

CONSTRUCTION CAPITAL
© COPYRIGH DRAWN BY: TPM CHECKED BY: TPM DATE: 3/30/2020 SCALE: AS NOTED

REVISIONS:

STRUCTURAL REVIEW

FILE NAME: Atcheson-Lancaster-Lot 293-1 HD ENGINERERING & DESIGN
11656 W. 75TH ST
SHAWNEE, KS V: 913-631-2222
66214 F: 800-780-8608
SERVICE@HDENGINEERS.COM
HD: 39041 DATE: 4/13/2020



NAILING WITH SPACING AS SPECIFIED PER PLAN. FOR

EXAMPLE, IF REQUIRED SPACING IS 4" O.C., BOTTOM LAP SHALL

FIRST BE NAILED AT 4" O.C. (NAIL

"A"), THEN FULL DEPTH SECTION

OF OVERLAP PANEL SHALL BE

NAILED @ 4" O.C. (NAIL "B")

//////// BRACED WALLS: SEE CALCULATIONS ON SHEET S-3.0, PER ASCE7-10 REQUIREMENTS AS ALLOWED BY IRC 2018 R301.2.1

ALL EXTERIOR WALLS SHALL BE SHEATHED PER ANY ONE OF THE FOLLOWING OPTIONS:

- 7/6" APA-RATED PLYWOOD/OSB WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C. IN THE FIELD
- 7/6" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 8d NAILS @ 6" O.C. AT EDGES AND @ 12" O.C.

%" SHIPLAP PANEL SHEATHING (I.E. LP SMARTSIDE OR EQUIVALENT) WITH 6d NAILS @ 4" O.C. AT EDGES AND @ 12" O.C.

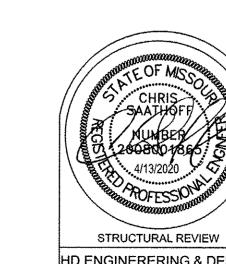
GENERAL NOTES: -WINDOW SHALL HAVE FALL PROTECTION PER IRC 312,2.4 -HOUSE WILL BE PROVIDED WITH A "UFER" GROUND PER IRC SECTION 3608.1.5 -ALL TALL STUD WALLS TO BE CONSTRUCTED PER TABLE R602.3.1 ON SHEET S-2.0 ANY STUD WALL OVER 10 FEET TALL IS TO BE A CONTINUOUS STUD WALL -OVERHEAD GARAGE DOORS MUST MEET DASMA 90 MPH REQUIREMENTS -ALL HEADERS NOT LABELED SHALL BE MIN (2) #2-2X10 DFL -DBL ALL JST UNDER ISLAND -INSTALL W8X15 STEEL BEAM MIN. UNDER ALL F.P. WALLS/HEARTHS (THAT WILL RECEIVE ROCK) UNLESS NOTED AS A LARGER BEAM. ANY STONE OVER 2" DEEP, NOTIFY ENG. TO VERIFY LOADS -FOUNDATION SHALL BE CONSTRUCTED PER JOHNSON COUTY RESIDENTIAL FOUNDATION GUIDLINE, SEE ATTACHED -SOILS IN THIS AREA COMMONLY HAVE A VERY HIGH SHRINK SWELL CAPACITY, OUR FIRM RECOMMENDS ALL SITES BE EVALUATED BY A GEOTECHNICAL FIRM PRIOR TO PLACEMENT OF FOUNDATIONS -ANY PORTION OF THESE PRINTS ISSUED WITHOUT A MIN. OF

S-1.0 - S-6.0 SHALL NOT BE CONSIDERED A COMPLETE SET OF CONSTRUCTION DOCUMENTS 3-2/4X5/O EGRESS 111111111111 (9'-0" H CLG.) (2) #2-2x12 STEP OFF TO GRADE (2) 1-3/4 x11-7/8" LVL 7 6X6 WD POSTS-MASTER SUITE (2) #2 DFL 2X6 CONT. FLR. TO CLG. (2) #2-2x12 15-6 12'-O" H WALL BRG. O.C. 5/8" TYP X GYP ON WALLS & CLG. @ 16" O.C. CONT. FLR. TO CLG. (3) #2 2X12 GREAT RM. #2-2x8 CLG JS #2-2x6 CLG JST @ 16" OC @ 16" OC (2) 1-3/4"x18" LVL THREE CAR GARAGE MASTER CLOSET III-O'H CLG F----#2-2x8 CLG JST PNTRY 6-0"H CLG) 9-4" p @ 161 OC #2-2x6 CLG JST @ 16" OC 2-2/44/4 ///////// #2-2x6 CLG JST @ 16" OC 2-3/0X2/6 TRANS 2-3/0X6/0 FXD 2'-10" 2'-6"

WINDOW NOTES: SEE ELEVATIONS FOR HDR. HTS

MAIN FLOOR PLAN SCALE: 1/4"=1"-0"

> - LOAD BEARING WALL



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DECK PIER SCHEDULE

MIN. 6X6 TRTD/CDR POST ON 12" Ø CONC PIER WITH USP PAU 66 BASE OR = (1177# MAX)

MIN. 6X6 TRTD/CDR POST ON 16" Ø CONC PIER WITH USP PAU 66 BASE OR = (2050# MAX)

MIN. 6X6 TRTD/CDR POST ON 18" Ø CONC PIER WITH USP PAU 66 BASE OR = (2649# MAX)

MIN. 6X6 TRTD/CDR POST ON 24" Ø CONC PIER WITH USP PAU 66 BASE OR = (4710# MAX)

PIERS TO TERMINATE ON ORIGINAL SOIL

OF 1500 PSF MINIMUM BEARING.

• PIERS TO TERMINATE AT A POINT 36"

MINIMUM BELOW FINISH GRADE.

• POST ARE NOT TO EXCEED AN UNBRACED LENGTH RETEXANT WHOSE TARREST HIS HD ENGINE FROM FOR GUIDANCE.

3" Ø SCH. 40 STEEL COL. ON 36"x36"x12" CONCRETE PAD W/ (6) #4 BARS EACH

CONCRETE PAD W/ (6) #4 BARS EACH WAY (13.5K MAK) 3" Ø SCH. 40 STEEL COL. ON 42"x42"x14"

CONCRETE PAD W/ (7) #4 BARS EACH WAY (18.4K MAX)

3-1/2" Ø SCH. 40 STEEL COL. ON 48"x48"x16" CONCRETE PAD W/ (8) #4 BARS EACH WAY *(24.0K MAX)*

3-1/2" Ø SCH. 40 STEEL COL. ON 54"x54"x16" CONCRETE PAD W/ (9) #4 BARS EACH WAY *(30.4K MAX)*

3-1/2" Ø SCH. 40 STEEL COL, ON 60"x60"x18" CONCRETE PAD W/ (10) #4 BARS EACH WAY (37.5K MAX)

MIN. 1/2" ANCHORING NOTES
 MIN. 1/2" ANCHOR BOLTS SHALL BE INSTALLED @ 36"
 O.C. MAX AND WITHIN 6"-12" FROM THE END OF EACH SECTION OF SILL PLATE ALONG ENTIRE PERIMETER OF FOUNDATION

1ST FLOOR EXTERIOR/
GARAGE WALL

2x4 BOTTOM PLATE

3/4" SUBFLOORING
RIM JOIST

16d COMMON (0.162"x33/2")
NAILS @ 12" OC THROUGH
BOTTOM PLATE, INTO
SUBFLOOR AND RIM JOIST

ANCHOR BOLTS AS
SPECIFIED ON
FOUNDATION PLAN

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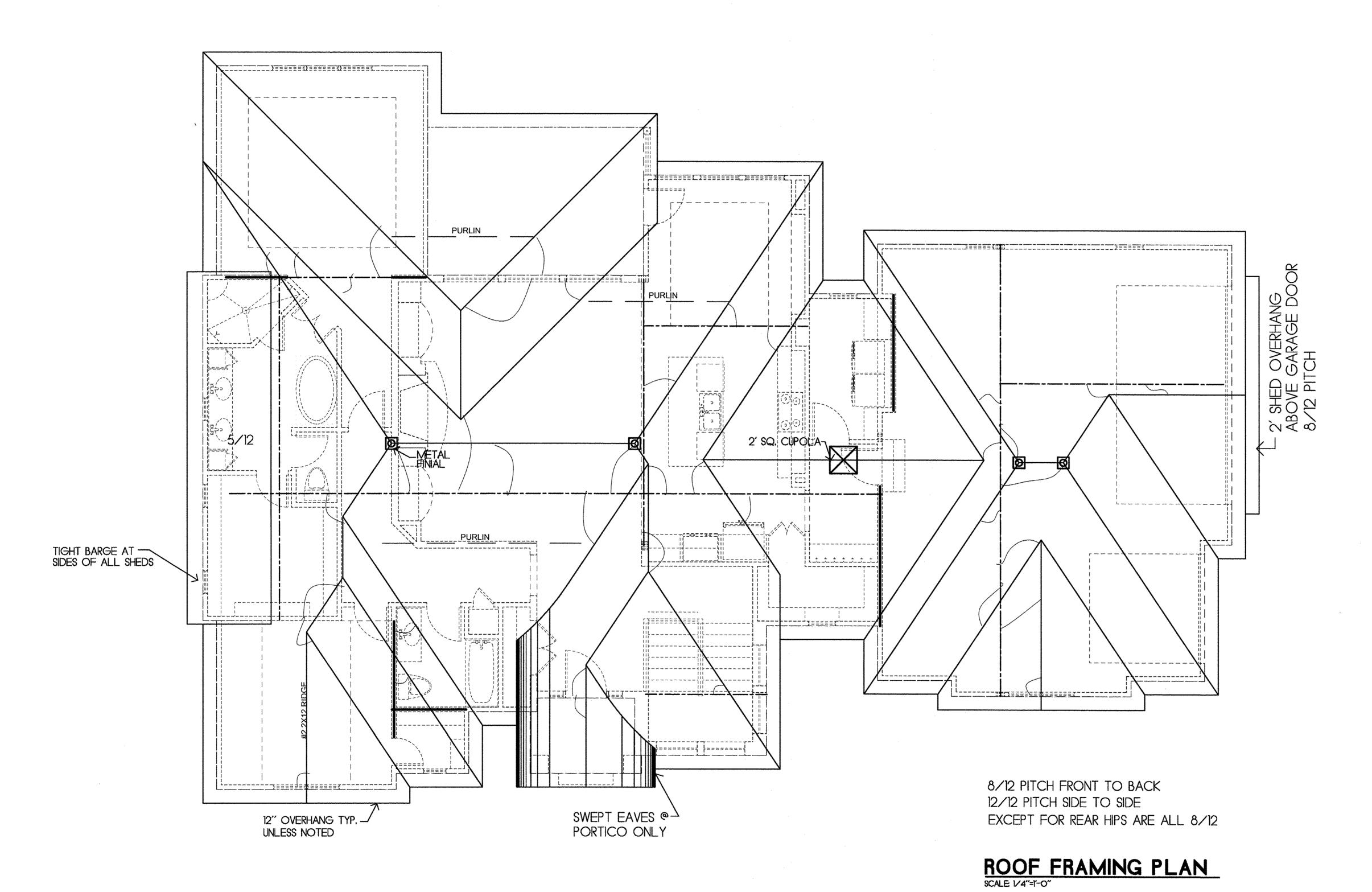
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FELEASE FOR CONSTRUCTION
AS NOTES ON PLANS REVIEW
CODES ADMINISTRATION
LEE'S SUMMIT, MISSOURI

04/24/2020

LOWER FLOOR PLAN
SCALE 1/4"=1"-0" AREA= 1,275 SF

- LOAD BEARING WALL
- LOAD BEARING BEAM



ROOF DESIGNED FOR LIGHT ROOF COVERING 30PSF TOTAL LOAD [10PSF DL, 20PSF LL (SL)]

RAFTERS (DOUG-FIR, OR EQUAL): SEE SPAN CHARTS BELOW

| RAFTERS | SPACING | MAX HORIZONTAL CLEARSPAN |
|---------|-----------|--------------------------|
| #2-2x6 | @24" O.C. | 11'-9" |
| #2-2x6 | @16" O.C. | 14'-1" |
| #2-2x8 | @24" O.C. | 14'-10" |
| #2-2x8 | @16" O.C. | 18'-2" |
| #2-2x10 | @24" O.C. | 18'-2" |
| #2-2x10 | @16" O.C. | 22'-3" |

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GREATER THAN CODE

| RAFTERS | SPACING | MAX HORIZONTAL CLEARSPAN |
|---------|-----------|--------------------------|
| #2-2x6 | @24" O.C. | 8'-6" |
| #2-2x6 | @16" O.C. | 9'-9" |
| #2-2x8 | @24" O.C. | 11'-3" |
| #2-2x8 | @16" O.C. | 12'-9" |
| #2-2x10 | @24" O.C. | 14'-3" |
| #2-2x10 | @16" O.C. | 16'-3" |
| | | |

DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD VAULTS TO BE 2x10 DEPTH

ALL RIDGES, HIPS, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS

PURLINS ARE 2x6 MIN. PURLIN STRUTS ARE AT 4'-0" O.C. PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH

PURLINS STRUTS SHALL BE CONSTRUCTED IN A "T" CONFIGURATION AND PER THE FOLLOWING CHART

| PURLIN STRUT | MAX PURLIN STRUT LENGTH |
|---------------------|-------------------------|
| (2) 2x4 | 8'-0" |
| (1) 2x4 & (1) 2x6 | 12'-0" |
| (1) 2x6 & (1) 2x8 | 20'-0" |
| (2) 2x6 & (1) 2x8 | 30'-0" |
| CONSULT ARCH./ENGR. | >30'-0" |

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- LOAD BEARING WALL

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GENERAL NOTES:

1. PLANS SHALL COMPLY WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE, 2018 IECC, AND ALL AMENDMENTS AS ADOPTED BY THE AHJ. IF ANY CHANGES OR DEVIATIONS ARE MADE FROM THESE PLANS THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AUTHORITY AND THE ENGINEER TO EVALUATE THE CHANGES AND MAKE ANY APPROPRIATE MODIFICATIONS TO THE PLANS. 2. WHERE DISCREPANCIES EXIST BETWEEN THE STANDARD COMMENTS, NOTES FOR THE DESIGN

PROFESSIONAL OR THE CODE, THE MOST RESTRICTIVDE SHALL APPLY.

3. THE CONTRACTUAL OBLIGATION OF THESE PLANS IS TO PROVIDE THE OWNER/BUILDER AND THE AHJ WITH A SET OF PLANS THAT MEET AHJ AND CODE REQUIREMENTS FOR A SINGLE SITE CONSTRUCTION PROJECT. UNLESS REQUESTED BY OUR CLIET, CODE/AHJ MINIMUM DESIGNS WILL BE UTILIZED. ALSO, UNLESS REQUESTED BY THE OWNER, OUR FIRM CAN NOT AND WILL NOT BE AUTHORIZED TO VISIT THE SITE TO EVALUATE THE SITE OR ANY CONSTRUCTION FOR THIS PROJECT. IMPLEMENTATION OF ALTERNATES TO THE DESIGNS INCLUDING BUT NOT LIMITED TO PIER DESIGNS, FOUNDATION ALTERATIONS, OR ANY STRUCTURAL CHANGES NOT PROVIDED BY HD ENGINEERING OR A PROFESSIONAL REFERRED BY HD ENGINEERING SHALL RELEASE HD ENGINEERING FROM ALL

LIABILITY ASSOCIATED WITH THIS DESIGN. 4. OUR FIRM HIGHLY RECOMMENDS THAT ANY SITE WITH GREATER THAN A 15% GRADE, ANY SITE WHERE A PREVIOUS STRUCTURE WAS LOCATED, OR ANY SITE WITH FILL MATERIAL OR A POTENTIAL SOIL BEARING CAPACITY BELOW 1500 PSF SHOULD BE EVALUATED BY OUR FIRM OR AN HD ENGINEERING REFERRED GEOTECHINICAL FIRM PRIOR TO PLACING FOOTINGS.

5. DUE TO THE WIDE VARIETY OF SOIL CONDITIONS IN OUR AREA AND THE WIDE VARIETY OF PLASTICITY INDEX AND SOIL BEARING CAPACITIES OUR FIRM RECOMMENDS ALL SITES BE EVALUATED BY HD ENGINEERING OR AN HD ENGINEERING REFERRED GEOTECHNICAL FIRM PRIOR TO PLACEMENT OF ANY "STANDARD" FOUNDATIONS.

FOUNDATION NOTES:

 THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION RESIDENTIAL FOUNDATION STANDARD IN LIEU OF ENGINEERING REPORT REQUIREMENTS BASED ON ACTUAL SITE CONDITIONS.

FOUNDATION WALLS SHALL BE DAMP-PROOFED PER IRC SECTION R406.

- 3. PROVIDE A MINIMUM 4" PERFORATED DRAIN AROUND USABLE SPACE BELOW GRADE OR OTHER EQUIVALENT MATERIALS PER IRC SECTION 405.1. THE PIPE SHALL BE COVERED WITH NOT LESS THAN 6" OF WASHED GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT TO THE EXTERIOR BELOW THE FLOOR LEVEL OR TERMINATE IN A MINIMUM 20 GALLON SUMP PIT. 4. FOUNDATION DESIGN SHALL BE BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1500 PSF.
- 5. FOOTINGS SHALL BE A MIN. OF 16" WIDE AND 8" DEEP W/ (2) #4 BARS CONTINUOUS, LOCATED A MIN. OF 3" CLEAR FROM BOTTOM. FOOTINGS SHALL BE A MINIMUM OF 36" BELOW GRADE FOR FROST PROTECTION.
- COLUMN PADS SHALL BE A MINIMUM OF 24"X24"X8" WITH (3) #4 BARS EACH WAY.
- 7. FOUNDATION WALLS SHALL BE A MINIMUM 8" THICK W/ MINIMUM #4 BARS @ 24" O.C. HORIZONTAL AND VERTICAL W/ THE TOP BAR WITHIN 8" OF THE TOP OF THE WALL UNLESS NOTED OTHERWISE ON PLAN.
- 8. REINFORCEMENT SHALL LAP A MINIMUM OF 24"
- 9. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
- 10. INTERIOR NON-BEARING WALLS, OTHER THAN THOSE RESTING DIRECTLY ON THE FOOTING, SHALL BE ISOLATED FROM THE FLOOR FRAMING ABOVE BY A SEPARATION OF \$\frac{1}{2}^n\$.
- 11. CONCRETE FLOOR SLABS ON GRADE, SHALL BE A MINIMUM 4" THICK OVER A MINIMUM 4" BASE OF SAND, GRAVEL, OR CRUSHED STONE. BASEMENT SLABS SHALL HAVE A MIN. 6 MIL POLYETHYLENE OR APPROVED VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL
- BE PLACED BETWEEN THE FLOOR SLAB AND THE BASE COURSE.
- 12. FLOOR SLABS SUPPORTED BY FILL CONSISTING OF MORE THAN 24" OF GRANULAR FILL OR 8" OF EARTH SHALL BE REINFORCED PER A SEPARATE ENGINEERING DESIGN.
- 13. BASEMENT FOUNDATION SILL PLATES SHALL BE BOLTED TO THE FOUNDATION W/ A MINIMUM OF 1/2" ANCHOR BOLTS EMBEDDED AT LEAST 7" INTO THE CONCRETE AND SPACED NOT MORE THAN 3' ON CENTER AND WITHIN 12" OF EACH END PIECE PER IRC SECTION R403.1.6. 14. FOUNDATION WINDOW WELLS FOR SECONDARY MEANS OF EGRESS SHALL PROVIDE A MINIMUM 3'X3' HORIZONTAL AREA.
- 15. THE BASE OF ALL FOOTING EXCAVATIONS SHOULD BE FREE OF ALL WATER AND LOOSE MATERIAL PRIOR TO PLACING CONCRETE. CONCRETE SHOULD BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATING SO THAT EXCESSIVE DRYING OR DISTURBANCE OF BEARING MATERIALS DOES NOT OCCUR. SHOULD THE MATERIALS AT BEARING LEVEL BECOME EXCESSIVELY DRY OR SATURATED, WE RECOMMEND THAT THE AFFECTED MATERIAL BE REMOVED PRIOR TO PLACING CONCRETE.
- 16. IT IS RECOMMENDED THAT ALL FOOTING EXCAVATIONS BE EVALUATED AND TESTED BY A GEOTECHNICAL ENGINEER IMMEDIATELY PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. UNSUITABLE AREAS IDENTIFIED AT THIS TIME SHOULD BE CORRECTED. CORRECTIVE PROCEDURES WOULD BE DEPENDENT UPON CONDITIONS ENCOUNTERED AND MAY INCLUDE DEEPENING OF FOUNDATION ELEMENTS, OR UNDERCUTTING OF UNSUITABLE MATERIALS AND REPLACEMENT WITH ENGINEERED FILL.

STAIRWAY NOTES:

- 1. STAIRWAYS SHALL PROVIDE A MAXIMUM 7 3/4" RISE AND MIN. 10" RUN.
- 2. PROVIDE MINIMUM 36" GUARDRAILS ON THE OPEN SIDES OF RAISED FLOORS, PORCHES AND BALCONIES. MINIMUM 34" GUARDRAILS ON THE OPEN SIDES OF STAIRWAYS LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW. GUARDRAIL ENCLOSURES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL PATTERNS THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER.
- 3. EACH STAIRWAY OF 3 OR MORE RISERS SHALL PROVIDE A CONTINUOUS HANDRAIL ON AT LEAST ONE SIDE BETWEEN 34" AND 38" ABOVE THE NOSING OF THE THREADS.
- 4. HANDRAILS SHALL HAVE A CIRCULAR CROSS-SECTION OF 1 1/4" MINIMUM TO 2" MAXIMUM OR
- OTHER APPROVED GRABABLE SHAPE PER IRC SECTION R311.7.8.5
- PROVIDE A MINIMUM 6'-8" OF HEADROOM CLEARANCE 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 SIDE. 7. WINDERS SHALL PROVIDE A MINIMUM TREAD OF AT LEAST 6" AT ANY POINT WITHIN CLEAR WIDTH OF STAIRS, WINDER TREAD PROPORTION TO COMPLY WITH IRCR311.7.5.2.1.

1. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF

GLAZING NOTES:

APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPERABLE 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 OPERABLE PANELS EXCEEDING 9 S.F. AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36" 2. IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR

OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

FRAMING NOTES:

- 1. ALL LUMBER SIZES ARE FOR DOUGLAS FIR-LARCH UNLESS OTHERWISE NOTED.
- 2. ALL HEADERS TO BE A MINIMUM OF (2) #2-2X10'S UNLESS OTHERWISE NOTED.
- 3. BLOCK CANTILEVERS, DOOR JAMBS, AND OVER BEAMS.
- 4. ALL HEADERS/BEAMS TO BEAR ON A MINIMUM OF (2) 2X4 POSTS UNLESS NOTED OTHERWISE.
- 5. INTERIOR NON-BEARING WALLS, OTHER THAN THOSE RESTING DIRECTLY ON THE FOOTING SHALL BE ISOLATED FROM THE FLOOR FRAMING ABOVE.
- 6. WHERE JOISTS RUN PARALLEL TO FOUNDATION WALLS, SOLID BLOCKING FOR A MINIMUM OF (2) JOIST SPACES SHALL BE PROVIDED AT A MAXIMUM OF 4' CENTERS TO TRANSFER LATERAL LOADS ON THE WALL TO THE FLOOR DIAPHRAGM. THE BLOCKING SHALL BE SECURELY NAILED TO THE JOISTS AND FLOORING. NAIL JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10D NAILS.

- 7. IF DUCTS ARE INSTALLED IN THE FIRST JOIST SPACE(S), NAIL 2X4'S FLAT AT 4' CENTERS WITHIN THE JOIST SPACE(S) AND THEN PROVIDE SOLID BLOCKING, INSTALLED UPRIGHT, IN THE NEXT TWO JOIST SPACES. SECURE THE 2X4'S TO THE SILL PLATE WITH (4) 10D NAILS. 8. ALL SILLS AND SLEEPERS SUPPORTED ON CONCRETE OR MASONRY AND FURRING ATTACHED
- TO CONCRETE OR MASONRY SHALL BE OF DECAY RESISTANT MATERIALS. 9. JOISTS UNDER BEARING PARTITIONS SHALL BE SIZED TO CARRY THE DESIGN LOAD IN
- ACCORDANCE WITH IRC SECTION R502.4. 10. JOISTS FRAMING FROM OPPOSITE SIDES OVER BEARING SUPPORTS SHALL LAP A MINIMUM OF 3" AND SHALL BE NAILED TOGETHER WITH A MINIMUM 10D FACE NAILS.
- 11. JOISTS FRAMING INTO A WOOD GIRDER OR BEAM SHALL BE SUPPORTED BY APPROVED FRAMING ANCHORS OR ON MINIMUM 2"X2" LEDGER STRIPS.
- 12. HEADER AND TRIMMERS SHALL BE OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR FRAMING. TRIMMER JOISTS SHALL BE DOUBLED WHEN THE HEADER IS SUPPORTED MORE THAN 3' FROM THE TRIMMER JOIST BEARING. WHEN THE HEADER SPAN EXCEEDS 4', THE HEADER AND TRIMMER SHALL BE DOUBLED.
- 13. JOISTS AT SUPPORTS SHALL BE SUPPORTED LATERALLY AT THE ENDS BY FULL-DEPTH SOLID BLOCKING NOT LESS THAN 2" NOMINAL THICKNESS OR BY ATTACHMENT TO A HEADER. BAND OR RIM JOIST OR TO AN ADJOINING STUD OR OTHERWISE PROVIDED WITH LATERAL SUPPORT TO PREVENT ROTATION.
- 14. ALL WALL COVERINGS TO COMPLY WITH IRC SECTION 702 AND 703
- 15. ALL RAFTER / COLLAR TIES TO COMPLY WITH IRC SECTIONS 804
- 16. ALL RAFTERS TO HAVE 2x4 COLLAR TIES @ 48" OC IN UPPER 1/3 OF DISTANCE BETWEEN CEILING AND ROOF
- 17. BLOCKING BETWEEN JOISTS UNDER A PERPENDICULAR LOAD-BEARING WALL IS NOT REQUIRED
- 18. BOTTOM OF ALL FLOOR ASSEMBLIES SHALL BE PROVIDED WITH A ½" GYPSUM WALLBOARD MEMBRANE (IF REQUIRED BY LOCAL CODE)
- 19. I-JOIST AND FLOOR TRUSS SYSTEMS SHALL BE FIRE PROTECTED PER IRC AS ADOPTED BY AHJ 20. STUDS SHALL BE CONTINUOUS FROM THE FLOOR TO THE ROOF/ CEILING DIAPHRAGM PER IRC

CONCRETE NOTES:

1. CONCRETE SHALL BE AIR-ENTRAINED (5%-7%) WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS, 3000 PSI FOR BASEMENT AND FOUNDATION WALLS AND 3500 PSI FOR PORCHES, CARPORTS AND GARAGE FLOOR SLABS.

EMERGENCY EGRESS AND RESCUE NOTES:

1. PROVIDE ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 S.F. WITH A MINIMUM OPENABLE HEIGHT OF 24" AND WIDTH OF 21". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 44" ABOVE THE ADJOINING FLOOR OR

2. 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 ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE

GARAGE NOTES:

1. THE GARAGE FLOOR SHALL SLOPE TOWARDS THE GARAGE DOORWAYS OR SLOPE TO A TRENCH OR UNTRAPPED DRAIN THAT DISCHARGES DIRECTLY TO THE EXTERIOR ABOVE GRADE. 2. DOORS BETWEEN THE GARAGE AND DWELLING - MINIMUM 1 3/8" SOLID WOOD, SOLID OR HONEY-COMBED CORE STEEL DOOR NOT LESS THAN 1 3/8" THICK, OR 20 - MINUTE FIRE - RATED EQUIPPED WITH SELF CLOSING DEVICE PER IRC2018 R302.5.1..

3. GARAGE VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC2018 R301.2.1 4. THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM 5/8" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE, THE FLOOR CEILING ASSEMBLY SHALL BE PROTECTED WITH MINIMUM 5/8" TYPE X GYPSUM BOARD ON THE GARAGE CEILING. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH 5/8" GYPSUM BOARD OR EQUIVALENT.

5. GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING ATTACHED WITH 1 3/4"X.120" NAILS AT 7" CENTERS STAGGERED WITH (7) 3 1/4"X.120" NAILS THRU THE JAMB INTO THE HEADER, MINIMUM 2X8 HEADER FOR ATTACHMENT OF COUNTER BALANCE

6. ANY ATTACHED GARAGE TO THE MAIN HOUSE SHALL BE PROVIDED WITH A SINGLE HEAT DETECTOR. HEAT DETECTOR SHALL BE HARDWIRED AND INTERCONNECETED WITH THE HOUSEHOLD SMOKE ALARM SYSTEM. HEAT DETECTOR SHALL BE LISTED FOR THE AMBIENT ENVIRONMENT AND INSTALLED PER MANF. INSTRUCTIONS.

MECHANICAL/INSULATION:

1. BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2018 IECC. (SEE S-6.0 FOR MORE DETAILS)

VENTILATION:

1. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW, VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/8" TO 1/4" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS AREA LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED THE REQUIRED AREA MAY BE REDUCED TO 1/300.

SHEATHING SCHEDULE

ALL SHEATHING MATERIALS TO BE APPLIED PERPENDICULAR TO JOISTS AND ENDS STAGGERED

| BUILDING COMPONENT | MATERIAL | FASTENING | | |
|-----------------------|---|--|--|--|
| ROOF SHEATHING | 7/16" PLYWOOD | 16 GA X 1 3/4" STAPLES @ 6" OC EDGES & 12" OC IN FIELD | | |
| | 1x 4 #3 FURRING | 1/2" CROWN STAPLES | | |
| FLOOR SHEATHING | 3/4" T&G YELLOW | 14 GA X 1 3/4" STAPLES @ 6" OC EDGES & 12" OC IN FIELD | | |
| | PINE PLYWOOD | 12.5 GA X 1 1/2" RING OR SCREW SHANK NAILS @ 6" OC EDGES & 12" OC IN FIELD | | |
| WALL COVERING | 1/2" GYPSUM SHEATHING | 6D COMMON NAILS: 1 5/8" GALVANIZED STAPLES; 1 1/4" SCREWS, TYPE W OR S @ 4" OC EDGES & 8" OC IN FIELD | | |
| CEILING COVERING | 1/2" GYPSUM SHEATHING | 7" OC NAILED / 12" OC SCREWED W/ 13GA, 1 3/8" LONG, 19/64" HEAD; 0.098 Ø, 1 1/4" LONG, ANG-RINGED; 5D COOLER NAIL, 0.086 Ø, 1 5/8" LONG, 15/64" HEAD; OR GYP BD NAIL, 0.086 Ø, 1 5/8" LONG, 19/64" HEAD | | |
| EXTERIOR WALL - | 7/16" APA RATED SHEATHING | 8D COMMON NAILS @ 6" OC EDGES & 12" OC IN THE FIELD | | |
| SHEATHING | RATED PANEL SIDING, RATED 16" OC, ¾6" THICK | 8D BOX OR SINKER NAILS @ 6" OC EDGES & 12" OC IN THE FIELD | | |

FRAME FASTENING SCHEDULE

BUILDING

| COMPONENT | FASTEN TO | FASTEN W/ | | |
|---|---|--|--|--|
| | RIDGE / VALLEY / HIP | TOENAIL W/ (4) 16D | | |
| | PLATE | FACENAIL W/ (3) 16D TOENAIL W/ (3) 10D | | |
| RAFTERS | LEDGER STRIPS SUPPORTING JOISTS OR RAFTERS | FACENAIL W/ (3) 16D | | |
| | COLLAR TIE TO RAFTERS | FACENAIL W/ (3) 10D | | |
| | TOP PLATE | TOENAIL W/ (3) 8D @ EACH END | | |
| | WHERE CLG JST RUN PA FACENAIL TO RAFTERS | ARALLEL TO RAFTERS | | |
| CEILING JOISTS | LAPS OVER PARTITIONS | FACENAIL W/ (3) 10D | | |
| | BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE | TOENAIL W/ (3) 8D | | |
| | BUILT-UP BEAMS, 2" LUMBER LAYERS, | 10D @ 32" OC STAGGERED, | | |
| | FACENAIL OPPOSITE SIDES, (2) @ EACH END PLUS | TOP & BOTTOM, OPPOSITE SIDES | | |
| BEAMS | BUILT-UP BEAMS OF ENGINEERED LUMBER, FACE NAIL OPPOSITE SIDES | (2) ROWS @ 12" OC | | |
| | BUILT-UP HEADER, TWO PIECES W/ ½" SPACER | 16D @16" OC ALONG EDGES | | |
| | BUILT-UP HEADER, TWO PIECES, NO ½" SPACER | 3" x 0.131" NAILS @ 12" OC ALONG EDGES | | |
| | BEARING | TOENAIL W/ (2) 18D @ EACH END | | |
| | RIM JOIST TO SILL OR TOP PLATE | TOENAIL W/ 8D COMMON OR 10D BOX NAILS @ 6" OC | | |
| | JOIST TO SILL OR GIRDER | TOENAIL W/ (3) 8D | | |
| | JOIST TO RIM JOIST | FACENAIL W/ (3) 16D | | |
| FLOOR JOISTS | BRIDGING TO JOIST | TOENAIL W/ (2) 8D | | |
| | I-JOIST TO BEARING PLATE | TOENAIL W/ (2) 8D - ONE INTO EACH SIDE AT LEAST 1½" FROM THE END | | |
| | RIM JOIST TO I-JOIST | FACENAIL W/ (2) 10D BOX NAILS - ONE INTO EACH FLANGE | | |
| | SOLE PLATE TO LSL RIM BOARD | 16D BOX NAILS @ 12" OC | | |
| | SINGLE JOIST HANGERS * | 10D FACENAILS AND TONAILS | | |
| | DOUBLE JOIST HANGERS * | 16D FACENAILS AND TOENAILS | | |
| | TOP & SOLE PLATE TO STUD | END NAIL W/ (2) 16D | | |
| | STUD TO SOLE AND TOP PLATE | TOENAIL W/ (4) 8D | | |
| | DOUBLE TOP PLATES | FACENAIL W/ 16D @ 16" OC | | |
| | DOUBLE TOP PLATE LAP SPLICE | FACENAIL W/ (8) 16D | | |
| | TOP PLATE LAPS & INTERSECTIONS | FACENAIL W/ (2) 16D | | |
| | DOUBLE STUDS | FACENAIL W/ 16D @ 24" OC | | |
| WALLS | BUILT-UP CORNER STUDS | FACENAIL W/ 16D - 2 ROWS @ 24" OC | | |
| | STEEL "X" BRACING | FACENAIL W/ (2) 16D IN EACH TOP & BOTTOM PLATE & (1) 8D PER STUD | | |
| | SOLE PLATE TO JOIST OR BLOCKING | FACENAIL W/ 16D @ 16" OC | | |
| | SOLE PLATES TO JOIST OR BLOCKING AT BRACED WALL LINES, PERPENDICULAR TO FRAMING | FACENAIL W/ (3) 16D @ 16" OC ALONG BRACED WALL PANEL | | |
| | TOP PLATE TO JOIST OR BLOCKING AT BW LINES, PERPENDICULAR TO FRAMING | TOENAIL W/ 8D @ 6" OC ALONG BRACED WALL PANEL | | |
| | SOLE PLATES TO JOIST OR BLOCKING AT BW LINES PARALLEL TO FRAMING, BLOCKING @ 16" OC | FACENAIL W/ (3) 16D @ 16" OC ALONG BW PANEL & AT EACH BLOCK | | |
| | TOP PLATE TO JOIST OR BLOCKING AT BW LINES, PARALLEL TO FRAMING, BLOCKING @ 16" OC | TOENAIL W/ 8D @ 6" OC ALONG BW PANEL & AT EACH BLOCK | | |
| | NON-STRUCT, SIDING OVER STRUCT, SHEATHING | (1) 6D BOX NAIL IN EACH STUD | | |
| | FIBER CEMENT PLANK SIDING | (1) 6D GALVANIZED NAIL IN EACH STUD | | |
| | WINDOW INSTALLATION NAILING | 1¾" - 2" ROOFING NAILS @ 12" OC MAX. | | |
| * JOIST HANGER NOTES OR SCREWS ALLOWED I | : 1) NO JOIST HANGER NAILS ALLOWED F N CONNECTORS, 3) TOENAILS SHALL ALV | OR TOENAILS, 2) NO GUN NAILS VAYS BE A FULL 3" OR 3½" NAIL | | |

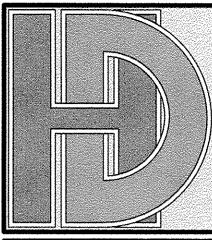
COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. 1/2" X 2" BOLTS SHOULD THEN BE INSTALLED WITH A FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY AN AWS-CERTIFIED INSPECTOR.

DESIGN LOADS (PSF)

| HE DWELLING SHALL COMPLY WITH THE FO | LLOWING LOAD | CONDITIC |
|--|---------------------|---------------------|
| AREA | MIN DEAD LOAD | MIN LIVE LOAD |
| EXTERIOR BALCONIES | 10 | 60 |
| DECKS, STAIRS | 10 | 40 |
| CEILING JOISTS / ATTICS NO STORAGE - SCUTTLE ACCESS ONLY ROOF SLOPE 3:12 OR LESS | 10 | 10 |
| CEILING JOISTS / ATTICS NO STORAGE - SCUTTLE ACCESS ONLY ROOF SLOPE OVER 3:12 | 10 | 10 |
| CEILING JOISTS / ATTICS WITH STORAGE - DOOR PULL DOWN LADDER ACCESS | 10 | 20 |
| ROOMS: NON-SLEEPING | 10 | 40 |
| ROOMS: SLEEPING | 10 | 30 |
| ROOF: LIGHT ROOF COVERING | 10 | 20 |
| ROOF: HEAVY ROOF COVERING / CONCRETE / TILE / SLATE | 20 | 20 |
| GUARDRAILS, HANDRAILS | 200# LL | NORMAL |

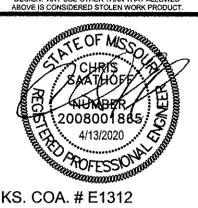
ENGINEERED LUMBER MIN DESIGN REQUIREMENTS

| | F _b (psi) | E (psi) | F _V (psi) |
|----------|----------------------|----------|----------------------|
| LVL | 2600 | 1.8x10^6 | 285 |
| GLULAM | 2400 | 1.8x10^6 | 190 |
| PARALLAM | 2600 | 2.0x10^6 | 290 |



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MO. COA. # 2006034946-F

 $\sim M$

REVISION TABLE

Date: 4/13/2020 39041 Drawn by: AWH

Reviewed by: CLS

STRUCTURAL DETAILS SHEET NUMBER FOR CONSTRU

TABLE R 602.3(5) SIZE. HEIGHT, AND SPACING OF WOOD STUDS

| | | | | NONBEARING WALLS | | | |
|-----------------------|---|---|---|---|---|---|--------------------------------|
| STUD SIZE (inches) | LATERALLY UNSUPPORTED STUD HEIGHT * | MAXIMUM SPACING WHERE SUPPORTING A ROOF-CEILING ASSEMBLY OR A HABITABLE ATTIC ASSEMBLY, ONLY (Inches) | MAXIMUM SPACING WHERE SUPPORTING ONE FLOOR, PLUS A ROOF-CEILING ASSEMBLY OR A HABITABLE ATTIC ASSEMBLY (inches) | MAXIMUM SPACING WHERE SUPPORTING TWO FLOOS, PLUS A ROOF-CEILING ASSEMBLY OR A HABITABLE ATTIC ASSEMBLY (inches) | MAXIMUM SPACING WHERE SUPPORTING ONE FLOOR HEIGHT (Inches) | LATERALLY UNSUPPORTED STUD HEIGHT a (feet) | MAXIMUM SPACING (Inches) |
| | | | | | | | |
| 2 X 3 b | ************************* | | <u> </u> | •—•—• | | 10 | 16 |
| 2 X 4 | 10 | 24 c | 16 c | | 24 | 14 | 24 |
| 3 X 4 | 10 | 24 | 24 | 16 | 24 | 14 | 24 |
| 2 X 5 | 10 | 24 | 24 | | 24 | 16 | 24 |
| 2 X 6 | 10 | 24 | 24 | 16 | 24 | 20 | 24 |

FOR SI: 1 INCH = 25.4mm, 1 FOOT = 304.8mm a. LISTED HEIGHTS ARE DISTANCES BETWEEN POINTS OF LATEAL SUPPORT PLACED PERPENDICULAR TO THE PLANE OF THE WALL. BEARING WALL SHALL BE SHEATHED ON NOT LESS THAN ONE SIDE OR BRIDGING SHALL BE INSTALLED NOT GREATER THAN 4 FEET APART MEASURED VERTICALLY FROM EITHER END OF THE STUD. INCREASES IN UNSUPPORTED HEIGHT ARE PERMITTED WHERE IN **COMPLIANCE WITH EXCEPTION 2** OF SECTION R602.3.1 OR DESIGNED IN ACCORDANCE WITH ENGINEERING PRACTICES.

b. SHALL NOT BE USED IN EXTERIOR WALLS

c. A HABITABLE ATTIC ASSEMBLY SUPPORTED BY 2X4 STUDS IS LIMITED TO A ROOF SPAN OF 32 FEET. WHERE THE ROOF SPAN EXCEEDS 32 FEET, THE WALL STUDS SHALL BE INCREASED TO 2X6 OR THE STUDS SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE.

COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. 1/2" X 2" BOLTS SHOULD THEN BE INSTALLED WITH A FLAT WASHER, LOCK WAHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY AN AWS-CERTIFIED INSPECTOR.

COLUMN SCHEDULE

BASED ON FOOTING SIZE (ASSUME 1500 PSF SOIL)

| PAD SIZE | REINFORCEMENT | COL MIN | COL TYPE | MAX LOAD |
|----------|------------------|------------|-------------|-------------|
| 24x24x12 | (4) #4 BARS E/W | 3" | SCH40 | 6K |
| 30x30x12 | (5) #4 BARS E/W | 3" | SCH40 | 9.4K |
| 36x36x12 | (6) #4 BARS E/W | 3" | SCH40 | 13.5K |
| 42x42x14 | (7) #4 BARS E/W | 3" | SCH40 | 18.4K |
| 48x48x16 | (8) #4 BARS E/W | 3" | SCH40 | 24.0K |
| 54x54x16 | (9) #4 BARS E/W | 3½" | SCH40 | 30.4K |
| 60x60x18 | (10) #4 BARS E/W | 3½" | SCH40 | 37.5K |

3 7/8" MAX FREE

SPACE

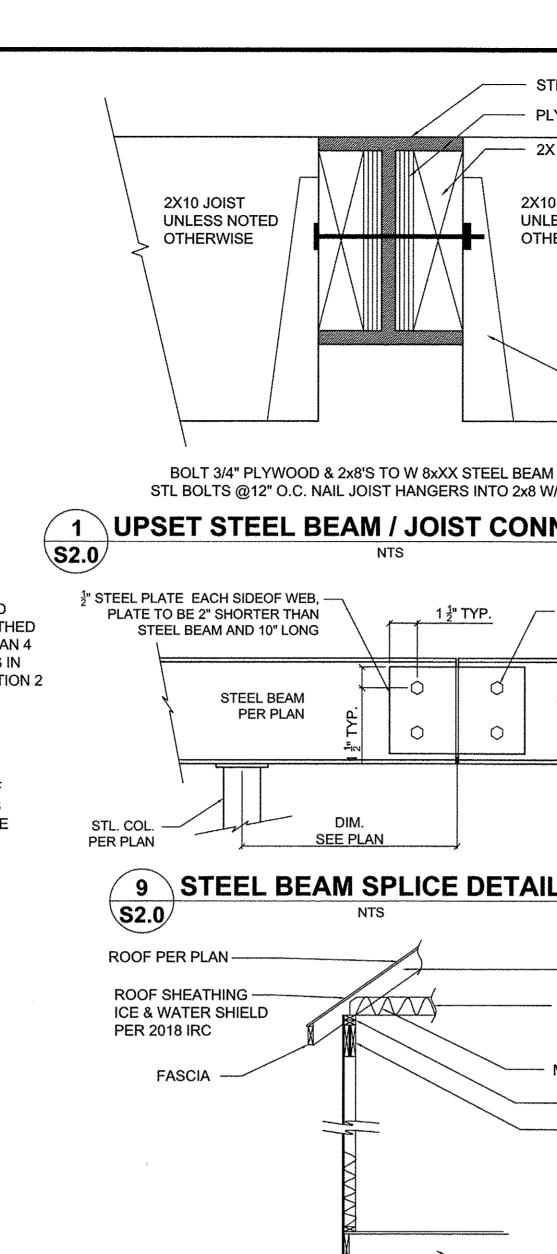
- FOR STAIRS MORE THAN 3'-0"

IN WIDTH, MAINTAIN MIN 18"

OC FOR STRINGERS

MAX RISER HEIGHT IS 7 3/4" MINIMUM TREAD RUN IS 10" USE AT EVERY STAIR WITH THREE OR MORE RISERS AND AT EVERY FLOOR OPENING MORE THAN 30" ABOVE GRADE OR THE FLOOR **BELOW GUARD RAIL**

6 STAIR / RAIL DETAIL **S2.0**



MAXIMUM 2'-0" CANTILEVER

RO SILL

DAMP PROOFING-

PER IRC SECTION R406

S2.0

STEEL BEAM PLYWOOD SHEATHING FASTENED PER-— 2X BLOCKING CALCULATIONS ON SHEET S-3.0 AND PER APPROVED PLANS 2X10 JOIST **UNLESS NOTED** INSULATION -OTHERWISE ¹" BOLTS @ 3' OC MINIMUM - #4 BARS @ 12" OC EACH WAY 7" INTO CONCRETE AND 12" OF EACH END PIECE-JOIST HANGER BOLT 3/4" PLYWOOD & 2x8'S TO W 8xXX STEEL BEAM W/ 1/2" DIA STL BOLTS @12" O.C. NAIL JOIST HANGERS INTO 2x8 W/ N8 NAILS.

W8, W10

W12, W14

W16, W18

2

3

BOLTS SHALL BE EVENLY

SPACED TOP TO BOTTOM

MINIMUM R-49 INSULATION

DOUBLE TOP PLATE

FLOOR JOISTS PER PLAN

INSULATION PER CODE SEE S-6.0

SLAB PER PLAN W/ VAPOR BARRIER

MINIMUM (2) #2 DLF 2x10 HEADER

UPSET STEEL BEAM / JOIST CONNECTION 1 ½" TYP. ¾" Ø A325 THRU BOLTS (SEE CHART BELOW) STEEL BEAM PER PLAN BEAM # BOLTS SIZE PER SIDE

- #4 BARS @ 24" OC EACH WAY (2) 1/2"Ø THRU BOLTS 1-1/4" WASHERS 1-1/4" EDGE CLEARANCE ORIGINAL SOIL (2) #4 BARS CONT --(MAX. 4' OVERDIG AT WALKOUT) 2 WALK-OUT BASEMENT FLOOR SLAB **S2.0** ANY SLAB WITH GREATER THAT 2' OF GRADED ROCK OR 8" OF FILL SOIL

BELOW SHALL BE DESIGNED AS STRUCTURAL PER PLAN. OUR FIRM SHOULD BE CONTACTED IMEDIATELY FOR DESIGN RECOMMENDATIONS. 3-8d NAILS PER-

#2 DFL 2X6 ROOF RAFTER @ 16" OC **UNLESS NOTED OTHERWISE**

MINIMUM #2 DFL 2x6 CEILING JOIST @ 16" OC

3" GYPSUM WALLBOARD

- #2-2x6 STUDS @ 16" OC

UNLESS OTHERWISE

EXTEND #4 VERTICAL

BARS 1'-0" MINIMUM

2' BEYOND

OVERDIG

- 4" GRANULAR FILL

 MINIMUM R-10 RIGID INSULATION FOR A MINIMUM 2'-0" BELOW SLAB

FILL MATERIAL

NOTED ON PLAN

INTO SLAB

ROOF PER PLAN-ROOF SHEATHING ---**ICE & WATER SHIELD PER 2018 IRC** FASCIA-

RO SILL

DAMP PROOFING-

PER IRC SECTION R406

CODE

MINIMUM 1500 PSF

BEARING CAPACITY SOIL

4" DRAIN PER-

DOUBLE TOP PLATE SHEATHING FASTENED PER - MIN. (2) #2 DFL 2x10 HEADEALCULATIONS ON SHEET S-3.0 AND PER APPROVED PLANS MIN. #2 DFL 2x4 STUD WALL @ 16" OC

MIN. 3" DECKING, T&G PLYWOOD GRADE MIN. SLOPE=-1":1'-0" FOR 10' GRADE MIN. SLOPE=-1":1'-0" FOR 10' FLOOR JOISTS PER PLAN (SOLID BLOCK @ 24" O.C. 1ST THREE JOIST SPACES WHERE JOISTS RUN PARALLEL TO FOUNDATION)

#2 DFL 2x6 TREATED PLATE W/ SILL SEALER 1 ANCHOR BOLTS PER PLAN CONCRETE FOUNDATION WALL PER PLANS

4" DRAIN PER-CODE IIN. 16"x8" CONCRETE FOOTING W/ (2) #4 BARS CONT. **UNLESS NOTED OTHERWISE** MINIMUM 1500 PSF-BEARING CAPACITY SOIL

TYPICAL EXTERIOR CANTILEVER WALL SECTION

8 TYPICAL EXTERIOR WALL SECTION S2.0

UNLESS NOTED OTHERWISE

#2 DFL 2X6 ROOF RAFTER @ 16" OC UNLESS NOTED OTHERWISE

MINIMUM #2 DFL 2x6 CEILING JOIST

MINIMUM (2) #2 DFL 2x10 HEADER

INSULATION PER CODE SEE S-6.0

MIN. 3" DECKING, T&G PLYWOOD

RUN PARALLEL TO FOUNDATION)

#2 DFL 2x6 TREATED PLATE

3" ANCHOR BOLTS PER PLAN

W/ SILL SEALER

FLOOR JOISTS PER PLAN (SOLID BLOCK @ 24"

O.C. 1ST THREE JOIST SPACES WHERE JOISTS

CONCRETE FOUNDATION WALL PER PLANS

MIN. 16"x8" CONCRETE FOOTING

W/ (2) #4 BARS CONTINUOUS

SLAB PER PLAN W/ VAPOR BARRIER

MIN. #2 DFL 2x4 STUD WALL @ 16" OC

MINIMUM R-49 INSULATION

DOUBLE TOP PLATE

@ 16" OC

EQUAL NAILED PER OF FULL VAULTS **MANUFACTURER** 1x4 COLLAR TIES @ 48" O.C. -MAX. W/ (3) 10D NAILS @ EACH END IN UPPER THIRD OF CEILING AS MEASURED FROM THE PLATE TO RIDGE

USP LSTA12 STRAP TIE OR -

RIDGE/RAFTER SUPPORT DETAIL* S2.0 DOUBLE RAFTER DOUBLE -2X6 TIE

4 HIP SUPPORT FRAME

ONLY APPLICABLE WHEN REFERENCED IN APPROVED PLANS

* USE FOR RAFTERS

2x4 RAFTER TIE-M M M M M M **CEILING JOISTS-*** USE WHEN RAFTERS ARE PERPENDICULAR TO CEILING V JOISTS

RAFTER TIE CONNECTION* GIRDER BEAM PER PLAN COPE AS NEEDED NUMBER OF STEEL BEAM **BOLTS PER** PER PLAN 1/4" DBL ANGLE OR SHEAR TAB NUMBER OF BOLTS INTO BEAM

10 BEAM TO GIRDER CONNECTION S2.0

BOLTS **BEAM BOLTS SHALL BE EVENLY** SIZE PER SIDE SPACED TOP TO BOTTOM W8, W10 W12, W14 3 W16, W18

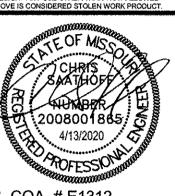
-RAFTER MINIMUM 1" DEPTH FOR **INSULATION BAFFLE** - SOFFIT DAM (CARDBOARD OR RIGID FOAM BOARD) INSULATION -RAISED TOP PLATE -CEILING JOIST

- SOFFIT VENT

11 RAFTER ON RAISED TOP PLATE **S2.0**



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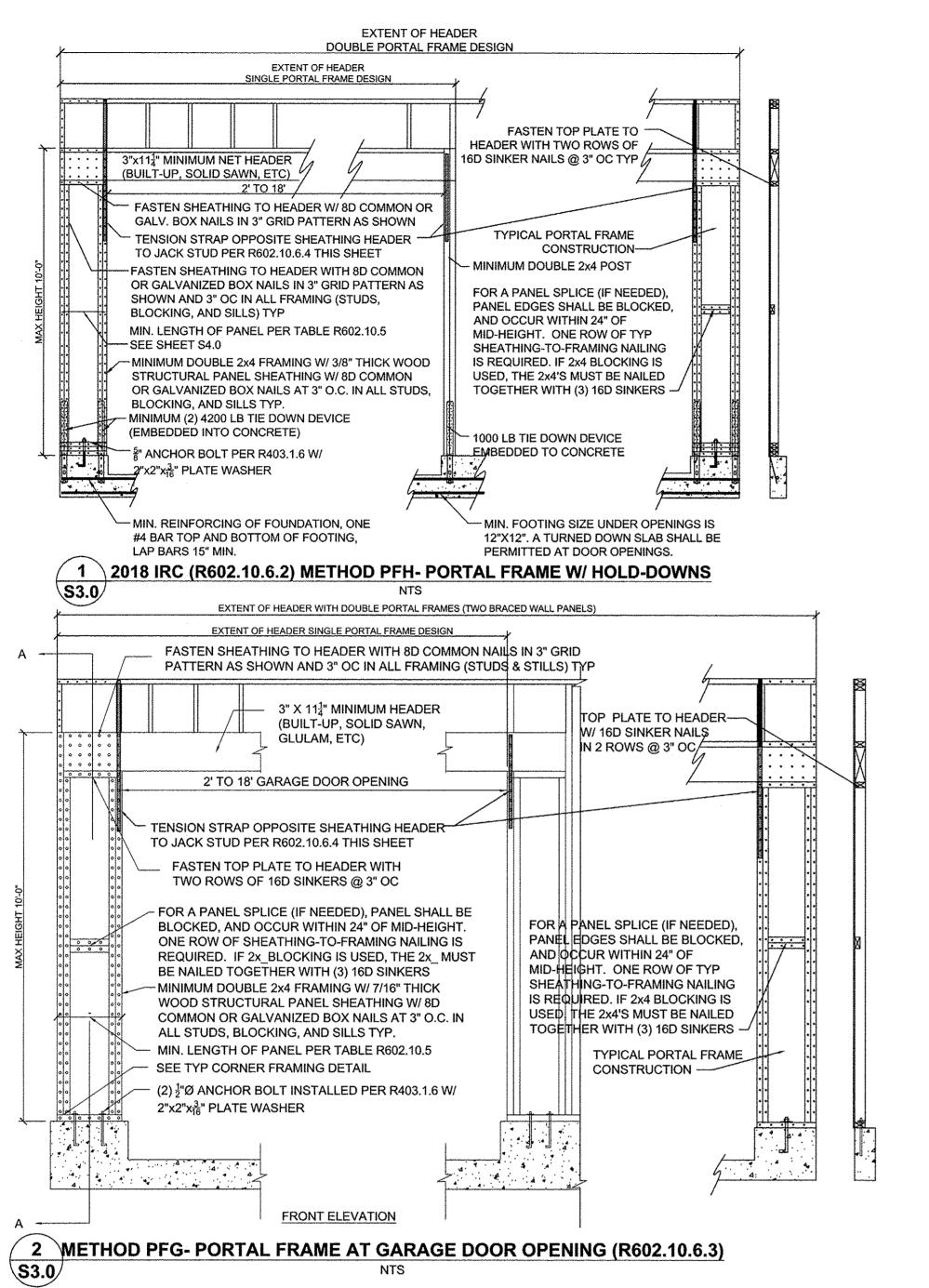
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ER FARK ARK STR LAN 866

REVISION TABLE

4/13/2020 39041 Drawn by: AWH Reviewed by: CLS

STRUCTURAL DETAILS HEER BLUMBER FOR CONSTRU

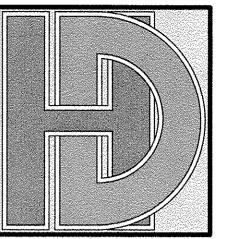


TENSION STRAP CAPACITY REQUIRED FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHOD PFH, PFG AND CS-PF BRACED WALL **PANELS IRC2018 TABLE R602.10.6.4**

| | · | , | | - | | | | | |
|---|--------------------------|---------------------------|--------------|--|---------|-------|-------|----------|-------|
| | | MAX. TOTAL WALL HEIGHT | | TENSION STRAP CAPACITY REQUIRED (POUNDS) ° | | | | | |
| MINIMUM WALL STUD FRAMING NOMINAL SIZE & GRADE | MAX. PONY WALL HEIGHT | | MAX. OPENING | ULTIMATE DESIGN WIND SPEED Vut (MPH) | | | | | |
| | (FEET) | (FEET) | WIDTH (FEET) | 110 | 115 | 130 | 110 | 115 | 130 |
| | | | | E | XPOSURE | В | E | EXPOSURE | С |
| | 0 | 10 | 18 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,050 |
| | 1 | 10 | 9 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,750 |
| | | | 16 | 1,000 | 1,025 | 2,050 | 2,075 | 2,500 | 3,950 |
| | | | 18 | 1,000 | 1,275 | 2,375 | 2,400 | 2,850 | DR |
| | 2 | 10 | 9 | 1,000 | 1,000 | 1,475 | 1,500 | 1,875 | 3,125 |
| OVANO O CRADE | | | 16 | 1,175 | 2,175 | 3,525 | 3,550 | 4,125 | DR |
| 2X4 NO. 2 GRADE | | | 18 | 2,075 | 2,500 | 3,950 | 3,975 | DR | DR |
| | 2 | 12 | 9 | 1,150 | 1,500 | 2,650 | 2,675 | 3,175 | DR |
| | | | 16 | 2,875 | 3,375 | DR | DR | DR | DR |
| | | | 18 | 3,425 | 3,975 | DR | DR | DR | DR |
| | | 12 | 9 | 2,275 | 2,750 | DR | DR | DR | DR |
| | 4 | | 12 | 3,225 | 3,775 | DR | DR | DR | DR |
| | | | 9 | 1,000 | 1,000 | 1,700 | 1,700 | 2,025 | 3,050 |
| | 2 | 12 | 16 | 1,825 | 2,150 | 3,225 | 3,225 | 3,675 | DR |
| OVE STUD CDADE | | | 18 | 2,200 | 2,550 | 3,725 | 3,750 | DR | DR |
| 2X6 STUD GRADE | | | 9 | 1,450 | 1,750 | 2,700 | 2,725 | 3,125 | DR |
| | 4 | 12 | 16 | 2,050 | 2,400 | DR | DR | DR | DR |
| | | | 18 | 3,350 | 3,800 | DR | DR | DR | DR |

a. DR = DESIGN REQUIRED b. STRAP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

| ETERMINE WEIGHT OF HOUSE: | | | | | | INPUT CALCULATED VALUE | |
|---|--|---|--|---|---|---|--|
| DCATION DOF | | | | DEAD LOAD (psf) | AREA (ft ²) 3050 | WEIGHT (lbs.) 30500 | |
| EILING RST FLOOR | | | | 10 | 2848 1920 | 28480 19200 | |
| RST FLOOR EXT, WALL DL | | | WALL LENGTH (ft) 265.32 | WALL HEIGHT (ft) | WALL UNIT WT. (psf) | WEIGHT (lbs) 26532 | |
| RST FLOOR INT. PARTITION WALL DL | | | 200.02 | DEAD LOAD (psf) | AREA (ft2) | WEIGHT (lbs) | |
| | DIFFORD ADDAG (MAINE | DECION DED 445 NO. | OFFICENCE OF THE TANKS | | 1920 | 11520 | |
| FRON | T-TO-BACK | DESIGN PER 115 MPH | 3-SECOND GUST, EXPOS | URE C AND MEAN ROOF HEIGHT <= 3 SIDE-TO-SI | DE | | |
| AREA SLOPED ROOF 480 | LOAD 3960 | | SLOPED ROOF | AREA 470 | LOAD 3999 | | |
| VERT. ROOF 220 1ST 876.26 | 2650 10556 | CUMULATIVE 17239 | VERT, ROOF 1ST | 0 583 | 0 7248 | CUMULATIVE 11319 | |
| SLOPED ROOF | ZONE B | |) - PER ASCE CH. 6 9.7 | ZONE C | 11,3 | 2a (FIG. 28.6-1, ASCE7) | |
| WALL/VERT. ROOF MEAN ROOF HT., h | ZONE A | 16.5 | 14.2 | ZONE D | 7.7 | 10.6 | |
| If there is a walkout wall to be sheathed, d 10=0.00256K₂K₂tK₀tV² (ASCE7-10 Velocity F | | | The state of the s | D analysis under ASCE7-10 and IRC/IB | C 2012) | | |
| T FLOOR TRIBUTARY WEIGHT | | en e | | entertherwise (Part - America), as the arresting entertherm and them of the arrest of the arrest of the arrest | | 72246 | Service and the art about a ready as the contract was |
| (SITE GROUND MOTION - %g - FROM AS | SCE7 SEISMIC MAP) | | | | | 12.0% | |
| (from ASCE7 Table 11.4-1) s (= 2/3 * Ss * Fa) | | | | | | 1.6 0.128 | |
| (from ASCE7 Table 12.2-1) | | | | | | 6.5 | grafia — Tuesta i Santanana and international and in 17 18 18 18 18 18 |
| OCATION | | | SEISMIC | · · · · · · · · · · · · · · · · · · · | n ASCE7 (Eq. 12.8-1): | V (= 4.2 * C - * *** | / R) /the \ |
| T FLOOR | | | | FTOI | | V (= 1.2 * S _∞ * W 1707 | , n., (ius.) |
| Sheathing Location | Min. Sheathi | ng Schedule | | stening Schedule | Allowab | le Shear (#/LF) | Code Reference |
| Exterior /Ontion #41 | 7/16" APA Rated Plywo | | | 6/8" penetration @ 6" O.C. Edges, 12" A-rated plywood/OSB or shiplap panel | | 222 | AF&PA SDPWS |
| Exterior (Option #4) | sheathing, or 3/8" shipl tighter na | lap panel sheathing with iil spacing | sheathing OR @ 4" O.C. | Edges, 12" O.C. Field for 3/8" shiplap anel sheathing | | 220 | Table 4.3A |
| | 7/16" APÁ Rated Plywo | od/OSB or shinlan nanct | 8d Common Nails w/ 1-3 | 5/8" penetration @ 4" O.C. Edges, 12" | | | |
| Exterior (Option #5) | sheathing, or 3/8" shipl | lap panel sheathing with | | A-rated plywood/OSB or shiplap panel Edges, 12" O.C. Field for 3/8" shiplap | | 320 | AF&PA SDPWS Table 4.3A |
| | | | | anel sheathing | | | |
| Exterior (Option #6) | sheathing, or 3/8" shipl | | 8d Common Nails w/ 1-3 | 3/8" penetration @ 3" O.C. Edges, 12" | | 410 | AF&PA SDPWS |
| | | d double studs at each l edge | O.C. Field | | 410 | Table 4.3A | |
| Interior | 1/2" Gyps | sum Board | No. 6- 1 ¹ / ₄ " Type W or S S | Screws @ 8" O.C. Edges, 12" O.C. Field | ntermediate studs (per | | per IBC, Table |
| | 16 Ga. Simpson/USP 7 | Type WB Steel X-Brace | (3) 16d @ end studs | & (1) 8d @ intermediate studs (per | | | 2306.4.4 |
| Interior | 1 | equal) | | fications - see detail on sheet S3) | | | |
| | | | | | | | |
| ar menemenan junggipan, ar mangipan sebagai penemangipan sebagai penemangan semangan semangan menemenan meneman Penemanan junggipan, ar mangipan sebagai penemangai penemangan semangan semangan semangan sebagai seba | den de de la companya | | erakan erabagijana erakanya untura orang, habapatan ongunu day erang yang bayan gibanan gamayan | WIDTH OF 1ST STORY (FT.) | 79.66 | Nagara ti Paramanan ang ang ang Agatan ngan ang Panadaratangan ay ataut ayan yi dagtang ana pinghang tan | and the second s |
| (TERIOR SHEATHING OPTION FOR FIRST | FLOOR | 4 | | DEPTH OF 1ST STORY (FT.) | 53 | a de adressada de mesta e para para para de la mesta e en el para de 200 percente de 200 percente e en esta e e | magnetic for the contract of t |
| | | | | BACK WALL OF GARAGE (FT.) GAR. WALL: 1=F-B, 2=S-S | 21 | | } |
| | | EXTER | PIOR STRUCTURAL MALL | LENGTHS (ft.) & RESISTANCES | | | |
| | SE | EISMIC | TORONO TORAL WALL | LENGTHO (IL) & NEGIOTANOEG | WIND | | |
| FRONT-TO-BACK | RESISTANCE (lbs.) | SIDE-TO-SIDE | RESISTANCE (lbs.) | FRONT-TO-BACK | RESISTANCE (lbs.) | SIDE-TO-SIDE | RESISTANCE (lbs.) |
| T FLOOR 90 | 25200 | 65 | 18200 | 90 | 35280 | 65 | 25480 |
| tanta - Pana ara ta 1,5 mm attituta nyaéta manatan mpana mpana anyaéta nyaéta nyaéta nyaéta nyaéta nyaéta nyaéta | ADDITIONAL RESIS | STANCE REQUIRED WIND | gart tigligt. The first supply of the set of the last of the last productively scalars of the hyperson of the second productive set of the last of the | Anchor Bolt Spacing diameter (in.) | (in.) 0,5 | 16d Nail Spacing regid at 1st Floor F-B | bottom plate (in.) 20 |
| | SEISMIC | VVIIVE | | | | 1st Floor S-S | 43 |
| the first content of the content of |] | 0 0 | | Shear value (per NDS) Spacing F-B (inches) | 944 | | de la companya de la El companya de la co |
| the first content of the content of | SEISMIC 0 | 0 | | Shear value (per NDS) Spacing F-B (inches) spacing S-S (inches) | 944 133.5 288.7 | | · · · · · · · · · · · · · · · · · · · |
| the first content of the content of | SEISMIC 0 | 0 | | Spacing F-B (inches) | 133.5 | | |
| the first content of the content of | SEISMIC 0 | 0 | | Spacing F-B (inches) spacing S-S (inches) | 133.5 288.7 | | |
| the first content of the content of | SEISMIC 0 | 0 | | Spacing F-B (inches) spacing S-S (inches) STANCE PROVIDED BY EXTERIOR W | 133.5 288.7 ALLS** | RESISTANCE PROVIDED BY | |
| the first content of the content of | SEISMIC 0 0 ADDITIONAL RESISTANCE | RESISTANCE REQUI | RED IN ADDITION TO RESI INTERIOR X-BRACES (325#/BRACE) | Spacing F-B (inches) spacing S-S (inches) | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE | RESISTANCE PROVIDED BY ADDITIONAL METHODS (POLINDS) | OK? |
| ST FLOOR FRONT-TO-BACK ST FLOOR SIDE-TO-SIDE ST FLOOR FRONT-TO-BACK | SEISMIC 0 0 | RESISTANCE REQUI | INTERIOR X-BRACES | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" | ALLS** INT. WALL LENGTH SHEATHED W/ OSB | | OK? |
| ST FLOOR SIDE-TO-SIDE ST FLOOR FRONT-TO-BACK ST FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIONSEE SHEET S1 FOR INTERIOR STEEL X- | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SH | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIONSEE SHEET S1 FOR INTERIOR STEEL X- | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SH | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C IEATHED WITH OSB SHAL ICABLE FOR FULL-HEIGH | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION SEE SHEET S1 FOR INTERIOR STEEL X- TTERN AS EXTERIOR OSB ON SAME FLOOR X/12 | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOVE) | PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE CHEATHED WITH OSB SHALLICABLE FOR FULL-HEIGH | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION SEE SHEET S1 FOR INTERIOR STEEL X- ITTERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) 8 | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C. IEATHED WITH OSB SHAL LICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | YES |
| T FLOOR SIDE-TO-SIDE IT FLOOR FRONT-TO-BACK IT FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIO SEE SHEET S1 FOR INTERIOR STEEL X- ATTERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) LENGTH (FT.) OVERHANG 1 | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV) DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 | PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APPERIOR WALLS SHE WALLS | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C. IEATHED WITH OSB SHAL LICABLE FOR FULL-HEIGH WIND UPLIFT EOH-13.3, E -7.2, G-5.2 UPLIFT PER FT* (LBS) -1.08 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER ANALYSIS | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) /NAILING | ADDITIONAL METHODS (POUNDS) 0 0 | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIO SEE SHEET S1 FOR INTERIOR STEEL X- NTTERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) LENGTH (FT.) | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 PRESSURE (PSF) | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C. IEATHED WITH OSB SHAL ICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) | ADDITIONAL METHODS (POUNDS) | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION SEE SHEET S1 FOR INTERIOR STEEL X- NITERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) LENGTH (FT.) OVERHANG TOTAL AREA (FT²) MAIN ROOF** 4221.98 | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV) DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 ZONE E AREA (FT²) | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH 267.32 ZONE G AREA (FT²) 4629.02 | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C. EATHED WITH OSB SHAL LICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER FANALYSIS PRESSURE ZN. G (PSF) | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) //NAILING | ADDITIONAL METHODS (POUNDS) 0 0 FORCE PER LINEAL FT @ | YES |
| ST FLOOR SIDE-TO-SIDE ST FLOOR FRONT-TO-BACK ST FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION SEE SHEET S1 FOR INTERIOR STEEL X- ATTERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) LENGTH (FT.) OVERHANG TOTAL AREA (FT²) MAIN ROOF** 4221.98 | SEISMIC 0 0 0 ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 ZONE E AREA (FT ²) -407.04 | PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH 267.32 ZONE G AREA (FT²) 4629.02 | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE C. IEATHED WITH OSB SHAL LICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER F ANALYSIS PRESSURE ZN. G (PSF) -0.36 | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) //NAILING TOTAL FORCE (LBS) -1227 | ADDITIONAL METHODS (POUNDS) 0 0 FORCE PER LINEAL FT @ | YES |
| T FLOOR SIDE-TO-SIDE T FLOOR FRONT-TO-BACK T FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATION SEE SHEET S1 FOR INTERIOR STEEL X- NTTERN AS EXTERIOR OSB ON SAME FLOOR X/12 OOF PITCH (MAX) LENGTH (FT.) OVERHANG 1 TOTAL AREA (FT²) MAIN ROOF** 4221.98 LONG PERIMETER NSIDE EXTERIOR WALLS OTE FOR CONSTRUCTION: | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 ZONE E AREA (FT²) -407.04 TOTAL UPLIFT PER LINEAL RESISTANCE DUE TO DEAD | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH 267.32 ZONE G AREA (FT²) 4629.02 FOOT ALONG EXTERIOR (PC) WEIGHT & (3) 10d TOENAILS | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE COMEATHED WITH OSB SHALL ICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER FANALYSIS PRESSURE ZN. G (PSF) -0.36 -5.7 251.6 | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) //NAILING TOTAL FORCE (LBS) -1227 UPLIFT OK | ADDITIONAL METHODS (POUNDS) 0 0 | YES YES PERIMETER (LBS) |
| ST FLOOR SIDE-TO-SIDE ST FLOOR FRONT-TO-BACK ST FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIO SEE SHEET S1 FOR INTERIOR STEEL X- ATTERN AS EXTERIOR OSB ON SAME FL X/12 OOF PITCH (MAX) LENGTH (FT.) OVERHANG 1 TOTAL AREA (FT²) | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 ZONE E AREA (FT²) -407.04 TOTAL UPLIFT PER LINEAL RESISTANCE DUE TO DEAD | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH 267.32 ZONE G AREA (FT²) 4629.02 FOOT ALONG EXTERIOR (PC) WEIGHT & (3) 10d TOENAILS | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE COMEATHED WITH OSB SHALL ICABLE FOR FULL-HEIGH WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08 | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER FANALYSIS PRESSURE ZN. G (PSF) -0.36 -5.7 251.6 | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) //NAILING TOTAL FORCE (LBS) -1227 UPLIFT OK | ADDITIONAL METHODS (POUNDS) 0 0 | YES YES PERIMETER (LBS) |
| ST FLOOR SIDE-TO-SIDE ST FLOOR FRONT-TO-BACK ST FLOOR SIDE-TO-SIDE NOTES: 1) SEE ATTACHED CALCULATIO SEE SHEET S1 FOR INTERIOR STEEL X- ATTERN AS EXTERIOR OSB ON SAME FL X/12 COOF PITCH (MAX) LENGTH (FT.) OVERHANG TOTAL AREA (FT²) MAIN ROOF** 4221.98 LONG PERIMETER INSIDE EXTERIOR WALLS DIE FOR CONSTRUCTION: HE CONTINUOUS STRUCTURAL PANEL SH | ADDITIONAL RESISTANCE REQUIRED (POUNDS) 0 0 NS FOR PORTAL FRAME BRACE INSTALLATION, OOR (SEE TABLE ABOV DEGREES 33.7 ASCE 7 PRESSURE (PSF) -1.08 ZONE E AREA (FT²) -407.04 TOTAL UPLIFT PER LINEAL RESISTANCE DUE TO DEAD HEATHING BRACING ME D DIRECTLY TO FRAMIN | RESISTANCE REQUI PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE OR PERFORATED SHE 3) INTERIOR WALLS SHE) AND ARE ONLY APP PITCH OF 6 OR LESS: LINEAL FT. OF OH 267.32 ZONE G AREA (FT²) 4629.02 FOOT ALONG EXTERIOR (POWEIGHT & (3) 10d TOENAILS THOD REQUIRES USE ON MEMBERS | INTERIOR X-BRACES (325#/BRACE) AR WALL RESISTANCE COMEATHED WITH OSB SHALL ICABLE FOR FULL-HEIGHT WIND UPLIFT EOH -13.3, E -7.2, G -5.2 UPLIFT PER FT* (LBS) -1.08 PRESSURE ZN. E (PSF) -1.08 UNDS) | Spacing F-B (inches) spacing S-S (inches) ISTANCE PROVIDED BY EXTERIOR W INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.) APACITIES (IF APPLICABLE), L BE ATTACHED WITH SAME STAPLE IT SECTIONS OF 2'-8" OR LONGER FANALYSIS PRESSURE ZN. G (PSF) -0.36 -5.7 251.6 | ALLS** INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.) //NAILING TOTAL FORCE (LBS) -1227 UPLIFT OK | ADDITIONAL METHODS (POUNDS) 0 0 FORCE PER LINEAL FT @ 1 -4.6 | PERIMETER (LBS) |



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MO. COA. # 2006034946-F

REVISION TABLE

Date: 4/13/2020

HD #: 39041 Drawn by:AWH Reviewed by: CLS

STRUCTURAL **DETAILS**

ALLOWABLE LOADS FOR PNEUMATIC OR MECHANICALLY DDIVEN NAILS AND STADLES

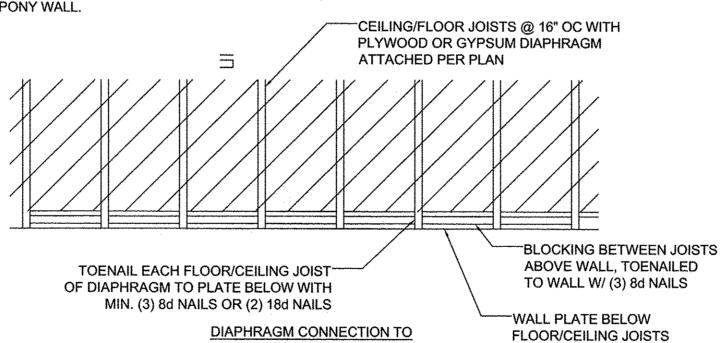
TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS

| TABLE R602.3(1) | | | | | |
|------------------------------|---------------------|--|--|--|--|
| FASTENER SCHEDULE FOR STRUCT | URAL MEMBERS | | | | |

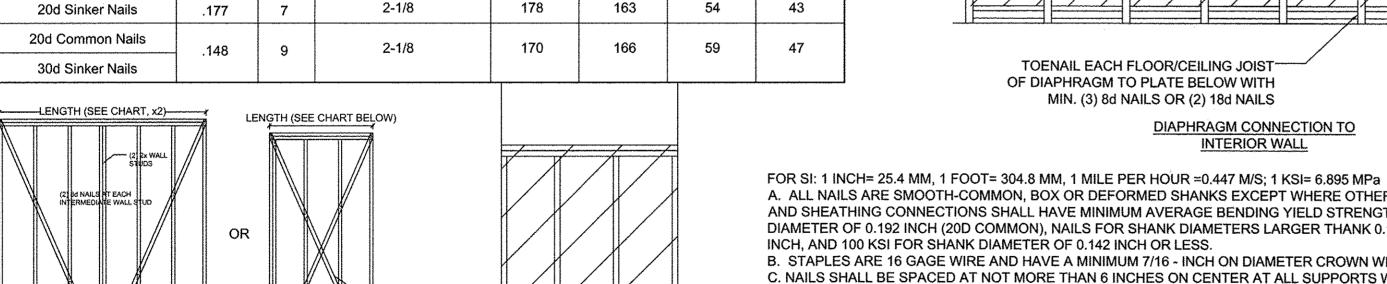
| | MECH | IANIC | ALLY DRIVEN NAI | LS AND | STAPLES | <u> </u> | | | | *************************************** | | | | | |
|-----------------------|--|---|---------------------------------------|-----------------------------|---|----------|-------------|--|--|---|--------|--------------|--------------|-------------|--|
| | The state of the s | | PENETRATION | ALLOWABLE LOADS (IN POUNDS) | | | | | *************************************** | | MIN | IMUM LEI | | | Г |
| FASTENER | NAIL GUN | WIRE | REQUIRED INTO MAIN MEMBER FOR LATERAL | LATERAL | STRENGTH | WITHDRAW | /L STRENGTH | | METHOD | | | (INCHES | · | | СО |
| DESCRIPTION | NAILS/ WIRE DIA. | GΛ | STRENGTH (IN.) | SP | DF/L | SP | DF/L | (8 | (SEE TABLE R602.10.4) | | | MLL HEIC |) | | |
| 16 GA. STAPLE | .063 | 16 | 1 | 51 | | 36 | 32 | | | | 9 FEET | 10 FEET | 11 FEET | 12 FEET | |
| 15 GA. STAPLE | .072 | 15 | 1 | 64 | | 42 | 37 | DWB,WSI | DWB,WSP,SFB,PBS,PCP,HPS,BV-WSP | | 48 | 48 | 53 | 58 | |
| 14 GA. STAPLE | .080 | 14 | 1 | 75 | | 46 | 41 | | GB | | 48 | 48 | 53 | 58 | D |
| 6d COOLER NAIL | 000 | 40 | | 40 | | 0.7 | 00 | | | | | | | | SI |
| 6d SINKER NAIL | .092 | 13 | 1 | 46 | | 27 | 23 | | LIB SDC A, B, AND C ULTIMATE DESIGN | 55 | 62 | 69 | NP | NP | |
| 6d BOX NAIL | ************************************** | | | | | | | ABW | WIND SPEED<140 SDC D ₀ ,D ₁ ,D ₂ ULTIMATE DESIGN WIND SPEED<140 | 28 32 | 32 | 34 | 38 NP | 42 NP | |
| 6d CASING NAIL | .099 | 12-1/2 | 1-1/8 | 61 | 55 | 31 | 24 | | SUPPORTING ROOF ONLY | 16 | 16 | 16 | | NOTE C | |
| 7d COOLER NAIL | | | | | | | | PFH | SPTNG. ONE STORY & ROOF | | 24 | 24 | | NOTE C | |
| 6d COMMON NAIL | | | | | | | | | PFG | 24 | 27 | 30 | NOTE D | NOTE D | |
| 8d COOLER NAIL | | *************************************** | | | | † | | | CS-G | 24 | 27 | 30 | 33 | 36 | |
| 8d SINKER NAIL | .113 | 11-1/2 | 1-1/4 | 79 | 72 | 35 | 28 | | CS-PF | 16 | 18 | 20 | NOTE E | NOTE E | |
| 8d BOX NAIL | | | | | | | | | ADJACENT CLEAR OPENING HEIGHT (INCHES) | | | | | | Personal and the second |
| 8d CASING NAIL | | | | | | | | | ≤64 | 24 | 27 | 30 | 33 | 36 | |
| 6d RING SHANK NAIL | - | | | | | | | | 68 | 26 | 27 | 30 | 33 | 36 | |
| 6d SCREW SHANK NAIL | .120 | 11 | 1-3/8 | 89 | 81 | 41 | 32 | | 72 | 27 | 27 | 30 | 33 | 36 | |
| 8d RING SHANK NAIL | | 11 | 1*3/0 | 09 | 01 | 41 | 52 | | 76 | 30 | 29 | 30 | 33 | 36 | |
| 8d SCREW SHANK NAIL | | | | | | | | | 80 | 32 | 30 | 30 | 33 | 36 | + |
| 10d Cooler Nail | | | | | | | | | 84 | 35 | 32 | 32 | 33 | 36 | - |
| 10d Sinker Nail | .128 | 10-1/2 | 1-1/2 | 89 | 81 | 36 | 31 | | 88 | 38 | 35 | 33 | 33 | 36 | - |
| 12d Short | | | | | | | | | 92 | 43 | 37 | 35 38 | 35 36 | 36 36 | - |
| 10d Box Nails | | | | | | | | CS-WSP, | 100 | 40 | 44 | 40 | 38 | 38 | 1 |
| 12d Box Nails | .128 | 10-1/2 | 1-1/2 | 101 | 93 | 40 | 31 | CS-SFB | 104 | | 49 | 43 | 40 | 39 | |
| 10d Casing Nails | | | | | | | | | 108 | - | 54 | 46 | 43 | 41 | |
| 8d Common Nails | | | | | *************************************** | | | | 112 | - | • | 50 | 45 | 43 | |
| 16d Short | .131 | 10-1/4 | 1-1/2 | 106 | 97 | 41 | 32 | | 116 | - | * | 55 | 48 | 45 | |
| 12d Sinkers | | | | | | | | | 120 | - | - | 60 | 52 | 48 | - |
| 16d Box Nails | .135 | 10 | 1-1/2 | 113 | 103 | 42 | 33 | | 124 | - | * | - | 56 | 51 | |
| 10d Ring Shank Nails | | | | | | | | | 128 | - | - | - | 61 66 | 54 | 1 |
| 10d Screw Shank Nails | .135 | 10 | 4 5/9 | 440 | 103 | 46 | 26 | | 136 | <u> </u> | | - | 00 | 58 62 | - |
| 12d Ring Shank Nails | .135 | 10 | 1-5/8 | 113 | 103 | 46 | 36 | | 140 | _ | | - | - | 66 | 1 |
| 12d Screw Shank Nails | - | | | | | | | | 144 | - | - | - | - | 72 | |
| 10d Common Nails | | | | | | | | b. USE THE A c. MAX. HEAD 36 WITH PONY V | NTERPOLATION SHALL BE PEF | | | ! | I | L | <u> </u> |
| 12d Common Nails | | | | | | | | | ACTUAL LENGTH WHEN IT IS ADER HEIGHT FOR PFH IS 10' I | | | | | | |
| 16d Sinker Nails | .148 | 9 | 1-5/8 | 128 | 118 | 46 | 36 | | WALL. | | | | · | | |
| 20d Box Nails | - | | | | | | | 12' WITH PC | | | | | | | |
| 30d Box Nails | 1 | - | | | | | | e. MAX. OP 12' WITH PC | ENING HEIGHT FOR CS-PF IS 1 NY WALL. | IO IN ACC | ORDANC | E WITH R | 602.10.6.4 | , WALL HI | EIGH |
| 16d Ring Shank Nails | | | | | | | | | | | | | | JOISTS @ | - |
| 16d Screw Shank Nails | .148 | 9 | 1-3/4 | 128 | 118 | 50 | 40 | | | = | | | HED PER | | wat T |
| 16d Common Nails | | | | | | | | / | 1//W/X/ | 1/1/ | /// | /// | 11/ | /W | |
| 40d Boy Naile | .162 | 8 | 1-3/4 | 154 | 141 | 50 | 40 | | X//I//V/ | / // . | | | X/ | | |

| | | | MIN | IMUM LEI (INCHES | | | | | |
|-------------------|--|----|-----------|---------------------|---------|---------------------|---------------------|----|---|
| | | N | /ALL HEIG | HT | • | CONTRIBUTING LENGTH | | | |
| (5 | (SEE TABLE R602.10.4) | | | 10 FEET | 11 FEET | 12 FEET | (INCHES) | | |
| DWB,WSF | 48 | 48 | 48 | 53 | 58 | ACTUAL ^b | | | |
| | GB | | GB | | 48 | 48 | 53 | 58 | DOUBLE SIDED = ACTUAL SINGLE SIDED=.5xACTUAL |
| | 55 | 62 | 69 | NP | NP | ACTUAL ^b | | | |
| ABW | SDC A, B, AND C ULTIMATE DESIGN WIND SPEED<140 | 28 | 32 | 34 | 38 | 42 | 48 | | |
| VDAA | SDC D ₀ ,D ₁ ,D ₂ ULTIMATE DESIGN WIND SPEED<140 | 32 | 32 | 34 | NP | NP | 46 | | |
| PFH | SUPPORTING ROOF ONLY | 16 | 16 | 16 | NOTE C | NOTE C | 48 | | |
| 111 | SPTNG. ONE STORY & ROOF | 24 | 24 | 24 | NOTE C | NOTE C | 48 | | |
| | PFG | 24 | 27 | 30 | NOTE D | NOTE D | 1.5 x ACTUAL⁵ | | |
| | CS-G | 24 | 27 | 30 | 33 | 36 | ACTUAL ^b | | |
| | CS-PF | 16 | 18 | 20 | NOTE E | NOTE E | ACTUAL ^⁵ | | |
| | ADJACENT CLEAR OPENING HEIGHT (INCHES) | | | | | | | | |
| | ≤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 | 32 | 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 | | | |
| CS-WSP, CS-SFB | 100 | - | 44 | 40 | 38 | 38 | | | |
| | 104 | - | 49 | 43 | 40 | 39 | ACTUAL ^b | | |
| | 108 | _ | 54 | 46 | 43 | 41 | | | |
| | 112 | - | - | 50 | 45 | 43 | | | |
| | 116 | - | - | 55 | 48 | 45 | | | |
| | 120 | - | - | 60 | 52 | 48 | | | |
| | 124 | = | * | - | 56 | 51 | | | |
| | 128 | • | - | - | 61 | 54 | | | |
| | 132 | - | • | - | 66 | 58 | | | |
| | 136 | * | - | - | - | 62 | | | |
| | 140 | - | - | | - | 66 | | | |
| | 144 | - | - | - | - | 72 | | | |

- Γ MAY BE INCREASED TO 12'
- HT MAY BE INCREASED TO
- GHT MAY BE INCREASED TO



INTERIOR WALL



2-1/8

(2) 8d NAILS AT EACH STUD AND PLATE REQUIRED BRACED WALL LENGTHS FOR STEEL STRAPS OSB PANELW/ 8d @ 6" & 12"---16d NAILS @ 4" OC-

40d Box Nails

20d Ring Shank Nails

20d Screw Shank Nails

.177

OSB WALL PANEL STOPS AT BOTTOM-OF SOLE PLATE - NEW STRIP OF OSB STARTS AT TOP OF SUBFLOOR AND CONTINUES DOWN PAST BOTTOM OF SILL PLATE (2) ROWS OF 8d NAILS @ 6" OC INTO RIM-BOARD 8d NAILS @ 3" OC INTO SILL PLATE-

A. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH (20D COMMON), NAILS FOR SHANK DIAMETERS LARGER THANK 0.142 INCH BUT NOT LARGER THANK 0.177 INCH, AND 100 KSI FOR SHANK DIAMETER OF 0.142 INCH OR LESS. B. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16 - INCH ON DIAMETER CROWN WIDTH. C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER. D. FOUR-FOOT BY 8-FOOT OR 4-FOOT BY 9-FOOT PANELS SHALL BE APPLIED VERTICALLY. E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2). F. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8D DEFORMED (2 1/2 X 0.120) NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCHES DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM. G. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER. WHEN BASIC WIND SPEED IS GREATER THAN 100 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING.

43

163

178

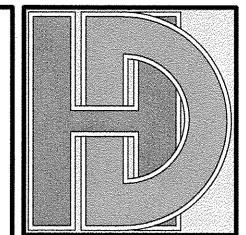
TYPICAL CONNECTION DETAIL FOR

PANEL SPLICE AT BOTTOM PLATE

H. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253, FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C 208. I. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRE BLOCKING AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS NEED NOT BE PROVIDED EXCEPT AS REQUIRED BY OTHER PROVISIONS OF THIS CODE. FLOOR PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

J. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE, PROVIDE TWO TOE NAILS ON ONE SIDE OF THE RAFTER AND TOE NAILS FROM CEILING JOIST TO TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE. THE TOE NAIL ON THE OPPOSITE SIDE OF THE RAFTER SHALL NOT BE REQUIRED.

| ITEM | · | · · · · · · · · · · · · · · · · · · · | //** * * * * * * * * * | | |
|---|--|--|--|--|--|
| | DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER ABC | SPACING OF FASTENERS | | |
| | ROC | 4-8D BOX (2 ½" X 0.113") | TOE NAIL | | |
| 1 | BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL | 3-8D (2 ½" X 0.113") 3-10D (3"X0.128") | PER JOIST, TOE NAIL | | |
| 3 | CEILING JOISTS TO PLATE, TOE NAIL CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (SEE SECTION R802.5.2 AND TABLE R802.52 | 3-3"X 0.131" NAILS 4-10D BOX (3"X 0.128") 3-16D COMMON (3 ½"X 0.162") | FACE NAIL | | |
| 4 | CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) SEE SECTION R802.5.2 AND TABLE R802.5.2) | 4-3"X 0.131"NAILS TABLE R802.5.2 | FACE NAIL | | |
| | COLLAR TIE TO RAFTER, FACE NAIL OR 1 1 X 20GA. RIDGE STRAP TO | 4-10D BOX (3" X 0.128") | FACE NAILS EACH RAFTER | | |
| 5 | RAFTER | 3-10D COMMON (3" X 0.148") 4-3" X 0.131" NAILS 3-16D BOX NAILS (3½" X0.135") | 2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOS | | |
| 6 | RAFTER OR ROOF TRUSS TO PLATE | 3-10D COMMON NAILS (3" X 0.148" 4-10D BOX (3" X 0.128" 4-3" X0.131" NAILS | SIDE OF EACH FAGTER OR TRUSS ¹ | | |
| 7 | ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM | 4-16D(3 ½" X 0.135"); OR 3-10D COMMON (3" X 0.148") 4-10D BOX (3" X 0.128"); OR 4-3" X 0.131" NAILS 3-16D(3 ½" X 0.135"); OR 2-16D COMMON (3 1/2" X 0.162") | TOE NAIL | | |
| *************************************** | | 3-10D BOX (3" X 0.128"); OR 3-3" X 0.131" NAILS | | | |
| | | ALL 16D (3 ½" X 0.162") | 24" OC FACE NAIL | | |
| 8 | STUD TO STUD (NOT BRACED WALL PANELS) | 10D BOX (3" X 0.128"); OR 3" X 0.131" NAILS | 16" OC FACE NAIL | | |
| 9 | STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS) | 16D BOX (3 1/2" X 0.135"); OR 3" X 0.131" NAILS 16D COMMON (3 \}" X 0.162") | 12" OC FACE NAIL | | |
| 10 | BUILT-UP HEADER (2" TO 2" HEADER WITH 3" SPACER) | 16D COMMON (3 ½" X 0.162") | 16" OC EACH EDGE FACE NAIL | | |
| 11 | CONTINUOUS HEADER TO STUD | 16D BOX (3 ½" X 0.135") 5-8D BOX (2 ½" X 0.113") or 4-8D COMMON (2 ½" X 0.131") | 12" OC EACH EDGE FACE NAIL | | |
| | | 4-10D BOX (3" X 0.128") 16D COMMON (3 ½" X 0.162") | TOE NAIL 16" OC FACE NAIL | | |
| 12 | TOP PLATE TO TOP PLATE | 10D BOX (3" X 0.128") OR 3" X 0.131" NAILS | 12" OC FACE NAIL | | |
| 13 | DOUBLE TOP PLATE SPLICE | 8-16D COMMON (3 ½" X 0.162"); or 12-16D BOX (3 ½" 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 SPLIC LENGTH EACH SIDE OF END JOINT) | | |
| 14 | BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS | 16D COMMON (3 ½" X 0.162") 16D BOX (3 1/2" X 0.135"); OR 3" X 0.131" NAILS | 16" OC FACE NAIL 12" OC FACE NAIL | | |
| 15 | BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS | 3-16D BOX (3 1/2" X 0.135"); or 2-16D COMMON (3 1/2" X 0.162"); or 4-3" X 0.131" NAILS | 3 EACH 16" OC FACE NAIL 2 EACH 16" OC FACE NAIL 4 EACH 16" OC FACE NAIL | | |
| | | 4-8D BOX (2½* X 0.113*); or 3-16D BOX (3½* X0.135*); or 4-8D COMMON (2½* X0.131*);or 4-10D BOX (3* X0.128*); | TOE NAIL | | |
| 16 | TOP OR BOTTOM PLATE TO STUD | or 3-3" X 0.131" NAILS 3-16D BOX (3 ½" X 0.135"); or 2-16D COMMON (3 ½" X 0.162"); or 3-10D BOX (3" X 0.128"); or 3-3" X 0.131" NAILS | END NAIL | | |
| 17 | TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS | 3-10D BOX (3" X 0.128"); or 2-16D COMMON (3 ½" X0.162"); or 3-3" X 0.131" NAILS | FACE NAIL | | |
| 18 | 1" BRAVE TO EACH STUD AND PLATE | 3-8D BOX (2 ½" X 0.113"); or 2-8D COMMON (2 ½" X0.131") or 2-10D BOX (3" X 0.128"); or 2 STAPLES 1 ½" | FACE NAIL | | |
| 19 | 1" X 6" SHEATHING TO EACH BEARING | 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 2-10D BOX (3" X 0.128"); or 2 STAPLES 1" CROWN, | FACE NAIL | | |
| | | 16GA., 1 ¾" LONG 3-8D BOX (2 ¾" X 0.113"); or 3-8D COMMON (2 ¾" X0.131") or 3-10D BOX (3" X 0.128"); or 3 STAPLES, 1" CROWN, | | | |
| 20 | 1" X 8" AND WIDER SHEATHING TO EACH BEARING | 16GA., 1 ½" LONG WIDER THAN 1" X 8" 4-8D BOX (2 ½" X 0.113"); or 3-8D COMMON (2 ½" X0.131") or 3-10D BOX (3" X 0.128"); or 4 STAPLES, 1" CROWN. 16GA., 1 ½" LONG | FACE NAIL | | |
| | FLO | the state of the s | | | |
| 21 | JOIST TO SILL, TOP PLATE OR GIRDER | 4-8D BOX (2½" X 0.113"); or 3-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 3-3" X 0.131: NAILS | TOE NAIL | | |
| 22 | RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE | 8D BOX (2 🔄 X 0.113") | 4" OC TOE NAIL | | |
| | (ROOF APPLICATIONS ALSO) | | | | |
| | | 8D COMMON (2 ½" X 0.131"); or 10D BOX (3" X0.128") or 3-3" X 0.131" NAILS | 6" OC TOE NAIL | | |
| 23 | 1" X 6" SUBFLOOR OR LESS TO EACH JOIST | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG | 6" OC TOE NAIL FACE NAIL | | |
| 24 | 2" SUBFLOOR TO JOIST OR GIRDER | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") | | | |
| | | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X 0.162") | FACE NAIL | | |
| 24 | 2" SUBFLOOR TO JOIST OR GIRDER | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL | | |
| 24 25 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, ½" CROWN | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED | | |
| 24 25 26 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA, STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 10D BOX (3" X 0.128"); or 3" X 0.131" NAILS AND: 2-20D COMMON (4" X 0.192"); or | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES | | |
| 24 25 26 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½ X 0.128; or 3-3" X 0.135"); or 3-26D COMMON (3½" X 0.162"); or | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES | | |
| 24 25 26 27 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, 1½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE | | |
| 24 25 26 27 28 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA. STAPLES, 76" CROWN 20D COMMON (4" X 0.192"); or 4 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS | | |
| 24 25 26 27 28 29 ITEM | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, 16" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½ X 0.128"); or 3-3" X 0.131" NAILS 4-16D BOX (3½ X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) CE | | |
| 24 25 26 27 28 29 ITEM | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.155"); or 2-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA. STAPLES, 1½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 4-16D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIRAL PANEL EXTERIOR WALL SHEATHIN | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES INTERMEDIATE SUPPORT (INCHES) " RTICLEBOARD WALL SHEATHING TO IG TO WALL FRAMING] | | |
| 24 25 26 27 28 29 ITEM WOO | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA. STAPLES, 76" CROWN 20D COMMON (4" X 0.192"); or 4 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 4-16D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 4-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS VALL SHEATHING TO FRAMING AND PAFIRAL PANEL EXTERIOR WALL SHEATHIN | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) CE (| | |
| 24 25 26 27 28 29 ITEM WOO 30 31 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602,3(3) FOR WOOD SRUCTU 3"-1" 19" - 1" | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 3-10D BOX (3" X 0.128"); or 3-1 X 0.131" NAILS AND: 2-20D COMMON (4" X 0.192"); or 3-10D BOX (3" X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3," X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3," X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3," X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2½" X 0.131" NAIL (SUBFLOOR, WALL) 18D COMMON (2½" X 0.131" NAIL (SUBFLOOR, WALL) 18D COMMON (2½" X 0.131 NAIL (SUBFLOOR, WALL) 19D COMMON (2½" X 0.131 NAIL (SUBFLOOR, WALL) 19D COMMON (2½" X 0.131 NAIL (SUBFLOOR, WALL) 19D COMMON NAIL (2½" X 0.131; OR SRS-01; 2½" X 0.113") NAIL (SUBFLOOR, WALL) 19D COMMON NAIL (2½" X 0.131; OR SRS-01; 2½" X 0.113") NAIL (SUBFLOOR) 12½" X 0.113") NAIL ROOF 1 | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) CE RTICLEBOARD WALL SHEATHING TO IG TO WALL FRAMING] | | |
| 24 25 26 27 28 29 ITEM WOO | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3" X 0.128"); or 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIRAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2½" X 0.131" NAIL (ROOF); or RSRS-01 (2½" X 0.113" NAIL (ROOF); or RSRS-01 (2½" X 0.113") DEFORMED NAIL | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) CE (| | |
| 24 25 26 27 28 29 ITEM WOO 30 31 32 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU 3" - ½" 1½" - 1½" 1½" - 1½" | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.135"); or 2-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIFAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2½" X 0.131" NAIL (800F); or RSRS-01 (2½" X 0.113" NAIL (ROOF); or RSRS-01 (2½" X 0.11 | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " INTERMEDIATE SUPPORT (INCHES) CE RTICLEBOARD WALL SHEATHING TO IG TO WALL FRAMING] 6 12 ^F 6 12 ^F 6 12 | | |
| 24 25 26 27 28 29 ITEM WOO 30 31 32 33 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU 3"-1" 19" - 1" 1 1" - 1 1" 2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X 0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, 1½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½ X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIFAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2½" X 0.131" NAIL (ROOF); or RSRS-01 (2½" X 0.113" NAIL (ROOF); or RSRS-01 (2½" X 0.113") DEFORMED NAIL G | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INCHES) " (INCHES) CE (| | |
| 24 25 26 27 28 29 ITEM WOO 30 31 32 33 34 | 2" SUBFLOOR TO JOIST OR GIRDER 2" PLANKS (PLANK & BEAM-FLOOR AND ROOF) BAND OR RIM JOIST TO JOIST BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS LEDGER STRIP SUPPORTING JOISTS OR RAFTERS BRIDGING OR BLOCKING TO JOIST DESCRIPTION OF BUILDING ELEMENTS OD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR V FRAMING [SEE TABLE R602.3(3) FOR WOOD SRUCTU \frac{3}{8}" - \frac{1}{2}" \frac{19}{32}" - 1" \frac{1}{4}" \fra | 3-3" X 0.131" NAILS 3-8D BOX (2½" X 0.113"); or 2-8D COMMON (2½" X0.131") or 3-10D BOX (3" X 0.128"); or 2 STAPLES, 1" CROWN, 16GA., 1½" LONG 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D BOX (3½" X 0.135"); or 2-16D COMMON (3½" X0.162") 3-16D COMMON (3½" X 0.162") 3-16D COMMON (3½" X 0.162"); or 4-10D BOX (3" X0.128") or 4-3" X 0.131" NAILS; or 4-3" X 14GA. STAPLES, ½" CROWN 20D COMMON (4" X 0.192"); or 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 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128; or 3-3" X 0.131" NAILS 4-16D BOX (3½" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS 2-10D BOX (3" X 0.128"); or 4-3" X 0.131" NAILS NUMBER AND TYPE OF FASTENER VALL SHEATHING TO FRAMING AND PAFIFAL PANEL EXTERIOR WALL SHEATHIN 6D COMMON (2½" X 0.131" NAIL (SUBFLOOR, WALL) (2½" X 0.131" NAIL (ROOF); or RSRS-01 (2½" X 0.131" NAIL (ROOF); or RSRS-01 (2½" X 0.131") NAIL (ROOF) 8D COMMON (2½" X 0.113" NAIL (ROOF); or RSRS-01; 2½" X 0.131") NAIL (ROOF) 10D COMMON NAIL (2½" X 0.131; or RSRS-01; 2½" X 0.131") NAIL (ROOF) 10D COMMON NAIL (2½" X 0.131; or RSRS-01; 2½" X 0.131") NAIL (ROOF) 10D COMMON NAIL (2½" X 0.131; or RSRS-01; 2½" X 0.131") DEFORMED NAIL OTHER WALL SHEATHING GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN "GALVANIZED ROOF NAIL, ½" HEAD DIAMETER, OR 1½" LONG 16GA. STAPLE WITH ½" OR 1" CROWN | FACE NAIL BLIND AND FACE NAIL AT EACH BEARING, FACE NAIL END NAIL NAIL EACH LAYER AS FOLLOWS: 32" OC AT TIP A BOTTOM AND STAGGERED 24" OC FACE NAIL AT TOP AND BOTTOM STAGGE ON OPPOSITE SIDES FACE NAIL AT END AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL EACH END, TOE NAIL SPACING OF FASTENERS EDGES (INTERMEDIATE SUPPORT (INCHES) " (INCHES) " (INCHES) " ET (INCHES) " (INCHES) | | |
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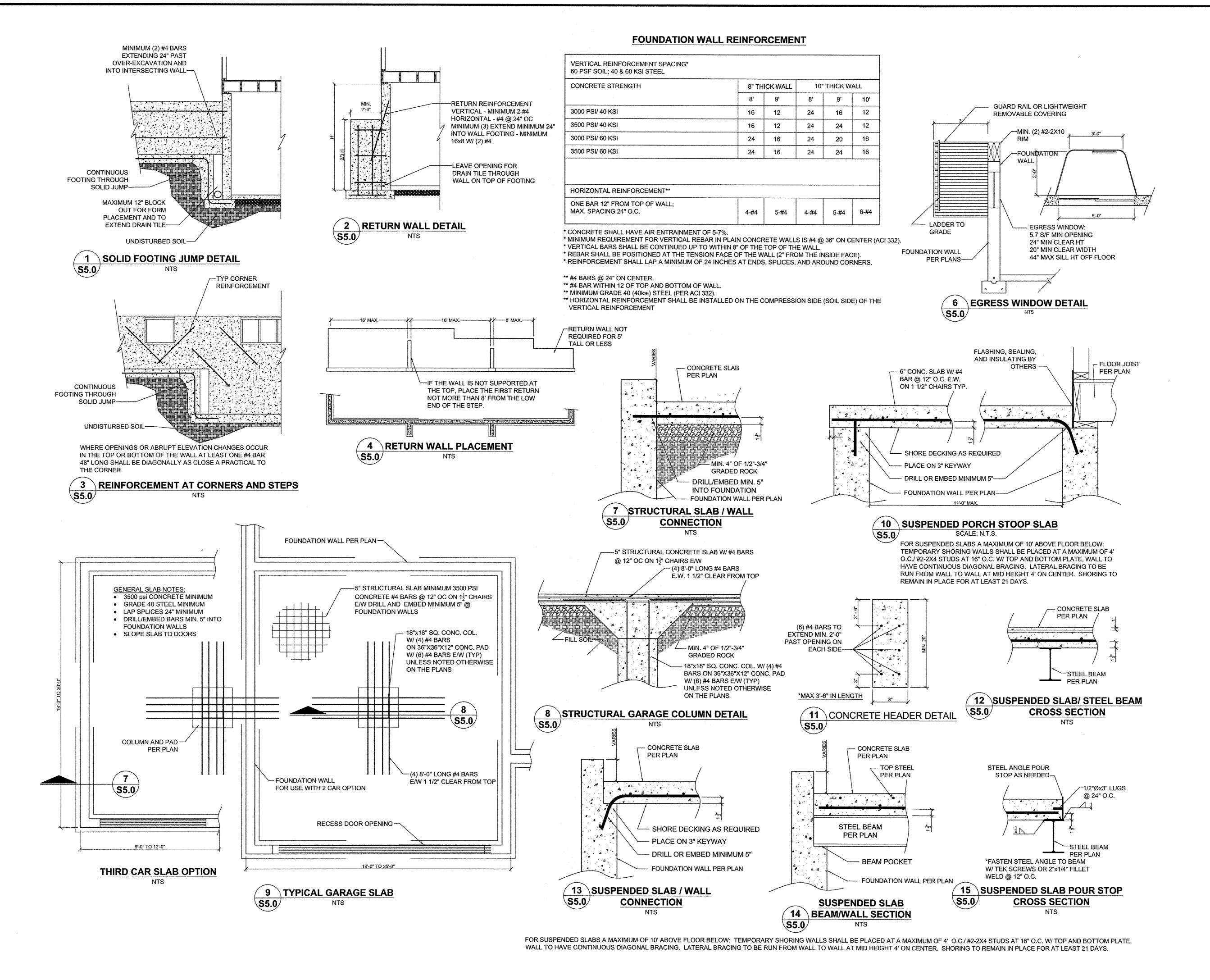


KS. COA. # E1312 MO. COA. # 2006034946-F

REVISION TABLE

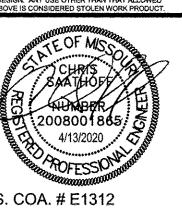
Date: 4/13/2020 HD #: 39041 Drawn by: AWH Reviewed by: CLS

STRUCTURAL **DETAILS**



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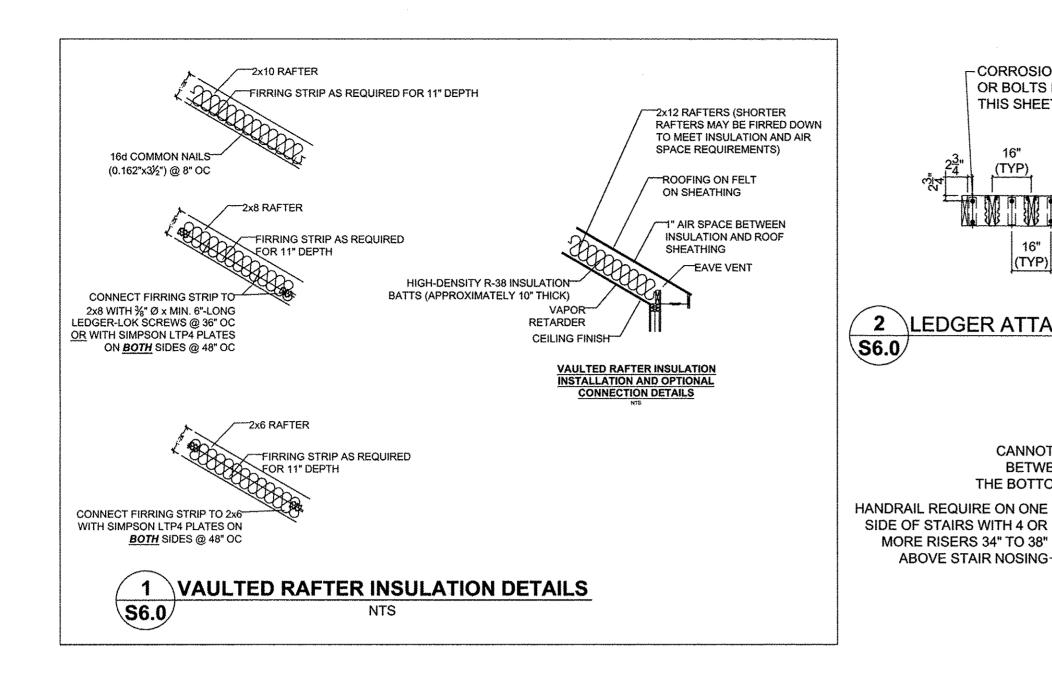
REVISION TABLE

Date: 4/13/2020 39041 HD #:

Drawn by: AWH Reviewed by: CLS

STRUCTURAL DETAILS

SHEET NUMBER FOR CONSTR



CATHEDRAL / VAULTED CEILING

FRAMING AND INSULATION

MINIMUM R-38 INSULATION REQUIRED

WHERE THE CEILING IS APPLIED DIRECTLY TO THE BOTTOM

MINIMUM INSULATION VALUE, RAFTER SIZES WILL NEED TO BE INCREASED, OR ADEQUATE FURRING SHALL BE USED TO

IN ADDITION, IF THE RAFTER SIZE IS INCREASED IT SHALL BE

VERIFIED THAT THE RIDGE BE A MINIMUM OF ONE NOMINAL SIZE LARGER THAN THE RAFTERS BEING RECEIVED. (SEE CHART BELOW

OBTAIN THE MINIMUM JOIST DEPTH FOR THE REQUIRED INSULATION

2x6

R-13

2x8

 $6\frac{1}{4}$ "

2x10

8 ¹"

CONDENSED

2x12

R-38

 $10\frac{1}{4}$ "

OF THE RAFTERS, A MINIMUM 1" AIR SPACE SHALL BE

NOTE: RAFTER SIZES SPECIFIED ON PLANS ARE THE MINIMUM REQUIRED FOR STRUCTURAL PURPOSES ONLY.

THE SHEATHING FOR VENTILATION (R806.3)

IF FULL RAFTER DEPTH IS NOT ADEQUATE FOR

BUILDER TO VERIFY:

MAXIMUM INSULATION VALUE

1" AIR SPACE (FIBERGLASS)

PROVIDED BETWEEN THE TOP OF THE INSULATION AND

DECK DETAILS ARE ONLY APPLICABLE WHEN DECK IS SHOWN AND DESIGNED ON

APPROVED PLANS CORROSION RESISTANT LAGS OR BOLTS PER TABLE R507.2 THIS SHEET -2X JOIST MANUFACTURE INSTRUCTIONS -1X4 TREATED SPACER 2 LEDGER ATTACHMENT - FRONT ELEVATION

5 GUARDRAIL DETAIL

1/2" GYP. CAP OR EQUAL

2X4 CLEAT W/ WEATHER

STRIPPING ON BOTTOM

- GYP. PER SHEATHING SCHEDULE

R-49 INSULATION INSIDE

2x12 BOX MIN. 22"X30"

6 ATTIC ACCESS DETAIL

SCALE: 2" = 1'-0"

CANNOT PASS A 4" SPHERE

THE BOTTOM RAIL AND FLOOR-

ABOVE STAIR NOSING-

BETWEEN BALUSTERS OR

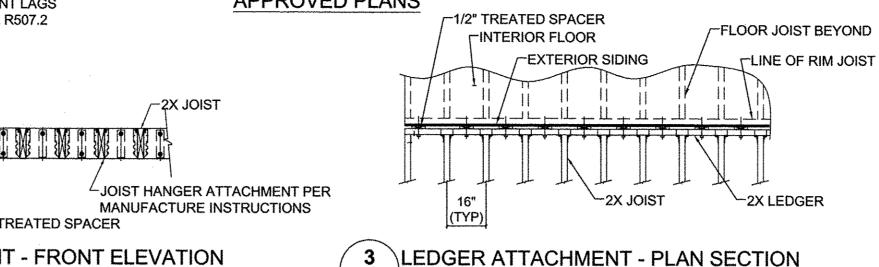
GUARDRAIL MINIMUM 36"

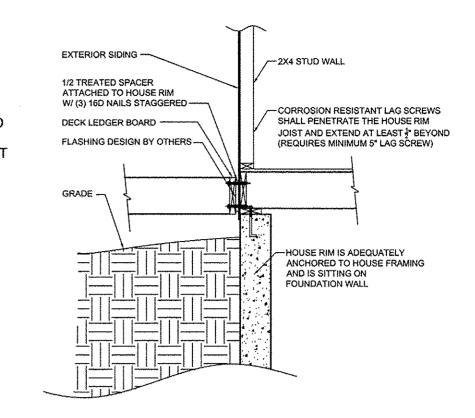
EXCEEDS 30" OVER GRADE-

WHERE DECK FLOOR

CANNOT PASS A 6" SPHERE THROUGH TRIANGLE FORMED BY

RISER, TREAD AND BOTTOM RAIL





DECK POST NOTE

ALL POST SUPPORTING ROOF LOADS SHALL BE CONTINUOUS FROM THE PIER CONNECTION TO THE ROOF SUPPORTING STRUCTURE.

IF POST SPLICES ARE REQUIRED THE SPLICE SHALL BE ENGINEERED BY THE ENGINEER OF RECORD FOR THE PROJECT TABLE IRC2018 R507.9.1.3(1)

4 \LEDGER ATTACHMENT - SECTION VIEW

DECK LEDGER CONNECTION TO BAND JOIST (DECK LIVE LOAD = 40 PSF, DECK HEAD LOAD = 10 PSF, SNOW LOAD < 40 PSF)

| \ | | · , – , – , – , | | | , 0.1011 | | - , | | |
|---|-------------------------------------|-----------------|--------------|---------------|---------------|---------------|---------------|--|--|
| 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 d. e | | | | | | | | |
| 1/2" LAG SCREW WITH 15/32" MAX. SHEATHING ^{c,d} | 30 | 23 | 18 | 15 | 13 | 11 | 10 | | |
| 1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING ^d | 36 | 36 | 34 | 29 | 24 | 21 | 19 | | |
| 1/2" DIAM. BOLT WITH 15/32" MAX. SHEATHING & 1/2" STACKED WASHERS ° | 36 | 36 | 29 | 24 | 21 | 18 | 16 | | |

For SI: 1 inch = 25.4mm, 1 foot = 304.8mm, 1 pound per square foot = 0.0479 kPa

a. Ledges shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.

b. Snow load shall not be assumed to act concurrently with live load.

c. The tip of the lag screw shall fully extend beyond the inside face of the band joist. d. Sheathing shall be wood structural panel or solid sawn lumber.

e. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard lumber or foam sheathing. Up to ½" thinckness of stacked washers shall be permitted to substitute for you to $\frac{1}{2}$ of allowable sheathing thickness where combined with wood structural panel or lumbers sheathing.

TABLE IRC2018 R507.9.1.3(2) PLACEMENT OF LAG SCEWS AND BOLT IN DECK LEDGERS ADN BAND JOISTS

| MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS | | | | | | | | | |
|---|-----------------------|------------------------------------|-----------------------|---|--|--|--|--|--|
| | TOP EDGE | BOTTOM EDGE | ENDS | ROW SPACING | | | | | |
| LEDGER [®] | 2 inches ^d | ³ / ₄ inches | 2 inches b | 1 $_8^5$ inches $^{^5}$ | | | | | |
| BAND JOIST ° | 3/4 inches | 2 inches | 2 inches ^b | 1 $\frac{5}{8}$ inches $^{^{\text{b}}}$ | | | | | |

b. Maximum 5 inces

For SI: 1 inch = 25.4mm

a. Lag screws of bolts shal lbe staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.9.1.3(1)

c. For engineered rim joists, the manufacturer's recommendations shall govern.

d. The minimum distances from bottom row of lag screws or bolts to the top of the ledger shall be in accordance with Figure R507.9.1.3(1)

MINIMUM INSULATION & FENSTRATION VALUES BY COMPONENT, PER IRC2018 N1102.1.2

| CLIMATE ZONE | FENSTRATION U-FACTOR | | ŧ | INSULATED METAL DOOR U-VALUE | INSULATED WOOD DOOR U-VALUE | | | | | SLAB R-VALUE & DEPTH | CRAWL SPACE WALL R-VALUE | | DUCTWORK (ALL OTHER) R-VALUE |
|-----------------------|-------------------------|------|------|---------------------------------|--------------------------------|----|----|----|----------------------------------|-------------------------|----------------------------------|---|---------------------------------|
| 4 EXCEPT MARINE | 0.32 | 0.55 | 0.40 | 0.60 | 0.50 | 49 | 15 | 19 | 10 CONTINUOUS OR 13 CAVITY | R-10 2 FT. | 10 CONTINUOUS OR 13 CAVITY | 8 | 6 |

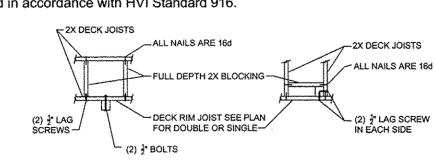
S6.0/

HEIGHT OF CJ

MINIMUM MECHANICAL EQUIPMENT EFFICIENCY VALUES BY COMPONENT. PER IRC2018 N1103.6.1

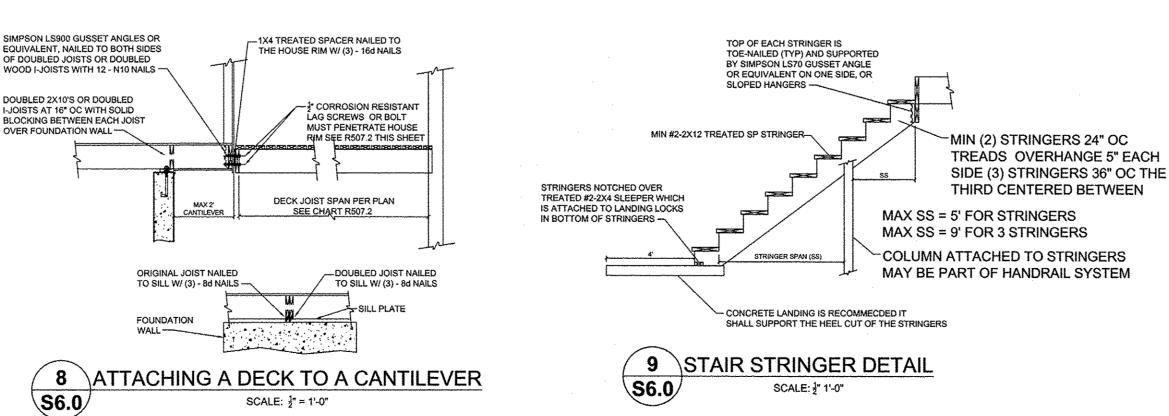
| FAN LOCATION | AIR FLOW RATE MINIMUM (CFM) | MINIMUM EFFICACY CFM/WATT | AIR FLOW RATE MAXIMUM (CFM) |
|-------------------------|--------------------------------|------------------------------|--------------------------------|
| HRV OR ERV | ANY | 1.2 CFM/WATT | ANY |
| RANGE HOOD | ANY | 2.8 CFM/WATT | ANY |
| IN-LINE FAN | ANY | 2.8 CFM/WATT | ANY |
| BATHROOM UTILITY FAN | 10 | 1.4 CFM/WATT | < 90 |
| BATHROOM UTILITY FAN | 90 | 2.8 CFM/WATT | ANY |

For SI: 1 cubic foot per min = 28.3 L/min. a. When tested in accordance with HVI Standard 916.





1) BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED WITH AN AIR BARRIER AS PER N1102.4.1 OF THE 2012 IRC 2) RECESSED LIGHTING SHALL BE SEALED TO PREVENT LEAKAGE BETWEEN THE CONDITIONED SPACE AND UNCONDITIONED SPACE 3) ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED AS PER N1103.2 OF THE 2012 IRC



DUCT SEALING METHOD. PER IRC2018 W1103.3.2

N1103.2.2 (R403.2.2) SEALING (MANDATORY) DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED, JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF THIS CODE.

EXCEPTIONS:

1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS. 2. WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A HINGE EFFECT.

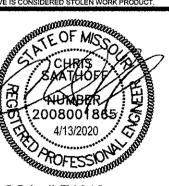
3. CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN DUCTS OPERATING AT STATIC PRESSURE LESS THAN 2 INCHES OF WATER COLUMN (500 Pa) PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.

DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING: 1. POSTCONSTRUCTION TEST: TOTAL LEAKAGE SHALL NOT BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 Pa) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

2. ROUGH-IN TEST: TOTAL AIR LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 Pa) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL AIR LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM (85 L/MIN) PER 100FT² (9.29m²) OF CONDITIONED FLOOR AREA.

EXCEPTION: THE TOTAL LEAKAGE IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

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KS. COA. # E1312 MO. COA. # 2006034946-F

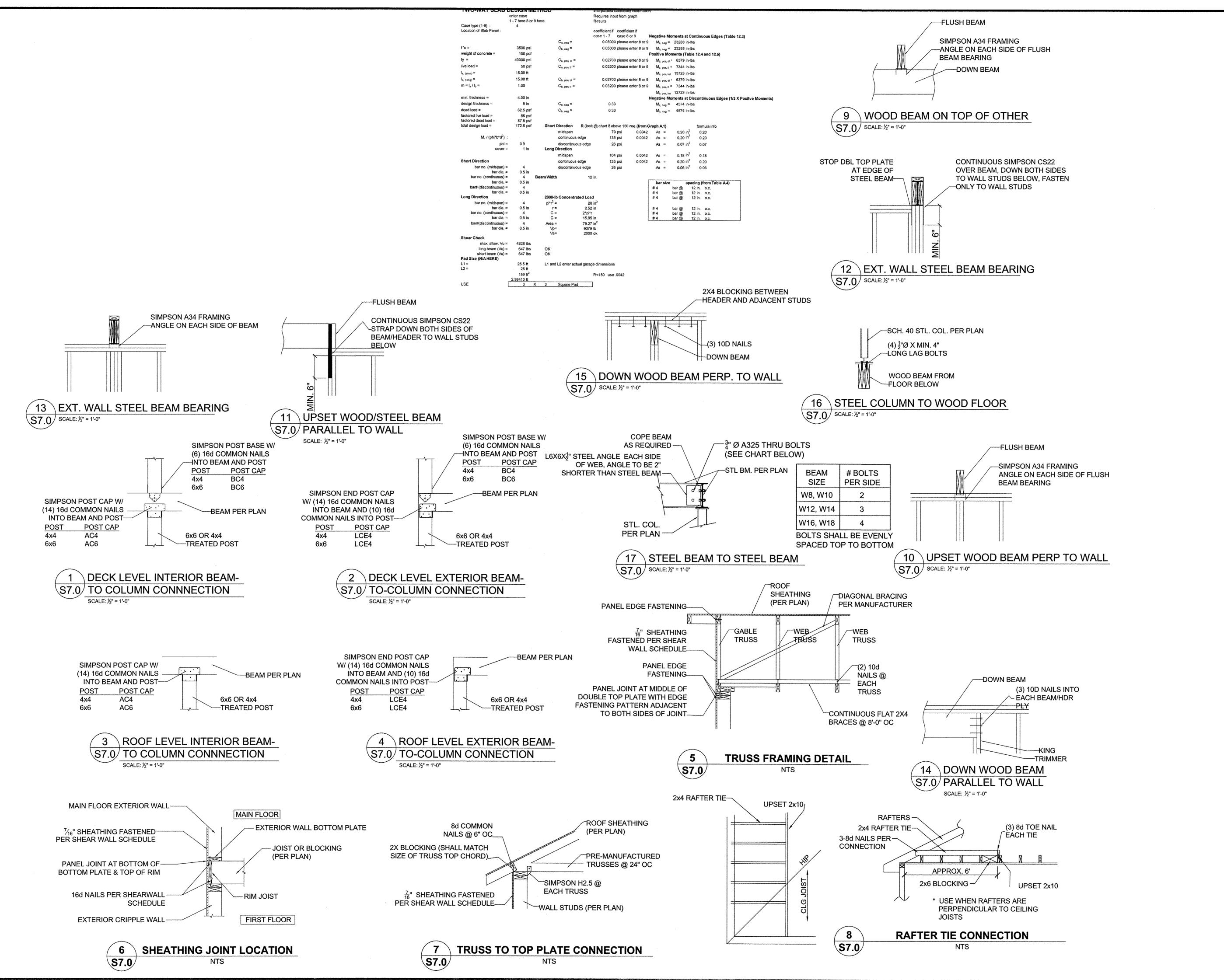
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4/13/2020 Date: 39041 HD #:

> Reviewed by: STRUCTURAL **DETAILS**

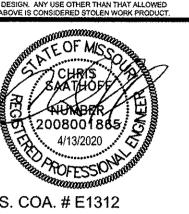
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> STRUCTURAL **DETAILS**

SHEET HUMBER FOR CONSTRU