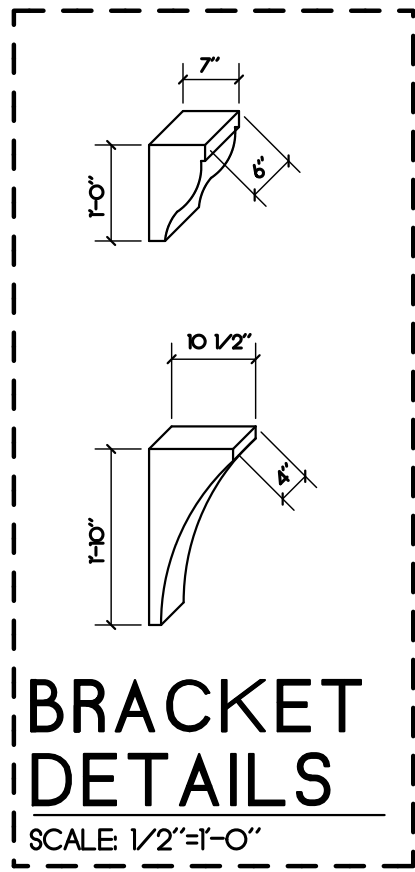
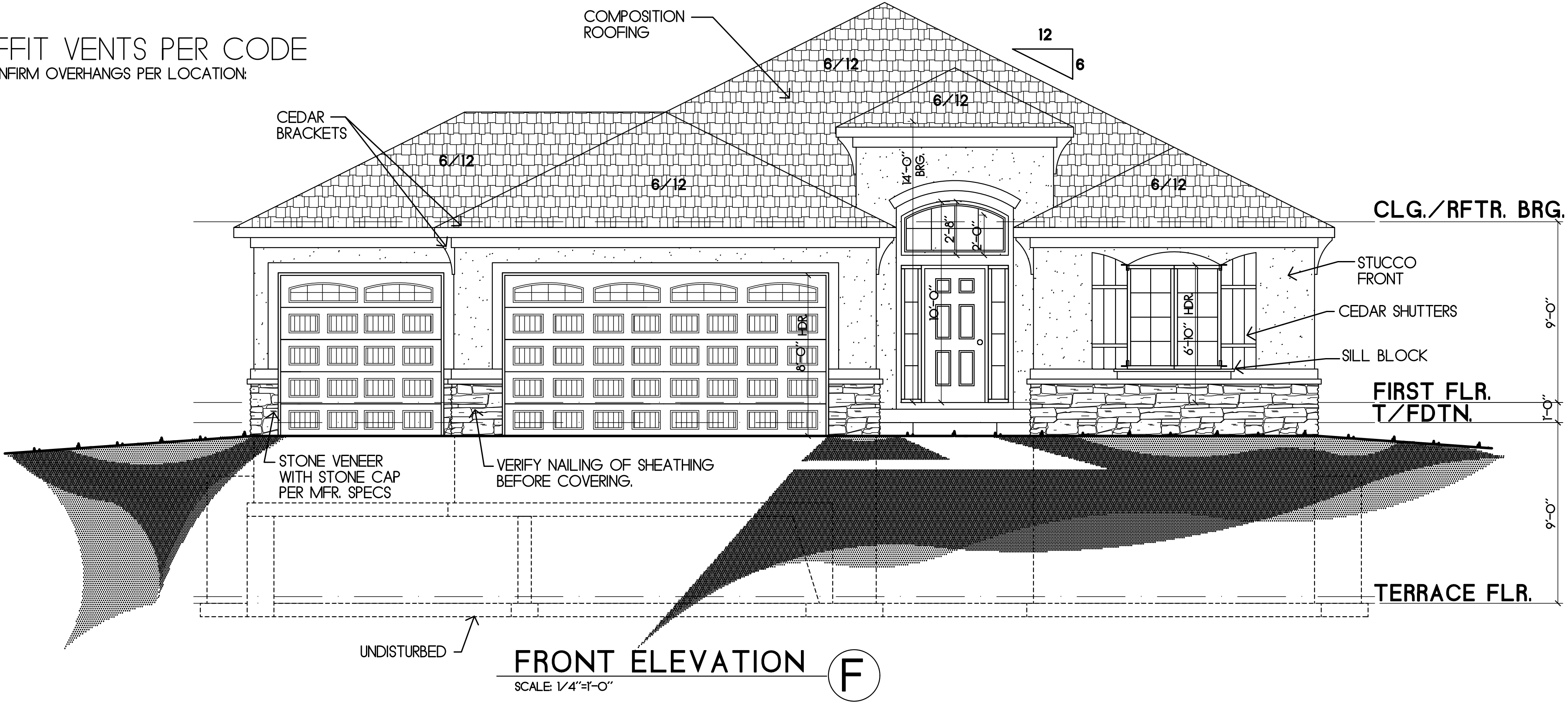




ROOF AND SOFFIT VENTS PER CODE
SEE ROOF PLAN TO CONFIRM OVERHANGS PER LOCATION



SQUARE FOOTAGE SUMMARY :	
MAIN FLOOR FINISH	1790 SF
UPPER FLOOR FINISH	0 SF
LOWER FLOOR AREA	1740 SF
- LOWER FLOOR FINISH	1260 SF
LOWER FLOOR UN-FINISHED	480 SF
GARAGE AREA	682 SF
- GARAGE SLAB	620 SF
FRONT PORCH	33 SF
REAR DECK	195 SF

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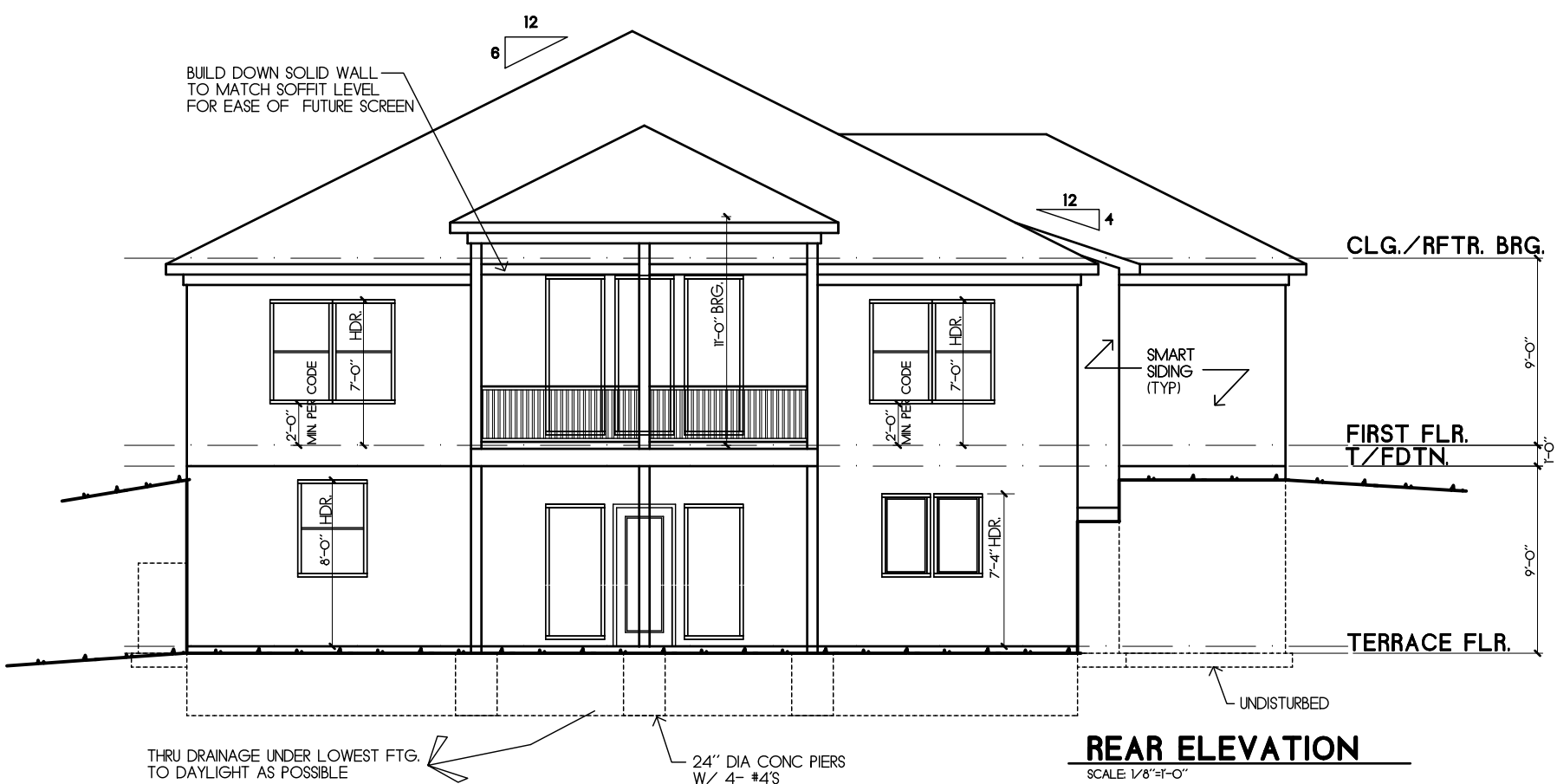
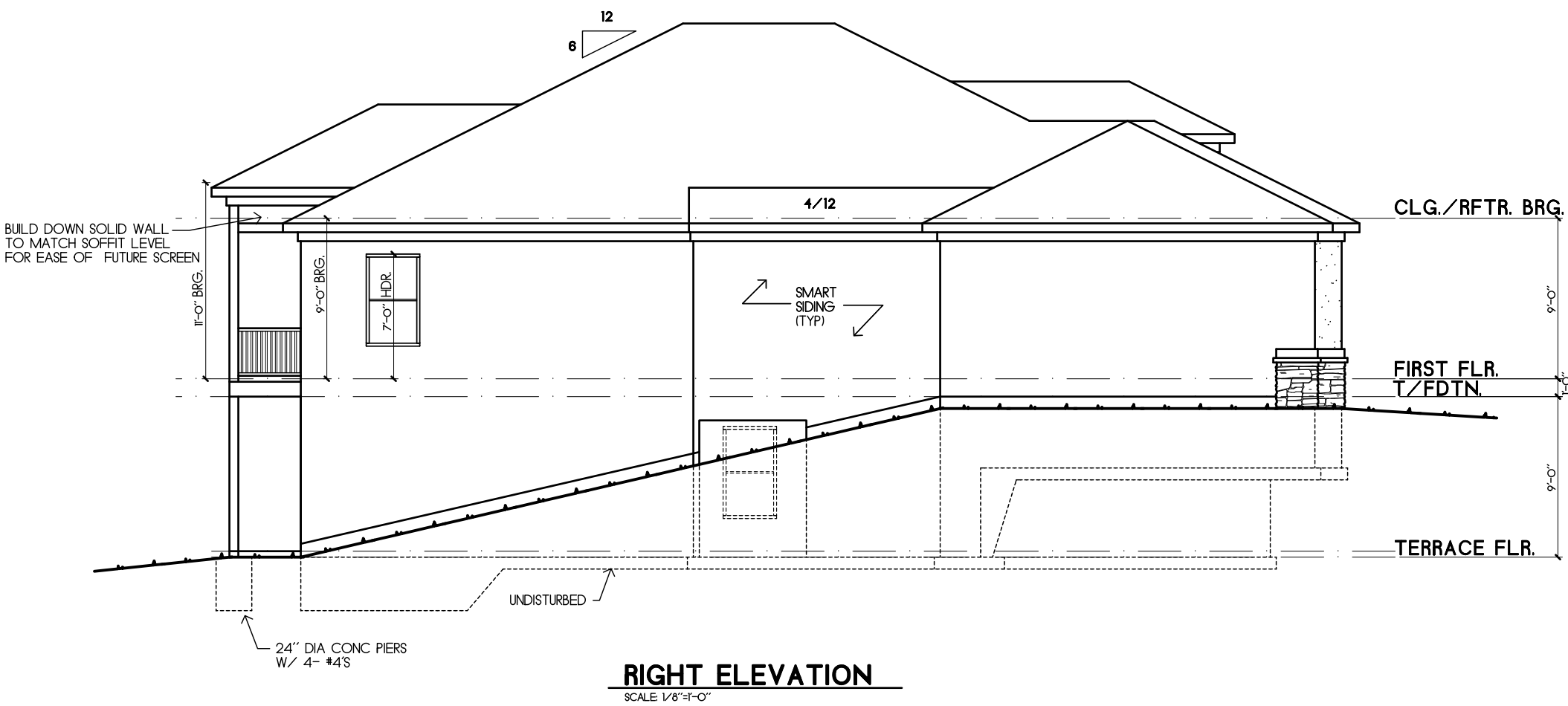
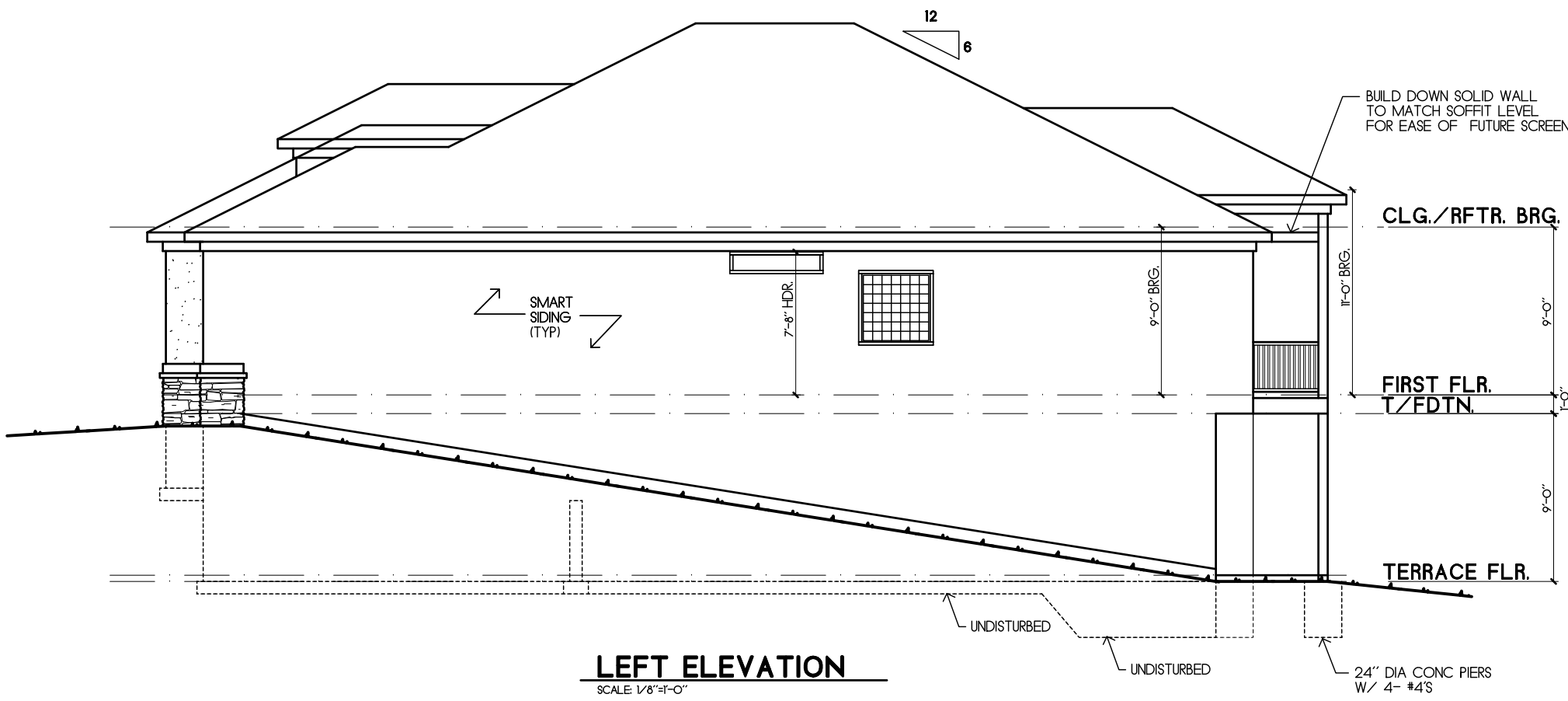
STRUCTURAL DETAILS & NOTES

HD#: 41423
DATE: 04/05/2021
CHECKED BY: CLS

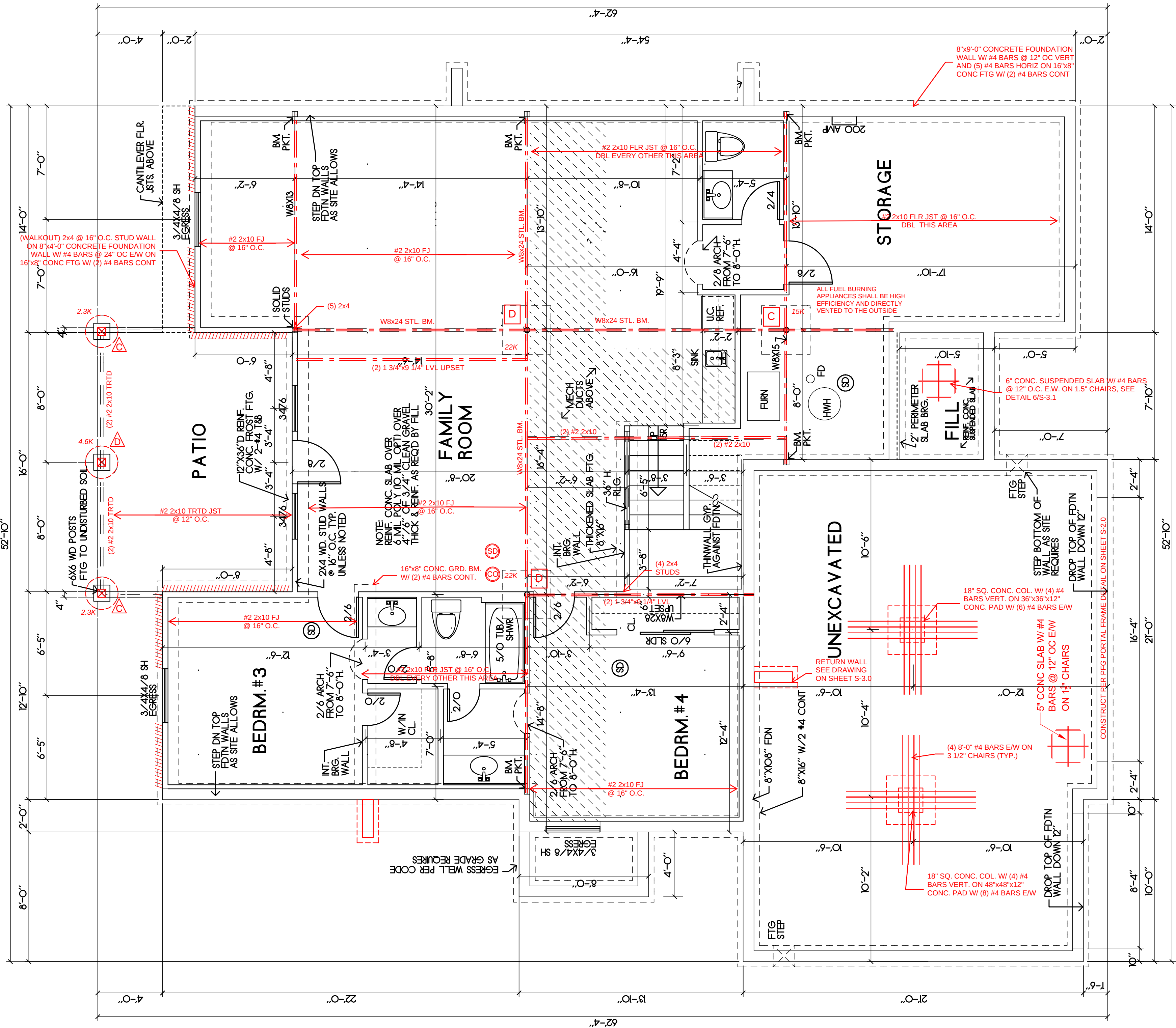
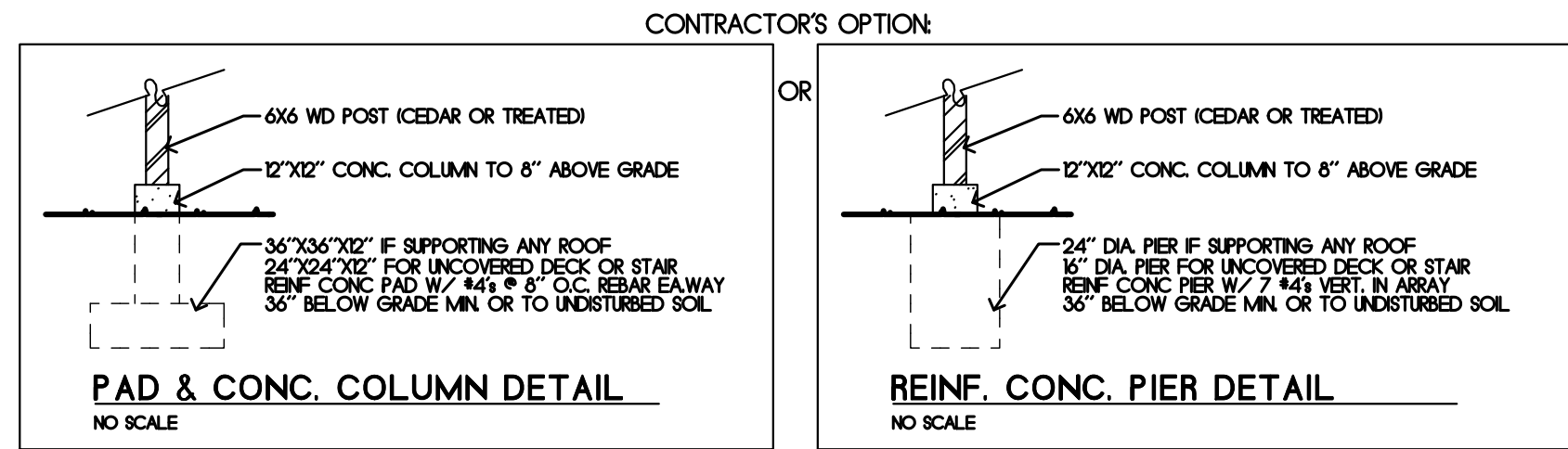
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PLANS DRAWN BY OTHERS

S-0.1



RELEASE FOR
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LEE'S SUMMIT, MISSOURI
04/29/2021



WINDOW NOTES:
SEE ELEVATIONS FOR HDR. HTS

FOUNDATION PLAN
SCALE 1/4"=1'-0" AREA= 1,260 SF

DECK PIER SCHEDULE

- MIN. 6X6 TRTD/CDR POST ON 12" CONC. PIER WITH USP PAU 66 BASE OR = (1177H MAX)
- MIN. 6X6 TRTD/CDR POST ON 16" CONC. PIER WITH USP PAU 66 BASE OR = (2050H MAX)
- MIN. 6X6 TRTD/CDR POST ON 18" CONC. PIER WITH USP PAU 66 BASE OR = (2649H MAX)
- MIN. 6X6 TRTD/CDR POST ON 24" CONC. PIER WITH USP PAU 66 BASE OR = (4710H MAX)

PIERS TO TERMINATE ON ORIGINAL SOIL OF 1500 PSF MINIMUM BEARING.
PIERS TO TERMINATE AT A POINT 36" MINIMUM BELOW FINISH GRADE.
POST ARE NOT TO EXCEED AN UNBRACED LENGTH OF 12' WITHOUT CONTACTING HD ENGINEERING FOR GUIDANCE.

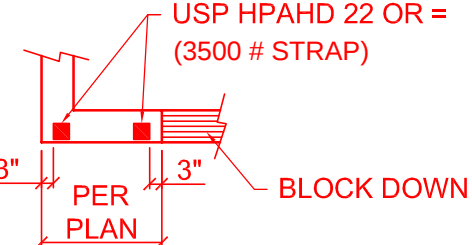
COLUMN PAD SCHEDULE

- 3" SCH. 40 STL. COL. ON 30"x30"x12" CONC. PAD W/ (5) #4 BARS E.W. (9.4K MAX.)
- 3" SCH. 40 STL. COL. ON 36"x36"x12" CONC. PAD W/ (6) #4 BARS E.W. (13.5K MAX.)
- 3 1/2" SCH. 40 STL. COL. ON 42"x42"x14" CONC. PAD W/ (7) #4 BARS E.W. (18.4K MAX.)
- 3 1/2" SCH. 40 STL. COL. ON 48"x48"x16" CONC. PAD W/ (8) #4 BARS E.W. (24K MAX.)
- 3 1/2" SCH. 40 STL. COL. ON 54"x54"x16" CONC. PAD W/ (9) #4 BARS E.W. (30.4K MAX.)
- 3 1/2" SCH. 40 STL. COL. ON 60"x60"x18" CONC. PAD W/ (10) #4 BARS E.W. (37.5K MAX.)

NOTES:
1. COLUMN AND PIER PAD SIZES SHOWN ARE FOR MAX. COLUMN HEIGHT OF 10'-0" TALL.
2. COLUMN AND PIER PAD SIZES SHOWN ARE BASED ON AN ASSUMED 1500 PSF. THIS IS THE CAPACITY REQUIRED BY AHI. UNDERLINED GENERAL NOTES ON S-1.0 FOR MORE DETAILS.
3. ALL STEEL COLUMNS SHALL BE ISOLATED FROM SLABS WITH APPROVED ISOLATION DEVICE OR JOINT.

GENERAL NOTES:
- WINDOW SHALL HAVE FALL PROTECTION PER IRC 312.2.4. HOUSE WILL BE PROVIDED WITH A "UFER" GROUND PER IRC SECTION 3608.1.5.
- OVERHEAD GARAGE DOORS MUST MEET DASHA REQUIREMENTS SEE DETAIL SHEET S-1.0.
- ALL HEADERS NOT LABELED SHALL BE MIN (2) #2-2X10 DFL.
- DBL. ALL JST UNDER ISLAND.
- SOILS IN THIS AREA COMMONLY HAVE A VERY HIGH SHRINK SWELL CAPACITY. OUR FIRM RECOMMENDS ALL SITES BE EVALUATED BY A GEOTECHNICAL FIRM PRIOR TO PLACEMENT OF FOUNDATIONS.
- PROVIDE CARBON MONOXIDE AND SMOKE DETECTORS PER IRC REQUIREMENTS.
- ANY PORTION OF THESE PRINTS ISSUED WITHOUT A MIN. OF S-1.0 - S-4.0 SHALL NOT BE CONSIDERED A COMPLETE SET OF CONSTRUCTION DOCUMENTS.
- ICE AND WATER SHIELD AS REQUIRED PER IRC

TYPICAL TIE DOWN AT NARROW WALL

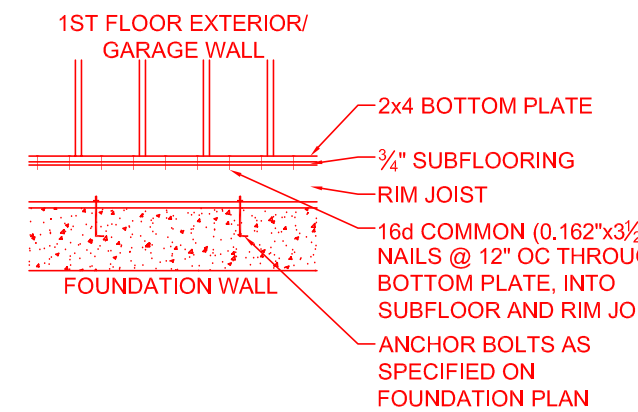


BRACED WALLS:

SEE CALCULATIONS ON SHEET S-2.0, PER ASCE7-10 REQUIREMENTS AS ALLOWED BY IRC 2018 R301.2.1

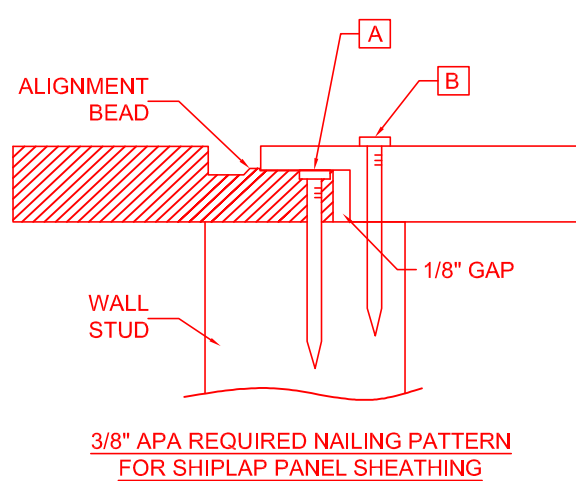
ALL EXTERIOR WALLS SHALL BE SHEATHED PER ANY ONE OF THE FOLLOWING OPTIONS:
7/16" APA-RATED PLYWOOD/OSB WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD.
7/16" SHIP LAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD.
3/8" SHIP LAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 4" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD.

INTERIOR BRACED WALL LOCATIONS ONLY SHOWN WHEN REQUIRED BY ADDITIONAL BRACING SECTION OF CALCULATIONS ON SHEET S-2.0



FOUNDATION ANCHORING NOTES

MIN. 1/2" ANCHOR BOLTS SHALL BE INSTALLED @ 36" O.C. MAX AND WITHIN 6"-12" FROM THE END OF EACH SECTION OF SILL PLATE ALONG ENTIRE PERIMETER OF FOUNDATION



NAILING WITH SPACING AS SPECIFIED PER PLAN. FOR EXAMPLE, IF REQUIRED SPACING IS 4" O.C., BOTTOM LAP SHALL FIRST BE NAILED AT 4" O.C. (NAIL "A"), THEN FULL DEPTH SECTION OF OVERLAP PANEL SHALL BE NAILED @ 4" O.C. (NAIL "B")

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144 NW CARSON DR., LEE'S SUMMIT, MO

STRUCTURAL DETAILS & NOTES

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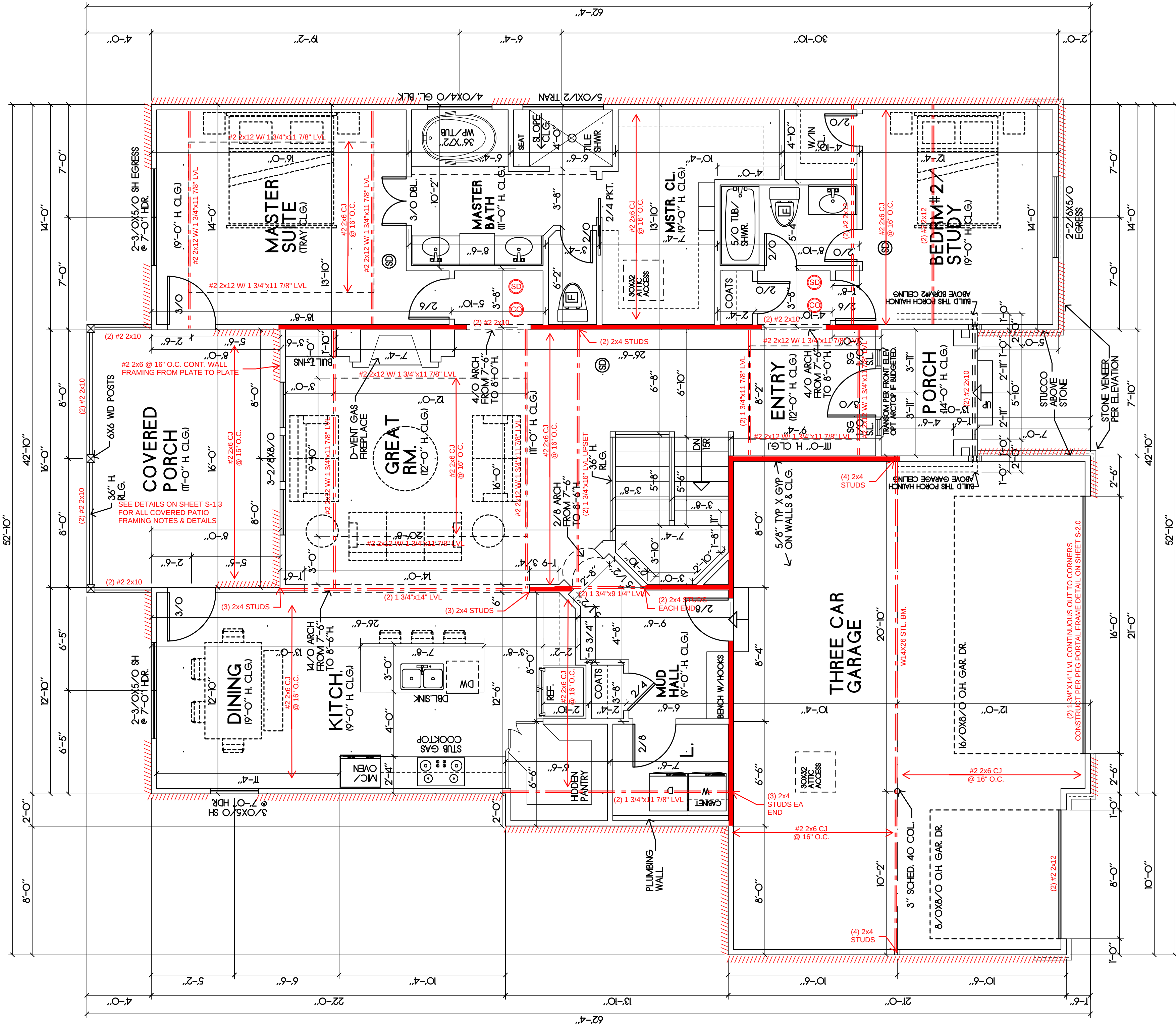
DATE: 04/05/2021

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PLANS DRAWN BY OTHERS

S-0.2



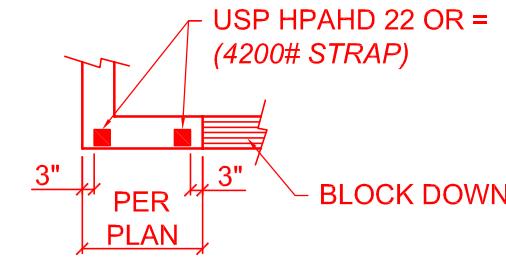
WINDOW NOTES:
SEE ELEVATIONS FOR HDR HTS

MAIN FLOOR PLAN
SCALE 1/4"=1'-0" AREA= 1,790 SF

- LOAD BEARING WALL
- - - LOAD BEARING WALL
SD - SMOKE DETECTOR
CO - CARBON MONOXIDE SENSOR

GENERAL NOTES:
- WINDOW SHALL HAVE FALL PROTECTION PER IRC 312.2.4
- HOUSE WILL BE PROVIDED WITH A "USER" GROUND PER IRC SECTION 3608.1.5
- OVERHEAD GARAGE DOORS MUST MEET DASHA REQUIREMENTS SEE DETAIL SHEET S-1.0
- ALL HEADERS NOT LABELED SHALL BE MIN (2) #2-2X10 DFL
- DBL ALL 1ST UNDER ISLAND
- SOILS IN THIS AREA COMMONLY HAVE A VERY HIGH SHRINK SWELL CAPACITY. OUR FIRM RECOMMENDS ALL SITES BE EVALUATED BY A GEOTECHNICAL FIRM PRIOR TO PLACEMENT OF FOUNDATIONS
- PROVIDE CARBON MONOXIDE AND SMOKE DETECTORS PER IRC REQUIREMENTS
- ANY PORTION OF THESE PRINTS ISSUED WITHOUT A MIN. OF S-1.0 - S-4.0 SHALL NOT BE CONSIDERED A COMPLETE SET OF CONSTRUCTION DOCUMENTS
- ICE AND WATER SHIELD AS REQUIRED PER IRC

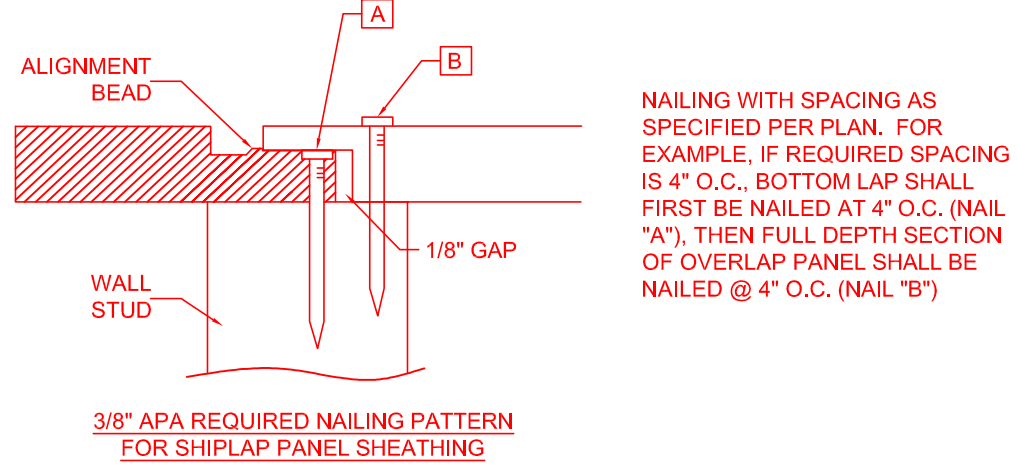
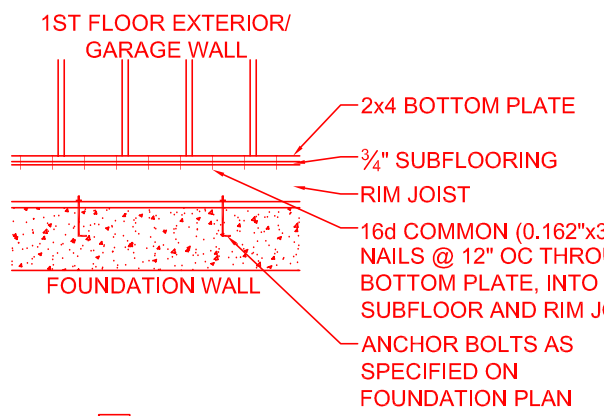
TYPICAL TIE DOWN AT NARROW WALL



BRACED WALLS:
SEE CALCULATIONS ON SHEET S-2.0, PER ASC7-10 REQUIREMENTS AS ALLOWED BY IRC 2018 R301.2.1

ALL EXTERIOR WALLS SHALL BE SHEATHED PER ANY ONE OF THE FOLLOWING OPTIONS:
- 7/16" APA-RATED PLYWOOD/OSB WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD
- 7/16" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD
- 3/8" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 6d NAILS @ 4" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD

INTERIOR BRACED WALL LOCATIONS ONLY SHOWN WHEN REQUIRED BY ADDITIONAL BRACING SECTION OF CALCULATIONS ON SHEET S-2.0



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RIVIERA ELEV B WV1459
144 NW CARSON DR., LEE'S SUMMIT, MO

STRUCTURAL DETAILS & NOTES

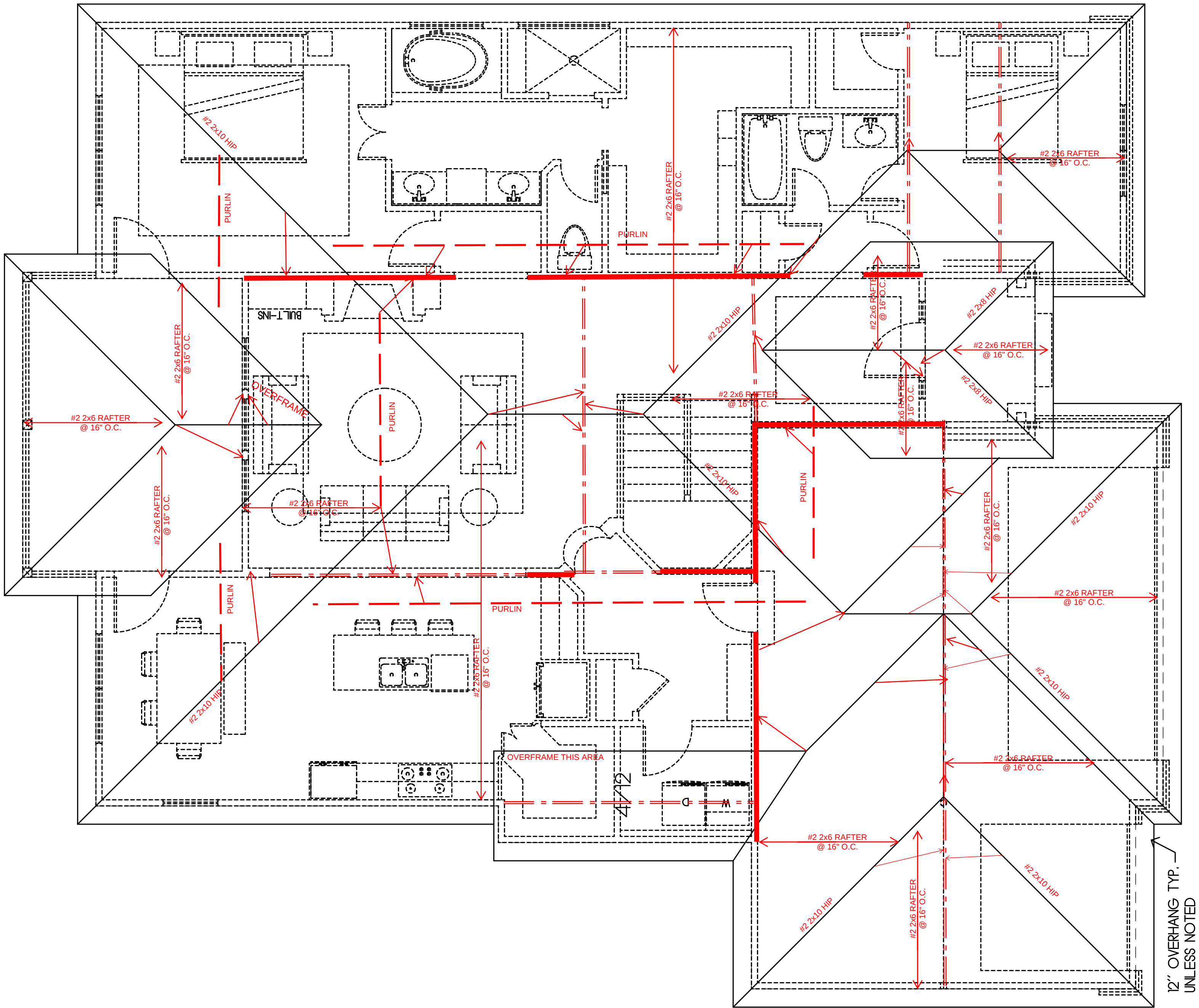
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PLANS DRAWN BY OTHERS

S-0.3

RELEASE FOR
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LEE'S SUMMIT, MISSOURI
04/29/2021



6/12 ROOF PITCH TYP.
UNLESS NOTED

35 SQUARES OF
ROOF SHINGLES

ROOF FRAMING PLAN

SCALE 1/4"=1'-0"

NOTES

ROOF DESIGNED FOR LIGHT ROOF COVERING 30PSF
TOTAL LOAD [10PSF DL, 20PSF LL (SL)]

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

CODE MINIMUM		
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24" O.C.	11'-11"
#2-2x6	@16" O.C.	14'-1"
#2-2x8	@24" O.C.	15'-1"
#2-2x8	@16" O.C.	18'-5"
#2-2x10	@24" O.C.	18'-5"
#2-2x10	@16" O.C.	22'-6"

NOTE: CODE MINIMUM L/240 DEFLECTION

GREATER THAN CODE		
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24" O.C.	8'-9"
#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

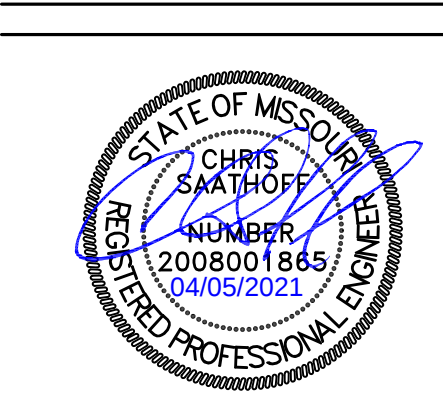
ALL RIDGES, HIPs, AND VALLEYS NOT MARKED SHALL BE (1)
NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS

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 "T"
CONFIGURATION AND PER THE FOLLOWING CHART

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

SEE DETAILS 1, 5, 6, 7, 11, 12, 13, & 14 ON S-1.2
FOR ROOF FRAMING AND INSULATION OPTIONS

- PURLIN
- LOAD BEARING WALL
- LOAD BEARING BEAM/
GIRDER PER PLAN



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144 NW CARSON DR., LEE'S SUMMIT, MO

STRUCTURAL DETAILS & NOTES

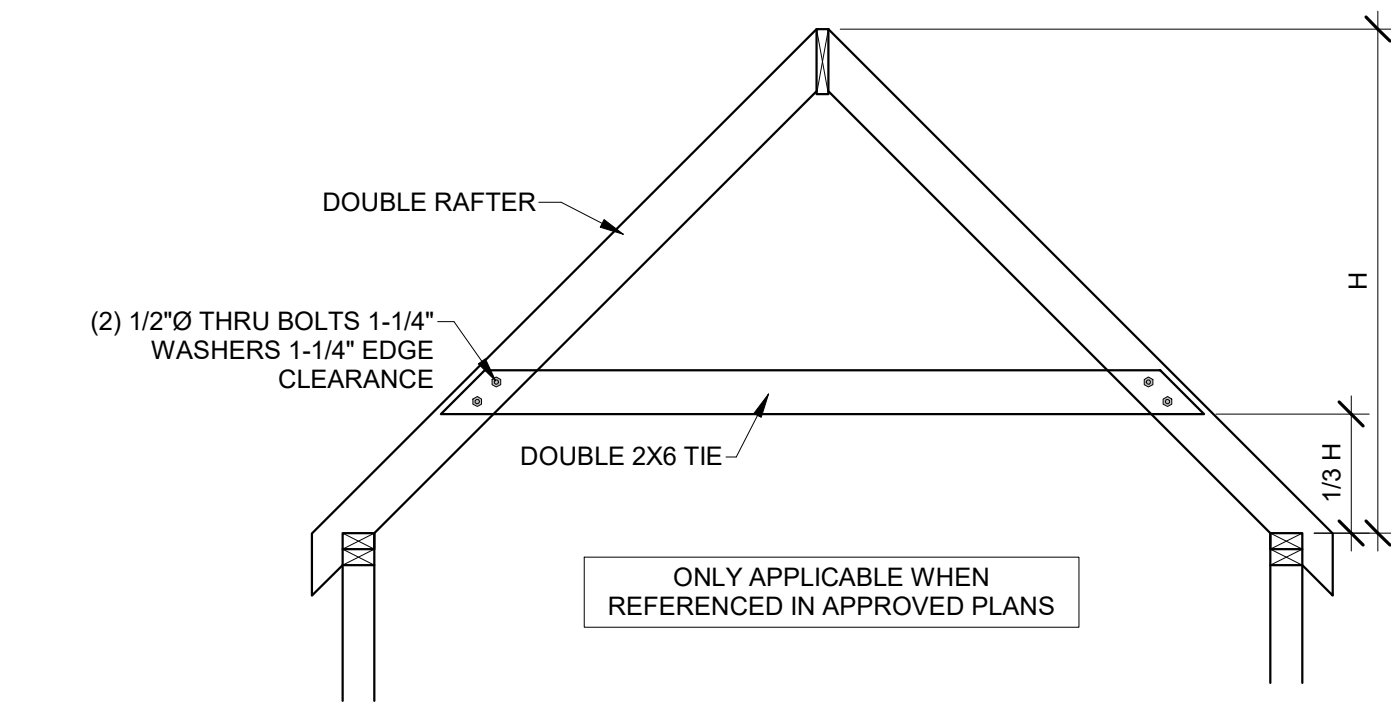
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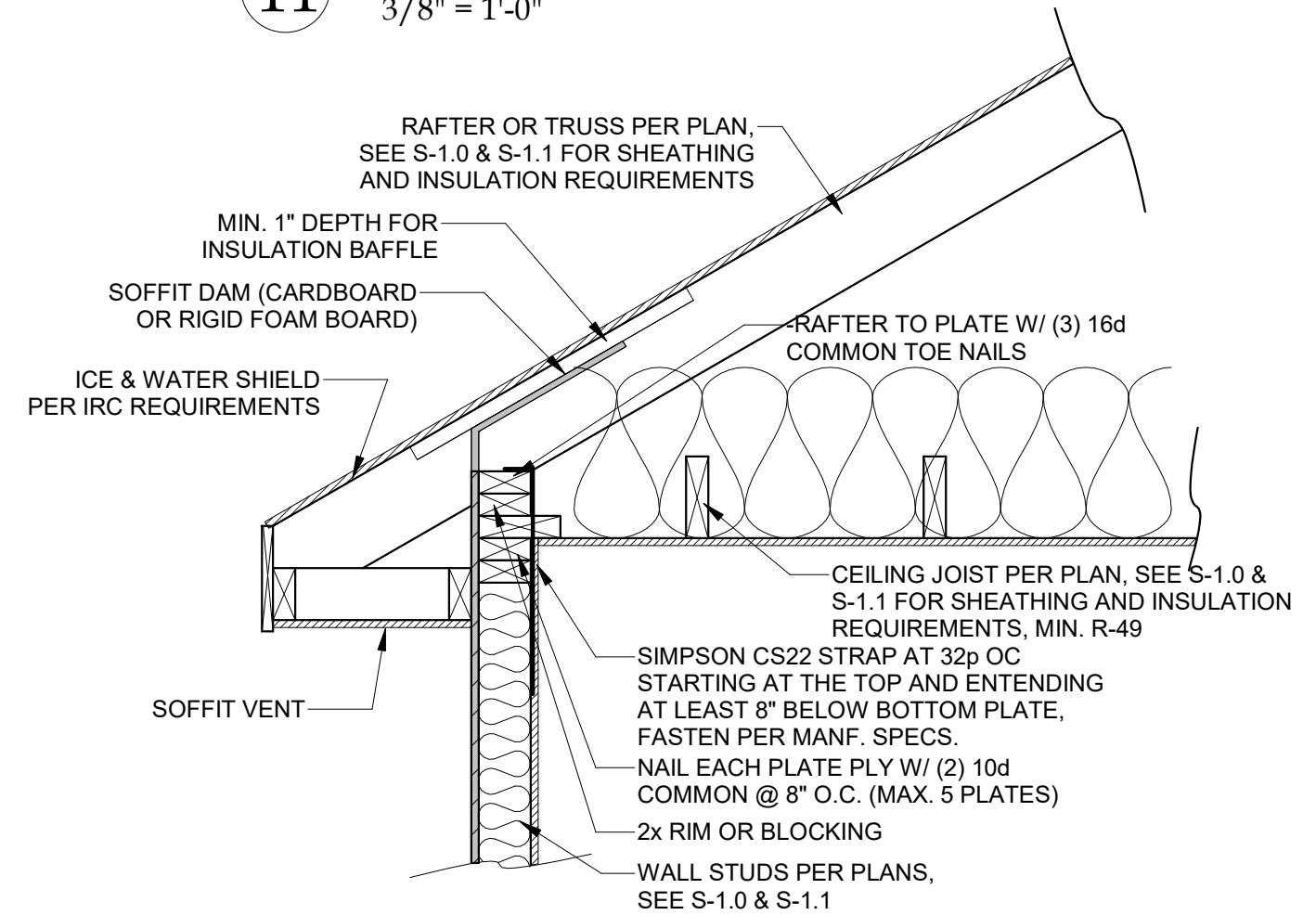
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S-0.4

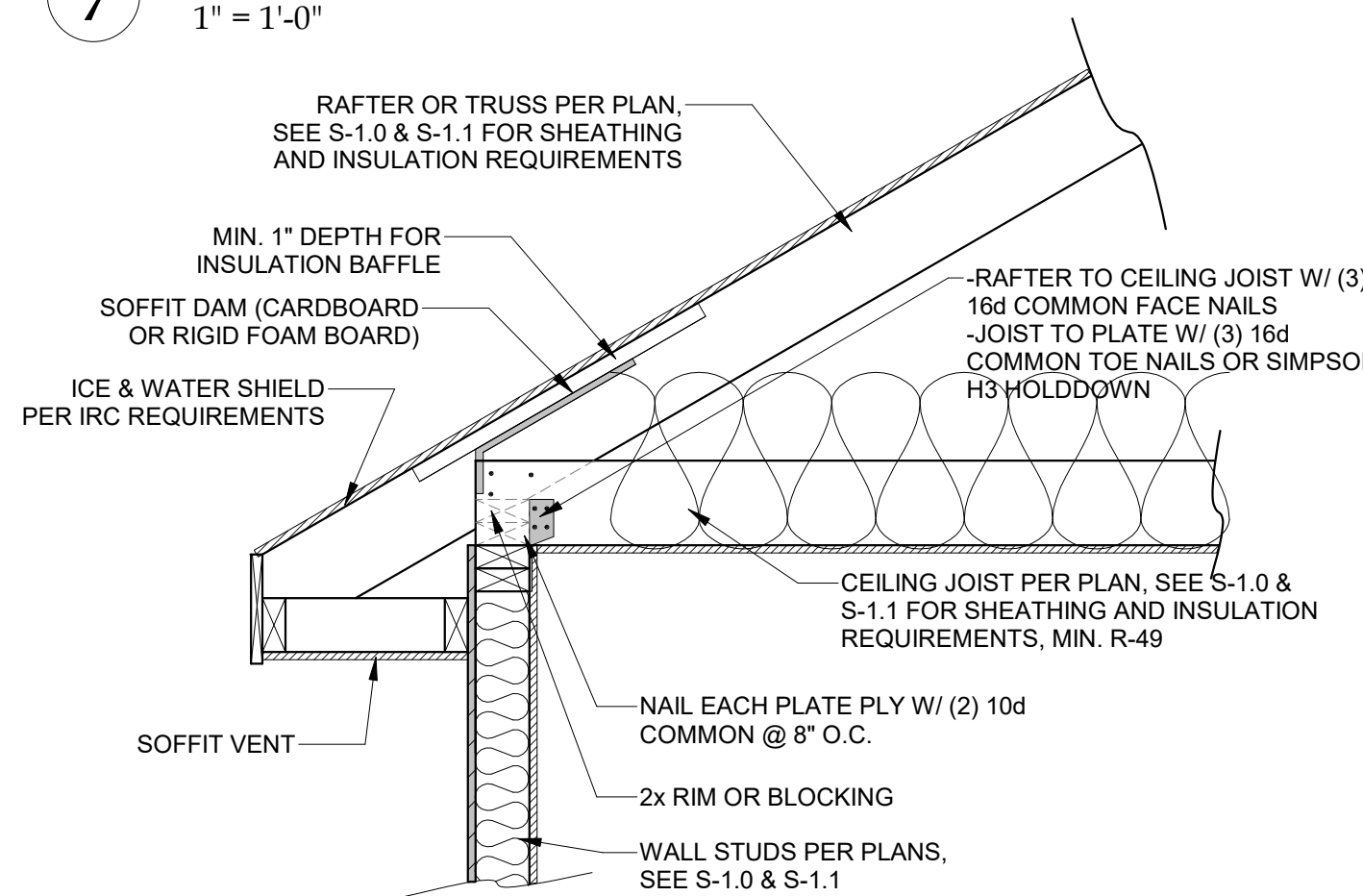
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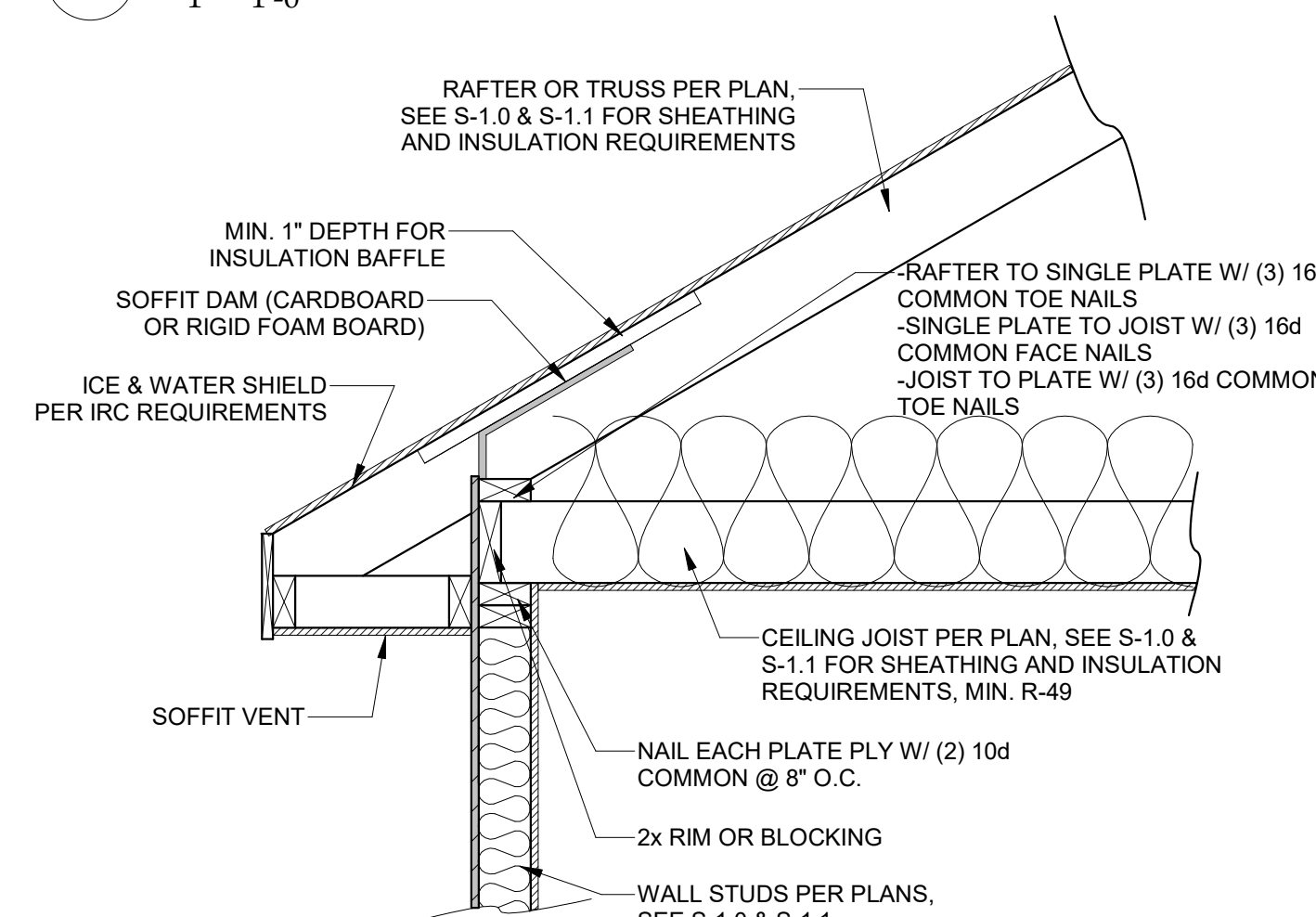
11 HIP SUPPORT FRAME
3/8" = 1'-0"



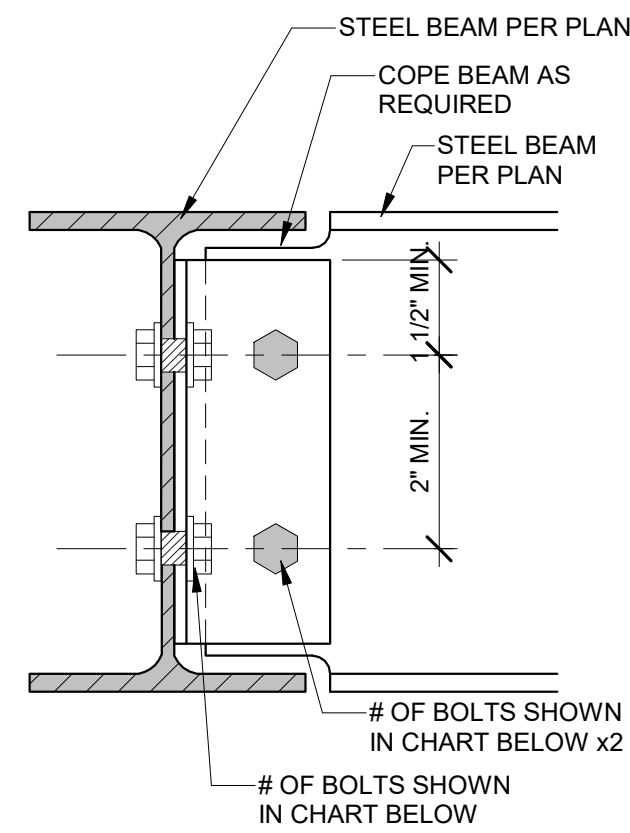
7 OPTION 4 RAFTER BEARING
1" = 1'-0"



6 OPTION 3 RAFTER BEARING
1" = 1'-0"

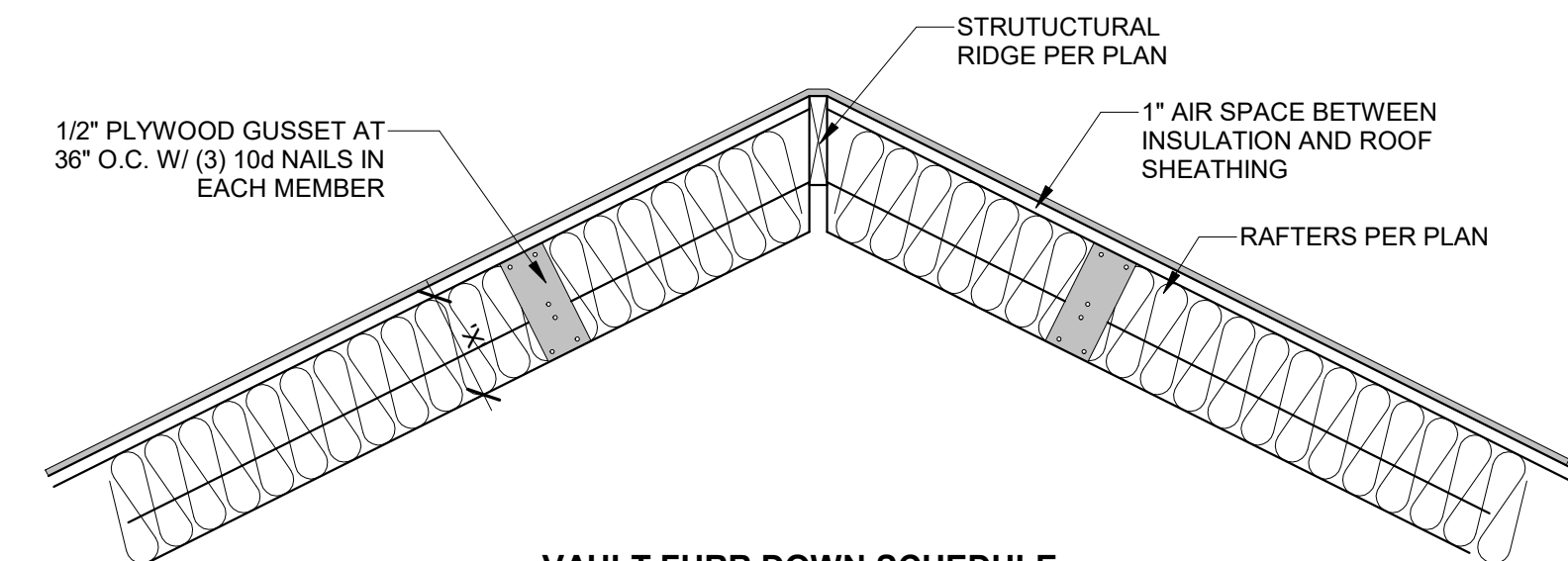


5 OPTION 2 RAFTER BEARING
1" = 1'-0"
THIS OPTION NOT AVAILABLE IN KC, MO



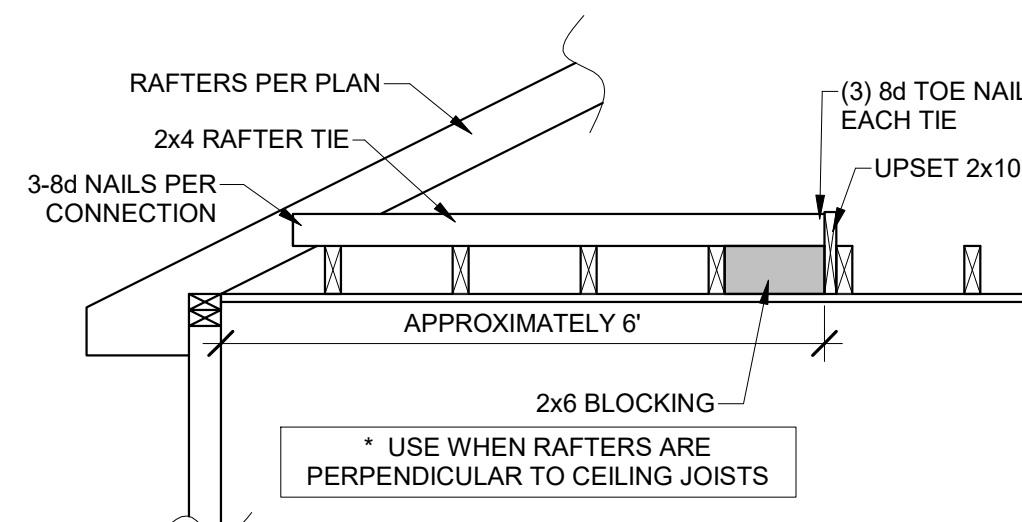
10 BEAM TO GIRDER CONNECTION
3" = 1'-0"

TYPE	MAX. UNSUPPORTED SPAN				
	2x8	2x10	2x12	1 3/4"x9 1/2" LVL	1 3/4"x11 7/8" LVL
HIP RAFTER	11'-3"	13'-3"	15'-2"	15'-8"	18'-2"
VALLEY RAFTER	8'-11"	10'-6"	12'-0"	13'-2"	15'-3"

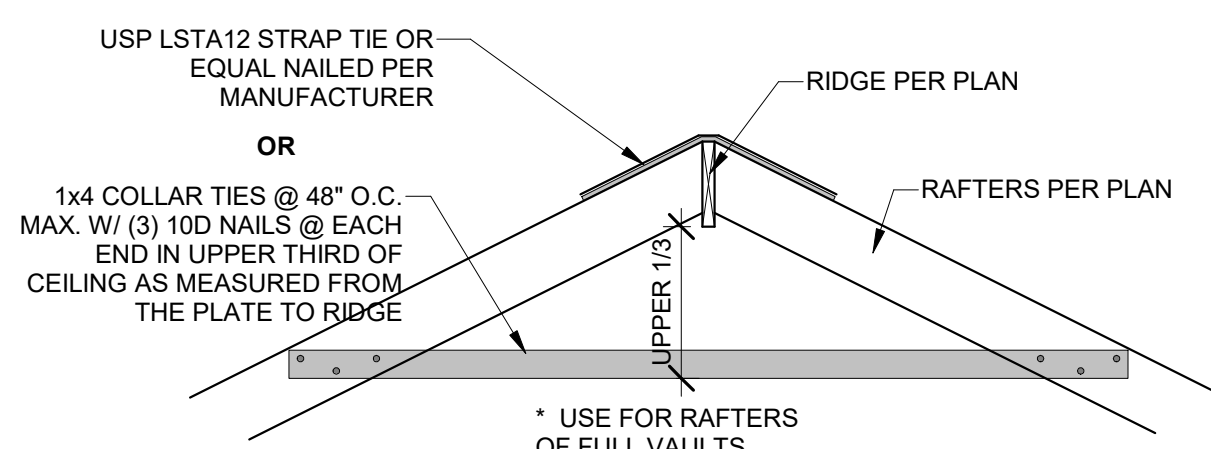


RAFTER SIZE	MAX. UNSUPPORTED SPAN	
	R-30C INSULATION (X = 9 1/4")	R-38C INSULATION (X = 11 1/4")
2x6	2x6	2x8
2x8	2x4	2x6
2x10	NOT REQUIRED	2x4
2x12	NOT REQUIRED	2x2

14 VAULTED RAFTER INSULATION
3/4" = 1'-0"



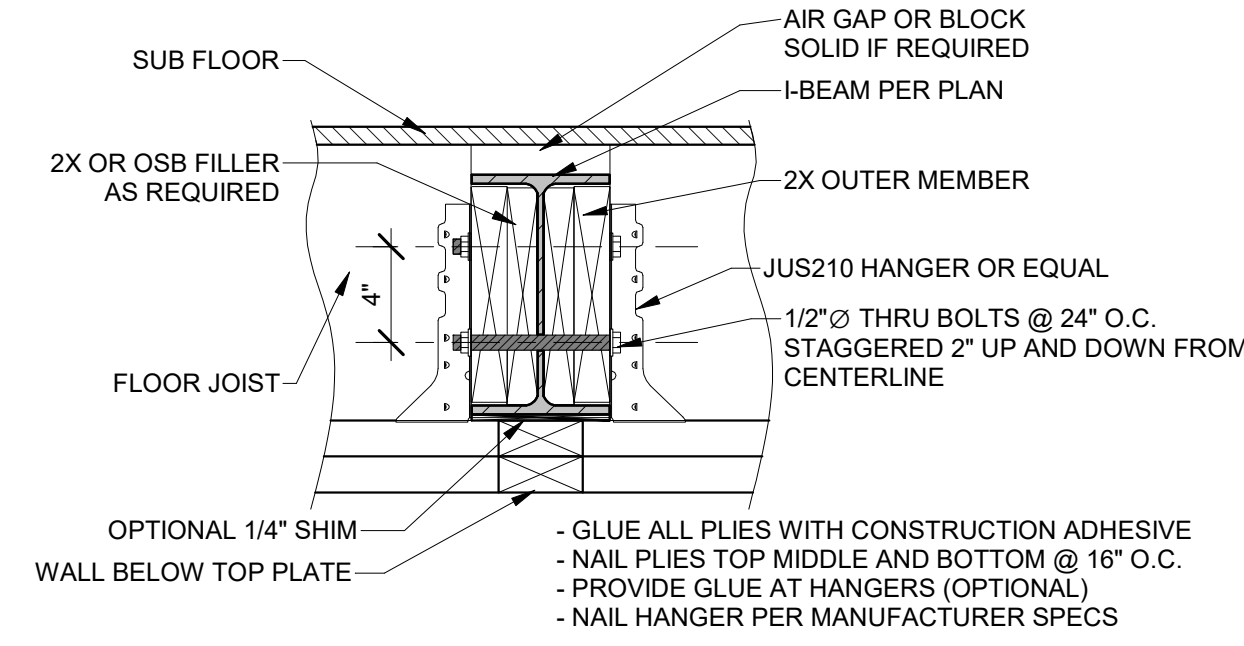
12 RAFTER TIE CONNECTION
1/2" = 1'-0"



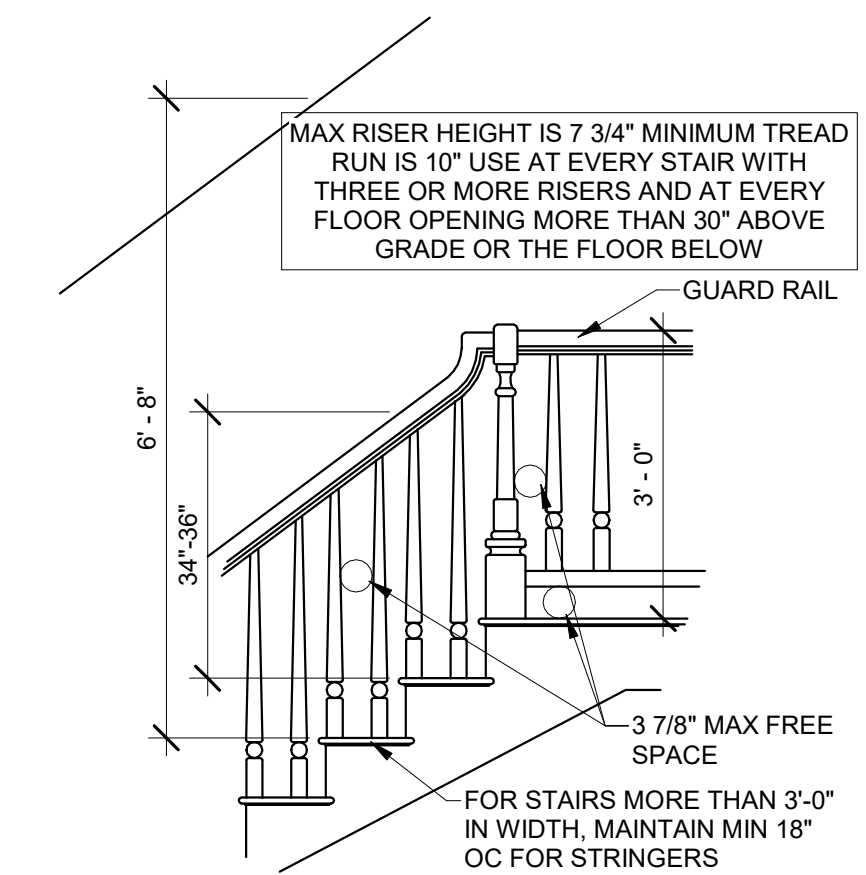
13 RIDGE SUPPORT
1/2" = 1'-0"

BEAM CONNECTION SCHEDULE	
BEAM SIZE	# OF BOLT IN CONNECTION
W8, W10	2
W12, W14	3
W16, W18	4

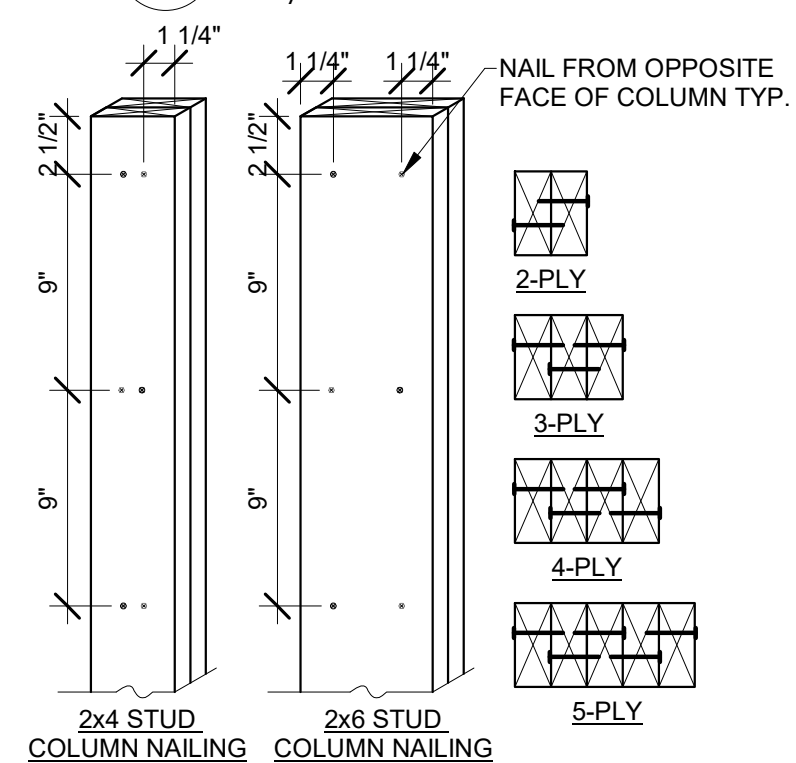
NOTES:
1. NUMBER OF BOLTS DETERMINED BY SMALLER OF TWO BEAMS BEING CONNECTED
2. ALL BOLTS, 3/4" DIAMETER A325-N, UNO
3. FULL PERIMETER 1/4" FILLET WELD MAY BE SUBSTITUTED FOR EITHER OR BOTH BOLTED CONNECTIONS



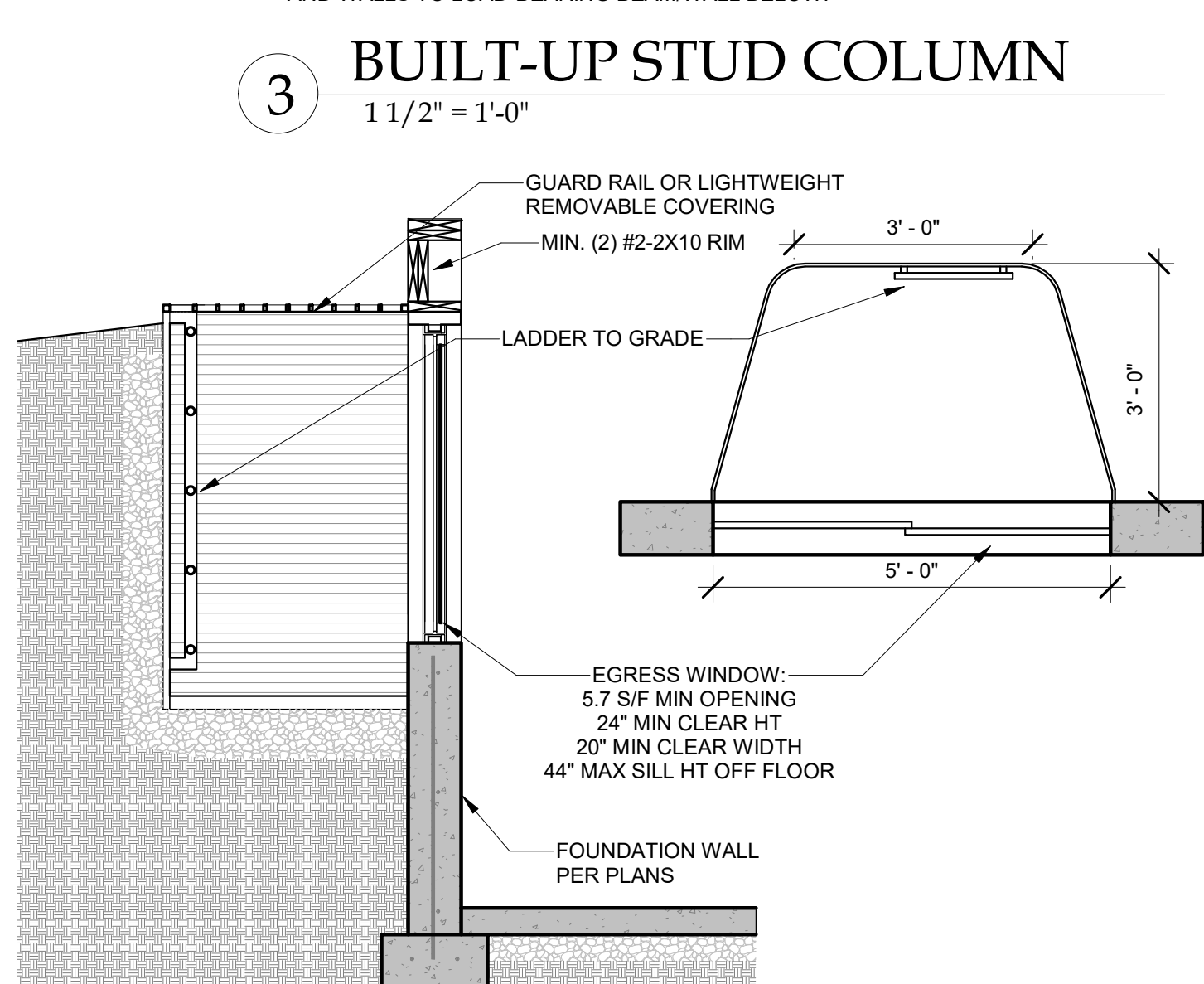
8 UPSET STEEL BEAM DETAIL
1 1/2" = 1'-0"



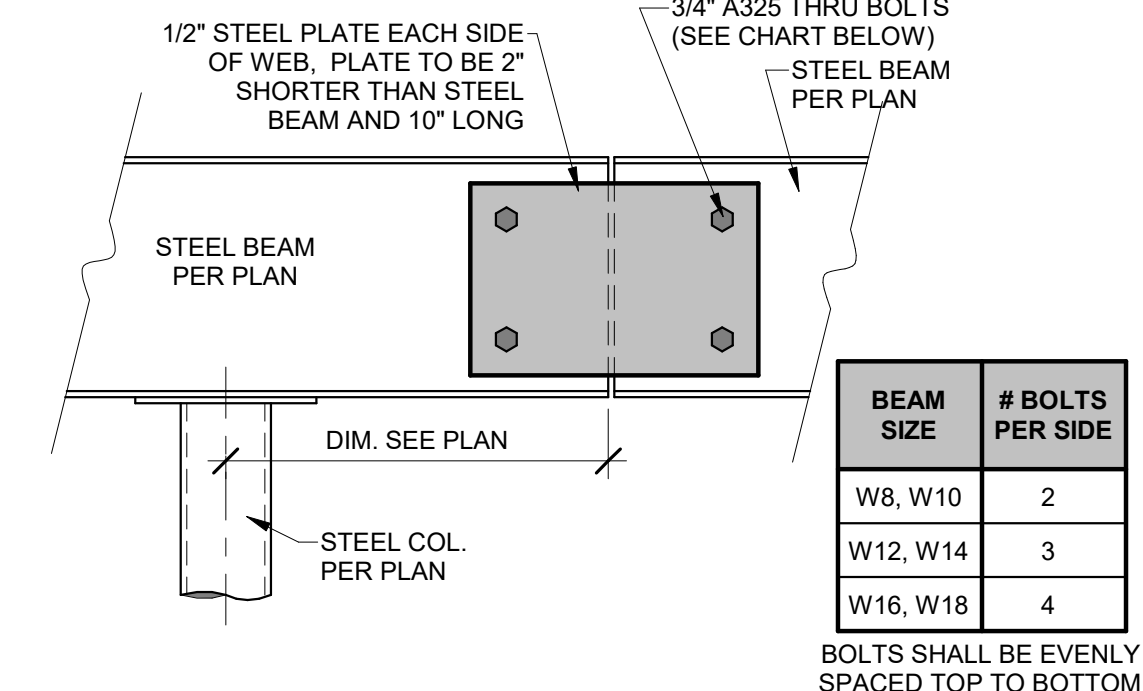
4 STAIR/ RAIL DETAIL
1/2" = 1'-0"



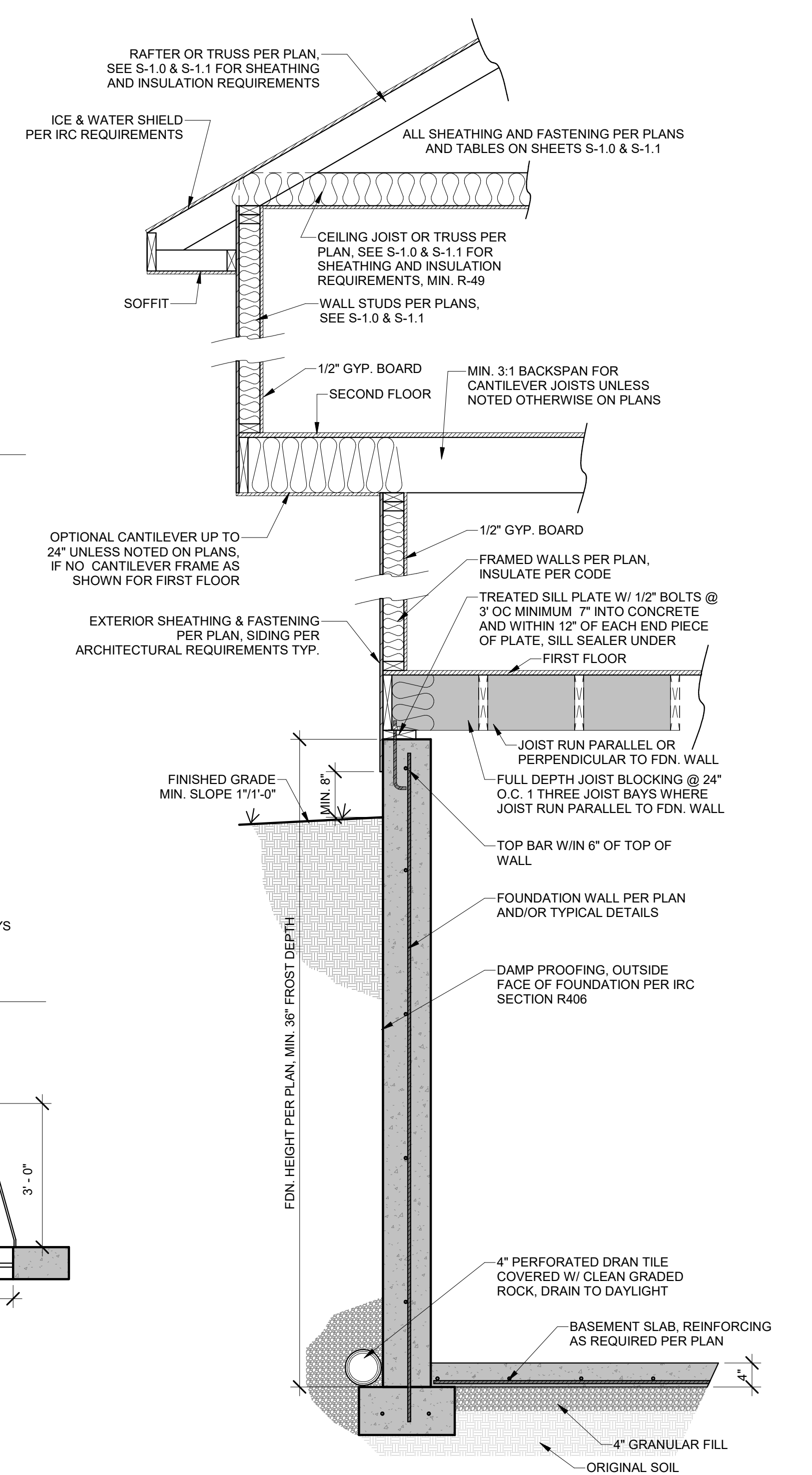
3 BUILT-UP STUD COLUMN
1 1/2" = 1'-0"



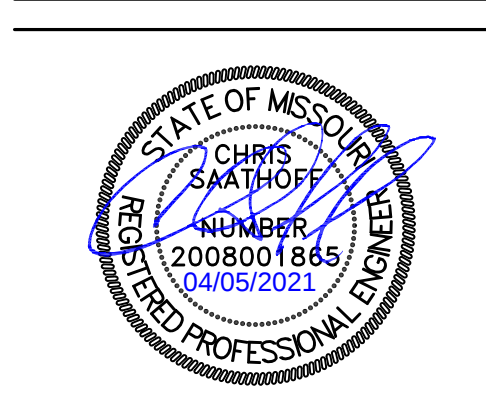
2 EGRESS WINDOW SECTION
1/2" = 1'-0"



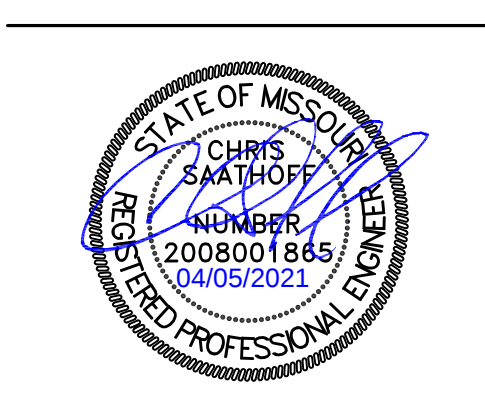
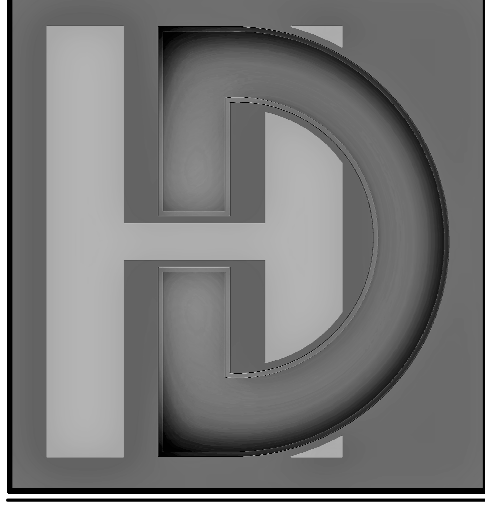
9 STEEL BEAM SPLICE DETAIL
1 1/2" = 1'-0"



1 TYPICAL WALL SECTION
3/4" = 1'-0"



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144 NW CARSON DR., LEE'S SUMMIT, MO

STRUCTURAL DETAILS & NOTES

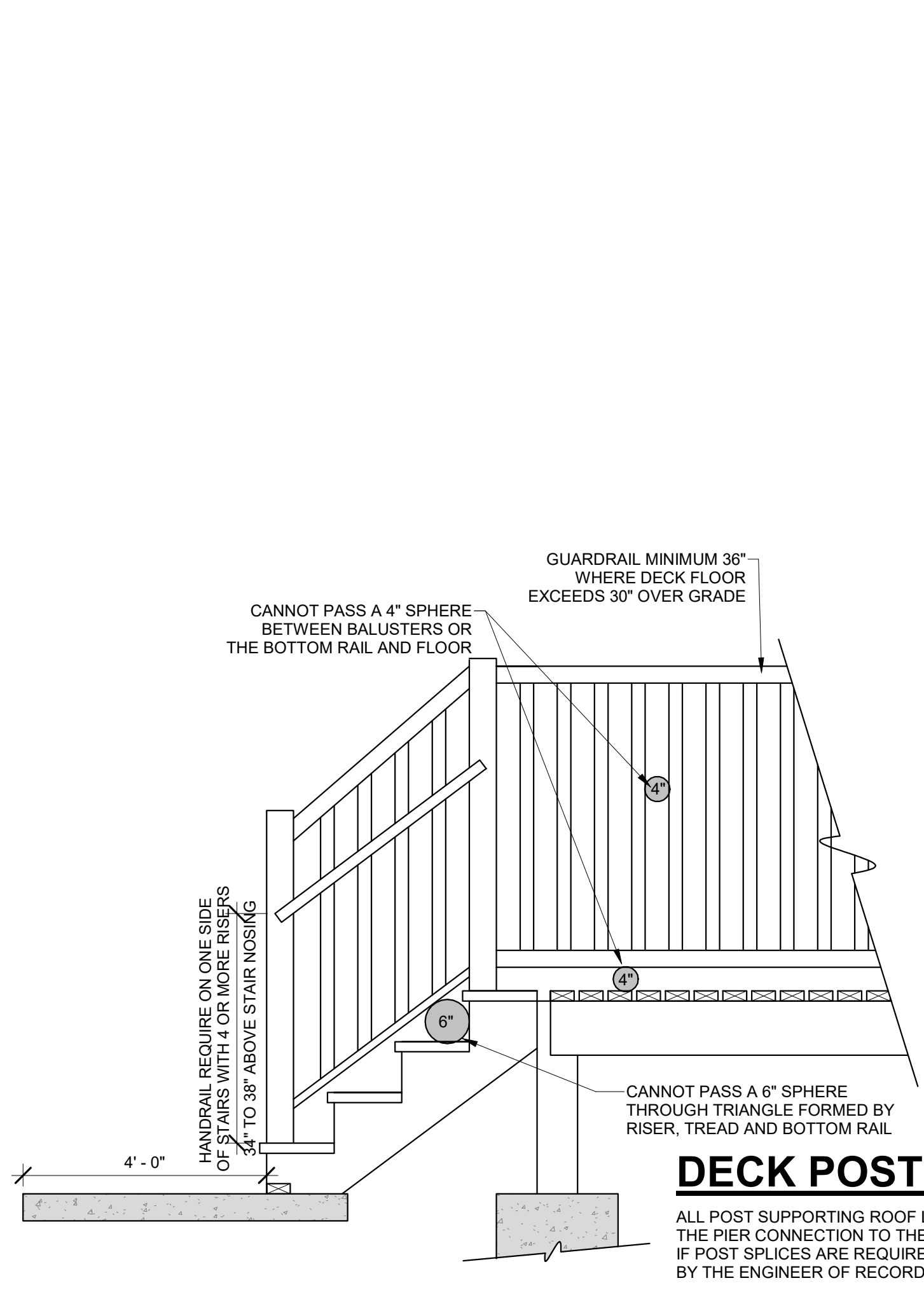
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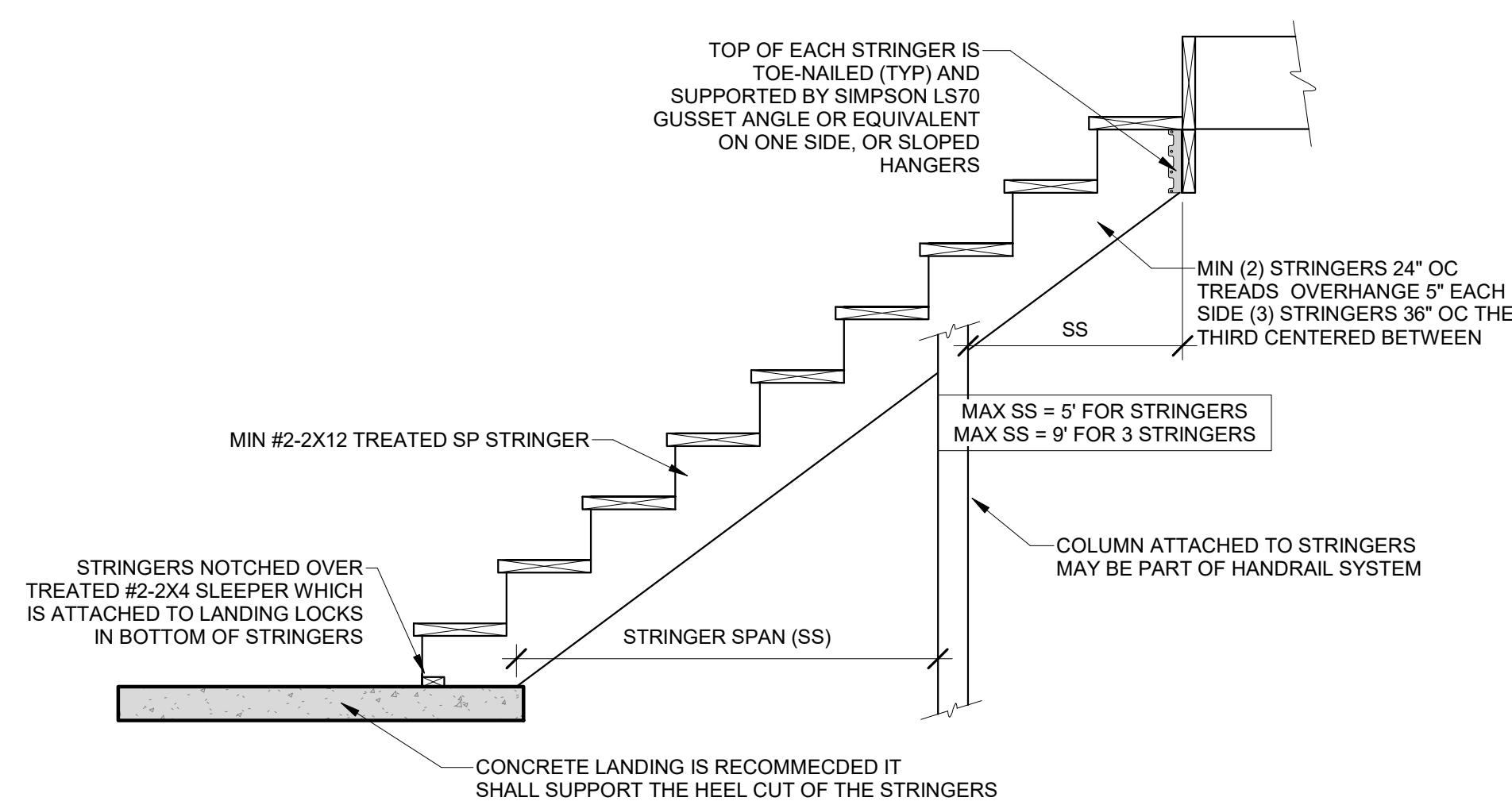
DECK DETAILS

S-1.3

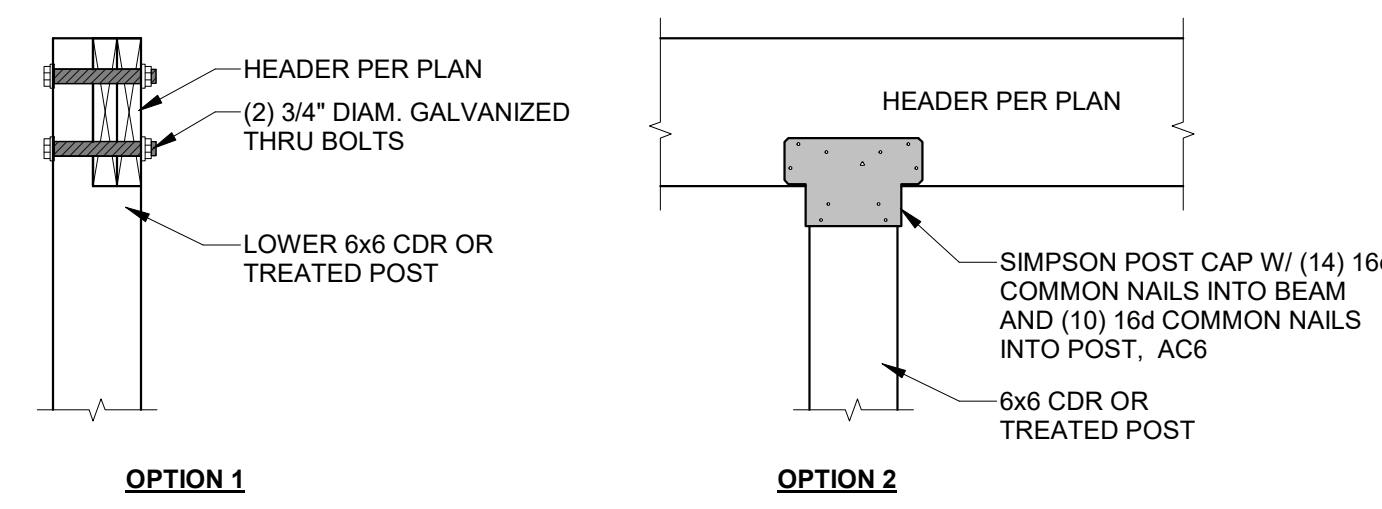
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/29/2021



8 GUARD RAIL
1/2" = 1'-0"



9 STAIR STRINGER DETAIL
1/2" = 1'-0"



7 ROOF LEVEL INTERIOR BEAM TO COLUMN
1" = 1'-0"

TABLE IRC2018 R507.9.1.3(1)
DECK LEDGER CONNECTION TO BAND JOIST^{a,b}
(DECK LIVE LOAD = 40 PSF, DECK HEAD LOAD = 10 PSF, SNOW LOAD ≤ 40 PSF)

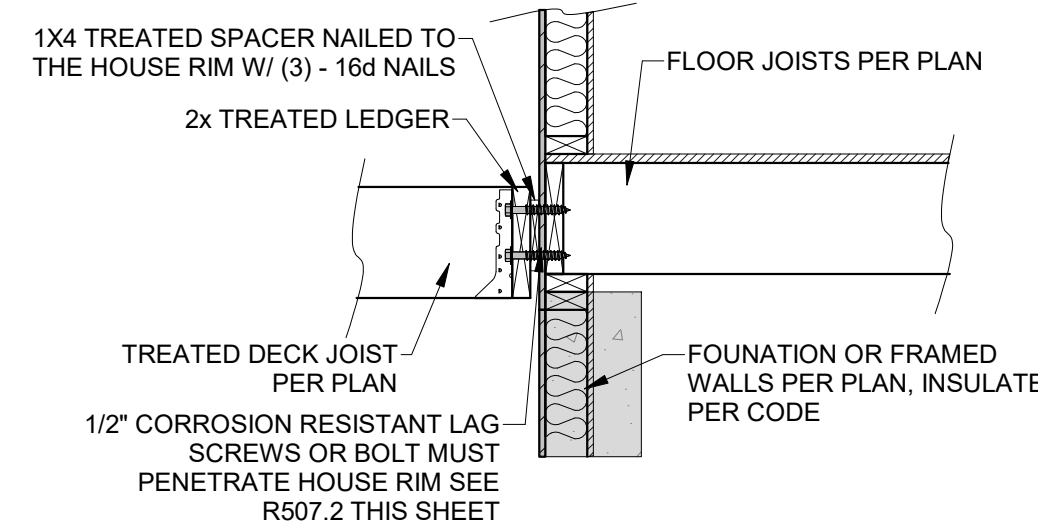
JOIST SPAN	6' AND LESS	6'-1" TO 8'	8'-1" TO 10'	10'-1" TO 12'	12'-1" TO 14'	14'-1" TO 16'	16'-1" TO 18'
CONNECTION DETAILS	ON-CENTER SPACING OF FASTENERS ^{c,e}						
1/2" LAG SCREW WITH 15/32" MAX. SHEATHING ^{c,d}	30	23	18	15	13	11	10
1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING ^d	36	36	34	29	24	21	19
1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING & 1/2" STACKED WASHERS ^e	36	36	29	24	21	18	16

For SI: 1 inch = 25.4mm, 1 foot = 304.8mm, 1 pound per square foot = 0.0479 kPa
a. Ledges shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.
b. Snow load shall not be assumed to act concurrently with live load.
c. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
d. Sheathing shall be wood structural panel or solid sawn lumber.
e. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard lumber or foam sheathing. Up to 1/2" thickness of stacked washers shall be permitted to substitute for you to 1/2" of allowable sheathing thickness where combined with wood structural panel or lumbers sheathing.

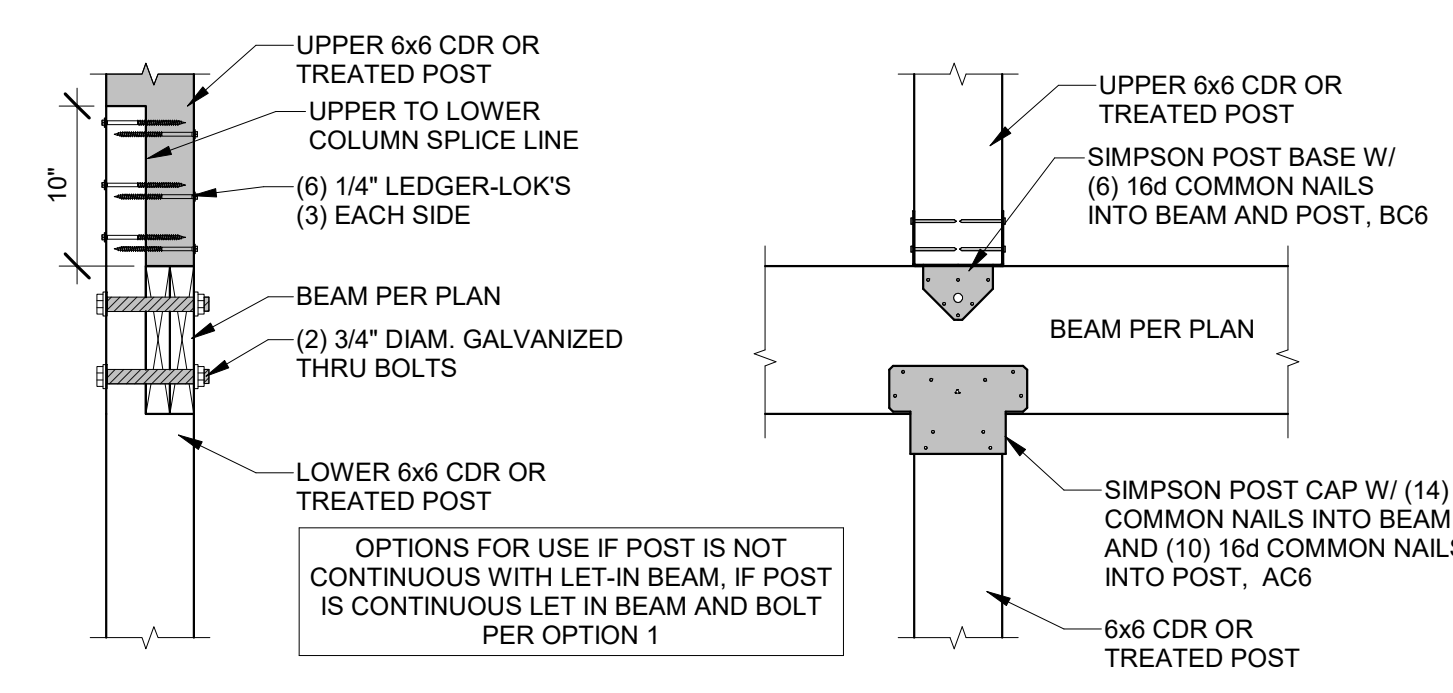
TABLE IRC2018 R507.9.1.3(2)
PLACEMENT OF LAG SCEWS AND BOLT IN
DECK LEDGERS AND BAND JOISTS

MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS				
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
LEDGER ^a	2 inches ^d	3/4 inches	2 inches ^b	1 5/8 inches ^b
BAND JOIST ^c	3/4 inches	2 inches	2 inches	1 5/8 inches ^b

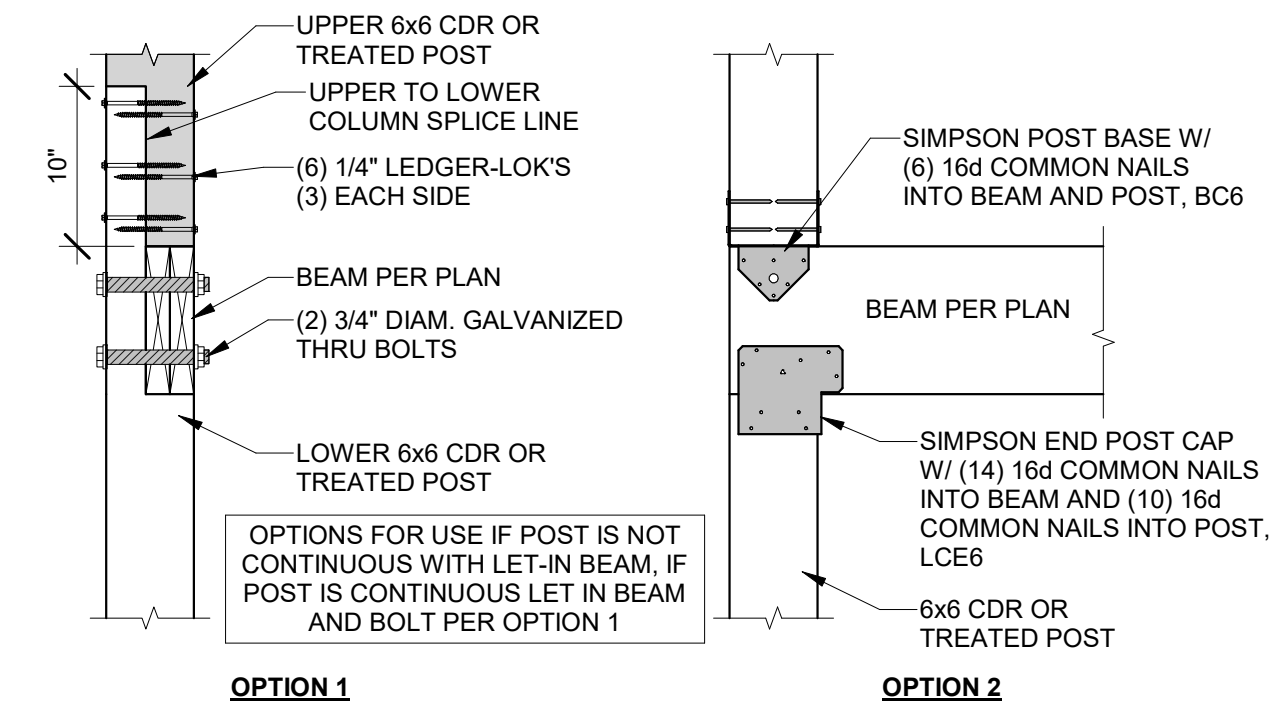
For SI: 1 inch = 25.4mm.
a. Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.9.1.3(1)
b. Maximum 5 inches
c. For engineered rim joists, the manufacturer's recommendations shall govern.
d. The minimum distances from bottom row of lag screws or bolts to the top of the ledger shall be in accordance with Figure R507.9.1.3(1)



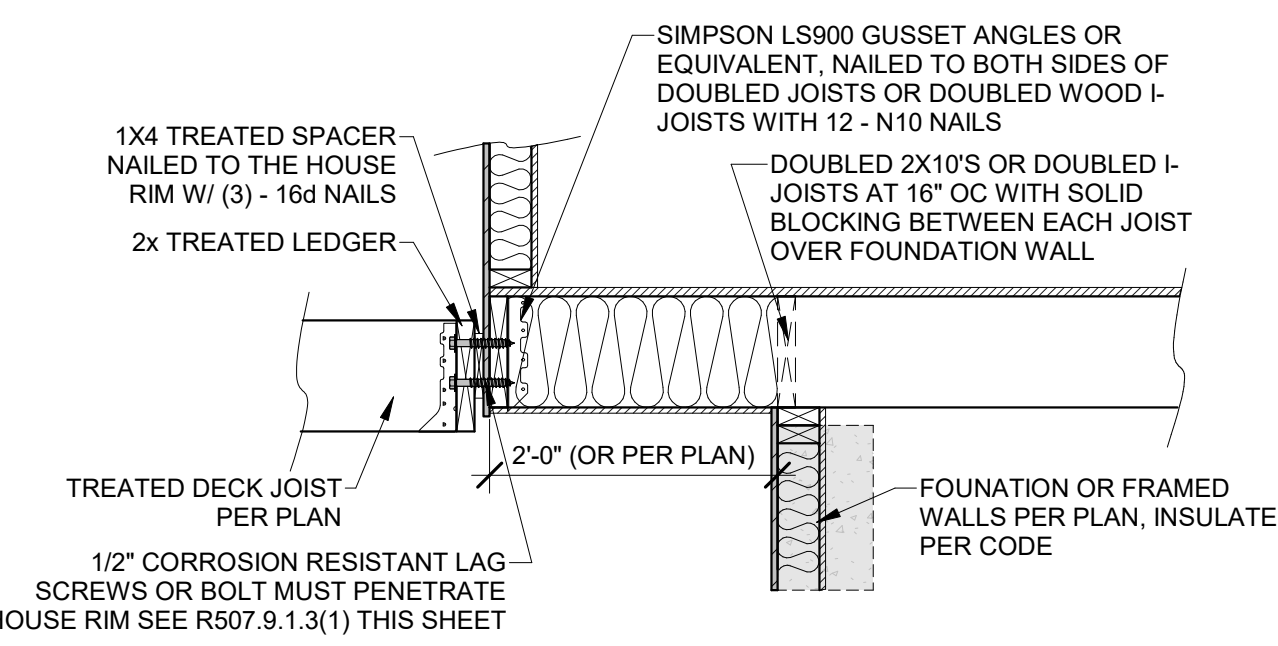
2 DECK LEDGER ATTACHMENT
3/4" = 1'-0"



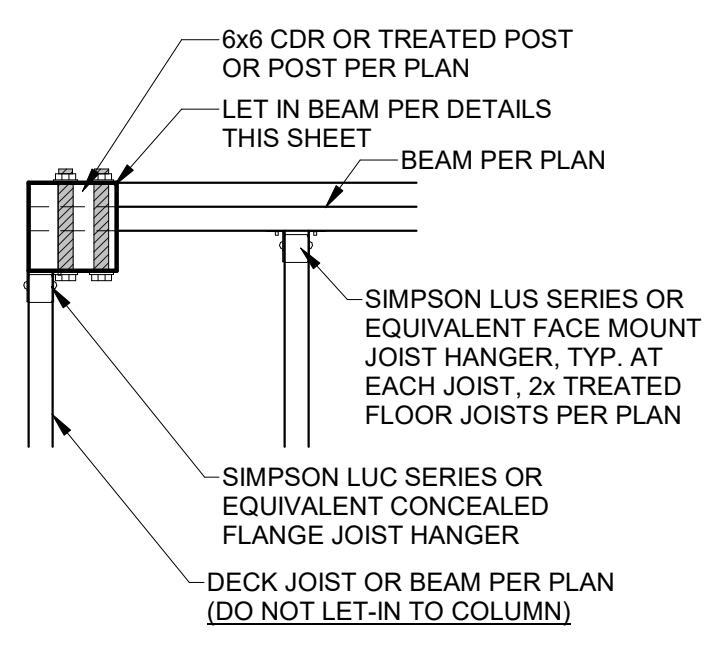
6 DECK LEVEL INTERIOR BEAM TO COLUMN
1" = 1'-0"



5 DECK LEVEL EXTERIOR BEAM TO COLUMN
1" = 1'-0"



4 DECK LEDGER TO CANTILEVER
3/4" = 1'-0"



1 DECK CORNER COLUMN
1" = 1'-0"

INPUT	CALCULATED VALUE
1.0000	1.0000
0.9999	0.9999
0.9998	0.9998
0.9997	0.9997
0.9996	0.9996
0.9995	0.9995
0.9994	0.9994
0.9993	0.9993
0.9992	0.9992
0.9991	0.9991
0.9990	0.9990
0.9989	0.9989
0.9988	0.9988
0.9987	0.9987
0.9986	0.9986
0.9985	0.9985
0.9984	0.9984
0.9983	0.9983
0.9982	0.9982
0.9981	0.9981
0.9980	0.9980
0.9979	0.9979
0.9978	0.9978
0.9977	0.9977
0.9976	0.9976
0.9975	0.9975
0.9974	0.9974
0.9973	0.9973
0.9972	0.9972
0.9971	0.9971
0.9970	0.9970
0.9969	0.9969
0.9968	0.9968
0.9967	0.9967
0.9966	0.9966
0.9965	0.9965
0.9964	0.9964
0.9963	0.9963
0.9962	0.9962
0.9961	0.9961
0.9960	0.9960
0.9959	0.9959
0.9958	0.9958
0.9957	0.9957
0.9956	0.9956
0.9955	0.9955
0.9954	0.9954
0.9953	0.9953
0.9952	0.9952
0.9951	0.9951
0.9950	0.9950
0.9949	0.9949
0.9948	0.9948
0.9947	0.9947
0.9946	0.9946
0.9945	0.9945
0.9944	0.9944
0.9943	0.9943
0.9942	0.9942
0.9941	0.9941
0.9940	0.9940
0.9939	0.9939
0.9938	0.9938
0.9937	0.9937
0.9936	0.9936
0.9935	0.9935
0.9934	0.9934
0.9933	0.9933
0.9932	0.9932
0.9931	0.9931
0.9930	0.9930
0.9929	0.9929
0.9928	0.9928
0.9927	0.9927
0.9926	0.9926
0.9925	0.9925
0.9924	0.9924
0.9923	0.9923
0.9922	0.9922
0.9921	0.9921
0.9920	0.9920
0.9919	0.9919
0.9918	0.9918
0.9917	0.9917
0.9916	0.9916
0.9915	0.9915
0.9914	0.9914
0.9913	0.9913
0.9912	0.9912
0.9911	0.9911
0.9910	0.9910
0.9909	0.9909
0.9908	0.9908
0.9907	0.9907
0.9906	0.9906
0.9905	0.9905
0.9904	0.9904
0.9903	0.9903
0.9902	0.9902
0.9901	0.9901
0.9900	0.9900
0.9899	0.9899
0.9898	0.9898
0.9897	0.9897
0.9896	0.9896
0.9895	0.9895
0.9894	0.9894
0.9893	0.9893
0.9892	0.9892
0.9891	0.9891
0.9890	0.9890
0.9889	0.9889
0.9888	0.9888
0.9887	0.9887
0.9886	0.9886
0.9885	0.9885
0.9884	0.9884
0.9883	0.9883
0.9882	0.9882
0.9881	0.9881
0.9880	0.9880
0.9879	0.9879
0.9878	0.9878
0.9877	0.9877
0.9876	0.9876
0.9875	0.9875
0.9874	0.9874
0.9873	0.9873
0.9872	0.9872
0.9871	0.9871
0.9870	0.9870

DETERMINE WEIGHT OF HOUSE:				CALCULATED VALUE
LOCATION		DEAD LOAD (psf)	AREA (ft²)	WEIGHT (lbs.)
ROOF		10	2805	28050
CEILING		10	2700	27000
FIRST FLOOR		10	1790	17900
	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
FIRST FLOOR EXT. WALL DL	230.32	10		23032
		DEAD LOAD (psf)	AREA (ft²)	WEIGHT (lbs)
FIRST FLOOR INT. PARTITION WALL DL		6	1790	10740

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	265	1187			SLOPED ROOF	565	2404		
VERT. ROOF	0	0		CUMULATIVE	VERT. ROOF	0	0		CUMULATIVE
1ST	581.13	8103		9404	1ST	685.63	9320		11857
PRESSURE (PSF) - PER ASCE CH 6									
SLOPED ROOF		ZONE B	5.9		ZONE C		11.6	2a (FIG. 28.6-1, ASCE7)	
WALL/VERT. ROOF		ZONE A	17.4		ZONE D		3.4	10.565	
MEAN ROOF HT., h		17.5							

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.
 $q_{p,10} = 0.00256 K_z K_{zt} V^2$ (ASCE7-10 Velocity Pressure) $q_{p,10} ASD = 0.6 q_{p,10}$ (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

1ST FLOOR TRIBUTARY WEIGHT
 S_g (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)
 F_a (from ASCE7 Table 11.4-1)
 S_{FG} ($= 2/3 * S_g * F_a$)
 R (from ASCE7 Table 12.2-1)

6656
12.0%
1.6
0.128
6.5

SEISMIC SHEAR		
LOCATION	From ASCE7 (Eq. 12.8-1):	$V = 1.2 * S_{os} * W / R$ (lbs.)
1ST FLOOR		1573

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (kN/ft)	Code Reference
Exterior (Option #1)	71/16" 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 IBC, Table 2306.3.1(1)
Exterior (Option #2)	71/16" 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 IBC, Table 2306.3.1(1)
Exterior (Option #3)	71/16" 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 IBC, Table 2306.3.1(1)
Exterior (Option #4)	71/16" 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 71/16" 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 (Option #5)	71/16" 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 71/16" 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 (Option #6)	71/16" 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 2306.4.1
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (α equal)	(3) 16d @ end studs and (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3)	325	

EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	4
---	---

WIDTH OF 1ST STORY (FT.)	52.83
DEPTH OF 1ST STORY (FT.)	62.33
BACK WALL OF GARAGE (FT.)	30
GAR. WALL: 1=F-B, 2=S-S	2

EXTERIOR STRUCTURAL WALL LENGTHS (ft.) & RESISTANCES								
	SEISMIC				WIND			
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
1ST FLOOR	94.66	26505	87.66	24545	94.66	37107	87.66	34363
	ADDITIONAL RESISTANCE REQUIRED				Anchor Bolt Spacing (in.)			
	SEISMIC		WIND		diameter (in.)		1st Floor P-B	
1ST FLOOR FRONT-TO-BACK	0		0		Shear value (per NDS)		1st Floor S-S	
1ST FLOOR SIDE-TO-SIDE	0		0		Spacing F-B (inches)		24"	
					spacing S-S (inches)		16 1/2"	

RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**							
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (325#/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?
1ST FLOOR FRONT-TO-BACK	0				0	0	YES
1ST FLOOR SIDE-TO-SIDE	0				0	0	YES

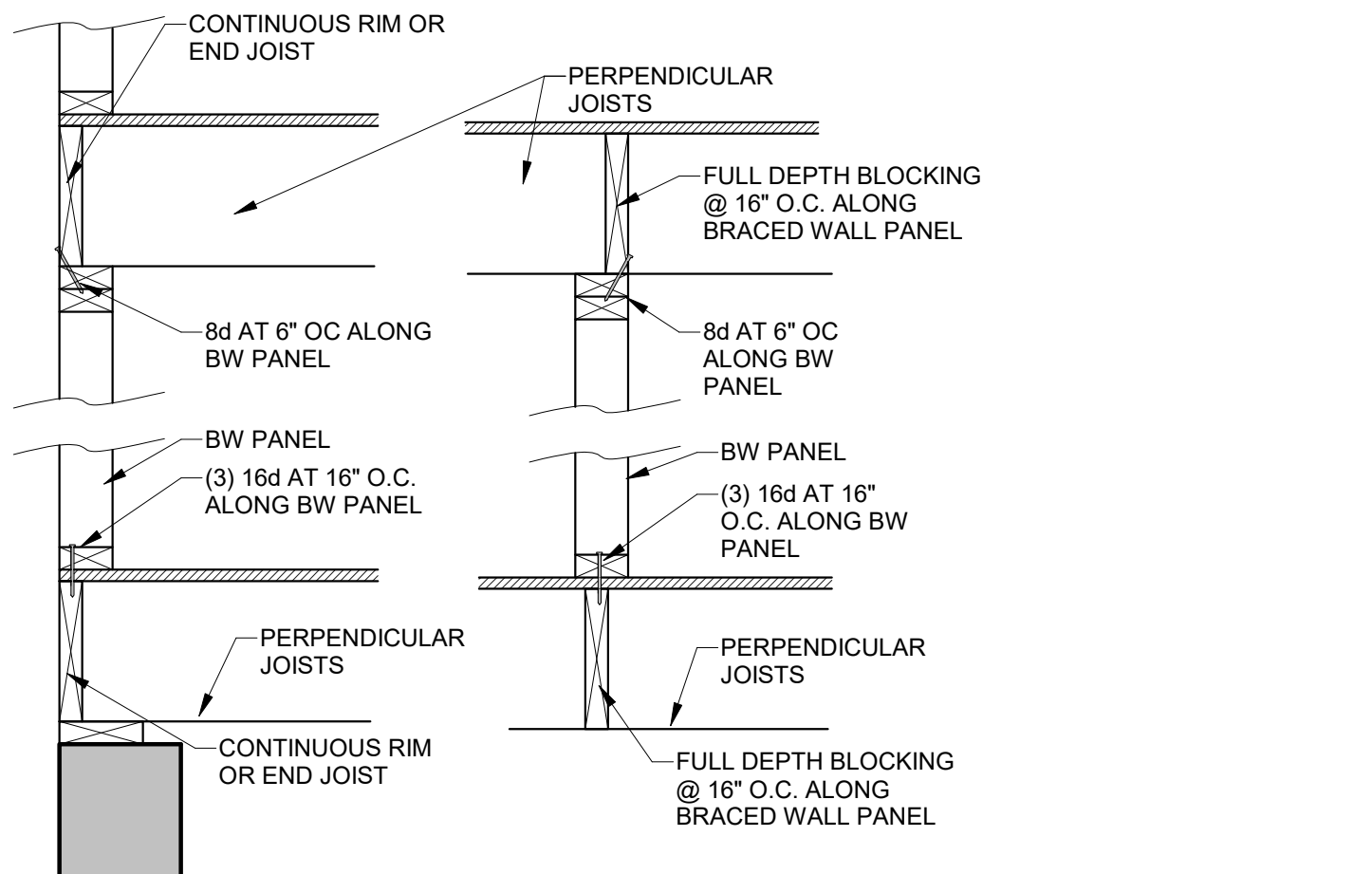
NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE).
2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION. 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE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

WIND UPLIFT ANALYSIS									
ROOF PITCH (MAX)	X12	DEGREES							
	6	26.0	PITCH OF 6 OR LESS: EOH -13.3 G -7.2 G -5.2						
OVERHANG	LENGTH (FT.)	ACROSS	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT. (LBS)				
	15.50		232.32		15.50				
MAIN ROOF**	TOTAL AREA (FT²)	ZONE A AREA (FT²)	ZONE C AREA (FT²)	PRESSURE ZONE E (PSF)	PRESSURE ZONE D (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT. @ PERIMETER (LBS)		
	3292.8939	-404.297424	3697.191324	15.12	10.5	37208	142.0		
TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)					158.6	UPLIFT OK			
**INSIDE EXTERIOR WALLS					251.6				
RESISTANCE DUE TO DEAD WEIGHT & 10% TORNAILS									

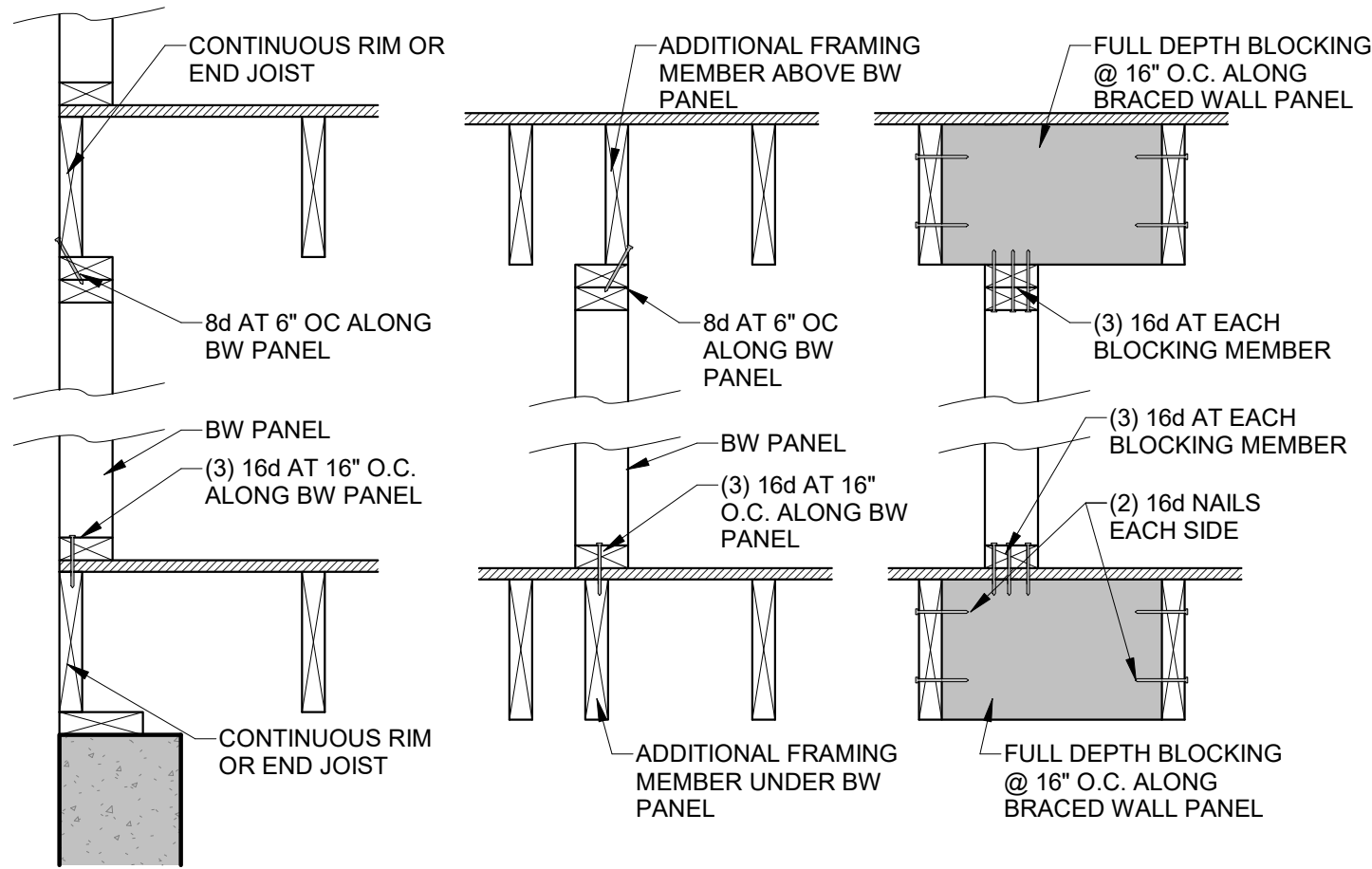
NOTE FOR CONSTRUCTION:
THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

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 SOPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 220 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

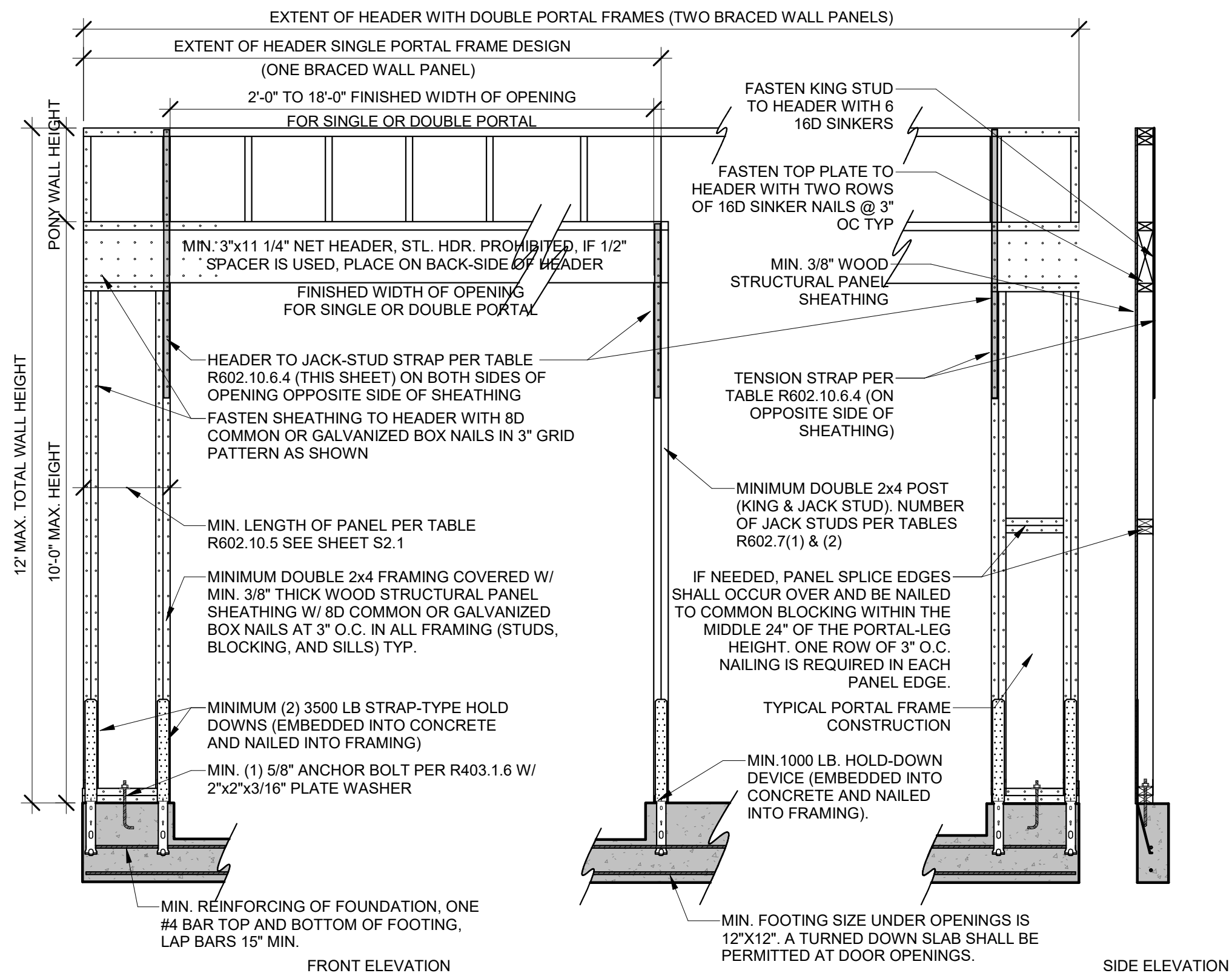


BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING JOISTS

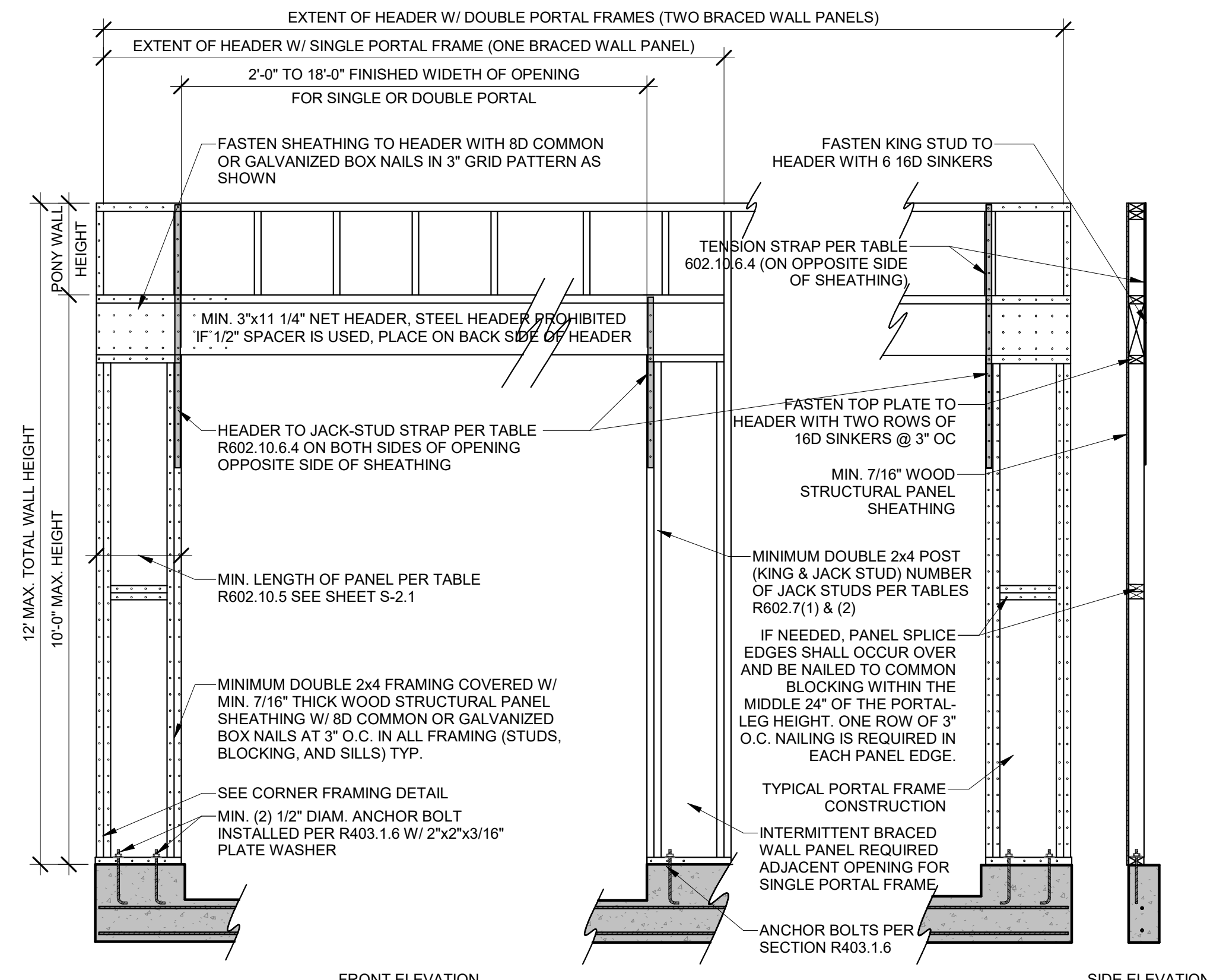


BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING JOISTS

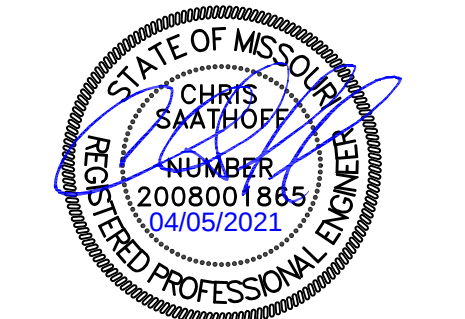
3 BRACED WALL PANEL CONNECTIONS

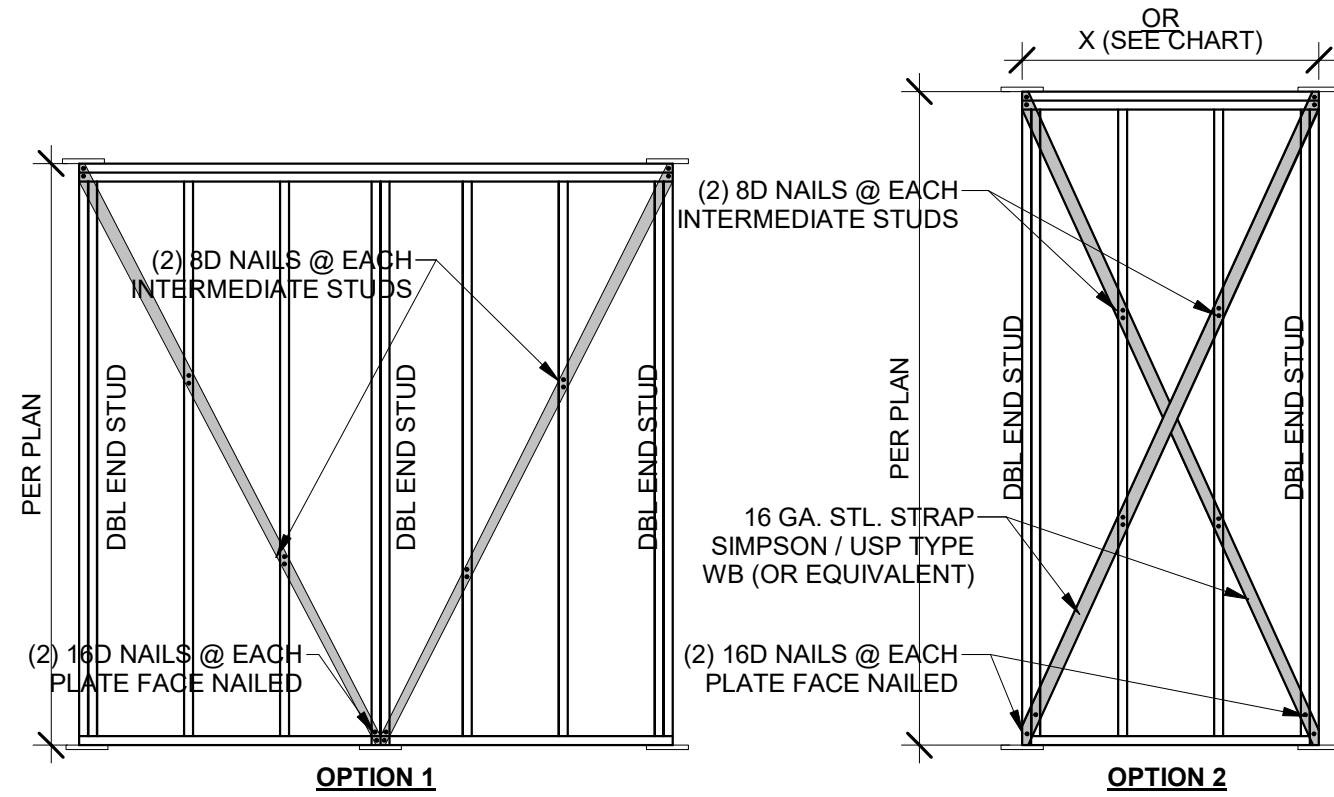


1 PFH PORTAL FRAME W/ HOLD DOWNS (R602.10.6.2)
1/2" = 1'-0"



2 PFG PORTAL FRAME W/OUT HOLD DOWNS (R602.10.6.3)
1/2" = 1'-0"

[illegible]



BRACED WALL PANEL LENGTH BASED ON WALL HEIGHT FOR IRC LIB		
WALL HEIGHT	MIN. WALL LENGTH (X)	MAX WALL LENGTH (X)
8'-0"	4'-7"	8'-0"
9'-0"	5'-2"	9'-0"
10'-0"	5'-9"	10'-0"
11'-0"	NP	---
12'-0"	NP	---

6 LIB BRACING

3/8" = 1'-0"

FOR IRC CODE PRESCRIPTIVE METHOD
TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS

METHOD (SEE TABLE R602.10.4)		MINIMUM LENGTH (INCHES) ^a					CONTRIBUTING LENGTH (INCHES)
		8 FEET	9 FEET	10 FEET	11 FEET	12 FEET	
DWB,WSP,SFB,PBS,PCP,HPS,BV-WSP		48	48	48	53	58	ACTUAL ^b
GB		48	48	48	53	58	DOUBLE SIDED = ACTUAL SINGLE SIDED = .5xACTUAL
LIB		55	62	69	NP	NP	ACTUAL ^b
ABW	SDC A, B, AND C ULTIMATE DESIGN WIND SPEED<140	28	32	34	38	42	48
	SDC D, D, D ULTIMATE DESIGN WIND SPEED<140	32	32	34	NP	NP	
PFH	SUPPORTING ROOF ONLY	16	16	16	NOTE C	NOTE C	48
	SPTNG. ONE STORY & ROOF	24	24	24	NOTE C	NOTE C	
PFG		24	27	30	NOTE D	NOTE D	1.5 x ACTUAL ^b
CS-G		24	27	30	33	36	ACTUAL ^b
CS-PF		16	18	20	NOTE E	NOTE E	ACTUAL ^b
CS-WSP, CS-SFB	ADJACENT CLEAR OPENING HEIGHT (INCHES)						ACTUAL ^b
	≤64	24	27	30	33	36	
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	36	36	
	100	-	44	40	38	38	
	104	-	49	43	40	39	
	108	-	54	46	43	41	
	112	-	-	50	45	43	
	116	-	-	55	48	45	
	120	-	-	60	52	48	
	124	-	-	-	56	51	
	128	-	-	-	61	54	
	132	-	-	-	66	58	
	136	-	-	-	-	62	
	140	-	-	-	-	66	
	144	-	-	-	-	72	

- a. LINEAR INTERPOLATION SHALL BE PERMITTED
b. USE THE ACTUAL LENGTH WHEN IT IS GREATER THAN OR EQUAL TO THE MINIMUM LENGTH
c. MAX. HEADER HEIGHT FOR PFH IS 10' IN ACCORDANCE WITH R602.10.6.2, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL
d. MAX. OPENING HEIGHT FOR PFG IS 10' IN ACCORDANCE WITH R602.10.6.3, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL
e. MAX. OPENING HEIGHT FOR CS-PF IS 10' IN ACCORDANCE WITH R602.10.6.4, WALL HEIGHT MAY BE INCREASED TO 12' WITH PONY WALL

BRACED WALL PRESCRIPTIVE METHOD:
CONTINUOUS EXTERIOR SHEATHING (CS-WSP) PER WSP METHOD (BELOW) UNLESS OTHERWISE NOTED ON THE PLAN

EXTERIOR BRACED WALL METHOD: (SEE ON THIS SHEET)

WOOD STRUCTURAL PANEL SHEATHING WITH A THICKNESS NOT LESS THAN 3/8" WITH MINIMUM SPAN RATING OF 24/0 FOR 16" O.C. STUD SPACING WITH 8d NAILS COMMON NAILS @ 6" O.C. EDGES AND 12" O.C. FIELD OR SHEATHING THICKNESS NOT LESS THAN 7/16" WITH MINIMUM SPAN RATING OF 24/16 FOR 24" O.C. SPACING WITH 8d COMMON NAILS @ 6" O.C. EDGES AND 12" O.C. IN FIELD
(NOTE: FRAMING MEMBERS 16" O.C. MAX, UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS).

INTERIOR BRACED WALLS (SEE ON THIS SHEET)

GB METHOD:
1/2" MINIMUM GYPSUM BOARD OVER STUDS SPACED @ 24" MAXIMUM FASTENED W/ #6- 1 1/4" TYPE "W" OR "S" DRYWALL SCREWS @ 7" O.C. EDGES AND FIELD (MIN. 4'-0" SECTION FOR BOTH SIDES)
OR
LIB METHOD:
1X4 WOOD FASTENED W/ (3) 8d COMMON NAILS OR SIMPSON / USP 16 GA. TYPE WB (OR EQUIVALENT) STL. X-BRACE(S) @ 45° TO 60° ANGLES, MAXIMUM 16" O.C. STUDS FASTENED PER MANUF. SPECS.

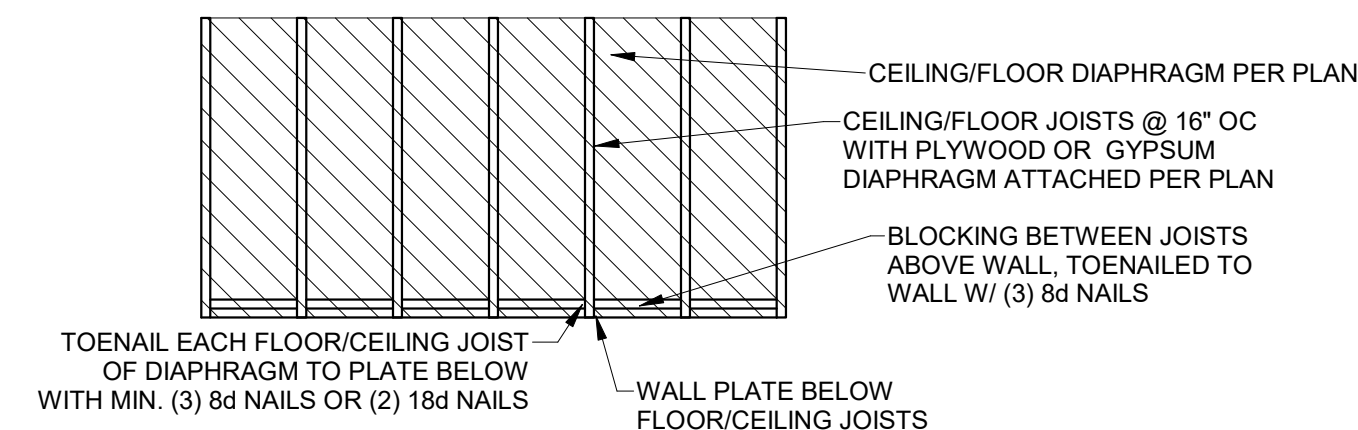
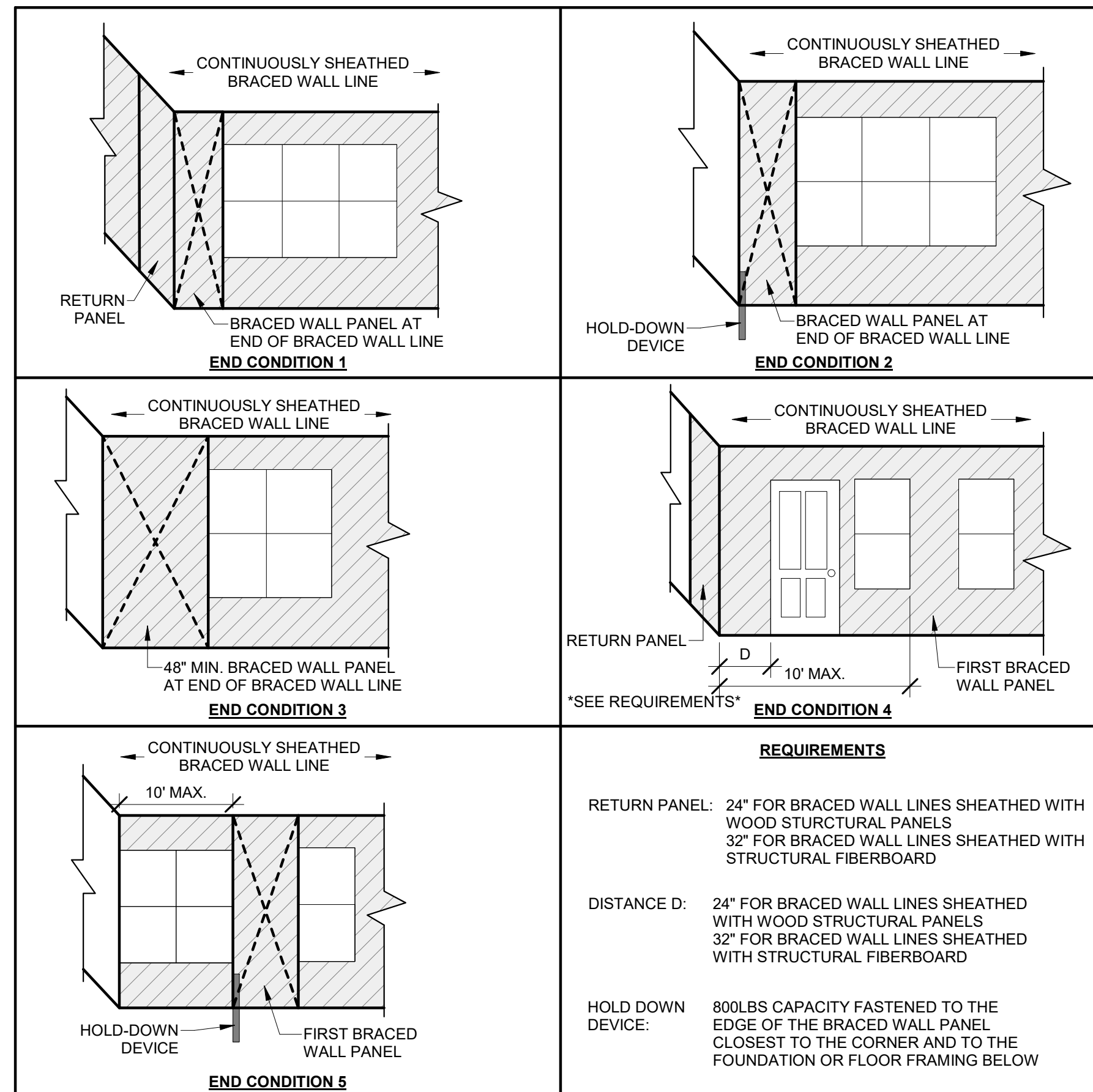
TENSION STRAP CAPACITY REQUIRED FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHOD PFH, PFG AND CS-PF BRACED WALL PANELS IRC2018 TABLE R602.10.6.4

MINIMUM WALL STUD FRAMING NOMINAL SIZE & GRADE	MAX. PONY WALL HEIGHT (FEET)	MAX. TOTAL WALL HEIGHT (FEET)	MAX. OPENING WIDTH (FEET)	TENSION STRAP CAPACITY REQUIRED (POUNDS) ^a	
				ULTIMATE DESIGN WIND SPEED V (MPH)	
				115	115
2X4 NO. 2 GRADE	0	10	18	1,000	1,000
			9	1,000	1,000
			16	1,025	2,500
	1	10	18	1,275	2,850
			9	1,000	1,875
			16	2,175	4,125
	2	10	18	2,500	DR
			9	1,500	3,175
			16	3,375	DR
	2	12	18	3,975	DR
			9	2,750	DR
			12	3,775	DR
2X6 STUD GRADE	2	12	9	1,000	2,025
			16	2,150	3,675
			18	2,550	DR
	4	12	9	1,750	3,125
			16	2,400	DR
			18	3,800	DR

- a. DR = DESIGN REQUIRED
b. STRAP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

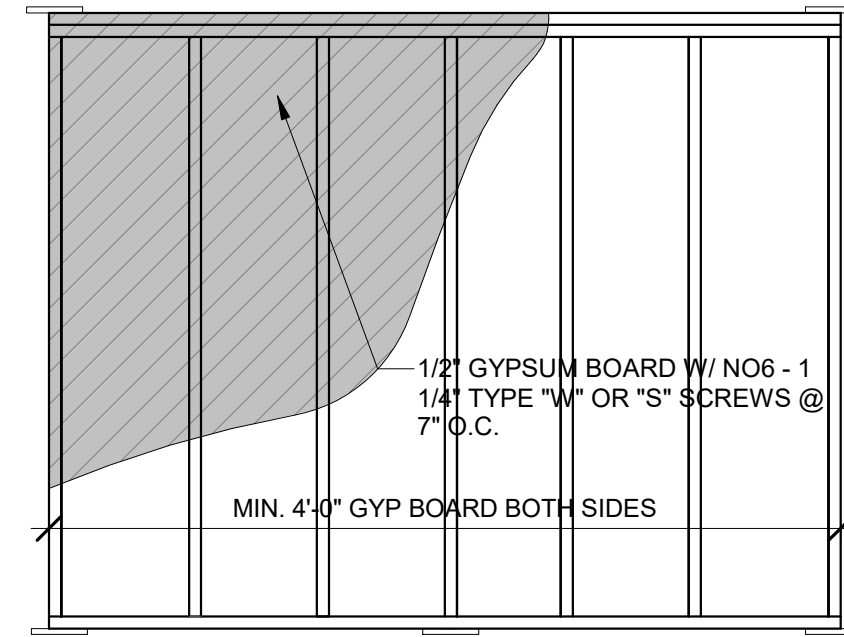
END WALL CONDITIONS

FOR CONTINUOUSLY SHEATHED BRACED WALL LINES



1 DIAPHRAGM CONNECTION TO INTERIOR WALL

3/8" = 1'-0"

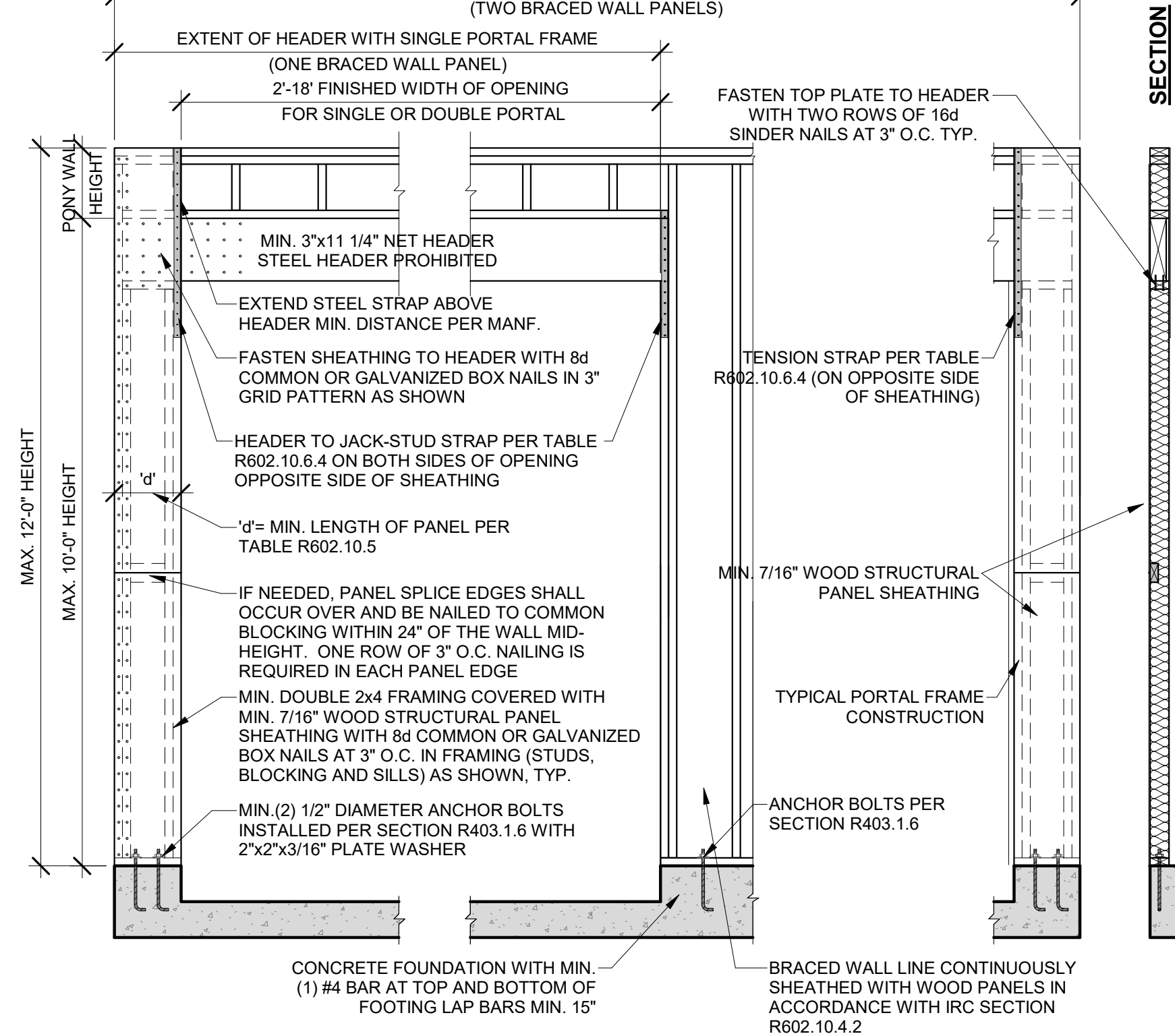


5 GB BRACING

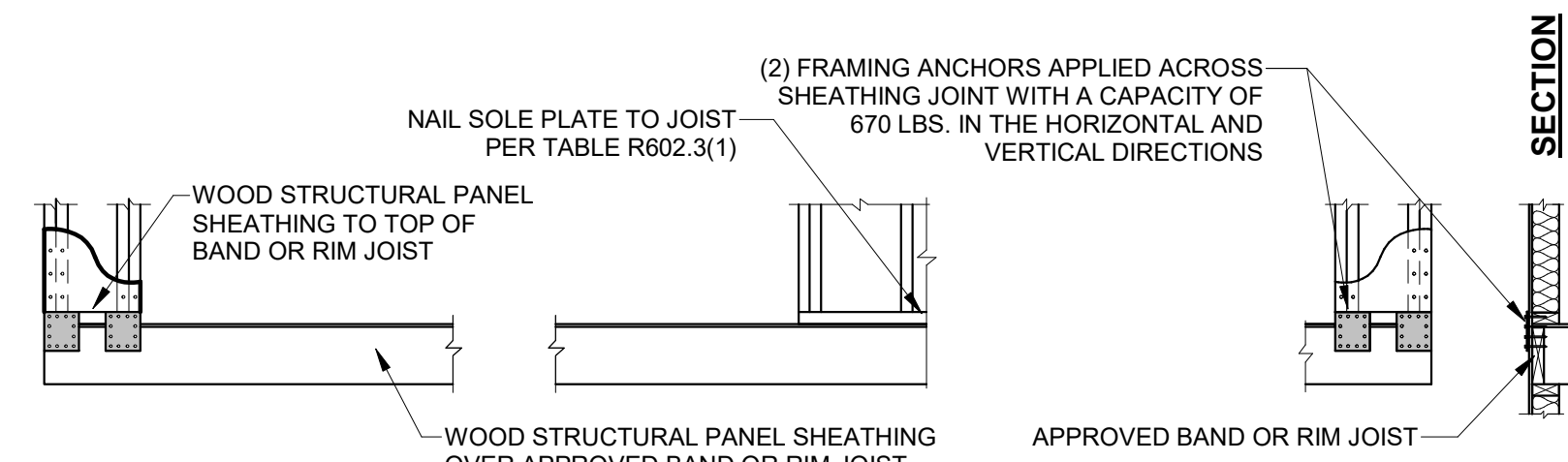
1/2" = 1'-0"

FRONT ELEVATION

EXTENT OF HEADER WITH DOUBLE PORTAL FRAMES
(TWO BRACED WALL PANELS)

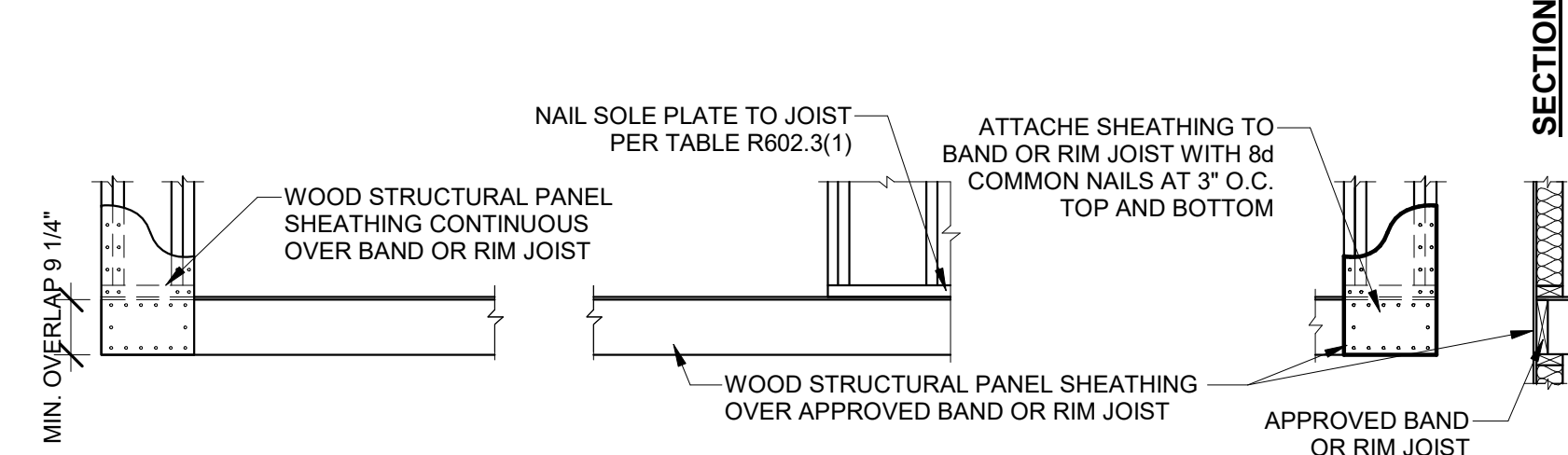


OVER CONCRETE OR MASONRY BLOCK FOUNDATION



OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION

(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)



OVER RAISED WOOD FLOOR - OVERLAP OPTION

(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)



4 CS-PF

1/2" = 1'-0"

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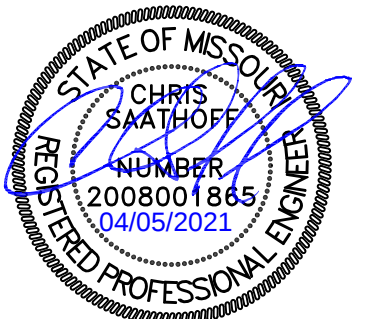
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SERVICE@HDENGINEERS.COM



SAB CONSTRUCTION, LLC
RIVIERA ELEV B WV1459
144 NW CARSON DR., LEE'S SUMMIT, MO

STRUCTURAL DETAILS & NOTES

HD#: 41423

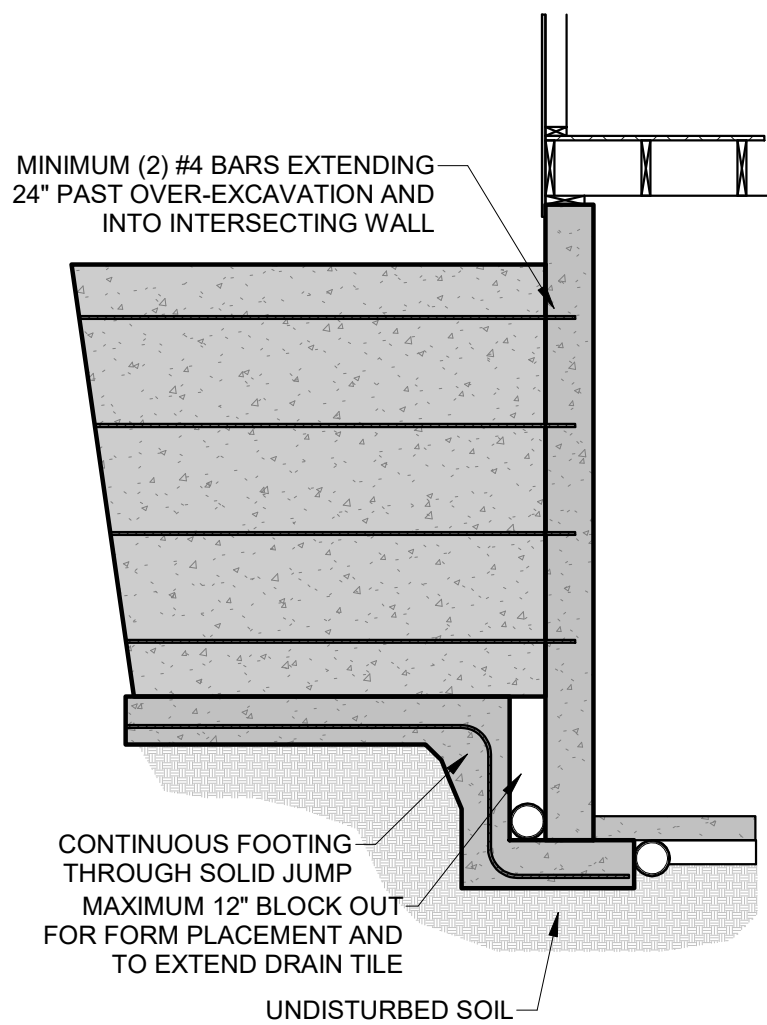
DATE: 04/05/2021
CHECKED BY: CLS

NO.	ISSUE/REVISION	Revision Date

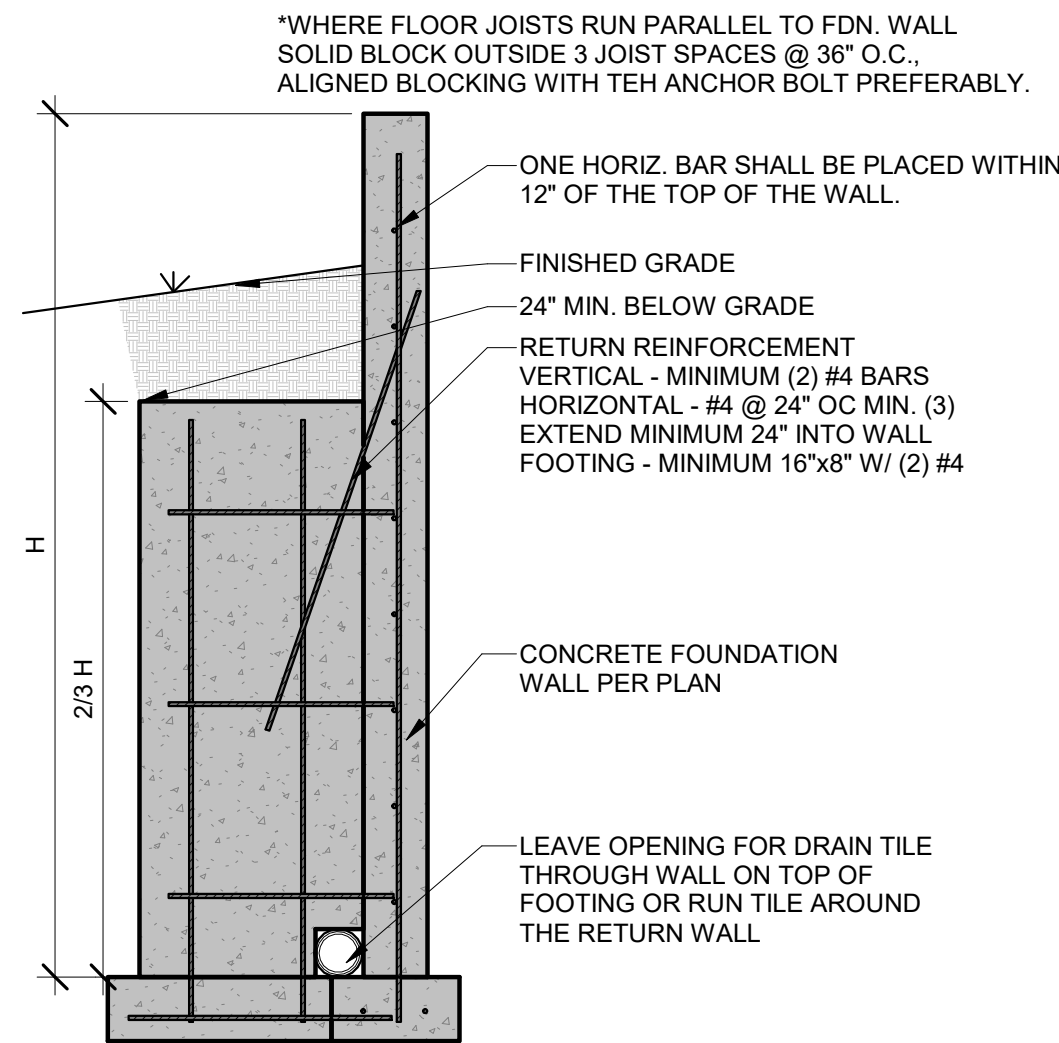
BRACED WALLS NOTES & DETAILS

S-2.1

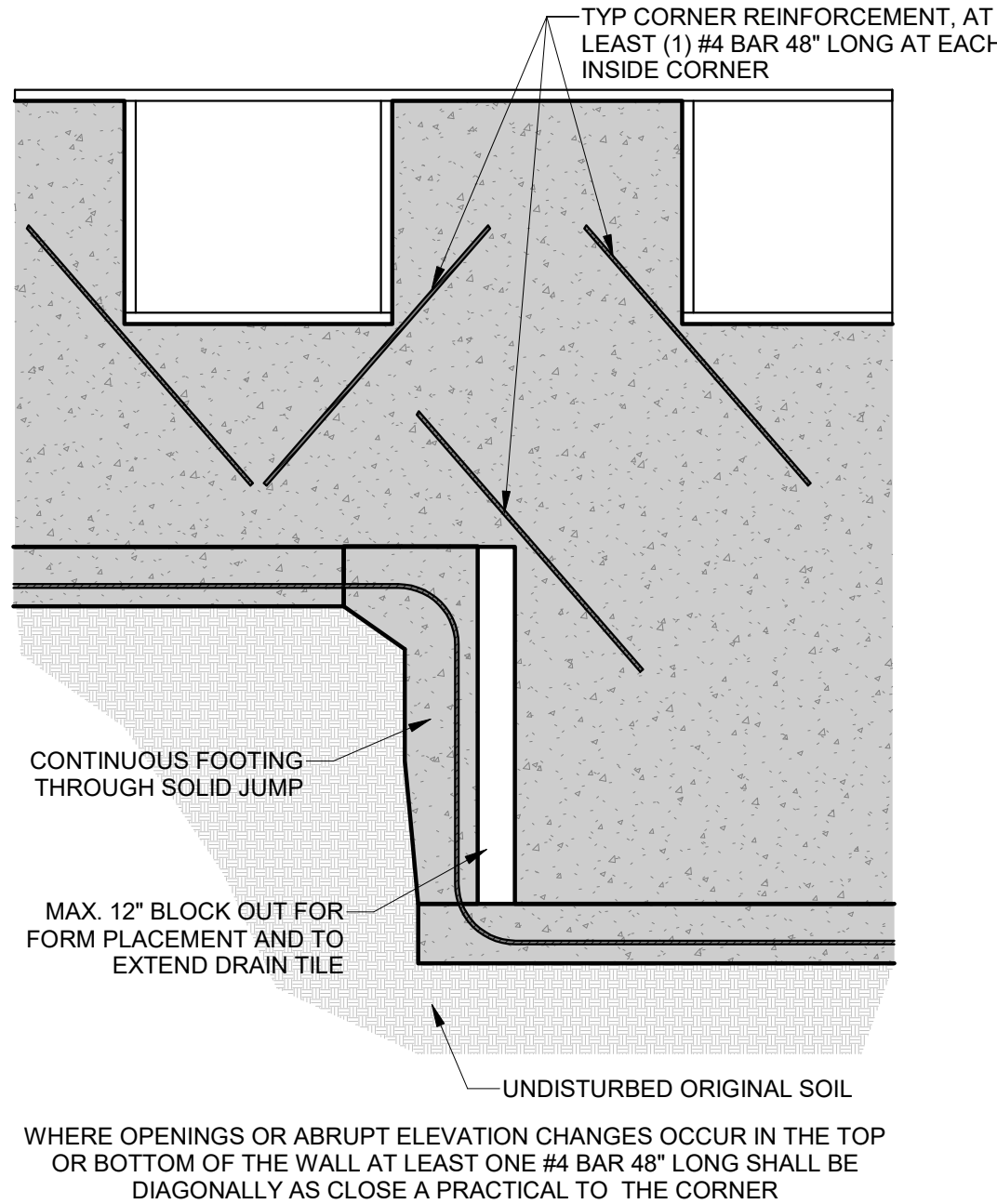
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/29/2021



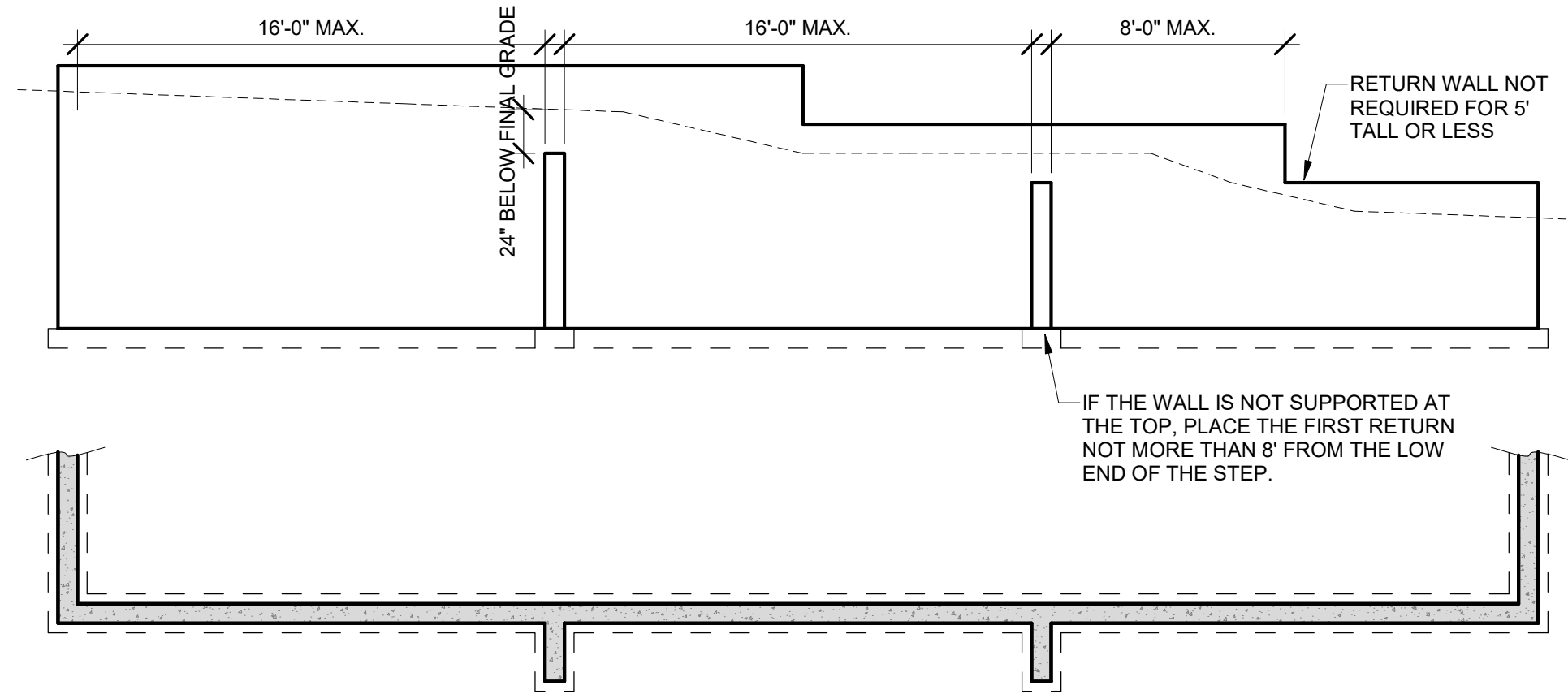
1 SOLID FOOTING JUMP DETAIL
3/8" = 1'-0"



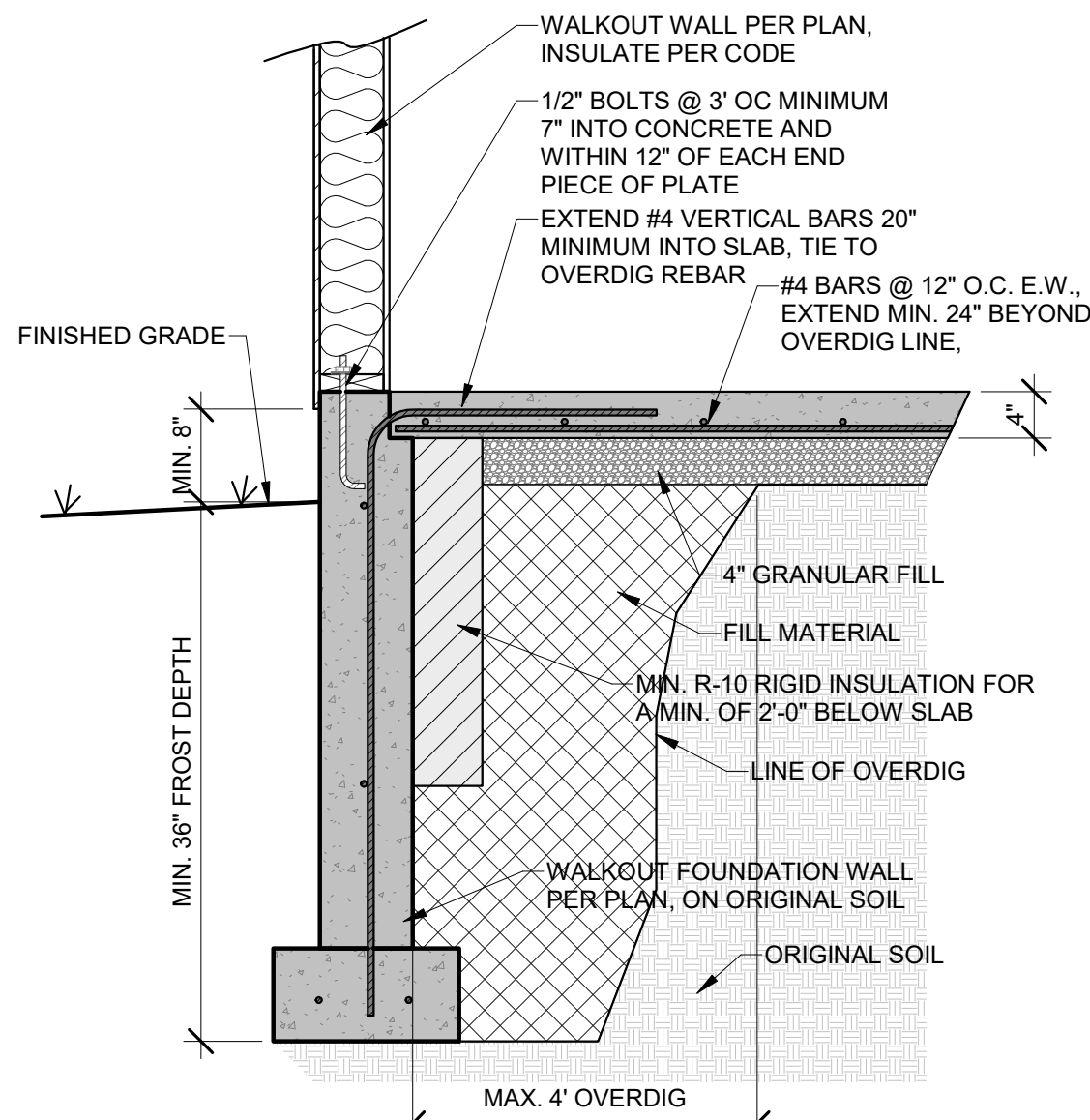
2 RETURN WALL DETAIL
1/2" = 1'-0"



3 REINFORCEMENT AT CORNERS AND STEPS
1/2" = 1'-0"

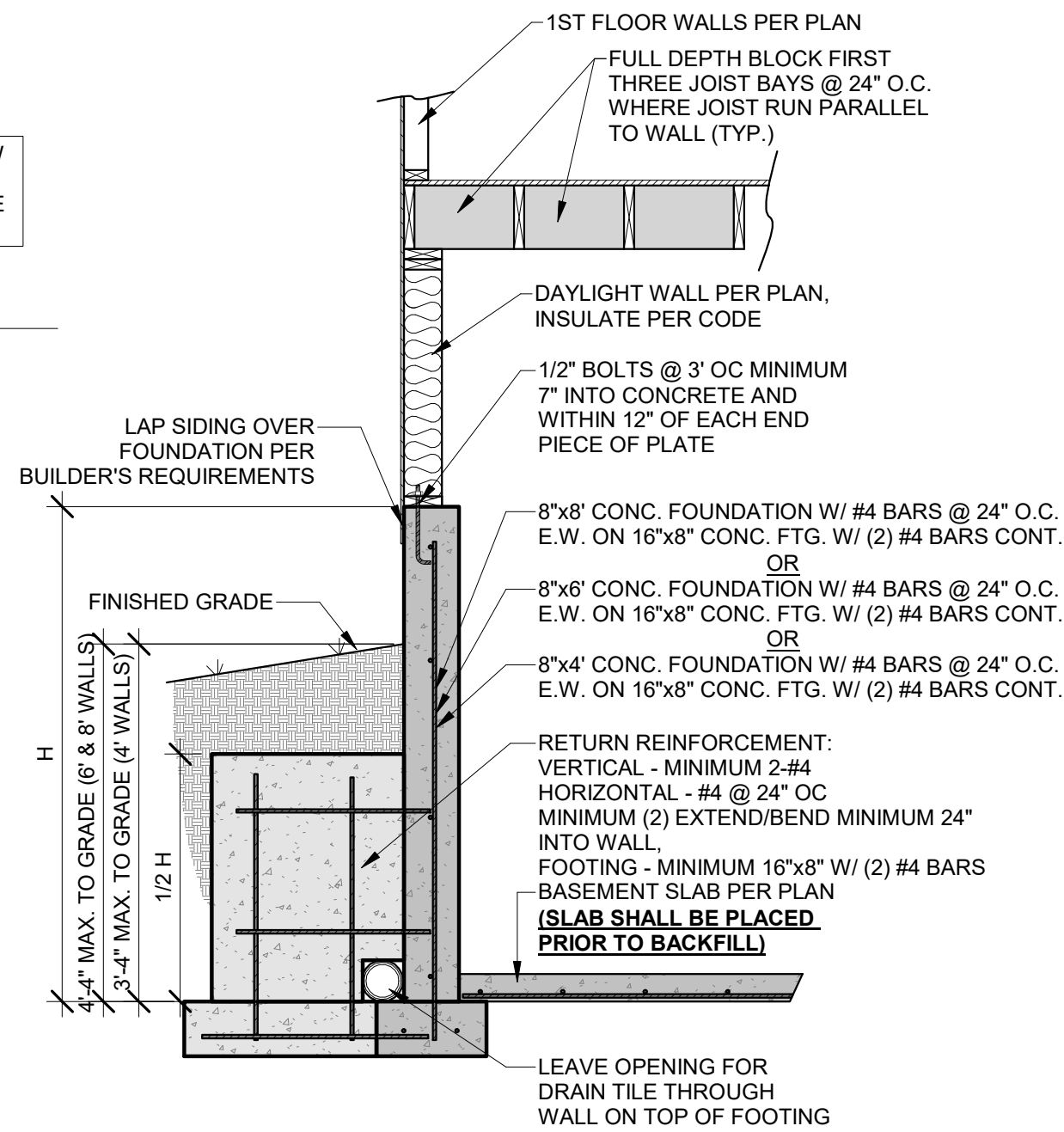


4 RETURN WALL PLACEMENT
3/16" = 1'-0"



IMPORTANT NOTE:
ANY SLAB WITH GREATER THAT 2' OF GRADED ROCK OR 8" OF FILL SOIL BELOW SHALL BE DESIGNED AS STRUCTURAL PER PLAN. OUR FIRM SHOULD BE CONTACTED IMMEDIATELY FOR DESIGN RECOMMENDATIONS. DESIGN MUST BE COMPLETED PRIOR TO PLACEMENT OF PIERS OR FOOTINGS.

6 WALKOUT DETAIL
3/4" = 1'-0"

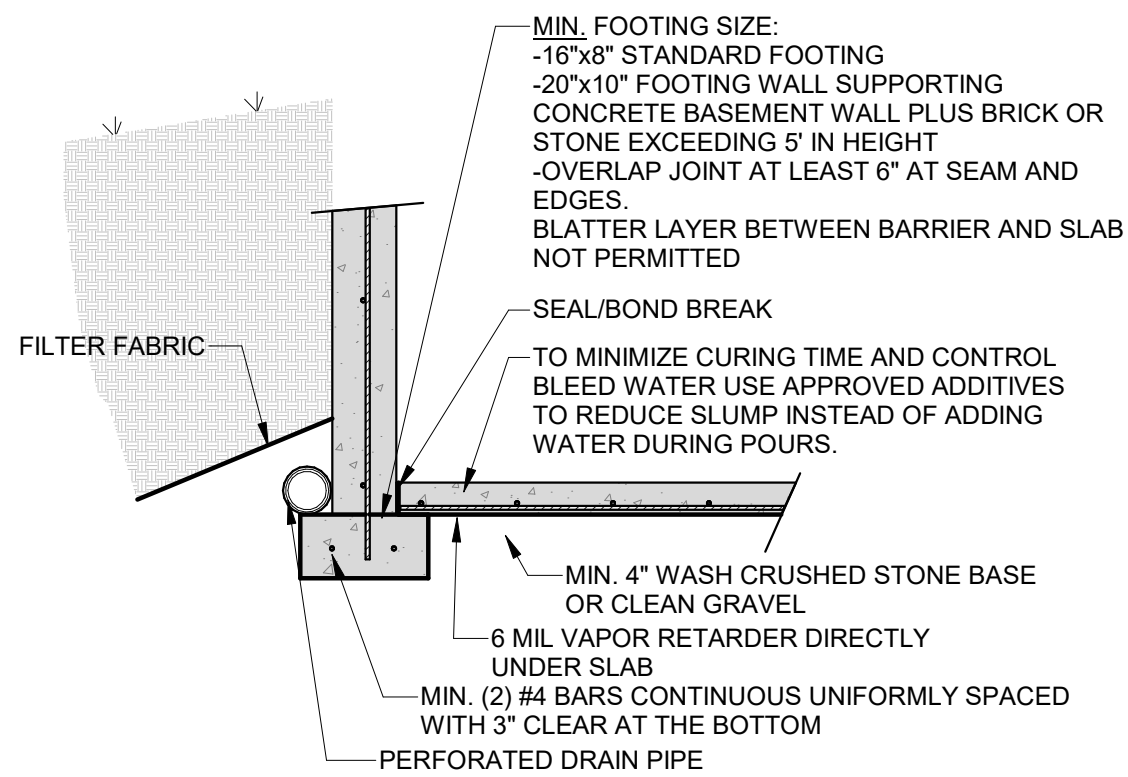


5 UNRESTRAINED FOUNDATION WALL
1/2" = 1'-0"

VERTICAL REINFORCEMENT SPACING* 60 PSF SOIL; 40 & 60 KSI STEEL					
CONCRETE STRENGTH	8" THICK WALL		10" THICK WALL		
	8'	9'	8'	9'	10'
3000 PSI/ 40 KSI	16	12	24	16	12
3500 PSI/ 40 KSI	16	12	24	24	12
3000 PSI/ 60 KSI	24	16	24	20	16
3500 PSI/ 60 KSI	24	16	24	24	16
HORIZONTAL REINFORCEMENT**					
ONE BAR 12" FROM TOP OF WALL; MAX. SPACING 24" O.C.	4- #4	5- #4	4- #4	5- #4	6- #4

* CONCRETE SHALL HAVE AIR ENTRAINMENT OF 5-7%.
* MINIMUM REQUIREMENT FOR VERTICAL REBAR IN PLAIN CONCRETE WALLS IS #4 @ 36" ON CENTER (ACI 332).
* VERTICAL BARS SHALL BE CONTINUED UP TO WITHIN 8" OF THE TOP OF THE WALL.
* REBAR SHALL BE POSITIONED AT THE TENSION FACE OF THE WALL (2" FROM THE INSIDE FACE).
* REINFORCEMENT SHALL LAP A MINIMUM OF 24 INCHES AT ENDS, SPLICES, AND AROUND CORNERS.

** #4 BARS @ 24" ON CENTER.
** #4 BAR WITHIN 12 OF TOP AND BOTTOM OF WALL.
** MINIMUM GRADE 40 (40ksi) STEEL (PER ACI 332).
** HORIZONTAL REINFORCEMENT SHALL BE INSTALLED ON THE COMPRESSION SIDE (SOIL SIDE) OF THE VERTICAL REINFORCEMENT

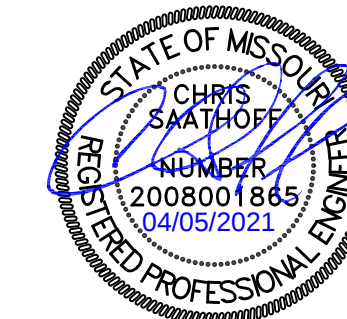


7 FOUNDATION FOOTINGS
1/2" = 1'-0"

DETAILS PROVIDED ARE DERIVED FROM JOHNSON COUNTY RESIDENTIAL FOUNDATION GUIDELINE

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STRUCTURAL DETAILS & NOTES

HD#: 41423

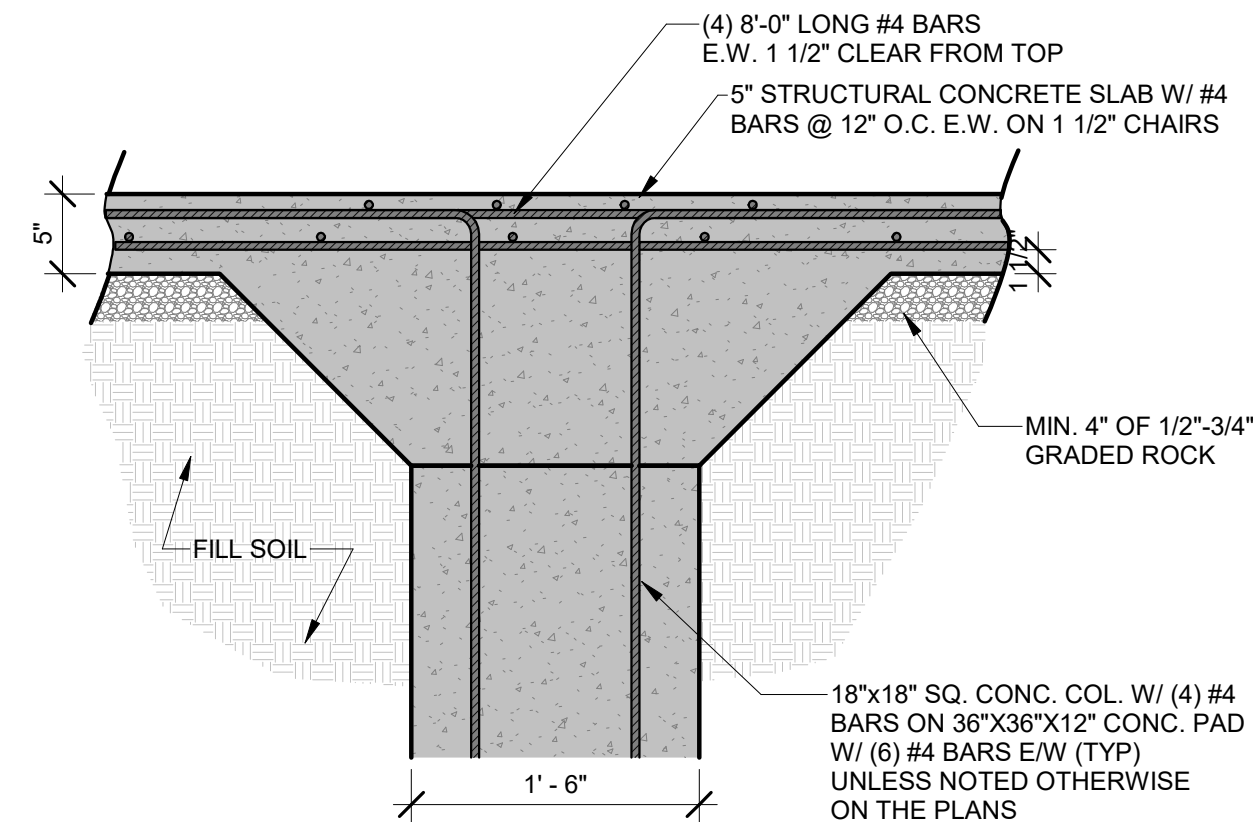
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NO.	ISSUE/REVISION	Revision Date

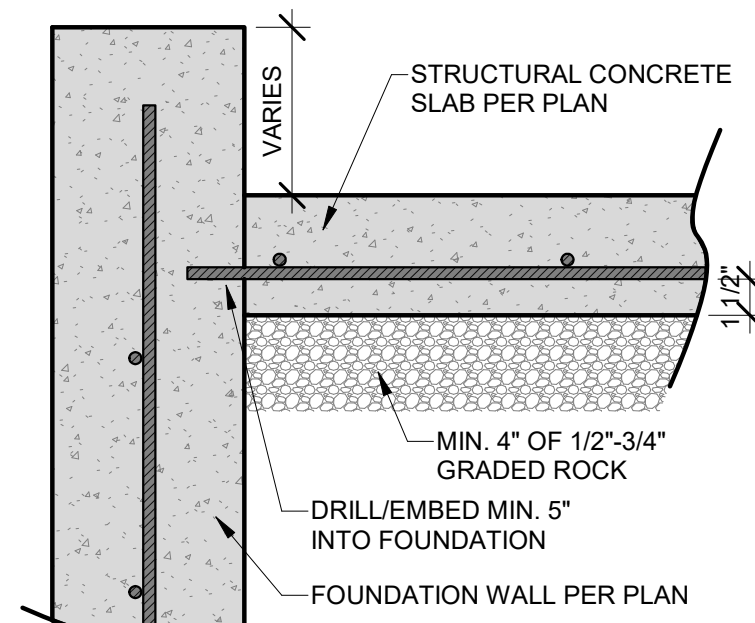
CONCRETE DETAILS

S-3.0

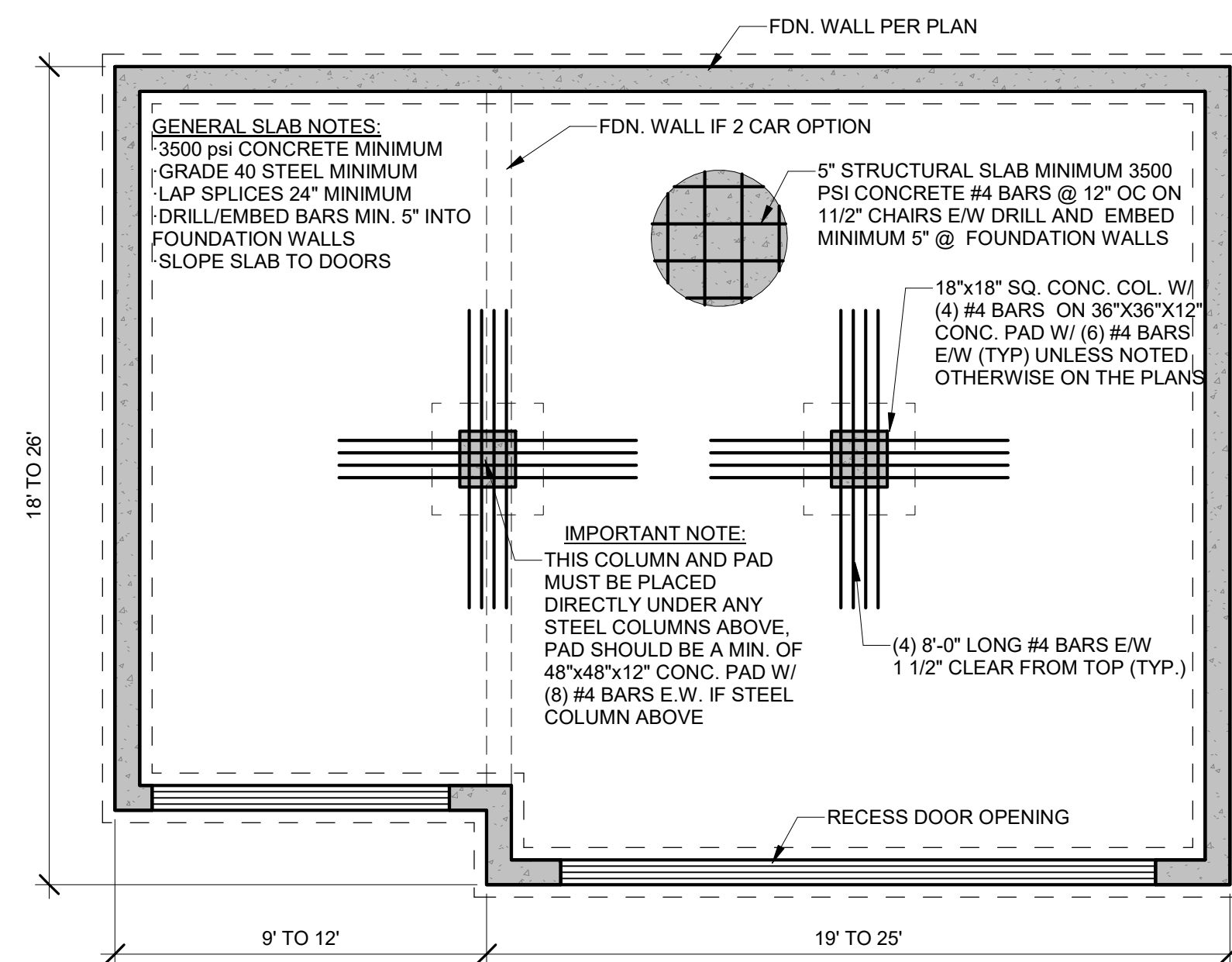
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/29/2021



7 GARAGE SLAB COLUMN DETAIL
1" = 1'-0"

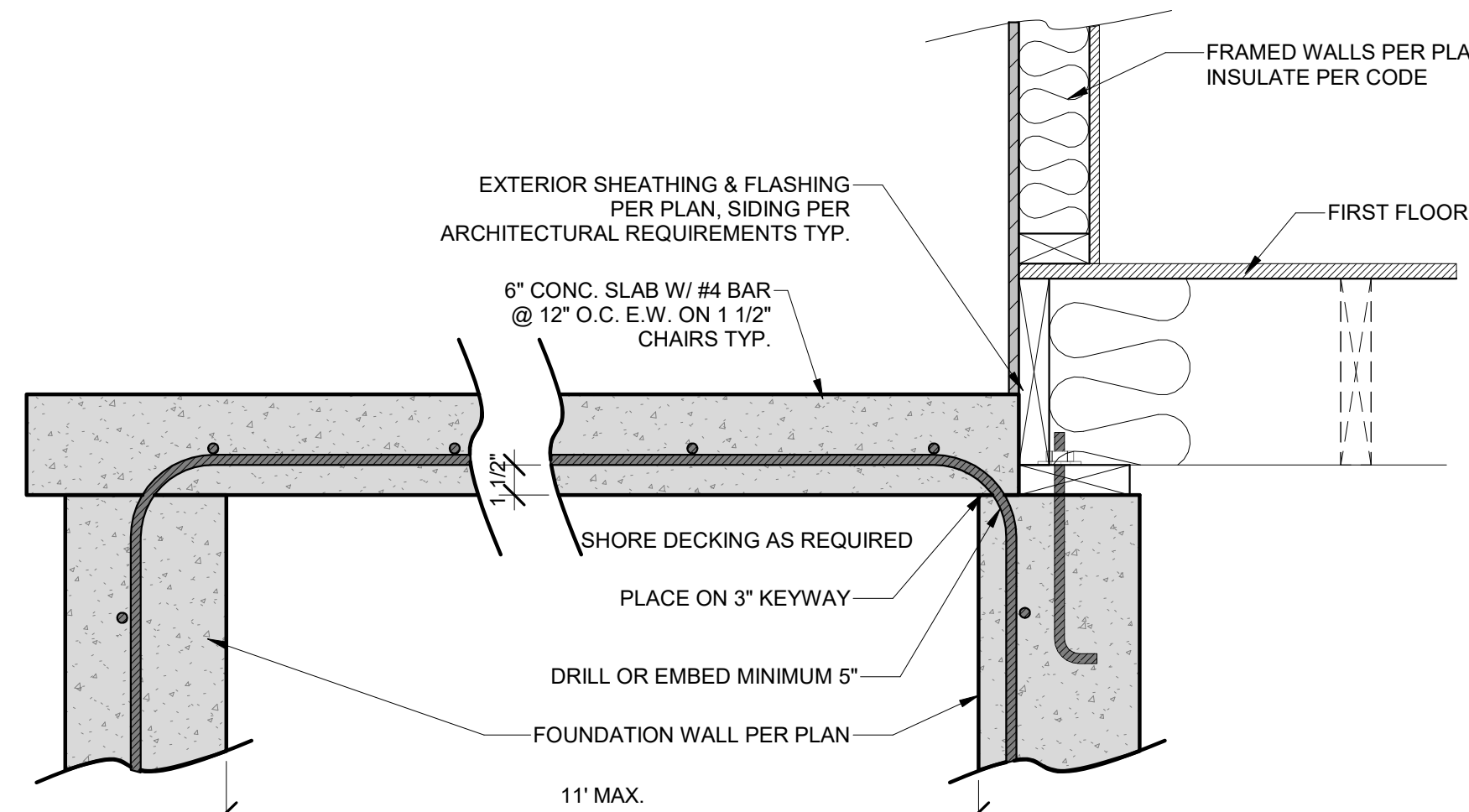


8 STRUCTURAL SLAB/ WALL
1 1/2" = 1'-0"



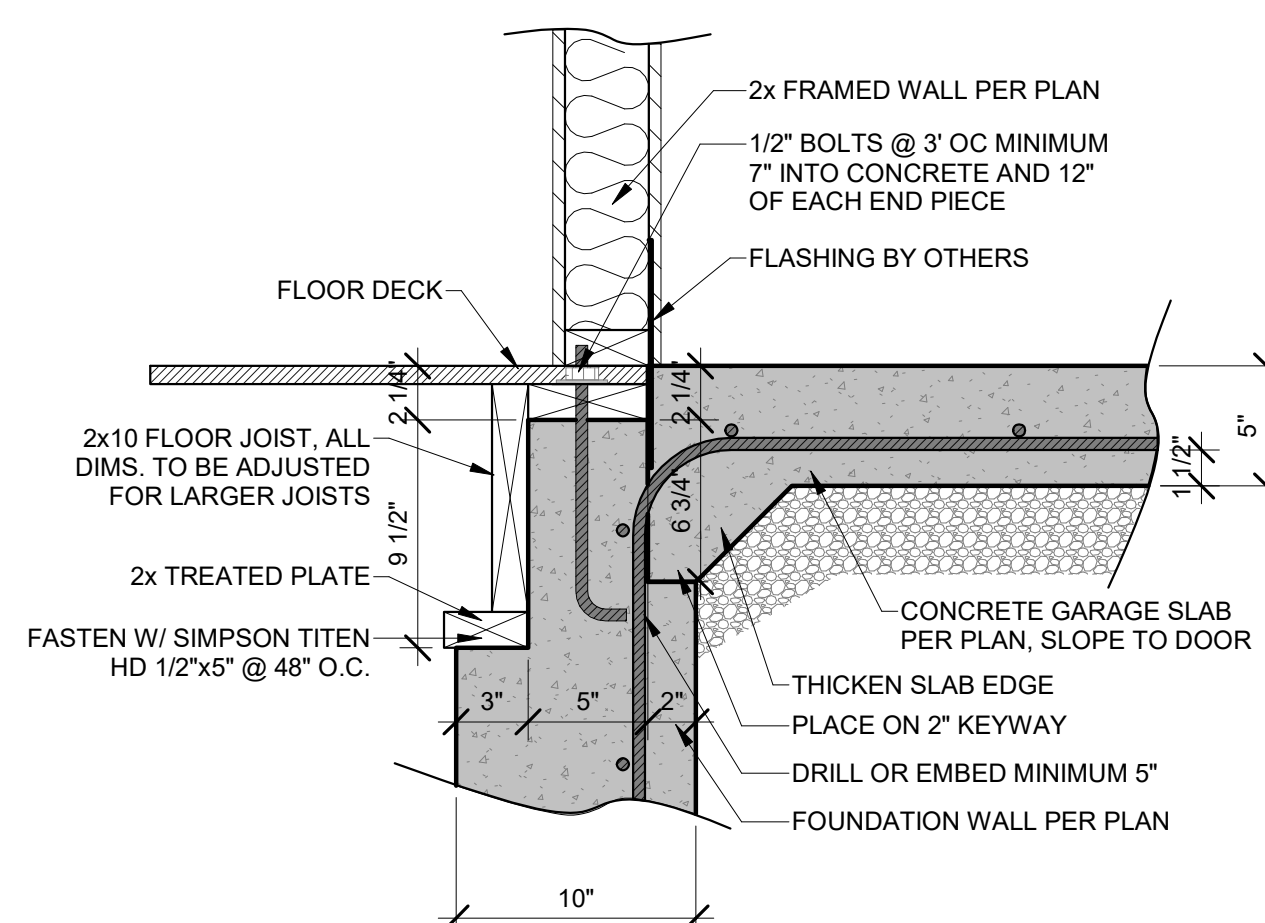
9 TYPICAL GARAGE SLAB
1/4" = 1'-0"

HD ENGINEERING STRUCTURAL GARAGE SLAB DETAILS

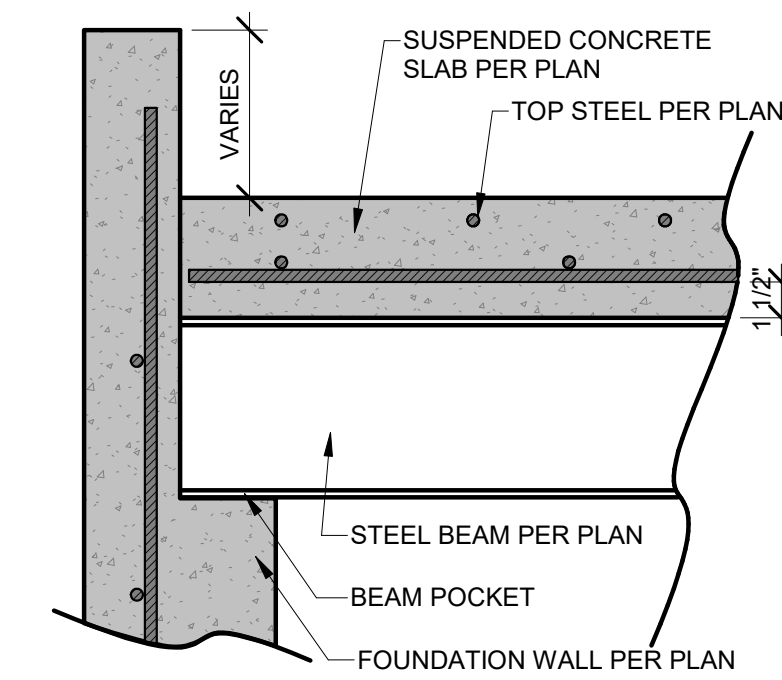


FOR SUSPENDED SLABS A MAXIMUM OF 10' ABOVE FLOOR BELOW: TEMPORARY SHORING WALLS SHALL BE PLACED AT A MAXIMUM OF 4' O.C. / #2-2X4 STUDS AT 16" O.C. W/ TOP AND BOTTOM PLATE. WALL TO HAVE CONTINUOUS DIAGONAL BRACING. LATERAL BRACING TO BE RUN FROM WALL TO WALL AT MID HEIGHT 4' ON CENTER. SHORING TO REMAIN IN PLACE FOR AT LEAST 21 DAYS.

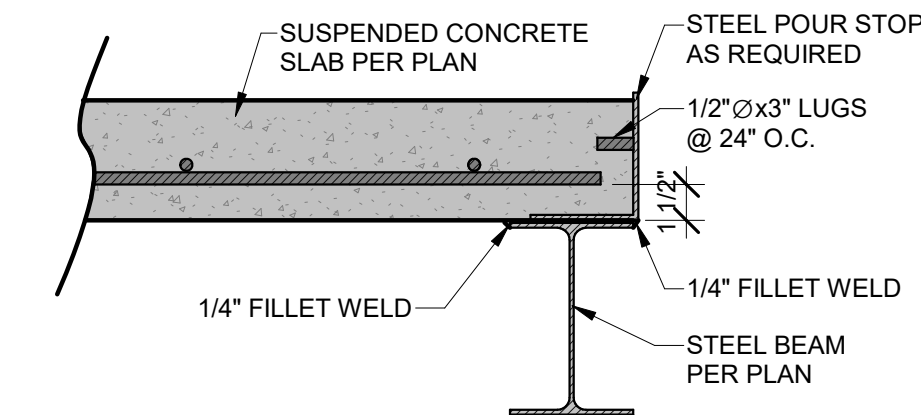
6 SUSPENDED PORCH STOOP SLAB
1 1/2" = 1'-0"



10 ZERO ENTRY GARAGE DETAIL
1 1/2" = 1'-0"

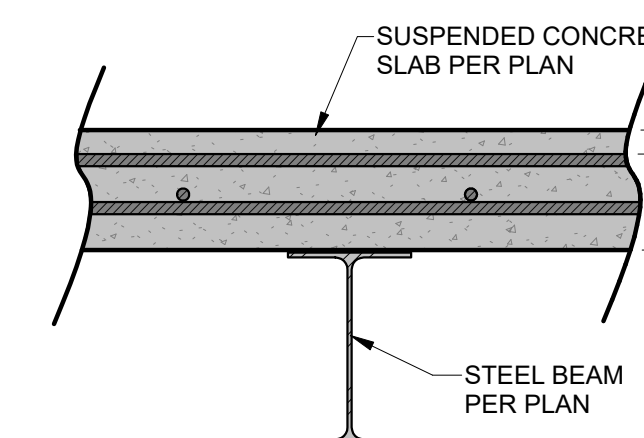


1 SUSPENDED SLAB BEAM/WALL CONNECTION
1 1/2" = 1'-0"

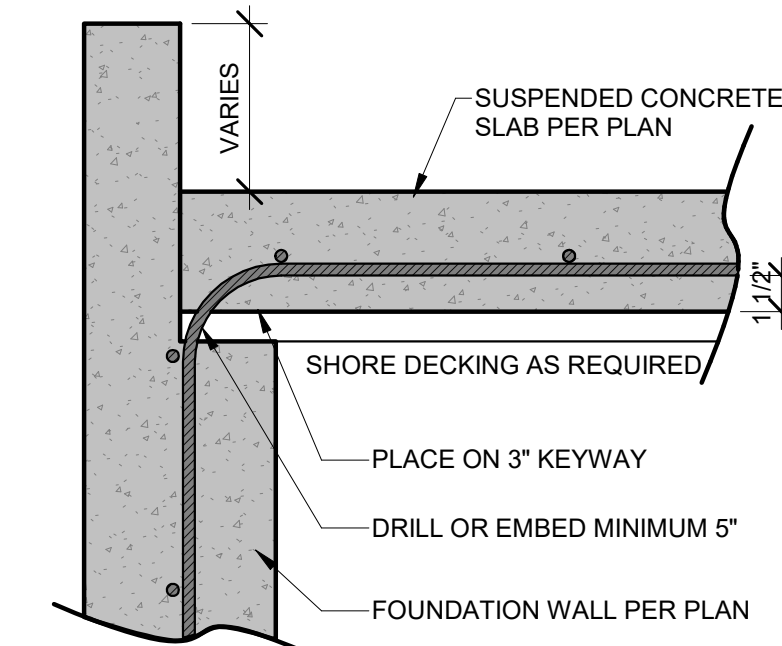


*FASTEN STEEL ANGLE TO BEAM W/ TEK SCREWS OR 2"x1/4" FILLET WELD @ 12" O.C.

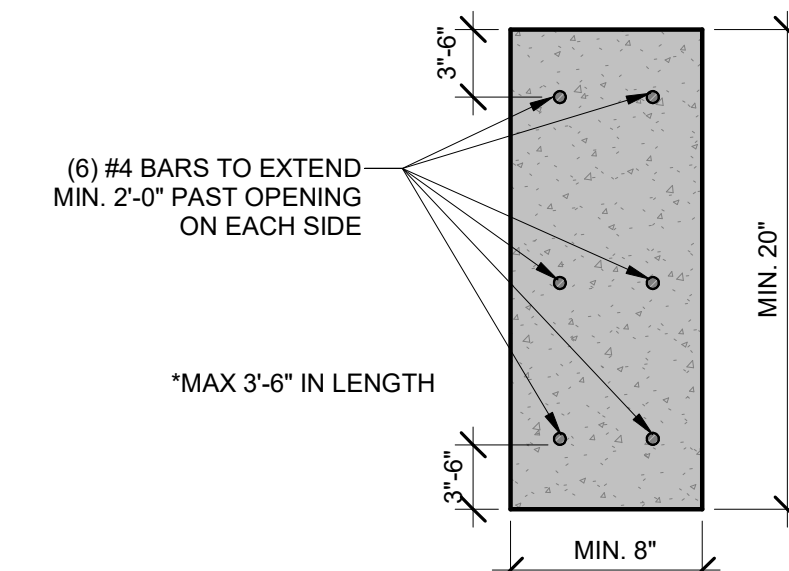
2 SUSPENDED SLAB POUR STOP
1 1/2" = 1'-0"



3 SUSPENDED SLAB/STEEL BEAM CROSS SECTION
1 1/2" = 1'-0"

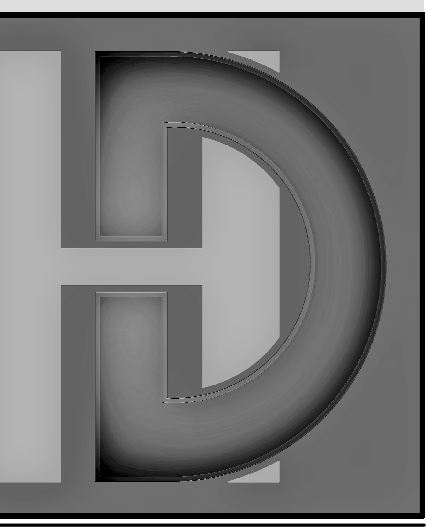


4 SUSPENDED SLAB/WALL CONNECTION
1 1/2" = 1'-0"



5 CONCRETE HEADER DETAIL
1 1/2" = 1'-0"

IMPORTANT NOTE:
FOR SUSPENDED SLABS A MAXIMUM OF 10' ABOVE FLOOR BELOW: TEMPORARY SHORING WALLS SHALL BE PLACED AT A MAXIMUM OF 4' O.C. / #2-2X4 STUDS AT 16" O.C. W/ TOP AND BOTTOM PLATE. WALL TO HAVE CONTINUOUS DIAGONAL BRACING. LATERAL BRACING TO BE RUN FROM WALL TO WALL AT MID HEIGHT 4' ON CENTER. SHORING TO REMAIN IN PLACE FOR AT LEAST 21 DAYS.
ANY CAST IN PLACE SLABS FORMED MORE THAN 10' ABOVE THE FLOOR BELOW SHALL HAVE A SITE SPECIFIC SHORING DESIGN DONE. OUR FIRM SHOULD BE CONSULTED FOR THIS DESIGN ONCE FOUNDATION WALLS ARE IN PLACE TO EVALUATE ALL FIELD CONDITIONS. IT SHOULD BE NOTED THAT FAILURE TO HAVE AN ADEQUATE SHORING DESIGN CAN RESULT IN FORM COLAPSE AND/OR CATASTROPHIC FAILURE.



SAB CONSTRUCTION, LLC
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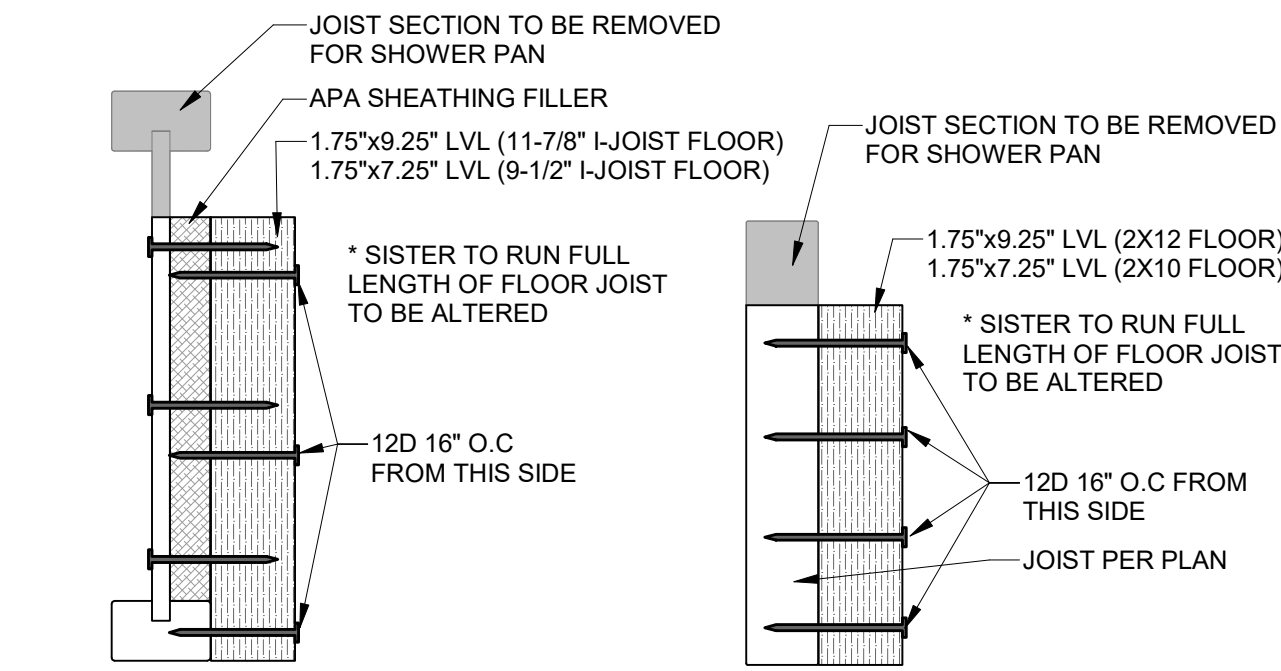
STRUCTURAL DETAILS & NOTES

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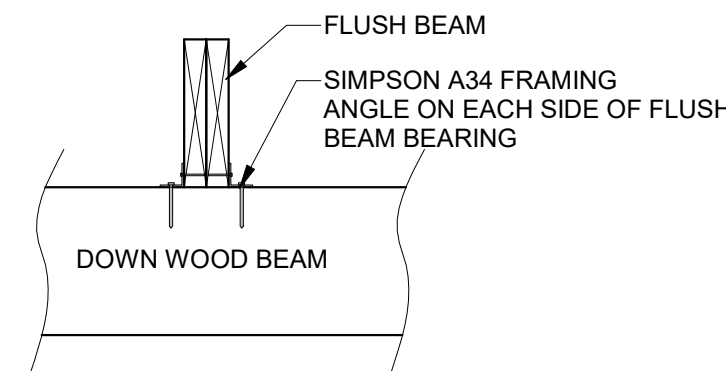
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SUSPENDED SLAB DETAILS

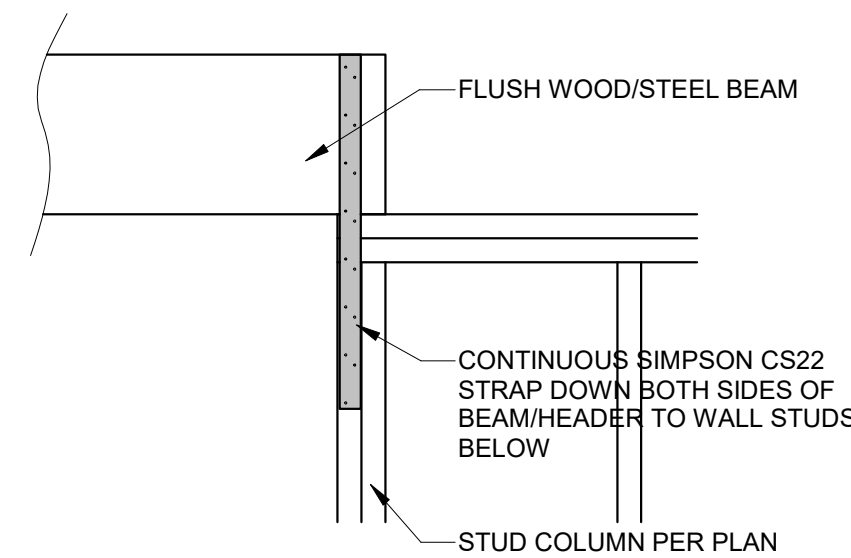
S-3.1



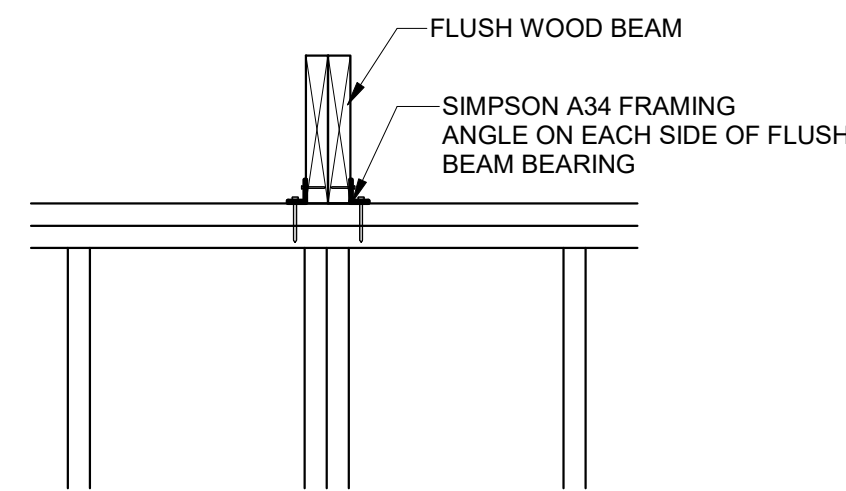
10 ZERO ENTRY SHOWER DETAIL
1/4" = 1'-0"



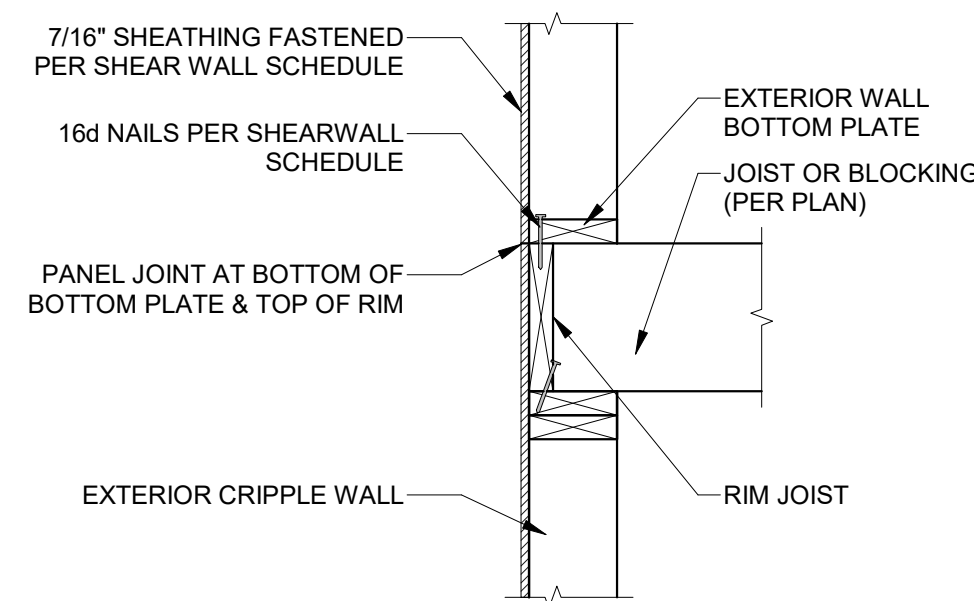
9 WOOD TO WOOD STACKED CONNECTION
1" = 1'-0"



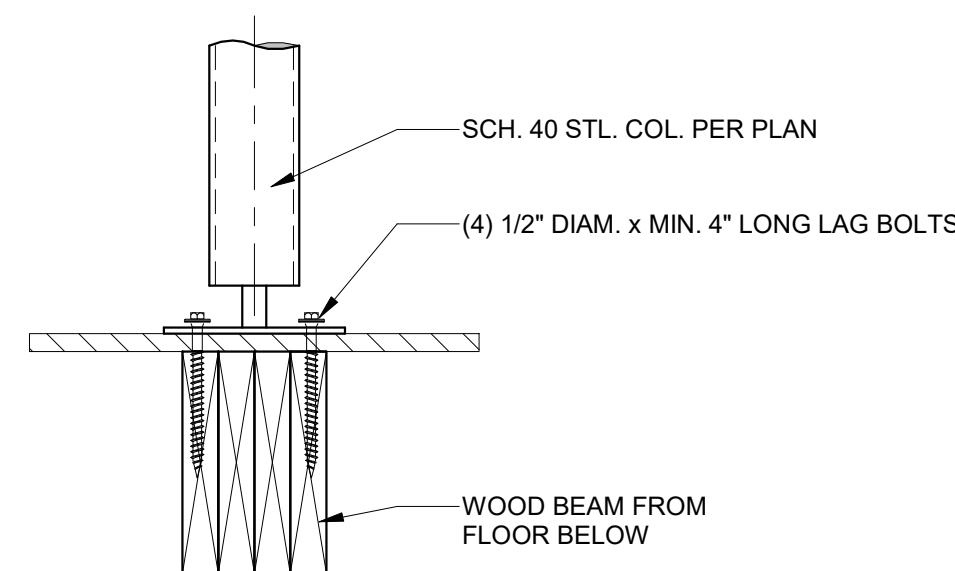
8 UPSET WOOD/STEEL PARALLEL TO WALL
1" = 1'-0"



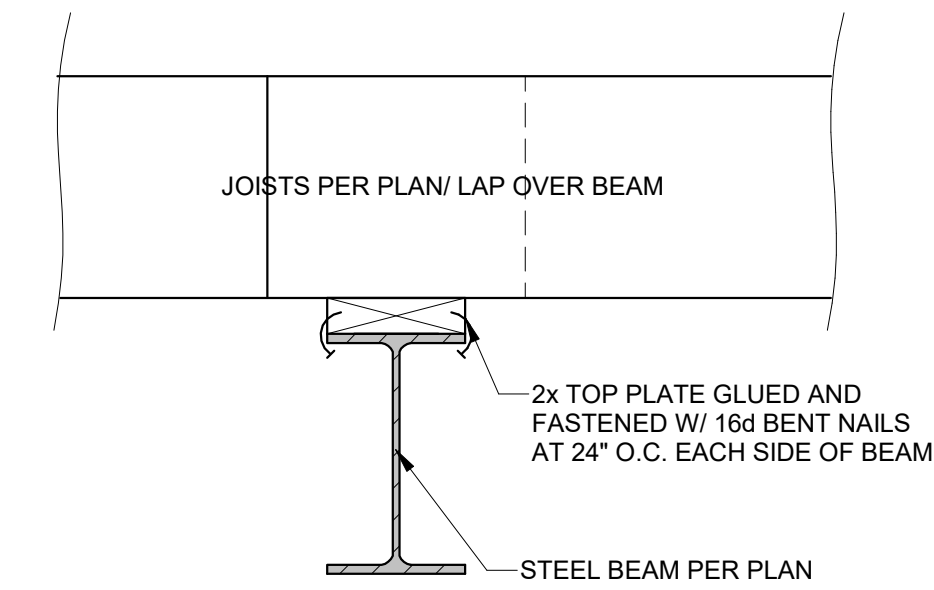
7 UPSET WOOD PERPENDICULAR TO WALL
1" = 1'-0"



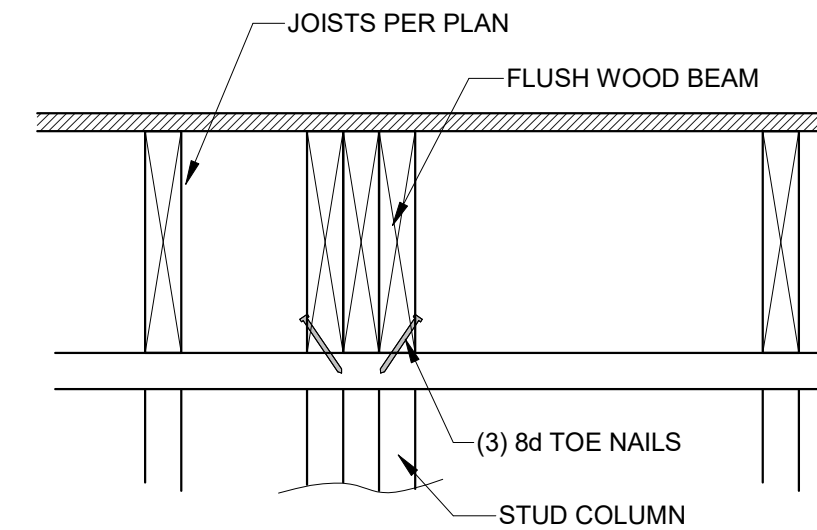
11 SHEATHING JOINT LOCATION
1" = 1'-0"



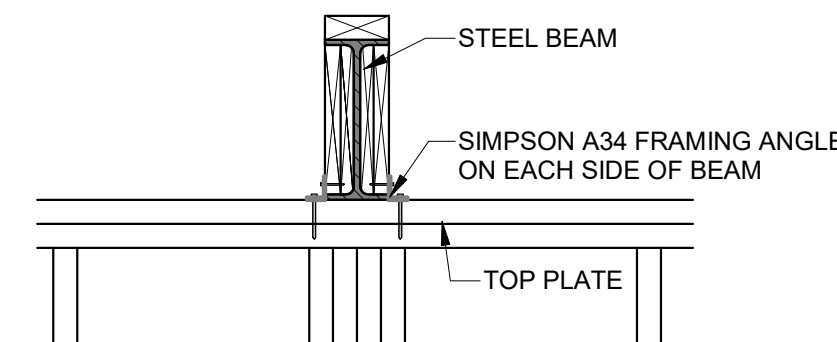
6 STEEL COLUMN TO WOOD FLOOR
1 1/2" = 1'-0"



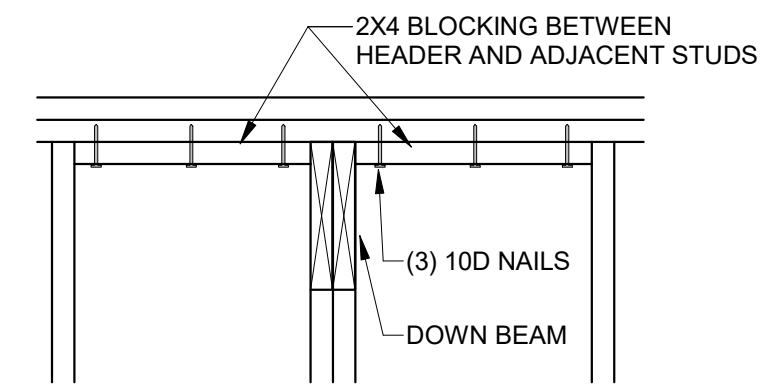
5 STEEL BEAM TO WOOD PLATE
1 1/2" = 1'-0"



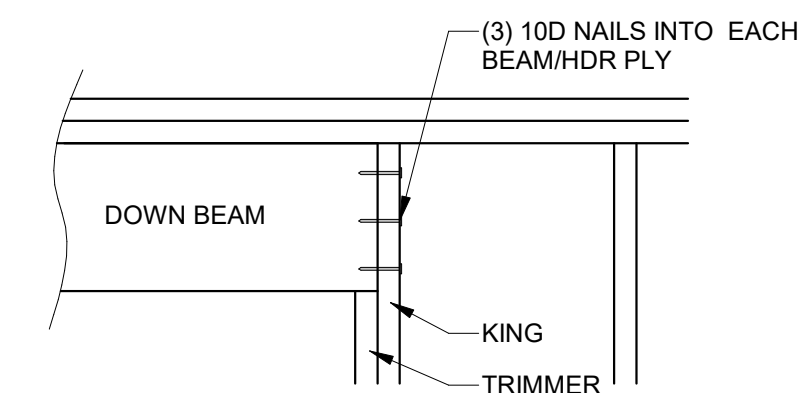
4 FLUSH WOOD BEAM CONNECTION
1 1/2" = 1'-0"



3 EXTERIOR WALL STEEL BEAM BEARING
1" = 1'-0"



2 DOWN WOOD BEAM PERPENDICULAR
1" = 1'-0"



1 DOWN WOOD BEAM PARALLEL
1" = 1'-0"

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