

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW LEE' MIT, MISSOURI 06/09/2022 4:50:40

#### 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 F'C 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 DAMPPROOFED. DAMPPRROFING SHALL EXTEND FROM THE EDGE OF THE FOOTING TO THE FINISHED GRADE (R-406.1). METHOD OF DAMPPROOFING 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 DAMPPROOFED 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 3' 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.

#### DEAD MEN SPACING:

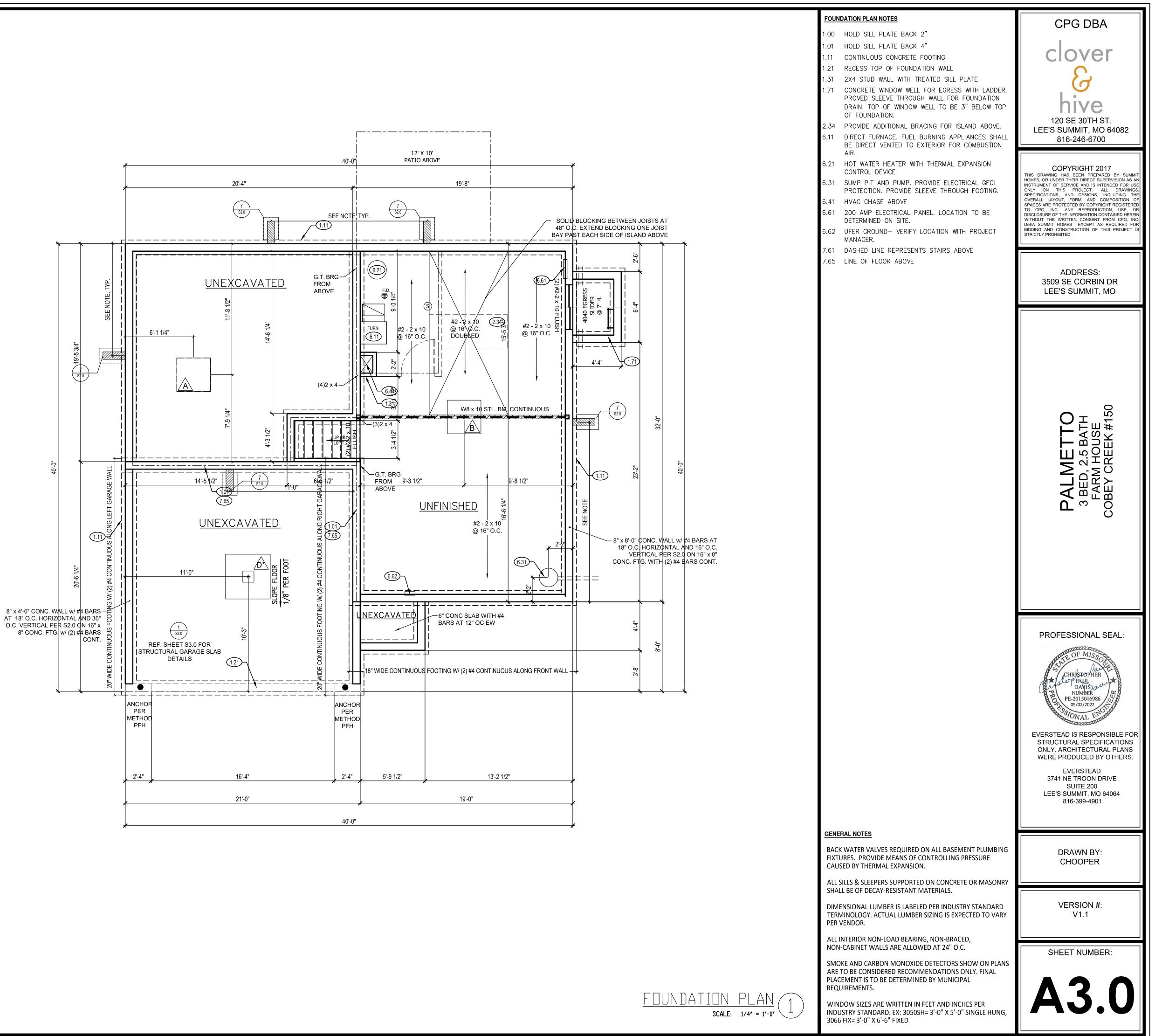
ALL DEAD MEN SHALL BE SPACED NO MORE THAN 16' FROM EGRESS WELL, REAR GARAGE WALL, 24" RETURN ON FOUNDATION WALL OR ANOTHER DEAD MAN.

DEAD MEN ARE NOT REQUIRED ON EXTERIOR GARAGE WALLS OR FOUNDATION WALLS THAT ARE 5' OR LESS.

WALL TRANSITIONING FROM LESS THAN 5' TALL TO MORE THAN 5' TALL WITH STEP DOWNS: A DEAD MAN IS REQUIRED WITHIN 8' OF STEP DOWN (TRANSITIONING FROM LESS THAN 5' TALL TO MORE THAN 5' TALL WALL LOCATION) ON WALL 5' TALL OR MORE

IS	SOLATE	D FO		INC	iS	AND	COLL	JMN	PADS
SYM	PIER PAD SIZE	DEPTH	RE		IRCE	NIMUM IMENT I ST	r grade		HEDULE 40 STEEL ILUMN, MIN = 35 KSI
	30″×30″	1'-0″		(5)	#4	BAR	E.W.	3″	DIAMETER
B	36″×36″	1'-0″		(6)	#4	BAR	E.W.	3″	DIAMETER
$\bigtriangleup$	42″×42″	1′-2″		(7)	#4	BAR	E.W.	3″	DIAMETER
	48″×48″	1'-4″		(8)	#4	BAR	E.W.	3″	DIAMETER
Æ	54″×54″	1'-4"		(9)	#4	BAR	E.W.	3″	DIAMETER
F	60″×60″	1′-6″		(10)	#4	BAR	E.W.	3.5″	DIAMETER
ANY	SIZE FI	JOTING	W]	ITH	AN	(*)			COLUMN EEDED
IS	GLATE	D FO		ING	S	AND	COLU	JMN	PADS
SYM	PIER DIAMETE	R DEP	тн	MINI	MUM		NFORCEN KSI STE		GRADE 40
G	12″	3'-(	J″	(4) VERTICAL #4					
Ĥ	16″	3'-(	J″			(4)	VERTIC	AL :	#4
$\bigtriangleup$	18″	3'-(	) <i>"</i>			(4)	VERTIC	AL :	#4
K	24″	3'-(	) <i>"</i>	(4) VERTICAL #4					
$\triangle$	28″	3'-(	J″			(4)	VERTIC	AL :	#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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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 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 <u> DTHERWISE NOTED).</u>

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

EXTERIOR WALL SHEATHING SHALL BE AS FOLLOWS:

THICK OSB FOR METHODS: WSP, CS-WSP AND PFH 76" THICK OSB FOR METHOD CS-PF.

SPECIFIED THICKNESS OF OSB SHALL BE INSTALLED UNDERNEATH LP LAP SIDING AND/OR ENGINEERED BRACED WALL PANELS.

LP PANEL SIDING - 7/16" GROOVED SHALL BE EQUIVALENT TO <sup>3</sup>/<sub>8</sub>" THICK OSB. OSB MAY BE OMITTED UNDERNEATH 7/16"

GROOVED PANEL SIDING IN AREAS REQUIRING 🖁 "THICK OSB. INSTALL FASTENERS AND NAILING PATTERN PER 2018 IRC

SECTION R602.10.

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

THERWISE NOTED. STUD PACKS SHALL BE CARRIED DOWN TO FOUNDATION OR LOAD SUPPORTING MEMBER.

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

LVL'S SHALL BE: BOISE CASCADE VERSA-LAM 3100 FB GLU-LAMS SHALL BE: DF 24F-V4 - WESTERN PROVIDE FULL BEARING FOR OPTION SELECTED

JACK S	TUDS REQD	AT DPENING	S U.N.□.
		HEADER LENGTH	
	UP TO 4'	4′ TO 16′	16′ AND ⊡∨ER
(2)#2 2X10	1	2	4
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#### BRACING METHODS

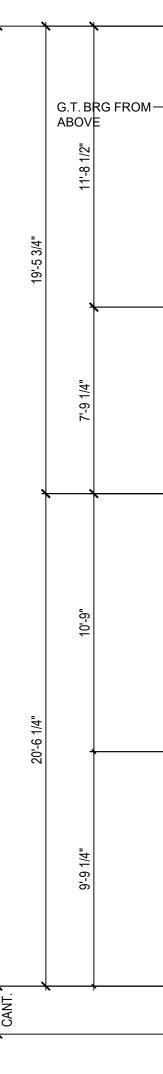
EXTERIOR BRACING CS-PF PER IRC R602.10 FOR CS-PF ABOVE: WOOD STRUCTURAL PANEL SHEATHING CONTINUOUS OVER BAND JOIST OR RIM JOIST WITH MINIMUM LAP OF 9-1/4". ATTACH SHEATHING WITH MINIMUM 8D COMMON NAILS AT 3" O.C. AT TOP AND BOTTOM OF BAND/RIM JOIST.

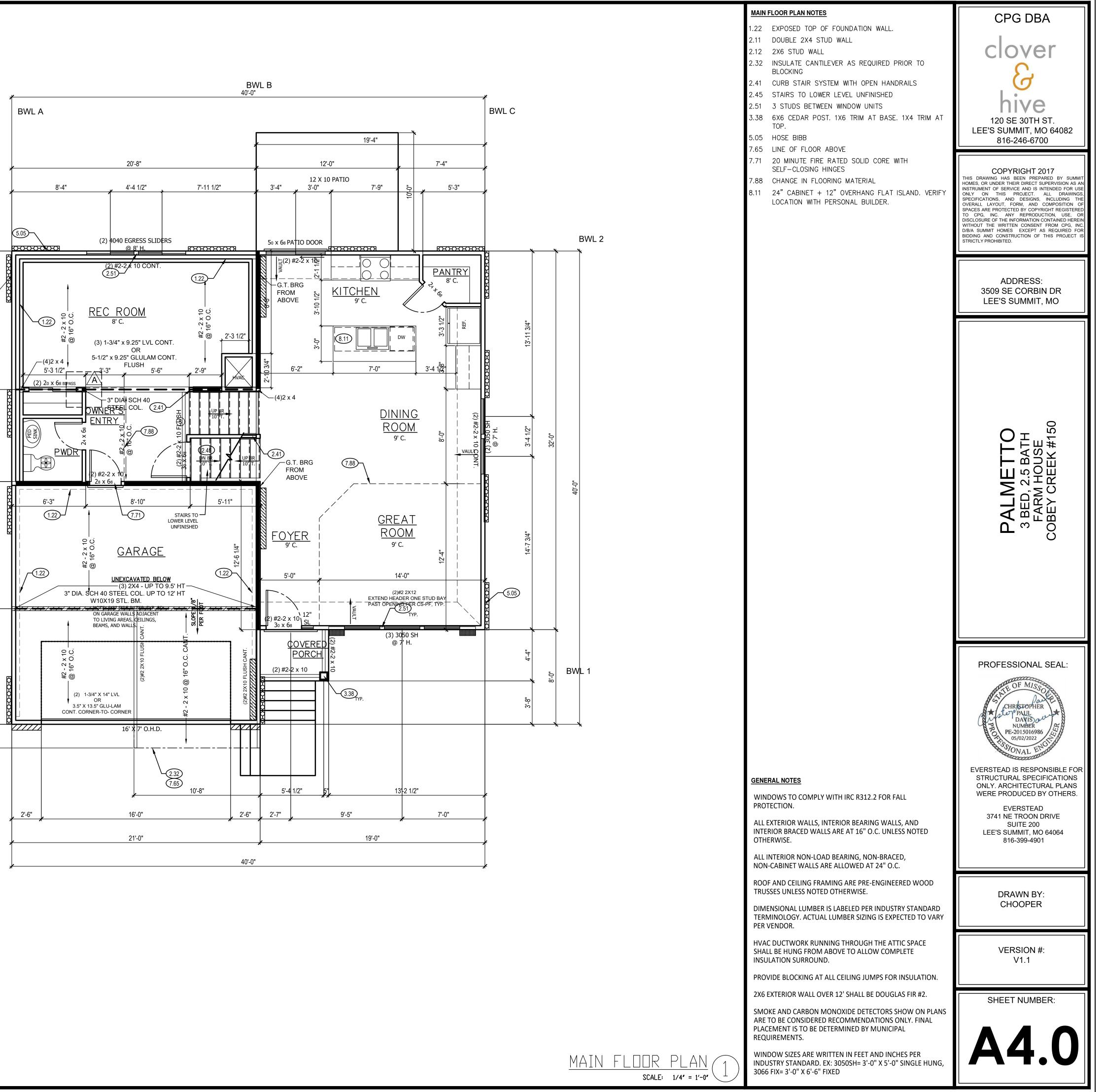
	EXTERIOR BRACING CS-WSP PER IRC R602.10
$\overline{\mathbf{x}}$	EXTERIOR BRACING WSP PER IRC R602.10 (INCLUDES PARTIA PANELS PER IRC R602.10.5.2)
<i>\````\`````````````````````````</i> ````````	INTERIOR BRACING LIB PER IRC R602.10
	MINIMUM LIB LENGTH PER 2018 IRC TABLE R602.10.5: 55" - 8' TALL WALL HEIGHT 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		SKYLIGHT <sup>⁵</sup> U-FACTOR	GLAZED FENESTRATION SHGC <sup>b, e</sup>	CEILING R-VALUE	WOOD FRAME WALL R-VALUE		FLOOR R-VALUE	BASEMENT <sup>°</sup> WALL R-VALUE	SLAB <sup>d</sup> R-VALUE & DEPTH	CRAWL SPAC⊾ WALL R−VALUE
4 EXCEPT MARINE	,32	.55	.40	49	20 DR 13+5	8/13	19	10/13	10, 2 FT	10/13





	OR CONSTRUCTION
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INSTALL FASTENERS AND NAILING PATTERN PER 2018 IRC SECTION R602.10.

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#### BRACING METHODS

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EXTERIOR BRACING CS-WSP PER IRC R602.10 

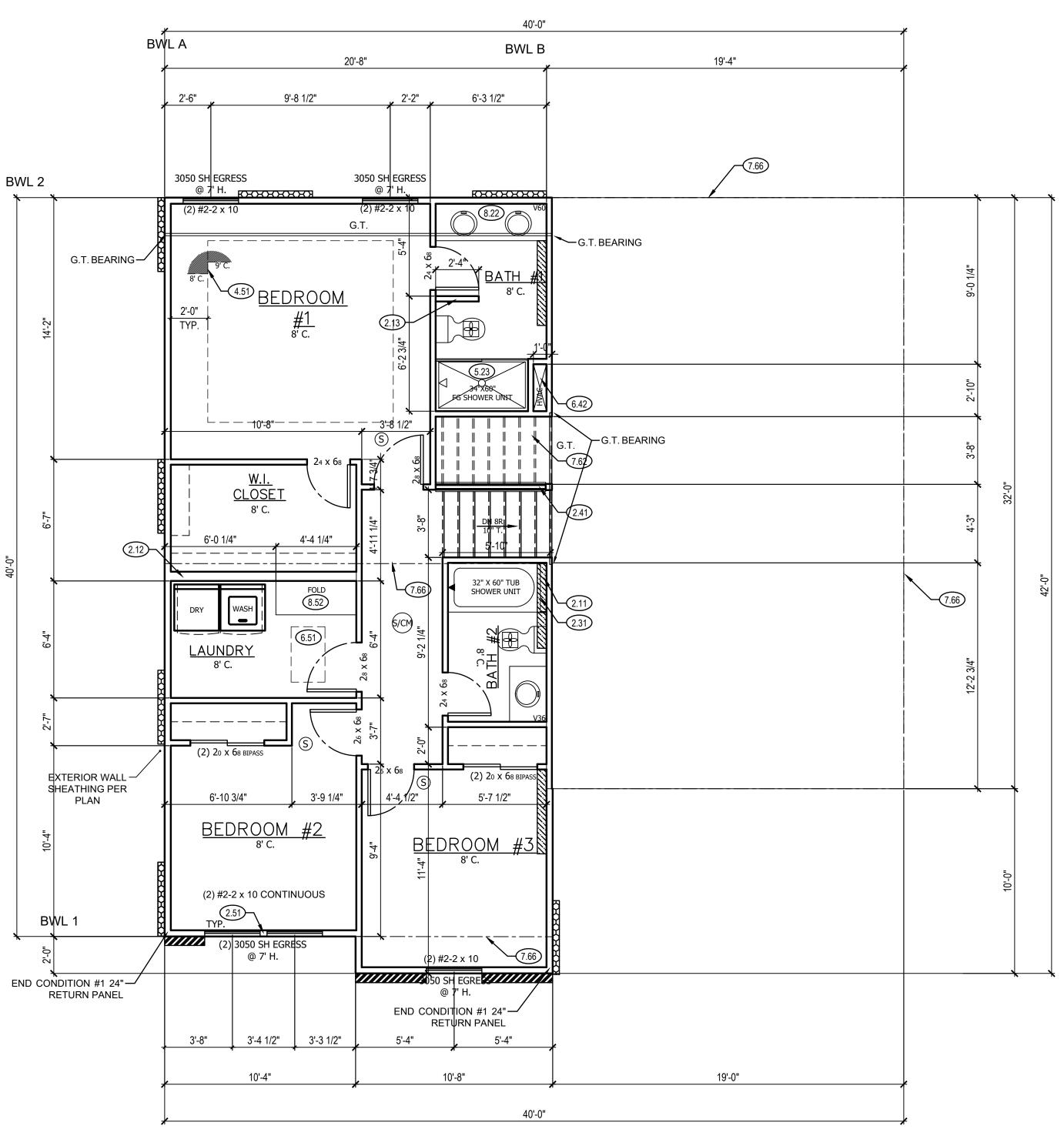
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4 EXCEPT MARINE	.32	.55	.40	49	20 DR 13+5	8/13	19	10/13	10, 2 FT	10/13



UPPER FLOOR PLAN NOTES CPG DBA 2.11 DOUBLE 2X4 STUD WALL 2.12 2X6 STUD WALL lover 2.13 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 2.41 CURB STAIR SYSTEM WITH OPEN HANDRAILS hive 4.51 SINGLE BOX VAULT 5.23 FIBERGLASS UNIT: SEE DETAIL 120 SE 30TH ST. 6.42 HVAC – BUMP TRUSSES AS NECESSARY FOR HVAC LEE'S SUMMIT, MO 64082 ACCESS. 816-246-6700 6.51 1'-10"X3'-0" MINIMUM ATTIC ACCESS WITH 3/4" BACKER BOARD AND 2 LATCHES. BUMP TRUSSES FOR ATTIC ACCESS. COPYRIGHT 2017 7.62 DASHED LINE REPRESENTS STAIRS BELOW HIS DRAWING HAS BEEN PREPARED BY SUMM HOMES, OR UNDER THEIR DIRECT SUPERVISION AS AN 7.66 LINE OF FLOOR BELOW INSTRUMENT OF SERVICE AND IS INTENDED FOR USE ONLY ON THIS PROJECT. ALL DRAWINGS 8.22 CONTINUOUS FLAT VANITY SPECIFICATIONS. AND DESIGNS. INCLUDING TH OVERALL LAYOUT, FORM, AND COMPOSITION ( SPACES ARE PROTECTED BY COPYRIGHT REGISTEREI 8.52 FOLDING TABLE O CPG. INC. ANY REPRODUCTION. USE. ISCLOSURE OF THE INFORMATION CONTAINED HEREI WITHOUT THE WRITTEN CONSENT FROM CPG. IN D/B/A SUMMIT HOMES EXCEPT AS REQUIRED FOR BIDDING AND CONSTRUCTION OF THIS PROJECT IS STRICTLY PROHIBITED. ADDRESS: 3509 SE CORBIN DR LEE'S SUMMIT, MO S ΟŢ DUSE EK # PALME<sup>3</sup> BED, 2.5 F FARM HOU PROFESSIONAL SEAL CHRISTOPHI DAVIS NUMBER PE-2015016986 05/02/2022 EVERSTEAD IS RESPONSIBLE FOR STRUCTURAL SPECIFICATIONS GENERAL NOTES ONLY. ARCHITECTURAL PLANS WERE PRODUCED BY OTHERS. WINDOWS TO COMPLY WITH IRC R312.2 FOR FALL PROTECTION. EVERSTEAD 3741 NE TROON DRIVE ALL EXTERIOR WALLS, INTERIOR BEARING WALLS, AND SUITE 200 INTERIOR BRACED WALLS ARE AT 16" O.C. UNLESS NOTED LEE'S SUMMIT, MO 64064 OTHERWISE. 816-399-4901 ALL INTERIOR NON-LOAD BEARING, NON-BRACED, NON-CABINET WALLS ARE ALLOWED AT 24" O.C. ROOF AND CEILING FRAMING ARE PRE-ENGINEERED WOOD TRUSSES UNLESS NOTED OTHERWISE. DRAWN BY: CHOOPER DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VARY PER VENDOR. HVAC DUCTWORK RUNNING THROUGH THE ATTIC SPACE VERSION #: SHALL BE HUNG FROM ABOVE TO ALLOW COMPLETE INSULATION SURROUND. V1.1 PROVIDE BLOCKING AT ALL CEILING JUMPS FOR INSULATION. 2X6 EXTERIOR WALL OVER 12' SHALL BE DOUGLAS FIR #2. SHEET NUMBER: SMOKE AND CARBON MONOXIDE DETECTORS SHOW 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 STANDARD. EX: 3050SH= 3'-0" X 5'-0" SINGLE HUNG, 3066 FIX= 3'-0" X 6'-6" FIXED SCALE: 1/4" = 1'-0"

RELEASE FOR CONSTRUCTION

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.

I) DESIGNED FOR LIGHT ROOF COVERING

TRUSS ROOF NOTES: (BY OTHERS)

TOP CHORD:

- 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

LIVE LOAD/SNOW LOAD (PSF): 25

- "G.T." = GIRDER TRUSS LOCATION
- = INTERIOR LOAD BEARING WALL

NOTE:

ALL CONSTRUCTION SHALL CONFORM TO 2018 INTERNATIONAL RESIDENTIAL

ROOF:

CODE OR ATTACHED ENGINEER SPECIFICATIONS WHERE APPLICABLE.

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.

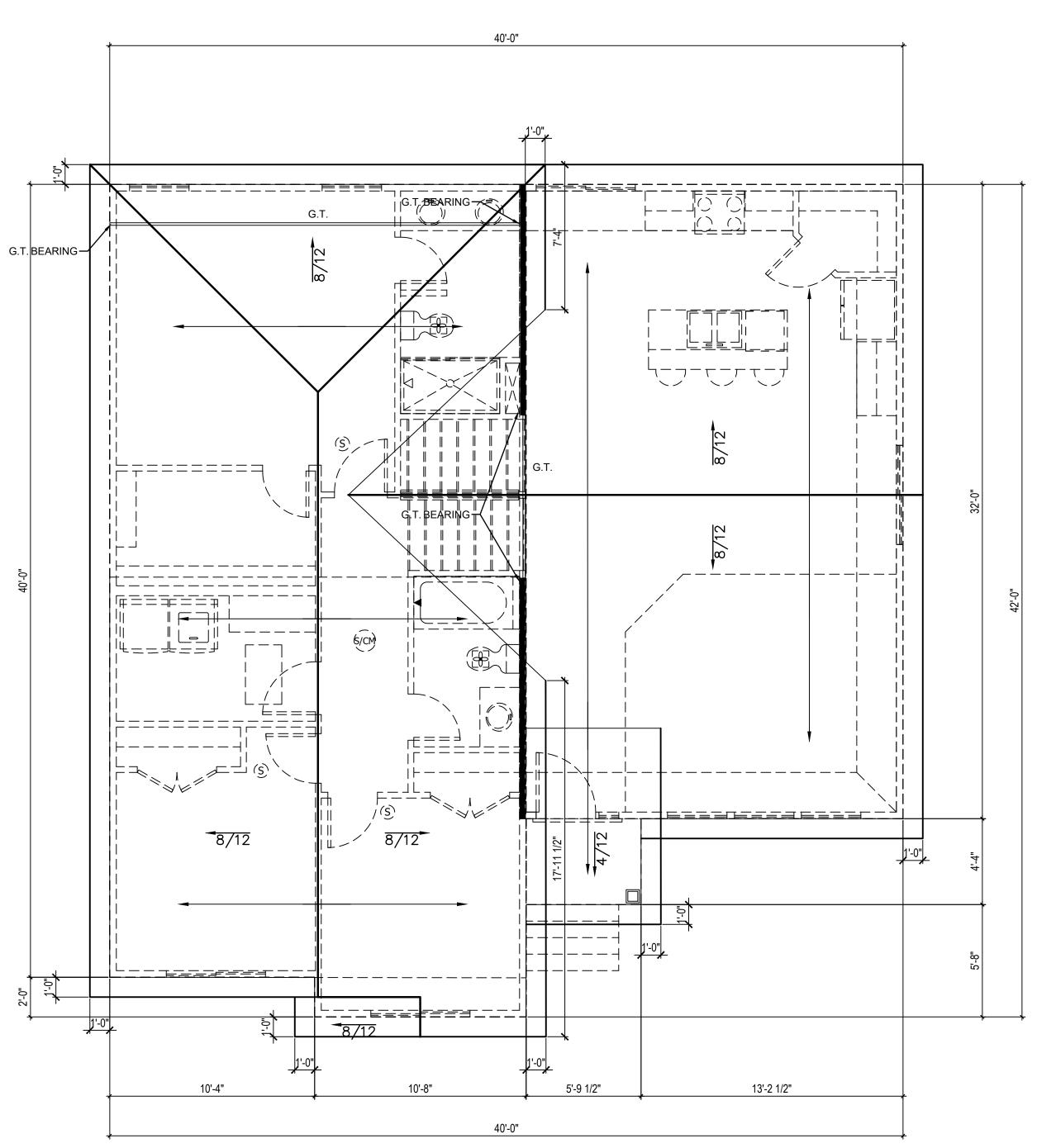
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PROVIDE 2X SOLID BLOCKING SUPPORT BELOW ALL POINT LOADS CONTINUOUS TO BEARING STRUCTURE AND/OR FOUNDATION BELOW.

EVERSTEAD STRUCTURAL SCOPE ENDS AT TOP PLATE FOR ROOF TRUSSES.

+



ROOF PLAN NOTES CPG DBA 4.11 MINIMUM ROOFING COMPOSITION- 30 YR COMPOSITE SHINGLES ON 15# FELT ON 1/2" OSB SHEATHING OR lover AS REQUIRED BY CODE. 4.31 BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR POSITIVE DRAINAGE.  $( \mathbf{n} )$ hive 120 SE 30TH ST. LEE'S SUMMIT, MO 64082 816-246-6700 COPYRIGHT 2017 THIS DRAWING HAS BEEN PREPARED BY SUMMIT HOMES, OR UNDER THEIR DIRECT SUPERVISION AS AN INSTRUMENT OF SERVICE AND IS INTENDED FOR USE ONLY ON THIS PROJECT. ALL DRAWINGS, SPECIFICATIONS, AND DESIGNS, INCLUDING THE OVERALL LAYOUT, FORM, AND COMPOSITION OF SPACES ARE PROTECTED BY COPYRIGHT REGISTERED TO CPG, INC. ANY REPRODUCTION, USE, OR DISCLOSURE OF THE INFORMATION CONTAINED HEREIN WITHOUT THE WRITTEN CONSENT FROM CPG. INC D/B/A SUMMIT HOMES EXCEPT AS REQUIRED FOR BIDDING AND CONSTRUCTION OF THIS PROJECT IS STRICTLY PROHIBITED. ADDRESS: 3509 SE CORBIN DR LEE'S SUMMIT, MO 50 BATH BATH DUSE EK #15 PALMET 3 BED, 2.5 E FARM HOU COBEY CREE PROFESSIONAL SEAL: HRISTOP NUMBER PE-2015016986 05/02/202 EVERSTEAD IS RESPONSIBLE FOR STRUCTURAL SPECIFICATIONS ONLY. ARCHITECTURAL PLANS WERE PRODUCED BY OTHERS. EVERSTEAD 3741 NE TROON DRIVE SUITE 200 LEE'S SUMMIT, MO 64064 816-399-4901 GENERAL NOTES ROOF AND CEILING FRAMING ARE PRE-ENGINEERED ROOF TRUSSES. DRAWN BY: ASPHALT SHINGLES MIN 2/12. FLASH ALL PENETRATIONS AND INTERSECTIONS. CHOOPER VENT EACH ENCLOSED ATTIC SPACE. NET AREA OPENING = 1/50TH OF VENTED AREA OR 1/300TH IF 580% OF VENTING NEAR TOP. VERSION #: BUILD CRICKET VALLEY AWAY FROM INTERSECTION FOR V1.1 POSITIVE DRAINAGE. SEE FRAMING SPECIFICATIONS FOR DETAILS. DIMENSIONAL LUMBER IS LABELED PER INDUSTRY STANDARD TERMINOLOGY. ACTUAL LUMBER SIZING IS EXPECTED TO VARY SHEET NUMBER: PER VENDOR. HVAC DUCTWORK RUNNING THROUGH ATTIC SHALL BE HUNG FROM ABOVE TO ALLOW COMPLETE INSULATION SURROUND. PROVIDE BLOCKING AT ALL CEILING JUMPS FOR INSULATION. <u>Roof plan</u> PROVIDE FOAM INSULATION AT EXTERIOR WHERE MAIN LEVEL ROOF LINE MEETS UPPER LEVEL WALLS. SCALE: 1/4" = 1'-0"

RELEASE FOR CONSTRUCTIO

#### 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	
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	15 PSF	
INTERIOR LIGHT FRAMED WOOD WALLS	10 PSF*	
*(INTERIOR WALLS IN	NCLUDED IN	15 PSF DEAD LOAD)
LIVE		

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 EXPOSURE CATEGORY

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 <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 FT<sup>2</sup> 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 0.5%.
- 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

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)

PROFESSIONAL ENGINEER.

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 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)

## <u>CONCRETE</u>

- 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 R402.2.
- 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.
- 7. SHORING AND RESHORING: 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

OTHERWISE. REINFORCING BAR SHALL BE GRADE 60 MINIMUM.

#### CONCRETE REINFORCEMENT STEEL

- 1. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
- 2. 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)
- 7. HOOKED DOWELS:

- 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 HOOK
- 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 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.
- BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE INSIDE). D. SUPPLEMENTAL REINFORCEMENT AT CORNERS - PLACE 1 #4 REBAR 48" LONG AT 45 DEGREE
- CORNERS
- 5. AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 3-1/2". LEDGES SHALL NOT EXCEED
- 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).

	-	AL WEIGHT	CONCRETE	Ē
BAR	TOP	BARS	OTHEF	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

TABLE 1.1

# SHALL BE ENGINEERED DESIGN. FOOTINGS UNDER FOUNDATION WALLS SHALL BE CONTINUOUS AROUND

2 IN 1.5 IN

## -SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS

## 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

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

REINFORCEMENT SPACED 24" O.C. MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS

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

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.

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.

#### 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 ROOF COVERING.
- 4. STEEL FLOOR DECK SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON CONSTRUCTION DRAWINGS:

STEEL DECK - SUSPENDED SLABS STEEL DECK QUALITY, FABRICATION, DELIVERY, INSTALLATION AND ATTACHMENT SHALL COMPLY WITH THE PROVISIONS OF THE STEEL DECK INSTITUTE, SDI.

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 FLOOR DECK SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON CONSTRUCTION DRAWINGS: 2" COMPOSITE DECK WITH 6" TOTAL SLAB THICKNESS 19GA DESIGN THICKNESS

  - MAXIMUM SINGLE SPAN DURING CONSTRUCTION OF 8', 2 SPAN OF 10'-1", OR 3 SPAN OF 10'-5". MAXIMUM SPAN SHALL NOT EXCEED 12.5'. • 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"
  - 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.
- CONTRACTOR AND/OR DECK MANUFACTURER SHALL FURNISH ALL NECESSARY POUR STOPS, COLUMN CLOSURES, END PLATES, AND COVER PLATES AS NEEDED.

#### STRUCTURAL STEEL

1. STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

STEEL GRADE AND SPECIFICATION SHALL BE AS FOLLOWS:	
HOLLOW STRUCTURAL SECTIONS:	ASTM A500 (Fy = 46 KS
CHANNELS, PLATES AND ANGLES:	ASTM A36 (Fy = 36 KS
WIDE FLANGES:	ASTM A992 (Fy = 50 K
COLUMNS:	ASTM A53 GR. B (Fy= 3
ANCHOR RODS:	ASTM F1554 (Fy = 36 KS

- 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:

- AS REQUIRED PER M1503.6.

## GARAGES:

- ABOVE.

- PER R302.5.1.

## STAIRWAYS:

## GLAZING

## FRAMING NOTES:

- WALLS.

KSI) KSI) 35 KSI) KSI)

1. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE SHALL BE IC-RATED, LEAKAGE RATED, AND SEALED TO THE GYPSUM WALLBOARD AS REQUIRED PER IRC N1102.4.4.

2. PROGRAMMABLE THERMOSTATS SHALL BE INSTALLED AS REQUIRED PER N1103.1.1.

3. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2% AIR LEAKAGE RATE PER N1103.3.2.1.

4. BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.

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 IRC M1504.3. 7. MAKEUP AIR SYSTEMS SHALL BE INSTALLED FOR KITCHEN EXHAUST HOODS THAT EXCEED 400 CFM

8. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE PER M1601.6 ENERGY CONSERVATION.

1. 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 BALANCE SYSTEM.

6. SELF CLOSING DEVICES SHALL BE INSTALLED FOR GARAGE AND/OR DWELLING SEPARATION DOORS

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.

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.

1. 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

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 #

GN1.0

ТЕМ	DESCRIPTION OF BUILDING	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION			FLOOR			
	ELEMENTS	ROOF 4-8D BOX (2-1/2"x0.113") OR		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	
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE		TOE NAIL			8d BOX (2-1/2"x0.113")	4" O.C. 7	OE NAIL	
2	CEILING JOSTS TO TOP PLATE	3-3" x 0.131" NAILS 4-8D BOX (2-1/2"x0.113") OR 3-8D COMMON (2-1/2" x 0.131"); OR	PER JOIST, TOE NAIL	22	RIM JOIST, BAND JOIST OR 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. 1	OE NAIL	
3	CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER LAPS OVER	3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS 4-10D BOX (3" X 0.128"); OR 3-16D COMMON (3-1/2" X 0.162"); OR 4-2" X 0.424" NAU S	FACE 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	
4	PARTITIONS CEILING JOIST ATTACHED TO	4-3" X 0.131" NAILS TABLE R802.5.2	FACE NAIL		1	FLOOR	•		
5	PARALLEL RAFTER (HEEL JOINT) COLLAR TIE TO RAFTER, FACE NAIL OR 1-1/4"x20 GAGE RIDGE STRAP	4-10D BOX (3" X 0.128"); OR 3-10D COMMON (3" X 0.148"); OR	FACE NAIL EACH RAFTER	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	
	TO RAFTER	4-3" X 0.131" NAILS		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	
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 4-16D (3-1/2"x0.135") ; OR	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS	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, <sup>7</sup> / <sub>16</sub> " CROWN	END	NAIL	
	ROOF RAFTERS TO RIDGE, VALLEY	4-16D (3-1/2 x0.133 ), OR 3-10D COMMON (3" X 0.148"); OR 4-10D BOX (3" X 0.128"); OR 4-3" X0.131" NAILS	TOE NAIL			20D COMMON (4" X 0.192"); OR	NAIL EACH LAYER AS F TOP END AND BOTTON		
7	OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	R       4-3 X0.131 WALC         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		10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS AND: 2-20D COMMON (4" X 0.192"); OR 3-10D BOX (3" X 0.128"); OR	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE				
						3-3" X 0.131" NAILS 4-16D BOX (3-1/2" X 0.135"); OR			
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	28		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 NA	
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	29	BRIDGING OR BLOCKING TO			EACH END, TOE NAIL	
	PANELS) BUILT-UP HEADER (2" TO 2"	16D COMMON (3-1/2" X 0.162") 16D COMMON (3-1/2"x0.162")	16" O.C. FACE NAIL 16" O.C. ALONG EACH EDGE FACE NAIL	BRIDGING OR BLOCKING TO C					
10	HEADER WITH $\frac{1}{2}$ " SPACER)	16D BOX (3-1/2" X 0.135)	12" ALONG EACH EDGE FACE NAIL		DESCRIPTION OF BUILDING		SPACING OF	FASTENERS	
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	ITEM		NUMBER AND TYPE OF FASTENER	EDGES (IN)	INTERMEDIA SUPPORTS (	
12	TOP PLATE TO TOP PLATE	16D COMMON (3-1/2" X 0.162")	16" O.C. FACE NAIL	30	3/8" - 1/2"	6d COMMON (2"x0.113") NAILS (SUBFLOOR, WALL)	6	12	
12		10d BOX (3"x0.128"); OR 3" X 0.131" NAILS	12" O.C. FACE NAIL	50	3/0 - 1/2	8d COMMON (2-1/2"x0.131") NAIL (ROOF); OR RSRS-01 (2-38" X 0.113") NAIL (ROOF)	0	12	
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)	31	19/32"-1"	8d COMMON NAIL (2-1/2"x0.131"); OR RSRS-01 (2-3/8" X 0.113") NAIL (ROOF) 10d COMMON (3"x0.148") NAIL OR	6	12	
	BOTTOM PLATE TO JOIST, RIM	16D COMMON (3-1/2" X 0.162")	16" O.C. FACE NAIL	32	1-1/8" - 1-1.4"	8D (2-1/2"x0.131") DEFORMED NAIL	6	12	
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			OTHER WALL SHEATHING 1-1/2" GALVANIZED ROOFING NAIL, 7/16"			
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	33	1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	HEAD DIAMETER, OR 1-1/4" LONG 16 GA. STAPLE WITH <sup>7</sup> / <sub>16</sub> " OR 1" CROWN 1-3/4" GALVANIZED ROOFING NAIL, 7/16"	3	6	
		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	TOE NAIL	34	25/32" STRUCTURAL CELLULOSTIC FIBERBOARD SHEATHING	HEAD DIAMETER, OR 1-1/2" LONG 16 GA STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6	
16	TOP OR BOTTOM PLATE TO STUD	4-10D BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS 3-16D BOX (3-1/2" x 0.135"); OR		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	
		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	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	
17	TOP PLATES, LAPS AT CORNERS	3-10D BOX (3" X 0.128"); OR 2-16D COMMON (3-1/2" X 0.162"); OR	FACE NAIL			AL PANELS, COMBINATION SUBFLOOR UI			
		3-3" X 0.131" NAILS 3-8D BOX (2-1/2" X 0.113"); OR		37	3/4" AND LESS 7/8" - 1"	8D COMMON (2-1/2"x0.131") NAIL 8D COMMON (2-1/2"x0.131") NAIL OR	6	12	
18	1" BRACE TO EACH STUD AND PLATE	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	39	1-1/8" - 1-1/4"	8D DEFORMED (2-1/2"x0.120") NAIL 10D COMMON (3"x0.148") NAIL OR	6	12	
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			8D DEFORMED (2-1/2"x0.120") 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"	FACE NAIL		٦				
		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			-	TABLE R507.2.1 PLACEMENT OF LAG SCF LEDGERS AND BAND		<i>-</i> к	

TABLE R507/2 FASTENER SPACING FOR	7/2 FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER 2" NOMINAL SOLID SAWN SPRUCE-PINE-FIR BAND JOIST (DECK LIVE LOAD = 40P 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

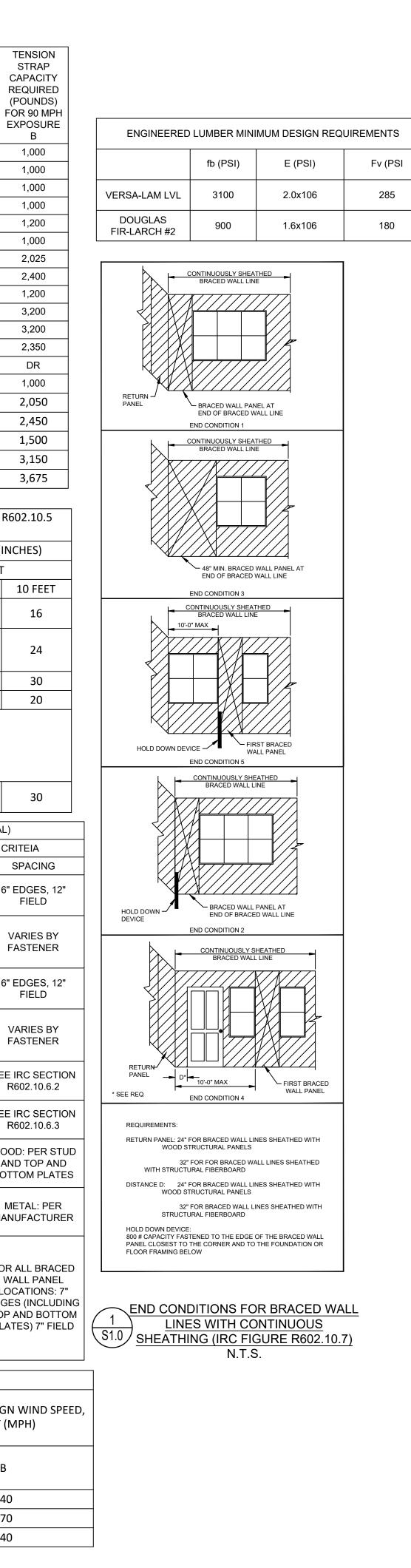
MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (FEET)	MAXIMUM TOTAL WALL HEIGHT (FEET)	MAXIMUM OPENING WIDTH (FEET)	( F ( E
	0	10	18	
			9	
	1	10	16	
			18	
2x4 NO 2 GRADE			9	
	2	10	16	
			18	
			9	
	2	12	16	
			18	
			9	
	4	12	16	
			18	
			9	
2x6 STUD	2	12	16	
			18	
GRADE			9	
	4	12	16	
			18	
	1			L

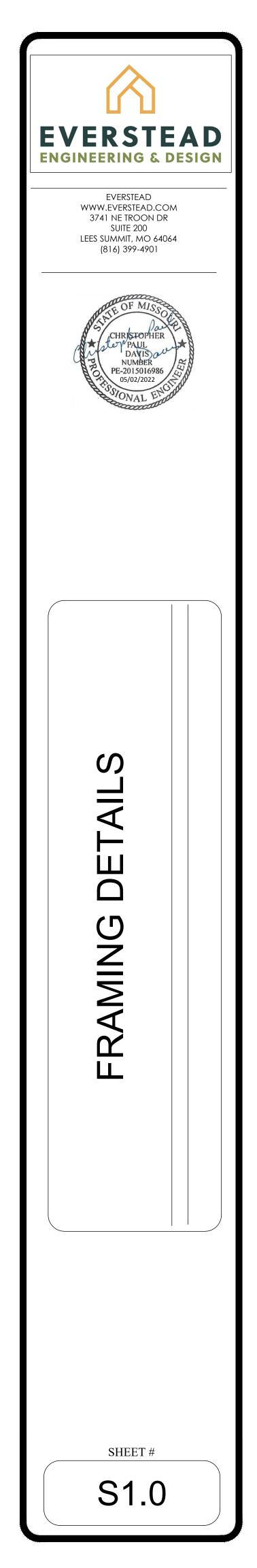
MINIMUN	M LENGTH OF BRA	ACED WALL F (PARTIAL)	PANELS TABLE	Re	
		MININ	IUM LENGTH (I	IN	
MI	ETHOD	WALL HEIGH			
		8 FEET	9 FEET		
	SUPPORTING ROOF ONLY	16	16		
PFH	SUPPORTING ONE STORY AND ROOF	24	24		
	PFG	24	27		
(	CS-PF	16	18		
CS-WSP	ADJACENT CLEAR OPENING HEIGHT (INCHES)				
	LESS THAN OR EQUAL TO 64	24	27		
	BRACING METHO	DS TABLE R6	02 10 4 (PARTIA	1)	

BRACING METHODS TABLE R602.10.4 (PARTIAL)								
METHODS,	MINIMUM	CONNECT	ION CR					
MATERIAL	THICKNESS	FASTENERS						
WSP - WOOD		EXTERIOR SHEATHING PER TABLE R602.3(3)	6"					
STRUCTURAL PANEL	3/8	INTERIOR SHEATHING PER TABLE R602.3(1) OR R602.3(2)	V F.					
CS-WSP CONTINUOUSLY		EXERIOR SHEATHING PER TABLE R602.3(3)	6"					
SHEATHED WOOD STRUCTURAL PANEL	3/8	INTERIOR SHEATHING PER TABLE R602.3(1) OR R602.3(2)	V F.					
PFH - PORTAL FRAME WITH HOLD DOWNS	3/8	SEE IRC SECTION R602.10.6.2	SEE R					
PFG - PORTAL FRAME AT GARAGE	3/8	SEE IRC SECTION R602.10.6.3	SEE R					
LIB	1x4 WOOD OR APPROVED METAL STRAPS AT 45 TO 60	WOOD: 2-8d COMMON NAILS OR 3-8d NAILS	WOO AN BOT					
LET-IN-BRACING	DEGREE ANGLES FOR MAX 16" STUD SPACING	METAL STRAP: PER MANUFACTURER	M MAN					
GB-GYPSUM	1/2	NAILS OR SCREWS PER TABLE R602.3(1) FOR EXTERIOR LOCATIONS	FOR W/ LOC					
BOARD	172	NAILS OR SCREWS PER TABLE R702.3.5 FOR INTERIOR LOCATIONS	EDGE TOP / PLAT					

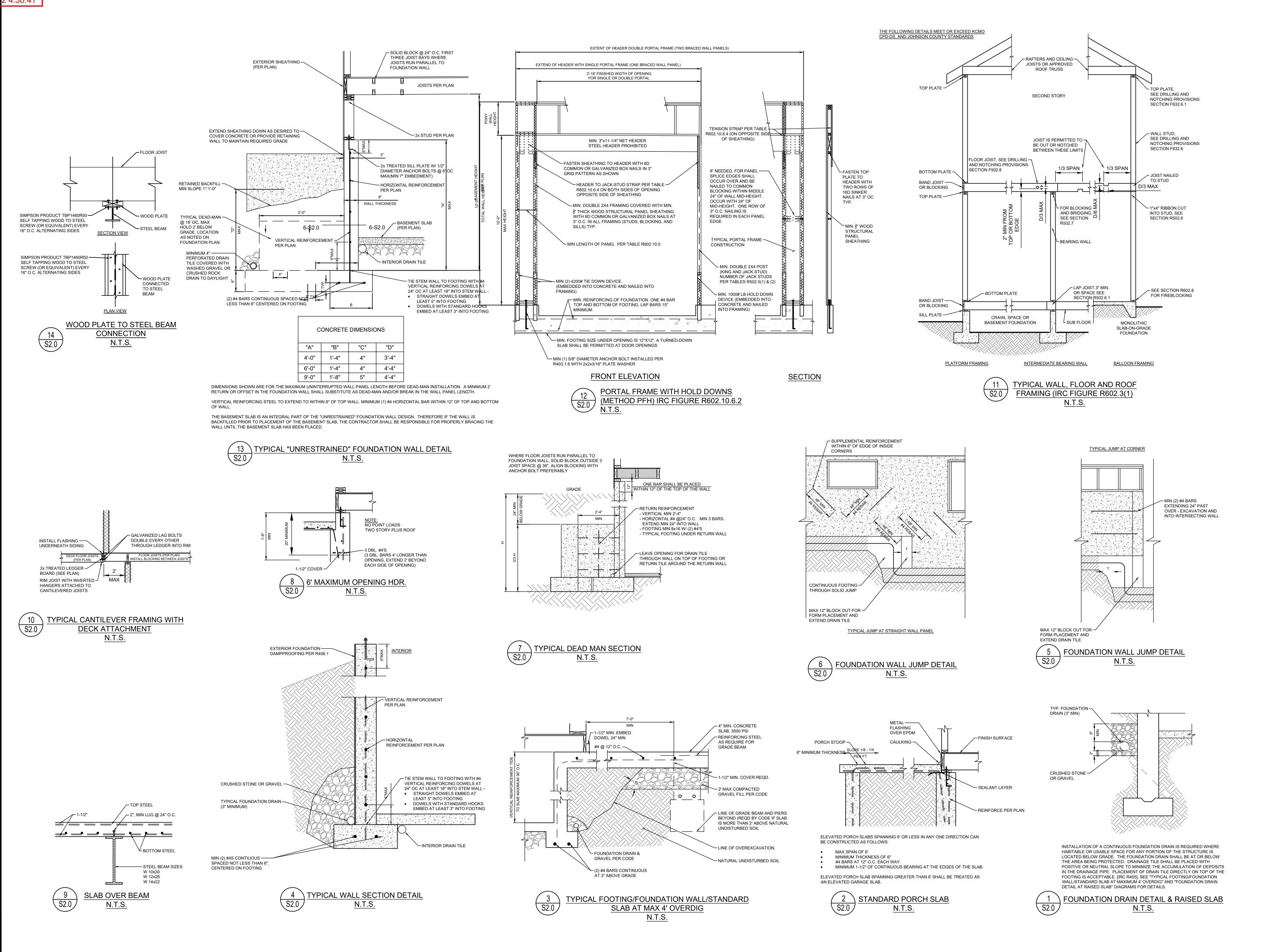
TABLE R507.2.1 PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS						
MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS (INCHES)						
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING		
LEDGER	2	1/4	2	1-5/8		
BAND JOIST	3/4	2	2	1-5/8		

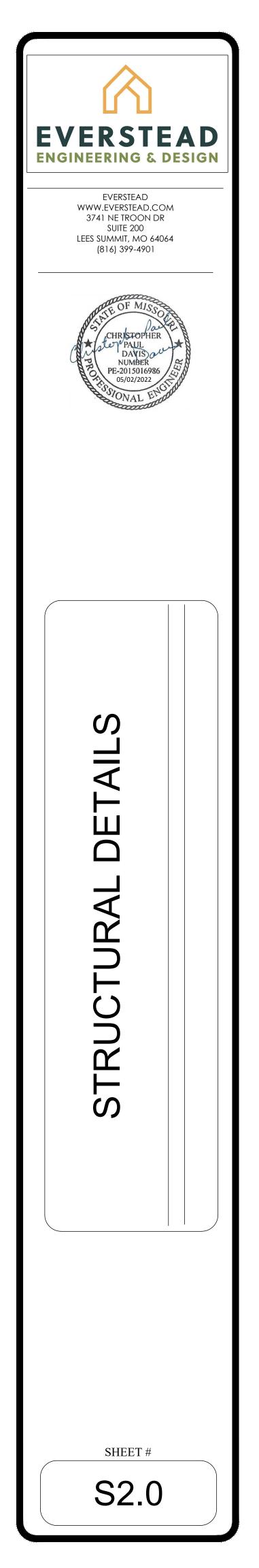
F	REQUIREMENTS FO	R WOOD STRUCTUR	AL PANEL WALL SHEAT	THING USED TO RESIS	T WIND PRESSU	RES IRC TABLE 60	02.3(3) (PARTIAL)
MINIMU	MINIMUM NAIL MINIMUM WOOD MINIMUM STRUCTURAL NOMINAL PANEL		MAX WALL STUD	PANEL NAIL SPACING		ULTIMATE DESIGN V V ULT (MF	
SIZE	PENETRATION (IN)	PANEL SPAN RATING	THICKNESS (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
	1.75	24/10	//10	24	6	12	140



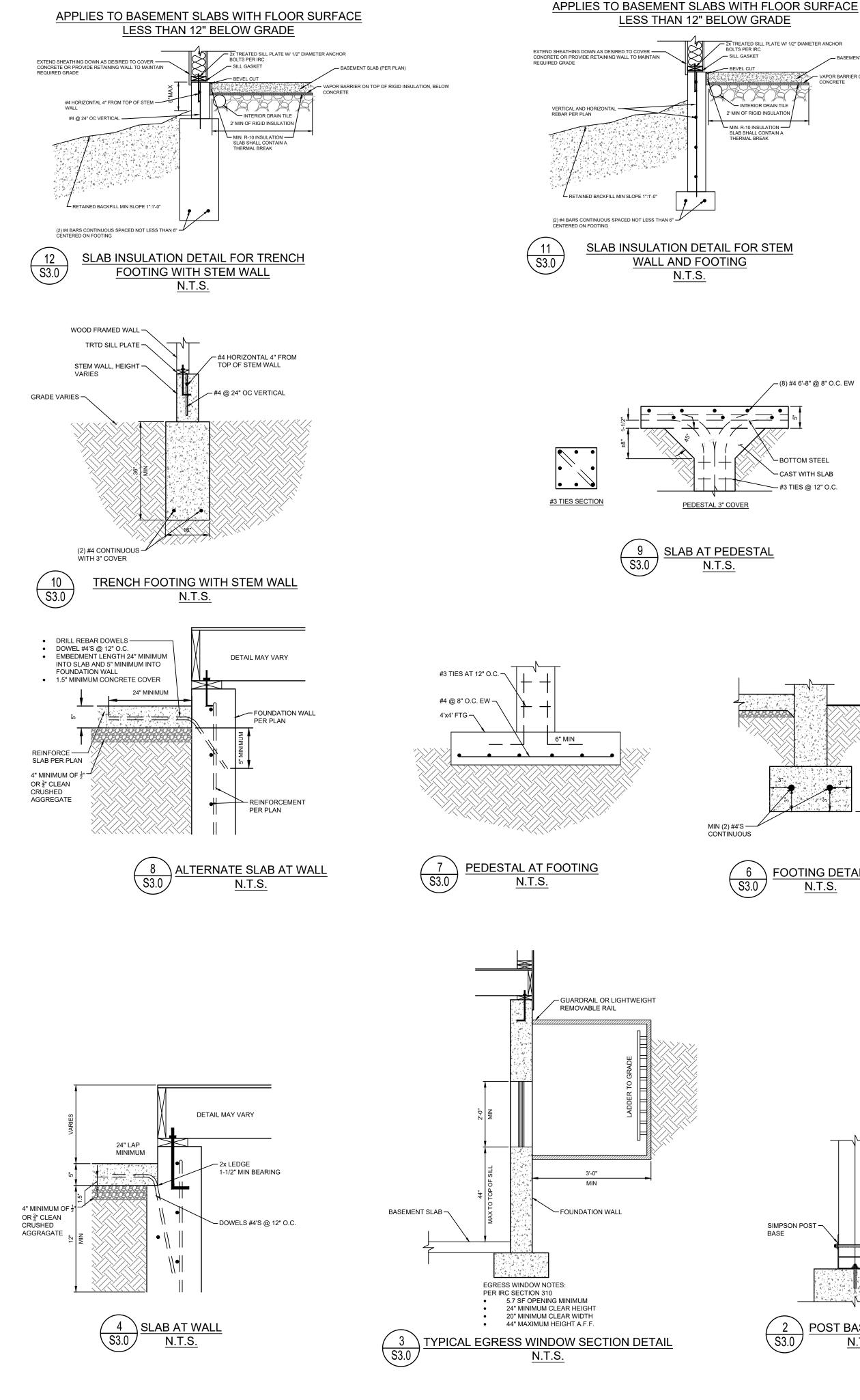










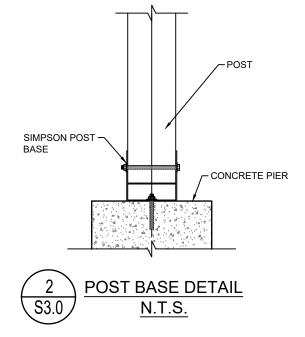


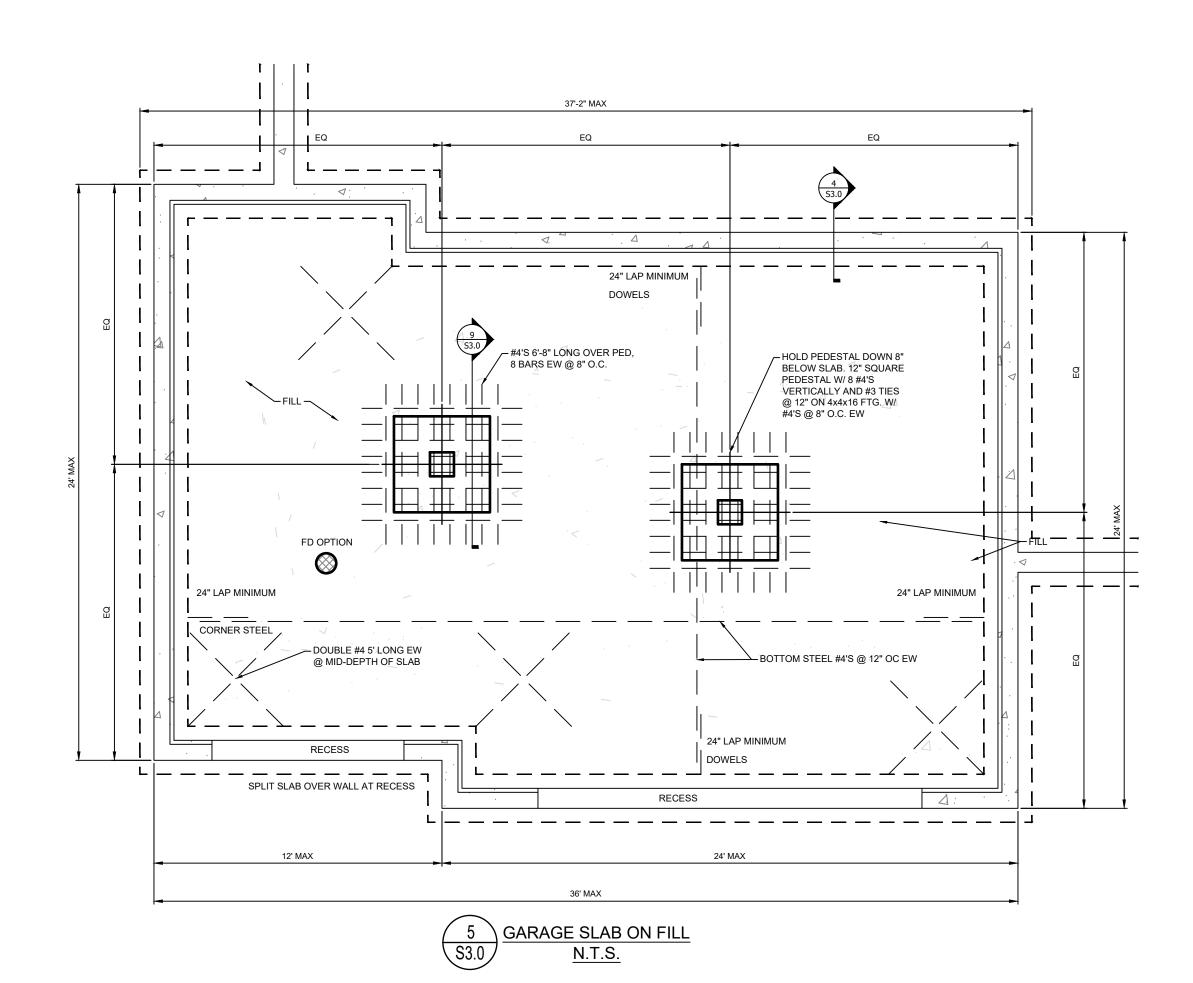
ZX TREATED SILL PLATE W/ 1/2" DIAMETER ANCHOR BOLTS PER IRC SILL GASKET BASI BASEMENT SLAB (PER PLAN) POR BARRIER ON TOP OF RIGID INSULATION, BELOW - INTERIOR DRAIN TI

∕− (8) #4 6'-8" @ 8" O.C. EW

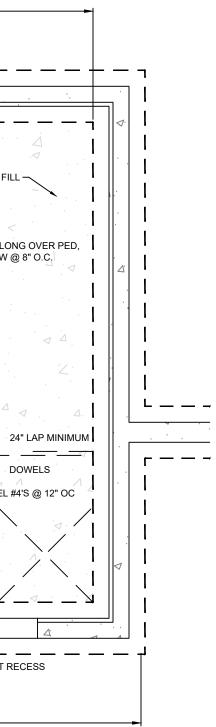
- BOTTOM STEEL CAST WITH SLAB - #3 TIES @ 12" O.C.

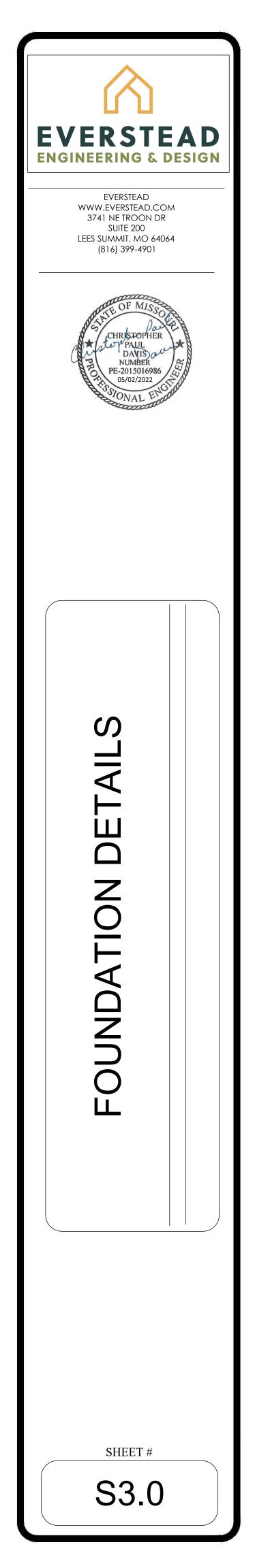
MIN 3  $\underbrace{\begin{pmatrix} 6 \\ S3.0 \end{pmatrix}}_{\underline{N.T.S.}} \underline{FOOTING DETAIL}$ 





20' MAX <u>(4</u> S3.0 \_ \_ L 24" LAP MINIMUM DOWELS HOLD PEDESTAL DOWN 8" -BELOW SLAB. 12" SQUARE PEDESTAL W/ 8 #4'S VERTICALLY AND #3 TIÉS #4'S 6'-8" LONG OVER PED, 8 BARS EW @ 8" O.C. @ 12" ON 4x4x16 FTG. W/ #4'S @ 8" O.C. EW FD OPTION  $\bigotimes$ 24" LAP MINIMUM DOWELS DOWELS ∽FILL – BOTTOM STEEL #4'S @ 12" OC CORNER STEEL DOUBLE #4 5' LONG EW @ MID-DEPTH OF SLAB 24" LAP MINIMUM DOWELS RECESS \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ SPLIT SLAB OVER WALL AT RECESS 12' MAX 24' MAX GARAGE SLAB ON FILL 1 <u>N.T.S.</u> S3.0





RELEASE FOR CONSTRUCTIO AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES

2 4:50:41

LEE'S SU 06/09

- 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.

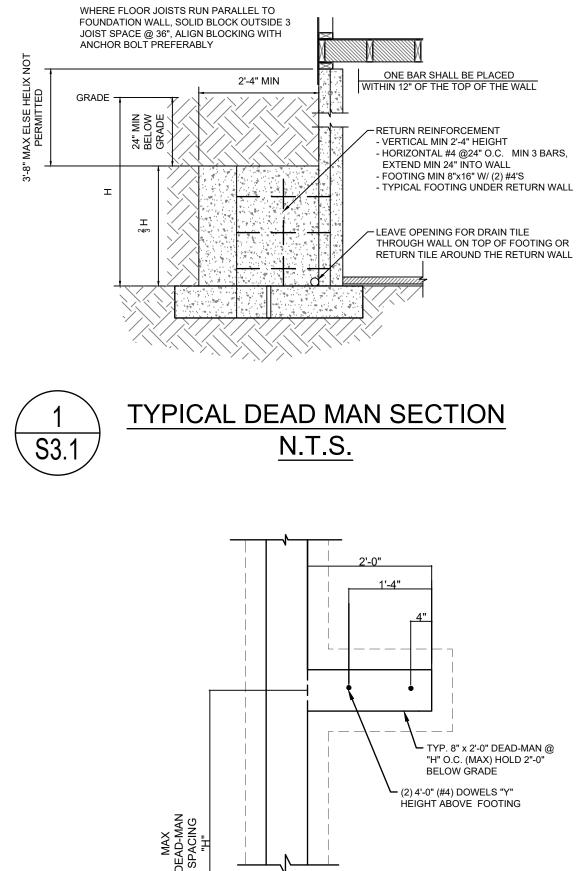
HELIX ALTERNATE DESIGN NOT VALID IF ANY ONE OF THE FOLLOWING CONDITIONS ARE MET:

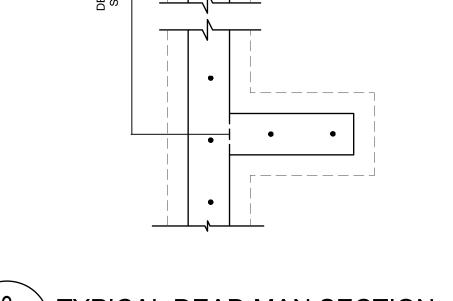
• NON-UNIFORM FOOTING SUPPORT (IE. CAST IN PLACE PIERS, PUSH PILES). DAYLIGHT WALLS EXCEEDING 6' TALL FOR A LENGTH GREATER THAN 6'.

#### 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).











	I	HE	LIX	FO	OTING TABLE		HELIX DOSAGE		
	LL STRI	ΡF	-00	TIN	IGS AND GRADE B	EAMS	9 LB/CU FT		
		IS	OLA	TE	D FOOTINGS AND	COLUMN PAD	S		
	PIER PAD SIZE	DE	PTH	MIN	NIMUM REINFORCEMENT GRADE 60 KSI STEEL	SCHEDULE 40 STEEL COLUMN, MIN FY = 35 KSI	HELIX DOSAGE		
	30"x30"	30"x30" 1'-0"			(5) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
	36"x36"	1	1'-0"		(6) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT		
	42"x42"	1	1'-2"		'-2"		(7) #4 BAR E.W.	3" DIAMETER	12.5 LB/CU FT
	48"x48"	1	'-4"	(8) #4 BAR E.W.		3" DIAMETER	12.5 LB/CU FT		
	48"x48"	1	1'-4"		(8) #4 BAR E.W.	N/A	12.5 LB/CU FT		
	54"x54"	1	'-4"		(9) #4 BAR E.W.	3.5" DIAMETER	12.5 LB/CU FT		
	60"x60"	1	'-6"		(10) #4 BAR E.W.	3.5" DIAMETER	12.5 LB/CU FT		
	PIER DIAMETE	R	DEP	тн	MINIMUM REINFORCE GRADE 60 KSI STE		HELIX DOSAGE		
	12" 3'-0"		,"	(4) VERTICAL #4		12.5 LB/CU FT			
	16" 3'-0"		,"	(4) VERTICAL #4		12.5 LB/CU FT			
	18" 3'-0"		,"	(4) VERTICA	12.5 LB/CU FT				
4	24"	24" 3'-0"		"	(4) VERTICA	12.5 LB/CU FT			
	20" 21.0"								

NSIONS		IS HEIGHT ABOVE RE FOOTING		HELIX DOSAGE.	
"F"	"G"	"Y"	"Z"	HEEK BOOKEE.	
8"	3'-4"	2'-6"	4 BARS AT 24" O.C.	9.0 LB/CUBIC YARD	
8"	4'-4"	2'-6"	4 BARS AT 24" O.C.	9.0 LB/CUBIC YARD	

WALL DETAIL N.T.S

## **EVERSTEAD ENGINEERING & DESIG**

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SHEET #

S3.1