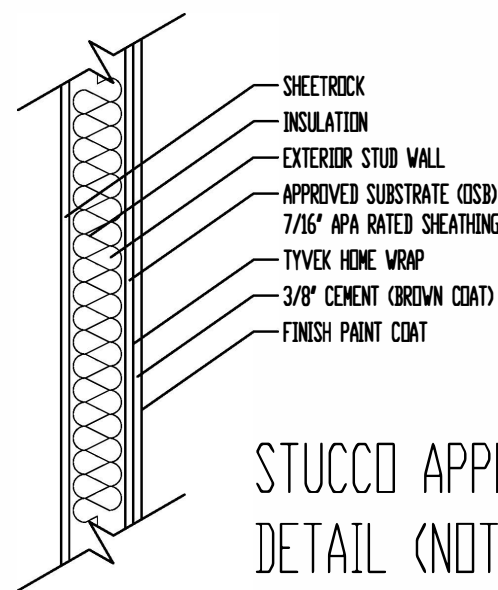
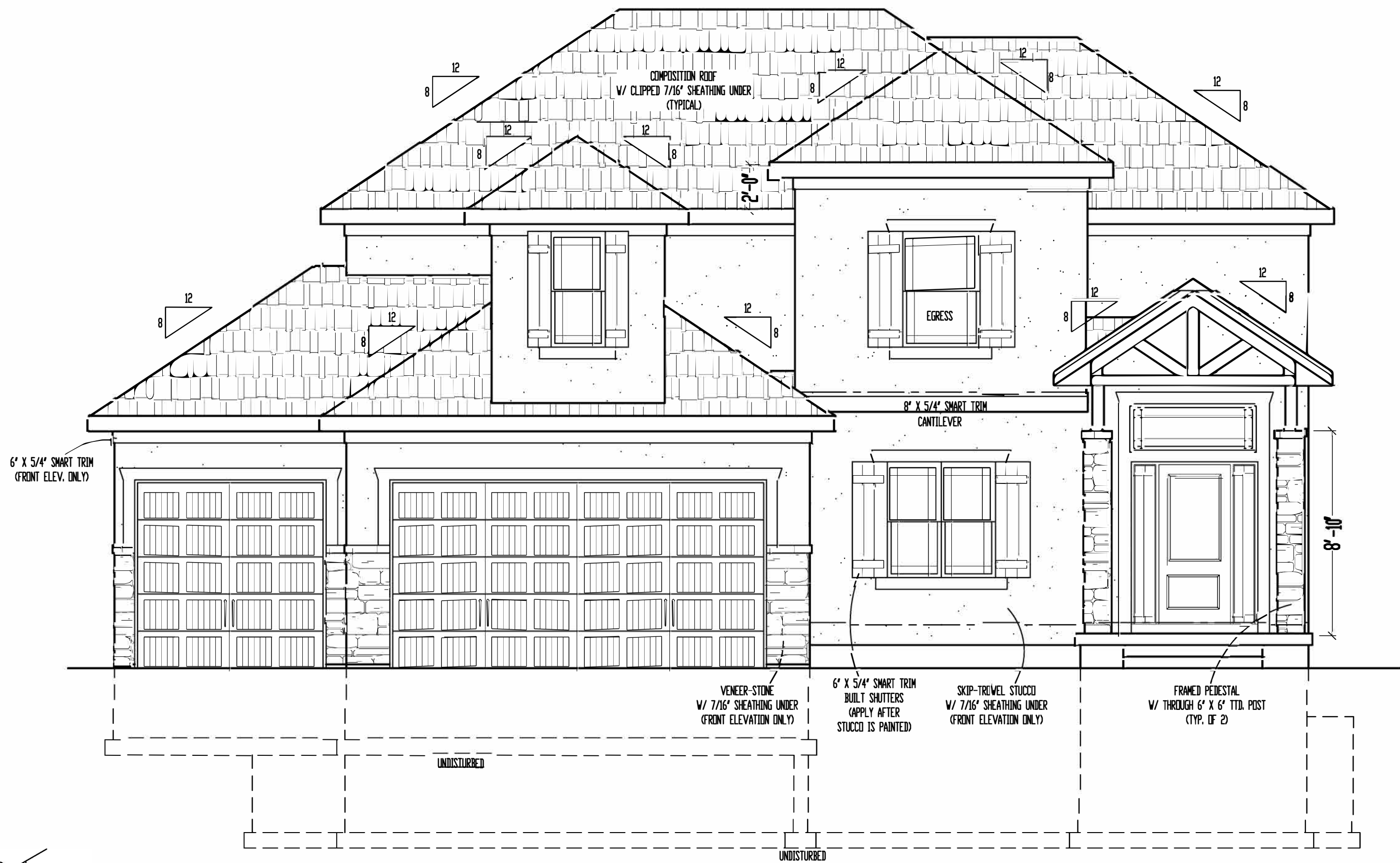




FRONT ELEVATION

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

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SHEET TITLE: FRONT ELEVATION | SHEET NO: 1 of 6
DATE: 03022017

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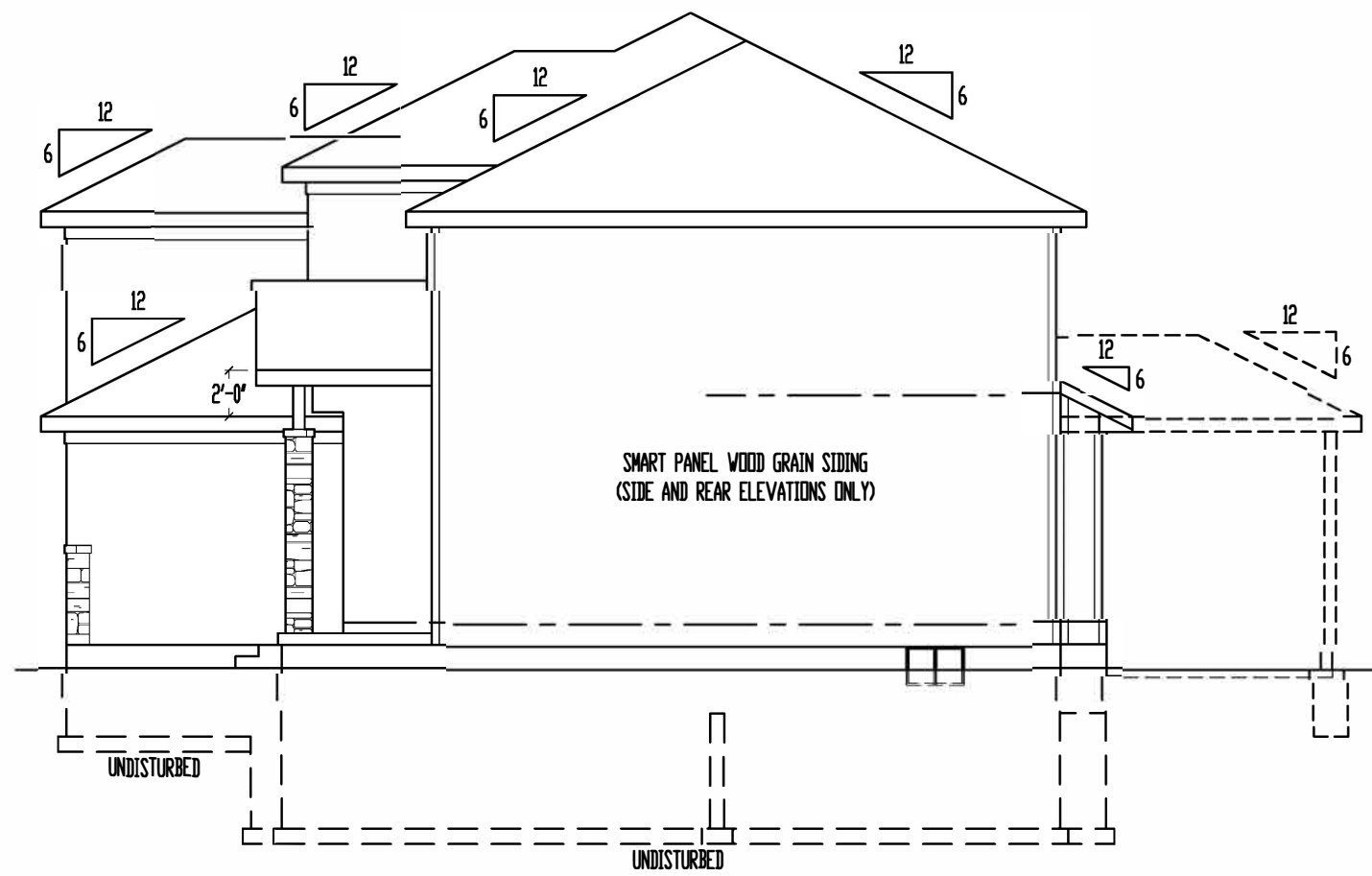
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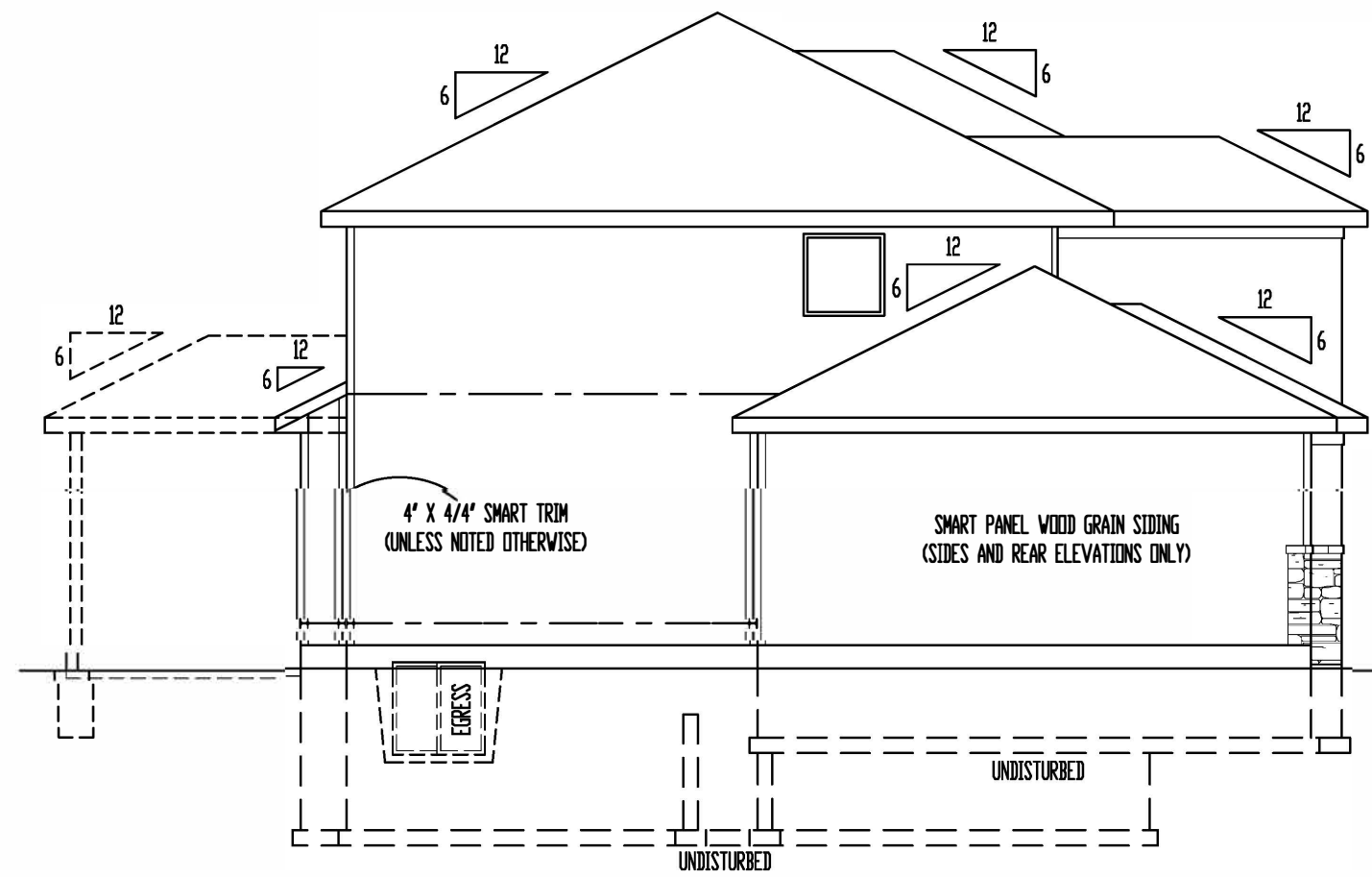
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SHEET TITLE:
SIDE AND REAR
ELEVATIONS

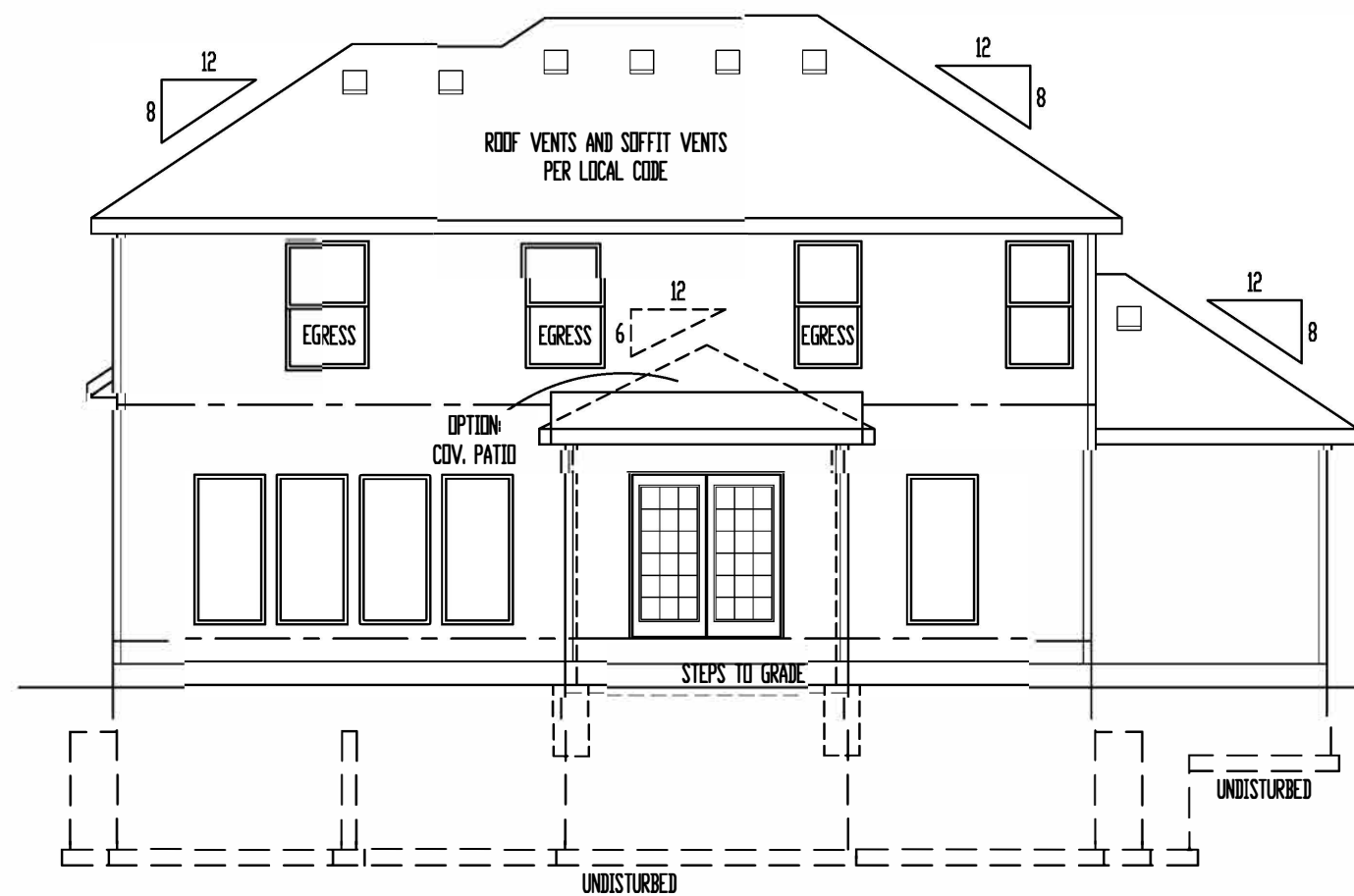
SHEET NO.: 2 of 6
DATE: 03022017



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



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



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

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

OPTIONAL DECK:
DECK CONSTRUCTION TO COMPLY WITH MUNICIPALITY'S
RESIDENTIAL DECK STANDARDS
2" X 10" #2 TTD. @ 16" O.C. FLOOR JOISTS (MAX. SPAN: 14'-0")
2" X 6" TTD. DECKING
6" X 6" TTD. POSTS
2" X 2" TTD. SPINDLES
2" X 6" TTD. TOP RAIL
DETERMINE OPTIONAL STAIRS ON SITE

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ROOF

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

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

FLASHING NOTE:
D RIP 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"

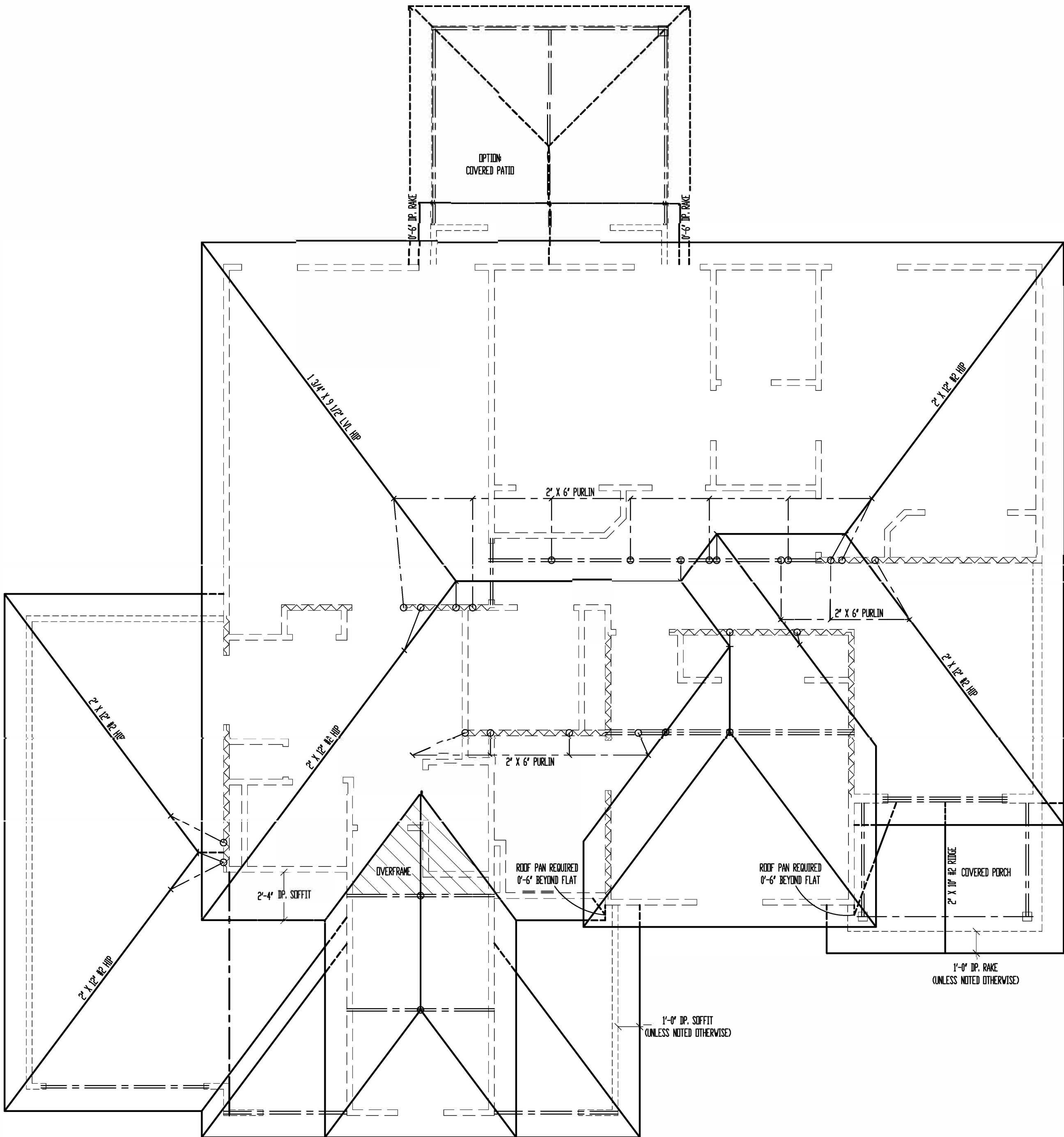
DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD

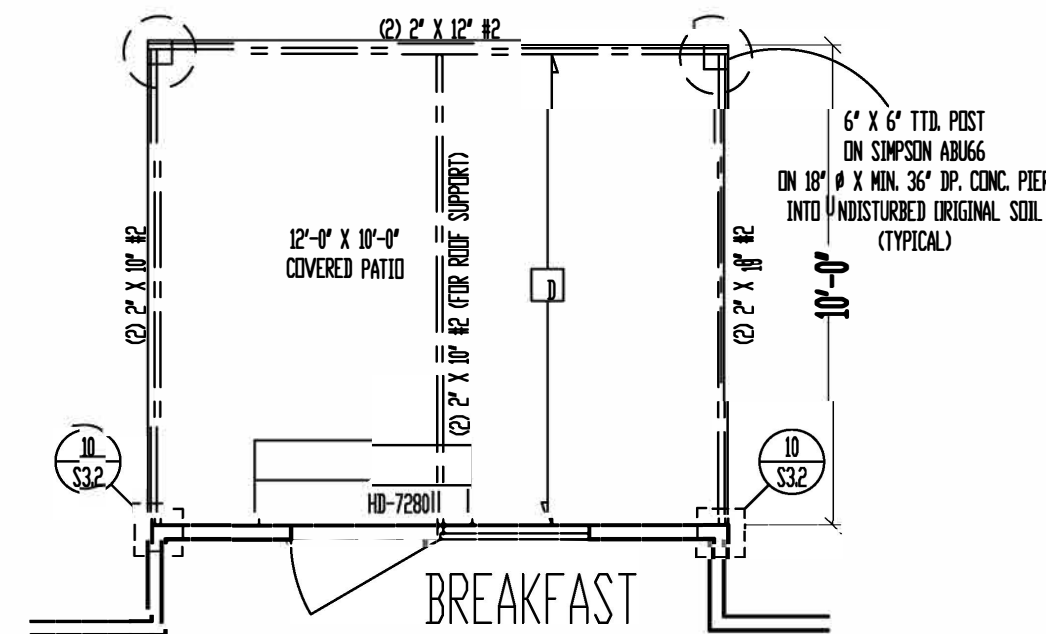
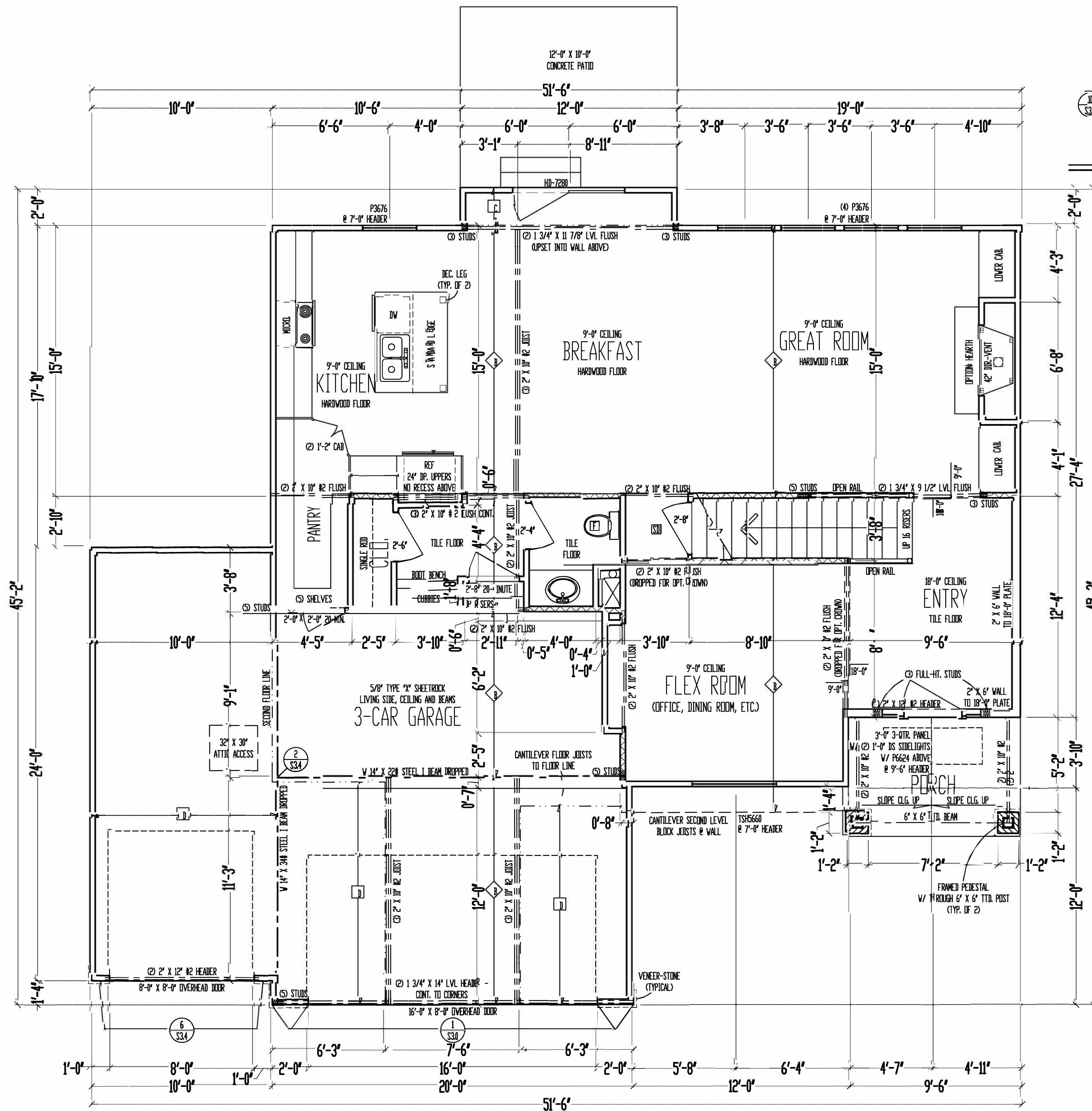
- * VAULTS TO BE 2x10 DEPTH
- * RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)
 - #2- 2x8 UP TO 10/12 PITCH
 - #2- 2x10 OVER 10/12 PITCH
- * ALL HIPS & VALLEYS ARE: (UNLESS OTHERWISE NOTED)
 - #2- 2x8 UP TO 10/12 PITCH
 - #2- 2x10 OVER 10/12 PITCH
- * PURLINS ARE 2x6 MIN.
 - PURLIN STRUTS ARE AT 4'-0" O.C.
 - PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL
 - ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0"
 - PURLINS STRUTS SHALL BE CONSTRUCTED IN A "I" CONFIGURATION AND PER THE FOLLOWING CHART:

PURLIN STRUT (2) 2x4	MAX PURLIN STRUT LENGTH
(1) 2x4 & (1) 2x6	12'-0"
(1) 2x6 & (1) 2x8	20'-0"
(2) 2x6 & (1) 2x8	30'-0"
CONSULT ARCH. (UNLESS NOTED OTHERWISE)	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





OPTION: COVERED PATIO
SCALE: 1/4" = 1'-0"

9'-0" CEILING
2" X 10" FLOOR SYSTEM
MAIN LEVEL
SCALE: 1/4" = 1'-0"

MAIN LEVEL: 1094 SQ. FT.
SECOND LEVEL: 1221 SQ. FT.
TOTAL: 2315 SQ. FT.

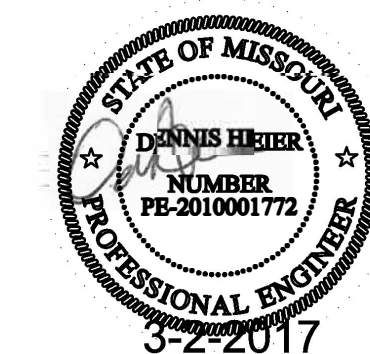
GARAGE: 667 SQ. FT.

FRAMING NOTES

1. HOME IS SHEATHED W/ 7/16" OSB. 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. ===== = 63x1 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).
3. ~~~~~ = LOAD BEARING INTERIOR WALL.
4. (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
5. LVL 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.)

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

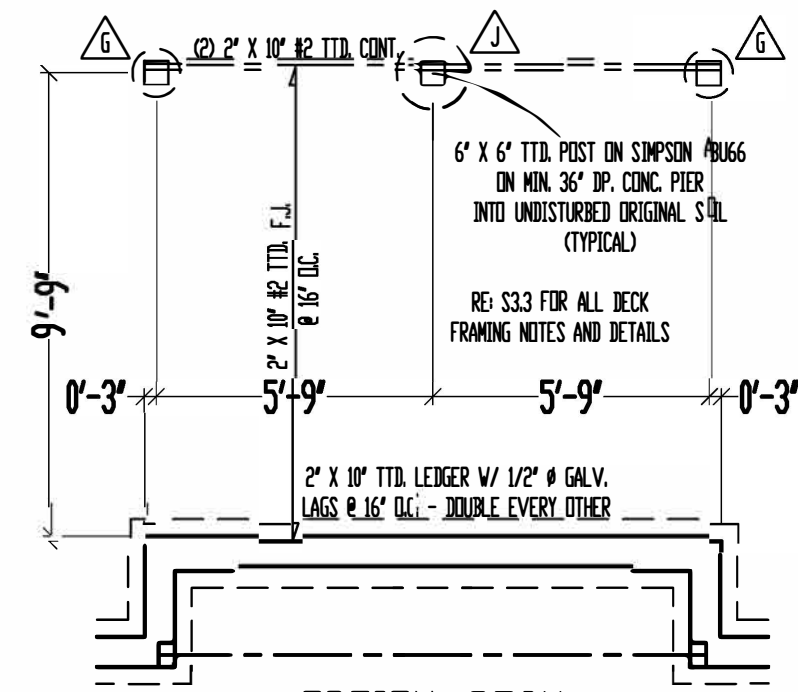
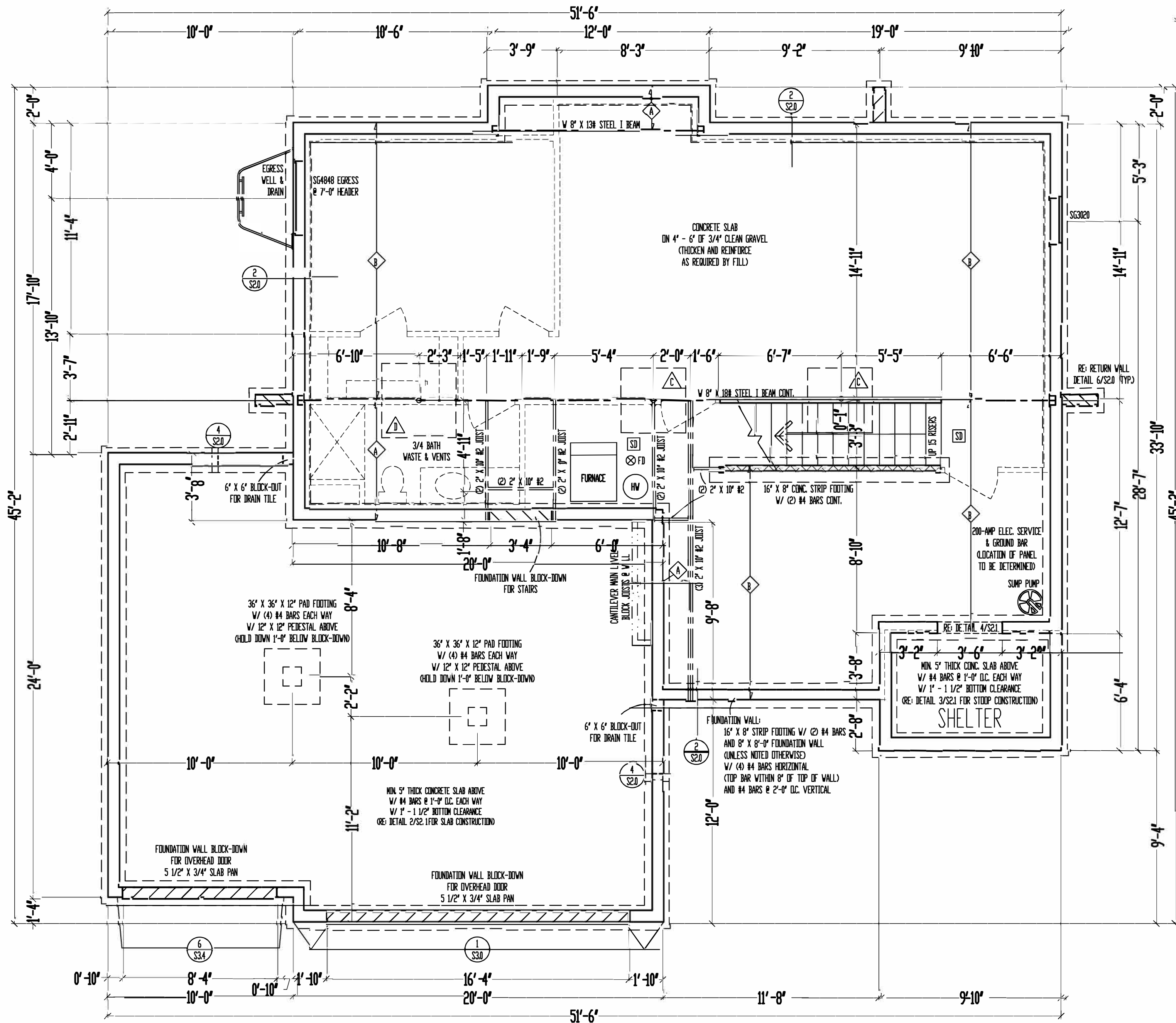
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SHEET TITLE: MAIN LEVEL PLAN
SHEET NO.: 4 OF 6
DATE: 03022017

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

8'-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"
OPTIONAL LOWER LEVEL: 740 SQ. FT.

FRAMING NOTES:

- HOME IS SHEATHED W/ 7/16" OSB. 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" X 10" #2 TTD. CONT. = G.B. 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)
- 2" X 10" #2 TTD. CONT. = 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 ONT 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 FOUNDED ON ANYTHING SHORT OF THE AFOREMENTIONED REQUIREMENTS.

STEEL COLUMN & PAD FOOTING SCHEDULE	
A	3" X 11 GA. STEEL COLUMN ON 30" X 30" X 12" PAD FOOTING W/ (5) #4 BARS EACH WAY (12.5d)
B	3 1/2" X 11 GA. STEEL COLUMN ON 36" X 36" X 12" PAD FOOTING W/ (6) #4 BARS EACH WAY (18.0d)
C	3" SCH. 40 STEEL COLUMN ON 42" X 42" X 14" PAD FOOTING W/ (7) #4 BARS EACH WAY (24.5d)
D	3 1/2" SCH. 40 STEEL COLUMN ON 48" X 48" X 16" PAD FOOTING W/ (8) #4 BARS EACH WAY (32.0d)
E	3 1/2" SCH. 40 STEEL COLUMN ON 54" X 54" X 16" PAD FOOTING W/ (9) #4 BARS EACH WAY (40.5d)
F	3 1/2" SCH. 40 STEEL COLUMN ON 60" X 60" X 18" PAD FOOTING W/ (10) #4 BARS EACH WAY (50.0d)

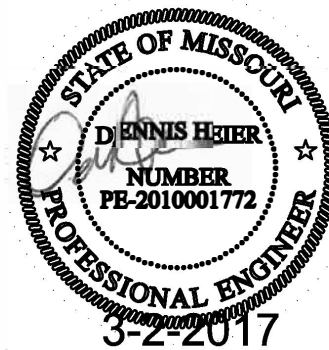
PIER FOOTING SCHEDULE	
G	12" Ø PIER FTG.
H	16" Ø PIER FTG.
I	18" Ø PIER FTG.
K	24" Ø PIER FTG.

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

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RESIDENTIAL SEISMIC & WIND ANALYSIS

DETERMINE WEIGHT OF HOUSE:

		INPUT	
		CALCULATED VALUE	
LOCATION		DEAD LOAD (psf)	AREA (ft²)
ROOF		10	3039
CeILING		10	3039
SECOND FLOOR		10	1221
FIRST FLOOR		10	3039
	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)
SECOND FLOOR EXT. WALL DL	169.34	9	13716.54
FIRST FLOOR EXT. WALL DL	193.34	10	19334
		DEAD LOAD (psf)	AREA (ft²)
SECOND FLOOR INT. PARTITION WALL DL	6	1221	7326
FIRST FLOOR INT. PARTITION WALL DL	6	3039	18234

PROJECTED AREAS (WIND DESIGN PER 115 MPH 3-SECOND GUST, EXPOSURE C AND MEAN ROOF HEIGHT <= 30 FT ASSUMED)							
FRONT-TO-BACK				SIDE-TO-SIDE			
	AREA	LOAD			AREA	LOAD	
SLOPED ROOF	274	2305		SLOPED ROOF	294	1736	
VERT. ROOF	26	320	CUMULATIVE	VERT. ROOF	99		CUMULATIVE
2ND	415	5202	7826	2ND	431.7	5390	7225
1ST	566.5	6963	14789	1ST	496.87	6177	13402
			PRESSURE (PSF) - PER ASCE CH. 6				
	SLOPED ROOF	ZONE B	9.7		ZONE C	11.3	2a (FIG. 28.6-1, ASCE7)
	WALL/VERT. ROOF	ZONE A	14.2		ZONE D	7.7	9.034
	MEAN ROOF HT., h		24				

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.

$q_{w1} = 0.0025 K_z K_d K_e V^2$ (ASCE7-10 Velocity Pressure)

$q_{w1, ASD} = 0.6 q_{w1, 10}$ (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC18C 2012)

2ND FLOOR TRIBUTARY WEIGHT

1ST FLOOR TRIBUTARY WEIGHT

S_g (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)

F_a (from ASCE7 Table 11.4-1)

S_{ds} (= $2/3 * S_g * F_a$)

R (from ASCE7 Table 12.2-1)

67638.27

103699.54

12.0%

1.6

0.128

6.5

SEISMIC SHEAR		
LOCATION	From ASCE7 (Eq. 12.8-1):	$V = 1.2 * S_{ds} * W / R$ (lbs.)
2ND FLOOR		1598
1ST FLOOR		2450

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (kL/P)	Code Reference
Exterior (Option #1)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 8" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	155	per IRC, Table 2306.3(1)
Exterior (Option #2)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 4" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	230	per IRC, Table 2306.3(1)
Exterior (Option #3)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 3" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	310	per IRC, Table 2306.3(1)
Exterior (Option #4)	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 @ 8" 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 SOPWS Table 4.3A
Exterior (Option #5)	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 SOPWS Table 4.3A
Exterior (Option #6)	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 @ 8" O.C. Edges, 12" O.C. Field	410	AF&PA SOPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 8 - 1 1/2" Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	80	per IRC, Table 2306.4.4
Interior	10 Ga. Simpson USP Type W18 Steel X-Brace (or aqual)	(3) 18d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3)	325	

EXTERIOR SHEATHING OPTION FOR SECOND FLOOR	4
EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	4

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.)	20		
GAR. WALL: 1=F-B, 2=S-S	2		

EXTERIOR STRUCTURAL WALL LENGTHS (L) & RESISTANCES							
SEISMIC				WIND			
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE
2ND FLOOR	50	14000	44	12320	50	19600	44
1ST FLOOR	71	19880	35	9800	71	27832	35

ADDITIONAL RESISTANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)	
SEISMIC	WIND	diameter (in.)		2nd Floor F-B	
0	0	0.5	944	2nd Floor S-S	39
0	0	110.7	139.3	1st Floor F-B	17
0	0			1st Floor S-S	21

RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS*							
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (225#/BRACE)	INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.)	INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.)	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?
2ND FLOOR FRONT-TO-BACK	0					0	YES
2ND FLOOR SIDE-TO-SIDE	0					0	YES
1ST FLOOR FRONT-TO-BACK	0					0	YES
1ST FLOOR SIDE-TO-SIDE	0					0	YES

*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'-6" OR LONGER.

ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R602.3.1 IS REQUIRED.

WIND UPLIFT ANALYSIS									
ROOF PITCH (MAX)	X/12	DEGREES	PITCH OF 6 OR LESS: EOH -13.3, E -7.2, G -5.2						
	8	33.7							
	ASCE 7								
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF CH	UPLIFT PER FT. (LBS)					
OVERHANG	1	-1.08	195.34	-1.08					
	TOTAL AREA (FT ²)	ZONE E AREA (FT ²)	ZONE G AREA (FT ²)	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT. @ PERIMETER (LBS)		
MAIN ROOF**	2326.255	1203.364936	1122.890064	-1.08	-0.36	-1704	-8.8		
*ALONG PERIMETER				TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)		-9.9	UPLIFT OK		
**INSIDE EXTERIOR WALLS				RESISTANCE DUE TO DEAD WEIGHT & (3) 196 TO WALLS		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 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'-6". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IRC SECTION R602.3.1 AND AF&PA SOPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 8" & 12" HAS A SEISMIC SHEAR VALUE OF 24 A WIND SHEAR VALUE OF 335PSF - 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.



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CLIENT: REGENCY HOMES, LLC

JOB TITLE: SPEC

LOCATION: MISSOURI



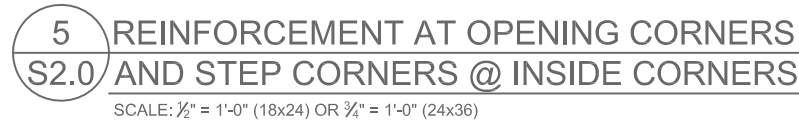
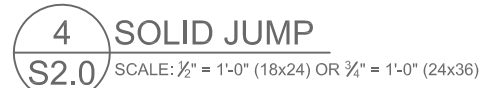
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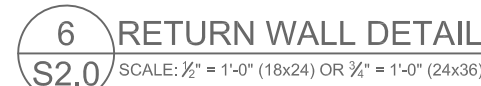
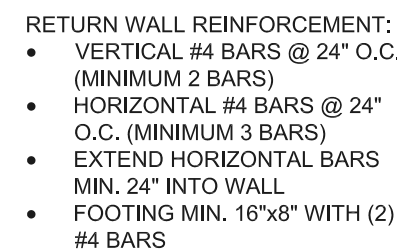
S1.1



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 3/4" 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. 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

3 FOUNDATION WALL REINFORCEMENT TABLE
S2.0 NO SCALE



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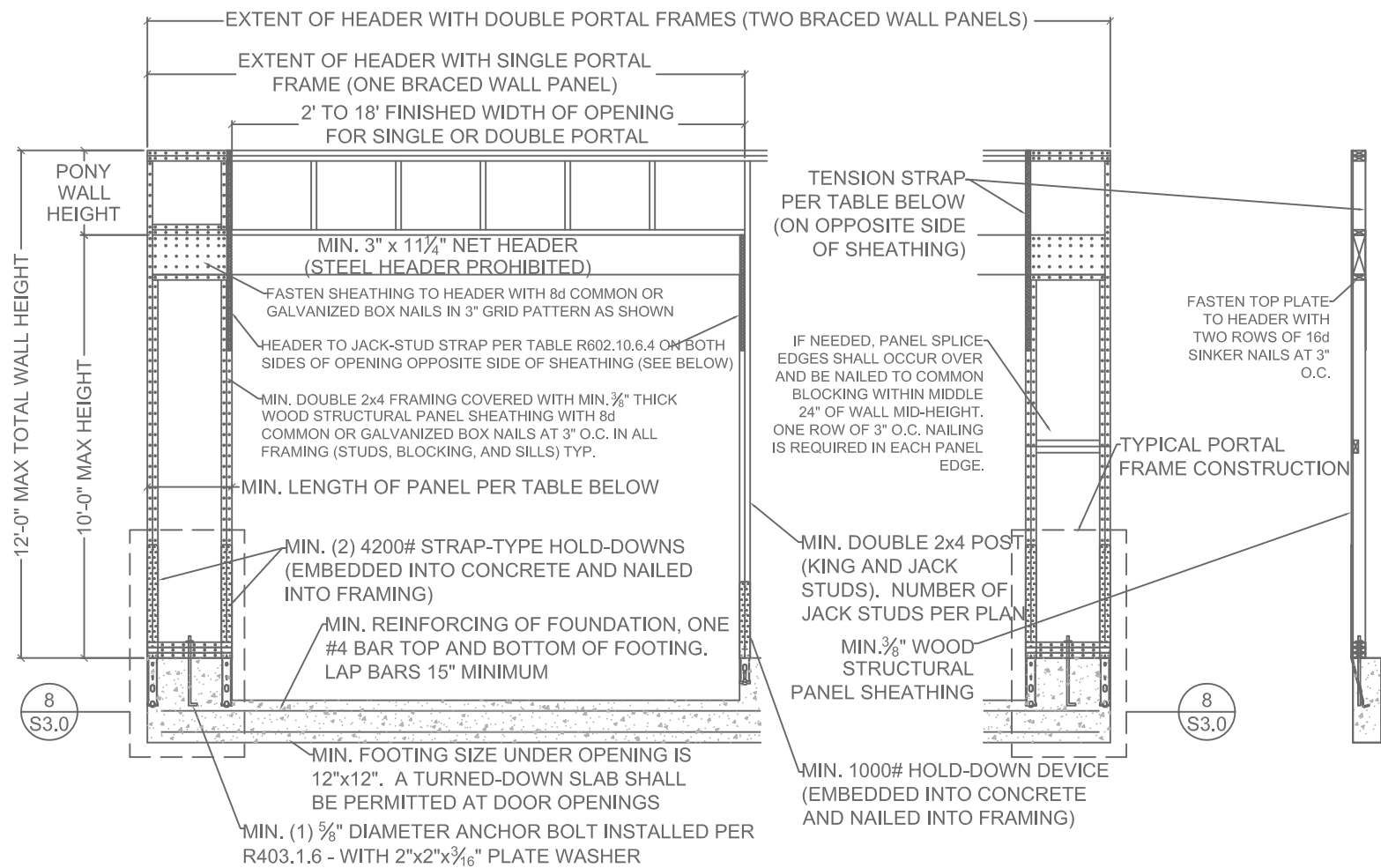
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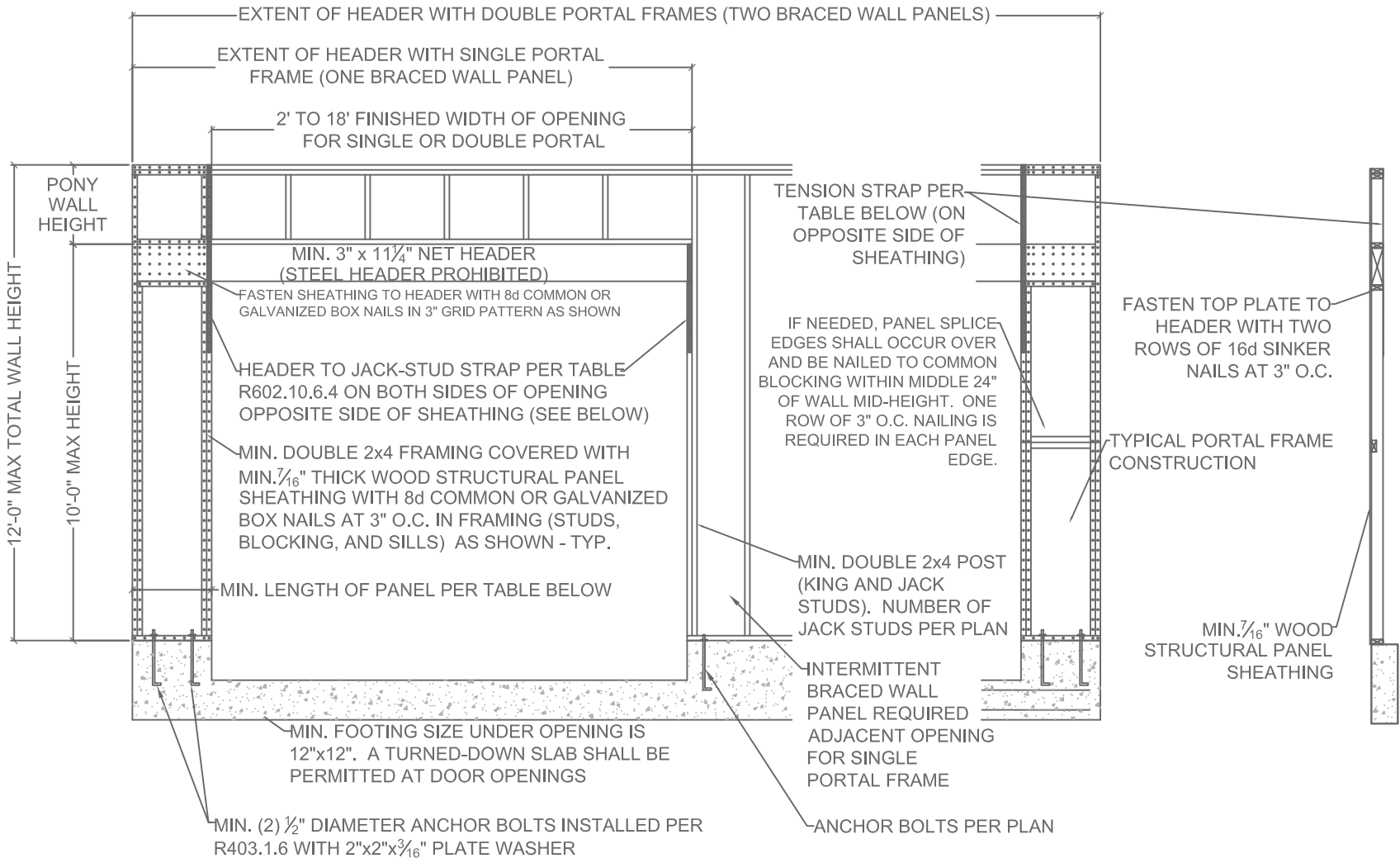
S2.0



1 METHOD PFH (PORTAL FRAME WITH HOLD-DOWNS) - PER FIGURE IRC R602.10.6.2
SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{8}" = 1'-0"$ (24x36)

	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

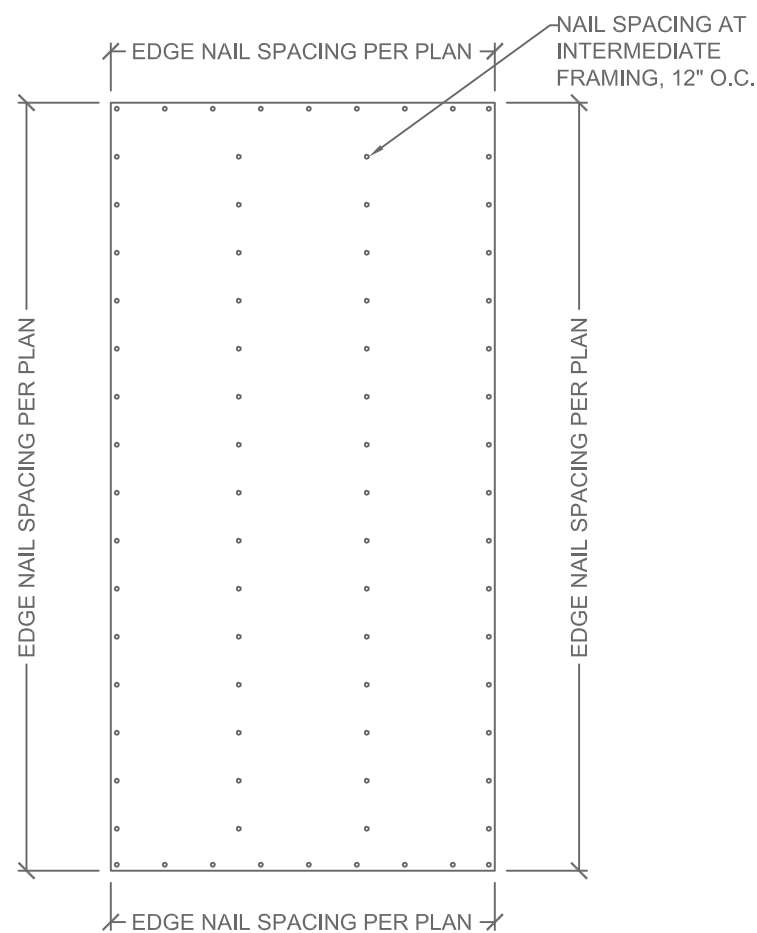
TENSION STRAP REQUIRED FOR HEADER TO JACK STUD FOR DETAILS 1/S3.0 AND 2/S3.0 (FROM TABLE R602.10.6.4)					
MAX GARAGE OPENING (FT.)	PONY WALL WALL HT. (FT.)	REQUIRED SIMPSON STRAP	MIN. STRAP END LENGTH	NAILS REQUIRED IN EACH STRAP END LENGTH	
18'-0"	0'-0"	CS20		0'-9"	(7) 8d
9'-0"	1'-0"	CS20		0'-9"	(7) 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



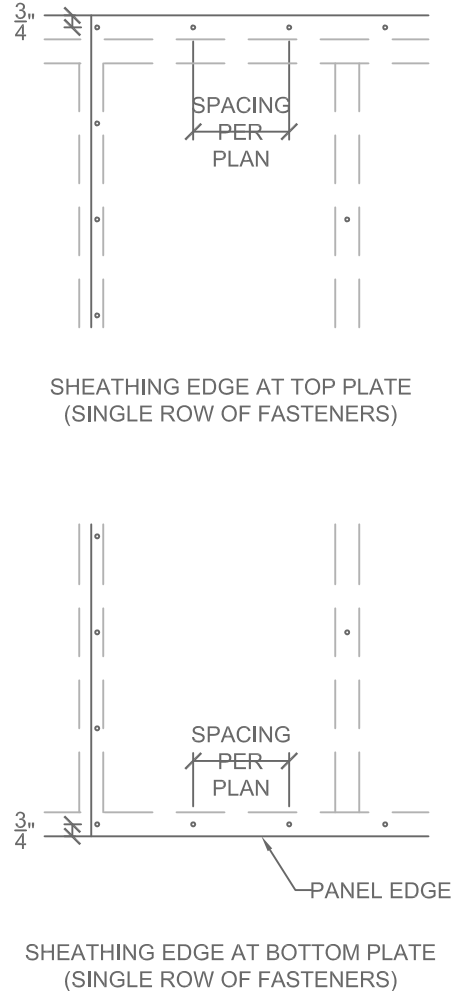
2 METHOD PFG (PORTAL FRAME AT GARAGE DOOR) - PER FIGURE IRC R602.10.6.3
SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{8}" = 1'-0"$ (24x36)

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 ^a	36 ^a

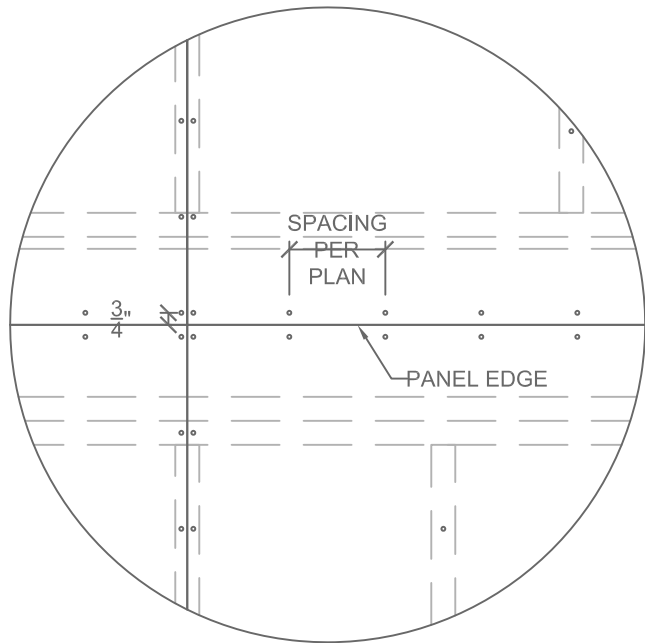
a. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall



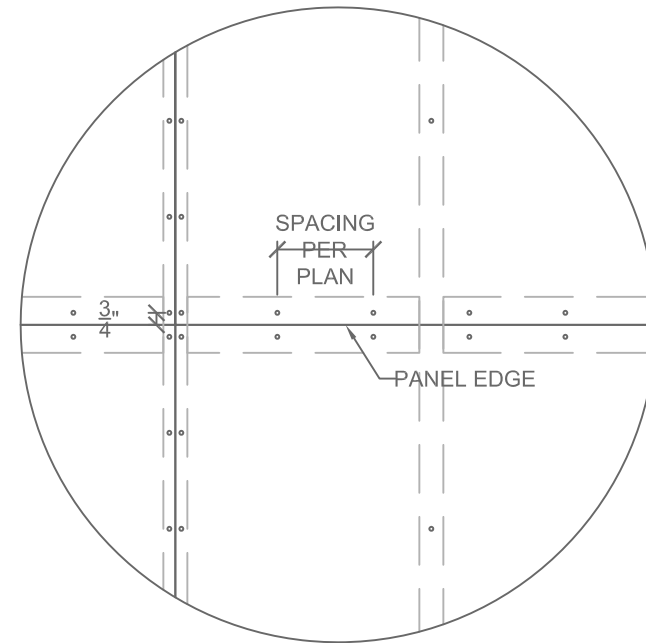
3 EXTERIOR WALL SHEATHING PANEL ATTACHMENT
SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{8}" = 1'-0"$ (24x36)



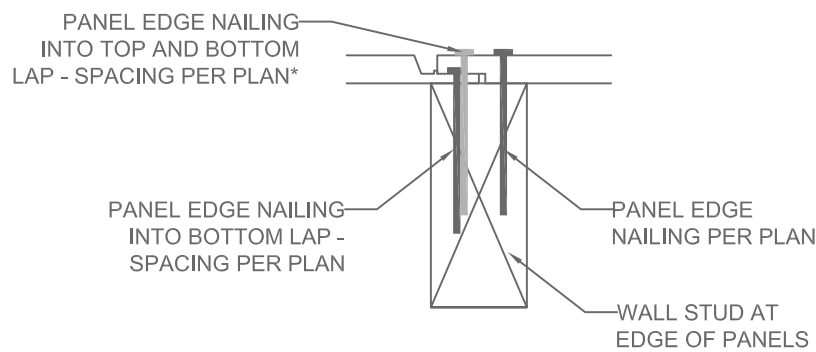
4 SHEATHING EDGE AT TOP AND BOTTOM PLATES
SCALE: $1" = 1'-0"$ (18x24) OR $1\frac{1}{2}" = 1'-0"$ (24x36)



5 SHEATHING EDGE AT HORIZONTAL FRAMING MEMBER
SCALE: $1" = 1'-0"$ (18x24) OR $1\frac{1}{2}" = 1'-0"$ (24x36)

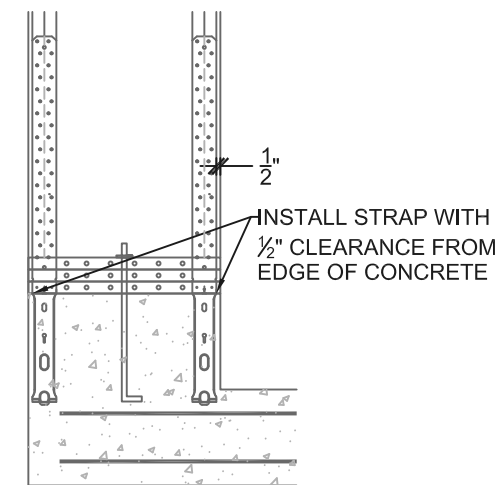


6 SHEATHING EDGE AT PANEL SPLICE ACROSS STUDS
SCALE: $1" = 1'-0"$ (18x24) OR $1\frac{1}{2}" = 1'-0"$ (24x36)



*NOTE: NAILING INTO TOP AND BOTTOM LAP IS IN ADDITION TO NAILING REQUIRED INTO BOTTOM LAP. FOR EXAMPLE, IF PLAN CALLS FOR NAILS @ 6" O.C. AT EDGES, BOTTOM LAP SHALL BE FASTENED AT 6" O.C. AND, IN ADDITION, NAILING SHALL ALSO BE INSTALLED THROUGH TOP AND BOTTOM LAP @ 6" O.C. STAGGERED 3" FROM BOTTOM LAP NAILING

7 FASTENING INSTRUCTIONS FOR SHIPLAP PANEL SHEATHING
SCALE: $4" = 1'-0"$ (18x24) OR $6" = 1'-0"$ (24x36)



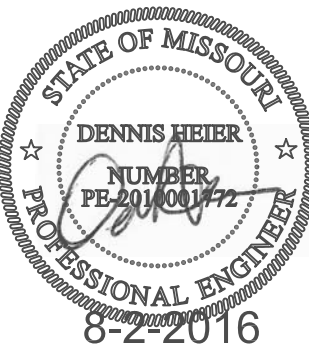
8 GARAGE HOLD-DOWN STRAP INSTALLATION
SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{8}" = 1'-0"$ (24x36)



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LOCATION: MISSOURI



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JOB NO. 1486		DRAWN BY: DMH	
DATE: 08-02-16			
SHEET NUMBER			
S3.0			



FULL-HEIGHT CONCRETE WALL OPTION

STATE OF MISSOURI
DENNIS HEIER
NUMBER
PE-2010001472
PROFESSIONAL ENGINEER
8-2-2016

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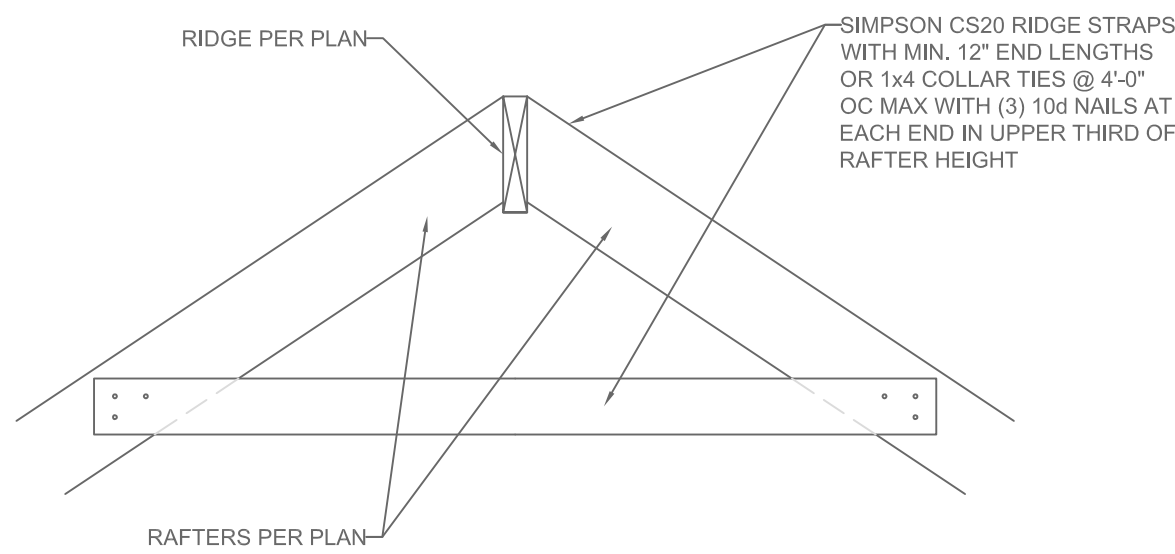
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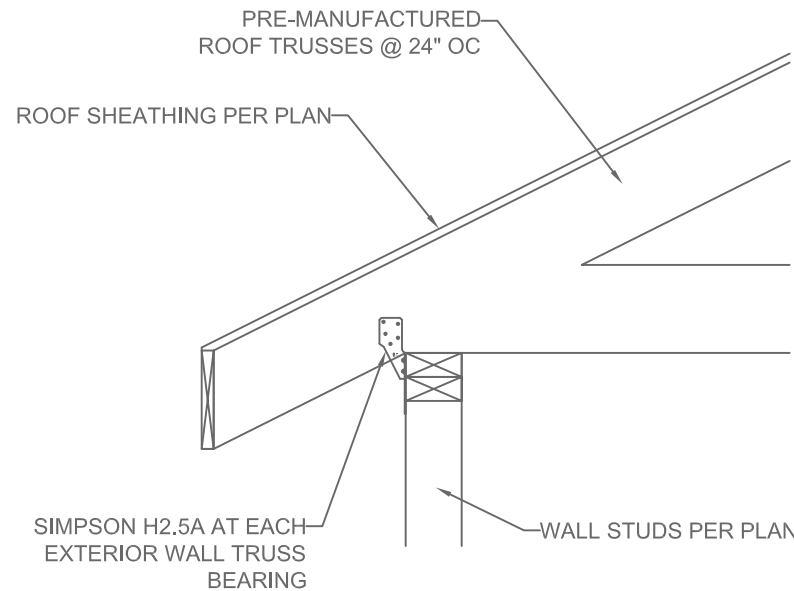
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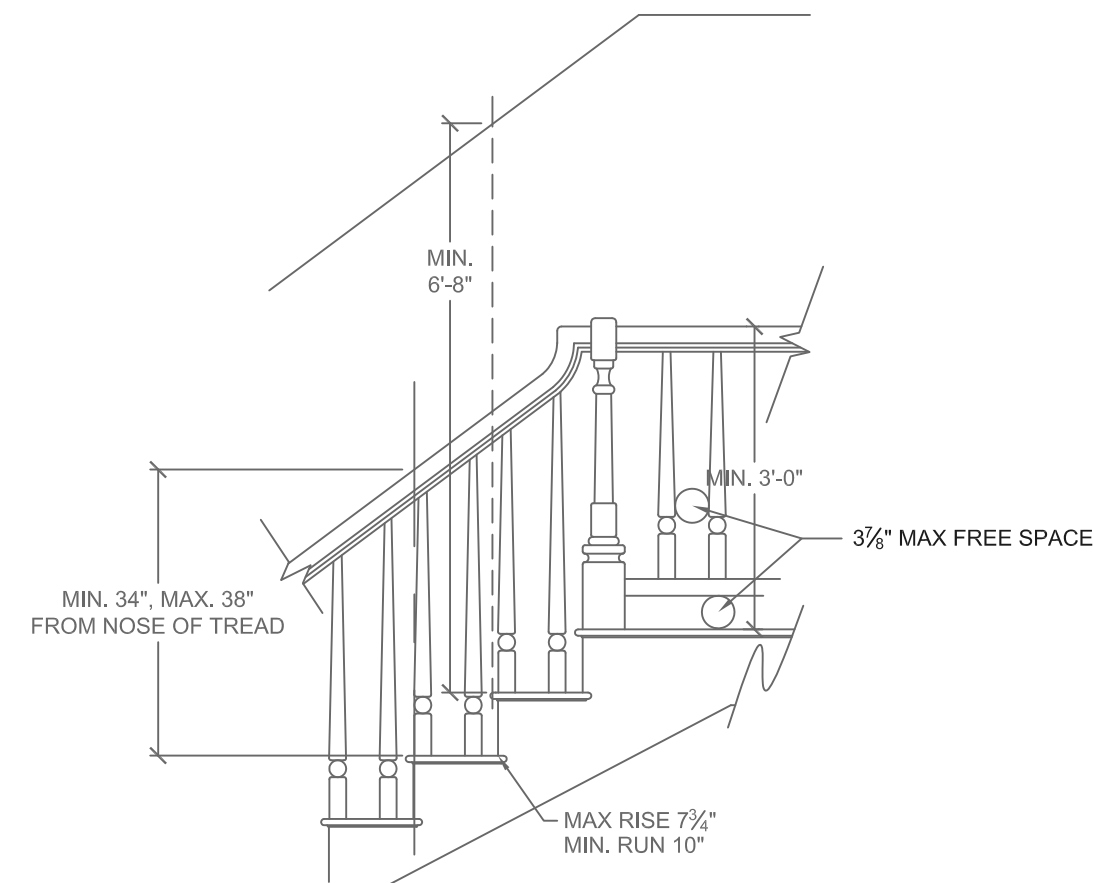
S3.1



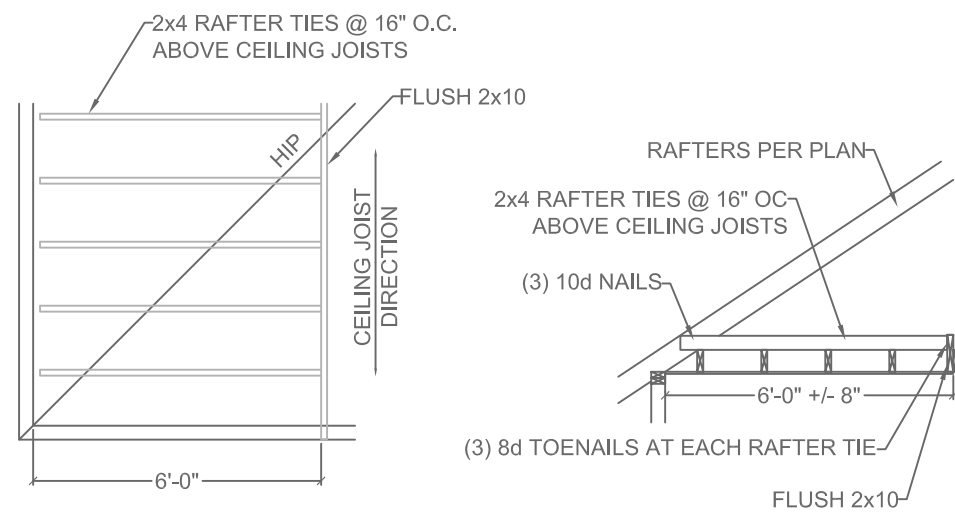
1 RIDGE FRAMING DETAIL
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



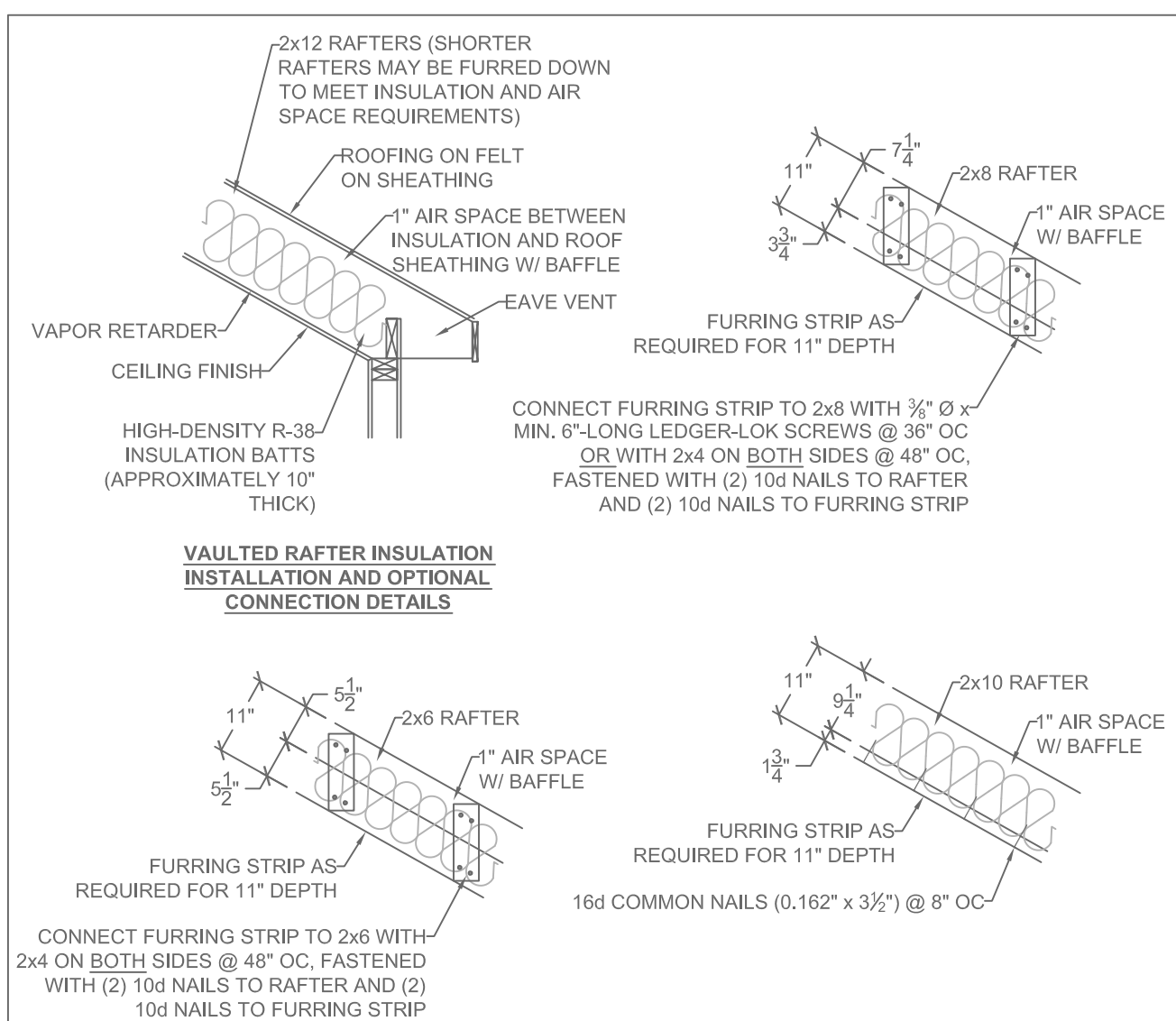
2 TRUSS CONNECTION TO EXT. WALL BEARING
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



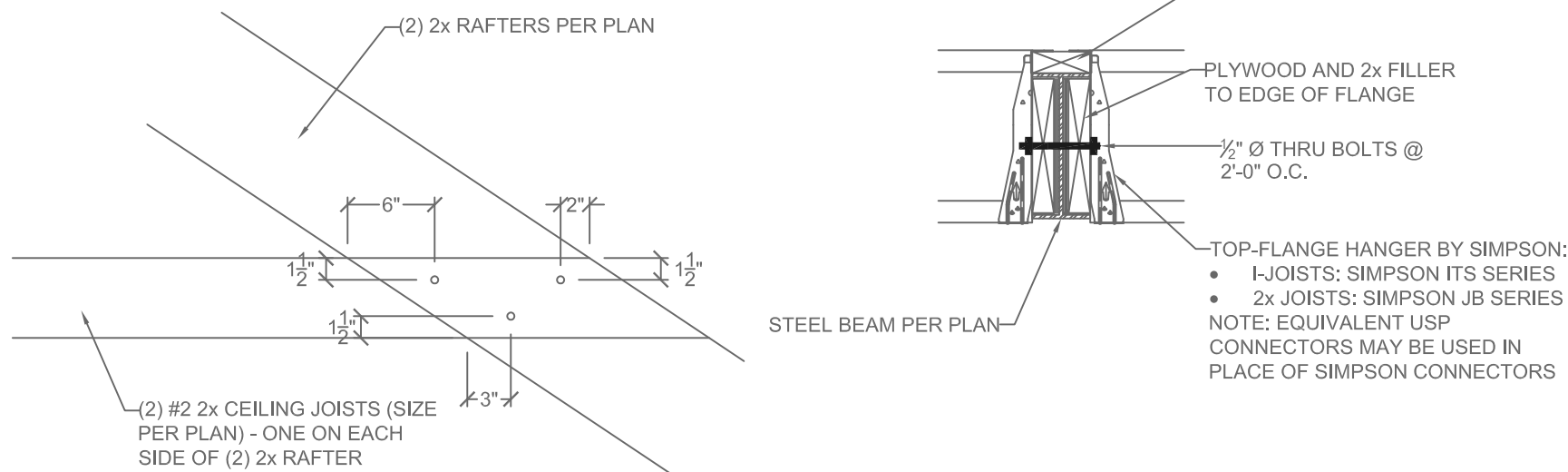
4 STAIR AND HANDRAIL/GUARDRAIL DETAIL
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



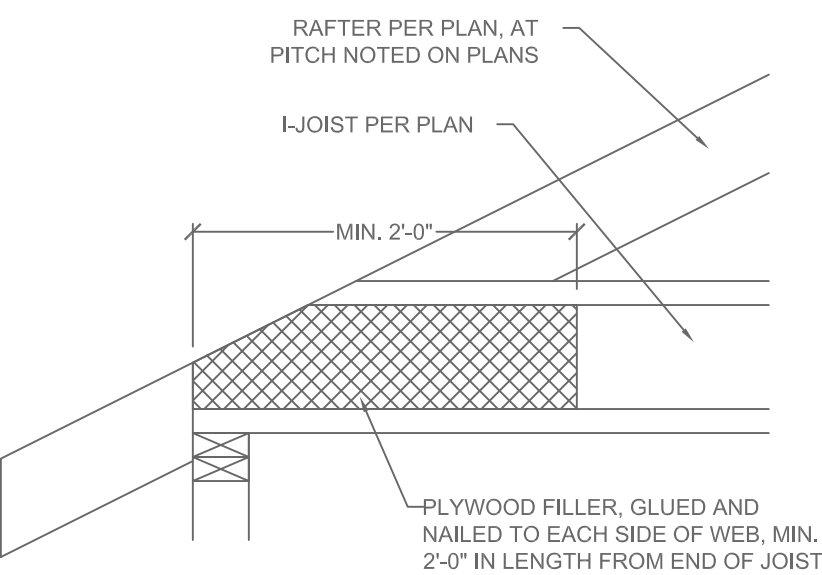
5 RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



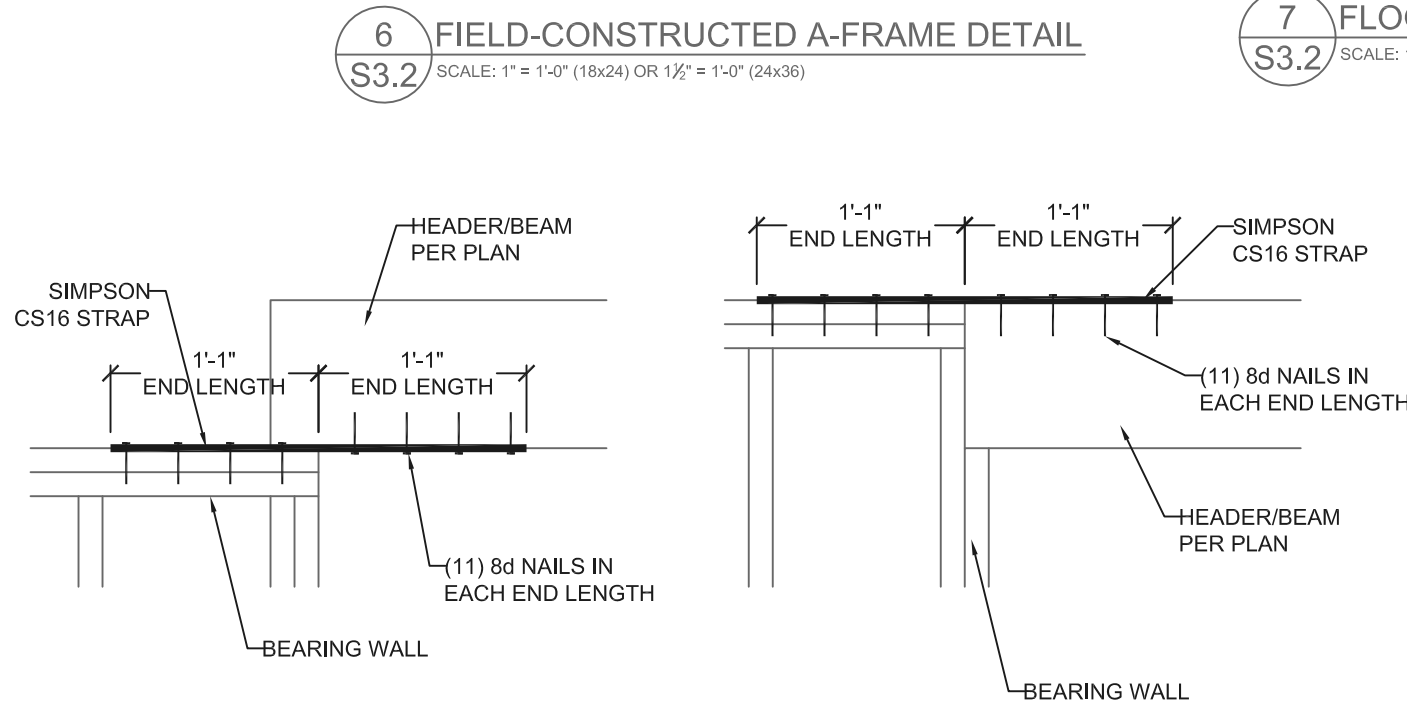
3 VAULTED RAFTER INSULATION DETAILS
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



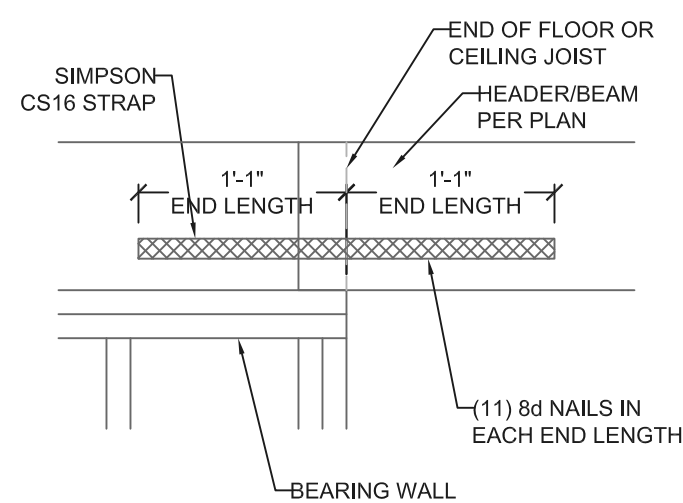
7 FLOOR JOIST TO FLUSH STEEL BEAM DETAIL
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



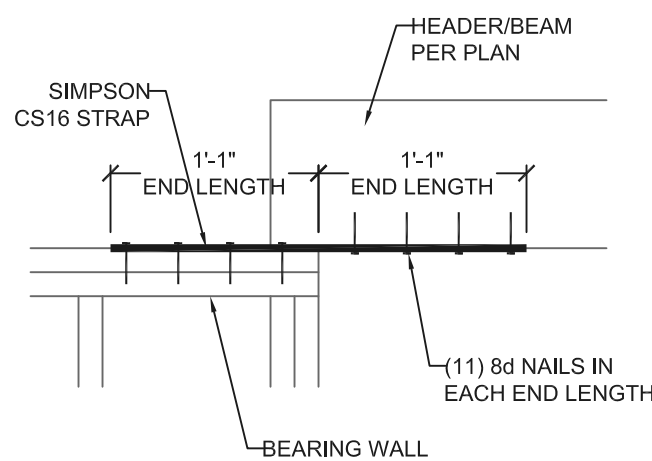
9 COPED I-JOIST REINFORCEMENT
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



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



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



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

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"

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STATE OF MISSOURI
DENNIS HEIER
NUMBER
PE-201400172
PROFESSIONAL ENGINEER
8-2-2016

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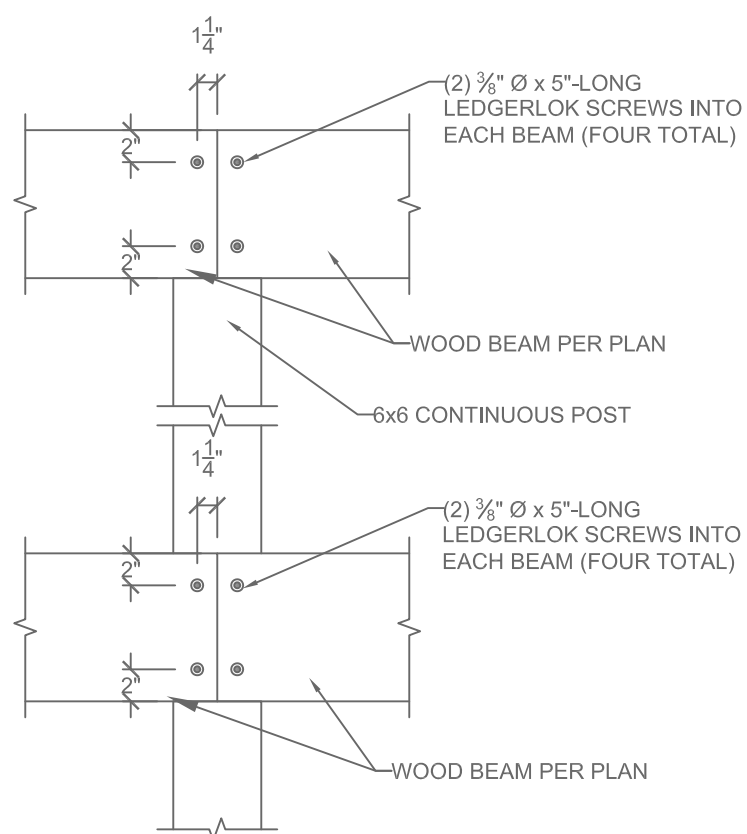
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S3.2



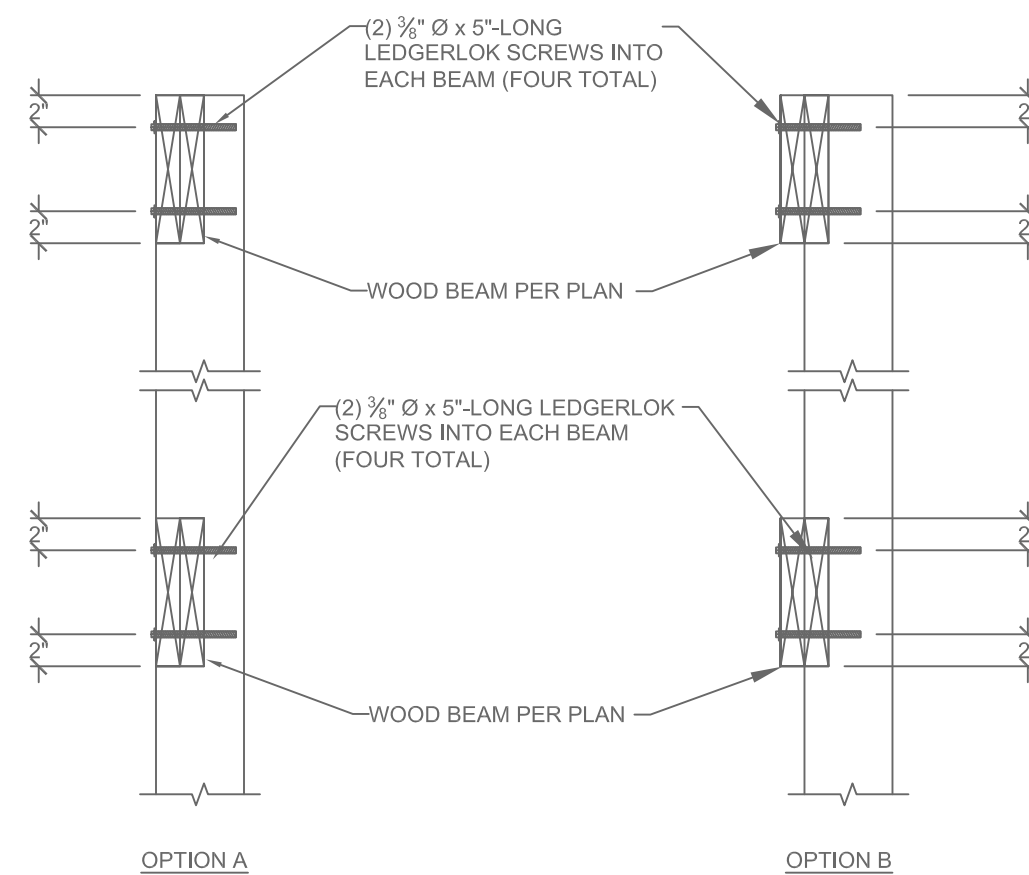
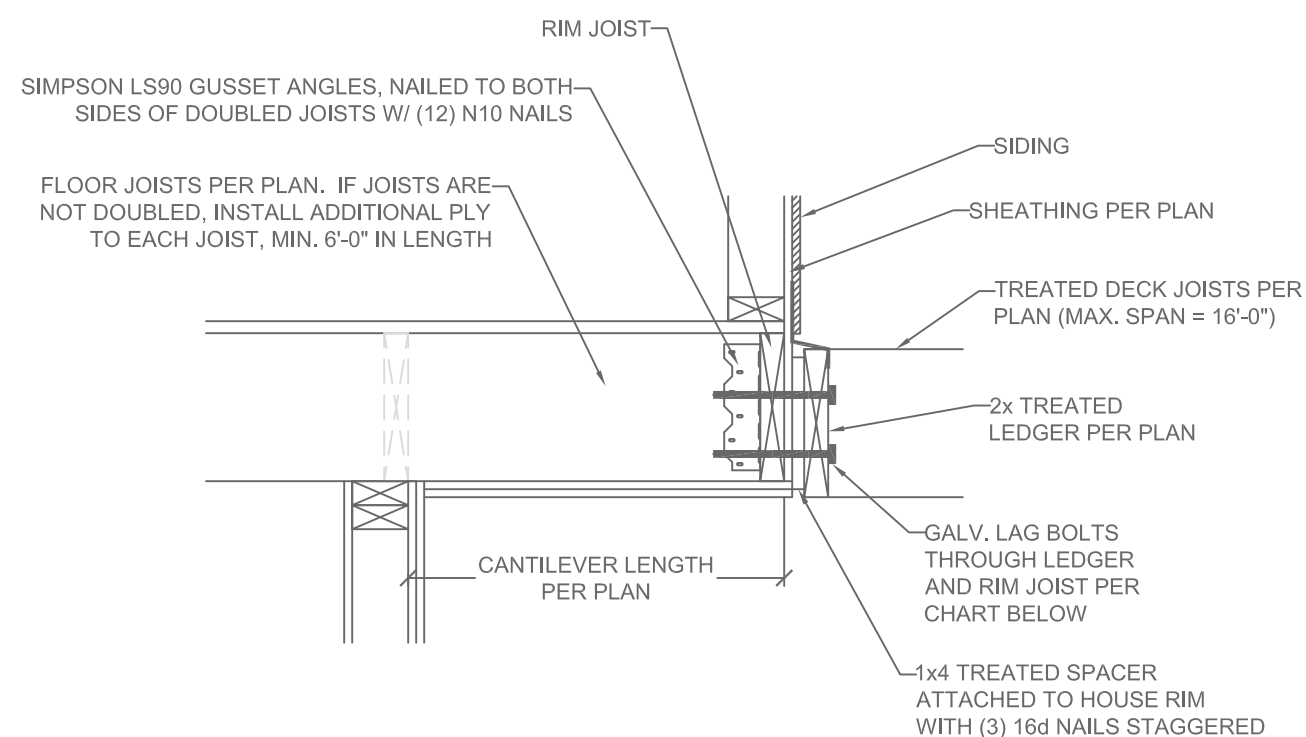
DECK JOIST SPAN	½" Ø GALV. LAG OR ¾" Ø LEDGER-LOK SPACING
10'-0" OR LESS	16" OC
10'-0" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
14'-0" - 18'-0"	8" OC OR @ 16" OC DOUBLED

1 LEDGER ATTACHMENT



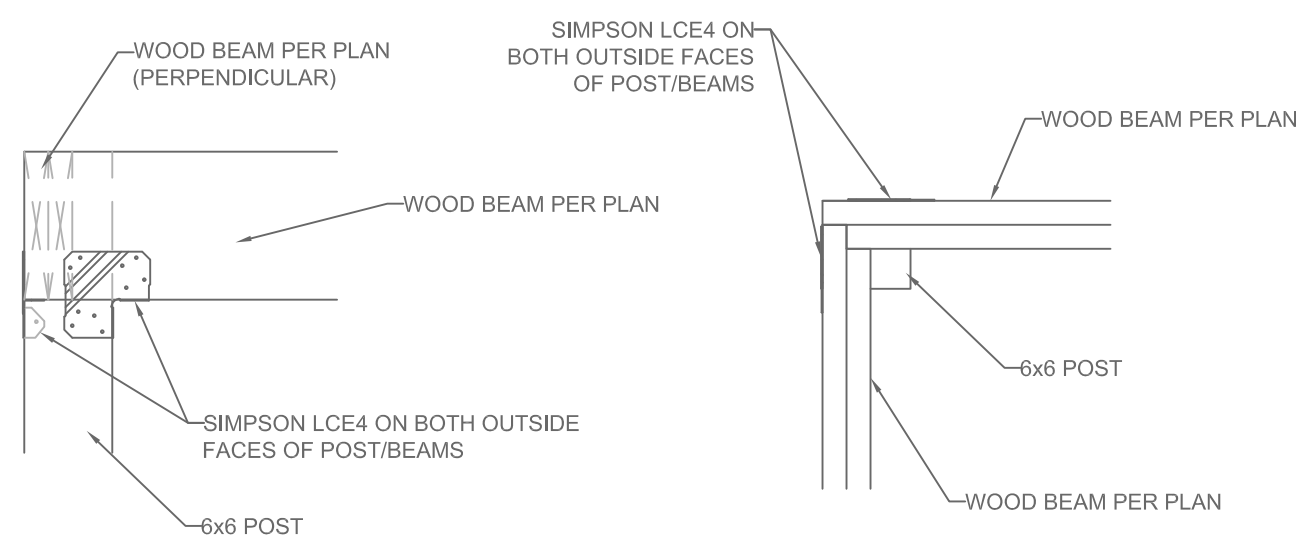
2 CANTILEVER WITH DECK ATTACHMENT

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



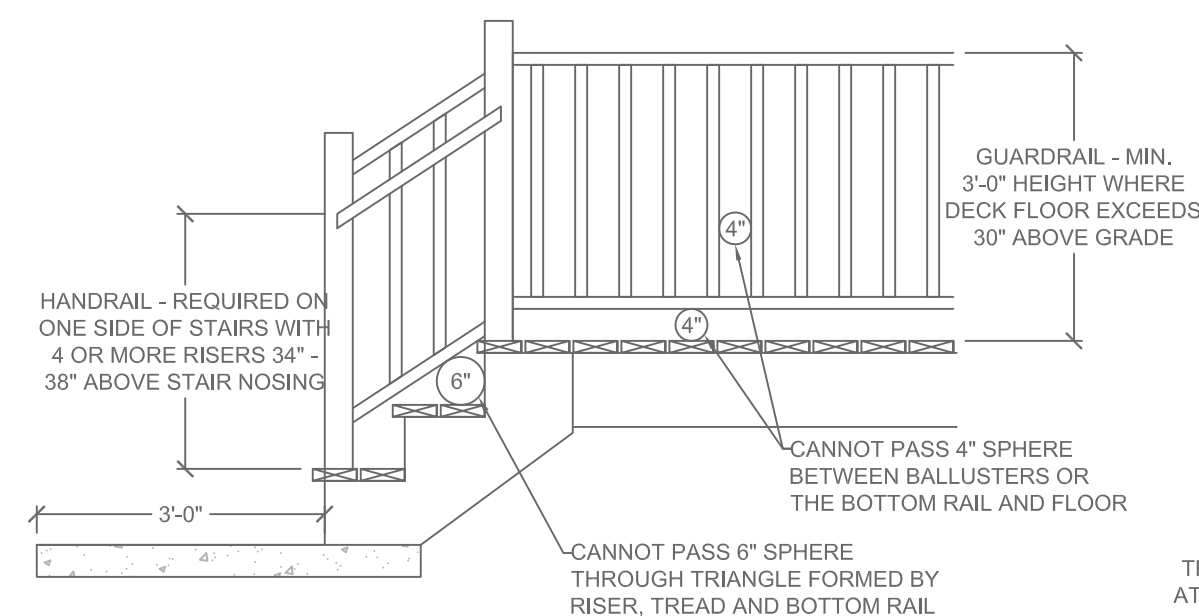
5 LET-IN (COVERED) DECK BEAM CONNECTION

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

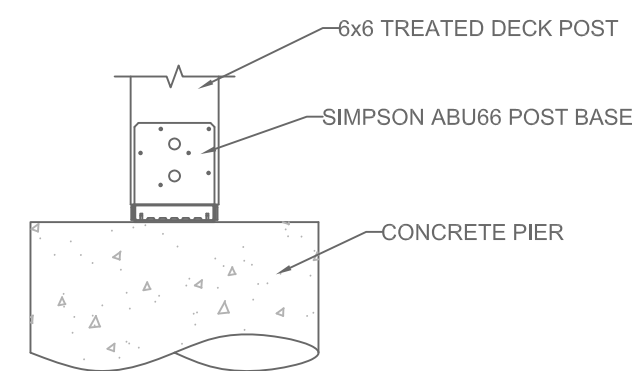


7 ALTERNATE COVERED DECK/PORCH INTERSECTION S3.3 CORNER BEAM CONNECTION

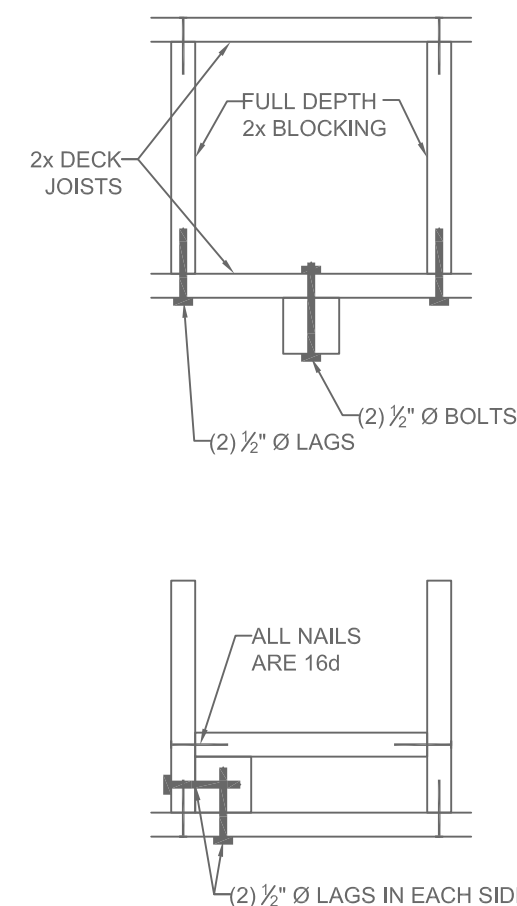
SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



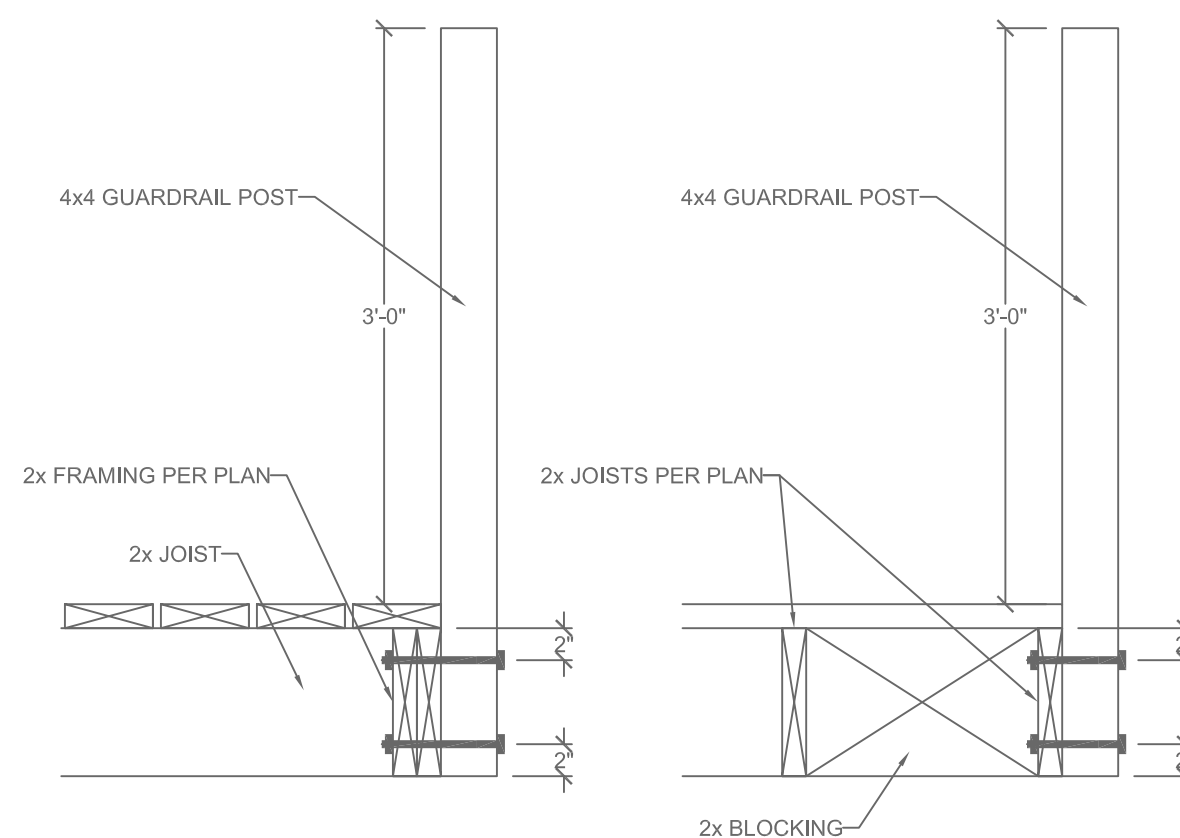
8 GUARDRAIL DETAIL
S3.3 SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{4}" = 1'-0"$ (24x36)



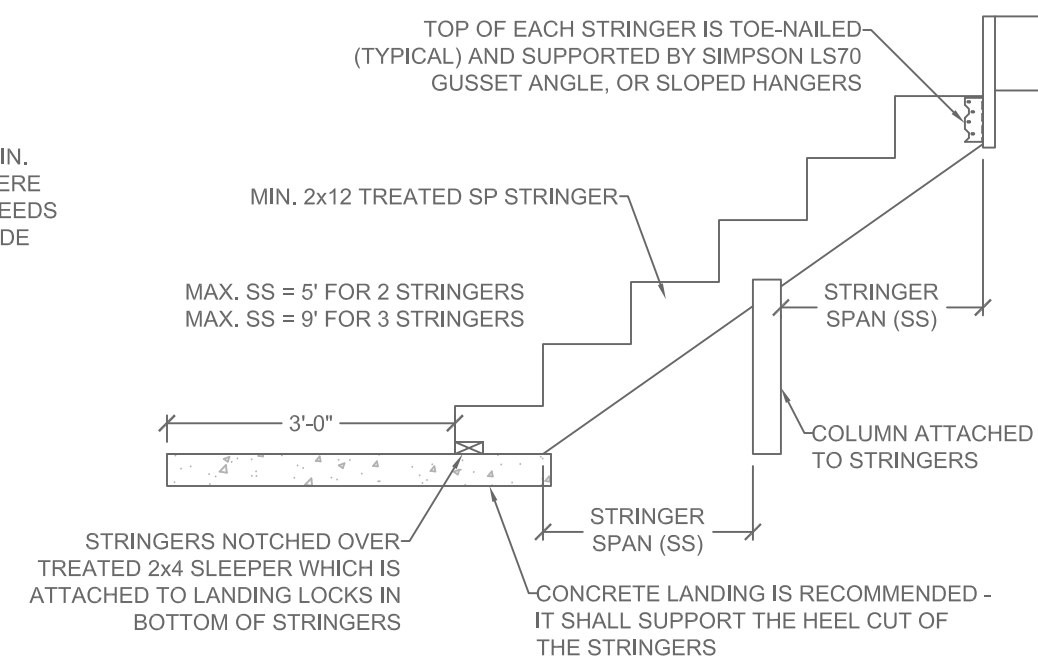
3 DECK POST BASE
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



4 REINF. POST CONNECTIONS
S3.3 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)



9 STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH)
S3.3 SCALE: $\frac{1}{8}" = 1'-0"$ (18x24) OR $\frac{3}{8}" = 1'-0"$ (24x36)



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JOB TITLE: SPEC

LOCATION: MISSOURI

[illegible]

		DRAWING TITLE

FRAMING DETAILS

ENGINEER: DMH	CHECKED BY: DMH
JOB NO. 1486	DRAWN BY: DMH

DATE: 08-02-16	
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SHEET NUMBER

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S3.3

