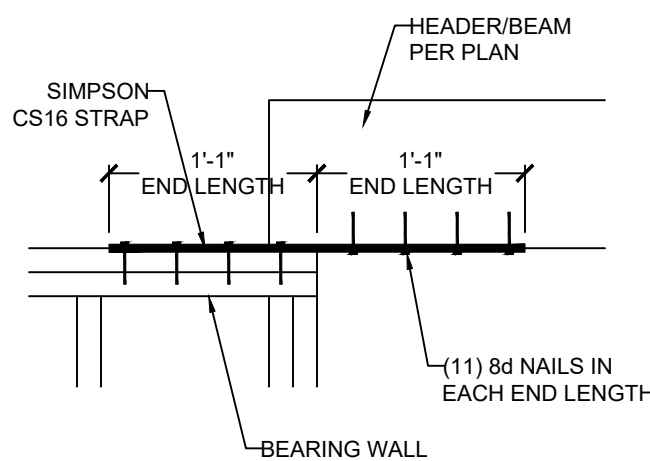
1 RIDGE FRAMING DETAIL  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



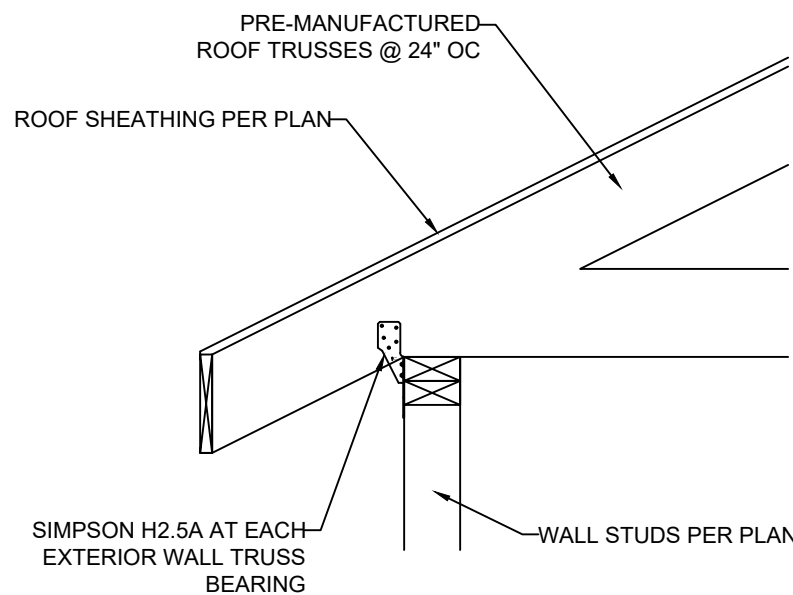
4 STAIR AND HANDRAIL/GUARDRAIL DETAIL  
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/8" = 1'-0" (24x36)



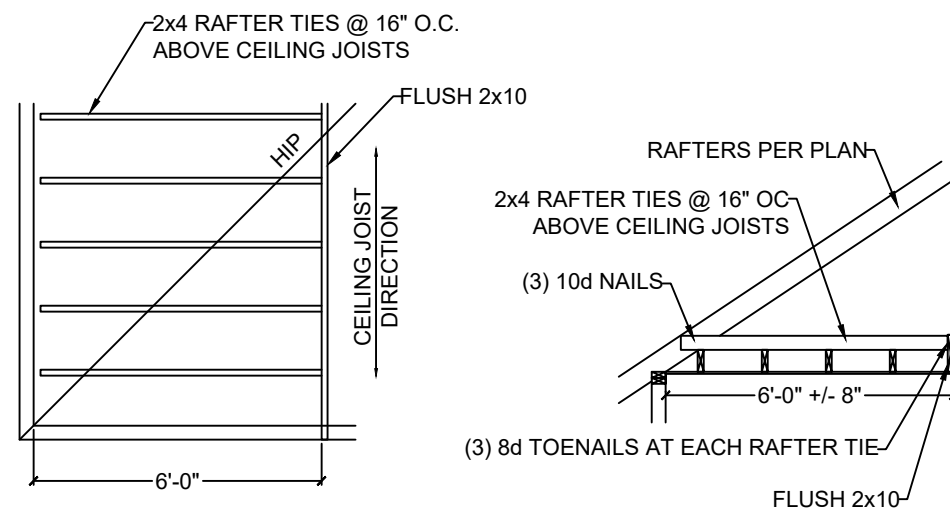
9 COPED I-JOIST REINFORCEMENT  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



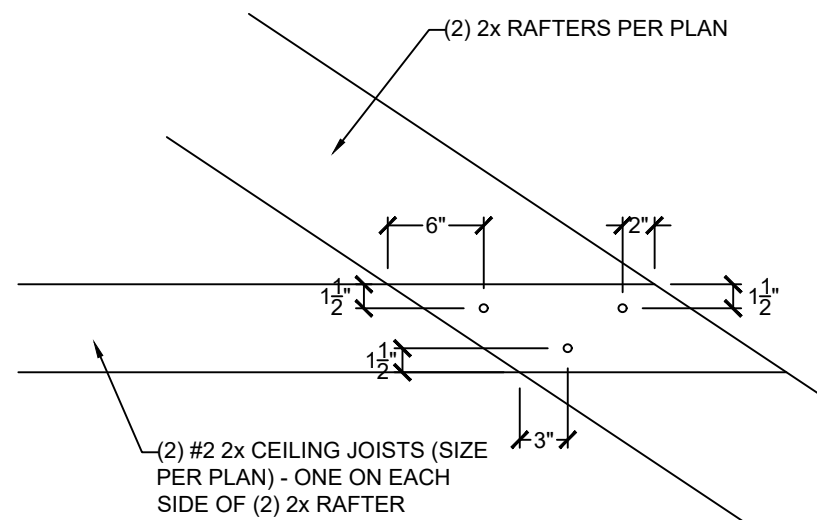
10 HEADER/BAM CONNECTION OPTIONS AT OUTDOOR/OPEN SPACE  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



2 TRUSS CONNECTION TO EXT. WALL BEARING  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



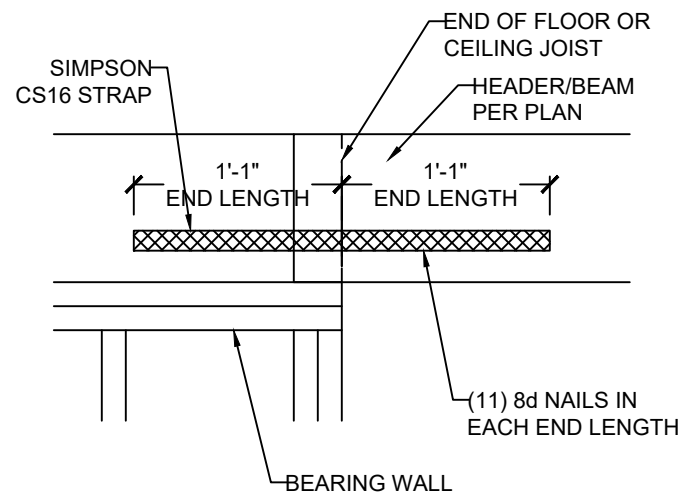
5 RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS  
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/8" = 1'-0" (24x36)



6 FIELD-CONSTRUCTED A-FRAME DETAIL  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)

NOT USED

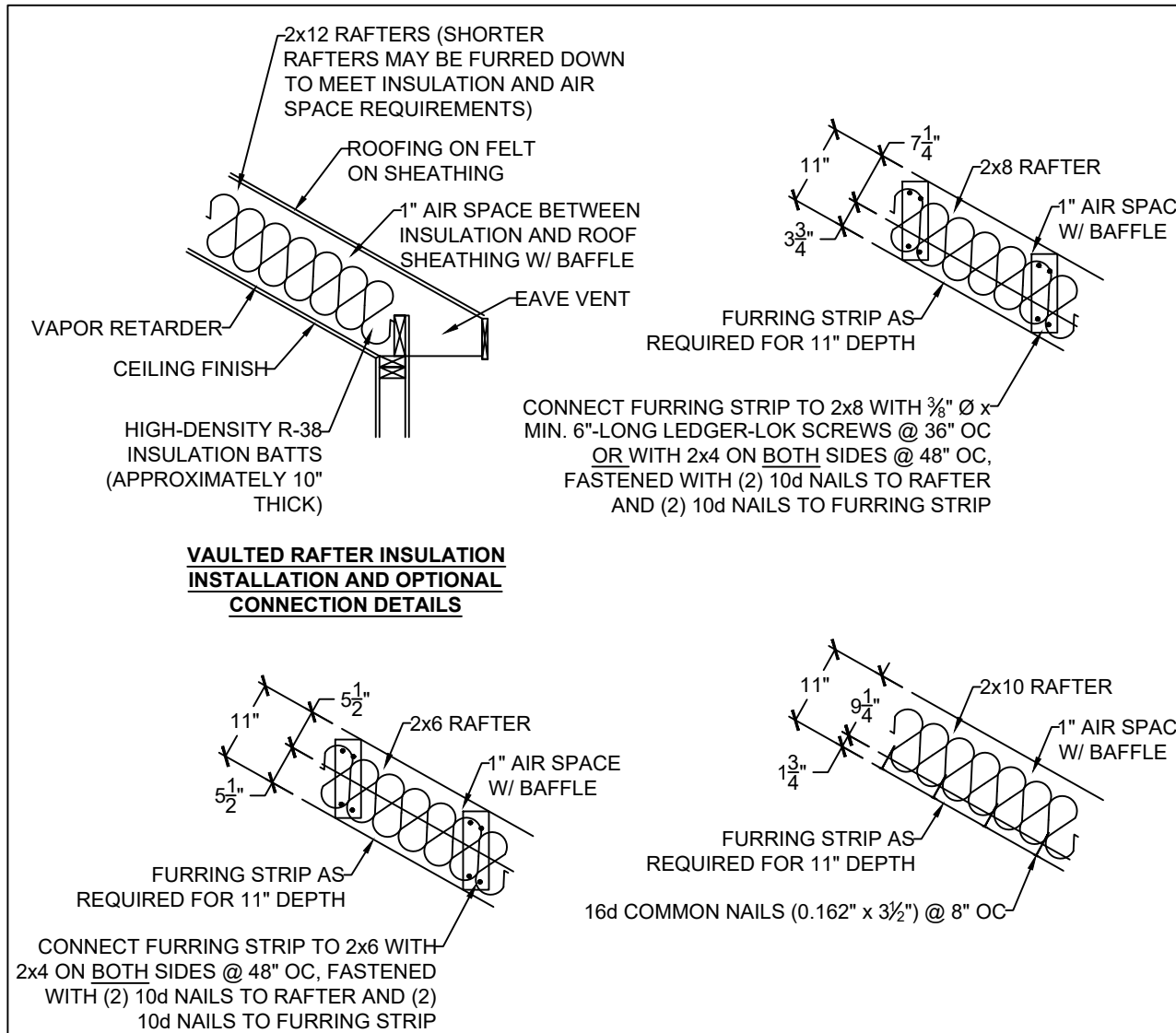
7 DETAIL  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



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"

8 MAXIMUM ALLOWABLE LENGTH OF WOOD WALL STUDS (IRC TABLE 602.3.1)  
S3.2

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020



3 VAULTED RAFTER INSULATION DETAILS  
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/8" = 1'-0" (24x36)

HEIGHT (FT.)	SPACING (INCHES O.C.)			
	24	16	12	8
SUPPORTING A ROOF ONLY				
10 OR LESS	2x4	2x4	2x4	2x4
12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPPORTING ONE FLOOR AND A ROOF				
10 OR LESS	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPPORTING TWO FLOORS AND A ROOF				
10 OR LESS	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	DR	2x6	2x6
20	DR	DR	DR	2x6

CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY
DRAWING TITLE			
FRAMING DETAILS			
ENGINEER: DMH		CHECKED BY: DMH	
JOB NO. 2810		DRAWN BY: DMH	
DATE: 10-7-2020			
SHEET NUMBER			

S3.2

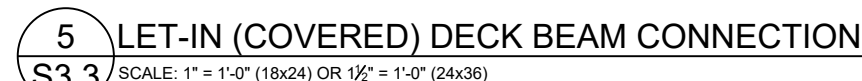




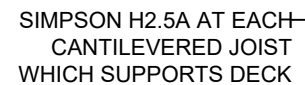
DECK JOIST SPAN	½" Ø GALV. LAG OR ¾" Ø LEDGER-LOK SPACING
10'-0" OR LESS	16" OC
10'-0" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
14'-0" - 18'-0"	8" OC OR @ 16" OC DOUBLED

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

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

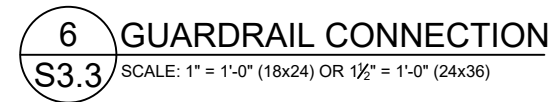


SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



## 2 CANTILEVER WITH DECK ATTACHMENT

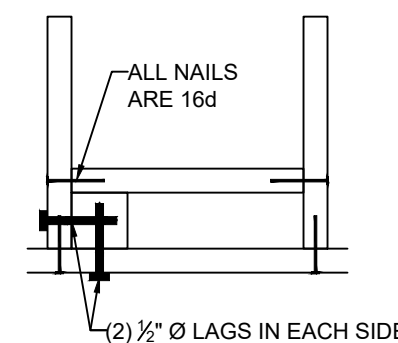
**S3.3** SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



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



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

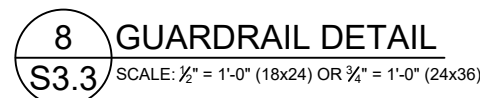


## 4 REINF. POST CONNECTIONS

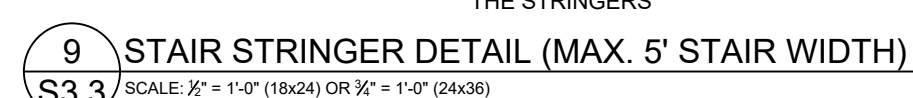
SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



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



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



3) 3" x 6" x 1/2" STEEL PLATE 3' x 6' x 1/2"

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**



CLIENT: IQ CONSTRUCTION  
JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK  
LOCATION: LEE'S SUMMIT, MISSOURI

[illegible]

DRAWING TITLE

## FRAMING DETAILS

ENGINEER: DMH	CHECKED BY DMH
---------------	----------------

ENGINEER: DMH	CHECKED BY DMH
ISS NO: 2810	DRAWN BY DMH

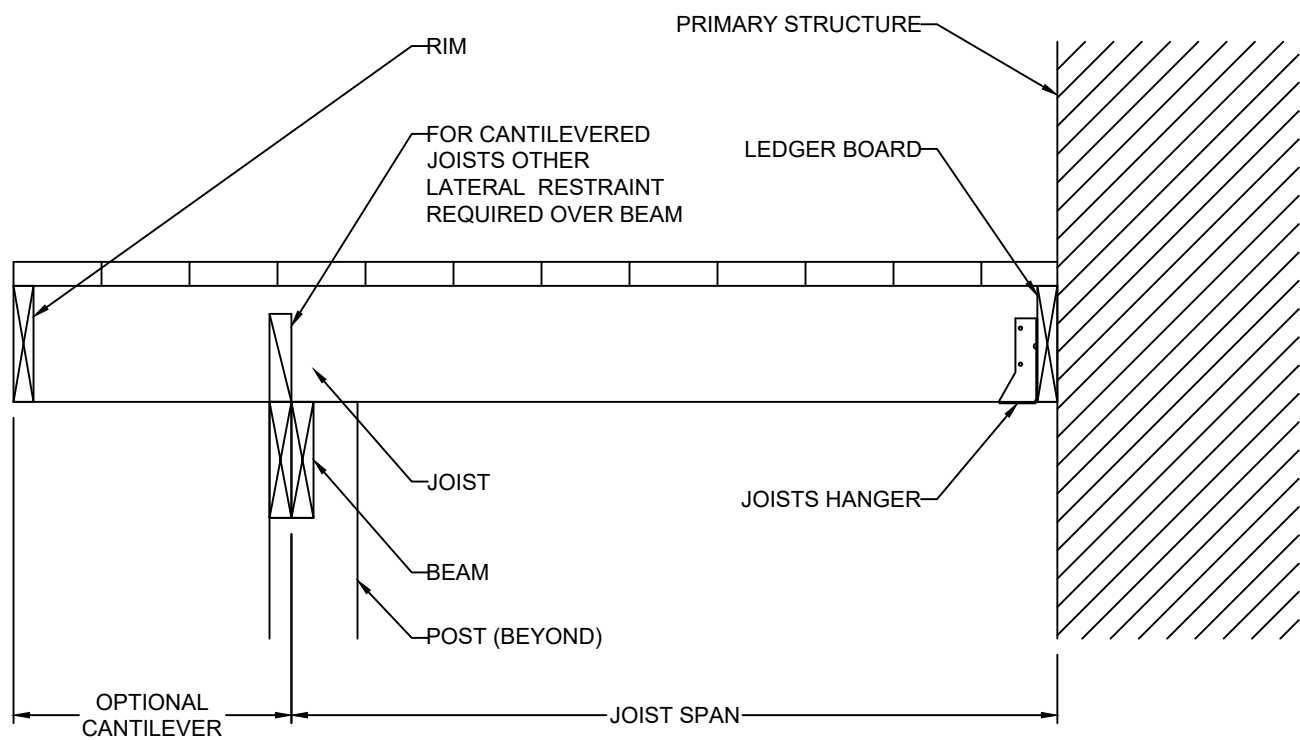
JOB NO. 2610	DRAWN BY: DIM
DATE 10.3.2020	

DATE: 10-7-2020

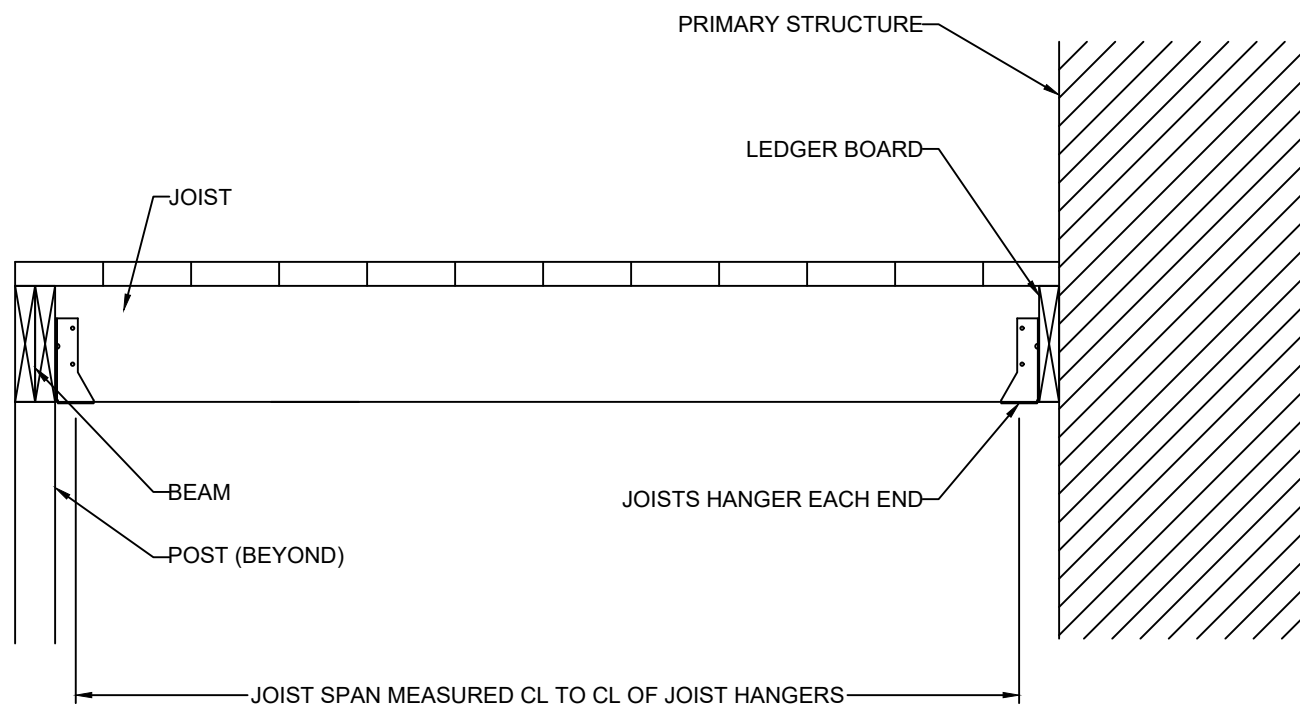
SHEET NUMBER

### S3.3a

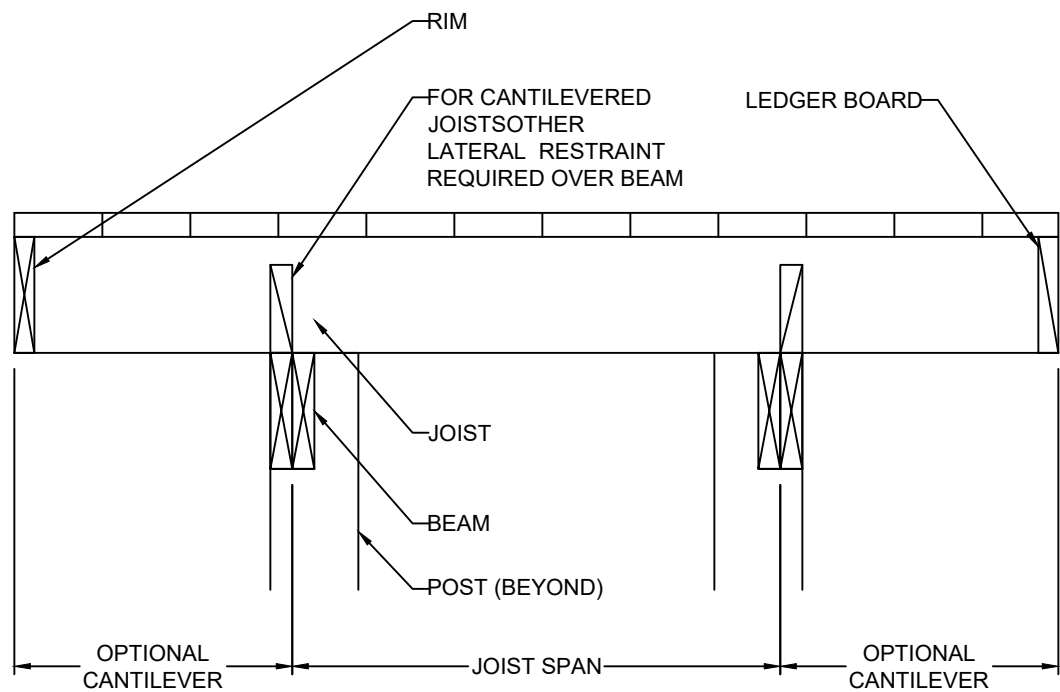




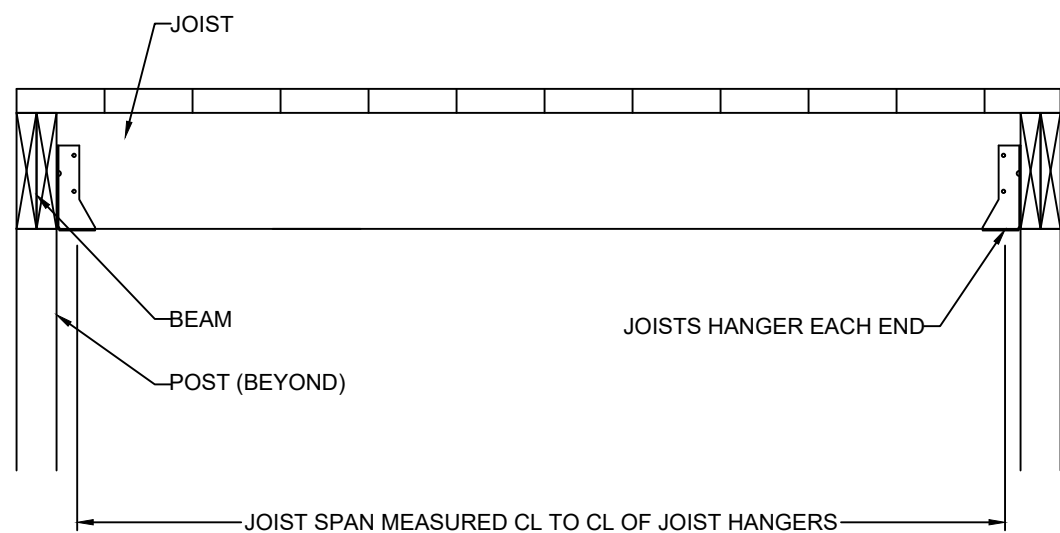
CANTILEVERED JOISTS WITH DROPPED BEAM



JOISTS WITH FLUSH BEAM

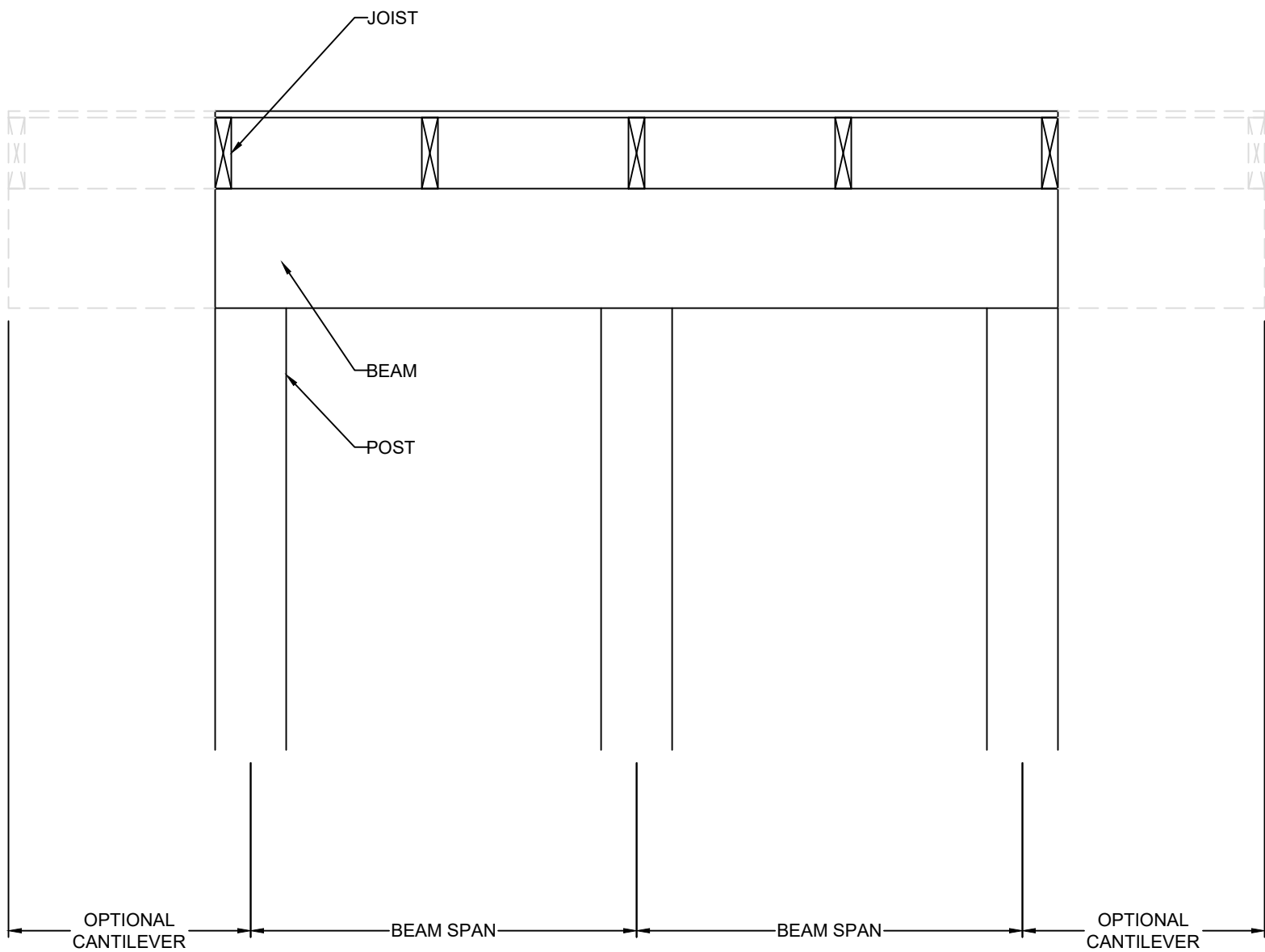


JOISTS ON FREE-STANDING DECK WITH DROPPED BEAM

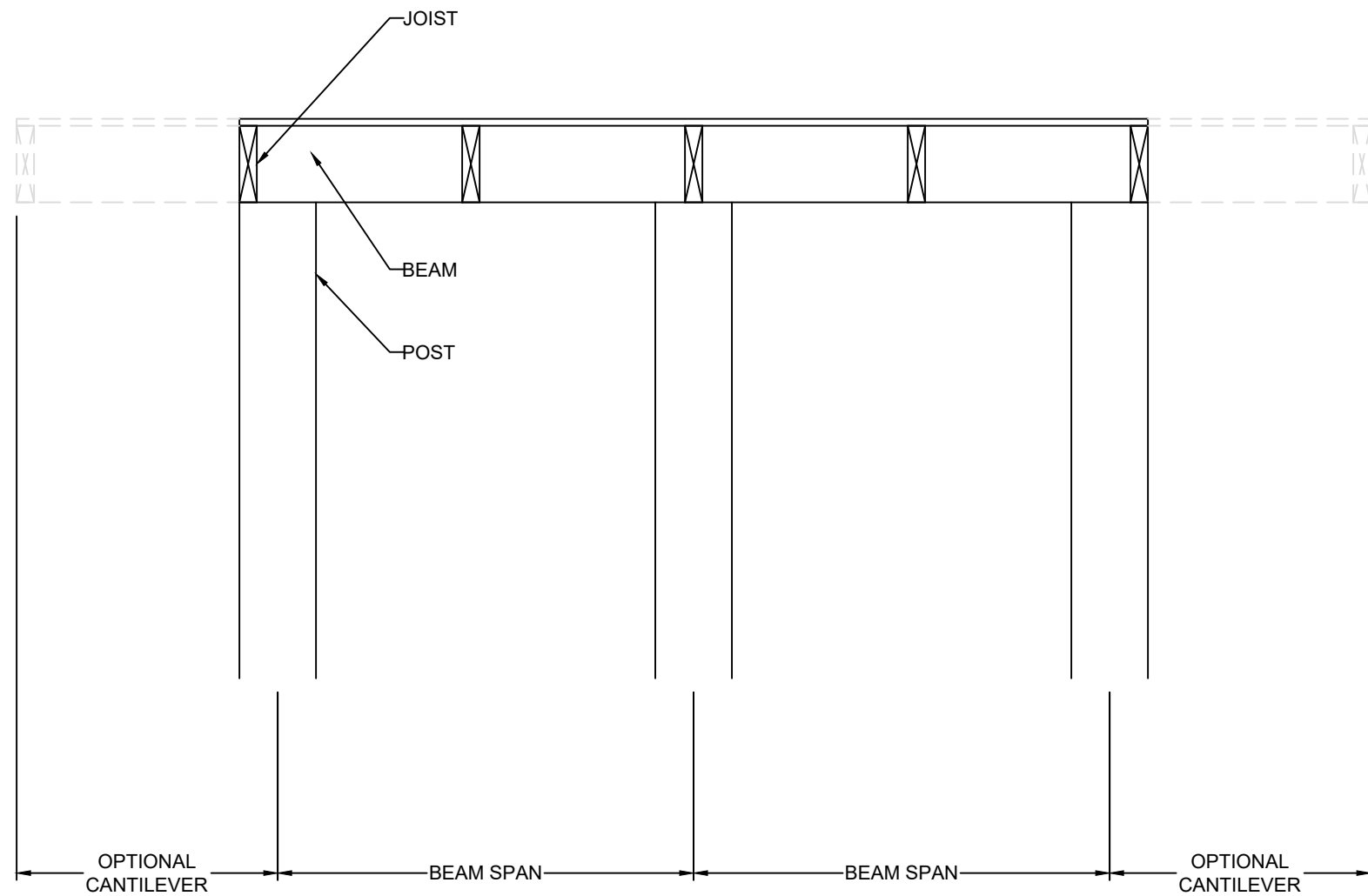


JOISTS WITH FLUSH BEAM

10 TYP. DECK JOIST SPANS  
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



DROPPED BEAM



FLUSH BEAM

RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020

**VISTA**  
— STRUCTURAL —  
ENGINEERING, LLC

14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
EMAIL: DENNIS@VISTASTRUCTURAL.COM

CLIENT: IQ CONSTRUCTION

JOB TITLE: EGC744 SPEC - OAKMONT  
LOT 744, EAGLE CREEK

LOCATION: LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
DENNIS HEIER  
NUMBER  
PE-2010001772  
PROFESSIONAL ENGINEER  
10-7-2020

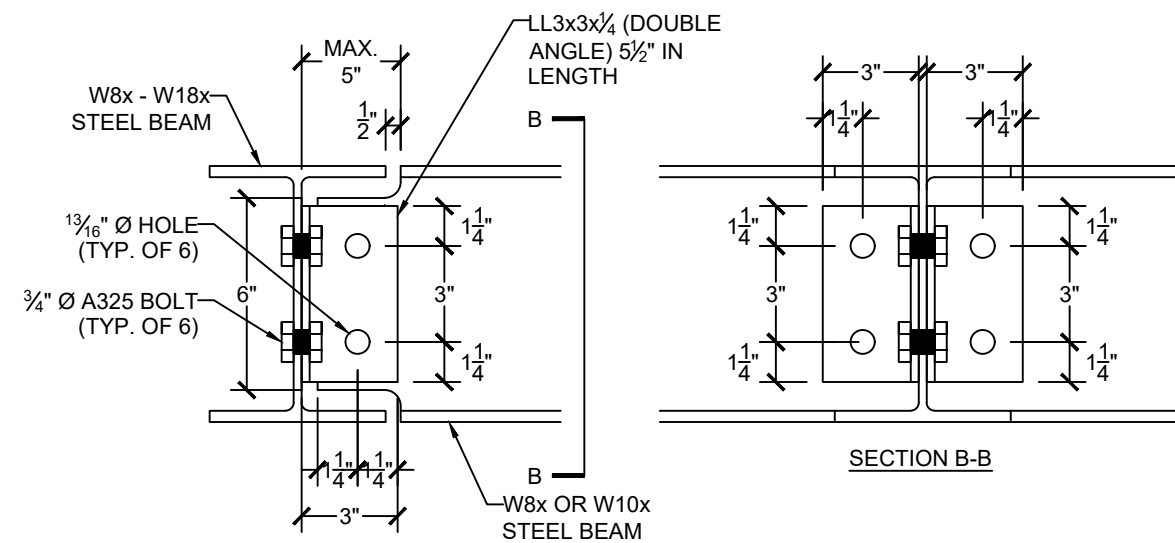
NO.	DATE	REVISION	BY

DRAWING TITLE

**FRAMING  
DETAILS**

ENGINEER: DMH    CHECKED BY: DMH  
JOB NO.: 2810    DRAWN BY: DMH  
DATE: 10-7-2020  
SHEET NUMBER

**S3.3b**



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)

W12x-18  
STEEL BEAM

MAX. 5"

$\frac{1}{2}$ "

LL3x3x $\frac{1}{4}$ " (DOUBLE  
ANGLE) 8 $\frac{1}{2}$ " IN  
LENGTH

D

$\frac{13}{16}$ "  $\varnothing$  HOLE  
(TYP. OF 9)

9"

$\frac{3}{4}$ "  $\varnothing$  A325 BOLT  
(TYP. OF 9)

1 $\frac{1}{4}$ "

3"

3"

1 $\frac{1}{4}$ "

1 $\frac{1}{4}$ "

1 $\frac{1}{4}$ "

3"

W12x-18  
STEEL BEAM

SECTION D-D



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

## 4 RAFTER FLITCH PLATE DETAIL

MIN. 1'-0"

9" (CENTER TO CENTER)

(2) #2 - 2x12's CONTINUOUS CORNER TO CORNER

WRAP STRAPS OVER TOP OF HEADER AND EXTEND DOWN FRONT AND BACK

(2) 2x STUDS

SIMPSON CMSTC16 STRAP AT EACH END OF PANEL WITH 1'-8" END LENGTHS FRONT AND BACK, FASTENED WITH (25) 16d SINKER NAILS IN EACH END LENGTH

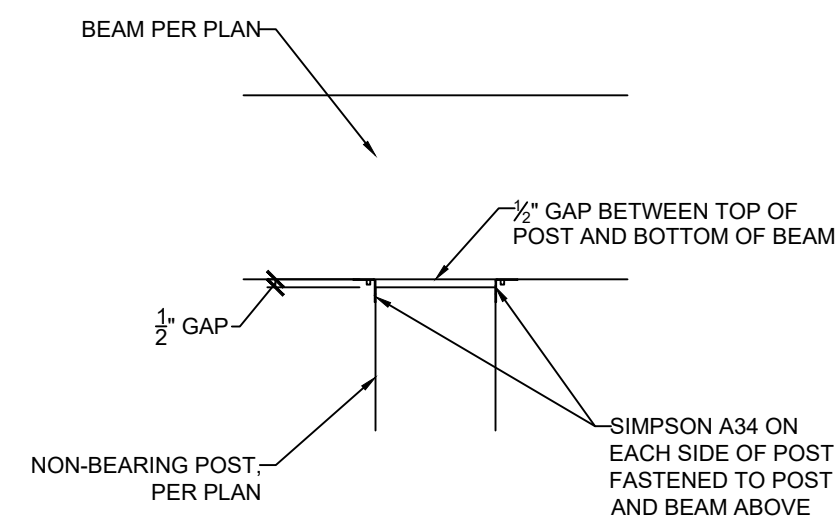
MIN. 1'-8" (FRONT & BACK)

FASTEN  $\frac{1}{16}$ " APA-RATED SHEATHING TO EACH STUD WITH 8d NAILS @ 3" O.C.

## 6 3RD CAR STALL BRACING

6  
S3.4

## 6 3RD CAR STALL BRACING



## 8 NON-BEARING POST CONNECTION

## 5 SPLICED WALL CONNECTION

## 6 3RD CAR STALL BRACING

## 7 EXTERIOR STEEL COLUMN CONNECTIONS

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/08/2020**



NO.	DATE	REVISION	BY

DRAWING TITLE

# STEEL BEAM CONNECTIONS

ENGINEER: DMH

CHECKED BY: DMH

JOB NO. 2810

DRAWN BY: DMH

DATE: 10-7-2020

SHEET NUMBER

# S3.4