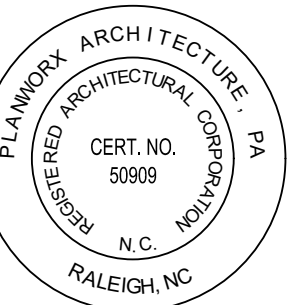


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Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

OWNER / CONTRACTOR NOTES:

- THE SEALING OF THIS PLAN AUTHORIZES THE CONSTRUCTION FROM THESE PLANS FOR ONE HOUSE ON ONE LOT. UNSEALED PLANS MUST NOT BE USED FOR CONSTRUCTION. CONSTRUCTION FROM THESE PLANS MUST BE FROM THE LATEST APPROVED DATE PLANS, INCLUDING REVISIONS AND APPENDIX.
- CONSTRUCTION DEVIATING FROM THESE PLANS WILL INVALIDATE THEIR PLANS REVIEW PERMITTED USE. THE ARCHITECT MUST BE NOTIFIED IMMEDIATELY OF CONSTRUCTION DEVIATING FROM DEPICTED OR IMPLIED INFORMATION HEREIN. LETTER FROM THE ARCHITECT/ENGINEER MAY BE OBTAINED FOR A FEE TO VERIFY THE FEASIBILITY AND COMPLIABILITY OF ANY CHANGES. HOWEVER, THE OWNER/CONTRACTOR ASSUMES ALL RISK FROM DEVIATING FROM THESE PLANS.
- DO NOT SCALE DRAWINGS, BUT RATHER INQUIRE OF PLANWORX ARCHITECTURE. REPRODUCTION OF THESE DRAWINGS ARE PROHIBITED UNLESS GRANTED WRITTEN CONSENT FROM PLANWORX ARCHITECTURE.
- THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE FOLLOWING INFORMATION (NON-EXHAUSTIVE): BUILDING PERMITS, SITE ENGINEERING INCLUDING SURVEYING, TOPOGRAPHIC STUDIES, GEOTECHNICAL REPORTS, AND SEPTIC PERMITS; INTERIOR CASEWORK DESIGN; PLUMBING, MECHANICAL, AND ELECTRICAL DESIGN.

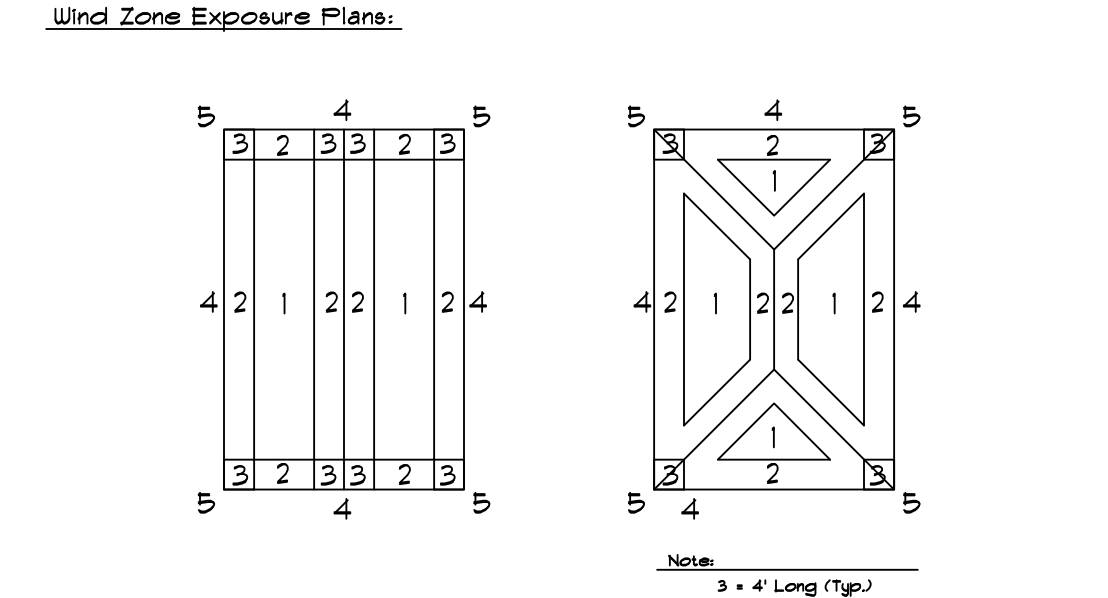
CONSTRUCTION NOTES:

- THE FOLLOWING IS A NON-EXHAUSTIVE LIST OF SOME COMMONLY MISSED CODE REQUIREMENTS AND ARE ENFORCEABLE IN THE CONSTRUCTION FROM THESE PLANS. SEE THE N.C. RESIDENTIAL CODE BOOK FOR MORE INFO.
- (R308.4) ALL GLAZING WITHIN 24" OF EITHER SIDE OF A DOOR IN A CLOSED POSITION AND ON THE SAME WALL PLANE SHALL BE TEMPERED; ALL WINDOWS THAT MEET ALL OF THE FOLLOWING CONDITIONS SHALL BE TEMPERED: A) INDIVIDUAL PANE OF MIN. 9 SF, B) BOTTOM EDGE IS WITHIN 18" OF FLOOR, C) TOP EDGE IS AT LEAST 36" ABOVE FLOOR, AND D) GLAZING IS WITHIN 36" HORIZONAL WALKING SURFACE. TEMPERED GLAZING IS ALSO REQUIRED WITHIN 60" OF HOT TUBS OR STAIR LEADING AND FINISH EDGES. TEMPERED WINDOWS ALSO REQUIRED PER REMAINDER OF THIS CODE SECTION.
 - (R310.1) ALL SLEEPING ROOMS AND BASEMENTS WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE EGRESS WINDOW CONFORMING TO THE FOLLOWING: A) MIN. 4.0 SF CLEAR OPENING; B) MIN. TOTAL GLASS AREA OF 5.0 SF (GROUND FLOOR WINDOW) AND 5.1 SF (UPPER STORY WINDOW). IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE PROPER CONFORMING WINDOW, AND HAVE EGRESS WINDOWS PROPERLY DISTRIBUTED AND INSTALLED AS REQUIRED.
 - (R312) ALL INTERIOR EGRESS DOORS AND A MINIMUM OF ONE EXTERIOR EGRESS DOOR SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE.
 - (R313.1) MAXIMUM STAIR RISER HEIGHT SHALL BE 8-1/4", AND MINIMUM TREAD SHALL BE 9".
 - (R314.3) SMOKE ALARMS SHALL BE INSTALLED AND INTERCONNECTED WITH BATTERY BACK-UP IN THE FOLLOWING AREAS: EACH SLEEPING ROOM IN THE AREA (HALLWAY) RIGHT OUTSIDE THE SLEEPING ROOMS; AND EACH STORY. THE ONE OUTSIDE THE SLEEPING ROOMS WILL SATISFY THAT STORY.
 - (R402.2) ALL LUMBER SHALL BE PRESSURE TREATED AND DRIED AFTER TREATMENT IN ACCORDANCE WITH AWPA U1 AND SHALL BEAR THE LABEL OF AN ACCREDITED AGENCY.
 - (R406.1) BITUMINOUS DAMPPROOFING SHALL BE APPLIED TO EXTERIOR FOUNDATIONS OF ALL HABITABLE AND USABLE (STORAGE, ETC) SPACES.
 - (R408.12) INSTALL ONE FOUNDATION VENT WITHIN 3' OF EACH CORNER (NOT ONE EACH SIDE OF EACH CORNER).
 - (R103.4) FLASH ALL VALLEYS AND WALL/ROOF INTERSECTIONS, AND CHIMNEY AND OTHER ROOF PENETRATIONS. USE ICE AND WATER SHIELD ON ALL ROOFS LESS THAN 4:12 SLOPE. FLASHING TO BE NON-CORROSIVE.
 - (R807.1) BUILDER TO LOCATE 22"x30" ATTIC ACCESS IN ALL ATTICS WITHOUT STAIR ACCESS. LOCATE ACCESS TO PROVIDE A 30" CLEAR SPACE ABOVE ACCESS DOOR-TYP.
 - (R1009) MASONRY FIREPLACE WALLS TO BE MIN. 8" THICK, AND MIN. 2" TO FRAMING. POURED HEARTH TO HAVE MIN 4#12 @ 12" O.C. EACH WAY. HEARTH TO BE MIN. 20" FROM FIREBOX AND HAVE MIN. 12" WIDER THAN FIREBOX ON EACH SIDE.
 - (R403.1.6) ANCHOR BOLTS SHALL BE MIN. 1" DIAMETER & SHALL EXTEND A MINIMUM 1" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6" O.C. AND WITHIN 12" OF THE CORNER.
 - (R315) INSTALL APPROVED CARBON MONOXIDE ALARM OUTSIDE EACH BEDROOM AND IN IMMEDIATE VICINITY OF EACH SEPARATE SLEEPING AREA.

CLIMATIC AND GEOGRAPHIC NOTES:

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA (TABLE 903.2)									
ROOF WIND SPEED (MPH)	SEPTIC DESIGN	SUBJECT TO DAMAGE FROM	WIND SPEED (MPH)	ICE BURDEN (POUNDS/ SQUARE FOOT)	FLOOD HAZARD	AIR RESISTANCE	SEAL	WEAR	FINISH
15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST	15 MIN. GUST
15	15	15	15	15	15	15	15	15	15

Wind Load: Basic Wind Speed 100 MPH (3-SECOND GUST)
Exposure Category B (Suburban)



Component and Cladding Loads: Worst Case - 10 s.f. (typ.)

Mean Roof Hgt.	Up to 30'	30'-1' - 35'	35'-1' - 40'	40'-1' - 45'
Design Pressure	16.1 psf	18.2 psf	19.5 psf	20.7 psf
Uplift Pressure	-13.5 psf	-15.6 psf	-17.8 psf	-19.0 psf
Design Pressure	16.1 psf	18.2 psf	19.5 psf	20.7 psf
Uplift Pressure	-13.5 psf	-15.6 psf	-17.8 psf	-19.0 psf

Windows: All windows shall be labeled to conform with AIA/ANZI/ACSA 101/102/144/40
All windows shall be rated with Impact Glazing if windspeeds are equal to or exceed 145 MPH

PROJECT DATA:

LEAD DESIGN CORPORATION: Planworx Architecture, P.A. CERTIFICATION: 50209
PLAN DESIGNER: Marc W. Mills, R.A. License #: 1579 Telephone #: (919) 846-8100
Structural: Planworx Architecture, P.A. Marc W. Mills, R.A. License #: 1579 Telephone #: (919) 846-8100



DESIGN DATA:

PROJECT SQUARE FOOTAGES

Heated Square Footage	
Second Floor Htd.	974
Total Htd.	974
Unheated Square Footage	
Garage - Three Car	1,130
Porch Alcove	37

BUILDING DATA:

Construction Type: V-B
Use Group: R-3
Building Height: 28'-0"
Mean Roof Height: 28'-11/4"
Number of Stories: 2
Structural: Basic Structural System: Bearing Wall
Lateral Design Control: Earthquake Wind
Soil Bearing Capacity: 2,000 psf (Presumptive)

INDEX OF DRAWINGS:

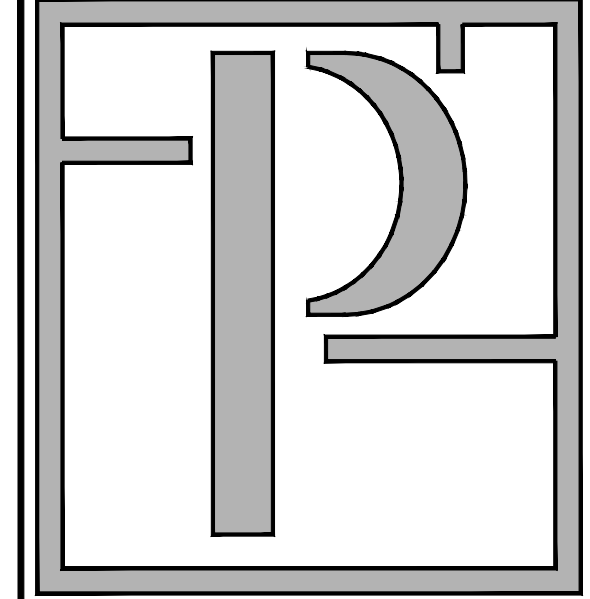
SHEET	SHEET NAME
CS	Cover Sheet
A-1	Exterior Elevations
A-2	Wall Section Details
A-3	Floor Plans
AS-1	Foundation & Second Floor Framing
AS-2	Second Floor Ceiling & Roof Framing
D-1	Standard Details
D-2	Standard Details
D-3	Standard Details
D-4	Standard Details

PROGRESS DATE:	ISSUE DATE:	REVISIONS	INITIALS
12/21/18			

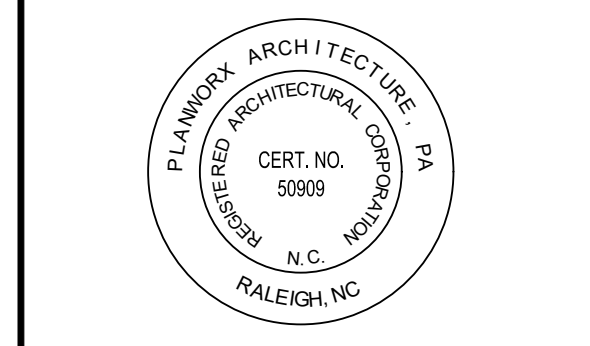
PROJECT NO: 003218
DRAWN BY: JT/BB
CHECKED BY: BB
SHEET TITLE: Cover Sheet
SHEET NUMBER:



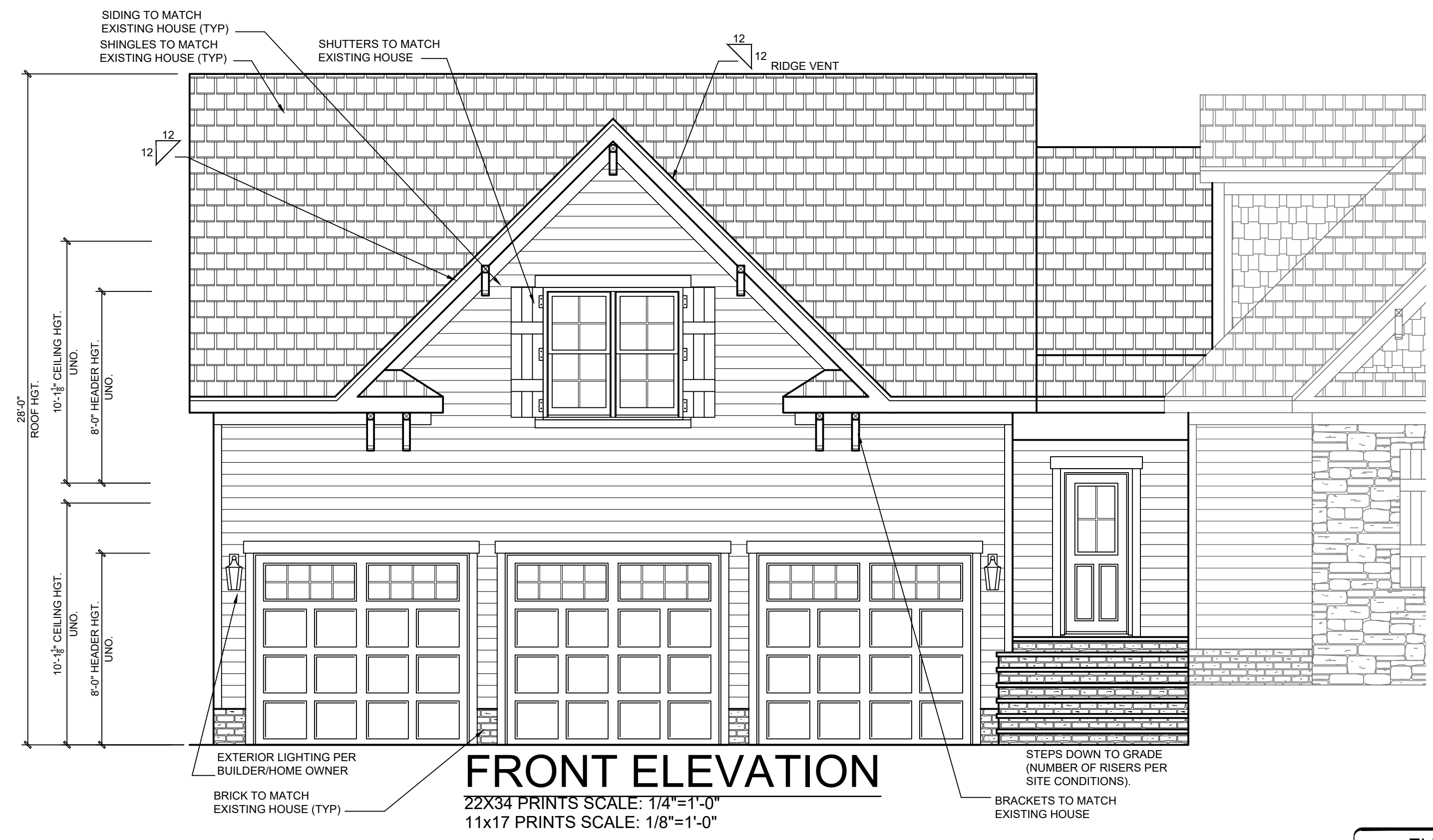
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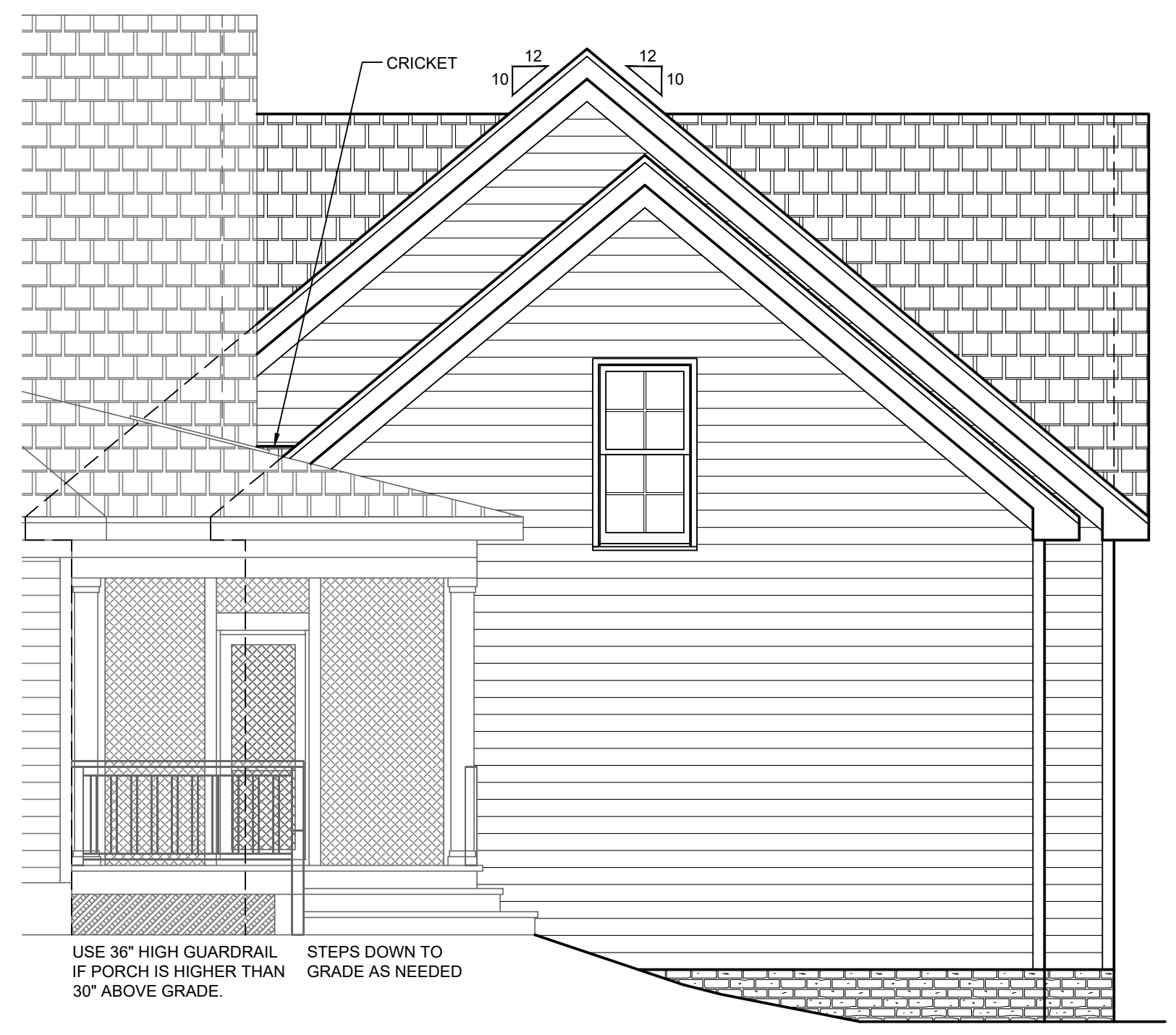
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Garage Addition
Glenwood Builders
Fuquay-Varina, NC



FRONT ELEVATION
22X34 PRINTS SCALE: 1/4"=1'-0"
11x17 PRINTS SCALE: 1/8"=1'-0"



RIGHT ELEVATION
22X34 PRINTS SCALE: 1/4"=1'-0"
11x17 PRINTS SCALE: 1/8"=1'-0"

ELEVATION HATCH LEGEND

NOTE: SPECIFIC SUPPLIERS, FINAL FINISH & COLORS ON ALL MATERIALS TO BE DET. BY BUILDER U.N.O. ON ELEVATIONS PROVIDED.

	ASPHALT SHINGLES - MATCH EXISTING HOUSE
	BRICK - MATCH EXISTING HOUSE
	HORIZONTAL SIDING - (TYPE PER BUILDERS SPECIFICATIONS) TO MATCH EXISTING HOUSE

GENERAL NOTES

*USE ICE AND WATER SHIELD AT ALL ROOF PLANES SLOPED BELOW 4:12.

SEE FLOOR PLANS, ROOF PLAN, AND/OR ROOF FRAMING DETAIL SHEET FOR PLATE HEIGHTS AT RAFTER AND/OR TRUSS BEARING LOCATIONS.

SEE ROOF PLANS FOR ATTIC VENTILATION CALCULATIONS.

SEE SHEET D-2 FOR FLASHING DETAILS AND REQUIRED LOCATIONS.

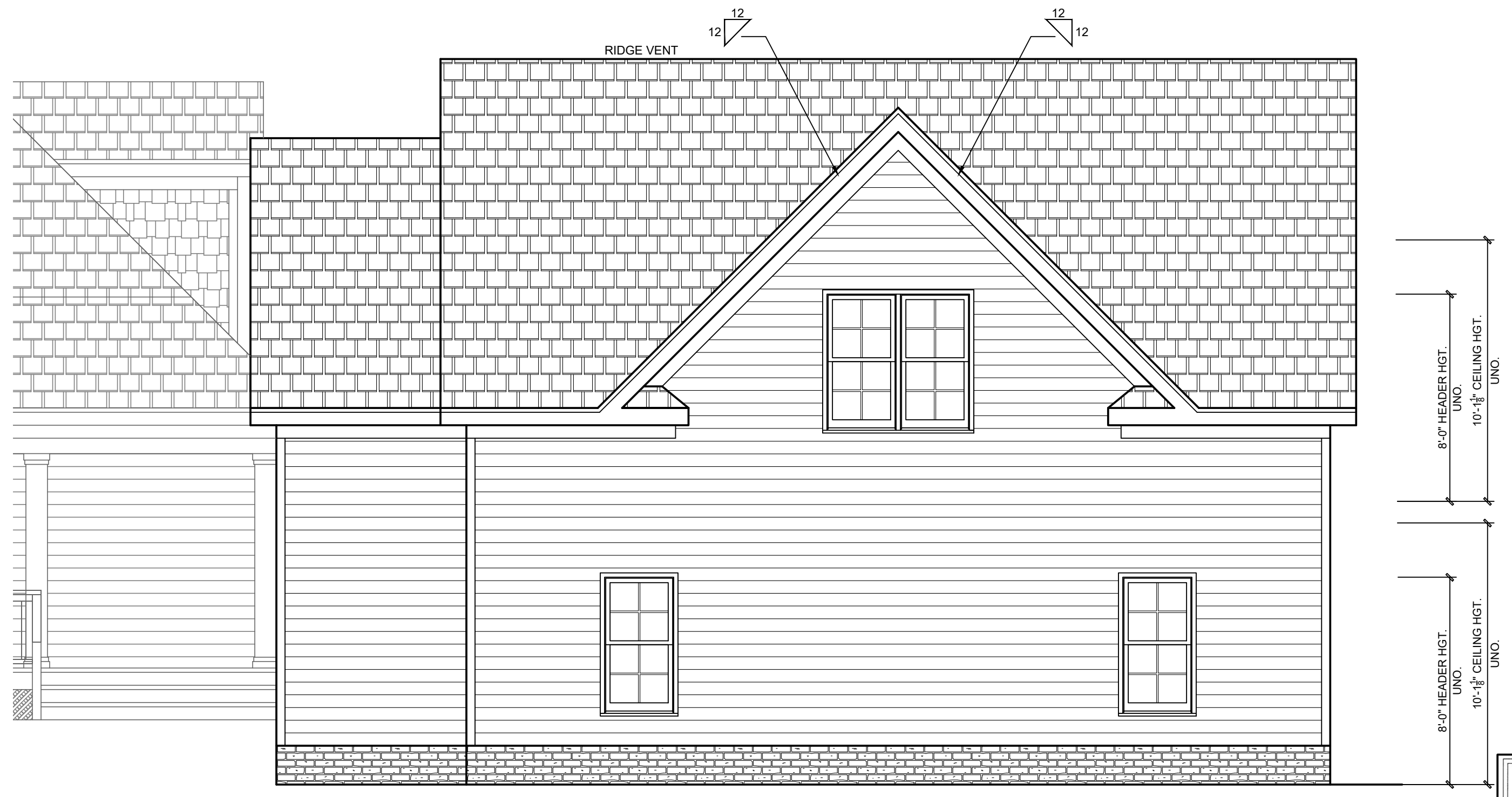
REQUIRED FLASHING LOCATIONS

- 1) ALL MATERIAL CHANGE INTERSECTIONS.
- 2) ALL WINDOW / DOOR OPENINGS.
- 3) ALL ROOF VALLEYS.

BUILDER TO VERIFY ON SITE FLASHING IS INSTALLED TO MEET CODE REQUIREMENTS.



LEFT ELEVATION
22X34 PRINTS SCALE: 1/4"=1'-0"
11x17 PRINTS SCALE: 1/8"=1'-0"



REAR ELEVATION
22X34 PRINTS SCALE: 1/4"=1'-0"
11x17 PRINTS SCALE: 1/8"=1'-0"

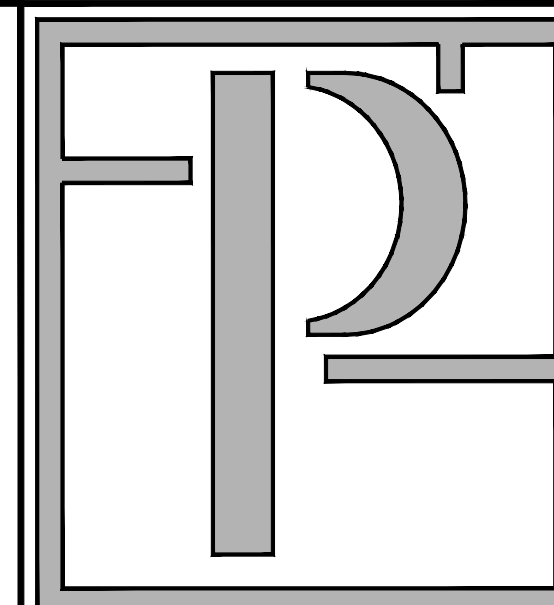
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MARC W. MILLS, R.A.
DATE SEALED: 12/21/18
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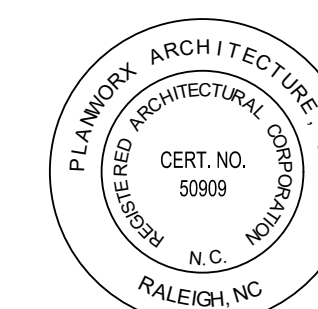
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PROJECT NO: 003218
DRAWN BY: JT/BB
CHECKED BY: BB
SHEET TITLE: Exterior Elevations
SHEET NUMBER:

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****NOTE: DETAILS PROVIDED ARE FOR PLATE DETAILS ONLY. REFER TO STRUCTURAL SHEETS & TRUSS LAYOUT PLANS TO CONFIRM FLOOR MEMBER SIZE & DIRECTIONS, RAFTER / TRUSS SIZES & DIRECTIONS, TRUSS WEBBING AND ROOF OVERHANGS.**

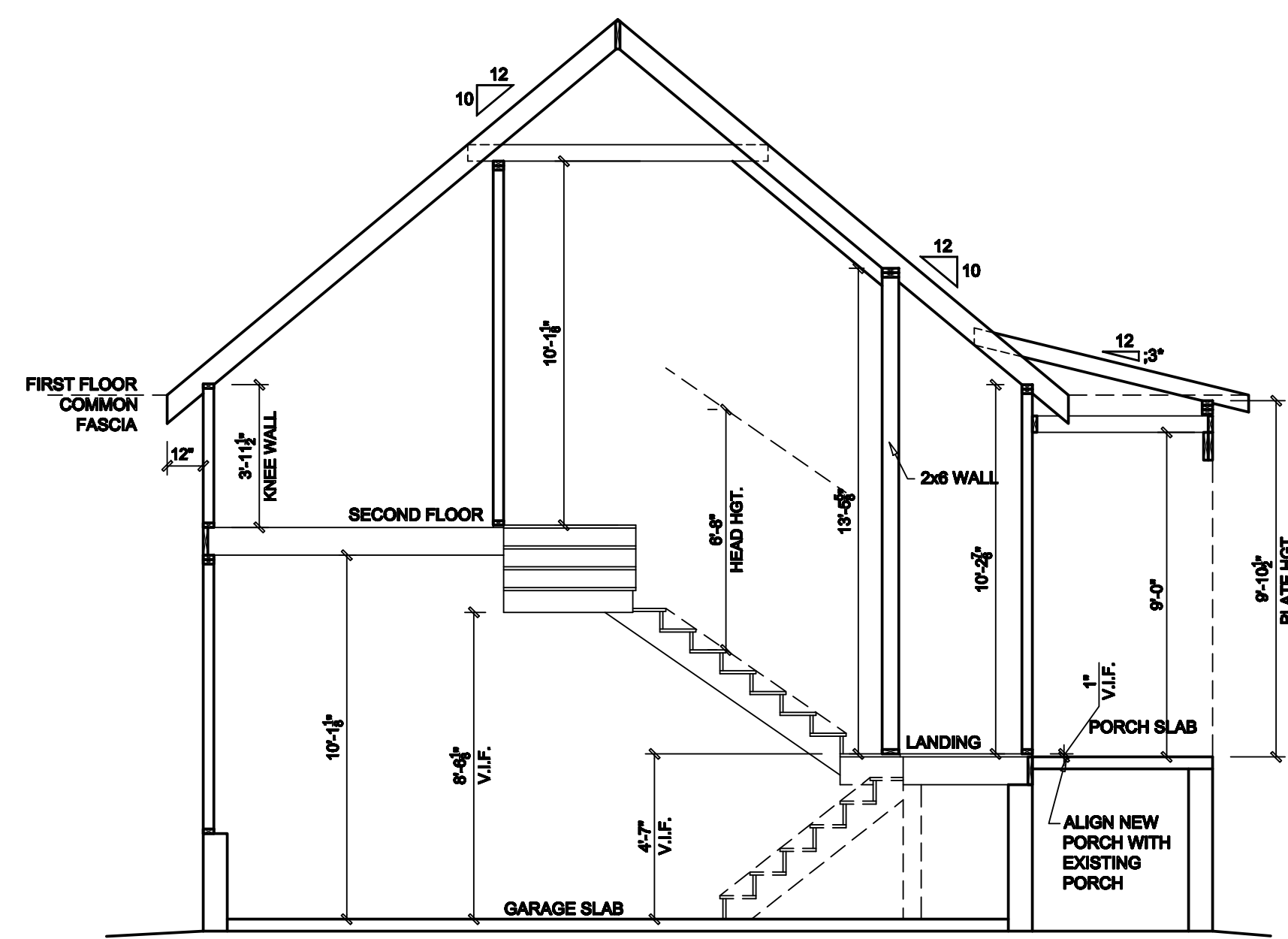
GENERAL NOTES

- *USE ICE AND WATER SHIELD AT ALL ROOF PLANES SLOPED BELOW 4:12.
- SEE FLOOR PLANS, ROOF PLAN, AND/OR ROOF FRAMING DETAIL SHEET FOR PLATE HEIGHTS AT RAFTER AND/OR TRUSS BEARING LOCATIONS.
- SEE ROOF PLANS FOR ATTIC VENTILATION CALCULATIONS.
- SEE SHEET D-2 FOR FLASHING DETAILS AND REQUIRED LOCATIONS.

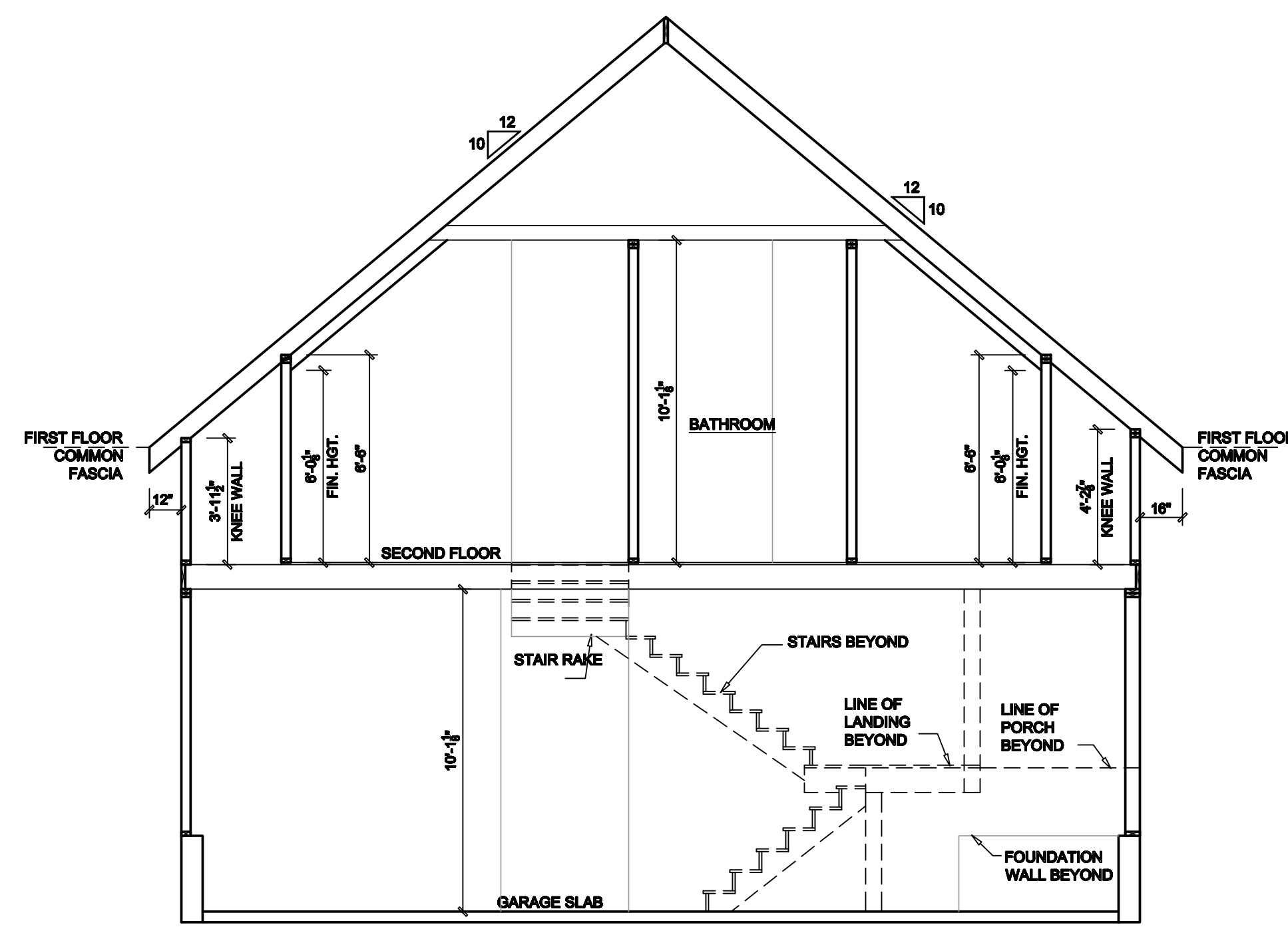
REQUIRED FLASHING LOCATIONS

- 1) ALL MATERIAL CHANGE INTERSECTIONS.
- 2) ALL WINDOW / DOOR OPENINGS.
- 3) ALL ROOF VALLEYS.

BUILDER TO VERIFY ON SITE FLASHING IS INSTALLED TO MEET CODE REQUIREMENTS.



1 BUILDING SECTION
SCALE: 1/4"=1'-0"



2 BUILDING SECTION
SCALE: 1/4"=1'-0"

THESE PLANS ARE SEALED FOR A SINGLE LOT ONLY. PLEASE NOTIFY PLANWORX ARCHITECTURE, P.A. IF PLAN IS NEEDED FOR OTHER LOTS.

STRUCTURAL DESIGN BY
MARC W. MILLS, RA

DATE SEALED:
12/21/18

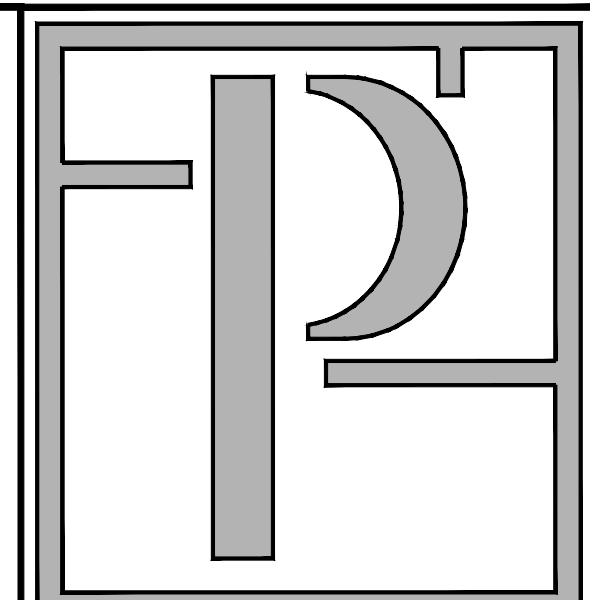
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Garage Addition
Glenwood Builders
Fuquay-Varina, NC

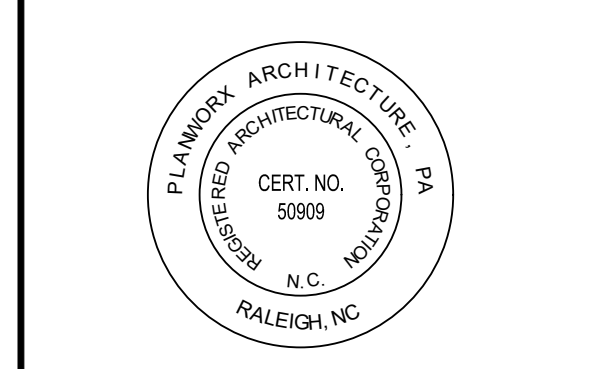
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PROJECT NO: 003218
DRAWN BY: JT/BB
CHECKED BY: BB
SHEET TITLE: Wall Section Details
SHEET NUMBER:

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Ron & Catherine Tutor
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Glenwood Builders
Fuquay-Varina, NC

ARCHITECTURAL PLANS WALL LEGEND

- STANDARD STUD WALL INT OR EXT
IF EXT SEE ELEVATIONS FOR SIDING
STYLE THICKNESS OF WALL NOTED IN PLAN NOTES OR AT WALL LOCATIONS
- STANDARD STUD WALL WITH 5" BRICK VENEER
FOUNDATION WALL LEDGE
STUD THICKNESS AS NOTED IN PLAN NOTES OR AT WALL LOCATIONS
- STANDARD STUD WALL WITH STACKED STONE VENEER
STUD THICKNESS AS NOTED IN PLAN NOTES OR AT WALL LOCATIONS
(NOTE: BUILDER TO VERIFY STONE THICKNESS & NOTIFY PLAN DESIGNER IF THICKNESS IS MORE THAN 5" BEFORE FOOTINGS ARE POURED)
- STANDARD STUD WALL WITH APPLIED STONE VENEER
STUD THICKNESS AS NOTED IN PLAN NOTES OR AT WALL LOCATIONS
(NOTE: NO FOUNDATION SUPPORT IS REPRESENTED ON STRUCTURAL PLANS)
IF STACKED STONE IS TO BE USED BUILDER MUST NOTIFY PLAN DESIGNER BEFORE FOOTINGS ARE POURED
- STANDARD STUD WALL WITH LOW APPLIED STONE WAINSCOTING.
SEE ELEVATIONS FOR HEIGHT & FINISH MATERIAL AT EXT STUD WALL ABOVE
STUD THICKNESS AS NOTED IN PLAN NOTES OR AT WALL LOCATIONS
- STANDARD STUD WALL WITH 5" FOUNDATION LEDGE FOR LOW BRICK OR STACKED STONE WAINSCOTING.
SEE ELEVATIONS FOR HEIGHT & FINISH MATERIAL AT EXT STUD WALL ABOVE. STUD THICKNESS AS NOTED IN PLAN NOTES OR AT WALL LOCATIONS
- HALF WALL WITH 1x CAP
(42" HEIGHT UNLESS NOTED OTHERWISE ON PLANS)

GENERAL NOTES

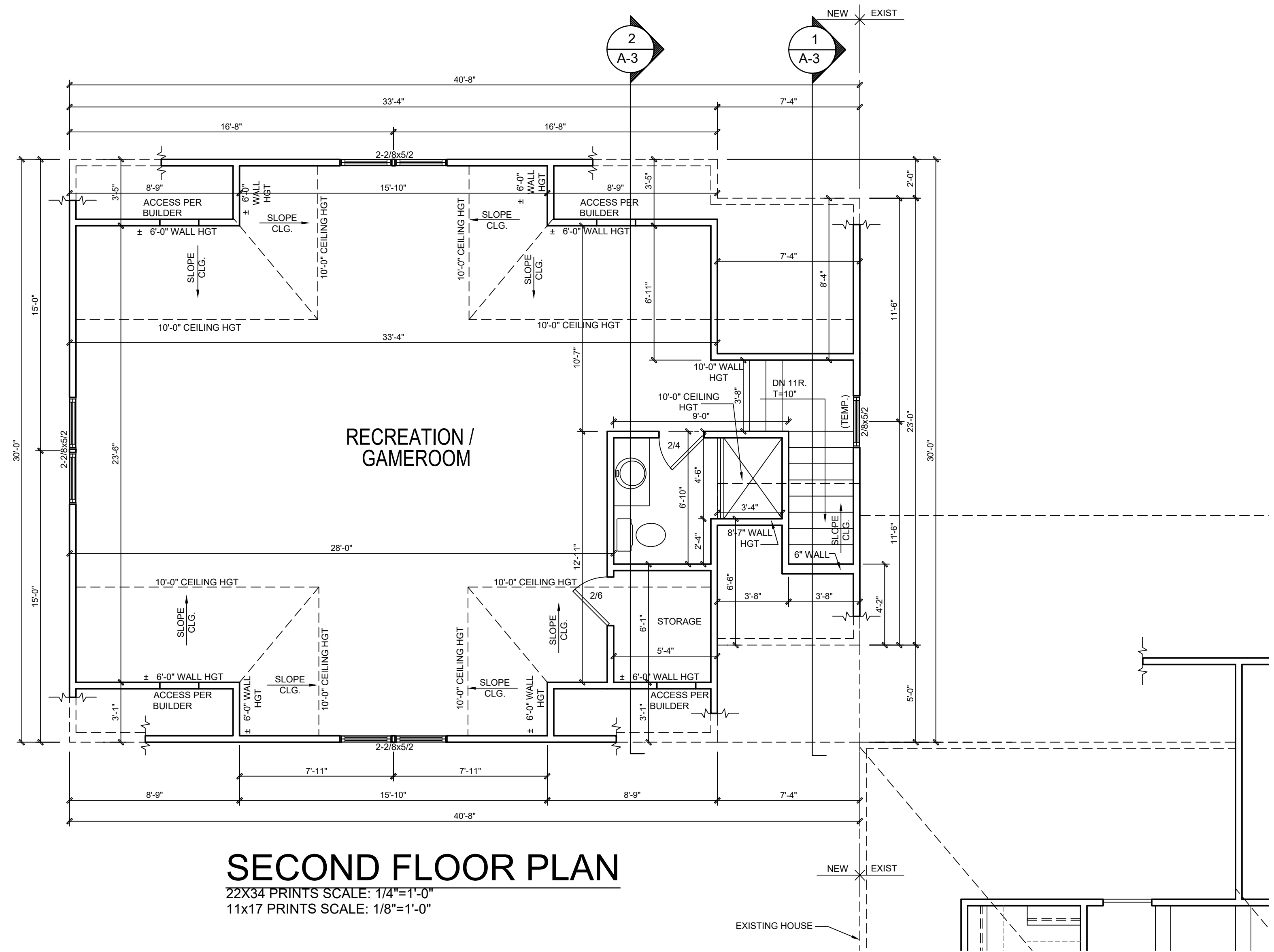
WALL THICKNESS / ANGLES
ALL EXTERIOR STUD WALLS ARE DRAWN 4" THICK U.N.O.
ALL INTERIOR STUD WALLS ARE DRAWN 4" THICK U.N.O.
ANGLED WALLS ARE DRAWN @ 45° U.N.O.

EGRESS
ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO EGRESS REQUIREMENTS FOR CLEAR OPENING HEIGHT AND WIDTH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EGRESS SIZING PER CODE BASED ON CHOSEN MANUFACTURER, AS PRODUCT SIZES MAY VARY.

WALL/CEILING HEIGHTS
WALL AND CEILING HEIGHTS NOTES ARE BASED ON NOMINAL WALL SIZE (I.E. A 9'-1 1/8" ACTUAL WALL HEIGHT IS LABELED 9'0" ON THE PLANS).

ALL VAULTED OR SLOPED CEILINGS ARE TO BE FURRED DOWN TO ACCOMMODATE REQUIRED CEILING INSULATION AND 1" AIRSPACE. VERIFY CODES FOR INFORMATION ON INSULATION REQUIREMENTS.

STAIRS
STAIR TREADS ARE MEASURED FROM NOSING TO NOSING (NN).
MAXIMUM STAIR RISE HEIGHT TO BE NO GREATER THAN 8-1/4"



Heated Square Footage

Second Floor Htd.	914
Total Htd.	914
Unheated Square Footage	
Garage - Three Car	1130
Porch Alcove	31

WINDOW FALL PREVENTION PROTECTION
IF ANY PART OF THE CLEAR OPENING OF THE OPERABLE PORTION OF A WINDOW IS LOCATED MORE THAN 72" ABOVE THE EXTERIOR GRADE THEN THE LOWEST PART OF THE CLEAR OPENING MUST BE AT LEAST 24" ABOVE THE FLOOR OF THE ROOM IN WHICH IT IS LOCATED.

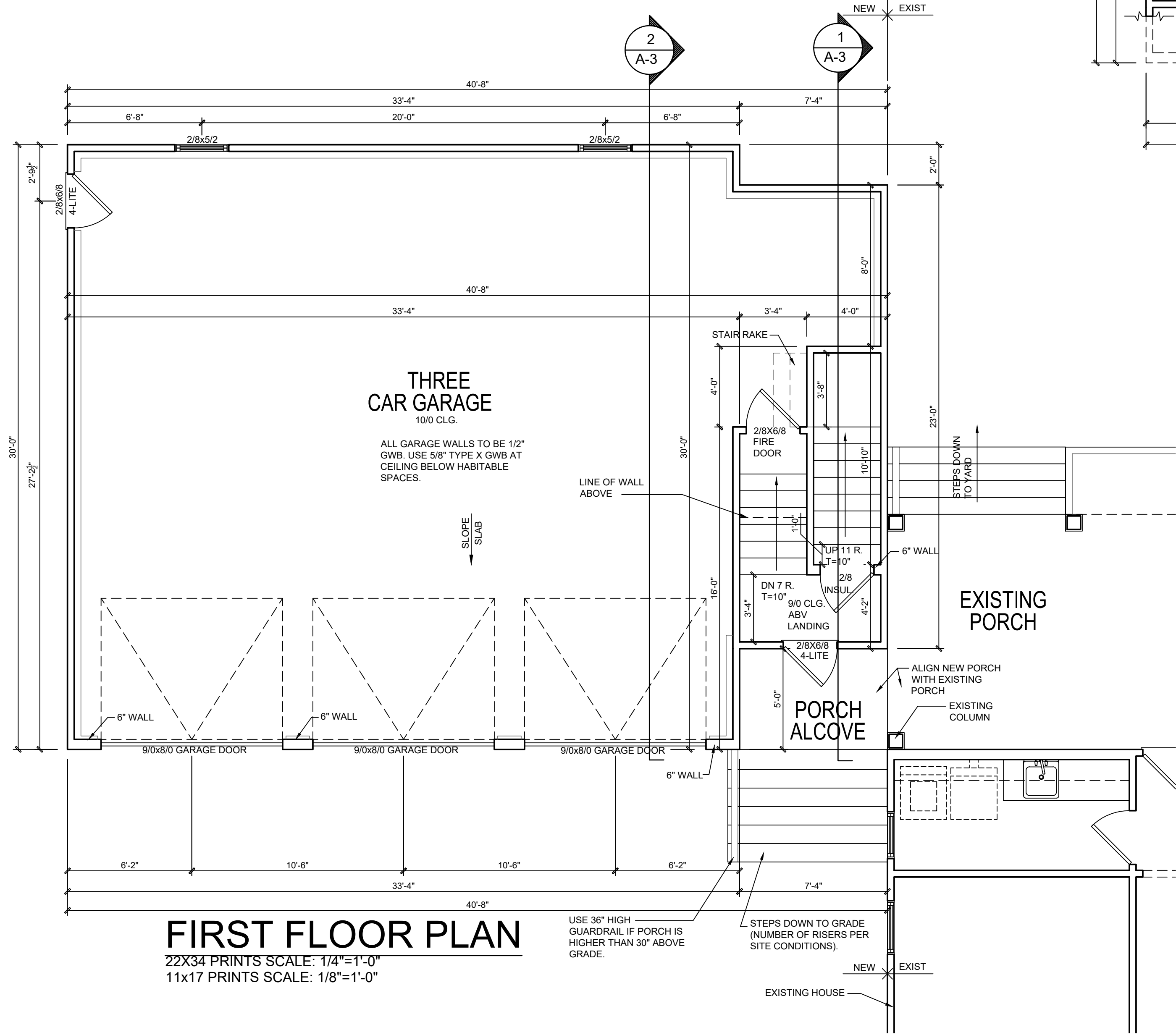
EXCEPTIONS:

- THE WINDOW IS A FIXED UNIT
- THE OPENING DOES NOT ALLOW THE PASSAGE OF A 4-INCH DIAMETER SPHERE.
- THE WINDOW IS EQUIPPED WITH A WINDOW FALL PREVENTION DEVICE MEETING ASTM F2090.
- THE WINDOW IS EQUIPPED WITH AN APPROVED WINDOW OPENING LIMITING DEVICE.

NOTE: WHEN USED WITH AN EMERGENCY ESCAPE AND RESCUE WINDOW, OPENING LIMITING DEVICES AND FALL PREVENTION DEVICES MUST BE APPROVED FOR EMERGENCY ESCAPE AND RESCUE PROVISIONS.

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PROJECT NO: 003218
DRAWN BY: JT/BB
CHECKED BY: BB
SHEET TITLE: Floor Plans
SHEET NUMBER:

A-3

A. GENERAL NOTES

- Contractor assumes all responsibility for detailing or implied structural information. Architect/Structural Engineer must be notified immediately about alternate construction or problem areas before contractor proceeds.
- Only sealed drawing with latest revisions are applicable for construction.
- All construction, workmanship, and materials to comply with 2018 N.C. State Residential Code and local regulations.
- Design Loads:

Structural System	L.L.	D.L.	T.L.	Structural System	L.L.	D.L.	T.L.
Dwelling Units (General)	40	10	50	Stairs	40	5	45
Sleeping Rooms	30	10	40	Garage and Handrails	200		200
Balconies (exterior)	60	10	70	Roof Systems	20	10	30
Decks	60	10	70	Canister Ceilings	20	15	35
Miscellaneous (attic storage)	10	10	20	Internal Partitions - Walls	9		9
Miscellaneous (roof storage)	20	10	30	Passenger Garage	50		eng.
Miscellaneous (roof storage)	40	10	50				
- Deflection: Floors: L/360, Roofs: L/240, L/480 for engineered flooring and under tiled areas, L/600 for vertical masonry support.
- Do not scale drawings. Contractor shall contact architect for queries on non-labeled items.
- Owner or builder is responsible for information on soil bearing capacity, min. assumed = 2,000 psf.

B. FOOTINGS AND FOUNDATION

- Minimum Spread Footing Sizes: (28 day strength; min 2500 psi)

Station	Wood Frame	Wood Frame + Top Deck	Masonry
1	18"	18"	18"
2	18"	18"	18"
3	18"	24"	18"
4	18"	18"	18"
- Footings shall be min 2" wider overhang on each side than the foundation above. Minimum footing depth 12" below grades, u.n.c. Footings for close adjacent piers can be combined.
- Grades and piers shall bear on center 1/3 of pier and footing optimally, but no less than 4" from pier or footing edge.
- Maximum height of unbalanced fill and reinforcing to conform with Table R404.1.1(2), (3), (4), with variables of total wall height, and soil classification. Amount and placement of rebar are per tables.
- Multiple wythe masonry walls shall have galvanized ties every 24" max. vertical and 36" horizontal.
- Rebar bolts to be min. 1/2" dia @ 6"-8" max. o.c. and max 12" from corners, and splices. Bolts shall extend min. 7" into concrete or masonry. Compression type anchors can be substituted in a case where an occasional anchor bolt is missing or misplaced.
- Concrete Pier Sizes: (Note: the larger of the two chart's requirements governs)

Size	Below Masonry*	Solid Masonry	Size	Below Masonry*	Solid Masonry
816"	up to 32" high	up to 5'-0" high	1816"	up to 64" high	up to 12'-0" high
1216"	up to 48" high	up to 8'-0" high	2416"	up to 96" high	up to 15'-0" high
	*Top 8" Solid				
- Typical lag footing to be 20" x 10" deep, u.n.c.
- Poured concrete walls shall be min 10" thick, if retaining under 6' of unbalanced fill reinforcement wall vertically w/ #4 @ 16" o.c. and horizontal bars #4 @ 16" o.c. If retaining over 6' unbalanced fill use #4@12" o.c. hooked into footing, and horizontal bars #4 @ 12" o.c.

C. FRAMING

- Crawl space girders are (3) 2x10 @ 24" o.c. spaced/2x6, dropped, u.n.c.
- All framing lumber shall be #2 SPF (modulus of elasticity 1,600,000 psi, ft 950) or better. All beams and treated lumber to be #2 SPF, E=1,600,000, ft=1100 min. Studs min #2 or stud grade.
- Joists: min 1-1/4" joist bearing, min 1-1/2" at intermediate supports. Max 3,200 ft-lb moment. E=1,850,000, max 1,100' wpt shear, max 1,015' end reaction. LVL's to be 2.0E grade, Fy=2950, L/360 max. deflection.
- Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections is the sole responsibility of the general contractor and his subs.
- Provide double top plates in all exterior walls. Stagger joints min 48", w/ (8) 16d.
- Set all joists and beams with natural camber up. Ends lapped min 6" over bearing shall be securely spiked together. Provide at least 1-1/2" bearing on all joists and 3" for beams (U.N.C.).
- All framing exposed to masonry or weather to be pressure treated. Sills min. 2x6.
- Structural member fastening to conform to Table R602.3(1) and (2).
- With 2x floor members, use double joists A) under parallel partitions; B) under opening multiple joists C) under tube if joist spans > 12". Joists and floor trusses do not have to be doubled unless shown on the structural plans.
- Provide 2x6 attic collar ties at 32" o.c. at upper 1/3 of attic space, u.n.c.
- Studs and joists shall not be cut for plumbing/electrical/mechanical runs without adding strapping to each side per R602.6. Architect/Structural Engineer is not responsible for failures in cut members. Do not cut beams or girders.
- Bottom frame gable and vaulted walls and all walls higher than 12" w/ 2x6 @ 16" o.c. or dbl. 2x4 @ 12", or platformed 2x4 with dbl 2x10 band with Simpson C316 x 36" @ 12" o.c., top studs to bottom studs.
- All exterior headers to be (2) 2x10 u.n.c. w/ dbl. joists for all openings > 5'-0".
- All interior bearing headers to be (2) 2x10 u.n.c. w/ dbl. joists for all openings > 6'-0".
- All interior non-bearing headers to be min. (2) 2x4 flat u.n.c.
- Feedback to conform with R302.11.

D. STEEL

- BRICK VENEER Lintel Attachment:
 - Use Min. (2) 7/16x4" lag screws into double studs @ 16" o.c.
 - All bolts shall be high strength conforming to ASTM A-305.
 - Structural steel shall be ASTM grade A-36 supported across full width of flange. Provide min. 3-1/2" bearing, or more if indicated. Steel beams shall be anchored at each end with min. (4) 16d nails or (2) 1/2" x 4" lag bolts and laterally supported.
 - Flitch beams to be fastened together using 1/2" dia diameter A307 bolts with washers under threaded end of bolt, square washers preferred. Bolts will be spaced at 24" maximum staggered top and bottom of beam.
- Planworx Architecture, P.A. will not assume any liability for expenses associated with errors and omissions on these drawings unless offer by verified construction savings as a result of Planworx Architecture, P.A. Design.
- Planworx Architecture, P.A. retains ownership of all of designs depicted and implied herein.

HEADER SCHEDULE

(A) (2) 2x10 FLUSH
 (B) (2) 2x10 DROPPED
 (C) (2) 2x8 FLUSH
 (D) (2) 2x8 DROPPED
 (E) (2) 9 1/4" LVL FLUSH
 (F) (2) 9 1/4" LVL DROPPED
 (G) (3) 2x10 DROPPED
 (H) W18x50 DROPPED
 (J) (3) 11 7/8" LVL DROPPED
 (K) (3) 9 1/4" LVL FLUSH OR DROPPED

WALL BRACING DESIGN SPEC'S

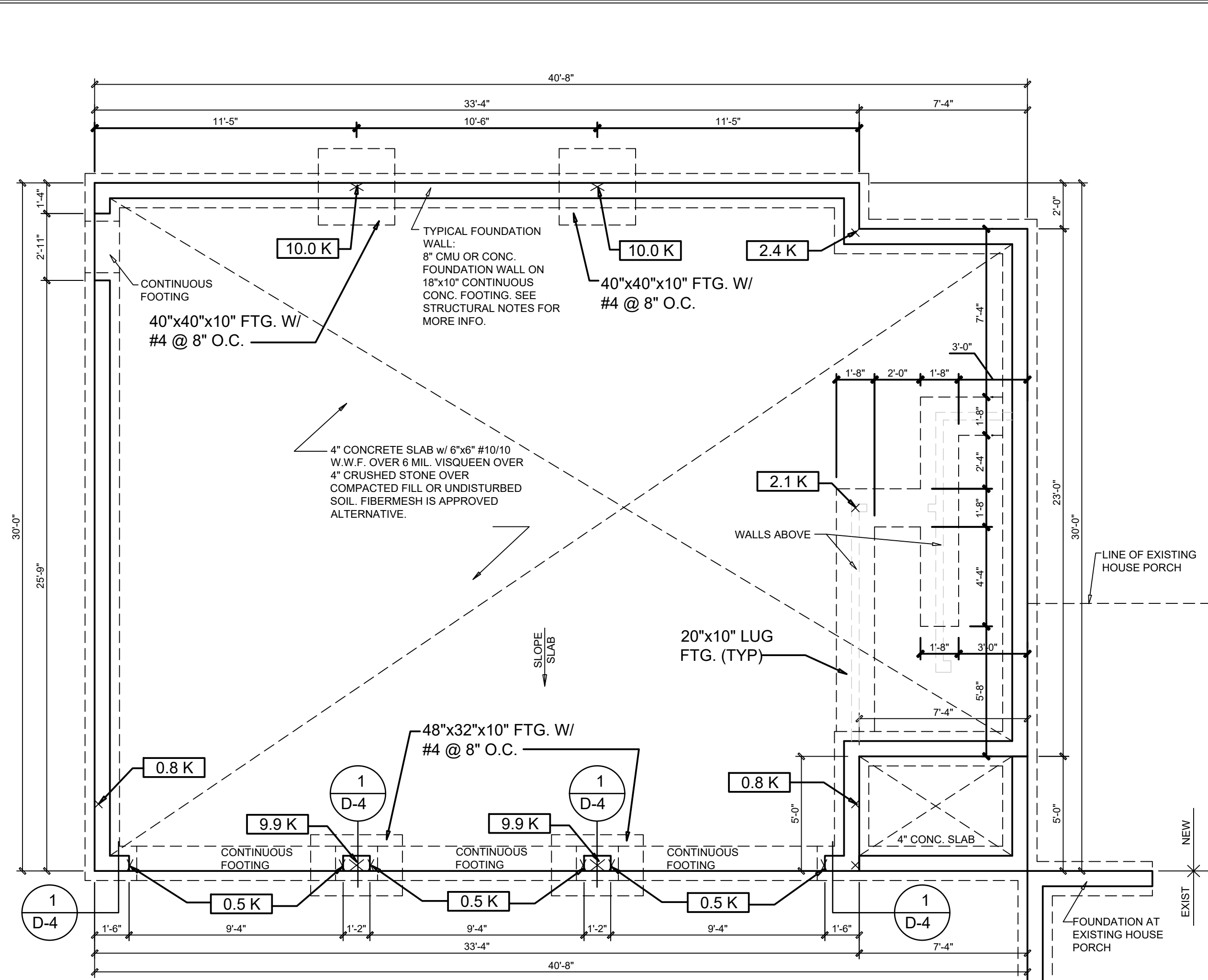
BASED ON 2018 NCR (REVISED SECTION R602.10 DATED 9-1-13)

- THIS HOUSE IS DESIGNED USING PER R602.10.3 AND TABLE R602.10.1, USING CONTINUOUS SHEATHING METHOD.
- BASIC WIND SPEED DOES NOT EXCEED 110 (MPH)
- EAVE TO RIDGE HEIGHT DOES NOT EXCEED 20'-0".
 IF RIDGE TO EAVE EXCEEDS 20'-0", IN NON WALK-UP ATTIC GABLE WALL SITUATIONS, USE ONE OF THE GABLE BRACE WALL DETAILS AS DESCRIBED:
 1. IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE IS LESS THAN 12'-0", USE DETAIL 9/D-4 W/ MID HEIGHT BRACE.
 2. IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE EXCEEDS 12'-0", USE DETAIL 9/D-4 W/ 1/2 HEIGHT BRACES.
- EXTERIOR WALLS HAVE BEEN SHEATHED ON ALL SHEATHABLE SURFACES W/ 5/8" OSB INCLUDING WALL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW OPENINGS, AND ON ALL GABLE END WALLS. NAIL W/ 6d AT 6" O.C. AT PANEL EDGES AND 12" AT INTERMEDIATE SUPPORTS.
- GARAGE PORTAL FRAME SPECIFICATIONS USED PER DETAIL #1A ON SHEET D-4.
- SEE SHEET D-4 FOR NAILING & BRACING REQUIREMENTS.
- SPECIAL FRAMING REINFORCEMENT (IF REQUIRED) IS SHOWN ON PLAN WITH A DIAMOND SYMBOL ◊. THE NUMBER INSIDE SYMBOL DESIGNATES LENGTH OF SIMPSON CS-16 STRAP CONTINUOUS VERTICALLY EITHER:
 A) FROM UPPER FLOOR STUDS OVER INTERMEDIATE FLOOR BAND ONTO LOWER FLOOR STUDS BELOW, OR
 B) FROM TOP PLATES OF ONE STORY WALL DOWN CRIPPLE STUDS AND HEADER END, WITH # IN DIAMOND BEING LENGTH ONTO JACKS BELOW.
 AT FLOOR TO FOUNDATION CONNECTION USE EITHER:
 (a) SIMPSON MAS OR MASB
 (b) SIMPSON DTTZZ (1800lb UPLIFT RESISTANCE) W/ (MIN) 1/2" ANCHOR BOLT W/ (MIN) 7" EMBEDMENT.
- IN LIEU OF THE STRAPPING, USE OSB ON BOTH SIDES OF GARAGE WALLS. THIS WILL BE NAILED WITH EITHER 6d DEFORMED OR 8d COMMON NAILS AT 6" O.C. AT EDGES AND 12" O.C. IN FIELD, PER NCR TABLE R602.3(1).

WALL BRACING REQUIRED/PROVIDED

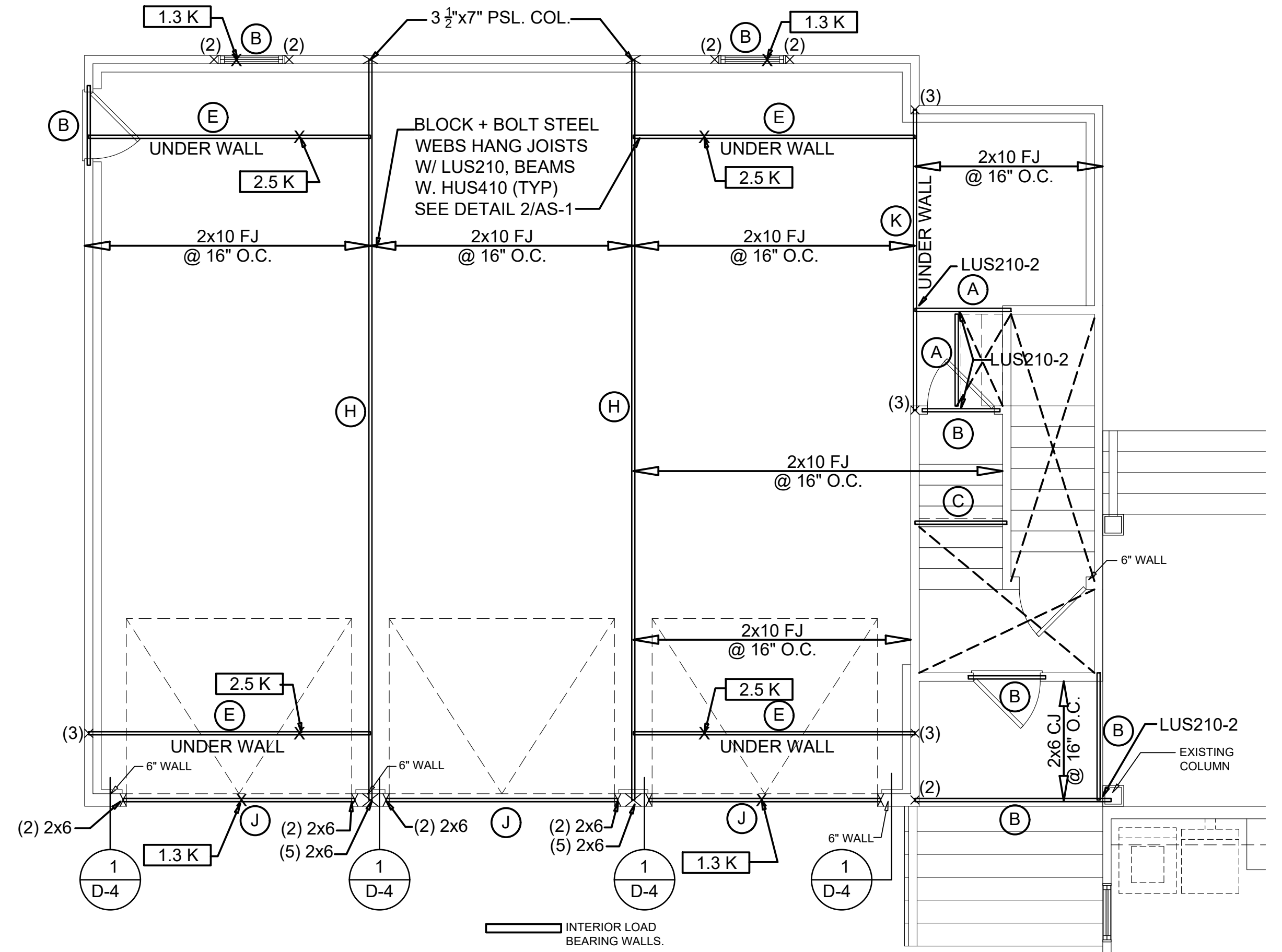
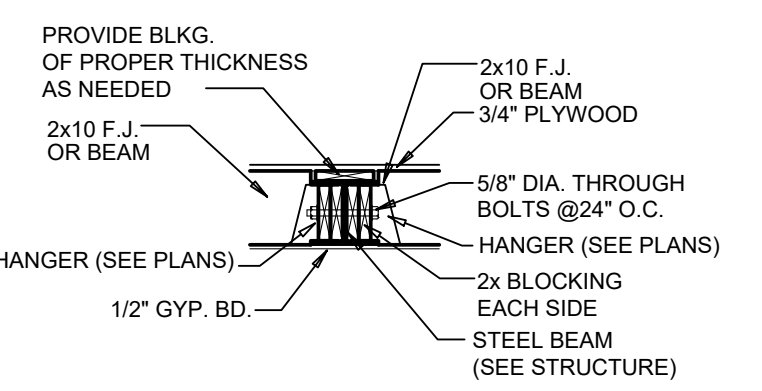
FIRST FLOOR:	REQUIRED	PROVIDED	THEREFORE COMPLIES
36.5'	92.0'		

SECOND FLOOR: THE SECOND FLOOR BRACING IS EQUAL TO OR EXCEEDS THE FIRST FLOOR, SO THAT IT COMPLIES, AND NO ANALYSIS IS REQUIRED PER R602.10.3.2 #5 AND #6



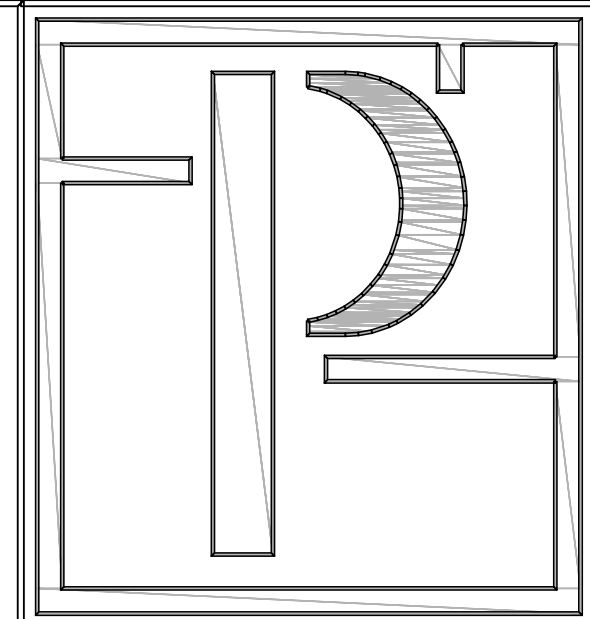
GENERAL FOUNDATION NOTES

- FOUNDATION WALL SIZES & COMPOSITION MUST BE VERIFIED BY BUILDER AND/OR STRUCTURAL ENGINEER, AND MUST COMPLY WITH N.C. BUILDING CODES.
- THE SIZE OF CONCRETE PADS AT STEPS TO GRADE FROM PORCHES, DECKS, STOOPS, ETC. IS TO BE DETERMINED BY BUILDER ON SITE.



THESE PLANS ARE SEALED FOR A SINGLE LOT ONLY. PLEASE NOTIFY PLANWORX ARCHITECTURE, P.A. IF PLAN IS NEEDED FOR OTHER LOTS

STRUCTURAL DESIGN BY
 MARC W. MILLS, RA
 DATE SEALED:
 INVALID IF UNSEALED
 NORTH CAROLINA LICENSE # 1519



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Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

PROGRESS DATE:	ISSUE DATE:	REVISIONS NUMBER	INITIALS
12/21/18			

PROJECT NO: 003218
 DRAWN BY: JT/BB
 CHECKED BY: BB
 SHEET TITLE: Foundation & Second Floor Framing
 SHEET NUMBER:

AS-1

1. All drawings are to be coordinated with all site information by owner and contractor, and applicable codes. 2. Planworx Architecture, P.A. will not assume any liability for expenses associated with errors and omissions on these drawings unless offer by verified construction savings as a result of Planworx Architecture, P.A. Design. 3. Planworx Architecture, P.A. retains ownership of all of designs depicted and implied herein. 4. Planworx Architecture, P.A. will not assume any liability for expenses associated with errors and omissions on these drawings unless offer by verified construction savings as a result of Planworx Architecture, P.A. Design. 5. Planworx Architecture, P.A. retains ownership of all of designs depicted and implied herein. 6. Planworx Architecture, P.A. is not responsible for estimating, maintaining, or regulating construction costs associated with these plans. Copyright 2017 - PLANWORX ARCHITECTURE, P.A. All rights reserved. Reproduction of this sheet, in whole or in part, is strictly prohibited. Plans NOT VALID FOR CONSTRUCTION W/O APPROPRIATE PROFESSIONAL SEALS.

A. GENERAL NOTES

- Contractor assumes all responsibility for deviating from depicted or implied structural information. Architect/Structural Engineer must be notified immediately about alternate construction or problem areas before contractor proceeds.
- Only sealed drawings with latest revisions are applicable for construction.
- All construction, workmanship, and materials to comply with 2018 N.C. State Residential Code and local regulations.
- Design Loads:

Structural System	L.L.	D.L.	T.L.	Structural System	L.L.	D.L.	T.L.
Dwelling Units (general)	40	10	50	Stairs	40	5	45
Sleeping Rooms	30	10	40	Guardrails and Handrails	200		200
Bathrooms (entire)	60	10	70	Roof Systems	20	10	30
Decks	40	10	50	Cathedral Ceilings	20	15	35
Attics (insulated attic storage)	20	10	30	Internal Partition Walls			9
Attics (with storage)	20	10	30	Passenger Garage	50	per	emp.
Attics (with fixed stairways)	40	10	50				
- Deflection: Floors: L/360, Roofs: L/240, L/480 for engineered flooring and under tiled areas, L/600 for vertical masonry support.
- Do not scale drawings. Contractor shall contact architect for queries on non-labeled items.
- Owner or builder is responsible for information on soil bearing capacity, min. assumed = 2,000 psf.

B. FOOTINGS AND FOUNDATION

- Minimum Spread Footing Sizes (28 day strength; min 2500 psi)

Stores	Min. Ftg. Width	Min. Ftg. Depth	Min. Ftg. High	Min. Ftg. Width	Min. Ftg. Depth	Min. Ftg. High
1	18"	8"	20"	18"	8"	20"
2	18"	8"	20"	18"	8"	20"
3	18"	8"	20"	18"	8"	20"
- Grids and piers shall bear on center 1/3 of pier and footing optimally, but no less than 4" from pier or footing edge.
- Maximum height of unbalanced fill and reinforcing to conform with Tables R404.1.(1), (2), (3), (4), with variables of total wall height and soil classification. Amount and placement of rebar as per tables.
- Multiple wythe masonry walls shall have galvanized ties every 24" max. vertical and 36" horizontal.
- Anchor bolts to be min. 1/2" dia. @ 6"-0" max. o.c. and max 12" from corners, and splices.
- Balls shall extend min. 3" into concrete or masonry. Compression type anchors can be substituted in a case where an occasional anchor ball is missing or misplaced.
- Concrete Pier Sizes (Note: the larger of the two chart's requirements governs)

Site	Block Masonry*	Solid Masonry	Site	Block Masonry*	Solid Masonry
8X16	up to 12' high	up to 5'-0" high	18X16	up to 8'-0" high	up to 12'-0" high
12X16	up to 8'-0" high	up to 9'-0" high	24X16	up to 9'-0" high	up to 15'-0" high
- Typical lag footing to be 20" x 10" deep, u.n.o.
- Placed concrete walls shall be min. 10" thick. If retaining under 4' of unbalanced fill rebar will vertically w/ #4 @16" o.c. and horizontal bars #4 @ 12" o.c. If retaining over 4' unbalanced fill use #4@12" o.c. hooked into footing, and horizontal bars: #4 @ 12" o.c.

HEADER SCHEDULE

- (A) (2) 2x10 FLUSH
- (B) (2) 2x10 DROPPED
- (C) (2) 2x8 FLUSH
- (D) (2) 2x8 DROPPED
- (E) (2) 9 1/4" LVL FLUSH
- (F) (2) 9 1/4" LVL DROPPED
- (G) (3) 2x10 DROPPED
- (H) W18x50 DROPPED
- (J) (3) 11 7/8" LVL DROPPED
- (K) (3) 9 1/4" LVL FLUSH OR DROPPED

WALL BRACING REQUIRED/PROVIDED

FIRST FLOOR:	36.5'	REQUIRED
SECOND FLOOR:	92.0'	PROVIDED
		THEREFORE COMPLIES

SECOND FLOOR: THE SECOND FLOOR BRACING IS EQUAL TO OR EXCEEDS THE FIRST FLOOR, SO THAT IT COMPLIES, AND NO ANALYSIS IS REQUIRED PER R602.10.3.2 #6 AND #6

C. FRAMING REV: 12/11/18

- Crawl space girders are (3) 2x10 #2 spruce/pine/fir, dropped, u.n.o.
- All framing lumber shall be #2 SPF (modulus of elasticity 1,400,000 psi, fb 950) or better. All beams and truss members to be #2 SPF, E=1,600,000, fb=1100 min. Studs min #2 or stud grade.
- Joists: min 1-3/4" joist bearing, min 3-1/2" at intermediate supports. Max 3,200 lb-ft moment.
- Use 18S,200,200; max 1,100 lb wet. dead, max 1,215 lb reaction.
- LVL's to be 2.0E grade, Fy=2850, L/360 max. deflection.
- Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections to be sole responsibility of the general contractor and his subs.
- Provide double top plates in all exterior walls. Stagger joints min 48", w/ @ 18" fid.
- Set all joists and beams with natural-camber up. Ends lapped min. 6" over bearing shall be securely spiked together. Provide at least 1-1/2" bearing on all joists and 3" for beams (U.N.O.).
- All framing exposed to masonry or weather to be pressure treated. Sills min. 2x6.
- Structural member fastening to masonry to be in accordance with R602.3(1) and (2).
- With 2x framing members, use double joists: A) under parallel partitions; B) under opening multiple jacks C) under tubs if joist spans > 12". I-joists and floor trusses do not have to be doubled unless shown on the structural plans.
- Provide 2x6 attic collar ties at 32" O.C. at upper 1/3 of attic space, u.n.o.
- Studs and joists shall not be cut for plumbing/electrical/mechanical runs without adding strapping to each side per R602.6. Architect/Structural Engineer is not responsible for failures in cut members. Do not cut beams or girders.
- Bottom frame gable end vaulted walls and all walls higher than 12' w/ 2x6 @16" o.c. or dbl. 2x4 @ 12" or diaphragm 2x4 with dbl 2x10 bond with Simpson CS15 x 20 @ 32" o.c. top studs to bottom studs.
- All exterior headers to be (2) 2x10 u.n.o. w/ dbl. joists for all openings > 5'-0"
- All interior bearing headers to be (2) 2x10 u.n.o. w/ dbl. joists for all openings > 6'-0"
- All interior non-bearing headers to be min. (2) 2x4 flat u.n.o.
- Fireblock to conform with R302.11.

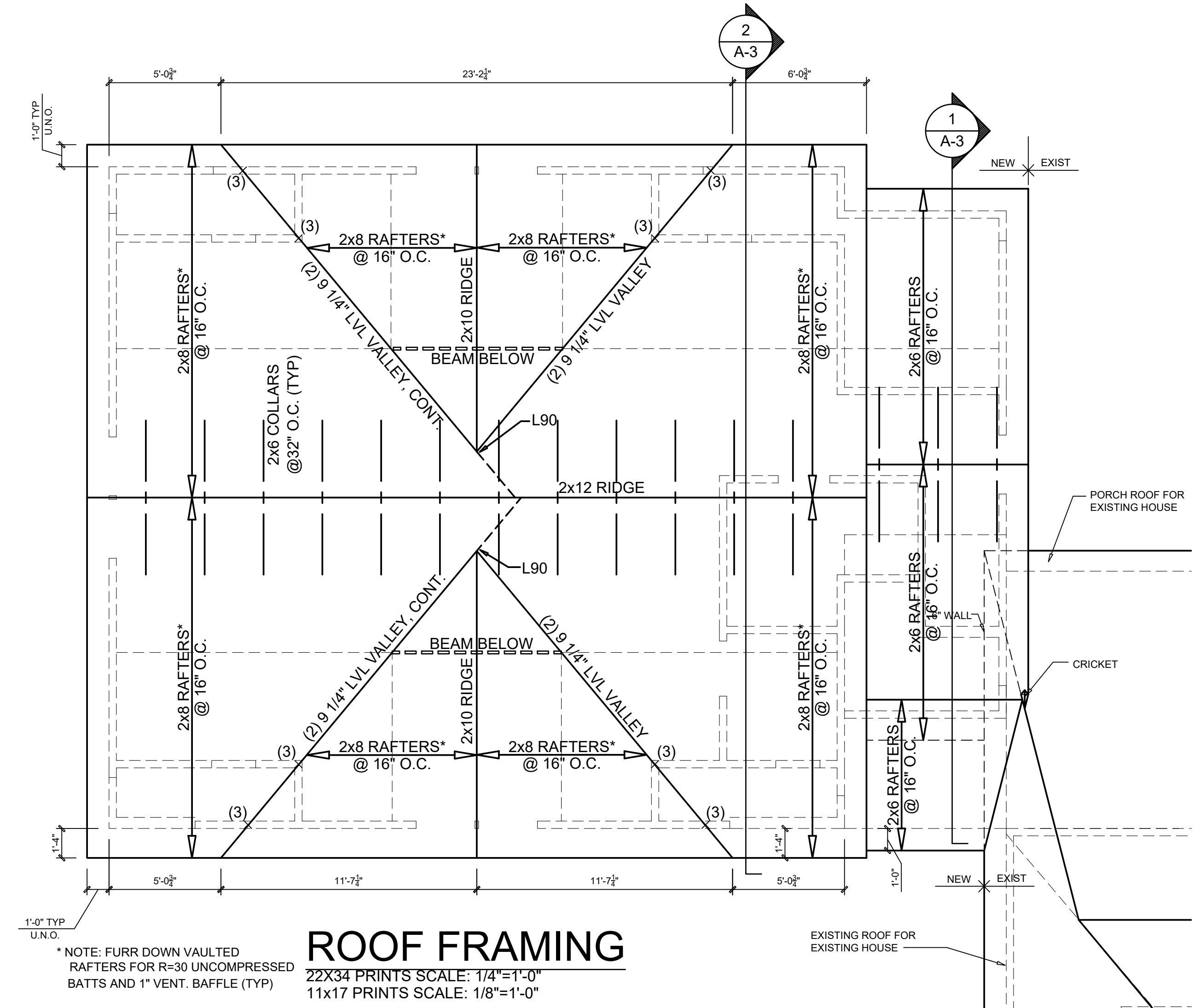
D. ROOF FRAMING NOTES REV: 12/11/18

- Double hips may be spliced with a minimum 60" overlap at center. No valley splices.
- Use 2x12 or 6" over rafters for vaulted areas.
- Attach vaulted rafters with hurricane connectors: Simpson H-25, H-5 or approved equal.
- Align all rafters under studs below.
- Brick above low roofs to have triple rafter of low roof with L4x3-1/2x1/4" and 16d nails @12" o.c. Low end to have 3x3 1/4" welded plate dam.
- All point loads to be columned/blocked (through joists) down to foundation.
- Hanger Schedules (Simpson hangers) for beam to beam connections (unless noted otherwise):
 - (1) 2X10: US210-2
 - (2) 2X10: US210-3
 - (3) 3-1/4" LVL: US210-10
- Deck posts min. 4'-0" above grade are to be knee or diagonally braced per Appendix M. Fastening to house will be by nailer with 5/8" bolts @ 20" o.c. and (3) 1/2" hot dipped galv. @ 6" o.c.
- Truss drawings must be sealed by the truss manufacturer and reviewed by Planworx Architecture. Truss drawings to design and document all required beams, hangers, and point load reactions. Truss drawings package to carry all information required under R502.1.1.4.
- Corners shall be braced with one of the approved methods as outlined in R602.10.3.
- Multiple LVL's up to a 3-ply shall be connected by min. 3-1/2" nails per row 12" on center on each side. Also, for double 14" LVL's or deeper, connect beams with min. 4-1/2" nails per row at 12" on center. (unless noted otherwise) Please refer to manufacturer specifications for further instructions for proper nailing on specific products. All 4-ply LVL's shall be through bolted with 1/2" bolts @ 18" o.c. staggered or 5/8" bolts @ 24" o.c. staggered.

WALL BRACING DESIGN SPEC'S

BASED ON 2018 N.C.R.C. (REVISED SECTION R602.10 DATED 9-1-13)

- THIS HOUSE IS DESIGNED USING PER R602.10.3 AND TABLE R602.10.1, USING CONTINUOUS SHEATHING METHOD.
- BASIC WIND SPEED DOES NOT EXCEED 110 (MPH)
- SAVE TO RIDGE HEIGHT DOES NOT EXCEED 20'-0"
- IF RIDGE TO EAVE EXCEEDS 20'-0" IN NON WALK-UP ATTIC GABLE WALL SITUATIONS, USE ONE OF THE GABLE BRACEWALL DETAILS AS DESCRIBED:
 - IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE IS LESS THAN 12'-0", USE DETAIL 9D-4 W/ MID HEIGHT BRACE.
 - IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE EXCEEDS 12'-0", USE DETAIL 9D-4, W/ 1/2 HEIGHT BRACES.
- EXTERIOR WALLS HAVE BEEN SHEATHED ON ALL SHEATHABLE SURFACES W/ 5/8" OSB INCLUDING WALL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW OPENINGS, AND ON ALL GABLE END WALLS NAIL W/ 6d AT 6" O.C. AT PANEL EDGES AND 12" AT INTERMEDIATE SUPPORTS.
- GARAGE PORTAL FRAME SPECIFICATIONS USED PER DETAIL #1A ON SHEET D-4.
- SEE SHEET D-4 FOR NAILING & BRACING REQUIREMENTS.
- SPECIAL FRAMING REINFORCEMENT (IF REQUIRED) IS SHOWN ON PLAN WITH A DIAMOND SYMBOL = \diamond THE NUMBER INSIDE SYMBOL DESIGNATES LENGTH OF SIMPSON CS-16 STRAP CONTINUOUS VERTICALLY EITHER FROM UPPER FLOOR STUDS OVER INTERMEDIATE FLOOR BAND ONTO LOWER FLOOR STUDS BELOW, OR FROM TOP PLATES OF ONE STORY WALL DOWN CRIPPLE STUDS AND HEADER END, WITH # IN DIAMOND BEING LENGTH ONTO JACKS BELOW AT FLOOR TO FOUNDATION CONNECTION USE EITHER (a) SIMPSON MAS OR MABE (b) SIMPSON DITZ 1800lb UPLIFT RESISTANCE) W/ (MIN) 1/2" ANCHOR BOLT W/ (MIN) 7" EMBEDMENT.
- IN LIEU OF THE STRAPPING, USE OSB ON BOTH SIDES OF GARAGE WALLS. THIS WILL BE NAILED WITH EITHER 6d DEFORMED OR 8d COMMON NAILS AT 6" O.C. AT EDGES AND 12" O.C. IN FIELD, PER N.C.R.C. TABLE R602.3(1).

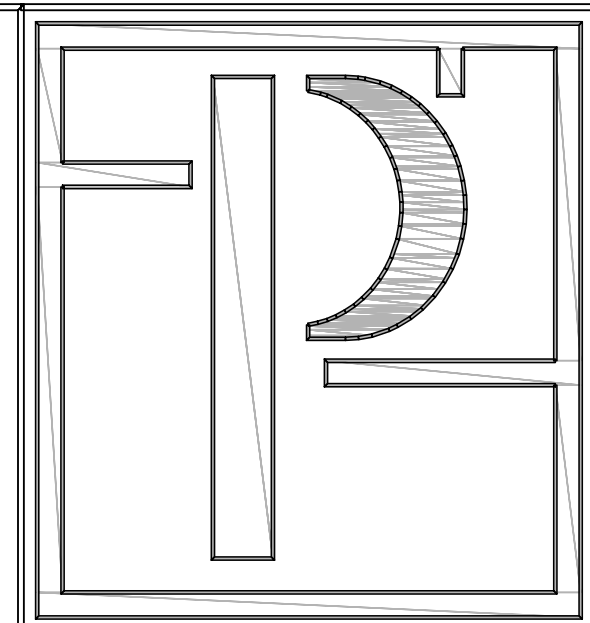
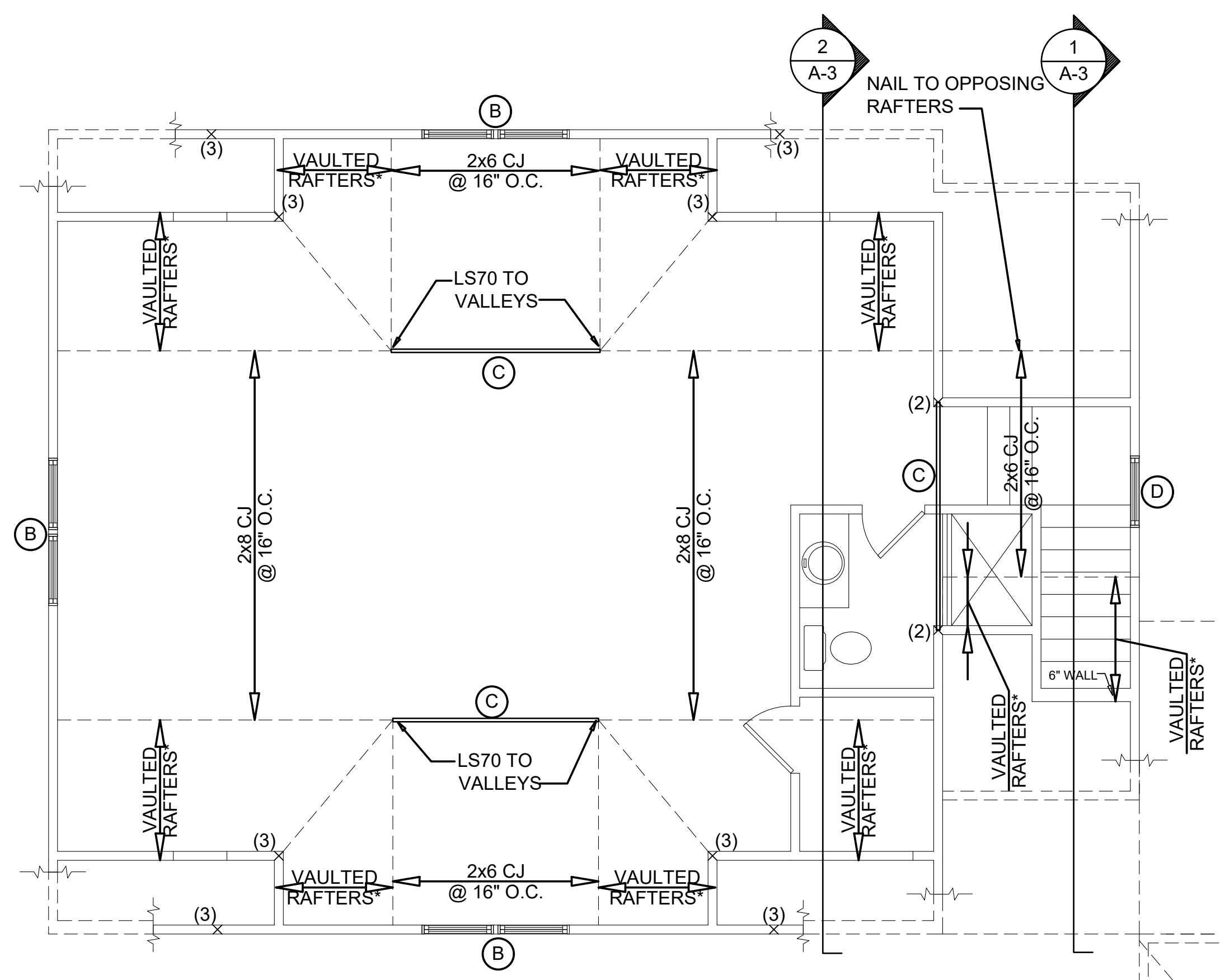


Roof Ventilation

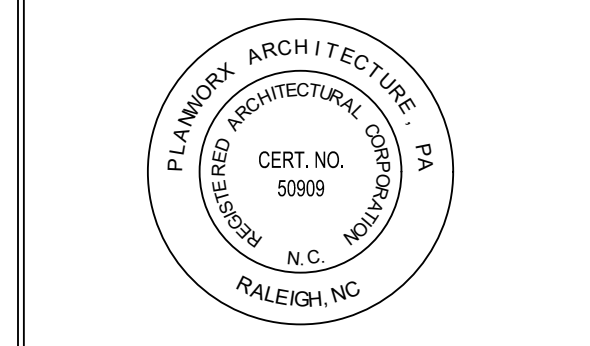
A	Ceiling area (square footage)	1205
B	Sqft. of ventilation required	8.0

Formulas: B = A / 150

Notes:
Builder to calculate quantities and types of vents to make up the minimum requirement. Attic ventilation shall be approximately 50% soffit, and 50% high (gable end or ridge vents).



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web site www.planworx.com



Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

PROGRESS DATE:	12/21/18	DESCRIPTION:	
ISSUE DATE:		REVISIONS:	
		NUMBER:	
		DATE:	
		INITIALS:	

PROJECT NO: 003218
DRAWN BY: JT/BB
CHECKED BY: BB

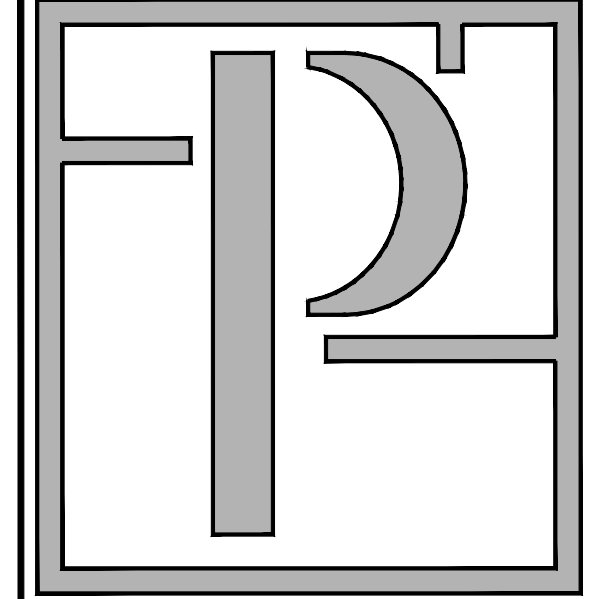
SHEET TITLE: Second Floor Ceiling & Roof Framing
SHEET NUMBER:

THESE PLANS ARE SEALED FOR A SINGLE LOT ONLY. PLEASE NOTIFY PLANWORX ARCHITECTURE, P.A. IF PLAN IS NEEDED FOR OTHER LOTS

STRUCTURAL DESIGN BY
MARC W. MILLS, RA
DATE SEALED: 12/11/18
INVALID IF UNSEALED
NORTH CAROLINA LICENSE # 1519
RALEIGH, NC

PROFESSIONAL SEAL FOR MARC W. MILLS, RA, LICENSE # 1519, NORTH CAROLINA

1. All drawings are to be coordinated with all site information by owner and contractor, and applicable codes. 2. Planworx Architecture, P.A. is not responsible for constructed variations from the information depicted. 3. Planworx Architecture, P.A. will not assume any liability for expenses associated with errors and omissions on these drawings unless offset by verified construction savings as a result of Planworx Architecture, P.A. Design. 4. Planworx Architecture, P.A. All rights reserved. 5. Planworx Architecture, P.A. retains ownership of all of designs depicted and implied herein. 6. Planworx Architecture, P.A. is not responsible for estimating, maintaining, or regulating construction costs associated with these plans.



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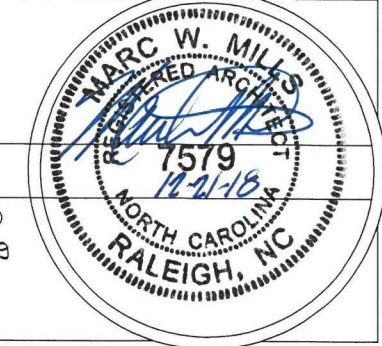


Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

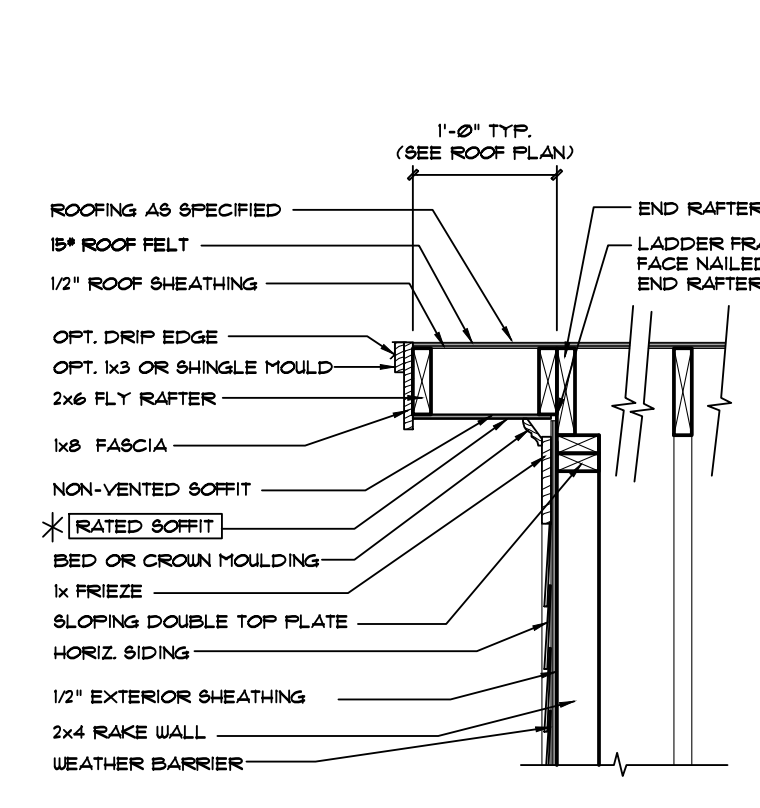
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ISSUE DATE:	
REVISIONS:	
NUMBER	DATE
INITIALS	

PROJECT NO:	003218
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CHECKED BY:	BB
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SHEET NUMBER:	

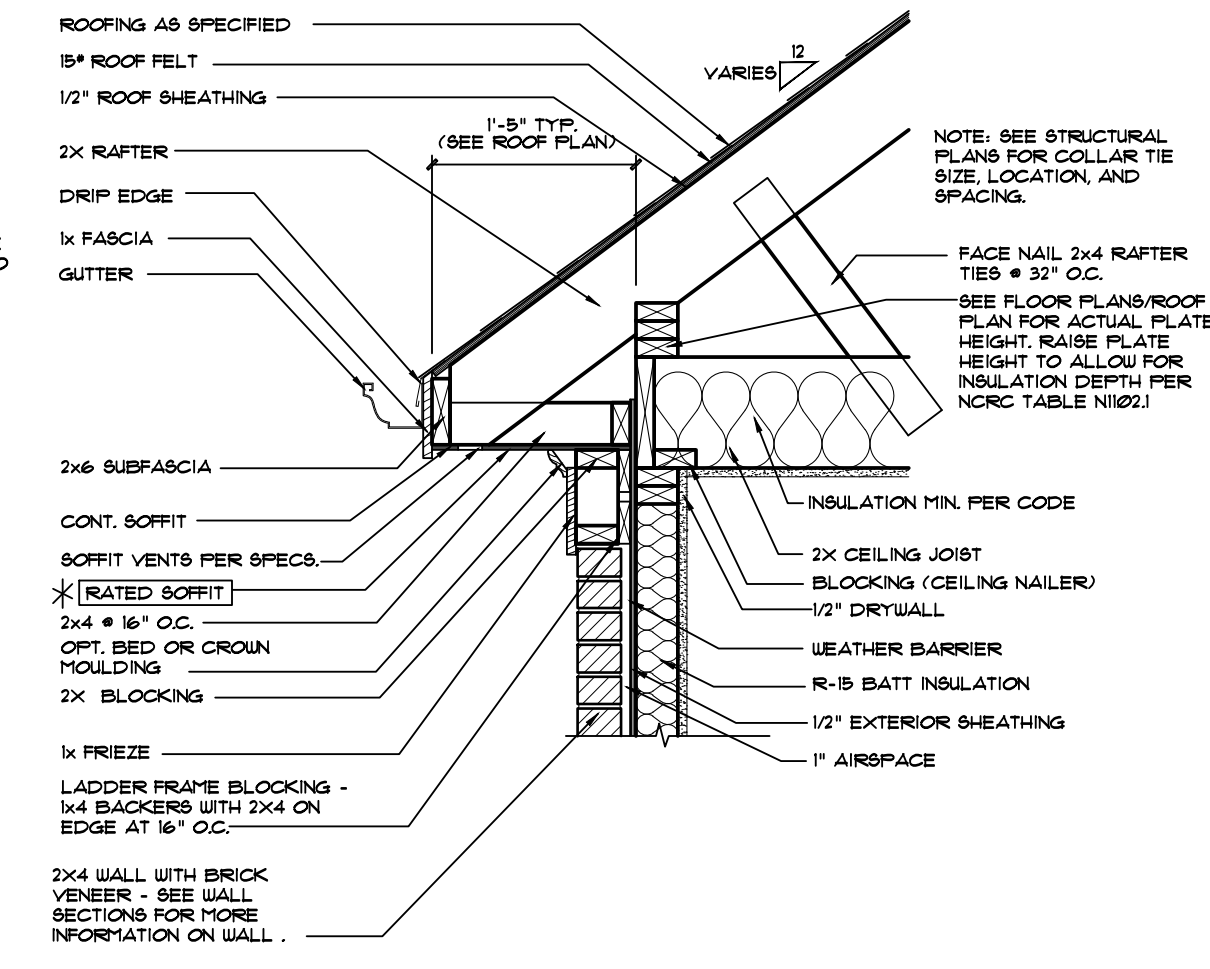
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DATE SEALED:	12/21/18
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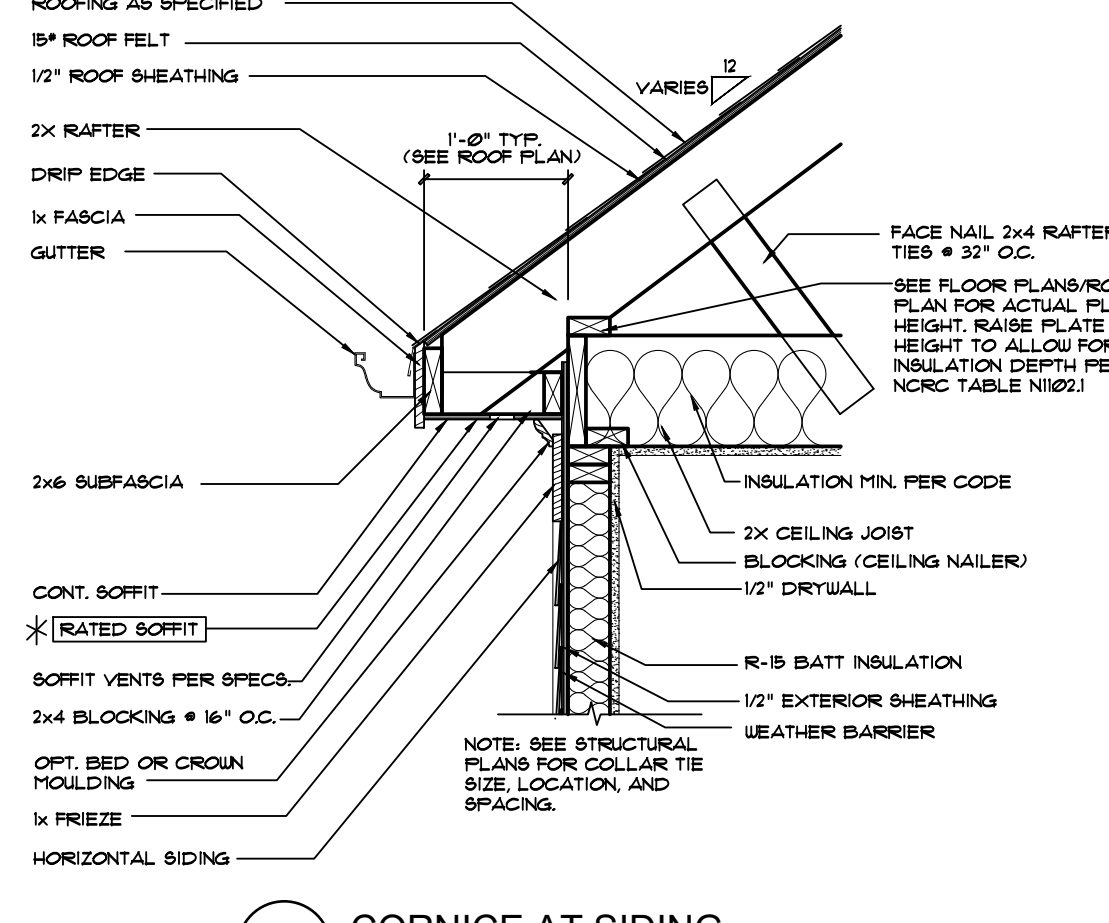
D-1



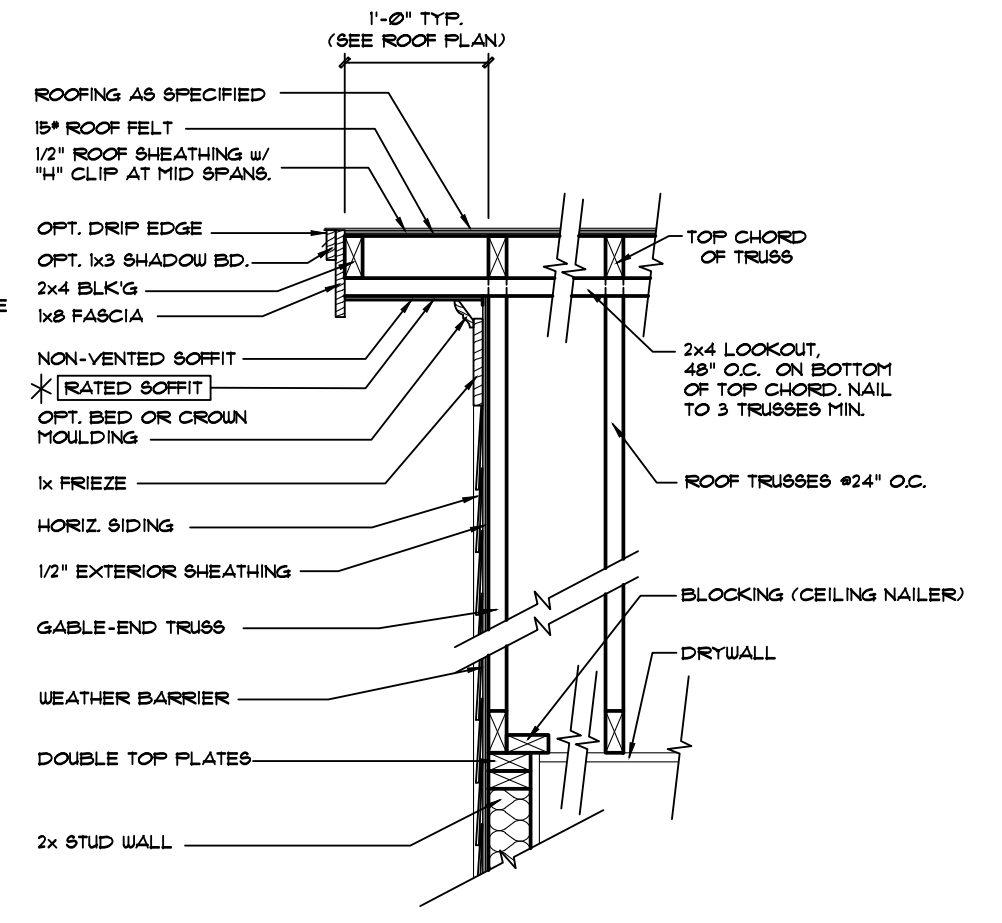
10 RAKE OVERHANG - STICK
1/2" TYP.
DT0039



9 CORNICE AT BRICK
1/2" TYP.
DT0027



8 CORNICE AT SIDING
1/2" TYP.
DT0014

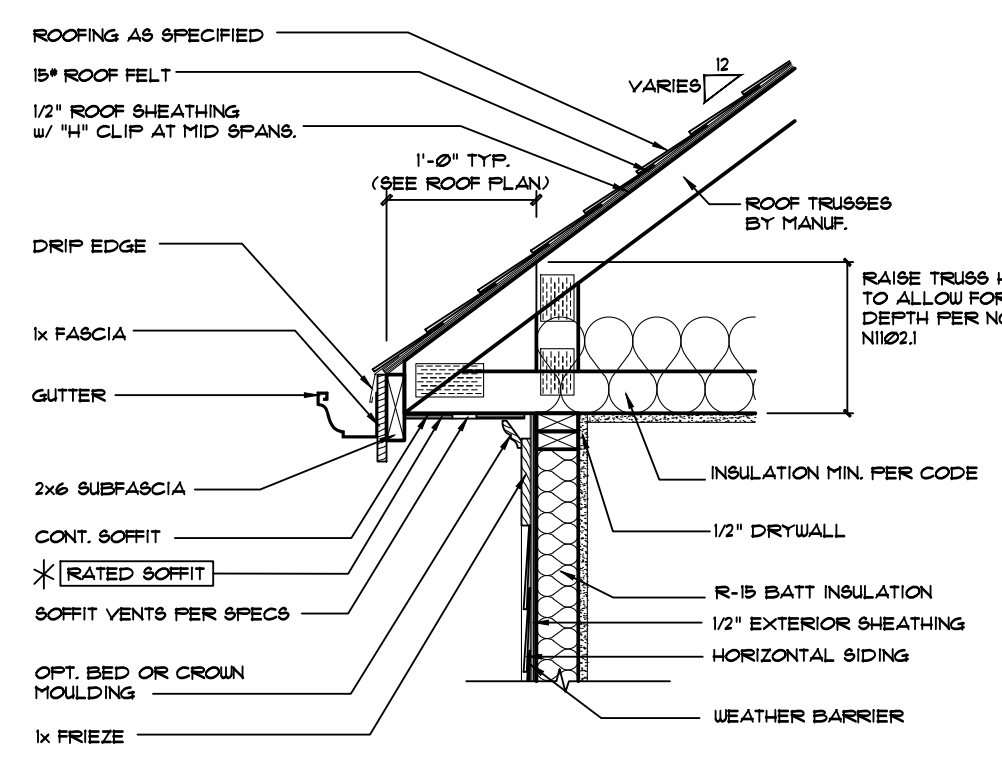


7 RAKE OVERHANG - TRUSSES
1/2" TYP.
DT0040

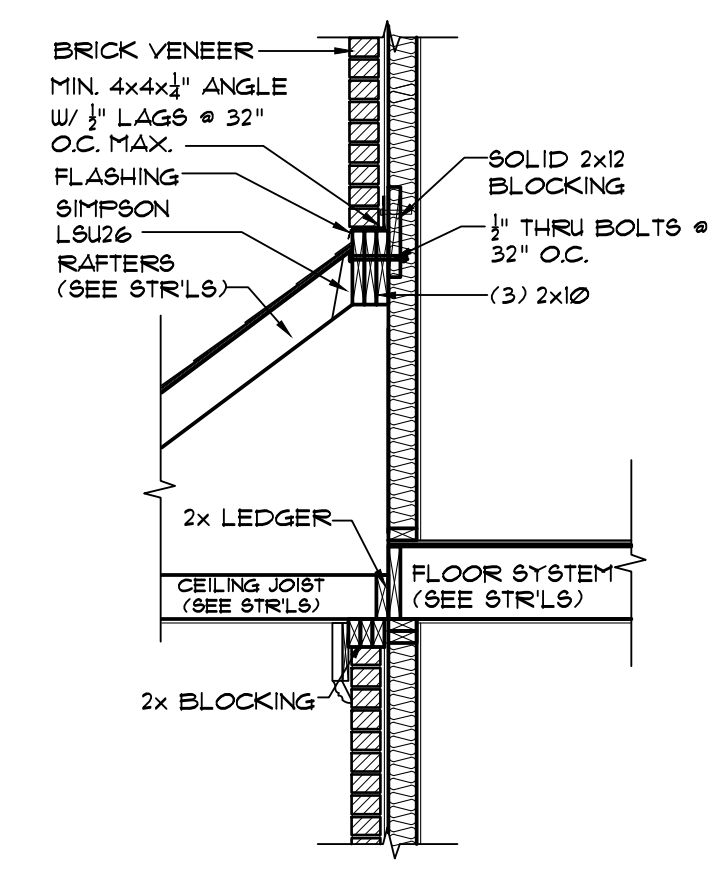
* 1 HOUR RATED (PRESCRIPTIVE 1.33 HR) W/ (2) LAYERS 5/8" TYPE X GYP BD. AT UNDERSIDE OF SOFFIT/RAKE AS REQUIRED. SEE PLANS FOR LOCATIONS. USE EXTERIOR GRADE (G-P FIREGUARD EXTERIOR OR EQUAL) UNDER FINISHED NON-VENTED SOFFIT.

ACCEPTABLE MANUFACTURER: G-P DENSE GLASS GOLD FIREGUARD EXTERIOR GUARD OR EQUAL.

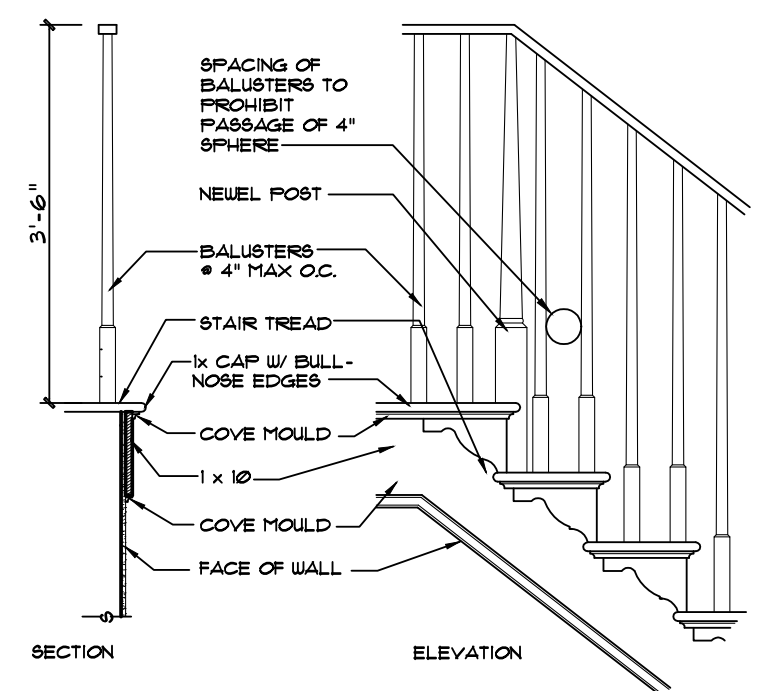
GA FILE NO. WP 8105	GENERIC	1 HOUR FIRE
GYPSUM WALLBOARD, GYPSUM SHEATHING, WOOD STUDS		
EXTERIOR SIDE: One layer 48" wide 5/8" type X gypsum sheathing applied parallel to 2 x 4 wood studs with 1 1/2" galvanized roofing nails, 0.120" shank, 7/8" or 1 1/2" heads, 4" o.c. at vertical joints and 7" o.c. at intermediate studs and top and bottom plates. Joints of gypsum sheathing may be left untreated. Exterior cladding to be attached through sheathing to studs.		
INTERIOR SIDE: One layer 5/8" type X gypsum wallboard, water-resistant gypsum backing board, or gypsum veneer base applied parallel or at right angles to studs with 6d coated nails, 1 1/8" long, 0.0915" shank, 1/2" heads, 7" o.c. (LOAD-BEARING)		
Thickness:	Varies	
Approx. Weight:	7 psf	
Fire Test:	See WP 3510 (UL 1551-17, -48, 9-17-65, UL Design U209; UL R1319-129, 7-22-70, UL Design U314)	



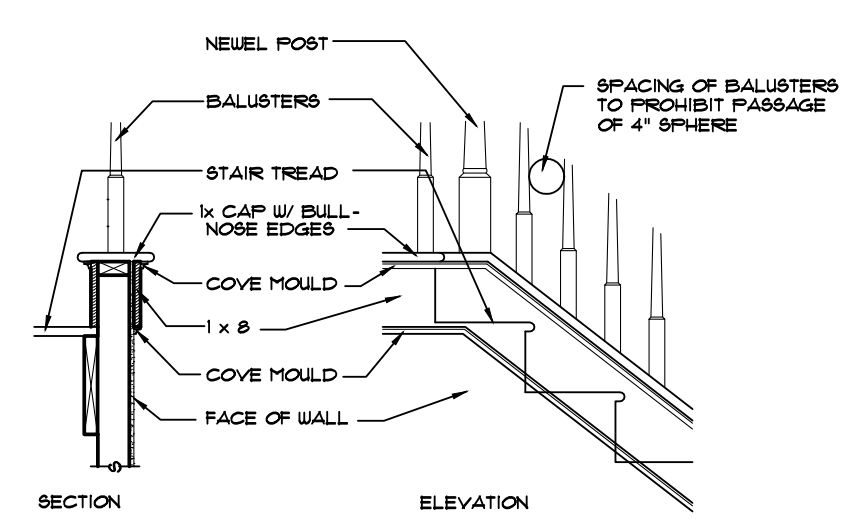
6 TYP. CORNICE - TRUSSES
1/2" TYP.
DT0041



5 BRICK SUPPORT OVER PORCH ROOF
1/2"=1'-0"
DT1226



4 STAIR TRIM - OPEN RISERS
3/8"=1'-0"
DT0043



3 STAIR TRIM - CLOSED RISERS
3/8"=1'-0"
DT0042

PORCH DETAILS

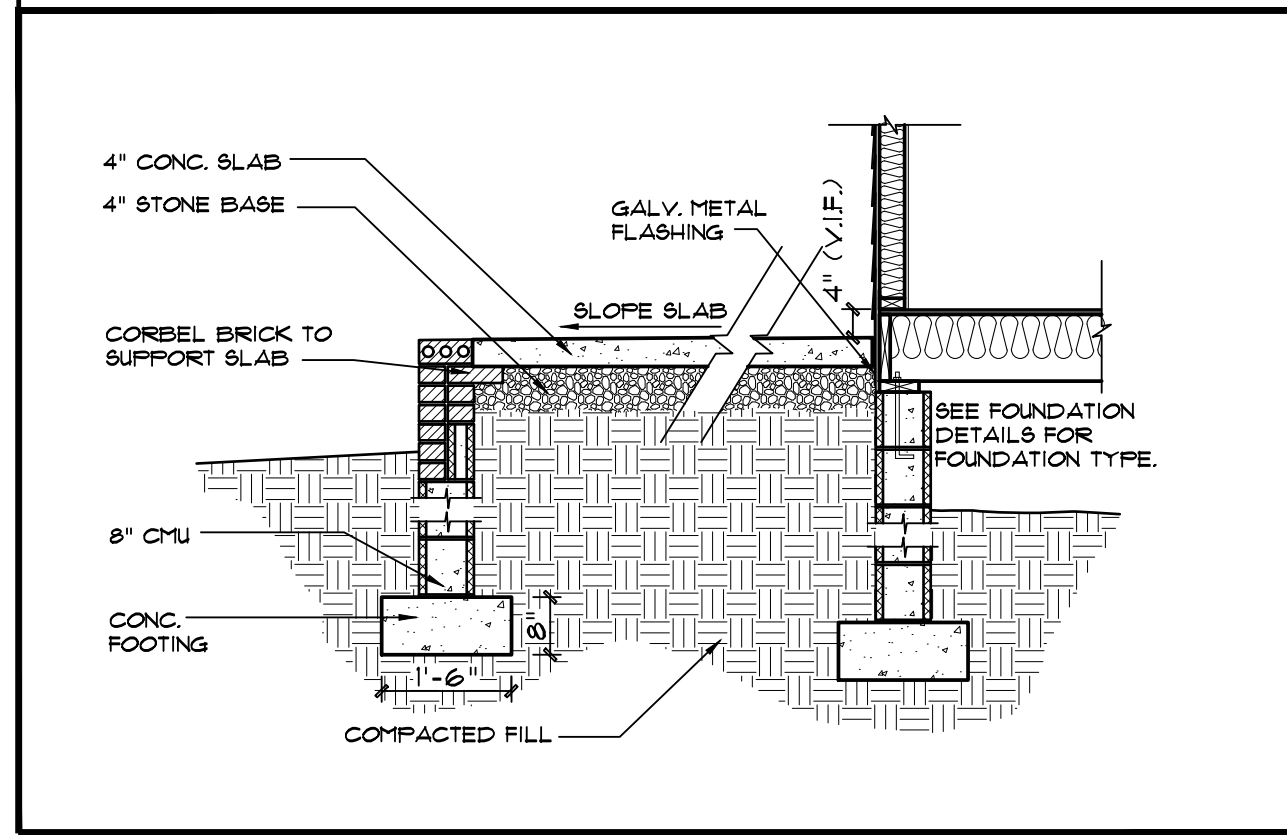
MASTER DETAIL	DETAIL VARIATIONS
<p>VERIFY SIZE OF ALL STRUCTURAL FRAMING MEMBERS WITH FRAMING PLANS.</p> <p>FLASHING</p> <p>2x6 LEDGER</p> <p>2x6 LEDGER</p> <p>2x2</p> <p>2x6 RAFTER</p> <p>2x BLOCKING</p> <p>1x6 FASCIA</p> <p>2" CONT. VENT</p> <p>SEE ELEVATIONS AND/OR COLUMN DETAIL FOR COLUMN TYPE.</p> <p>SEE PORCH FOUNDATION FOR ACTUAL PORCH FOUNDATION TYPE.</p> <p>SUBFLOOR TO C.J. (SEE PLANS)</p> <p>SEE WALL AND FLOOR SECTIONS FOR ACTUAL WALL AND FLOOR TYPES.</p> <p>SEE FOUNDATION DETAILS FOR ACTUAL FOUNDATION TYPE.</p>	<p>OPT. BED MOULD</p> <p>OPT. BED MOULD</p> <p>5/4 BOARD (SIZE VARIES)</p> <p>1/2" AC PLYWOOD</p> <p>1/2" CDX PLYWOOD</p>
1 PORCHES - MASTER 1/2"=1'-0"	A PORCH CORNICE
	B

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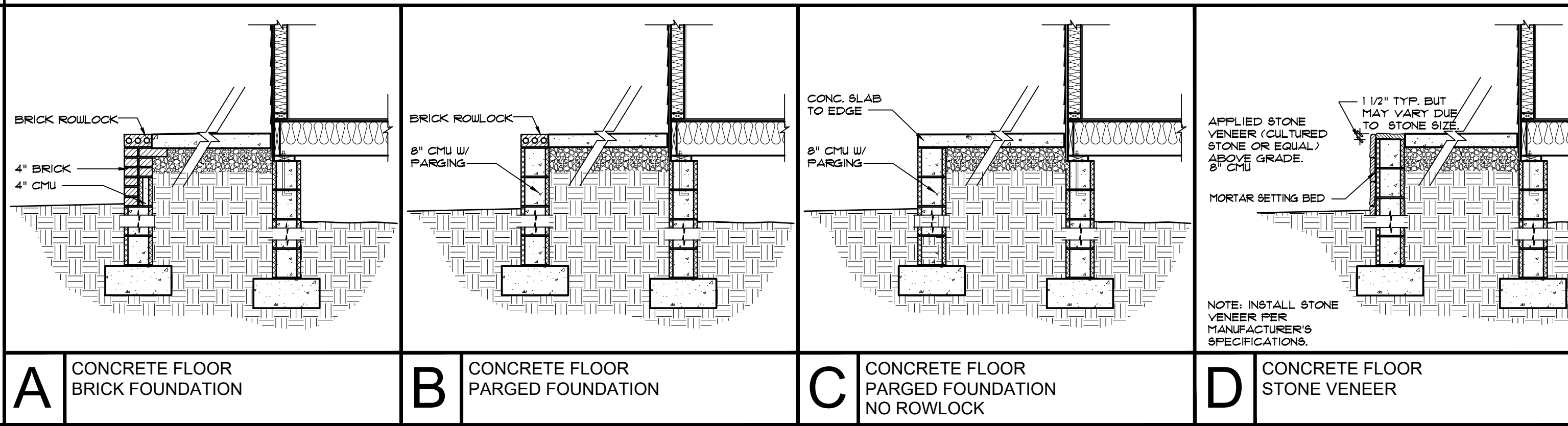
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PORCH FOUNDATION DETAILS

MASTER DETAIL



DETAIL VARIATIONS



ARCHITECTURAL NOTES

1. ALLOW THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL FOUNDATION ELEMENTS PRIOR TO CONSTRUCTION.
2. STAIRS TO HAVE 1/4\"/>

ELECTRICAL

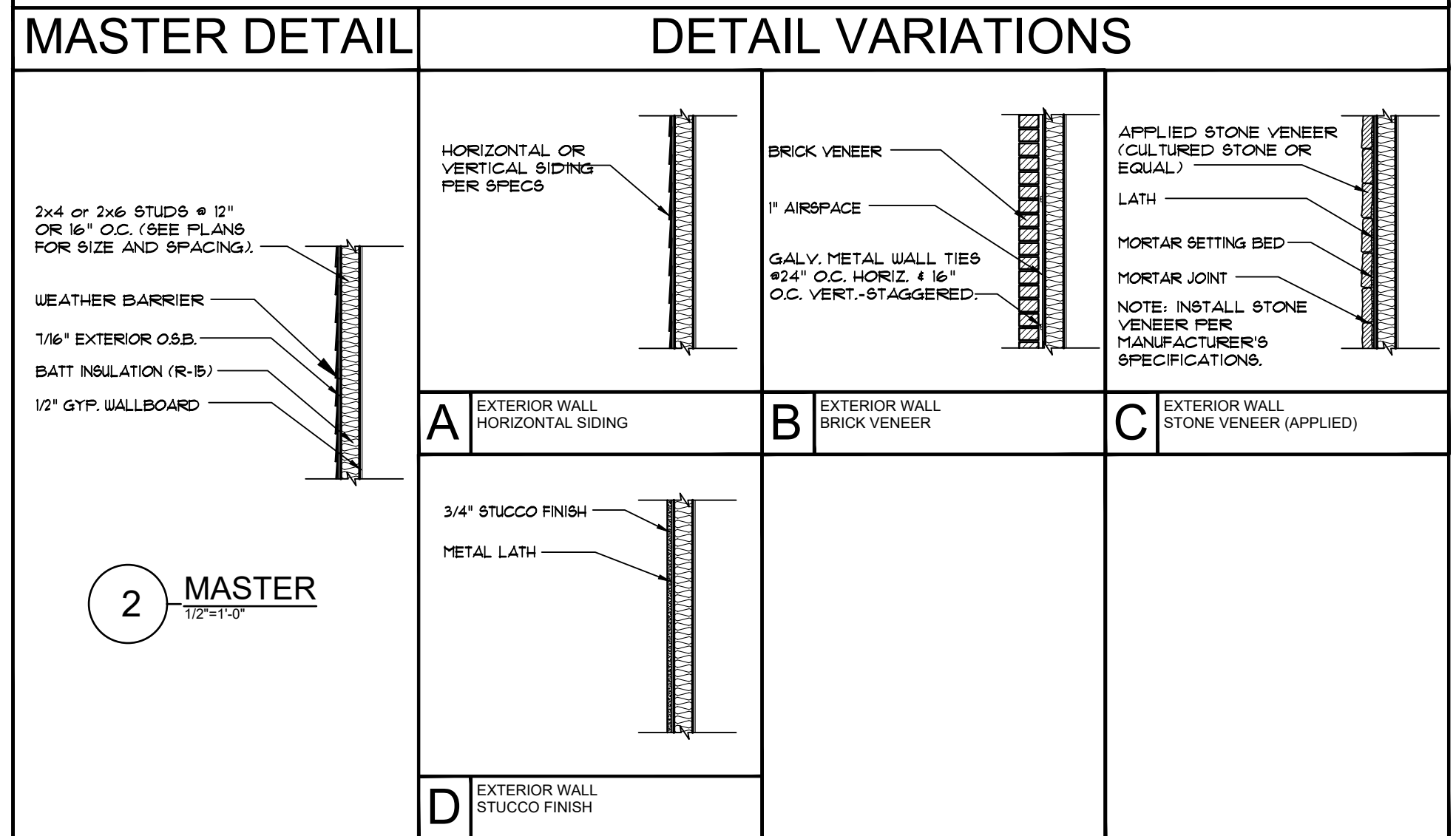
1. ALL ELECTRICAL WIRING AND INSTALLATION IS TO CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) LATEST EDITION. ALL WIRING SHALL BE IN CONDUIT.
2. ALL WIRING TO BE INSTALLED AT LEAST 1\"/>

DECK NOTES

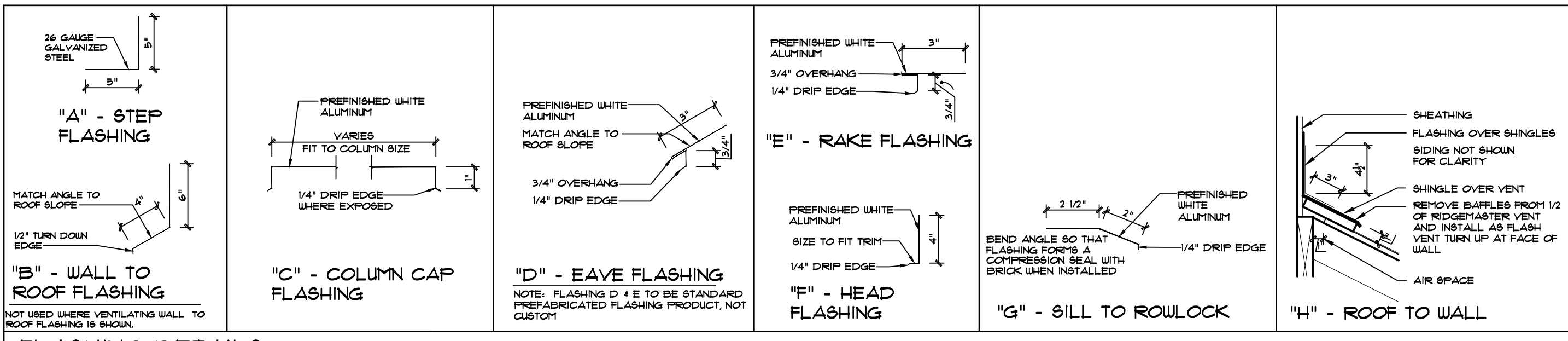
1. ALL DECKING SHALL BE CONNECTED TO POSTS WITH (2) 1/2\"/>

1 PORCH FOUNDATION - MASTER
1/2\"/>

WALL SECTION DETAILS

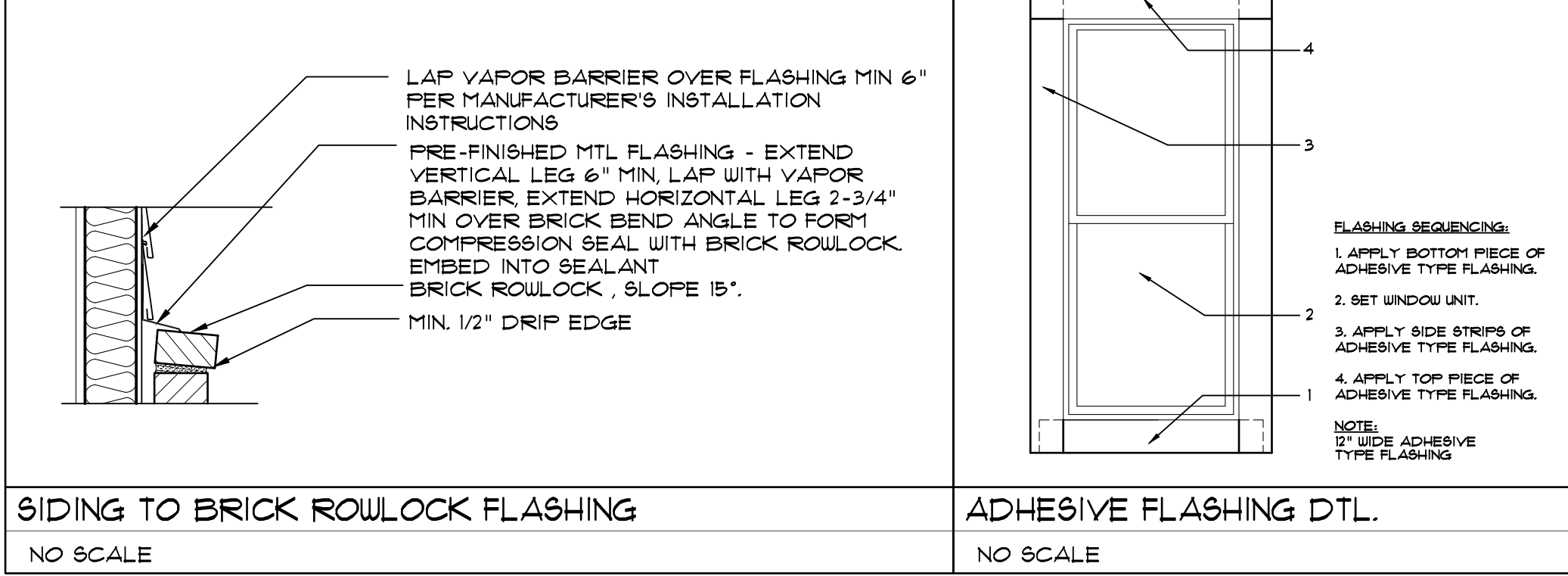


2 MASTER
1/2\"/>



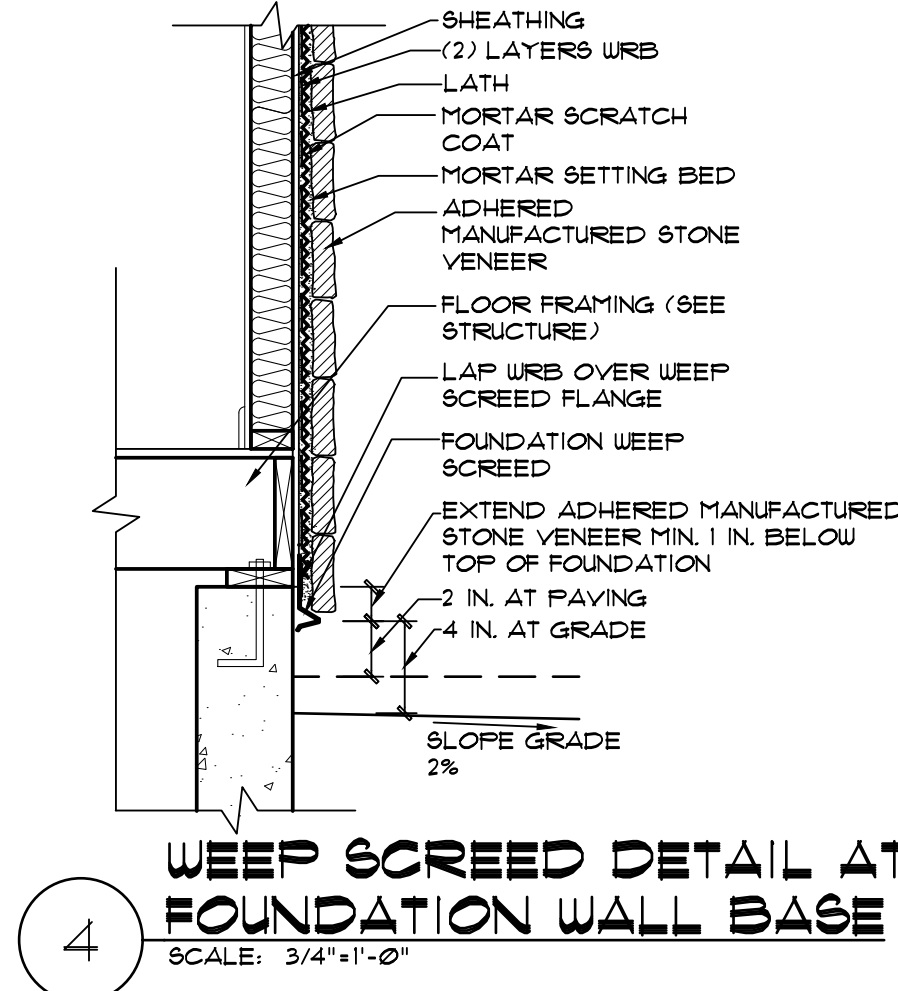
FLASHING DETAILS

NOT TO SCALE

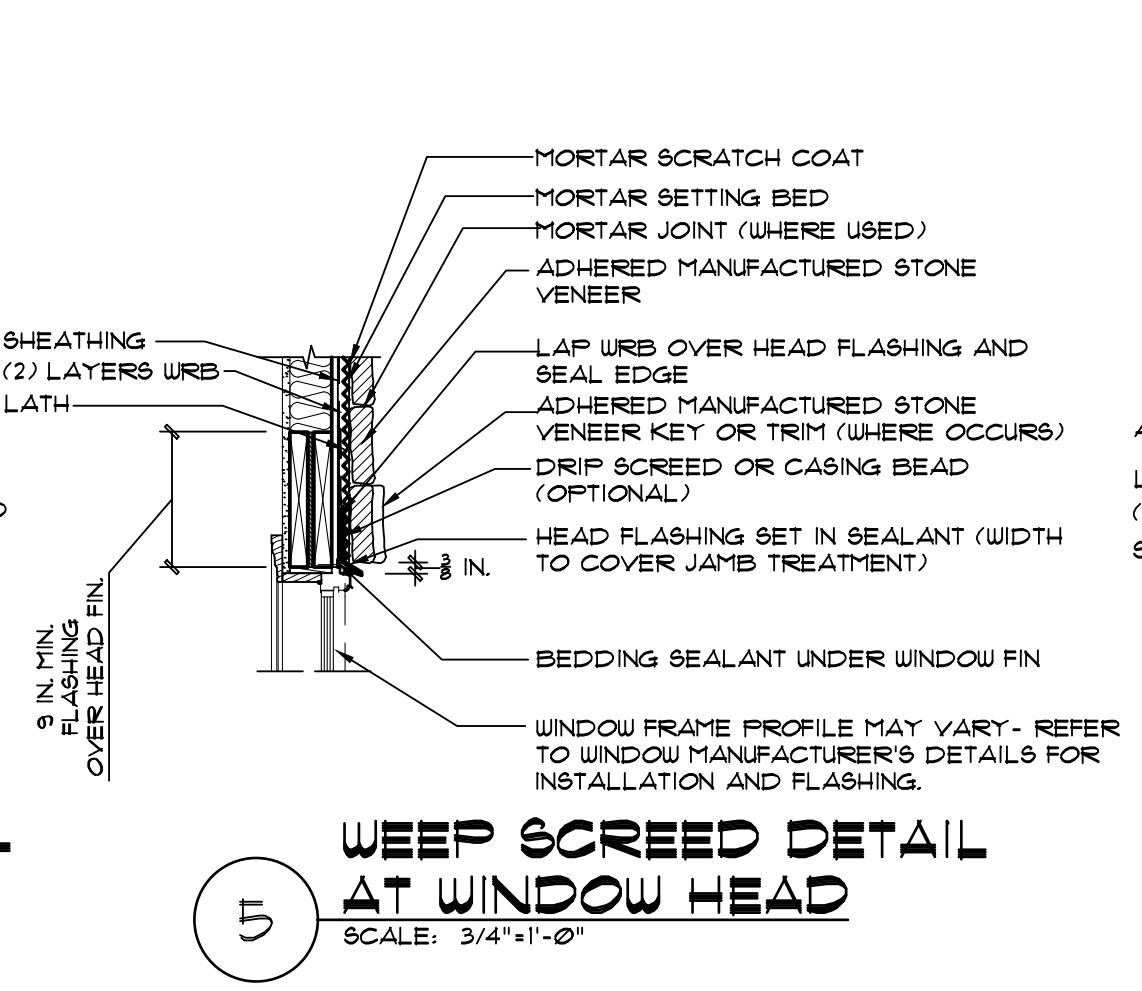


SIDING TO BRICK ROWLOCK FLASHING
NO SCALE

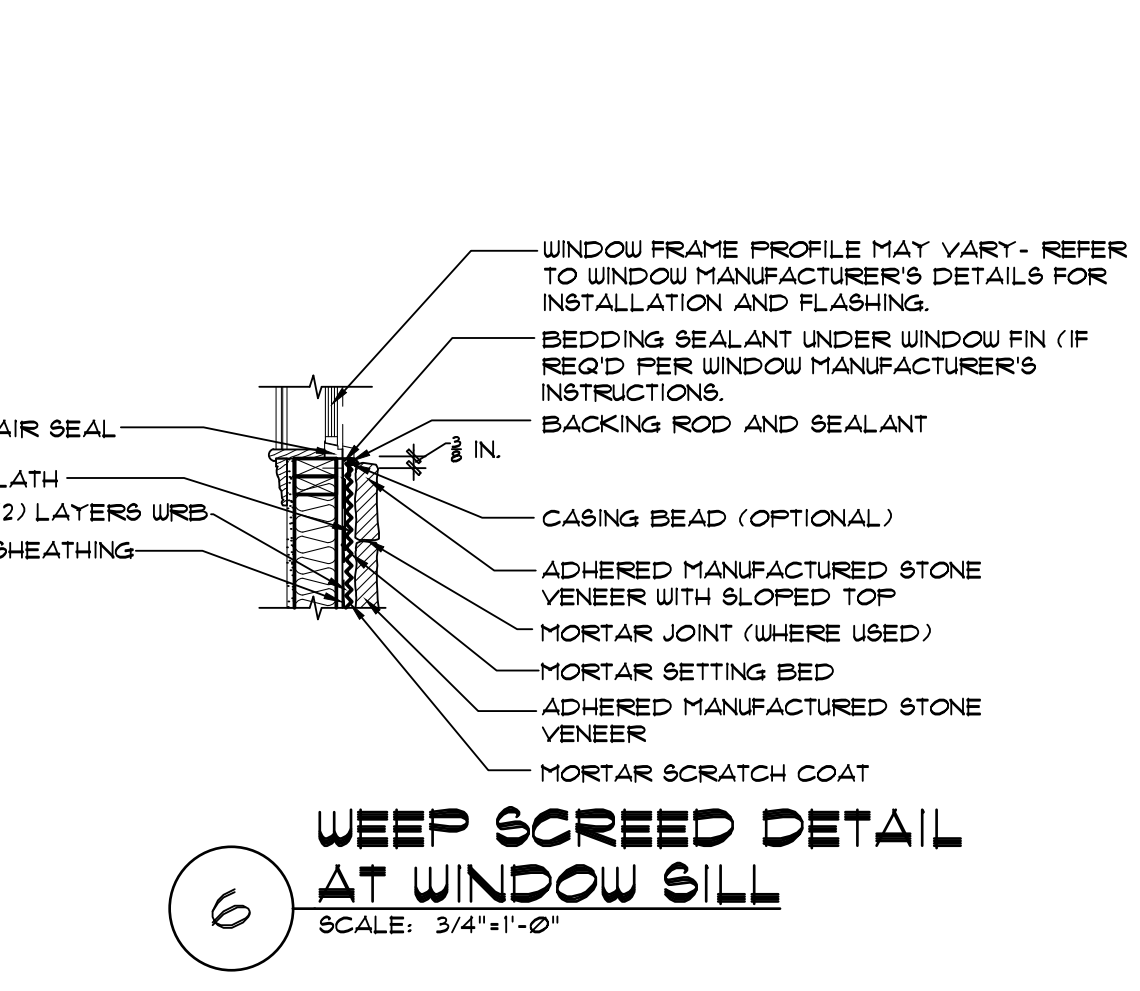
ADHESIVE FLASHING DTL.
NO SCALE



4 WEEP SCREED DETAIL AT FOUNDATION WALL BASE
SCALE: 3/4\"/>



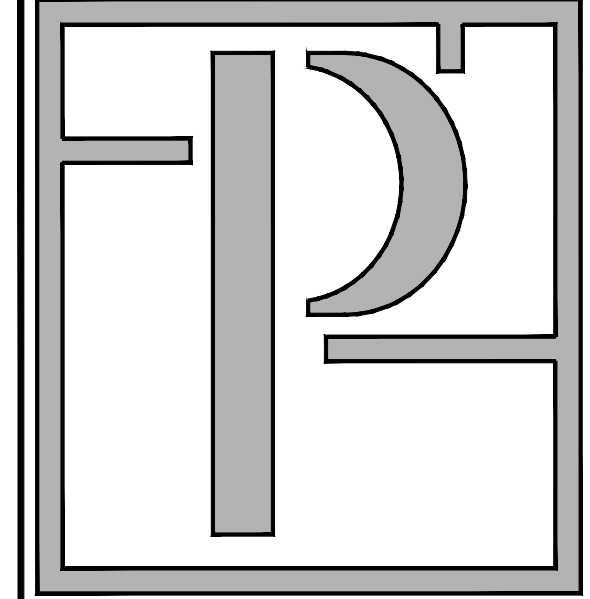
5 WEEP SCREED DETAIL AT WINDOW HEAD
SCALE: 3/4\"/>



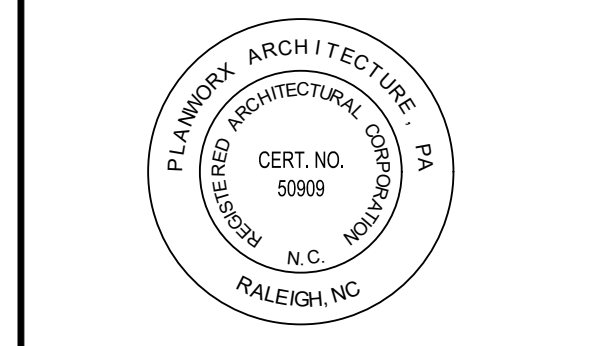
6 WEEP SCREED DETAIL AT WINDOW SILL
SCALE: 3/4\"/>

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MARC W. MILLS, RA
DATE SEALED:
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Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

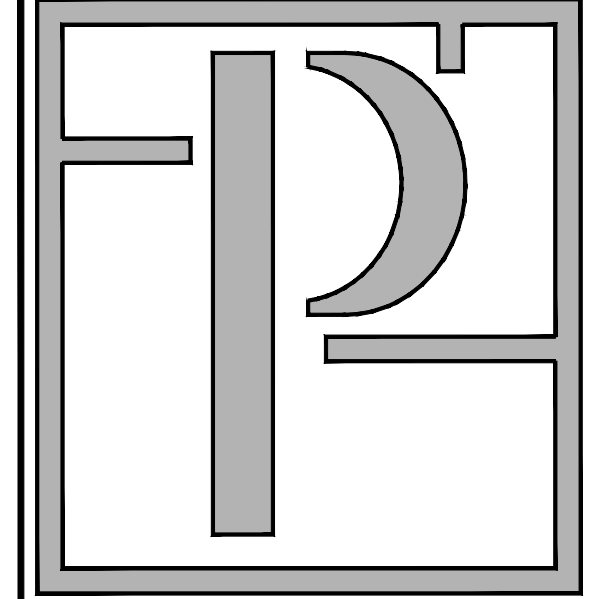
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ISSUE DATE:	
REVISIONS:	
NUMBER	DATE
INITIALS	
DESCRIPTION	

PROJECT NO:	003218
DRAWN BY:	JT/BB
CHECKED BY:	BB
SHEET TITLE:	Typical Details
SHEET NUMBER:	

PROGRESS DATE:	12/21/18
ISSUE DATE:	
REVISIONS:	
NUMBER	DATE
INITIALS	
DESCRIPTION	

PROJECT NO:	003218
DRAWN BY:	JT/BB
CHECKED BY:	BB
SHEET TITLE:	Typical Details
SHEET NUMBER:	

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Garage Addition
Glenwood Builders
Fuquay-Varina, NC

PROGRESS DATE:	ISSUE DATE:	REVISIONS	DESCRIPTION
12/21/18			

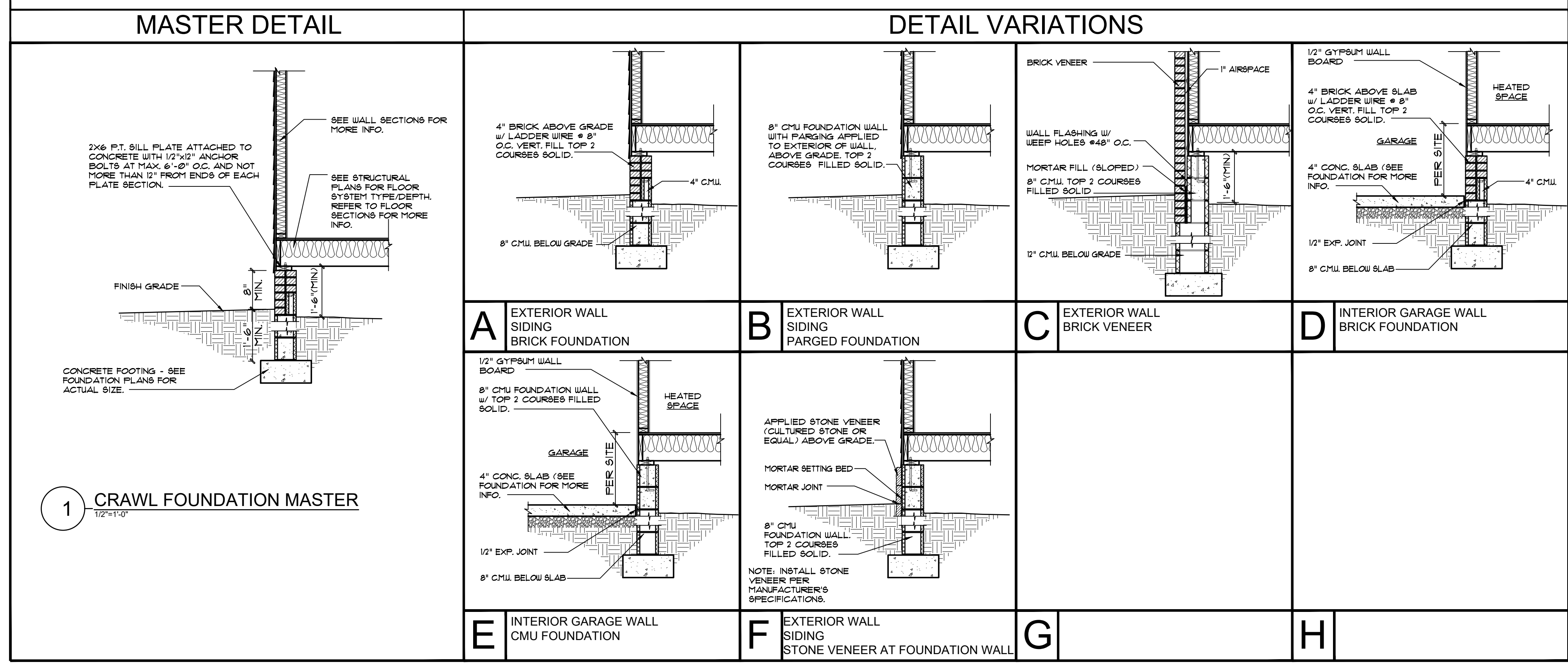
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PROGRESS DATE:	ISSUE DATE:	REVISIONS	DESCRIPTION

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SHEET NUMBER:	

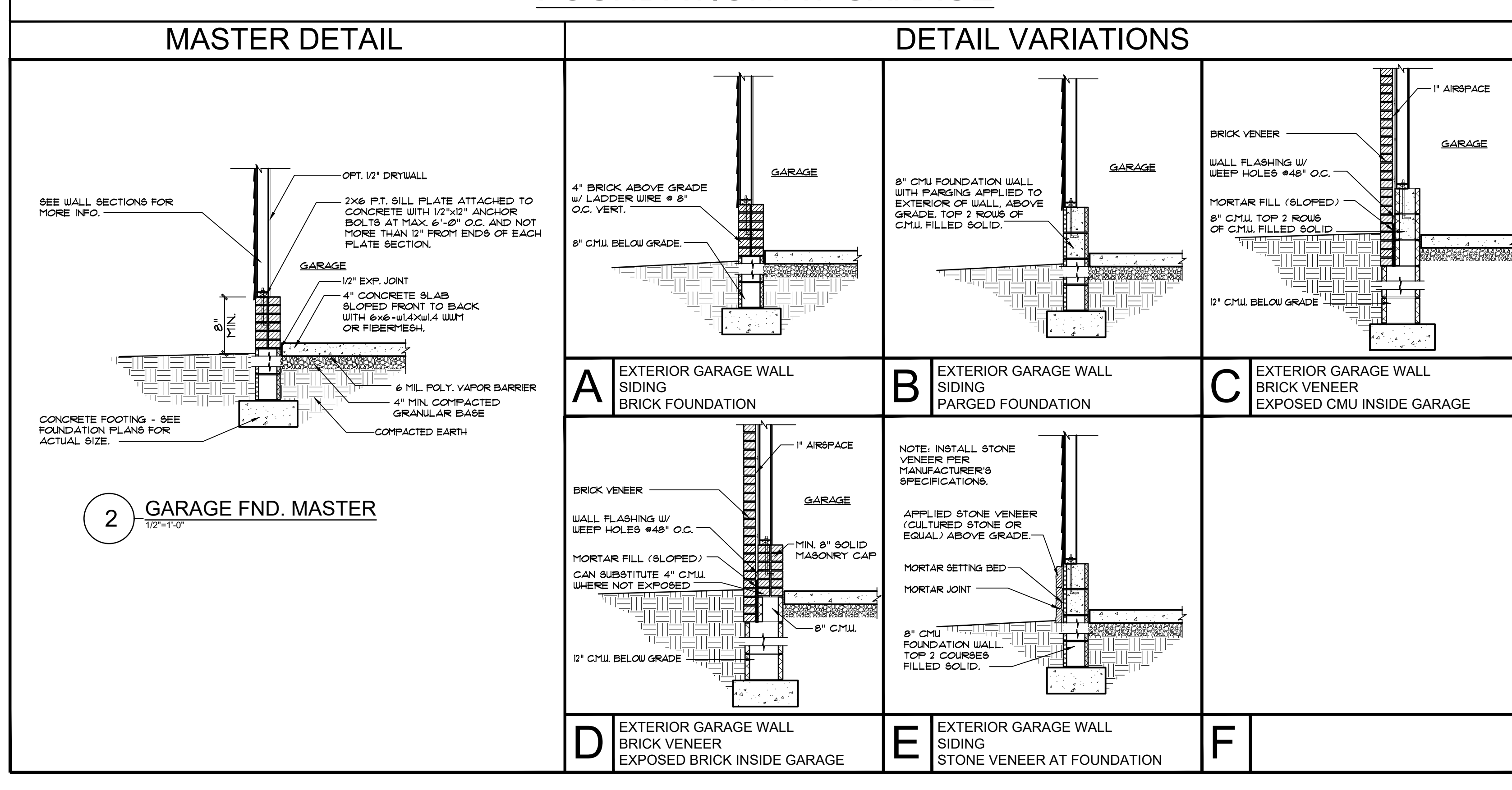
D-3

CRAWL FOUNDATION DETAILS



1 CRAWL FOUNDATION MASTER
1/2"=1'-0"

FOUNDATION AT GARAGE

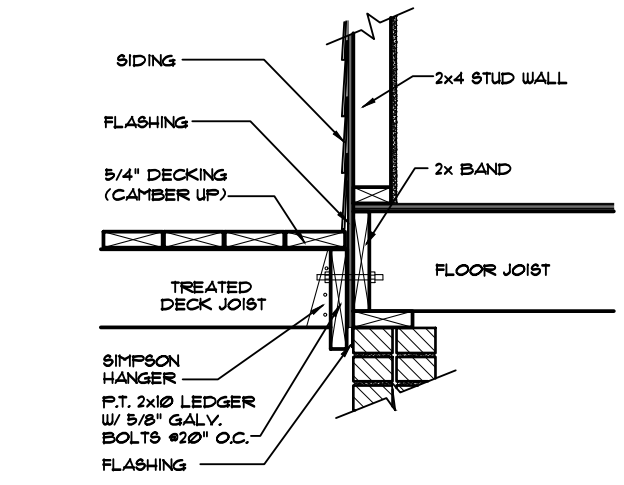


2 GARAGE FND. MASTER
1/2"=1'-0"

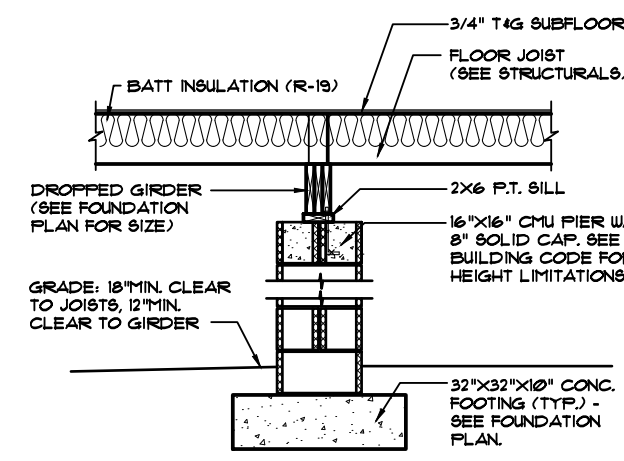
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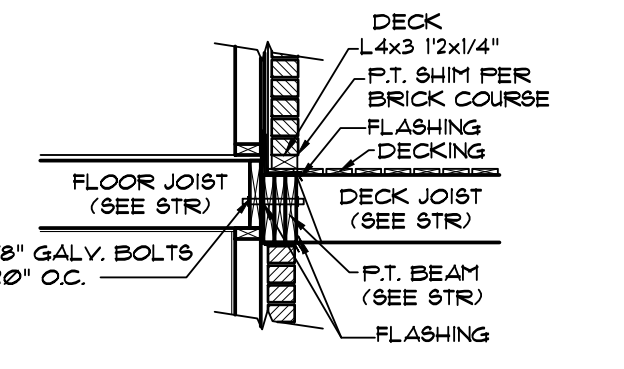
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RALEIGH, NC



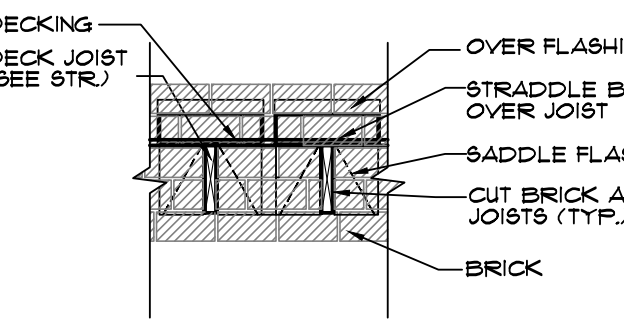
3 DECK ATTACHMENT
1/2"=1'-0"



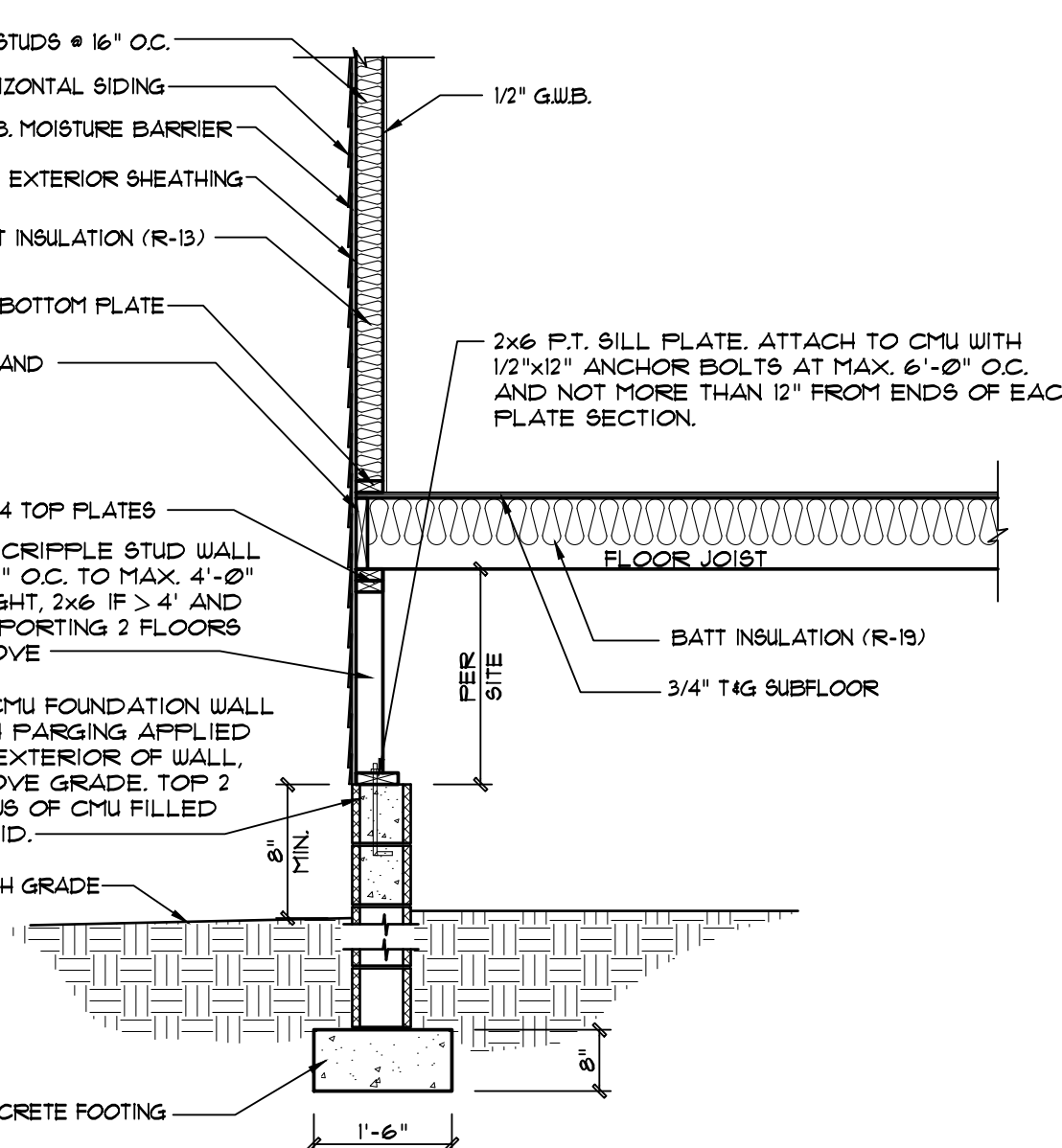
4 PIER/GIRDER AT CRAWL
1/2"=1'-0"



5 BLOCKED DECK ATTACHMENT
1/2"=1'-0"

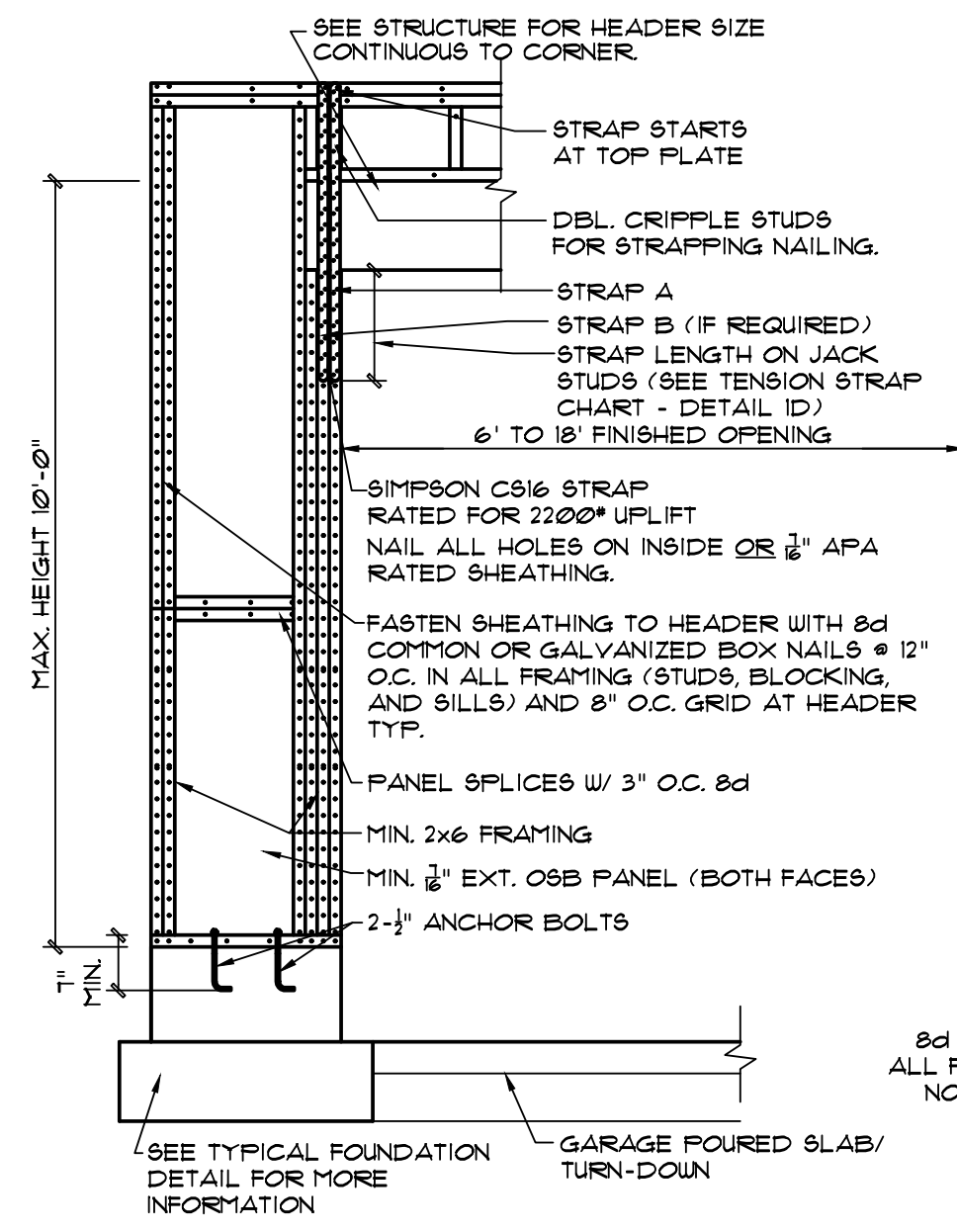


6 HANGERED BAND DECK ATTACHMENT
1/2"=1'-0"

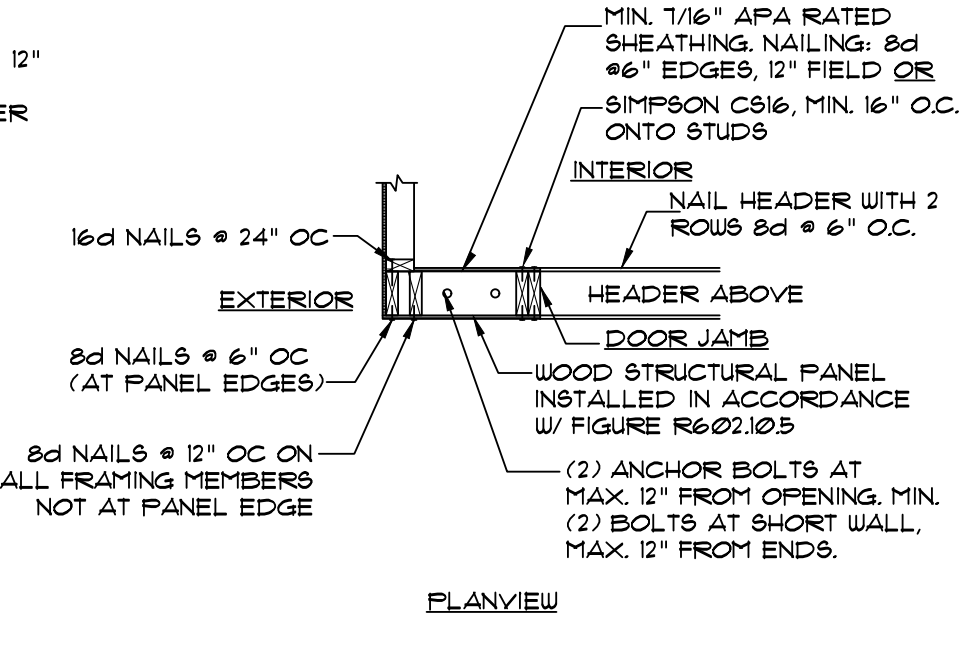


7 CRIPPLE WALL DETAIL AT CRAWL FND.
1/2"=1'-0"

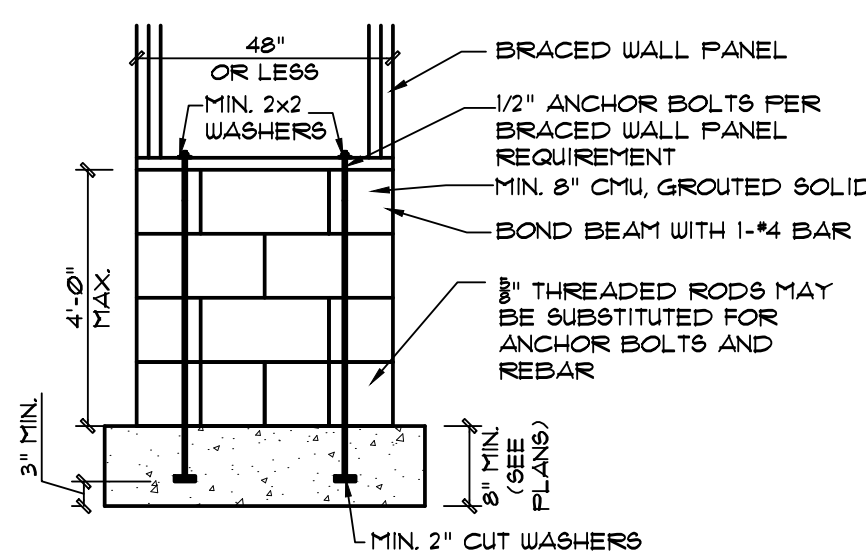
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1A PORTAL FRAME BRACED WALL DETAIL AT GARAGE WALL PER FIGURE R602.10.1 - METHOD PF



1B SHORT STEM WALL REINFORCEMENT

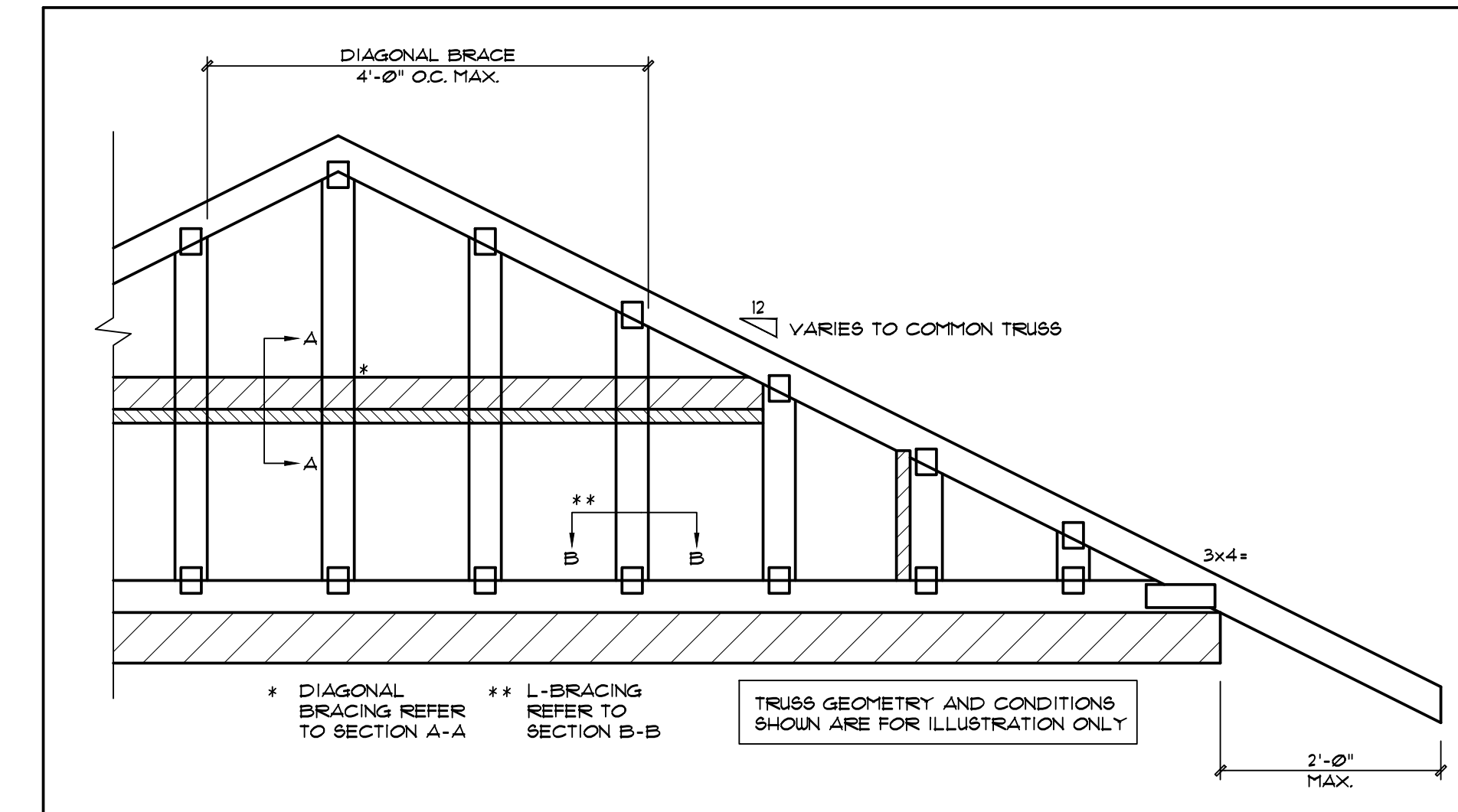


1C OPT. STEM WALL REINFORCEMENT

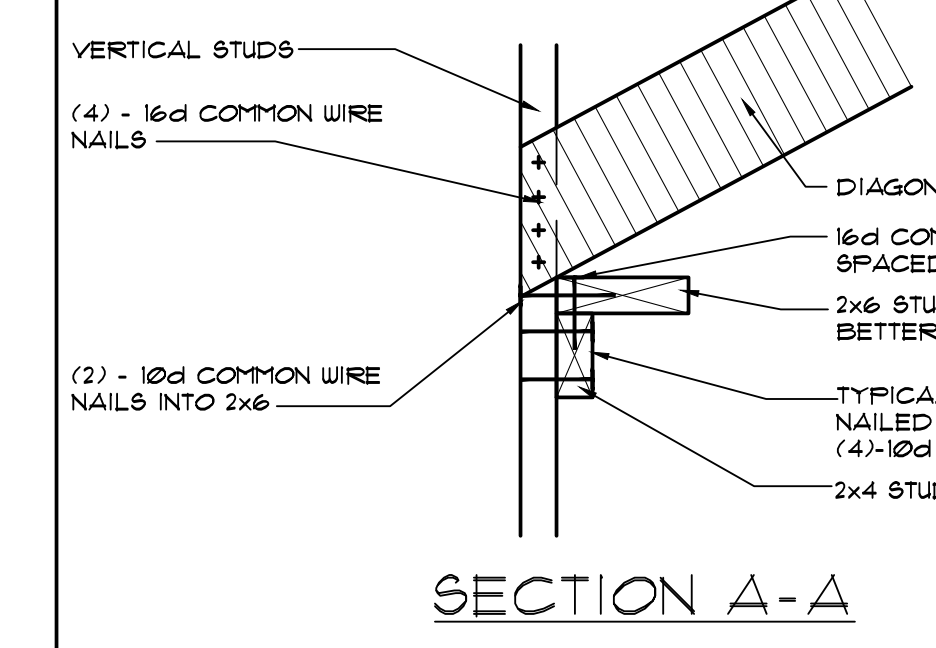
TENSION STRAP AT PORTAL FRAME CHART (100 MPH WIND) BASED ON TABLE R602.10.4.11 AT EACH OPENING END

STUD FRAMING	PONY WALL HGT.	MAX. OPENING WIDTH	STRAP A	STRAP B
2x4	≤ 2'	9"	20"	NOT REQ'D
		≥ 16"	50"	NOT REQ'D
	3'	9"	28"	NOT REQ'D
		≥ 16"	72"	NOT REQ'D
4'	9"	56"	NOT REQ'D	
	≥ 16"	72"	12"	
2x6	≤ 2'	9"	24"	NOT REQ'D
		≥ 16"	50"	NOT REQ'D
3'	9"	28"	NOT REQ'D	
	≥ 16"	55"	NOT REQ'D	
MOST COMMON	4'	9"	36"	NOT REQ'D
		≥ 16"	60"	NOT REQ'D

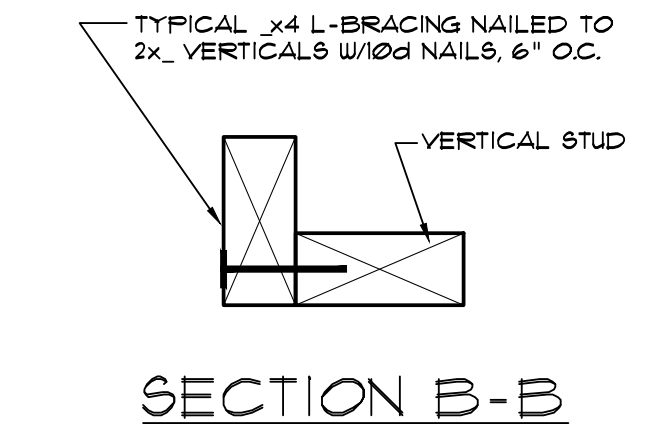
1D TENSION STRAPPING CHART



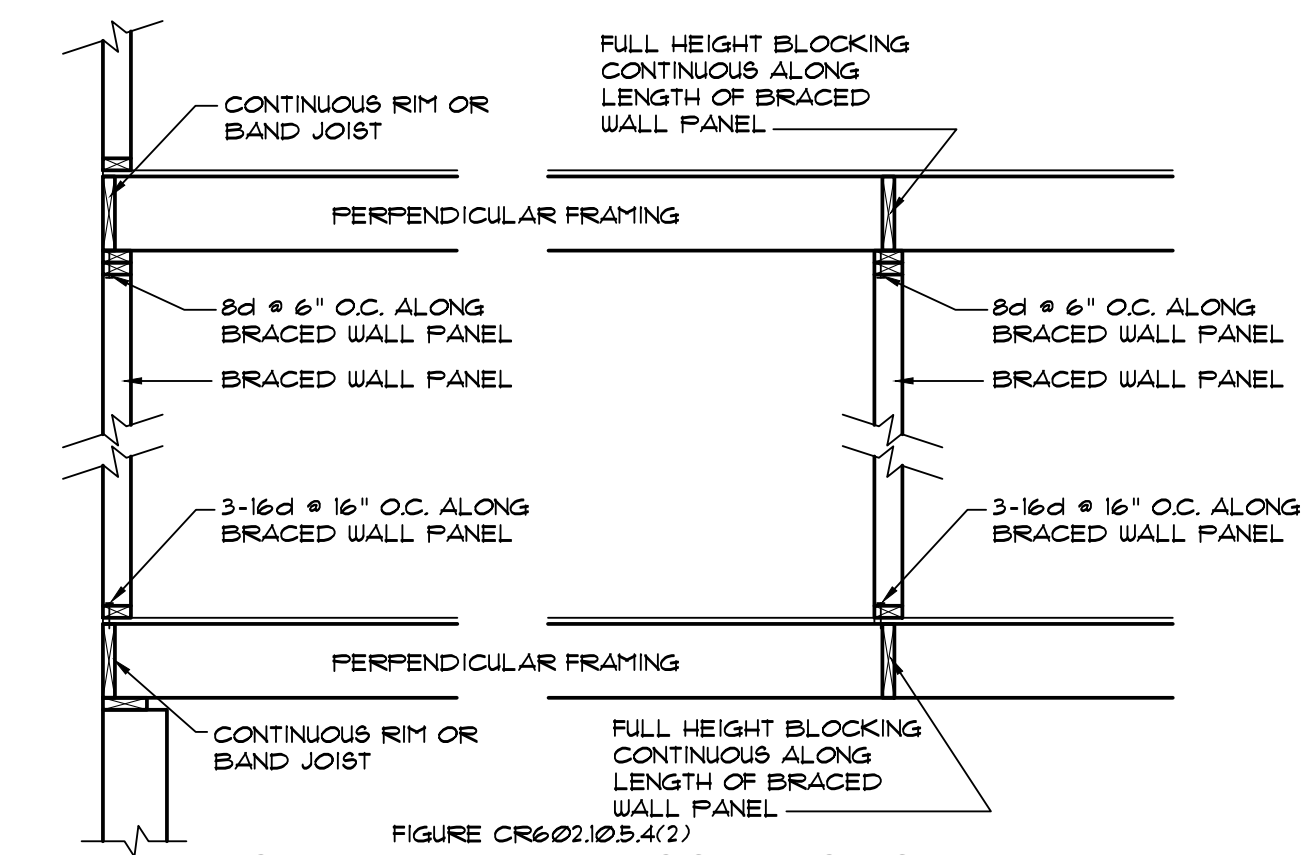
2 NO DETAIL



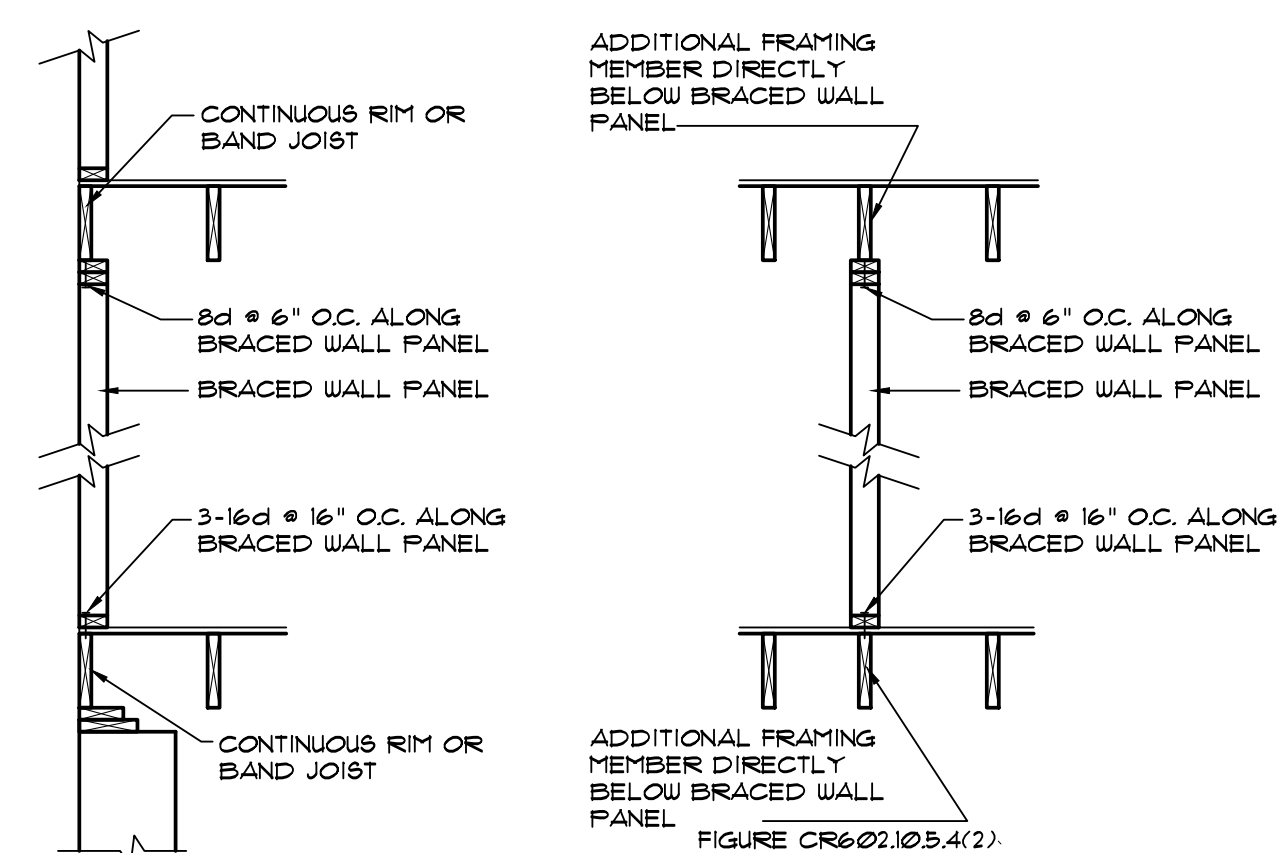
SECTION A-A



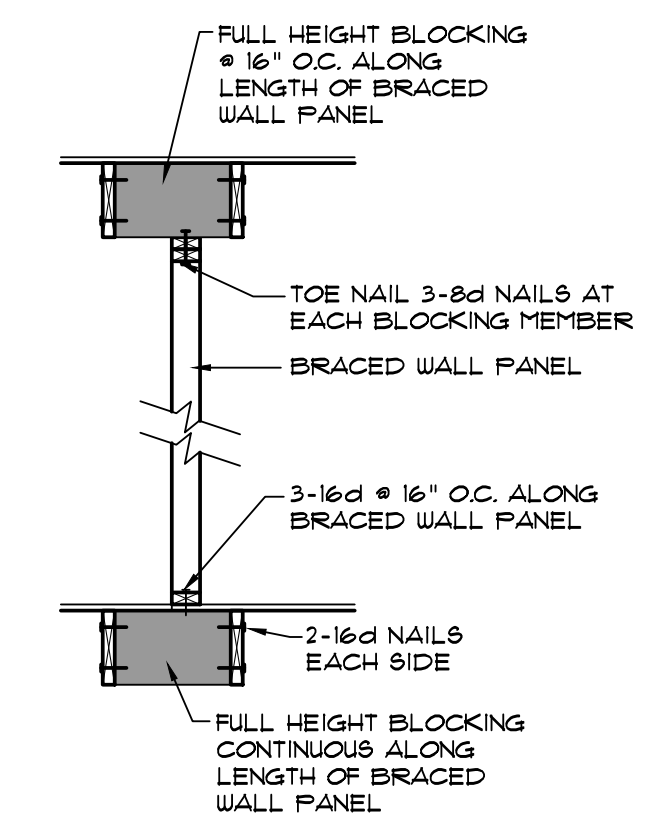
SECTION B-B



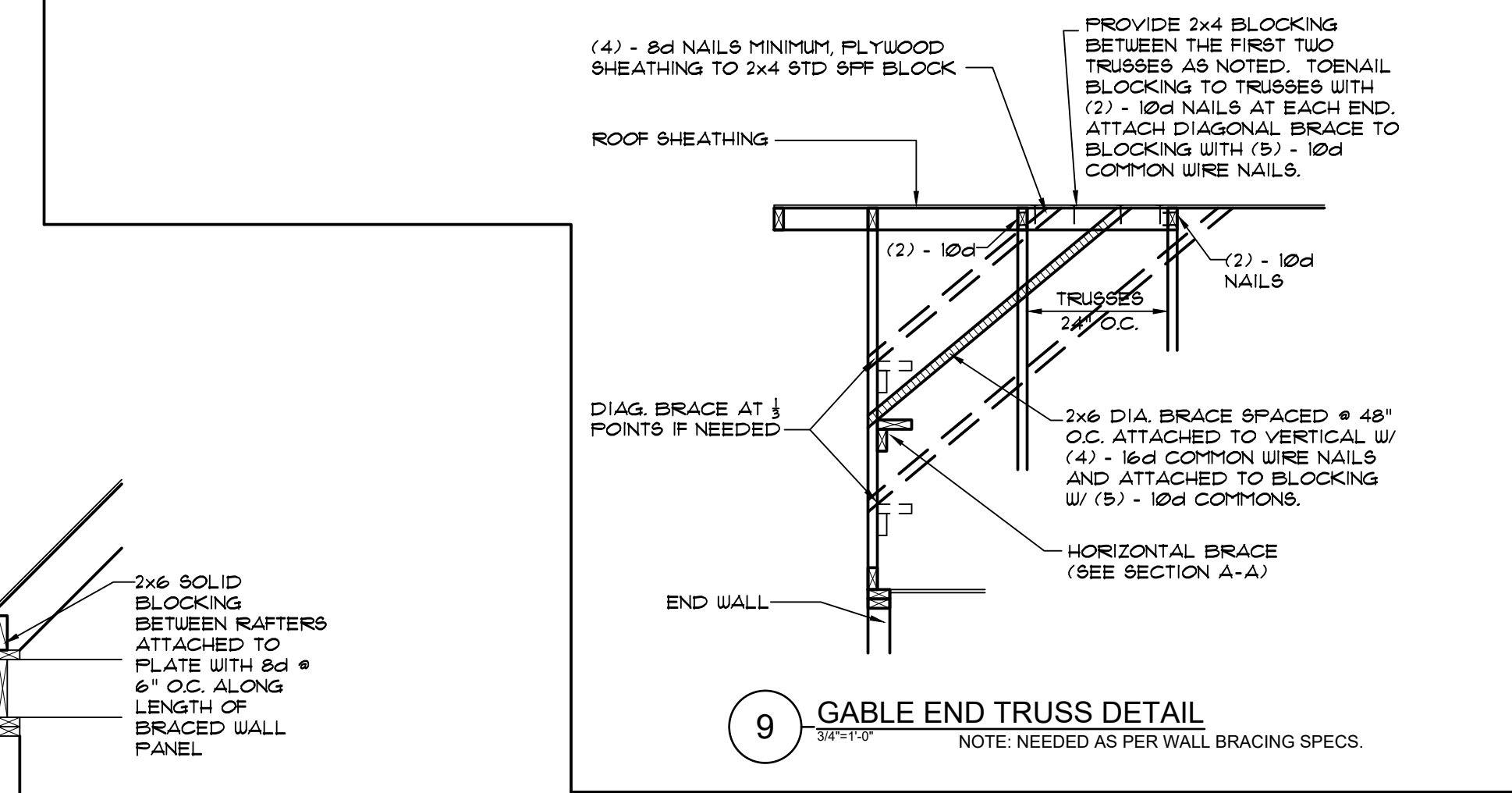
3 BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING DETAIL



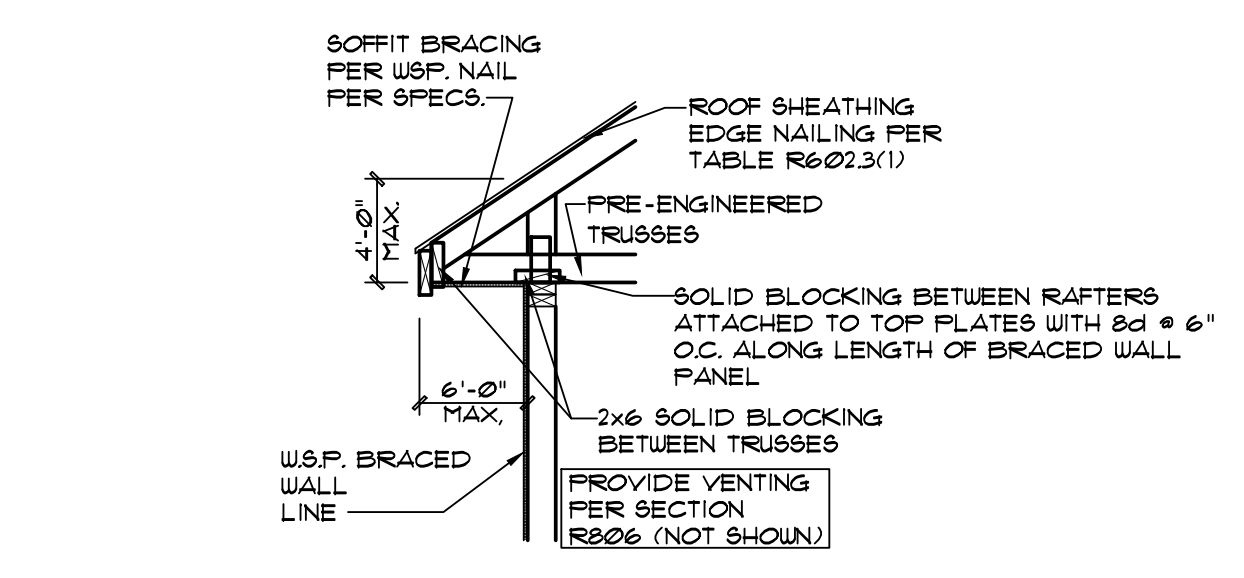
4 BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING



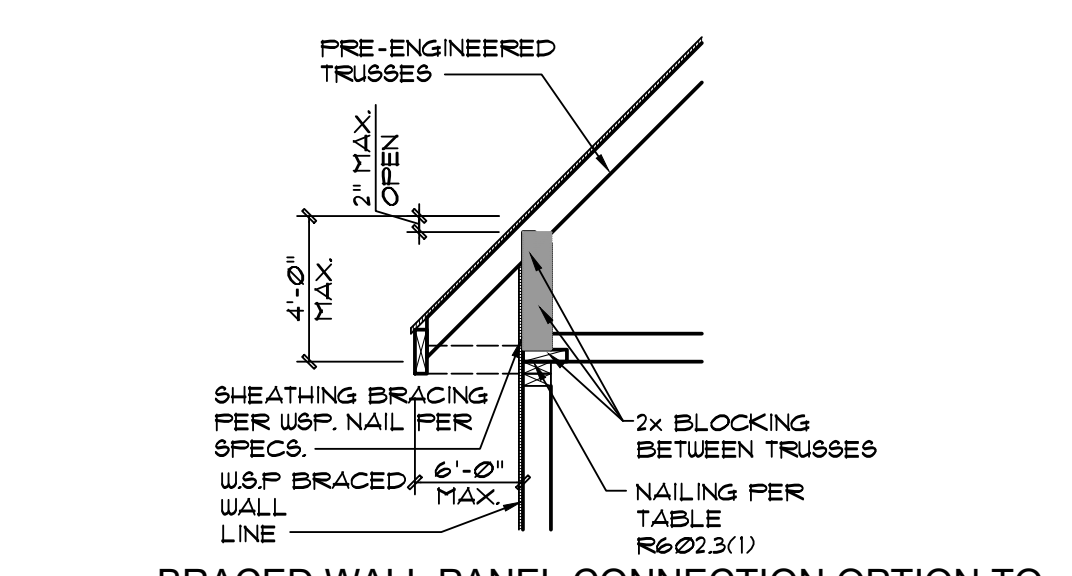
7 BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS



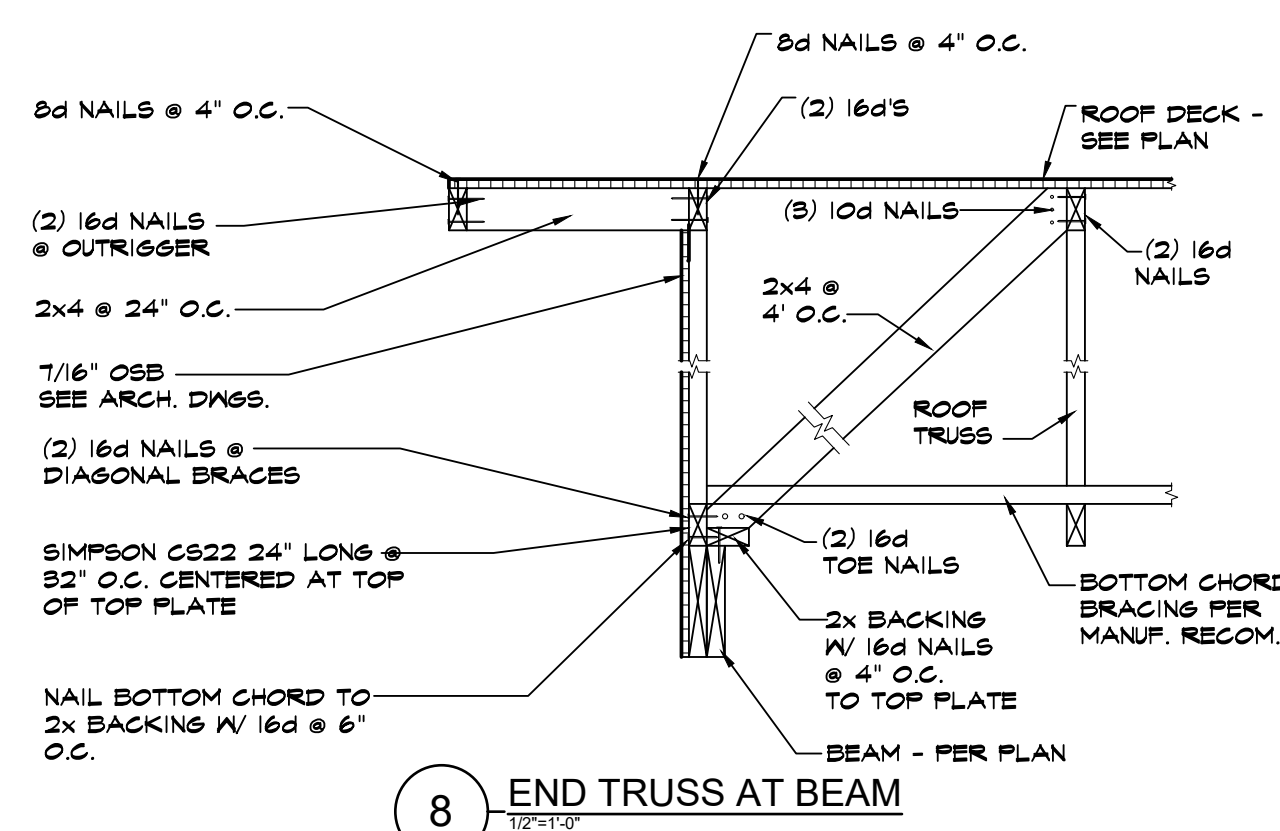
9 GABLE END TRUSS DETAIL



5 BRACED WALL PANEL CONNECTION OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES



6 BRACED WALL PANEL CONNECTION OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES



8 END TRUSS AT BEAM

WALL BRACING DESIGN SPEC'S
 BASED ON 2018 NRC (REVISED SECTION R602.10 DATED 9-1-13)
 1. THIS HOUSE IS DESIGNED USING PER R602.10.3 AND TABLE R602.10.1, USING CONTINUOUS SHEATHING METHOD.
 2. BASIC WIND SPEED DOES NOT EXCEED 110 (MPH)
 3. EAVE TO RIDGE HEIGHT DOES NOT EXCEED 20'-0".
 IF RIDGE TO EAVE EXCEEDS 20'-0", IN NON WALK-UP ATTIC GABLE WALL SITUATIONS, USE ONE OF THE GABLE BRACEWALL DETAILS AS DESCRIBED:
 1. IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE IS LESS THAN 12'-0", USE DETAIL 9D-4 W/ MID HEIGHT BRACE.
 2. IF FLOOR OF TRUSS BOTTOM CHORD PLATE TO RIDGE EXCEEDS 12'-0", USE DETAIL 9D-4, W/ 1/2" HEIGHT BRACES.
 4. EXTERIOR WALLS HAVE BEEN SHEATHED ON ALL SHEATHABLE SURFACES W/ 1/2" OSB INCLUDING WALL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW OPENINGS, AND ON ALL GABLE END WALLS NAIL W/ 6d AT 6" O.C. AT PANEL EDGES AND 12" AT INTERMEDIATE SUPPORTS.
 5. GARAGE PORTAL FRAME SPECIFICATIONS USED PER DETAIL #1A ON SHEET D-4.
 6. SEE SHEET D-4 FOR NAILING & BRACING REQUIREMENTS.
 7. SPECIAL FRAMING REINFORCEMENT (IF REQUIRED) IS SHOWN ON PLAN WITH A DIAMOND SYMBOL = ◊. THE NUMBER INSIDE SYMBOL DESIGNATES LENGTH OF SIMPSON CS-16 STRAP CONTINUOUS VERTICALLY EITHER FROM UPPER FLOOR STUDS OVER INTERMEDIATE FLOOR BAND ONTO LOWER FLOOR STUDS BELOW, OR FROM TOP PLATES OF ONE STORY WALL, DOWN CRIPPLE STUDS AND HEADER END, WITH # IN DIAMOND BEING LENGTH ONTO JACKS BELOW.
 A) AT FLOOR TO FOUNDATION CONNECTION USE EITHER (a) SIMPSON MAS OR MASB (b) SIMPSON DTT22 (1800lb UPLIFT RESISTANCE) W/ (MIN) 1/2" ANCHOR BOLT W/ (MIN) 7" EMBEDMENT.
 8. IN LIEU OF THE STRAPPING, USE OSB ON BOTH SIDES OF GARAGE WALLS. THIS WILL BE NAILED WITH EITHER 6d DEFORMED OR 8d COMMON NAILS AT 6" O.C. AT EDGES AND 12" O.C. IN FIELD, PER NRC TABLE R602.3(1).

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 MARC W. MILLS, RA
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 CERT. NO. 50909
 EXPIRES 12/31/2024
 RALEIGH, NC

Ron & Catherine Tutor
Garage Addition
Glenwood Builders
Fuquay-Varina, NC

PROGRESS DATE:	ISSUE DATE:	REVISIONS NUMBER	DATE	INITIALS	DESCRIPTION

PROJECT NO: 003218
 DRAWN BY: JT/BB
 CHECKED BY: BB
 SHEET TITLE: Portal Frame & Brace Wall Details
 SHEET NUMBER:

D-4

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