

# WILMINGTON -A, B, C

PLAN ID: 2800 - RIGHT HAND - NORTH CAROLINA

DATE:	REVISION:
09/18/2017	INITIAL RELEASE OF PLANS
10/20/2017	CLIENT REVISIONS
11/01/2017	REMOVED PORCH RAILING FROM ELEVATION 'C' FLATTENED BAR TOP AT KITCHEN REVISED SIZE OF WINDOW AT BASE OF STAIRS REVISED MASTER BEDROOM TO OWNER'S BEDROOM
02/07/2018	ELECTRICAL REVISIONS
06/11/2018	CLIENT REVISIONS
11/14/2018	CLIENT REVISIONS
01/09/2019	REVISED CODE REFERENCES
07/23/2019	CLIENT REVISIONS
12/13/2019	CLIENT REVISIONS
02/28/2020	CLIENT REVISIONS

SHEET INDEX:

CS	ARCHITECTURALS - COVERSHEET
0	ARCHITECTURALS - QUICK VIEW
1A	ARCHITECTURALS - ELEVATIONS A
1B	ARCHITECTURALS - ELEVATIONS B
1C	ARCHITECTURALS - ELEVATIONS C
3A	ARCHITECTURALS - FLOOR PLANS A
3B	ARCHITECTURALS - FLOOR PLANS B
3C	ARCHITECTURALS - FLOOR PLANS C
4	ELECTRICAL - FLOOR PLANS

REVIEWERS STAMP LOCATION

MODEL 'WILMINGTON' SQUARE FOOTAGES	
AREA	ELEV 'B'
1st FLOOR	1225 SF
2nd FLOOR	1545 SF
TOTAL LIVING	2824 SF
GARAGE	411 SF
PORCH	72 SF

Mason Ridge  
Lot 12  
219 Fair Child Road  
Spring Lake, NC 28390



COVERSHEET	'WILMINGTON'
------------	--------------

PLAN REV DATE	02.28.20
---------------	----------

<small>COPYRIGHT PROPERTY OF DR. HORTON NOT TO BE REPRODUCED</small> SHEET NUMBER
CS



Front Elevation 'A'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation 'B'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation 'C'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

QUICK VIEW
'WILMINGTON'

PLAN REV DATE
02.28.20

<small>COPYRIGHT PROPERTY OF DR HORTON NOT TO BE REPRODUCED</small>
<small>SHEET NUMBER</small>
0



N.C ATTIC VENT CALCULATION FOR MODEL 'WILMINGTON': 1:150 RATIO.

THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/50 OF THE AREA OF THE SPACE VENTILATED, PROVIDED THAT AT LEAST 50 PERCENT AND NOT MORE THAN 80 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE THE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.

EXCEPTIONS:  
1. ENCLOSED ATTIC/AFTER SPACES REQUIRING LESS THAN 150 FT. OF VENTILATION MAY BE VENTED WITH CONTINUOUS SOFFIT VENTILATION ONLY.  
2. ENCLOSED ATTIC/AFTER SPACES OVER UNCONDITIONED SPACE MAY BE VENTED WITH CONTINUOUS SOFFIT VENT ONLY.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION. BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC REQUIREMENTS.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

(PER NCRG SECTION R302.2)

1 SQUARE INCH VENT FOR EVERY 150 SQUARE INCHES OF CEILING  
144 SQ. IN. = 1 SQ. FT.  
BLDG. CEILING (59') X 144 = 8506 SQ. IN.  
BLDG. (50. IN.) / 150 = 50. IN. OF VENT REQUIRED  
50. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

ROOF AREA 1 = 1181 SF

1636 SQ. FT. X 144 = 235584 SQ. IN.  
235584 SQ. IN. / 150 = 157056 SQ. IN. OF VENT REQ'D  
157056 SQ. IN. / 2 = 78528 SQ. IN. OF VENT AT LOW REQUIRED.  
78528 SQ. IN. OF VENT AT HIGH & 78528 SQ. IN. OF VENT AT LOW REQUIRED.

ROOF AREA 2 = 12 SF

12 SQ. FT. X 144 = 1728 SQ. IN.  
1728 SQ. IN. / 150 = 11.52 SQ. IN. OF VENT REQ'D  
11.52 SQ. IN. / 2 = 5.76 SQ. IN. OF VENT AT LOW REQUIRED.  
5.76 SQ. IN. OF VENT AT HIGH & 5.76 SQ. IN. OF VENT AT LOW REQUIRED.

NOTES:

- ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.
- DASHED LINES INDICATE WALL BELOW.
- LOCATE GUTTER AND DOWNSPOUTS PER BUILDER.
- PITCHED ROOFS AS NOTED.

- TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAWINGS TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.
- ALL PLUMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE.

N.C ATTIC VENT CALCULATION FOR MODEL 'WILMINGTON': 1:300 RATIO

AS AN ALTERNATE TO THE 1/50 RATIO LISTED ABOVE, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM - IN - WINTER SIDE OF THE CEILING.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION. BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC REQUIREMENTS.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

(PER NCRG SECTION R302.2)

1 SQUARE INCH VENT FOR EVERY 300 SQUARE INCHES OF CEILING  
144 SQ. IN. = 1 SQ. FT.  
BLDG. CEILING (59') X 144 = 8506 SQ. IN.  
BLDG. (50. IN.) / 300 = 50. IN. OF VENT REQUIRED  
50. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

ROOF AREA 1 = 1636 SF

1636 SQ. FT. X 144 = 235584 SQ. IN.  
235584 SQ. IN. / 300 = 78528 SQ. IN. OF VENT REQ'D  
78528 SQ. IN. / 2 = 39264 SQ. IN. OF VENT AT LOW REQUIRED.  
39264 SQ. IN. OF VENT AT HIGH & 39264 SQ. IN. OF VENT AT LOW REQUIRED.

ROOF AREA 2 = 12 SF

12 SQ. FT. X 144 = 1728 SQ. IN.  
1728 SQ. IN. / 300 = 5.76 SQ. IN. OF VENT REQ'D  
5.76 SQ. IN. / 2 = 2.88 SQ. IN. OF VENT AT LOW REQUIRED.  
2.88 SQ. IN. OF VENT AT HIGH & 2.88 SQ. IN. OF VENT AT LOW REQUIRED.

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:  
1ST FLOOR = 6'-8" U.N.O. ON ELEVATIONS.  
2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- ROOFING: PITCHED SHINGLES PER DEVELOPER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS.
- ENTRY DOOR: AS SELECTED BY DEVELOPER.
- GARAGE DOORS: AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PROTECTION AGAINST DECAY:  
(ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOWN, INCLUDING POST, RAILS, PICKETS, STEPS AND FLOOR STRUCTURE.)
- INSULATION: PER TABLE N102.1.2.  
EXTERIOR WALLS: R-15 BATTS MINIMUM. VERIFY  
CEILING WITH ATTIC ABOVE: R-30 BATTS MINIMUM. VERIFY  
FLOOR OVER GARAGE: R-19 BATTS MINIMUM. VERIFY  
ATTIC KNEEWALL: R-19 BATTS MINIMUM. VERIFY  
GRANUL SPACE FLOORING: R-19 BATTS MINIMUM. VERIFY

KEY NOTES:

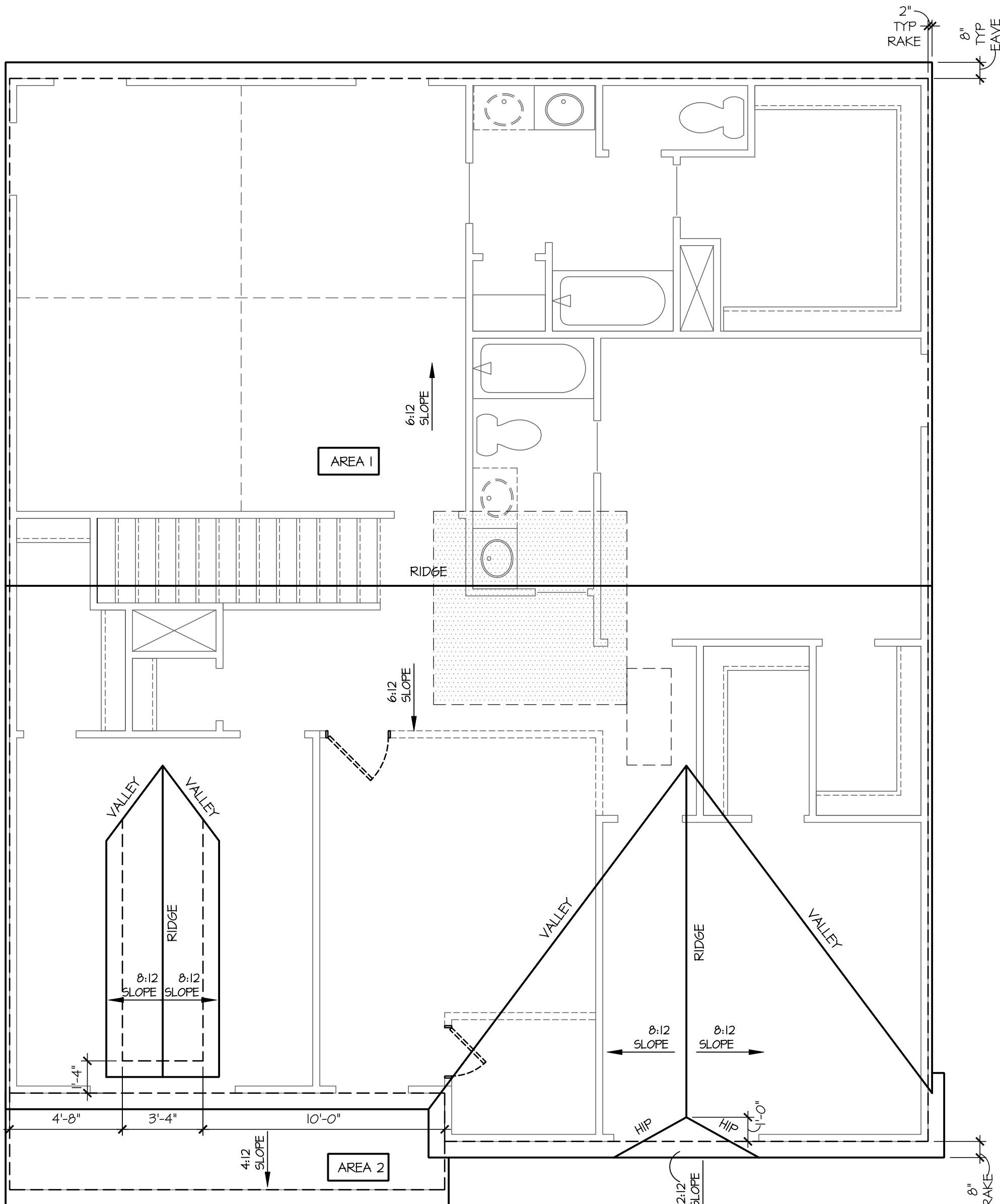
MASONRY:

- ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- 8" SOLDIER COURSE.
- ROMLOCK COURSE
- VA

TYPICALS:

- CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED.
- CODE APPROVED TERMINATION CHIMNEY CAP.
- CORROSION RESISTANT ROOF TO WALL FLASHING. CODE COMPLIANT FLASHING PER NCRG R905.2.0.3
- STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- DECORATIVE WROUGHT IRON. SEE DETAILS.
- SIDING:  
12 VINYL SHAKE SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.)  
13 VINYL LAP SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT LAP SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.)  
14 VINYL NAVY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT NAVY SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.)  
15 VINYL BOARD AND BATT SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT PANEL SIDING W/ IX3 BATTS AT 12" O.C. PER DEVELOPER W/ IX4 CORNER TRIM BOARD.)  
16 VINYL TRIM SIZE AS NOTED (AT SPECIFIC LOCATIONS: IX FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED)  
17 FIBON SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED. (AT SPECIFIC LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.)

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING LIMITING DEVICES COMPLYING WITH THE NCRG SECTION R312.2.1 AND R312.2.2.



Roof Plan 'B'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

VENEER CALCULATIONS:  
HARDBOARD = 264 SQ. FT.  
MASONRY = 183 SQ. FT.  
MASONRY % = 40%

TRUSS MANUFACTURE TO VERIFY HEELS PER COMMUNITY STANDARDS, BUILDER TO VERIFY PRIOR TO CONSTRUCTION



Rear Elevation 'B'

SCALE: 1/8"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT



Left Elevation 'B'

SCALE: 1/8"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT



Right Elevation 'B'

SCALE: 1/8"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

AVAILABLE WITH OPTIONAL 9'-1" FIRST FLOOR PLATE

- NOTES AT OPT 9'-1" PLT:
- WDW HT SET AT 7'-6"
  - INTERIOR SOFFITS AT 8'-0"
  - EXTERIOR SOFFITS AT 8'-0"

AT SINGLE FAMILY DETACHED PLANS:  
PREFINISHED VENTED SOFFIT AT EAVE PER MANUFACTURER. (VERIFY FIRE SEPARATION DISTANCE FOR SOFFIT PROTECTION PER NCRG SECTION R302.1.1 AND TABLE R302.1)



Front Elevation 'B'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

ELEVATIONS

'WILMINGTON'

PLAN REV DATE

02.28.20

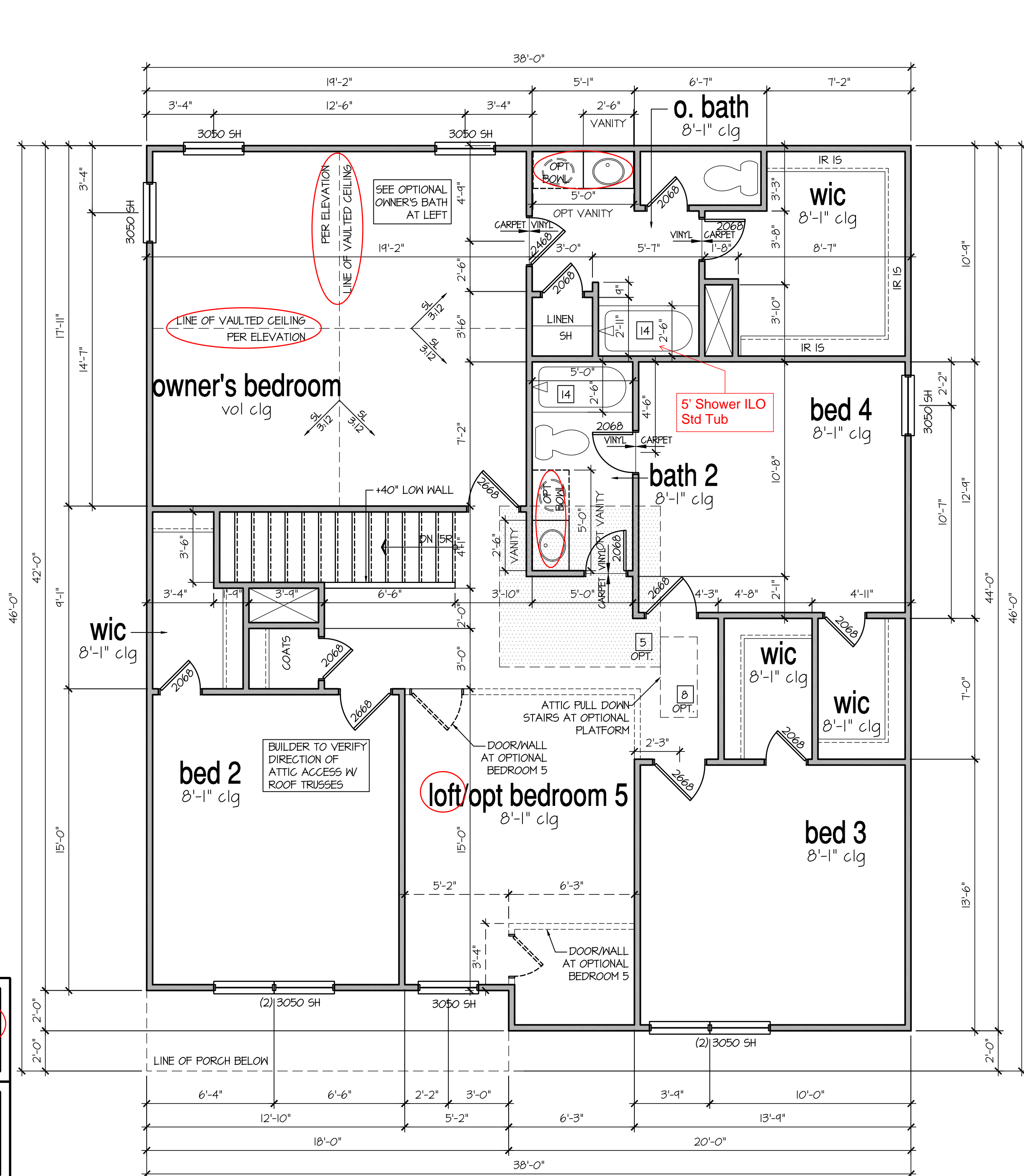
COPYRIGHT PROPERTY OF DR. HORTON NOT TO BE REPRODUCED  
SHEET NUMBER

1B

Express HOMES  
America's Builder

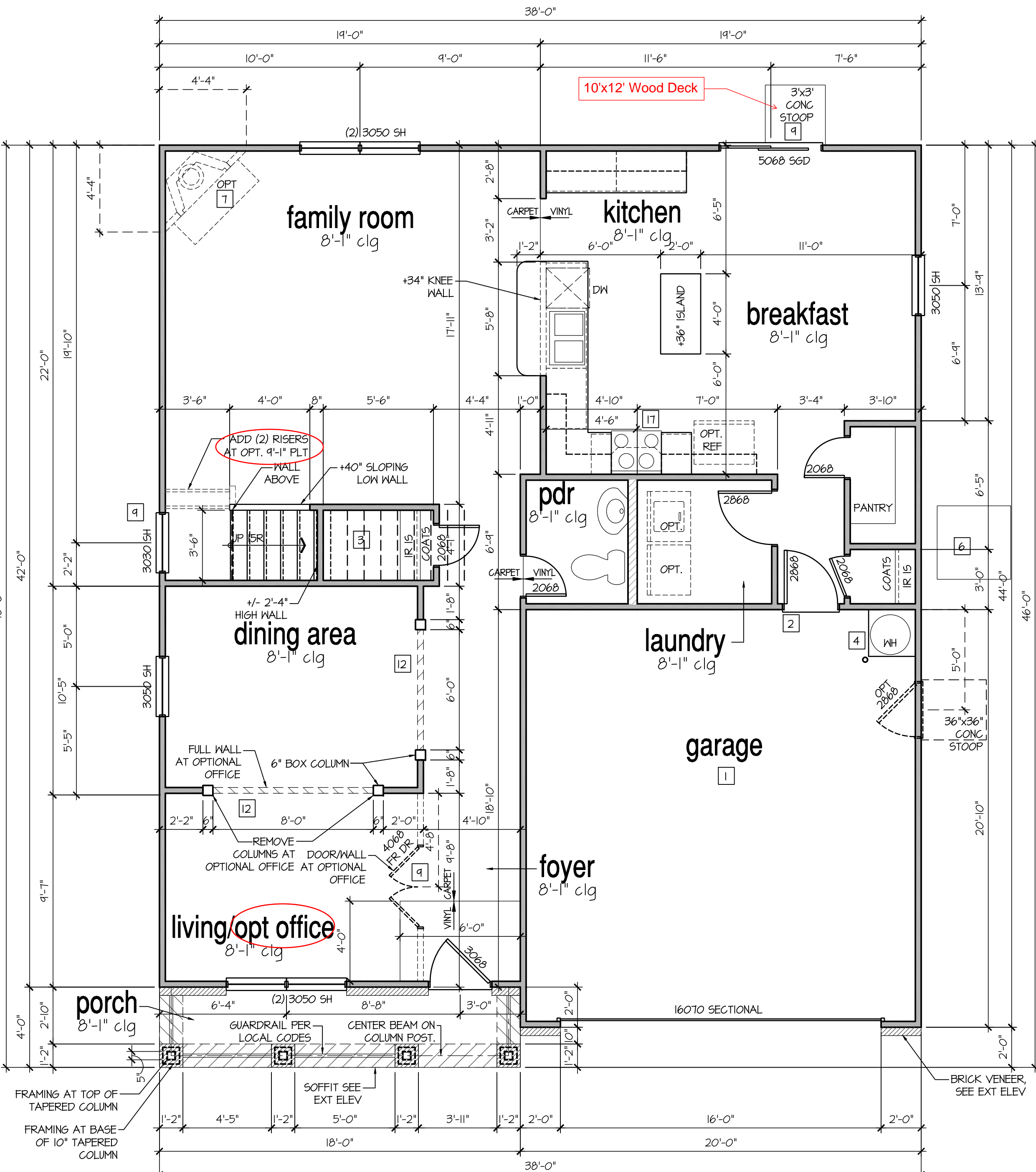
DR. HORTON





2nd Floor Plan 'B'

SCALE: 1/4"=1'-0" AT 22'X34" LAYOUT 1/8"=1'-0" AT 11'X11" LAYOUT



1st Floor Plan 'B'

SCALE: 1/4"=1'-0" AT 22'X34" LAYOUT 1/8"=1'-0" AT 11'X11" LAYOUT

9'-1" STAIR NOTE: (USE 14" TJI WITH 3/4" PLYWOOD SUBFLOOR) 16 TREADS AT 10" EACH VERIFY 17 RISERS AT +/- 7.21" = 123 3/4" TOTAL RISE VERIFY

8'-1" STAIR NOTE: (USE 14" TJI WITH 3/4" PLYWOOD SUBFLOOR) 14 TREADS AT 10" EACH VERIFY 15 RISERS AT +/- 7.45" = 111 3/4" TOTAL RISE VERIFY

AVAILABLE WITH OPTIONAL 9'-1" FIRST FLOOR PLATE NOTES AT OPT 9'-1" PLT: - WDW HT SET AT 7'-6" - INTERIOR SOFFITS AT 8'-0" - EXTERIOR SOFFITS AT 8'-0"

Table with 3 columns: WALL LEGEND, KEY NOTES FOR NORTH CAROLINA, and PLAN REV DATE. Includes details on fire protection, wall types, and revision dates.

Express DR·HORTON America's Builder HOMES FLOOR PLANS 'WILMINGTON' PLAN REV DATE 02.28.20 SHEET NUMBER 3B

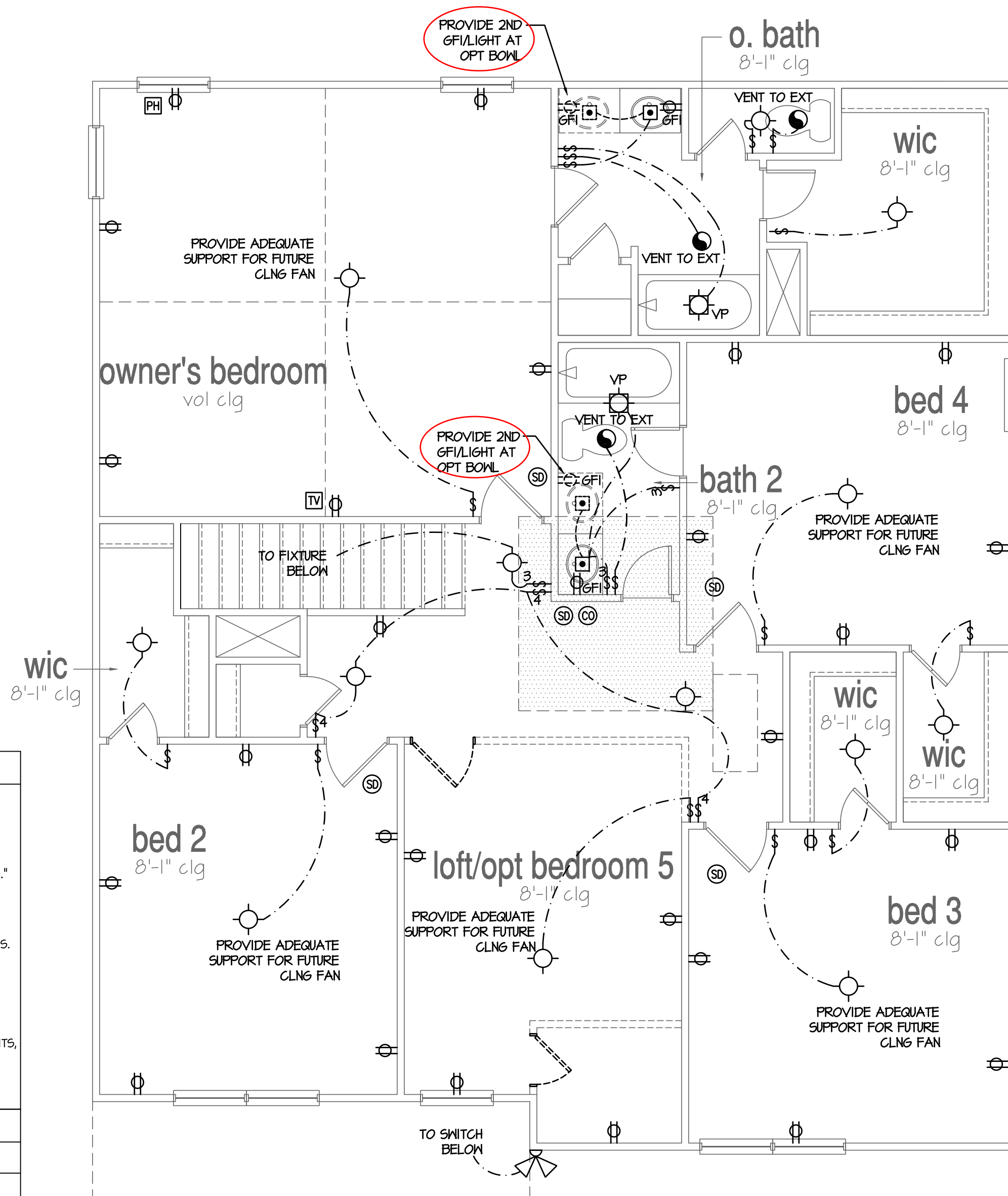


NOTES:

- PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES.
- PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS.
- FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABELED "SUITABLE FOR WET OR DAMP LOCATIONS."
- ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.
- PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS.
- HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.
- ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAIN TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS.
- PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

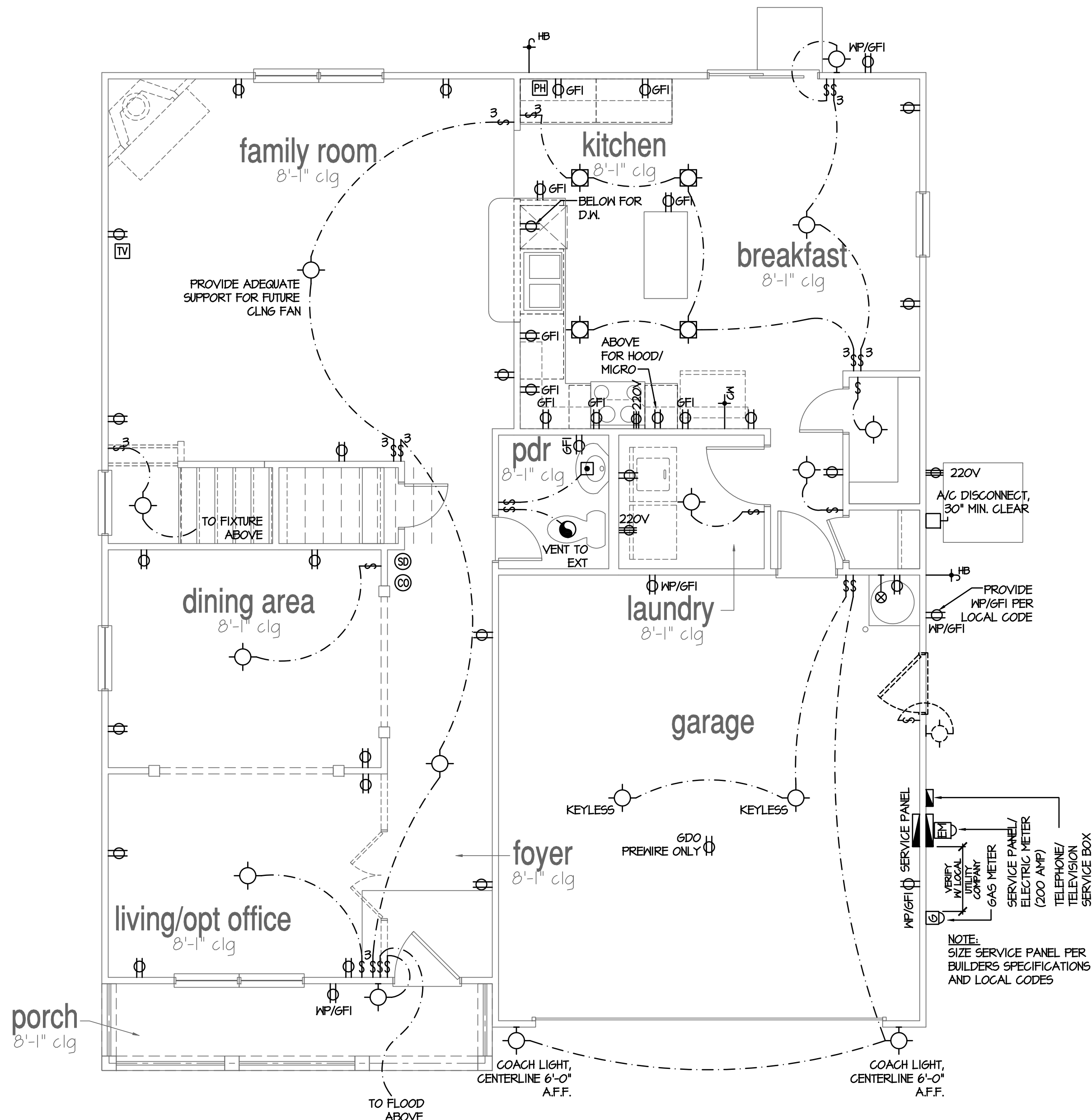
LEGEND:

	DUPLEX OUTLET		CEILING MOUNTED INCANDESCENT LIGHT FIXTURE
	WEATHERPROOF GFI DUPLEX OUTLET		WALL MOUNTED INCANDESCENT LIGHT FIXTURE
	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET		RECESSED INCANDESCENT LIGHT FIXTURE (VP) = VAPOR PROOF
	HALF-SWITCHED DUPLEX OUTLET		CEILING MOUNTED LED LIGHT FIXTURE (VP) = VAPOR PROOF
	220 VOLT OUTLET		EXHAUST FAN (VENT TO EXTERIOR)
	REINFORCED JUNCTION BOX		EXHAUST FAN/LIGHT COMBINATION (VENT TO EXTERIOR)
	WALL SWITCH		FLUORESCENT LIGHT FIXTURE
	THREE-WAY SWITCH		TECH HUB SYSTEM
	FOUR-WAY SWITCH		CEILING FAN (PROVIDE ADEQUATE SUPPORT)
	CHIMES		CEILING FAN WITH INCANDESCENT LIGHT FIXTURE (PROVIDE ADEQUATE SUPPORT)
	PUSHBUTTON SWITCH		GAS SUPPLY WITH VALVE
	110V SMOKE ALARM w/ BATTERY BACKUP		HOSE BIBB
	110V SMOKE ALARM CO2 DETECTOR COMBO		1/4\"/>
	THERMOSTAT		WALL SCONCE
	TELEPHONE		
	TELEVISION		
	ELECTRIC METER		
	ELECTRIC PANEL		
	DISCONNECT SWITCH		



2nd Floor Plan 'A'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT



1st Floor Plan 'A'

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

ALL ELEVATIONS  
ARE SIMILAR

FLOOR PLANS

'WILMINGTON'

PLAN REV DATE

02.28.20

SHEET NUMBER

4

COPYRIGHT PROPERTY OF DR HORTON NOT TO BE REPRODUCED

Construction Type: Commerical ☐ Residential ☒

- 2018 North Carolina Residential Building Code with All Local Amendments
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

1.	Roof Live Loads	
1.1.	Conventional 2x	20 PSF
1.2.	Truss	20 PSF
1.2.1.	Attic Truss	60 PSF
2.	Roof Dead Loads	
2.1.	Conventional 2x	10 PSF
2.2.	Truss	20 PSF
3.	Snow	15 PSF
3.1.	Importance Factor	1.0
4.	Floor Live Loads	
4.1.	Typ. Dwelling	40 PSF
4.2.	Sleeping Areas	30 PSF
4.3.	Decks	40 PSF
4.4.	Passenger Garage	50 PSF
5.	Floor Dead Loads	
5.1.	Conventional 2x	10 PSF
5.2.	I-Joist	15 PSF
5.3.	Floor Truss	15 PSF
6.	Ultimate Design Wind Speed (3 sec. gust)	130 MPH
6.1.	Exposure	B
6.2.	Importance Factor	1.0
6.3.	Wind Base Shear	
6.3.1.	$V_x =$	
6.3.2.	$V_y =$	
7.	Component and Cladding (in PSF)	

MEAN ROOF HT.	UP TO 30'	30'1"-35'	35'1"-40'	40'1"-45'
ZONE 1	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.7	20.4,-21.3
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.1	20.4,-26.9

8.1. Site Class .....	D
8.2. Design Category .....	C
8.3. Importance Factor .....	1.0
8.4. Seismic Use Group .....	I
8.5. Spectral Response Acceleration	
8.5.1. $S_{ms}$ = %g	
8.5.2. $S_{m1}$ = %g	
8.6. Seismic Base Shear	
8.6.1. $V_x$ =	
8.6.2. $V_y$ =	
8.7. Basic Structural System (check one)	
<input checked="" type="checkbox"/> Bearing Wall	
<input type="checkbox"/> Building Frame	
<input type="checkbox"/> Moment Frame	
<input type="checkbox"/> Dual w/ Special Moment Frame	
<input type="checkbox"/> Dual w/ Intermediate R/C or Special Steel	
<input type="checkbox"/> Inverted Pendulum	
8.8. Arch/Mech Components Anchored .....	No
8.9. Lateral Design Control: Seismic <input type="checkbox"/> Wind <input checked="" type="checkbox"/>	
9. Assumed Soil Bearing Capacity .....	20



**FORMERLY SUMMIT ENGINEERING, LABORATORY, &  
TESTING INC.**

WILMINGTON — RH

OWNER:  
DR Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify UES Professional Solutions 29, Inc. (UES) before construction begins.

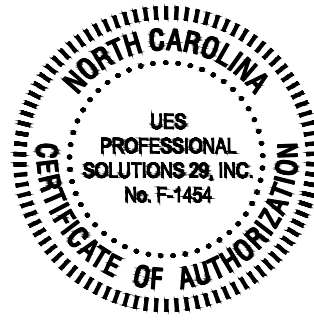
AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSF	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SPY	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TYN	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to UES Professional Solutions 29, Inc. (UES) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by DR Horton, Inc. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify UES immediately.

Sheet No.	Description
CS1	Cover Sheet, Specifications, Revisions
S1.0m	Monolithic Slab Foundation
S1.0s	Stem Wall Foundation
S1.0c	Crawl Space Foundation
S1.0b	Basement Foundation
S2.0	Basement Plan
S3.0	First Floor Plan
S4.0	Second Floor Plan
S5.0	Roof Framing Plan

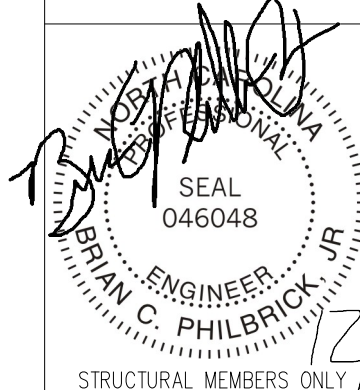
[illegible]

Manager	Signature
Operations	
Operations System	
Operations Product Development	



CLIENT:  
DR Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Wilmington - RH  
Coversheet



DRAWING

DATE: 12/18/2021

SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"

PROJECT #: A20117.00087.000

DRAWN BY: MGC

CHECKED BY: BCP

ORIGINAL INFORMATION	
PROJECT #	DATE
12611	01/31/2017

REFER TO COVER SHEET FOR A COMPLETE  
LIST OF REVISIONS

SHEET

CS1



GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of UES Professional Solutions 29, Inc. (UES) or the SER. For the purposes of these construction documents the SER and UES shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
- Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to UES for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or UES.
- Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to UES before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
- This structure and all construction shall conform to all applicable sections of the international residential code.
- This structure and all construction shall conform to all applicable sections of local building codes.
- All structural assemblies are to meet or exceed to requirements of the current local building code.
- The Structural Engineer of Record's (SER) seal applies to structural components only. The SER's seal does not certify dimensional accuracy or architectural layout, including roof geometry. UES Professional Solutions 29, Inc. (UES) nor the SER assumes no liability for changes made to sealed drawings by others, construction methods, or any deviation from these plans. The SER shall be notified prior to construction if any discrepancies are noted on the plans.
- All sealed structural drawings shall have a signed and dated seal to be valid and are limited to the following uses:
  - If these structural drawings are issued as part of a master-plan set intended to be used for mass development, these drawings shall be valid for a period of two (2) years from the date on the seal, or if any code required updates are placed in effect by the governing jurisdiction.
  - If these structural drawings are not issued as part of a master plan set intended for mass development, these drawings are valid for a conditional one time use for the lot of the address specified within the title block.
- UES Professional Solutions 29, Inc. (UES) as its option, may create a set of standard details for a client that are referenced within our drawings. Any details created by UES whether specific to one plan or as part of a "Standard Detail" package are only valid with use of drawings created by UES Professional Solutions 29, Inc. (UES) and shall not be used with any other drawings or for any other construction purposes.

FOUNDATIONS:

- The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.
- The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
- Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
- The resulting soil shall be compacted to a minimum of 95% maximum dry density.
- Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

STRUCTURAL STEEL:

- Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.
- Structural steel shall receive one coat of shop applied rust-inhibitive paint.
- All steel shall have a minimum yield stress ( $F_y$ ) of 36 ksi unless otherwise noted.
- Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D1.1. Electrodes and consumables for both shop and field welding shall be 70ksi. All welding shall be performed by a certified welder per the above standards.

CONCRETE:

- Concrete shall be nominal weight concrete with no aggregate larger than 3/4" and a minimum compressive strength ( $f'_c$ ) at 28 days of 3000 psi, unless otherwise noted on the plan.
- Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
- Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
  - Footings: 5%
  - Exterior Slabs: 5%
- No admixtures shall be added to any structural concrete without written permission of the SER.
- Concrete slabs-on-grade shall be constructed in accordance with the latest version of ACI 302.1: "Guide for Concrete Slab and Slab Construction".
- The concrete slab-on-grade has been designed using a subgrade modulus of  $k=250$  pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
- Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted.
- Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished.
- Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.

- All welded wire fabric (W.W.F.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The W.W.F. shall be securely supported during the concrete pour.

CONCRETE REINFORCEMENT:

- Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
- Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
- Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of Standard Practice for Detailing Concrete Structures"
- Horizontal footing and wall reinforcement shall be continuous and shall have 90° bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B tension splice.
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
- Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.
- Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

- Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
- LVL or PSL engineered wood shall have the following minimum design values:
  - $E = 1,900,000$  psi
  - $F_b = 2600$  psi
  - $F_v = 285$  psi
  - $F_c = 700$  psi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWP standard C-15. All other moisture exposed wood shall be treated in accordance with AWP standard C-2
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4 SYP #2 @ 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.

- Individual studs forming a column shall be attached with one 10d nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3) 12d nails @ 12" O.C.
- Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 16" O.C. unless noted otherwise.
- All fasteners that will be exposed to the elements shall be hot dipped galvanized.

WOOD TRUSSES:

- The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
- The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-16), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
- The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
- Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

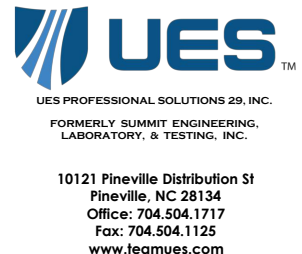
WOOD STRUCTURAL PANELS:

- Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA standards.
- All structurally required wood sheathing shall bear the mark of the APA.
- Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.

- Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
- All structurally required fiberboard sheathing shall bear the mark of the AFA.
- Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
- Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.



CLIENT:  
DS Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Wilmington - RH  
Coversheet



DRAWING  
DATE: 12/18/2021  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT #: A20117.00087.000  
DRAWN BY: MGC  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT # 12011 DATE 01/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

CS2



FOUNDATION NOTES:

1. FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
2. STRUCTURAL CONCRETE TO BE  $f_c = 3000$  PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
3. FOOTINGS TO BE PLACED ON UNDISTURBED EARTH, BEARING A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
4. FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION.
5. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
6. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
7. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
8. PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
9. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
10. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
11. CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
12. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
9. ABBREVIATIONS:

DJ = DOUBLE JOIST      SJ = SINGLE JOIST  
GT = GIRDER TRUSS      FT = FLOOR TRUSS  
SC = STUD COLUMN      DR = DOUBLE RAFTER  
EE = EACH END      TR = TRIPLE RAFTER  
TJ = TRIPLE JOIST      OC = ON CENTER  
CL = CENTER LINE      PL = POINT LOAD

10. ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (UNO)
11. WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
12. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER, OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION, UES PROFESSIONAL SOLUTIONS 29, INC. (UES) MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
13. ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLDDOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.8 AND FIGURES R602.10.6.5, R602.10.7, R602.10.8(1) AND R602.10.8(2) OF THE 2015 IRC

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, UNO

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP I PER TABLE R405.1

REINFORCE GARAGE PORTAL WALLS PER FIGURE R602.10.9 OF THE 2015 IRC.

BEAM POCKETS MAY BE SUBSTITUTED FOR MASONRY PILASTERS AT GIRDER ENDS. BEAM POCKETS SHALL HAVE A MINIMUM 4" SOLID MASONRY BEARING.

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR. HORTON. COMPLETED/REVISED ON 02/28/2020. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. (UES) IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. (UES) CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

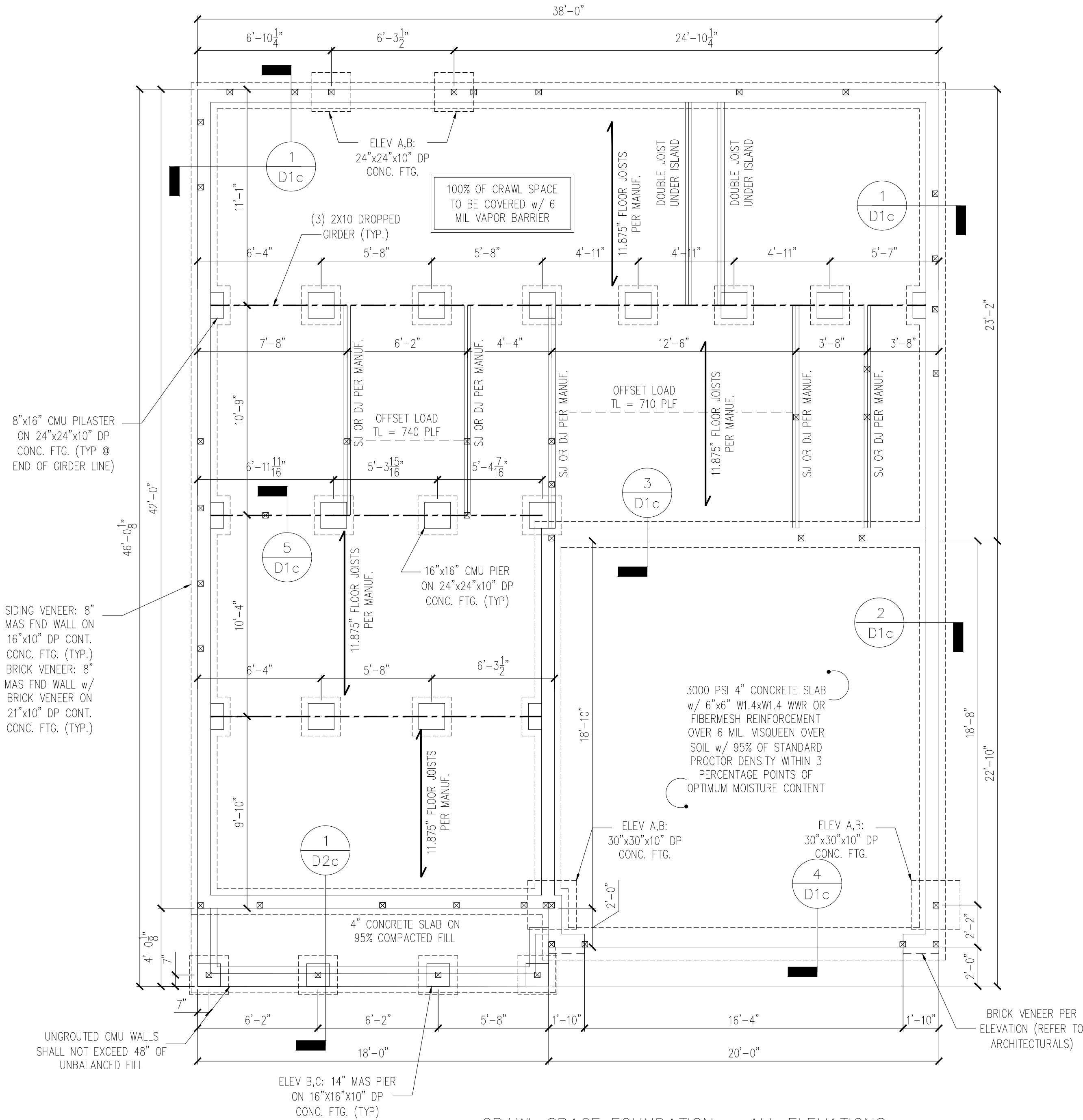
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29, INC. (UES) FAILURE TO DO SO WILL VOID (UES) LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

CRAWL SPACE FOUNDATION PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



18"x24" MIN. CRAWL SPACE ACCESS DOOR TO BE LOCATED IN FIELD PER BUILDER. PROVIDE MIN. (2) 2x10 HEADER OVER DOOR w/ MIN. 4" BEARING EACH END. AVOID SHOWN POINT LOADS.

DECK FLOOR JOISTS SHALL BE SPACED AT MAX. 12" ON CENTER WHEN DECKING INSTALLED DIAGONALLY

**UES**  
UES PROFESSIONAL SOLUTIONS 29, INC.  
FORMERLY SUMMIT ENGINEERING,  
UNDERSTUDY & TESTING, INC.  
10121 Pineville Distribution St  
Pineville, NC 28134  
Office: 704.664.1117  
Fax: 704.664.1125  
www.uesinc.com



CLIENT:  
DR. Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT: Wilmington - RH  
Crawl Space Foundation



DRAWING  
DATE: 12/18/2021  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT #: A20117.00087.000  
DRAWN BY: MGC  
CHECKED BY: BCP  
ORIGINAL INFORMATION  
PROJECT # 12011 DATE 01/31/2017  
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS  
SHEET  
S1.0c



REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 7" O.C.	5d COOLER NAILS** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.6.4	PER FIGURE R602.10.6.4
**OR EQUIVALENT PER TABLE R702.3.5				

- GENERAL STRUCTURAL NOTES:
- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
  - CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
  - PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:  
MICROLLAM (LVL):  $F_b = 2600$  PSI,  $F_v = 285$  PSI,  $E = 1.9 \times 10^6$  PSI  
PARALLAM (PSL):  $F_b = 2900$  PSI,  $F_v = 290$  PSI,  $E = 1.25 \times 10^6$  PSI
  - ALL WOOD MEMBERS SHALL BE #2 SYP/#2 SPF UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP/#2 SPF (UNO).
  - ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP/#2 SPF STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
  - ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
  - FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
  - CONTRACTOR TO PROVIDE LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
  - FLITCH BEAMS, 4-PLY LVLs AND 3-PLY SIDE LOADED LVLs SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1/D31. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
  - ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2/SPF #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2/SPF #2, DROPPED. (UNLESS NOTED OTHERWISE)
  - ABBREVIATIONS:

DJ = DOUBLE JOIST      SJ = SINGLE JOIST  
GT = GIRDER TRUSS    FT = FLOOR TRUSS  
SC = STUD COLUMN    DR = DOUBLE RAFTER  
EE = EACH END        TR = TRIPLE RAFTER  
TJ = TRIPLE JOIST     OC = ON CENTER  
CL = CENTER LINE     PL = POINT LOAD

NOTE:  
----- DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

INSTALL ANY REQUIRED HOLDDOWNS PER SECTION R602.10.8 AND FIGURES R602.10.6.5, R602.10.7, R602.10.8(1) AND R602.10.8(2) OF THE 2015 IRC

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR. HORTON COMPLETED/REVISED ON 02/28/2020. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. (UES) IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. (UES) CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

NOTE: MEMBER NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER PROVIDED THE ENTIRETY OF THE MEMBER IS WRAPPED TO PREVENT MOISTURE INTRUSION.

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

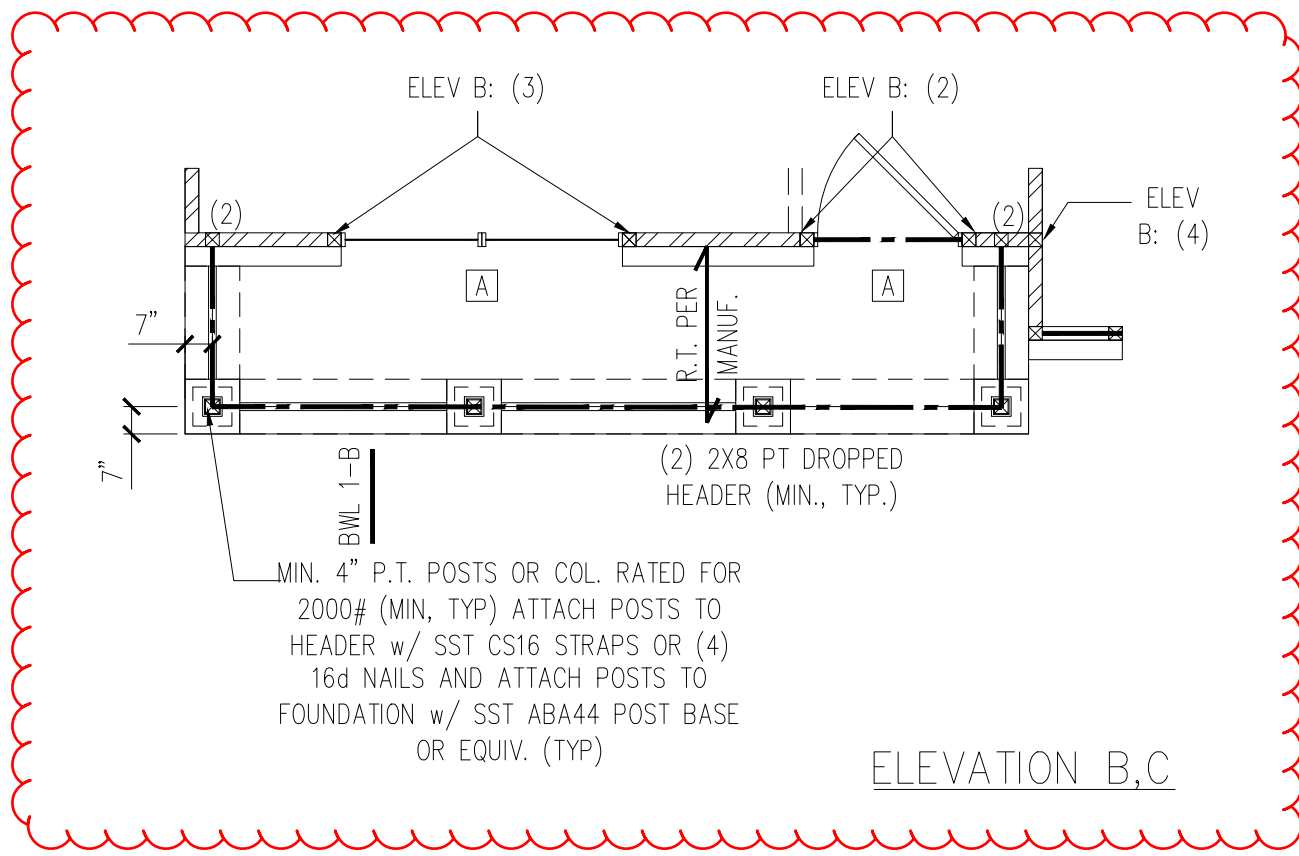
## STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29, INC. (UES) FAILURE TO DO SO WILL VOID (UES) LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

## FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
BWL 1-1	4.8	26.5
BWL 1-2	4.8	13.5
BWL 1-3	4.3	13.1
BWL 1-A	11.5	41.0
BWL 1-B	11.5	36.0

HEADER SCHEDULE		
TAG	SIZE	JACKS (EACH END)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(2)
HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. SC NOTED ON PLAN OVERRIDE SC LISTED ABOVE.		

LINTEL SCHEDULE		
TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L5x3x1/4"	6'-0" TO 10'-0"
③	L5x3-1/2"x5/16"	GREATER THAN 10'-0"
④	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS
SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)		
ALL HEADERS WHERE BRICK IS USED, TO BE: ①(UNO)		

WALL STUD SCHEDULE	
1ST & 2ND FLOOR LOAD BEARING STUDS: 2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C. 1ST FLOOR LOAD BEARING STUDS w/ WALK-UP ATTIC: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BASEMENT LOAD BEARING STUDS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. NON-LOAD BEARING STUDS (ALL FLOORS): 2x4 STUDS @ 24" O.C. TWO STORY WALLS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY	

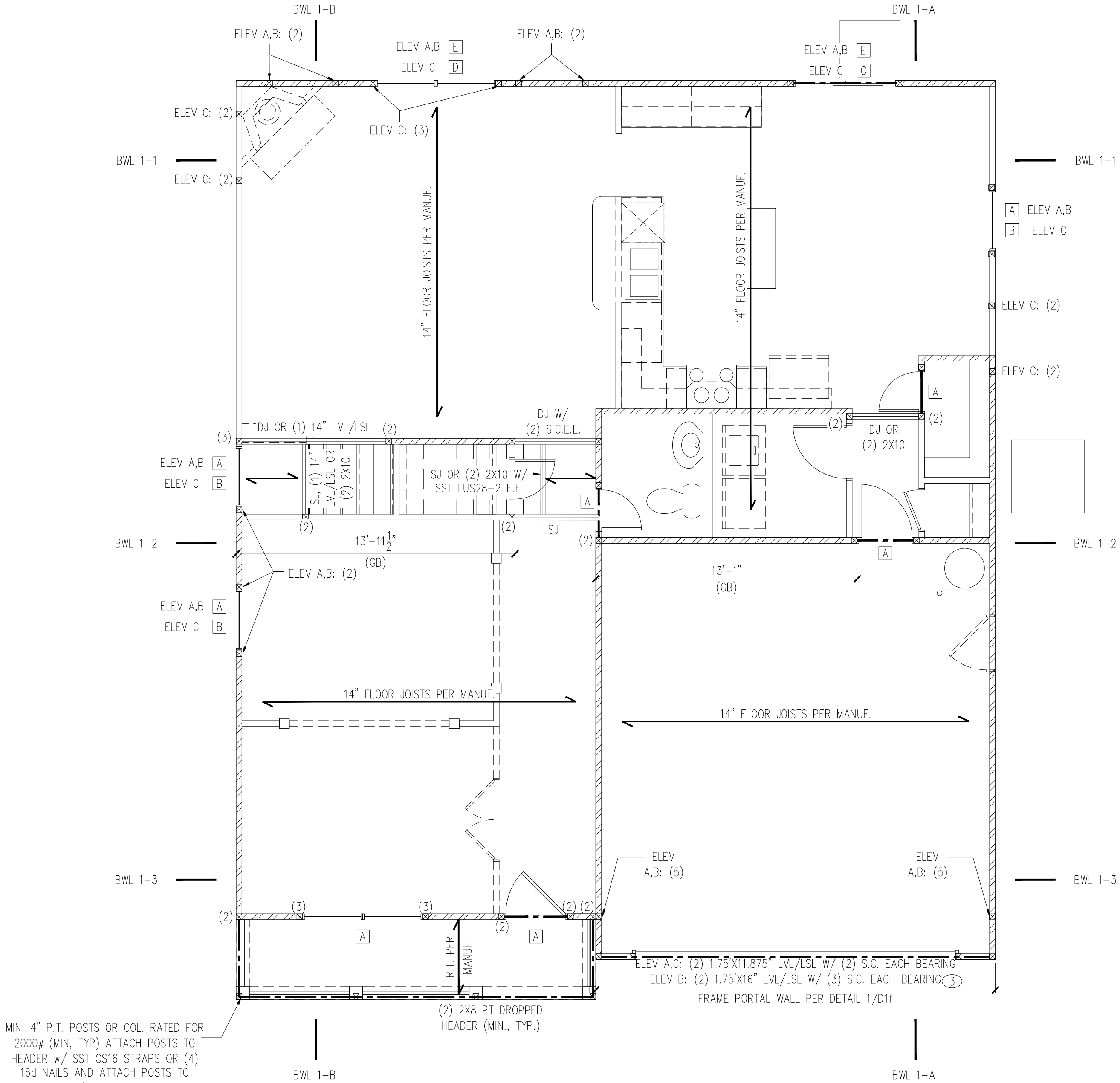
KING STUD REQUIREMENTS	
OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-0"	(1)
3'-0 TO 4'-0"	(2)
4'-0 TO 8'-0"	(3)
8'-0 TO 12'-0"	(5)
12'-0 TO 16'-0"	(6)
KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS	

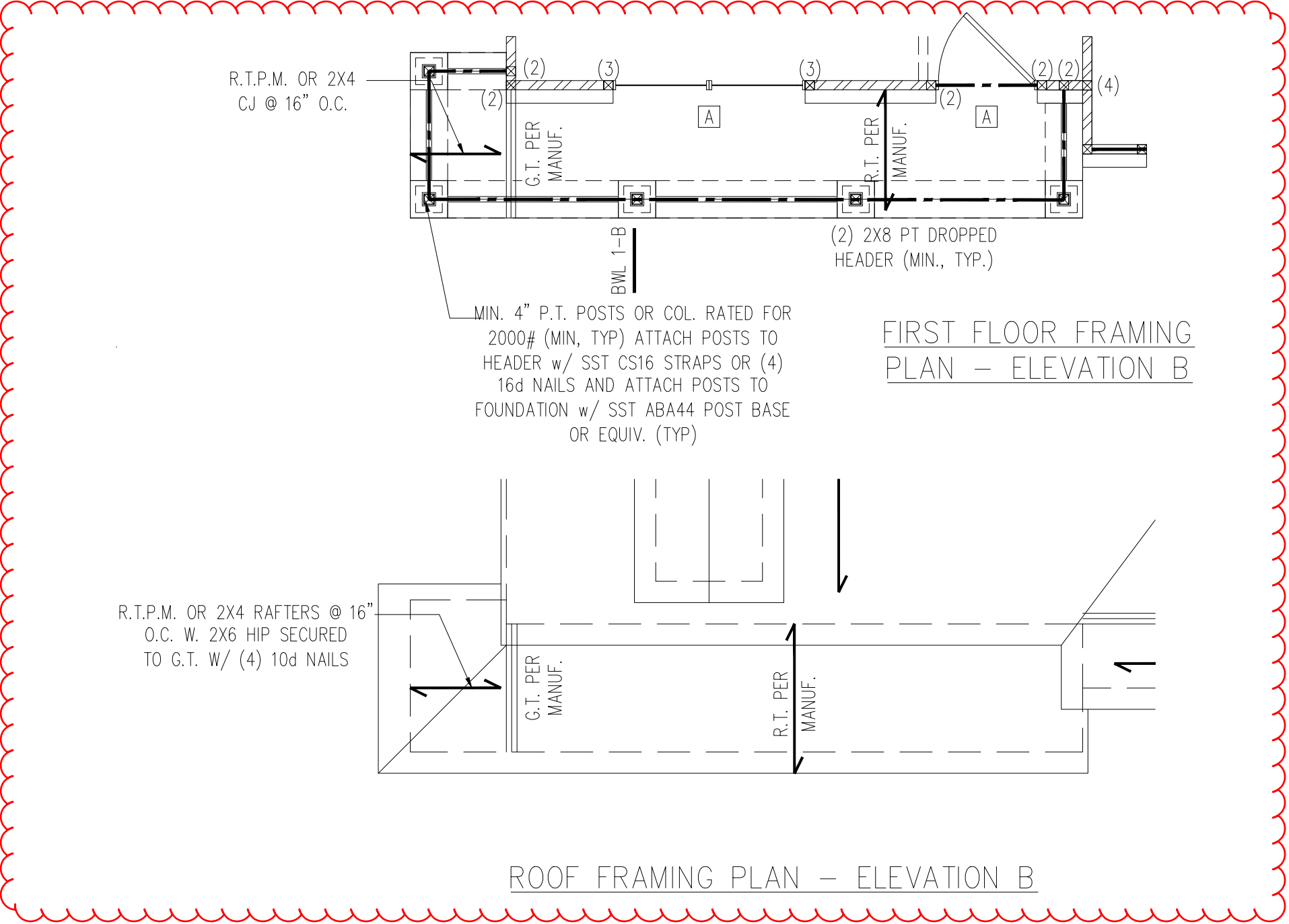
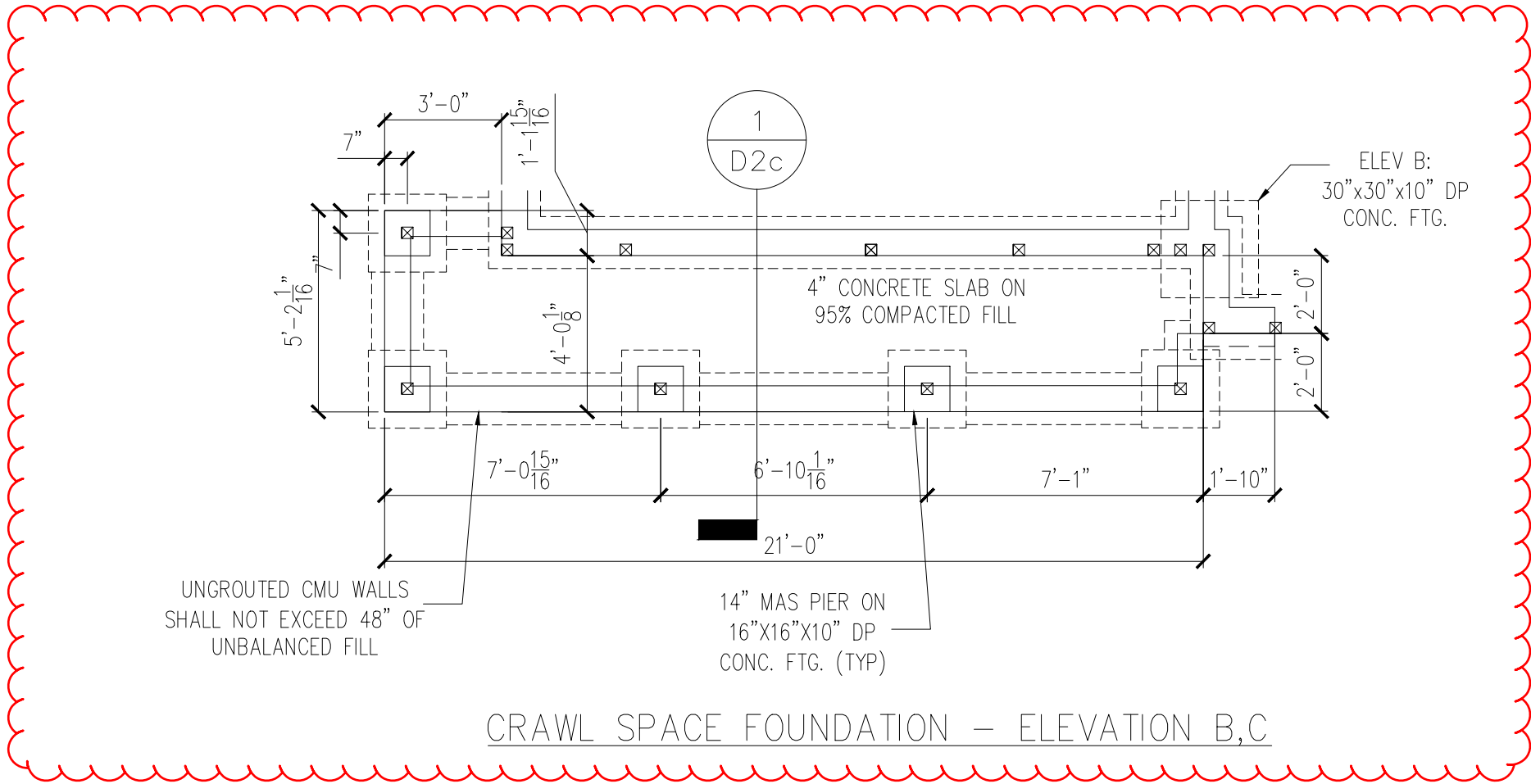
### BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2015 INTERNATIONAL RESIDENTIAL CODE AS ALLOWED PER SECTION R602.10 OF THE 2018 NC RESIDENTIAL CODE.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH IRC TABLE R602.10.4.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.5.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 20 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.9 OF THE 2015 IRC.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.8.
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.8.2 AND FIGURES R602.10.8(1)&(2)&(3).
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.11.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.6.4 (UNO)
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS. ABBREVIATIONS:

GB = GYPSUM BOARD      WSP = WOOD STRUCTURAL PANEL  
CS-XXX = CONT. SHEATHED    ENG = ENGINEERED SOLUTION  
PF = PORTAL FRAME      PF-ENG = ENG. PORTAL FRAME

## FIRST FLOOR FRAMING PLAN – ELEVATION A<sub>6</sub>





STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29, INC. (UES) FAILURE TO DO SO WILL VOID (UES) LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"

CLIENT:  
DS Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Wilmington - RH  
First Floor Framing Plan

**UES**  
PROFESSIONAL  
SOLUTIONS 29, INC.  
SEAL  
046048  
ENGINEER  
BRIAN C. PHILBROCK  
12/23/24  
STRUCTURAL MEMBERS ONLY

DRAWING  
DATE: 12/18/2021  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT #: A20117.00087.000  
DRAWN BY: MCC  
CHECKED BY: BCP  
ORIGINAL INFORMATION  
PROJECT # DATE  
15811 01/31/2017  
REFER TO COVER SHEET FOR A COMPLETE  
LIST OF REVISIONS  
SHEET  
S3.1



REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 7" O.C.	5d COOLER NAILS** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.6.4	PER FIGURE R602.10.6.4
**OR EQUIVALENT PER TABLE R702.3.5				

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
- PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:  
MICROLLAM (LVL):  $F_b = 2600$  PSI,  $F_v = 285$  PSI,  $E = 1.9 \times 10^6$  PSI  
PARALLAM (PSL):  $F_b = 2900$  PSI,  $F_v = 290$  PSI,  $E = 1.25 \times 10^6$  PSI
- ALL WOOD MEMBERS SHALL BE #2 SYP/#2 SPF UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP/#2 SPF (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP/#2 SPF STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- FITCH BEAMS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1/D36. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2/SPF #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2/SPF #2, DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

DJ = DOUBLE JOIST  
GT = GIRDER TRUSS  
SC = STUD COLUMN  
EE = EACH END  
TJ = TRIPLE JOIST  
CL = CENTER LINE

SJ = SINGLE JOIST  
FT = FLOOR TRUSS  
DR = DOUBLE RAFTER  
TR = TRIPLE RAFTER  
OC = ON CENTER  
PL = POINT LOAD

NOTE:  
----- DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

INSTALL ANY REQUIRED HOLDDOWNS PER SECTION R602.10.8 AND FIGURES R602.10.6.5, R602.10.7, R602.10.8(1) AND R602.10.8(2) OF THE 2015 IRC

NOTE: MEMBER NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER PROVIDED THE ENTIRETY OF THE MEMBER IS WRAPPED TO PREVENT MOISTURE INTRUSION.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON COMPLETED/REVISED ON 02/28/2020. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. (UES) IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. (UES) CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

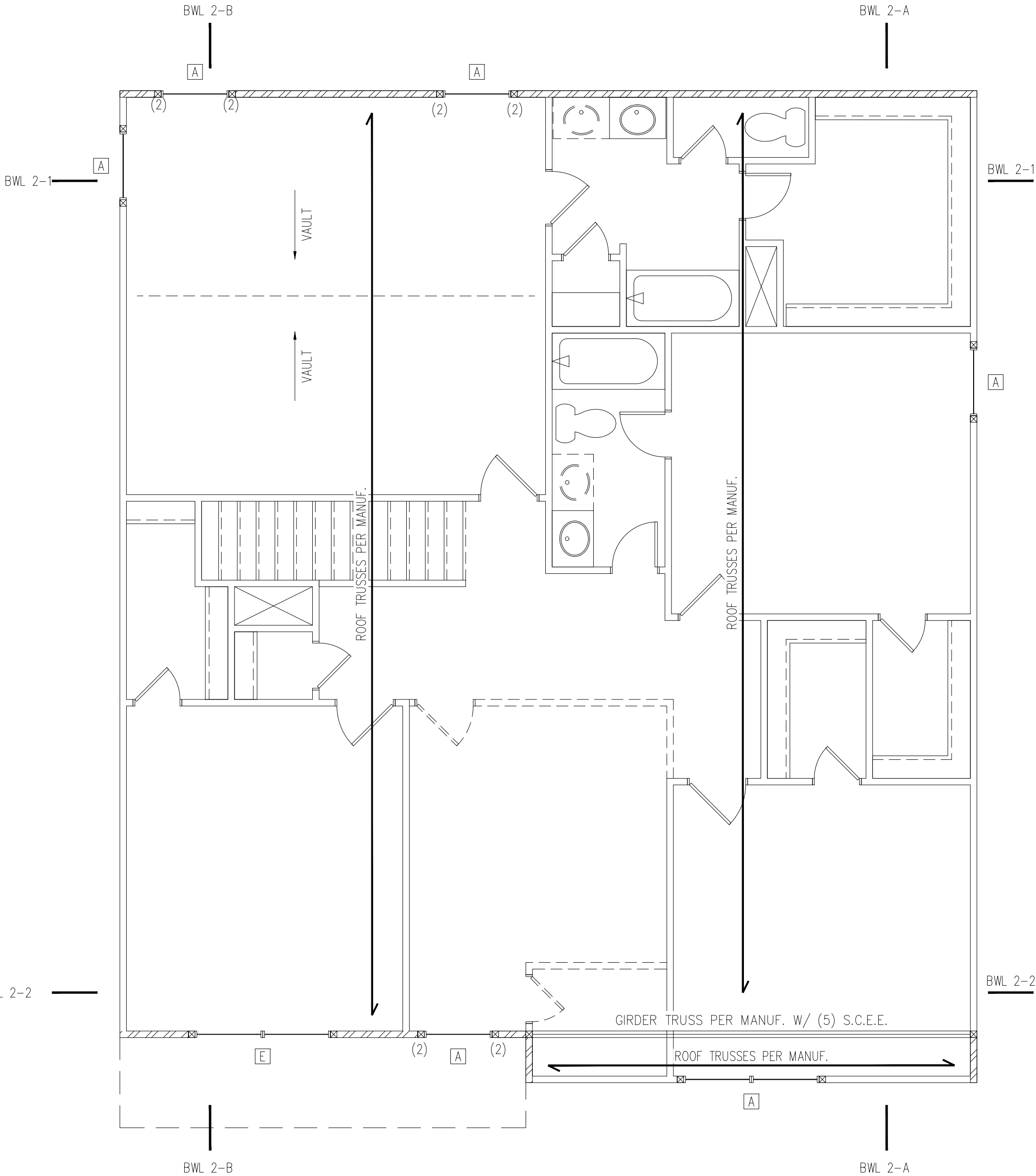
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29, INC. (UES) FAILURE TO DO SO WILL VOID (UES) LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



SECOND FLOOR FRAMING PLAN - ELEVATION A,B

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
BWL 2-1	6.8	30.1
BWL 2-2	6.8	21.1
BWL 2-A	5.9	41.0
BWL 2-B	5.9	37.1

HEADER SCHEDULE		
TAG	SIZE	JACKS (EACH END)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(2)
HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. SC NOTED ON PLAN OVERRIDE SC LISTED ABOVE.		

LINTEL SCHEDULE		
TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L5x3x1/4"	6'-0" TO 10'-0"
③	L5x3-1/2"x5/16"	GREATER THAN 10'-0"
④	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS
SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)		
ALL HEADERS WHERE BRICK IS USED, TO BE: ①(UNO)		

WALL STUD SCHEDULE	
1ST & 2ND FLOOR LOAD BEARING STUDS: 2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C. 1ST FLOOR LOAD BEARING STUDS w/ WALK-UP ATTIC: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BASEMENT LOAD BEARING STUDS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. NON-LOAD BEARING STUDS (ALL FLOORS): 2x4 STUDS @ 24" O.C. TWO STORY WALLS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY	

KING STUD REQUIREMENTS	
OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-0"	(1)
3'-0 TO 4'-0"	(2)
4'-0 TO 8'-0"	(3)
8'-0 TO 12'-0"	(5)
12'-0 TO 16'-0"	(6)
KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS	

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2015 INTERNATIONAL RESIDENTIAL CODE AS ALLOWED PER SECTION R602.10 OF THE 2018 NC RESIDENTIAL CODE.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH IRC TABLE R602.10.4.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.5.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 20 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.9 OF THE 2015 IRC.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.8
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.8.2 AND FIGURES R602.10.8(1)&(2)&(3).
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.11
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.6.4 (UNO)
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

GB = GYPSUM BOARD  
CS-XXX = CONT. SHEATHED  
PF = PORTAL FRAME

WSP = WOOD STRUCTURAL PANEL  
ENG = ENGINEERED SOLUTION  
PF-ENG = ENG. PORTAL FRAME

UES PROFESSIONAL SOLUTIONS 29, INC.  
FORMERLY SUMMIT ENGINEERING,  
LABORATORY & TESTING, INC.

10121 Pineville Distribution St  
Pineville, NC 28134  
Office: 704.504.1117  
Fax: 704.504.1125  
www.ues29.com

CLIENT:  
DR Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Wilmington - RH  
First Floor Framing Plan

12/23/24

STRUCTURAL MEMBERS ONLY

DRAWING  
DATE: 12/18/2021  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT #: A20117.00087.000  
DRAWN BY: MGC  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT #  
12811  
DATE  
01/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
S4.0

TRUSS UPLIFT CONNECTOR SCHEDULE			
MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND
600 LBS	H2.5A	PER WALL SHEATHING & FASTENERS	
1200 LBS	(2) H2.5A	CS16 (END = 11")	DTT2Z
1450 LBS	HTS20	CS16 (END = 11")	DTT2Z
2000 LBS	(2) MTS20	(2) CS16 (END = 11")	DTT2Z
2900 LBS	(2) HTS20	(2) CS16 (END = 11")	HTT4
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4
1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS. 2. UPLIFT VALUES LISTED ARE FOR SYP #2 GRADE MEMBERS. 3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE. 4. CONTACT UES FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.			

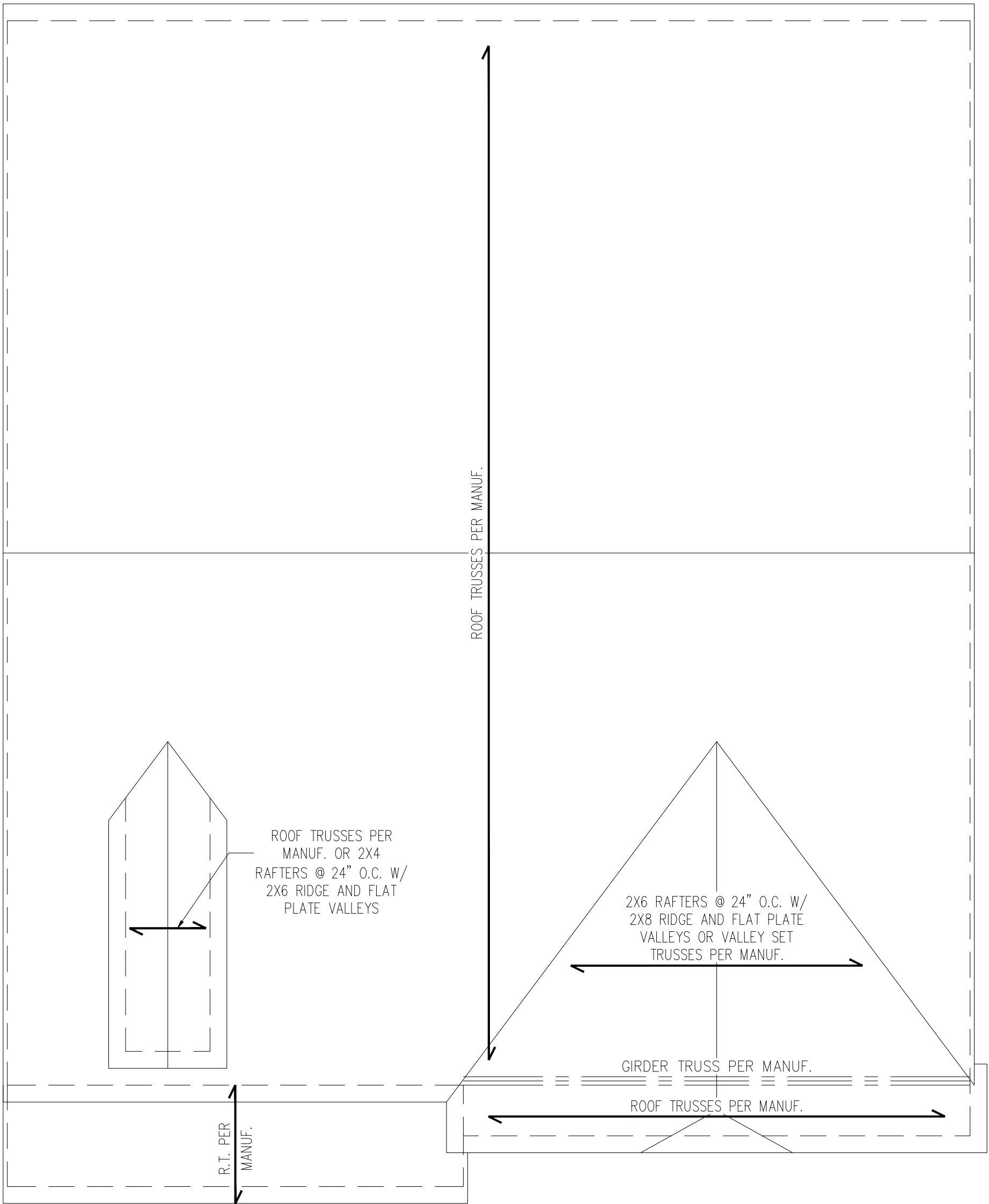
NOTE: 1ST PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP, UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED DORMER WALLS (TYP, UNO)

REFER TO DETAIL 5/D3F FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS. (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R602.11.1.1. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 IRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR. HORTON. COMPLETED/REVISED ON 02/28/2020. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. (UES) IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. (UES) CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.



ROOF FRAMING PLAN – ELEVATION B


STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29, INC. (UES) FAILURE TO DO SO WILL VOID (UES) LIABILITY.

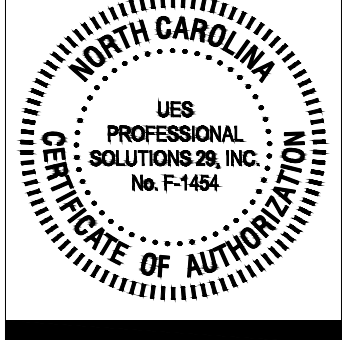
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"

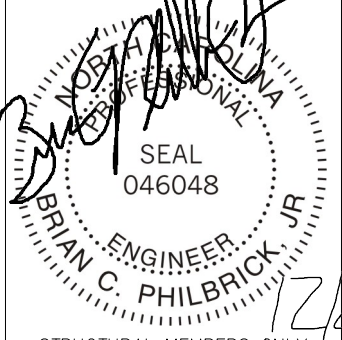


UES PROFESSIONAL SOLUTIONS 29, INC.  
FORMERLY SUMMIT ENGINEERING,  
UNDERSTUDY & TESTING, INC.  
10121 Pineville Distribution St  
Pineville, NC 28134  
Office: 704.504.1117  
Fax: 704.504.1125  
www.hqsumitues.com



CLIENT:  
DR. Horton, Inc.  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Wilmington – RH  
First Floor Framing Plan



12/23/24

STRUCTURAL MEMBERS ONLY

DRAWING  
DATE: 12/18/2021  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT #: A20117.00087.000  
DRAWN BY: MGC  
CHECKED BY: BCP

ORIGINAL INFORMATION  
PROJECT # 12811 DATE 01/31/2017

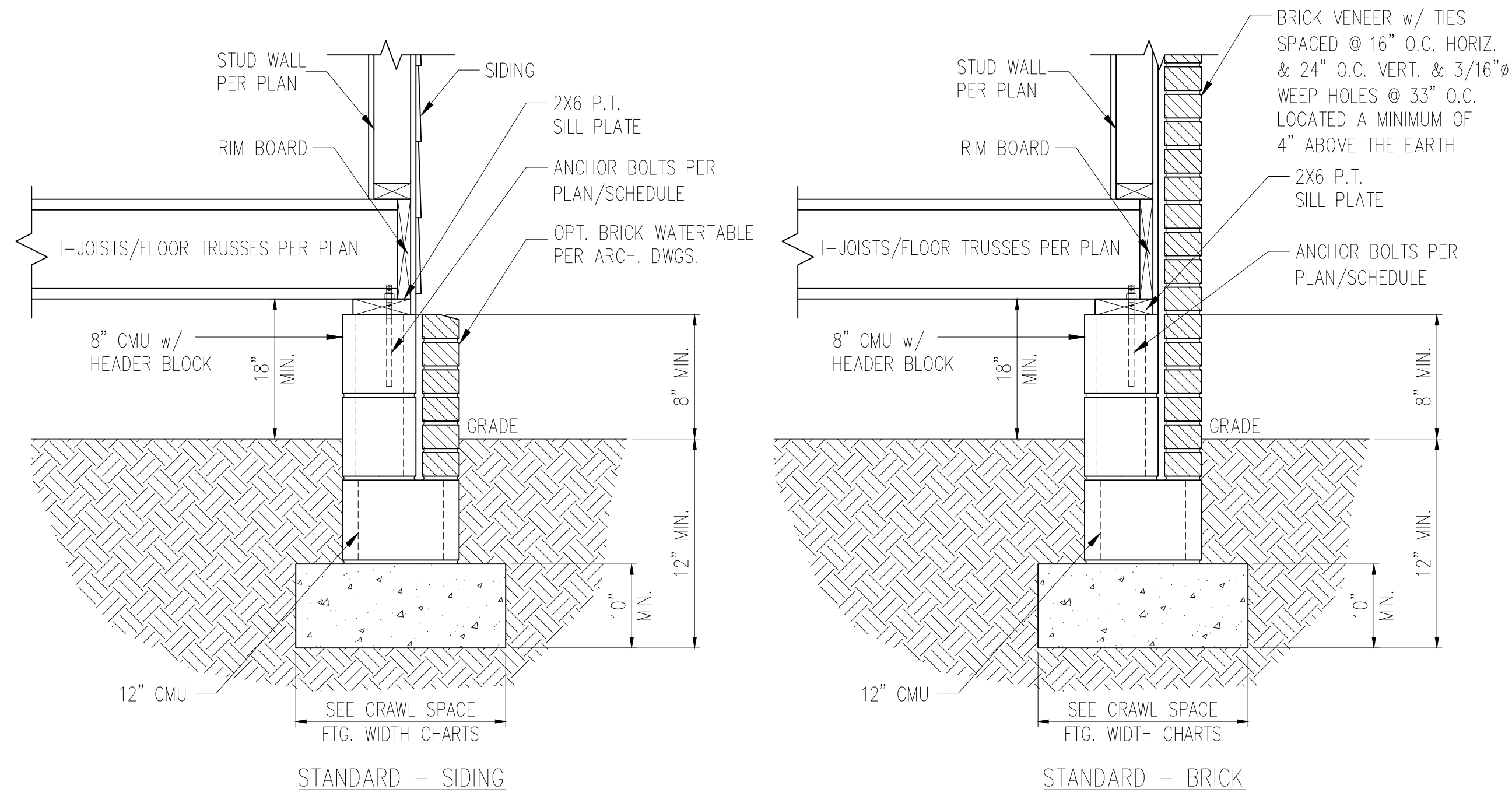
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
S5.1

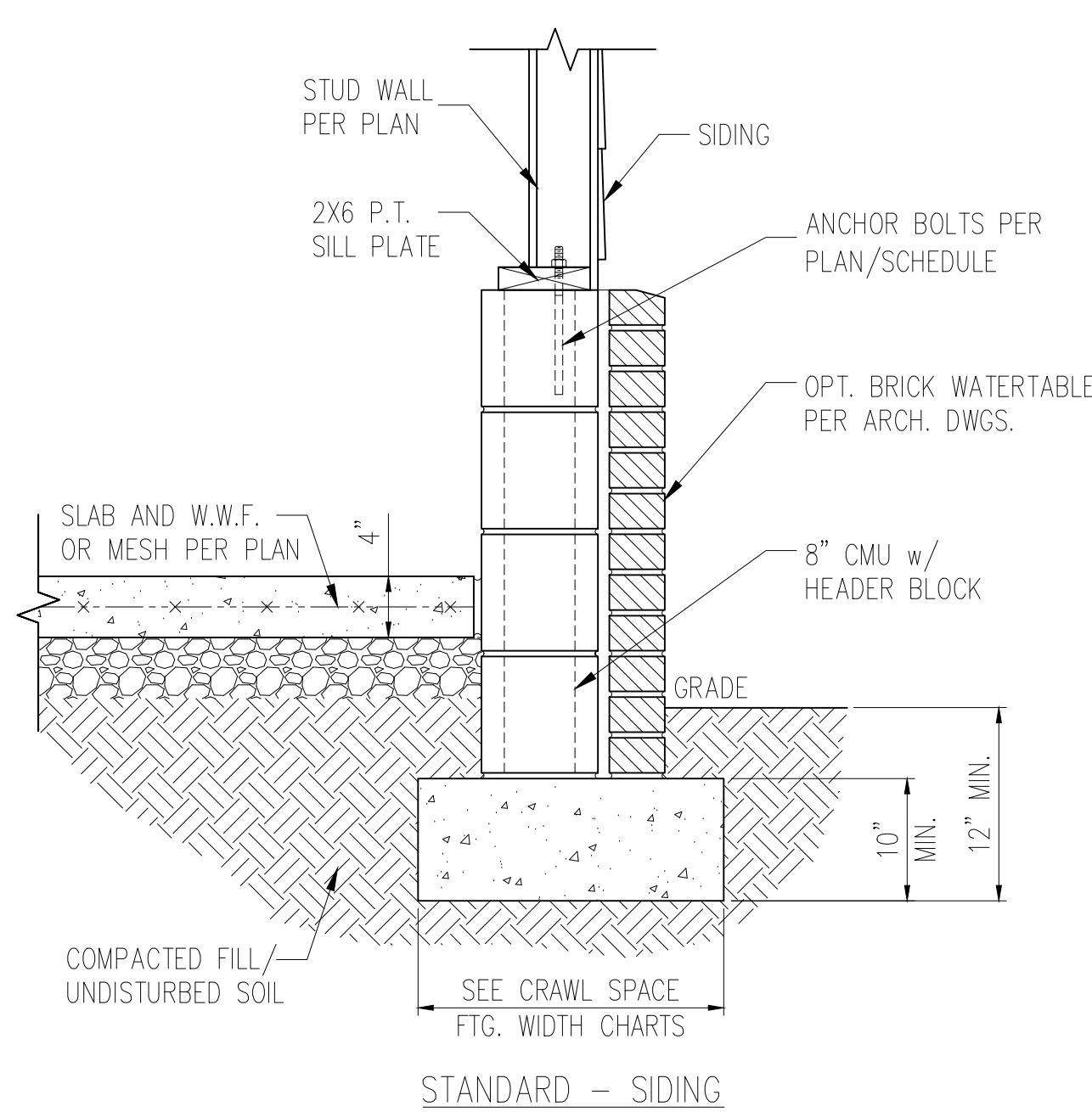




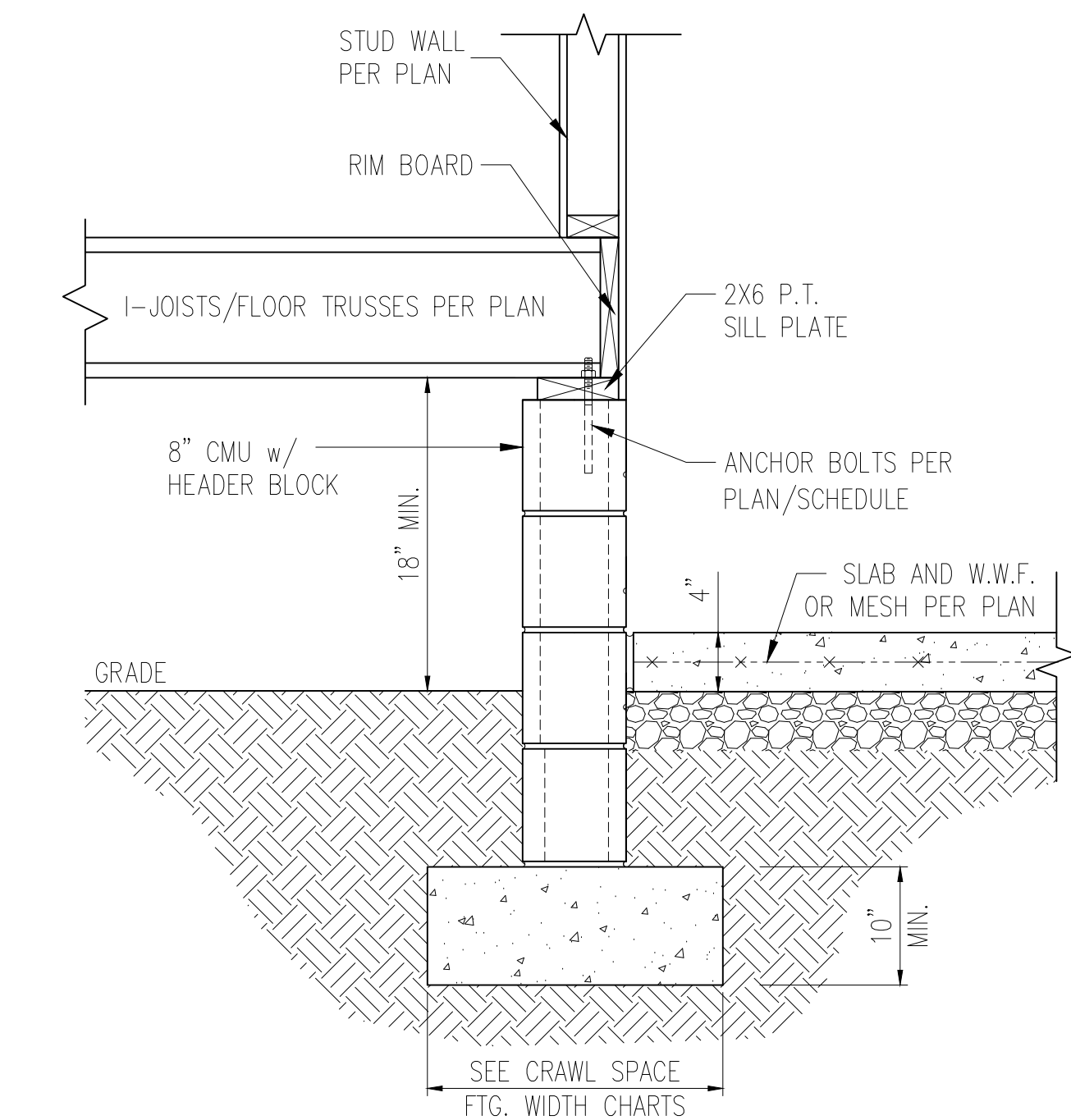




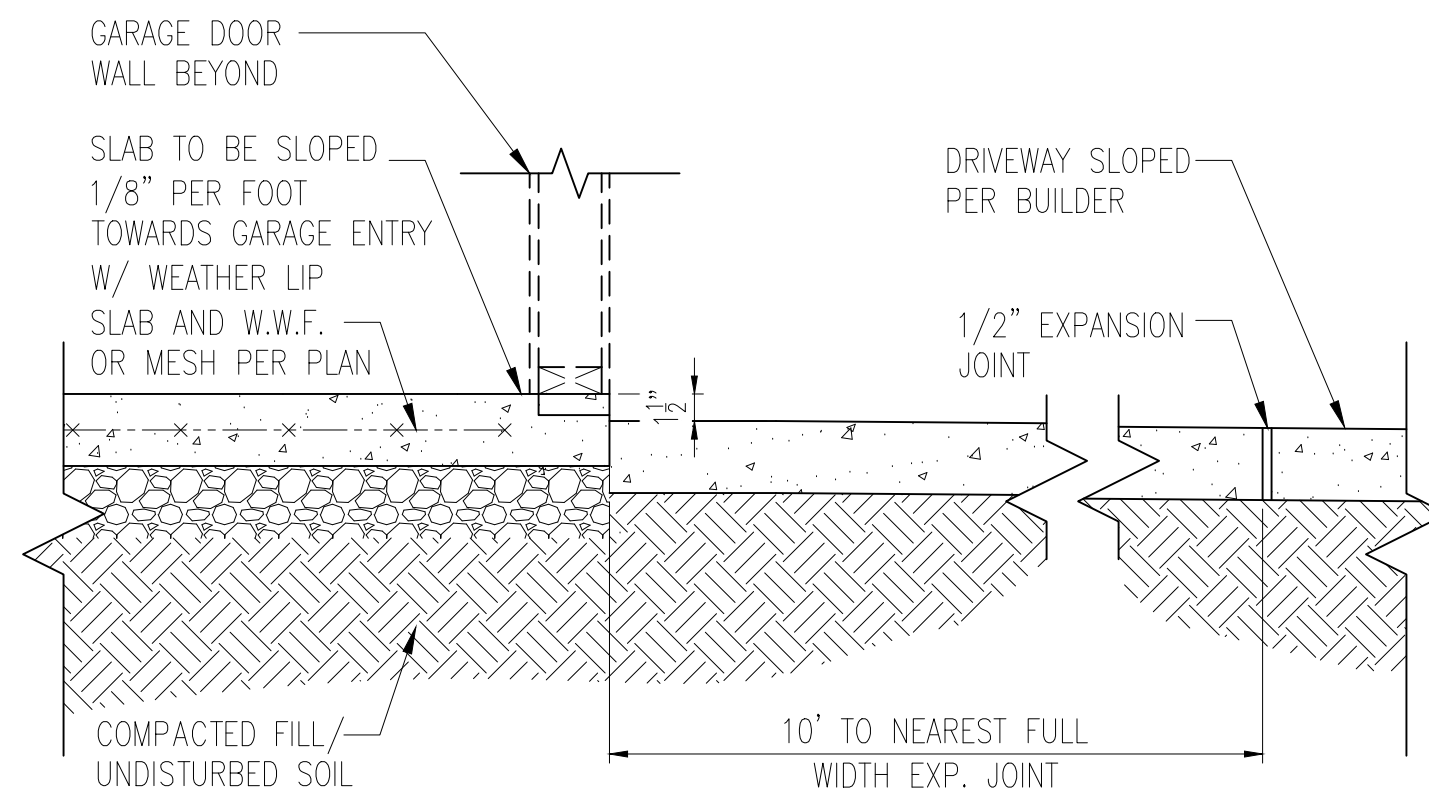
1 TYP. FOUNDATION WALL DETAIL  
D1c N.T.S.



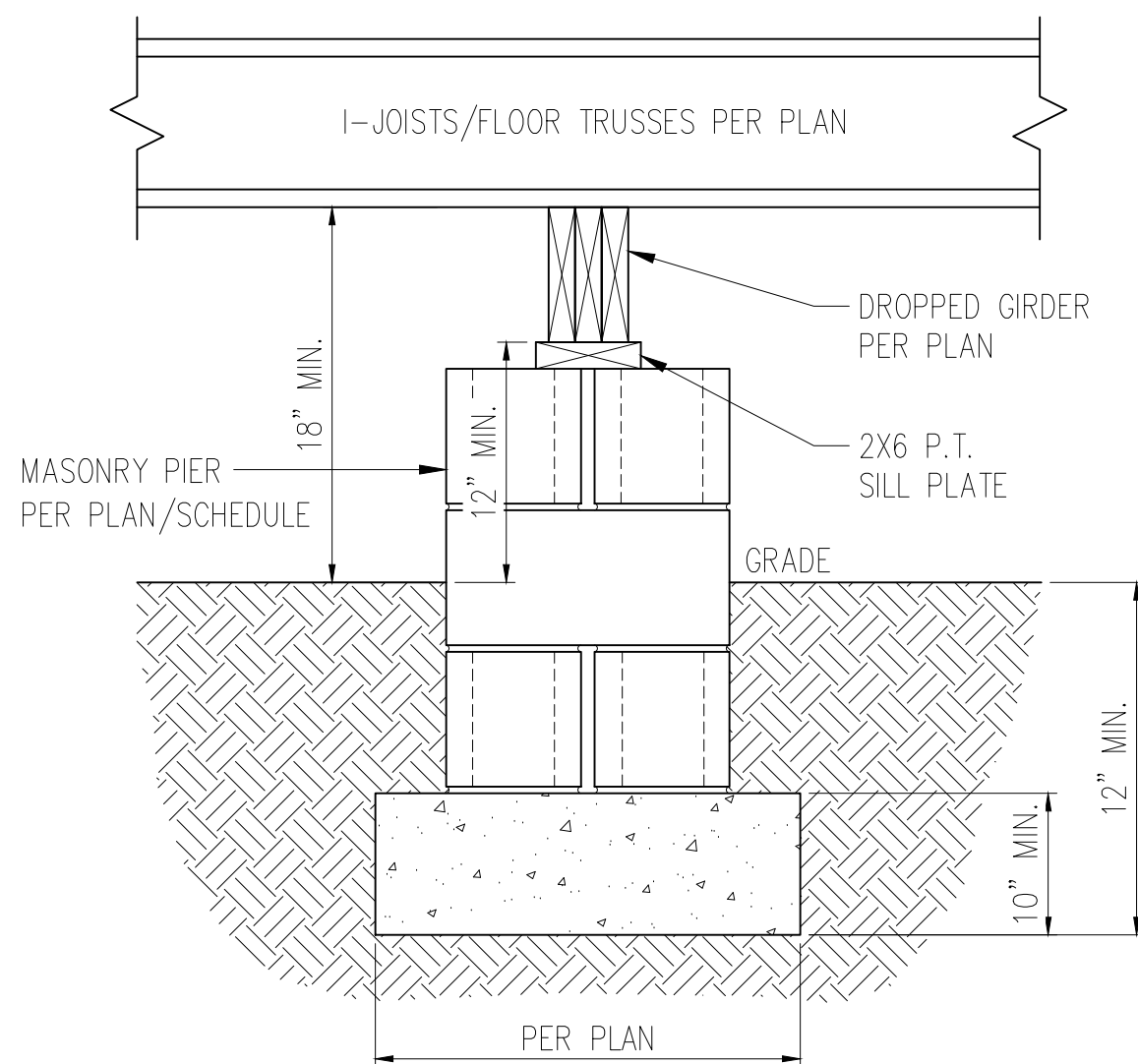
2 TYP. GARAGE CURB DETAIL  
D1c N.T.S.



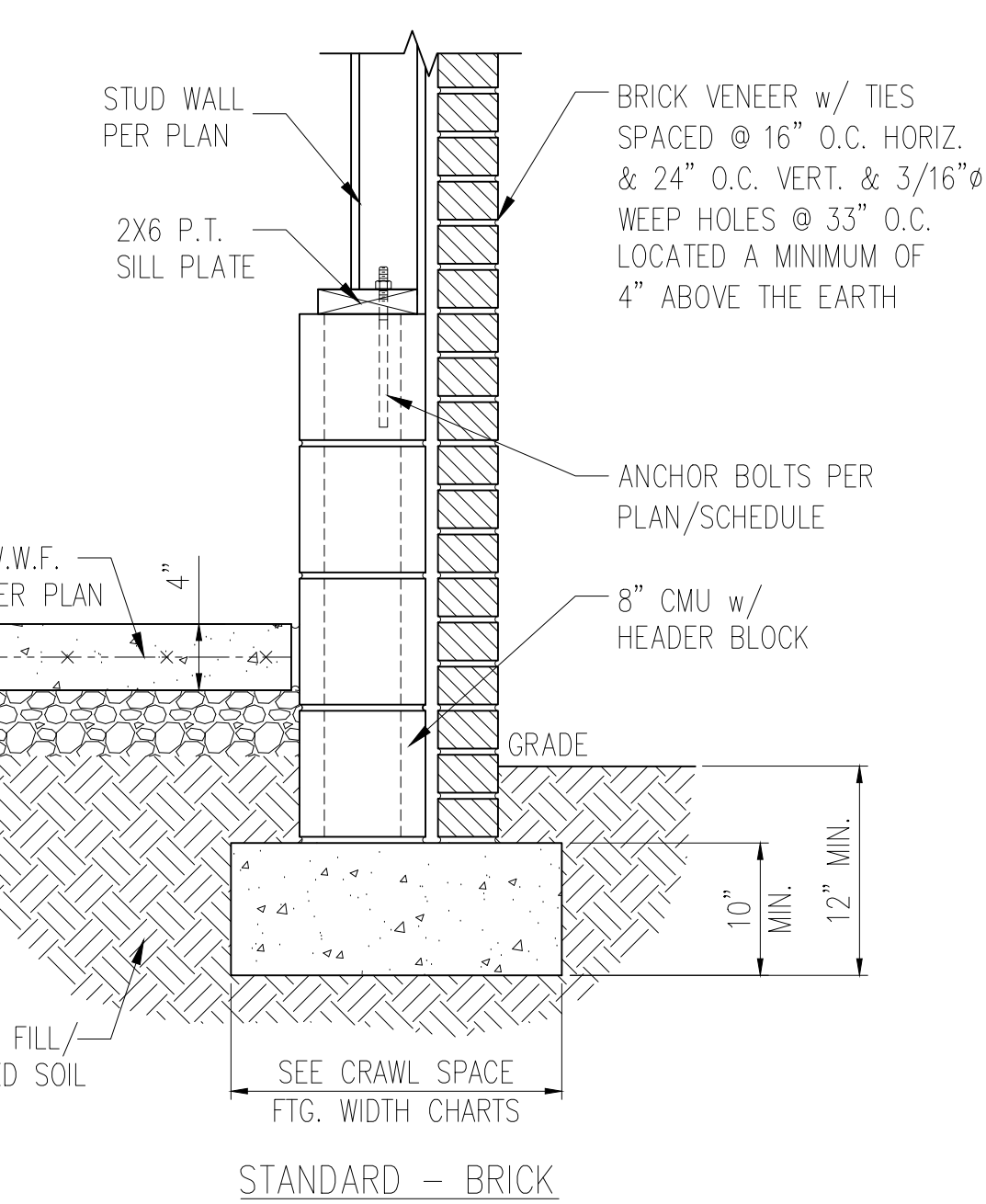
3 HOUSE/GARAGE WALL DETAIL  
D1c N.T.S.



4 SLAB AT GARAGE DOOR  
D1c N.T.S.



5 TYP. PIER & GIRDER DETAIL  
D1c N.T.S.



PIER SIZE AND HEIGHT SCHEDULE

SIZE	HOLLOW	SOLID
8"x16"	UP TO 32" HEIGHT	UP TO 5'-0" HEIGHT
12"x16"	UP TO 48" HEIGHT	UP TO 9'-0" HEIGHT
16"x16"	UP TO 64" HEIGHT	UP TO 12'-0" HEIGHT*
24"x24"	UP TO 96" HEIGHT	UP TO 12'-0" HEIGHT*
*(4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C. AND 24" MIN. LAP JOINTS		

CRAWL SPACE FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	16"	16"	16"
2 STORY - BRICK VENEER	21"*	21"*	21"*
3 STORY - STD.	23"	18"	18"
3 STORY - BRICK VENEER	32"*	24"*	24"*
*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT			

WALL ANCHOR SCHEDULE

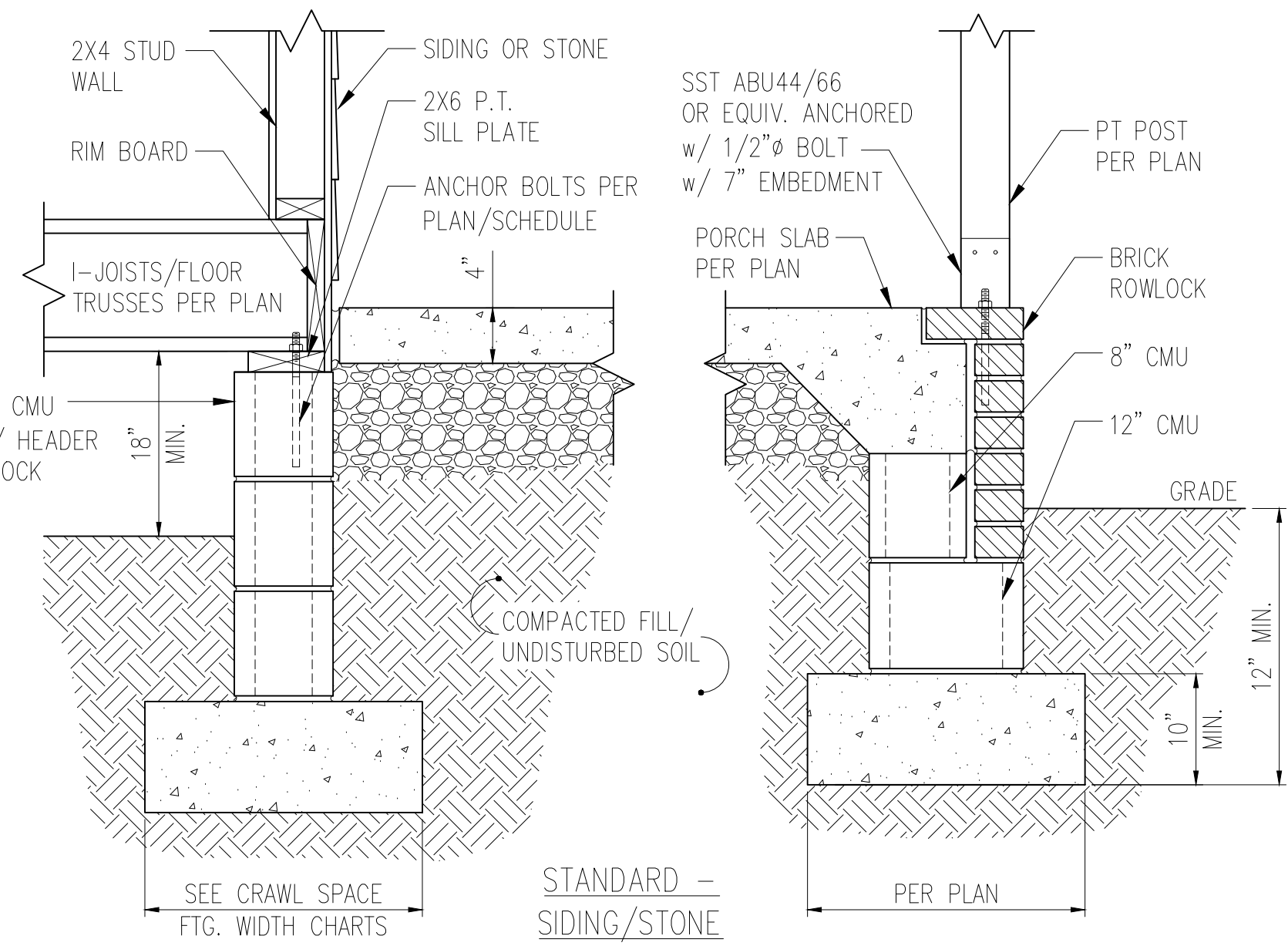
TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING	INTERIOR WALL	EXTERIOR WALL
1/2"Ø A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
SIMPSON TITEN HD 1/2"Ø - 8"	6-1/2"	6'-0"	YES	YES
1/2"Ø HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES
1/2"Ø HILTI KWIK BOLT, SST WEDGE-ALL, OR EQUIVALENT WEDGE ANCHORE	7"	6'-0"	YES	YES -2

NOTE: 1. INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.  
2. EXPANSION ANCHORS MAY BE INSTALLED ONLY AS ALLOWED PER MANUFACTURE SPECIFICATIONS.

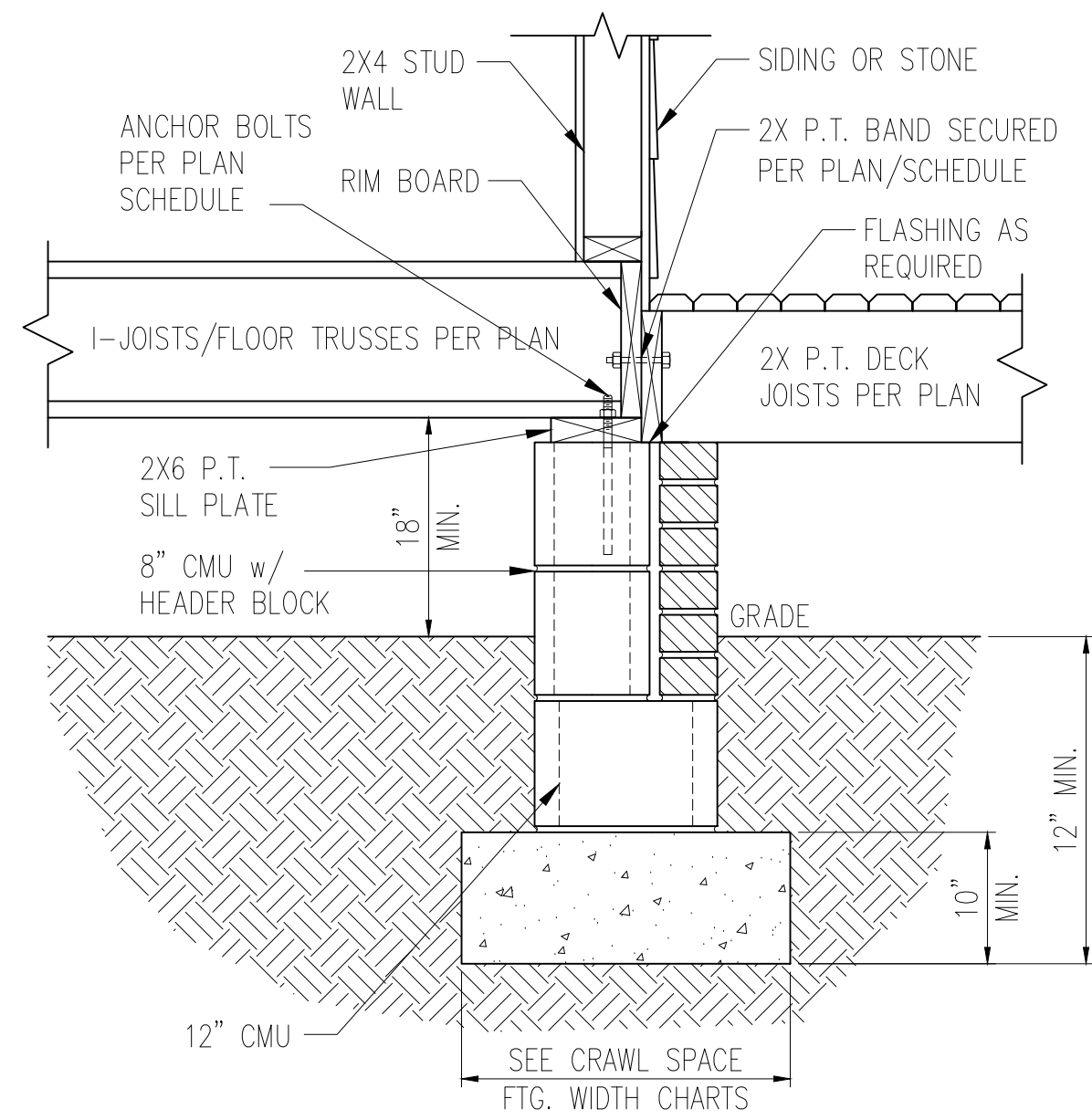
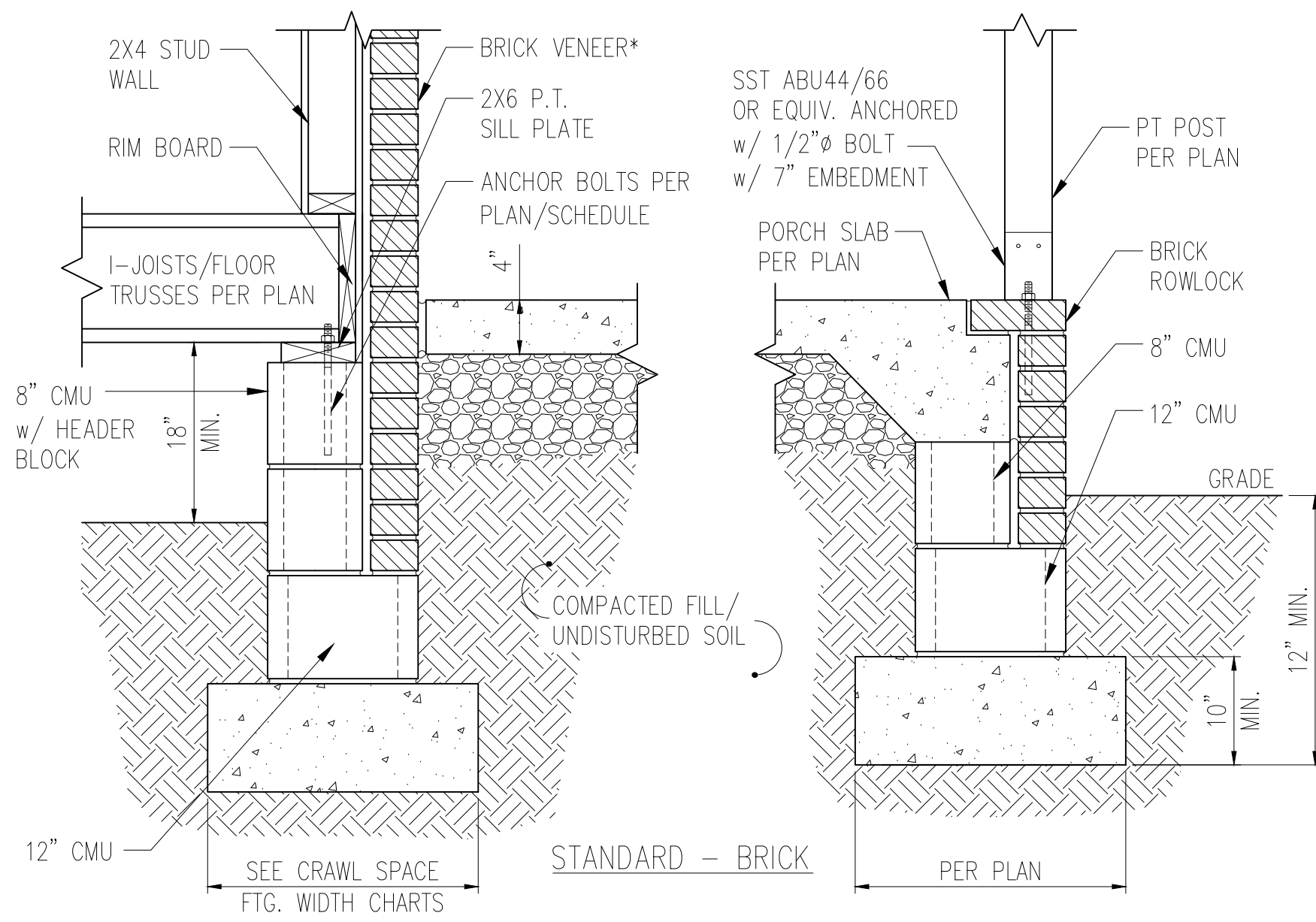
#### NOTES:

- REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
- SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

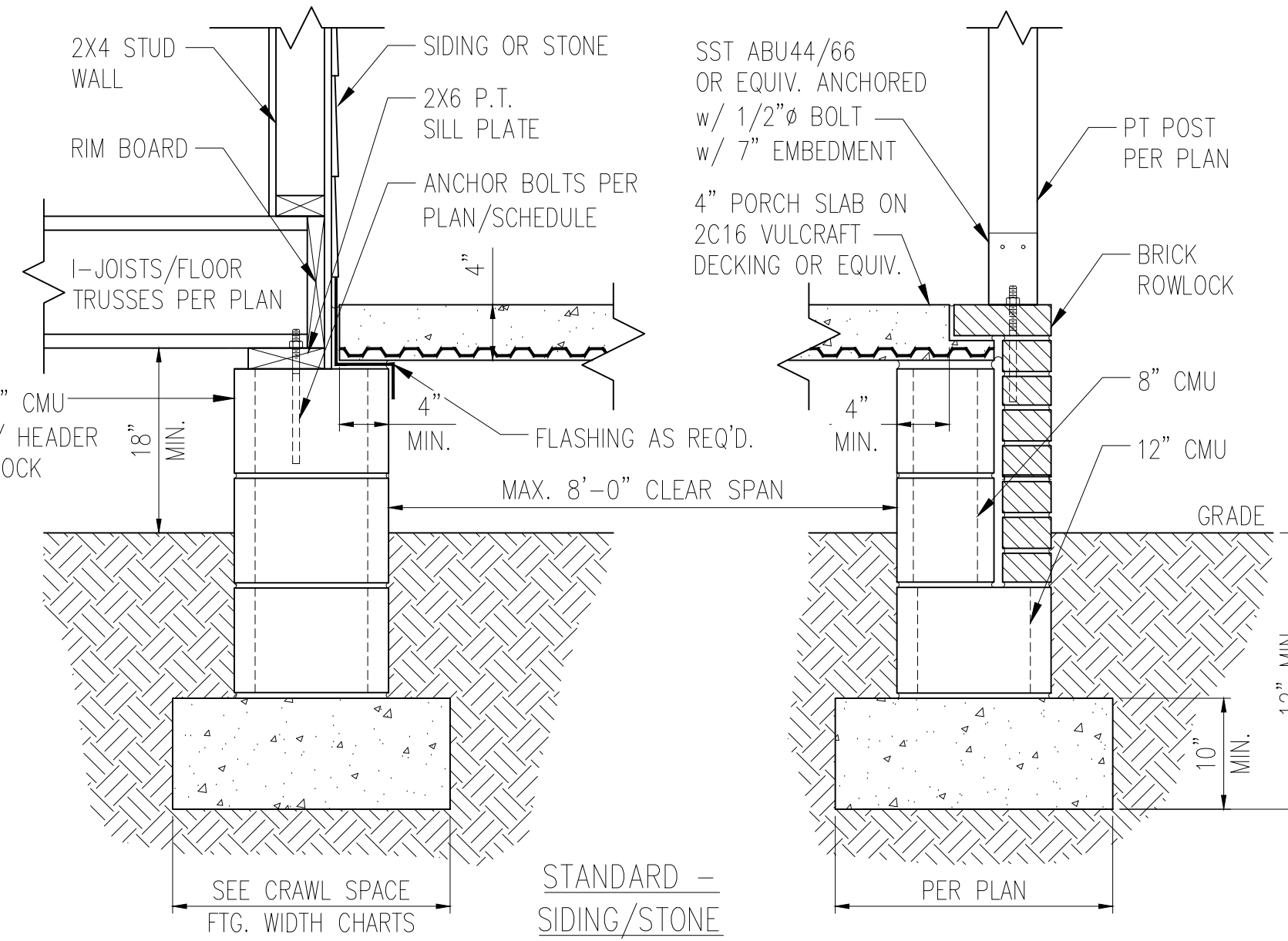




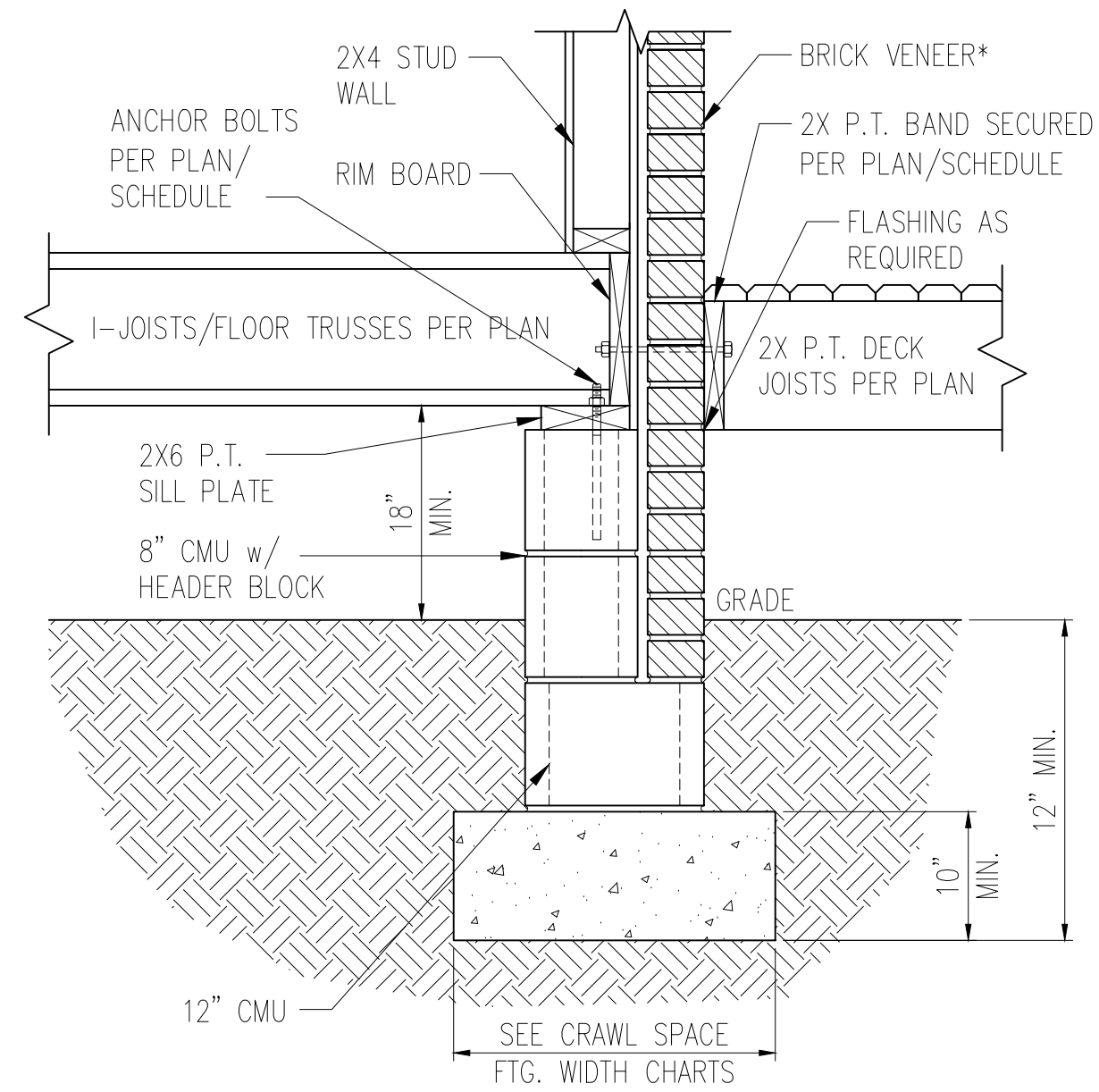
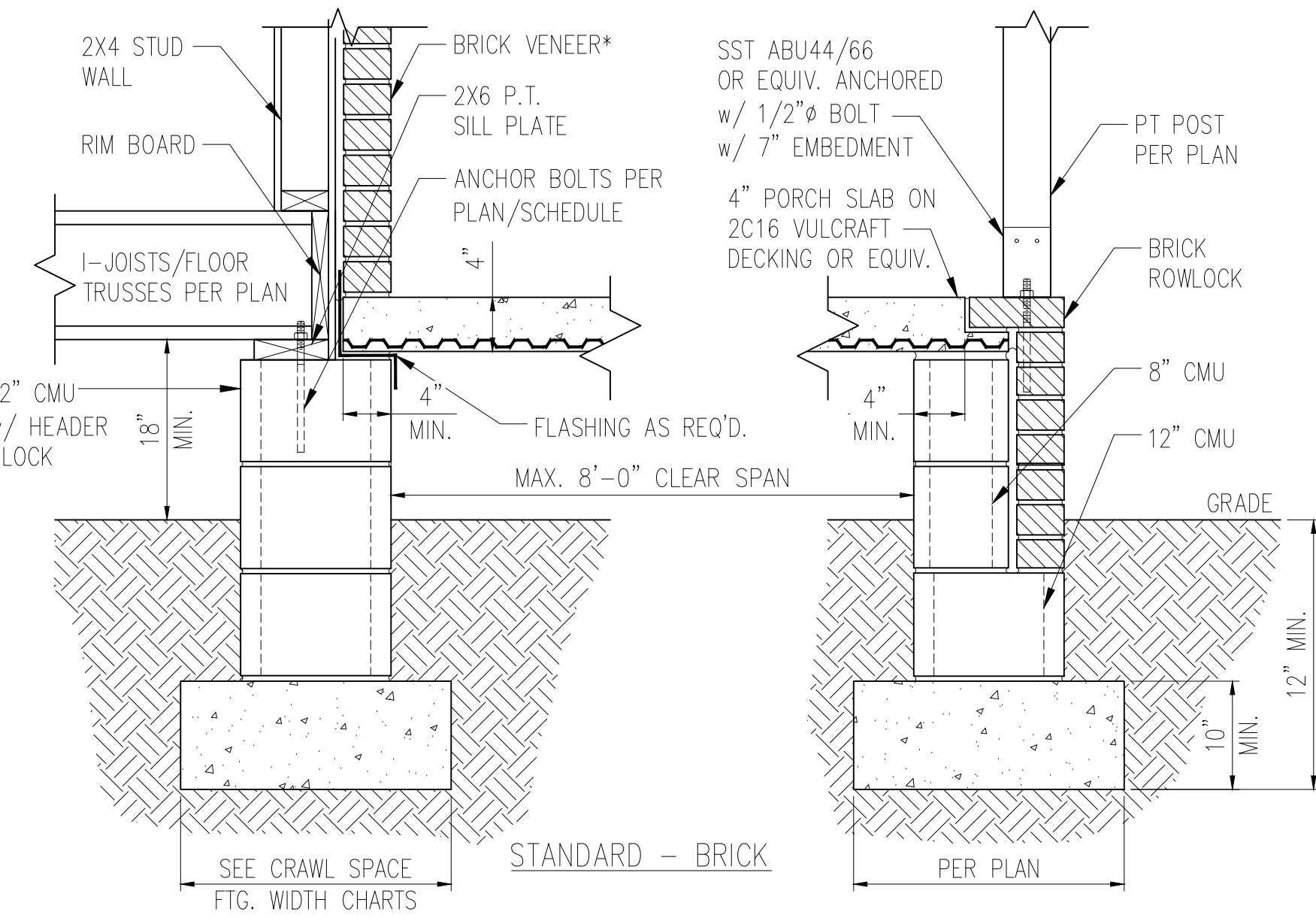
1  
D2c  
TYP. FRONT PORCH DETAIL  
N.T.S.



2  
D2c  
DECK ATTACHMENT DETAIL  
N.T.S.



1a  
D2c  
FRONT PORCH DETAIL w/ SUSPENDED SLAB  
N.T.S.



3  
D2c  
DECK ATTACHMENT DETAIL w/ BRICK  
N.T.S.

#### DECK ATTACHMENT SCHEDULE (ALL STRUCTURES EXCEPT BRICK)

FASTENERS	MAX. 8'-0" JOIST SPAN	MAX. 16'-0" JOIST SPAN
5/8" GALV. BOLTS w/ NUT & WASHER <sup>b</sup>	(1) @ 3'-6" O.C.	(1) @ 1'-8" O.C.
AND	AND	AND
12d COMMON GALV. NAILS <sup>c</sup>	(2) @ 8" O.C.	(3) @ 6" O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.  
b. MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".  
c. NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2"

#### DECK ATTACHMENT SCHEDULE (BRICK STRUCTURES)

FASTENERS	MAX. 8'-0" JOIST SPAN	MAX. 16'-0" JOIST SPAN
5/8" GALV. BOLTS w/ NUT & WASHER <sup>b</sup>	(1) @ 2'-4" O.C.	(1) @ 1'-4" O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.  
b. MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".

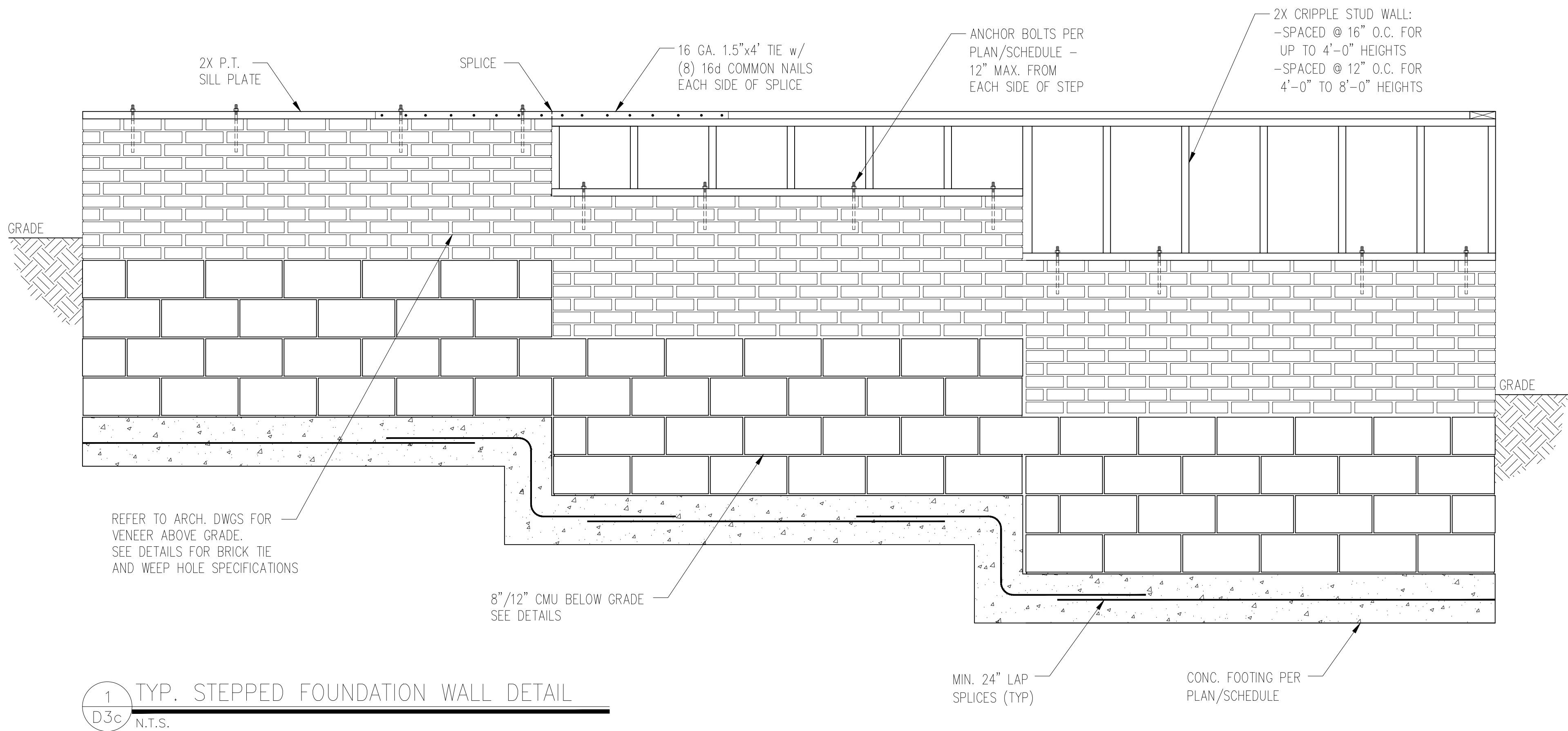
#### CRAWL SPACE FOOTING WIDTH

# OF STORIES	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"	21"	21"
2 STORY - STD.	16"	16"	16"
2 STORY - BRICK VENEER	21"	21"	21"
3 STORY - STD.	23"	18"	18"
3 STORY - BRICK VENEER	32"	24"	24"

\*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT

\*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16" Ø WEEP HOLES @ 33" O.C. LOCATED A MINIMUM OF 4" ABOVE THE EARTH

- NOTES:
- REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
  - PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
  - SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
  - REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
  - REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
  - PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

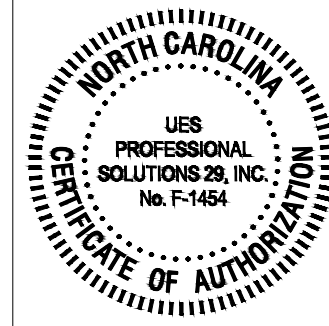


1 TYP. STEPPED FOUNDATION WALL DETAIL  
D3c N.T.S.

NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC





CLIENT:  
DP Horton, Carolina Division  
8001 Aronridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Standard Details (04-15)  
Crawl Space Foundation Details

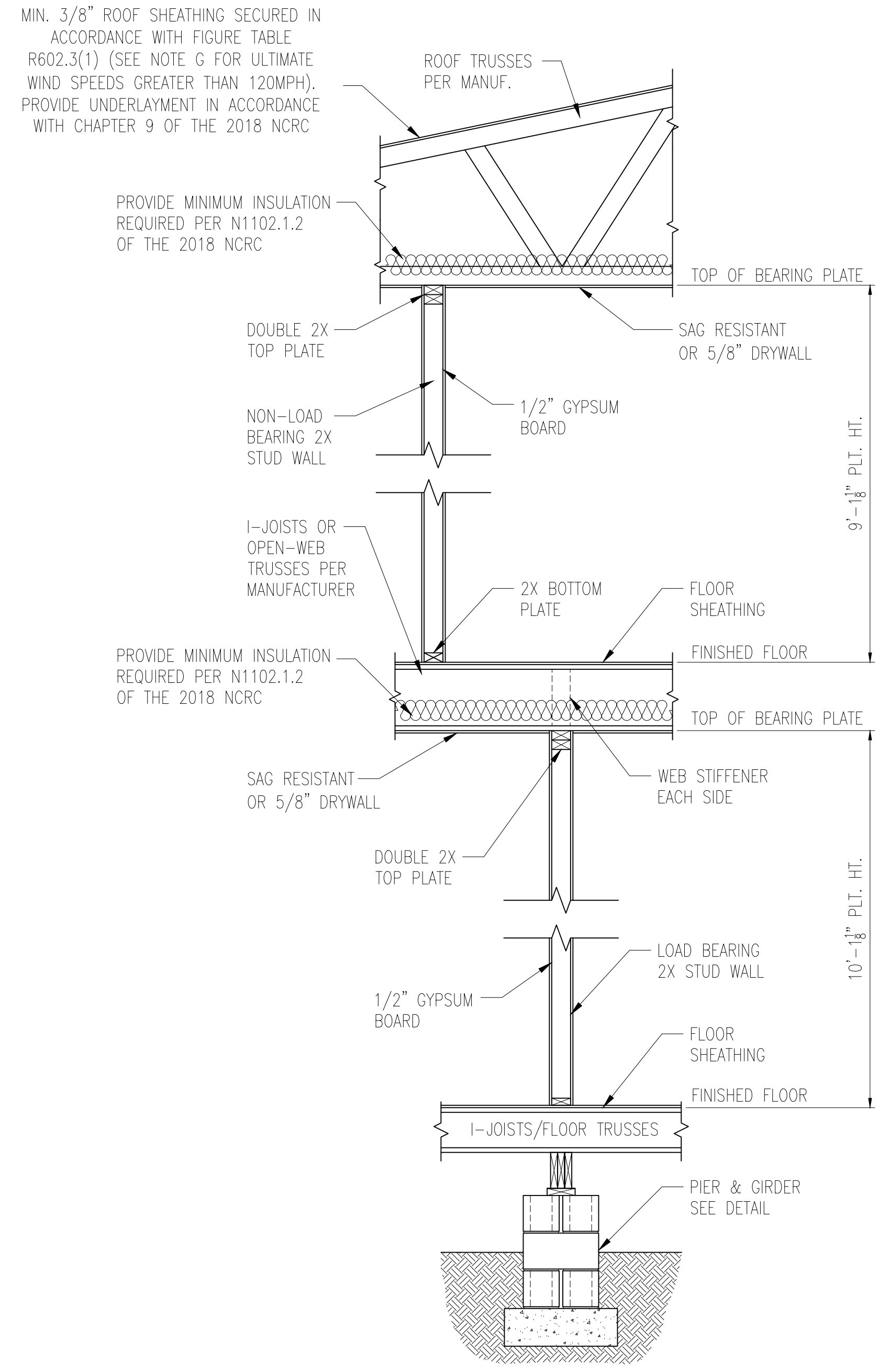


DRAWING  
DATE: 05/06/2024  
SCALE: 22x34 1/4"=1'-0"  
11x17 1/8"=1'-0"  
PROJECT # A21117.00066.000  
DRAWN BY: MGC  
CHECKED BY: GWS

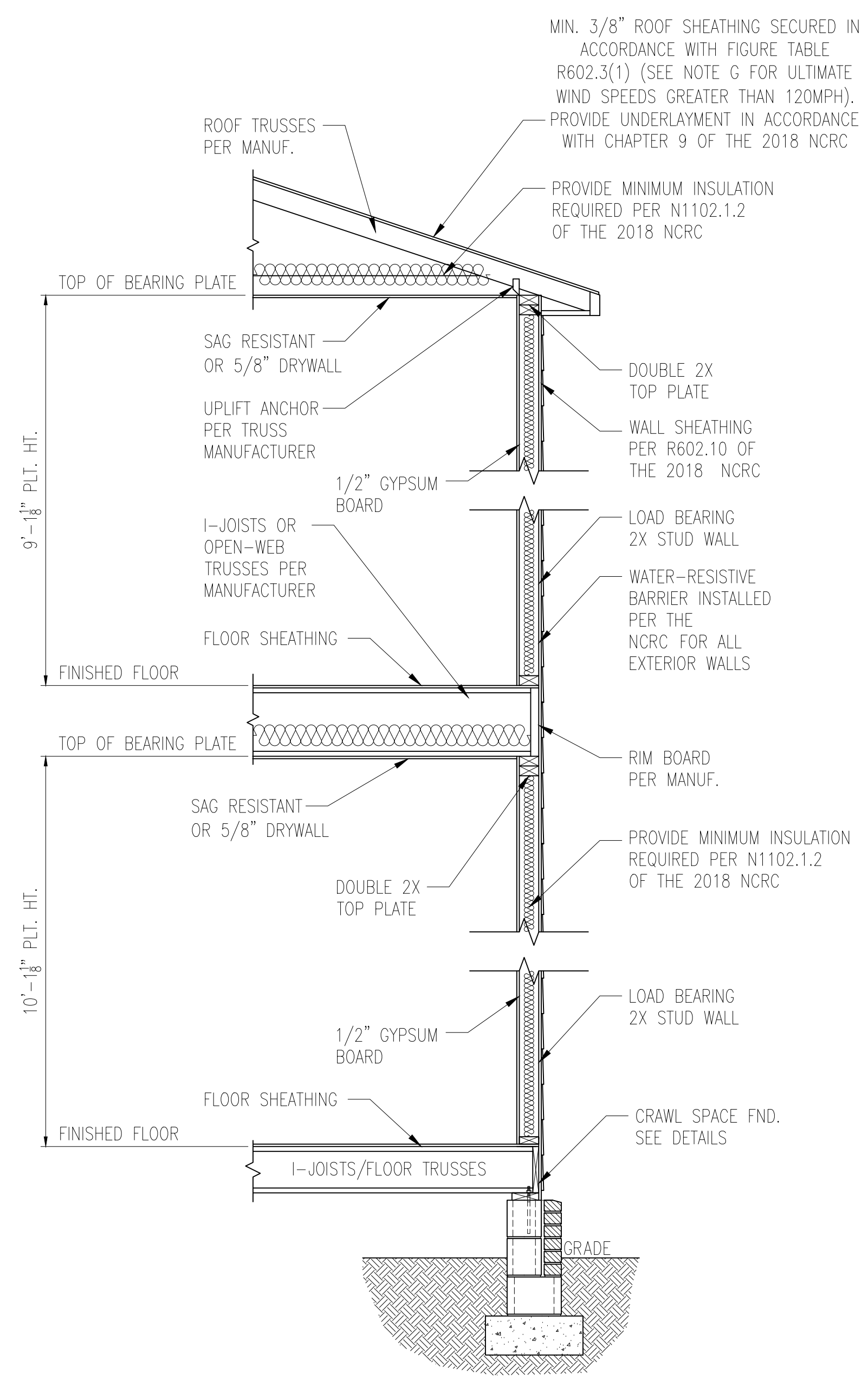
ORIGINAL INFORMATION  
PROJECT # DATE  
1/31/2017

REFER TO COVER SHEET FOR A COMPLETE  
LIST OF REVISIONS

SHEET  
D4c

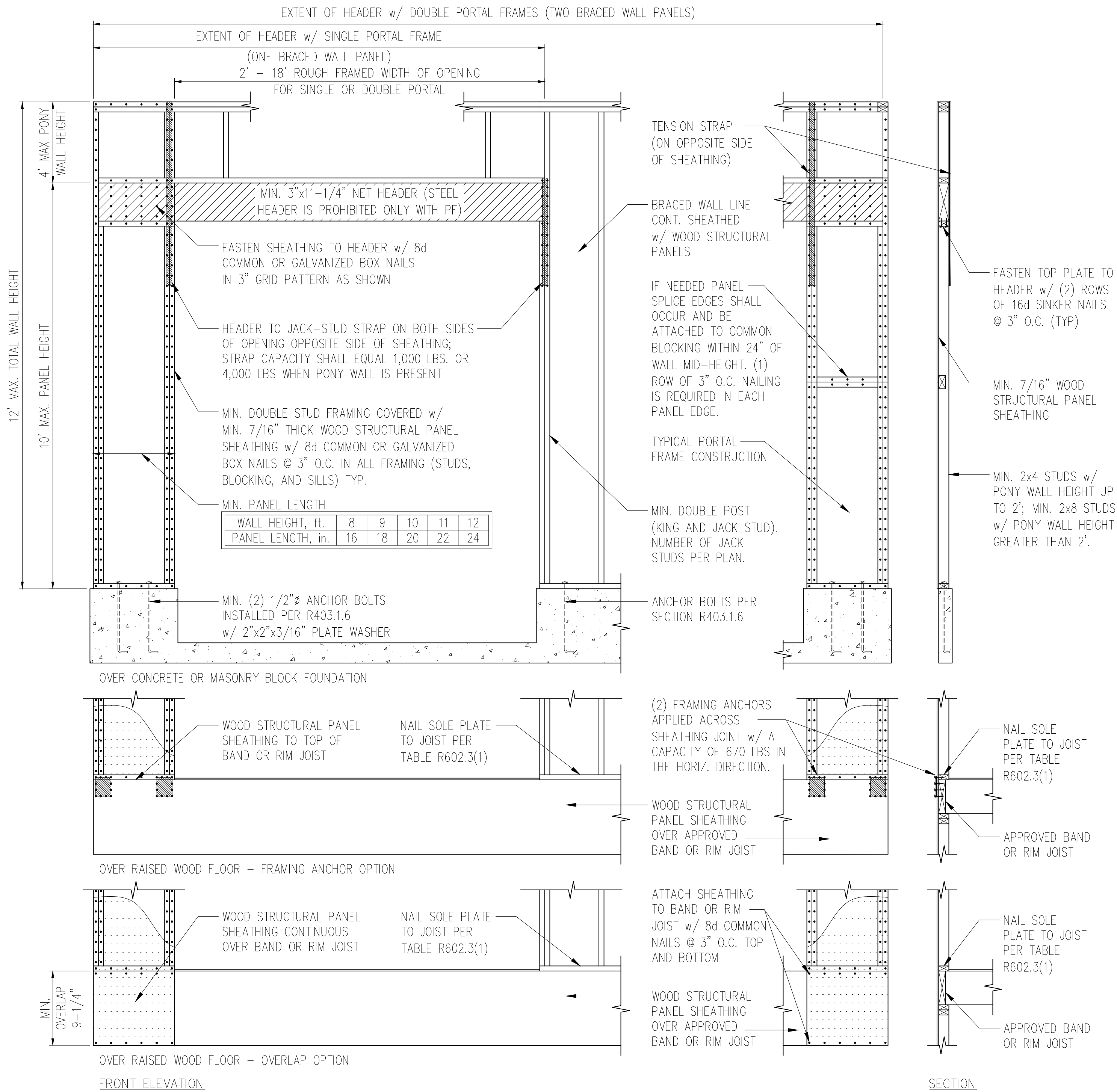


1 TYP. INTERIOR LOAD BEARING WALL SECTION  
D4c 3/4" = 1'-0"

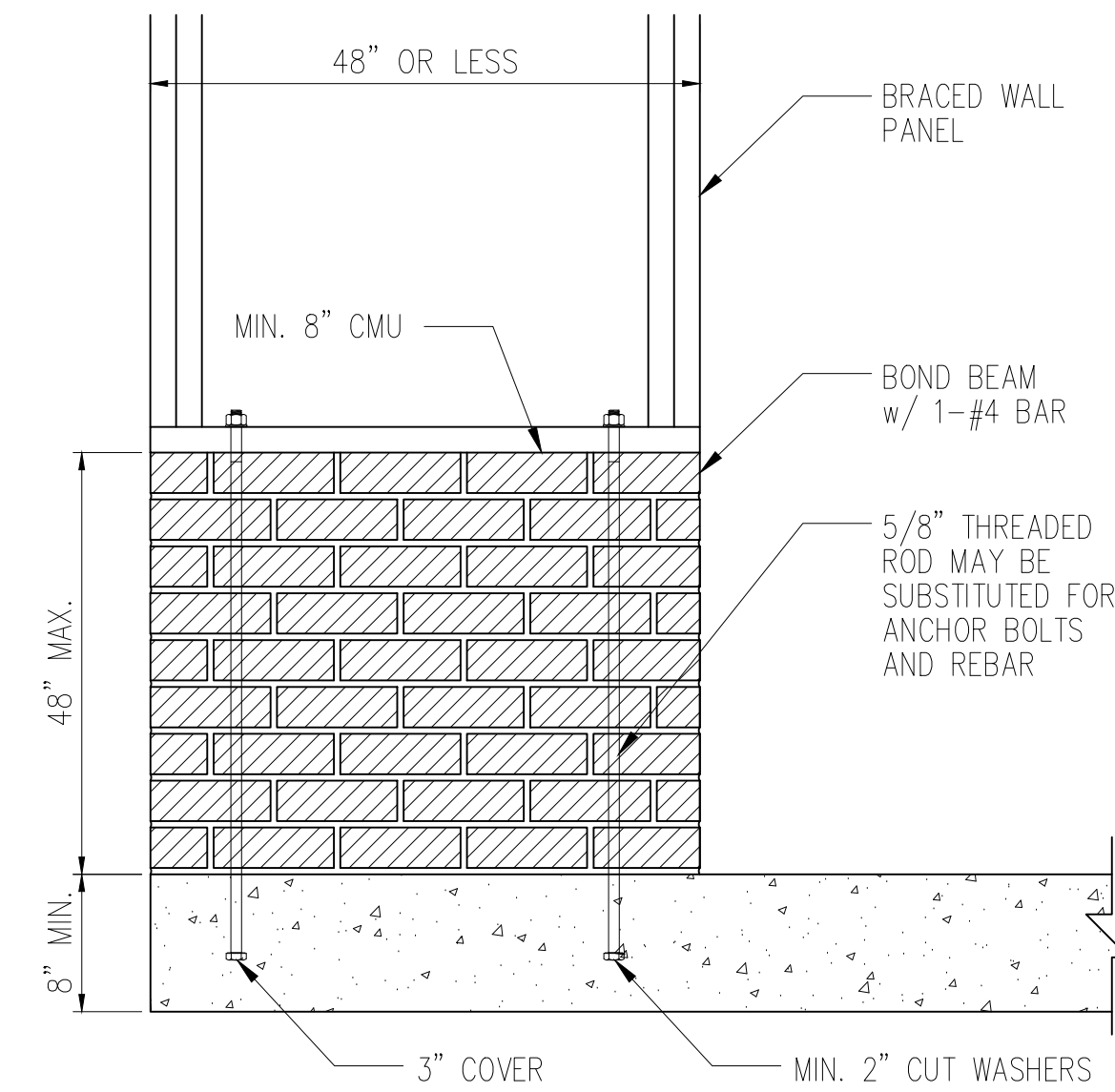
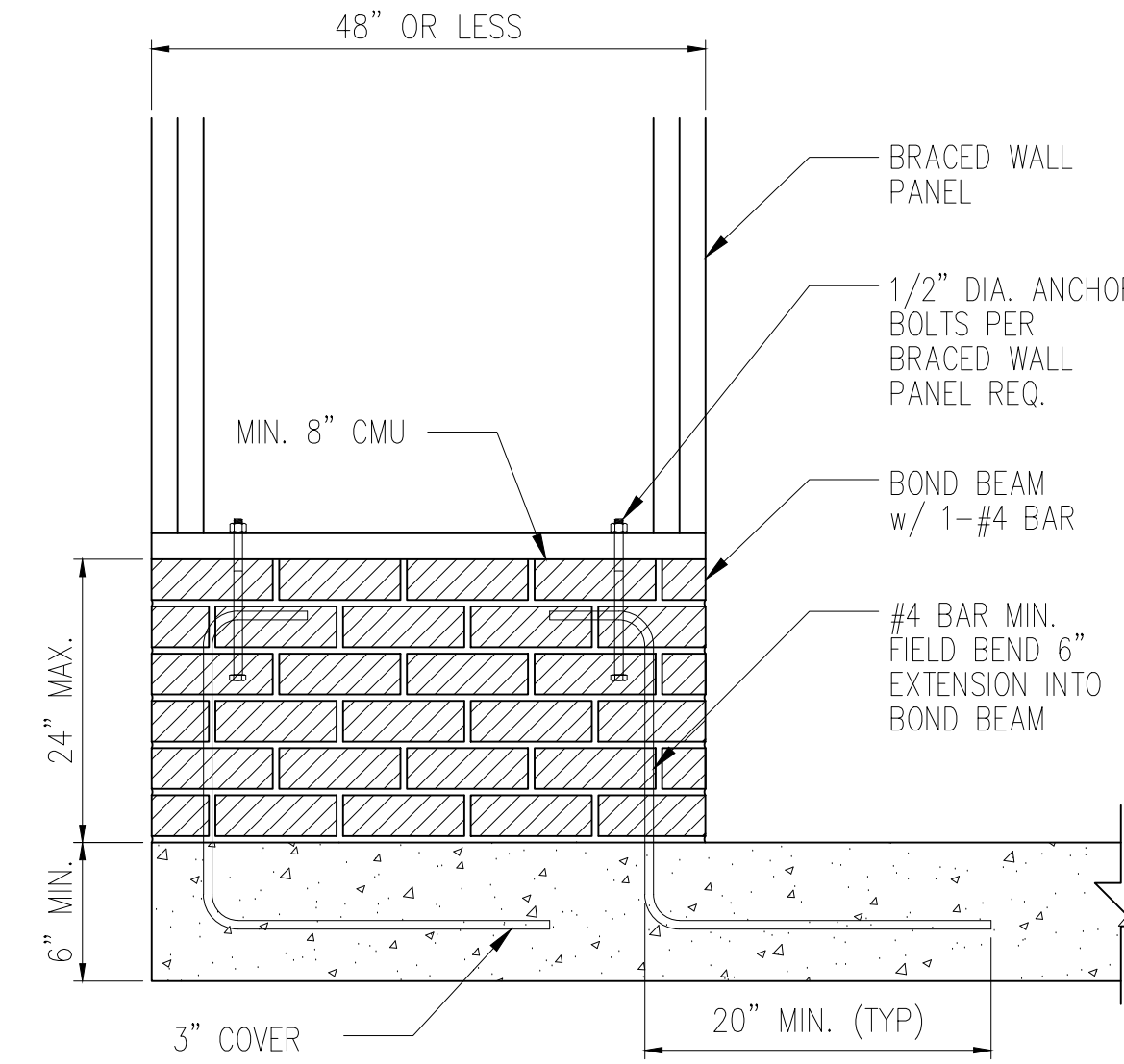


2 TYP. EXTERIOR LOAD BEARING WALL SECTION  
D4c 3/4" = 1'-0"  
-SIMILAR w/ BRICK AND STONE  
-BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.  
-MIN. 3/16"Ø WEEP HOLES @ 33" O.C.

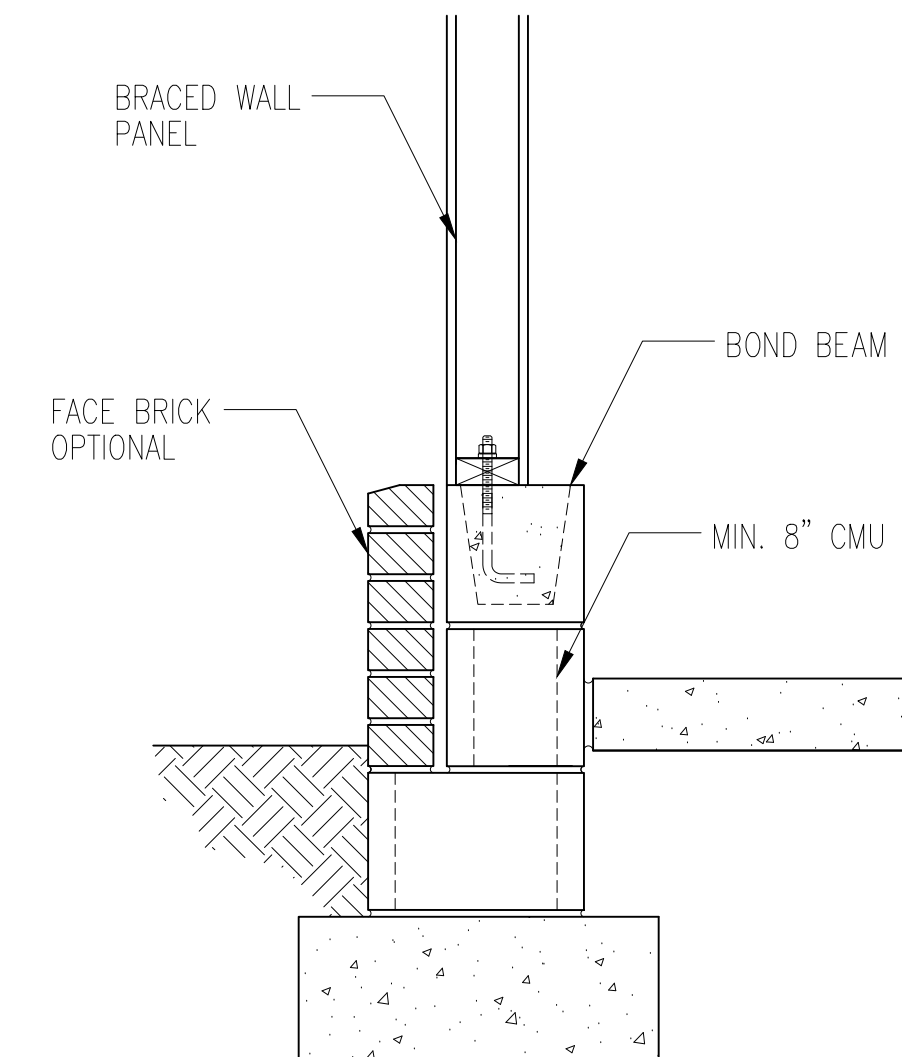
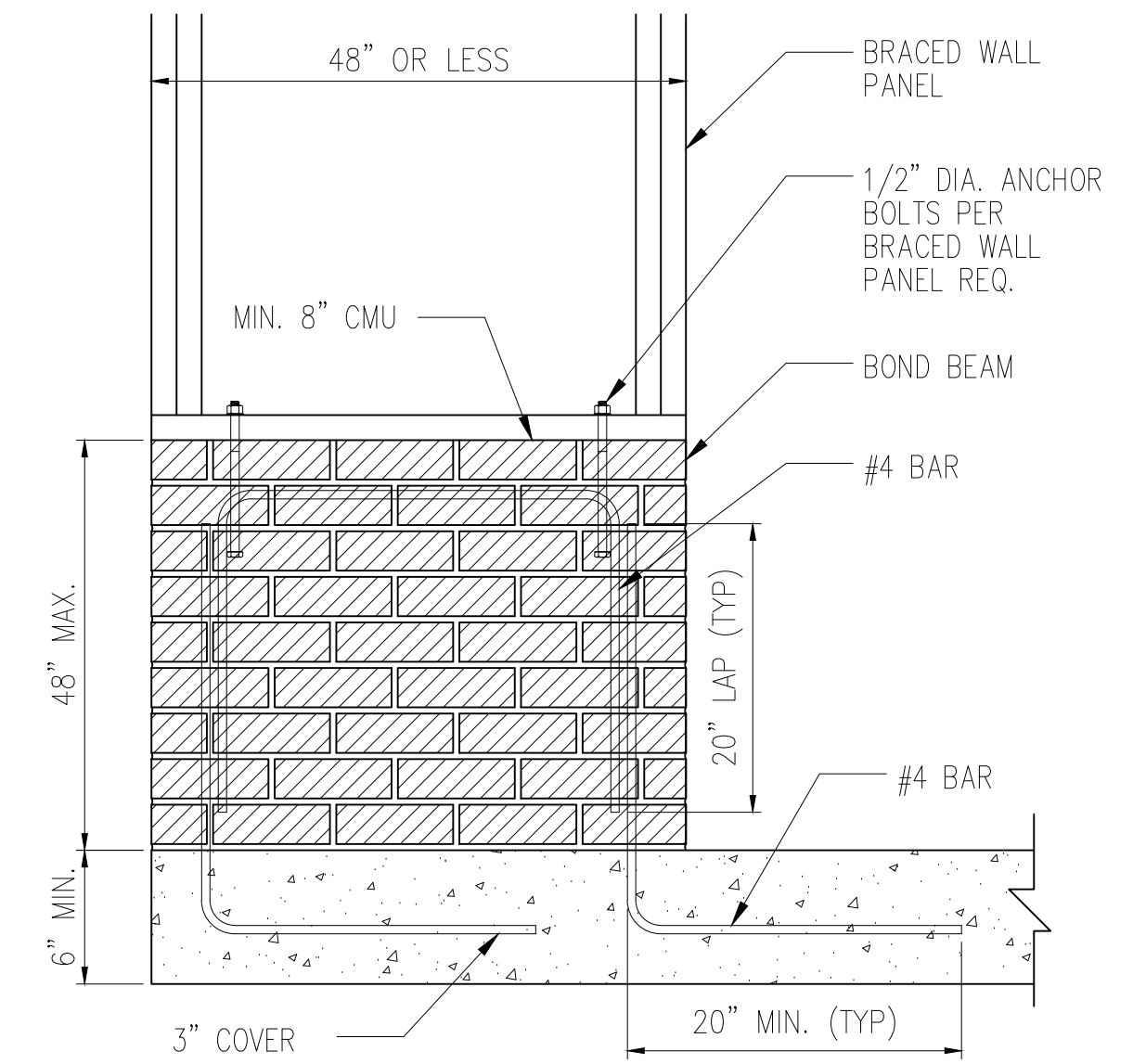
- NOTES:
1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
  2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
  3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
  4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
  5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
  6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC



1 METHOD PF: PORTAL FRAME DETAIL  
3/8" = 1'-0"

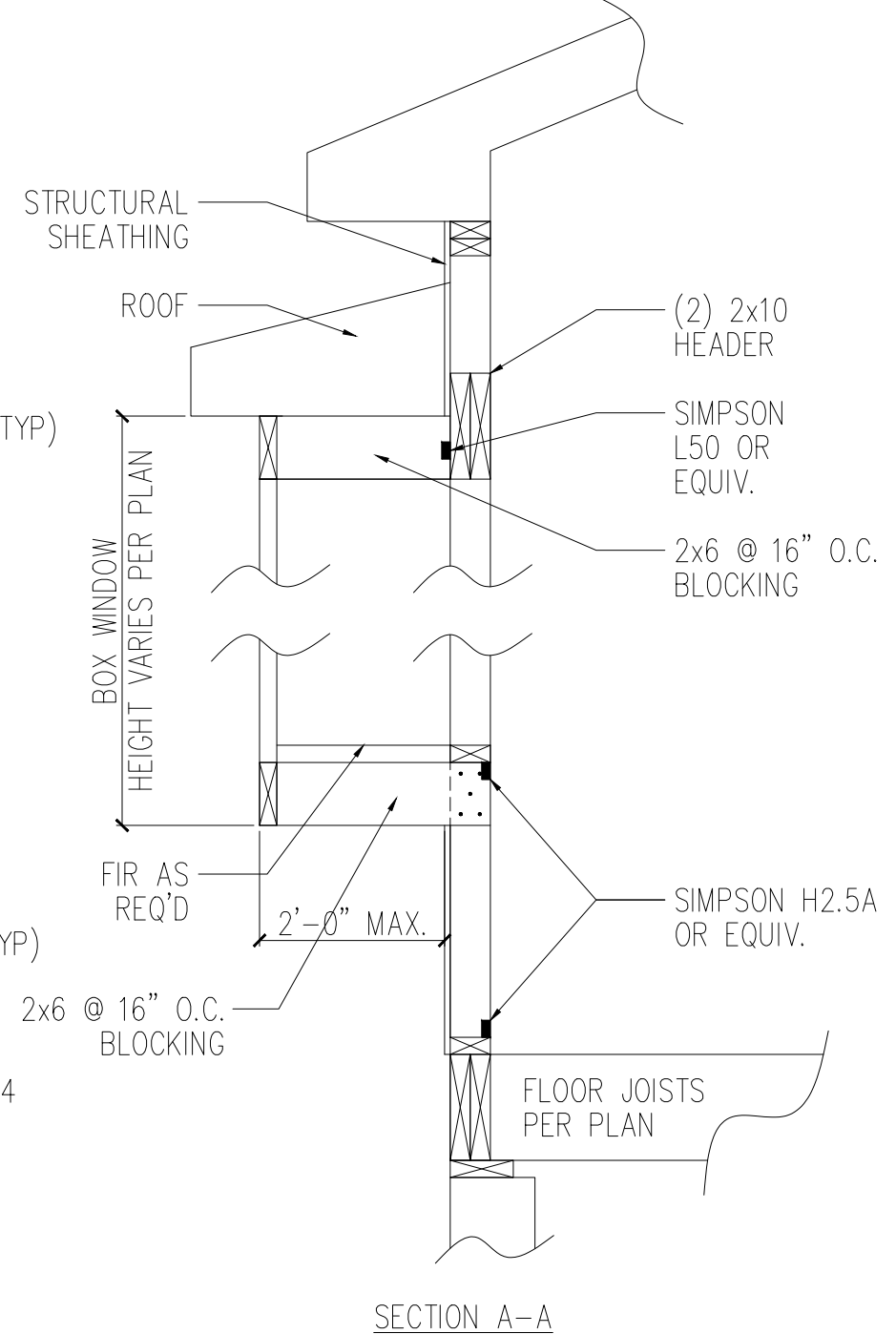
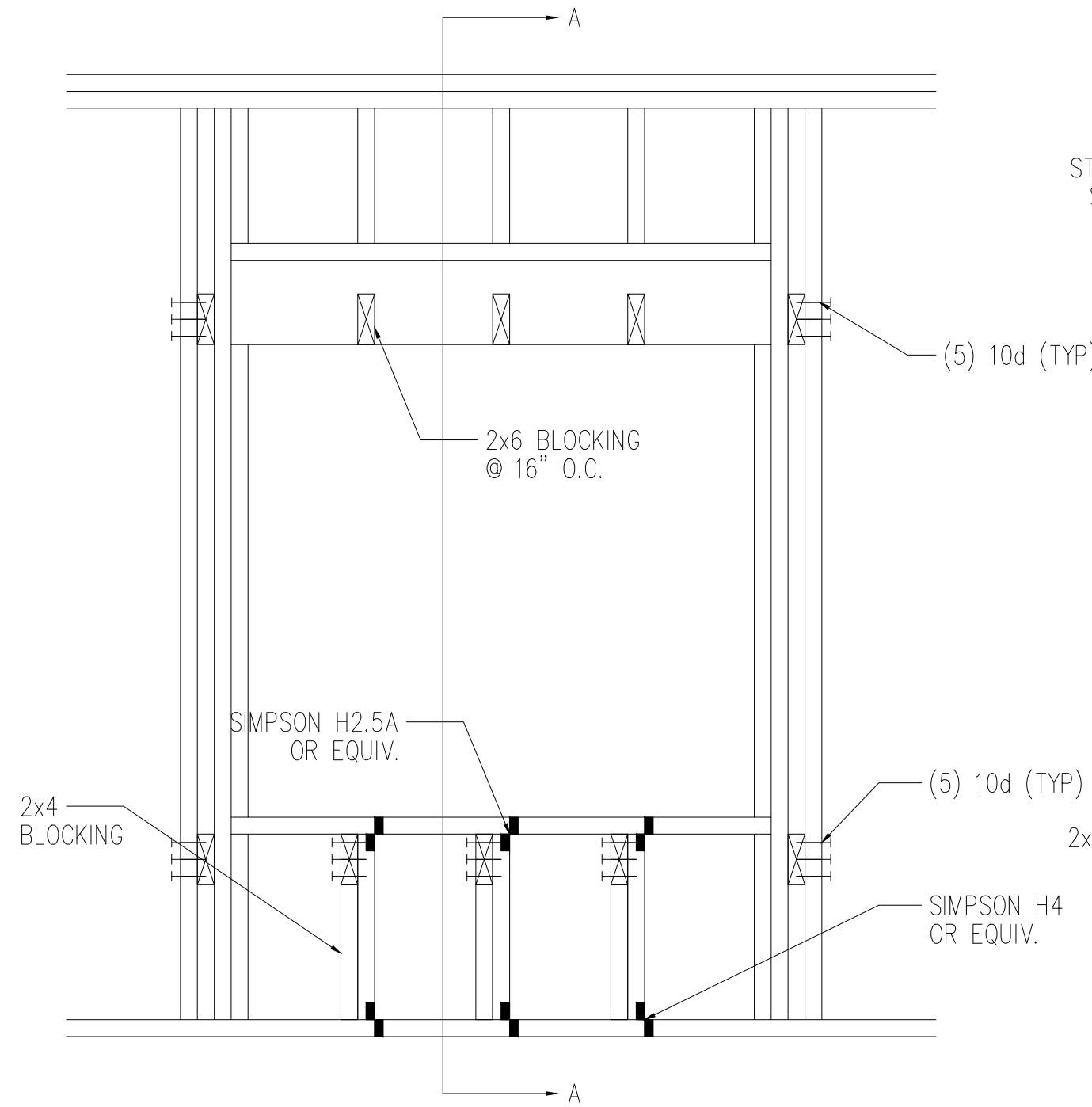
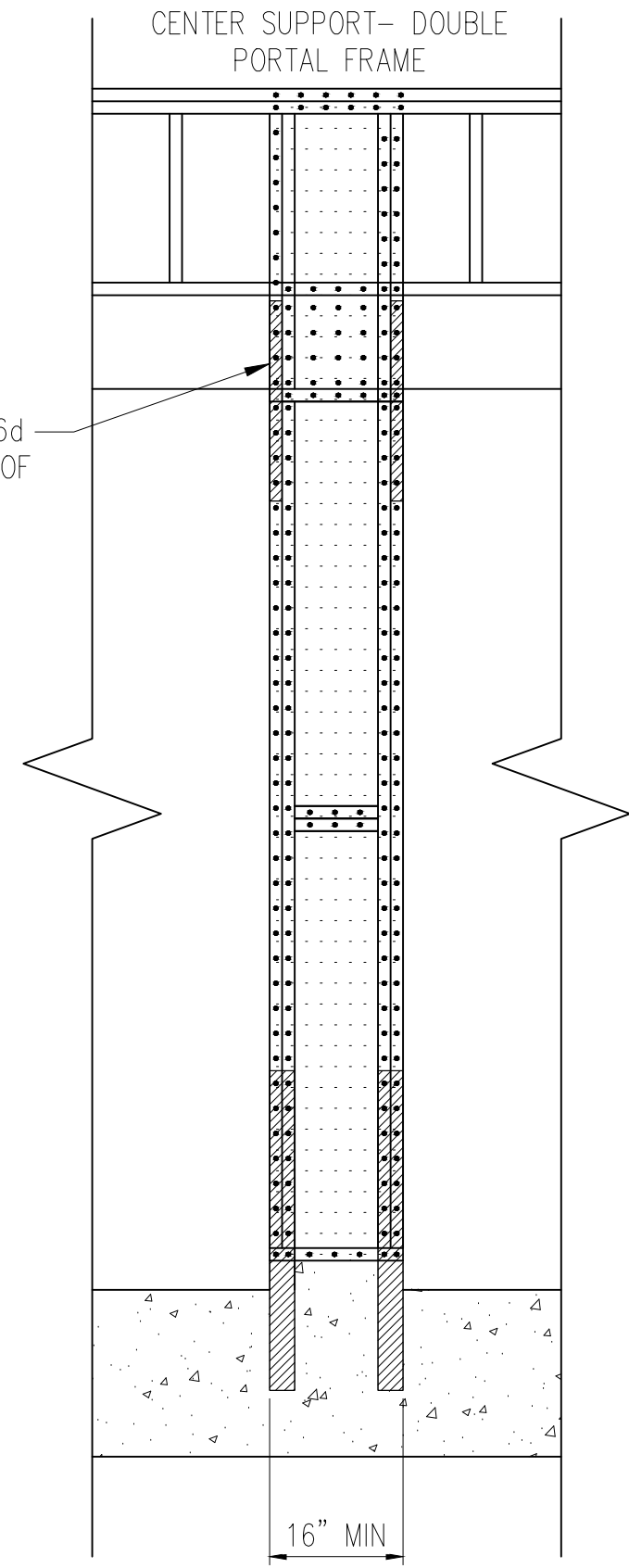
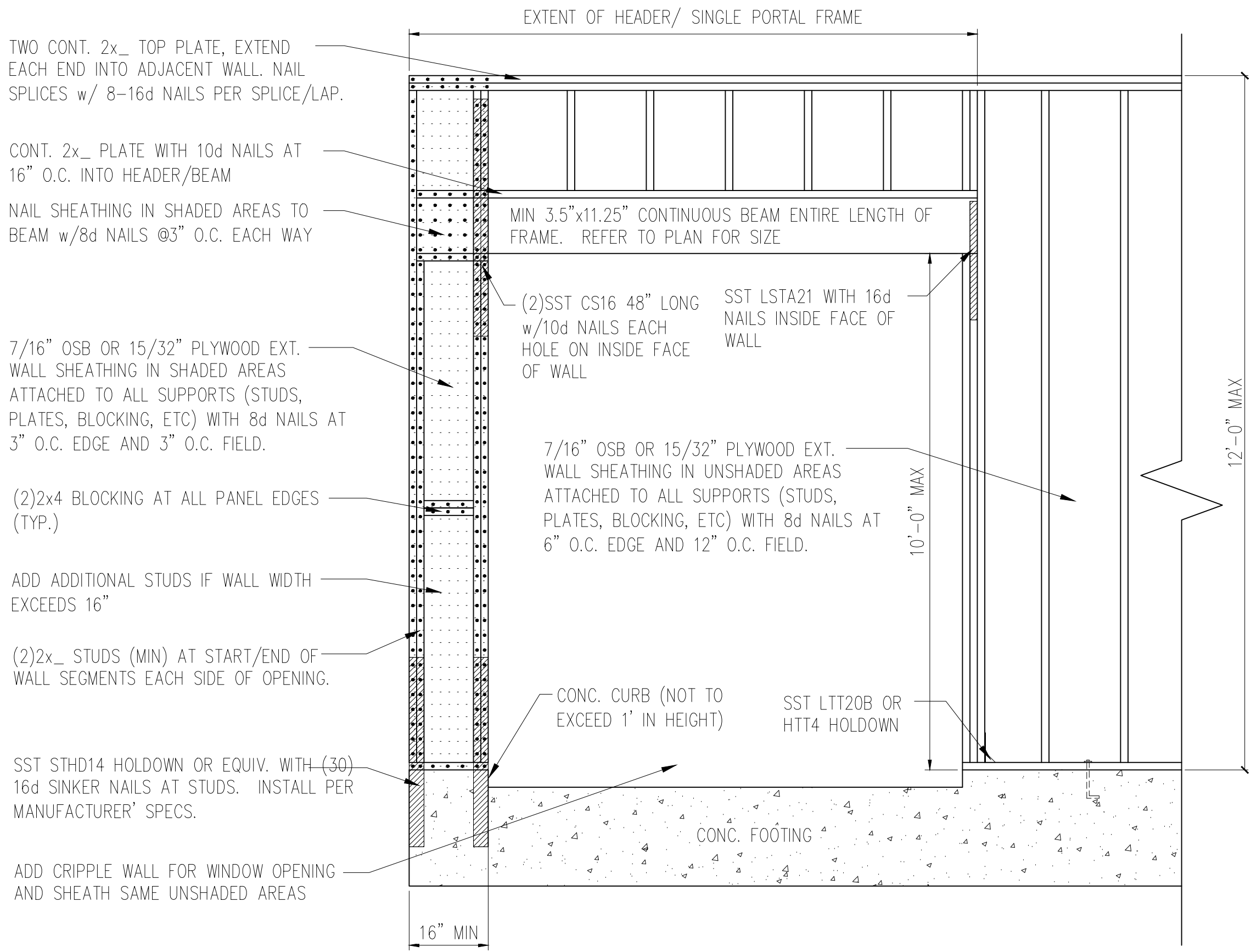


2 MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS  
D1f NTS



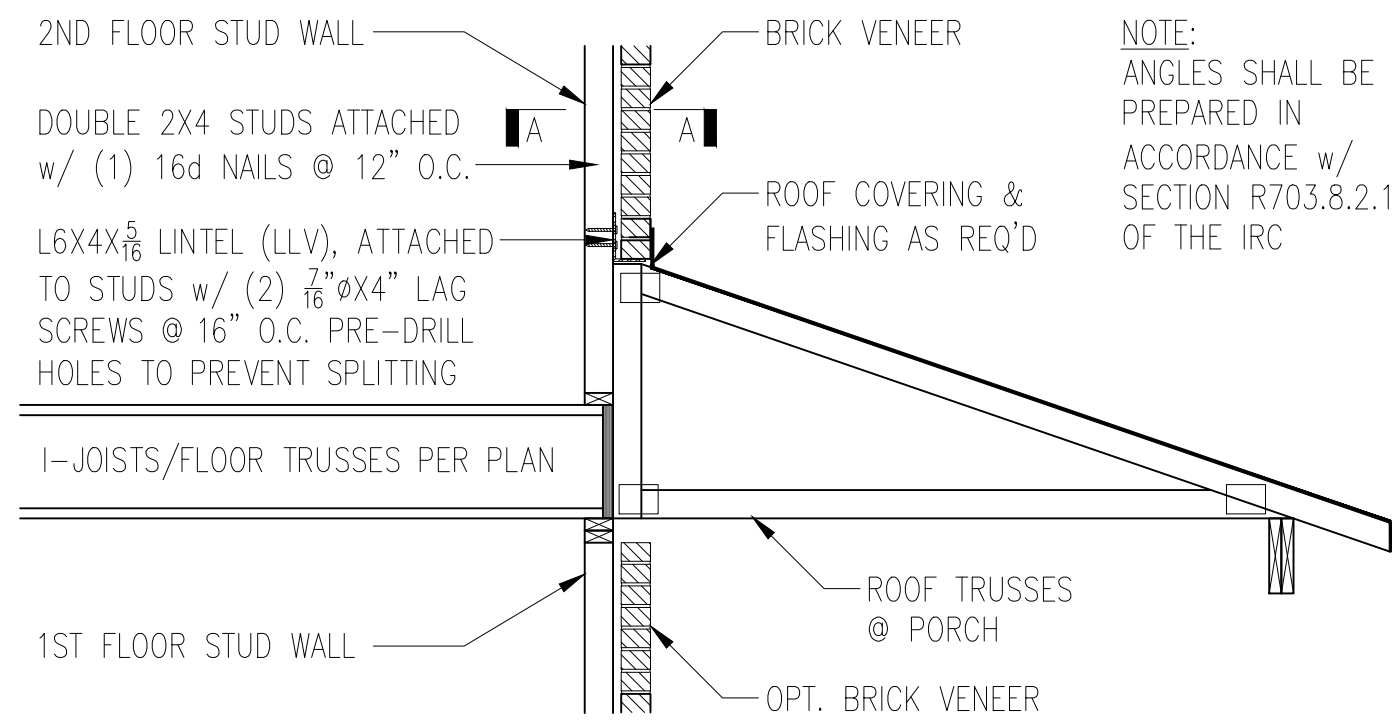
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS



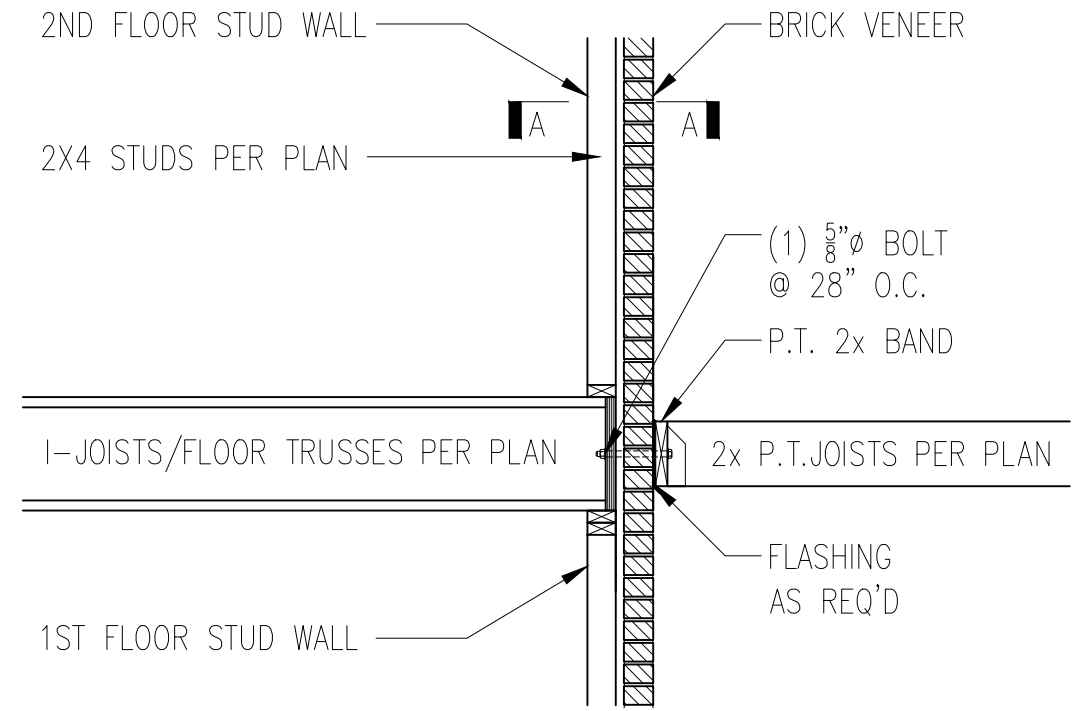
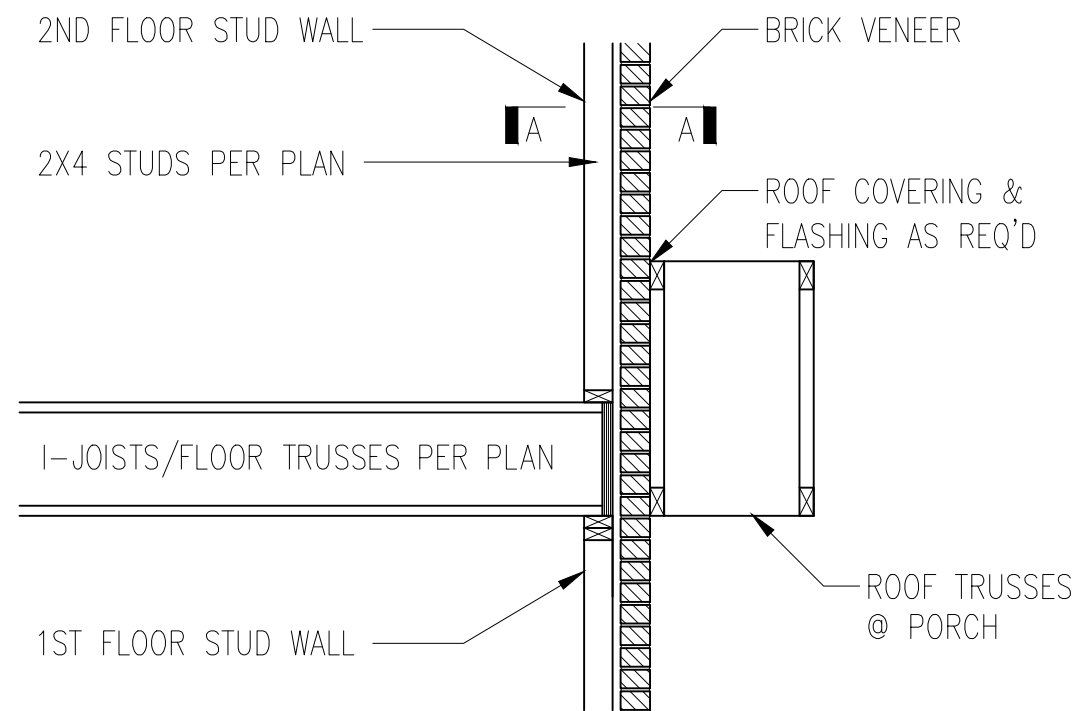
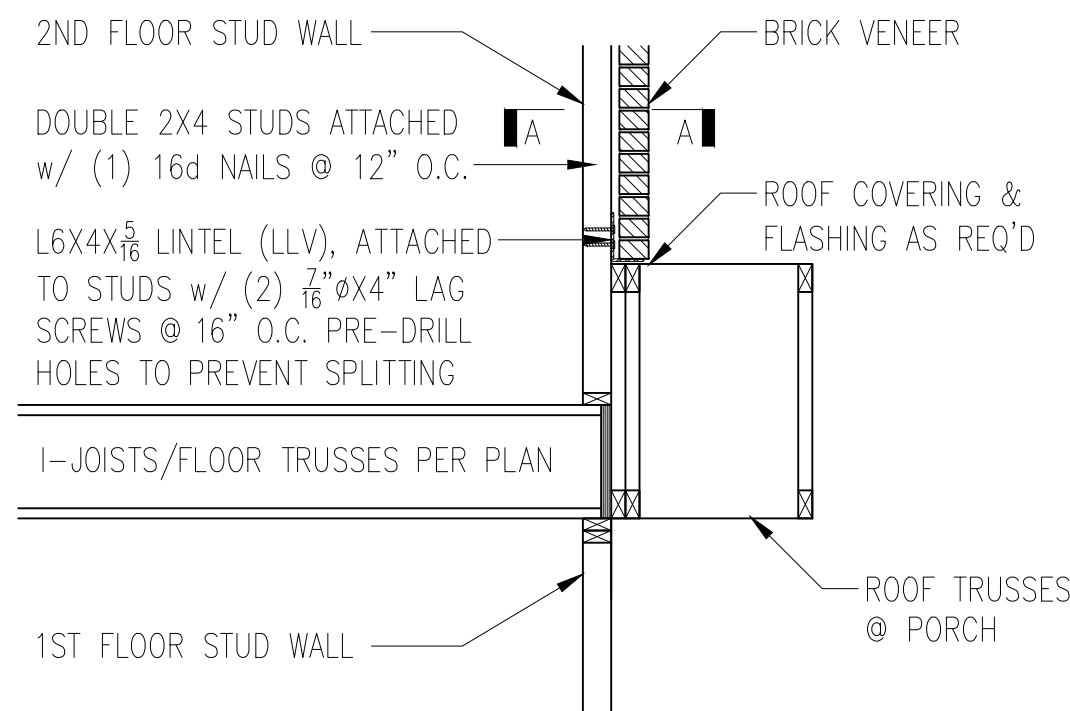


1 METHOD PF: PORTAL FRAME DETAIL w/ HOLD-DOWNS  
D2f 3/4" = 1'-0"

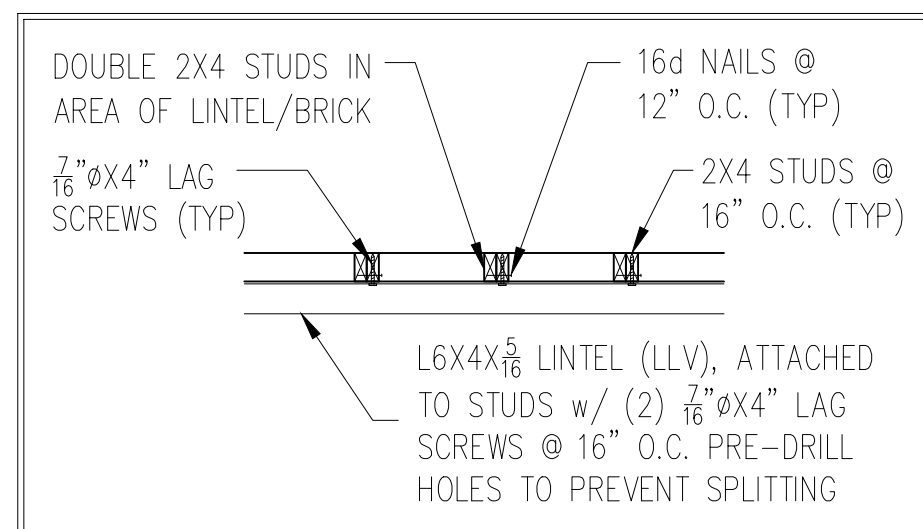
2 BOX WINDOW DETAIL  
D2f N.T.S



NOTE:  
ANGLES SHALL BE PREPARED IN ACCORDANCE w/ SECTION R703.8.2.1 OF THE IRC



3 BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL  
D2f NTS



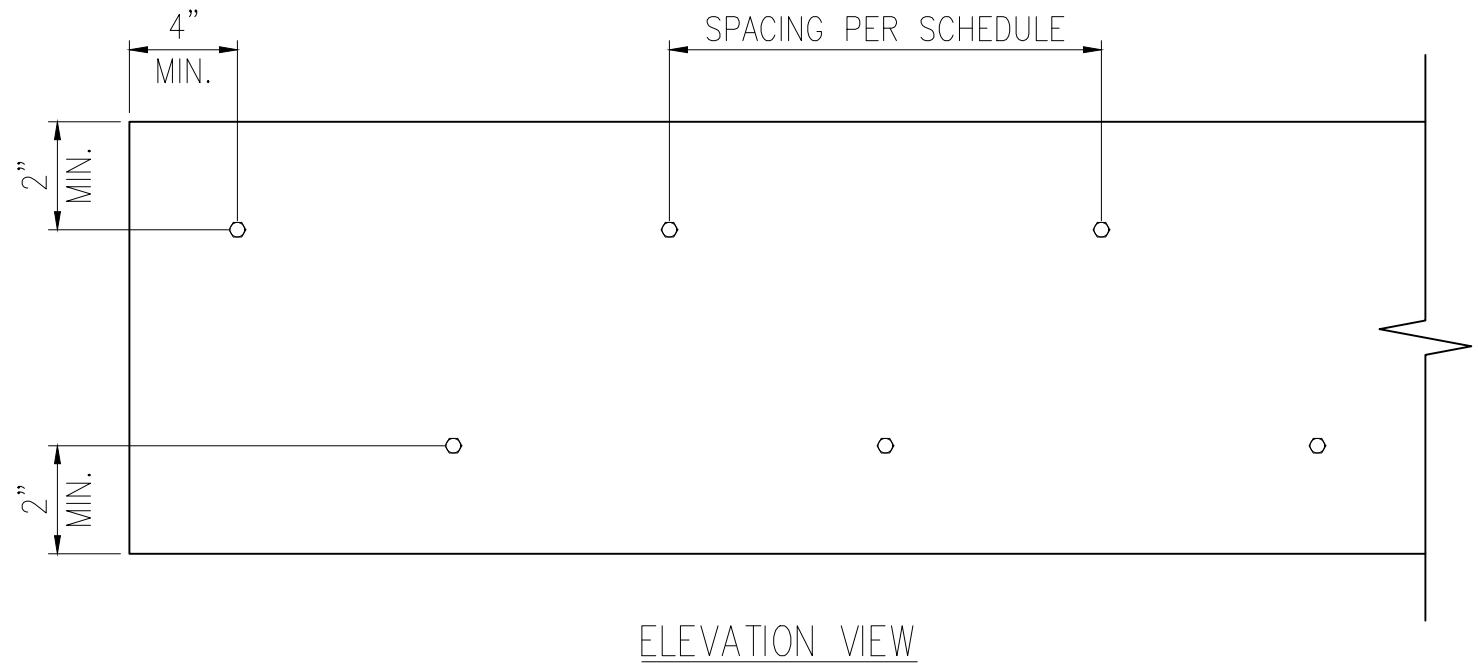
SECTION A-A  
NTS

4 BALCONY JOIST ATTACHMENT  
D2f NTS

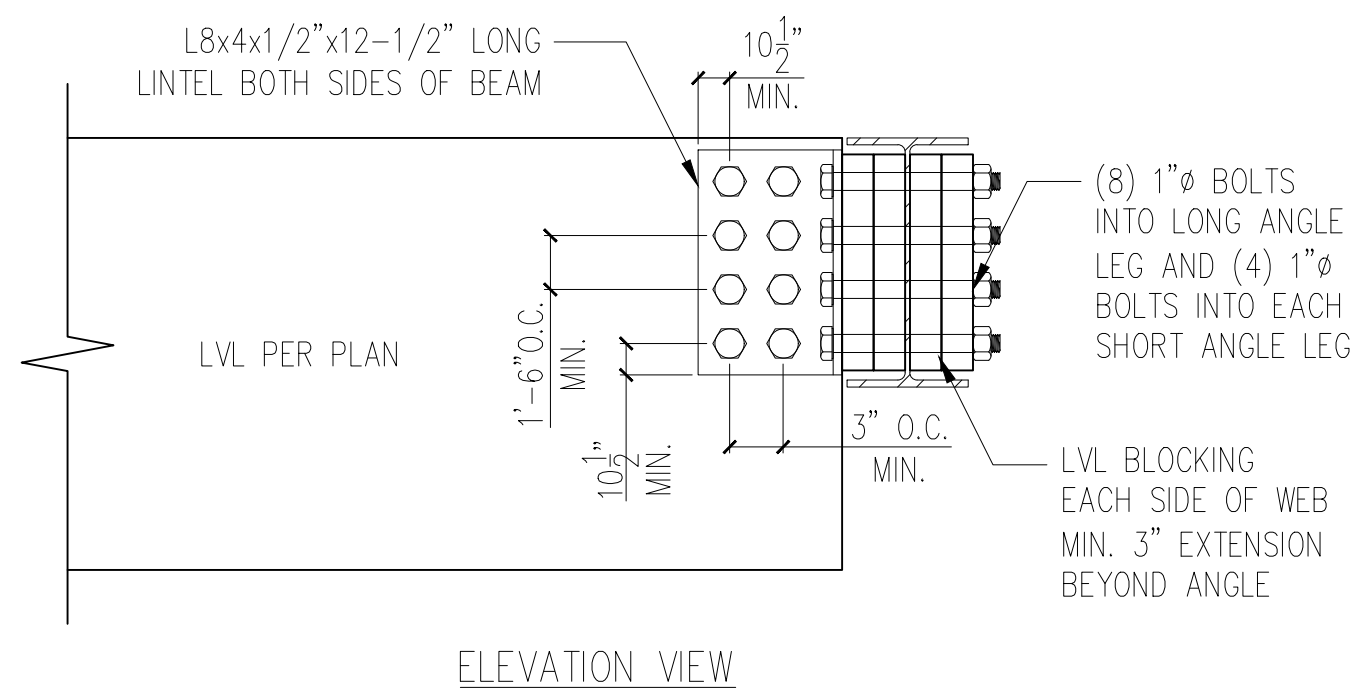
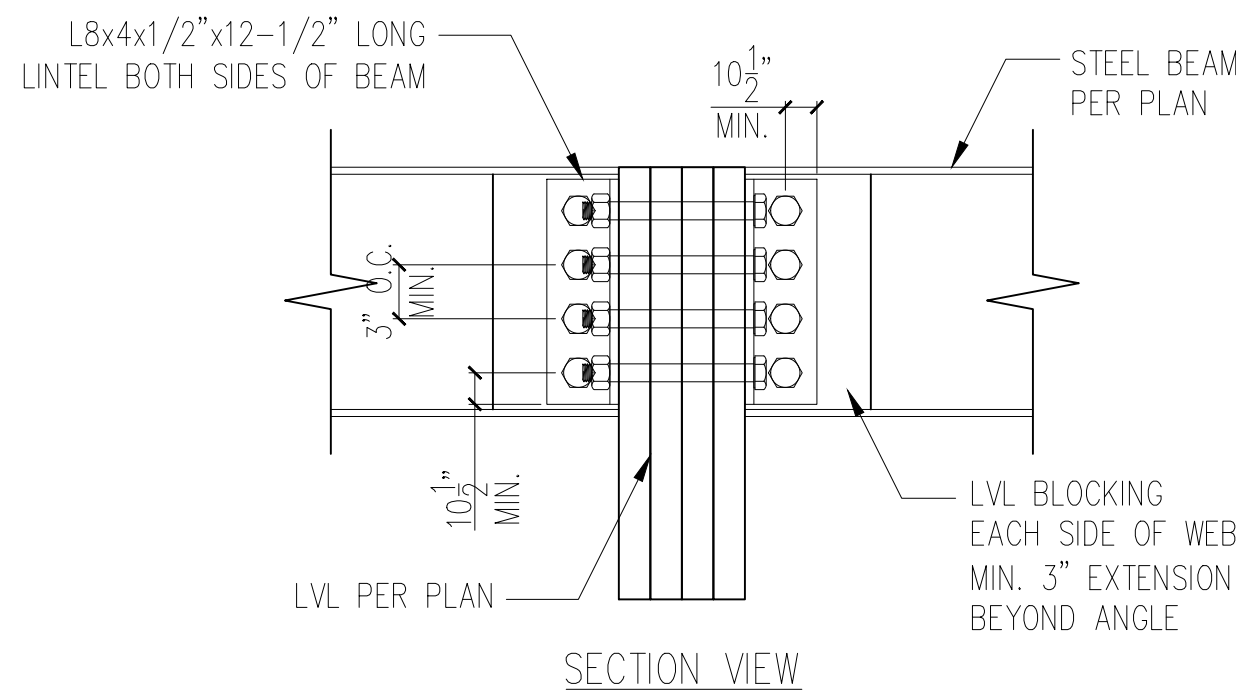
MINIMUM FASTENING  
REQUIREMENTS FOR  
TOP- AND SIDE-LOADED  
MEMBERS

FASTENER TYPE	LVL DEPTH	3 1/2" WIDE	5 1/4" WIDE		7" WIDE		
10d (0.128" x 3") Nails	7/4" ≤ d < 1 1/4"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
	d ≥ 1 1/4"	4 rows @ 12" o.c.	4 rows @ 12" o.c. (ES)	4 rows @ 12" o.c.	-	4 rows @ 12" o.c. (ES)	-
16d (0.162" x 3 1/2") Nails	7/4" ≤ d < 1 1/4"	2 rows @ 12" o.c.	2 rows @ 12" o.c. (ES)	2 rows @ 12" o.c.	-	2 rows @ 12" o.c. (ES)	-
	d ≥ 1 1/4"	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
1/2" Through Bolts	d ≥ 7/4"	2 rows @ 24" o.c.		2 rows @ 24" o.c.		2 rows @ 24" o.c.	
SDS 1/4" x 3 1/2", WS35, 3 3/8" TrussLok		2 rows @ 24" o.c.	2 rows @ 24" o.c. (ES)	2 rows @ 24" o.c.	-	2 rows @ 24" o.c. (ES)	-
SDS 1/4" x 6", WS6		-	-	-	2 rows @ 24" o.c. (ES)		
5" TrussLok		-	2 rows @ 24" o.c.		-		
6 3/4" TrussLok		-	-	-	2 rows @ 24" o.c.		

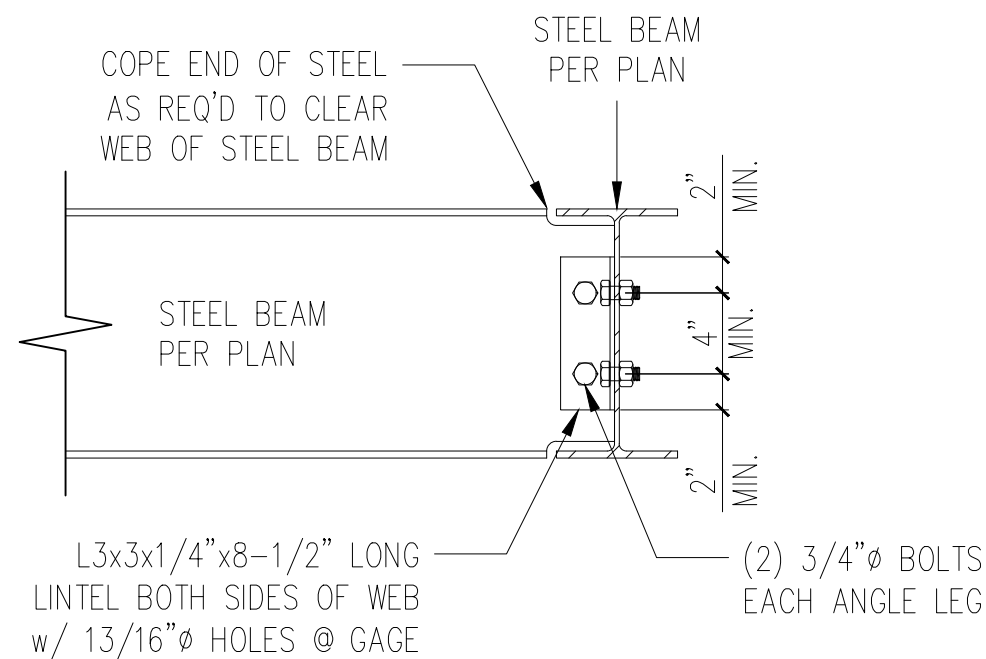
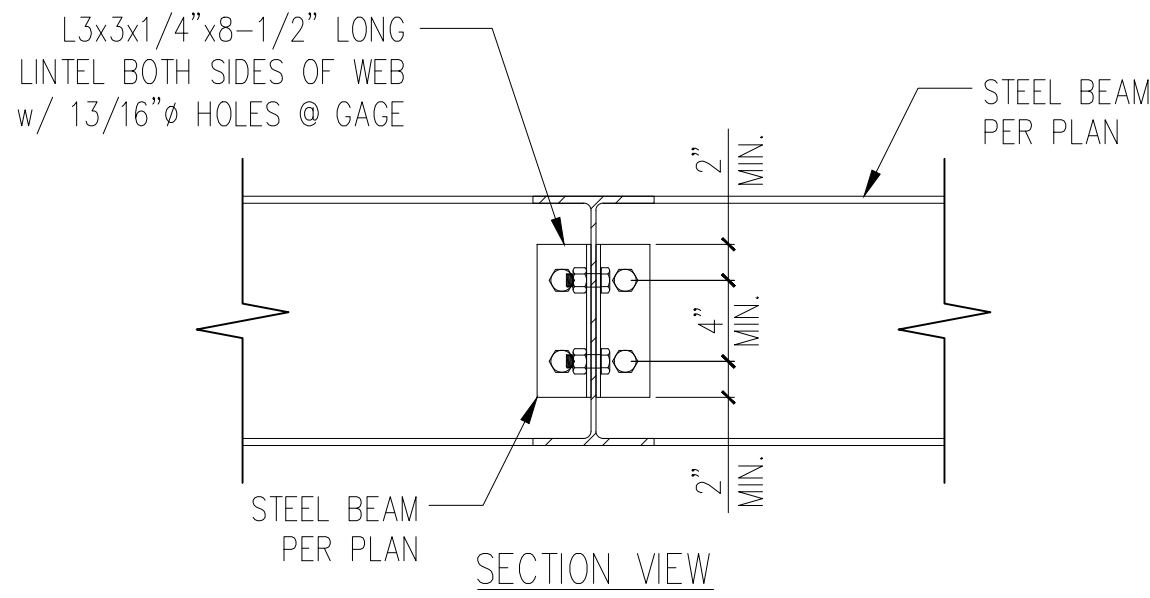
- NOTES:**
- All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.
  - Minimum fastening requirements for depths less than 7/4" require special consideration. Please contact your technical representative.
  - Three general rules for staggering or offsetting for a certain fastener schedule:  
(1) if staggering or offsetting is not referenced, then none is required;  
(2) if staggering is referenced, then fasteners installed in adjacent rows on the front side are to be staggered up to one-half the o.c. spacing, but maintaining the fastener clearances above; and  
(3) if "ES" is referenced, then the fastener schedule must be repeated on each side, with the fasteners on the back side offset up to one-half the o.c. spacing of the front side (whether or not it is staggered).



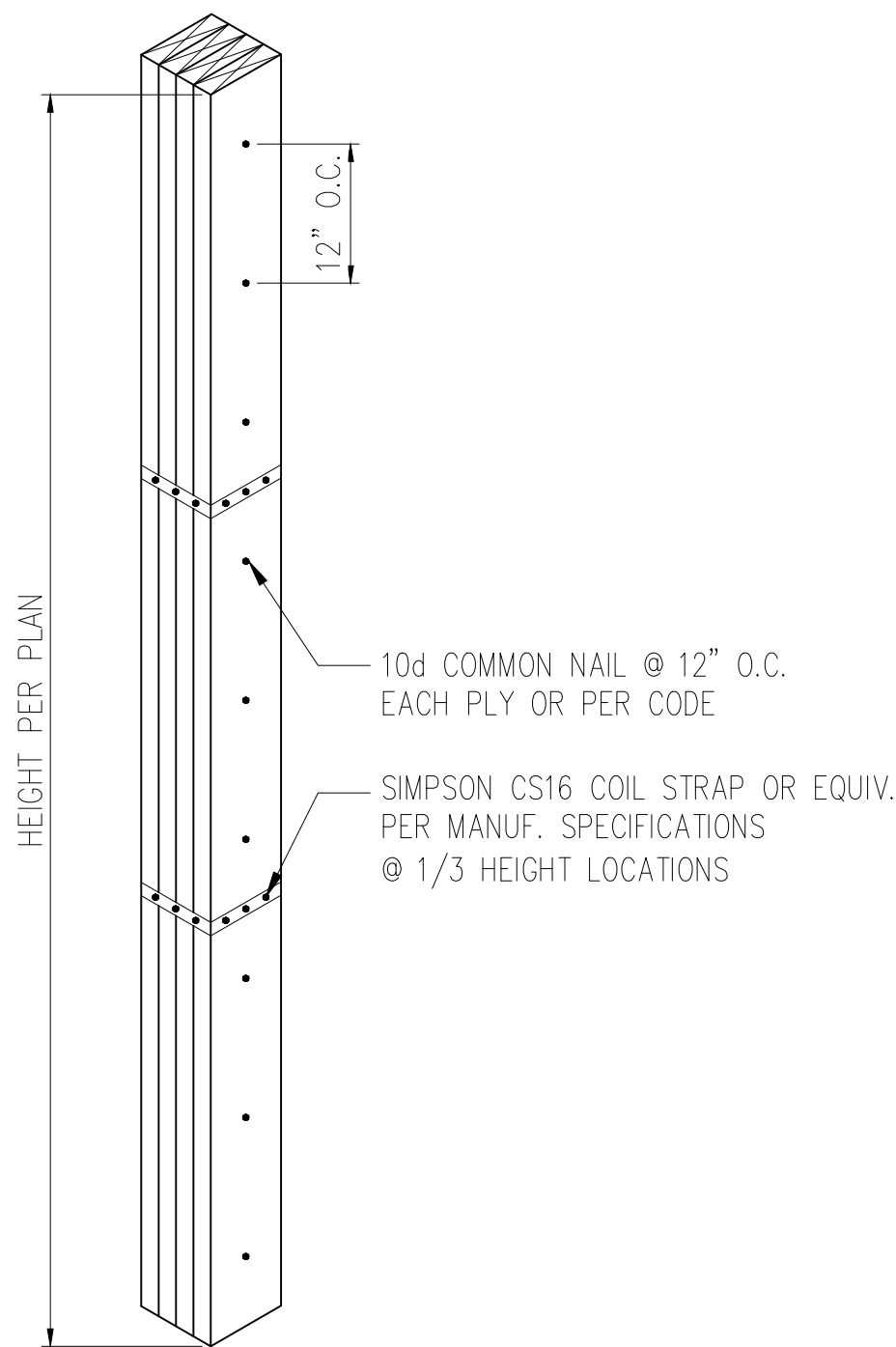
1 MULTI-PLY BEAM CONNECTION DETAIL  
D3f N.T.S.



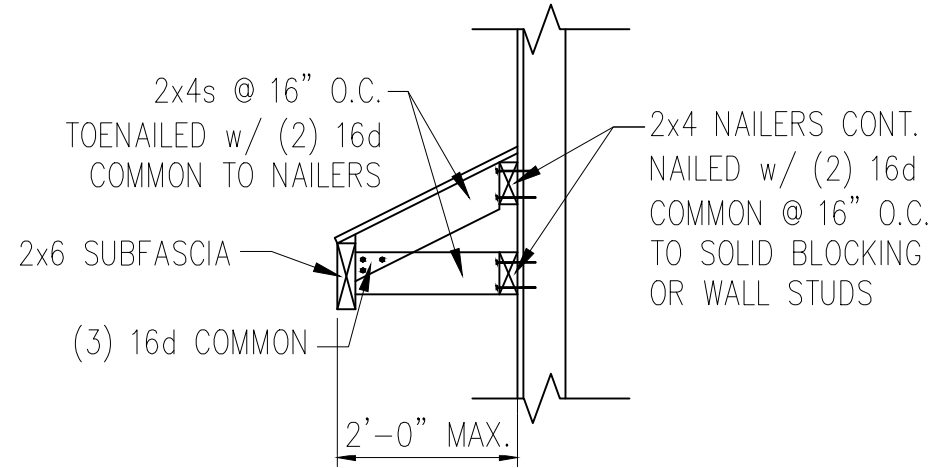
3 LVL TO STEEL DETAIL  
D3f N.T.S.



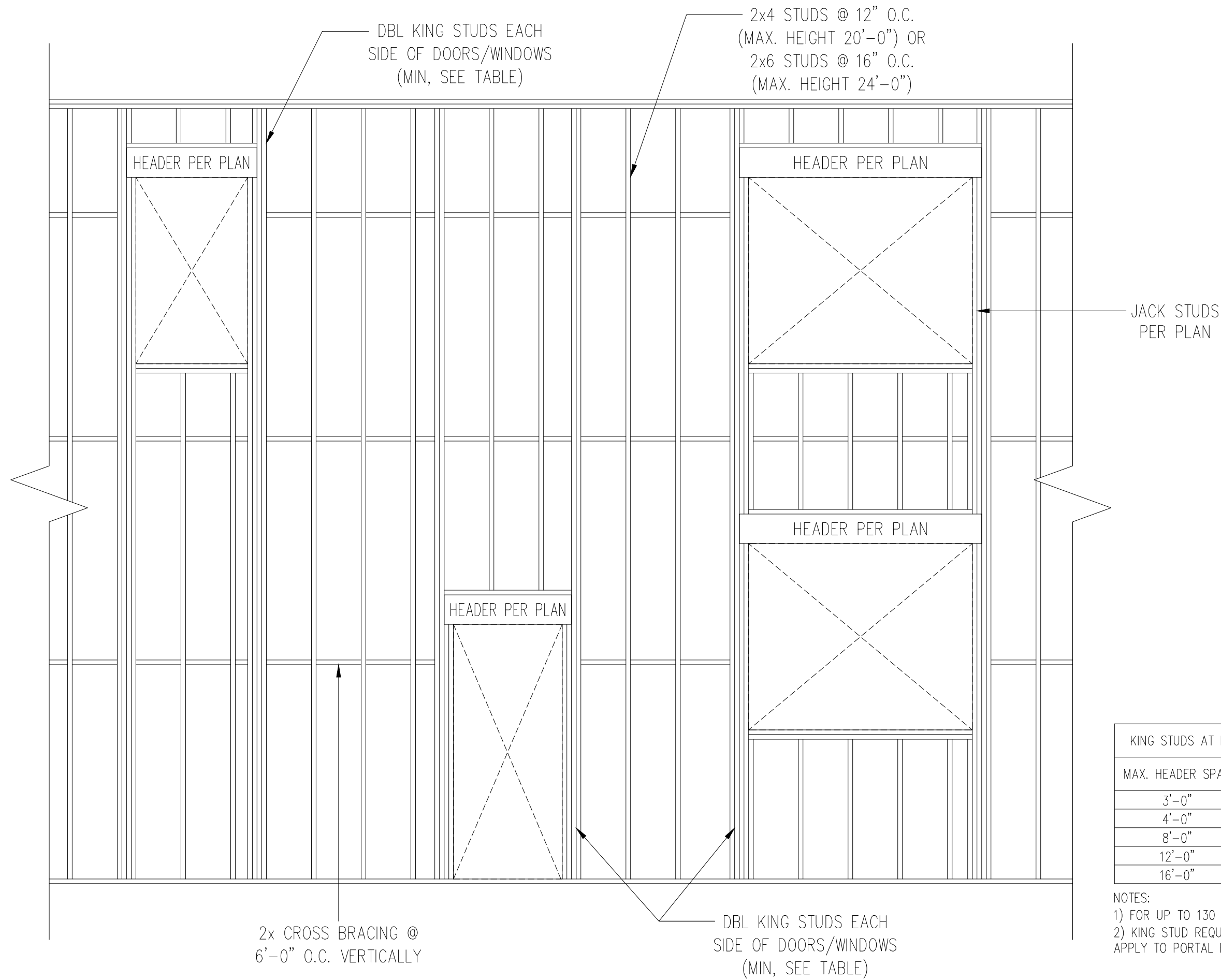
4 STEEL TO STEEL DETAIL  
D3f N.T.S.



2 MULTI-PLY STUD CONNECTION DETAIL  
D3f N.T.S. 4+ PLIES



5 GABLE ROOF RETURN  
D3f N.T.S.



KING STUDS AT EACH END OF HEADERS	
MAX. HEADER SPAN	STUDS (MIN.)
3'-0"	1
4'-0"	2
8'-0"	3
12'-0"	5
16'-0"	6

- NOTES:
- FOR UP TO 130 MPH, EXPOSURE B
  - KING STUD REQUIREMENTS DO NOT APPLY TO PORTAL FRAMED OPENINGS

6 TYP. BALLOON FRAMING DETAIL  
D3f N.T.S.



UES PROFESSIONAL SOLUTIONS 29, INC.  
FINNELL & SUMMIT ENGINEERING  
LABORATORY & TESTING, INC.

10121 Pineville Distribution St  
Pineville, NC 28134  
Office: 704.604.1717  
Fax: 704.504.1128  
www.uesinc.com



CLIENT:  
DP Horton, Carolina Division  
8001 Arrowridge Blvd.  
Charlotte, NC 28273

PROJECT:  
Standard Details (04-15)  
Framing Details



DRAWING:  
DATE: 05/06/2024  
SCALE: 22x34 1/4"=1'-0"  
PROJECT # A2117.00066.000  
DRAWN BY: MGC  
CHECKED BY: GWS

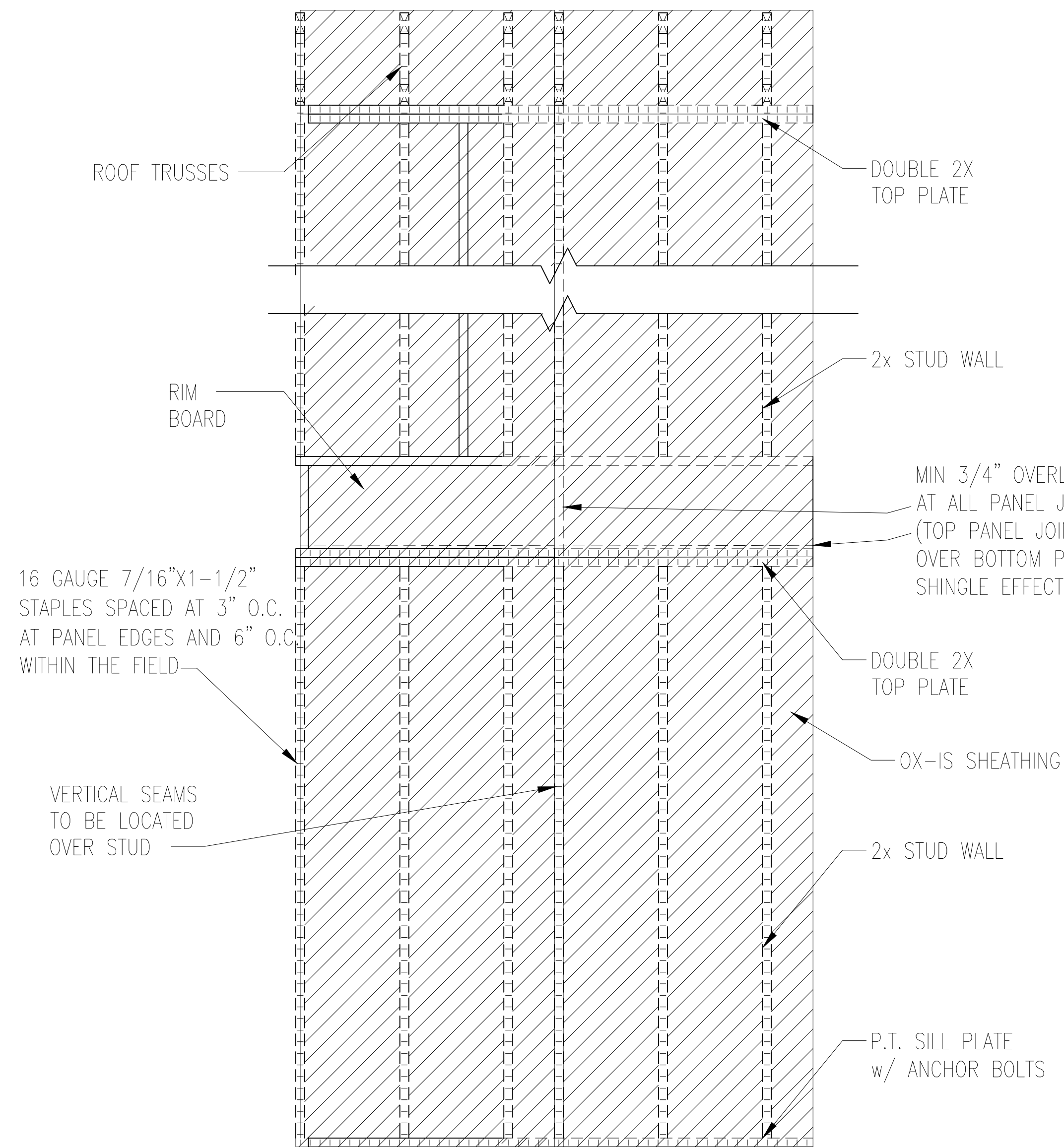
ORIGINAL INFORMATION  
PROJECT # DATE  
1/31/2017

REFER TO COVER SHEET FOR A COMPLETE  
LIST OF REVISIONS

SHEET

D3f





TWO CONT. 2x\_ TOP PLATE, EXTEND EACH END INTO ADJACENT WALL. NAIL SPLICES WITH 8-16d NAILS PER SPLICE/LAP.

CONT. 2x\_ PLATE WITH 10d NAILS AT 16" O.C. INTO HEADER/BEAM

OX-IS EXT. WALL SHEATHING IN SHADED AREAS ATTACHED TO ALL SUPPORTS (STUDS, PLATES, BLOCKING, ETC) WITH 16 GA. STAPLES AT 3" O.C. EDGE AND 3" O.C. FIELD 1" MIN. EMBEDMENT.

(2)2x4 BLOCKING AT ALL PANEL EDGES (TYP.)

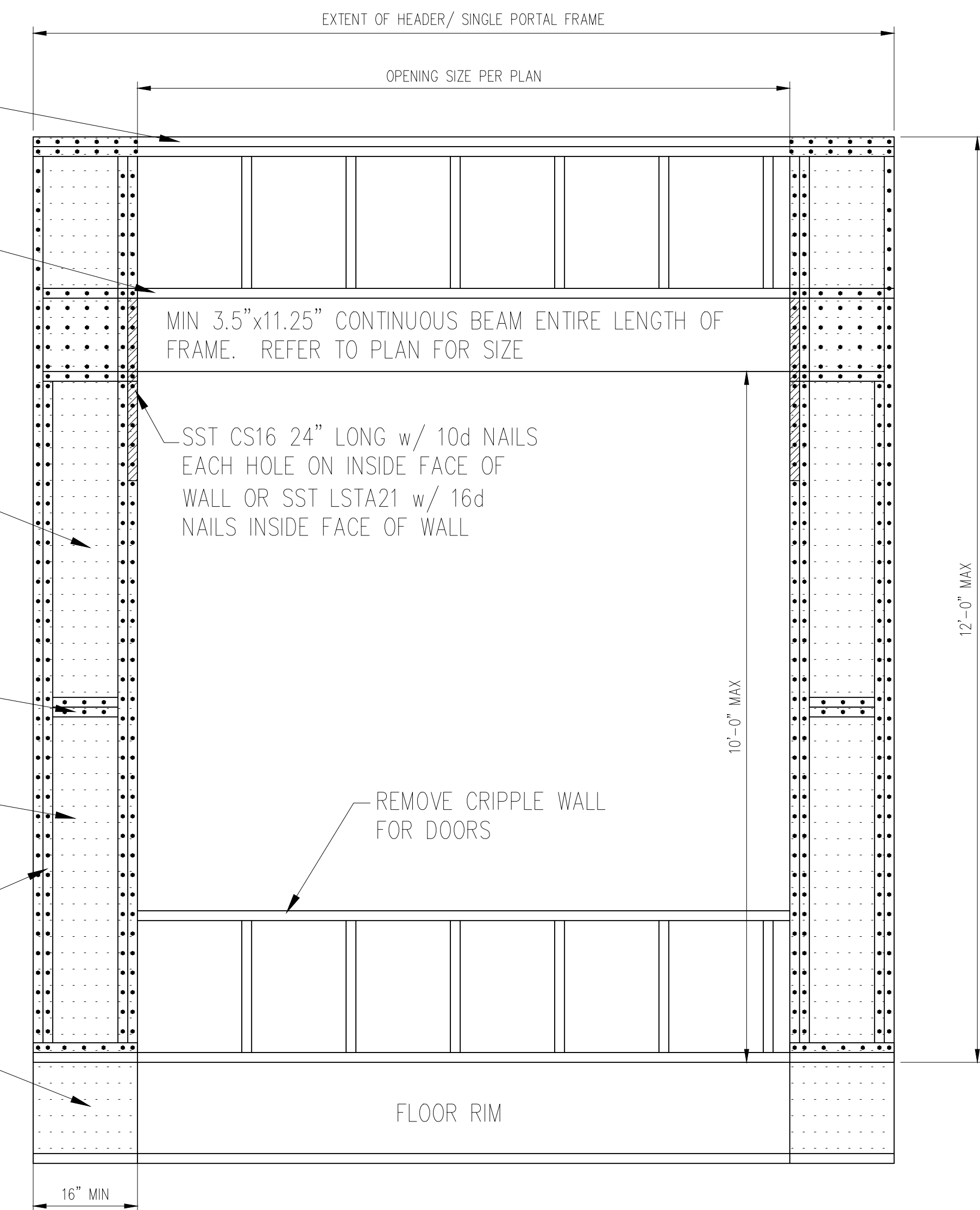
ADD ADDITIONAL STUDS IF WALL WIDTH EXCEEDS 16"

(2)2x\_ STUDS (MIN) AT START/END OF WALL SEGMENTS EACH SIDE OF OPENING.

EXTEND OX-IS SHEATHING TO COVER FLOOR RIM AND ATTACH TO SILL PLATE ON FOUNDATION OR TOP PLATE OF WALL BELOW. SAME ATTACHMENT AS ALL OTHER SHADED AREAS.

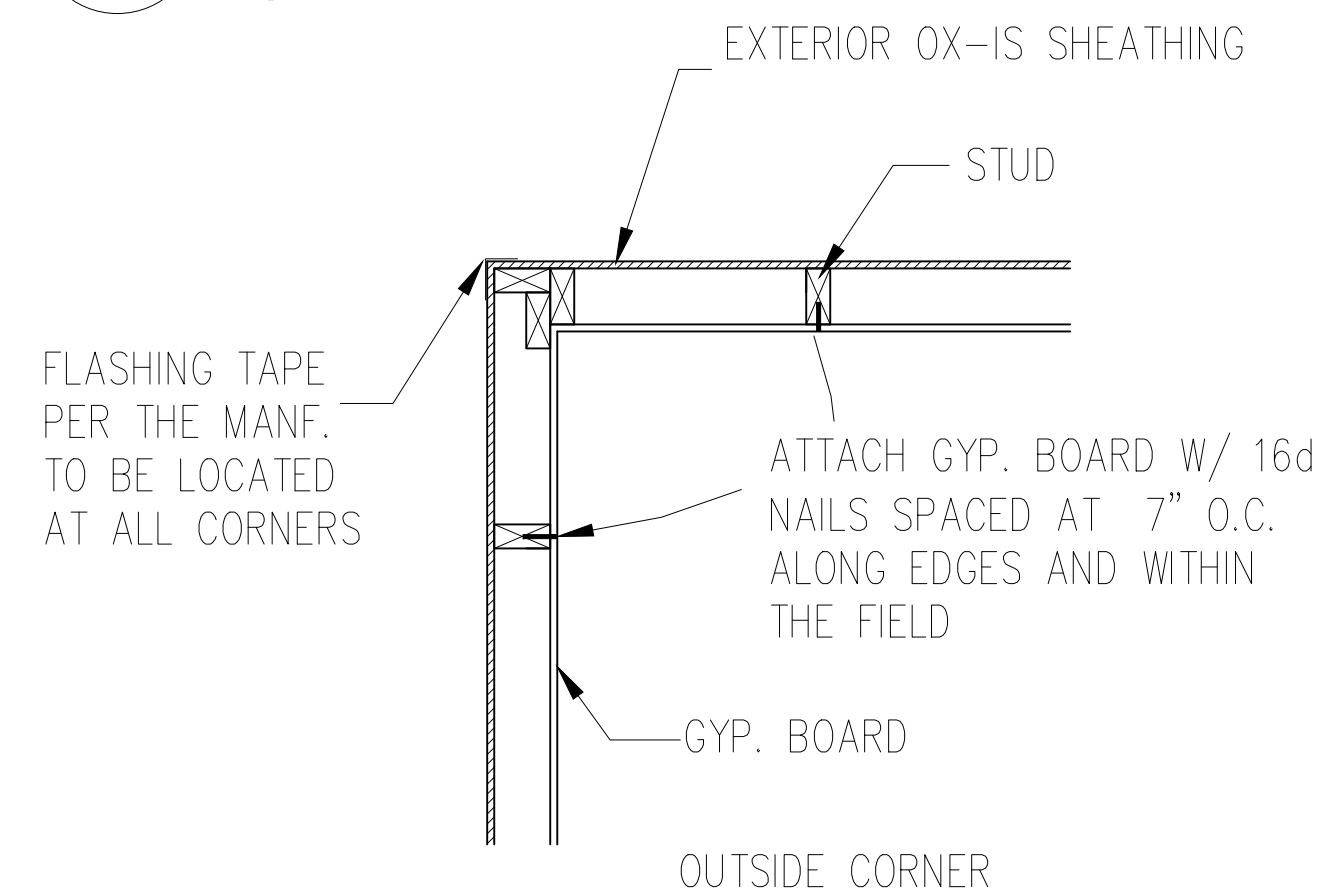
2x4 P.T. PLATE WITH (2)1/2" DIA ANCHOR BOLTS EMBEDDED IN CONC. 7" MIN. WITH 3/16"x2"x2" PLATE WASHERS

NOTES:  
 -OX-IS MAY BE INSTALLED IN LIEU OF OSB FOR CS-WSP AND CS-PF BRACING METHODS SHOWN ON THE BRACING PLAN.  
 BRACED WALLS SHALL BE INSTALLED PER LENGTHS SHOWN ON THE SEALED PLANS.  
 -16 GA. STAPLES MAY BE SUBSTITUTED WITH 0.113-INCH DIAMETER (3/8" HEAD OR 2" CAP) NAILS WITH MINIMUM 1" EMBEDMENT.  
 -STAPLES MAY RUN PARALLEL WITH WOOD GRAIN OF FRAMING STUDS AT SHEATHING SEAMS.  
 -WHERE 3/4" OVERLAP IS NOT INSTALLED, CONTRACTOR MAY COVER SEAM WITH 5" BUTYL FLASHING TAPE.  
 -FLASH WINDOWS AND DOORS PER MANF.  
 -THE DETAILS ABOVE ARE LIMITED TO 130 MPH WIND ZONES.

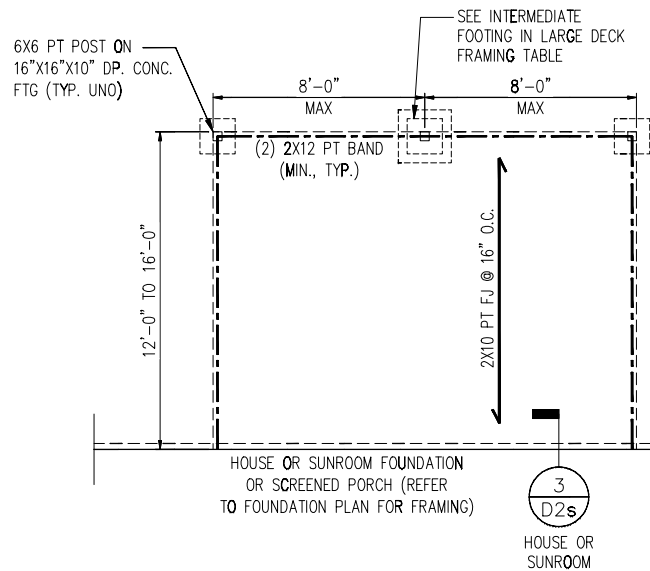


3 METHOD PF: PORTAL FRAME DETAIL  
D4f NTS

1 TYP. WALL BRACING  
D4f NTS

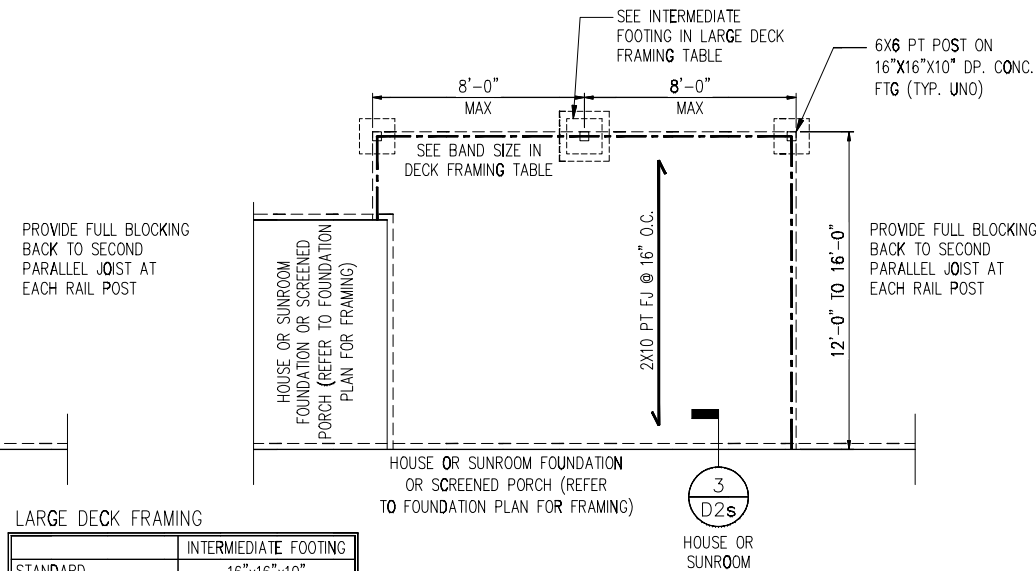


2 TYP. EXTERIOR CORNER ATTACHMENT  
D4f NTS



TYP. LARGE REAR DECK PLAN

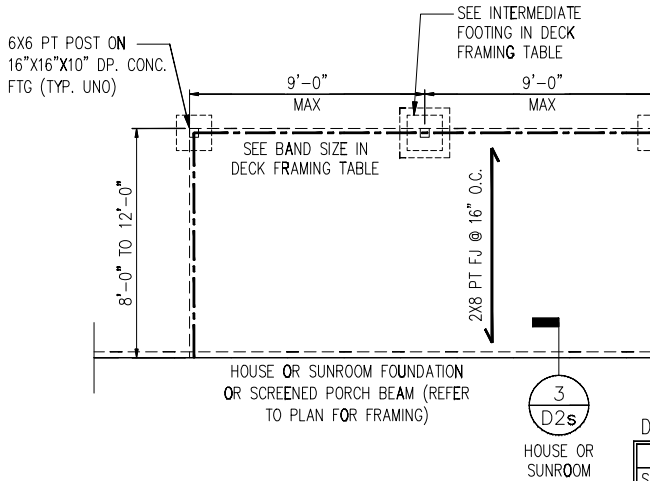
N.T.S.



TYP. LARGE SIDE DECK PLAN

N.T.S.

LARGE DECK FRAMING	
STANDARD	INTERMEDIATE FOOTING
16"x16"x10"	16"x16"x10"
W/ 8'x8' GRILL DECK	24"x24"x10"

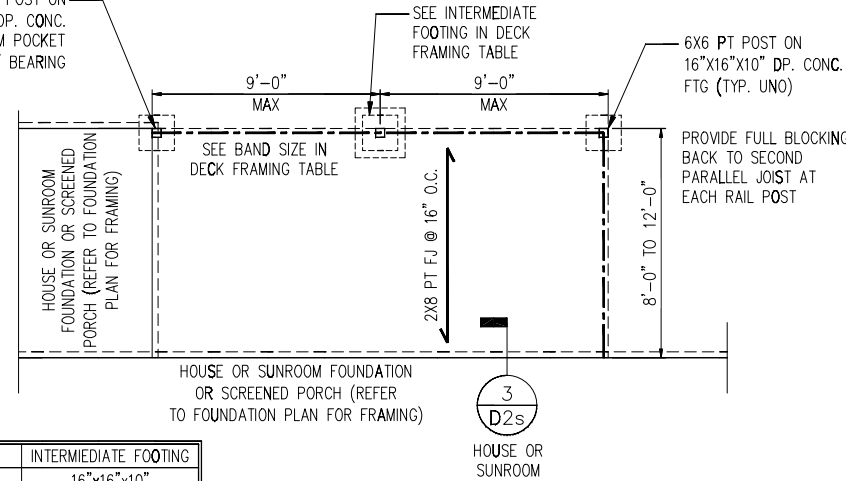


TYP. REAR DECK PLAN

N.T.S.

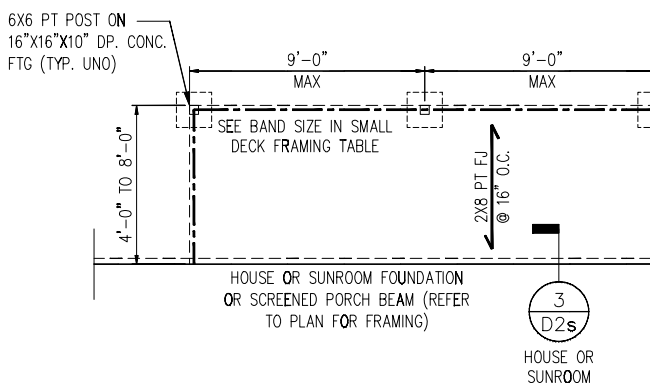
DECK FRAMING		
	BAND SIZE*	INTERMEDIATE FOOTING
STANDARD	(2) 2X10	16"x16"x10"
W/ 8'x8' GRILL DECK	(3) 2X10	24"x24"x10"

\* SOUTHERN PINE #2 PT LUMBER



TYP. SIDE DECK PLAN

N.T.S.

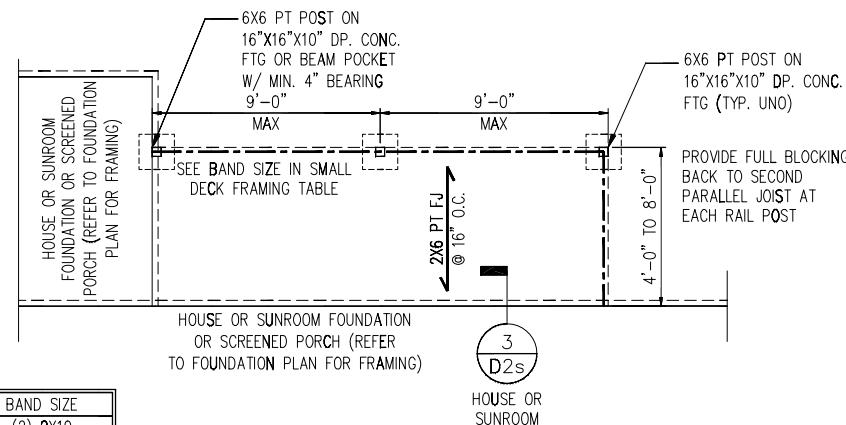


TYP. SMALL REAR DECK PLAN

N.T.S.

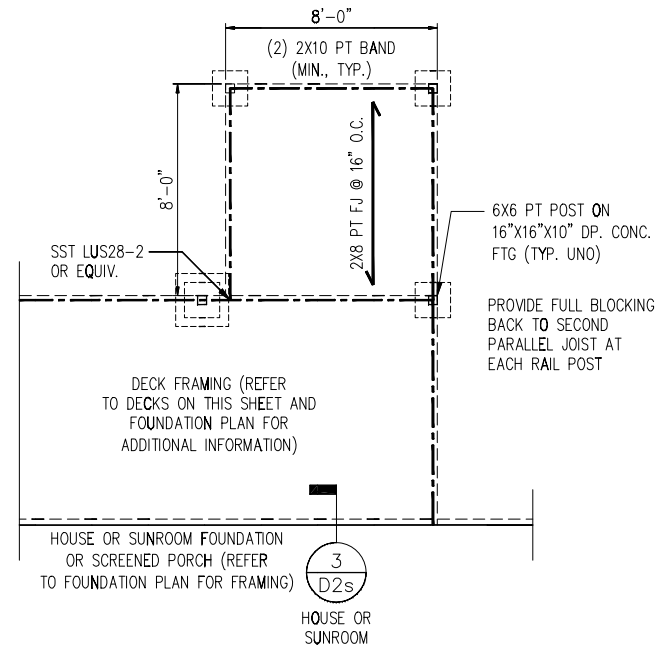
SMALL DECK FRAMING	
STANDARD	BAND SIZE
(2) 2X10	(2) 2X10
W/ 8'x8' GRILL DECK	(3) 2X10

\* SOUTHERN PINE #2 PT LUMBER



TYP. SMALL SIDE DECK PLAN

N.T.S.



TYP. DECK PLAN W/ 8'x8' GRILL DECK

N.T.S.

NOTE: BRACE POSTS PER CODE

#### NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE IRC



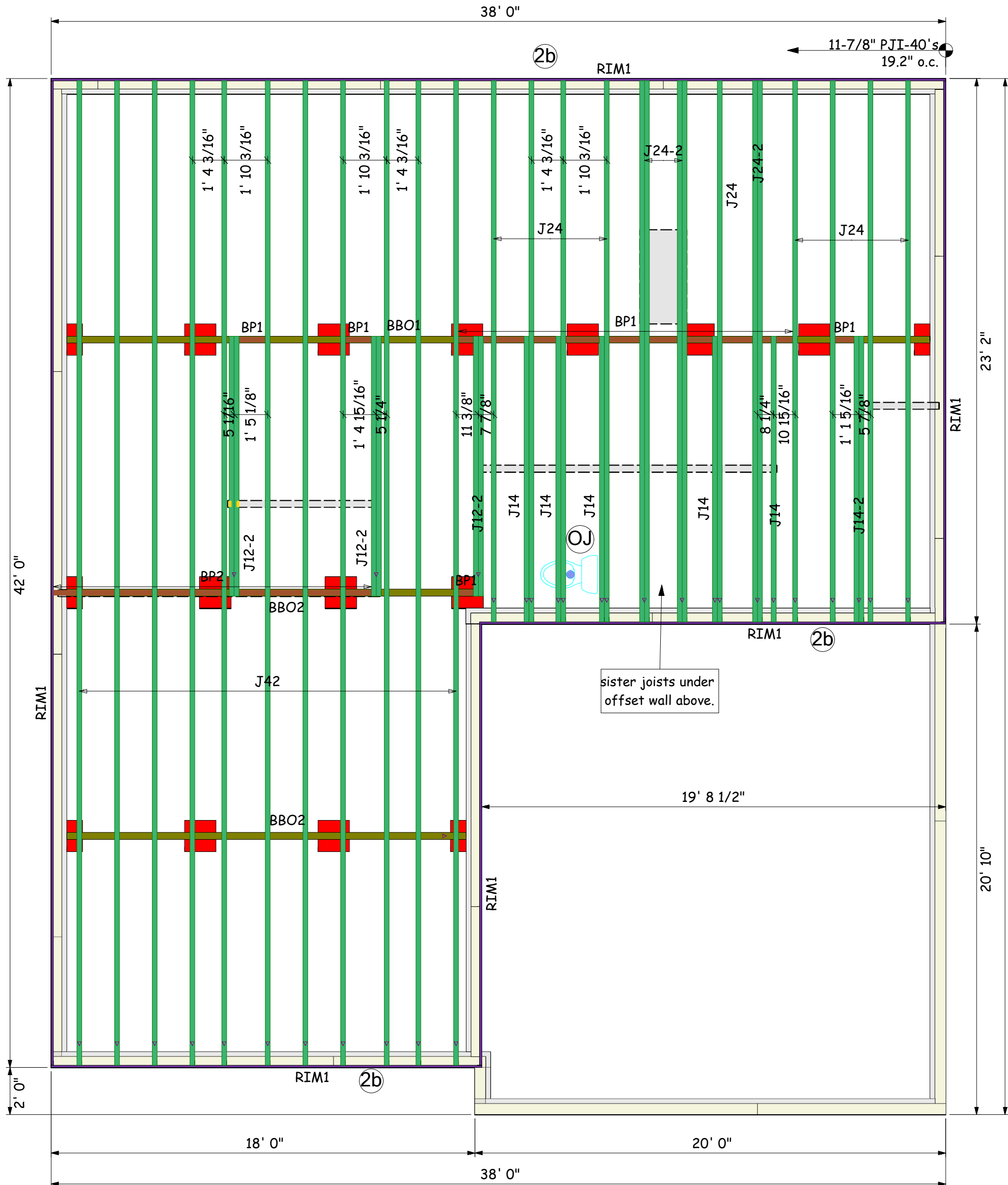
General Notes: \*\* CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

\*\* LVL AND JOISTS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

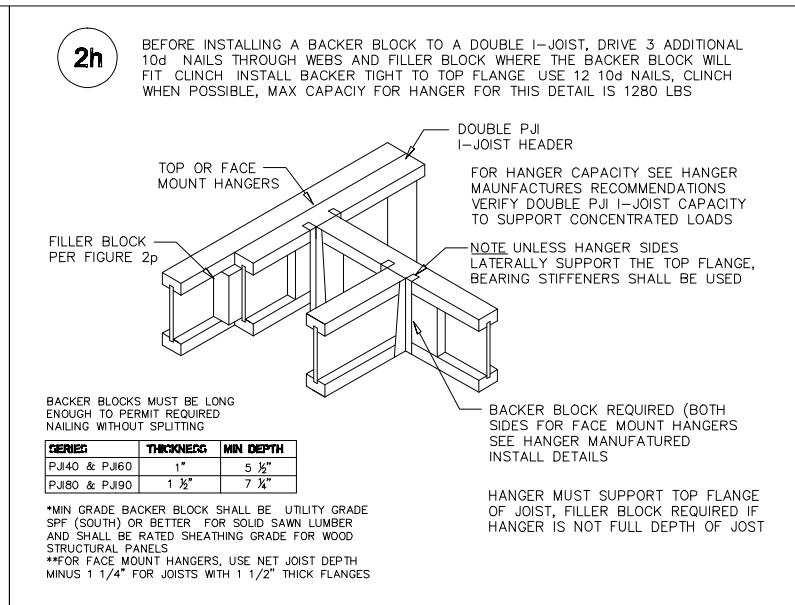
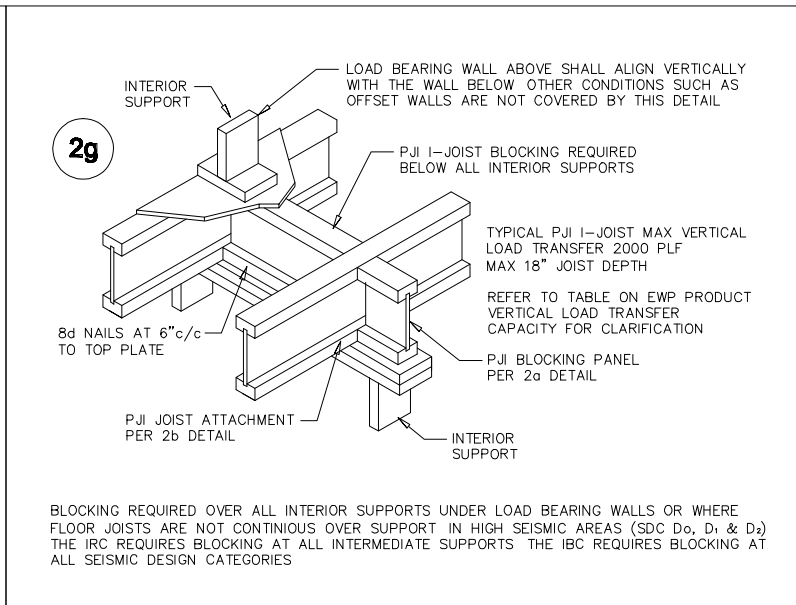
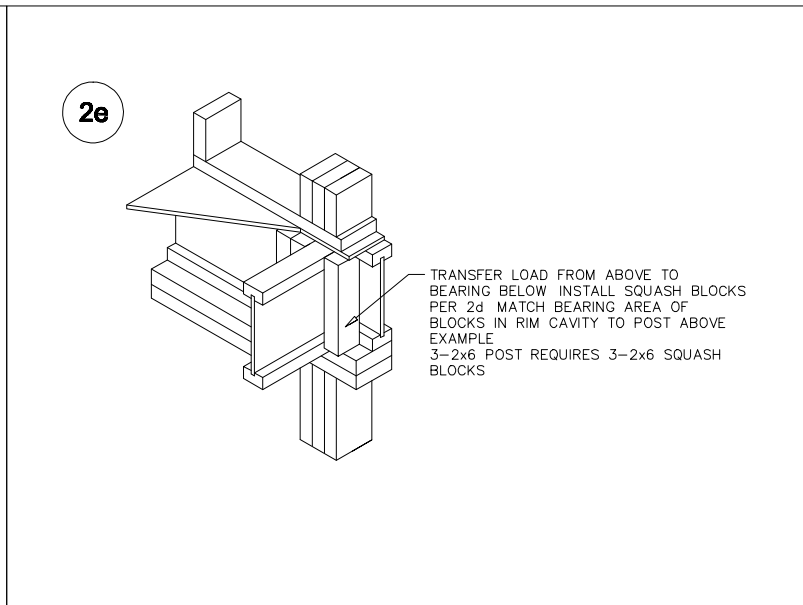
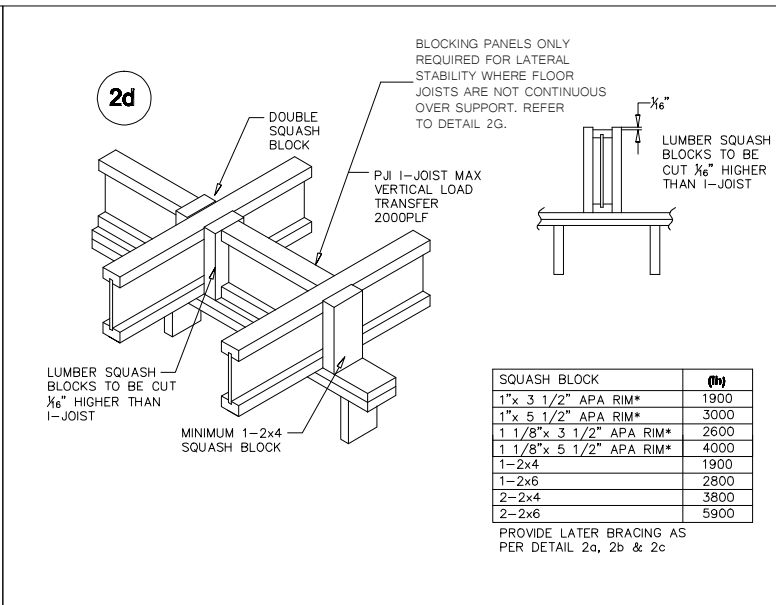
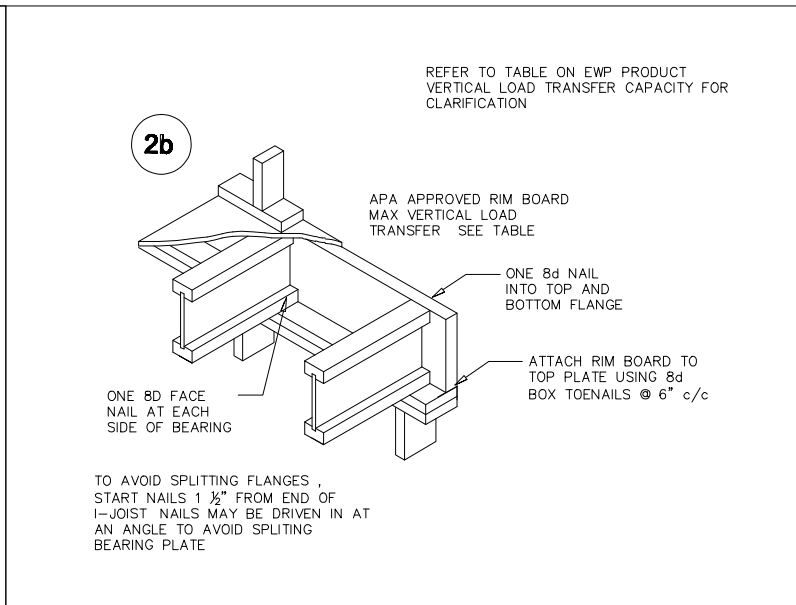
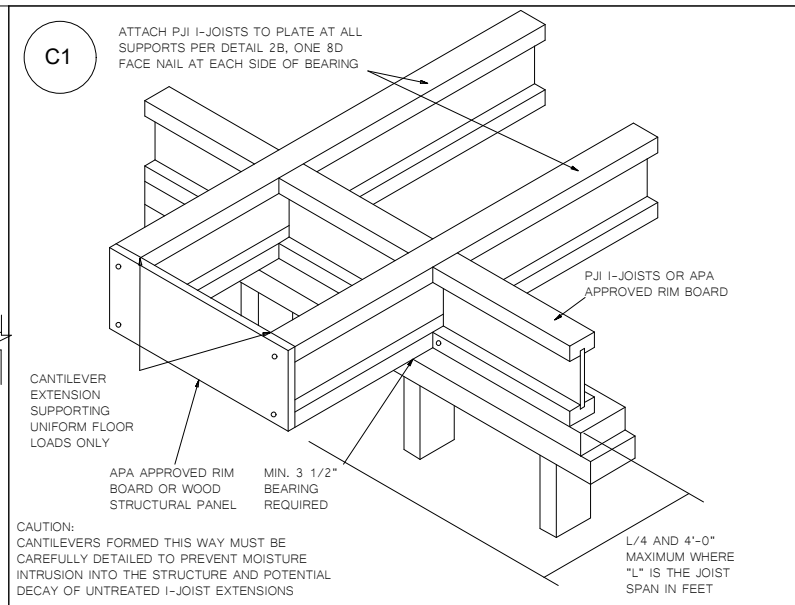
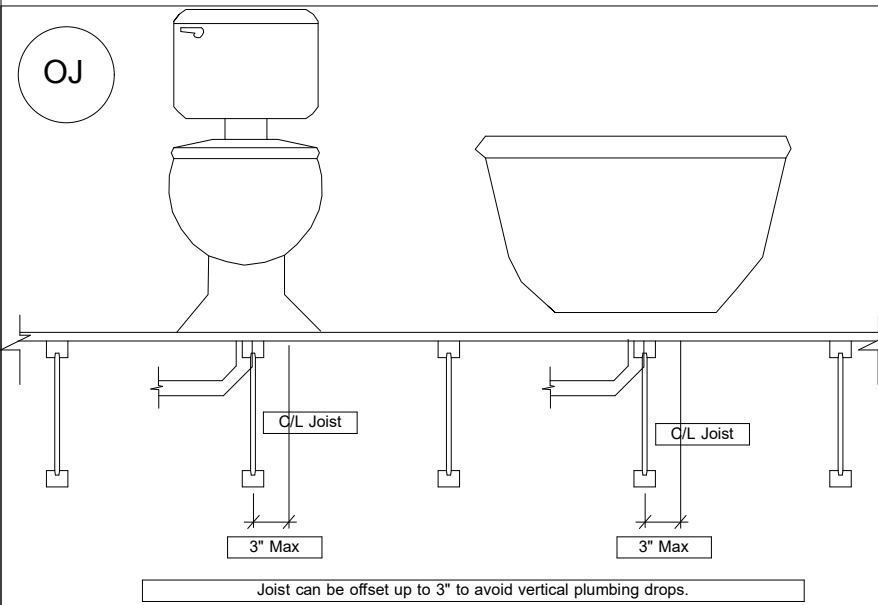
Products				
Net Qty	Plies	Product	Length	PlotID
11	1	11 7/8" PJI-40	42' 0"	J42
9	1	11 7/8" PJI-40	24' 0"	J24
6	2	11 7/8" PJI-40	24' 0"	J24-2
5	1	11 7/8" PJI-40	14' 0"	J14
2	2	11 7/8" PJI-40	14' 0"	J14-2
6	2	11 7/8" PJI-40	12' 0"	J12-2
14	1	1 1/8" x 11 7/8" APA Rim Board	12' 0"	RIM1
8	1	11 7/8" PJI-40	2' 0"	BP1
6	1	11 7/8" PJI-40	2' 0"	BP2

Accessories				
Net Qty	Plies	Product	Length	PlotID
39	1	3/4" 4x8 OSB		

KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL I-JOIST AND LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. ALL CONNECTION DETAILS TO BE PROVIDED BY ENGINEER OF RECORD. REFER TO ENGINEER OR RECORD FOR ALL MULTI-PLY LVL/ I-JOIST CONNECTION PATTERNS. BUILDER TO VERIFY ALL MATERIAL LENGTHS, QUANTITIES, AND SIZES PRIOR TO ORDERING.



## 1ST FLOOR LAYOUT



LABEL LEGEND		
BBO	= Beam by Others	
PBO	= Post by Others	
GBO	= Girder by Others	
J	= I-Joist	
FB	= Flush Beam	
DB	= Dropped Beam	
RB	= Roof Beam	
BP	= Blocking Panels	
SB	= Squash Blocks	

\*\* PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERIFY LOCATIONS BEFORE SETTING JOISTS.

\*\* ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

\*\* REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

\*\* DAMAGED FLOOR JOISTS SHOULD NOT BE INSTALLED UNLESS APPROVED BY COMPONENT PLANT.

\*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

Scale: 1/4" = 1'-0"

Date: // 07/09/25

Designer: DW

Project #: 25070038

Sheet Number:

1 / 2

DR Horton

12 Mason Ridge

Wilmington B

FLOOR JOIST LAYOUT



This is an I-Joist Placement Plan Only. All designs of I-Joist follow the IBC/IRC Code Requirements along with Manufacturer's guidelines. This is NOT an engineered placement plan. This placement plan is created from plans provided by the customer using Manufacturer's guidelines. It is the responsibility of the EOR, or builder to review and approve all bearing conditions, connections, spans, loading, product usage, and quantities. Do not notch or drill holes in beams or flanges on joists without prior approval from the manufacturing Representative unless following hole guidelines in the installation guide of product. Builder takes full responsibility for doing so and NO Back charge will be accepted.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name



General Notes: \*\* CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

\*\* LVL AND JOISTS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

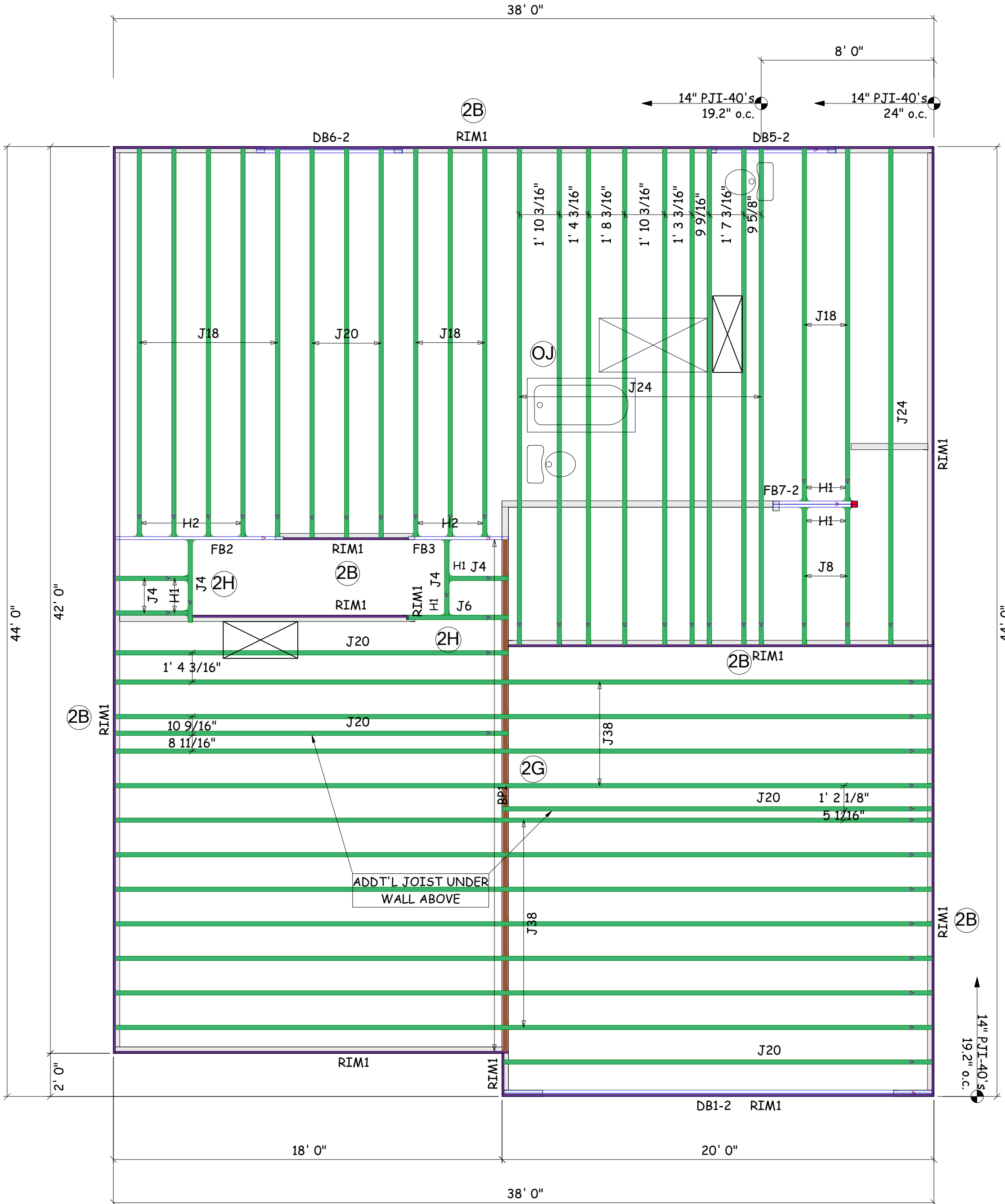
Products					
Net Qty	Plies	Product	Length	PlotID	
11	1	14" PJI-40	38' 0"	J38	
10	1	14" PJI-40	24' 0"	J24	
7	1	14" PJI-40	20' 0"	J20	
10	1	14" PJI-40	18' 0"	J18	
2	1	14" PJI-40	8' 0"	J8	
1	1	14" PJI-40	6' 0"	J6	
5	1	14" PJI-40	4' 0"	J4	
2	2	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	8' 0"	DB6-2	
2	2	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	6' 0"	DB5-2	
1	1	2.1 RigidLam SP LVL 1-3/4 x 14	8' 0"	FB2	
1	1	2.1 RigidLam SP LVL 1-3/4 x 14	6' 0"	FB3	
2	2	2.1 RigidLam SP LVL 1-3/4 x 14	4' 0"	FB7-2	
2	2	2.1 RigidLam SP LVL 1-3/4 x 16	20' 0"	DB1-2	
17	1	1 1/8" x 14" APA Rim Board	12' 0"	RIM1	
11	1	14" PJI-40	2' 0"	BP1	

Accessories					
Net Qty	Plies	Product	Length	PlotID	
50	1	3/4" 4x8 OSB			

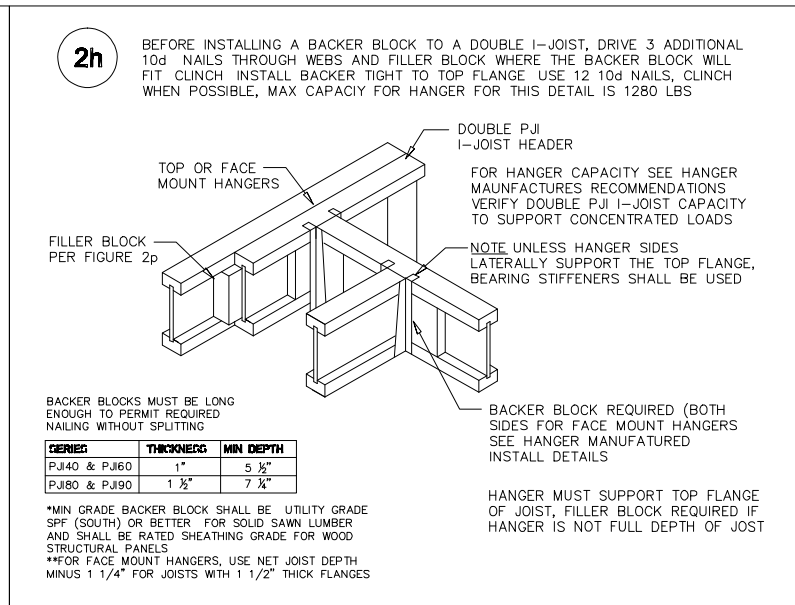
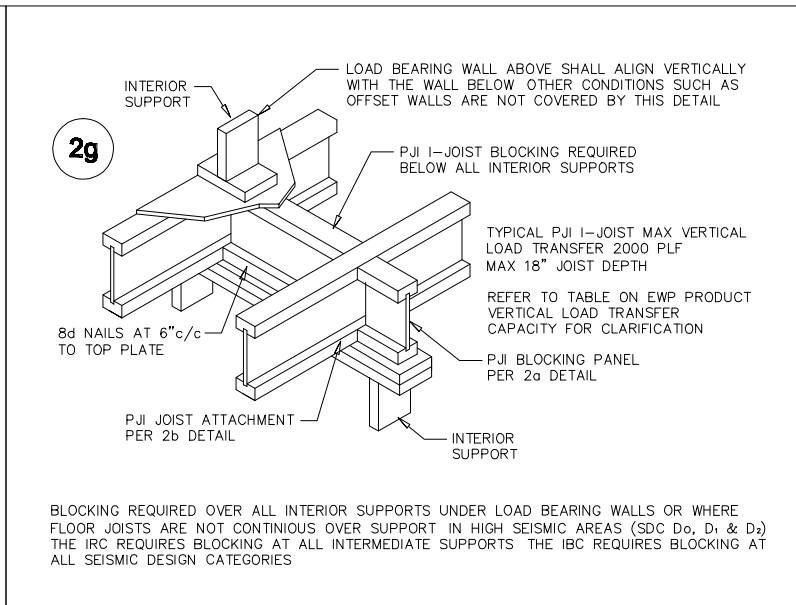
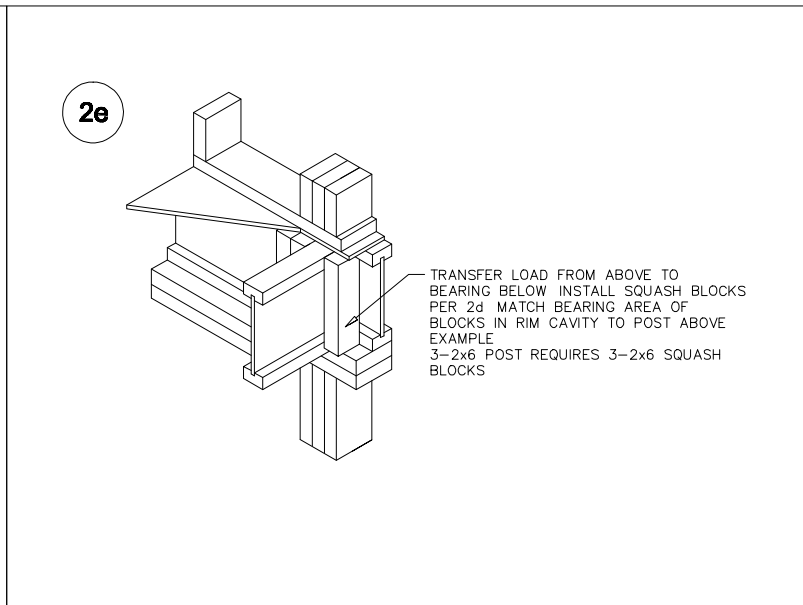
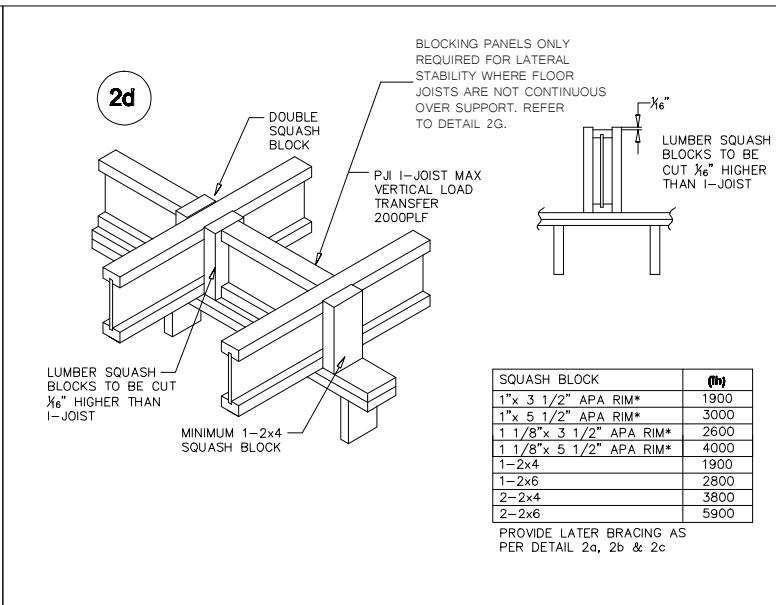
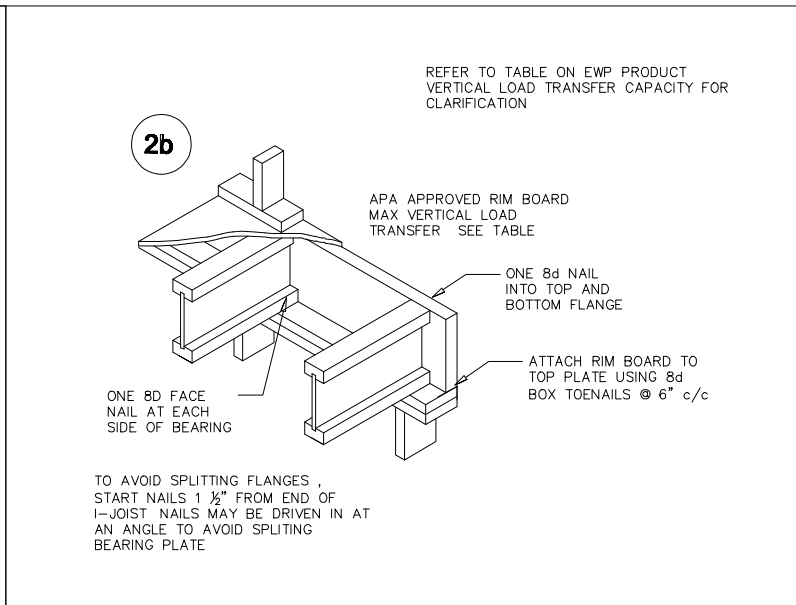
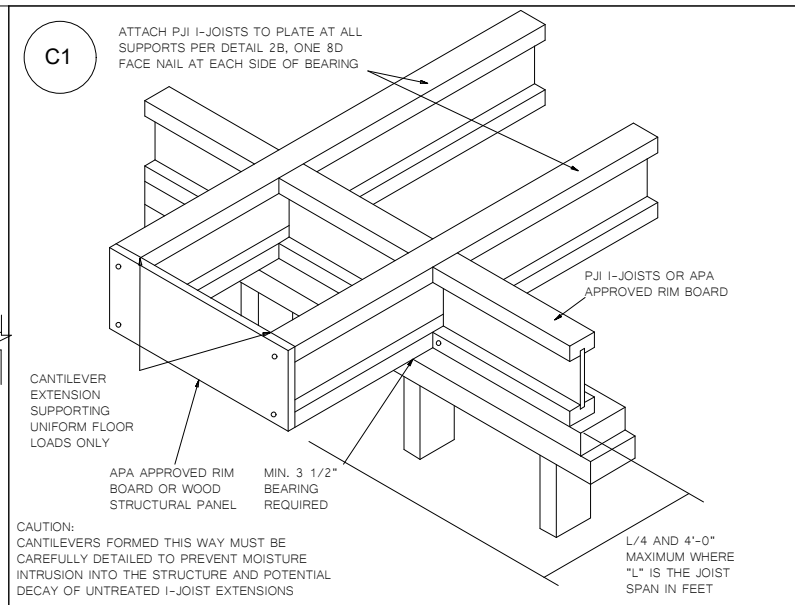
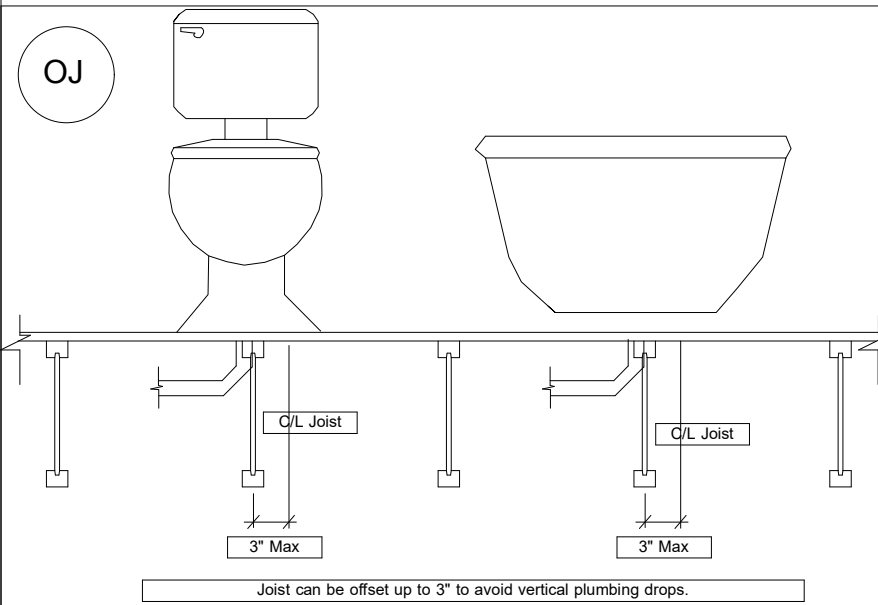
Connector Summary						
Web Stiff	Backer Blocks	Product	Manuf	Qty	PlotID	
No	No	IUS2.56/14	Simpson	8	H1	
No	No	IUS2.56/14	Simpson	9	H2	

BLOCK SOLID UNDER ALL POST/POINT LOADS FROM ABOVE. TYPICAL AT ALL LOCATIONS

KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. ALL CONNECTION DETAILS TO BE PROVIDED BY ENGINEER OF RECORD. REFER TO ENGINEER OR RECORD FOR ALL MULTI-PLY LVL CONNECTION PATTERNS. BUILDER TO VERIFY ALL MATERIAL LENGTHS, QUANTITIES, AND SIZES PRIOR TO ORDERING.



## 2ND FLOOR LAYOUT



LABEL LEGEND		
BBO	= Beam by Others	
PBO	= Post by Others	
GBO	= Girder by Others	
J	= I-Joist	
FB	= Flush Beam	
DB	= Dropped Beam	
RB	= Roof Beam	
BP	= Blocking Panels	
SB	= Squash Blocks	

\*\* PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERIFY LOCATIONS BEFORE SETTING JOISTS.

\*\* ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

\*\* REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

\*\* DAMAGED FLOOR JOISTS SHOULD NOT BE INSTALLED UNLESS APPROVED BY COMPONENT PLANT.

\*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

Scale: 1/4" = 1'-0"

Date: // 07/09/25

Designer: DW

Project #: 25070038

Sheet Number:

2 / 2

DR Horton

12 Mason Ridge

Wilmington B

FLOOR JOIST LAYOUT



This is an I-Joist Placement Plan Only. All designs of I-Joist follow the ISC/IPC Code Requirements along with Manufacturer's guidelines. This is NOT an engineered placement plan. This placement plan is created from plans provided by the customer using Manufacturer's guidelines. It is the responsibility of the EOR, or builder to review and approve all bearing conditions, connections, spans, loading, product usage, and quantities. Do not notch or drill holes in beams or flanges on joists without prior approval from the manufacturing Representative unless following hole guidelines in the installation guide of product. Builder takes full responsibility for doing so and NO Back charge will be accepted.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name