

ELEVATION NOTES

- MINIMUM ROOFING COMPOSITION- 30 YR. COMPOSITE SHINGLES ON 15# FELT ON 2" OSB SHEATHING OR AS REQUIRED BY CODE.
- 2. SIDES AND REAR TO BE LP SMART PANEL SIDING WITH 3/4x4 L.P. SMART TRIM AROUND DOORS, WINDOWS, AND CORNERS UNLESS NOTED OTHERWISE. BOTTOM OF SIDING SHALL BE A MINIMUM OF 6" ABOVE GRADE.
- 3. FRONT FACADE TO BE STUCCO, SHEATHED WITH 😽" THICK OSB RATED 24/0 SHEATHING. EXTEND STUCCO TO BE WITHIN 8" OF FINISHED GRADE. 5/4X6 L.P. SMART TRIM AROUND WINDOWS AND DOORS UNLESS NOTED OTHERWISE.
- 4. NOT USED.
- 5. MANUFACTURED STONE VENEER.
- 7. CEDAR BRACKETS, RE: 3/A1- INSTALL CEDAR BRACKETS PRIOR TO FASCIA BOARD INSTALLATION.
- 8. 5/4X8" L.P. SMART TRIM. 1 1/2" ARCH ON GARAGE DOOR TRIM UNLESS NOTED OTHERWISE ON ELEVATION
- 9. NOT USED.
- 10. CONCRETE WINDOW WELL FOR EGRESS WITH LADDER. PROVIDE SLEEVE THROUGH WALL FOR FOUNDATION DRAIN. TOP OF WINDOW WELL TO BE 3" BELOW TOP OF FOUNDATION.
- 11. 2X4 STUD WALL WRAPPED IN STONE ON FRONT AND STUCCO ON SIDES ABOVE FINISHED PORCH. ALLOW MINIMUM 2" FOR STONE/STUCCO TO FIT WITHIN BOUNDARY OF STOOP CONCRETE. SEE PLAN FOR SIZE.
- 12. 6x6 CEDAR POST
- 13. BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE. SEE FRAMING SPECIFICATIONS FOR DETAILS.

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.

HOMES

120 SE 30TH ST.

LEE'S SUMMIT, MO 64082

816-246-6700

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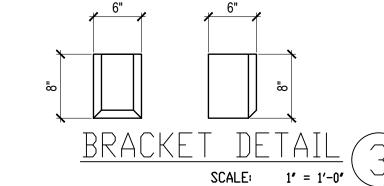
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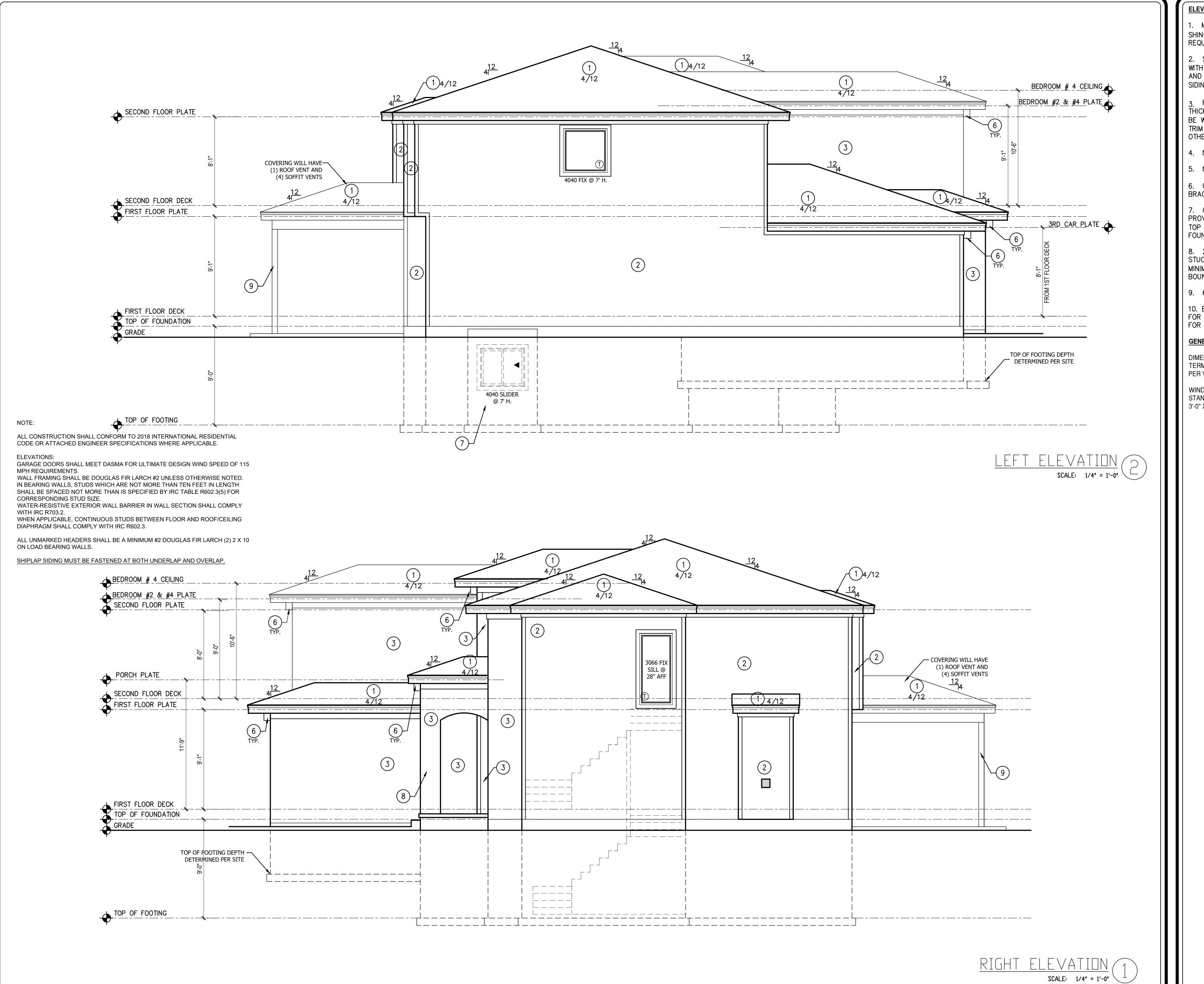
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> ISSUE DATE: 04.07.20

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ELEVATION NOTES

1. MINIMUM ROOFING COMPOSITION— 30 YR. COMPOSITE SHINGLES ON 15# FELT ON $\frac{1}{2}$ " OSB SHEATHING OR AS REQUIRED BY CODE.

2. SIDES AND REAR TO BE LP SMART PANEL SIDING WITH 3/4x4 L.P. SMART TRIM AROUND DOORS, WINDOWS, AND CORNERS UNLESS NOTED OTHERWISE. BOTTOM OF SIDING SHALL BE A MINIMUM OF 6" ABOVE GRADE.

3. FRONT FACADE TO BE STUCCO, SHEATHED WITH \(\frac{15}{32}\)
THICK OSB RATED 24/0 SHEATHING. EXTEND STUCCO TO
BE WITHIN 8" OF FINISHED GRADE. 3/4X6 L.P. SMART
TRIM AROUND WINDOWS AND DOORS UNLESS NOTED
OTHERWISE.

- 4. NOT USED.
- 5. NOT USED.

6. CEDAR BRACKETS, RE: 3/A1- INSTALL CEDAR BRACKETS PRIOR TO FASCIA BOARD INSTALLATION.

7. CONCRETE WINDOW WELL FOR EGRESS WITH LADDER.
PROVIDE SLEEVE THROUGH WALL FOR FOUNDATION DRAIN.
TOP OF WINDOW WELL TO BE 3" BELOW TOP OF FOUNDATION.

8. 2X4 STUD WALL WRAPPED IN STONE ON FRONT AND STUCCO ON SIDES ABOVE FINISHED PORCH. ALLOW MINIMUM 2" FOR STONE/STUCCO TO FIT WITHIN BOUNDARY OF STOOP CONCRETE. SEE PLAN FOR SIZE.

9. 6X6 CEDAR POST

10. BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE. SEE FRAMING SPECIFICATIONS FOR DETAILS

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.

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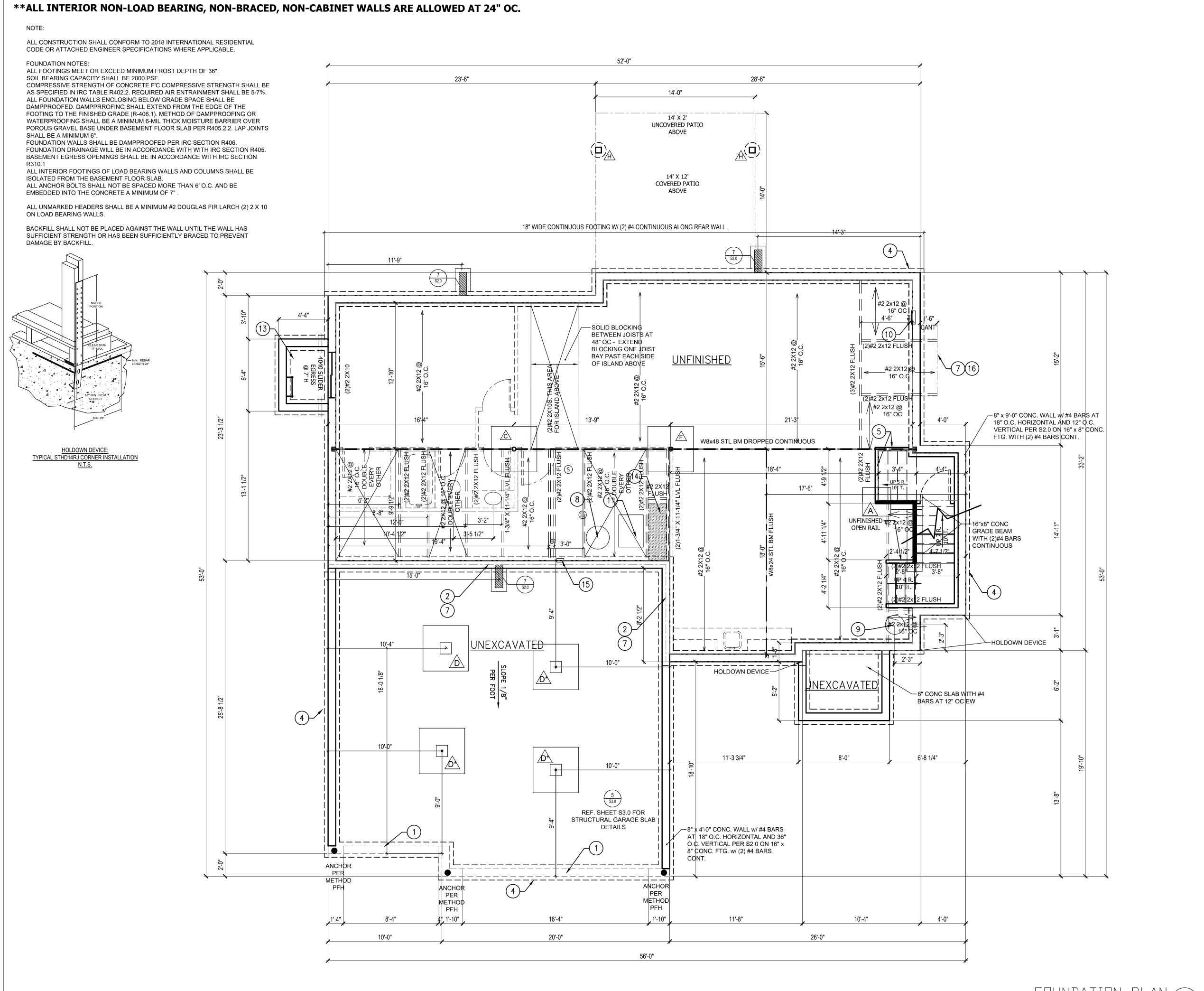
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FOUNDATION PLAN NOTES

- RECESS TOP OF FOUNDATION WALL
- 2. HOLD SILL PLATE BACK 4"
- 3. NOT USED
- 4. CONTINUOUS CONCRETE FOOTING
- 5. 2X4 STUD WALL WITH TREATED SILL PLATE
- 6. NOT USED
- 7. LINE OF FLOOR ABOVE
- 8. THERMAL EXPANSION CONTROL DEVICE FOR WATER
- 9. SUMP PIT AND PUMP. PROVIDE ELECTRICAL GFCI PROTECTION. PROVIDE SLEEVE THROUGH FOOTING.
- 10. 200 AMP ELECTRICAL PANEL. LOCATION TO BE DETERMINED ON SITE.
- 11. DIRECT FURNACE. FUEL BURNING APPLIANCES SHALL BE DIRECT VENTED TO EXTERIOR FOR COMBUSTION
- 12. DRAIN LINE ONLY FOR FUTURE USE. LOCATION TO BE MARKED WITH REBAR AND CUT FLUSH TO FLOOR
- 13. CONCRETE WINDOW WELL WITH LADDER. PROVIDE SLEEVE THROUGH WALL FOR FOUNDATION DRAIN. TOP OF WELL TO BE 3" BELOW TOP OF FOUNDATION WALL..
- 14. HVAC CHASE ABOVE
- 15. 'UFER' GROUND. VERIFY LOCATION WITH PROJECT MANAGER.
- 16. INSULATE CANTILEVER AS REQUIRED PRIOR TO BLOCKING

GENERAL NOTES:

BACK WATER VALVES REQUIRED ON ALL BASMENT PLUMBING FIXTURES. PROVIDE MEANS OF CONTROLLING PRESSURE CAUSED BY THERMAL EXPANSION.

SUMP PIT SHALL BE EQUIPPED WITH A PUMP AND RECEPTACLE. IN UNFINISHED PORTIONS OF BASEMENT, RECEPTACLES SHALL HAVE GFI PROTECTION.

ALL SILLS & SLEEPERS SUPPORTED ON CONCRETE OR MASONRY SHALL B OF DECAY-RESISTANT MATERIALS.

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

NON-BEARING WALLS TO BE BUILT WITH 1" GAP BETWEEN TOP PLATE AND FLOOR JOISTS TO PREVENT HEAVING.

SMOKE AND CARBON MONOXIDE DETECTORS SHOWN ON PLANS ARE TO BE CONSIDERED RECOMMENDATIONS ONLY. FINAL PLACEMENT IS TO BE DETERMINED BY MUNICIPAL REQUIREMENTS.

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.

IS	OLATE	D FO	OTINGS AND COLUMN PADS		
SYM	PIER SYM PAD DEPTH REINFORCEMENT GRADE COLUMN, NO SIZE 40 KSI STEEL FY = 36k				
A	30″×30″	1′-0″	(5) #4 BAR E.W. 3' DIAMETER		
B	36 ″ ×36″	1′-0″	(6) #4 BAR E.W. 3' DIAMETER		
c	42 " ×42"	1′-2″	(7) #4 BAR E.W. 3' DIAMETER		
\triangle	48 " ×48"	1'-4"	(8) #4 BAR E.W. 3' DIAMETER		
<u></u>	48 ″ ×48″	1'-4"	(8) #4 BAR E.W. N/A		
E	54 ″ ×54″	1'-4"	(9) #4 BAR E.W. 3.5" DIAMETER		
F	60″×60″	1'-6"	(10) #4 BAR E.W. 3.5" DIAMETER		
ISOLATED FOOTINGS AND COLUMN PADS					
SYM PIER DEPTH MINIMUM REINFORCEMENT GRADE 40 KSI STEEL					

(4) VERTICAL #4 (4) VERTICAL #4 18" 3'-0"

(4) VERTICAL #4

(4) VERTICAL #4

(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.

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816-399-4901

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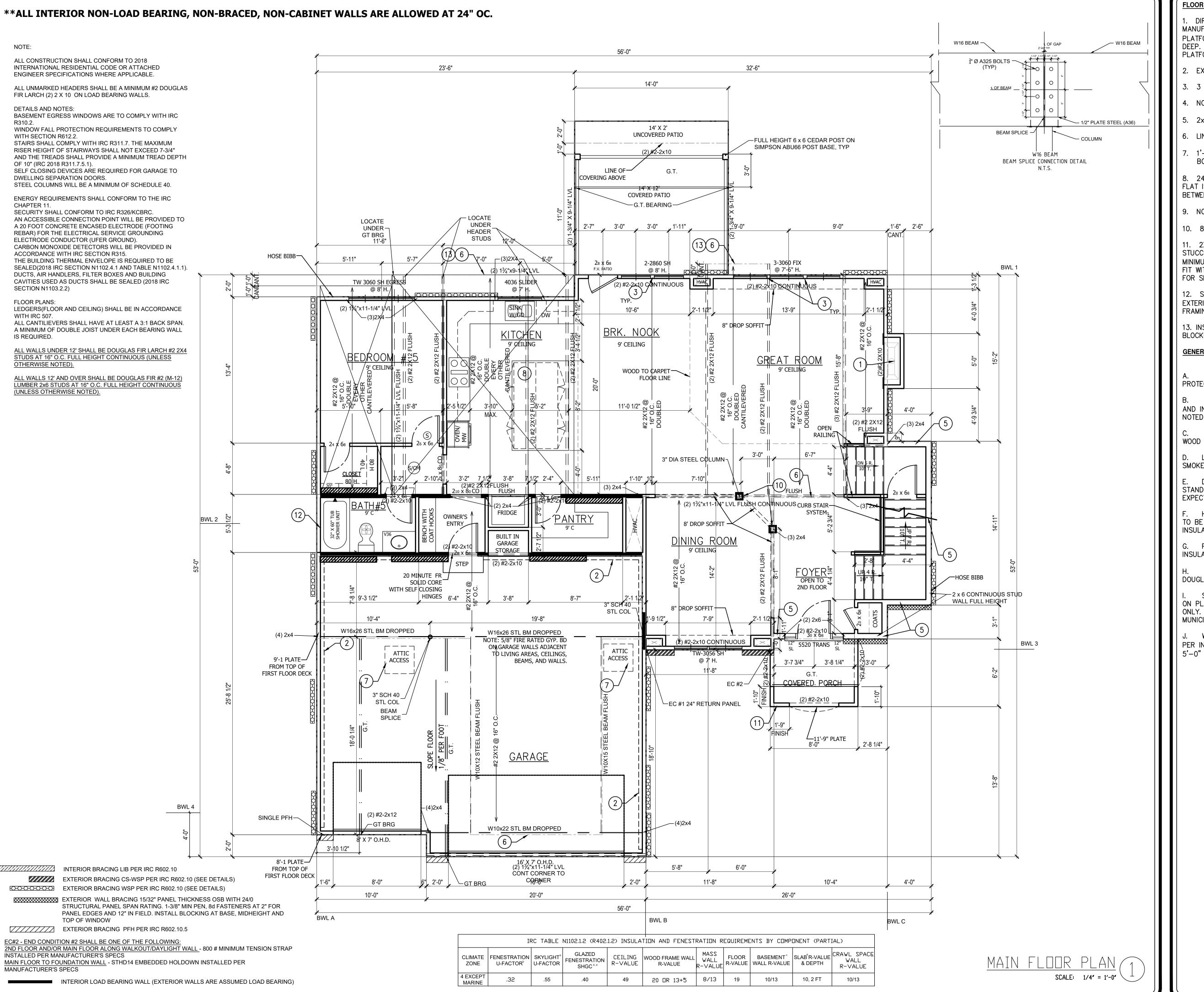
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FLOOR PLAN NOTES

DIRECT VENT FIREPLACE- INSTALL PER MANUFACTURERS RECOMMENDATIONS. FIREPLACE PLATFORM DIMENSIONS 7 $\frac{3}{4}$ " TALL, 37" WIDE AND 16" DEEP. INSTALL INSULATION AND AIR BARRIER BEHIND

- 2. EXPOSED TOP OF FOUNDATION WALL
- 3. 3 STUDS BETWEEN WINDOW UNITS
- 4. NOT USED
- 5. 2x6 STUDS AT 16" O.C.
- 6. LINE OF FLOOR ABOVE
- 7. 1'-10"x3' MINIMUM ATTIC ACCESS WITH 3/4" BACKER BOARD AND 2 LATCHES
- 8. 24" CABINET + 24" CABINETS + 12" OVERHANG-FLAT ISLAND. VERIFY LOCATION WITH BUILDER. DISTANCE BETWEEN STOVE/CABINETS AND ISLAND- 3'-10" MAX.
- 9. NOT USED
- 10. 8" SQUARE COLUMN
- 11. 2X4 STUD WALL WITH STONE ON FRONT AND STUCCO ON THE SIDES ABOVE FINISHED PORCH. ALLOW MINIMUM 2" ON ALL SIDES FOR STONE AND STUCCO TO FIT WITHIN BOUNDARY OF STOOP CONCRETE. SEE PLAN FOR SIZE.
- 12. SIX SIDED ASSEMBLY INCLUDING THERMOPLY ON EXTERIOR WALL TO 2" ABOVE TOP OF SHOWER PAN. SEE FRAMING SPECIFICATIONS FOR DETAILS.
- 13. INSULATE CANTILEVER AS REQUIRED PRIOR TO BLOCKING.

GENERAL NOTES:

- A. WINDOWS TO COMPLY WITH IRC R312.2 FOR FALL PROTECTION
- ALL EXTERIOR WALLS, INTERIOR BEARING WALLS, AND INTERIOR BRACED WALLS ARE AT 16" O.C. UNLESS NOTED OTHERWISE.
- ROOF AND CEILING FRAMING ARE PRE-ENGINEERED WOOD TRUSSES UNLESS NOTED OTHERWISE.
- D. LOCATE CARBON MONOXIDE DETECTORS ALONG SIDE SMOKE DETECTORS OR PROVIDE A COMBINATION UNIT.
- DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VERY PER VENDOR.
- F. HVAC DUCTWORK RUNNING THROUGH ATTIC SPACE TO BE HUNG FROM ABOVE TO ALLOW COMPLETE INSULATION SURROUND.
- G. PROVIDE BLOCKING AT ALL CEILING JUMPS FOR INSULATION.
- 2X6 EXTERIOR WALL OVER 12' SHALL BE DOUGLAS FIR #2.
- SMOKE AND CARBON MONOXIDE DETECTORS SHOWN ON PLANS ARE TO BE CONSIDERED RECOMMENDATIONS ONLY. FINAL PLACEMENT IS TO BE DETERMINED BY MUNICIPAL REQUIREMENTS.
- J. 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.



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**ALL INTERIOR NON-LOAD BEARING, NON-BRACED, NON-CABINET WALLS ARE ALLOWED AT 24" OC.

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

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 R326/KCBRC. 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)

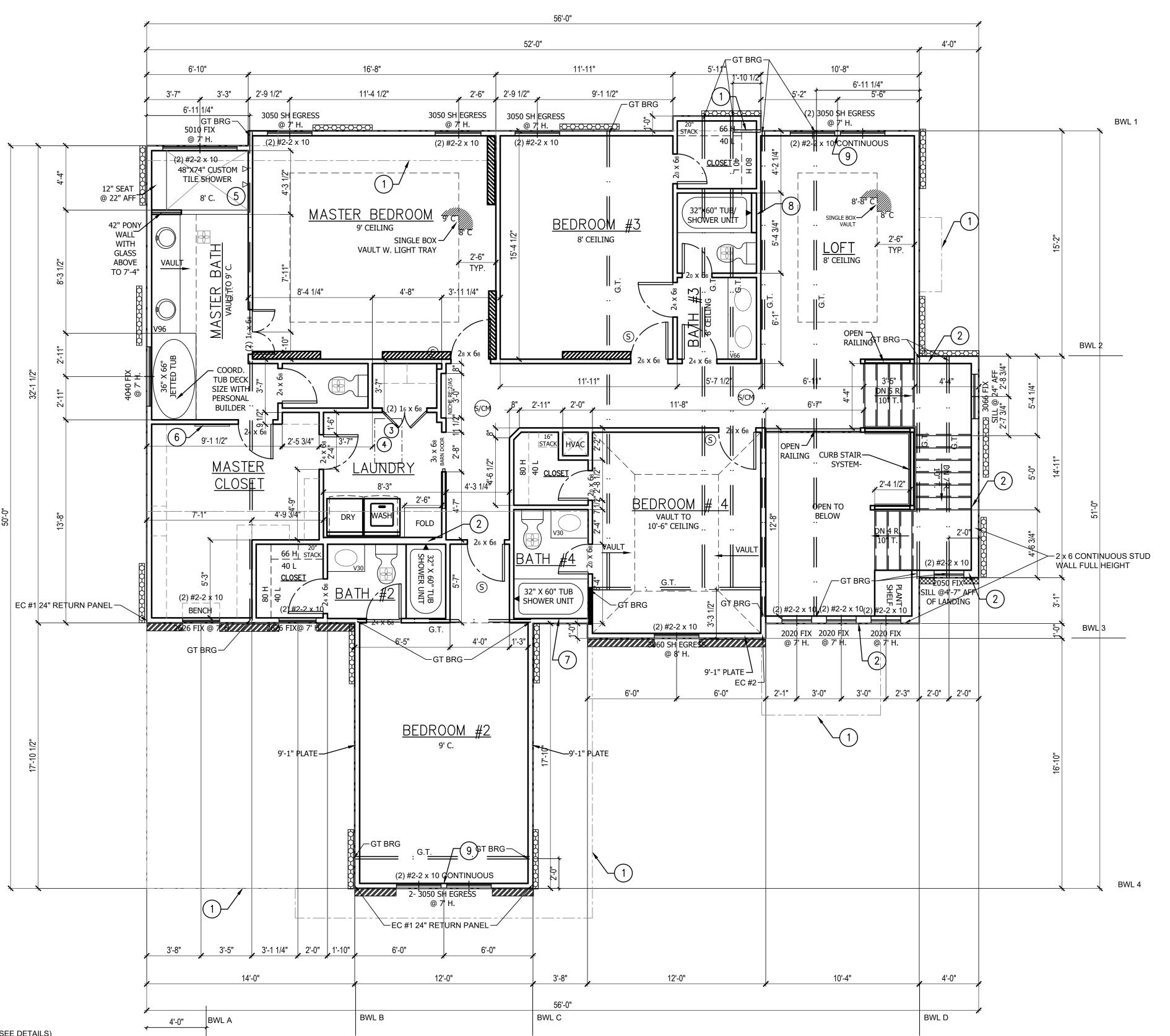
FLOOR PLANS:

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

ALL CANTILIEVERS 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).



INTERIOR BRACING LIB PER IRC R602.10

MANUFACTURER'S SPECS

EXTERIOR BRACING CS-WSP PER IRC R602.10 (SEE DETAILS) EXTERIOR BRACING WSP PER IRC R602.10 (SEE DETAILS)

EXTERIOR WALL BRACING 15/32" PANEL THICKNESS OSB WITH 24/0 STRUCTURAL PANEL SPAN RATING. 1-3/8" MIN PEN, 8d FASTENERS AT 2" FOR PANEL EDGES AND 12" IN FIELD. INSTALL BLOCKING AT BASE, MIDHEIGHT AND TOP OF WINDOW

EC#2 - END CONDITION #2 SHALL BE ONE OF THE FOLLOWING: 2ND FLOOR AND/OR MAIN FLOOR ALONG WALKOUT/DAYLIGHT WALL - 800 # MINIMUM TENSION STRAP INSTALLED PER MANUFACTURER'S SPECS MAIN FLOOR TO FOUNDATION WALL - STHD14 EMBEDDED HOLDOWN INSTALLED PER

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) BASEMENT° | SLAB®R-VALUE | CRAWL SPACE CEILING WOOD FRAME WALL WALL CLIMATE | FENESTRATION | SKYLIGHT | FLOOR U-FACTOR U-FACTOR FENESTRATION R-VALUE R-VALUE | R-VALUE | WALL R-VALUE | & DEPTH R-VALUE 20 DR 13+5 8/13 10/13 10, 2 FT 19

FLOOR PLAN NOTES

- . LINE OF FLOOR BELOW
- 2. 2x6 STUD WALL
- 3. 1'-10"x3' MINIMUM ATTIC ACCESS WITH 3/4" BACKER BOARD AND 2 LATCHES
- 4. BUMP TRUSSES FOR ATTIC AND HVAC ACCESS
- 5. CUSTOM SHOWER WITH TILE WALLS AND TILE BASE, 12" TILE SEAT AT 22" AFF, 2 WALL SHOWER HEADS AND SOAP NICHE.
- 6. FRAMED MIRROR
- 7. SIX SIDED ASSEMBLY INCLUDING THERMOPLY ON EXTERIOR WALL TO 2" ABOVE TOP OF SHOWER/TUB DECK. SEE FRAMING SPECIFICATIONS FOR DETAILS.
- 8. DOUBLE 2x4 STUD WALL
- 9. 3 STUDS BETWEEN WINDOW UNITS

GENERAL NOTES:

- A. WINDOWS TO COMPLY WITH IRC R312.2 FOR FALL PROTECTION
- B. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS, AND INTERIOR BRACED WALLS ARE AT 16" O.C. UNLESS NOTED OTHERWISE.
- ROOF AND CEILING FRAMING ARE PRE-ENGINEERED WOOD TRUSSES UNLESS NOTED OTHERWISE.
- D. LOCATE CARBON MONOXIDE DETECTORS ALONG SIDE SMOKE DETECTORS OR PROVIDE A COMBINATION UNIT.
- E. DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VERY PER VENDOR.
- F. HVAC DUCTWORK RUNNING THROUGH ATTIC SPACE TO BE HUNG FROM ABOVE TO ALLOW COMPLETE INSULATION SURROUND.
- G. PROVIDE BLOCKING AT ALL CEILING JUMPS FOR INSULATION.
- 2X6 EXTERIOR WALL OVER 12' SHALL BE DOUGLAS FIR #2.
- SMOKE AND CARBON MONOXIDE DETECTORS SHOWN ON PLANS ARE TO BE CONSIDERED RECOMMENDATIONS ONLY. FINAL PLACEMENT IS TO BE DETERMINED BY MUNICIPAL REQUIREMENTS.
- 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.

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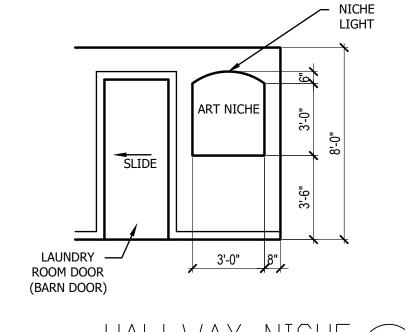
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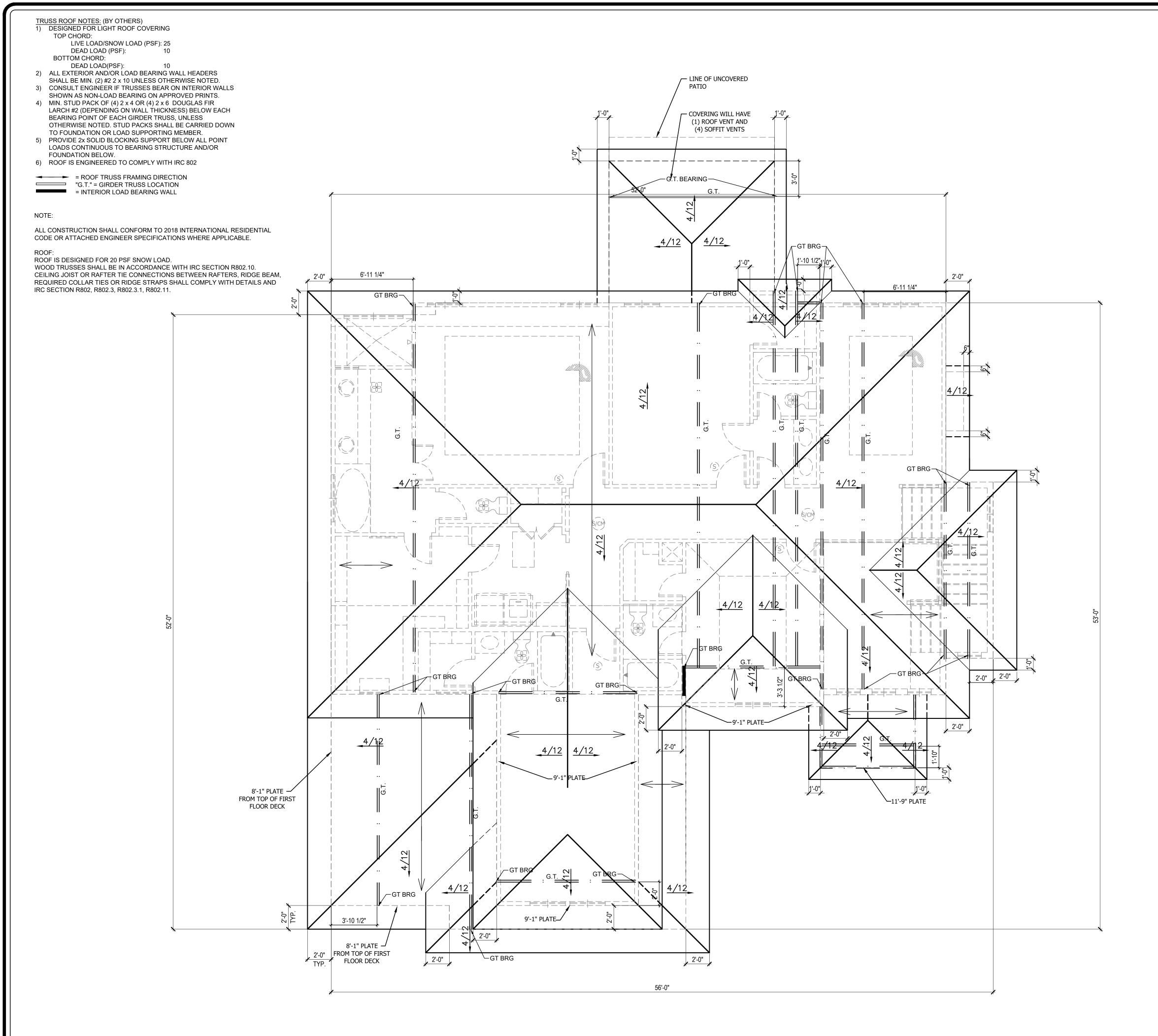
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GENERAL NOTES:

1. ROOF AND CEILING FRAMING ARE PRE-ENGINEERED ROOF TRUSSES

2. ASPHALT SHINGLES MIN 2/12. FLASH ALL PENETRATIONS AND INTERSECTIONS

3. VENT EACH ENCLOSED ATTIC SPACE. NET AREA OPENING = 1/50TH OF VENTED AREA OR 1/300TH IF 580% OF VENTING NEAR TOP

4. BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE.

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

6. HVAC DUCTWORK RUNNING THROUGH ATTIC SPACE TO BE HUNG FROM ABOVE TO ALLOW COMPLETE INSULATION SURROUND.

7. PROVIDE BLOCKING AT ALL CEILING JUMPS FOR INSULATION.

8. PROVIDE FOAM INSULATION AT EXTERIOR WHERE MAIN LEVEL ROOFLINE MEETS UPPER LEVEL WALLS.

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 $\frac{\text{RDF} \text{PLAN}}{\text{SCALE:}} \frac{1/4'' = 1'-0''}{1}$

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

LIGHT ROOF	10 PSF	
HEAVY ROOF	+10 PSF	(CONCRETE, SLATE, TILE)
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	S 15 PSF	
INTERIOR LIGHT FRAMED WOOD WALLS	10 PSF*	
*(INTERIOR WALLS	S INCLUDED IN 7	15 PSF DEAD LOAD)

LIVE		
ROOF LIVE LOAD	15 PSF	
FLOOR LIVE LOAD	40 PSF	(HABITABLE)
GARAGE	50 PSF	
STORAGE	20 PSF	(UN-INHABITABLE)
GUARDRAIL		
CONTINUOUS LINEAR	50 PLD	
MAXIMUM POINTLOAD	200 LBS	
SNOW		
GROUND SNOW LOAD	20 PSF	
WIND		

ULTIMATE DESIGN WIND SPEED VELOCITY 115 MPH

SOIL AND SITE ASSUMPTIONS:

EXPOSURE CATEGORY

- FOUNDATION DESIGN ASSUME A MINIMUM SOIL BEARING PRESSURE FOR THE SITE OF 2,000 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 <u>36 INCHES MEASURED FROM THE BOTTOM OF CONCRETE ON</u> ALL FOUNDATIONS.
- ACCESSORY STRUCTURES WITH AN EAVE HEIGHT LESS THAN 10'-0" AND AN AREA LESS THAN 600 FT2 MAT PROVIDE A MINIMUM SOIL COVER OF 12 INCHES MEASURED FROM THE BOTTOM OF CONCRETE.
- 4. SITE GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AT A MINIMUM OF
- 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' 0.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 T 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
- 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

- 1. ALL CONCRETE CONSTRUCTION SHOULD CONFORM TO ACI 318-11 AND THE 2018 INTERNATIONAL RESIDENTIAL CODE.
- 2. THE MINIMUM CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE AS SPECIFIED IN IRC TABLE
- 3. 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.
- 4. CONCRETE POURED AGAINST AN EXISTING SURGACE SHOULD BE ROUGHENED TO A MINIMUM 1/4 INCH AMPLITUDE.
- 5. REBAR CLEAR DISTANCE SHALL BE AS FOLLOWS: -CAST AGAINST AND PERMANENT CONTACT WITH GROUND3 IN -EXPOSED TO WEATHER OR IN CONTACT WITH GROUND

- NOT EXPOSED TO WEATHER OR GROUND

- 6. 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

-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 40 KSI UNLESS NOTED OTHERWISE. REINFORCING BAR SHALL BE GRADE 40 MINIMUM.

CONCRETE REINFORCEMENT STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40.
- SMOOTH BARS OR WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185.
- 3. ALL REBAR LAP SPLICES SHALL BE CLASS B LAP SPLICES AS SHOWN ON THE LAP SPLICE SCHEDULE.
- 4. DEVELOPMENT LENGTH NOTED IS EQUAL TO 80% OF THE LENGTH NOTED IN THE LAP SPLICE SCHEDULE.
- 5. 90% HOOK SHOWN IN DRAWINGS SHALL BE STANDARD PER ACI 318-14 -STRAIGHT EXTENSION LENGTH = 12xØ_{BAR} -BEND DIAMETER = $12XØ_{BAR}$
- 6. LAP SPLICE SCHEDULE (SEE TABLE 1.1)
- HOOKED DOWELS:
- 7.1. HOOKED DOWELS FROM FOUNDATIONS TO WALL SHALL BE PROVIDED TO MATCH VERTICAL WALL
- REINFORCING AND EXTENDED TO 3" CLEAR FROM BOTTOM OF FOUNDATION 7.2. HOOKED DOWELS MATCH SLAB REINFORCING FROM SLAB TO WALLS OR SLAB TO FOUNDATION
- 8. PROVIDE 2 #5 BARS AROUND PERIMETER OF ALL SUSPENDED SLABS
- 9. HORIZONTAL WALL REINFORCING SHALL TERMINATE AT THE END OF THE WALL WITH A STANDARD
- 10. TOP AND BOTTOM HORIZONTAL REINFORCING SHALL BE PLACED 1-1/2" TO 2" FROM THE TOP AND BOTTOM OF THE WALL

FOOTNOTES:

- 1. WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB.
- 2. VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT AND FOR REINFORCEMENT 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.
- 3. 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
- 4. REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.
- 5. 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.
- 6. 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 TOP BARS OTHER BA				RBARS	
SIZE	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

- 1. 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
- 3. CONTRACTOR AND/OR DECK MANUFACTURER SHALL FURNISH ALL NECESSARY DECK CLOSURE ACCESSORIES TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF ROOF INSULATION AND
- 4. STEEL FLOOR DECK SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON CONSTRUCTION
- DRAWINGS: 2" COMPOSITE DECK WITH 6" TOTAL SLAB THICKNESS
- 22GA DESIGN THICKNESS MAXIMUM SINGLE SPAN DURING CONSTRUCTION OF 6'-1" OR CONTINUOUS SHORED SPAN OF
- MAXIMUM SPAN SHALL NOT EXCEED 12'-6"
- PROVIDE W2.1xW2.1 WELDED WIRE MESH OR #4 @ 12" O.C. EACH WAY. PROVIDE 2" REBAR
- COVER MEASURED FROM TOP OF THE SLAB GALVANIZE PER ASTM A653
- MINIMUM BEARING LENGTH AT EDGE SUPPORTS IS 2"

COLUMN CLOSURES, END PLATES, AND COVER PLATES AS NEEDED.

- MINIMUM BEARING LENGTH AT INTERIOR SUPPORTS IS 4" ATTACH STEEL COMPOSITE FLOOR DECK TO SUPPORTS WITH 5/8" ARC PUDDLE WELDS AT 12" O.C. MECHANICAL FASTENERS EITHER POWDER ACTUATED, PNEUMATICALLY DRIVEN, OR SCREWS MAY BE USED IN LIEU OF WELDING PROVIDED THEY ARE APPROVED.
- ATTACH STEEL ROOF DECK SIDELAPS WITH #10 TEK OR CRIMP/BUTTON PUNCH AT 36" O.C. OR MID-SPAN, WHICHEVER IS SMALLER.
- 5. CONTRACTOR AND/OR DECK MANUFACTURER SHALL FURNISH ALL NECESSARY POUR STOPS,

STRUCTURAL STEEL

- STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- 2. STEEL GRADE AND SPECIFICATION SHALL BE AS FOLLOWS:
- 2.1. HOLLOW STRUCTURAL SECTIONS: ASTM A500 (Fy = 46 KSI) ASTM A36 (Fy = 36 KSI)
- CHANNELS, PLATES, ANGLES, WIDE FLANGES, ADN COLUMNS: 2.3. ANCHOR RODS:
- ASTM F1554 (Fy = 36 KSI) 3. BOLTS SHALL CONFORM TO ASTM A307
- WELDING SHALL CONFORM TO THE AWS CODES FOR BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE TO WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER.
- WELDS SHALL USE E70XX ELECTRODES AND A MINIMUM OR 3/16" SIZE UNLESS NOTED OTHERWISE.
- 6. ALL WELDS SPECIFIED AS FIELD WELDS MAY BE SHOP WELDED AT THE CONTRACTOR'S OPTION IF ERECTION CAN STILL BE EXECUTED.

ENERGY REQUIREMENTS:

- 1. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE SHALL BE IC-RATED, LEAKAGE RATED, AND SEALED TO THE GYPSUM WALLBOARD AS REQUIRED PER N1102.4.4.'
- 2. PROGRAMMABLE THERMOSTATS SHALL BE INSTALLED AS REQUIRED PER N1103.2.2.1.
- 3. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2% AIR LEAKAGE RATE PER N1103.2.2.1.
- 4. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE AS REQUIRED PER N1103.2.3.
- 5. HOT WATER PIPES SHALL BE INSULATED AS REQUIRED PER N1103.4.
- 6. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR AS REQUIRED PER M1507.2
- 7. MAKEUP AIR SYSTEMS SHALL BE INSTALLED FOR KITCHEN EXHAUST HOODS THAT EXCEED 400 CFM AS REQUIRED PER M1503.4.
- 8. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL SHALL NOT BE USED AS RETURN AIR PLENUMS UNLESS THE REQUIRED INSULATION BARRIER IS MAINTAINED PER M1601.1.1.
- 9. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE PER M1601.6 ENERGY CONSERVATION.

- THE GARAGE FLOOR SHALL SLOPE TOWARDS THE GARAGE DOORWAYS.
- 2. DOORS BETWEEN THE GARAGE AND THE DWELLING MINIMUM 1-3/8" SOLID CORE OR HONEY COMBED STEEL DOOR OR 20 MINUTE FIRE RATED.
- 3. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND IT'S ATTIC AREAS BY A MINIMUM 5/8" GYPSUM BOARD APPLIED TO THE GARAGE SIDE WHERE A FLOOR/CEILING SPACE IS PROVIDED
- 4. THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH 5/8" GYPSUM BOARD OR EQUIVALENT. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE THE FLOOR CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM PS TYPE "X" GYPSUM BOARD ON THE GARAGE CEILING.
- 5. GARAGE DOOR AND FRAME THE "H" FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING 2x6 VERTICAL JAMBS RUNNING FROM THE FLOOR TO CEILING, ATTACHED WITH 1-3/4"x0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 3-1/4"x0.120" NAILS THROUGH THE JAMB INTO THE HEADER. A MINIMUM OF 2x8 HEADER FOR ATTACHMENT OF COUNTER
- 6. SELF CLOSING DEVICES SHALL BE INSTALLED FOR GARAGE AND/OR DWELLING SEPARATION DOORS PER R302.5.1.
- 7. GARAGE VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 90 MPH WIND LOAD REQUIREMENTS OF DASMA 108 AND ASTM E330-96 (IRC 301.2.1).

- 1. STAIRWAYS SHALL PROVIDE A MAXIMUM 7-3/4" RISE AND A MINIMUM 10" RUN.
- 2. PROVIDE GUARD RAILS BETWEEN 36" GUARD RAILS ON THE OPEN SIDES OF RAISED FLOORS. PORCHES AND BALCONIES; MINIMUM 34" GUARD RAILS ON THE OPEN SIDES OF STAIRWAYS LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW.
- 3. GUARD RAIL ENCLOSURES SHALL HAVE INTERMEDIATE RAILS OF ORNAMENTAL PATTERNS THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER.
- 4. EACH STAIRWAY OF THREE OR MORE RISERS SHALL PROVIDE A CONTINUOUS HANDRAIL ON AT LEAST ONE SIDE BETWEEN 34" AND 38" ABOVE THE NOSING OF THE TREADS.
- 5. HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION OF 1-1/4" TO 2-5/8" OR OTHER APPROVED GRASPABLE SHAPE PER IRC R311.5.6.
- 6. MINIMUM 6'-8" OF HEADROOM CLEARANCE IS REQUIRED IN STAIRWAYS. 7. ENCLOSED ACCESSIBLE SPACE UNDER STAIRWAYS SHALL HAVE WALLS AND THE UNDERSIDE OF THE

STAIR AND LANDING PROTECTED WITH 1/2" GYPSUM BOARD ON ENCLOSURE SIDE PER IRC R311.2.2.

GLAZING

- 1. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS; GLASS IN STORM DOORS; INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARCH OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR; WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR: ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS; GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING 8 SF AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36".
- 2. WINDOW FALL PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH R312.2.

EMERGENCY EGRESS AND RESCUE

- 1. PROVIDE ONE WINDOW FROM EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SF WITH A MINIMUM OPENABLE HEIGHT OF 24" AND WIDTH OF 21"
- 2. BASEMENT EGRESS TO MEET THE REQUIREMENTS OF IRC R310.
- 3. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR INCLUDING BASEMENTS. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING.
- 4. CARBON MONOXIDE DETECTORS SHALL BE INSTALLED AS REQUIRED PER R315.

FRAMING NOTES:

- ALL LUMBER SIZES ARE DOUGLAS FIR-LARCH #2 UNLESS OTHERWISE NOTED.
- 2. ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR LARCH (2) 2x10 ON LOAD BEARING WALLS.
- 3. ALL HEADER/BEAMS TO BEAR ON A MINIMUM OF (2) 2x4 POSTS UNLESS NOTED OTHERWISE.
- 4. DOUBLE JOIST UNDER INTERIOR NON-LOAD BEARING WALLS.
- 5. CANTILEVERS, OVER BEAMS, AND DOOR JAMBS SHALL BE BLOCKED
- 6. ANY WOOD MEMBERS IN CONTACT WITH CONCRETE OR MASONRY (OR THE FURRING THEY ARE ATTACHED TO) SHALL BE OF DECAY RESISTANT MATERIAL.
- 7. INTERIOR NON LOAD BEARING WALLS SHALL BE ISOLATED FROM THE FLOOR FRAMING ABOVE UNLESS THE INTERIOR NON LOAD BEARING WALL RESTS DIRECTLY ON A FOOTING.
- 8. LVL STRENGTH SHALL BE VERSA-LAM 3100 Fb UNLESS NOTED OTHERWISE



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SHEET#

	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 JOSTS 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			
_	ROOF RAFTERS TO RIDGE, VALLEY	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			
7	OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	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				
	STUD TO STUD (NOT AT BRACED	16D COMMON (3-1/2" X 0.162")	24" O.C. FACE NAIL			
8	WALL PANELS)	10d BOX (3"x0.128"); OR 3" X 0.131" NAILS	16" O.C. FACE NAIL			
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL	16D BOX (3-1/2"x0.135"); OR 3" X 0.131" NAILS	12" O.C. FACE NAIL			
	PANELS)	16D COMMON (3-1/2" X 0.162")	16" O.C. FACE NAIL			
10	BUILT-UP HEADER (2" TO 2"	16D COMMON (3-1/2"x0.162")	16" O.C. ALONG EACH EDGE FACE NAIL			
10	HEADER WITH ½" SPACER)	16D BOX (3-1/2" X 0.135)	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			
		16D COMMON (3-1/2" X 0.162")	16" O.C. FACE NAIL			
12	TOP PLATE TO TOP PLATE	10d BOX (3"x0.128"); OR 3" X 0.131" NAILS	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)			
	BOTTOM PLATE TO JOIST, RIM	16D COMMON (3-1/2" X 0.162")	16" O.C. FACE NAIL			
14	JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16D BOX (3-1/2"x0.135"); OR 3" X 0.131" NAILS	12" O.C. FACE NAIL			
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST 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 1-3/4"	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			

	2018 IR	RC TABLE R602.3(1) (SEE IRC FOR FOOTI	NOTES)	
		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
	RIM JOIST, BAND JOIST OR	8d BOX (2-1/2"x0.113")	4" O.C. T	OE NAIL
22	BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8D COMMON (2-1/2" X 0.131"); OR 10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS	6" O.C. T	OE 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 BEAR	ING, 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, ⁷ / ₁₆ " CROWN	END	NAIL
		20D COMMON (4" X 0.192"); OR	NAIL EACH LAYER AS F TOP END AND BOTTOM	
27	BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS	24" O.C. FACE NAIL AT	
	LUMBER LATERS	AND: 2-20D COMMON (4" X 0.192"); OR 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS	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 2-8D COMMON (2-1/2" X 0.131"; OR 2-3" X 0.131") NAILS	EACH END	, TOE NAIL
			SPACING OF	FASTENERS
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	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 RSRS-01 (2-38" X 0.113") NAIL (ROOF)	6	12
31	19/32"-1"	8d COMMON NAIL (2-1/2"x0.131"); OR RSRS-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 CELLULOSIC FIBERBOARD SHEATHING	1-1/2" GALVANIZED ROOFING NAIL, 7/16" HEAD DIAMETER, OR 1-1/4" LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
34	25/32" STRUCTURAL CELLULOSTIC FIBERBOARD SHEATHING	1-3/4" GALVANIZED ROOFING NAIL, 7/16" HEAD DIAMETER, OR 1-1/2" LONG 16 GA STAPLE WITH $\frac{7}{16}$ " 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 STRUCTURA	AL PANELS, COMBINATION SUBFLOOR U	NDERLAYMENT TO FF	RAMING
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	

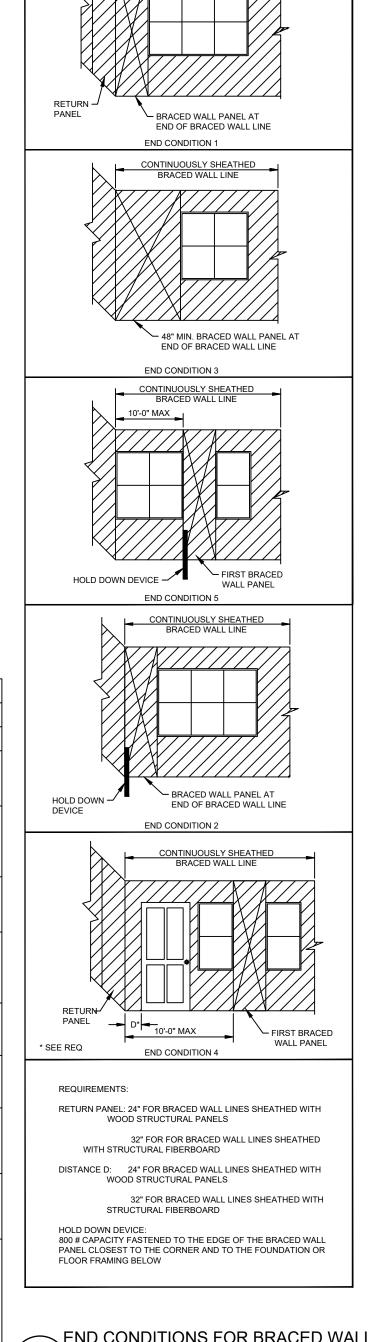
TABLE R507.2.1 PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS					
MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS (INCHES)					
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING	
LEDGER	2	1/4	2	1-5/8	
BAND JOIST	3/4	2	2	1-5/8	

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (FEET)	MAXIMUM TOTAL WALL HEIGHT (FEET)	MAXIMUM OPENING WIDTH (FEET)	TENSION STRAP CAPACITY REQUIRED (POUNDS) FOR 90 MPH EXPOSURE B
	0	10	18	1,000
			9	1,000
	1	10	16	1,000
			18	1,000
	2		9	1,200
		10	16	1,000
2x4 NO 2 GRADE			18	2,025
	2	12	9	2,400
			16	1,200
			18	3,200
			9	3,200
	4	12	16	2,350
			18	DR
			9	1,000
	2	12	16	2,050
2x6 STUD			18	2,450
GRADE			9	1,500
	4	12	16	3,150
			18	3,675

MINIMUM LENGTH OF BRACED WALL PANELS TABLE R602.10.5 (PARTIAL)					
		MININ	IUM LENGTH (INCHES)	
M	ETHOD		WALL HEIGHT	Ī	
		8 FEET	9 FEET	10 FEET	
	SUPPORTING ROOF ONLY	16	16	16	
PFH	SUPPORTING ONE STORY AND ROOF	24	24	24	
	PFG	24	27	30	
(CS-PF	16	18	20	
ADJACENT CLEAR OPENING CS-WSP HEIGHT (INCHES)					
	LESS THAN OR EQUAL TO 64	24	27	30	

BRACING METHODS TABLE R602.10.4 (PARTIAL)				
METHODS,	MINIMUM	CONNECTION CRITEIA		
MATERIAL	THICKNESS	FASTENERS	SPACING	
WSP - WOOD		EXTERIOR SHEATHING PER TABLE R602.3(3)	6" EDGES, 12" FIELD	
STRUCTURAL PANEL	3/8	INTERIOR SHEATHING PER TABLE R602.3(1) OR R602.3(2)	VARIES BY FASTENER	
CS-WSP CONTINUOUSLY		EXERIOR SHEATHING PER TABLE R602.3(3)	6" EDGES, 12" FIELD	
SHEATHED WOOD STRUCTURAL PANEL	3/8	INTERIOR SHEATHING PER TABLE R602.3(1) OR R602.3(2)	VARIES BY FASTENER	
PFH - PORTAL FRAME WITH HOLD DOWNS	3/8	SEE IRC SECTION R602.10.6.2	SEE IRC SECTION R602.10.6.2	
PFG - PORTAL FRAME AT GARAGE	3/8	SEE IRC SECTION R602.10.6.3	SEE IRC SECTION R602.10.6.3	
LIB	1x4 WOOD OR APPROVED METAL STRAPS AT 45 TO 60	WOOD: 2-8d COMMON NAILS OR 3-8d NAILS	WOOD: PER STUE AND TOP AND BOTTOM PLATES	
LET-IN-BRACING	DEGREE ANGLES FOR MAX 16" STUD SPACING	METAL STRAP: PER MANUFACTURER	METAL: PER MANUFACTURER	
GB-GYPSUM	1/2	NAILS OR SCREWS PER TABLE R602.3(1) FOR EXTERIOR LOCATIONS	FOR ALL BRACED WALL PANEL LOCATIONS: 7"	
BOARD	1 1/2	NAILS OR SCREWS PER TABLE R702.3.5 FOR INTERIOR LOCATIONS	EDGES (INCLUDIN TOP AND BOTTON PLATES) 7" FIELD	

	ENGINEERED	LUMBER MINI	MUM DESIGN REQ	UIREMENTS
		fb (PSI)	E (PSI)	Fv (PSI
	VERSA-LAM LVL	3100	2.0x106	285
	DOUGLAS FIR-LARCH #2	900	1.6x106	180





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FRAMING DETAILS

END CONDITIONS FOR BRACED WALL
LINES WITH CONTINUOUS
SHEATHING (IRC FIGURE R602.10.7)
N.T.S.

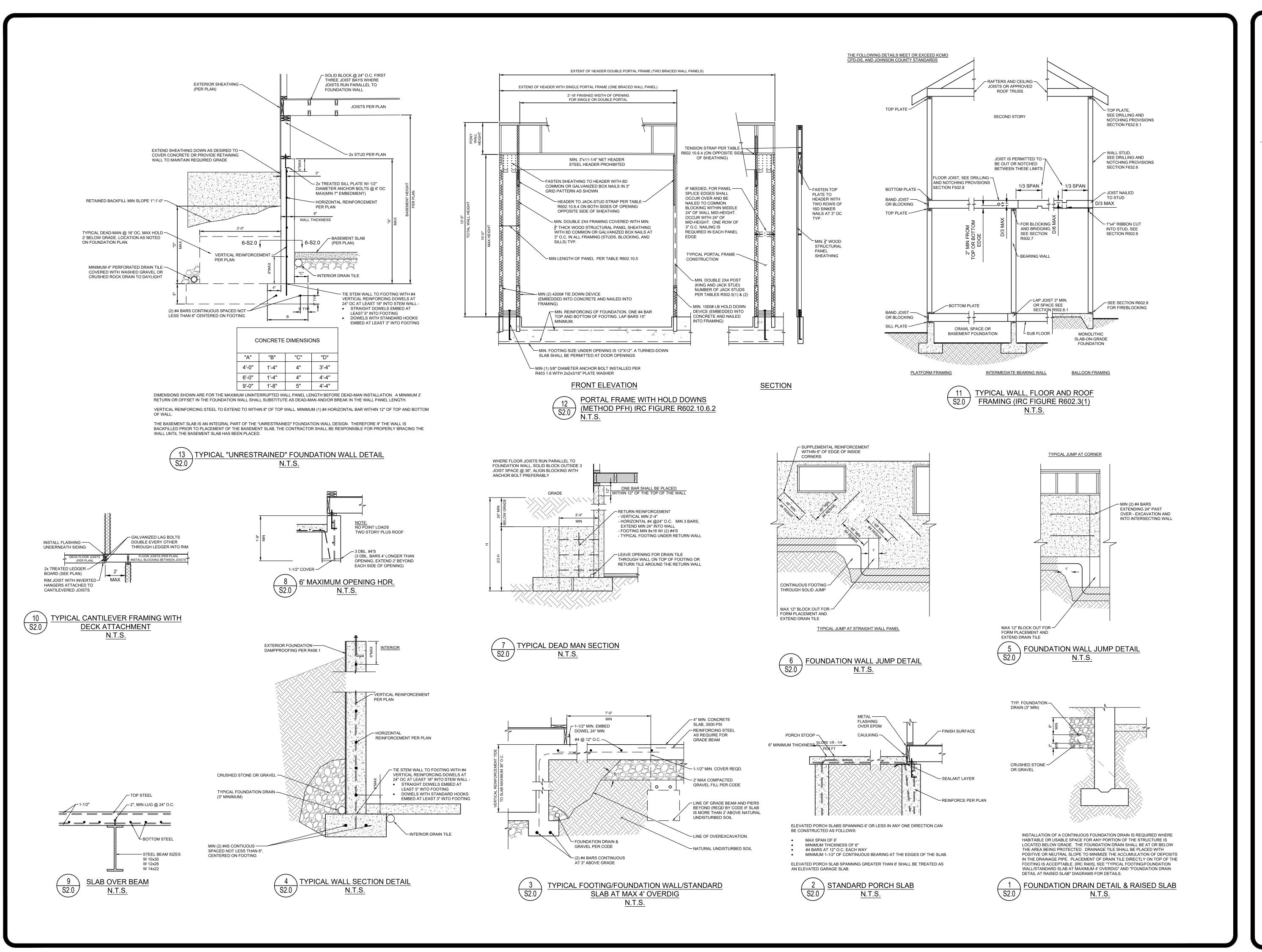
TABLE R507/2 FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER 2" NOMINAL SOLID SAWN SPRUCE-PINE-FIR BAND JOIST (DECK LIVE LOAD = 40PSF,
DECK DEAD LOAD = 10 PSF)

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		

REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES IRC TABLE 602.3(3) (PARTIAL)										
MINIMUM NAIL		MINIMUM WOOD STRUCTURAL	MINIMUM NOMINAL PANEL	MAX WALL STUD	PANEL NAIL SPACING		ULTIMATE DESIGN WIND SPEED, V ULT (MPH)			
SIZE	PENETRATION (IN)	PANEL SPAN RATING	THICKNESS (IN)	SPACING	EDGES (IN O.C.)	FIELD (IN O.C.)	В			
6d COMMON	1.5	24/0	3/8	16	6	12	140			
8d COMMON	1.75	24/16	7/16	16	6	12	170			
				24	6	12	140			

SHEET #

S_{1.0}





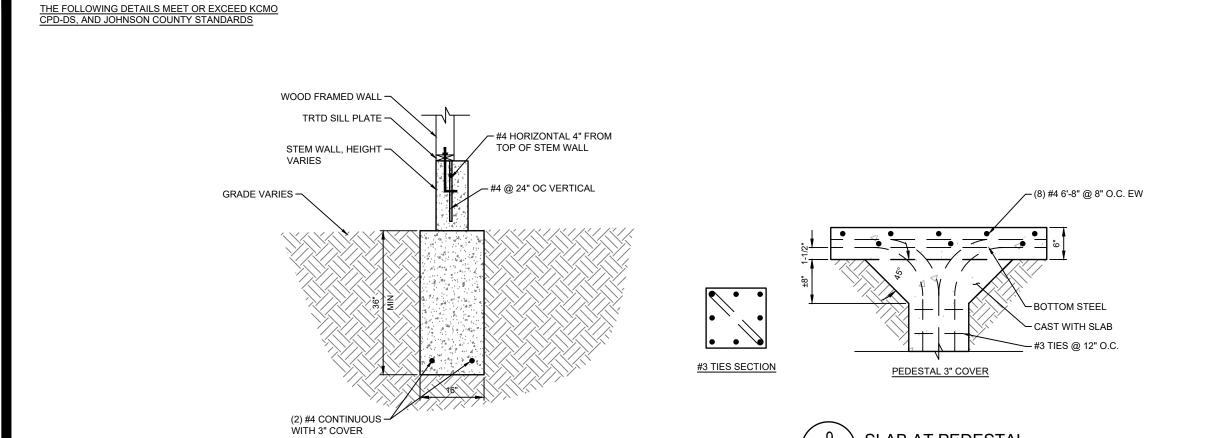
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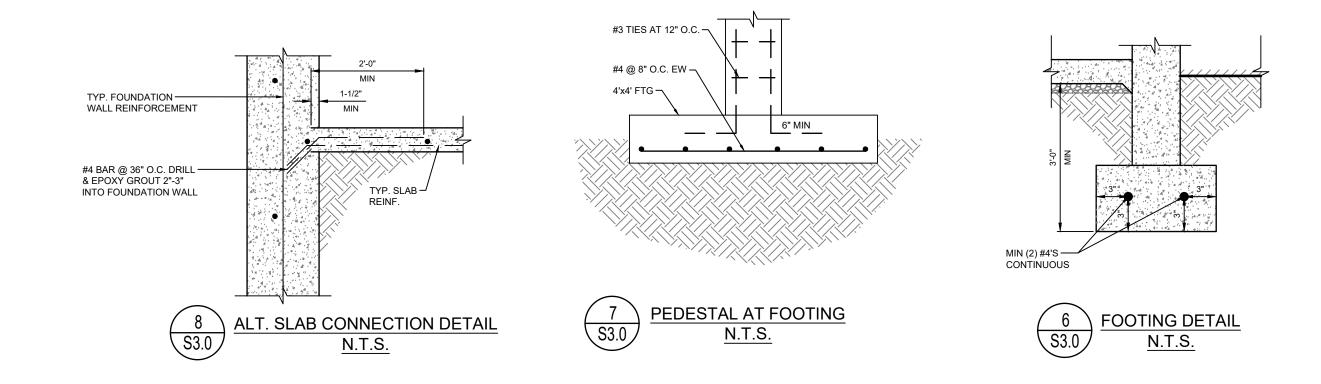
STRUCTURAL DETAILS

SHEET #

S2.0

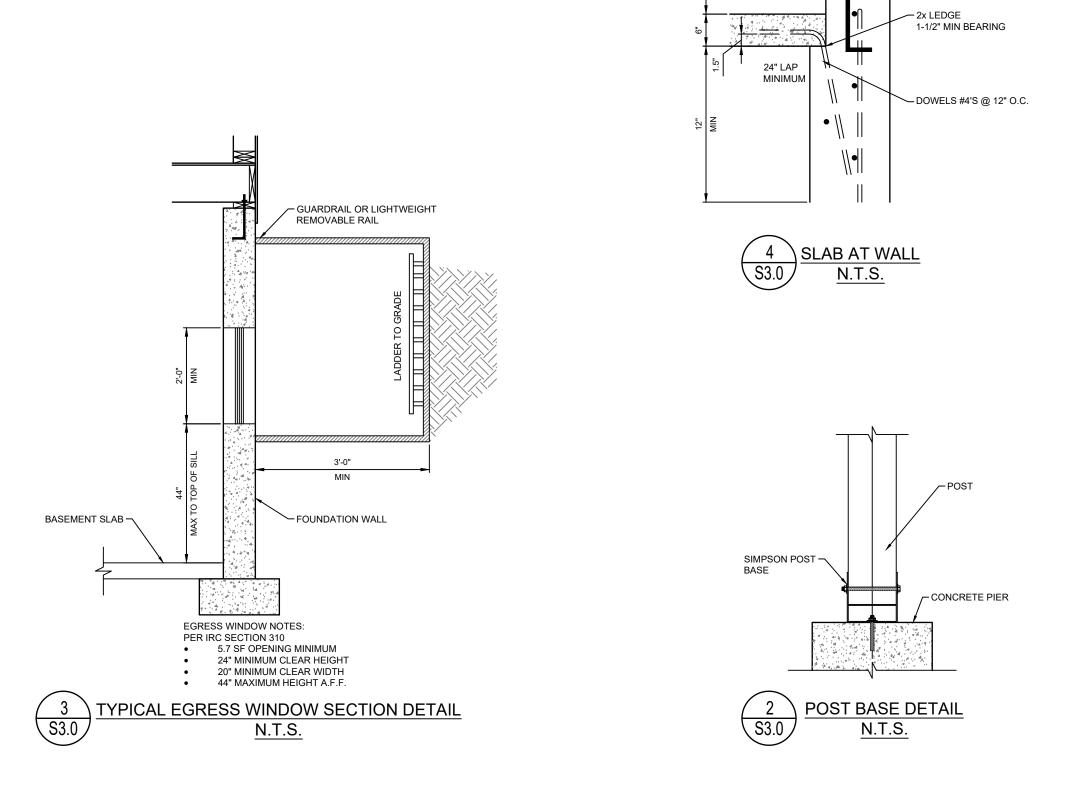


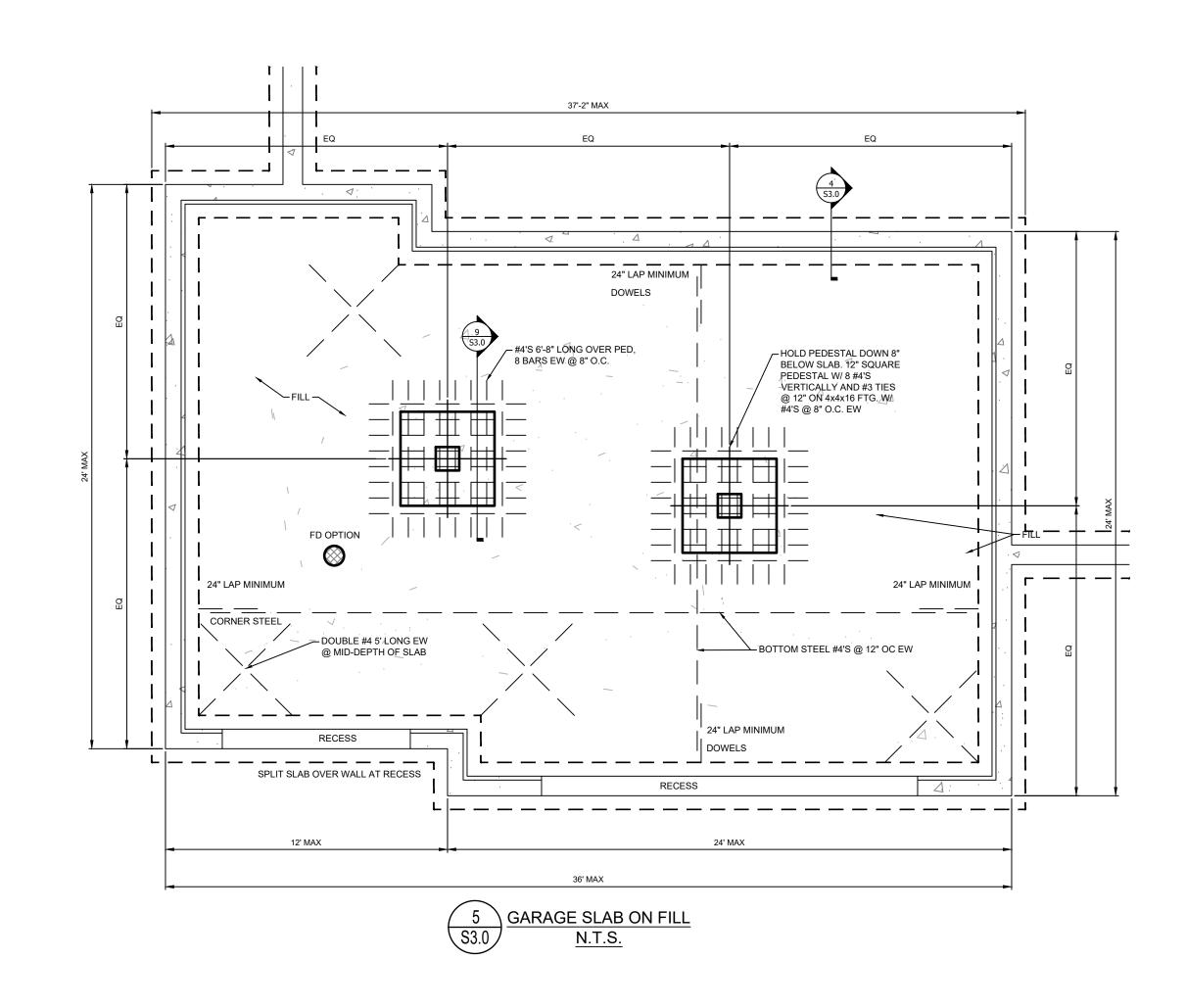
TRENCH FOOTING WITH STEM WALL N.T.S.

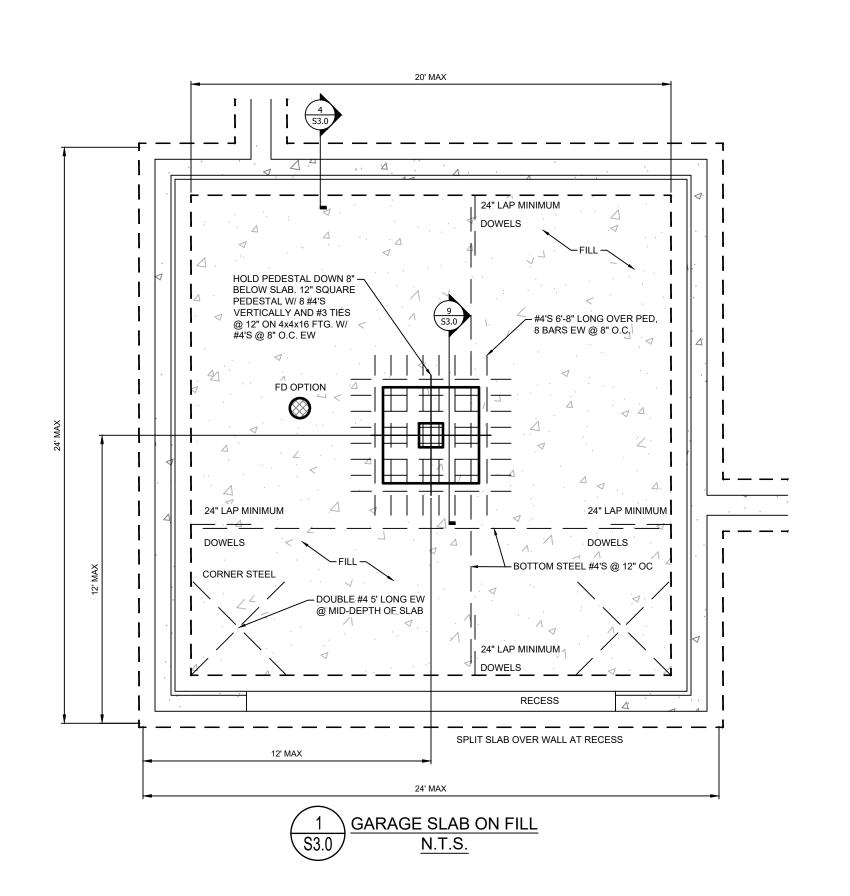


SLAB AT PEDESTAL

DETAIL MAY VARY









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FOUNDATION DETAILS

SHEET #

S3.0