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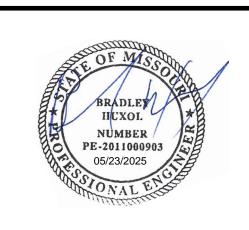
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EVERSTEAD

3741 NE TROON DRIVE, SUITE 200

LEE'S SUMMIT, MO 64064

EVERSTEAD.COM (816)399-4901

O DR AO 64082

NUNES RESIDENCE
DECK

REVISIONS

COVER

G000

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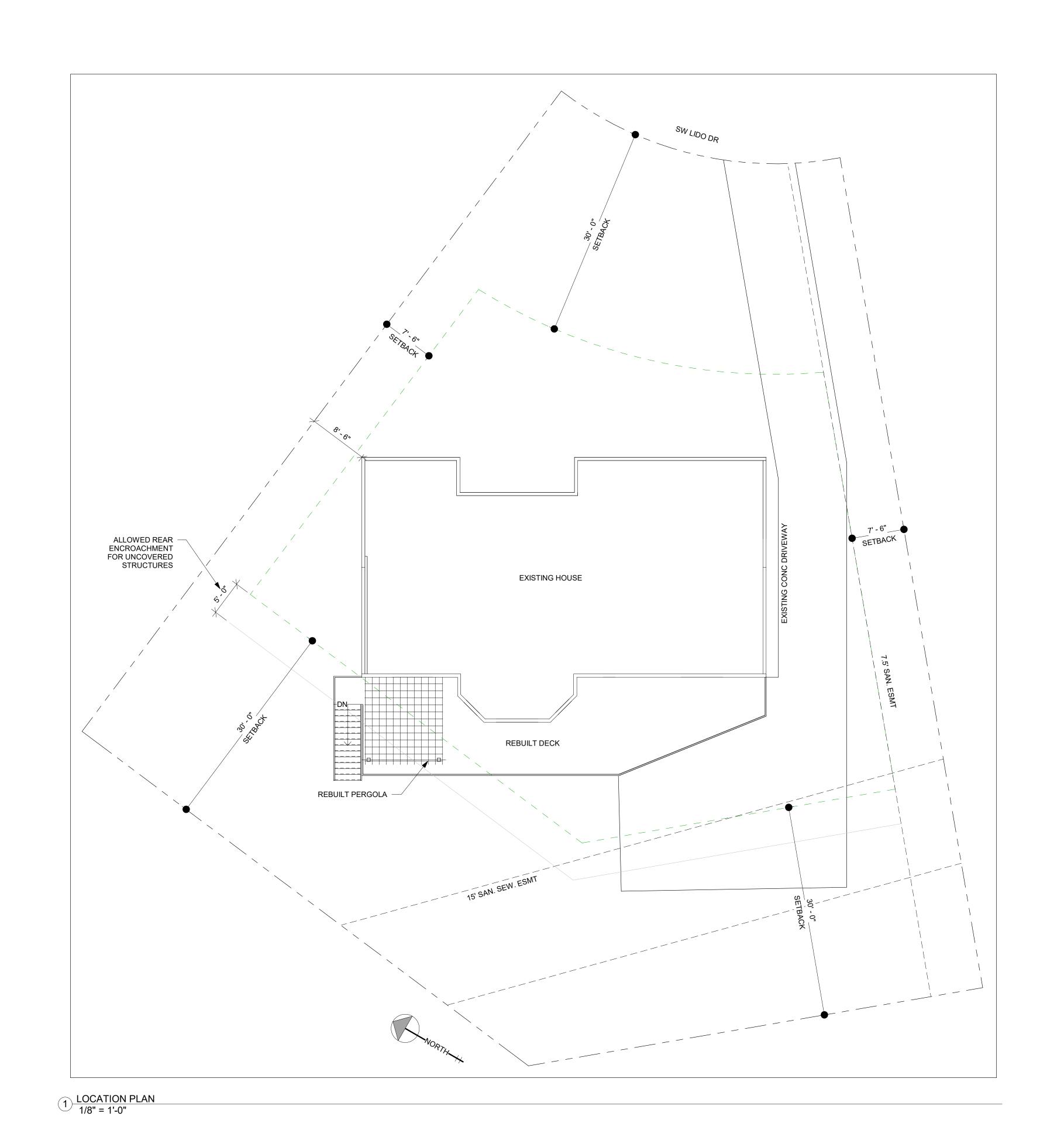
EVERSTEAD HAS PRODUCED THIS PLAN SET FOR THE CLIENT LISTED IN ACCORDANCE WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE FOR THE PROJECT AT THE ADDRESS LISTED ON THE PLANS. USE OF ANY PART OF THIS PLAN SET TO DEMOLISH, CONSTRUCT OR BUILD IN ANY MANNER ON PROPERTY OTHER THAN THE LISTED ADDRESS IS PROHIBITED WITHOUT WRITTEN CONSENT FROM EVERSTEAD.

ALL THIRD PARTY INSPECTIONS MUST BE PERFORMED BY EVERSTEAD. THIRD PARTY INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO INSPECTIONS OF

THE BEARING SOIL, FOOTINGS, PIERS, FOUNDATIONS, STRUCTURAL / SUSPENDED SLABS, RETAINING WALLS BACKFILL AND REINFORCEMENT), LUMBER

FRAMED CONSTRUCTIBILITY ISSUES, AND STRUCTURAL ITEMS IDENTIFIED BY THE LOCAL CODE INSPECTOR.

EVERSTEAD MUST BE NOTIFIED OF ANY AND ALL POTENTIAL DISPUTES, CLAIMS, ARBITRATION AND/OR LITIGATION THAT THE OWNER MAY PURSUE AGAINST THE CONTRACTOR AND/OR BUILDER. FAILURE TO NOTIFY EVERSTEAD AND ALLOW EVERSTEAD TO PROVIDE THEIR OPINION ON ANY DISPUTE, CLAIM, ARBITRATION AND/OR LITIGATION PERTAINING TO ANY STRUCTURAL ASPECT OF THE PROJECT SHALL ABSOLVE EVERSTEAD OF ALL RESPONSIBILITY.



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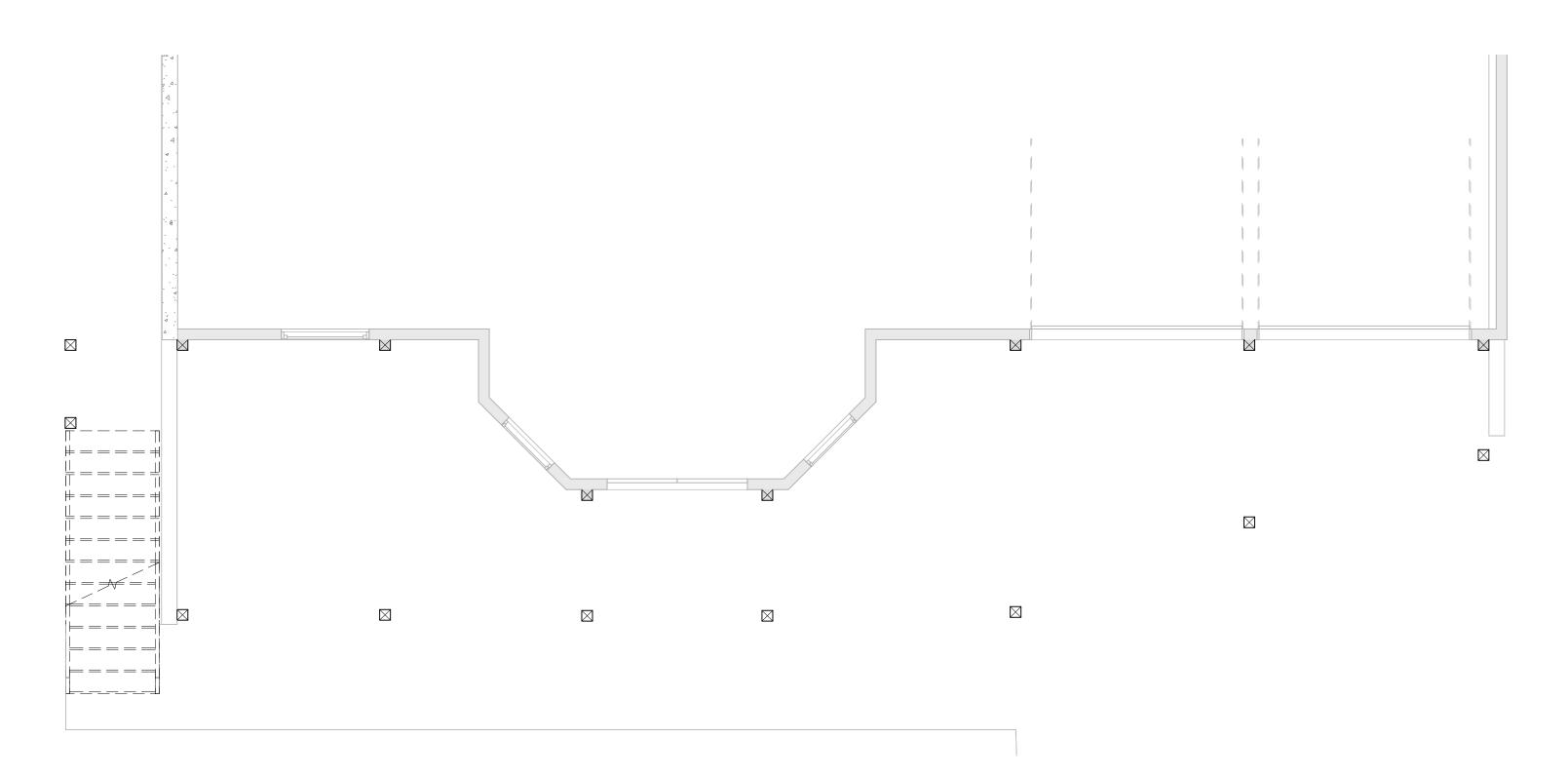
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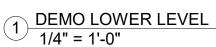
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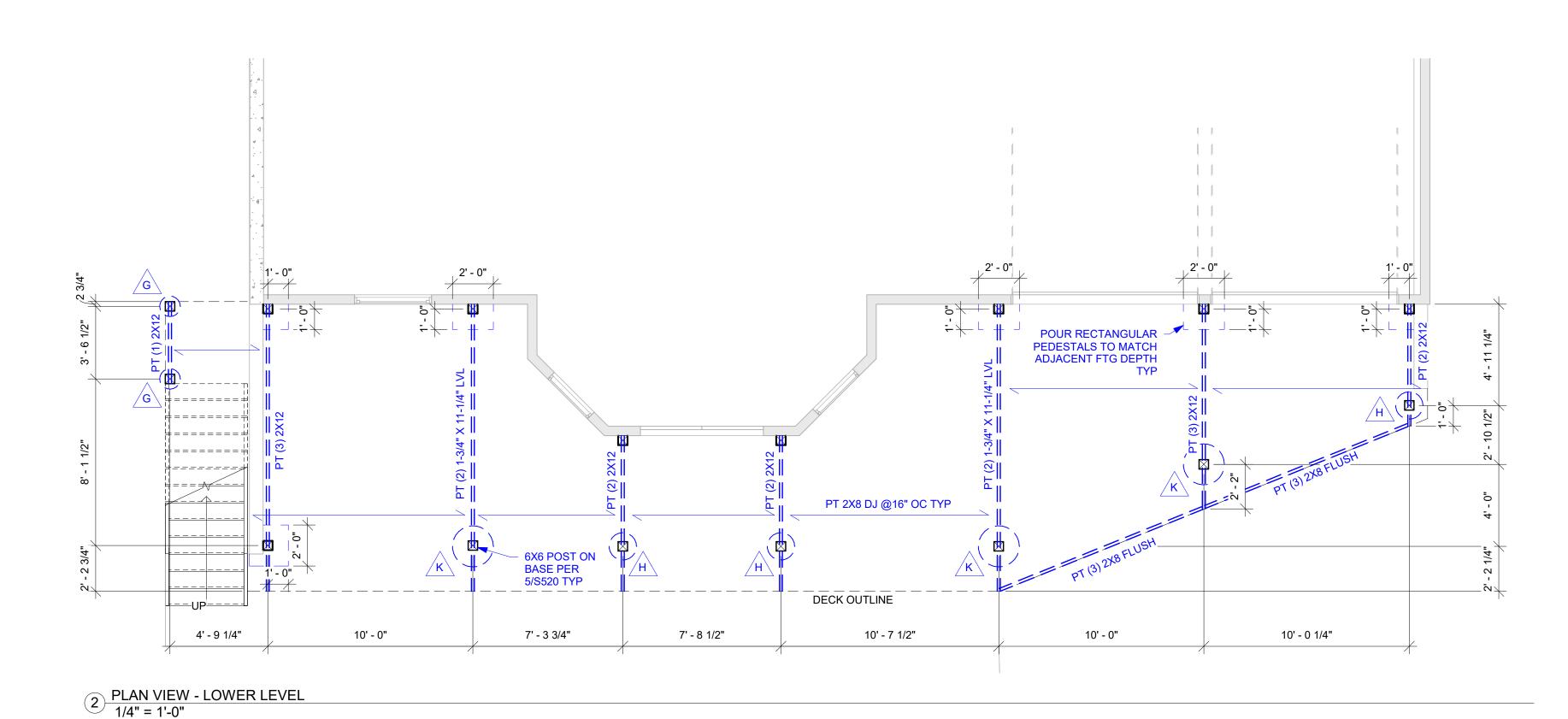
LOCATION PLAN

G100

5/22/2025 6:27:35 PM 1/8" = 1'-0"







FOUNDATION NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE (IRC). FOOTING ELEVATION TO BE DETERMINED BASED ON FINAL GRADE: ALL FOOTINGS MEET OR EXCEED MINIMUM FROST DEPTH OF 36" UNLESS OTHERWISE PROTECTED FROM FROST PER IRC 403.1.4..
- SOIL BEARING CAPACITY SHALL BE MINIMUM 1500 PSF.
- REFER TO SHEET S000 FOR MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE.
- REQUIRED AIR ENTRAINMENT SHALL BE 5-7% AS SPECIFIED IN IRC TABLE R402.2. FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPPROOFED PER IRC R406.
- FOUNDATION DRAINAGE WILL BE IN ACCORDANCE WITH IRC R405.
- ALL INTERIOR FOOTINGS OF LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
- STEEL COLUMNS SHALL BE A MINIMUM OF SCHEDULE 40.
- BASEMENT EGRESS SHALL COMPLY WITH IRC R310. FOR NEW CONSTRUCTION, AN ACCESSIBLE CONNECTION POINT TO BE PROVIDED TO A 20 FOOT CONCRETE

ALL ANCHOR BOLTS SHALL NOT BE SPACED MORE THAN 3' O.C. AND BE EMBEDDED INTO THE CONCRETE A

- ENCASED ELECTRODE (FOOTING REBAR) FOR THE ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTOR (UFER GROUND).
- INTERIOR FOOTINGS OF LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT SLAB ON GROUND SHALL BE CONTINUOUSLY SUPPORTED ON UNDISTURBED SOIL OR WITH FILL AND BASE
- A. FILL THE FILL SHALL BE COMPACTED TO PROVIDE UNIFORM SUPPORT OF THE SLAB AND SHALL NOT CONTAIN DELETERIOUS QUANTITIES OF ORGANIC OR FOREIGN MATERIAL. FILL DEPTHS SHALL
 - THE BUILDING OFFICIAL. BASE - A 4" THICK BASE COURSE CONSISTING OF CLEAN GRADED SAND, GRAVEL, CRUSHED STONE, CRUSHED SLAG, OR RECYCLED CONCRETE PASSING A 2" SIEVE SHALL BE PLACED ON THE PREPARED SUBGRADE WHEN THE SLAB IS BELOW GRADE.

NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL AND 8" FOR SUITABLE SOILS, UNLESS APPROVED BY

	ISOLATED FOOTINGS AND COLUMN PADS					
SYM	PIER PAD SIZE	DEPTH	MINIMUM REINFORCEMENT GRADE 40 KSI STEEL	SCHEDULE 40 STEEL COLUMN, MIN FY = 35 KSI		
A	30"x30"	1'-0"	(5) #4 BAR E.W.	3" DIAMETER		
B	36"x36"	1'-0"	(6) #4 BAR E.W.	3" DIAMETER		
C	42"x42"	1'-2"	(7) #4 BAR E.W.	3" DIAMETER		
D	48"x48"	1'-4"	(8) #4 BAR E.W.	3" DIAMETER		
E	54"x54"	1'-4"	(9) #4 BAR E.W.	3.5" DIAMETER		
F	60"x60"	1'-6"	(10) #4 BAR E.W.	3.5" DIAMETER		

ISOLATED FOOTINGS AND COLUMN PADS				
SYM	PIER DIAMETER	DEPTH		
G	12"	3'-0"		
H	16"	3'-0"		
<u></u>	18"	3'-0"		
K	24"	3'-0"		
<u>/L</u>	28"	3'-0"		

*DENOTES STEEL COLUMN NOT REQUIRED 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.

GENERAL PLAN NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ENGINEERING SPECIFICATIONS WHERE APPLICABLE.
- ALL DIMENSIONS ARE FROM FACE OF STUD U.N.O. MINIMUM DOUBLE JOIST UNDER INTERIOR NON-LOAD BEARING
- CANTILEVERS, OVER BEAMS, AND DOOR JAMBS SHALL BE BLOCKED.
- CEILING JOISTS SHALL BE 2x6 @ 16" O.C. U.N.O. WALL CONSTRUCTION SHALL BE CAPABLE OF
- ACCOMMODATING ALL LOADS IMPOSED ACCORDING TO IRC
- EXTERIOR WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH IRC 602 & FIGURES R602.3(1) AND R602.3(2).
- ANY WOOD MEMBERS IN CONTACT WITH CONCRETE OR MASONRY (OR THE FURRING THEY ARE ATTACHED TO) SHALL
- BE OF DECAY RESISTANT MATERIAL. 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. 10. SOLID BLOCKING BETWEEN JOISTS AT 48" O.C. AND EXTEND
- BLOCKING ONE JOIST BAY PAST EACH SIDE OF KITCHEN ISLAND.
- 11. DOUBLE JOIST UNDER KITCHEN ISLAND AND TUBS.
- ALL JOIST HANGERS TO BE SIMPSON LUS HANGERS UNO. ALL WINDOW HEADERS TO BE (2) 2X10 UNO.
- ALL EXTERIOR WALLS, INTERIOR BEARING WALLS, AND
- INTERIOR BRACED WALLS SHALL BE @ 16" OC UNO.
- ALL INTERIOR NON-LOAD BEARING, NON-BRACED, NON-CABINET WALLS ARE ALLOWED @ 24" OC.

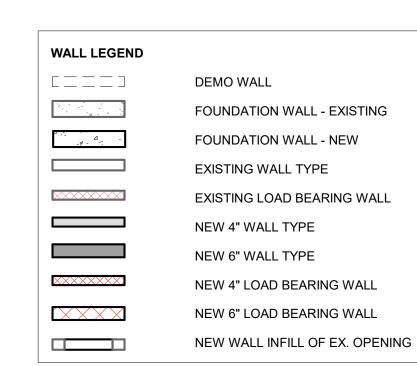
INTERIOR LOAD BEARING WALL

CONSTRUCTION NOTES - ADDITIONS

- ALL NEW WALL DIMENSIONS ARE MEASURED TO
- THE FACE OF STUD UNO.
- ALL EXISTING WALLS ARE MEASURED TO THE PRESUMED FINISHED FACE OF WALL UNO. ALL STRUCTURAL BEAMS ARE MEASURED TO THE
- CENTER OF THE MEMBER. ALL CRITICAL DIMENSIONS TO BE FIELD VERIFIED
- BY CONTRACTOR. NEW DOORS AND WINDOWS ARE TAGGED IN
- FEET AND INCHES. ALL VANITIES, SHOWERS, AND TUBS ARE TAGGED IN INCHES UNO.
- ALL TOILETS TO BE INSTALLED WITH A MINIMUM OF 15" O.C. CLEARANCE ON EACH SIDE OF TOILET. ALL TOILETS TO HAVE 21" CLEARANCE AT FRONT
- OF TOILET. ALL SINKS TO HAVE 21" CLEARANCE AT FRONT OF
- ALL SHOWERS TO HAVE 24" CLEARANCE AT OPENING.

- - - - -

CEILING TRANSITION



RE NONE

REVISIONS

ENGINEERING & DESIGN

NUMBER / PE-2011000903 05/23/2025

EVERSTEAD 3741 NE TROON DRIVE, SUITE 200

LEE'S SUMMIT, MO 64064

EVERSTEAD.COM (816)399-4901

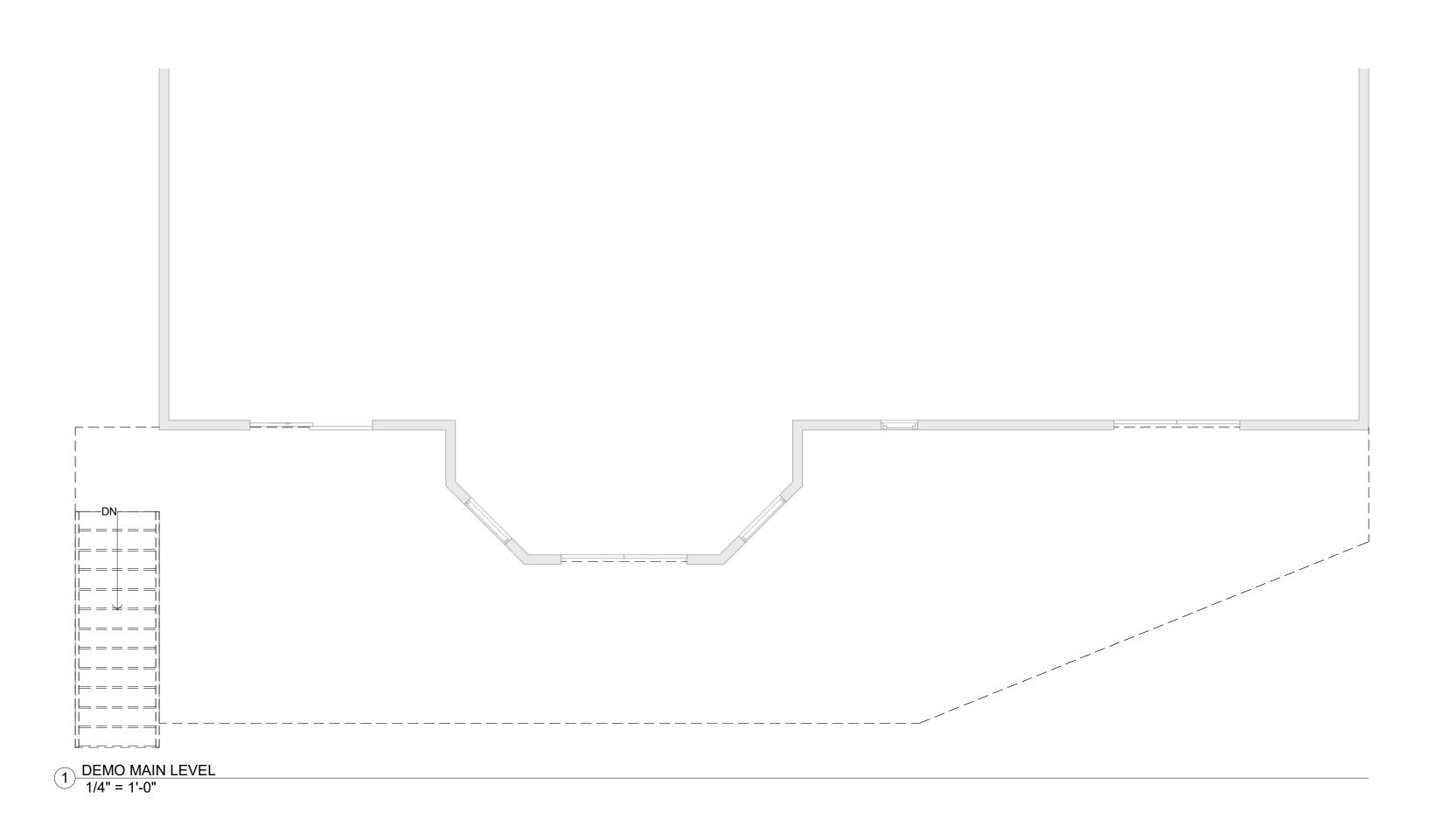
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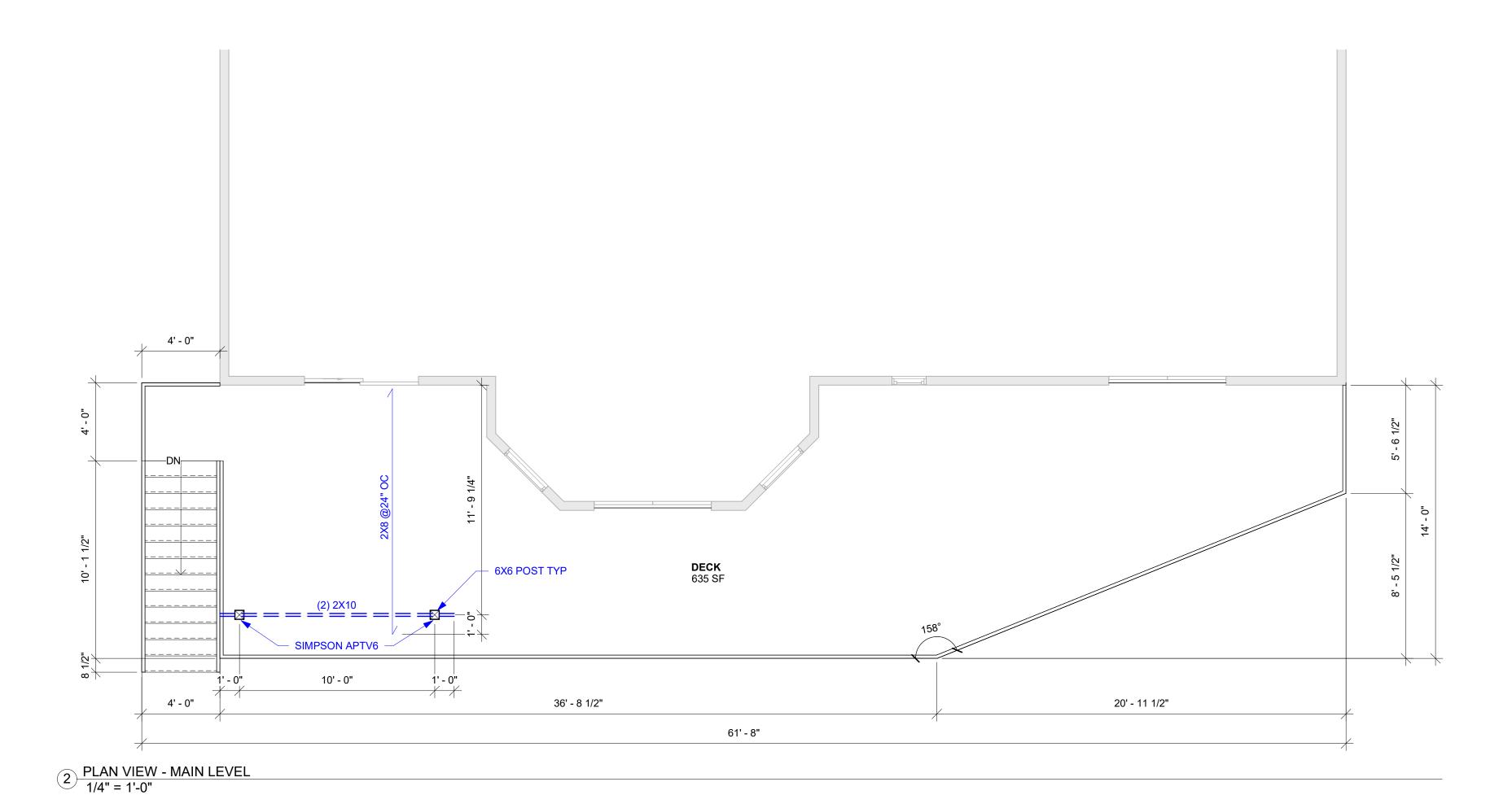
LOWER LEVEL / **FOUNDATION PLAN**

G101

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As indicated





GENERAL PLAN NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ENGINEERING
- SPECIFICATIONS WHERE APPLICABLE.
- ALL DIMENSIONS ARE FROM FACE OF STUD U.N.O. MINIMUM DOUBLE JOIST UNDER INTERIOR NON-LOAD BEARING
- - CANTILEVERS, OVER BEAMS, AND DOOR JAMBS SHALL BE
- BLOCKED. CEILING JOISTS SHALL BE 2x6 @ 16" O.C. U.N.O.
- WALL CONSTRUCTION SHALL BE CAPABLE OF ACCOMMODATING ALL LOADS IMPOSED ACCORDING TO IRC
- EXTERIOR WALLS SHALL BE CONSTRUCTED IN ACCORDANCE
- WITH IRC 602 & FIGURES R602.3(1) AND R602.3(2). ANY WOOD MEMBERS IN CONTACT WITH CONCRETE OR
- MASONRY (OR THE FURRING THEY ARE ATTACHED TO) SHALL BE OF DECAY RESISTANT MATERIAL. 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.
- SOLID BLOCKING BETWEEN JOISTS AT 48" O.C. AND EXTEND BLOCKING ONE JOIST BAY PAST EACH SIDE OF KITCHEN
- 11. DOUBLE JOIST UNDER KITCHEN ISLAND AND TUBS.
- 12. ALL JOIST HANGERS TO BE SIMPSON LUS HANGERS UNO. ALL WINDOW HEADERS TO BE (2) 2X10 UNO.
- ALL EXTERIOR WALLS, INTERIOR BEARING WALLS, AND
- INTERIOR BRACED WALLS SHALL BE @ 16" OC UNO. ALL INTERIOR NON-LOAD BEARING, NON-BRACED, NON-CABINET WALLS ARE ALLOWED @ 24" OC.

INTERIOR LOAD BEARING WALL

WALL BRACING NOTES:

- WALL BRACING IS DESIGNED IN ACCORDANCE WITH IRC R602.10 BRACING METHODS SHALL BE PER PLAN AND SHALL BE CONSTRUCTED IN CONFORMANCE WITH 2018 IRC R602.10.4 AND
- R602.10.5 FOR METHOD CS-WSP STRUCTURAL PANEL SHEATHING SHALL BE INSTALLED ON ALL SHEATHABLE SURFACES ON ONE SIDE OF THE BRACED WALL LINE INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS. END CONDITIONS SHALL MEET
- THE REQUIREMENTS OF R602.10.7 AND DETAIL 9-S400. 4. ALL HORIZONTAL PANEL JOINTS SHALL OCCUR OVER AND BE NAILED TO COMMON FRAMING OR BLOCKING WITH AN APPROPRIATE PANEL EDGE-NAILING SCHEDULE IN ACCORDANCE WITH IRC R602.10.4.4
- INTERIOR FINISH OF EXTERIOR WALLS SHALL BE MINIMUM 1/2" GYPSUM BOARD INSTALLED ON THE INTERIOR SIDE.

BRACING METHODS

BRACING CS-PF PER IRC R602.10.6.4

BRACING CS-WSP PER IRC R602.10

BRACING WSP PER IRC R602.10 (4' MIN PANEL LENGTH, UNO) (PARTIAL PANELS PER IRC R602.10.5.2, NOTED ON PLANS W/ LENGTH)

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

BRACING PFH PER IRC R602.10.6.2

CONSTRUCTION NOTES - ADDITIONS

- ALL NEW WALL DIMENSIONS ARE MEASURED TO
- THE FACE OF STUD UNO. ALL EXISTING WALLS ARE MEASURED TO THE PRESUMED FINISHED FACE OF WALL UNO.
- ALL STRUCTURAL BEAMS ARE MEASURED TO THE CENTER OF THE MEMBER.
- ALL CRITICAL DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTOR.
- NEW DOORS AND WINDOWS ARE TAGGED IN
- FEET AND INCHES. ALL VANITIES, SHOWERS, AND TUBS ARE TAGGED
- IN INCHES UNO. ALL TOILETS TO BE INSTALLED WITH A MINIMUM
- OF 15" O.C. CLEARANCE ON EACH SIDE OF TOILET. ALL TOILETS TO HAVE 21" CLEARANCE AT FRONT
- OF TOILET. ALL SINKS TO HAVE 21" CLEARANCE AT FRONT OF
- 10. ALL SHOWERS TO HAVE 24" CLEARANCE AT

OPENING.

_	_	_	_	CEILING TRANSITION

WALL LEGEND	
	DEMO WALL
	FOUNDATION WALL - EXISTING
4. 4.	FOUNDATION WALL - NEW
	EXISTING WALL TYPE
	EXISTING LOAD BEARING WALL
	NEW 4" WALL TYPE
	NEW 6" WALL TYPE
×××××××	NEW 4" LOAD BEARING WALL
	NEW 6" LOAD BEARING WALL
i .	

NEW WALL INFILL OF EX. OPENING





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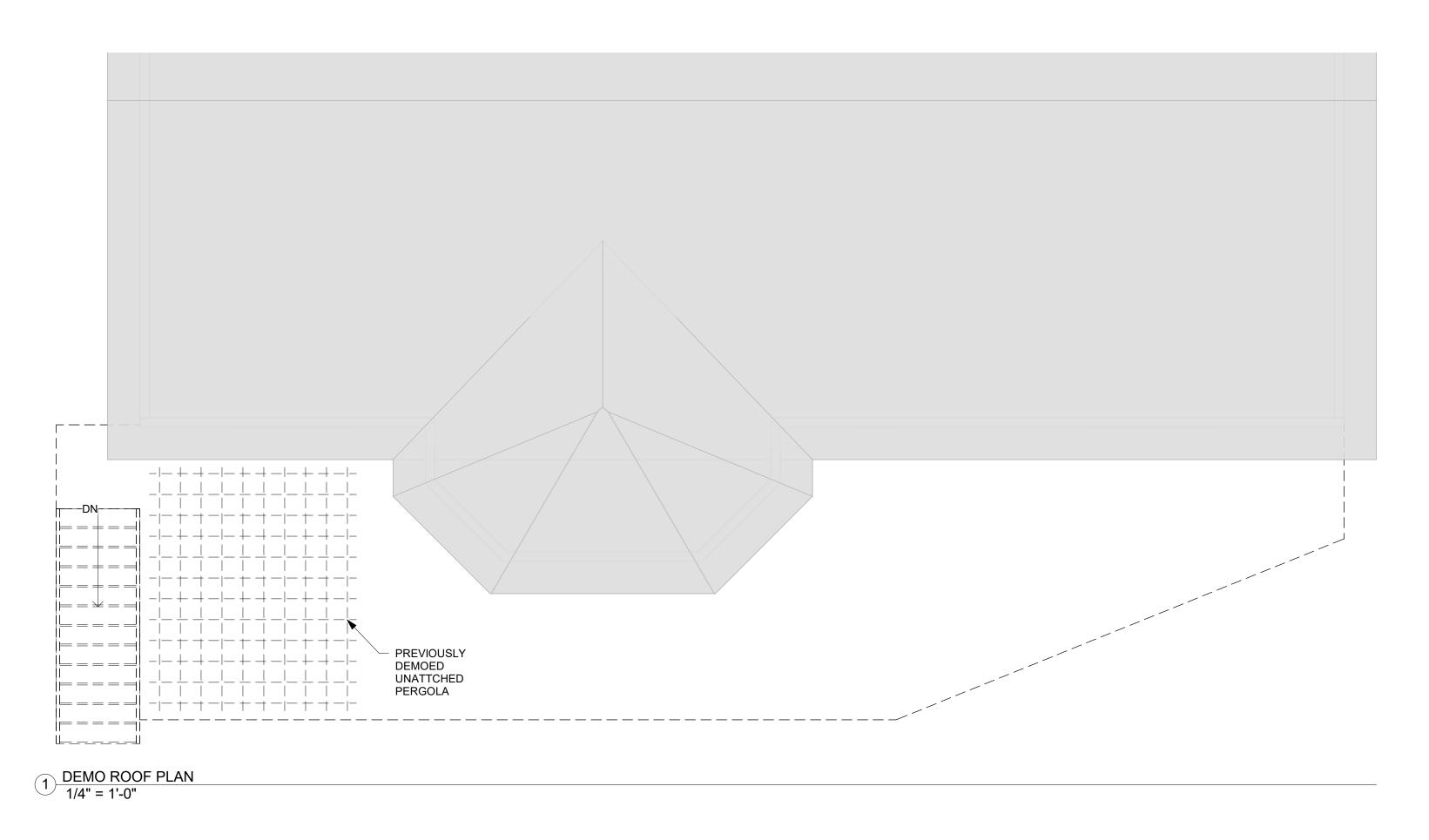
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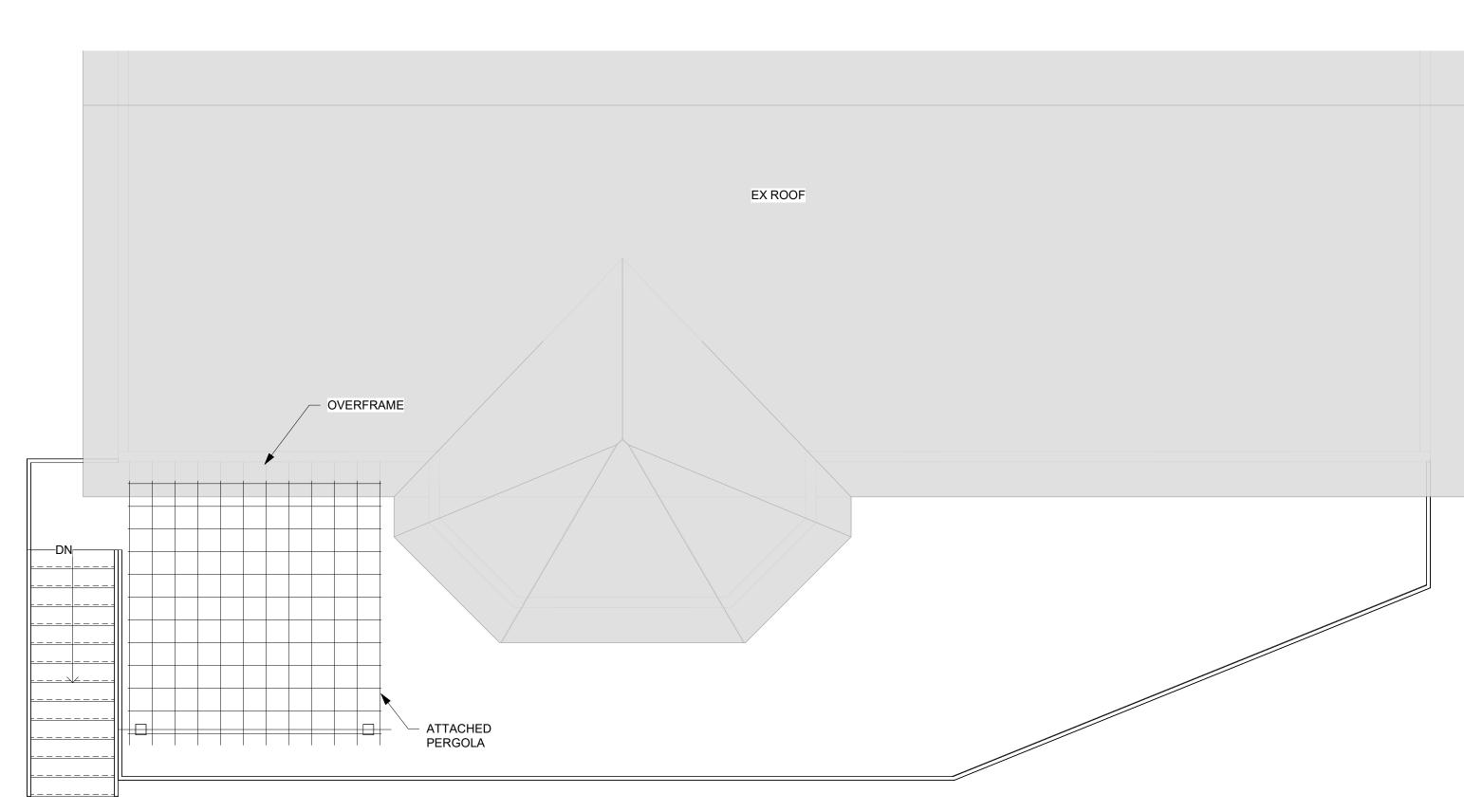
REVISIONS

MAIN LEVEL PLAN

G102

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2 ROOF PLAN 1/4" = 1'-0"

STICK FRAMED ROOF NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL CODE OR ENGINEERING
- SPECIFICATIONS WHERE APPLICABLE. PROVIDE 2x SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR
- FOUNDATION BELOW. ROOF IS ENGINEERED TO COMPLY WITH IRC 802.
- ALL RAFTERS SHALL BE 2x6 @ 16" O.C. U.N.O.
- RIDGE BOARDS, HIPS, AND VALLEYS SHALL BE A DEPTH NOT LESS THAN THE CUT END OF RAFTERS BEING
- STRUCTURAL RIDGE, HIP, VALLEY BEAMS PER PLAN, IF REQUIRED. PURLINS AND PURLIN STRUTS SHALL BE PER IRC SECT. R802.4.5 w/ MODIFICATIONS AS FOLLOWS: PURLIN STRUTS SHALL BE CONSTRUCTED IN A " T " CONFIGURATION AND PER THE CHART BELOW.

PURLIN STRUT	MAX PURLIN STRUT LENGTH
(2) 2x4	8'-0"
2x4 AND 2x6	12'-0"



HIP, VALLEY, OR RIDGE SUPPORT TO STRUCTURE BELOW (IN ADD'N TO MIN CODE REQUIREMENTS)

RAFTER FRAMING DIRECTION



PURLIN AND PURLIN STRUTS





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ROOF PLAN

G104

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MAIN LEVEL 0' - 0" FOUNDATION -0' - 11 1/2" LOWER LEVEL -8' - 7 1/2" T.O. FOOTING -8' - 111 1/2" B.O. FOOTING -9' - 7 1/2" EXISTING -RETAINING WALL 1) FRONT ELEVATON 1/4" = 1'-0" TOP PLATE 8' - 0" TOP PLATE 8' - 0"

MAIN LEVEL

FOUNDATION -0' - 11 1/2"

LOWER LEVEL

-8'-|7 1/2"

T.O. FOOTING

-8'-|11 1/2"

B.O. FOOTING

-9'-|7 1/2"

3 RIGHT ELEVATION 1/4" = 1'-0"

2 <u>LEFT ELEVATION</u> 1/4" = 1'-0"

ELEVATION NOTES

MAIN LEVEL
0'-0"

FOUNDATION
-0'-111/2"

LOWER LEVEL
-8' - 7 1/2"

T.O. FOOTING
-8' - 11 1/2"

B.O. FOOTING
-9' - 7 1/2"

- GRADE IS APPROXIMATE AND SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY SITE CONDITIONS.
 UNBALANCED FILL NOT TO EXCEED 4'-0" AT UNRESTRAINED WALLS.
 ALL FOOTINGS TO BE BELOW FROST LINE (3'-0") AS REQUIRED PER SITE.

4086 SW LIDO DR LEES SUMMIT, MO 64082 NUNES

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NUMBER PE-2011000903 05/23/2025

EVERSTEAD 3741 NE TROON DRIVE, SUITE 200

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DESIGN ELEVATIONS

G200

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DATE SCALE

GENERAL NOTES IRC 2018

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

A.2 LOADING ASSUMPTIONS

DEAD	
ROOF	10 PSF UN
ROOF + CEILING (NO STORAGE)	15 PSF
ROOF + CEILING (STORAGE)	20 PSF
CEILING JOISTS (STORAGE)	10 PSF
EXTERIOR BALCONY / DECK	10 PSF
NTERIOR FLOOR (MAIN FLOOR)	15 PSF
NTERIOR FLOOR (UPPER FLOORS)	10 PSF
3" THICK MASONRY WALL	96 PSF
" THICK MASONRY WALL	72 PSF
EXTERIOR LIGHT FRAMED WOOD WALLS	15 PSF
NTERIOR LIGHT FRAMED WOOD WALLS	10 PSF
INTERIOR WALLS INCLUDED IN 15 PSF DEAD	LOAD)

ROOF LIVE LOAD	20 PSF
FLOOR LIVE LOAD	40 PSF (HABITABLE)
GARAGE	50 PSF WITH 2000 LB POINT LOAD
STORAGE	20 PSF (UNINHABITABLE)
GUARDRAIL:	,

CONTINUOUS LINEAR 50 PLF MAXIMUM POINT 200 LBS

GROUND SNOW LOAD 115 MPH VELOCITY

SOIL AND SITE ASSUMPTIONS

EXPOSURE CATEGORY

FOUNDATION DESIGN ASSUMES MINIMUM SOIL BEARING FOR THE SITE OF 1,500 PSF (2,000 PSF FOR KANSAS CITY, MO) UNLESS OTHERWISE NOTED. CONTRACTOR TO VISUALLY INSPECT THE SITE OR PROVIDE GEOTECHNICAL INVESTIGATION TO VERIFY MINIMUM ACCEPTABLE SOIL CONDITIONS FOR CL (SILTY CLAY) AS DEFINED BY 2018 IRC. THE CONTRACTOR IS RESPONSIBLE FOR ANY SOIL CONDITION THAT DOES NOT MEET THE MINIMUM REQUIREMENTS AND FOR CONTACTING EVERSTEAD.

- ACCESSORY STRUCTURES WITH AN EAVE HEIGHT LESS THAN 10'-0" AND AN AREA LESS THAN 600 FT MAT PROVIDE A MINIMUM SOIL COVER OF 12 INCHES MEASURED FROM THE BOTTOM OF CONCRETE.
- LATERAL SOIL PRESSURES UNLESS OTHERWISE NOTED **ACTIVE** 60 PSF

100 PSF

SITE GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AT A MINIMUM OF O.5% (6" IN THE FIRST 10'-0"). ALTERNATE APPROACHES MAY BE APPROVED IF THE ALTERNATE DESIGN IS EQUIVALENT IN EFFECTIVENESS AND PERFORMANCE, AND PROVIDES FOR POSITIVE SITE DRAINAGE.

FOUNDATION NOTES

AT REST

FOUNDATION ANCHORAGE (IRC R403.1.6)

- SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WALL WITH A MINIMUM 1/2" DIAMETER ANCHOR BOLTS EMBEDDED AT LEAST 7" INTO THE CONCRETE.
- BOLTS SHALL BE SPACED NO GREATER THAN 6'-0" 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 EQUALS A 9-1/4" LONG
- WALL BRACING METHODS (IRC R602) MAY REQUIRE ADDITIONAL ANCHORAGE.

C.2 CONCRETE SLABS

- CONCRETE SLABS PLACED ON FILL MATERIAL WHICH SHALL BE COMPARED TO ENSURE UNIFORM SUPPORT OF THE SLAB AND SHALL NOT EXCEED 24" OF COMPACTED GRANULATED MATERIAL (SAND OR GRAVEL) OR 8" OF EARTH:
 - THIS MAY OCCUR AT GARAGE FLOOR FILLS, OR OVER EXCAVATED AREAS UNDER
 - 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'-0" OVER-DIG ADJACENT TO FOUNDATION WALL:
 - WHERE SOIL IS EXCAVATED FOR A MAXIMUM DIMENSION OF 4'-0" 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'-0" OVER-DIG"

C.3 VAPOR RETARDER / BARRIER (IRC R506.2.3)

A 6 MILLIMETER 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 UNHEATED ACCESSORY BUILDINGS).

C.4 FOOTINGS

- THE BOTTOM OF ALL FOOTINGS SHALL EXTEND NOT LESS THAN 36" BELOW GRADE FOR FROST PROTECTION (IRC R403.1.4).
- FOOTINGS FOR FREESTANDING ACCESSORY STRUCTURES WITH AN AREA OF 600 SQ. FT. OR LESS AND AN EAVE HEIGHT OF 10'-0" OR LESS SHALL EXTEND BELOW GRADE A MINIMUM OF
- EXTERIOR WALLS, BEARING WALLS, COLUMNS 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" DETAILS.

C.5 CONCRETE

- ALL CONCRETE CONSTRUCTION SHOULD CONFORM TO ACI 318-14 (OR ACI 332) OR 2018 IRC.
- THE MINIMUM CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE AS SPECIFIED IN IRC TABLE R402.2.

C.5 CONCRETE (CONT.)

- CONCRETE MIX TO UTILIZE A MAXIMUM WATER-CEMENT MATERIALS RATIO OF 0.45 FOR ALL APPLICATIONS. ADMIXTURES SHALL NOT CONTAIN ANY CHLORIDES.
- CONCRETE POURED AGAINST AN EXISTING SURFACE SHOULD BE ROUGHENED TO A MINIMUM OF 1/4 INCH AMPLITUDE.
- REBAR PLACEMENT SHALL BE AS FOLLOWS:

WALLS, OR FLATWORK EXPOSED TO WEATHER

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3.0 IN CLR CONCRETE EXPOSED TO EARTH OR WEATHER 1.5 IN CLR NOT EXPOSED TO WEATHER OR GROUND 3/4 IN CLR

CONCRETE MIX DESIGN SHALL BE 6% (±1%) AIR-ENTRAINED FOR GARAGE SLABS, FOOTINGS,

- SLABS, WALLS, JOISTS 1.5 IN CLR BEAMS, COLUMNS
- SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE CONCRETE STRENGTH REACHES 70% OF STRENGTH DETERMINED BY CYLINDERS OR 28 DAYS.
- ALL FOUNDATION WALLS ENCLOSING BELOW GRADE SPACE SHALL BE DAMPPROOFED. THE DAMPPROOFING SHALL EXTEND FROM THE EDGE OF THE FOOTING TO THE FINISHED GRADE. (IRC R406.1)

C.6 CONCRETE WALLS WITH REINFORCEMENT STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40.
- SMOOTH BARS OR WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185.
- 90 DEG. HOOK SHOWN IN DRAWINGS SHALL BE STANDARD PER ACI 318-14.
 - STRAIGHT EXTENSION LENGTH = 12X BAR DIA BEND DIAMETER = 12X BAR DIA.

HOOKED DOWELS:

- HOOKED DOWELS FROM FOUNDATIONS TO WALL SHALL BE PROVIDED TO MATCH VERTICAL WALL REINFORCING AND EXTENDED TO 3" CLEAR FROM BOTTOM OF
- HOOKED DOWELS MATCH SLAB REINFORCING FROM SLAB TO WALLS OR SLAB TO
- PROVIDE (2) #5 BARS AROUND PERIMETER OF ALL SUSPENDED SLABS.
- WHERE SPLICES ARE NECESSARY IN REINFORCEMENT, THE LENGTH OF LAP SPLICE SHALL BE IN ACCORDANCE WITH TABLE R608.5.4(1) AND FIGURE R608.5.4(1). THE MAXIMUM GAP BETWEEN NONCONTACT PARALLEL BARS AT A LAP SPLICE SHALL NOT EXCEED THE SMALLER OF ONE-FIFTH THE REQUIRED LAP LENGTH AND 6 INCHES (152MM) [SEE FIGURE R608.5.4.(1)].
- TOP HORIZONTAL REINFORCEMENT SHALL BE PLACED WITHIN 12" FROM THE TOP OF THE
- HORIZONTAL WALL REINFORCEMENT SHALL TERMINATE AT THE END OF THE WALL WITH A STANDARD HOOK

C.7 COLD WEATHER CONCRETE

- COLD WEATHER IS DEFINED AS THREE CONSECUTIVE DAYS WHERE THE AVERAGE DAILY TEMPERATURE DROPS BELOW 40 DEGREES FAHRENHEIT AND NOT ABOVE 50 DEGREES FAHRENHEIT FOR MORE THAN HALF OF ANY ONE OF THOSE THREE DAYS.
- COLD WEATHER CONCRETE WORK SHALL CONFORM TO ACI 306.
- ALL MATERIALS AND EQUIPMENT REQUIRED FOR PROTECTION SHALL BE AVAILABLE AT THE PROJECT SITE BEFORE COLD WEATHER CONCRETING BEGINS.
- THE CONCRETE MIX DESIGN PROVIDED BY THE SUPPLIER SHALL AT A MINIMUM REACH THE AVERAGE 28 DAY MIX DESIGN COMPRESSIVE STRENGTH IN MINIMUM 72 HOURS OR 2000 PSI -WHICHEVER IS GREATER.
- THE TEMPERATURE OF CONCRETE AT PLACEMENT SHALL BE A MINIMUM OF 55 DEGREES
- THE MINIMUM CONCRETE TEMPERATURE AT THE TIME OF MIXING SHALL NOT BE BELOW 65
- ALL SNOW, ICE AND FROST MUST BE REMOVED PRIOR TO PLACING CONCRETE.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR CONCRETE AGAINST FREEZING AND MAINTAIN A CONCRETE TEMPERATURE OF 55 DEGREES FAHRENHEIT FOR A 72 HOUR PERIOD AFTER CONCRETE PLACEMENT. THIS MAY BE ACHIEVED WITH THE USE OF INSULATING BLANKETS AND/OR THE USE OF TEMPORARY HEATERS.
- GROUND TEMPERATURE AT THE TIME OF PLACEMENT OF SLAB OR FOOTINGS SHALL NOT BE LESS THAN 35 DEGREES FAHRENHEIT.
- INSULATION, FORMS AND HEATERS MAY BE REMOVED AFTER 72 HOURS .
- MAINTAIN ADEQUATE PROTECTION OF SUB GRADE AND ADEQUATE DRAINAGE AWAY FROM EXPOSED CONCRETE ELEMENT TO PREVENT FREEZING.

C.8 FOOTNOTES

- 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 PLACED AS FOLLOWS:
 - 8" WALL MINIMUM 2" FROM TENSION FACE
- 10" WALL MINIMUM 6-3/4" FROM THE OUTSIDE FACE
- EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL
- HORIZONTAL REINFORCEMENT:
- ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL
- OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" O.C. HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE
- (INTERIOR); AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" FROM INSIDE FACE) 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.
- 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'-0" TALL AND MORE THAN 16-0" 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).

MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE PER TABLE R402.2 MINIMUM SPECIFIED COMPRESSIVE STRENGTH (f'c) TYPE OR LOCATION OF CONCRETE FOR SEVER WEATHERING POTENTIAL CONSTRUCTION BASEMENT WALLS, FOUNDATIONS AND OTHER CONCRETE NOT 2,500 EXPOSED TO THE WEATHER BASEMENT SLABS AND INTERIOR SLABS ON 2,500 GRADE, EXCEPT GARAGE FLOOR SLABS BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS AND OTHER VERTICAL CONCRETE WORK 3,000 EXPOSED TO THE WEATHER PORCHES, CARPORT SLABS AND STEPS EXPOSED TO THE WEATHER, AND GARAGE 3,500 FLOOR SLABS SUSPENDED SLABS 4,000

D. FRAMING/STRUCTURE

D.1 FRAMING NOTES

- ALL NON TREATED LUMBER SIZES ARE DOUGLAS FIR-LARCH #2 OR SOUTHERN YELLOW PINE #1 UNLESS OTHERWISE NOTED.
- ALL TREATED/ROT RESISTANT LUMBER SIZES ARE #2 TREATED SOUTHERN YELLOW PINE, UNLESS OTHERWISE NOTED.
- ALL UNMARKED HEADERS SHALL BE A MINIMUM #2 DOUGLAS FIR-LARCH OR SOUTHERN YELLOW
- PINE #1 (2) 2X10 ON LOAD BEARING WALLS.
- ALL HEADERS/BEAMS TO BEAR ON A MINIMUM OF (2) 2X4 JACK STUDS UNO. KING STUDS SHALL BE PROVIDED AT ALL HEADERS IN ACCORDANCE WITH IRC TABLE R602.7.5.
- DOUBLE JOIST UNDER PARALLEL INTERIOR NON-LOAD BEARING WALLS.
- CANTILEVERS, OVER BEAMS AND DOOR JAMBS SHALL BE BLOCKED.
- ANY WOOD MEMBER IN CONTACT WITH CONCRETE OR MASONRY (OR THE FURRING THEY ARE ATTACHED TO) SHALL BE OF DECAY RESISTANT MATERIAL.
- IN BEARING WALLS, STUDS WHICH ARE NOT MORE THAN 10'-0" FEET IN LENGTH SHALL BE SPACED NOT MORE THAN IS SPECIFIED IN IRC TABLE R602.3(5) FOR THE CORRESPONDING STUD SIZE. THOSE STUDS GREATER THAN 10'-0" FEET IN LENGTH SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- ALL WOOD STRUCTUAL PANELS SHALL CONFORM TO THE MOST CURRENT APPLICABLE SPECIFICATION AND SUPPLEMENTS OF THE APA OR EQUIVALENT. ALL PANEL END JOINTS SHALL OCCUR OVER SUPPORTS AND SHALL BE STAGGERED ONE HALF PANEL LENGTH FROM ADJACENT PANELS. PROVIDE 1/8" INCH SPACE AT PANEL ENDS. WOOD STRUCTURAL PANEL MOISTURE CONTENT SHALL BE LESS THEN OR EQUAL TO 16%.
- ALL STRUCTURAL FRAMING MEMBERS SHALL BE AS FOLLOWS UNO: 2X4 OR 2X6 EXTERIOR WALLS AS PERMITTED BY CODE: DOUGLAS FIR-LARCH #2 (DF-L #2),
- SOUTHERN YELLOW PINE #1 OR BETTER. EXTERIOR WALLS TO BE CONTINUOUSLY SHEATHED WITH MIN. 7/16" OSB., UNLESS BRACING IS SHOWN ON PLANS
- EXTERIOR OSB SHEATHING TO BE FASTENED WITH 8D COMMON NAILS; 6" O. C. AT PANEL EDGES, 12" O. C. IN THE FIELD.
- 2X4 OR 2X6 INTERIOR LOAD BEARING WALLS DF-L #2 OR BETTER. LOAD BEARING, BRACED, AND SHEAR WALLS, REQUIRE A DOUBLE TOP PLATE. THE TOP
- PLY BEING FIELD APPLIED WITH A MIN. 24" LAP SPLICE
- FIELD APPLIED LAP SPLICED TOP PLATE: DF-L #2 OR BETTER LOAD BEARING HEADERS PER HEADER SCHEDULE OR AS SHOWN ON FRAMING PLANS.
- LOAD BEARING HEADERS TO BE FABRICATED WITH THE HEADER AT THE UNDER SIDE OF THE TOP PLATE WITH CRIPPLE FRAMING BELOW AS NEEDED UNO.
- INTERIOR NON LOAD BEARING WALLS: DF-L #2 STUD GRADE OR BETTER DOUBLE TOP PLATE IS NOT REQUIRED FOR INTERIOR NON LOAD BEARING WALLS HEADER CRIPPLE SPACING CAN BE 24" O. C. REGARDLESS OF WALL STUD SPACING FOR
- NON LOAD BEARING WALLS CRIPPLE FRAMING NOT REQUIRED ABOVE OR BELOW OPENINGS WHERE THE VERTICAL CLEAR HEIGHT IS 22" OR LESS FOR NON-LOAD BEARING WALLS.
- ALL LUMBER IN CONTACT WITH MASONRY OR OTHERWISE EXPOSED TO WEATHERING TO BE
- FIELD APPLIED SILL PLATE: TREATED LUMBER BOTTOM (SOLE) PLATE IN CONTACT WITH MASONRY: TREATED LUMBER
- ALL PRESSURE TREATED WOOD SHALL BE PRESSURE TREATED WITH WATER-BORNE
- PRESERVATIVES. PRESSURE TREATMENT SHALL COMPLY WITH THE REQUIREMENTS OF AWPB, C2, LP-22, AND IRC SECTION R317. ALL LUMBER < 8" ABOVE THE FINISHED GRADE SHALL BE PRESSURE TREATED.
- FASTENERS, INCLUDING NUTS AND WASHERS, FOR PRESSURE TREATED WOOD SHALL BE HOT-DIPPED, ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. COATING TYPES AND WEIGHTS FOR CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE IN ACCORDANCE WITH THE CONNECTOR MANUFACTURER'S RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, A MIN. OF ASTM A653 TYPE G185 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED. FOR EXCEPTIONS, REFER TO R317.3.1.

ENGINEERED LUMBER MIIMUM DESIGN REQUIREMENTS					
	F _b (PSI)	E (PSI)	F _v (PSI)		
LVL	3100	1.9X10 ⁶	285		
GLU-LAM	2400	1.8X10 ⁶	230		

D.2 STRUCTURAL STEEL

- STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- STEEL PIPE COLUMNS SHALL BE A MINIMUM OF SCHEDULE 40.
- STEEL GRADE AND SPECIFICATION SHALL BE AS FOLLOWS: HOLLOW STRUCTURAL SECTIONS:
- CHANNELS, PLATES, ANGLES, AND COLUMNS: WIDE FLANGES STEEL PIPE COLUMN ANCHOR RODS:
- ASTM A500 ($F_Y = 46 \text{ KSI}$) ASTM A36 (F_Y = 36 KSI) ASTM A992 ($F_Y = 50 \text{ KSI}$) ASTM A53 GR.B ($F_Y = 35 \text{ KSI}$) ASTM F1554 ($F_Y = 36 \text{ KSI}$)
- 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 SPECIFICATIONS (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 OF 3/16" SIZE UNLESS NOTED OTHERWISE.
- ALL WELDS SPECIFIED AS FIELD WELDS MAY BE SHOP WELDED AT THE CONTRACTOR'S OPTION IF ERECTION CAN STILL BE EXECUTED.

E. <u>GLAZING</u>

- GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS.
- GLASS IN STORM DOORS: INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE FLOOR.
- GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF THE STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60 IN HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING SHALL BE CONSIDERED A HAZARDOUS LOCATION.

WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS, AND INDOOR OR

GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS,

OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE. WINDOW FALL PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH IRC R312.2.

F. <u>STAIRWAYS</u>

- STAIRWAYS SHALL PROVIDE A MAXIMUM 7-3/4" RISE AND A MINIMUM 10" RUN.
- REQUIRED GUARD RAILS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES, OR LANDINGS, SHALL NOT BE LESS THAN 36" HIGH MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE.
 - EXCEPTION (1): GUARD RAILS ON THE OPEN SIDES OF STAIRS SHALL HAVE A HEIGHT NOT LESS THAN 34" MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS.
 - EXCEPTION (2): WHERE THE TOP OF THE GUARD ALSO SERVES AS A HANDRAIL ON THE OPEN SIDES OF STAIRS, THE TOP OF THE GUARD SHALL NOT BE LESS THAN 34" AND NOT MORE THAN 38" MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING
- GUARD RAIL ENCLOSURES SHALL HAVE INTERMEDIATE RAILS OF ORNAMENTAL PATTERNS THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER.
- EACH STAIRWAY OF FOUR OR MORE RISERS SHALL PROVIDE A CONTINUOUS HANDRAIL ON AT LEAST ONE SIDE BETWEEN 34" AND 38" ABOVE THE NOSING OF THE TREADS.
- HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION OF 1-1/4" TO 2" OR OTHER APPROVED GRASPABLE SHAPE PER IRC R311.7.8.5.
- MINIMUM 6'-8" OF HEADROOM CLEARANCE IS REQUIRED IN STAIRWAYS.

ENCLOSED ACCESSIBLE SPACE UNDER STAIRWAYS SHALL HAVE WALLS AND THE UNDERSIDE

OF THE STAIR AND LANDING PROTECTED WITH 1/2" GYPSUM BOARD ON ENCLOSURE PER IRC

GARAGES

- THE GARAGE FLOOR SHALL SLOPE 1/8" PER 12" TO DRAIN OR VEHICLE ENTRY DOORWAYS.
- DOORS BETWEEN THE GARAGE AND THE DWELLING TO BE: SELF CLOSING, MINIMUM 1-3/8" SOLID CORE OR HONEYCOMBED STEEL DOOR, AND AT LEAST 20 MINUTE FIRE RATED.
- THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY A MINIMUM 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE.
- THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH 1/2" GYPSUM BOARD OR EQUIVALENT.
- WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE FLOOR/CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM 5/8" TYPE "X" GYPSUM BOARD ON THE GARAGE CEILING.
- 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 CEILINGS, ATTACHED WITH 1-3/4" X 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 3-1/4" X 0.120" NAILS THROUGH THE JAMB INTO THE HEADER, 2X8 HEADER (MINIMUM) FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.
- GARAGE VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115 MPH WIND LOAD REQUIREMENT OF DASMA 108 AND ASTM E330-96 (IRC R301.2.1).

- THE ROOF IS DESIGNED FOR 20 PSF GROUND SNOW LOAD (MINIMUM).
- PROVIDE 2X SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR FOUNDATION BELOW.
- ROOF IS ENGINEERED TO COMPLY WITH IRC R802.
- ROOF TO BE ASPHALT SHINGLES UNO AND SHALL COMPLY WITH IRC 2018 SECT. R905.2
- MINIMUM ROOF SLOPE FOR ASPHALT SHINGLES SHALL BE 2:12.
- ROOF SLOPES IN BETWEEN 2:12 AND 4:12 SHALL REQUIRE DOUBLE UNDERLAYMENT IN ACCORDANCE WITH IRC 2018 SECTION R905.2.2:

"APPLY A 19-INCH (483MM) STRIP OF UNDERLAYMENT FELT PARALLEL TO AND STARTING AT THE EAVES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. STARTING AT THE EAVE, APPLY 36-INCH-WIDE (914 MM) SHEETS OF UNDERLAYMENT, OVERLAPPING SUCCESSIVE SHEETS 19 INCHES (483MM), AND FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE 4-INCH (102MM) AND SHALL BE OFFSET BY 6 FEET (1829 MM). DISTORTIONS IN THE UNDERLAYMENT SHALL NOT INTERFERE WITH THE ABILITY OF THE SHINGLES TO SEAL."

SAFETY REQUIREMENTS

I.1 EMERGENCY EGRESS AND RESCUE

- PROVIDE ONE WINDOW FROM EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7
- SQ. FT. WITH A MINIMUM OPENABLE HEIGHT OF 24" AND WIDTH OF 20". BASEMENT EGRESS TO MEET THE REQUIREMENTS OF IRC R310.

I.2 SMOKE AND CARBON MONOXIDE SAFETY (PER IRC R314)

- PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR INCLUDING BASEMENTS.
- SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF
- ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING. CARBON MONOXIDE DETECTORS SHALL BE INSTALLED AS REQUIRED PER IRC R315.

ENERGY REQUIREMENTS

- (THE FOLLOWING SHALL APPLY UNLESS "ECA" SHEETS HAVE BEEN INCLUDED IN THE PLAN SET)
- LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE SHALL BE IC-RATED, LEAKAGE RATED AND SEALED TO THE GYPSUM WALLBOARD AS REQUIRED PER IRC N1102.4.5.
- PROGRAMMABLE THERMOSTATS SHALL BE INSTALLED AS REQUIRED PER IRC N1103.1.1. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2% AIR LEAKAGE RATE PER IRC N1103.3.2.1.
- BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.
- HOT WATER PIPES SHALL BE INSULATED AS REQUIRED PER IRC N1103.4. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR AS REQUIRED PER IRC
- CFM AS REQUIRED PER IRC M1503.6. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE PER

MAKEUP AIR SYSTEMS SHALL BE INSTALLED FOR KITCHEN EXHAUST HOODS THAT EXCEED 400

EX

FV

FJ

FTG

FND

PSI

EXISTING

FOOTING

FIELD VERIFY

FLOOR JOIST

FOUNDATION

FINISHED FLOOR

IRC M1601.6 ENERGY CONSERVATION. <u>ABBREVIATIONS</u>

BOT

BWL

CJ

ABOVE FINISHED FLOOR AΒ ANCHOR BOLT BM BEARING BRG BELOW FINISHED FLOOR BFF

CEILING JOIST

BRACED WALL LINE

CLR CLEAR COL COLUMN CONC CONCRETE CONCRETE MASONRY UNIT

BOTTOM

CXN CONNECTION CONT CONTINUOUS DOUBLE DIA DIAMETER EW **EACH WAY** FFF EFFECTIVE

FI EVATION END CONDITION ENGINEER OF RECORD EΩ FQUAL **EQUIV EQUIVALENT** EFP EQUIVALENT FLUID PRESSURE

HDR HEADER HORZ HORIZONTAL MAX MAXIMUM MINIMUM MIN NTS NOT TO SCALE OC ON CENTER PED PEDESTAL POUNDS PER CUBIC FOOT PCF POUNDS PER LINEAR FOOT POUNDS PER SQUARE FOOT

POUNDS PER SQURE INCH

PRESSURE TREATED PT RAF RAFTER STRUCTURAL INSULATED PANEL SIP STL STEEL TYP TYPICAL UNO UNLESS NOTED OTHERWISE

VERT VERTICAL



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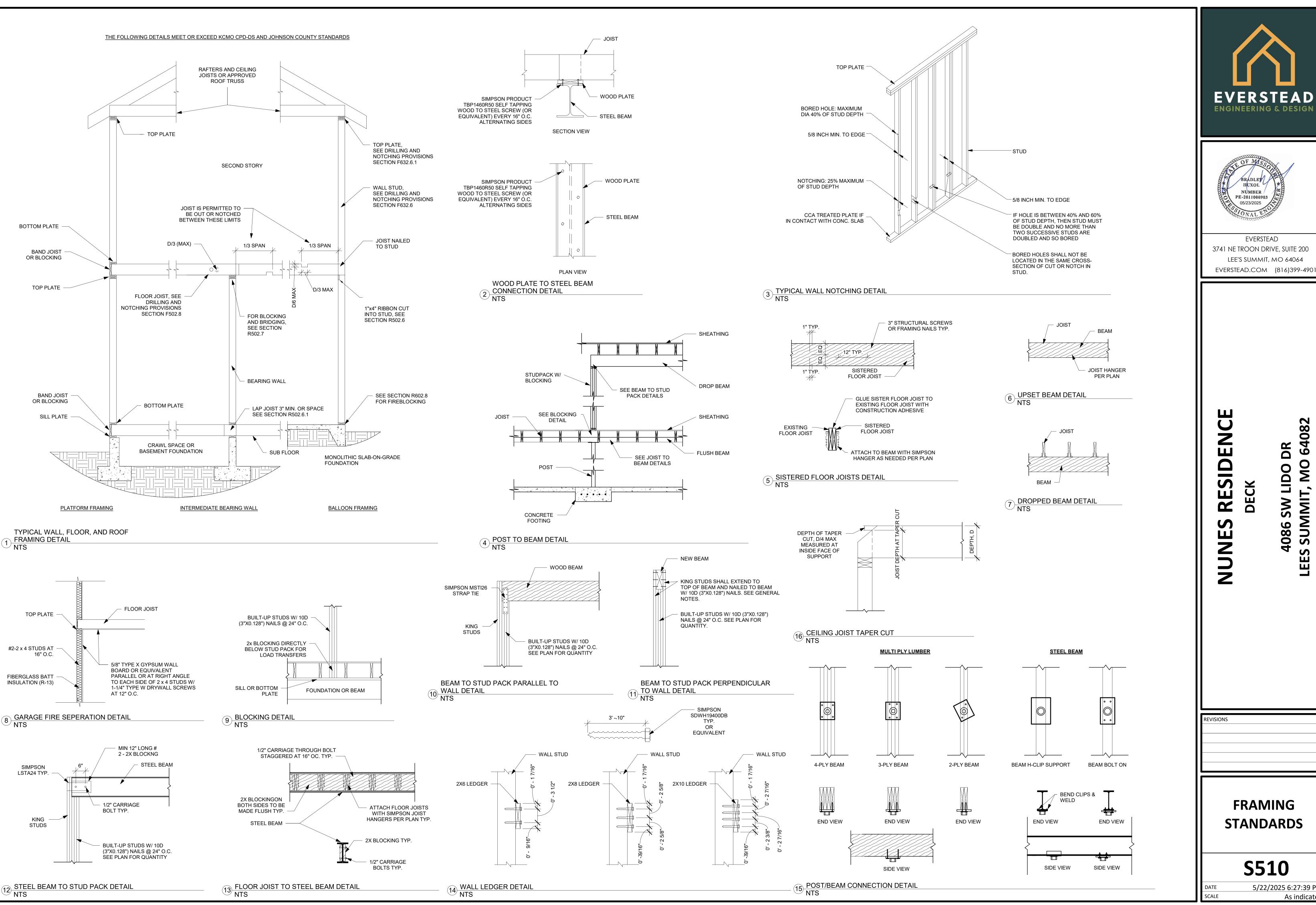
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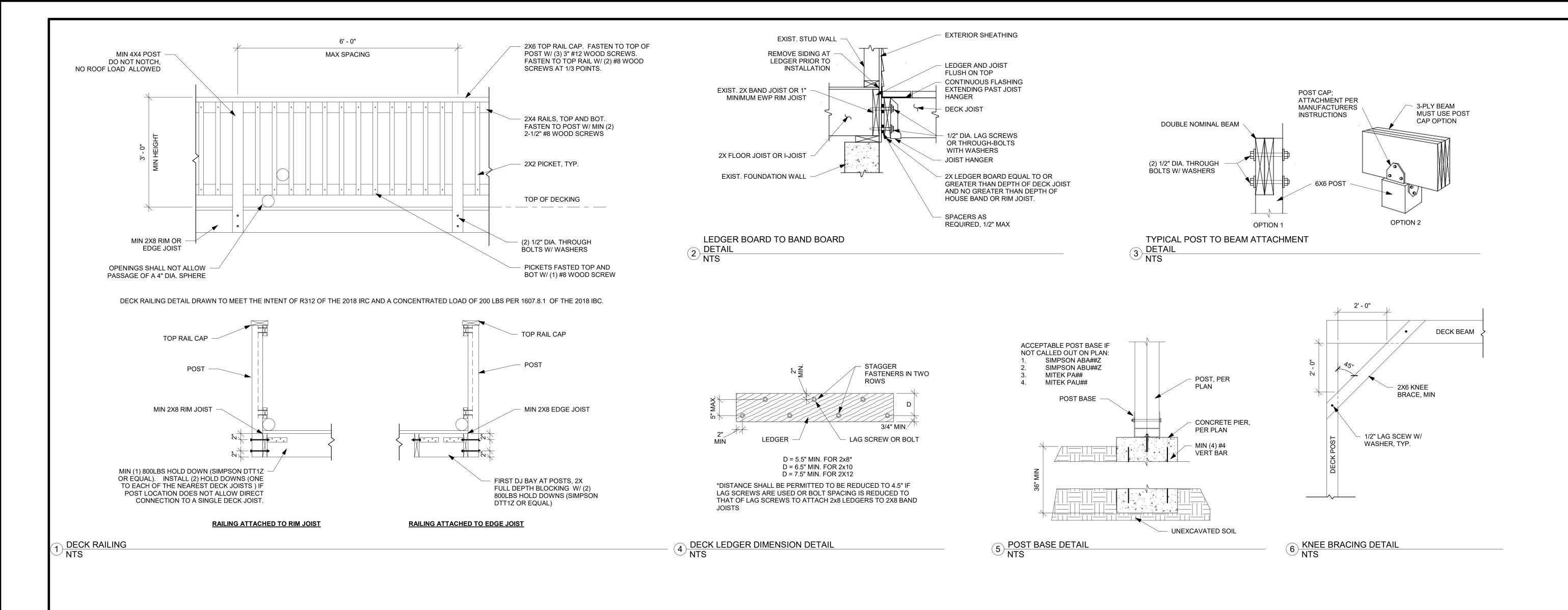
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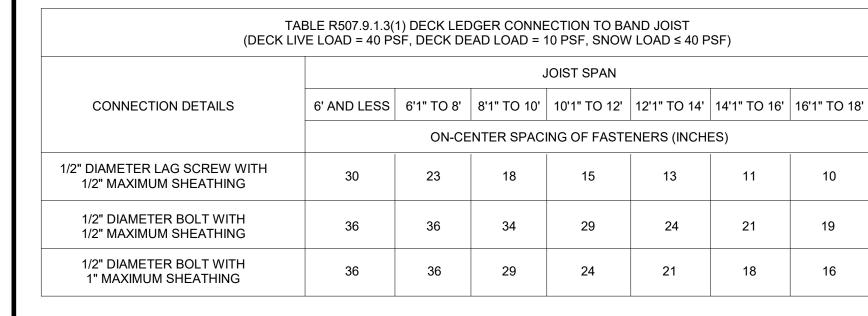
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EVERSTEAD
3741 NE TROON DRIVE, SUITE 200

LEE'S SUMMIT, MO 64064

EVERSTEAD.COM (816)399-4901

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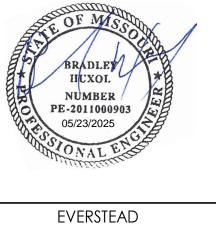
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	BRACING METHODS TABLE R602			
METHODS, MATERIAL	MINIMUM	CONNECTION CRITERIA		
METTODO, MIXTERIAL	THICKNESS	FASTENERS	SPACING	
WSP - WOOD STRUCTURAL PANEL AND CS-WSP CONTINUOUSLY SHEATHED	3/8" PANEL W/ MINIMUM 24/0 STRUCTURAL PANEL SPAN RATING	6d COMMON NAILS (2.0" x .113") W/ MINIMUM 1.5" PENETRATION	6" EDGES, 12" FIELD	
WOOD STRUCTURAL PANEL	7/16" PANEL W/ MINIMUM 24/16 STRUCTURAL PANEL SPAN RATING	8d COMMON NAILS (2.5" x .131") W/ MINIMUM 1.75" PENETRATION	6" EDGES, 12" FIELD	
PFH - PORTAL FRAME WITH HOLD-DOWNS	3/8"	SEE DETAIL ON THIS PAGE	SEE DETAIL ON THIS PAGE	
PFG - PORTAL FRAME AT GARAGE	3/8"	SEE IRC SECTION R602.10.6.3	SEE IRC SECTION R602.10.6.3	
LIB LET-IN-BRACING	1x4 WOOD OR APPROVED METAL	WOOD: 2-8d COMMON NAILS OR 3-8d (2-1/2" LONG x .113" DIA.) NAILS	WOOD: PER STUD AND TOP AND BOTTOM PLATES	
	STRAPS AT 45 TO 60 DEGREE ANGLES FOR MAX 16" STUD SPACING	SIMPSON WB/WBC INSTALLED IN "X" PAIRS OR IN OPPOSING "V" FASHION AND FASTENED W/ (2) 16d COMMON NAILS FOR PLATE AND (1) 8d COMMON NAIL FOR STUDS	METAL: PER STUD AND TOP AND BOTTOM PLATES	
		1/2" INTERIOR SHEATHING W/ STUDS AT 16" O.C.: 13 GAGE, 1-3/8" LONG, 19/64" HEAD; .098" DIA., 1-1/4" LONG, ANNULAR-RINGED; 5d COOLER NAIL, .086" DIA., 1-5/8" LONG, 15/64" HEAD; OR GYPSUM BOARD NAIL, .086" DIA. 1-5/8" LONG, 9/32" HEAD PER TABLE R702.3.5 (SEE TABLE FOR OTHER PANEL THICKNESS OPTIONS)	FOR ALL BRACED WALL PANEL LOCATIONS: 7" EDGES (INCLUDING TOP AND BOTTOM PLATES) 7" FIELD	
GB-GYPSUM BOARD	1/2"	EXTERIOR 1/2" SHEATHING: 1-1/2" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1-1/2" LONG; 1-1/4" SCREWS, TYPE W OR S PER TABLE R602.3(1)		
		EXTERIOR 5/8" SHEATHING: 1-3/4" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1-5/8" LONG; 1-5/8" SCREWS, TYPE W OR S PER TABLE R602.3(1)		

DESCRIPTION OF BUILDING MATERIALS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION OF FASTENERS	
	ROOF		
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	4-8d BOX (2-1/2"x0.113") OR 3-8d COMMON (2-1/2"x0.131") OR 3-10d BOX (3"x0.128") OR 3-3"x0.131" NAILS	TOE NAIL	
CEILING JOISTS TO PLATE	4-8d BOX (2-1/2"x0.131") OR 3-8d COMMON (2-1/2"x0.131") OR 3-10 BOX (3"x0.128") OR 3-3"x0.131" NAILS	TOE NAIL	
CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER LAPS OVER PARTITIONS	4-10d BOX (3"x0.128") OR 3-16d COMMON (3-1/2"x0.162") OR 4-3"x0.131" NAILS	FACE NAIL	
COLLAR TIE TO RAFTER, FACE NAIL OR 1-1/4"x20 GAGE RIDGE STRAP	4-10d BOX (3"x0.128") OR 3-10d COMMON (3"x0.148") OR 4-3"x0.131" NAILS	FACE NAIL EACH RAFTER	
RAFTER OR ROOF TRUSS TO TOP PLATE, TOE NAIL	4-16d BOX (3-1/2"x0.135") OR 3-10d COMMON (3"x0.148") OR 4-10d BOX (3"x0.128") OR 4-3"x0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS	
ROOF RAFTERS TO	4-16d BOX (3-1/2"x0.135") OR 3-10d COMMON (3"x0.148") OR 4-10d BOX (3"x0.128") OR 4-3"x0.131" NAILS	TOE NAIL	
RIDGE, VALLEY OR HIP RAFTERS	3-16d BOX (3-1/2"x0.135") OR 2-16d COMMON (3-1/2"x0.162") OR 3-10d BOX (3"x0.128") OR 3-3"x0.131" NAILS	END NAIL	
	WALL		
STUD TO STUD (NOT	16d COMMON (3-1/2"x0.162")	24" O.C. FACE NAIL	
AT BRACED WALL PANELS)	10d BOX (3"x0.128") OR 3"x0.131" NAIL	16" O.C. FACE NAIL	
STUD TO STUD AND ABUTTING STUDS AT INTERSECTION WALL CORNERS	16d BOX (3-1/2"x0.135") OR 3"x0.131" NAIL	12" O.C. FACE NAIL	
(AT BRACED WALL PANELS)	16d COMMON (3-1/2"x0.162")	16" O.C. FACE NAIL	
BUILT-UP HEADER, TWO PIECES	16d COMMON (3-1/2"x0.162")	16" O.C. EACH EDGE FACE NAIL	
WITH 1/2" SPACER	16d BOX (3-1/2"x0.135")	12" O.C. EACH EDGE FACE NAIL	
CONTINUOUS HEADER TO STUD	5-8d BOX (2-1/2"x0.113") OR 4-8d COMMON (2-1/2"x0.131") OR 4-10d BOX (3"x0.128")	TOE NAIL	
	16d COMMON (3-1/2"x0.162")	16" O.C. FACE NAIL	
TOP PLATE TO TOP PLATE	10d BOX (3"x0.128") OR	12" O.C. FACE NAIL	
DOUBLE TOP PLATE SPLICE	3"x0.131" NAIL 8-16d COMMON (3-1/2"x0.162") OR 12-16d BOX (3-1/2"x0.135") OR 12-10d BOX (3"x0.128") OR 12-3"x0.131" NAILS	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)	
BOTTOM PLATE TO JOIST, RIM JOIST,	16d COMMON (3-1/2"x0.162")	16" O.C. FACE NAIL	
BAND JOIST, OR BLOCKING (NOT BRACED WALL PANELS)	-16d BOX (3-1/2"x0.135") OR 3"x0.131" NAIL	12" O.C. FACE NAIL	
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS)	3-16d BOX (3-1/2"x0.135") OR 2-16d COMMON (3-1/2"x0.162") OR 4-3"x0.131" NAILS	3 EACH 16" O.C. FACE NAIL 2 EACH 16" O.C. FACE NAIL 4 EACH 16" O.C. FACE NAIL	
TOP OR BOTTOM PLATE TO STUD	4-8d BOX (2-1/2"x0.113") OR 3-16d BOX (3-1/2"x0.135") OR 4-8d COMMON (2-1/2"x0.131") OR 4-10d BOX (3"x0.128") OR 4-3"x0.131" NAILS	TOE NAIL	
TOP OR BOTTOM FEATE TO STOD	3-16d BOX (3-1/2"x0.135") OR 2-16d COMMON (3-1/2"x0.162") OR 3-10d BOX (3"x0.128") OR 3-3"x0.131" NAILS	END NAIL	
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3"x0.128") OR 2-16d COMMON (3-1/2"x0.162") OR 3-3"x0.131" NAILS	FACE NAIL	
1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2-1/2"x0.113") OR 2-8d COMMON (2-1/2"x0.131") OR 2-10d BOX (3"x0.128") OR 2 STAPLES 1-3/4"	FACE NAIL	
1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2-1/2"x0.113") OR 2-8d COMMON (2-1/2"x0.131") OR 2-10d BOX (3"x0.128") OR 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL	
1"x8" AND WIDER SHEATHINGTO	3-8d BOX (2-1/2"x0.113") OR 3-8d COMMON (2-1/2"x0.131") OR 3-10d BOX (3"x0.128") OR 3 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG		
EACH BEARING	WIDER THAN 1"x8": 4-8d BOX (2-1/2"x0.113") OR 3-8d COMMON (2-1/2"x0.131") OR 3-10d BOX (3"x0.128") OR	FACE NAIL	

DESCRIPTION OF BUILDING MATERIALS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION OF FASTENERS	
JOIST TO SILL, TOP PLATE, OR GIRDER	FLOOR 4-8d BOX (2-1/2"x0.113") OR 3-8d COMMON (2-1/2"x0.131") OR 3-10d BOX (3"x0.128") OR 3-3"x0.131" NAILS	TOE NAIL	
	8d BOX (2-1/2"x0.113")	4" O.C. TOE NAIL	
RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d COMMON (2-1/2"x0.131") OR 10d BOX (3"x0.128") OR 3"x0.131" NAIL	6" O.C. TOE NAIL	
1"x6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2-1/2"x0.113") OR 2-8d COMMON (2-1/2"x0.131") OR 3-10d BOX (3"x0.128") OR 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL	
2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3-1/2"x0.135") OR 2-16d COMMON (3-1/2"x0.162")	BLIND AND FACE NAIL	
2" PLANKS (PLANK & BEAM-FLOOR & ROOF)	3-16d BOX (3-1/2"x0.135") OR 2-16d COMMON (3-1/2"x0.162")	AT EACH BEARING FACE NAIL	
BAND OR RIM JOIST TO JOIST	3-16d COMMON (3-1/2"x0.162") OR 4-10d BOX (3"x0.128") OR 4-3"x0.131" NAILS OR 4 3"x14 GA. STAPLES, 7/16" CROWN	ENI) NAIL
	20d COMMON (3"x0.128")	O.C AT TOP ENI	ER AS FOLLOWS: 32 D AND BOTTOM AND GGERED.
BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	10d BOX (3"x0.128") OR 3"x0.131" NAIL	BOTTOM STAGE	NAIL AT TOP AND ERED ON OPPOSITI
	AND: 2-20d COMMON (4"x0.192") OR 3-10d BOX (3"x0.128") OR 3-3"x0.131" NAILS	SIDES FACE NAIL AT ENDS AND AT EACH SPLICE	
LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d BOX (3-1/2"x0.135") OR 3-16d COMMON (3-1/2"x0.162") OR 4-10d BOX (3"x0.128") OR 4-3"x0.131" NAILS	AT EACH JOIST OR RAFTER, FACE NAIL	
BRIDGING OR BLOCKING TO JOIST	2-10d BOX (3"x0.128") OR 2-8d COMMON (2-1/2"x0.131") OR 2-3"x0.131" NAILS	EACH END, TOE NAIL	
DESCRIPTION OF BUILDING MATERIALS	NUMBER AND TYPE OF FASTENER	EDGES (IN)	INTERMEDIATE SUPPORTS (IN)
F	ELS, SUBFLOOR, ROOF AND INTERIOR WALL SH PARTICLEBOARD WALL SHEATHING TO FRAMIN OOD STRUCTURAL PANEL EXTERIOR WALL SH	IG	
3/8" - 1/2"	6d COMMON (2"x0.113") NAIL (SUBFLOOR, WALL) OR 8d COMMON (2-1/2"x0.131") NAILS (ROOF) OR RSRS-01 (2-3/8"x0.113") NAIL (ROOF)	6	12
19/32" - 1"	8d COMMON NAIL (2-1/2"x0.131") OR RSRS-01 (2-3/8"x0.113") NAIL (ROOF)	6	12
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		
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 7/16" OR 1" CROWN	3	6
25/32" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1-3/4" GALVANIZED ROOFING NAIL, 7/16" HEAD DIAMETER OR 1-1/2" LONG 16 GA. STAPLE WITH 7/16" OR 1" CROWN	3 6	
1/2" GYPSUM INTERIOR COVERING (R702.3.5)	1-1/2" GALVANIZED ROOFING NAIL: STAPLE GALVANIZED, 1-1/2" LONG; 1-1/4" SCREWS, TYPE "W" OR "S"	7 7	
5/8" GYPSUM INTERIOR COVERING (R702.3.5)	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 UNDERLA	YMENT TO FRAMIN	G
3/4" AND LESS	6d DEFORMED (2"x0.120") NAIL OR 8d COMMON (2-1/2"x0.131") NAIL	6	12
7/8" - 1"	8d COMMON (2-1/2"x0.131") NAIL OR 8d DEFORMED (2-1/2"x0.120") NAIL	6	12
	10d COMMON (3"x0.148") NAIL OR		





EVERSTEAD

3741 NE TROON DRIVE, SUITE 200

LEE'S SUMMIT, MO 64064

EVERSTEAD.COM (816)399-4901

VERSTEAD.COM (816)399-490

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REVISIONS

FASTENING SCHEDULE

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SCALE 1/4" = 1'-0"