



1st Floor.....	935
2nd Floor.....	1301
Garage.....	410
Front Porch.....	81
<b>Covered Porch Option.....</b>	<b>120</b>
<b>3rd Car Garage Option.....</b>	<b>220</b>

2236

### 3 LDP

**McDowell B**  
Genesis Series  
v.05.03.00.00

## Features:

Rev By:cja  
am SH EB

Drawn By: ATW

Date: 12/2/2024

# A1



**3/16" = 1'-0"**

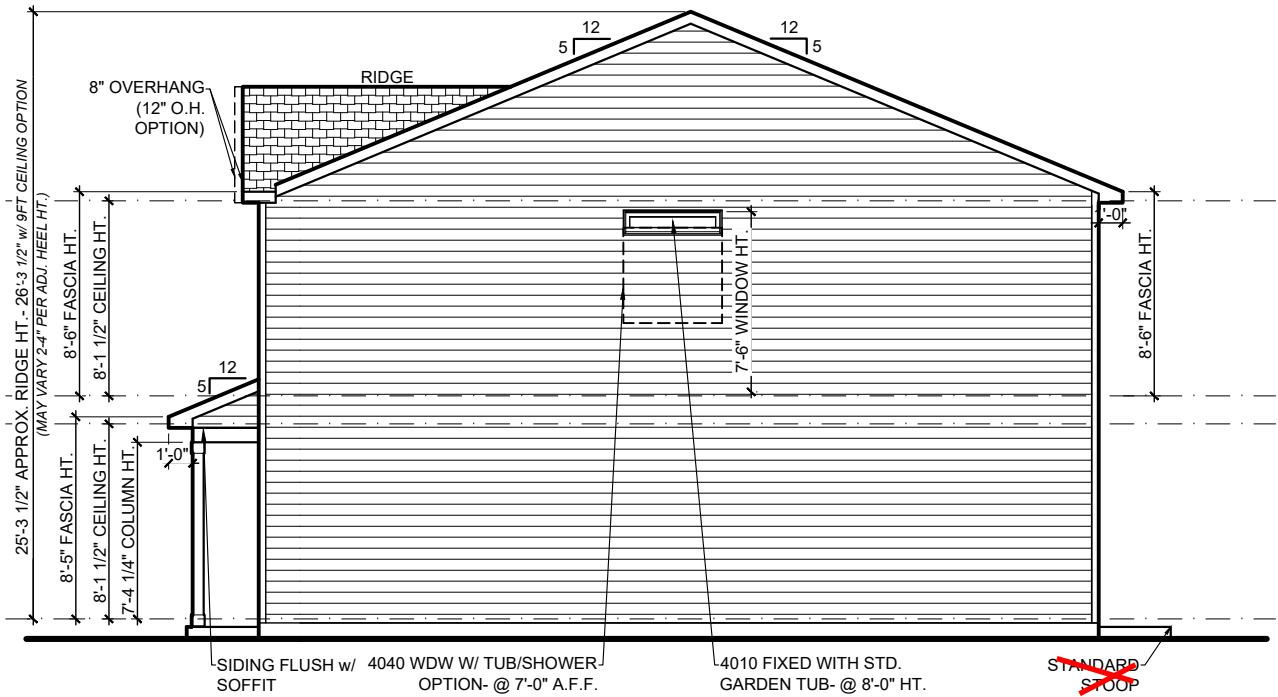
~~SEE SHEET AA-1 FOR STONE  
& BRICK ACCENT OPTIONS~~

**9FT CEILING OPTION NOTES:**

1. Fascia heights from 1st Flr of main house increase 12in.  
Fascia heights from 2nd Flr of main house remain the same.
2. Fascia/beam/column heights at Front and Rear Porches remain the same (regardless of fascia @ main house.)
3. Roof pitch at porch may change. Follow notes at elevations.
4. Window heights and sizes remain the same.

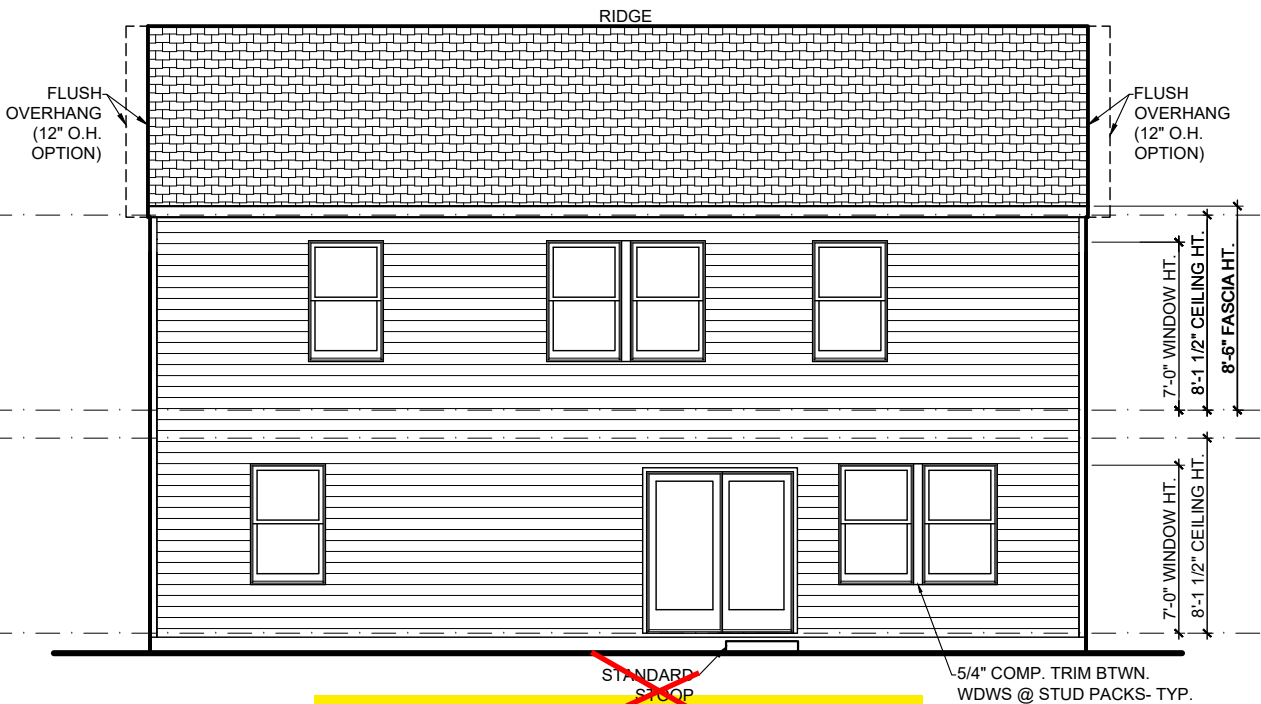
9FT CEILING OPTION NOTES:

- 1. Fascia heights from 1st Flr of main house increase 12in.  
Fascia heights from 2nd Flr of main house remain the same.
- 2. Fascia/beam/column heights at Front and Rear Porches remain the same (regardless of fascia @ main house.)
- 3. Roof pitch at porch may change. Follow notes at elevations.
- 4. Window heights and sizes remain the same.



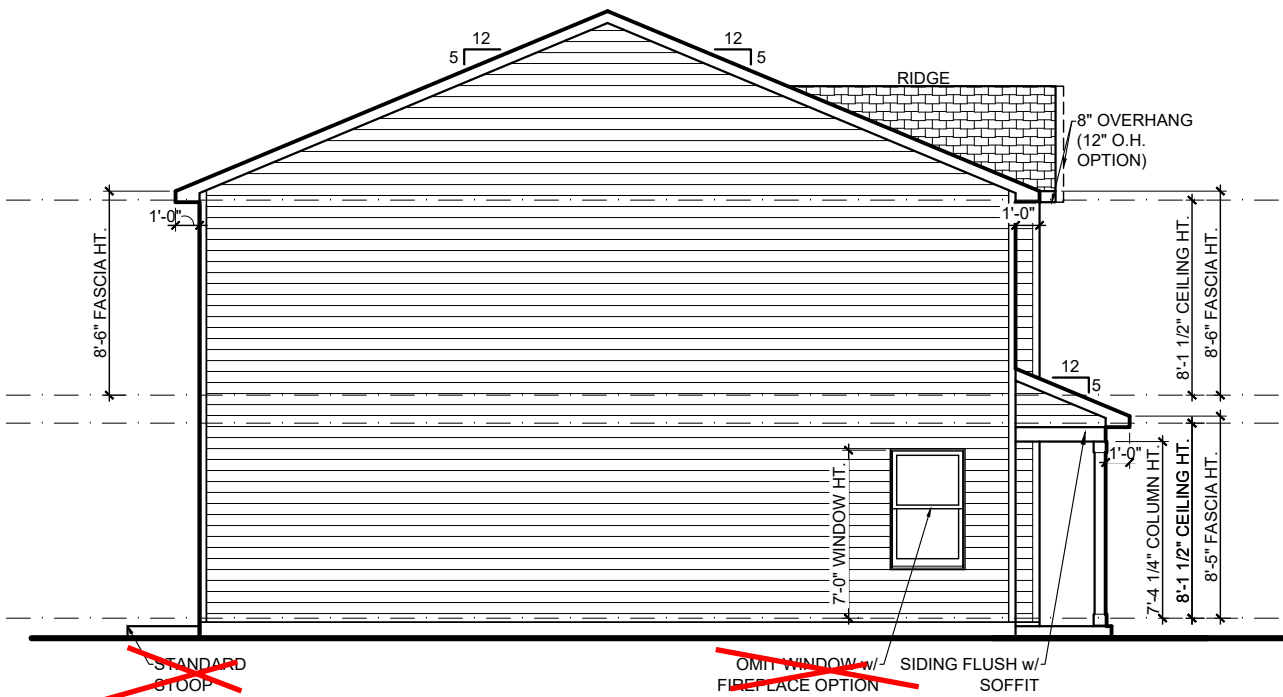
RIGHT ELEVATION

1/8" = 1'-0"



REAR ELEVATION

1/8" = 1'-0"



LEFT ELEVATION

1/8" = 1'-0"



B Square Footages:

1st Floor	935
2nd Floor	1301
Garage	410
Front Porch	81
Covered Porch Option	120
3rd Car Garage Option	220

**McDowell B**  
Genesis Series  
v.05.03.00.00

Features:

Rev By: cja  
am SH EB

Drawn By: ATW

Date: 12/2/2024

**A2**



B Square Footages:

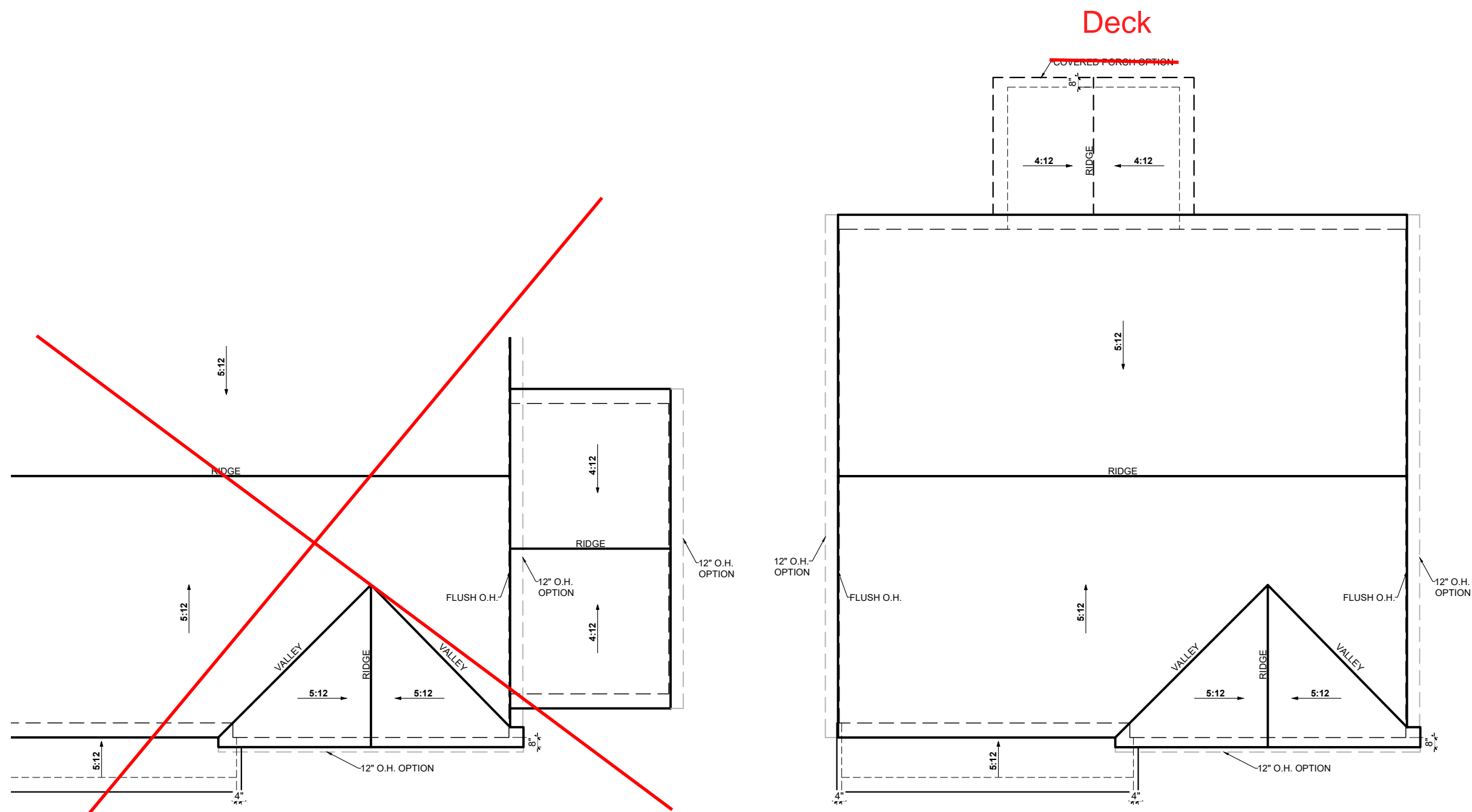
1st Floor	935
2nd Floor	1301
Garage	410
Front Porch	81
Covered Porch Option	120
3rd Car Garage Option	220

**McDowell B**  
Genesis Series  
v.05.03.00.00

Features:  
Drawn By: ATW  
Rev By: cja  
am SH EB  
Date: 12/2/2024

**A-R 1**

- NOTES:
1. ALL OVERHANGS ARE 1'-0" U.N.O.
  2. ROOF PLANS *DO NOT* INCLUDE FULL BRICK OPTIONS.
  3. ROOF PLANS ARE NOT INTENDED FOR CONSTRUCTION USE. (INFORMATIONAL USE ONLY)
  4. BE SURE TO CHECK OVERHANG INFORMATION AT PLAN WHEN CALCULATING SOFFIT INTAKE



ROOF INFORMATION SUMMARY	
<b>MAIN ROOF-</b>	
<b>Base House:</b>	
Attic Square Footage.....	1345 sf
Flat Soffit.....	59 lf
Ridge.....	47 lf
<b>AREA(S) NOT AFFECTING MAIN ROOF-</b>	
<b>Front Porch:</b>	
Attic Square Footage.....	78 sf
Flat Soffit.....	20 lf
Roof to Wall Ridge.....	19 lf
<b>Rear Covered Porch Option:</b>	
Attic Square Footage.....	116 sf
Flat Soffit.....	20 lf
Ridge.....	9 lf
<b>3rd Car Garage Option :</b>	
Attic Square Footage.....	220 sf
Flat Soffit.....	22 lf
Ridge.....	10 lf

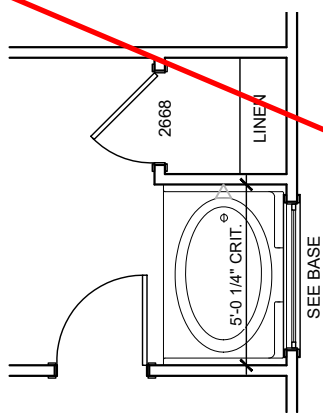
**3-Car Garage Option**  
1/8" = 1'-0"

**ROOF PLAN**  
1/8" = 1'-0"

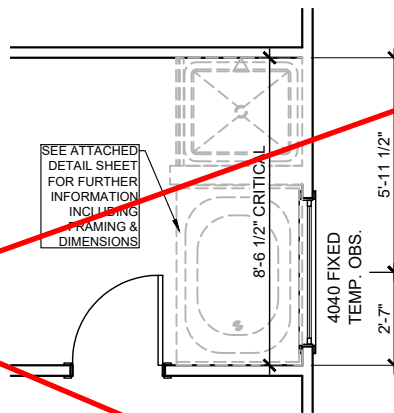




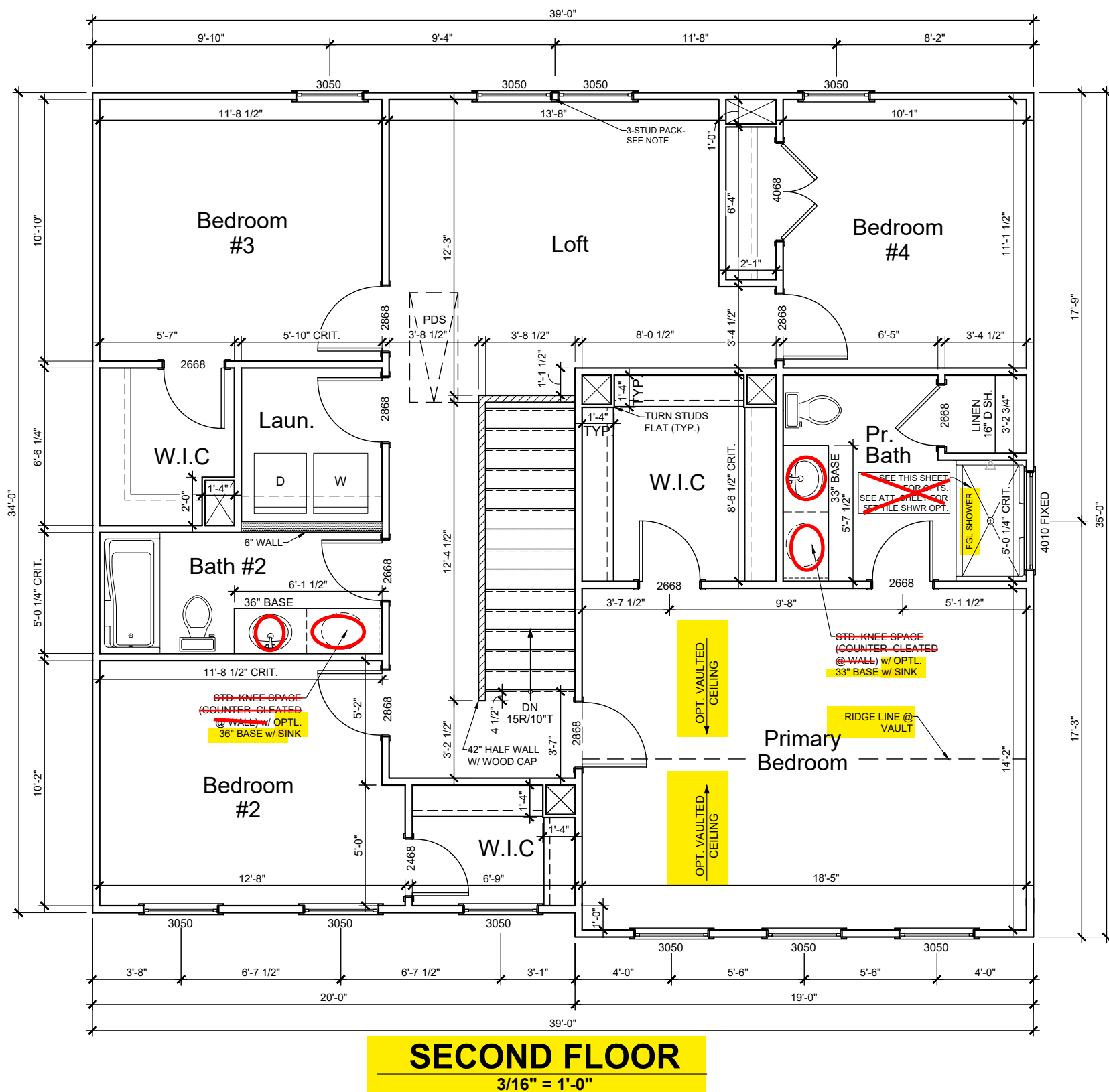
**3- STUD PACK NOTE:**  
ALL FRAMING BETWEEN WINDOWS TO BE WRAPPED IN ICE & WATER SHIELD OR OTHER WEATHER RESISTANT BARRIER BEFORE WINDOWS ARE INSTALLED. MAINTAIN DRAINAGE PLAN FROM TOP TO BOTTOM WITH HOUSEWRAP- TYPICAL.



**42" Garden Tub w/  
Shower Walls Option**  
3/16" = 1'-0" @ PRIMARY BATH



**Tub/ Shower Option**  
FOR ORIENTATION PURPOSES ONLY  
@ PRIMARY BATH @ 2ND FLOOR



- 
- Diagram illustrating a rectangular area with dimensions and a red X mark. The dimensions are:
- Top horizontal dimension: 18'-10 1/4"
  - Left vertical dimension: 2'-7"
  - Bottom vertical dimension: 2'-9"
- The diagram shows a rectangular area with a dashed line indicating a boundary. A red X is drawn across the entire area. A label "REF. PT. B" is located in the upper right corner, with an arrow pointing to a specific point on the boundary.

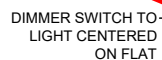
Architectural floor plan of a house with dimensions and annotations. The plan includes a front porch (4'-0" wide), a side porch (20'-5" wide), and a rear porch (18'-7" wide). The main living area is 39'-0" wide and 21'-10 1/2" deep. The kitchen area is 12'-0" wide and 7'-0 1/2" deep. The dining area is 24'-0" wide and 11'-4 3/4" deep. The living area is 24'-2" wide and 13'-1 1/2" deep. The plan includes a fireplace (F), a double window (DW), a kitchen island (K), a sink (S), a stove (ST), and a refrigerator (R). The plan also includes a note about a 3rd car garage option and a note about a brick toe footing for optional brick veneer.

Dimensions and Annotations:

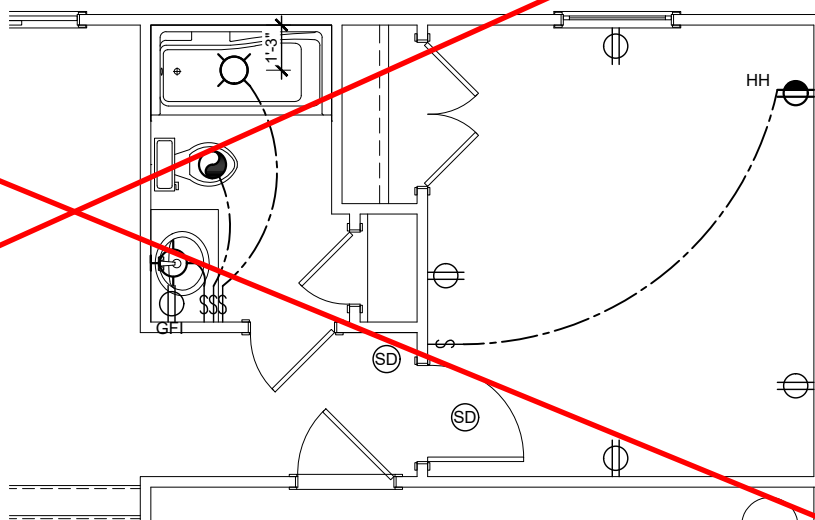
- Overall Width: 39'-0"
- Overall Depth: 21'-10 1/2"
- Front Porch: 4'-0" wide
- Side Porch: 20'-5" wide
- Rear Porch: 18'-7" wide
- Kitchen: 12'-0" wide, 7'-0 1/2" deep
- Dining: 24'-0" wide, 11'-4 3/4" deep
- Living: 24'-2" wide, 13'-1 1/2" deep
- Fireplace (F): 7'-4" center of cabs.
- Double Window (DW): 7'-0" conduit to island, 3" plumbing drop, 1'-4" drop, 19'-4 5/8" drop.
- Kitchen Island (K): 7'-5 1/2" wide, 7'-0 1/2" deep.
- Sink (S): 7'-0 1/2" wide, 7'-0 1/2" deep.
- Stove (ST): 7'-0 1/2" wide, 7'-0 1/2" deep.
- Refrigerator (R): 7'-0 1/2" wide, 7'-0 1/2" deep.
- Notes:
  - SEE ENGINEERING FOR COVERED PORCH OPTION
  - SEE TWO SHEET FOR GUEST SUITE OPTION
  - SEE ENGINEERING FOR 3RD CAR GARAGE OPTION
  - ADD OR EXTEND BRICK TOE FOOTING FOR OPT. BRICK VENEER (TYP.)

**$3/16'' = 1'-0''$**

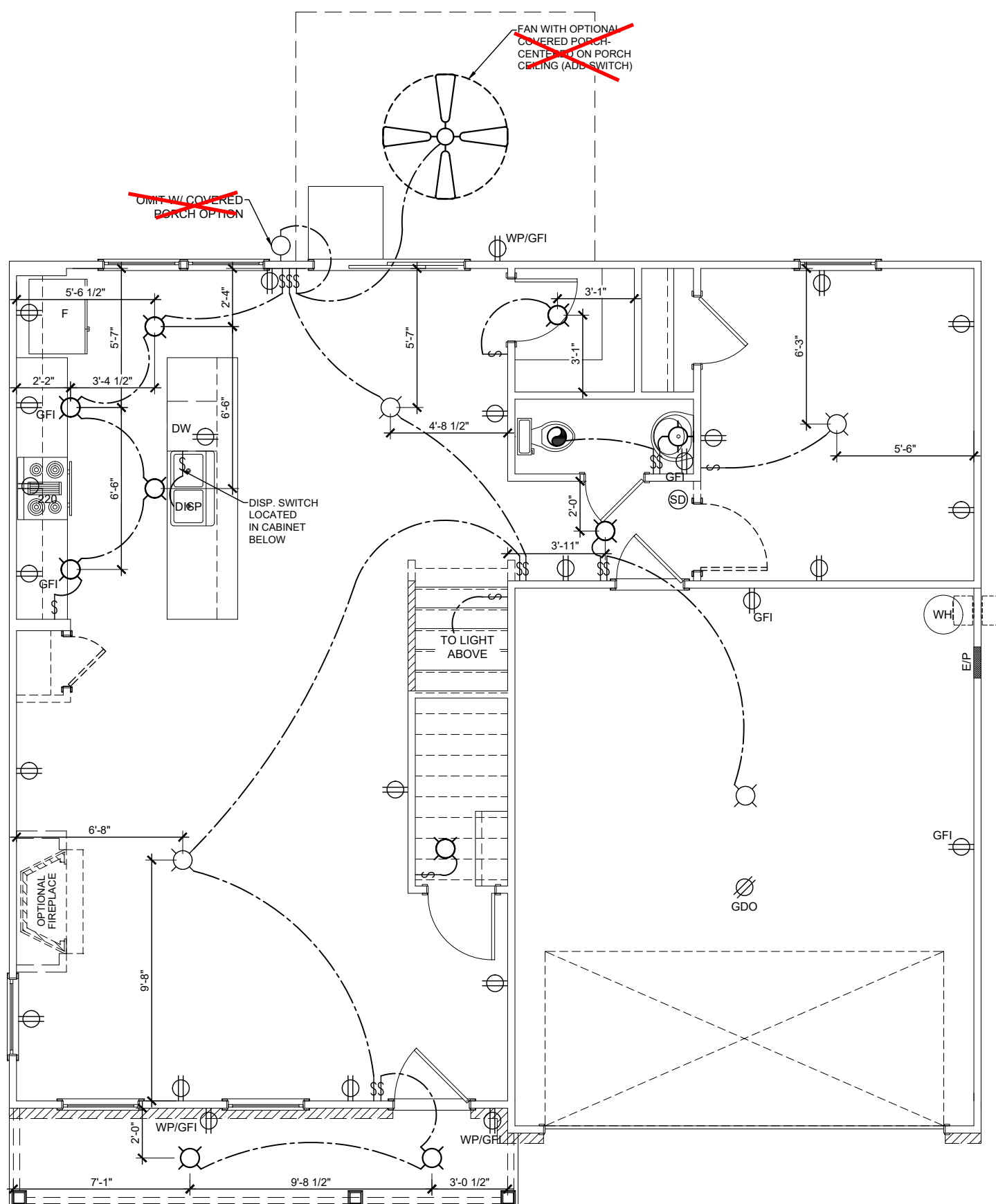



$$3/16'' = 1'-0''$$

I.L.O. UNDER STAIR STO.


$$3/16'' = 1'-0''$$

See Page SO1.1 for  
Opt. Wood Deck


$$\frac{3}{16}'' = 1'-0''$$

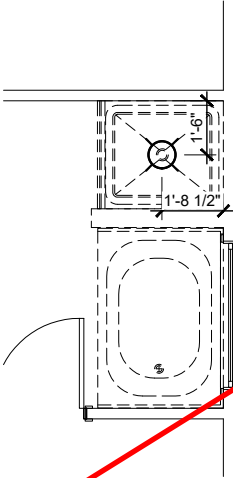
Rev By:cja  
am SH FB

Genesis Series  
v.05.03.00.00

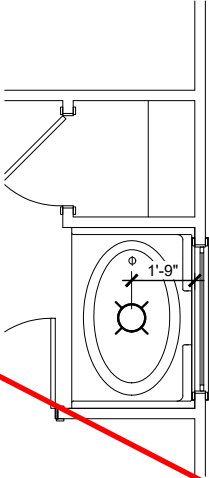
1st Floor.....	935
2nd Floor.....	1301
Garage.....	410
Front Porch.....	81
Covered Porch Option.....	120
3rd Car Garage Option.....	220

### B Square Footages

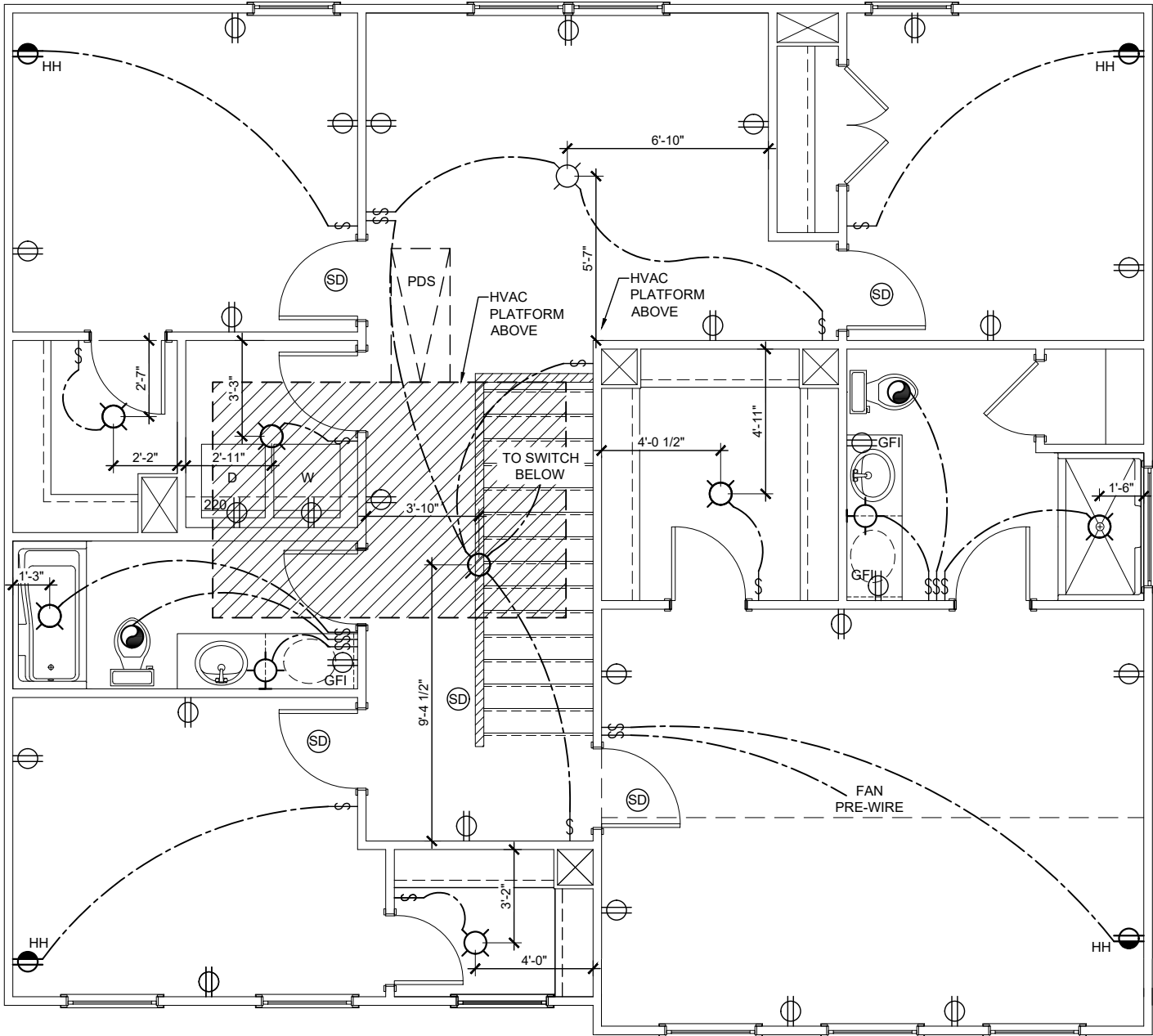




**Tub/ Shower Option**  
FOR ORIENTATION PURPOSES ONLY  
@ PRIMARY BATH @ 2ND FLOOR



**42" Garden Tub w/  
Shower Walls Option**  
3/16" = 1'-0" @ PRIMARY BATH



**SECOND FLOOR - ELECTRICAL**  
3/16" = 1'-0"



CONNECTION SPECIFICATIONS (TYP. U.N.O.)

DESCRIPTION OF BLDG. ELEMENT	3"x0.131" NAILS	3"x0.120" NAILS
JOIST TO SOLE PLATE	(3) TOENAILS NAILS @ 6" O.C.	(3) TOENAILS* NAILS @ 4" O.C.
SOLE PL. TO JOIST/TRIM OR BLKG STUD TO PLATE	(4) TOENAILS/ (3)END NAILS	(4) TOENAILS/ (4)END NAILS*
RIM TO TOP PLATE	TOENAILS @ 6" O.C.	TOENAILS @ 4" O.C.*
BLKG. BTWN. JOISTS TO TOP PL.	(3) TOENAILS EA. END	(3) TOENAILS EA. END*
DOUBLE STUD	NAILS @ 16" O.C.	NAILS @ 16" O.C.
DOUBLE TOP PLATE	NAILS @ 12" O.C.	NAILS @ 8" O.C.
DOUBLE TOP PLATE LAP SPLICE	(12) NAILS IN LAPPED AREA (24" MIN.)	(15) NAILS IN LAPPED AREA (24" MIN.)
TOP PLATE LAP @ CORNERS & INTERSECTING WALLS	(3) NAILS	(3) NAILS
ADJACENT FULL-HEIGHT STUD TO END OF HEADER	(4) NAILS	(4) NAILS
RAFTER/TRUSS TO TOP PLATE	(4) TOENAILS + (1) SIMPSON H2.5T	(4) TOENAILS + (1) SIMPSON H2.5T
GAB. END TRUSS TO DBL. TOP PL.	TOENAILS @ 8" O.C.	TOENAILS @ 6" O.C.
R.T. w/ HEEL HT. 9 1/4" TO 12"	2x10 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" O.C.	2x10 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" O.C.
R.T. w/ HEEL HT. 12" TO 16"	2x12 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" O.C.	2x12 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" O.C.
R.T. w/ HEEL HT. UP TO 24"	LAP WALL SHTG. w/ DBL. TOP PL. & INSTALL ON TRUSS VERT. - FASTEN w/ NAILS @ 6" O.C.	LAP WALL SHTG. w/ DBL. TOP PL. & INSTALL ON TRUSS VERT. - FASTEN w/ NAILS @ 6" O.C.*
R.T. w/ HEEL HT. 24" TO 48"	LAP WALL SHTG. w/ DBL. TOP PL. & INSTALL ON TRUSS VERT. - FASTEN w/ NAILS @ 6" O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL	LAP WALL SHTG. w/ DBL. TOP PL. & INSTALL ON TRUSS VERT. - FASTEN w/ NAILS @ 6" O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL *
WALL TO FOUNDATION	WALL SHTG. LAP w/ SILL PL. & FASTENED PER SHEAR WALL FASTENING SPEC.	

\* 2 1/2"x0.113 IS AN ACCEPTABLE ALTERNATIVE TO A 3"x0.120", SAME SPACING OR NUMBER OF NAILS. (ONLY ACCEPTABLE WHERE \* ARE SHOWN)

VENEER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT. MAX	L3"x3"x 1/4"
	3 FT. MAX	L3"x3"x 1/4"
6'-0"	12 FT. MAX	L4"x3"x 1/4"
	20 FT. MAX	L5"x3 1/2"x 3/8"
8'-0"	3 FT. MAX	L4"x4"x 1/4" *
	12 FT. MAX	L5"x3 1/2"x 3/8" *
	16 FT. MAX	L6"x3 1/2"x 3/8" *
9'-6"	12 FT. MAX	L6"x3 1/2"x 3/8" *
	2 FT. MAX	L7"x4"x 1/2" **
16'-0"	3 FT. MAX	L8"x4"x 1/2" **

ALL LINTELS:  
- SHALL SUPPORT 2 3/8" - 3 1/2" VENEER w/ 40 psf MAXIMUM HEIGHT.  
> 16' SHALL HAVE 4" MIN. BEARING  
> 16' SHALL HAVE 8" MIN. BEARING  
> 16' SHALL NOT BE FASTENED BACK TO HEADER.  
> 16' SHALL BE FASTENED BACK TO WOOD HEADER IN WALL @ 48" O.C. w/ 1/2" DIA. x 3 1/2" LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES.  
- MAX. VENEER HT. APPLIES TO ANY PORTION OF BRICK OVER THE OPENING.  
- ALL LINTELS SHALL BE LONG LEG VERTICAL.  
- WHEN SUPPORTING VENEER < 3" WIDE THE EXTERIOR TOE OF THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3 1/4" WIDE OVER THE BEARING LENGTH ONLY. THIS IS TO ALLOW FOR MORTAR JOINT FINISHING.  
- SEE STRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS. FOR ANY LINTEL FASTENED BACK TO BEAM, FASTENERS SHALL MAINTAIN A 2 1/2" (MINIMUM) CLEAR DISTANCE FROM BOT. OF BEAM.  
\* FOR QUEEN VENEER USE L4x3 1/4".  
\*\* FOR 3 1/2" VENEER ONLY. SEE PLAN FOR VENEER SUPPORT IF VENEER < 3 1/2" THICK.

MKG STD. - MAY 2016

NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(1)2x4 FLAT	(1)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2x4
UP TO 8'-0"	(2)2x6	(3)2x6
UP TO 12'-0"	(2)2x10	(2)2x10

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.J.A.) -AND/OR- SHEAR WALL ABOVE (S.J.A.)
- BEAM / HEADER
- EXTENT OF OVERFRAMING (O.F.)
- EXTENT OF TILE OVER FLOOR
- EXTENT OF BRACING PANELS/SHEARWALL w/ ADD'L CONNECTION REQUIREMENTS
- INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.
- METAL HANGER
- INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO: FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

GENERAL STRUCTURAL NOTES

FOUNDATION

- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE RESIDENTIAL CODE.
- FOOTING DESIGN - 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED. BUILDER/CONTRACTOR MUST VERIFY.
- FASTEN 2x4/6 SILL PLATES TO CONC. FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
  - 1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C. w/ 1" MIN. EMBEDMENT OR SIMPSON MASA ANCHORS @ 6'-0" O.C.
  - SIMPSON STRONG-BOLT 2 WEDGE ANCHOR (STB2-50700 - 1/2" @ x 7") MAY BE USED IN PLACE OF ANCHOR BOLTS @ INTERIOR THICKENED SLABS ONLY.
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT w/ PERIMETER FOUNDATION SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2.
- FOUNDATION WALLS & FOOTINGS SHALL BE PLAIN CONCRETE, U.N.O.
- CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:  
f'c = FOUNDATION WALLS (SEE FOUNDATION DETAILS)  
2500 psi: ..... FOOTINGS & INTERIOR SLABS ON GRADE  
3,000 psi: ..... GARAGE & EXTERIOR SLABS ON GRADE  
f'y = 60,000 psi
- TYPICAL REINFORCEMENT DETAILS: PROVIDE 3" MIN. CLEAR COVER WHERE CAST AGAINST EARTH, 1 1/2" MIN. CLEAR COVER AGAINST FORMS. INSTALL REBAR 4@ BAR DIAMETERS MIN. (24" FOR #4 BARS) @ BEND BARS AND LAP AT CORNERS. PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 1% AIR ENTRAINMENT.
- ALL FOOTINGS SHALL BEAR BELOW FROST LINE (TYP.) OR 12" MIN IN REGIONS WHERE CODE FROST DEPTH IS NOT APPLICABLE. CONSULT SOILS REPORT OR BUILDING DEPT. FOR MINIMUM DEPTH BELOW GRADE.
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 15% COMPACTED FILL. (U.N.O.)
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP.
  - JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR 15'-0" O.C. (MAXIMUM)
  - JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (1:1 RATIO), WITH A MAXIMUM OF 1:1.5 RATIO
  - CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL SLABS
- DIMENSIONS BY OTHERS, BUILDER TO VERIFY.
- BUILDER TO PROVIDE SUBTERRANEAN TERMITE PROTECTION MEETING THE REQUIREMENTS OF R318 OR LOCAL CODE REQUIREMENTS
- CRANKSPACE/BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.
- CRANKSPACE/BASEMENT WALL DESIGN IS BASED ON BACKFILL SOIL CLASSIFICATIONS OF GM, GP, SM, SP (30 pcf) OR GM, GC, SM, SM-SC, ML (45 pcf). IF SC, ML-CL, OR CL (60 pcf) SOIL IS ENCOUNTERED ON SITE, CONTACT MULHERN & KULP FOR FURTHER EVALUATION OF FOUNDATION DESIGN.
- CMU FOUNDATION WALLS SHALL HAVE 'DUR-O-WALL' HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 9 GA. MINIMUM @ 16" O.C.
- PROVIDE 2x8 x 16" LONG P.T. PLATE ON TOP OF ALL CRANK SPACE PIERS. TOP COURSE OF PIERS SHALL BE SOLID MASONRY OR FILLED SOLID.
- PROVIDE 2x6 P.T. PLATE ON INTERIOR CRANK SPACE WALLS, FASTENED PER ANCHORAGE SPECIFICATION NOTED ABOVE.
- BASEMENT FOUNDATION WALL DESIGN BASED ON:
  - 9' OR 10' HEIGHT (SEE PLAN)
  - ACTUAL WALL WIDTHS ASSUMED FOR DESIGN, NOMINAL WIDTHS SHALL NOT BE USED.
- PROVIDE (2) #5 BARS AROUND ALL SIDES OF OPENINGS IN CONCRETE BSMT. FND. WALL WITH 2" CLEAR. REINFORCEMENT SHALL EXTEND 12" PAST CORNER OF OPENING IN ALL DIRECTIONS.
  - FOR OPENINGS UP TO 36", PROVIDE MINIMUM 10" CONCRETE DEPTH OVER OPENING OR (3)2x10 w/ (2)2x6 JACK STUDS, U.N.O.
  - LARGER OPENINGS SHALL BE PER PLAN.

MKG - MAY 2017

EXTERIOR & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:  
**115 MPH WIND IN 2018 NC5BC:RC**  
(115 MPH WIND SPEED IN ASCE 7-10 WIND MAP, PER NC5BC R301.2.1.1) EXP. B & SEISMIC CAT. A/B.

THE ENGINEERED DESIGN WAS COMPLETED PER 2015 IBC (SECTION 1609) & ASCE 7-10, AS PERMITTED BY R301.1.3 OF THE 2018 NC5BC.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7-10 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NC5BC:RC SECTION R802.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5 & R802.11.

EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD:  
FASTEN SHEATHING w/ 2 3/8"x0.113 NAILS @ 6" O.C. AT EDGES @ 12" O.C. IN THE PANEL FIELD. (TYP. U.N.O.)
- ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUDS) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE FASTENINGS.
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.

3" O.C. EDGE NAILING

- AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING w/ 2 3/8" x 0.113" NAILS @ 3" O.C. NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUDS) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

NOTES

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- REFER TO DETAIL SHEET.
- "NUMBERED" DETAILS ARE REFERENCED ON PLAN.
- DESIGN ASSUMES 16" O.C. MAX. STUD SPACING, U.N.O.
- DESIGN ASSUMES ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE CONTINUOUS SHEATHED ABOVE AND BELOW OPENINGS.
- WHERE PANELS ARE APPLIED TO BOTH FACES OF WALL, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING.
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED w/ OSB OR PLYWOOD AS FOLLOWS  
P1 SHEAR PANELS - 3" x 0.120" NAILS @ 6" O.C.  
P3 SHEAR PANELS - 3" x 0.120" NAILS @ 4" O.C.

INDICATES LOCATION AND EXTENT OF SHEARWALL WHICH REQUIRES SHEATHING AND/ OR FASTENING SPECIFICATIONS BEYOND THAT OF STANDARD CONSTRUCTION

MKG - MAY 2017

GENERAL STRUCTURAL NOTES

FLOOR FRAMING

- TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES STONE/MARBLE OR WET BED CONSTRUCTED FLOORS - CONTACT MKK FOR EXCLUDED FLOOR DESIGNS)
- PER THE GUIDELINES OF THE TILE COUNCIL OF NORTH AMERICA (TCNA HANDBOOK), IT SHALL BE THE FLOOR FINISH INSTALLER'S RESPONSIBILITY TO VERIFY THAT THE FINISHES TO BE INSTALLED MATCH THE DESIGN CRITERIA NOTED ABOVE (UNDER "DESIGN LOADS") .
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O.
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR' 24" O.C., EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS w/ GLUE AND:
  - 2 1/2" x 0.131" NAILS @ 6" O.C. @ PANEL EDGES @ 12" O.C. FIELD.
  - 2 3/8" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES @ 8" O.C. FIELD.
  - 2 3/8" x 0.113" NAILS @ 3" O.C. @ PANEL EDGES @ 6" O.C. IN FIELD.
- PROVIDE 1 1/4" RIM BOARD @ ALL DECK LEDGER LOCATIONS. SEE PLANS OR DETAILS FOR LEDGER CONNECTION.

ROOF FRAMING

- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS - w/ 2 1/2" x 0.131" NAILS @ 6" O.C. @ PANEL EDGES @ 6" O.C. FIELD. - w/ 2 3/8" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES @ 6" O.C. FIELD. - w/ 2 3/8" x 0.113" NAILS @ 3" O.C. @ PANEL EDGES @ 6" O.C. FIELD.
- WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPs FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC.
- FASTEN EACH ROOF TRUSS TO TOP PLATE w/ SIMPSON H2.5A HURRICANE CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. CLIPS MUST BE INSTALLED ON EXTERIOR FACE OF EXTERIOR WALLS OR THE SAME SIDE AS THE SHEAR WALL SHEATHING.
- ALL ROOF GIRDER TRUSSES AND FLUSH BEAMS WITHIN THE ROOF SYSTEM SHALL BE FASTENED TO THE DOUBLE TOP PLATES AND POST SUPPORT w/ (2) SIMPSON H2.5A CLIPS OR APPR. EQUAL (TYP. U.N.O. ON PLANS)
- TRUSS ALL VALLEY SETS. FASTEN TO TRUSS BELOW w/ SIMPSON H2.5A TIES AT EACH END AND AT EACH TRUSS BETWEEN.
- METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, U.N.O.
- ERECT AND INSTALL ROOF TRUSSES PER MTGA & TPI'S BC01 I "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
- SUPPORT SHORT SPAN ROOF TRUSSES w/ 2x4 LEDGER FASTENED TO FRAMING w/ (2) 3" x 0.120" NAILS @ 16" O.C. (UP TO 7' SPAN).

MKG - MAY 2017

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

ROOF TRUSS, FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN.

TRUSSES/JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUSH BEAMS DO NOT EXCEED THE FOLLOWING:

- ROOF TRUSSES:  
1/4" DEAD LOAD
- FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:  
1/8" DEAD LOAD
- FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS:  
LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

LIST OF ABBREVIATIONS

•B.F.	BALLOON-FRAMED	•HDR	HEADER
•BM.	BEAM	•INT.	INTERIOR
•BOT.	BOTTOM	•J.	JACK STUD
•BRG.	BEARING	•J.T.	JACK TRUSS
•B.J.A.	BEARING WALL ABOVE	•K	KING STUD
•CANT'D	CANTILEVERED	•K	MANUF. MANUFACTURER
•CONC.	CONCRETE	•MAX.	MAXIMUM
•CONT.	CONTINUOUS	•MIN.	MINIMUM
•DBL.	DOUBLE	•N.T.S	NOT TO SCALE
•DIM.	DIMENSION	•OPT.	OPTIONAL
•D.J.	DECK JOISTS	•P.A.	POST ABOVE
•EA.	EACH	•P.T.	PRESSURE TREATED
•EQ.	EQUAL	•PKT	POCKET
•EXT.	EXTERIOR	•REQ'D	REQUIRED
•E.J.N	EACH WAY	•R.T.	ROOF TRUSS
•F.T.	FLOOR TRUSS	•SCHED.	SCHEDULE
•FND.	FOUNDATION	•SIM.	SIMILAR
•FTG.	FOOTING	•STRUCT.	STRUCTURAL
•G.T.	GIRDER TRUSS	•T.O.F	TOP OF FOOTING
•HD	HOLDOWN	•TYP.	TYPICAL

GENERAL STRUCTURAL NOTES

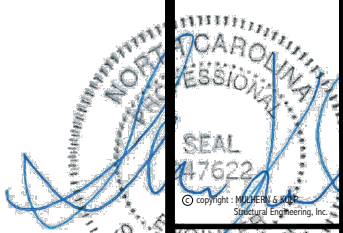
- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE RESIDENTIAL CODE.
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.
- MODEL IS CONSIDERED AS "FULLY ENCLOSED". OPENING PROTECTION PER BUILDER (MINIMUM STRUCTURAL PANELS PER CODE)
- DESIGN LOADS:  
ROOF LIVE = 20 PSF, DEAD = 17 PSF  
ATTIC = 20 PSF AT HT. > 42"  
LOAD DURATION FACTOR = 1.25  
FLOOR LIVE = 40 PSF (30 PSF AT SLEEPING AREAS)  
DEAD = 15 PSF (10 PSF T.C., 5 PSF B.C.) (TRUSSES) = 10 PSF (1-JOISTS/SAW) (ADD'L 10 PSF AT TILE)  
WIND S115 MPH, EXPOSURE B  
SEISMIC DESIGN CATEGORY A/B

GENERAL FRAMING

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE (IRC TABLE R602.3(1)) OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- EXT. & INT. BRG./SHEAR WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SPP/SP STUD GRADE LUMBER, OR BETTER, U.N.O..
  - WALLS OVER 12" TALL SHALL BE PER PLAN.
- ALL INTERIOR BEARING WALLS ARE ASSUMED TO BE SHEATHED w/ GYP WALL BOARD (ONE SIDE MIN.) OR PROVIDE MID HT. BLOCKING.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SPP) OR SOUTHERN PINE #2 (SP) LUMBER, OR BETTER. SUPPORT ALL HEADERS/ BEAMS w/ (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
  - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O..
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x STUD GRADE MEMBERS SPACED @ 16" O.C. (MAX., U.N.O.)
  - SEE "NON-BEARING HEADER SCHEDULE" HEADER SIZES IN NON-LOAD BEARING WALLS
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15).
- ENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
  - LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10<sup>6</sup> psi
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING:
  - LVL' - Fb=2400 psi; Fc=1=2500 psi; E=1.8x10<sup>6</sup> psi
- FOR 2 & 3 PLY BEAMS OF EQUAL 1 3/4" MAX. WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"x0.120" NAILS @ 8" O/C OR 2 ROWS 1/4"x3/8" SIMPSON SDS SCREWS (OR 3/8" TRUSSLOK SCREWS) @ 16" O/C. ALL FASTENING SPEC FOR 3 PLY BEAMS ONLY. FASTEN PLIES TOGETHER WITH 2 ROWS OF 1/2" DIA. THRU BOLTS @ 16" O.C. USE A MINIMUM OF 4 ROWS (NAILS/SCREWS) OR 3 ROWS (BOLTS) FOR BEAM DEPTHS OF 14" OR GREATER. APPLY NAIL/SCREW FASTENING AT BOTH FACES FOR 3-PLY CONDITION. LOCATE TOP & BOTTOM FASTENERS 2" FROM EDGE. SOLID 3 1/2" OR 5 1/4" BEAMS ARE ACCEPTABLE. USE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- FOR 4 PLY BEAMS OF EQUAL 1 3/4" MAX. WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 1/4"x6" SIMPSON SDS SCREWS (OR 6 3/4" TRUSSLOK SCREWS) @ 16" O/C OR 2 ROWS OF 1/2" DIA. THRU BOLTS @ 16" O.C. USE A MINIMUM OF 4 ROWS (SCREWS) OR 3 ROWS (BOLTS) FOR BEAM DEPTHS OF 14" OR GREATER. APPLY SCREW FASTENING AT BOTH FACES (ONE SIDE ONLY FOR TRUSSLOK SCREWS). LOCATE TOP AND BOTTOM FASTENERS 2" FROM EDGE. A SOLID 7" BEAM IS ACCEPTABLE.
- REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. U.N.O.
- FASTEN ALL METAL CONNECTORS (I.E. HANGERS, CLIPS, ETC) PER MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM PLATE LOAD VALUE U.N.O.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS CONTINUOUS TO FND/BEARING. BLOCKING TO MATCH POST ABOVE.
- CORROSION NOTES:
  - BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT w/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- BASEMENT INTERIOR BEARING WALLS & EXTERIOR WALK-OUT BASEMENT WALLS SHALL BE 2x6 @ 16" O.C. SPP OR STP, "STUD" GRADE OR BETTER.
- MKK SHALL NOT BE RESPONSIBLE FOR ANY ISSUES RESULTING FROM OR RELATED TO ANY DELEGATED ENGINEERED COMPONENTS IF THE OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO MKK FOR A CONFORMANCE REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.

MKG - MAY 2017

seal:



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
380 Riverside Ave., Building 4 - Asheville, NC 28802  
725-648-0001 - mulhern@mulhernkulp.com  
NC License # C-3825



M&K project number:

192-17012

project mgr:

SMK

drawn by:

MRG

issue date:

03-24-22

REVISIONS:

date:

initial:

ARCH: v.02.01.00.00



GENERAL STRUCTURAL NOTES

McDOWELL

WIND SPEED < 115 MPH NORTH CAROLINA

sheet:

S0.0

FOUNDATIONS REFLECT FACE OF WALL, STUDS ABOVE OF FOUNDATION HARDWARE SCHEDULE ELEVATION B

**HARDWARE NOTES:**

- ALL NAIL HOLES FILLED
- ALL COUNTS ESTIMATED
- 15 ADDITIONAL STRONG-BOLT 2 ANCHORS INCLUDED FOR MISSED ANCHOR BOLTS



# SC1.1



LAN  
**MUNGO**  
HOMES

ARCH: v.02.01.00.00

initial:	date:
----------	-------

issue date: 03-24-22

SMK  
project mgr.

Most project number:



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Brookside Ave., Building 4 - Ambler, PA 19002  
P 215-646-8881 • [muk@mulkulp.com](mailto:muk@mulkulp.com)  
NC License # C-3825

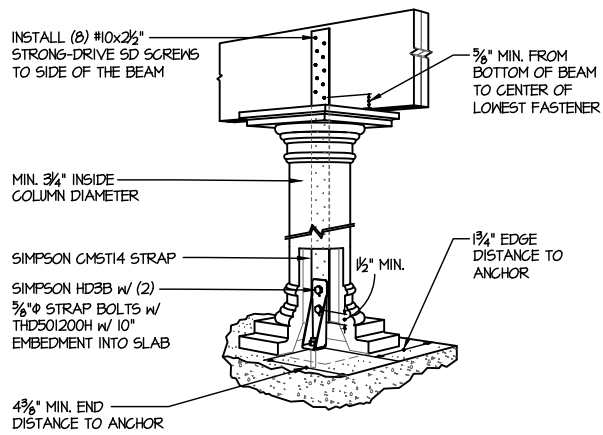
2/18/24



QTY	PRODUCT
13	SIMPSON H2.5A CLIP
3	SIMPSON HD3B HOLDOWN
3	SIMPSON CMST14 STRAP

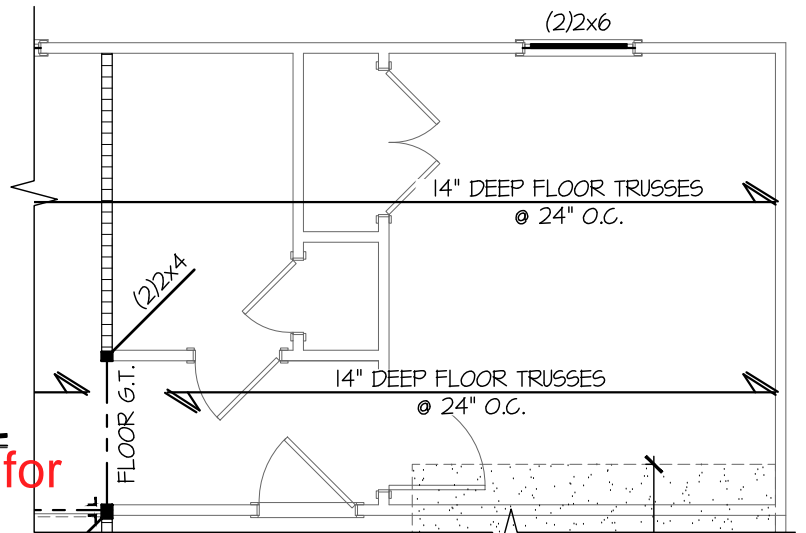
HARDWARE NOTES:

- ALL NAIL HOLES FILLED
- ALL COUNTS ESTIMATED
- HARDWARE COUNT DOES NOT INCLUDE TRUSS TO TRUSS CONNECTIONS



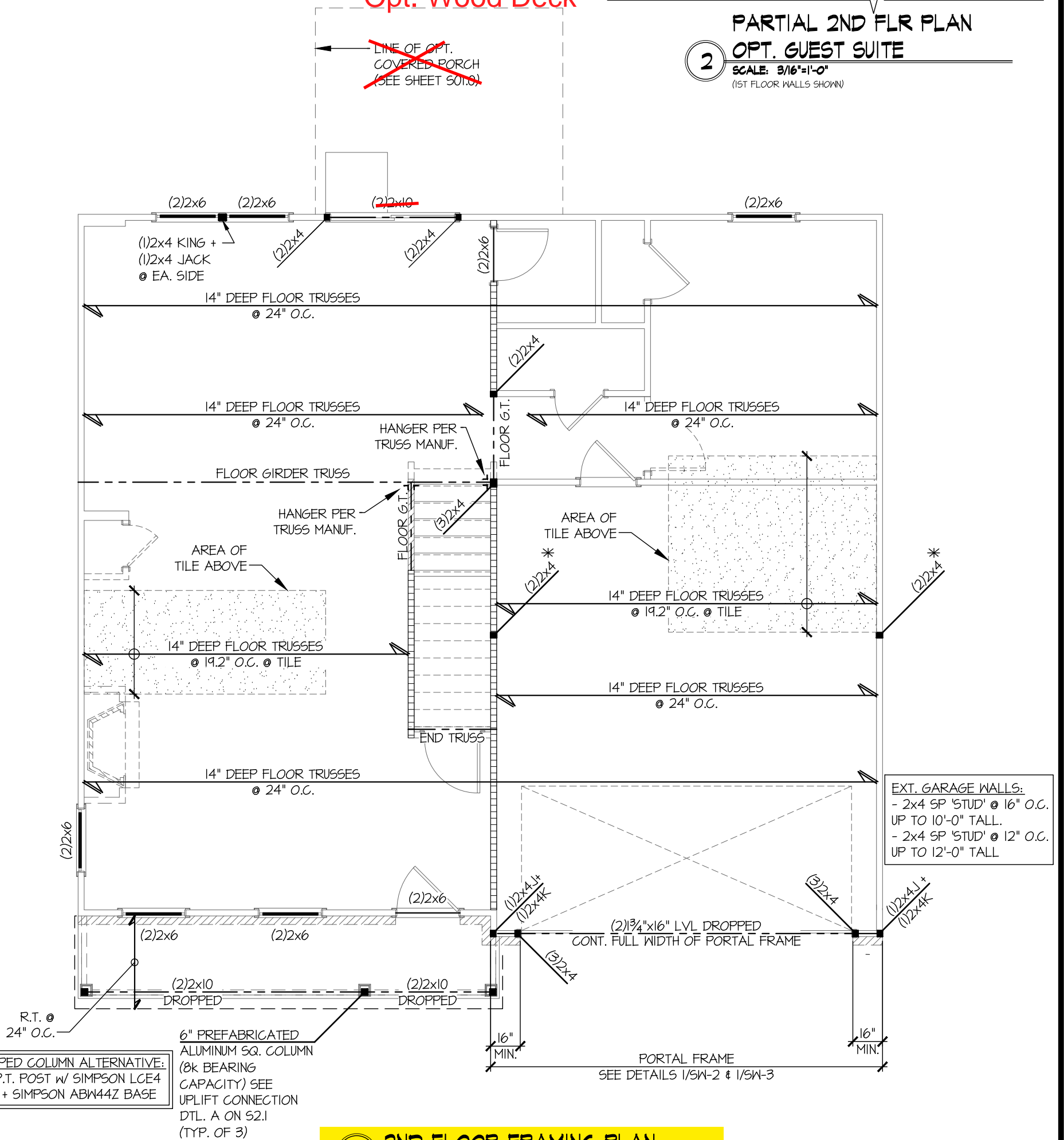
**HOLLOW STRUCTURAL COLUMN UPLIFT DETAIL**  
NOT TO SCALE - AS REQUIRED

See Page SO1.1 for  
Opt. Wood Deck



### OPT. GUEST SUITE

**SCALE: 3/16"=1'-0"**  
(1ST FLOOR WALLS SHOWN)



EXT. GARAGE WALLS:  
- 2x4 SP 'STUD' @ 16" O.C.  
UP TO 10'-0" TALL.  
- 2x4 SP 'STUD' @ 12" O.C.  
UP TO 12'-0" TALL

WRAPPED COLUMN ALTERNATIVE:  
4x4 P.T. POST w/ SIMPSON LCE4  
CAP + SIMPSON ABW44Z BASE

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES

**2ND FLOOR FRAMING PLAN**  
SCALE: 3/16"=1'-0" ELEV. B  
(1ST FLOOR WALLS SHOWN)

(1ST FLOOR WALLS SHOWN)

ELEV. B

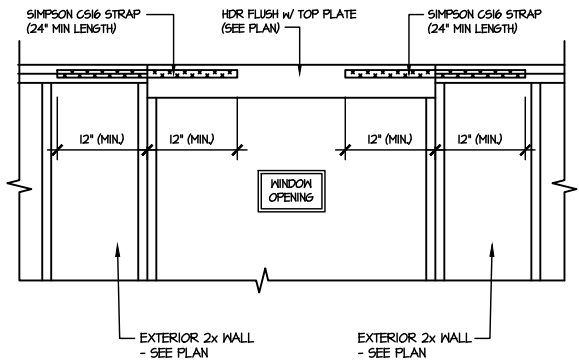
(1ST FLOOR WALLS SHOWN)



ROOF HARDWARE SCHEDULE  
ELEVATION B

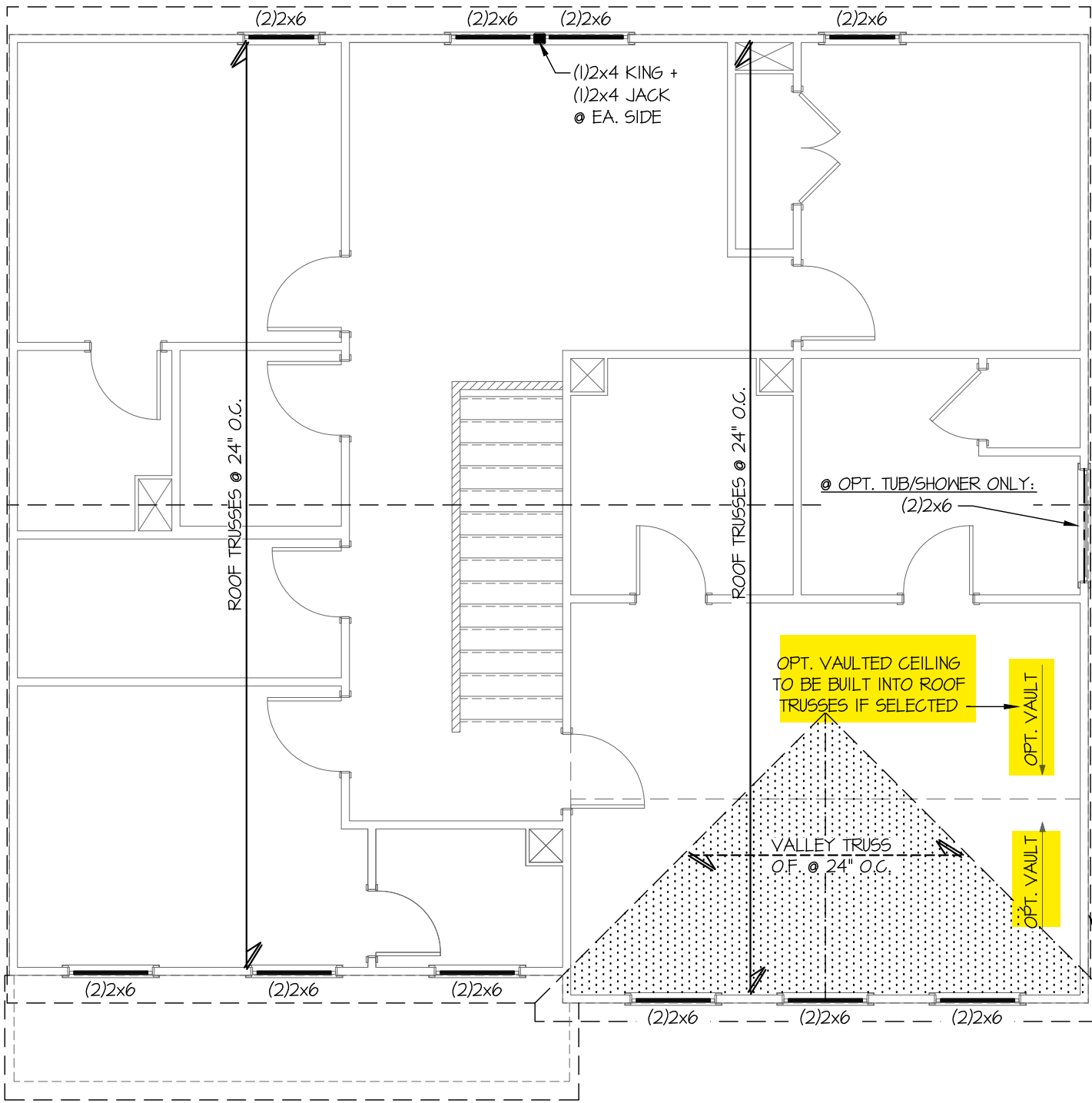
QTY	PRODUCT
52	SIMPSON H2.5A CLIP
2	SIMPSON MTS16 STRAP

HARDWARE NOTES:  
- ALL NAIL HOLES FILLED  
- ALL COUNTS ESTIMATED  
- HARDWARE COUNT DOES NOT INCLUDE TRUSS TO TRUSS CONNECTIONS



**SHEAR TRANSFER DETAIL  
AT UPSET WINDOW**

SCALE: 3/8"=1'-0"



PLAN DESIGNED FOR  
8' PLATE HEIGHT

REFER TO S-O.O FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES

**ROOF FRAMING PLAN**

SCALE: 3/16"=1'-0"  
(2ND FLOOR WALLS SHOWN)

ELEV. B

S3.1

**ROOF FRAMING PLAN**  
McDOWELL  
ELEVATION B  
WIND SPEED < 115 MPH NORTH CAROLINA



ARCH: 02.01.00.00

date: init:

REVISIONS:

issue date: 03-24-22

drawn by: MRG

project mgt: SMK

M&K project number: 192-17012



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING

300 Brookside Ave, Building 4 - Ambler, PA 19002  
p 215-646-8001 • email@mulhern+kulp.com  
NC License # C-3825

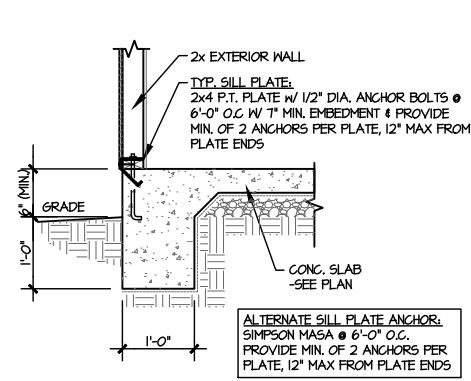
Seal: 417622

© copyright: Mulhern+Kulp Engineering Inc.

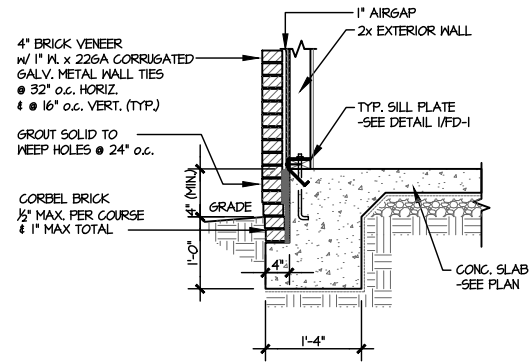
Seal: 417622

2/19/24

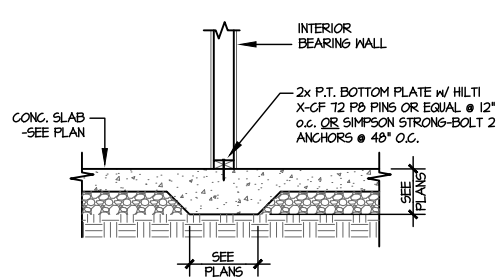




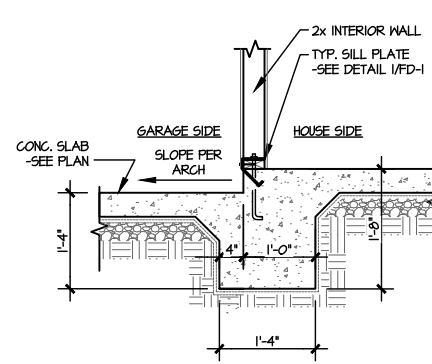
1 TYPICAL TURNDOWN  
@ EXT. WALL  
SCALE: 3/8"=1'-0"



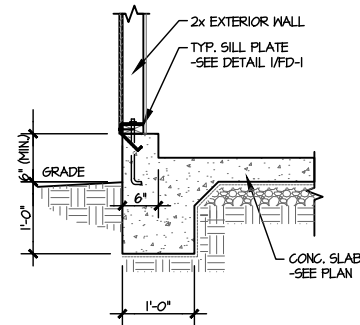
2 TYPICAL TURNDOWN  
@ EXT. WALL (BRICK)  
SCALE: 3/8"=1'-0"



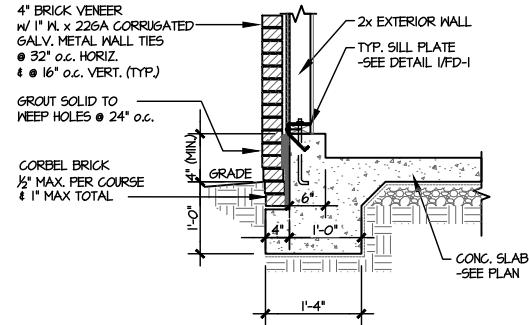
3 TYPICAL THICKENED SLAB @  
INTERIOR BEARING WALL  
SCALE: 3/8"=1'-0"



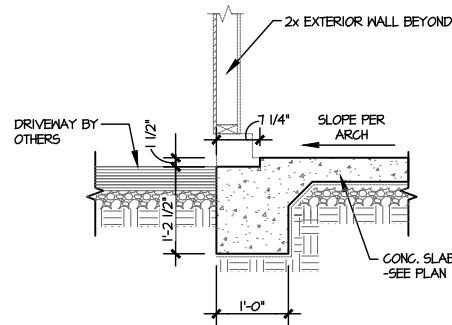
4 TYPICAL INT. FOOTING  
BETWEEN HOUSE & GARAGE  
SCALE: 3/8"=1'-0"



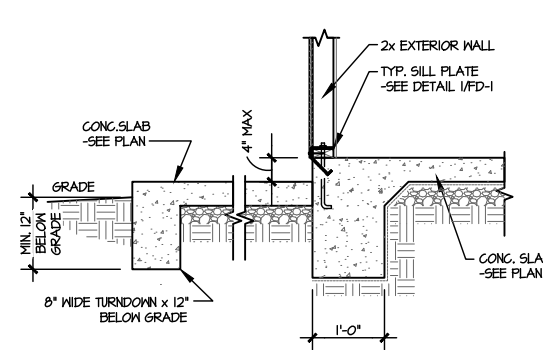
5 TYPICAL TURNDOWN  
@ EXT. GARAGE WALL  
SCALE: 3/8"=1'-0"



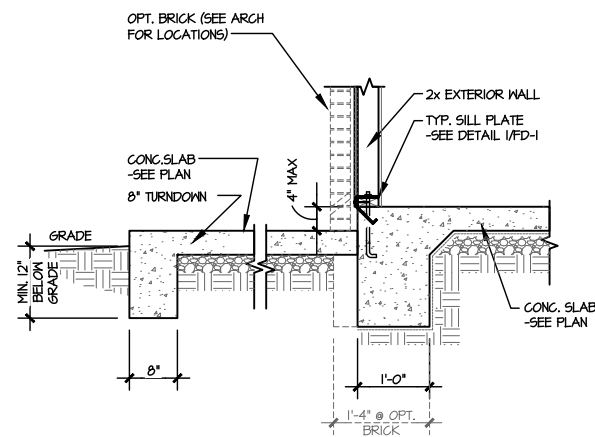
6 TYPICAL TURNDOWN  
@ EXT. GARAGE WALL (BRICK)  
SCALE: 3/8"=1'-0"



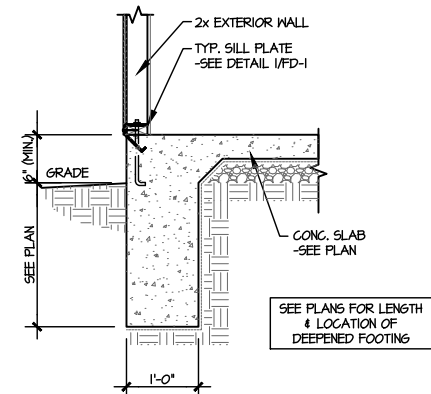
7 GARAGE OPENING  
SCALE: 3/8"=1'-0"



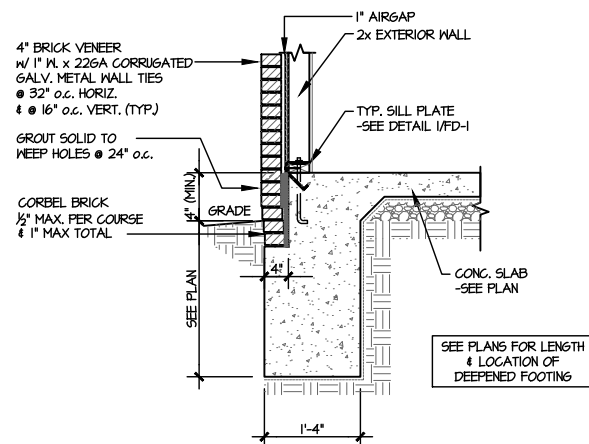
8 TYPICAL TURNDOWN  
@ PATIO/PORCH  
SCALE: 3/8"=1'-0"



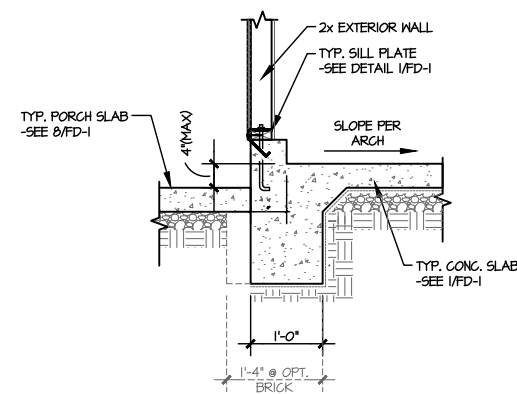
9 TYPICAL TURNDOWN @  
PATIO/PORCH (BRICK)  
SCALE: 3/8"=1'-0"



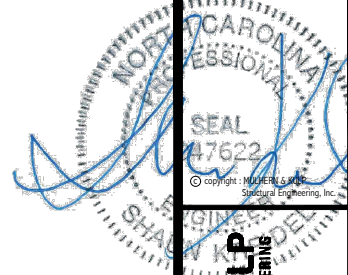
10 TYPICAL TURNDOWN W/  
DEEPEENED FTG. @ EXT. WALL  
SCALE: 3/8"=1'-0"



11 TYPICAL TURNDOWN  
@ EXT. WALL (BRICK)  
SCALE: 3/8"=1'-0"



12 TYPICAL TURNDOWN @ COVERED  
PORCH/ATTACHED GARAGE  
SCALE: 3/8"=1'-0"



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
380 Riverside Ave., Building 4 - Asheville, NC 28802  
919-255-9455 - mulhern+kulp.com  
NC License # C-3825

M&K project number:  
192-17012  
project mgr: SMK  
drawn by: MRG  
issue date: 03-24-22

REVISIONS:  
date: initial:

ARCH: v.02.01.00.00

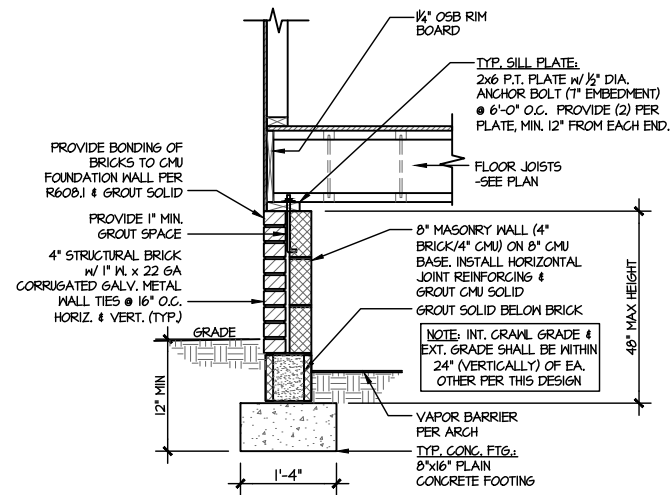


FOUNDATION DETAILS  
McDOWELL  
WIND SPEED < 115 MPH NORTH CAROLINA

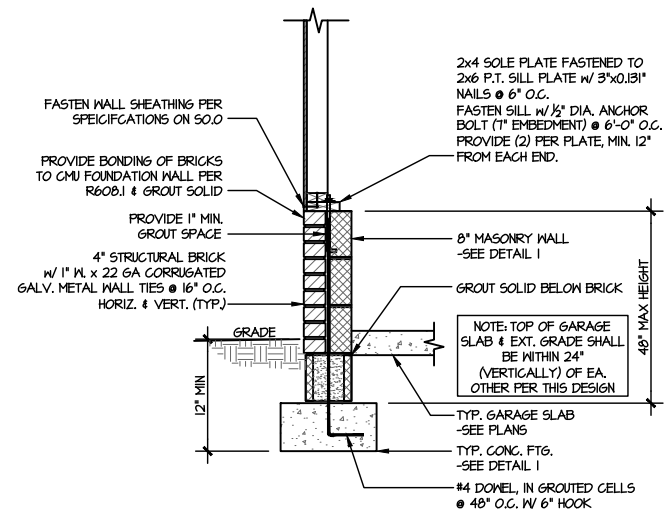
sheet:  
**FD-1**



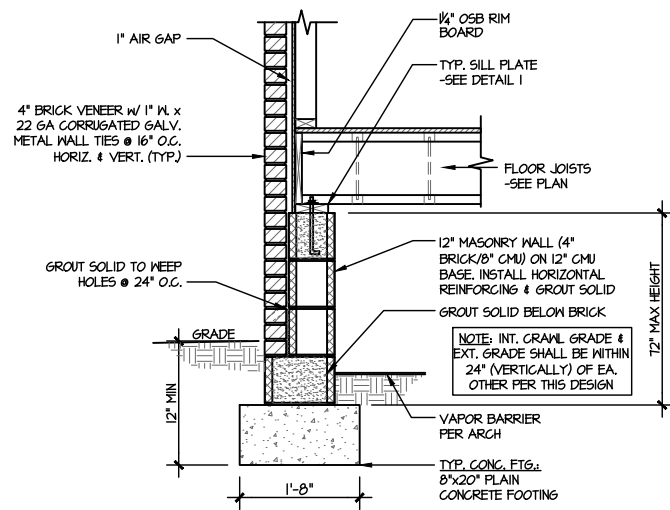




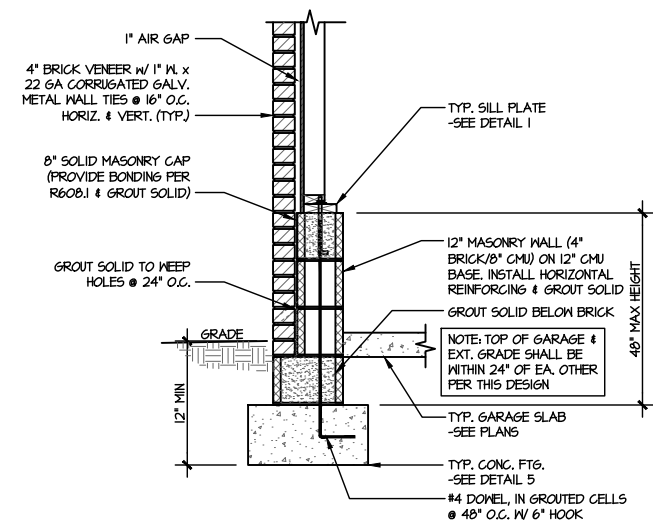
1 TYPICAL CRAWLSPACE FOUNDATION  
SCALE: 3/8"=1'-0"  
w/ BRICK WATERTABLE



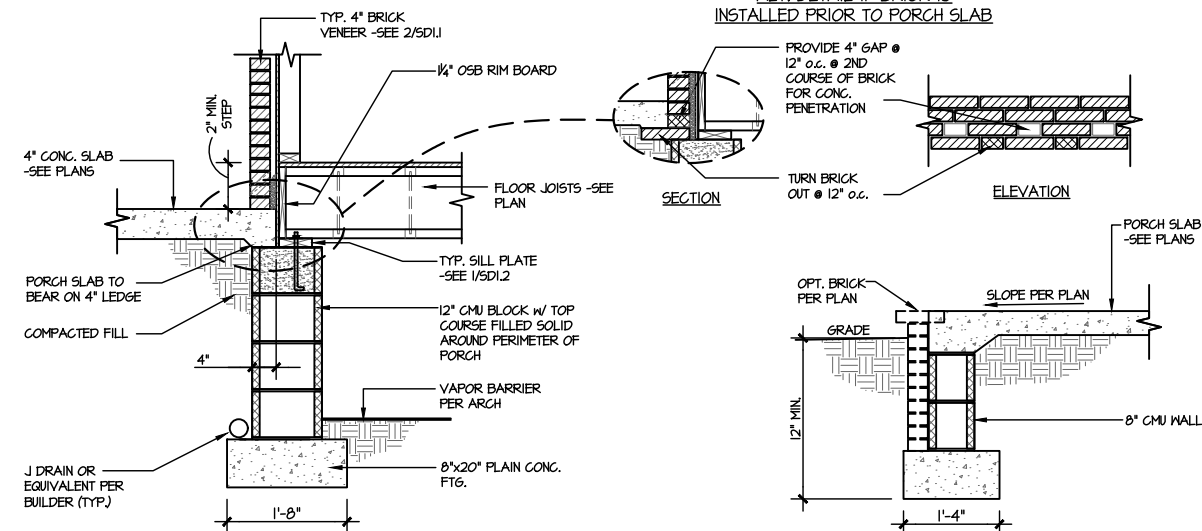
3 TYPICAL CRAWLSPACE FOUNDATION  
@ EXTERIOR GARAGE WALL  
SCALE: 3/8"=1'-0"  
w/ BRICK WATERTABLE



5 TYPICAL CRAWLSPACE FOUNDATION  
SCALE: 3/8"=1'-0"  
w/ FULL BRICK VENEER

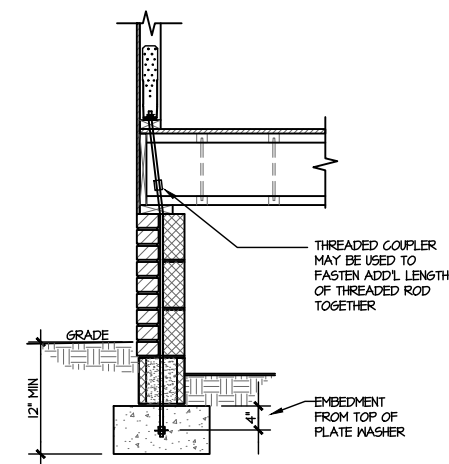


7 TYPICAL CRAWLSPACE FOUNDATION  
@ EXTERIOR GARAGE WALL  
SCALE: 3/8"=1'-0"  
w/ FULL BRICK VENEER

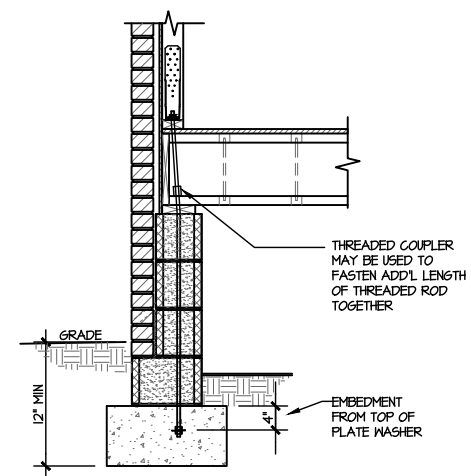


9 TYPICAL CRAWLSPACE FOUNDATION  
@ PORCH/PATIO SLAB  
SCALE: 3/8"=1'-0"  
w/ BRICK VENEER

10 TYPICAL FOOTING @ PORCH SLAB  
SCALE: 3/8"=1'-0"



D TYPICAL CRAWLSPACE FOUNDATION  
HOLD-DOWN INSTALLATION  
SCALE: 3/8"=1'-0"  
w/ BRICK WATERTABLE



E TYPICAL CRAWLSPACE FOUNDATION  
HOLD-DOWN INSTALLATION  
SCALE: 3/8"=1'-0"  
w/ FULL BRICK VENEER



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
380 Riverside Ave., Building 4 - Asheville, NC 28802  
725-648-2000 • mulhern+kulp.com  
NC License # C-3825

M&K project number:  
192-17012  
project mgr: SMK  
drawn by: MRG  
issue date: 03-24-22

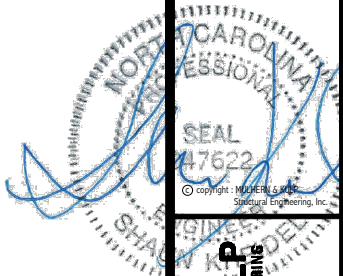
REVISIONS:  
date: initial:

ARCH: v.02.01.00.00



FOUNDATION DETAILS  
McDOWELL  
WIND SPEED < 115 MPH NORTH CAROLINA

sheet:  
**FD-3**



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
380 Riverside Ave., Building 4 - Asheville, NC 28802  
725-646-2001 • mulhern+kulp.com  
NC License # C-3825

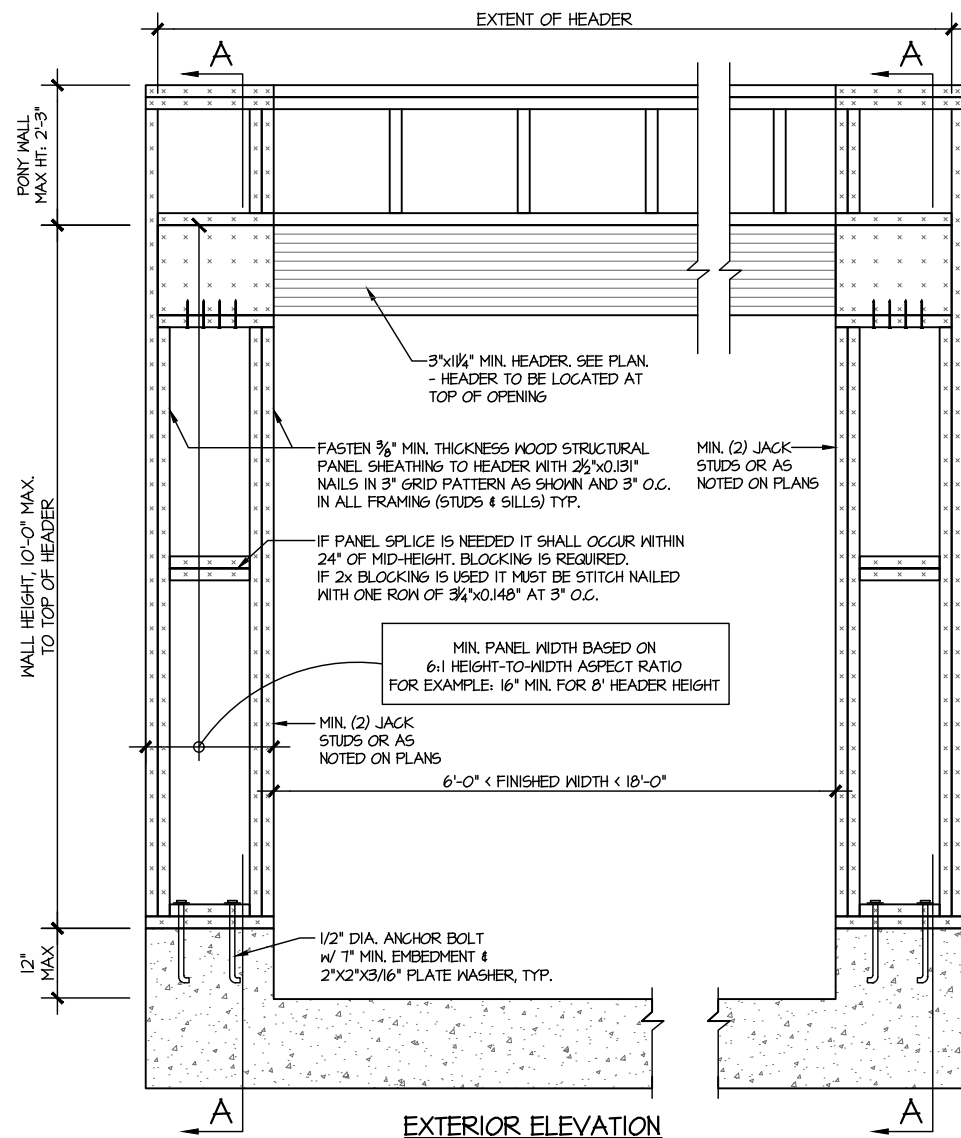
M&K project number:  
**192-17012**  
project mgr: **SMK**  
drawn by: **MRG**  
issue date: **03-24-22**

REVISIONS:  
date: initial:

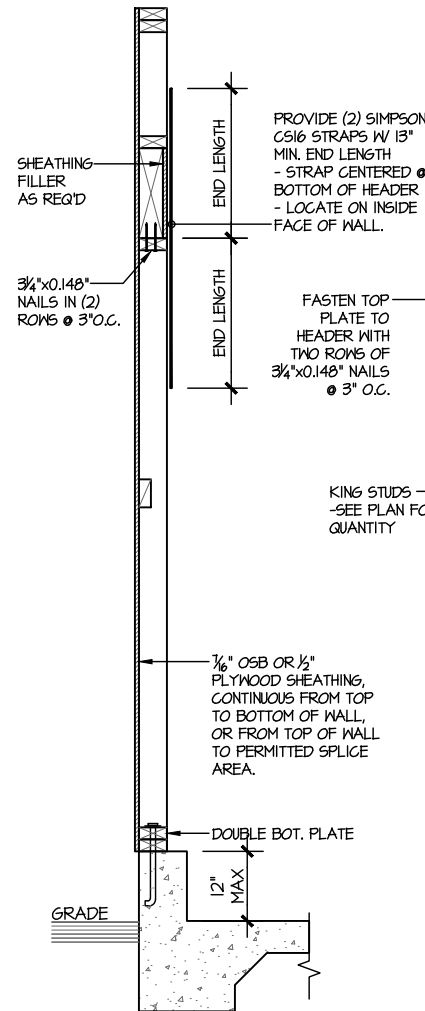
ARCH: v.02.01.00.00



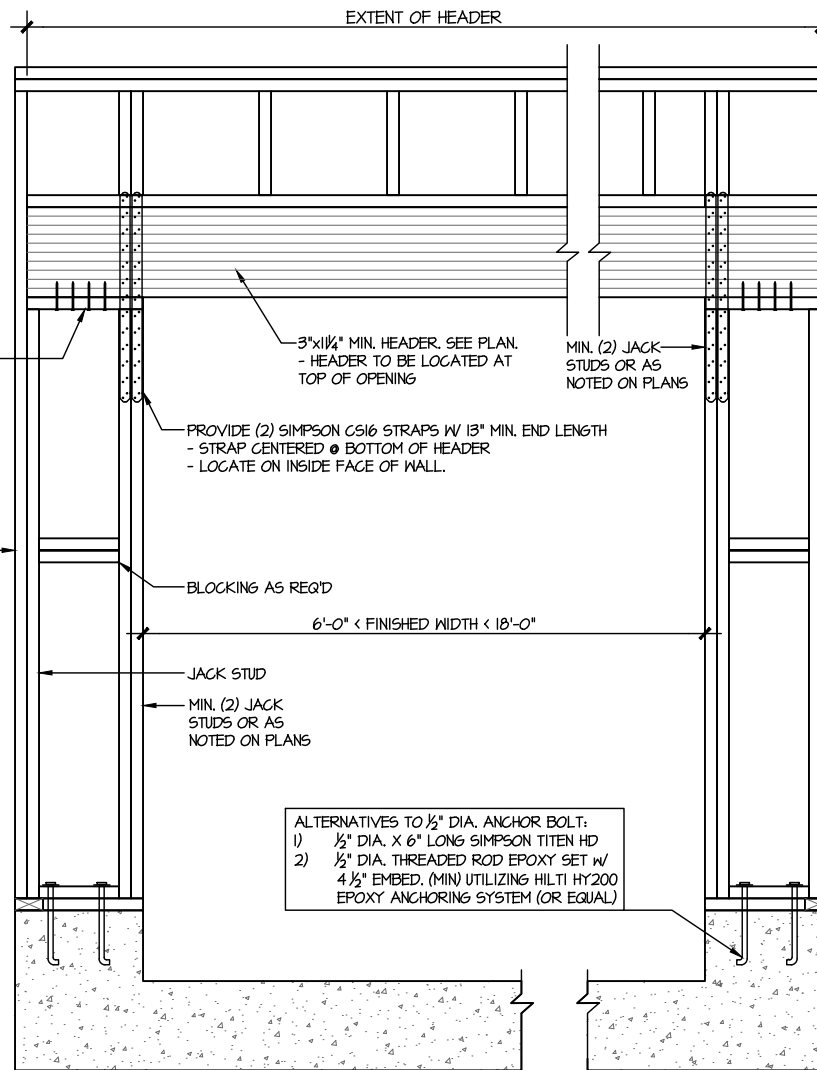
STRUCTURAL DETAILS  
McDOWELL  
WIND SPEED < 115 MPH NORTH CAROLINA



EXTERIOR ELEVATION

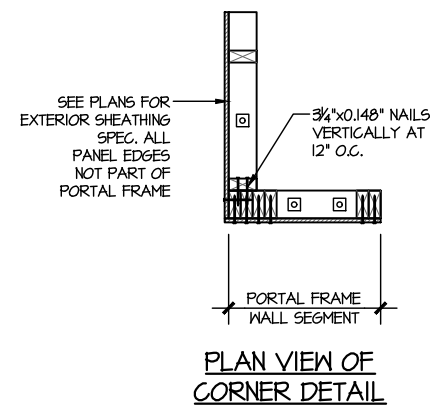


SECTION A-A  
THROUGH PIER  
MONOSLAB FOUNDATION

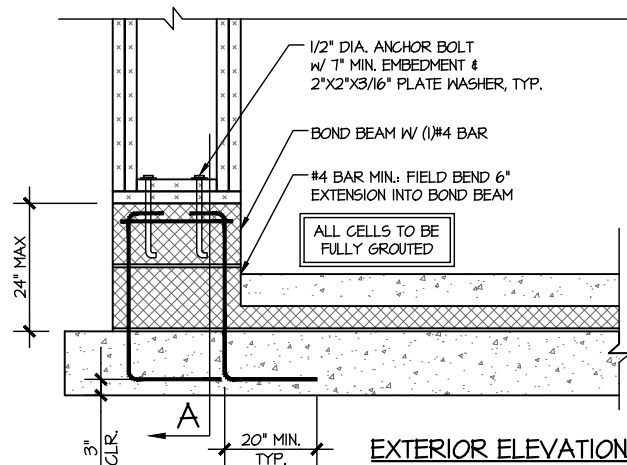


INTERIOR ELEVATION

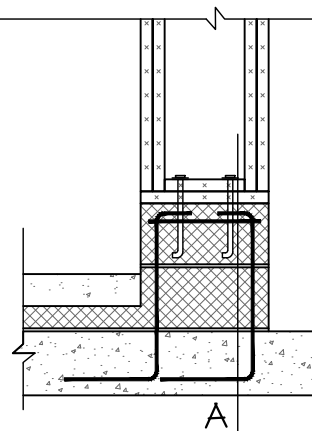
WALL FRAMING SPECIFICATION:  
• 2x4 WALL: USE SP/SPF #2 GRADE STUDS (OR BETTER)  
• 2x6 WALL: USE SP/SPF #2 GRADE STUDS (OR BETTER)



PLAN VIEW OF  
CORNER DETAIL

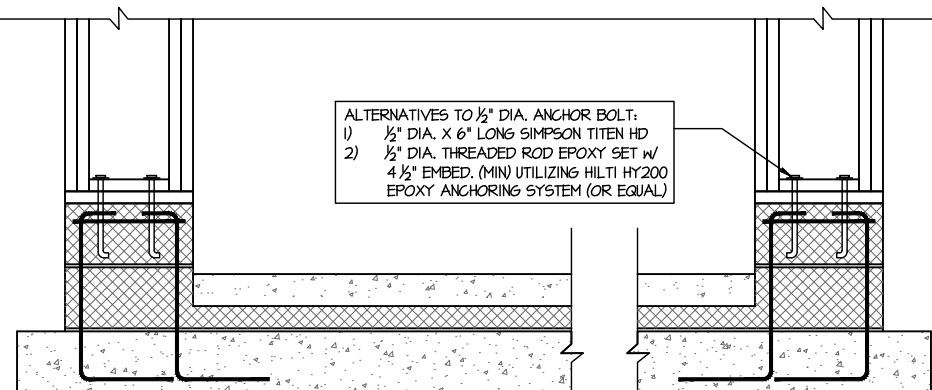


EXTERIOR ELEVATION

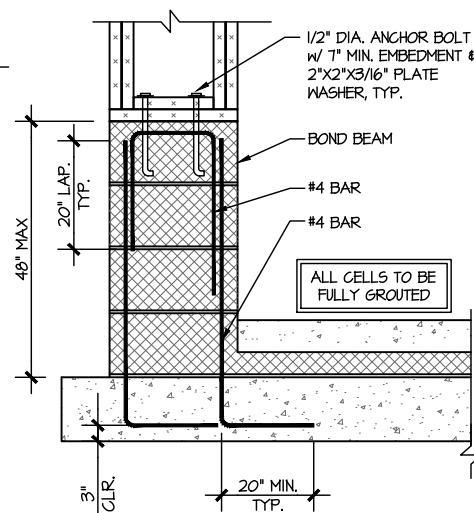


SECTION A-A  
THROUGH PIER

RAISED SLAB FOUNDATION



INTERIOR ELEVATION



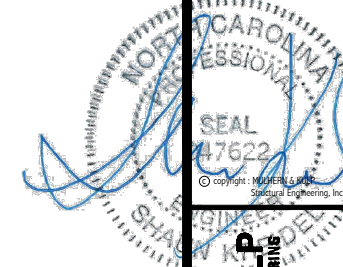
STEM ≤ 48" TALL

1 PORTAL FRAME DETAIL  
SCALE: N.T.S.

BOTH SIDES OF GARAGE DOOR  
1 KING STUD & RETURN WALLS

2/19/24

seal:



**MULHERN + KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Riverside Ave., Building 4 - Asheville, NC 28802  
919-255-9488 - mulhern+kulp.com  
NC License # C-3825

M&K project number: 192-17012  
project mgr: SMK  
drawn by: MRG  
issue date: 03-24-22

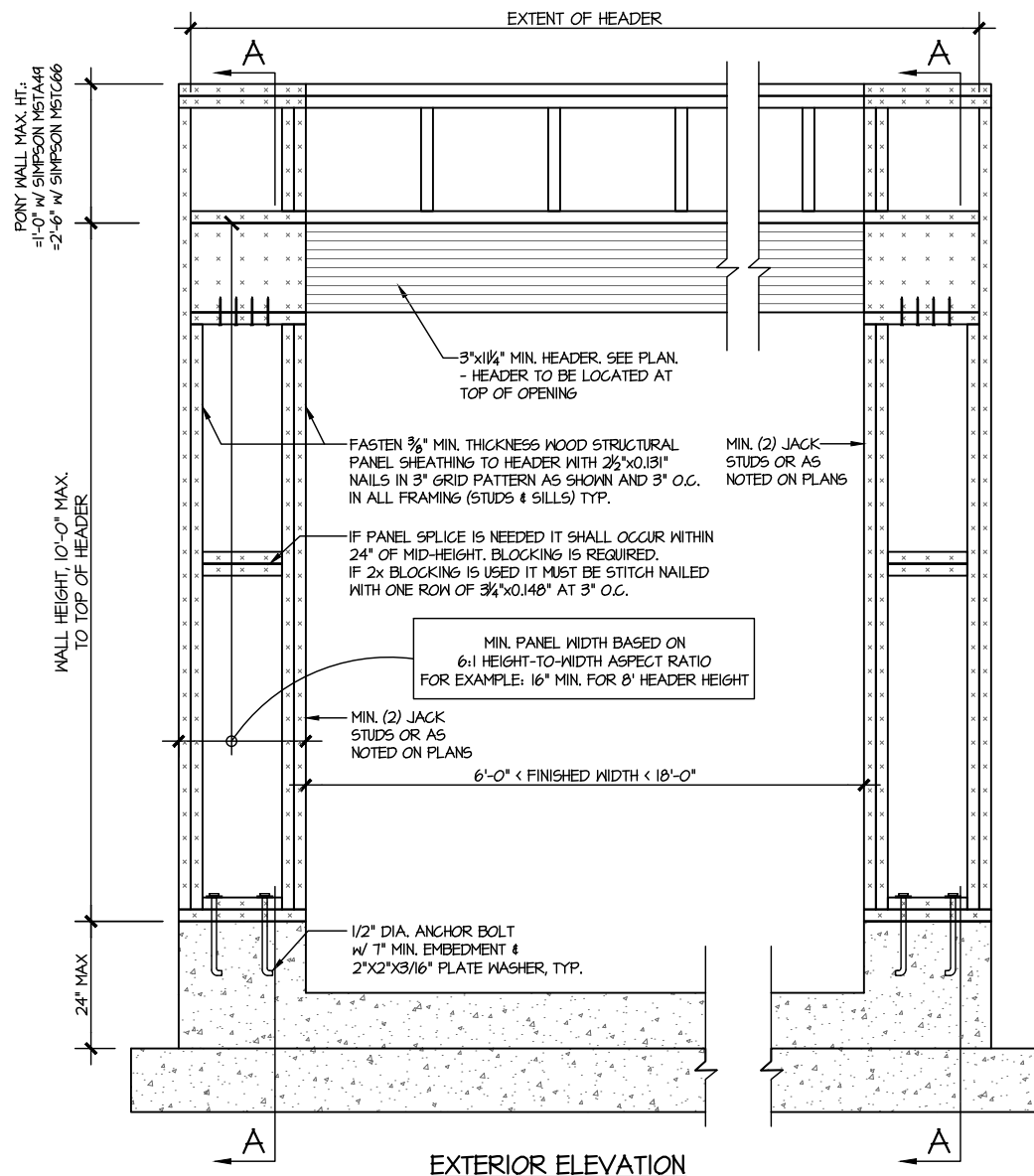
REVISIONS:  
date: initial:

ARCH: v.02.01.00.00

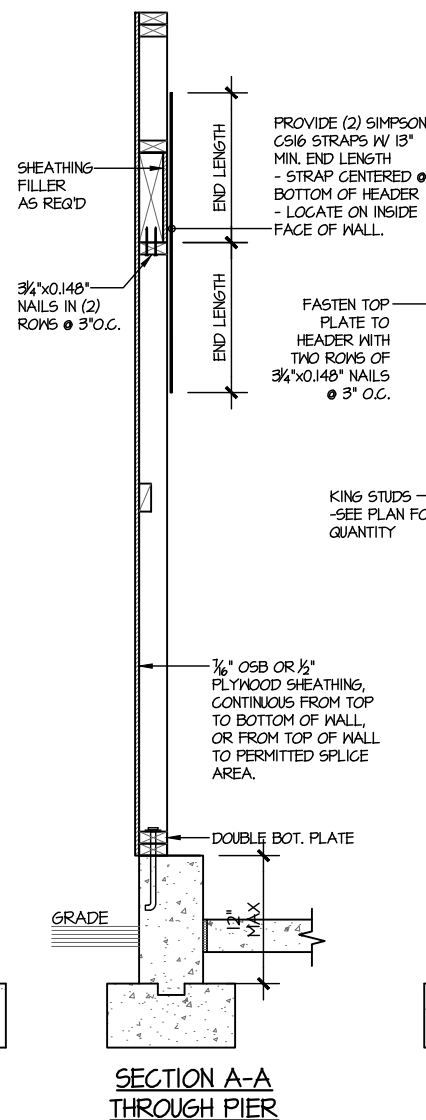


STRUCTURAL DETAILS  
McDOWELL  
WIND SPEED < 115 MPH NORTH CAROLINA

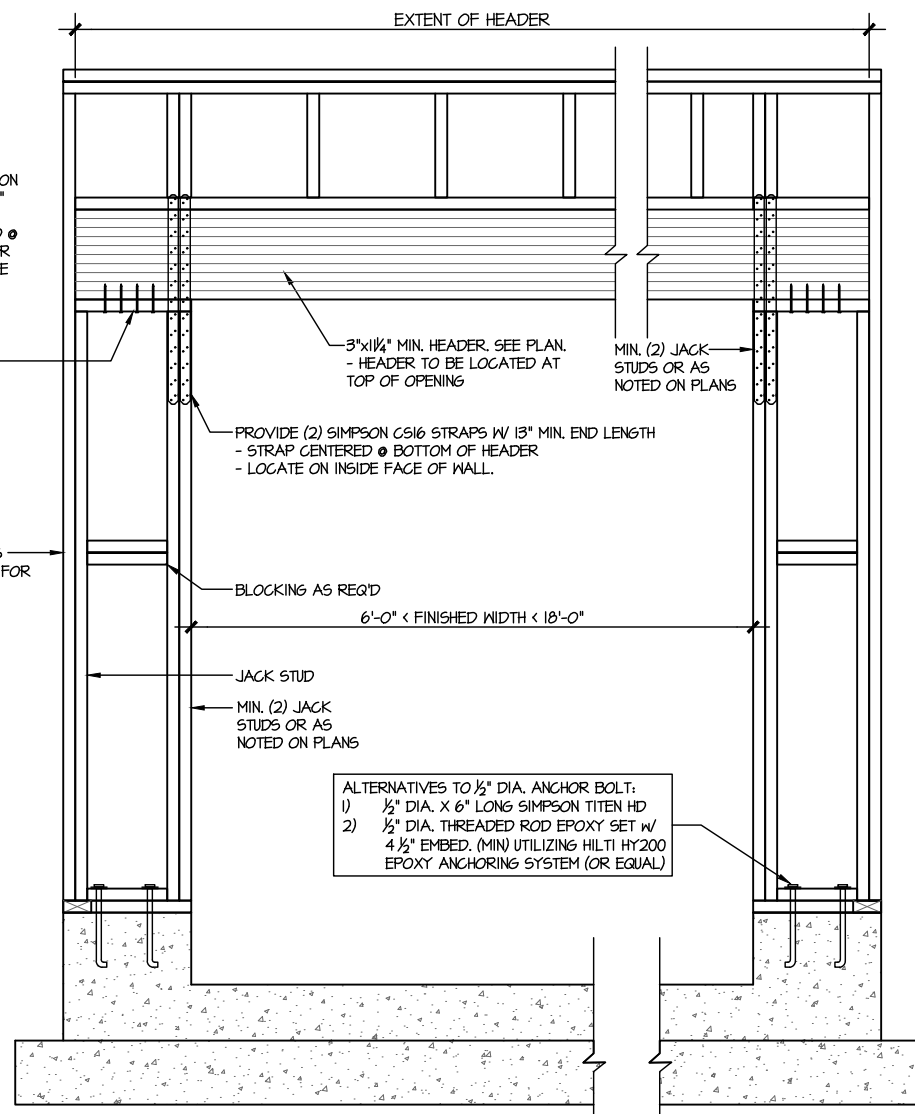
sheet:  
**SW-3**



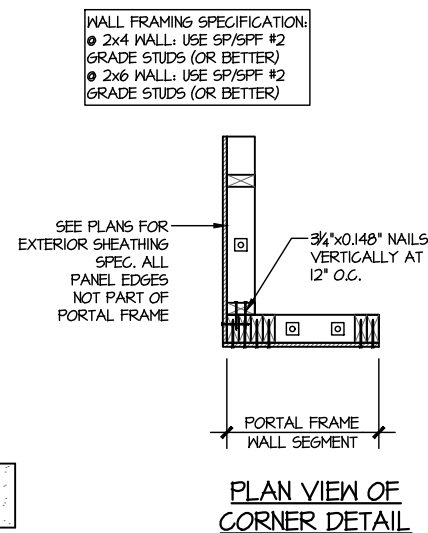
EXTERIOR ELEVATION



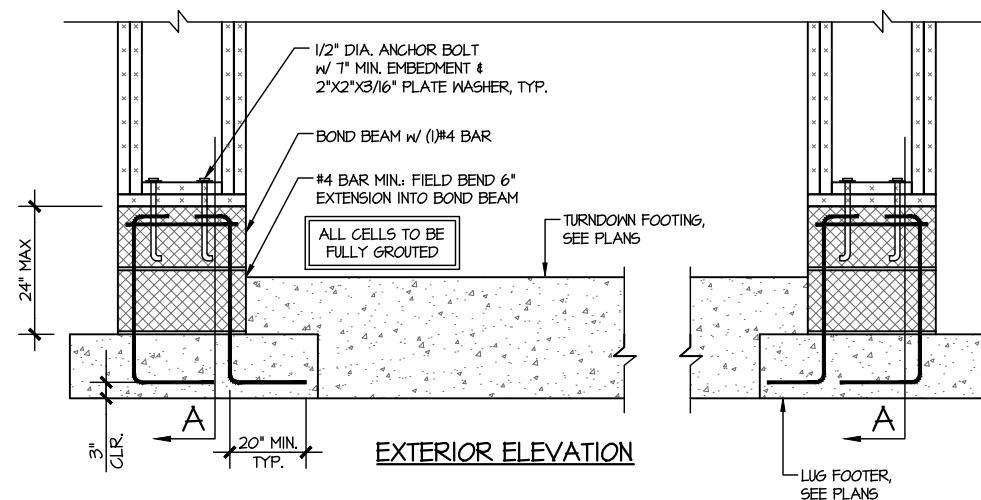
SECTION A-A  
THROUGH PIER  
BASEMENT FOUNDATION



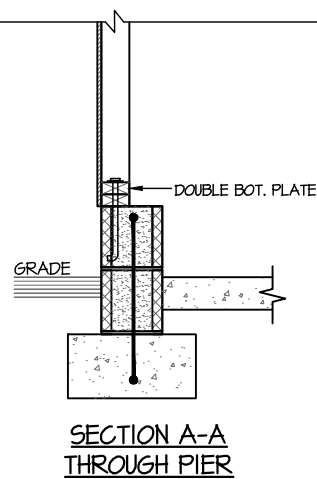
INTERIOR ELEVATION



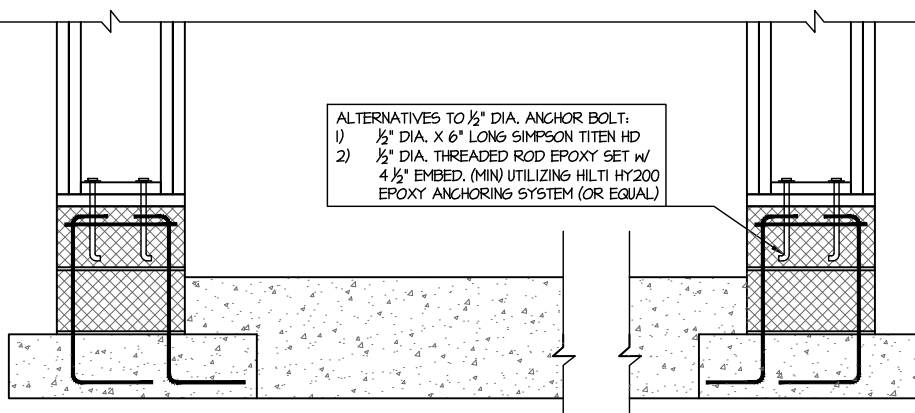
PLAN VIEW OF  
CORNER DETAIL



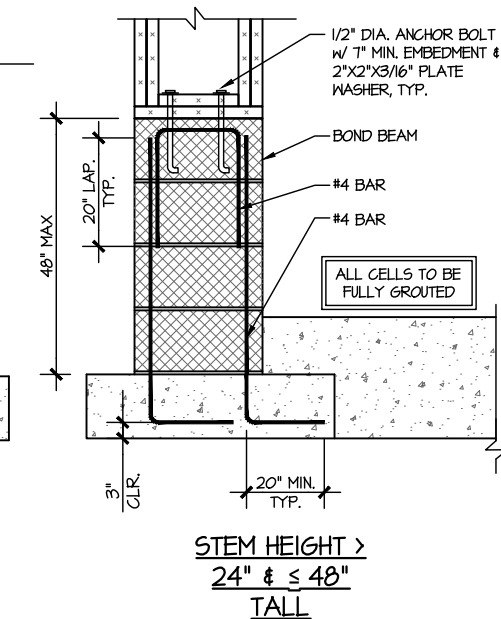
EXTERIOR ELEVATION



SECTION A-A  
THROUGH PIER



INTERIOR ELEVATION

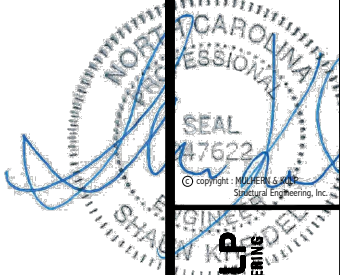


STEM HEIGHT >  
24" & ≤ 48"  
TALL

**PORTAL FRAME DETAIL**  
SCALE: N.T.S.

BOTH SIDES OF GARAGE DOOR  
1 KING STUD & RETURN WALLS





**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Riverside Ave., Building 4 - Asheville, NC 28802  
725-696-0001 • mulhern+kulp.com  
NC License # C-3825



M&K project number:  
192-17012

project mgr: SMK  
drawn by: MRG  
issue date: 03-24-22

REVISIONS:  
date: initial:

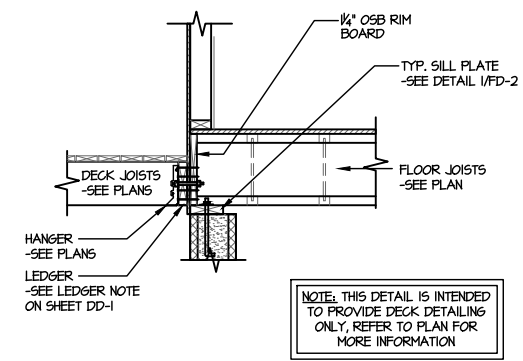
ARCH: v.02.01.00.00



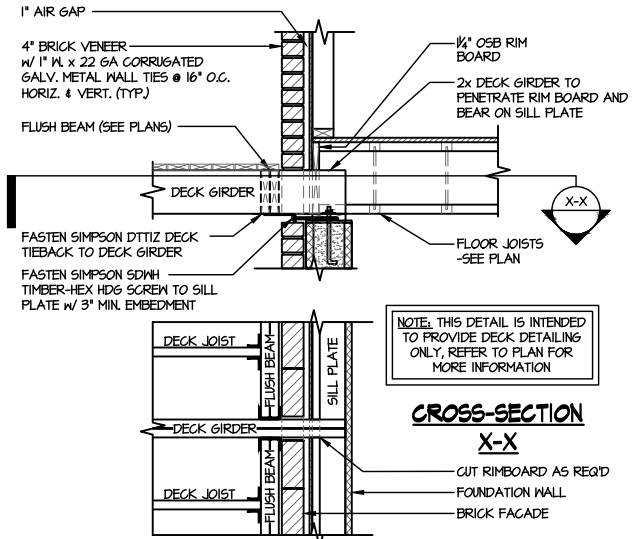
FOUNDATION DETAILS  
McDOWELL  
WIND SPEED < 115 MPH NORTH CAROLINA

sheet:  
**DD-1**

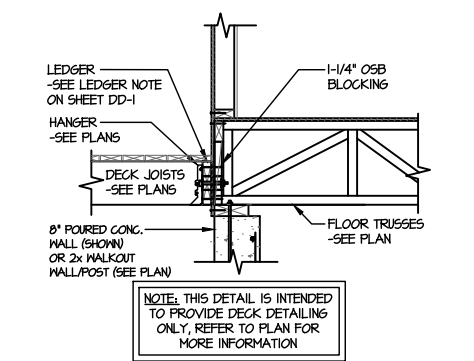
- LEDGER NOTE**
- **LEDGER TO END TRUSSES:**  
-FASTEN 2x LEDGER (MATCH D.J.) TO END TRUSS VERTICALS w/ (1) 1/2" DIA. THRU BOLT + (4) 2 1/2"x0.135" NAILS @ 16" O.C. PACK OUT END TRUSS AS REQ'D FOR LEDGER FASTENING.
  - **LEDGER TO RIMBOARD/BLOCKING:**  
-FASTEN 2x LEDGER (MATCH D.J.) TO RIMBOARD/BLOCKING w/ (1) 1/2" DIA. THRU BOLT + (4) 2 1/2"x0.135" NAILS @ 16" O.C.
  - **PROVIDE (2) BOLTS IN END (2) JOIST BAYS @ EACH END OF DECK**
  - **INSTALL (1) SIMPSON HB CLIP ON LAST (2) DECK JOISTS @ EACH END OF DECK, CONNECTING SIDE OF JOIST TO TOP OF LEDGER (IRC R502.2.2)**
  - **ALT. LEDGER SPEC:**  
FASTEN 2x10 LEDGER TO RIMBOARD w/ (2) 1/4" DIA. X 3 1/2" LONG SIMPSON SD5 SCREWS @ 16" O.C.
  - **NOT APPLICABLE AT BRICK CONDITIONS**



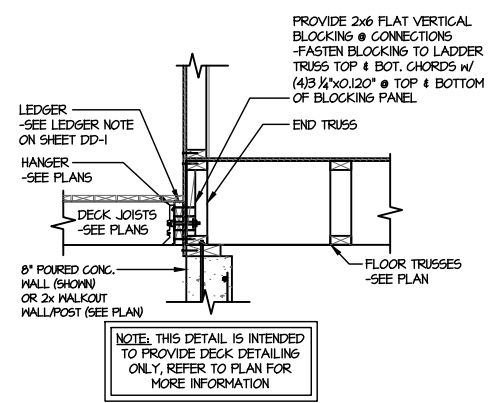
**1** TYPICAL DECK CONNECTION  
@ CRAWLSPACE  
SCALE: 3/8"=1'-0"



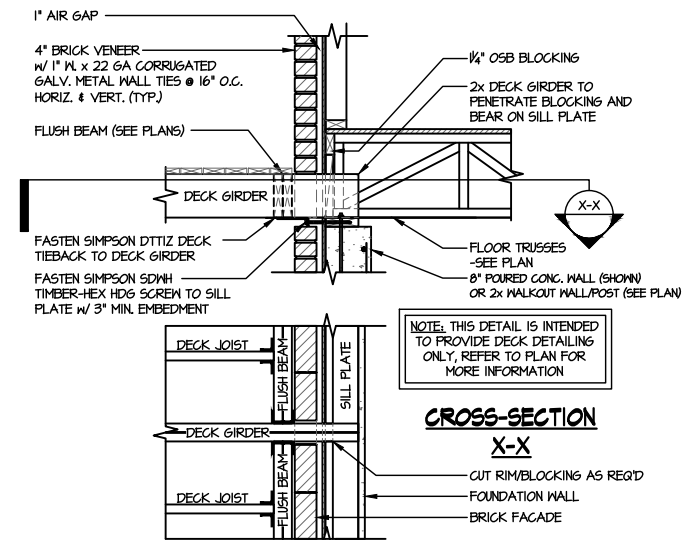
**2** TYPICAL DECK CONNECTION  
@ CRAWLSPACE w/ BRICK  
SCALE: 3/8"=1'-0"



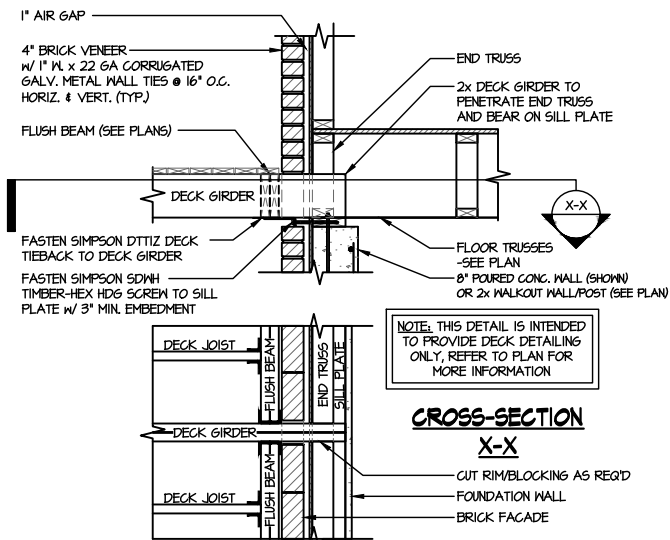
**3** TYPICAL DECK CONNECTION  
@ BASEMENT  
SCALE: 3/8"=1'-0" PERPENDICULAR FRAMING



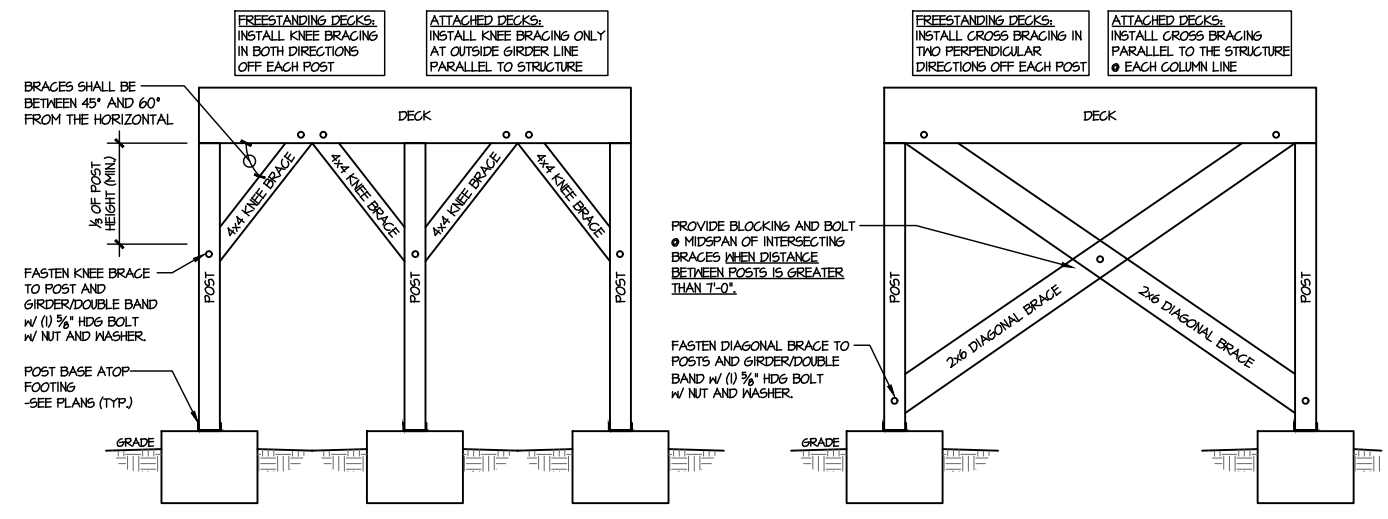
**4** TYPICAL DECK CONNECTION  
@ BASEMENT  
SCALE: 3/8"=1'-0" PARALLEL FRAMING



**5** TYPICAL DECK CONNECTION  
@ BASEMENT w/ BRICK  
SCALE: 3/8"=1'-0" PERPENDICULAR FRAMING



**6** TYPICAL DECK CONNECTION  
@ BASEMENT w/ BRICK  
SCALE: 3/8"=1'-0" PARALLEL FRAMING



**A** TYPICAL LATERAL BRACING DETAILS FOR DECKS GREATER THAN 4' HIGH  
SCALE: NTS