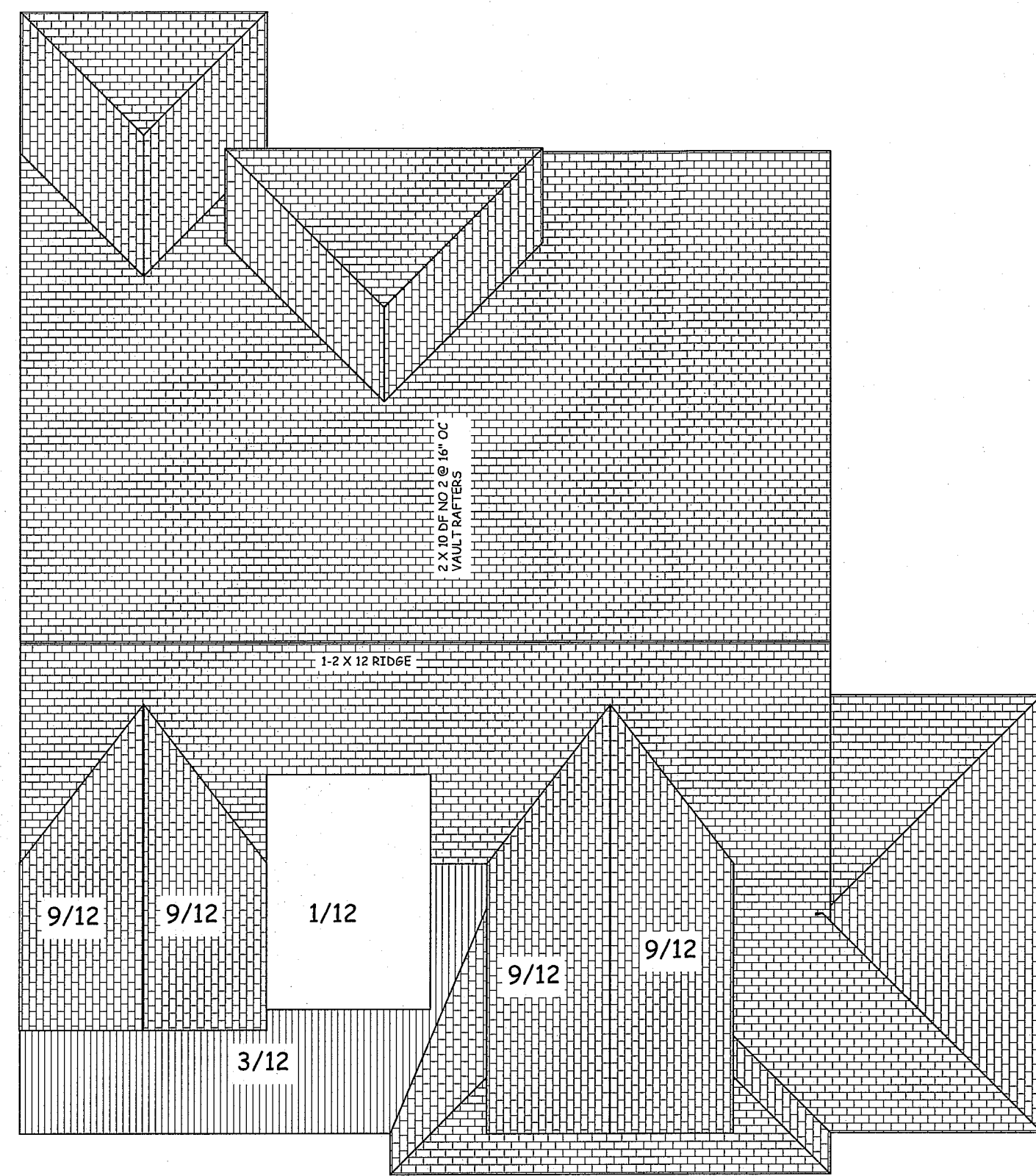
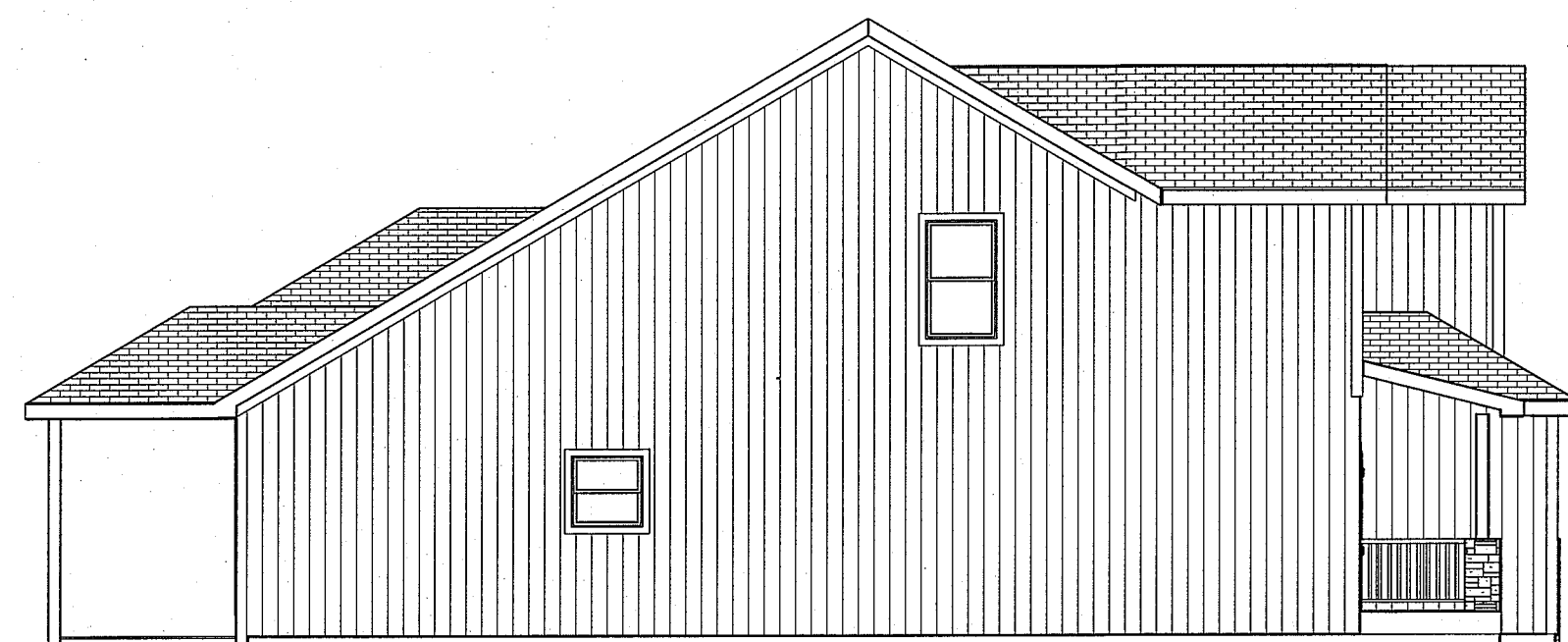




ROOF PLAN
1/8" = 1'-0"
ROOF PITCHES 7/12 U.N.O.
RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP. U.N.O.
HIPS AND RIDGES 2 X 8 DF NO 2 TYP. U.N.O.

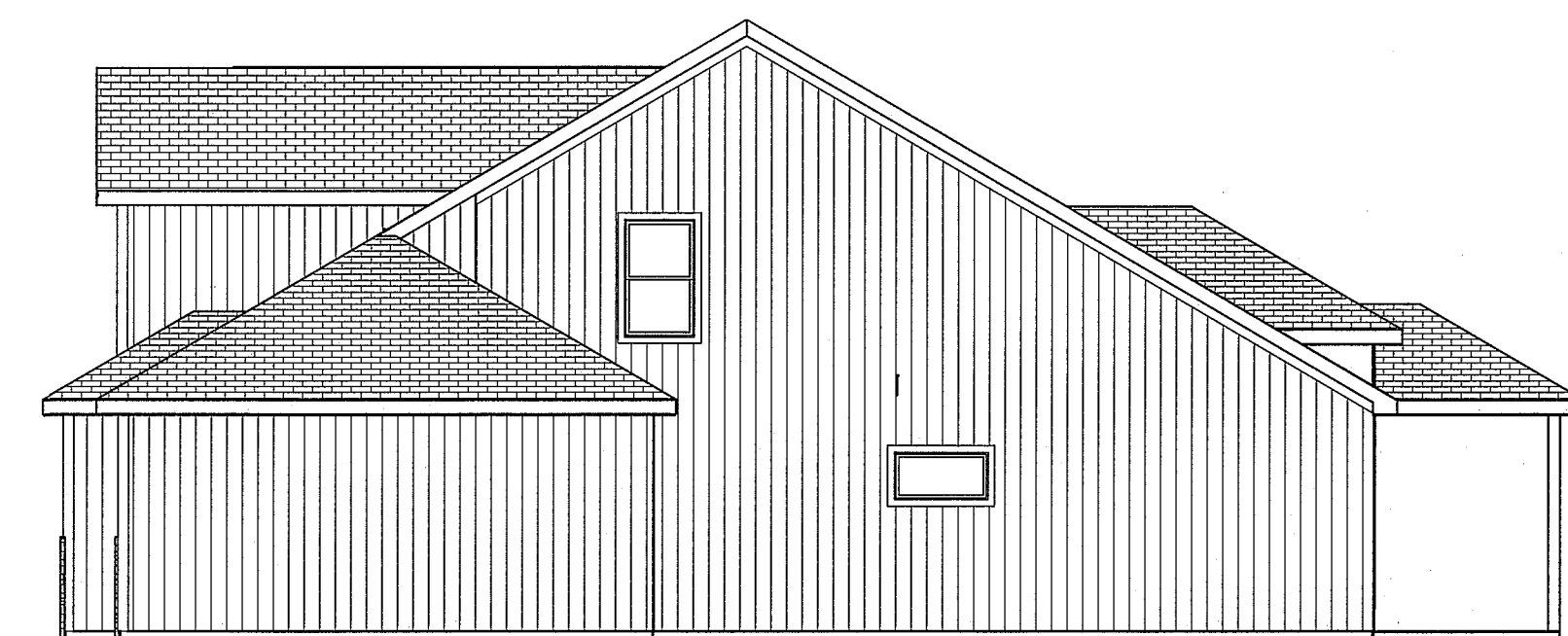


LEFT EL.
1/8" = 1'-0"

3 SIDES LP PANEL SIDING



FRONT EL.
BOARD & BATT, LAP
AND STONE



RIGHT EL.
1/8" = 1'-0"

3 SIDES LP PANEL SIDING



REAR EL.
1/8" = 1'-0"

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

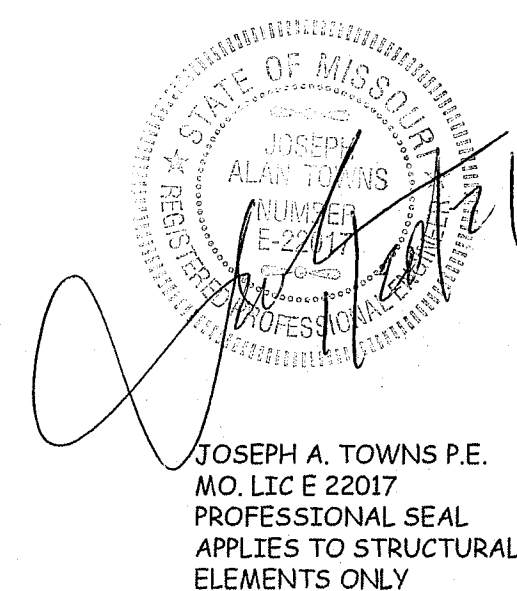
BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
1-18-21

PLAN NO.
3356

SHEET NO.
1 OF 5



ENERGY CONSERVATION CODE
THE FOLLOWING VALUES ARE NEEDED.

R-15 IN WALLS

R-49 IN ATTICS

R-38 IN VAULTS

R-30 REDUCTION FOR VAULTS IS ONLY FOR 500 SF
PF AREA

R-19 IN FLOORS OVER UNCONDITIONED SPACES

R-10 IN CRAWL SPACE WALLS

BASEMENT WALLS R-13 CAVITY OR R-10 CONTINUOUS

SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT

A WINDOW U FACTOR OF .35 OR BETTER

DUCTWORK NEEDS TO HAVE AN R-8 VALUE

VAULT INSULATION DETAIL

1" AIR SPACE WITH FOAM AIR
CHUTES

2 X 10 VAULT RAFTER

2 X 2 NAILED TO BOTTOM OF
RAFTERS 12" O.C. WITH 12 D
NAILS

R-38 HIGH DENSITY
INSULATION

INTERCONNECTED HARD WIRED SMOKE
DETECTORS SHALL BE INSTALLED IN EACH
BEDROOM AND OUTSIDE OF EACH BEDROOM
ALL PLUMBING IF EXISTING SHALL BE CAPPED
AND AIR TESTED PRIOR TO ROUGH-IN
INSPECTION FOR LEAK VERIFICATION

ICE & WATER SHIELD REQUIRED ON ALL
ROOFS

ROOF IS DESIGNED FOR 25
P.S.F. SNOW LOAD MIN.

COMP. SHINGLES OVER
15# FELT

7/16" APA
RATED ROOF
SHEATHING

RAFTERS AND CEILING
JOISTS CONNECTIONS IN
ACCORDANCE IRC 802.3

1 X 8 FASCIA
OVER 2 X 6
SUBFASCIA

SOFFIT
WITH
VENTS

2 X 6 DF NO. 2
AT 16" OC

2 X 6 DF NO. 2
AT 16" OC

1/2 GYP. BOARD

GARAGE SHALL HAVE 5/8 TYPE X
SHEET ROCK
CEILING AND WALLS

2 X 2 X 10 DF NO 2
HEADERS TYP. UNO.

2 X 4 DF NO. 2
AT 16" OC

3/4" T & G SUB FLOOR
GLUED AND NAILED

2 X 10 DF NO 2 @
16" OC TYP.

1/2" ANCHOR BOLTS AT 5-0 OC MIN. AND BE
LOCATED WITHIN 12" FROM THE ENDS OF EACH
PLATE SECTION. SHALL EXTEND A MINIMUM OF
7" INTO CONCRETE

2 X 4 TREATED PLATE OVER
STILL SEALER

SUPPLEMENTAL
REINFORCEMENT AT
CORNERS OF OPENINGS
AND STEP DOWNS
REQUIRE 1 # 4 BAR 48"
LONG AT 45 DEGREE
ANGLE AT CORNERS.
WITHIN 6" OF THE EDGE
OF INSIDE CORNERS

DAMP-PROOF WALLS BELOW GRADE
SPRAY ON TAR WITHIN CODE R-406.1
FILL ALL Voids & HONEYCOMB AREAS
BEFORE DAMP-PROOFING

ALL REBAR
GRADE 40 TYP.

7/5" CONCRETE WALL WITH NO 4 BARS HORT. EVERY 18" OF WALL
HEIGHT WITH # 4 BAR WITHIN 6" OF TOP AND BOTTOM OF WALL.
HORT. REBAR SHALL BE INSTALLED ON SOIL SIDE OF VERTICAL
REINFORCEMENT
VERTICAL REBAR SHALL BE WITHIN 8" OF THE TOP OF THE WALL
AND POSITIONED 2" FROM THE INSIDE FACE OF WALL
VERTICAL REBAR SPACING
WALL HEIGHT IN FEET
6-0 OR LESS # 4 @ 24" O.C.
8-0 # 4 @ 16" O.C.
9-0 # 4 @ 12" O.C.
10-0 # 4 @ 8" O.C.
10-0 WALL 9-5" # 4 @ 12" O.C.

4" DRAIN TILE IN WITH MIN 6"
CRUSHED ROCK OVER PIPE, DRAIN TO
DAYLIGHT, OR SUMP PUMP IN
ACCORDANCE TO R-405

ASSUMED SOIL
PRESSURE
2000 P.S.F.

8 X 16 FOOTING WITH TWO NO 4
BARS HORIZONTAL 3" FROM THE
BOTTOM. ALL FOOTINGS TO
EXCEED MIN. FROST DEPTH OF 36"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
3,000 PSI FOR FOOTINGS, FOUNDATION WALLS, AND OTHER VERTICAL
CONCRETE
3,500 PSI FOR CARPORT AND GARAGE FLOOR SLABS ON UNDISTURBED GRADE,
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RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

WINDOW EGRESS
REQUIREMENTS

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
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"
FROM THE FLOOR

ALL POINT LOADS SHALL HAVE A MINIMUM OF 2 STUDS UNLESS NOTED OTHERWISE

PIER PADS

TYP. UNO. 3-0 X 3-0 X 12" PIER PADS MIN.
WITH # 4 REBAR, 6 EACH WAY

USE LSTA24 RIDGE STRAPS
ON ALL VAULTS AT RIDGE
OR COLLAR TIES

TYP VAULT WITH STRAPS

STUDS OVER 10-0 SHALL HAVE
BLOCKING ALONG WALL MAX
OF 6-0 O.C.

OVERHEAD GARAGE DOORS
MUST MEET DASHA 115 MPH
OR IRC 2018 REQUIREMENTS

LADDER

EGRESS WINDOW WELL AS NEEDED
PER SECTION 308 MIN 3-0 X 3-0
WITH LADDER

ALL CONCRETE EXPOSED TO
WEATHER GARAGE SLABS
FOOTINGS WALLS AND FLATWORK
MUST HAVE 6% AIR ENTRAINMENT

7/5" CONCRETE WALL WITH NO 4 BARS HORT. EVERY 18" OF WALL
HEIGHT WITH # 4 BAR WITHIN 6" OF TOP AND BOTTOM OF WALL.
HORT. REBAR SHALL BE INSTALLED ON SOIL SIDE OF VERTICAL
REINFORCEMENT
VERTICAL REBAR SHALL BE WITHIN 8" OF THE TOP OF THE WALL
AND POSITIONED 2" FROM THE INSIDE FACE OF WALL
VERTICAL REBAR SPACING
WALL HEIGHT IN FEET
6-0 OR LESS # 4 @ 24" O.C.
8-0 # 4 @ 16" O.C.
9-0 # 4 @ 12" O.C.
10-0 # 4 @ 8" O.C.
10-0 WALL 9-5" # 4 @ 12" O.C.

4" DRAIN TILE IN WITH MIN 6"
CRUSHED ROCK OVER PIPE, DRAIN TO
DAYLIGHT, OR SUMP PUMP IN
ACCORDANCE TO R-405

ASSUMED SOIL
PRESSURE
2000 P.S.F.

8 X 16 FOOTING WITH TWO NO 4
BARS HORIZONTAL 3" FROM THE
BOTTOM. ALL FOOTINGS TO
EXCEED MIN. FROST DEPTH OF 36"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

ALL STUDS 60 FROM FLOOR TO
CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
3,000 PSI FOR FOOTINGS, FOUNDATION WALLS, AND OTHER VERTICAL
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MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

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MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
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3,000 PSI FOR FOOTINGS, FOUNDATION WALLS, AND OTHER VERTICAL
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RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8

INTERIOR DRAIN TILE MIN. 1-1/2"
MIN. DRAIN TO DAYLIGHT, OR SUMP
PUMP IN ACCORDANCE TO R-405

SPREAD FOOTING
MIN 8" DEEP X 16"
WIDE WITH TWO NO 4
REBAR

4" CONCRETE SLAB WITH NO
4 BARS AT 2-0 OC EACH WAY,
OVER 6 ML VAPOR BARRIER
OVER CRUSHED ROCK

MIN. CONCRETE STRENGTH
2,500 PSI BASEMENT FLOOR SLABS UNDISTURBED GRADE
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

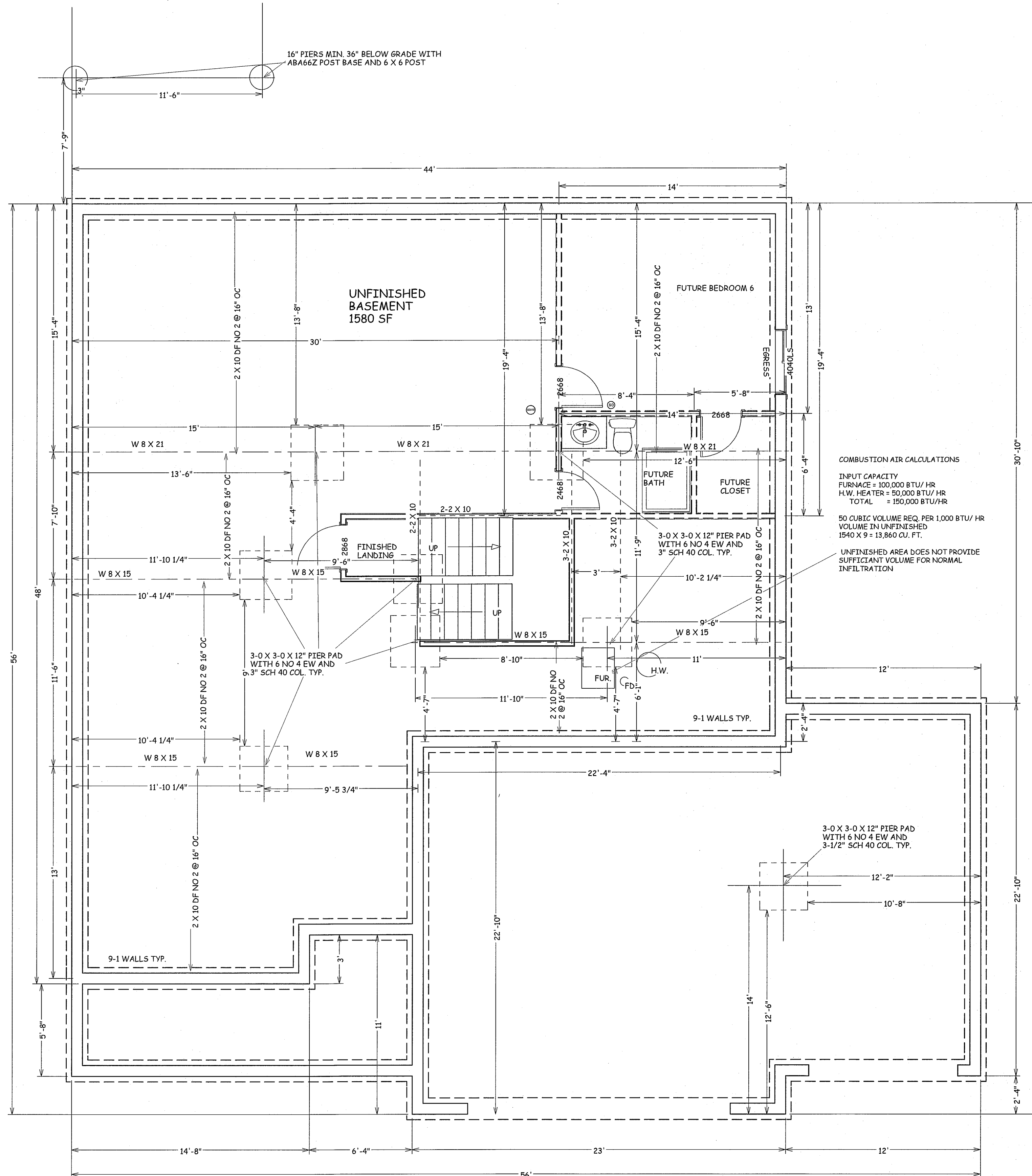
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CEILING OR RAFTER DIAFRAM TYP.

WALLS OVER 10-2 TO 18-0
STUDS SHALL BE 2 X 6 DF
NO 2 @ 16" O.C. TYP.

RAIDON VENTING OF SLAB

ALL STAIRS
MAX. RISE 7-3/4"
MIN. RUN 10"

MIN. STAIR HEADROOM 6-8



FOUNDATION PLAN
16 SF FINISHED

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

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
1-18-21

PLAN NO.

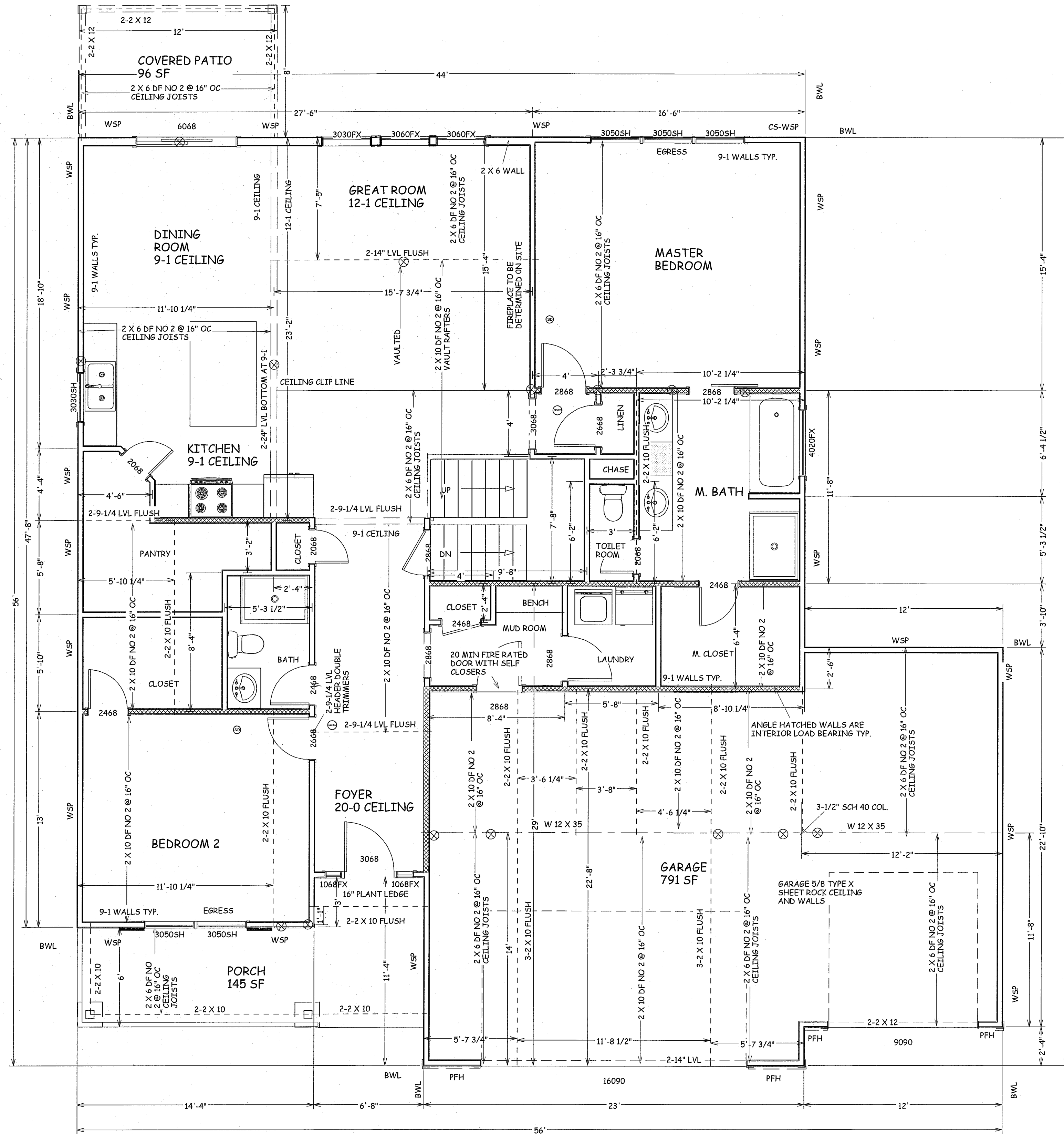
3356

SHEET NO.

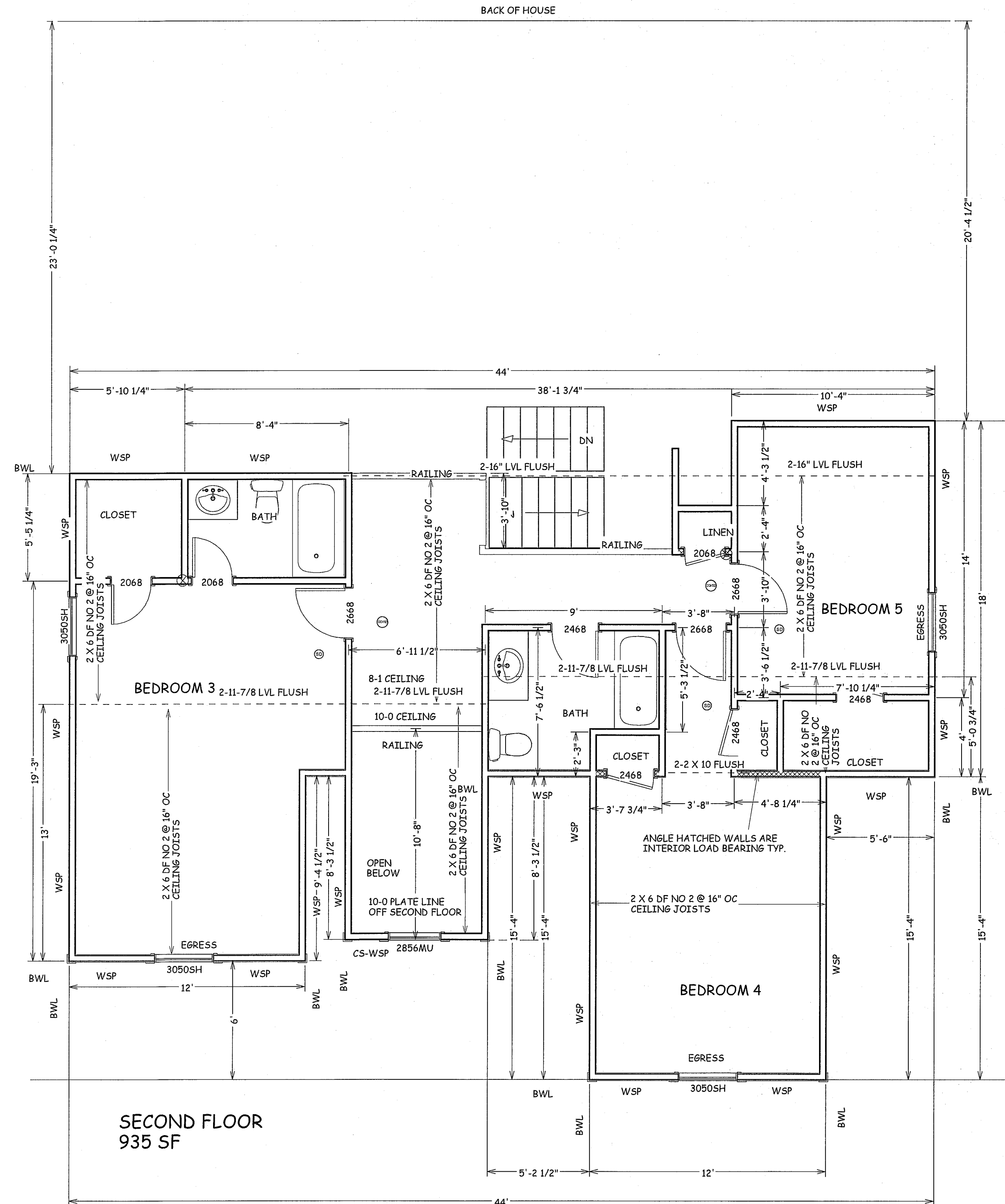
2 OF 5



JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY



MAIN FLOOR
1754 SF



SECOND FLOOR
935 SF



JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY

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

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

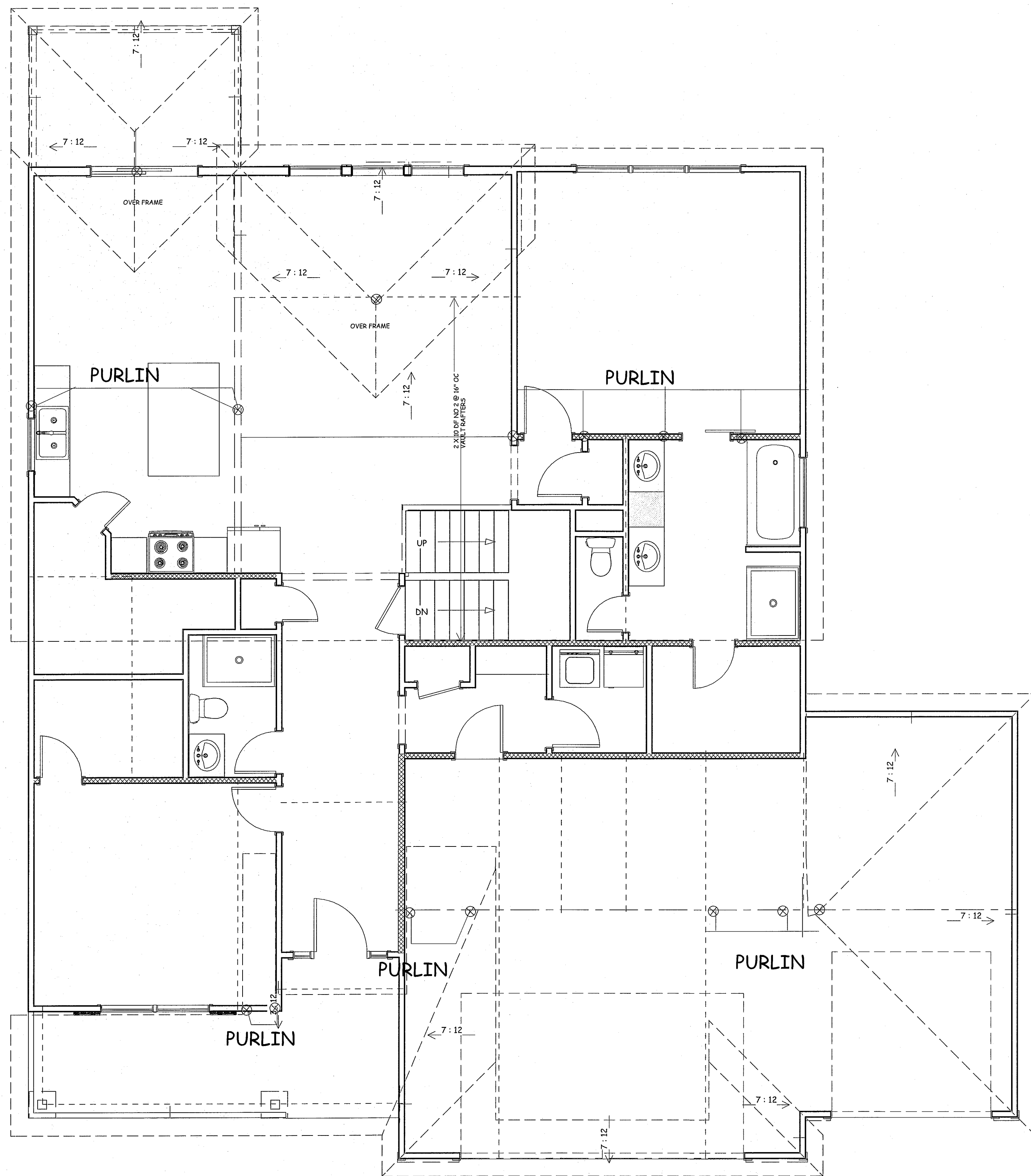
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PLAN NO.

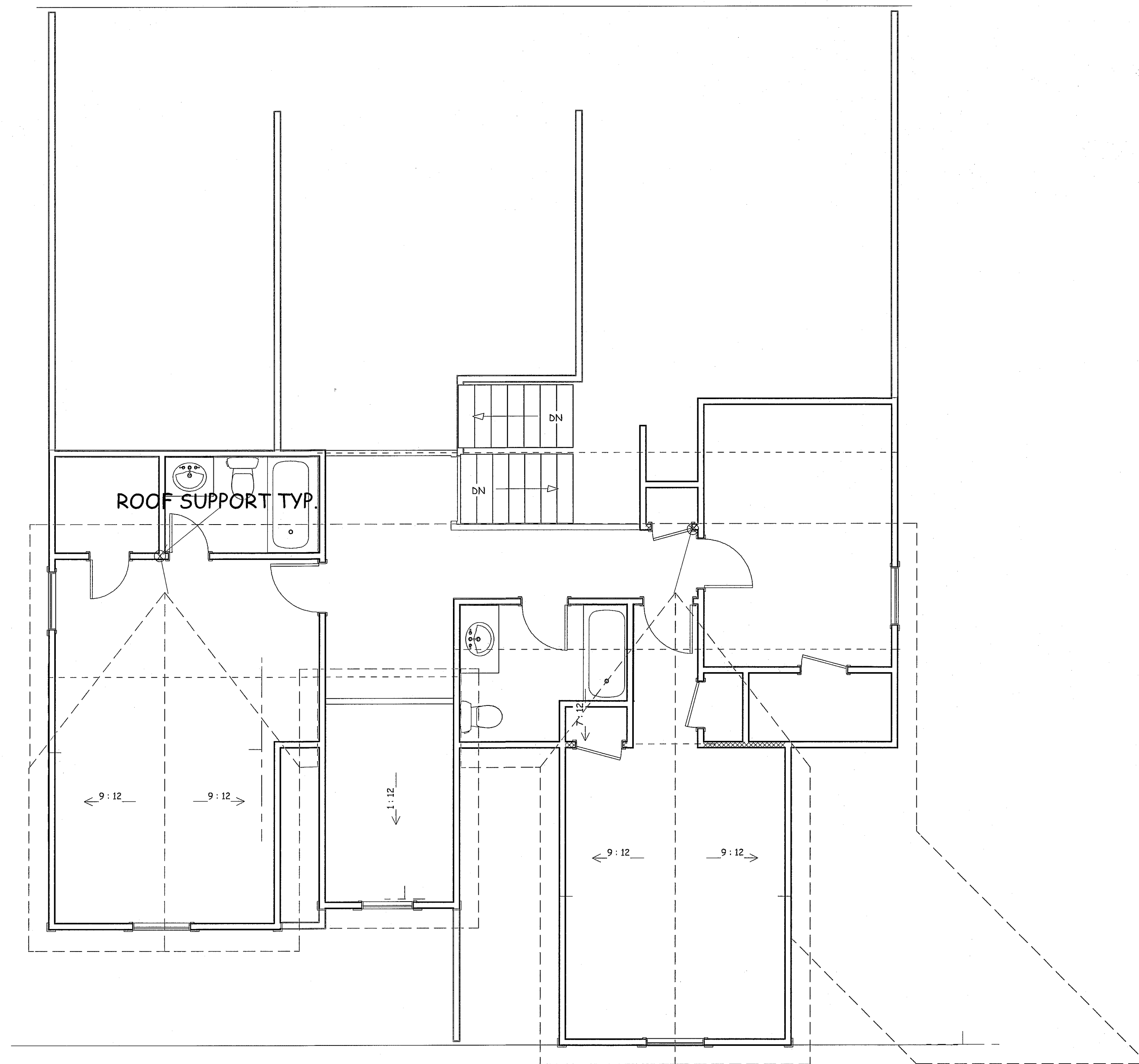
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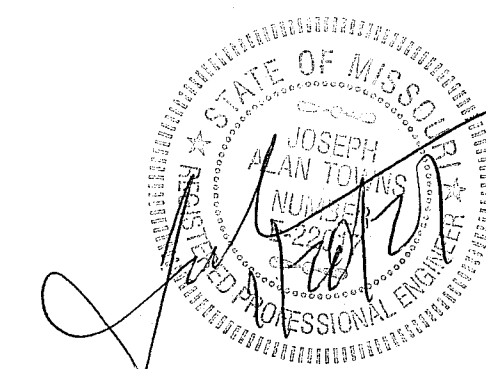
3 OF 5



MAIN FLOOR
PURLIN PLAN



SECOND FLOOR
PURLIN PLAN



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.

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
1-18-21

PLAN NO.

3356

SHEET NO.

4 OF 5

EXPOSURE CATEGORY B 30-FOOT MEAN ROOF HEIGHT 15-FOOT WALL HEIGHT 2 BRACED WALL LINES		MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Ultimate Design Wind Speed (mph)	Story Location	Braced Wall Line Spacing ^b (feet)	Method LIB ^c	Method GB	Methods DWB, WSP, SFB, FBS, FCP, HFS, BV-WSP, ABW, PFH, CS-SFB, CS-SFP	Methods CS-WSP, CS-G, CS-PP
≤ 115		10	3.5	3.5	2.0	2.0
		20	6.5	6.5	3.5	3.5
		30	9.5	9.5	5.5	4.5
		40	12.5	12.5	7.0	6.0
		50	15.0	15.0	9.0	7.5
		60	18.0	18.0	10.5	9.0
		10	7.0	7.0	4.0	3.5
		20	12.5	12.5	7.5	6.5
		30	18.0	18.0	10.5	9.0
		40	23.5	23.5	13.5	11.5
		50	29.0	29.0	16.5	14.0
		60	34.5	34.5	20.0	17.0
		10	NP	10.0	6.0	5.0
		20	NP	18.5	11.0	9.0
		30	NP	27.0	15.5	13.0
		40	NP	35.0	20.0	17.0
		50	NP	43.0	24.5	21.0
		60	NP	51.0	29.0	25.0

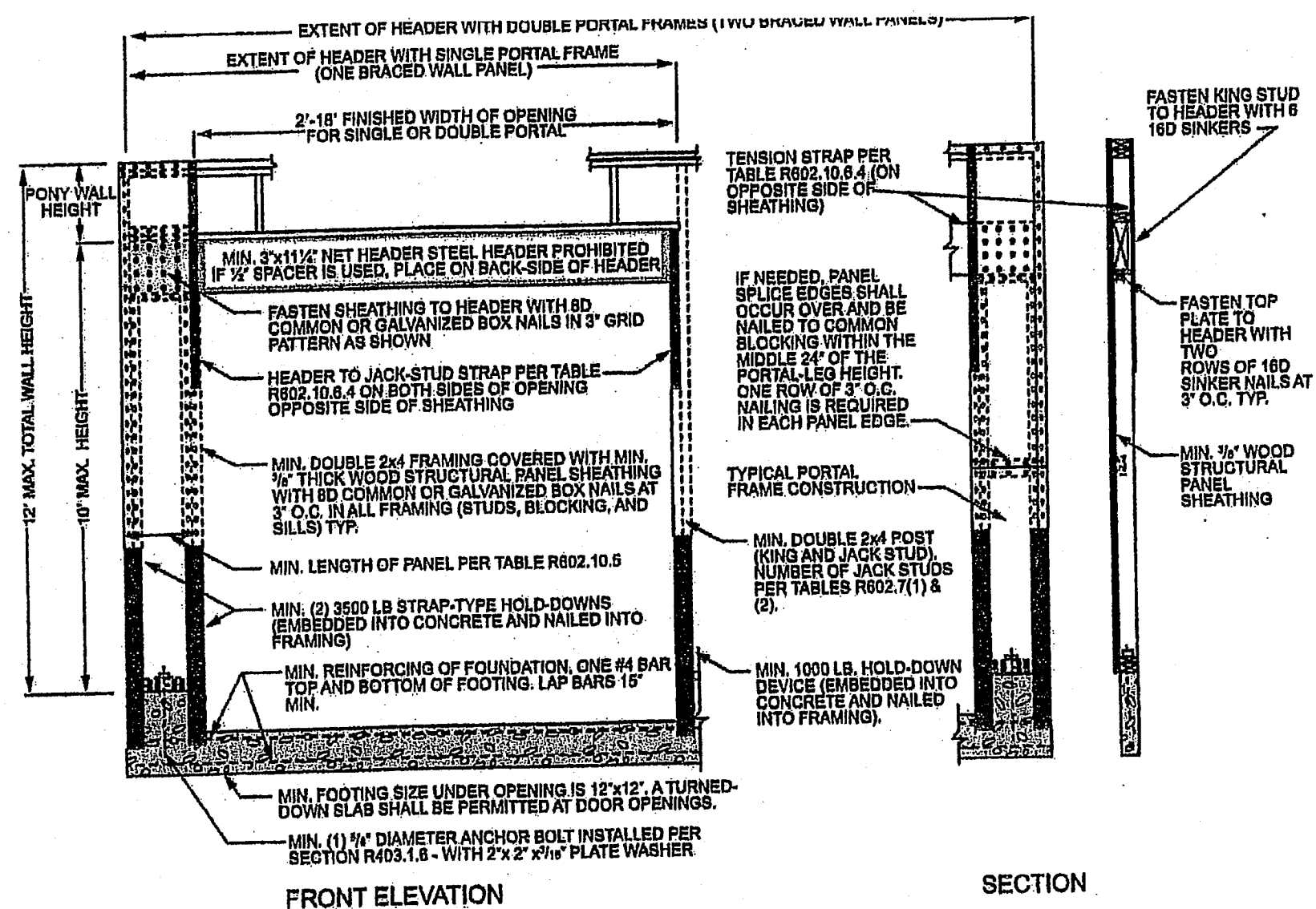
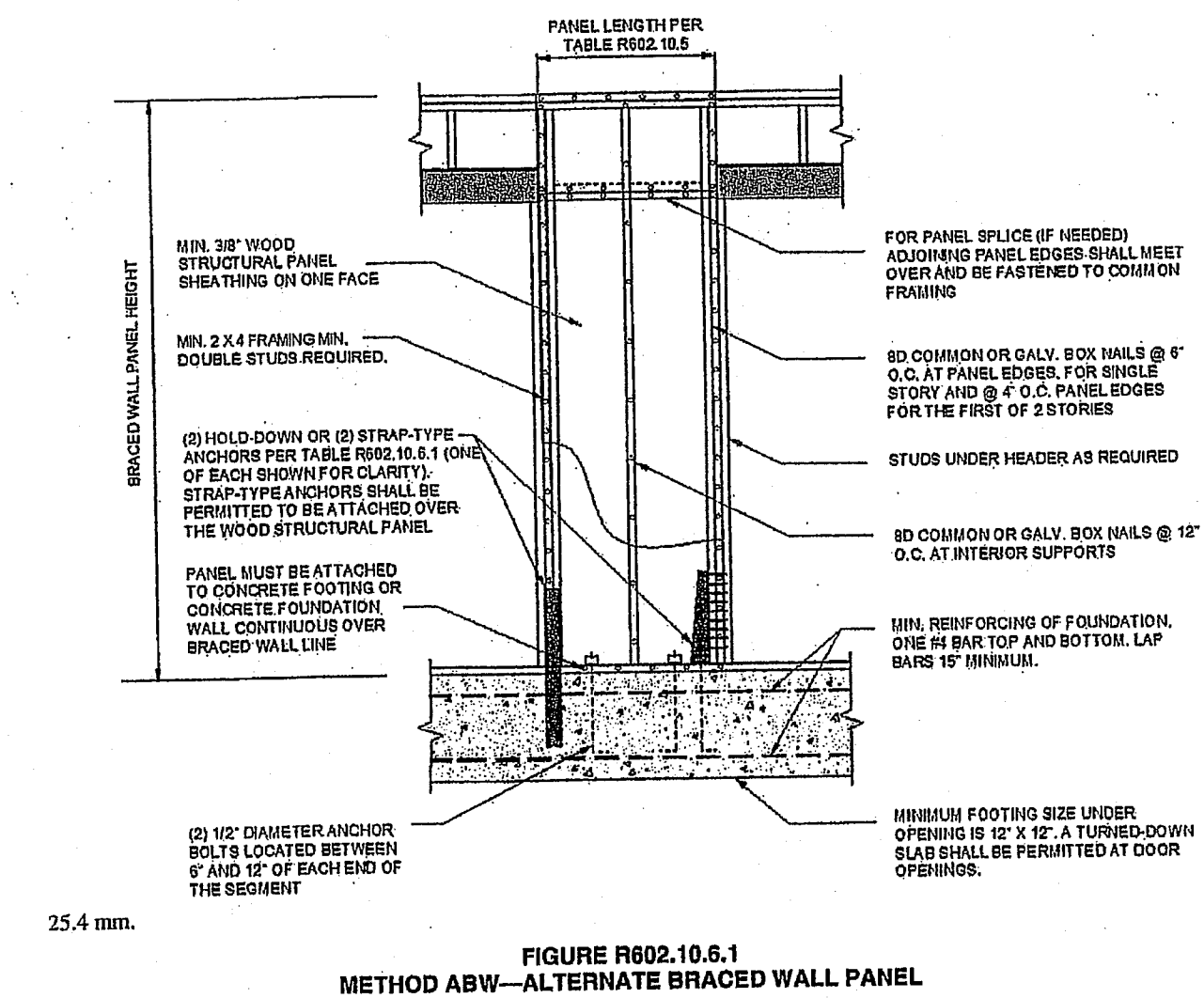


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
LIB Let-in-bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16\" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2\" long x 0.113\" dia.) nails Metal strap: per manufacturer	Wood: per stud and top and bottom plates Metal: per manufacturer
DWB Diagonal wood boards	1/2\" (1\" nominal) for maximum 24\" stud spacing		2-8d (2 1/2\" long x 0.113\" dia.) nails or 2 - 1 1/4\" long staples	Per stud
WSP Wood structural panel (See Section R604)	1/2\"		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6\" edges 12\" field Varies by fastener
BV-WSP ^b Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	1/8\"	See Figure R602.10.6.5	8d common (2 1/2\" x 0.131\" nails	4\" at panel edges 12\" at intermediate supports 4\" at braced wall panel end posts
SFB Structural fiberboard sheathing	1/2\" or 3/8\" for maximum 16\" stud spacing		1 1/2\" long x 0.12\" dia. (for 1/2\" thick sheathing) 1 1/4\" long x 0.12\" dia. (for 3/8\" thick sheathing) galvanized roofing nails	3\" edges 6\" field
GB Gypsum board	1/2\"		Nails or screws per Table R602.3.5 for exterior locations Nails or screws per Table R602.3.5 for interior locations	For all braced wall panel locations: 7\" edges (including top and bottom plates) 7\" field
FBS Particleboard sheathing (See Section R605)	3/8\" or 1/2\" for maximum 16\" stud spacing		For 1/2\", 6d common (2\" long x 0.113\" dia.) nails For 3/8\", 8d common (2 1/2\" long x 0.131\" dia.) nails	3\" edges 6\" field
FCP Portland cement plaster	See Section R703.7 for maximum 16\" stud spacing		1 1/2\" long, 11 gage, 1/4\" dia. head nails or 1/2\" long, 16 gage staples	6\" o.c. on all framing members
HFS Hardboard panel siding	1/8\" for maximum 16\" stud spacing		0.092\" dia., 0.225\" dia. head nails with length to accommodate 1 1/2\" penetration into studs	4\" edges 8\" field
ABW Alternate braced wall	1/8\"		See Section R602.10.6.1	See Section R602.10.6.1

METHOD (See Table R602.10.4)	MINIMUM LENGTH ^a (inches)					CONTRIBUTING LENGTH (inches)
	8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, FBS, FCP, HFS, BV-WSP ^b	48	48	48	53	58	Actual ^b
GB	48	48	48	53	58	Double sided = Actual Single sided = 0.5 x Actual
LIB	55	62	69	NP	NP	Actual ^b
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42
	SDC D ₁ , D ₂ and D ₃ , ultimate design wind speed < 140 mph	32	32	34	NP	NP
CS-G	Adjacent clear opening height (inches)	24	27	30	33	36
CS-WSP, CS-SFB	≤ 64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	33	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	—	44	40	38	38
	104	—	49	43	40	39
	108	—	54	46	43	41
	112	—	—	50	45	43
	116	—	—	53	48	45
	120	—	—	60	52	48
	124	—	—	—	56	51
	128	—	—	—	61	54
	132	—	—	—	66	58
	136	—	—	—	—	65
	140	—	—	—	—	72
	144	—	—	—	—	72
Portal header height						
PFH	Supporting roof only	16	16	16	Note c	Note c
	Supporting one story and roof	24	24	24	Note c	Note c
CS-PP	SDC A, B and C	16	18	20	Note e	Note e
	SDC D ₁ , D ₂ and D ₃	16	18	20	Note e	Note e

For S1: 1 inch = 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.
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 FFG 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-PP 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.

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
PFH Portal frame with hold-downs	1/8\"		See Section R602.10.6.2	See Section R602.10.6.2
FFG Portal frame at garage	1/8\"		See Section R602.10.6.3	See Section R602.10.6.3
CS-WSP Continuously sheathed wood structural panel	1/2\"		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6\" edges 12\" field Varies by fastener
CS-G ^b Continuously sheathed wood structural panel adjacent to garage openings	1/2\"		See Method CS-WSP	See Method CS-WSP
CS-PP Continuously sheathed portal frame	1/8\"		See Section R602.10.6.4	See Section R602.10.6.4
CS-SFB ^c Continuously sheathed structural fiberboard	1/2\" or 3/8\" for maximum 16\" stud spacing		1 1/2\" long x 0.12\" dia. (for 1/2\" thick sheathing) 1 1/4\" long x 0.12\" dia. (for 3/8\" thick sheathing) galvanized roofing nails	3\" edges 6\" field

For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.8 N/m², 1 mile per hour = 0.447 m/s.
a. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D₁, D₂, and D₃.
b. Applies to panels next to garage door opening where supporting gable end wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D₁, D₂ and D₃ roof covering dead load shall not exceed 3 psf.
c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R602.7(1). A full-height clear opening shall not be permitted adjacent to a Method CS-G panel.
d. Method CS-SFB does not apply in Seismic Design Categories D₁, D₂ and D₃.
e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₁ through D₃ only.

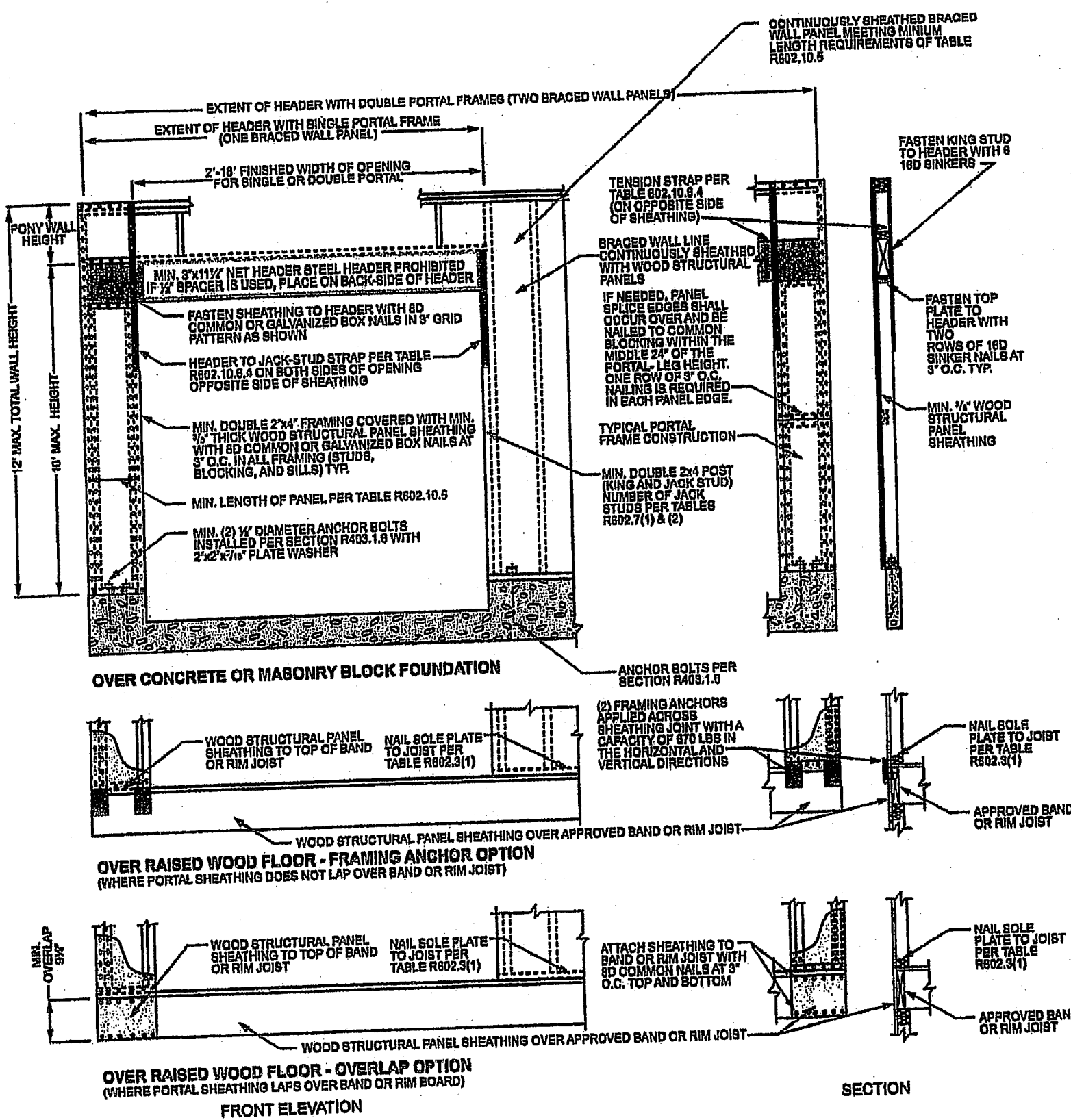


FIGURE R602.10.6.4
METHOD CS-PP—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

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

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

BEHOME LLC
LOT 74 MONTICELLO
1221 NE GOSHEN DR
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
1-18-21

PLAN NO.

3356

SHEET NO.

5 OF 5

JOSEPH A. TOWNS P.E.
MO. LIC E 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
ELEMENTS ONLY