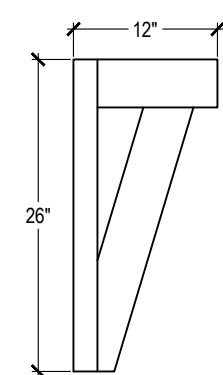


## FRONT &amp; REAR ELEVATION NOTES

- 1.12 TOP OF FOOTING DEPTH DETERMINED PER SITE.
- 1.71 CONCRETE WINDOW WELL FOR EGRESS WITH LADDER, PROVIDED SLEEVE THROUGH WALL FOR FOUNDATION DRAIN. TOP OF WINDOW WELL TO BE 3" BELOW TOP OF FOUNDATION.
- 2.61 5/4"x8" LP SMART TRIM. 1 1/2" ARCH ON GARAGE DOOR TRIM UNLESS NOTED OTHERWISE ON ELEVATION.
- 3.11 LP SMART LAP SIDING WITH 5/4X6 LP SMART TRIM AROUND DOORS, WINDOWS, AND CORNERS UNLESS NOTED OTHERWISE.
- 3.13 LP SMART PANEL SIDING WITH 3/4X4 LP SMART TRIM AROUND DOORS, WINDOWS, AND CORNERS UNLESS NOTED OTHERWISE. BOTTOM OF SIDING SHALL BE A MINIMUM OF 6" ABOVE GRADE.
- 3.15 LP SMART BOARD AND BATTEN.
- 3.17 MANUFACTURED STONE.
- 3.18 CAST STONE CAP.
- 3.45 4X4 CEDAR POSTS. 1X6 TRIM AT BASE. 1X4 TRIM AT TOP.
- 3.57 26"x6" CEDAR BRACKET - SEE DETAIL.
- 3.66 DECORATIVE FALSE LOUVER VENT WITH 1X6 LP SMART BOARD.
- 4.11 MINIMUM ROOFING COMPOSITION - 30 YR COMPOSITE SHINGLES ON 15# FELT ON 1/2" OSB SHEATHING OR AS REQUIRED BY CODE.
- 4.13 STANDING SEAM METAL ROOF. INSTALL PER CODES AND MANUFACTURER'S RECOMMENDATIONS.
- 4.31 BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE.



## CEDAR BRACKET ③

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

## GENERAL NOTES

DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VARY PER VENDOR.

WINDOW SIZES ARE WRITTEN IN FEET AND INCHES PER INDUSTRY STANDARDS. EX: 3050 SH = 3'-0" X 5'-0" SINGLE HUNG, 3066 FIX = 3'-0" X 6'-6" FIXED.

## SHEET INDEX

- A1. FRONT AND REAR ELEVATION
- A2. LEFT AND RIGHT ELEVATION
- A2.5 FLOOR PLANS
- A3. FOUNDATION LEVEL PLAN
- A4. MAIN LEVEL PLAN
- A5. UPPER LEVEL PLAN
- A6. ROOF PLAN

SQUARE FOOTAGE TABLE	
FINISHED SQUARE FOOTAGE	
MAIN LEVEL	655
UPPER LEVEL	908
TOTAL	1563
UNFINISHED SQUARE FOOTAGE	
GARAGE	405
BASEMENT - UNFINISHED	597
PATIO	144

REVISIONS		
NO.	DATE	DESCRIPTION
1		
2		
3		
4		

## FRONT ELEVATION ②

SCALE: 3/16" = 1'-0"

## REAR ELEVATION ①

SCALE: 3/16" = 1'-0"

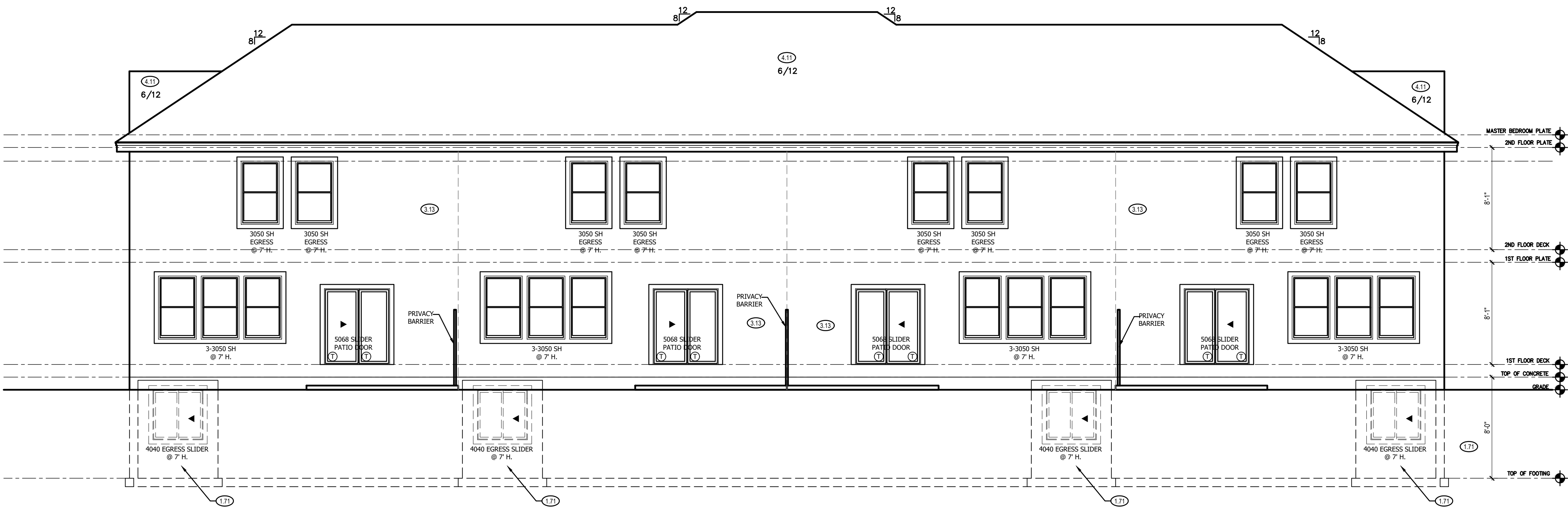
## NOTE:

ALL CONSTRUCTION SHALL CONFORM TO 2019 INTERNATIONAL RESIDENTIAL CODE OR ATTACHED ENGINEER SPECIFICATIONS WHERE APPLICABLE.

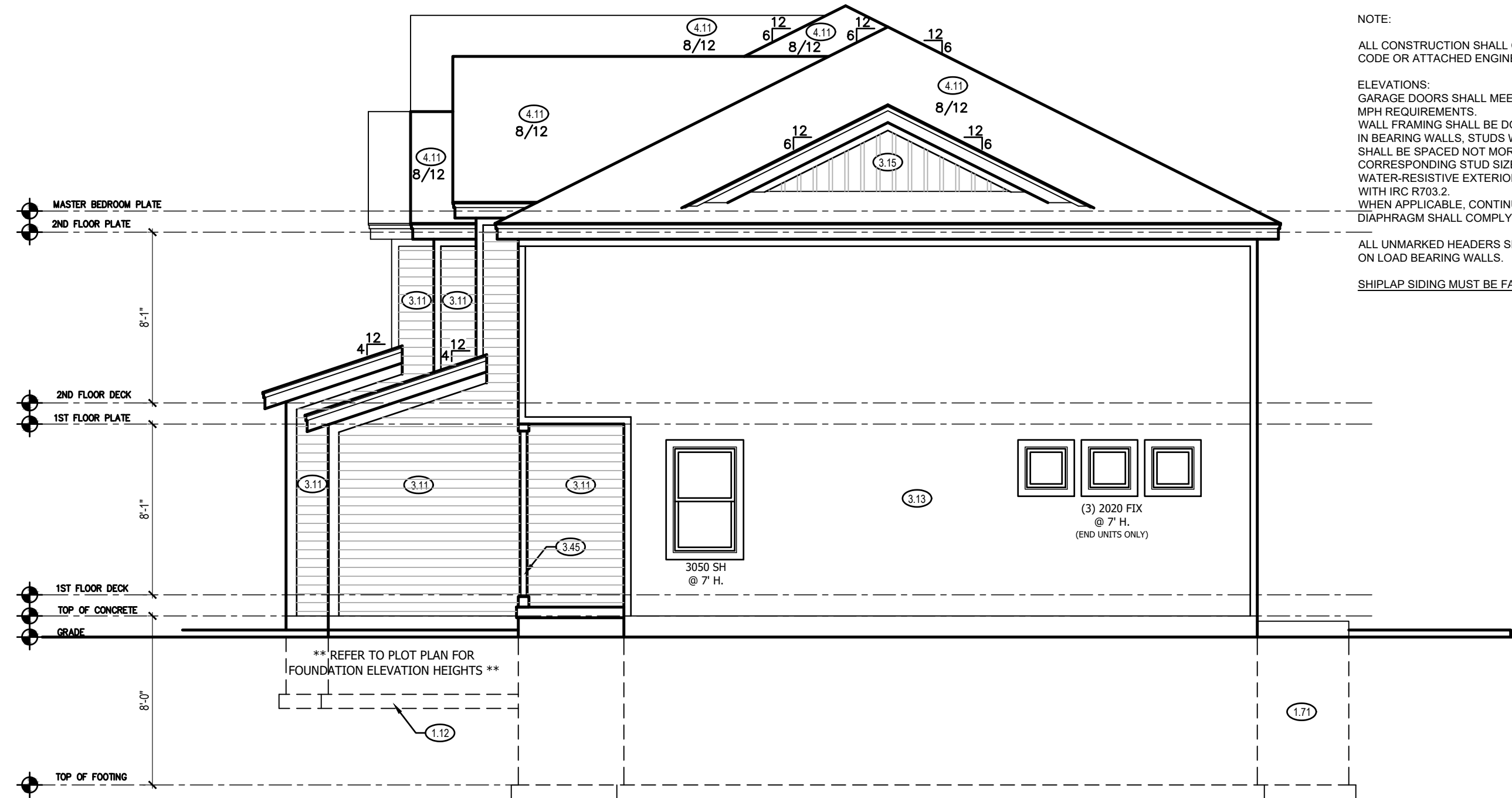
ELEVATIONS:  
GARAGE DOORS SHALL MEET DASHA FOR ULTIMATE DESIGN WIND SPEED OF 115 MPH REQUIREMENTS.  
WALL FRAMING SHALL BE DOUGLAS FIR LARCH #2 UNLESS OTHERWISE NOTED. IN BEARING WALLS, STUDS WHICH ARE NOT MORE THAN TEN FEET IN LENGTH SHALL BE SPACED NOT MORE THAN 16" SPECIFIED BY IRC TABLE R602.3(5) FOR CORRESPONDING STUD SIZE.  
WATER-RESISTIVE EXTERIOR WALL BARRIER IN WALL SECTION SHALL COMPLY WITH IRC R703.2.  
WHEN APPLICABLE, CONTINUOUS STUDS BETWEEN FLOOR AND ROOF/CEILING DIAPHRAGM SHALL COMPLY WITH IRC R602.3.

ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR LARCH (2) 2 X 10 ON LOAD BEARING WALLS.

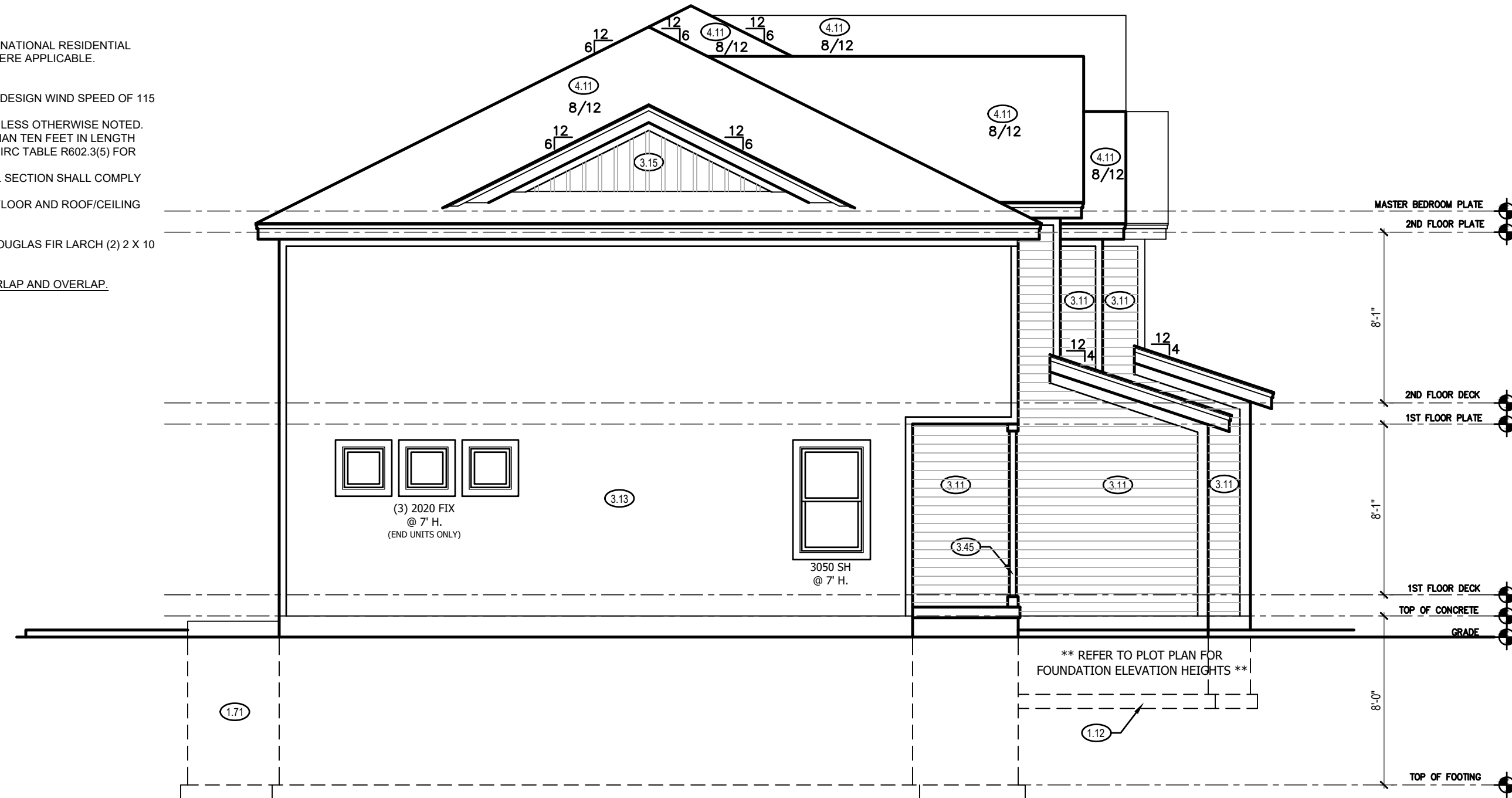
SHIPLAP SIDING MUST BE FASTENED AT BOTH UNDERLAP AND OVERLAP.



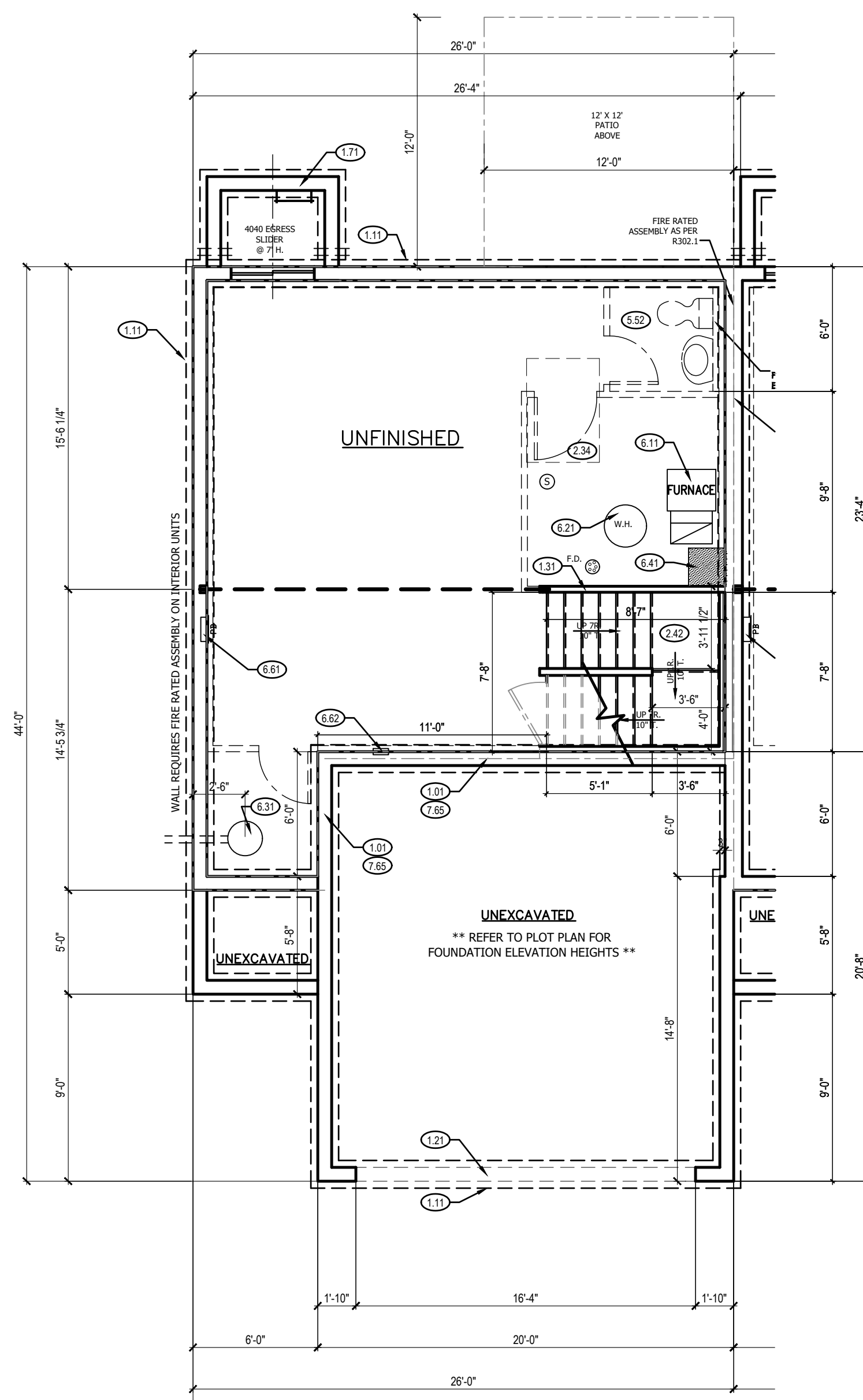




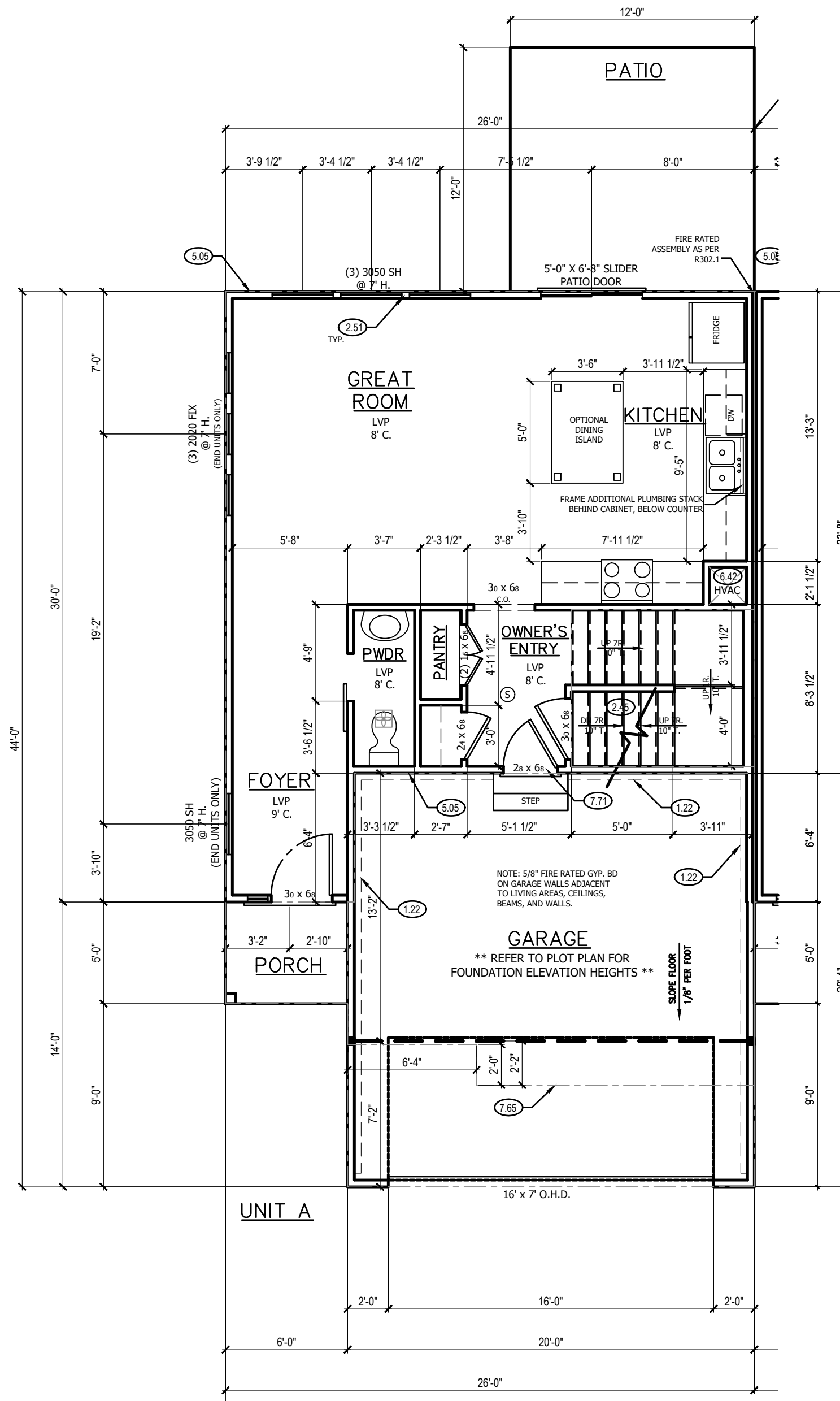
RIGHT ELEVATION ①  
SCALE: 3/16" = 1'-0"



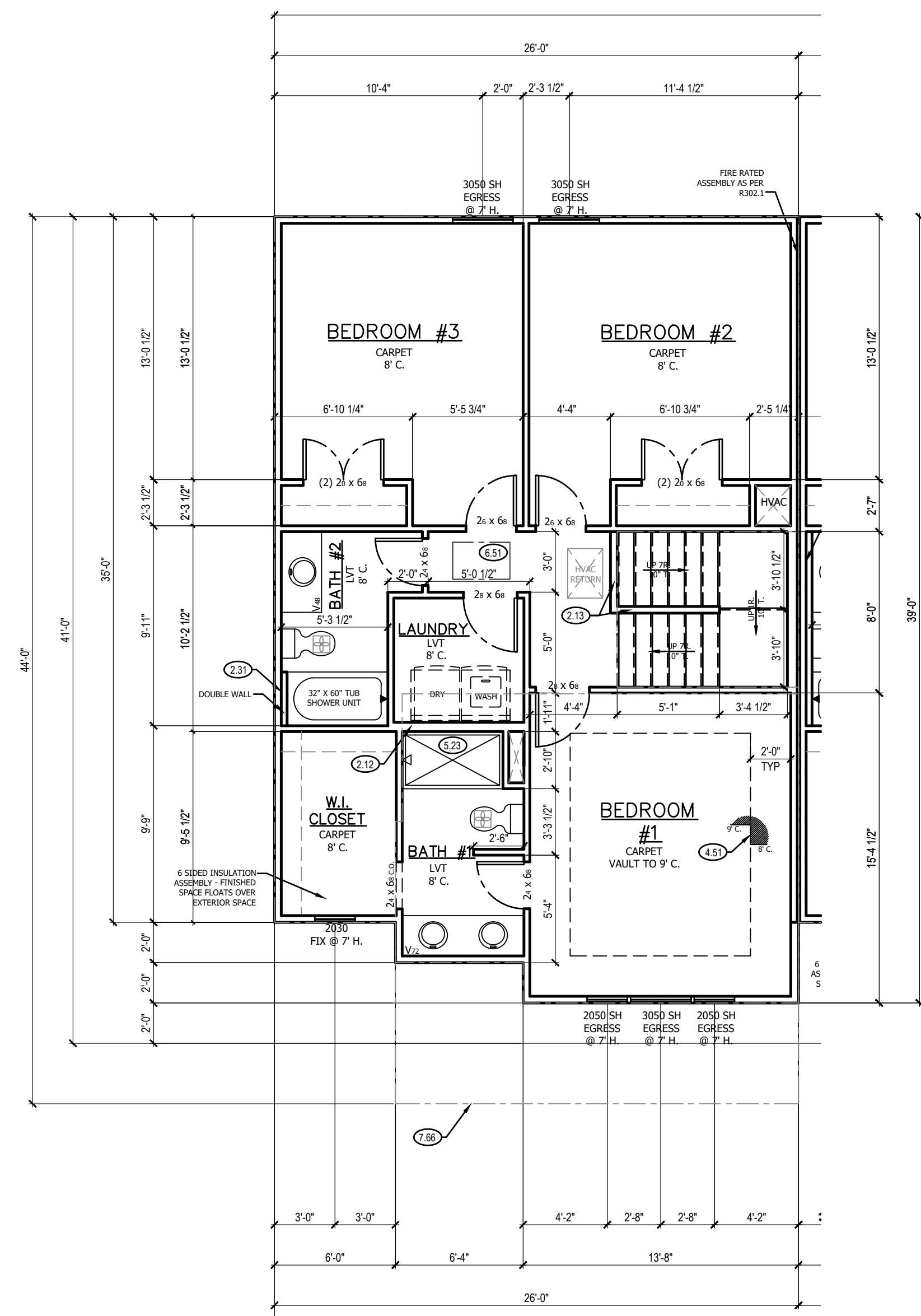
LEFT ELEVATION ②  
SCALE: 3/16" = 1'-0"



FOUNDATION LEVEL ⑤  
SCALE: 3/16" = 1'-0"



MAIN LEVEL ④  
SCALE: 3/16" = 1'-0"



UPPER LEVEL ③  
SCALE: 3/16" = 1'-0"

FRONT & REAR ELEVATION NOTES

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GENERAL NOTES

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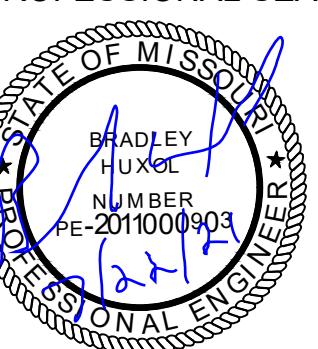
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JUNEAU - TOWNHOME  
FARMHOUSE  
OSAGE #10

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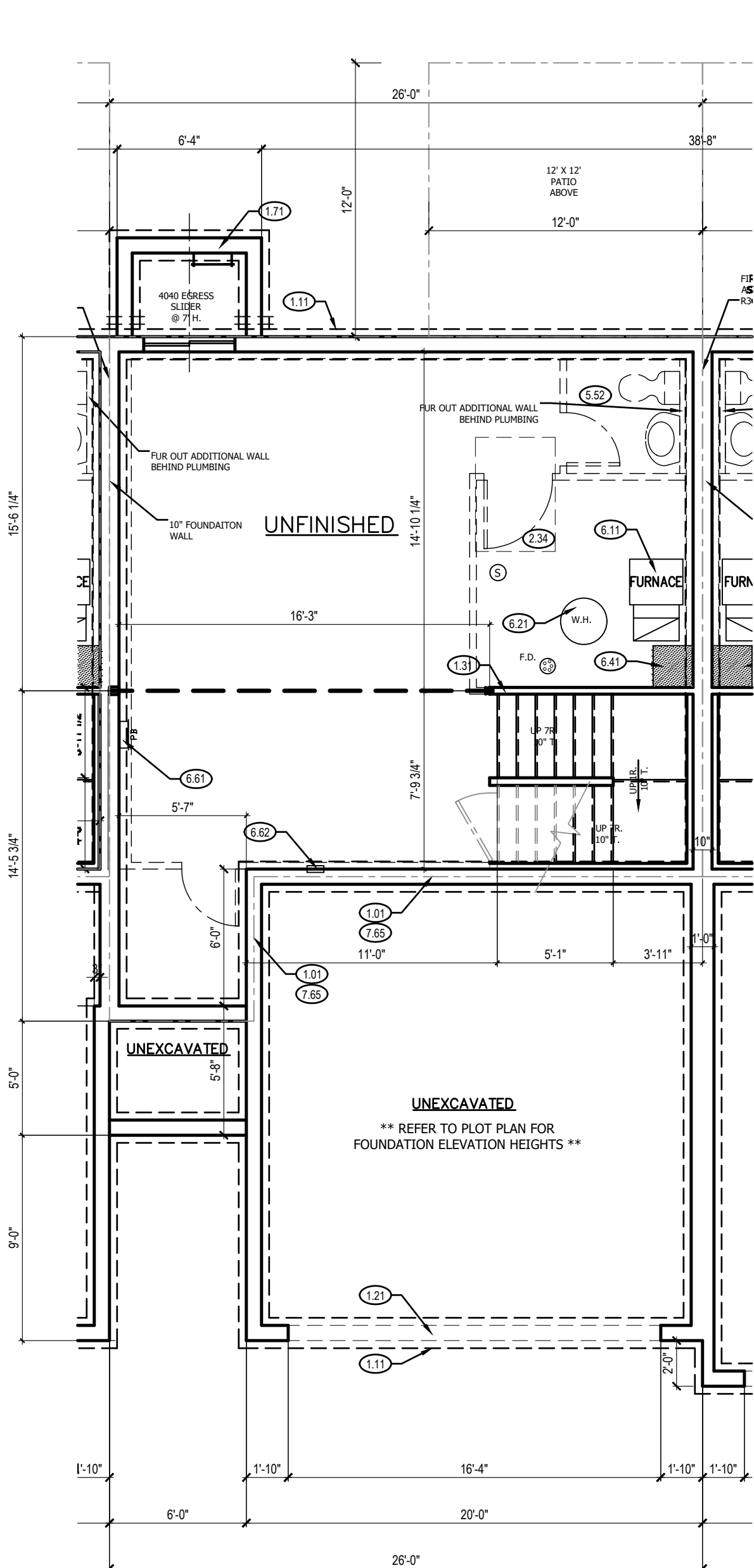
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DRAWN BY:  
C.HOOPER

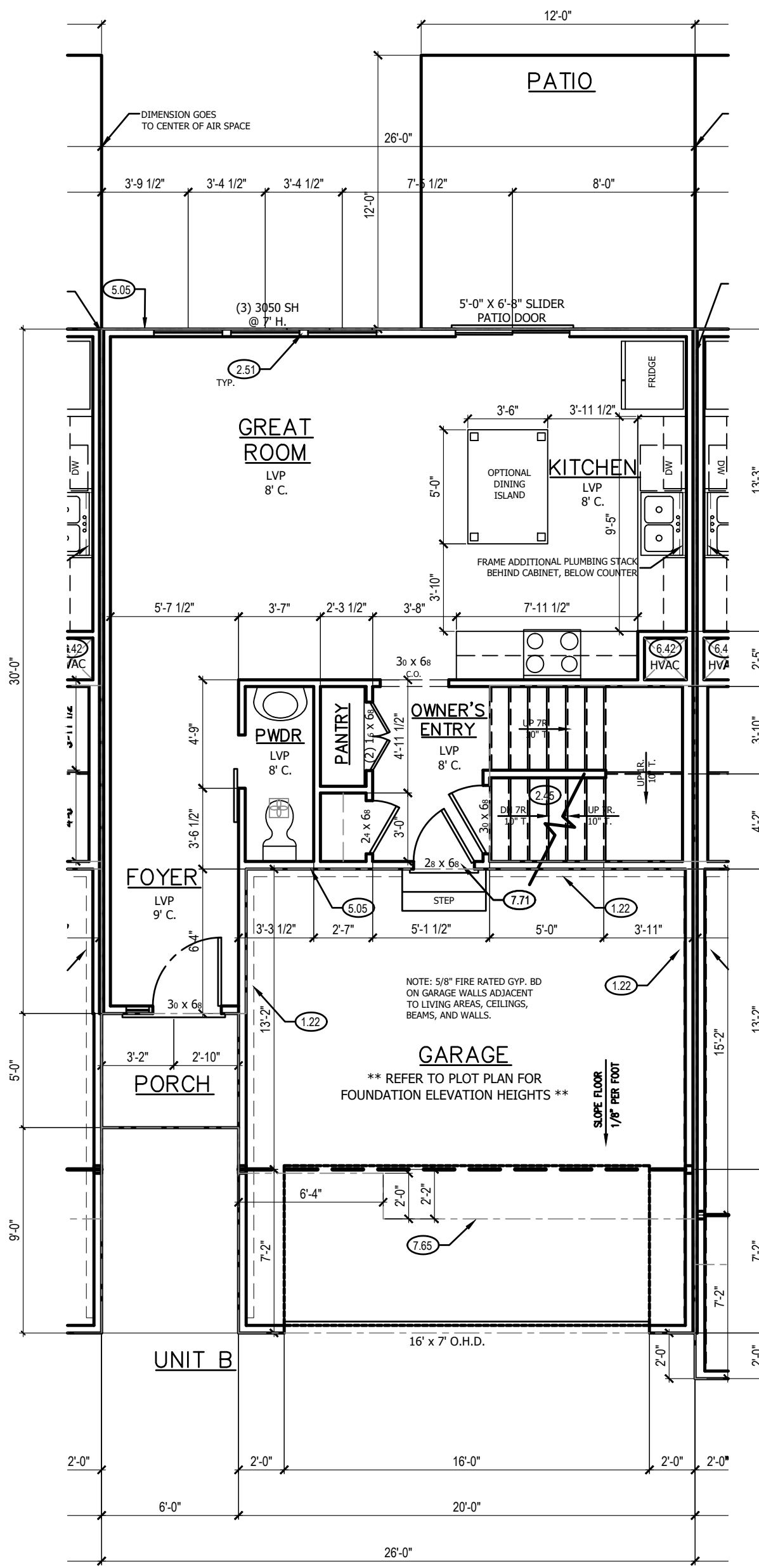
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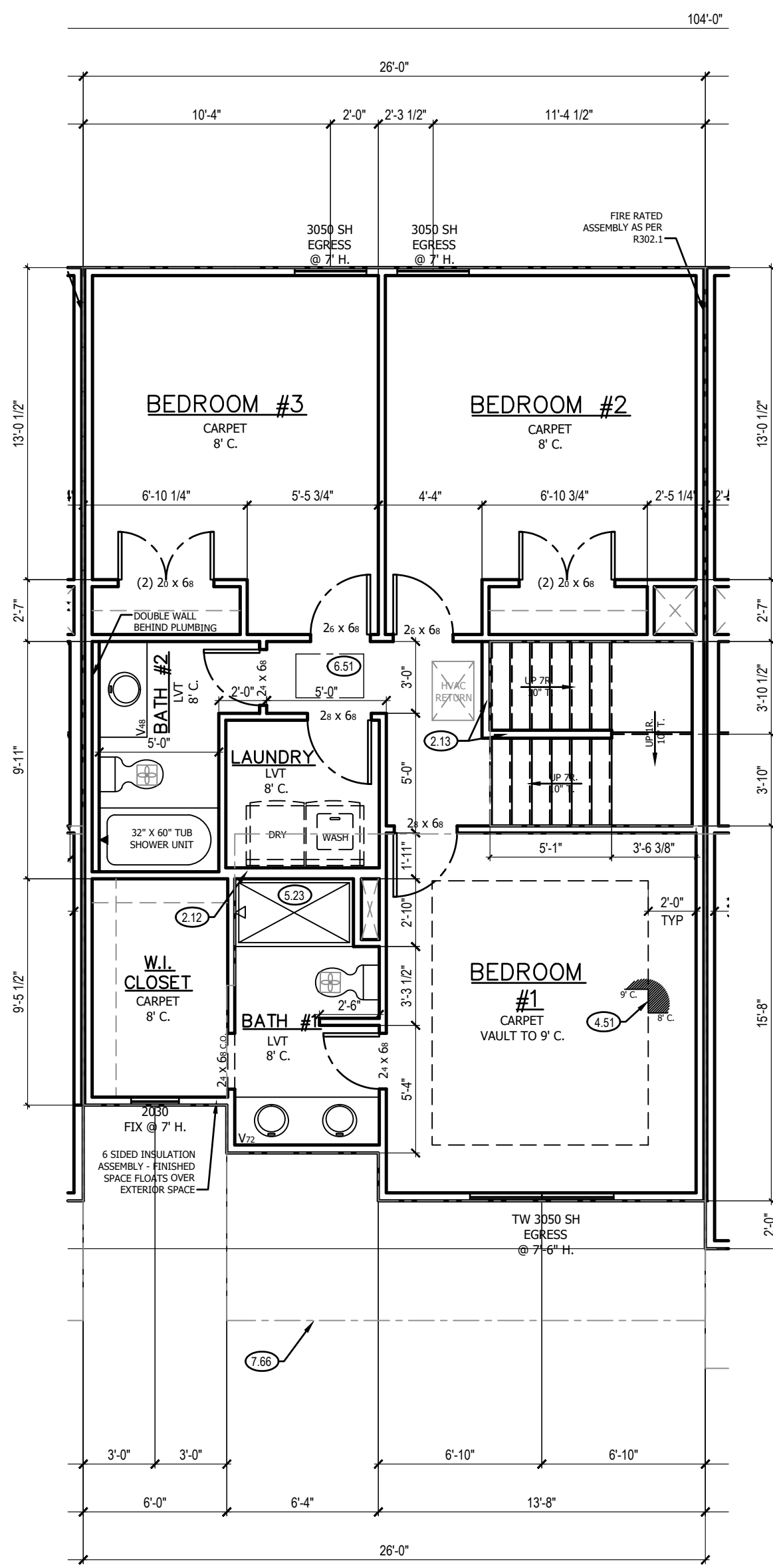
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FOUNDATION LEVEL ⑤  
SCALE: 3/16" = 1'-0"



MAIN LEVEL ④  
SCALE: 3/16" = 1'-0"



UPPER LEVEL ③  
SCALE: 3/16" = 1'-0"

- FRONT & REAR ELEVATION NOTES**
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**JUNEAU - TOWNHOME**  
FARMHOUSE  
OSAGE #10

**PROFESSIONAL SEAL:**

BRADLEY HUXLEY  
NUMBER  
PE-2010008903  
2022

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816-399-4901

DRAWN BY:  
C.HOOPER

ISSUE DATE:  
06.16.21

SHEET NUMBER:

**A2.5**

**GENERAL NOTES**

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NOTE:

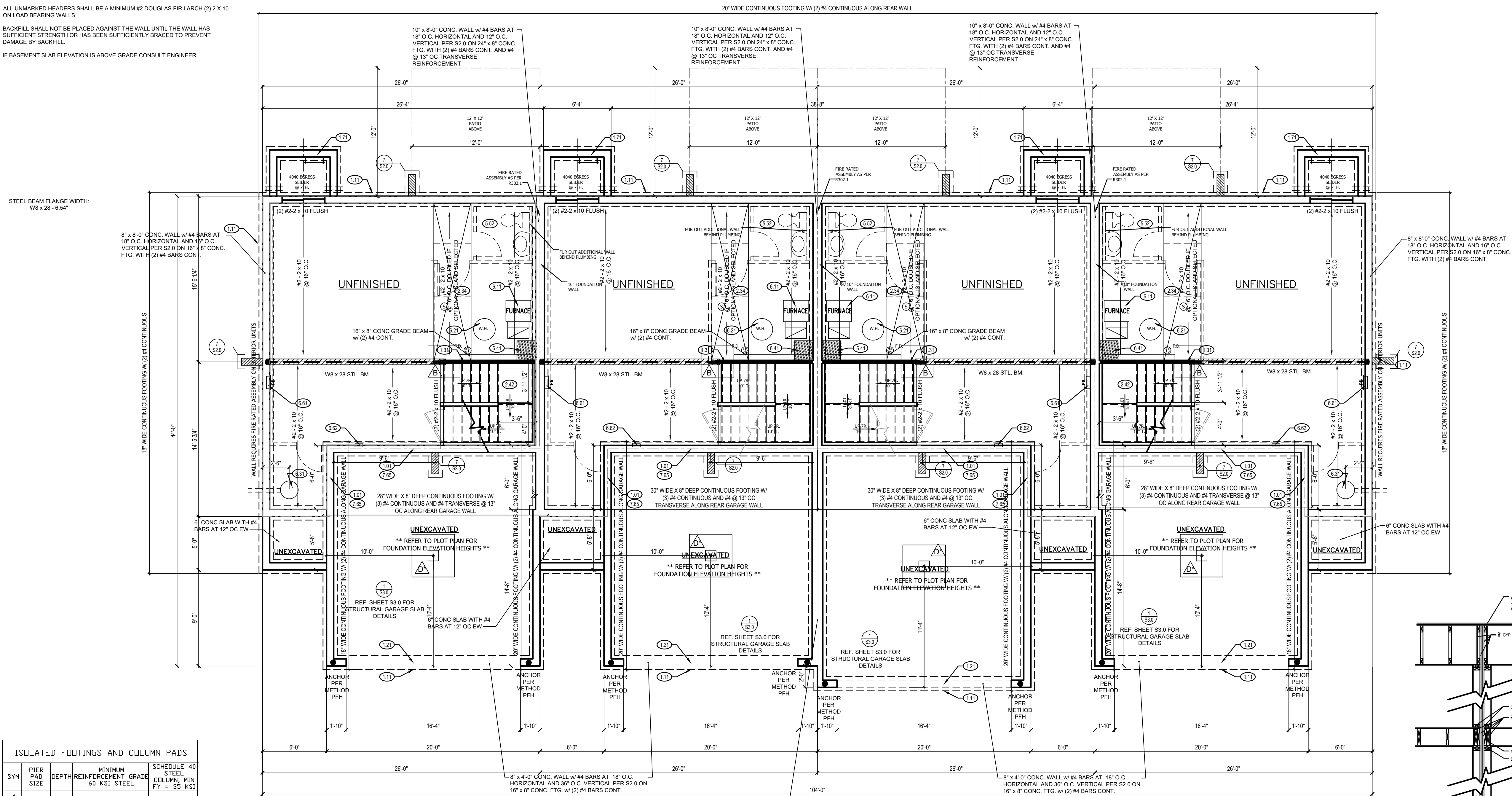
ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ATTACHED ENGINEER SPECIFICATIONS WHERE APPLICABLE.

FOUNDATION NOTES:  
ALL FOOTINGS MEET OR EXCEED MINIMUM FROST DEPTH OF 36".  
SOIL BEARING CAPACITY SHALL BE 1500 PSF.  
COMPRESSIVE STRENGTH OF CONCRETE FC COMPRESSIVE STRENGTH SHALL BE AS SPECIFIED IN IRC TABLE R402.2. REQUIRED AIR ENTRAINMENT SHALL BE 5-7%.  
ALL FOUNDATION WALLS ENCLOSING BELOW GRADE SPACE SHALL BE DAMPROOFED. DAMPROOFING SHALL EXTEND FROM THE EDGE OF THE FOOTING TO THE FINISHED GRADE (R408.1). METHOD OF DAMPROOFING OR WATERPROOFING SHALL BE A MINIMUM 6-MIL THICK MOISTURE BARRIER OVER POROUS GRAVEL BASE UNDER BASEMENT FLOOR SLAB PER R405.2.2. LAP JOINTS SHALL BE A MINIMUM 6".  
FOUNDATION WALLS SHALL BE DAMPROOFED PER IRC SECTION R406.  
FOUNDATION DRAINAGE WILL BE IN ACCORDANCE WITH WITH IRC SECTION R405. BASEMENT EGRESS OPENINGS SHALL BE IN ACCORDANCE WITH IRC SECTION R310.1.  
ALL INTERIOR FOOTINGS OF LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.  
ALL ANCHOR BOLTS SHALL NOT BE SPACED MORE THAN 8" O.C. AND BE EMBEDDED INTO THE CONCRETE A MINIMUM OF 7".

ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR LARCH (2) 2 X 10 ON LOAD BEARING WALLS.

BACKFILL SHALL NOT BE PLACED AGAINST THE WALL UNTIL THE WALL HAS SUFFICIENT STRENGTH OR HAS BEEN SUFFICIENTLY BRACED TO PREVENT DAMAGE BY BACKFILL.

IF BASEMENT SLAB ELEVATION IS ABOVE GRADE CONSULT ENGINEER.



ISOLATED FOOTINGS AND COLUMN PADS				
SYM	PIER PAD SIZE	DEPTH	MINIMUM REINFORCEMENT GRADE 60 KSI STEEL	SCHEDULE 40 STEEL COLUMN, MIN FY = 35 KSI
	30"x30"	1'-0"	(5) #4 BAR E.W.	3" DIAMETER
	36"x36"	1'-0"	(6) #4 BAR E.W.	3" DIAMETER
	42"x42"	1'-2"	(7) #4 BAR E.W.	3" DIAMETER
	48"x48"	1'-4"	(8) #4 BAR E.W.	3" DIAMETER
	54"x54"	1'-4"	(9) #4 BAR E.W.	3.5" DIAMETER
	60"x60"	1'-6"	(10) #4 BAR E.W.	3.5" DIAMETER
ANY SIZE FOOTING WITH AN (1)				NO COLUMN NEEDED

ISOLATED FOOTINGS AND COLUMN PADS				
SYM	PIER DIAMETER	DEPTH	MINIMUM REINFORCEMENT GRADE 40 KSI STEEL	
	12"	3'-0"	(4) VERTICAL #4	
	16"	3'-0"	(4) VERTICAL #4	
	18"	3'-0"	(4) VERTICAL #4	
	24"	3'-0"	(4) VERTICAL #4	
	28"	3'-0"	(4) VERTICAL #4	

COLUMN AND PAD SIZES ARE FOR A MAXIMUM COLUMN HEIGHT OF 10'. COLUMNS GREATER THAN 10' REQUIRE A SEPARATE ENGINEERED DESIGN. FOOTINGS A-F SPACING OF 6" O.C. WITH 3" CLEAR COVER.

#### FOUNDATION PLAN NOTES

- 1.01 HOLD SILL PLATE BACK 4"
- 1.11 CONTINUOUS CONCRETE FOOTING
- 1.21 RECESS TOP OF FOUNDATION WALL
- 1.31 2X4 STUD WALL WITH TREATED SILL PLATE
- 1.71 CONCRETE WINDOW WELL FOR EGRESS WITH LADDER, PROVED SLEEVE THROUGH WALL FOR FOUNDATION DRAIN. TOP OF WINDOW WELL TO BE 3" BELOW TOP OF FOUNDATION.
- 2.34 PROVIDE ADDITIONAL BRACING FOR ISLAND ABOVE.
- 2.42 FIRE RATED SHEETROCK UNDER STAIRS
- 5.52 STUB OUT ONLY FOR FUTURE POWDER BATH. DRAIN LOCATION TO BE MARKED WITH REBAR AND CUT FLUSH TO FLOOR FINISH.
- 6.11 DIRECT FURNACE, FUEL BURNING APPLIANCES SHALL BE DIRECT VENTED TO EXTERIOR FOR COMBUSTION AIR.
- 6.21 HOT WATER HEATER WITH THERMAL EXPANSION CONTROL DEVICE
- 6.31 SUMP PIT AND PUMP, PROVIDE ELECTRICAL GFCI PROTECTION. PROVIDE SLEEVE THROUGH FOOTING.
- 6.41 HVAC CHASE ABOVE
- 6.61 200 AMP ELECTRICAL PANEL. LOCATION TO BE DETERMINED ON SITE.
- 6.62 UFER GROUND- VERIFY LOCATION WITH PROJECT MANAGER.
- 7.65 LINE OF FLOOR ABOVE

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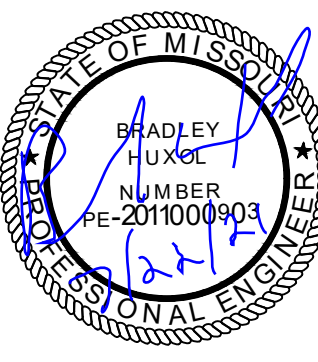
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## JUNEAU - TOWNHOME FARMHOUSE OSAGE #10

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816-399-4901

DRAWN BY:  
C.HOOPER

ISSUE DATE:  
06.16.21

SHEET NUMBER:

# A3.0

#### GENERAL NOTES

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ATTIC/TRUSSES

UPPER LEVEL

MAIN LEVEL

LOWER LEVEL

PARTY WALL DETAIL ②

SCALE: N.T.S.

FOUNDATION LEVEL PLAN ①

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



NOTE:

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ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR LARCH (2) 2 X 10 ON LOAD BEARING WALLS.

DETAILS AND NOTES:  
BASEMENT EGRESS WINDOWS ARE TO COMPLY WITH IRC R310.2.  
WINDOW FALL PROTECTION REQUIREMENTS TO COMPLY WITH SECTION R612.2.  
STAIRS SHALL COMPLY WITH IRC R311.7. THE MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7-3/4" AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10" (IRC R311.7.5.1).  
SELF CLOSING DEVICES ARE REQUIRED FOR GARAGE TO DWELLING SEPARATION DOORS.  
STEEL COLUMNS WILL BE A MINIMUM OF SCHEDULE 40.

ENERGY REQUIREMENTS SHALL CONFORM TO THE IRC CHAPTER 11.  
SECURITY SHALL CONFORM TO IRC R328(K)(8)(C).  
AN ACCESSIBLE CONNECTION POINT WILL BE PROVIDED TO A 20 FOOT CONCRETE ENCASED ELECTRODE (FOOTING REBAR) FOR THE ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTOR (UGER GROUND).  
CARBON MONOXIDE DETECTORS WILL BE PROVIDED IN ACCORDANCE WITH IRC SECTION R315.  
THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED(2018 IRC SECTION N1102.4.1 AND TABLE N1102.4.1.1).  
DUCTS, AIR HANDLERS, FILTER BOXES AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED (2018 IRC SECTION N1103.2.2).

FLOOR PLANS:  
LEDGERS(FLOOR AND CEILING) SHALL BE IN ACCORDANCE WITH IRC 507.  
ALL CANTILEVERS SHALL HAVE AT LEAST A 3:1 BACK SPAN.  
A MINIMUM OF DOUBLE JOIST UNDER EACH BEARING WALL IS REQUIRED.

ALL WALLS UNDER 12" SHALL BE DOUGLAS FIR LARCH #2 2X4 STUDS AT 16" O.C. FULL HEIGHT CONTINUOUS (UNLESS OTHERWISE NOTED).

ALL WALLS 12" AND OVER SHALL BE DOUGLAS FIR #2 (M-12) LUMBER 2x6 STUDS AT 16" O.C. FULL HEIGHT CONTINUOUS (UNLESS OTHERWISE NOTED).

LVL'S SHALL BE:  
BOISE CASCADE  
VERSALAM 3100 FB  
GLULAMS SHALL BE:  
DF 24F-V4 - WESTERN  
PROVIDE FULL BEARING FOR OPTION SELECTED

STEEL BEAM FLANGE WIDTH:  
W10 x 22 - 5.75"  
W12 x 26 - 6.49"  
W12 x 22 - 4.03"

GIRDER TRUSS BEARING:  
MIN. STUD PACK OF (4) 2 x 4 OR (4) 2 x 6 DOUGLAS FIR LARCH #2 (DEPENDING ON WALL THICKNESS) BELOW EACH BEARING POINT OF EACH GIRDER TRUSS.  
UNLESS OTHERWISE NOTED, STUD PACKS SHALL BE CARRIED DOWN TO FOUNDATION OR LOAD SUPPORTING MEMBER.

PROVIDE 2X SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR FOUNDATION BELOW.



TOWNHOUSE WIND BRACING IS STRUCTURALLY INDEPENDENT PER UNIT PER 2018 IRC R302.2.6

BRACING METHODS  
EXTERIOR BRACING CS-WSP PER IRC R602.10  
EXTERIOR BRACING WSP PER IRC R602.10 (INCLUDES PARTIAL PANELS PER IRC R602.10.5.2)  
INTERIOR BRACING LUB PER IRC R602.10  
MINIMUM LUB LENGTH PER 2018 IRC TABLE R602.10.5:  
55'-8" TALL WALL HEIGHT  
62'-9" TALL WALL HEIGHT  
69'-10" TALL WALL HEIGHT  
EXTERIOR BRACING PFH (SEE DETAILS) PER IRC R602.10.5  
INTERIOR LOAD BEARING WALL (EXTERIOR WALLS ARE ASSUMED LOAD BEARING)

IRC TABLE N1102.1.2 (R408.1.2) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (PARTIAL)								
CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SPQCT	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT SLAB R-VALUE & DEPTH
4 EXCEPT MARINE	.32	.55	.40	49	20 OR 13+5	8/13	19	10/13

MAIN FLOOR PLAN NOTES

- 1.22 EXPOSED TOP OF FOUNDATION WALL.
- 2.32 INSULATE CANTILEVER AS REQUIRED PRIOR TO BLOCKING
- 2.45 STAIRS TO LOWER LEVEL UNFINISHED
- 2.51 3 STUDS BETWEEN WINDOW UNITS
- 3.45 4X4 CEDAR POST, 1X6 TRIM AT BASE, 1X4 TRIM AT TOP.
- 6.42 HVAC - BUMP TRUSSES AS NECESSARY FOR HVAC ACCESS.
- 7.65 LINE OF FLOOR ABOVE
- 7.71 20 MINUTE FIRE RATED SOLID CORE WITH SELF-CLOSING HINGES

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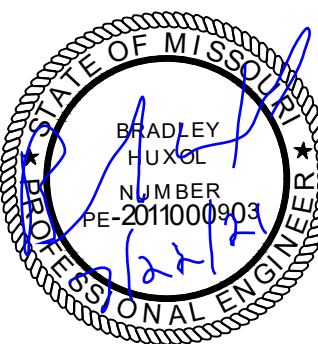
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UNIT D: 3716 SW WALSH DR

JUNEAU - TOWNHOME  
FARMHOUSE  
OSAGE #10

PROFESSIONAL SEAL:



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EVERSTEAD  
600 SW JEFFERSON SUITE 300  
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06.16.21

SHEET NUMBER:

A4.0

MAIN LEVEL PLAN

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



NOTE:

ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ATTACHED ENGINEER SPECIFICATIONS WHERE APPLICABLE.

ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR LARCH (2) 2 X 10 ON LOAD BEARING WALLS.

DETAILS AND NOTES:

BASEMENT EGRESS WINDOWS ARE TO COMPLY WITH IRC R310.2.

WINDOW FALL PROTECTION REQUIREMENTS TO COMPLY WITH SECTION R612.2.

STAIRS SHALL COMPLY WITH IRC R311.7. THE MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7.3/4" AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10" (IRC 2018 R311.7.5.1).

SELF CLOSING DEVICES ARE REQUIRED FOR GARAGE TO DWELLING SEPARATION DOORS.

STEEL COLUMNS WILL BE A MINIMUM OF SCHEDULE 40.

ENERGY REQUIREMENTS SHALL CONFORM TO THE IRC CHAPTER 11. SECURITY SHALL CONFORM TO IRC R230(K)(2)(C).

AN ACCESSIBLE CONNECTION POINT WILL BE PROVIDED TO A 20 FOOT CONCRETE ENCASED ELECTRODE (FOOTING REBAR) FOR THE ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTOR (UFER GROUND).

CARBON MONOXIDE DETECTORS WILL BE PROVIDED IN ACCORDANCE WITH IRC SECTION R315.

THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED 2018 IRC SECTION N1102.4.1 AND TABLE N1102.4.1.1).

DUCTS, AIR HANDLERS, FILTER BOXES AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED (2018 IRC SECTION N1103.2.2).

FLOOR PLANS:

LEDGERS(FLOOR AND CEILING) SHALL BE IN ACCORDANCE WITH IRC 507.

ALL CANTILEVERS SHALL HAVE AT LEAST A 3:1 BACK SPAN.

A MINIMUM OF DOUBLE JOIST UNDER EACH BEARING WALL IS REQUIRED.

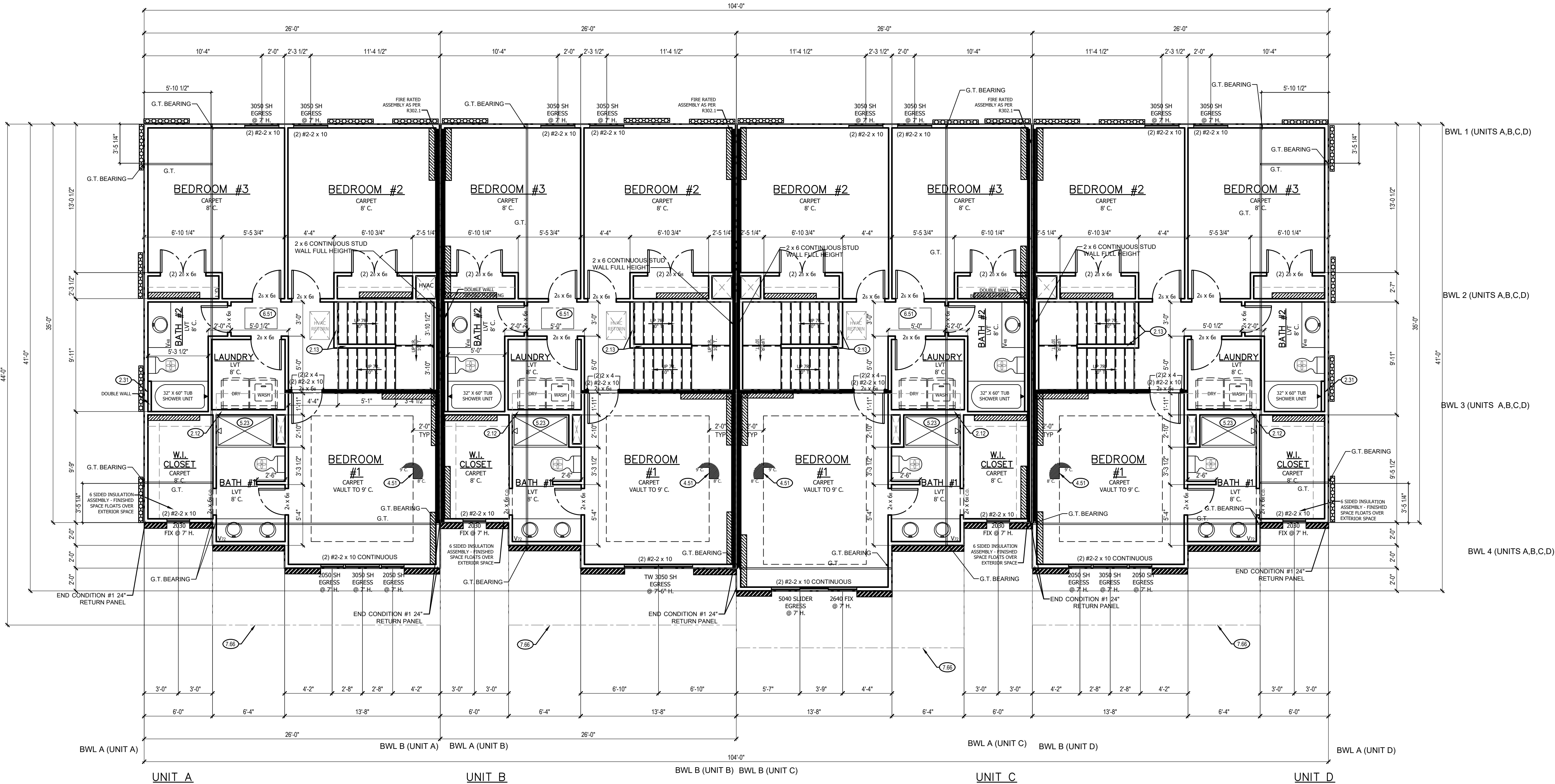
ALL WALLS UNDER 12" SHALL BE DOUGLAS FIR LARCH #2 2X4 STUDS AT 16" O.C. FULL HEIGHT CONTINUOUS (UNLESS OTHERWISE NOTED).

ALL WALLS 12" AND OVER SHALL BE DOUGLAS FIR #2 (M-12) LUMBER 2X6 STUDS AT 16" O.C. FULL HEIGHT CONTINUOUS (UNLESS OTHERWISE NOTED).

GIRDER TRUSS BEARING:

MIN. STUD PACK OF (4) 2 x 4 OR (4) 2 x 6 DOUGLAS FIR LARCH #2 (DEPENDING ON WALL THICKNESS) BELOW EACH BEARING POINT OF EACH GIRDER TRUSS, UNLESS OTHERWISE NOTED. STUD PACKS SHALL BE CARRIED DOWN TO FOUNDATION OR LOAD SUPPORTING MEMBER.

PROVIDE 2X SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR FOUNDATION BELOW.



TOWNHOUSE WIND BRACING IS STRUCTURALLY INDEPENDENT PER UNIT PER 2018 IRC R302.2.6

BRACING METHODS

EXTERIOR BRACING CS-WSP PER IRC R602.10

EXTERIOR BRACING WSP PER IRC R602.10 (INCLUDES PARTIAL PANELS PER IRC R602.10.5.2)

INTERIOR BRACING LIB PER IRC R602.10

MINIMUM LIB LENGTH PER 2018 IRC TABLE R602.10.5:

55' - 8' TALL WALL HEIGHT

62' - 9' TALL WALL HEIGHT

69' - 10' TALL WALL HEIGHT

EXTERIOR BRACING PFH (SEE DETAILS) PER IRC R602.10.5

INTERIOR LOAD BEARING WALL (EXTERIOR WALLS ARE ASSUMED LOAD BEARING)

IRC TABLE N1102.1.2 (R402.1.2) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (PARTIAL)										
CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC**	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE R-VALUE
4 EXCEPT MARINE	.32	.55	.40	49	20 OR 13+5	8/13	19	10/13	10, 2 FT	10/13

UPPER FLOOR PLAN NOTES

- 2.12 2X6 STUD WALL
- 2.31 44" PONY WALL WITH TRIM CAP
- 2.31 SIX SIDED TUB ASSEMBLY INCLUDING THERMOPLY ON EXTERIOR WALL TO 2" ABOVE TOP OF TUB DECK OR TUB/SHOWER UNIT
- 4.51 SINGLE BOX VAULT
- 5.23 FIBERGLASS SHOWER UNIT
- 6.42 HVAC - BUMP TRUSSES AS NECESSARY FOR HVAC ACCESS.
- 6.51 1"-10"x3"-0" MINIMUM ATTIC ACCESS WITH 3/4" BACKER BOARD AND 2 LATCHES. BUMP TRUSSES FOR ATTIC ACCESS.
- 7.66 LINE OF FLOOR BELOW

GENERAL NOTES

DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VARY PER VENDOR.

WINDOW SIZES ARE WRITTEN IN FEET AND INCHES PER INDUSTRY STANDARDS. EX: 3050 SH = 3'-0" X 5'-0" SINGLE HUNG, 3066 FIX = 3'-0" X 6'-6" FIXED.

CPG DBA

clover & hive

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816-246-6700

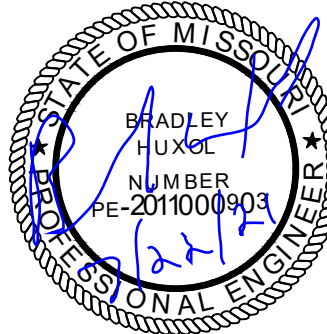
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UNIT B: 3712 SW WALSH DR  
UNIT C: 3714 SW WALSH DR  
UNIT D: 3716 SW WALSH DR

JUNEAU - TOWNHOME  
FARMHOUSE  
OSAGE #10

PROFESSIONAL SEAL:



EVERSTEAD IS RESPONSIBLE FOR STRUCTURAL SPECIFICATIONS ONLY. ARCHITECTURAL PLANS WERE PRODUCED BY OTHERS.

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816-399-4901

DRAWN BY:  
C.HOOPER

ISSUE DATE:  
06.16.21

SHEET NUMBER:

A5.0

UPPER LEVEL PLAN

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



TRUSS ROOF NOTES: (BY OTHERS)  
1) DESIGNED FOR LIGHT ROOF COVERING  
TOP CHORD:  
LIVE LOAD/SNOW LOAD (PSF): 25  
DEAD LOAD (PSF): 10  
BOTTOM CHORD:  
DEAD LOAD (PSF): 10  
2) ALL EXTERIOR AND/OR LOAD BEARING WALL HEADERS SHALL BE MIN. (2) #2 2 x 10 UNLESS OTHERWISE NOTED.  
3) CONSULT ENGINEER IF TRUSSES BEAR ON INTERIOR WALLS SHOWN AS NON-LOAD BEARING ON APPROVED PRINTS.  
4) ROOF IS ENGINEERED TO COMPLY WITH IRC 802

→ = ROOF TRUSS FRAMING DIRECTION  
"G.T." = GIRDER TRUSS LOCATION  
= INTERIOR LOAD BEARING WALL

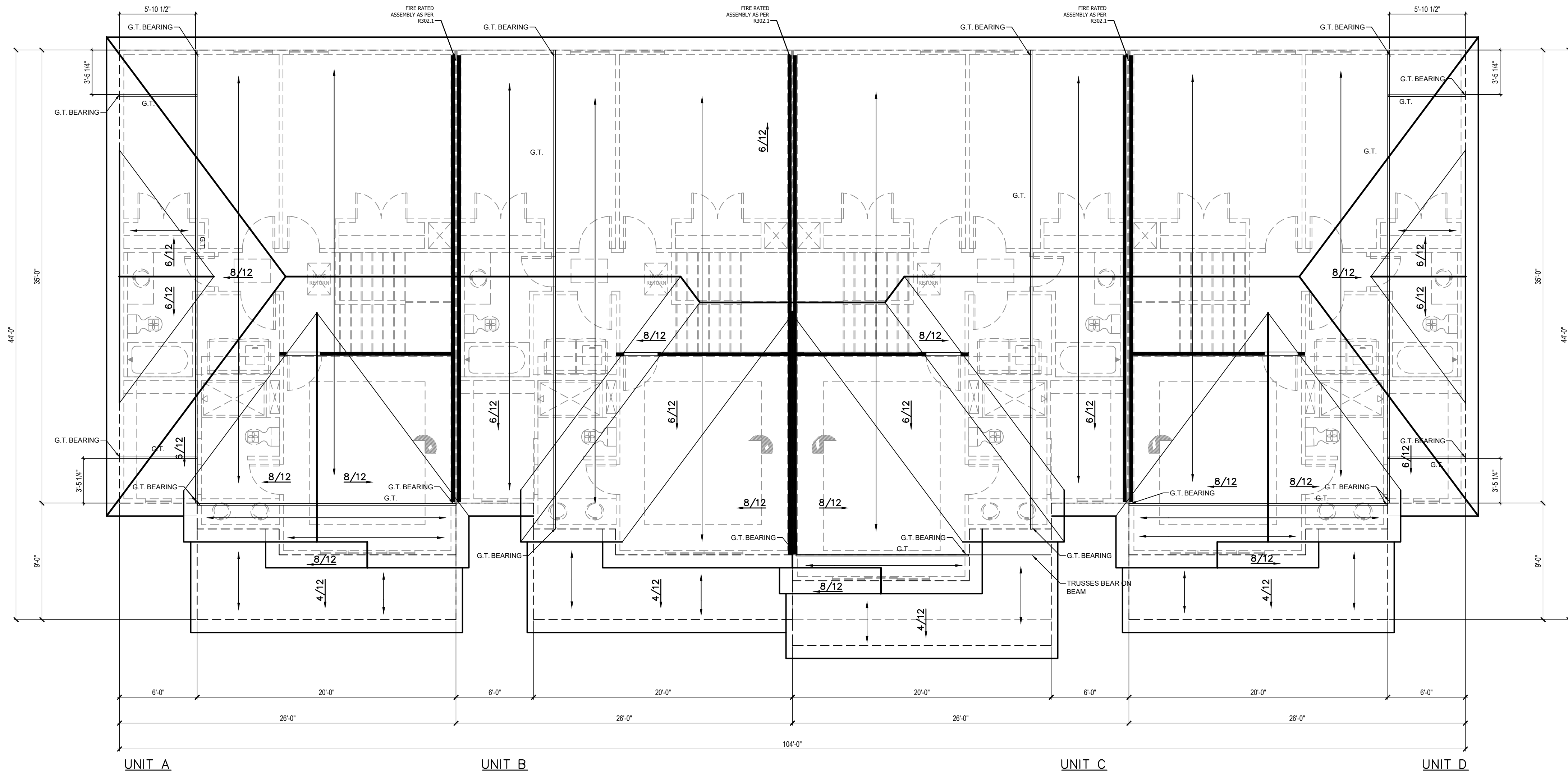
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UNLESS OTHERWISE NOTED, STUD PACKS SHALL BE CARRIED DOWN TO FOUNDATION OR LOAD SUPPORTING MEMBER.

PROVIDE 2X SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR FOUNDATION BELOW.

NOTE:

ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ATTACHED ENGINEER SPECIFICATIONS WHERE APPLICABLE.

ROOF:  
ROOF IS DESIGNED FOR 20 PSF SNOW LOAD.  
WOOD TRUSSES SHALL BE IN ACCORDANCE WITH IRC SECTION R802.10.  
CEILING JOIST OR RAFTER TIE CONNECTIONS BETWEEN RAFTERS, RIDGE BEAM, REQUIRED COLLAR TIES OR RIDGE STRAPS SHALL COMPLY WITH DETAILS AND IRC SECTION R802, R802.3, R802.3.1, R802.11.



ROOF PLAN NOTES

- 4.11 MINIMUM ROOFING COMPOSITION- 30 YR COMPOSITE SHINGLES ON 15# FELT ON 1/2" OSB SHEATHING OR AS REQUIRED BY CODE.
- 4.13 STANDING SEAM METAL ROOF. INSTALL PER CODES AND MANUFACTURER'S RECOMMENDATIONS.
- 4.31 BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE.

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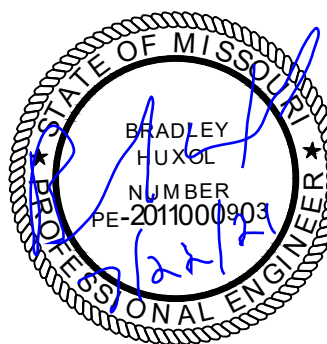
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816-399-4901

DRAWN BY:  
C.HOOPER

ISSUE DATE:  
06.16.21

SHEET NUMBER:

A6.0

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

GENERAL NOTES

DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VARY PER VENDOR.

WINDOW SIZES ARE WRITTEN IN FEET AND INCHES PER INDUSTRY STANDARDS. EX: 3050 SH = 3'-0" X 5'-0" SINGLE HUNG, 3066 FIX = 3'-0" X 6'-6" FIXED.



GENERAL NOTES

PLANS SHALL COMPLY WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH AMENDMENTS AS ADOPTED BY THE APPROPRIATE GOVERNING JURISDICTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IF ANY CHANGES OR DEVIATIONS FROM THE PLAN ARE MADE DURING CONSTRUCTION. THE ENGINEER OF RECORD MAY REQUIRE REVISED DRAWING OR CALCULATIONS AT ITS DISCRETION.

IF DISCREPANCIES ARE IDENTIFIED THE MOST CONSERVATIVE SPECIFICATION SHALL APPLY.

LOADING

DEAD		
LIGHT ROOF	10 PSF	(CONCRETE, SLATE, TILE)
HEAVY ROOF	+10 PSF	
ROOF + CEILING (NO STORAGE)	15 PSF	
ROOF + CEILING (STORAGE)	20 PSF	
CEILING JOISTS (STORAGE)	10 PSF	
EXTERIOR BACONIES / DECK	10 PSF	
INTERIOR FLOOR (MAIN FLOOR)	15 PSF	
INTERIOR FLOOR (UPPER FLOORS)	10 PSF	
8" THICK MASONRY WALL	80 PSF	
6" THICK MASONRY WALL	85 PSF	
EXTERIOR LIGHT FRAMED WOOD WALLS	15 PSF	* (INTERIOR WALLS INCLUDED IN 15 PSF DEAD LOAD)
INTERIOR LIGHT FRAMED WOOD WALLS	10 PSF*	
LIVE		
ROOF LIVE LOAD	15 PSF	(HABITABLE)
FLOOR LIVE LOAD	40 PSF	
GARAGE	50 PSF	
STORAGE	20 PSF	
GUARDRAIL	50 PSF	(UN-INHABITABLE)
CONTINUOUS LINEAR	50 PLD	
MAXIMUM POINTLOAD	200 LBS	
SNOW		
GROUND SNOW LOAD	20 PSF	
WIND		
ULTIMATE DESIGN WIND SPEED VELOCITY	115 MPH	
EXPOSURE CATEGORY	B	

SOIL AND SITE ASSUMPTIONS:

- FOUNDATION DESIGN ASSUME A MINIMUM SOIL BEARING PRESSURE FOR THE SITE OF 1,500 PSF. CONTRACTOR TO VISUALLY INSPECT SITE OR PROVIDE GEOTECHNICAL INVESTIGATION TO VERIFY MINIMUM ACCEPTABLE SOIL CONDITIONS SW, SP, SM, SC, GM, AND GX AS DEFINED PER IRC TABLE R301.5. THE CONTRACTOR IS RESPONSIBLE FOR ANY SOIL CONDITION THAT DOES NOT MEET THE MINIMUM REQUIREMENTS AND CONTACTING THE ENGINEER OF RECORD.
- PROVIDE A MINIMUM SOIL COVER OF 36 INCHES MEASURED FROM THE BOTTOM OF CONCRETE ON ALL FOUNDATIONS.
- ACCESSORY STRUCTURES WITH AN EAVE HEIGHT LESS THAN 10'-0" AND AN AREA LESS THAN 600 FT<sup>2</sup> MAY PROVIDE A MINIMUM SOIL COVER OF 12 INCHES MEASURED FROM THE BOTTOM OF CONCRETE.
- SITE GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AT A MINIMUM OF 0.5%.
- LATERAL SOIL PRESSURES
  - ACTIVE 30 PSF
  - AT-REST 60 PSF
  - PASSIVE 150 PSF

FOUNDATION NOTES:

FOUNDATION ANCHORAGE (IRC 403.1.6)

SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WALL WITH A MINIMUM 1/2" DIAMETER ANCHOR BOLTS EMBEDDER AT LEAST 7" INTO THE CONCRETE. BOLTS SHALL BE SPACED NO GREATER THAN 6" O.C. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION, WITH A BOLT PLACED WITHIN 12" AND NOT CLOSER THAN 7 BOLT DIAMETERS, OF THE END OF EACH PLATE SECTION. A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH BOLT TO THE PLATE. (NOTE: 7" EMBEDMENT + 1-1/2" SILL PLATE + 3/4" FOR NUT AND WASHER EXCEEDS A 9" LONG BOLT.)

WALL BRACING METHODS PER IRC R602 MAY REQUIRE ADDITIONAL ANCHORAGE.

CONCRETE SLABS PLACED ON FILL MATERIAL WHICH EXCEEDS 24" OF COMPACTED GRANULATED MATERIAL (SAND OR GRAVEL) OR 8" OF EARTH: THIS MAY OCCUR AT GARAGE FLOOR FILLS, OR OVER EXCAVATED AREAS UNDER FLOOR SLABS. THE DESIGN AND INSTALLATION DETAILS IN THIS DOCUMENT (WHERE APPLICABLE BASED ON SIZE AND SPACING LIMITATIONS) MAY BE USED IN LIEU OF PROVIDING A SEPARATE DESIGN. STRUCTURAL SLABS EXCEEDING THE SPANS AND CONDITIONS OF THE APPROVED DETAILS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.

SLABS AT MAX 4" OVER-DIG ADJACENT TO FOUNDATION WALL: WHERE SOIL IS EXCAVATED FOR A MAXIMUM DIMENSION OF 4" HORIZONTALLY ADJACENT TO A FOUNDATION WALL, THE STANDARD OVER-DIG DETAIL MAY BE USED IN LIEU OF A COMPLETE STRUCTURAL SLAB. SEE "TYPICAL FOOTING/FOUNDATION WALL/STANDARD SLAB AT MAX 4" OVER-DIG DIAGRAM FOR DETAILS.

VAPOR RETARDER / BARRIER (IRC R506.2.3)

A 6 MIL POLYETHYLENE OR APPROVED VAPOR RETARDER WITH JOINTS LAPPED A MINIMUM OF 6" IS REQUIRED BETWEEN THE CONCRETE FLOOR SLAB AND THE BASE COURSE OR PREPARED SUBGRADE, (NOT REQUIRED FOR GARAGE SLABS OR DETACHED ACCESSORY BUILDINGS)

FOUNDATION AND LOT GRADING (IRC R401.3)

GRADES SHALL BE SLOPED AWAY FROM THE FOUNDATION A MINIMUM OF 6" IN THE FIRST 10'. ALTERNATE APPROACHES MAY BE APPROVED IF THE ALTERNATE DESIGN IS EQUIVALENT IN EFFECTIVENESS AND PERFORMANCE, AND PROVIDES FOR POSITIVE SITE DRAINAGE.

IRC R403.1.4

- THE BOTTOM OF ALL FOOTINGS SHALL EXTEND NOT LESS THAN 36" BELOW GRADE FOR FROST PROTECTION.
- FOOTINGS FOR FREESTANDING ACCESSORY STRUCTURES WITH AN AREA OF 600 SF OR LESS AND AN EAVE HEIGHT OF 10' OR LESS SHALL EXTEND BELOW GRADE A MINIMUM OF 12".

FOOTINGS:

EXTERIOR WALLS, BEARING WALLS, COLUMN AND PIERS SHALL BE SUPPORTED ON CONTINUOUS SOLID MASONRY OR CONCRETE FOOTINGS, OR APPROVED STRUCTURAL SYSTEM TO SAFELY SUPPORT THE IMPOSED LOADS AND SHALL BE SIZED AND REINFORCED IN ACCORDANCE WITH THIS STANDARD OR SHALL BE ENGINEERED DESIGN. FOOTINGS UNDER FOUNDATION WALLS SHALL BE CONTINUOUS AROUND THE STRUCTURE AND FROM ONE LEVEL TO THE NEXT. THE CONTINUOUS TRANSITIONS BETWEEN FOOTINGS AT DIFFERENT LEVELS ENCLOSING USABLE SPACE SHALL BE MADE BY APPROVED SOLID JUMPS OR SUPPORT SYSTEMS TO PROVIDE SAFE SUPPORT OF THE STRUCTURE. SEE "TYPICAL FOOTING/FOUNDATION WALLS/STANDARD SLAB AT MAXIMUM 4" OVER-DIG AND "FOOTING JUMP" DIAGRAMS FOR MORE DETAIL (PER KC, MO STANDARDS)

CONCRETE

- ALL CONCRETE CONSTRUCTION SHOULD CONFORM TO ACI 318-11 AND THE 2018 INTERNATIONAL RESIDENTIAL CODE.
- THE MINIMUM CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE AS SPECIFIED IN IRC TABLE R402.2.
- CONCRETE MIX TO UTILIZE A MAXIMUM WATER-CEMENT MATERIALS RATIO OF 0.45 FOR ALL APPLICATIONS. ALL CONCRETE TO HAVE MAXIMUM 0.10 PERCENT WATER SOLUBLE CHLORIDE CONTENT BY WEIGHT OF CEMENT. ADMIXTURES SHALL NOT CONTAIN ANY CHLORIDES.
- CONCRETE POURED AGAINST AN EXISTING SURFACE SHOULD BE ROUGHENED TO A MINIMUM 1/4 INCH AMPLITUDE.
- REBAR CLEAR DISTANCE SHALL BE AS FOLLOWS:
  - CAST AGAINST AND PERMANENT CONTACT WITH GROUND 3 IN
  - EXPOSED TO WEATHER OR IN CONTACT WITH GROUND 2 IN
  - NOT EXPOSED TO WEATHER OR GROUND 1.5 IN
- CONCRETE MIX DESIGN SHALL BE 6% (±1%) AIR-ENTRAINED FOR GARAGE SLABS, FOOTINGS, WALLS, OR FLATWORK EXPOSED TO WEATHER.
- SHORING AND RESHORING:
  - SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE CONCRETE STRENGTH REACHES 70% OF STRENGTH DETERMINED BY CYLINDERS OR 28 DAYS.
  - SHORING MAY NOT BE REMOVED SOONER THAN RECOMMENDED BY ASTM 374-04 SECTION 3.7.2.3.

MINIMUM STANDARDS:

CONCRETE SHALL BE 6% (±1%) AIR-ENTRAINED FOR GARAGE SLABS AND FOR ALL LOCATION'S FOOTINGS, WALLS OR FLATWORK WHERE EXPOSED TO WEATHER. REBAR SHALL BE MINIMUM 60 KSI UNLESS NOTED OTHERWISE. REINFORCING BAR SHALL BE GRADE 60 MINIMUM.

CONCRETE REINFORCEMENT STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
- SMOOTH BARS OR WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185.
- ALL REBAR LAP SPLICES SHALL BE CLASS B LAP SPLICES AS SHOWN ON THE LAP SPLICE SCHEDULE.
- DEVELOPMENT LENGTH NOTED IS EQUAL TO 80% OF THE LENGTH NOTED IN THE LAP SPLICE SCHEDULE.
- 90% HOOK SHOWN IN DRAWINGS SHALL BE STANDARD PER ACI 318-14
  - STRAIGHT EXTENSION LENGTH = 12X $d_{bar}$
  - BEND DIAMETER = 12X $d_{bar}$
- LAP SPLICE SCHEDULE (SEE TABLE 1.1)
- HOOKED DOWELS:
  - HOOKED DOWELS FROM FOUNDATIONS TO WALL SHALL BE PROVIDED TO MATCH VERTICAL WALL REINFORCING AND EXTENDED TO 3" CLEAR FROM BOTTOM OF FOUNDATION
  - HOOKED DOWELS MATCH SLAB REINFORCING FROM SLAB TO WALLS OR SLAB TO FOUNDATION
- PROVIDE 2 - #5 BARS AROUND PERIMETER OF ALL SUSPENDED SLABS
- HORIZONTAL WALL REINFORCING SHALL TERMINATE AT THE END OF THE WALL WITH A STANDARD HOOK
- TOP AND BOTTOM HORIZONTAL REINFORCING SHALL BE PLACED 1-1/2" TO 2" FROM THE TOP AND BOTTOM OF THE WALL

FOOTNOTES:

- WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB.
- VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT AND FOR REINFORCEMENT SPACED 24" O.C. MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT PLACE 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.
- 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" O.C.
  - 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 REBAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.
- REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.
- 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 THICKNESS LESS THAN 4" PROVIDE #4 BARS AT MAXIMUM 24" O.C. TO WITHIN 8" OF THE TOP OF THE WALL.
- STRAIGHT WALLS MORE THAN 5' TALL AND MORE THAN 16" LONG SHALL BE PROVIDED WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS (SEE TYPICAL DEAD MAN SECTION).

TABLE 1.1

NORMAL WEIGHT CONCRETE LAP SPLICE SCHEDULE, IN				
BAR SIZE	TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2
#3	28	42	22	32
#4	37	56	29	43
#5	47	70	36	54
#6	56	84	43	64

STEEL DECK - SUSPENDED SLABS

- STEEL DECK QUALITY, FABRICATION, DELIVERY, INSTALLATION AND ATTACHMENT SHALL COMPLY WITH THE PROVISIONS OF THE STEEL DECK INSTITUTE, SDI.
- STEEL ROOF DECK SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON CONSTRUCTION DRAWINGS:
  - WIDE RIB CONFIGURATION
  - 1.5" DEPTH
  - 24GA DESIGN THICKNESS
  - MAXIMUM SINGLE SPAN OF 4'-8" OR CONTINUOUS SPAN OF 5'-10"
  - GALVANIZE PER ASTM A653 OR SHOP PRIME PER ASTM A1008
  - ATTACH STEEL ROOF DECK TO SUPPORTS WITH #12 TEK AT 18" O.C.
  - ATTACH STEEL ROOF DECK SIDELAPS WITH #10 TEK OR CRIMP/BUTTON PUNCH AT 36" O.C. OR MID-SPAN, WHICHEVER IS SMALLER
- CONTRACTOR AND/OR DECK MANUFACTURER SHALL FURNISH ALL NECESSARY DECK CLOSURE ACCESSORIES TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF ROOF INSULATION AND ROOF COVERING.
- STEEL F



2018 IRC TABLE R602.3(1) (SEE IRC FOR FOOTNOTES)			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF			
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8D BOX (2-1/2"x0.113") OR 3-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	TOE NAIL
2	CEILING JOISTS TO TOP PLATE	4-8D BOX (2-1/2"x0.113") OR 3-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	PER JOIST, TOE NAIL
3	CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER LAPS OVER PARTITIONS	4-10D BOX (3" X 0.128"); OR 3-16D COMMON (3-1/2" X 0.162"); OR 4-3" X 0.131" NAILS	FACE NAIL
4	CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	TABLE R802.5.2	FACE NAIL
5	COLLAR TIE TO RAFTER, FACE NAIL OR 1-1/4"x20 GAGE RIDGE STRAP TO RAFTER	4-10D BOX (3" X 0.128"); OR 3-10D COMMON (3" X 0.148"); OR 4-3" X 0.131" NAILS	FACE NAIL EACH RAFTER
6	RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS (3-1/2"x0.135") OR 3-10d COMMON NAILS (3"x0.148"); OR 4-10D BOX (3" X .128"); OR 4-3" X 0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
7	ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16D (3-1/2"x0.135") ; OR 3-10D COMMON (3" X 0.148"); OR 4-10D BOX (3" X 0.128"); OR 4-3" X0.131" NAILS	TOE NAIL
		3-16d BOX NAILS (3-1/2"x0.135") OR 2-16D COMMON NAILS (3-1/2"x0.162"); OR 3-10D BOX (3" X .128"); OR 3-3" X 0.131" NAILS	END NAIL
WALL			
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16D COMMON (3-1/2" X 0.162") 10d BOX (3"x0.128"); OR 3" X 0.131" NAILS	24" O.C. FACE NAIL 16" O.C. FACE NAIL
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16D BOX (3-1/2"x0.135"); OR 3" X 0.131" NAILS 16D COMMON (3-1/2" X 0.162")	12" O.C. FACE NAIL 16" O.C. FACE NAIL
10	BUILT-UP HEADER (2" TO 2" HEADER WITH ½" SPACER)	16D COMMON (3-1/2"x0.162") 16D BOX (3-1/2" X 0.135)	16" O.C. ALONG EACH EDGE FACE NAIL 12" ALONG EACH EDGE FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8D BOX (2-1/2" X 0.113"); OR 4-8D COMMON (2-1/2" X 0.131"); OR 4-10D BOX (3" X 0.128")	TOENAIL
12	TOP PLATE TO TOP PLATE	16D COMMON (3-1/2" X 0.162") 10d BOX (3"x0.128"); OR 3" X 0.131" NAILS	16" O.C. FACE NAIL 12" O.C. FACE NAIL
13	DOUBLE TOP PLATE SPLICE	8-16D COMMON(3-1/2" X 0.162"); OR 12-16D BOX (3-1/2" X 0.135"); OR 12-10D BOX (3" X 0.128"); OR 12-3" X 0.131" NAILS	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16D COMMON (3-1/2" X 0.162") 16D BOX (3-1/2"x0.135"); OR 3" X 0.131" NAILS	16" O.C. FACE NAIL 12" O.C. FACE NAIL
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (AT BRACED WALL PANELS)	3-16d BOX NAILS (3-1/2"x0.135") OR 2-16D COMMON (3-1/2"x0.162"); OR 4-3" X 0.131" NAILS	3 EACH 16" O.C. FACE NAIL 2 EACH 16" O.C. FACE NAIL 4 EACH 16" O.C. FACE NAIL
16	TOP OR BOTTOM PLATE TO STUD	4-8D BOX (2-1/2"x0.113") OR 3-16D BOX (3-1/2" X 0.135"); OR 4-8D COMMON (2-1/2" X 0.131"); OR 4-10D BOX (3" X 0.128"); OR 4-3" X 0.131" NAILS	TOE NAIL
		3-16D BOX (3-1/2" X 0.135"); OR 2-16D COMMON (3-1/2" X 0.162"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" X 0.128"); OR 2-16D COMMON (3-1/2" X 0.162"); OR 3-3" X 0.131" NAILS	FACE NAIL
18	1" BRACE TO EACH STUD AND PLATE	3-8D BOX (2-1/2" X 0.113"); OR 2-8D COMMON (2-1/2" X 0.131"); OR 2-10D BOX (3" X 0.128"); OR 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL
19	1"x6" SHEATHING TO EACH BEARING	3-8D BOX (2-1/2" X 0.113"); OR 2-8D COMMON (2-1/2" X 0.131"); OR 2-10D BOX (3" X 0.128"); OR 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL
20	1"x8" AND WIDER SHEATHING TO EACH BEARING	3-8D BOX (2-1/2" X 0.113"); OR 3-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 3 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG WIDER THAN 1" X 8" 4-8D BOX (2-1/2" X 0.113"); OR 3-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 4 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL

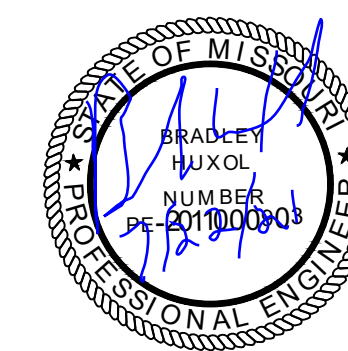
TABLE RS07/2 FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER 2" NOMINAL SOLID SAWN SPRUCE-PINE-FIR BAND JOIST (DECK LIVE LOAD = 40PSF, DECK DEAD LOAD = 10 PSF)							
JOIST SPAN	6' AND LESS	6'1 TO 8'	8'1 TO 10'	10'1 TO 12'	12'1 TO 14'	14'1 TO 16'	16'1 TO 18'
CONNECTION DETAILS	ON CENTER SPACING OF FASTENERS						
1/2" DIAMETER LAG SCREW WITH 15/32" MAX SHEATHING	30	23	18	15	13	11	10
1/2" DIAMETER BOLT WITH 15/32" MAX SHEATHING	36	36	34	29	24	21	19
1/2" DIAMETER BOLT WITH 15/32" MAX SHEATHING AND 1/2" STACKED WASHERS	36	36	29	24	21	18	16

2018 IRC TABLE R602.3(1) (SEE IRC FOR FOOTNOTES)			
FLOOR			
21	JOST TO SILL, TOP PLATE OR GIRDER	4-8D BOX (2-1/2" X 0.113"); OR 3-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	TOE NAIL
22	RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2-1/2"x0.113") 8D COMMON (2-1/2" X 0.131"); OR 10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS	4" O.C. TOE NAIL 6" O.C. TOE NAIL
23	1"x6" SUBFLOOR OR LESS TO EACH JOIST	3-8D BOX (2-1/2" X 0.113"); OR 2-8D COMMON (2-1/2" X 0.131"); OR 3-10D BOX (3" X 0.128"); OR 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL
FLOOR			
24	2" SUBFLOOR TO JOIST OR GIRDER	3-16D BOX (3-1/2" X 0.135"); OR 2-16D COMMON (3-1/2"x0.162")	BLIND AND FACE NAIL
25	2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	3-16D BOX (3-1/2" X 0.135"); OR 2-16D COMMON (3-1/2"x0.162")	AT EACH BEARING, FACE NAIL
26	BAND OR RIM JOIST TO JOIST	3-16D COMMON (3-1/2" X 0.162"); OR 4-10 BOX (3" X 0.128"); OR 4-3" X 0.131" NAILS ; OR 4-3" X 14 GA. STAPLES, 1½" CROWN	END NAIL
27	BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20D COMMON (4" X 0.192"); OR	NAIL EACH LAYER AS FOLLOWS: 32" O.C. AT TOP END AND BOTTOM AND STAGGERED.
		10D BOX (3" X 0.128"); OR 3-16D COMMON (3-1/2" X 0.162"); OR AND: 2-20D COMMON (4" X 0.192"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16D BOX (3-1/2" X 0.135"); OR 3-16D COMMON (3-1/2" X 0.162"); OR 4-10D BOX (3" X 0.128"); OR 4-3" X 0.131" NAILS	AT EACH JOIST OR RAFTER, FACE NAIL
29	BRIDGING OR BLOCKING TO JOIST	2-10D BOX (3" X 0.128"); OR COMMON (2-1/2" X 0.131"; OR 2-3" X 0.131") NAILS	EACH END, TOE NAIL
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING OF FASTENERS
			EDGES (IN)      INTERMEDIATE SUPPORTS (IN)
30	3/8" - 1/2"	6d COMMON (2"x0.113") NAILS (SUBFLOOR, WALL) 8d COMMON (2-1/2"x0.131") NAIL (ROOF); OR RSR5-01 (2-3/8" X 0.113") NAIL (ROOF)	6      12
31	19/32"-1"	8d COMMON NAIL (2-1/2"x0.131"); OR RSR5-01 (2-3/8" X 0.113") NAIL (ROOF)	6      12
32	1-1/8" - 1-1.4"	10d COMMON (3"x0.148") NAIL OR 8D (2-1/2"x0.131") DEFORMED NAIL	6      12
OTHER WALL SHEATHING			
33	1/2" STRUCTURAL CELLULOIC FIBERBOARD SHEATHING	1-1/2" GALVANIZED ROOFING NAIL, 7/16" HEAD DIAMETER, OR 1-1/4" LONG 16 GA. STAPLE WITH ⅝" OR 1" CROWN	3      6
34	25/32" STRUCTURAL CELLULOISTIC FIBERBOARD SHEATHING	1-3/4" GALVANIZED ROOFING NAIL, 7/16" HEAD DIAMETER, OR 1-1/2" LONG 16 GA STAPLE WITH ⅝" OR 1" CROWN	3      6
35	1/2" GYPSUM SHEATHING	1-1/2" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1-1/2" LONG; 1-1/4" SCREWS, TYPE "W" OR "S"	7      7
36	5/8" GYPSUM SHEATHING	1-3/4" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1-5/8" LONG; 1-5/8" SCREWS, TYPE "W" OR "S"	7      7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
37	3/4" AND LESS	6D DEFORMED (2"x0.120") NAIL OR 8D COMMON (2-1/2"x0.131") NAIL	6      12
38	7/8" - 1"	8D COMMON (2-1/2"x0.131") NAIL OR 8D DEFORMED (2-1/2"x0.120") NAIL	6      12
39	1-1/8" - 1-1/4"	10D COMMON (3"x0.148") NAIL OR 8D DEFORMED (2-1/2"x0.120") NAIL	6      12

TABLE RS07.2.1 PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS				
MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS (INCHES)				
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
LEDGER	2	1/4	2	1-5/8
BAND JOIST	3/4	2	2	1-5/8

REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES IRC TABLE 602.3(3) (PARTIAL)						
MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (IN)	MAX WALL STUD SPACING	PANEL NAIL SPACING	
SIZE	PENETRATION (IN)				EDGES (IN O.C.)	FIELD (IN O.C.)
6d COMMON	1.5	24/0	3/8	16	6	12
8d COMMON	1.75	24/16	7/16	16	6	12
				24	6	12



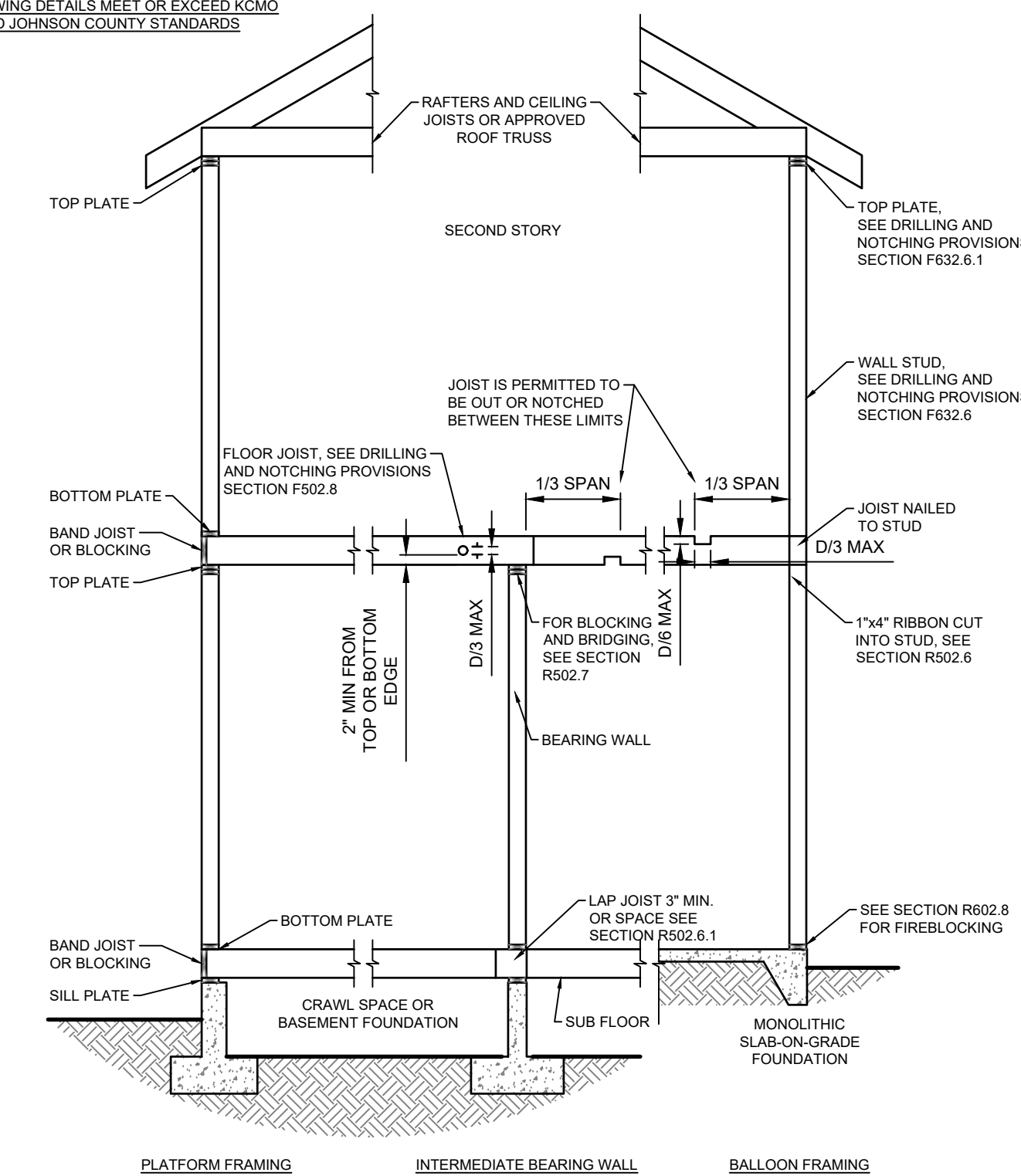


# STRUCTURAL DETAILS

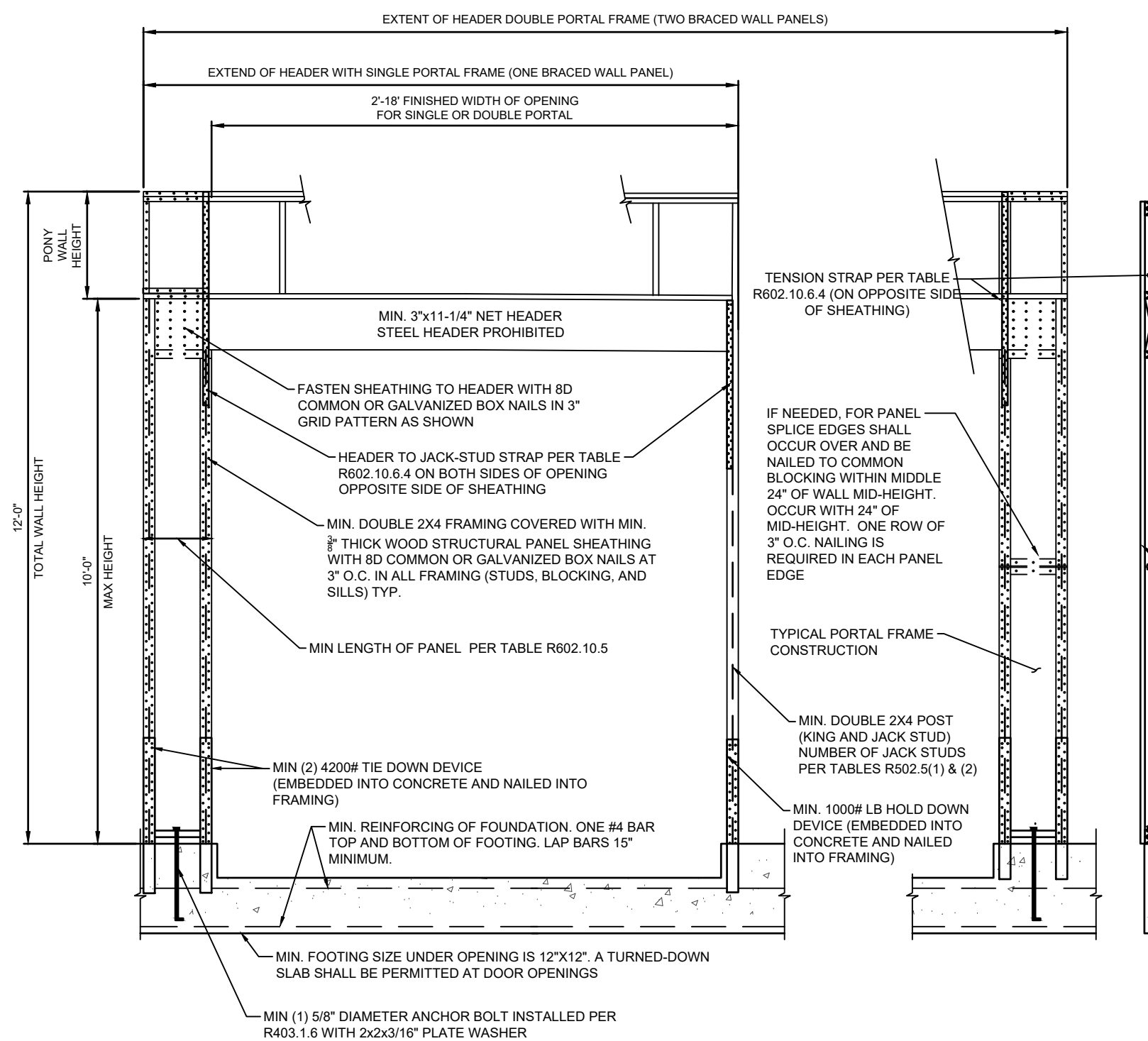
SHEET #

S2.0

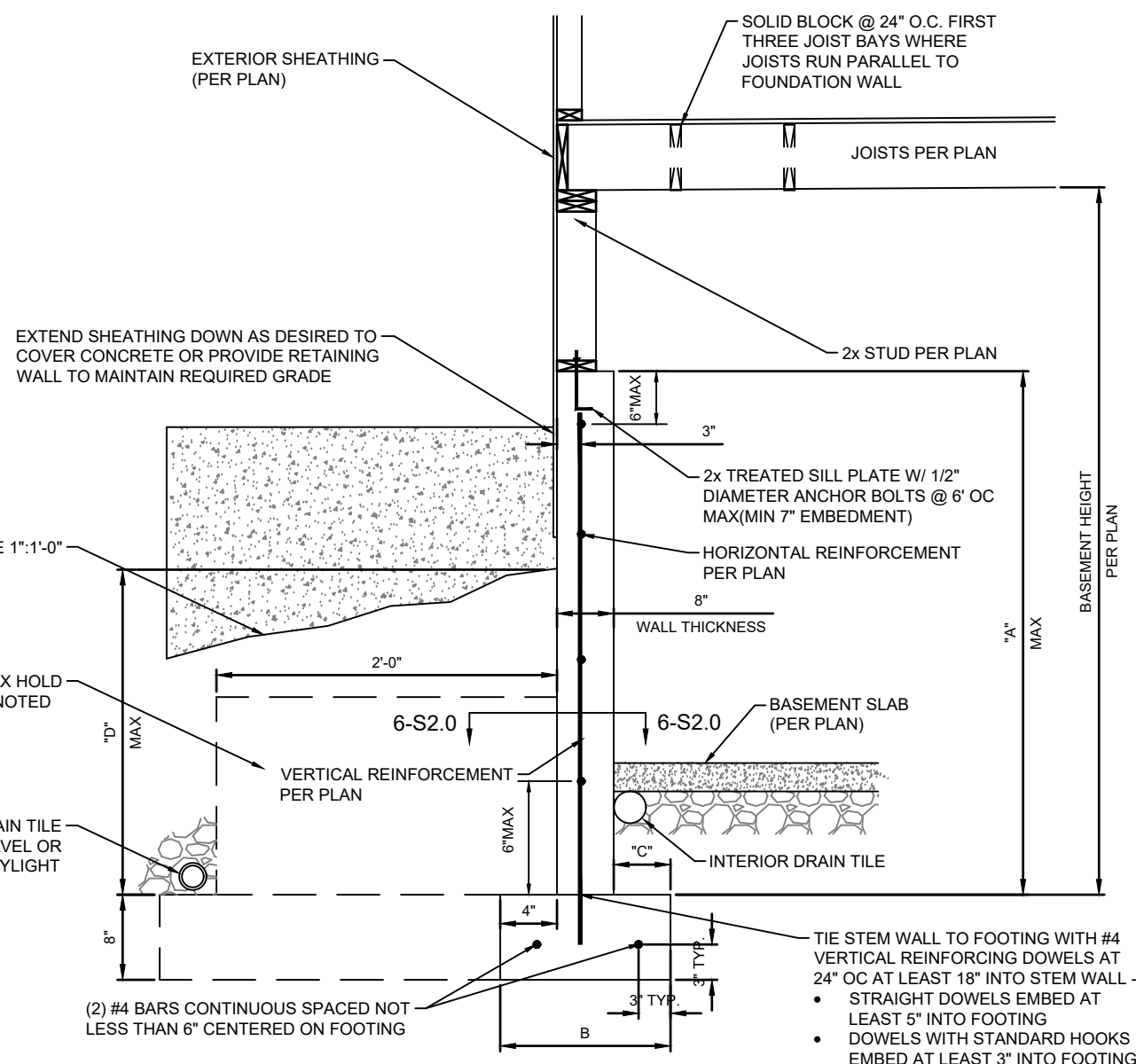
THE FOLLOWING DETAILS MEET OR EXCEED KCMO  
CPD-DS, AND JOHNSON COUNTY STANDARDS



11  
S2.0 TYPICAL WALL, FLOOR AND ROOF  
FRAMING (IRC FIGURE R602.3(1))  
N.T.S.



12  
S2.0 PORTAL FRAME WITH HOLD DOWNS  
(METHOD PFH) IRC FIGURE R602.10.6.2  
N.T.S.



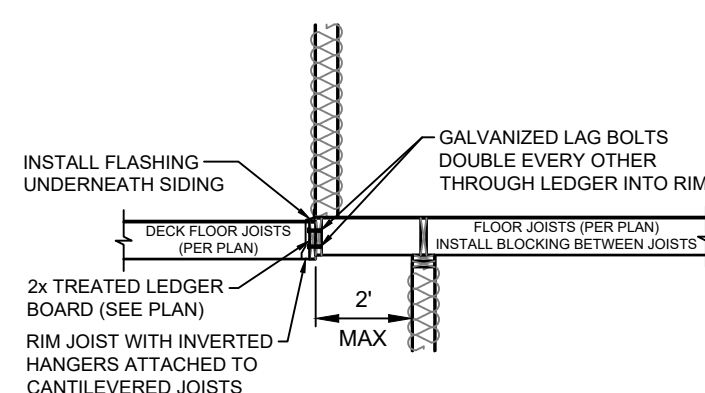
CONCRETE DIMENSIONS			
"A"	"B"	"C"	"D"
4'-0"	1'-4"	4"	3'-4"
6'-0"	1'-4"	4"	4'-4"
9'-0"	1'-8"	5"	4'-4"

DIMENSIONS SHOWN ARE FOR THE MAXIMUM UNINTERRUPTED WALL PANEL LENGTH BEFORE DEAD-MAN INSTALLATION. A MINIMUM 2" RETURN OR OFFSET IN THE FOUNDATION WALL SHALL SUBSTITUTE AS DEAD-MAN AND/OR BREAK IN THE WALL PANEL LENGTH.

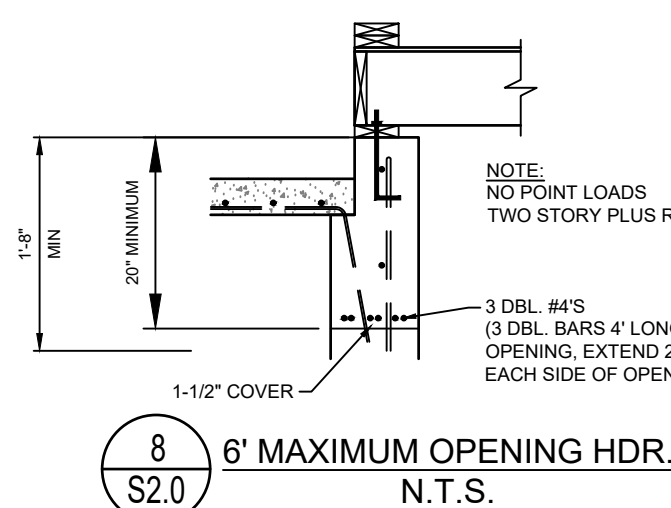
VERTICAL REINFORCING STEEL TO EXTEND TO WITHIN 6" OF TOP WALL. MINIMUM (1) #4 HORIZONTAL BAR WITHIN 12" OF TOP AND BOTTOM OF WALL.

THE BASEMENT SLAB IS AN INTEGRAL PART OF THE "UNRESTRAINED" FOUNDATION WALL DESIGN. THEREFORE IF THE WALL IS BACKFILLED PRIOR TO PLACEMENT OF THE BASEMENT SLAB, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY BRACING THE WALL UNTIL THE BASEMENT SLAB HAS BEEN PLACED.

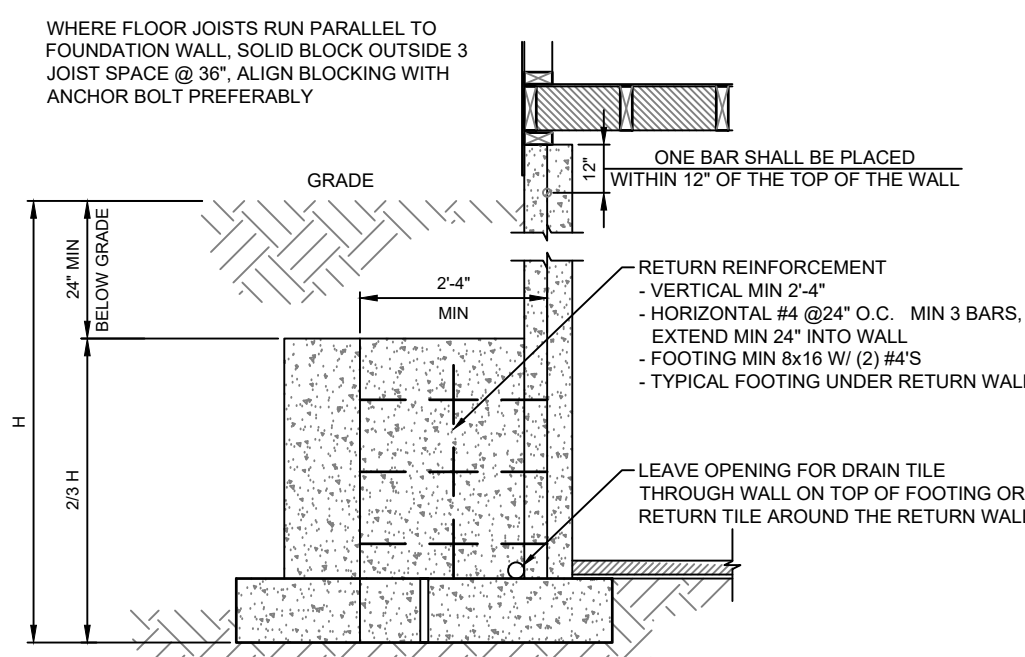
13  
S2.0 TYPICAL "UNRESTRAINED" FOUNDATION WALL DETAIL  
N.T.S.



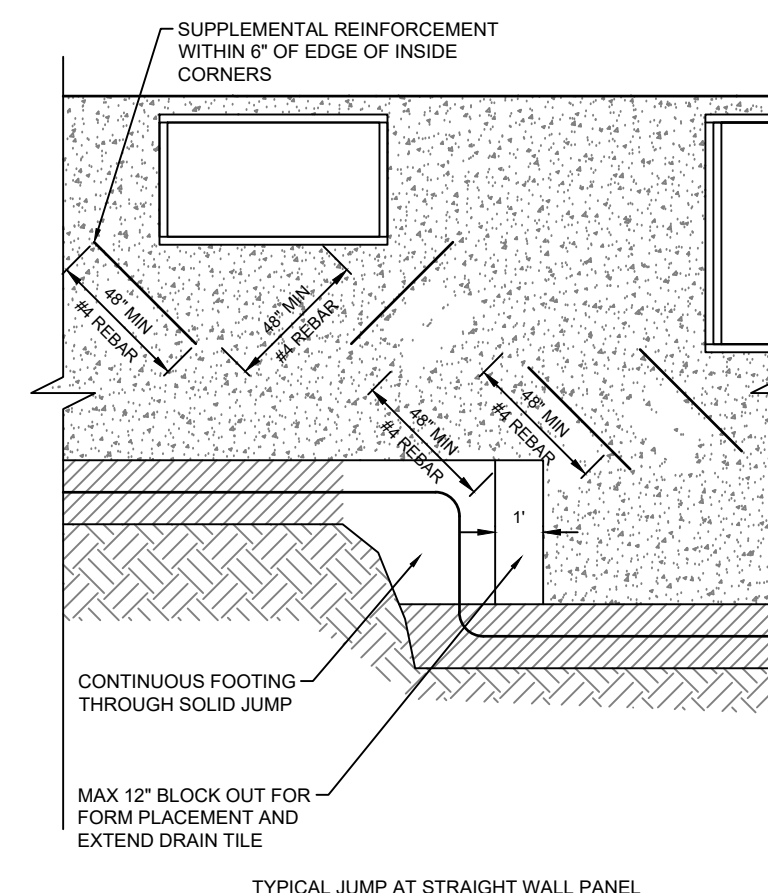
10  
S2.0 TYPICAL CANTILEVER FRAMING WITH  
DECK ATTACHMENT  
N.T.S.



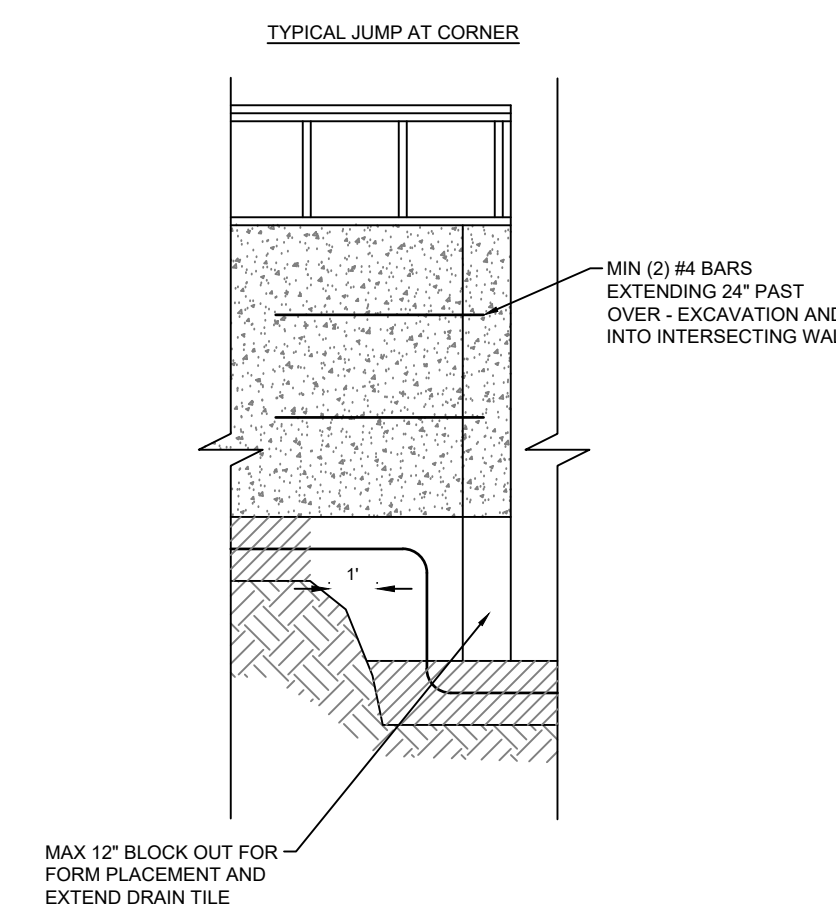
8  
S2.0 6' MAXIMUM OPENING HDR.  
N.T.S.



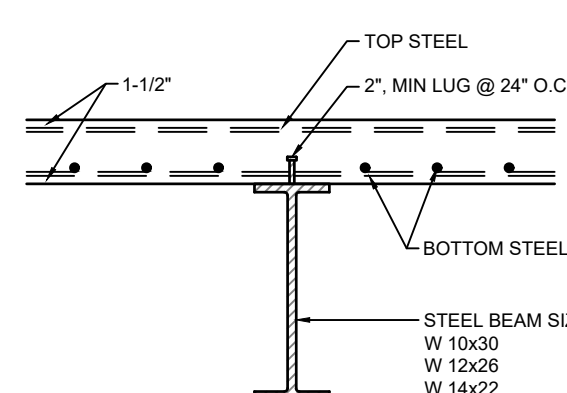
7  
S2.0 TYPICAL DEAD MAN SECTION  
N.T.S.



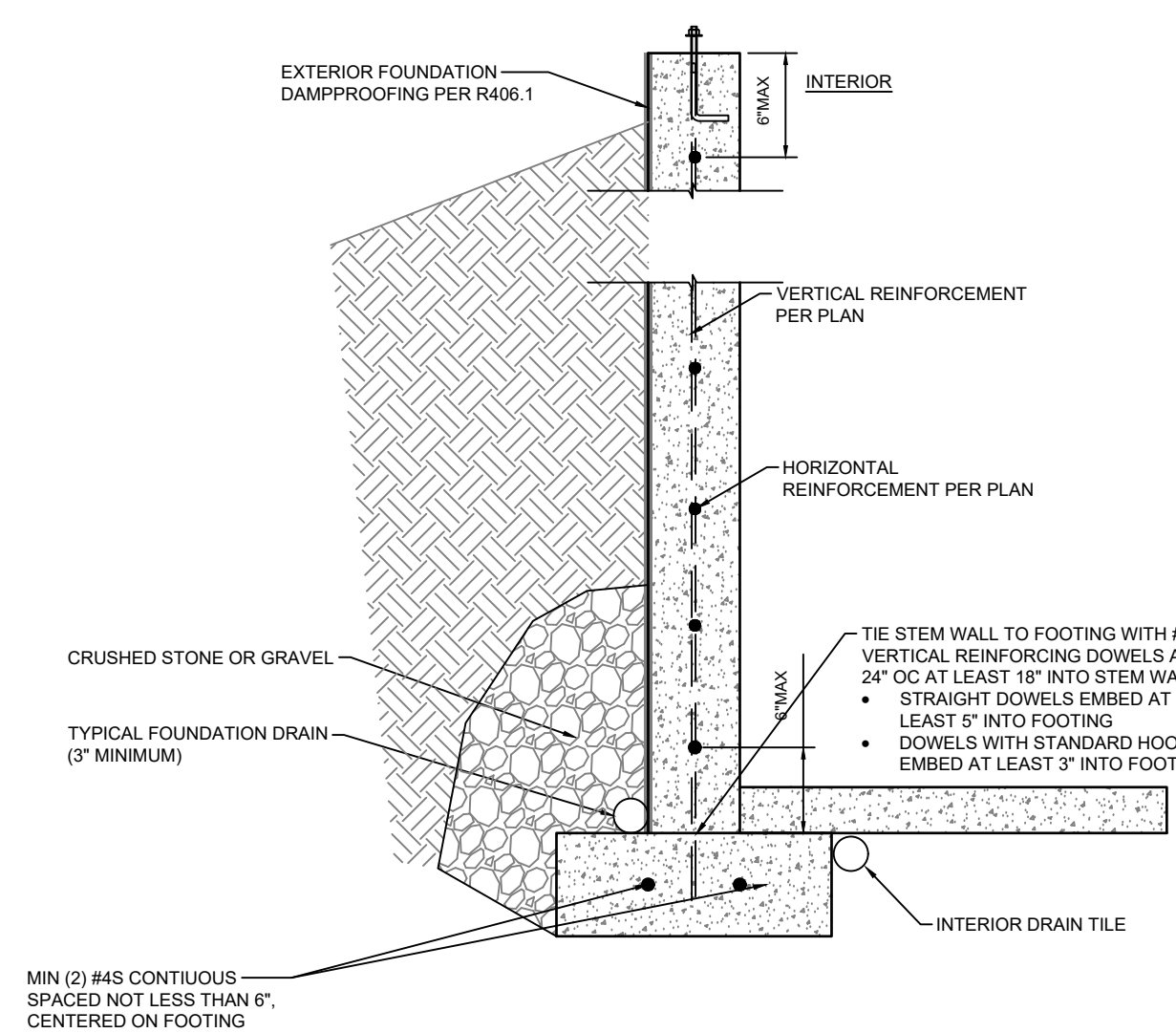
6  
S2.0 FOUNDATION WALL JUMP DETAIL  
N.T.S.



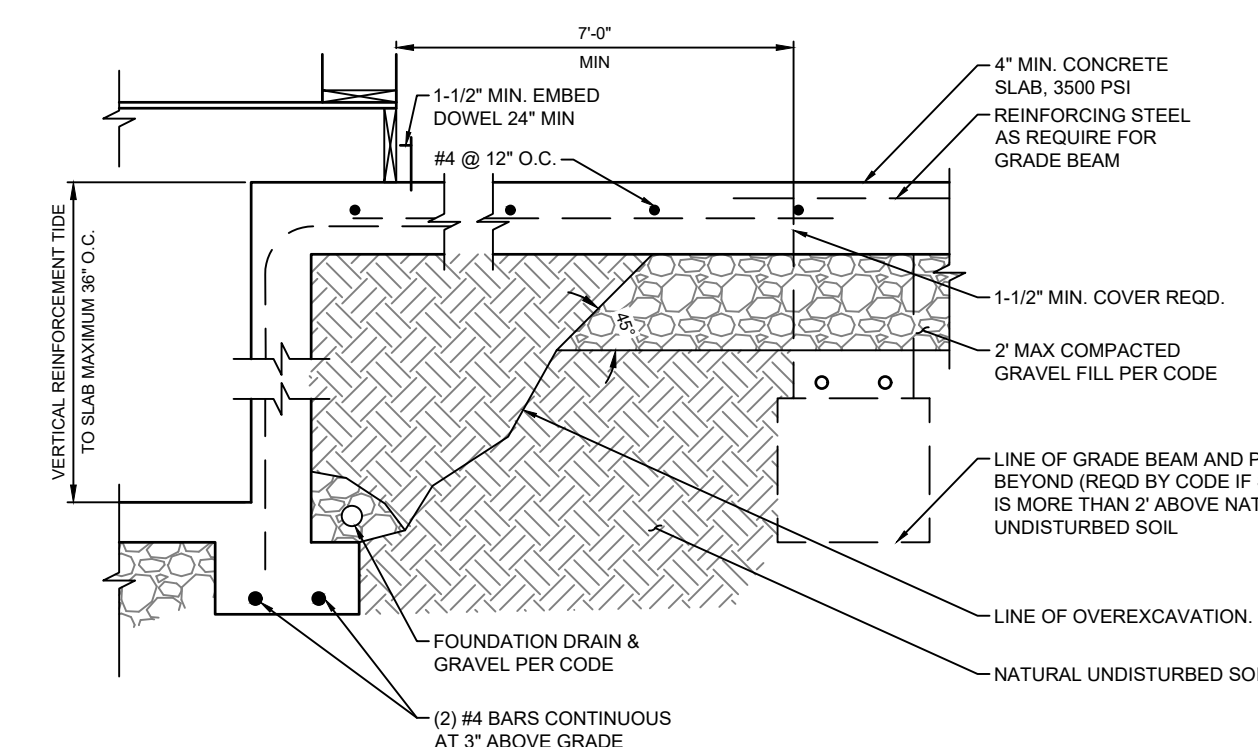
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S2.0 FOUNDATION WALL JUMP DETAIL  
N.T.S.



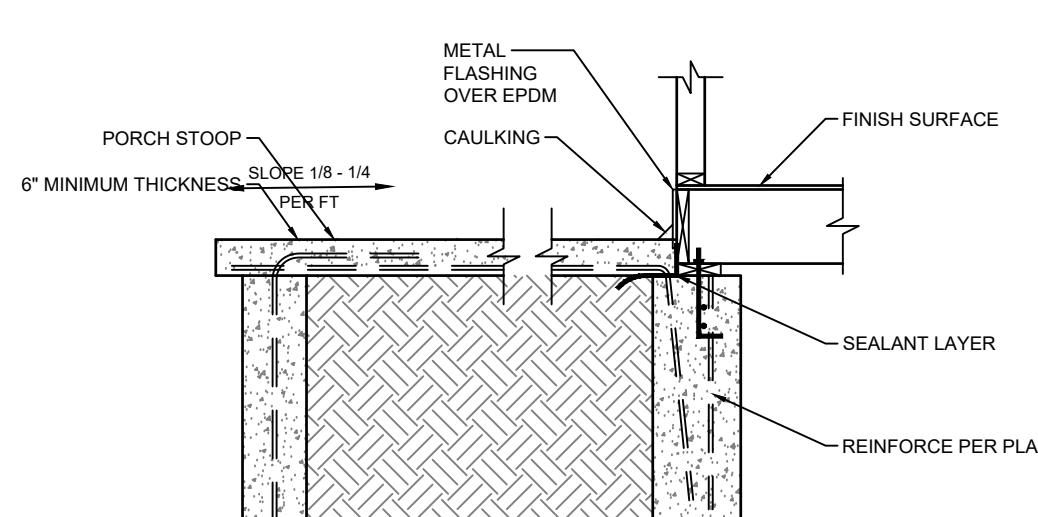
9  
S2.0 SLAB OVER BEAM  
N.T.S.



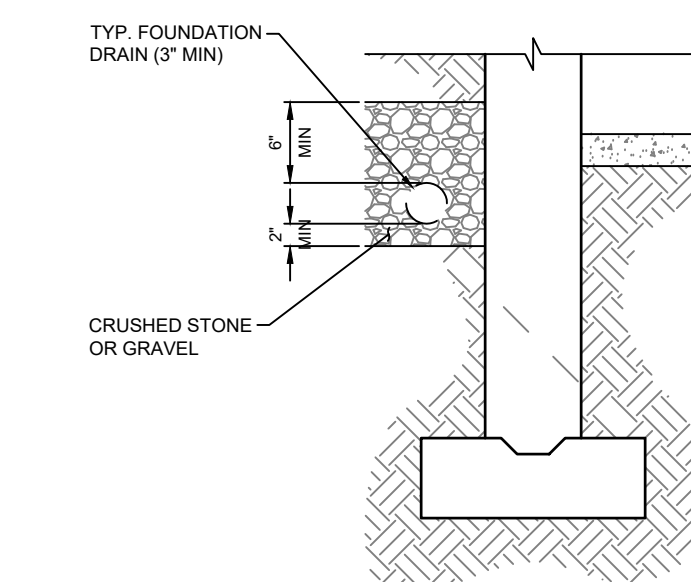
4  
S2.0 TYPICAL WALL SECTION DETAIL  
N.T.S.



3  
S2.0 TYPICAL FOOTING/FOUNDATION WALL/STANDARD  
SLAB AT MAX 4' OVERDIG  
N.T.S.



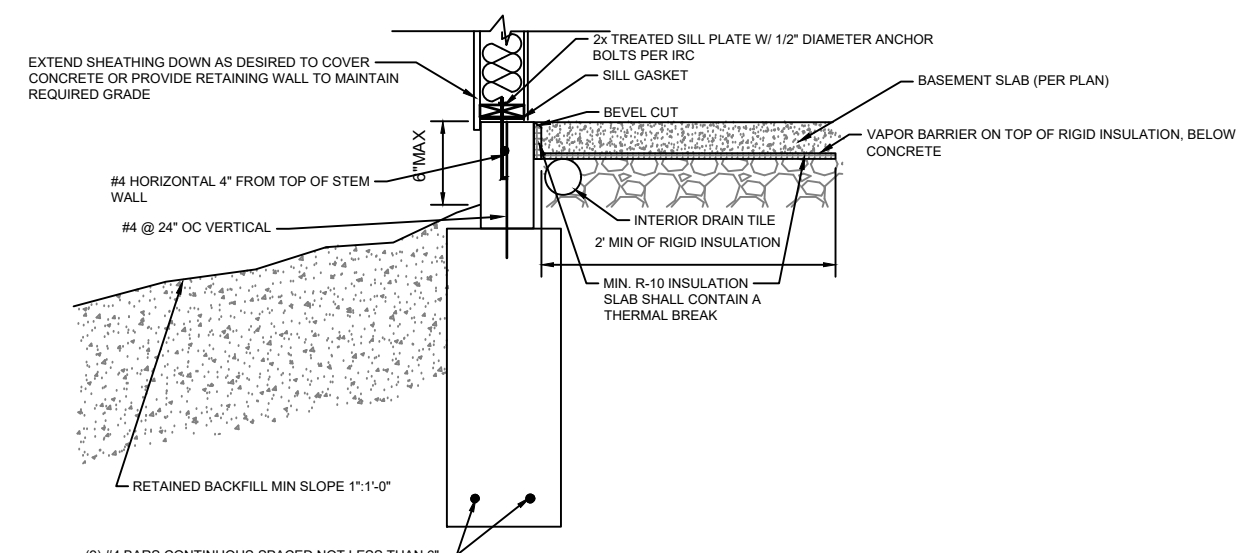
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S2.0 STANDARD PORCH SLAB  
N.T.S.



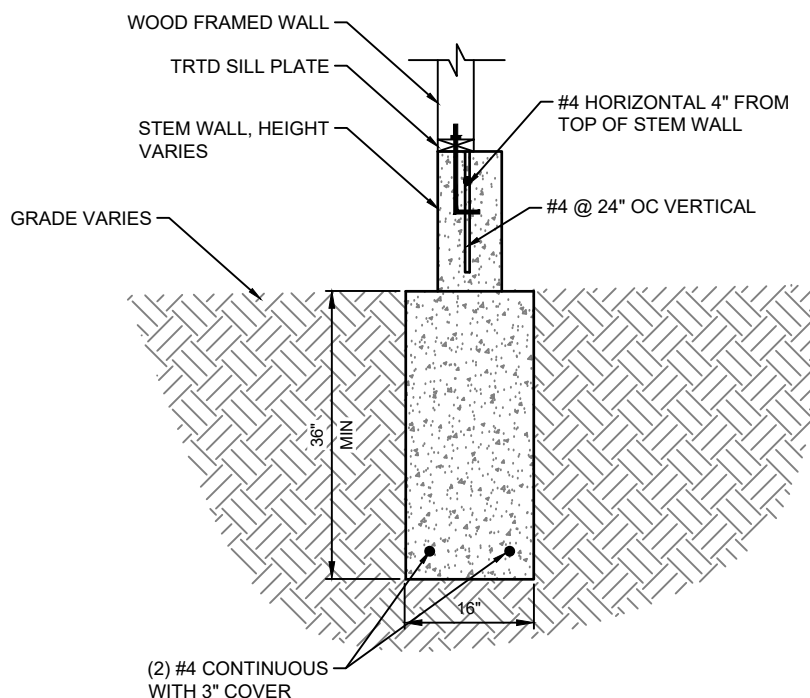
1  
S2.0 FOUNDATION DRAIN DETAIL & RAISED SLAB  
N.T.S.



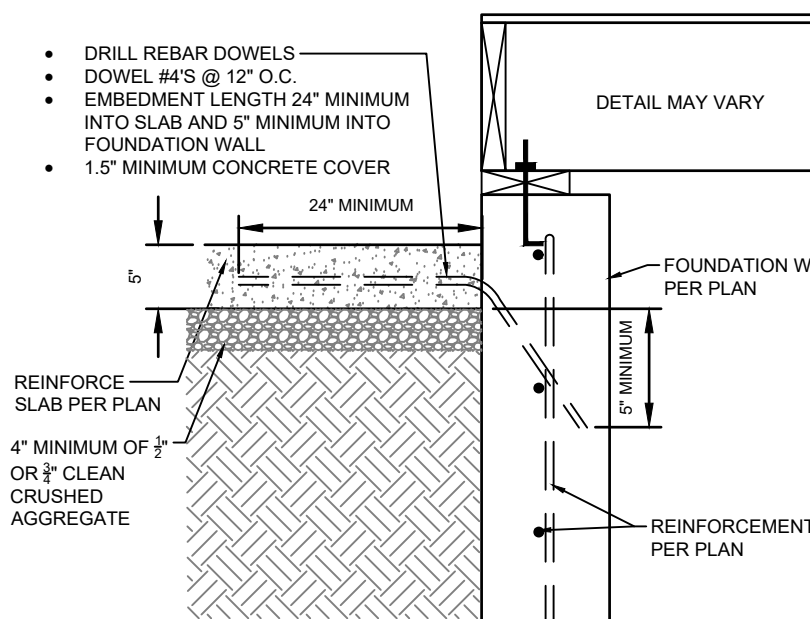
APPLIES TO BASEMENT SLABS WITH FLOOR SURFACE  
LESS THAN 12" BELOW GRADE



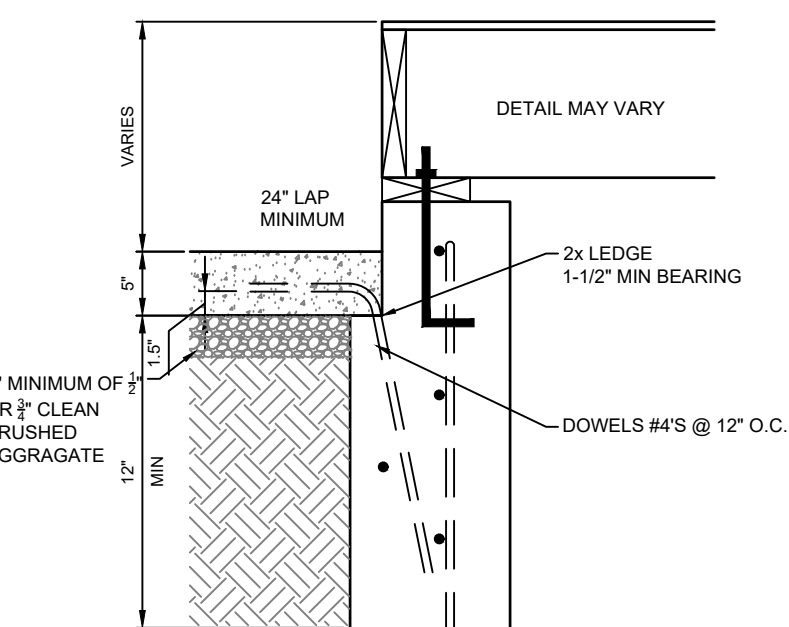
12  
S3.0  
SLAB INSULATION DETAIL FOR TRENCH  
FOOTING WITH STEM WALL  
N.T.S.



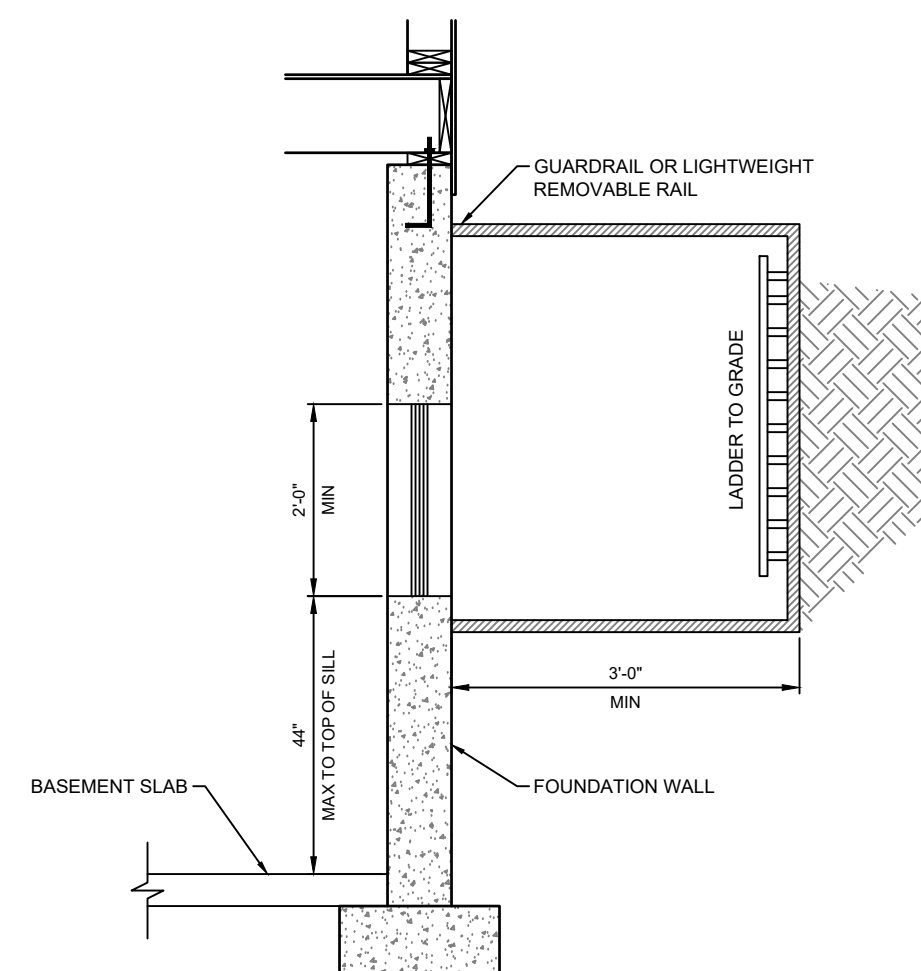
10  
S3.0  
TRENCH FOOTING WITH STEM WALL  
N.T.S.



8  
S3.0  
ALTERNATE SLAB AT WALL  
N.T.S.

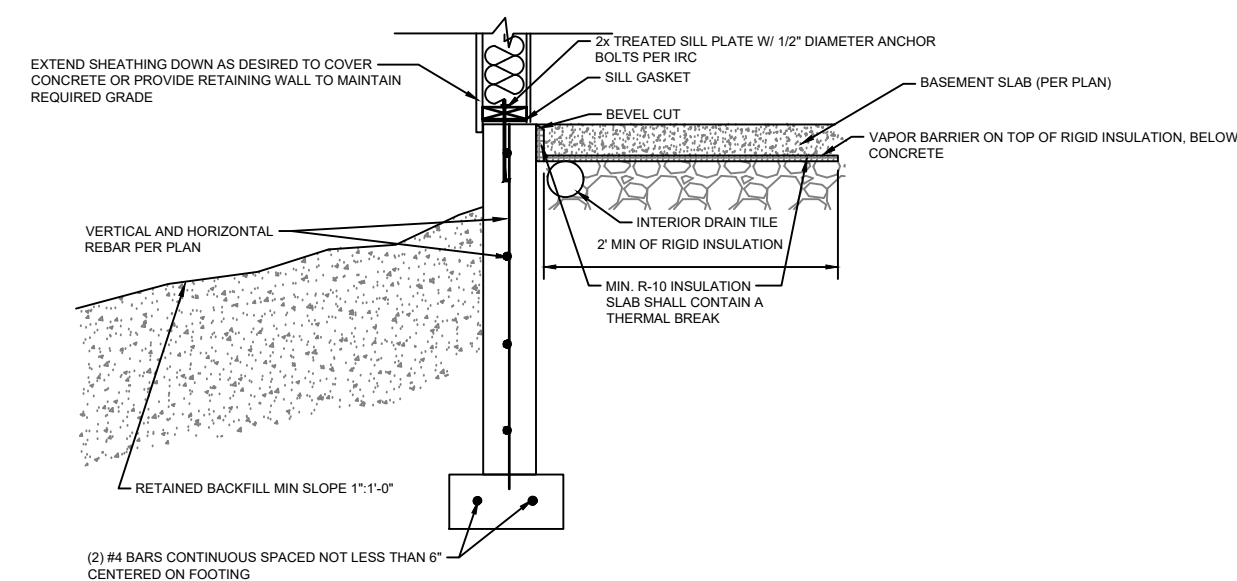


4  
S3.0  
SLAB AT WALL  
N.T.S.

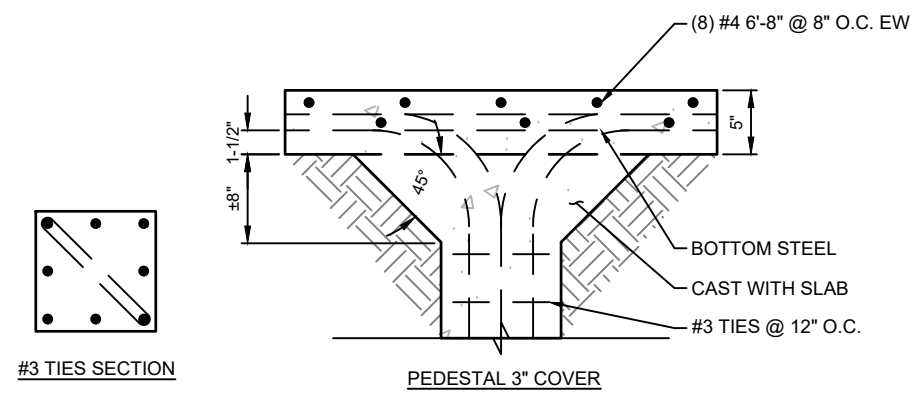


3  
S3.0  
TYPICAL EGRESS WINDOW SECTION DETAIL  
N.T.S.

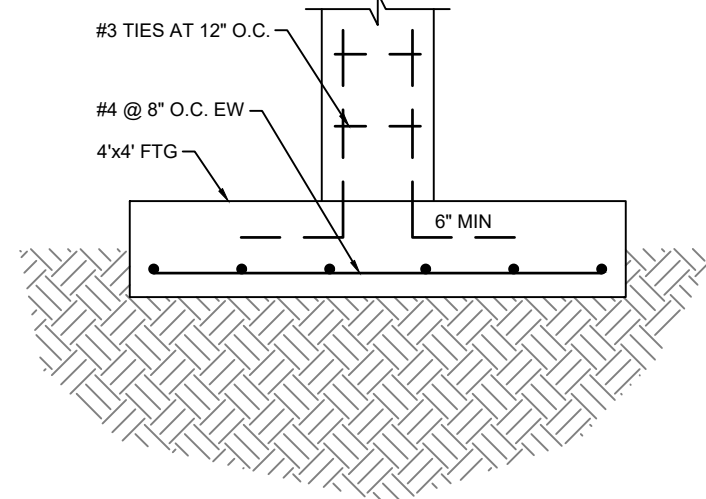
APPLIES TO BASEMENT SLABS WITH FLOOR SURFACE  
LESS THAN 12" BELOW GRADE



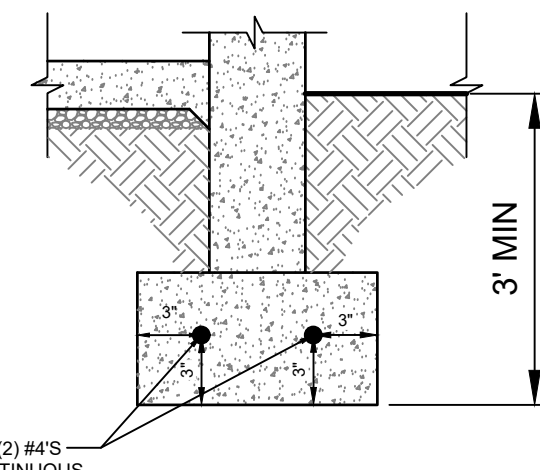
11  
S3.0  
SLAB INSULATION DETAIL FOR STEM  
WALL AND FOOTING  
N.T.S.



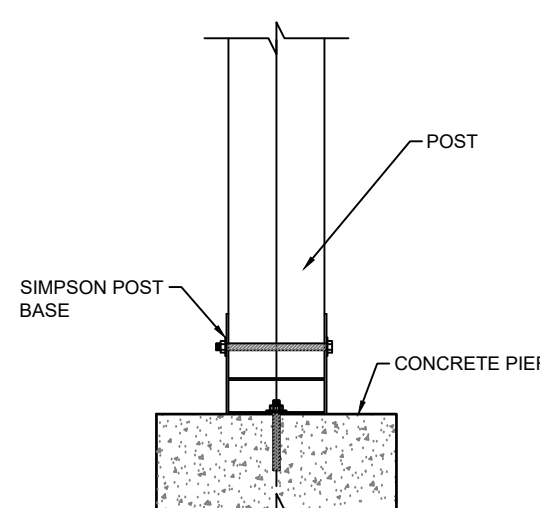
9  
S3.0  
SLAB AT PEDESTAL  
N.T.S.



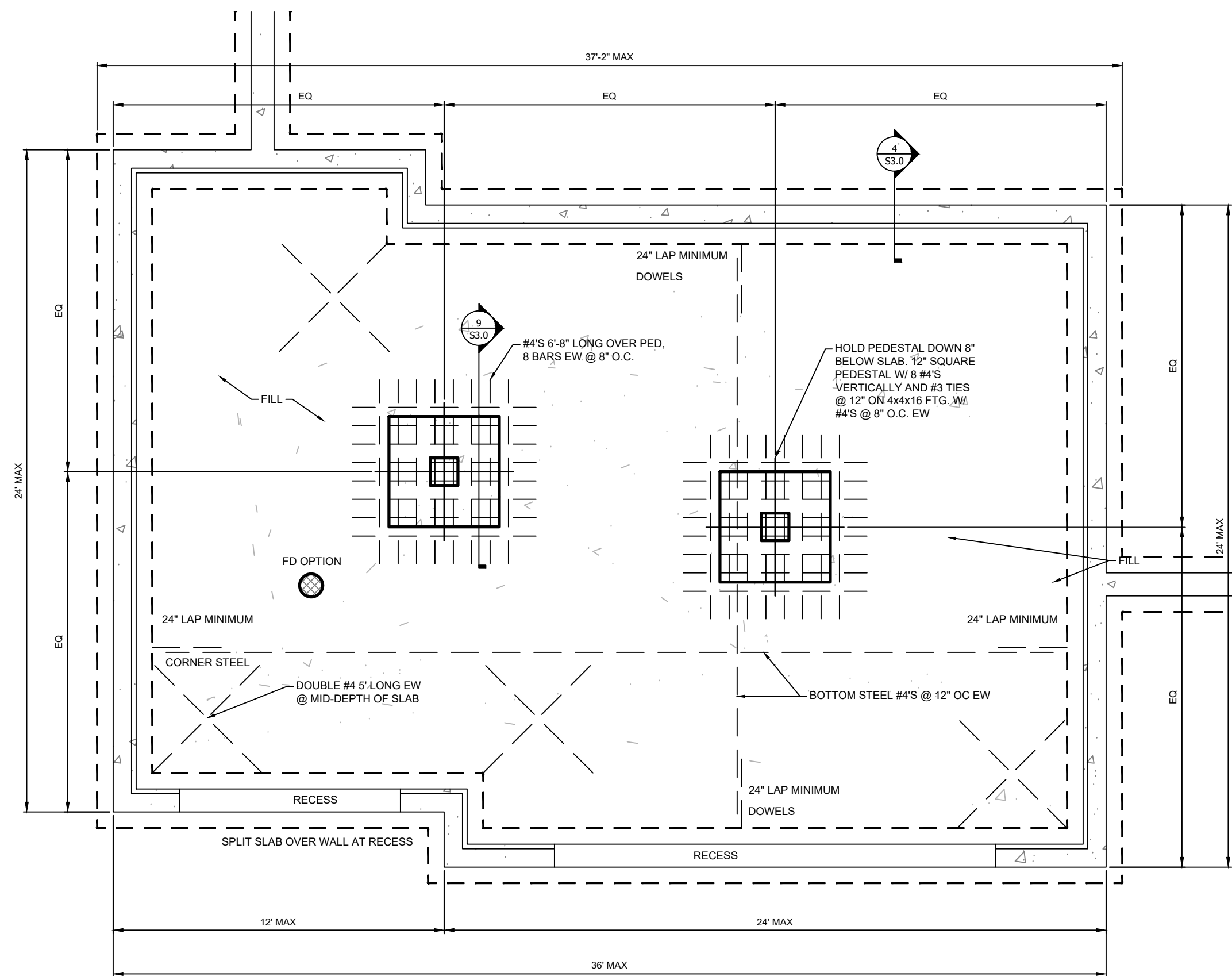
7  
S3.0  
PEDESTAL AT FOOTING  
N.T.S.



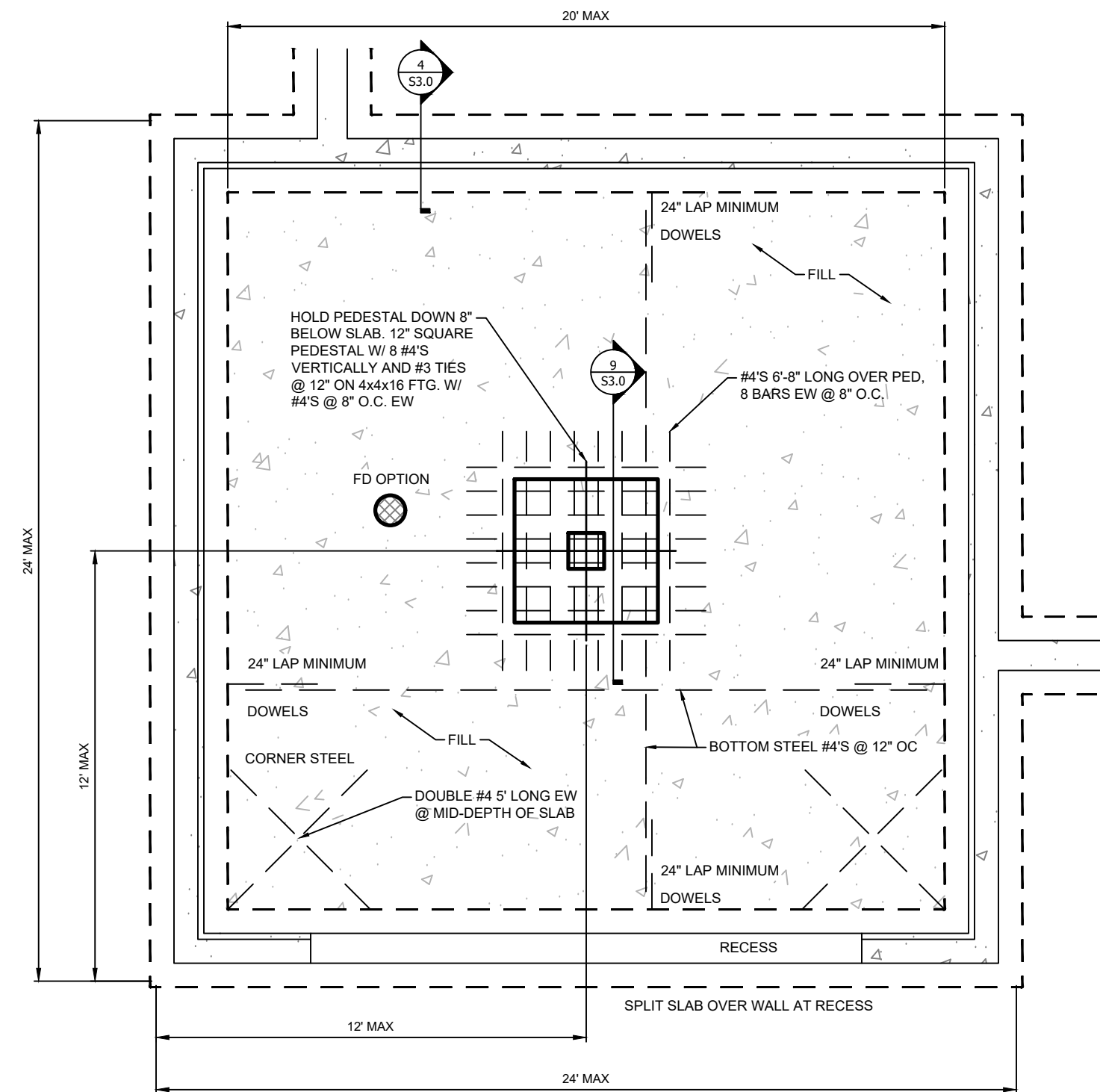
6  
S3.0  
FOOTING DETAIL  
N.T.S.



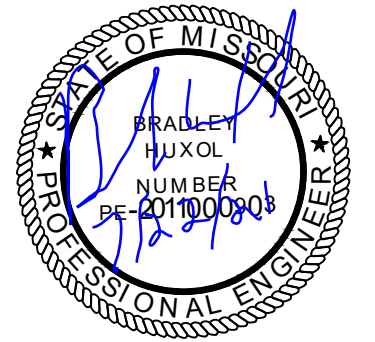
2  
S3.0  
POST BASE DETAIL  
N.T.S.



5  
S3.0  
GARAGE SLAB ON FILL  
N.T.S.



1  
S3.0  
GARAGE SLAB ON FILL  
N.T.S.





HELIX REQUIREMENTS:

- FOUNDATION WALL SHALL NOT EXCEED 9' HEIGHT.
- DEAD MAN SHALL BE A MAXIMUM 3'8" FROM TOP OF FOUNDATION WALL ELSE HELIX NOT PERMITTED.

ALL CONCRETE SHALL BE REINFORCED WITH HELIX MICRO REBAR ALONG WITH ANY ADDITIONAL REBAR AS NOTED:

- 9.0 LB/CUBIC YARD DOSAGE OF HELIX 5-25.
- VERIFY DOSAGE AT FORM INSPECTION.
- SEE MIXING REQUIREMENTS ON THIS PAGE.
- MINIMUM 3000 PSI FOOTING COMPRESSIVE STRENGTH.
- MINIMUM 3000 PSI WALL COMPRESSIVE CONCRETE STRENGTH.
- AIR ENTRAINED BETWEEN 5-7% OF CONCRETE VOLUME.
- GRADE 60 REINFORCING STEEL UNLESS OTHERWISE NOTED.
- LAP SPLICES 24" MINIMUM.
- ASSUMED 1500 PSF SOIL BEARING.
- WALL SHALL BE BACK-FILLED WITH CLEAN, LEAN CLAY, OR BETTER, LOW VOLUME CHANGE MATERIAL. ON-SITE MATERIAL MAY BE USED IF DEEMED ACCEPTABLE BY THE GEOTECHNICAL ENGINEER.

HELIX ALTERNATE DESIGN NOT VALID IF ANY ONE OF THE FOLLOWING CONDITIONS ARE MET:

- NON-UNIFORM FOOTING SUPPORT (IE. CAST IN PLACE PIERS, PUSH PILES).
- DAYLIGHT WALLS EXCEEDING 6' TALL FOR A LENGTH GREATER THAN 6'.

HELIX DOSING INSTRUCTIONS:

MIXING SHOULD BE DONE ACCORDANCE WITH ASTM C94 AND THE MIXING INSTRUCTIONS BELOW. THE DOSAGES OF HELIX ADDED TO THE MIX SHOULD BE NOTED ON THE BATCH DOCUMENTATION IN ACCORDANCE WITH UNIFORM EVALUATION SERVICE ER 279 SECTION 5.15. VERIFIED USING PROCEDURE IN ER 279 APPENDIX A.

A SLUMP OF 125 MM OR 5" OR HIGHER WILL FACILITATE STRIKE OFF. A SLUMP OF LESS THAN 4" IS NOT RECOMMENDED AS THIS WILL PREVENT SURFACE SEGREGATION OF THE CEMENT AND FINES FROM THE AGGREGATE AND HELIX. SLUMP SHOULD BE MEASURED ON THE INITIAL LOAD AND ADJUSTMENTS MADE WITH A WATER REDUCER OR PLASTICIZER (NOT WATER).



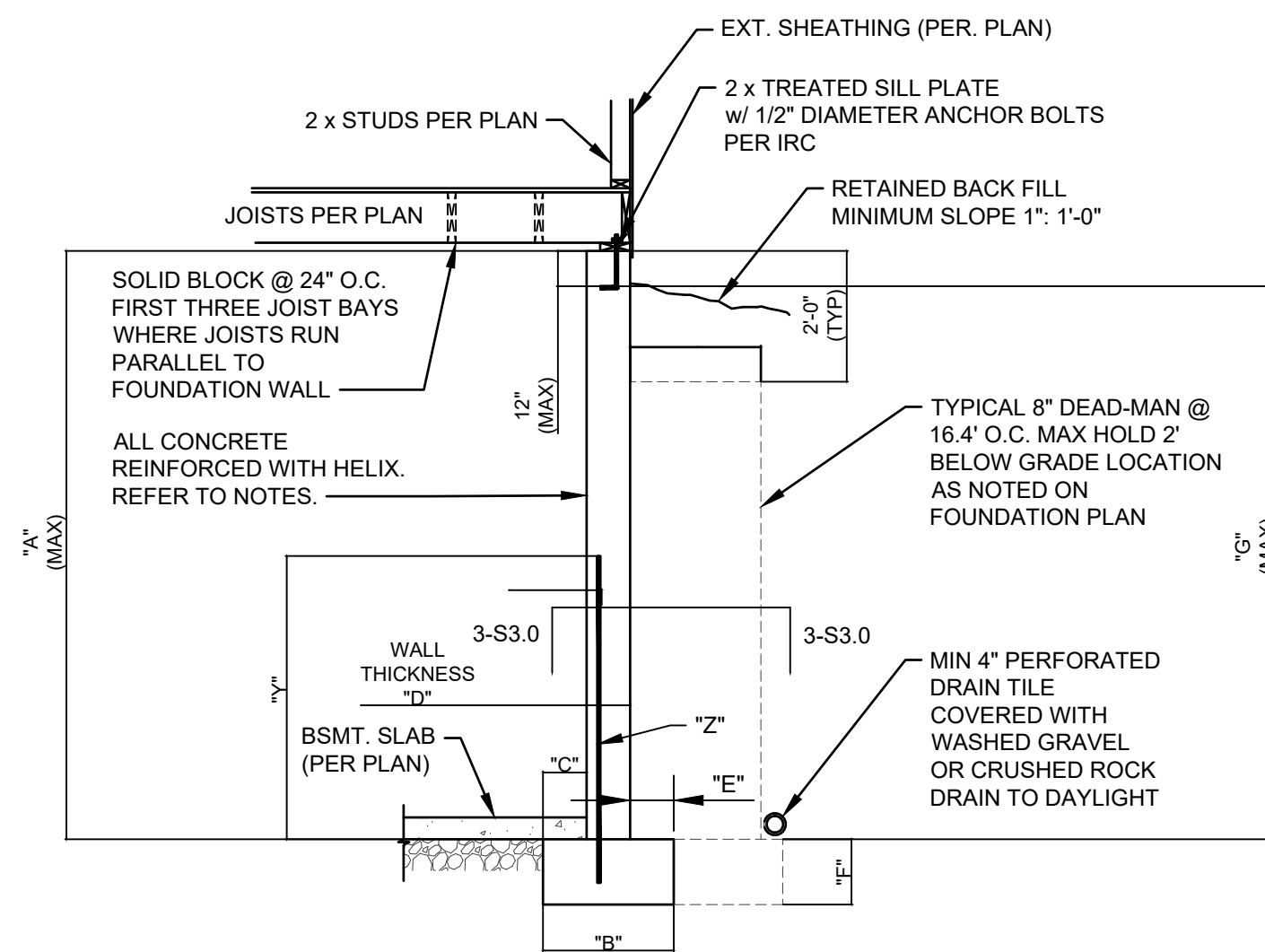
1  
S3.1  
TYPICAL DEAD MAN SECTION  
N.T.S.



3  
S3.1  
TYPICAL DEAD MAN SECTION  
N.T.S.



2  
S3.1  
FOUNDATION WALL JUMP DETAIL  
N.T.S.



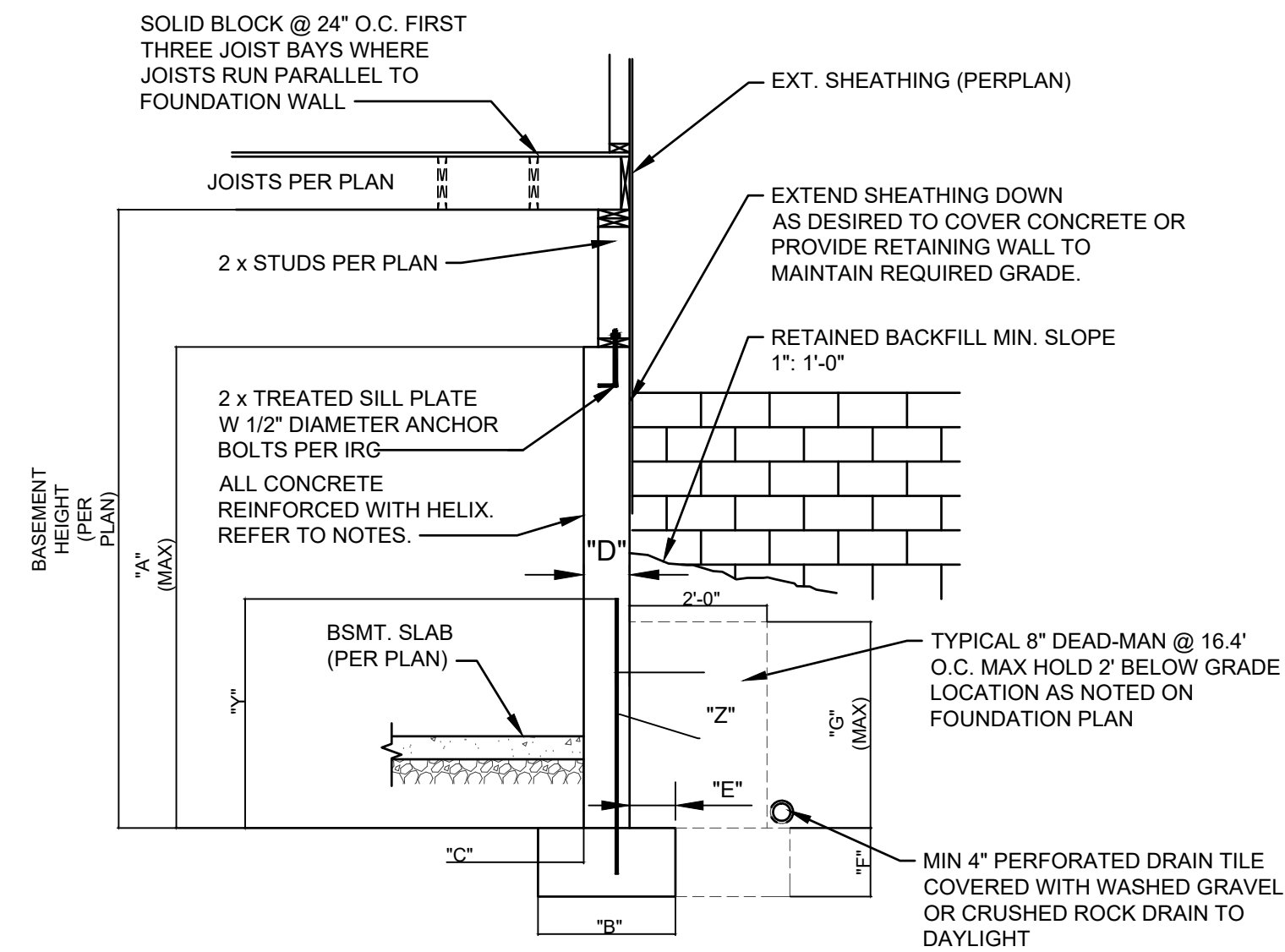
CONCRETE DIMENSIONS						HEIGHT ABOVE FOOTING	REINFORCING BARS (GRADE 60)	HELIX DOSAGE
"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"
8'-0"	1'-4"	4"	8"	4"	8"	7'-8"	2'-6"	4 BARS AT 24" O.C.
9'-0"	1'-4"	4"	8"	4"	8"	8'-6"	2'-6"	4 BARS AT 24" O.C.

DIMENSIONS SHOWN IS FOR THE MAXIMUM UNINTERRUPTED WALL PANEL LENGTH BEFORE DEAD-MAN SHALL BE INSTALLED. A MINIMUM 2' RETURN OFFSET IN THE FOUNDATION WALL SHALL SUBSTITUTE AS DEAD-MAN AND/OR BREAK IN THE WALL PANEL LENGTH. WALL WILL NOT ACHIEVE FULL STRENGTH UNTIL FIRST FLOOR DECK AND BASEMENT SLAB HAVE BEEN PLACED.

4  
S3.1  
TYPICAL FOUNDATION WALL DETAIL  
N.T.S.

HELIX FOOTING TABLE							HELIX DOSAGE
ALL STRIP FOOTINGS AND GRADE BEAMS							9 LB/CU FT
ISOLATED FOOTINGS AND COLUMN PADS							
SYM	PIER PAD SIZE	DEPTH	MINIMUM REINFORCEMENT GRADE 60 KSI STEEL	SCHEDULE 40 STEEL COLUMN, MIN FY = 35 KSI	HELIX DOSAGE		
A	30"x30"	1'-0"	(5) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
B	36"x36"	1'-0"	(6) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
C	42"x42"	1'-2"	(7) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
D	48"x48"	1'-4"	(8) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
D	48"x48"	1'-4"	(8) #4 BAR E.W.	N/A	12.5 LB/CU FT		
E	54"x54"	1'-4"	(9) #4 BAR E.W.	3.5" DIAMETER	12.5 LB/CU FT		
F	60"x60"	1'-6"	(10) #4 BAR E.W.	3.5" DIAMETER	12.5 LB/CU FT		
SYM	PIER DIAMETER	DEPTH	MINIMUM REINFORCEMENT GRADE 60 KSI STEEL		HELIX DOSAGE		
G	12"	3'-0"	(4) VERTICAL #4		12.5 LB/CU FT		
H	16"	3'-0"	(4) VERTICAL #4		12.5 LB/CU FT		
J	18"	3'-0"	(4) VERTICAL #4		12.5 LB/CU FT		
K	24"	3'-0"	(4) VERTICAL #4		12.5 LB/CU FT		
L	28"	3'-0"	(4) VERTICAL #4		12.5 LB/CU FT		

COLUMN AND PAD SIZES ARE FOR A MAXIMUM COLUMN HEIGHT OF 10'. COLUMNS GREATER THAN 10' REQUIRE A SEPARATE ENGINEERED DESIGN. FOOTINGS A-F SPACING OF 6" O.C. WITH 3" CLEAR COVER.



CONCRETE DIMENSIONS						HEIGHT ABOVE FOOTING	REINFORCING BARS (GRADE 60)	HELIX DOSAGE
"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"
8'-0"	1'-4"	4"	8"	4"	8"	3'-4"	2'-6"	4 BARS AT 24" O.C.
8								