

	VAULT INS	SULATION DETAIL	
	1" AIR SPACE WITH FOAM ENERGY CONSERVATION CODE CHUTES THE FOLLOWING VALUES ARE NEEDED.	AIR 2 X 2 NAILED TO BOTTOM OF RAFTERS 12" O.C. WITH 12 D	1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE EQUIPPED WITH SOLID WOOD OR STELL DOORS NOT LESS THAN 1-3/8" THICK OR 20 MINUTE RATED DOORS, WITH SELF CLOSING DEVICES REQUIRED FOR GARAGE / DWELLING SEPERATION DOORS R302.5.1
	R-15 IN WALLS	NAILS	2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED FOR ANY DWELLING IN COMPLIANCE WITH IRC M 1505
	R-49 IN ATTICS		3. CARBON MONOXIDE DETECTORS REQUIRED IRC R 315
	R-	38 HIGH DENSITY ISULATION	4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3
	R-30 REDUCTION FOR VAULTS IS ONLY FOR 500 SF PF AREA	INTERCONNECTED HARD WIRED SMOKE DETECTORS SHALL BE INSTALLED IN EACH	5. DECK SHALL BE BUILT PER TABLES 507.2 , 507.2.1, 507.3, 507.6, 507.5.1(1)&(2), 507.5, AND 507.6
	R-19 IN FLOORS OVER UNCONDITIONED SPACES	BEDROOM AND OUTSIDE OF EACH BEDROOM ALL PLUMBING IF EXISITING SHALL BE CAPPED	6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR ROOF DIAPHRAGMS R602.3
	R-10 IN CRAWL SPACE WALLS	AND AIR TESTED PRIOR TO ROUGH-IN INSPECTION FOR LEAK VERIFICATION	7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2
	BASEMENT WALLS R-13 CAVITY OR R-10 CONTINOUS		8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND ROOF BEAMS R802.3.1. R802.11
	SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT		9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING UNFINISHED BASEMENTS) N1102.1
	A WINDOW U FACTOR OF .35 OR BETTER DUCTWORK NEEDS TO HAVE AN R-8 VALUE	ICE & WATER SHEILD REQUIRED ON ALL	10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1
	ROOF IS DESIGNED FOR 25		11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS EFFECTIVE JANUARY 1, 2014. A SAMPLE TESTING PROGRAM WILL BE IMPLEMENTED OCTOBER 1, 2012 KCBRC N1102,4,1.2 N1103,2.2
	P.S.F. SNOW LOAD MIN. COMP. SHING RIDGE BOARDS AND HIPS ARE TO BE 2 X MATERIAL, AND NOT LESS THAN THE END CUT OF RAFTER		12. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE (E.G. CAN LIGHTS IN ATTIC) SHALL BE IC- RATED, LEAKAGE- RATED AND SEALED TO THE GYPSUM WALLBOARD NI102.4.4
	2 X 6 DF NO. 2 7 AT 16" OC R	7/16" APA RAFTERS AND CEILING JOISTS CONNECTIONS IN ACCORDANCE IRC 802.3	13.PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1
	PROVIDE RAFTER TIES PER SECTION 802.3 AND 802.3.1 WHEN UNABLE TO CONNECT RAFTERS TO CEILING JOISTS	DRIP EDGE AND GUTER	14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE RATE N1103.2.2.1
	2 X 6 DF NO. 2 AT 16" OC	OVER 2 X 6 SUBFASCIA	15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KCBRC N1103.2.2
	1/2 GYP. BOARD	SOFFIT WITH VENTS	16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103,4
	SHEET ROCK CEILING AND WALLS	7	17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR M1507.2
v	2 - 2 X 10 DF NO 2 HEADERS TYP. U.N.O.	7/16 APA RATED SIDING OVER WATER RESISTIVE HOUSE WRAP IN COMPLIANCE WITH SECTION 703.2	18. MAKEUP AIR SYSTEM REQUIRED FOR KITHCHEN EXHAUST HOODS THAT EXCEED 400 CFM M1503.4
	TUDS SHALL BE 2 X 6 DF 2 X 4 DF NO. 2 IO 2 @ 16" O.C. TYP. AT 16" OC 3/4" T & G SUB FLOOR	OF THE IRC 1/2 " ANCHOR BOLTS AT 5-0 OC MIN., AND BE	19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING THE WALL BETWEEN THE HOUSE AND GARAGE) SHALL NOT BE USED AS RETURN AIR PLENUMS
	ALL STUDS GO FROM FLOOR TO CEILING OR RAFTER DIAFRAM TYP. 2 X 10 DF NO 2 @	LOCATED WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION, SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE	20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE M1601.6
	16" OC TYP. MIN. CONCRETE STRENGTH 2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE	SUPPLEMENTAL 2 X4 TREATED PLATE OVER SILL SEALER CORNERS OF OPENINGS AND STEP DOWNS	
	3,000 PSI FOR FOOTINGS , FOUNDATION WALLS, AND OTHER VERTICAL CONCRETE 3,500 PSI FOR CARPORT AND GARAGE FLOOR SLABS ON UNDISTURBED GRADE, AND STRUCTURAL FLOOR SLABS	AMPPROOF WALLS BELOW GRADE SPRAY ON TAR WITHIN CODE R-406.1 FILL ALL VIODS & HONEYCOMB AREAS FILL ALL VIODS & HONEYCOMB AREAS FILL ALL VIODS & HONEYCOMB AREAS FILL ALL VIODS & HONEYCOMB AREAS	22. COMPLIANCE WITH THE REQUIRMENT AND SHOW CONNECTION AS NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR UPLIFT PER IRC 802.11. ALL RAFTERS BE IN COMPLIANCE WITH IRC 502.11 AMENDED RAYMORE CODE
		BEFORE DAMPPROOFING 7.5" CONCRETE WALL WITH NO 4 BARS HORT. EVE HEIGHT WITH # 4 BAR WITHIN 6" OF TOP AND B HORT. REBAR SHALL BE INSTALLED ON SOIL SIDE ALL REBAR ALL REBAR REINFORCEMENT GRADE 40 TYP. VERTICAL REBAR SHALL BE WITHIN 8" OF THE TO AND POSITIONED 2" FROM THE INSIDE FACE OF VERTICAL REBAR SPACING WALL HEIGHT IN FEET 6-0 OR LESS #4 @ 24" O.C. 8-0 # 4 @ 16" O.C. ALL CONC 9-0 # 4 @ 12" O.C. 8-0 # 4 @ 16" O.C. MUL CONC 9-0 # 4 @ 12" O.C. 9-0 # 4 @ 12" O.C. WEATHEN 10-0 WALL 9.5" #4 @ 12" O.C. 4" DRAIN TILE IN WITH MIN 6" CRUSHED ROCK OVER PIPE, DRAIN TO PRESSURE MUST HA ACCORDANCE TO R-405 2000 P.S.F. ACCORDANCE TO R-405	OTTOM OF WALL, E OF VERTICAL OP OF THE WALL, WALL CRETE EXPOSED TO R GARAGE SLABS GS WALLS AND FLATWORK AVE 6% AIR ENTRAINMENT R PADS
	MAX. RISE 7-3/4" MIN. RUN 10"	CAL WALL SECTION WITH # 4 REBAN	X 3-0 X 12" PEIR PADS MIN. STUDS OVER 10-0 SHALL HAVE R, 6 EACH WAY BLOCKING ALONG WALL MAX OF 6-0 O.C. OF 6-0 O.C.
	WINDOW SAFETY GLAZING PER 308	WINDOW EGRESS REQUIREMENTS	
	SAFETY GLAZING REQUIRED ALONG WALKING SURFACES AND STAIRS LOCATED WITHIN 36 INCHES HORIZONTALLY OF THE STEPS. SAFETY GLAZING REQUIRED IF EXPOSED SINGLE PANEL IS IN EXCESS OF 9 SQUARE FEET OR THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR.	BEDROOM WINDOW EGRESS MINIMUM FOR A DOUBLE HUNG WINDOW IS 34 INCH CLEAR WIDTH MIN. AND 24 INCH CLEAR HEIGHT MIN. WITH A CLEAR OPENABLE AREA OF 5.7 SQUARE FEET MIN. A CASEMENT OR SLIDER WINDOW MINIMUMS ARE 20 INCH CLEAR	OVERHEAD GARAGE DOORS OVERHEAD GARAGE DOORS MUST MEET DASMA 115 MPH OR IRC 2018 REQUIRMENTS LADDER
	SAFETY GLAZING REQUIRD WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.	WIDTH MINIMUM AND 41 INCH CLEAR HEIGHT MINIMUM. WITH A MINIMUM 5.7 SQUARE FOOT OF OPENABLE AREA. OPENING OF EGRESS WINDOW NOT MORE THAN 42"	EGRESS WINDOW WELL AS NEEDED PER SECTION 308 MIN 3-0 X 3-0 WITH LADDER
	WINDOWS ARE TO HAVE FALL PROTECTION PER IRC 312.2	ALL POINT LOADS SHALL HAVE A	MINIMUM OF 2 STUDS UNLESS NOTED OTHERW

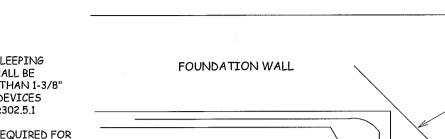
SS NOTED OTHERWISE

TYP VAULT WITH STRAPS

AND SHOW CONNECTION AS AND GIRDER CONNECTION FOR COMPLIANCE WITH IRC 502.11

SERVE BOTH THE LIVING ECTRODE ('UFER' GROUND) E ELECTRICAL SERVICE E3608.1

ION SYSTEM IS REQUIRED FOR C M 1505



CONTINUOUS FOOTING THROUGH SOLID JUMP

JOSEPH A. TOWNS P.E. MO. LIC E 22017

PROFESSIONAL SEAL APPLIES TO STRUCTURAL ELEMENTS ONLY

NICK ZVACEL CONSTRUCTION LOT 151 MONTICELLO 4720 NE FREEHOLD DR LEE SUMMIT MO SCALE 1/4" = 1-0 DATE 7-20-21 PLAN NO. 3529

BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

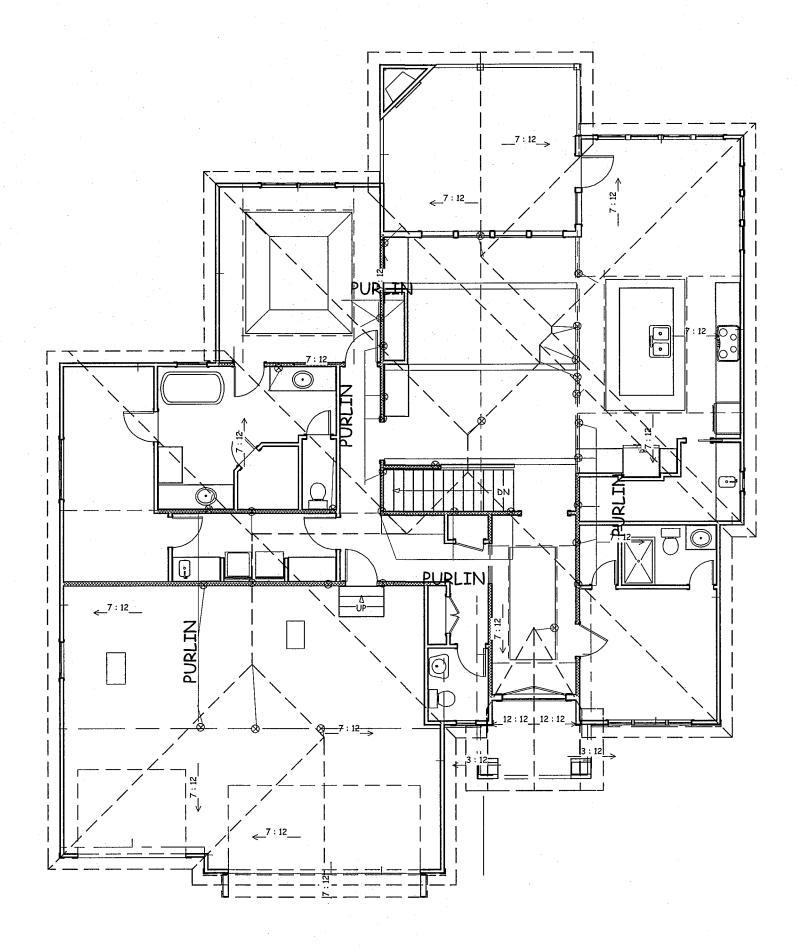
SHEET NO.

4 OF 6

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW Development Services LEE'S SUMMIT, MISSOURI

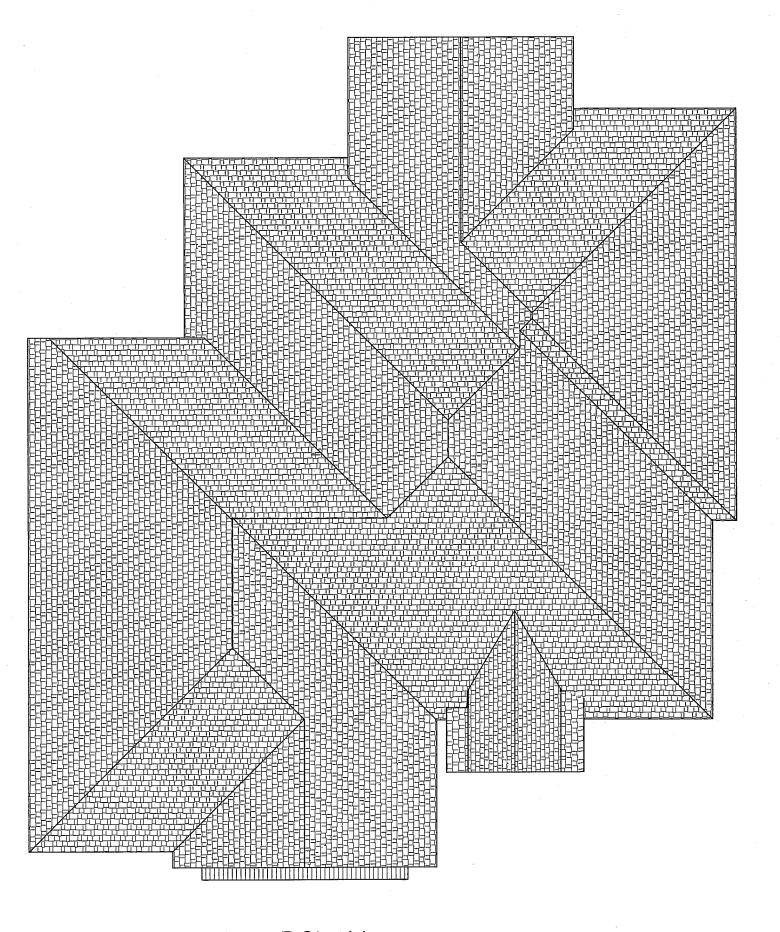
FOOTING JUMP TYP.

MIN 2 PCS 48" NO 4 REBAR



PURLIN PLAN

1/8 = 1-0



ROOF PLAN 1/8" = 1-0 ROOF PITCHES 7/12

MAX. RAFTER SPAN 14-4

ALL RAFTERS 2 X 6 DF NO 2 @ 16" O.C UNLESS NOTED OTHERWISE ALL HIPS 2 X 8 DF NO 2 UNLESS NOTED OTHER WISE

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL ELEMENTS ONLY BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

SCALE

EL CONSTRUCTION NTICELLO EEHOLD DR T MO

NICK ZVACEL LOT 151 MON1 4720 NE FREE LEE SUMMIT /

1/4" = 1-0

DATE

7-20-21

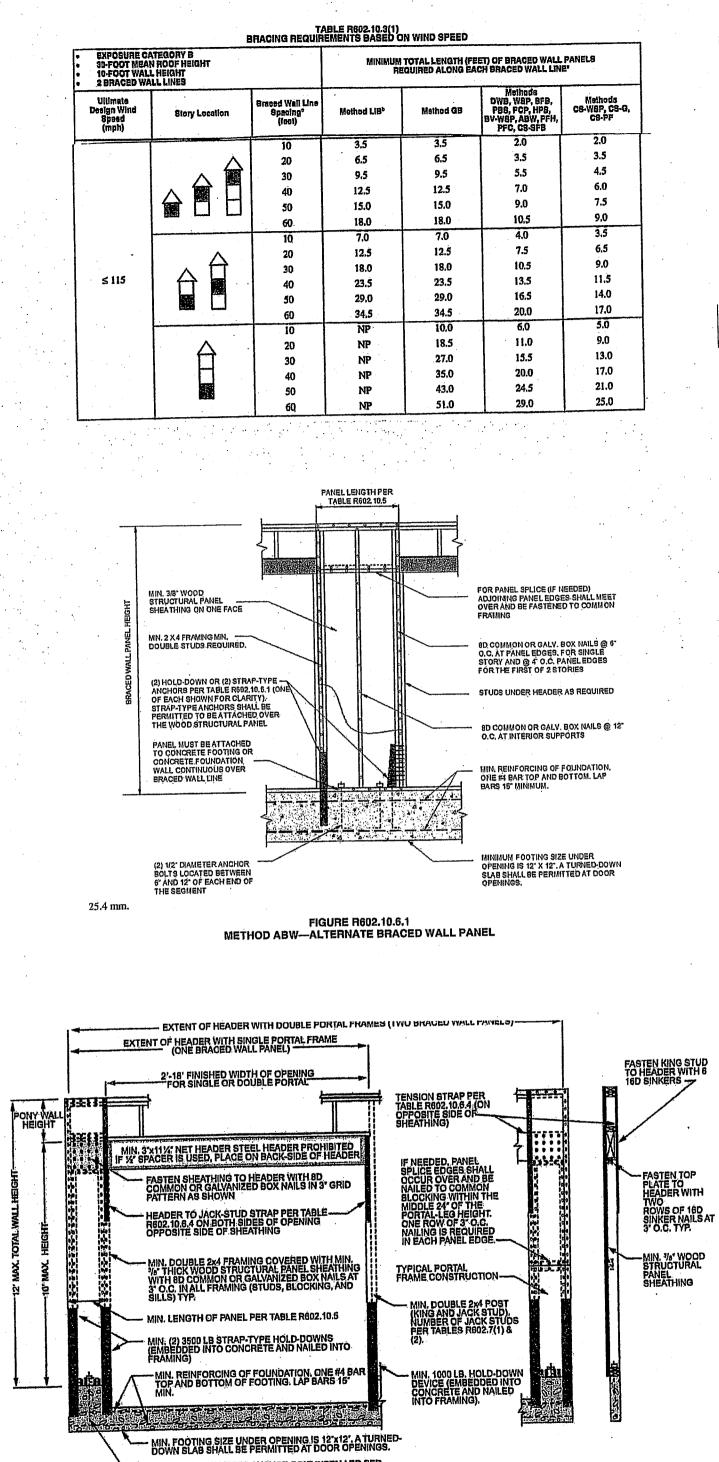
PLAN NO.

3529

SHEET NO.

5 OF 6

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW Development Services LEE'S SUMMIT, MISSOURI



-MIN. (1) %** DIAMETER ANCHOR BOLT INSTALLED PER SECTION R403.1.6 - WITH 2"X 2" x%s" PLATE WASHER FRONT ELEVATION

SECTION

4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.6.2 METHOD PFH-PORTAL FRAME WITH HOLD-DOWNS

		.4 DDS			
			T	CONNECTIO	
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	Fasleners	
T	LIB	1 × 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d common nai or 3-8d (2 ¹ / ₂ " long x 0.113" dia.)	
	Let-in-bracing			Metal strap: per manufactu	
	DWB Diagonal wood boards	"/4" (1" nominal) for maximum 24" stud spacing		2-8d $(2^{1}/_{2}^{"} \log \times 0.113")$ dia. or 2 - $1^{3}/_{4}^{"} \log $ staples	
	WSP Wood structural panel (See Section R604)	3/ ₈ "		Exterior sheathing per Table R602.3(3)	
				Interior sheathing per Table R602.3(1) or R602.	
thods	BV-WSP [*] Wood structural panels with stone or masonry veneer (See Section R602, 10.6.5)	7/ ₁₆ ″	See Figure R602.10.6.5	8d common (2 ¹ / ₂ " × 0.131)	
Intermittent Bracing Methods	SFB Structural fiberboard sheathing	¹ / ₂ " or ²⁵ / ₃₂ " for maximum 16" stud spacing		$1^{1}/_{2}^{"}$ long × 0.12" dia. (for $1^{1}/_{2}$ sheathing) $1^{3}/_{4}^{"}$ long × 0.12 (for $2^{3}/_{32}$ " thick sheathin galvanized roofing nai	
rmitten	GB Gypsum board	٧ ₂ "		Nails or screws per Table R60. exterior locations	
Inte				Nails or screws per Table R70 interior locations	
	PBS Particleboard sheathing (See Section R605)	³ / ₈ " or ¹ / ₂ " for maximum 16" stud spacing		For ${}^{3}l_{g}$ ", 6d common (2" long × 0.113" dia.) r For ${}^{1}l_{2}$ ", 8d common (2" ${}^{2}l_{2}$ " long × 0.131" dia.)	
	PCP Portland cement plaster	See Section R703.7 for maximum 16" stud spacing		$1^{1}/_{2}^{"}$ long, 11 gage, $7^{'}/_{16}^{"}$ dia. I or $7^{'}/_{8}^{"}$ long, 16 gage stap	
	HPS Hardboard panel siding	⁷ / ₁₆ " for maximum 16" stud spacing		0.092" dia., 0.225" dia. head length to accommodate penetration into stud	
	ABW Alternate braced wall	3/ ₈ ″		See Section R602.10.	

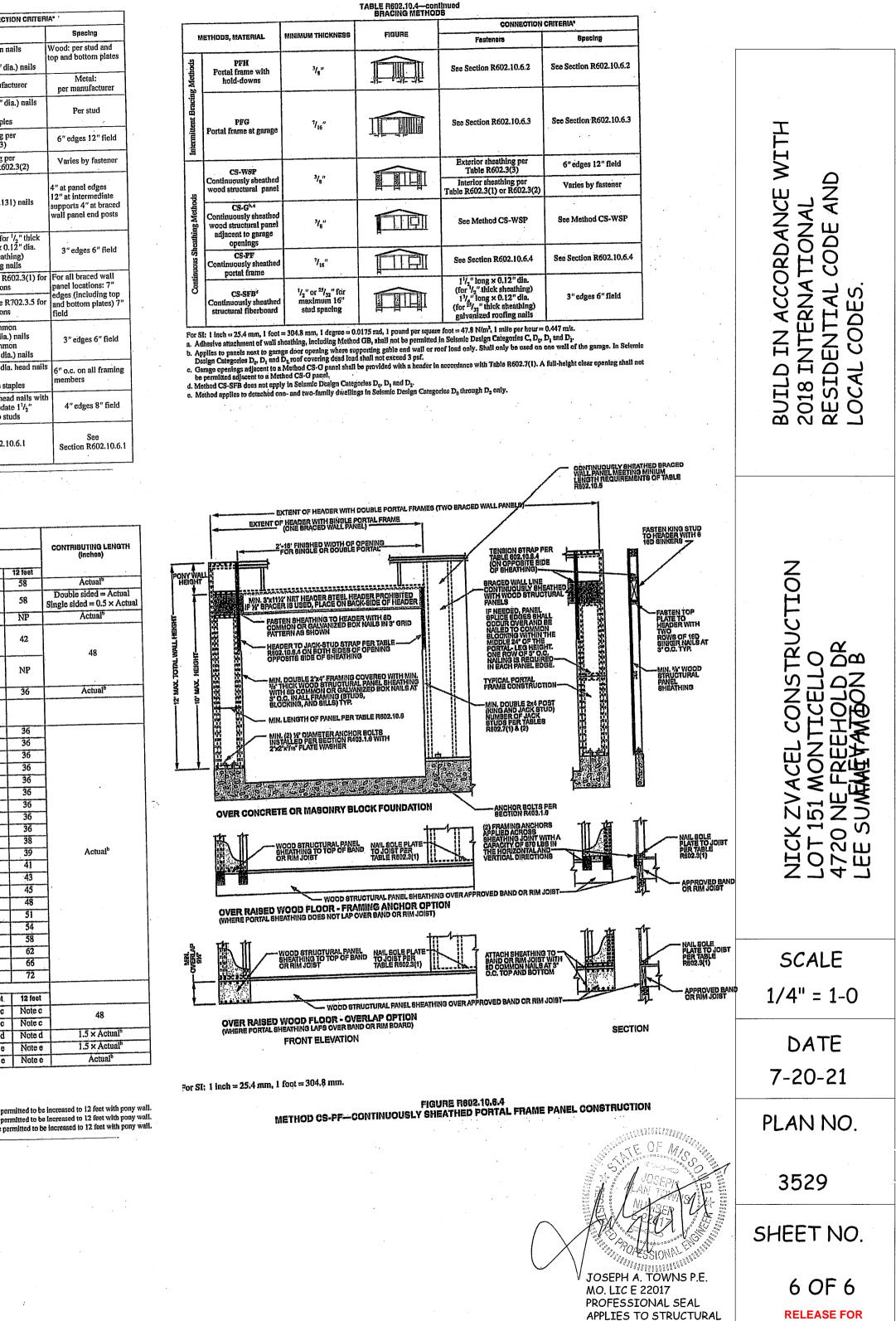
	MINIMUM LEP	TABLE I	R602.10.5	VALL PAN	ELS	
1	MINIMUM LENGTH" (Inches) Wali Height					
ME (See Tabl						
	8 feet	9 feet	10 feet	11 feet		
DWB, WSP, SFB, PI	48	48	48	53		
GB			48	48	53	
LIB			62	69	NP	
	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	
ABW	SDC D_0 , D_1 and D_2 , ultimate design wind speed < 140 mph	32	32	34	NP	
	S-G	24	27	30	33	Γ
	Adjacent clear opening height (inches)					
	≤ 64	24	27	30	33	
	68	26	27	30	33	
	72	27	27	30	33	Ľ
	76	30	29	30	33	
	80	32	30	30	33	Γ
	84	35	32	32	33	
	88	38	35	33	33	
	92	43	37	35	35	L
	96	48	41	38	36	⊥
CS-WSP, CS-SFB	100		44	40	- 38	1
	104		49	43	40	_
	108	-	54	. 46	43	╇
	112			50	45	+
	116			55	48	+
	120		. <u> </u>	60	52	╇
	124				56 61	
	128				66	+
	132				00	+
	136					+
	140		<u> </u>			+
			Pa	rtal header	height	J.
METHOD (See Table R602,10.4)		8 feet	9 feet	10 feet	11 feet	Т
(366 18	Supporting roof only	16	16	16	Note c	1
PFH	Supporting one story and room	24	24	24	Note c	1
	PFG		27	30	Note d	
	SDC A, B and C	16	18	20	Note e	
CS-PF	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	
For SI: 1 inch = 25,4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.						

For SI: 1 incb = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s. NP = Not Permitted.

a. Linear interpolation shall be permitted.

a. Linear interpolation shall be permitted.
b. Use the actual length where it is greater than or equal to the minimum length.
c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height shall be permitted to be increased to 12 feet with pony wall.
d. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.3, but wall height shall be permitted to be increased to 12 feet with pony wall.
d. Maximum header height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height shall be permitted to be increased to 12 feet with pony wall.
e. Maximum header height for CS-PF is 10 feet in accordance with Figure R602.10.6.4, but wall height shall be permitted to be increased to 12 feet with pony wall.

BRACE WALL DETAILS WIND SPEED 115 MPH WIND EXPOSURE A SEISMIC DESIGN CAEGORY A



RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW Development Services LEE'S SUMMIT, MISSOURI

ELEMENTS ONLY