

ABV	ABOVE	L	LENGTH
AC	AIR CONDITIONING	LA	LAUNERY
AD	AREA DRAIN	LAV	LAVATORY
ADJ	ADJUSTABLE	LYR	LOUVER
ALT	ALTERNATE	MAX	MAXIMUM
ALUM	ALUMINUM	MECH	MECHANICAL
ARCH.	ARCHITECTURAL	MFR.	MANUFACTURER
BA	BATHROOM	MIN	MINIMUM
BD	BOARD	MISC.	MISCELLANEOUS
BF	BI-FOLD (DOOR)	N	NORTH
BLDG	BUILDING	NTS	NOT TO SCALE
BLK	BLOCK (CMBS)	O.G.D.	OVERHEAD GARAGE DOOR
BLM	BELOW	OH	OVERHEAD
BM	BEAM	OPT	OPTIONAL
BP	BI-PASS (DOOR)	PAR	PARALLEL
BOT	BOTTOM	PB	PUSH BUTTON
BTWN	BETWEEN	PD	PORCH
CAB	CABINET	PF	POUNDER
CER	CERAMIC	PL	PLATE
C.J.	CONTROL JOINT OR CONSTRUCTION JOINT	PL	PLASTER
CL	CLOSET OR CENTER LINE	PR	PR
CL	CLOUTING	P.T.	PRESSURE TREATED WOOD
CLR	CLEAR	PVC	POLYVINYL CHLORIDE PIPE
CONC	CONCRETE MASONRY UNIT	PVMT	PAVEMENT
COL	COLUMN	P.W.	PRE-WIRE
CONC	CONCRETE	PWD	PLYWOOD
COR	CORNER	R	RISER
CR	CORROSION RESISTANT	RAG	RETURN AIR GRILL
CSMT	CASEMENT	REF	REFERENCE
C.T.	CERAMIC TILE	REFR	REFRIGERATOR
D	DRYER	RQ	REQUIRED
DEL	DOUBLE	S	SOOTH
DH	DOUBLE HUNG	SD	SMOKE DETECTOR
DI	DIMENSION	S.F.	SQUARE FEET
DISP	DISPOSAL	S.G.D.	SINGLING GLASS DOOR
DN	DOWN	SH	SINGLE HUNG OR SHELF
DR	DOOR	SH	SIMILAR
DS	DOWNSCOUT	S	SLOPE / SLIDING
DSH	DISH WASHER	SHE	SHELF AND ROLL
DWG	DRAWING	SPEC	SPECIFICATIONS
E	EAST	STD	STANDARD
EA	EACH	STR	STRUCTURAL
ELEV	ELEVATION	SQ	SQUARE
ELEC	ELECTRICAL	SYM	SYMBOL
EQ	EQUAL	S4S	S4SOUTH FOUR SIDES
EXT	EXTERIOR	T	TREAD (AT STAIRS) OR TILE
FAU	FLOOR AREA UNIT	TB	TIEHOL BAR
FC	FLOOR GUARD	TEMP.	TEMPERED GLASS
F.D.	FLOOR DRAIN	T&G	TONGUE & GROOVE
FFL	FINISH FLOOR LINE	T.O.C.	TOP OF CURB
FG	FINISHED GRADE	TV	TELEVISION
FLR	FLOORING	TYP	TYPICAL
FL	FLORESCENT (LIGHT)	UNCL.	UNLESS NOTED OTHERWISE
FND	FOUNDATION	V.B.	VEHICLE BARRIER
F.O.S.	FACE OF STUD	VERT	VERTICAL
FTG	FOOTING	V.T.R.	VENT THRU ROOF
FX	FIXED GLASS	W	WASHING MACHINE
GALV	GALVANIZED	W	WOOD
GAR	GARAGE	WDN	WINDOWN
G.B.	GYPSUM BOARD	WH	WATER HEATER
GD	GRADE OR GRADING	WIR	WIRCHOUT IRON
G.D.G.	GARAGE DOOR OPENER	WC	WALL-HUNG CLOSET
GFI	GROUND FAULT INTERRUPTER	W/ N/O	WITH OR WITHOUT
GL	GLASS OR GLAZING	WP	WATERPROOFING
GYP	GYPSUM BOARD	WPM	WELDED WIRE MESH
HD	HOSE BIBB		
HD	HARD OR HARD		
HDR	HEADER		
HDR	HEIGHT		
HVAC	HEATING/VENTILATING/AIR COND.		
HWC	HUNGWOOD		
INT	INTERIOR		
JST	JOIST		
JT	JT		
KITCH	KITCHEN		

MODEL 'HANOVER'	
0	TITLE SHEET / COVER SHEET
01	QUICK VIEW
1 A	FRONT ELEVATION 'A'
11 A	ROOF PLAN 'A'
2 A	SIDE AND REAR ELEVATIONS 'A'
3 MS A	MONOLITHIC SLAB PLAN 'A'
3 SW A	STEM WALL PLAN 'A'
3 BS A	BASEMENT PLAN 'A'
3 CS A	CRAWL SPACE PLAN 'A'
4 A	1ST FLOOR PLAN 'A'
5 A	2ND FLOOR PLAN 'A'
1 B	FRONT ELEVATION 'B'
11 B	ROOF PLAN 'B'
2 B	SIDE AND REAR ELEVATIONS 'B'
3 MS B	MONOLITHIC SLAB PLAN 'B'
3 SW B	STEM WALL PLAN 'B'
3 BS B	BASEMENT PLAN 'B'
3 CS B	CRAWL SPACE PLAN 'B'
4 B	1ST FLOOR PLAN 'B'
5 B	2ND FLOOR PLAN 'B'
1 C	FRONT ELEVATION 'C'
11 C	ROOF PLAN 'C'
2 C	SIDE AND REAR ELEVATIONS 'C'
3 MS C	MONOLITHIC SLAB PLAN 'C'
3 SW C	STEM WALL PLAN 'C'
3 BS C	BASEMENT PLAN 'C'
3 CS C	CRAWL SPACE PLAN 'C'
4 C	1ST FLOOR PLAN 'C'
5 C	2ND FLOOR PLAN 'C'
1 D	FRONT ELEVATION 'D'
11 D	ROOF PLAN 'D'
2 D	SIDE AND REAR ELEVATIONS 'D'
3 MS D	MONOLITHIC SLAB PLAN 'D'
3 SW D	STEM WALL PLAN 'D'
3 BS D	BASEMENT PLAN 'D'
3 CS D	CRAWL SPACE PLAN 'D'
4 D	1ST FLOOR PLAN 'D'
5 D	2ND FLOOR PLAN 'D'
2.I	OPTIONAL ELEVATIONS
6	BASEMENT UTILITY PLAN
7	1ST FLOOR UTILITY PLAN
8	2ND FLOOR UTILITY PLAN

ALL CONSTRUCTION TO COMPLY WITH LOCAL CODES AND ORDINANCES CURRENTLY IN USE WITH THE LOCAL JURISDICTION.

APPLICABLE CODES:
FOLLOW ALL APPLICABLE STATE AND LOCAL CODES.
2018 NORTH CAROLINA STATE SUPPLEMENTS AND AMENDMENTS

CONTRACTOR AND BUILDER SHALL REVIEW ENTIRE PLAN TO VERIFY CONFORMANCE WITH ALL CURRENT APPLICABLE CODES IN EFFECT AT TIME OF CONSTRUCTION. BY USING THESE DRAWINGS FOR CONSTRUCTION IT IS UNDERSTOOD THAT CONFORMANCE WITH ALL APPLICABLE CODES IS THE RESPONSIBILITY OF THE BUILDER AND CONTRACTOR.

PRODUCT:
SINGLE FAMILY RESIDENCE

OCCUPANCY CLASSIFICATION
RESIDENTIAL R-3

CONSTRUCTION TYPE:
TYPE VB

THESE DOCUMENTS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED, DUPLICATED, ALTERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE DESIGNER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DEVELOPER AND THE DESIGNER BEFORE PROCEEDING WITH WORK.

ANY ERRORS OR OMISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO DEVELOPERS AND DESIGNERS ATTENTION IMMEDIATELY.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED.

ALL TRUSS DRAWINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO ISSUANCE OF BUILDING PERMIT.

ALL OR EQUAL SUBSTITUTIONS MUST BE SUBMITTED TO AND APPROVED BY CITY BUILDING OFFICIAL PRIOR TO INSTALLATION.

ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS OTHERWISE NOTED.

PROVIDE FIREBLOCKING. (PER LOCAL CODES.)

ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO VERIFY.

PROVIDE BLOCKING AND/OR BACKING AT ALL TONEL BAR, TONEL RING AND/OR TOILET PAPER HOLDER LOCATIONS, AS SHOWN PER PLAN, TYPICAL AT ALL BATHROOMS AND POWDER ROOMS. VERIFY LOCATIONS AT FRAMING WALK.

CLASP METRIC SHEET WATERPROOFING: FURNISH AND INSTALL ALL WATERPROOFING ELASTOMER, 40 MIL, SELF-ADHERING MEMBRANE OF RUBBERIZED ASPHALT, OR INTEGRATED POLYMER POLYETHYLENE OR EQUAL. INSTALL PER MANUFACTURER'S AND TRADE ASSOCIATION'S PRINTED INSTALLATION INSTRUCTIONS, 6" MINIMUM LAP AT ALL ADJACENT WALL SURFACES.

TO THE BEST OF THE DESIGNER'S KNOWLEDGE THESE DOCUMENTS ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY.

SHOP DRAWINGS REVIEW AND DISTRIBUTION, ALONG WITH PRODUCT SUBMITTALS, REQUESTED IN THE CONSTRUCTION DOCUMENTS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR, UNLESS DIRECTED OTHERWISE UNDER A SEPARATE AGREEMENT.

DEVIATIONS FROM THESE DOCUMENTS IN THE CONSTRUCTION PHASE SHALL BE REVIEWED BY THE DESIGNER AND THE OWNER PRIOR TO THE START OF WORK IN QUESTION. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT PRIOR REVIEW, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS REPRESENTED ON THESE DOCUMENTS INCLUDING THE WORK AND MATERIALS FURNISHED BY SUBCONTRACTORS AND VENDORS.

**THE BUILDER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE
GEOTECHNICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE,
TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR. IN THE
EVENT THE GEOTECHNICAL REPORTS DO NOT EXIST, THE SOILS CONDITION SHALL
BE ASSUMED TO BE A MINIMUM DESIGN SOIL PRESSURE STATED BY THE
STRUCTURAL ENGINEER OF RECORD FOR THE PURPOSE OF STRUCTURAL DESIGN.
THE GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED
THE CRITERIA.**

**ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND
CONFORM WITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND
REGULATIONS, ALONG WITH ALL OTHER AUTHORITIES HAVING JURISDICTION.
THE GENERAL CONTRACTOR IS RESPONSIBLE TO BE AWARE OF THESE REQUIREMENTS
AND GOVERNING REGULATIONS.**

**PROVIDE AN APPROVED WASHER DRAIN PAN AT SECOND FLOOR ONLY
THAT DRAINS TO EXTERIOR.**

**WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS TO HAVE
OPENABLE AREA OF 4.0 SQ FT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE
THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20". GLAZING TOTAL AREA OF
4.0 SQ FT IN THE CASE OF A GROUND WINDOW AND NOT LESS THAN 5.7 SQ FT
IN THE CASE OF AN UPPER STORY WINDOW. (PER NRCG SECTION R301.1)**

**ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS
BETWEEN BALLUSTERS. (PER LOCAL CODES.)**

**PROVIDE STAIR HANDRAILS AND GUARDRAILS PER
LOCAL CODES.**

THE SCOPE OF THIS SET OF PLANS IS TO PROVIDE A "BUILDER'S SET" OF CONSTRUCTION DOCUMENTS AND GENERAL NOTES HEREINAFTER REFERRED TO AS "PLANS". THIS SET OF PLANS IS SUFFICIENT TO OBTAIN A BUILDING PERMIT; HOWEVER, ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LOCATIONS, DIMENSIONS, TYPES OF MATERIALS, AND GENERAL METHODS OF ASSEMBLING OR FASTENING. THEY ARE NOT INTENDED TO SPECIFY PARTICULAR PRODUCTS OR OTHER METHODS OF ANY SPECIFIC MATERIALS, PRODUCT OR METHOD. THE IMPLEMENTATION OF THE PLANS REQUIRES A CLIENT / CONTRACTOR THOROUGHLY KNOWLEDGEABLE WITH THE APPLICABLE BUILDING CODES AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PRODUCT TYPE AND TYPE OF CONSTRUCTION.

CONSTRUCTION REQUIREMENTS AND QUALITY: PROVIDE WORK OF THE SPECIFIC QUALITY; WHERE QUALITY LEVEL IS NOT INDICATED, PROVIDE WORK OF QUALITY CUSTOMARY IN SIMILAR TYPES OF WORK. WHERE THE PLANS AND SPECIFICATIONS, CODES, LAWS, REGULATIONS, MANUFACTURER'S RECOMMENDATIONS OR INDUSTRY STANDARDS REQUIRE WORK OF HIGHER QUALITY OR PERFORMANCE, PROVIDE WORK COMPLYING WITH THOSE REQUIREMENTS AND QUALITY WHERE TWO OR MORE QUALITY PROVISIONS OF THOSE REQUIREMENTS CONFLICT WITH THE MOST STRINGENT REQUIREMENT; WHERE REQUIREMENTS ARE DIFFERENT BUT APPARENTLY EQUAL, AND WHERE IT IS UNCERTAIN WHICH REQUIREMENT IS MOST STRINGENT, OBTAIN CLARIFICATION FROM THE GMD DESIGN GROUP BEFORE PROCEEDING.

MODEL 'HANOVER' SQUARE FOOTAGES	
AREA	ELEV D'
1st FLOOR	1222 SF
2nd FLOOR	1582 SF
TOTAL LIVING	2804 SF
GARAGE	415 SF
PORCH	23 SF
OPT. BASEMENT	1156 SF
BASEMENT AREA IS TAKEN TO INSIDE OF CONCRETE WALL	

Spring Lake, NC 28390

DATE:	DESCRIPTION:
01.28.25 02.17.25	INITIAL RELEASE OF PLANS ADDED FOUNDATIONS

LOCAL JURISDICTION:	BUILDER:	DESIGNER:	STRUCTURAL ENGINEER:
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NO:	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

FOR
CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

PRINT DATE:

January 28, 2025

SHEET NO:

0

**FOR
CONSTRUCTION**



Front Elevation 'A-3'

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



Front Elevation 'B-2'

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



Front Elevation 'C-3'

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



Front Elevation 'D-2'

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

NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

TITLE SHEET

PRINT DATE:

January 28, 2025

SHEET NO:

0.1

FOR
CONSTRUCTION

- 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
CRAWL SPACE FLOORING: R-19 BATTS MINIMUM. VERIFY

MASONRY:

- 1 ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- 2 MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- 3 MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
- 4 8" SOLDIER COURSE.
- 5 ROWLOCK COURSE
- 6 N/A

TYPICALS:

- 7 CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED.
- 8 CODE APPROVED TERMINATION CHIMNEY CAP.
- 9 CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING PER NCRG R905.2.B.3
- 10 STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 11 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/ 1X4 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/ 1X4 CORNER TRIM BOARD.)
- 14 VINYL WAVY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
(AT SPECIFIED LOCATIONS;
FIBER CEMENT WAVY SIDING PER DEVELOPER W/ 1X4 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/ 1X3 BATTS AT 12" O.C. PER DEVELOPER W/ 1X4 CORNER TRIM BOARD.)
- 16 VINYL TRIM SIZE AS NOTED
(AT SPECIFIC LOCATIONS;
1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED)
- 17 FYPON SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED,
(AT SHUTTERS LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.)

[illegible]

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

PROFESSIONAL SEAL:

40' Series

**FOR
CONSTRUCTION**

Express
HOMES

SHEET TITLE:
'HANOVER' - LH
EXTERIOR
ELEVATIONS
'4EGF-D'

January 28, 2025

1D

ATTIC VENT CALCULATION FOR PLAN 'HANOVER': 1:150 RATIO.

THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 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/RAFTER SPACES REQUIRING LESS THAN 1 SQ. FT. OF VENTILATION MAY BE VENTED WITH CONTINUOUS SOFFIT VENTILATION ONLY.

2. ENCLOSED ATTIC/RAFTER 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 SECTION R306.2)

1 SQUARE INCH VENT FOR EVERY 150 SQUARE INCHES OF CEILING

*144 SQ. IN. = 1 SQ. FT.

BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.)

BLDG. (SQ. IN.) / 150 = SQ. IN. OF VENT REQUIRED

ROOF AREA 1: =

1637 SQ. FT. X 144 = 235728 SQ. IN.
235728 SQ. IN. / 150 = 1571.52 SQ. IN. OF VENT REQ'D

ROOF AREA 2: =

71 SF
71 SQ. FT. X 144 = 10224 SQ. IN.
10224 SQ. IN. / 150 = 68.16 SQ. IN. OF VENT REQ'D

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.

ATTIC VENT CALCULATION FOR PLAN 'HANOVER': 1:300 RATIO.

AS AN ALTERNATE TO THE 1/150 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 SECTION R306.2)

1 SQUARE INCH VENT FOR EVERY 300 SQUARE INCHES OF CEILING

*144 SQ. IN. = 1 SQ. FT.

BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.)

BLDG. (SQ. IN.) / 300 = SQ. IN. OF VENT REQUIRED

SQ. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

ROOF AREA 1: =

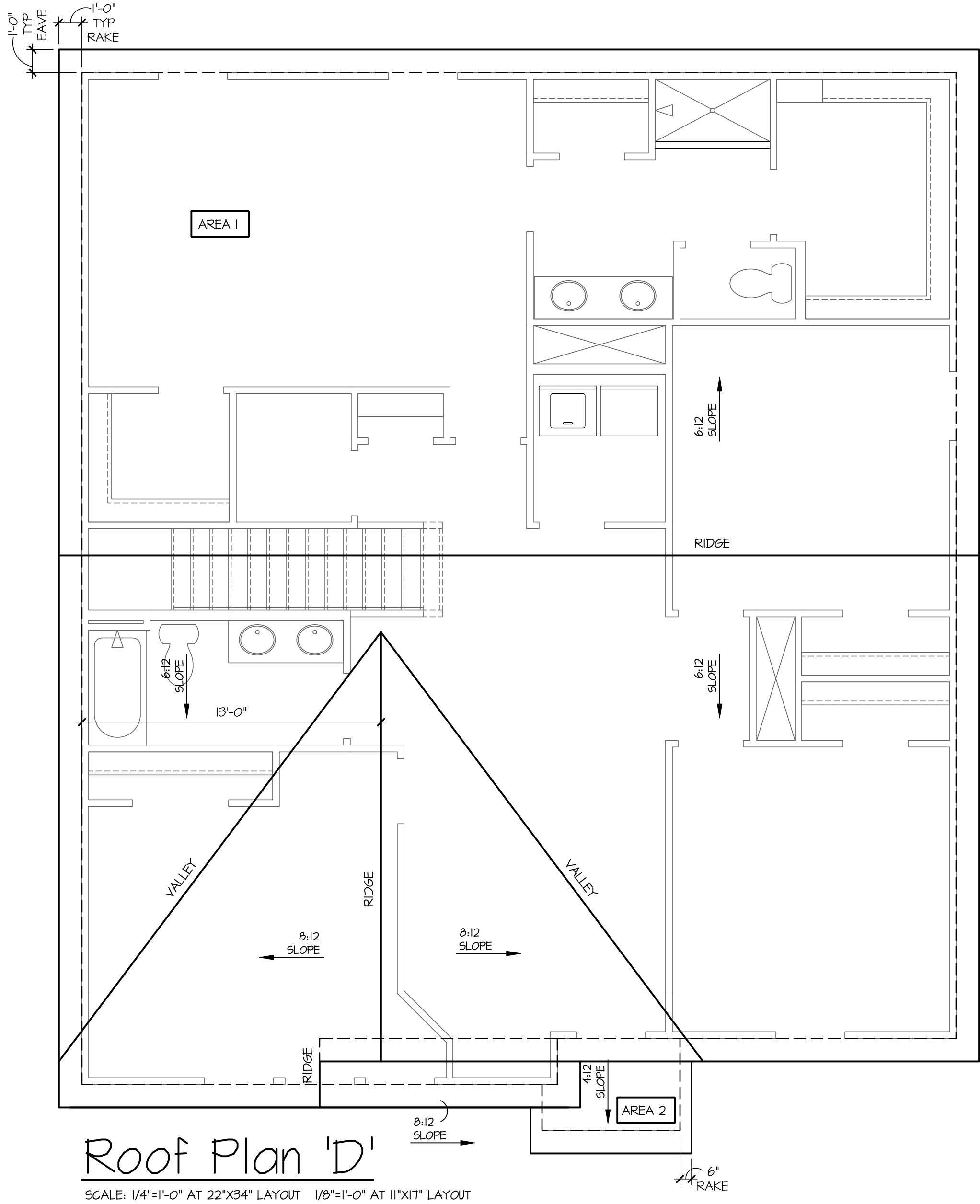
1637 SQ. FT. X 144 = 235728 SQ. IN.
235728 SQ. FT. / 300 = 785.76 SQ. IN. OF VENT REQ'D
785.76 SQ. IN. / 2 = 392.88 SQ. IN.
392.88 SQ. IN. OF VENT AT HIGH & 392.88 SQ. IN. OF VENT AT LOW REQUIRED.

ROOF AREA 2: =

71 SF
71 SQ. FT. X 144 = 10224 SQ. IN.
10224 SQ. FT. / 300 = 34.08 SQ. IN. OF VENT REQ'D
34.08 SQ. IN. / 2 = 17.04 SQ. IN.
17.04 SQ. IN. OF VENT AT HIGH & 17.04 SQ. IN. OF VENT AT LOW REQUIRED.

BUILDER TO PROVIDE (2) LAYERS OF UNDERLAYMENT AT ANY ROOF W/ A SLOPE FROM 2:12 TO LESS THAN 4:12

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



NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

'HANOVER' - LH
ROOF PLAN
'4EGF-D'

PRINT DATE:

January 28, 2025

SHEET NO:

1.1 D

FOR
CONSTRUCTION

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-38 BATTS MINIMUM. VERIFY
FLOOR OVER GARAGE: R-19 BATTS MINIMUM. VERIFY
ATTIC KNEEWALL: R-19 BATTS MINIMUM. VERIFY
CRAWL SPACE FLOORING: R-19 BATTS MINIMUM. VERIFY

KEY NOTES:

MASONRY:

1 ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.

2 MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.

3 MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.

4 8" SOLDIER COURSE.

5 RANLOCK COURSE

6 N/A

TYPICALS:

7 CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED.

8 CODE APPROVED TERMINATION CHIMNEY CAP.

9 CORROSION RESISTANT ROOF TO WALL FLASHING. CODE COMPLIANT FLASHING PER NRC R405.2.8.3

10 STANDING SEAM METAL ROOF, INSTALL. PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

11 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/ 1X4 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/ 1X4 CORNER TRIM BOARD.)

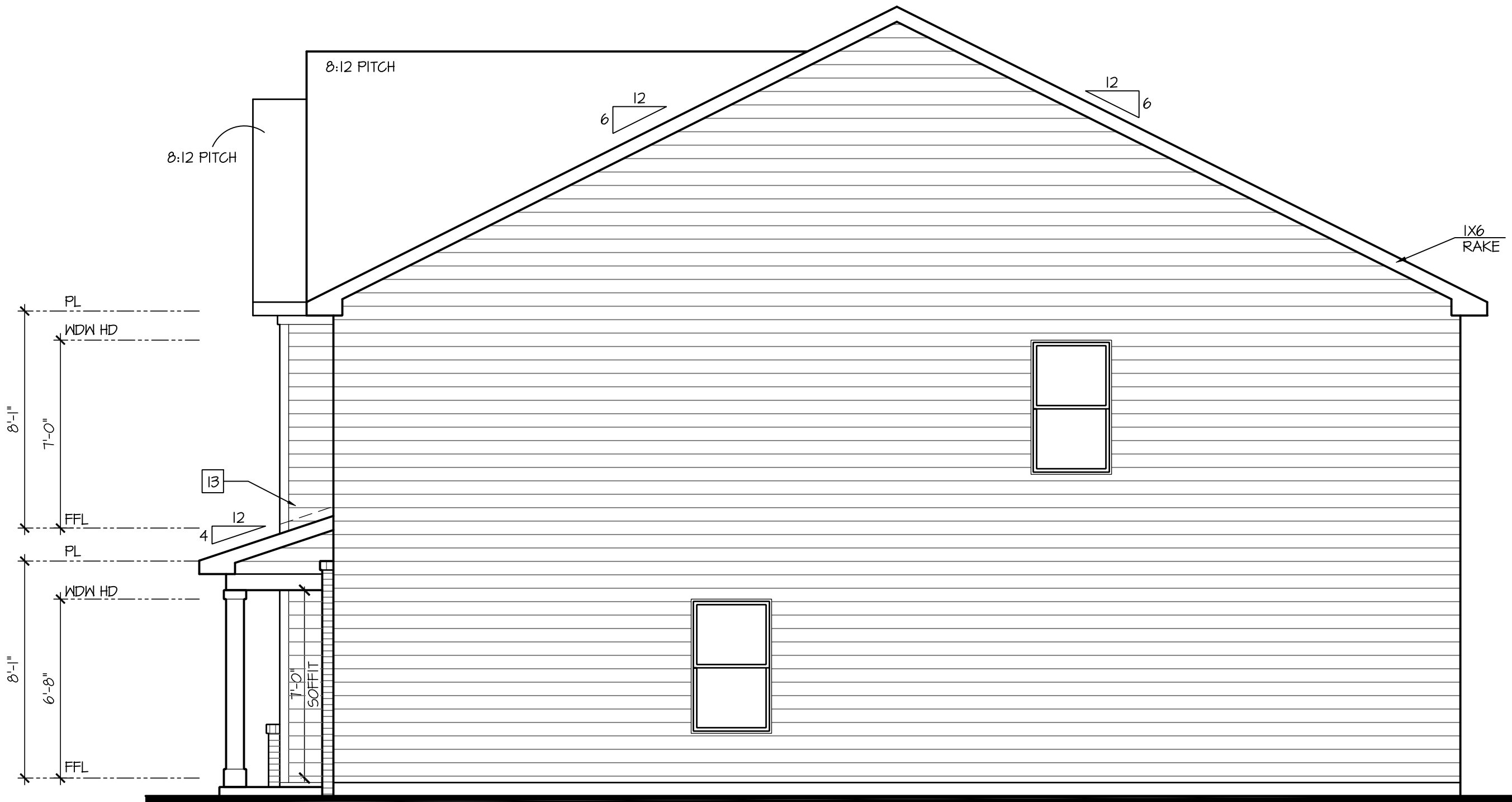
14 VINYL WAVY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
(AT SPECIFIED LOCATIONS:
FIBER CEMENT WAVY SIDING PER DEVELOPER W/ 1X4 CORNER TRIM BOARD.)

15 VINYL BOARD AND BATT SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
(AT SPECIFIED LOCATIONS:
FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 12" O.C. PER DEVELOPER W/ 1X4 CORNER TRIM BOARD.)

16 VINYL TRIM SIZE AS NOTED
(AT SPECIFIC LOCATIONS:
1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED

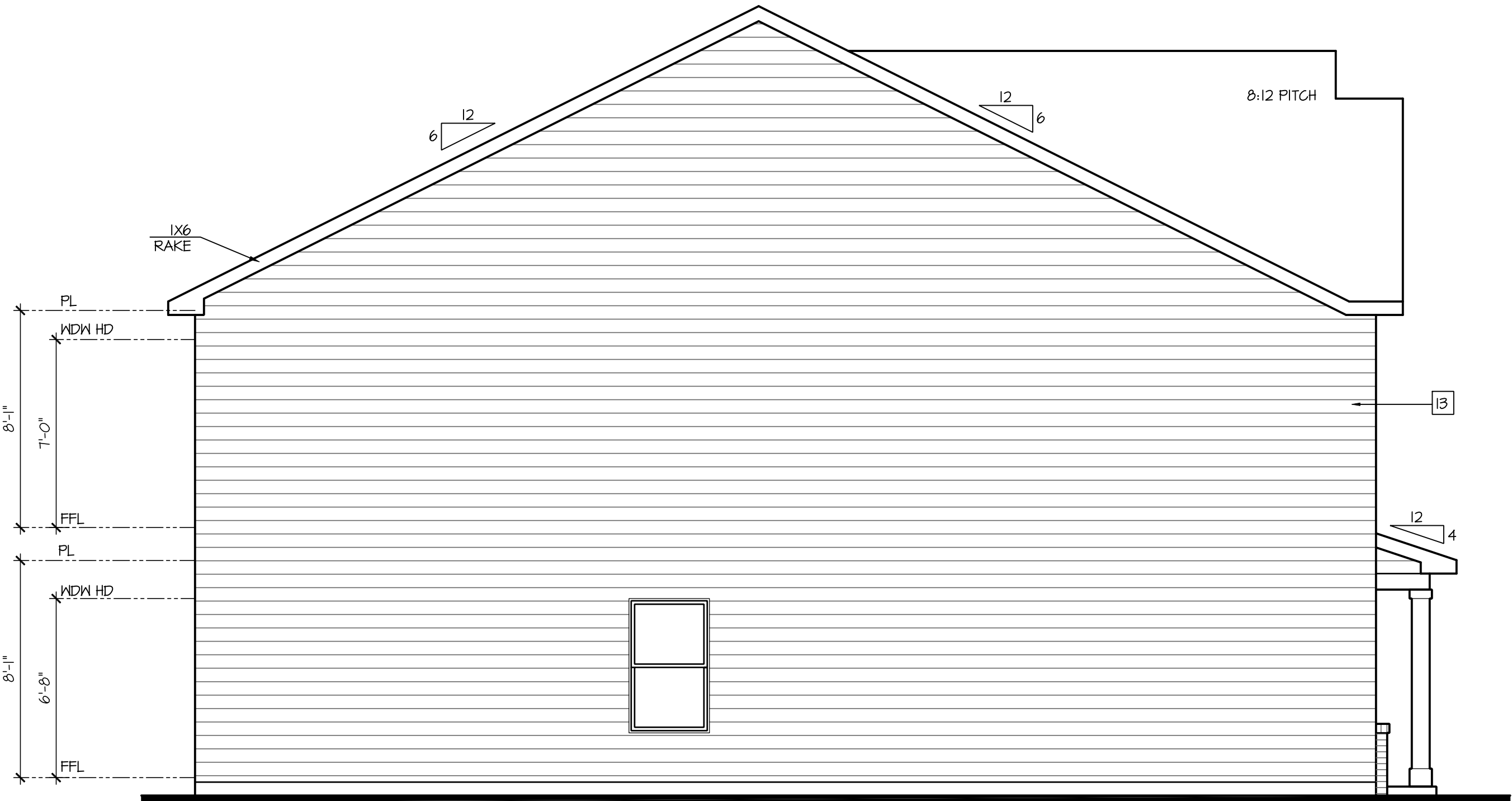
17 FYPON SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
(AT SPECIFIC LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.)

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 12" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING LIMITING DEVICES COMPLYING WITH THE NRC SECTION R312.2.1 AND R312.2.2.



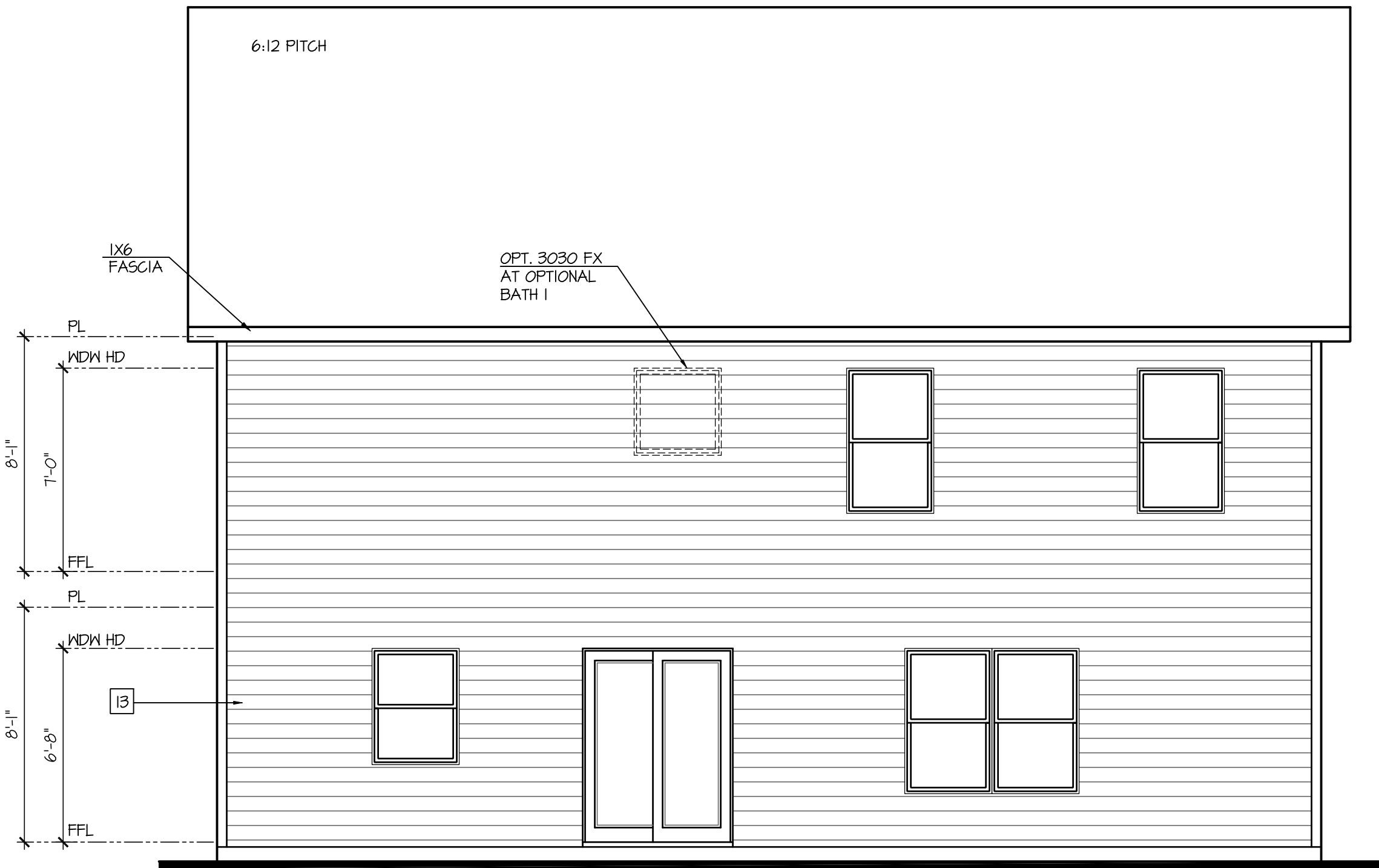
Right Elevation 'D'

SCALE: 1/8"=1'-0" AT 22'X34" LAYOUT 1/16"=1'-0" AT 11'X17" LAYOUT



Left Elevation 'D'

SCALE: 1/8"=1'-0" AT 22'X34" LAYOUT 1/16"=1'-0" AT 11'X17" LAYOUT



Rear Elevation 'D'

SCALE: 1/8"=1'-0" AT 22'X34" LAYOUT 1/16"=1'-0" AT 11'X17" LAYOUT

NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

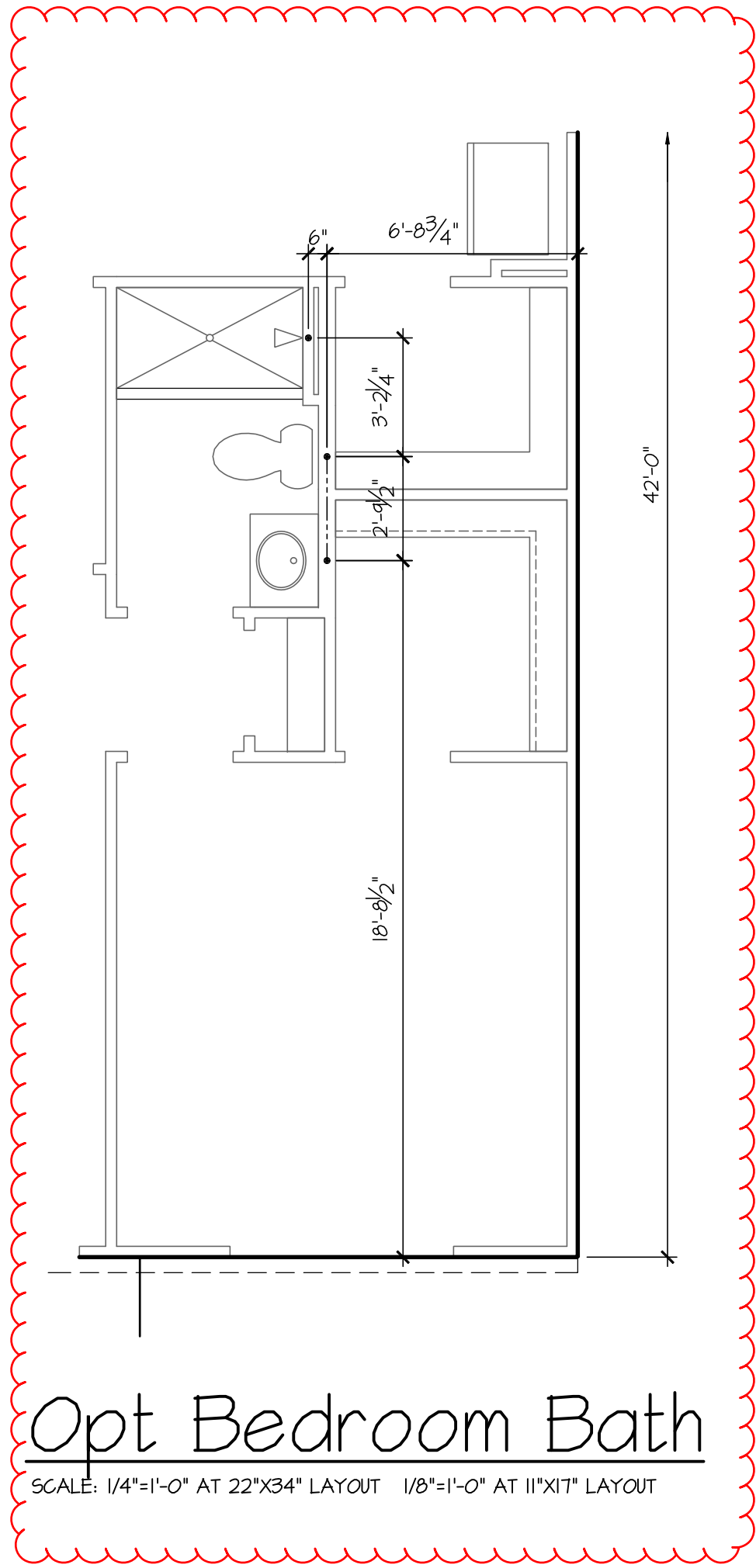
SHEET TITLE:
'HANOVER' - LH
EXTERIOR
ELEVATIONS
'4EGF-D'

PRINT DATE:
January 28, 2025

SHEET NO:

2D

FOR
CONSTRUCTION

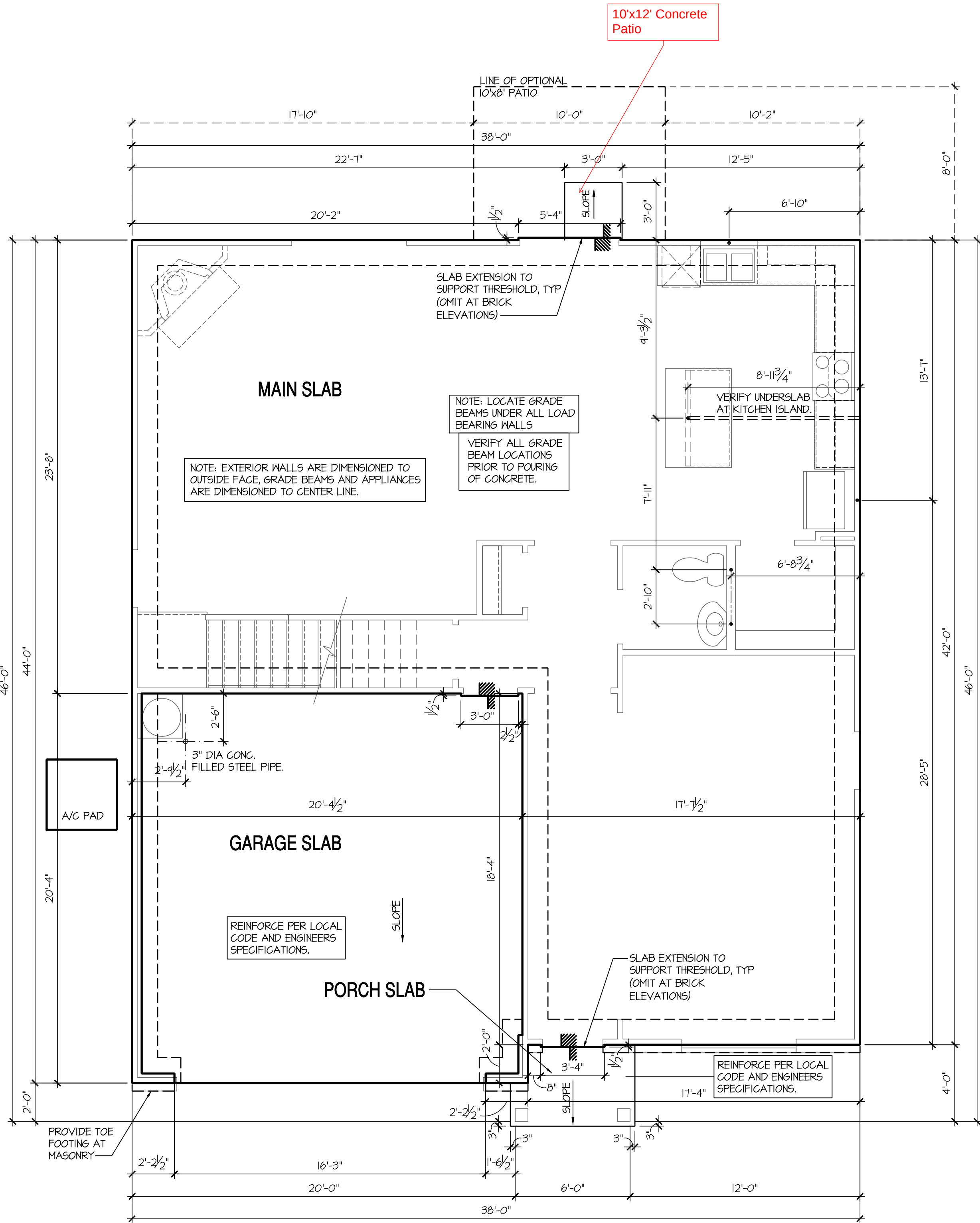


Opt Bedroom Bath

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

NOTES FOR NORTH CAROLINA:

- IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT THE SATURATION OF SOIL ADJACENT TO BUILDING.
- THIS PERIMETER DIMENSION PLAN IS FOR DIMENSIONAL INFORMATION ONLY.
- SLOPE ALL STOOPS AND HARDSCAPE MATERIAL AWAY FROM BUILDING - TYPICAL.
- SLOPE GARAGE FLOOR 1/8" PER FOOT TO GARAGE DOOR OPENING.
- VERIFY CURB CUT BLOCKOUT WITH GARAGE DOOR MANUFACTURER.
- REFER TO CIVIL DRAWINGS FOR FINISH SURFACE ELEVATIONS.
- FINISH GRADE SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING. REFER TO SOILS REPORT FOR ANY SPECIFIC REQUIREMENTS.
- REFER TO STRUCTURAL DRAWINGS FOR HOLDDOWNS, FOOTING DETAILS, CURB THICKNESS, AND INFORMATION NOT SHOWN ON THIS PLAN.
- PLUMBING FIXTURES, VENT LOCATIONS, ETC. ARE APPROXIMATE. CONTRACTOR TO VERIFY COUNT AND LOCATION.
- VERIFY THE SUPPLY FOR SEPARATE CONDUITS TO ANY ISLAND FOR GAS, WATER OR ELECTRIC.
- VERIFY ALL DOOR THRESHOLD HEIGHTS TO HARD SURFACES.
- 8 1/4" MAX AT INSURING DOORS. (PER NCRG SECTION R311.3.1)
- TYP STOOP AT INSURING/SLIDER DOORS: 36" DEEP BY THE WIDTH OF THE DOOR SERVED, MINIMUM. (PER NCRG SECTION R311.3) PROVIDE A SLIP-RESISTANT FINISH.
- FOR THE USE OF EXPOSED GAS WATER HEATERS IN THE GARAGE, PROTECT THE WATER HEATER WITH 3" DIA CONCRETE FILLED STEEL PIPE EMBEDDED INTO CONCRETE FOOTINGS.
- SOILS TREATMENT:
APPROVED BRAND OF TERMITE PROTECTION TO BE APPLIED TO FRAMING PER PRODUCT SPECIFICATIONS. (PROVIDE CHEMICAL TREATMENT FOR PROTECTION FROM TERMITE INVESTATION ACCORDING TO THE STANDARDS OF THE NC DEPT OF AGRICULTURE)
- WOOD CONTACTING CONCRETE OR MASONRY OR LESS THAN CODE REQUIRED SEPARATION TO GRADE SHALL BE PRESSURE TREATED OR FOUNDATION GRADE REDWOOD. SET ALL EXTERIOR WALL SILLS IN MASTIC.



Monolithic Slab Plan 'D'

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

NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

'HANOVER' - LH
MONOLITHIC
SLAB
PLAN '4EGF-D'

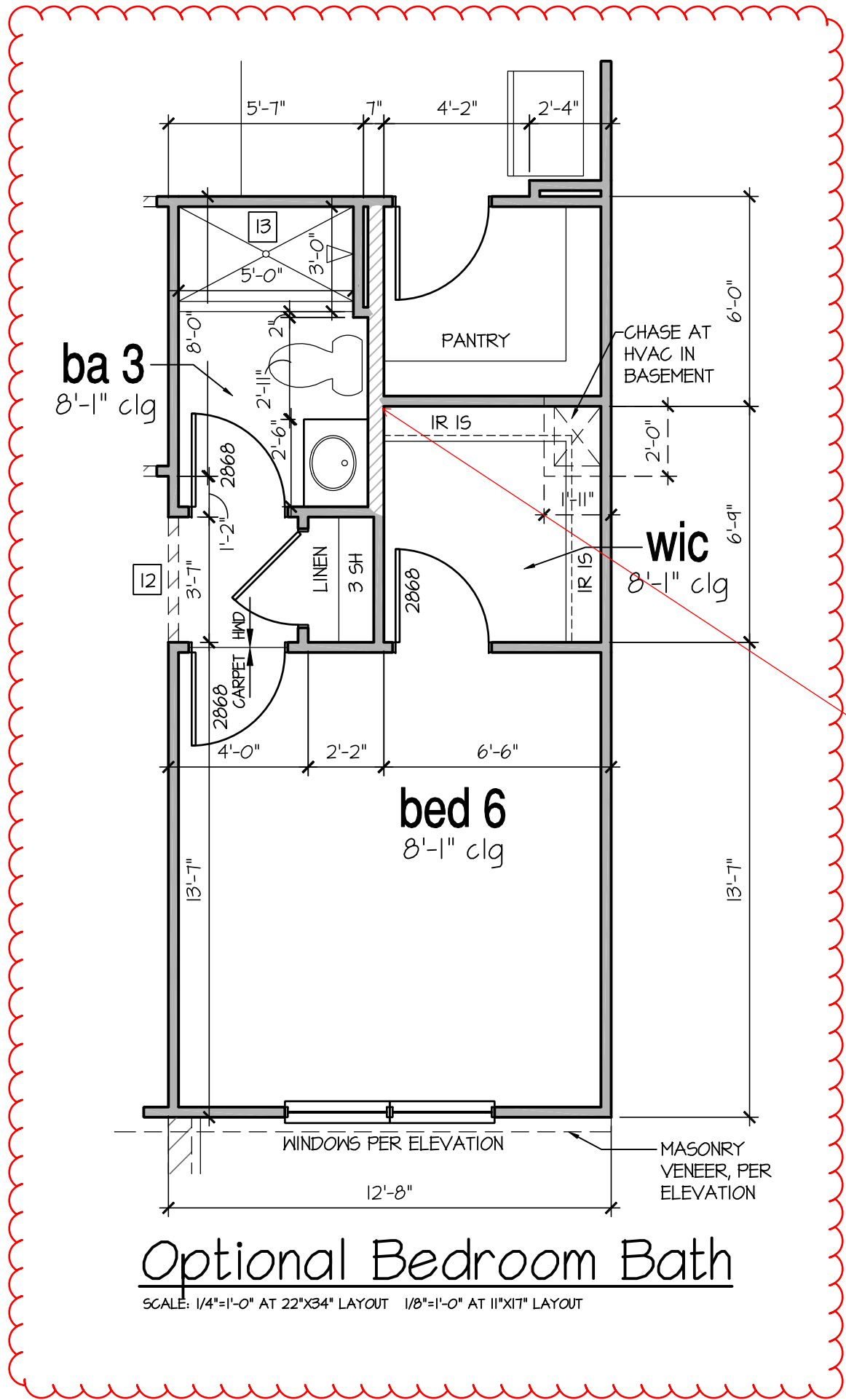
PRINT DATE:

January 28, 2025

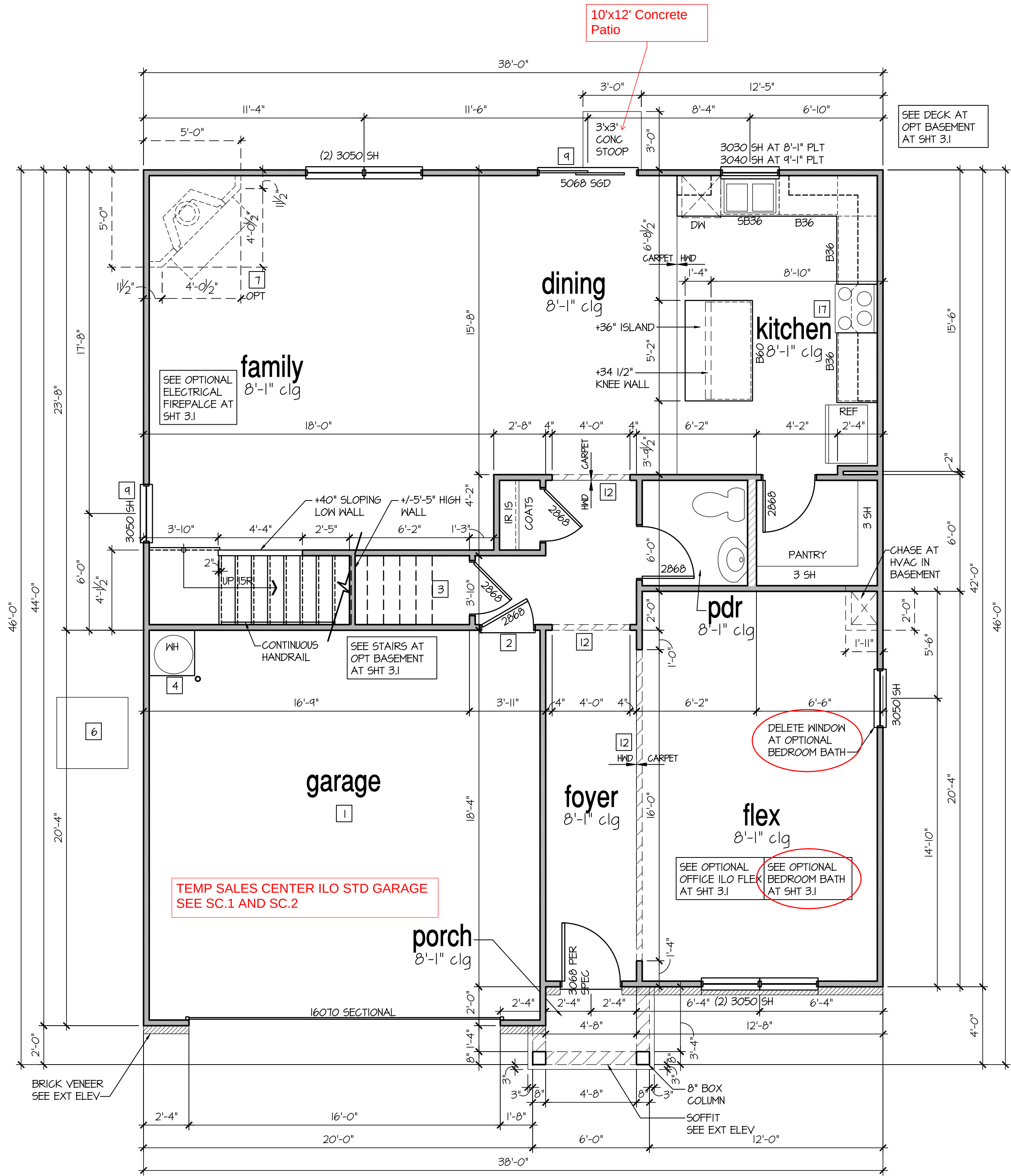
SHEET NO:

3 MS D

FOR
CONSTRUCTION



ADA BATH ILO BA 3
AND WIC. SEE ADA
BATH



1st Floor Plan 'D'

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

8'-9 1/2" STAIR NOTE:
(USE 14" T.J.I. WITH 3/4" PLYWOOD SUBFLOOR.)
15 TREADS AT 10" EACH VERIFY
16 RISERS AT +/- 7.5" = 120 1/4" TOTAL
RISE VERIFY

9'-1" STAIR NOTE:
(USE 14" T.J.I. WITH 3/4" PLYWOOD SUBFLOOR.)
16 TREADS AT 10" EACH VERIFY
17 RISERS AT +/- 7.28" = 123 3/4" TOTAL
RISE VERIFY

- FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS.
- WINDOW HEAD HEIGHTS:
1ST FLOOR = 6'-8" U.N.O. ON ELEVATIONS.
2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
ALL DIMENSIONS TO WINDOWS AND DOORS ARE TO CENTERLINE.

WALL LEGEND:

	FULL HEIGHT 2X4 WOOD STUD PARTITION		FULL HEIGHT 2X6 WOOD STUD PARTITION
	BRICK / STONE VENEER		STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED
	LOW GYPSUM BOARD WALL HEIGHT AND STUD SIZE AS NOTED		DRYWALL OPENING: HEIGHT AS NOTED ON PLAN.

KEY NOTES: IRC

FIRE PROTECTION:

[1] HOUSE TO GARAGE FIRE SEPARATION. GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. (PER IRC SECTION R302.6)

GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD. (PER IRC SECTION R302.6)

[2] HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1-3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR. (PER IRC SECTION R302.5.1)

[3] BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS. (PER IRC SECTION R302.7)

MEP'S

[4] GAS WATER HEATER ON 18" HIGH PLATFORM. (PER IRC SECTION P2801.6) (AT SPECIFIC LOCATIONS: ELECTRIC WATER HEATER PER LOCAL CODES)

[5] N/A

[6] A/C CONDENSER PAD. (VERIFY)

[7] PRE-FABRICATED METAL FIREPLACE. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

[8] ATTIC ACCESS LARGE ENOUGH TO REMOVE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30"x22". FIRE RATED ACCESS AS NOTED. (PER IRC SECTION M1305.1.3) ATTIC ACCESS LADDER, VERIFY LOCATION AND SIZE WITH TRUSSES. (25 1/2" X 54" SIZE) TYPICALS:

[9] TEMPERED SAFETY GLASS. (PER IRC SECTION R308.4)

[10] PLYWOOD SHELF ABOVE WITH DRYWALL FINISH OVER. HEIGHT AS NOTED.

[11] HALF WALL, HEIGHT AS NOTED.

[12] INTERIOR SOFFITS: FFL = 7'-1" U.N.O. SFL = 7'-6" U.N.O.

BATHS:

[13] 36"x60" ACRYLIC SHOWER PAN

[14] 30"x60" TUB/SHOWER PAN

[15] N/A

[16] 42"x60" ACRYLIC ALCOVE TUB

KITCHEN:

[17] 30" SLIDE-IN ELECTRICAL RANGE W/ HOOD VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

[18] 30" GAS COOKTOP AND HOOD. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

[19] ELECTRIC OVEN WITH MICROWAVE OVEN.

NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
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3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR
CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

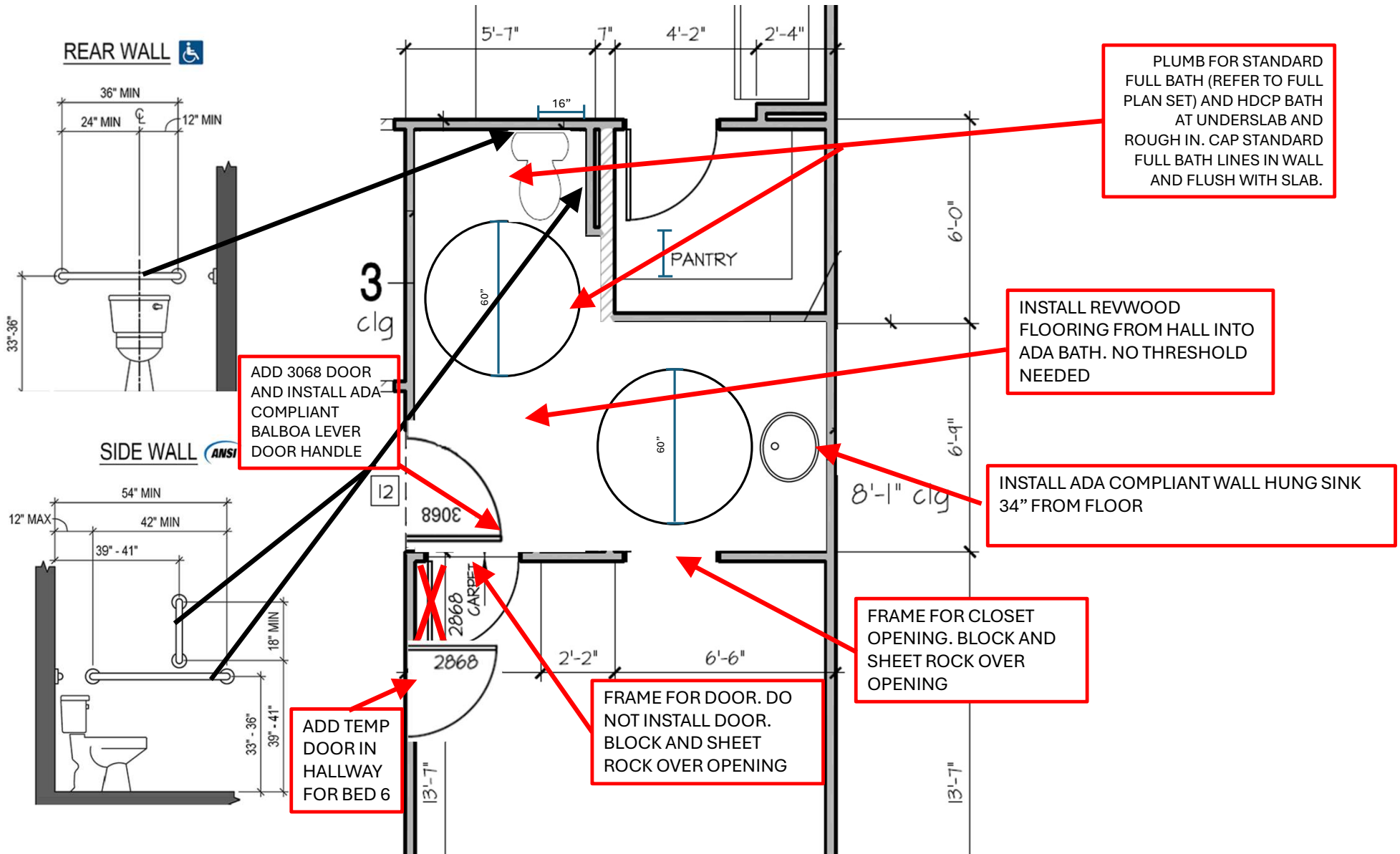
SHEET TITLE:
**'HANOVER' - LH
1st FLOOR
PLAN '4EGF-D'**

PRINT DATE:

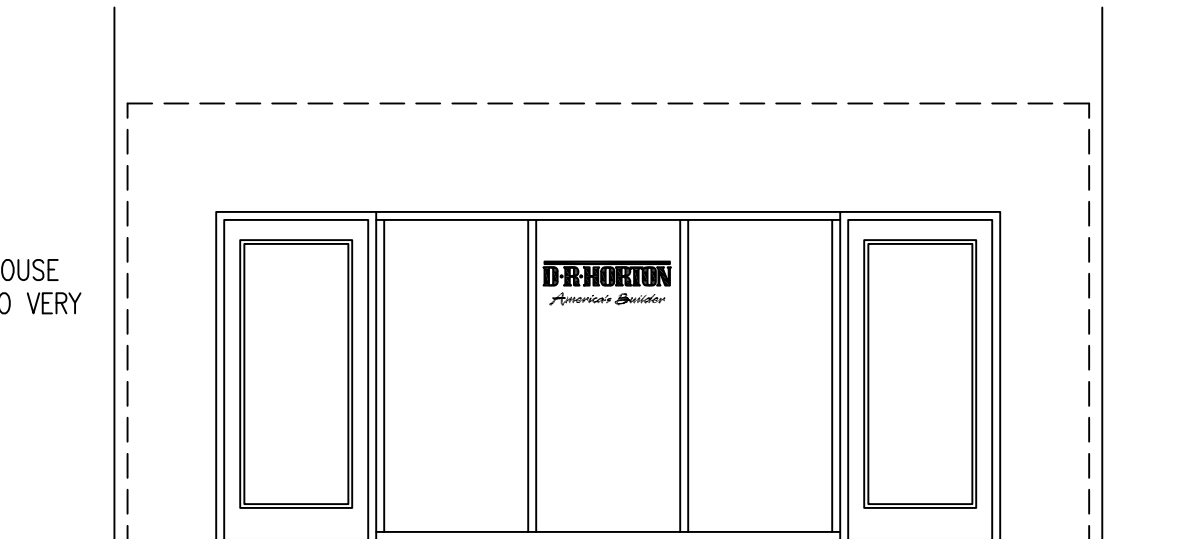
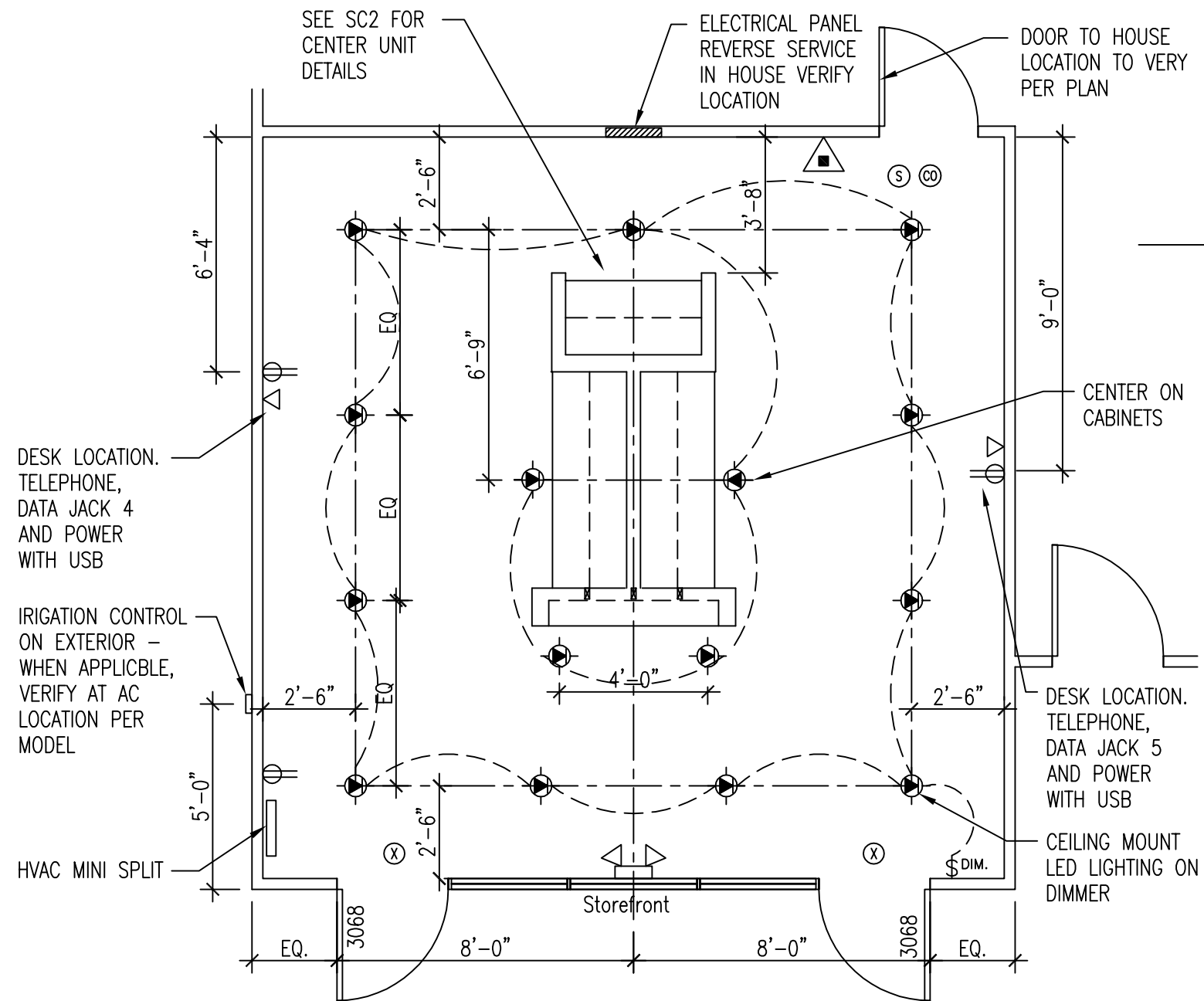
January 28, 2025

SHEET NO:

4 D



ADA BATH LOCATED IN OPT BATH 3



ADA COMPLIANT

SALES CENTER FRONT ELEVATION

- \$ DIM. DIMABLE SWITCH
- ⊕ DUPLEX RECEPTACLE
- ⊕ QUADRAPLEX RECEPTACLE
- ▽ DATA JACK
- ⊕ COAXIAL JACK
- ⊗ EXIT SIGN
- Ⓢ SMOKE DETECTOR
- Ⓢ CARBON MONOXIDE DETECTOR
- ⊕ CEILING LIGHT LED
- ⊕ ELECTRICAL WIRE
- △ FIRE EXTINGUISHER
- ⊕ EMERGENCY LIGHT WITH BATTERY
- ⊕ FLOOD LIGHTS

- (3) 120V 15A Curcuits
- (1) CAT 6 connector for internet
-run to outside of home
- (1) COAX connector for internet
- run to outside of home
- (2) CAT 6 connectors for phones
- run to outside of home

Sales Center Finishes

Flooring and Sales Center in a box locations:
Express and Tradition: Mohawk RevWood Cedar Creek
Cheyenne Rock Oak
Style: #DRW19
Color: #05
Tradition Plus: Flooring per the Selected Options Sheet
Installation Method: RevWood with approved Laminate
Underlay Standard Installation

Paint:
PT-1 - Accent wall as noted - Rear
Garage Wall and Center Island Walls -
Granite Peak (SW 6250)
All other walls - Heron Plume SW 6070

Counter Tops:
To match kitchen

Cabinets:
White

All Trim:
Sherwin Williams, Trim White

Ceiling:
Sherwin Williams, Ceiling White

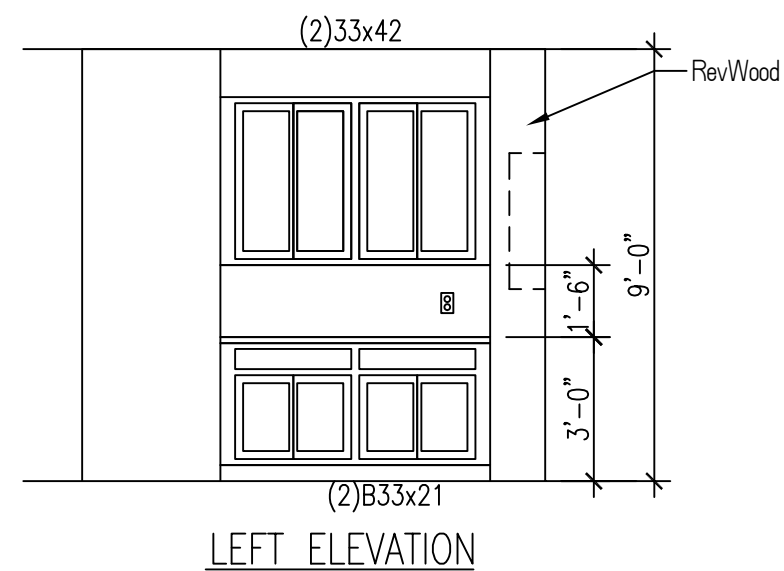
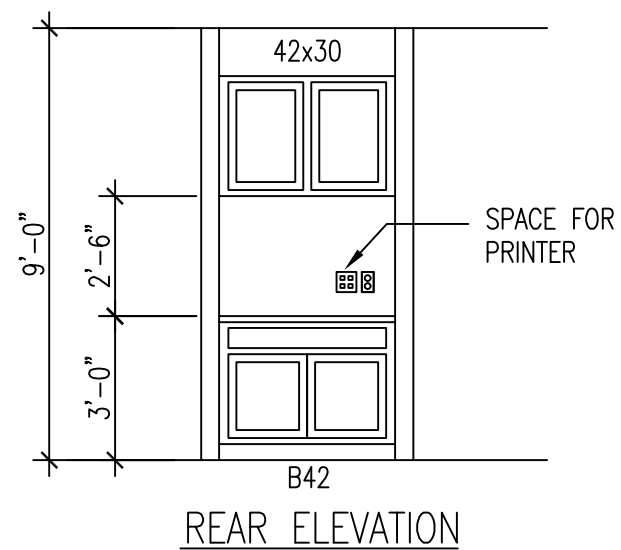
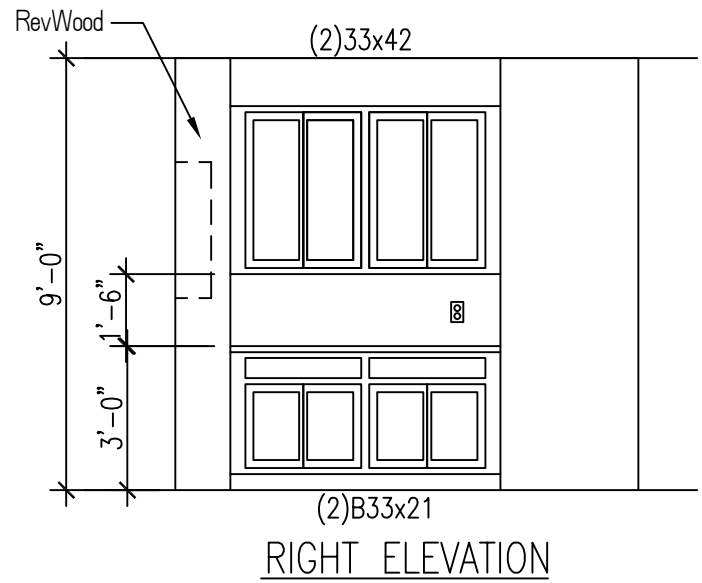
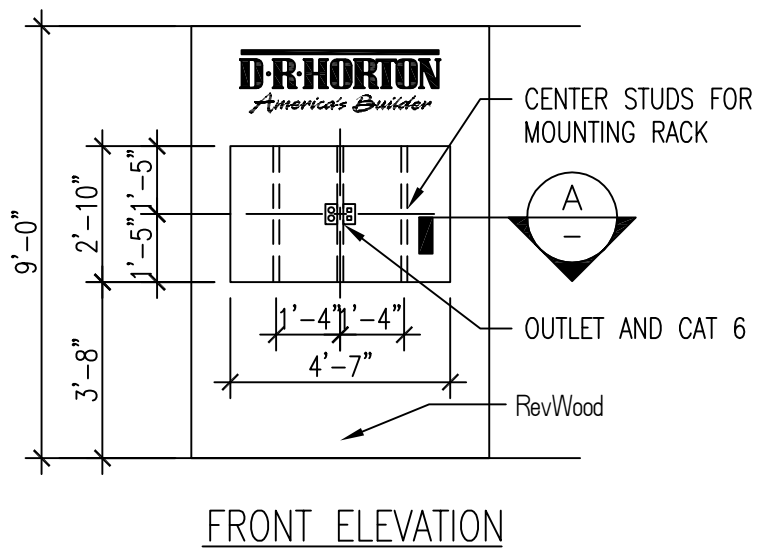
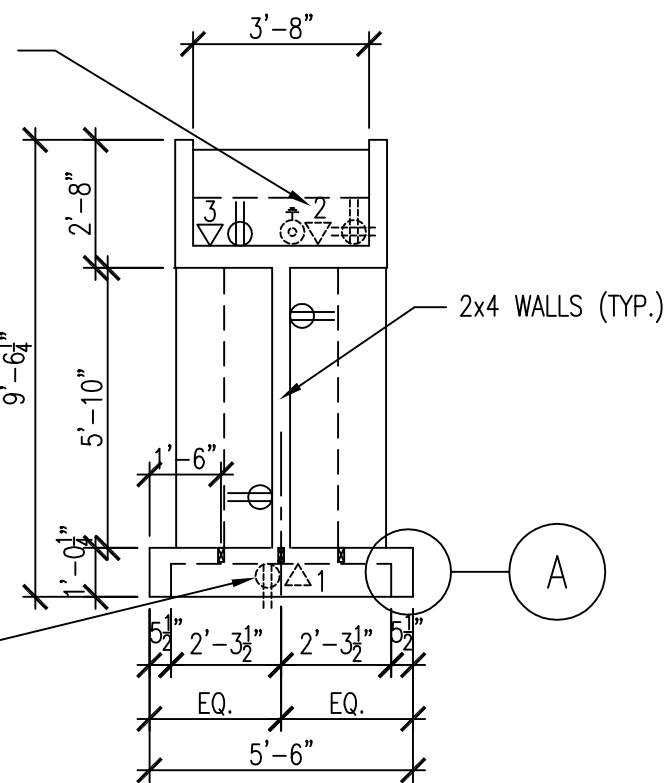
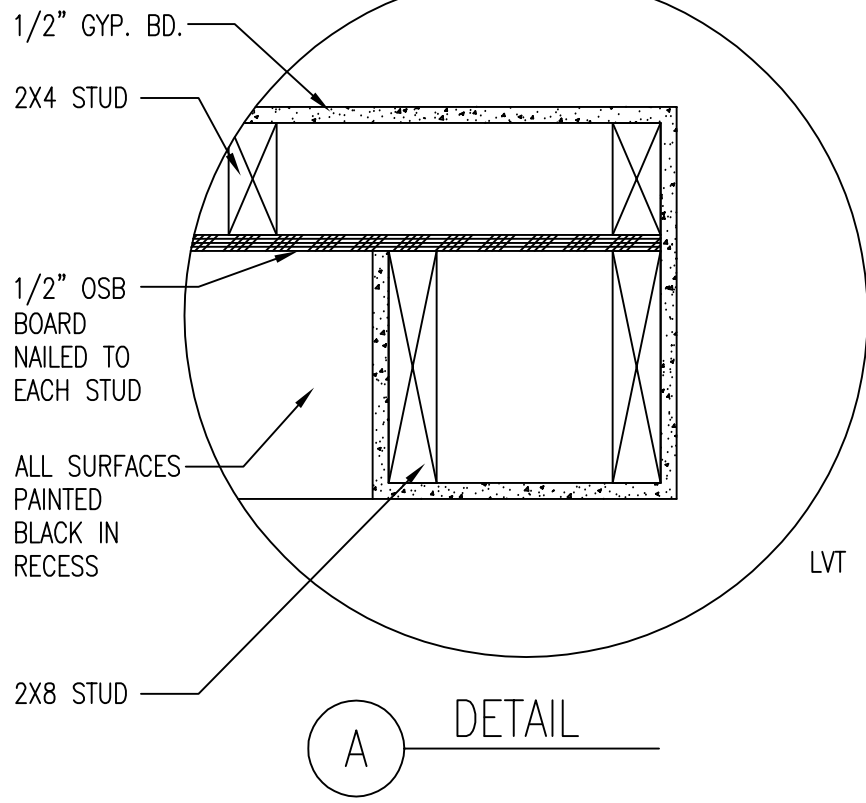
Hardware: Door handles to be lever,
push/pull

PRIMARY IT DEMARC AREA LOCATED INSIDE THE CABINET.

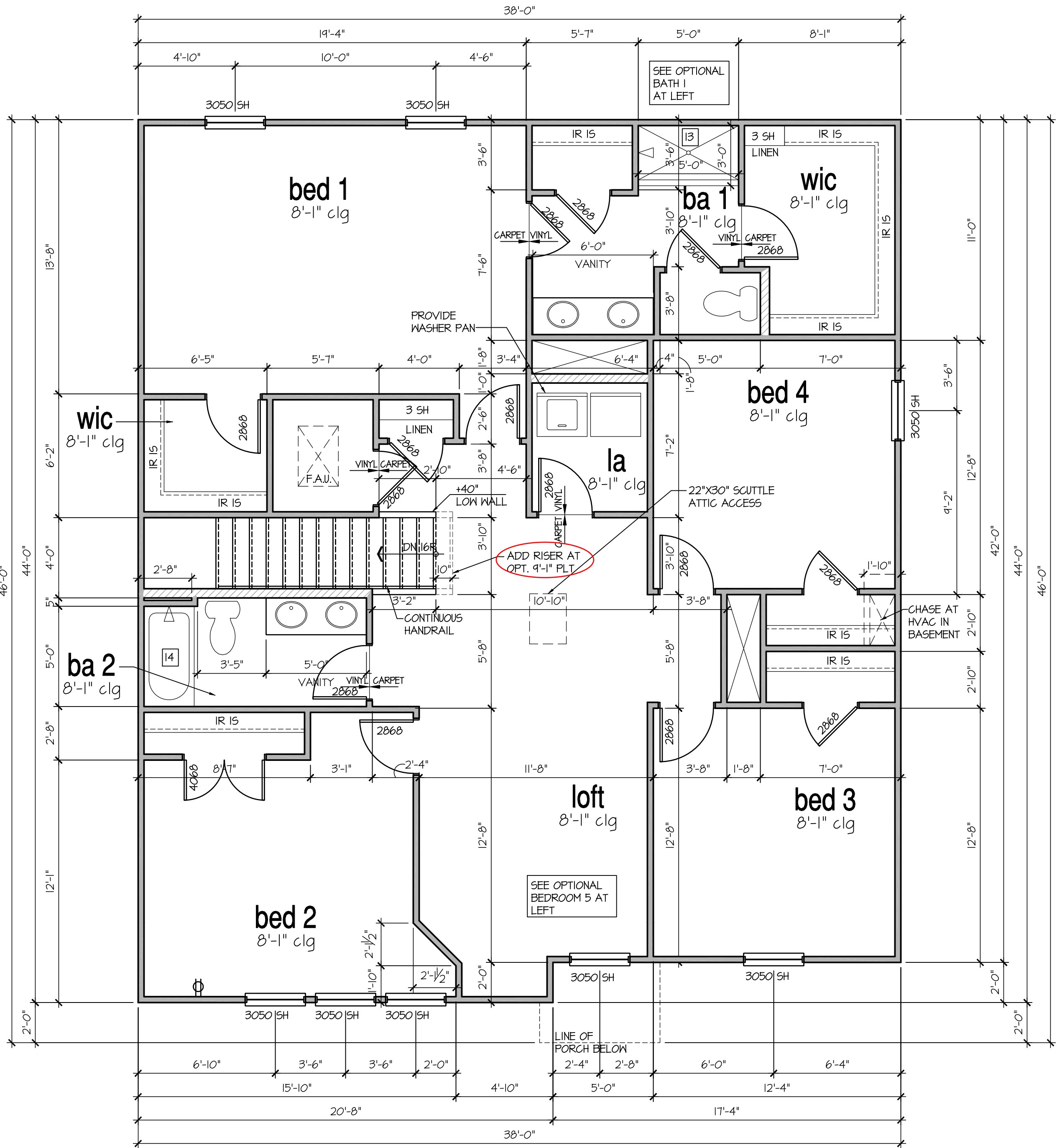
- ELECTRICAL QUAD
- CAT6 DROPS FROM OUTSIDE WITH RJ45 JACK
- COAXIAL CABLE DROP FROM OUTSIDE WITH COAXIAL JACK
- TERMINATION FOR...
 - >DATA JACK 1 ISO
 - >DATA JACK 2 DEBIT CARD READER
 - >DATA JACK 3 PRINTER
 - >DATA JACK 4 IP TELEPHONE
 - >DATA JACK 5 IP TELEPHONE

ON BACK WALL OF RECESS FOR ISO

NOTE:
ALL DATA AND TELEPHONE LOCATIONS ARE RJ45 JACKS.



PLAN DATE: 2022.12.21	
NO. DATE: 1	REVISION: 3/6
uppers lowered	



2nd Floor Plan 'D'

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

8'-9 1/2" STAIR NOTE:
(USE 14" T.J. WITH 3/4" PLYWOOD SUBFLOOR)
15 TREADS AT 10" EACH VERIFY
16 RISERS AT +/- 7.5" = 120 1/4" TOTAL
RISE VERIFY

9'-1" STAIR NOTE:
(USE 14" T.J. WITH 3/4" PLYWOOD SUBFLOOR)
16 TREADS AT 10" EACH VERIFY
17 RISERS AT +/- 7.28" = 123 3/4" TOTAL
RISE VERIFY

- FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS.
- WINDOW HEAD HEIGHTS:
1ST FLOOR = 6'-8" U.N.O. ON ELEVATIONS.
2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
ALL DIMENSIONS TO WINDOWS AND DOORS ARE TO CENTERLINE.

WALL LEGEND:

FULL HEIGHT 2X4 WOOD STUD PARTITION	FULL HEIGHT 2X6 WOOD STUD PARTITION
BRICK / STONE VENEER	STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED
LOW GYPSUM BOARD WALL HEIGHT AND STUD SIZE AS NOTED	DRYWALL OPENING: HEIGHT AS NOTED ON PLAN.

KEY NOTES: IRC

- FIRE PROTECTION:
- | | | |
|---|---|---|
| [1] HOUSE TO GARAGE FIRE SEPARATION. GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. (PER IRC SECTION R302.6) | [5] N/A | [2] INTERIOR SOFFITS: FFL = 7'-1" U.N.O. SFL = 7'-6" U.N.O. BATHS: |
| GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD. (PER IRC SECTION R302.6) | [6] A/C CONDENSER PAD. (VERIFY) | [3] 36"x60" ACRYLIC SHOWER PAN |
| [2] HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1-3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR. (PER IRC SECTION R302.5.1) | [7] PRE-FABRICATED METAL FIREPLACE. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS. | [4] 30"x60" TUB/SHOWER PAN |
| [3] BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS. (PER IRC SECTION R302.7) | [8] ATTIC ACCESS LARGE ENOUGH TO REMOVE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30"x22". FIRE RATED ACCESS AS NOTED. (PER IRC SECTION M305.1.3) ATTIC ACCESS LADDER, VERIFY LOCATION AND SIZE WITH TRUSSES. (25 1/2" X 54" SIZE) TYPICALS: | [5] N/A |
| MEP'S | [9] TEMPERED SAFETY GLASS. (PER IRC SECTION R308.4) | [6] 42"x60" ACRYLIC ALCOVE TUB |
| [4] GAS WATER HEATER ON 18" HIGH PLATFORM. (PER IRC SECTION P2801.6) (AT SPECIFIC LOCATIONS: ELECTRIC WATER HEATER PER LOCAL CODES) | [10] PLYWOOD SHELF ABOVE WITH DRYWALL FINISH OVER. HEIGHT AS NOTED. | KITCHEN: |
| | [11] HALF WALL, HEIGHT AS NOTED. | [7] 30" SLIDE-IN ELECTRICAL RANGE W/ HOOD VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. |
| | | [8] 30" GAS COOKTOP AND HOOD. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. |
| | | [14] ELECTRIC OVEN WITH MICROWAVE OVEN. |

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PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:
'HANOVER' - LH
2nd FLOOR
PLAN '4EGF-D'

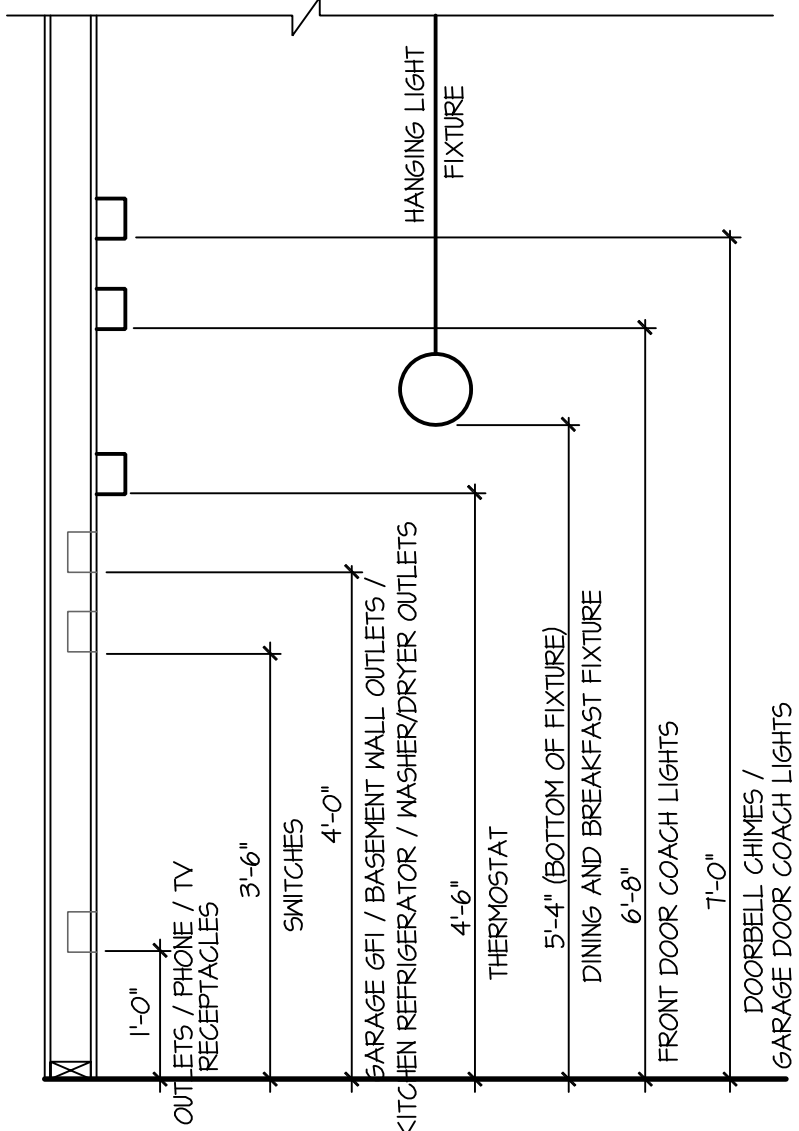
PRINT DATE:

January 28, 2025

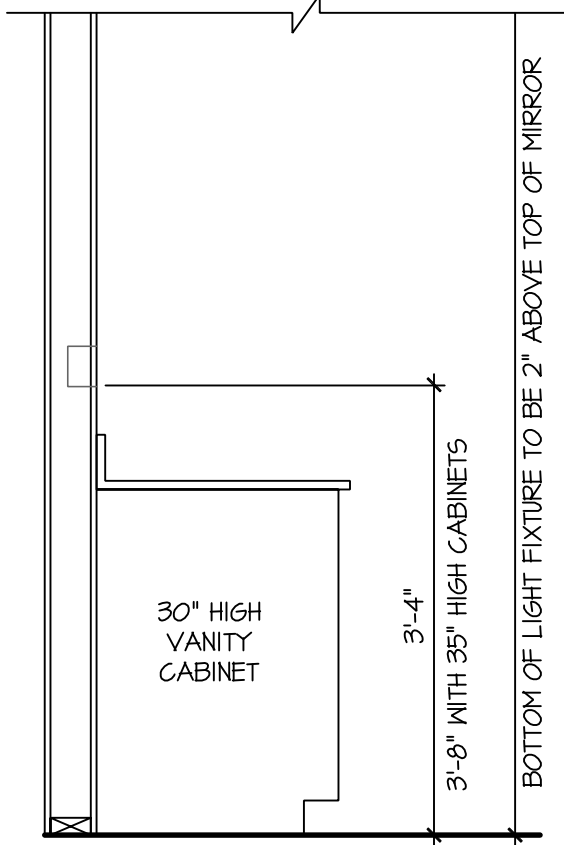
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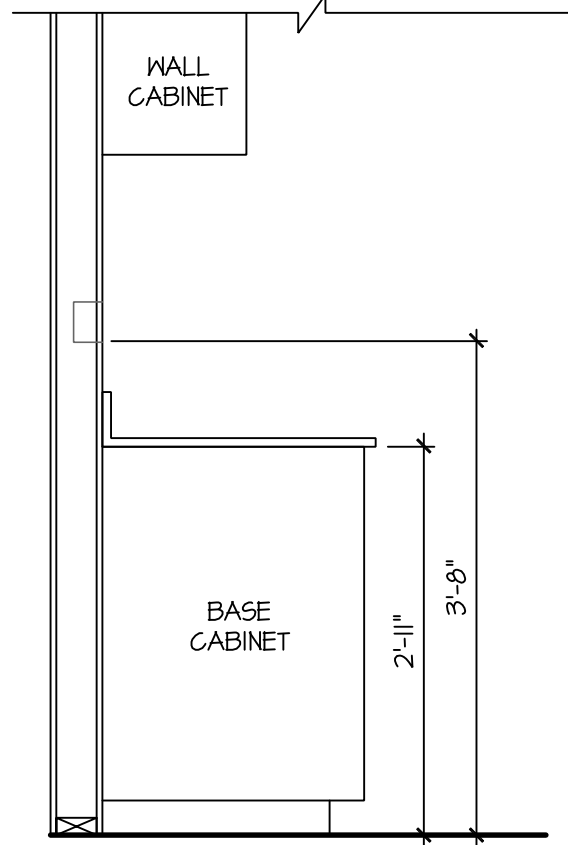
FOR
CONSTRUCTION



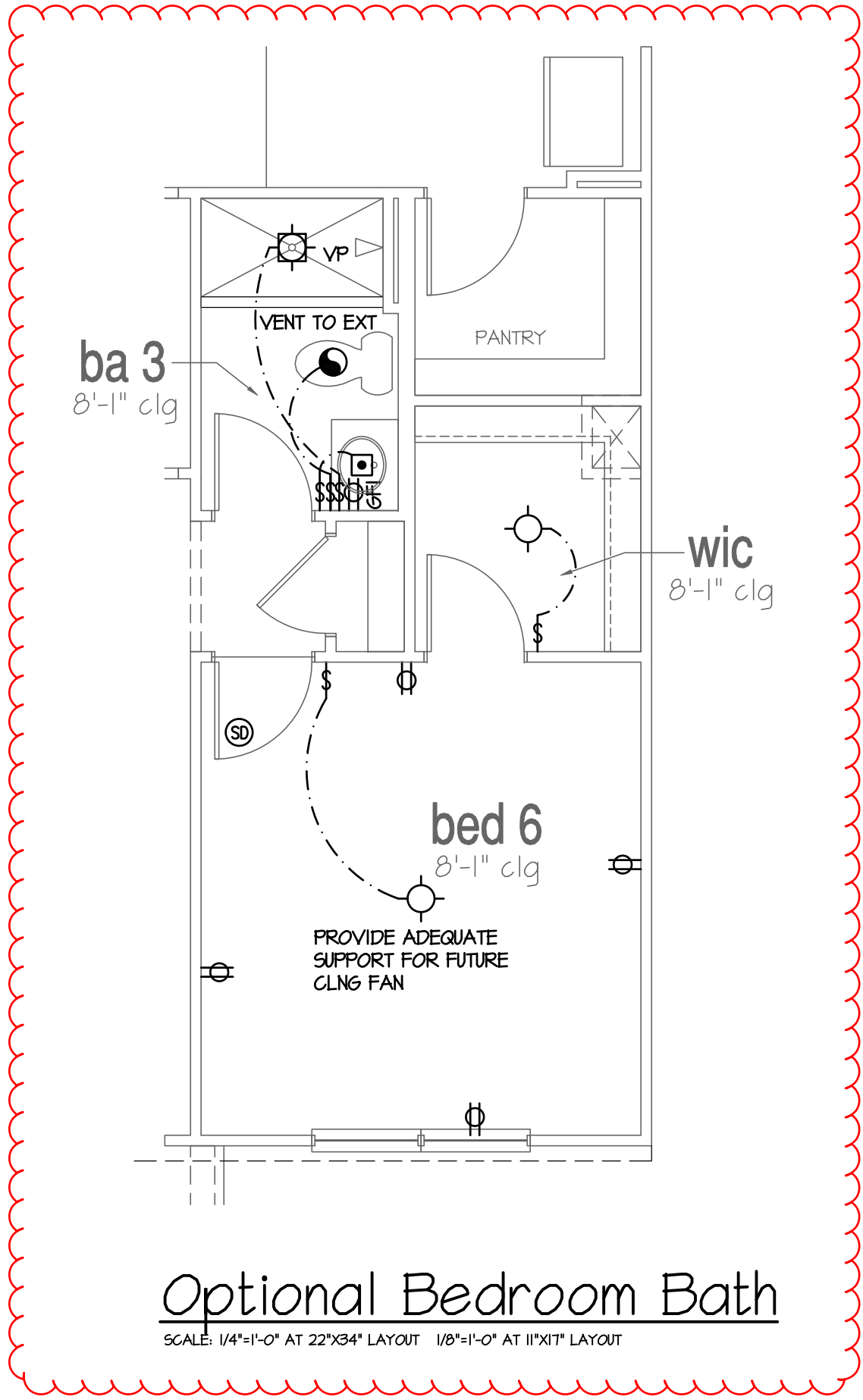
STANDARD ELECTRICAL BOX HEIGHTS



SWITCH AND RECEPTACLE BOXES OVER BATH CABINETS

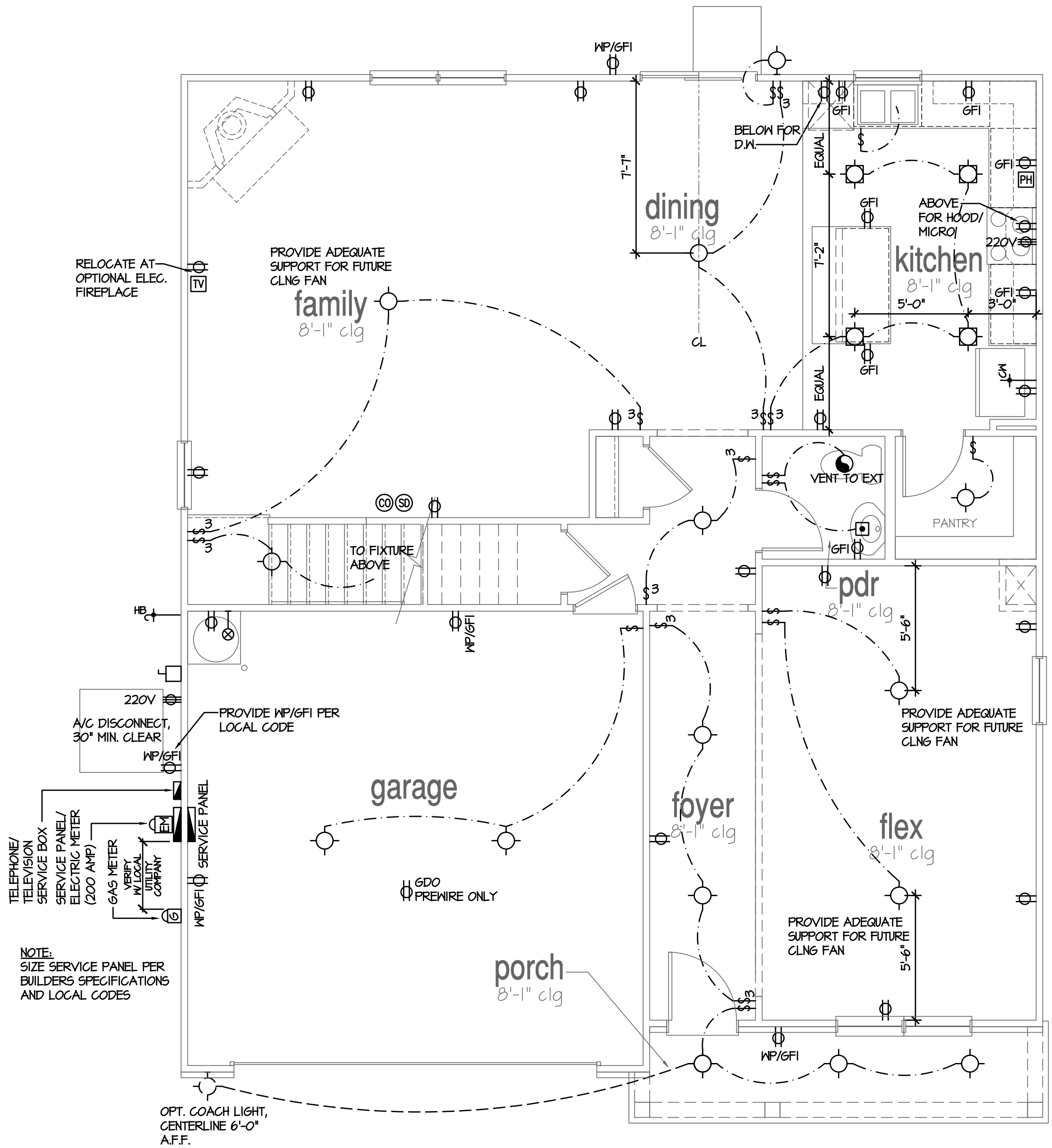


SWITCH AND RECEPTACLE BOXES OVER KITCHEN CABINETS



Optional Bedroom Bath

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

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 PUMP, 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		FLUSH-MOUNT LED CEILING FIXTURE		CHIMES
	WEATHERPROOF GFI DUPLEX OUTLET		HANGING FIXTURE		PUSHBUTTON SWITCH
	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET		FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)		110V SMOKE DETECTOR W/ BATTERY BACKUP
	HALF-SWITCHED DUPLEX OUTLET		2-LIGHT VANITY FIXTURE		CO2 DETECTOR
	220 VOLT OUTLET		3-LIGHT VANITY FIXTURE		THERMOSTAT
	REINFORCED JUNCTION BOX		4-LIGHT VANITY FIXTURE		TELEPHONE
	WALL SWITCH		WALL MOUNT FIXTURE		TELEVISION
	THREE-WAY SWITCH		EXHAUST FAN (VENT TO EXTERIOR)		ELECTRIC METER
	FOUR-WAY SWITCH				ELECTRIC PANEL
					DISCONNECT SWITCH

NO.	DATE:	REVISION:
	01.28.25	INITIAL RELEASE
	02.17.25	ADDED FOUNDATIONS
	05.02.25	FRONT DOOR REV.
	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

'HANOVER' - LH
1st FLOOR
UTILITY PLAN

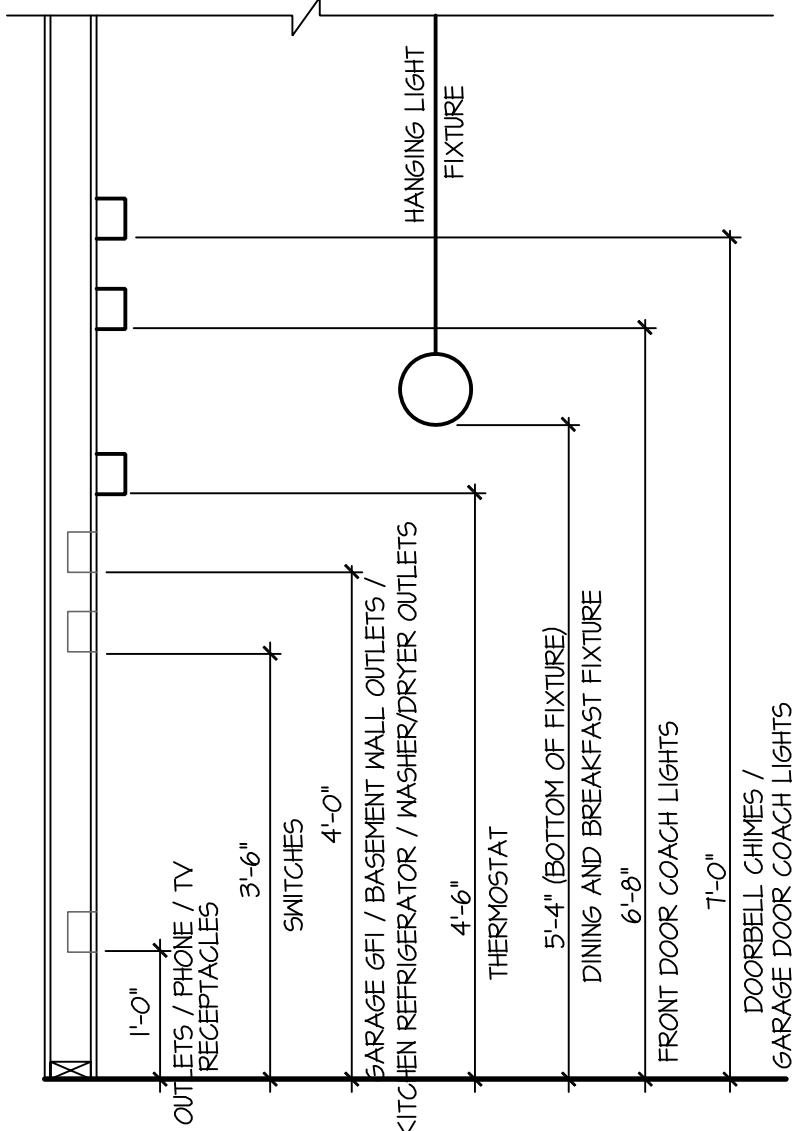
PRINT DATE:

January 28, 2025

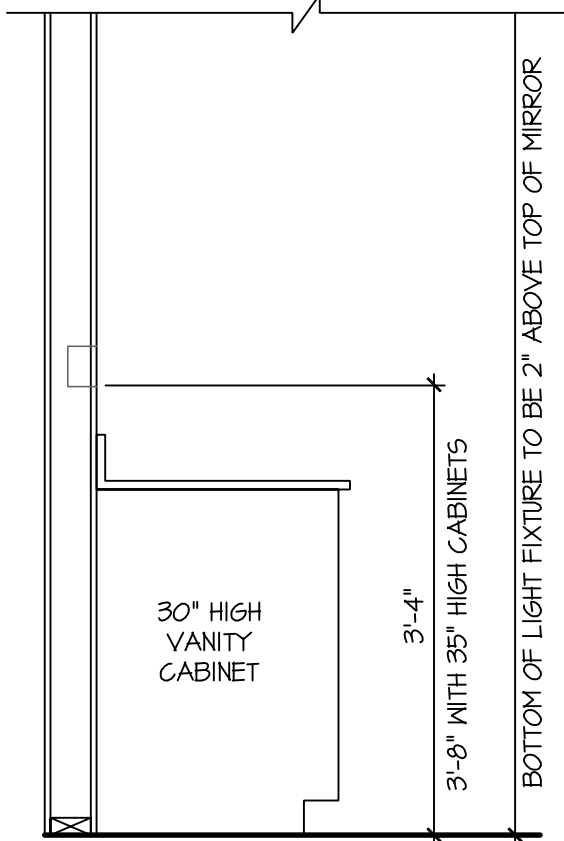
SHEET NO:

7

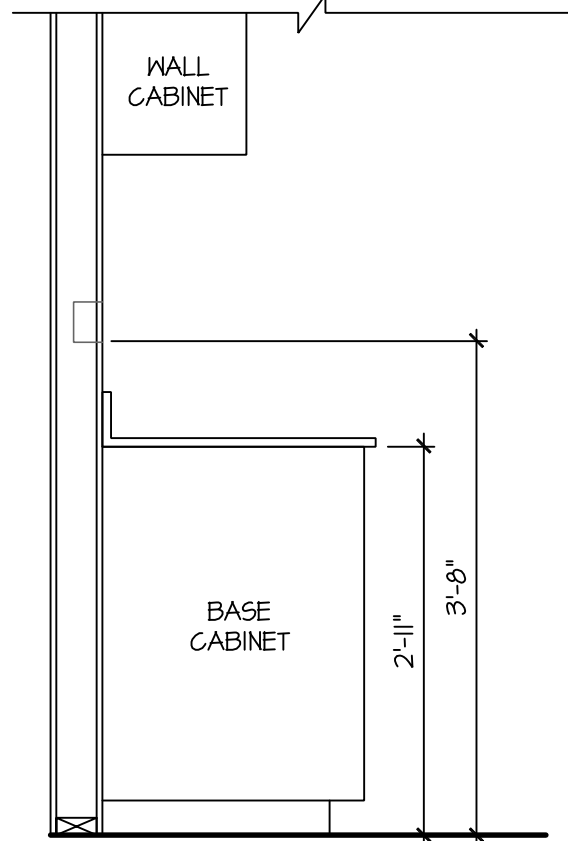
FOR
CONSTRUCTION



STANDARD ELECTRICAL BOX HEIGHTS



SWITCH AND RECEPTACLE BOXES OVER BATH CABINETS



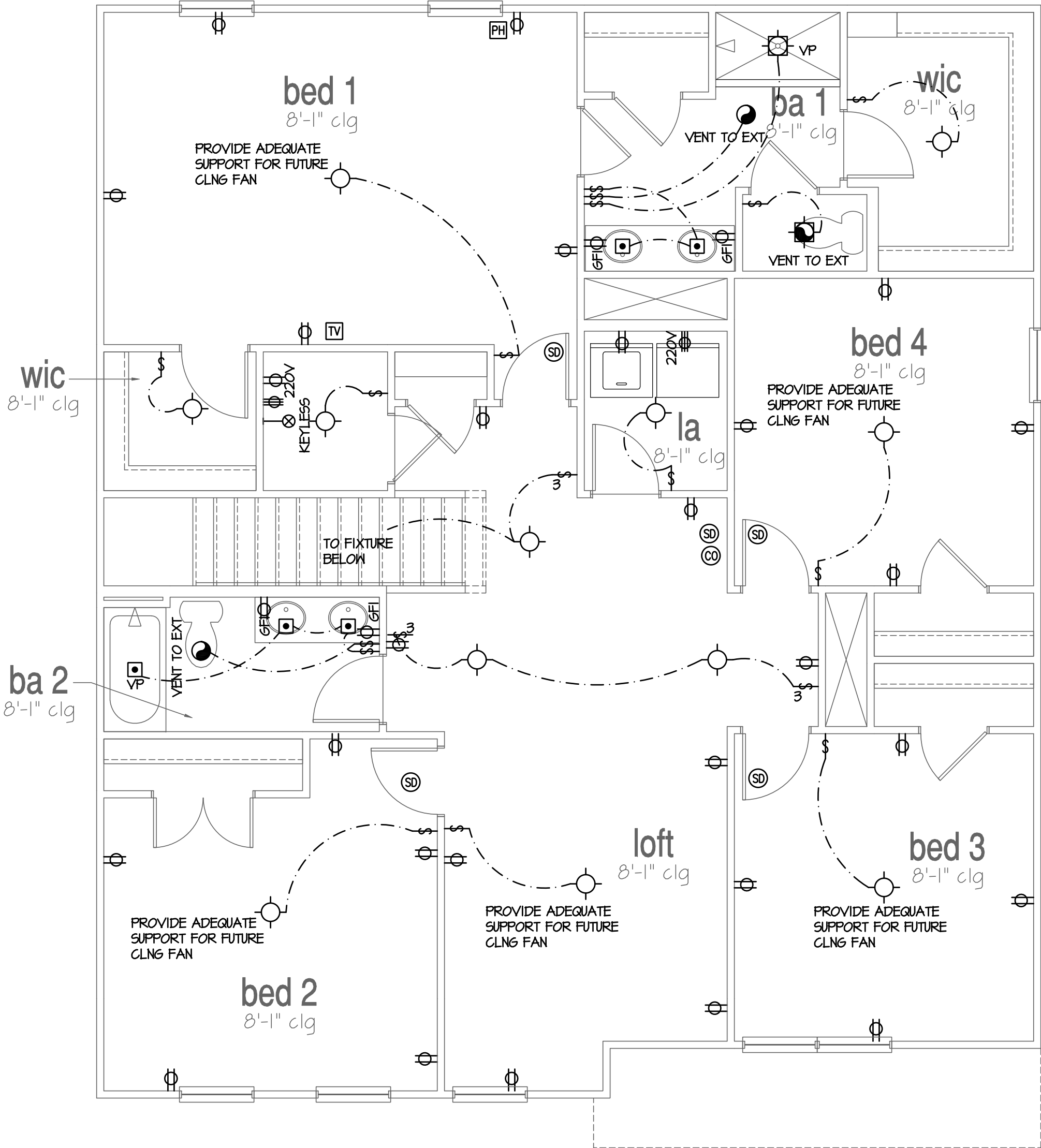
SWITCH AND RECEPTACLE BOXES OVER KITCHEN CABINETS

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 PUMP, 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		FLUSH-MOUNT LED CEILING FIXTURE		CHIMES		CEILING FAN (PROVIDE ADEQUATE SUPPORT)
	WEATHERPROOF GFI DUPLEX OUTLET		HANGING FIXTURE		PUSHBUTTON SWITCH		
	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	 CFP	FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)		110V SMOKE DETECTOR W/ BATTERY BACKUP		
	HALF-SWITCHED DUPLEX OUTLET		2-LIGHT VANITY FIXTURE		CO2 DETECTOR		GAS SUPPLY WITH VALVE
	220 VOLT OUTLET		3-LIGHT VANITY FIXTURE		THERMOSTAT		
	REINFORCED JUNCTION BOX		4-LIGHT VANITY FIXTURE		TELEPHONE		
	WALL SWITCH		WALL MOUNT FIXTURE		TELEVISION		1/4" WATER STUB OUT
	THREE-WAY SWITCH		EXHAUST FAN (VENT TO EXTERIOR)		ELECTRIC METER		
	FOUR-WAY SWITCH				ELECTRIC PANEL		



2nd Floor Plan 'A'

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

NO.	DATE:	REVISION:
1	01.28.25	INITIAL RELEASE
2	02.17.25	ADDED FOUNDATIONS
3	05.02.25	FRONT DOOR REV.
4	05.16.25	CLIENT REVISIONS

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

SHEET TITLE:

'HANOVER' - LH
2nd FLOOR
UTILITY PLAN

PRINT DATE:

January 28, 2025

SHEET NO:

8

FOR
CONSTRUCTION

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. | 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 | |
| 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) | |

9. Seismic

8.1. Site Class 1

8.2. Design Category 1

8.3. Importance Factor 1.0

8.4. Seismic Use Group 1

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)

☒ Bearing Wall

☐ Building Frame

☐ Moment Frame

☐ Dual w/ Special Moment Frame

☐ Dual w/ Intermediate R/C or Special Steel

☐ Inverted Pendulum

8.8. Arch/Mech Components Anchored No

8.9. Lateral Design Control: Seismic ☐ Wind ☒

9. Assumed Soil Bearing Capacity 2000psf

9. Seismic
- 8.1. Site Class 1
- 8.2. Design Category 1
- 8.3. Importance Factor 1.0
- 8.4. Seismic Use Group 1
- 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)
- ☒ Bearing Wall
- ☐ Building Frame
- ☐ Moment Frame
- ☐ Dual w/ Special Moment Frame
- ☐ Dual w/ Intermediate R/C or Special Steel
- ☐ Inverted Pendulum
- 8.8. Arch/Mech Components Anchored No
- 8.9. Lateral Design Control: Seismic ☐ Wind ☒
9. Assumed Soil Bearing Capacity 2000psf



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

HANOVER PLAN LH (NC)

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

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
DSJ	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 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 Framing Plan
S3.0	First Floor Framing Plan
S4.0	Second Floor Framing Plan
S5.0	Roof Framing Plan
S6.0	Basement Bracing Plan
S7.0	First Floor Bracing Plan
S8.0	Second Floor Bracing Plan

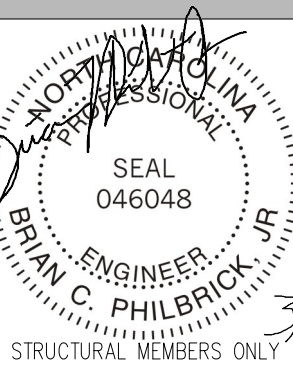
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Manager	Signature
Operations	
Operations System	
Operations Product Development	



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

PROJECT:
Hanover Plan LH (NC)
Coversheet



DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION

PROJECT #	DATE
A20117.00091.000	02/26/2025

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 AWPAs standard C-15. All other moisture exposed wood shall be treated in accordance with AWPAs 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 1&6 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.

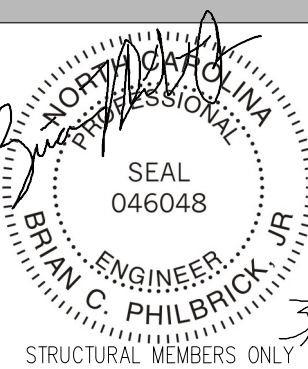
STRUCTURAL FIBERBOARD PANELS:

- 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 as recommended in accordance with the AFA.



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

PROJECT:
Hanover Plan LH (NC)
Revision Log



STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT # DATE
A20117.00091.000 02/26/2025

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

CS2

FOUNDATION NOTES:

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE $F_c = 3000$ PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- 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.
- 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.
- FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- 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

- ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (UNO)
- WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
- 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. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- 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 HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

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 PER TABLE R405.1

NOTE: FOUNDATION ANCHORAGE HAS BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR. HORTON COMPLETED/REVISED ON 02/17/2025. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

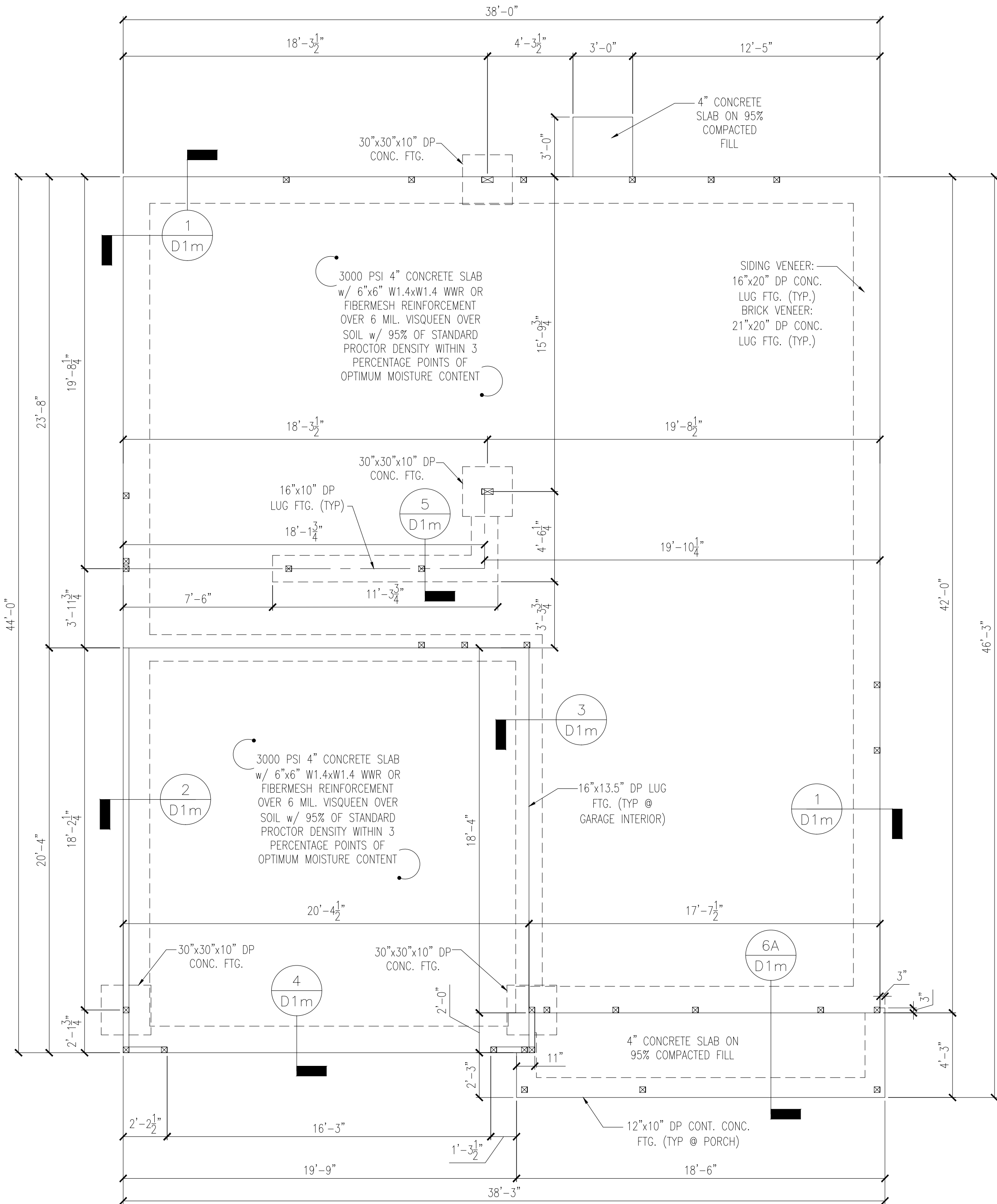
STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

MONOLITHIC SLAB FOUNDATION PLAN

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



ELEVATION A

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

PROJECT:
Horton Plan LH (NC)
Monolithic Slab Foundation

DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT # A20117.00091.000 DATE 02/26/2025

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

3/13/25
S1.0m

FOUNDATION NOTES:

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE $F_c = 3000$ PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- 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.
- 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.
- FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- 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

- ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (UNO)
- WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
- 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. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- 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 HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

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 PER TABLE R405.1

NOTE: FOUNDATION ANCHORAGE HAS BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

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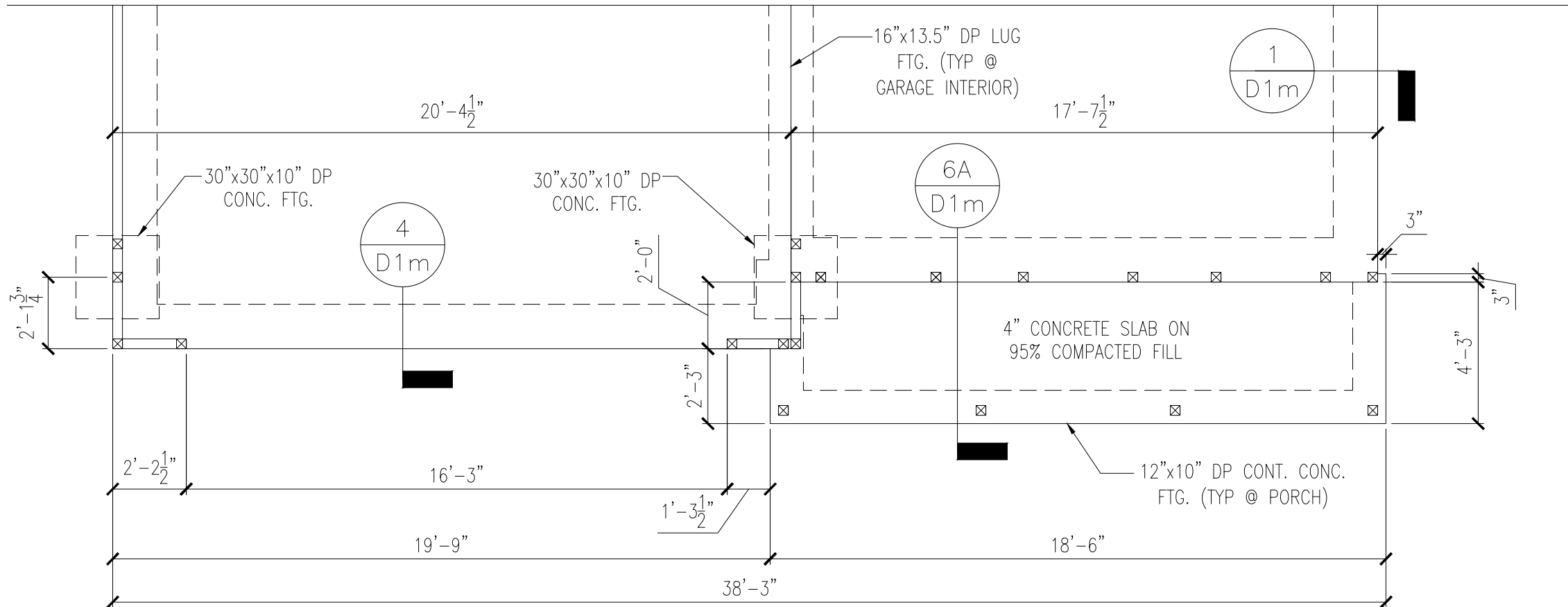
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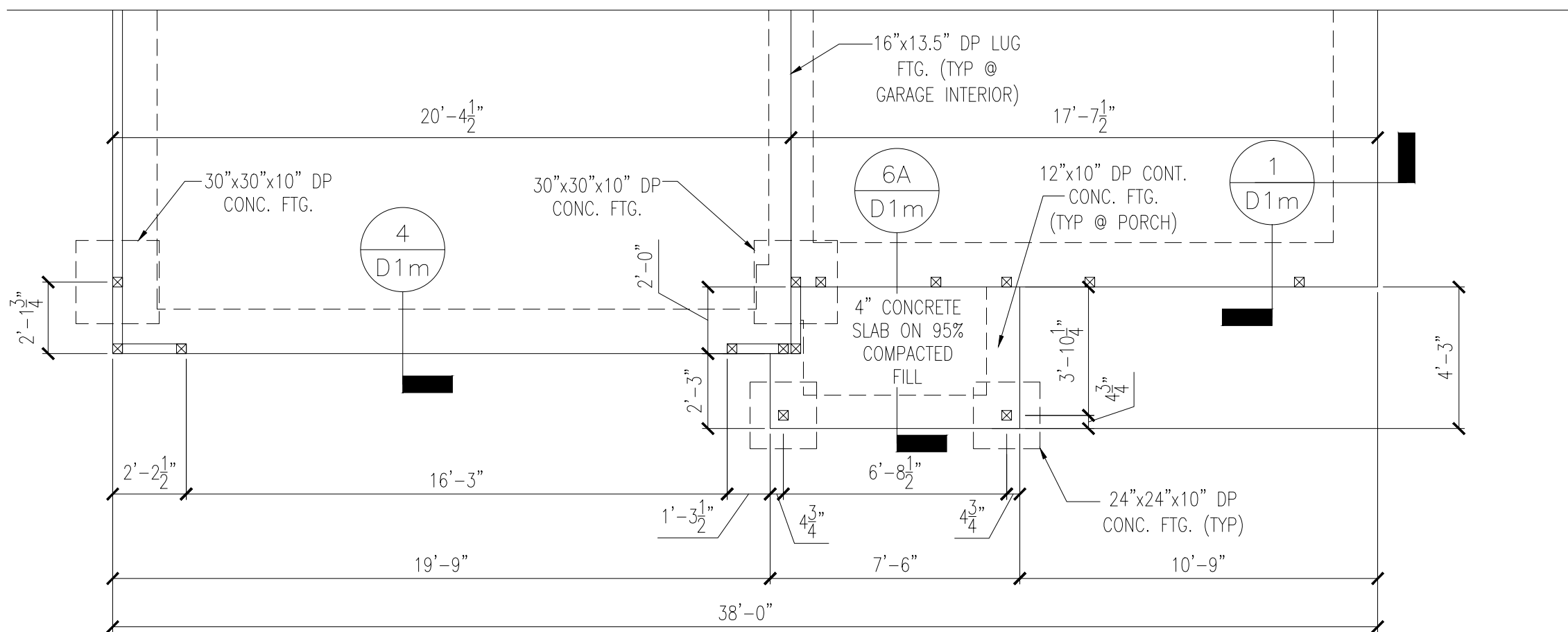
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

MONOLITHIC SLAB FOUNDATION PLAN

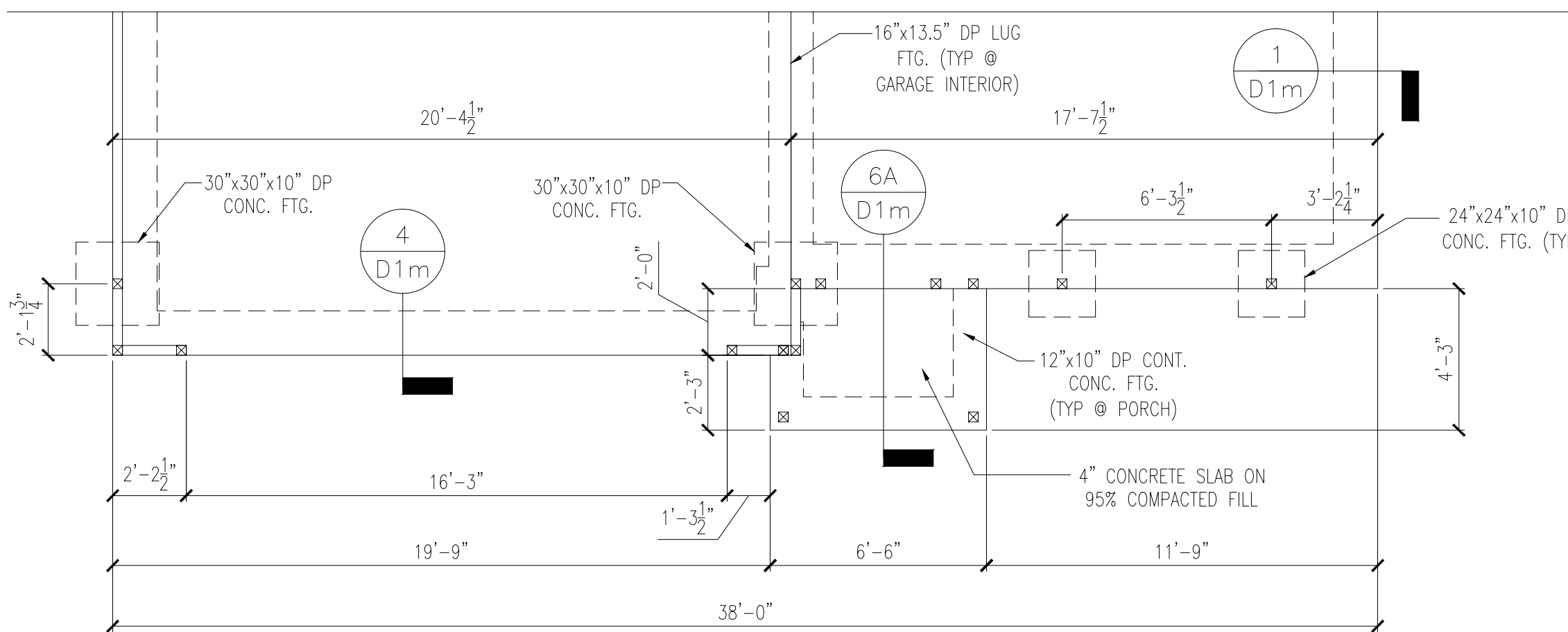
SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



ELEVATION B



ELEVATION C



ELEVATION D

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

PROJECT:
Honor Plan LH (NC)
Monolithic Slab Foundation

DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT #: A20117.00091.000 DATE: 02/26/2025

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S1.1m

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 R602.10.1	PER FIGURE R602.10.1
**OR EQUIVALENT PER TABLE R702.3.5				

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN 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 TABLE R602.10.1
- 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 R602.10.1.
- 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 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.104.6
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (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
ENG-PF = ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

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)
NOTES: 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (U.N.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).		

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STRUCTURAL MEMBERS ONLY

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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 - ELEVATION A		
	REQUIRED	PROVIDED
BWL 1-1	13.0	20.6
BWL 1-A	11.4	36.5
BWL 1-2	13.0	23.8
BWL 1-B	11.4	39.0

KING STUD SCHEDULE	
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0"	(1)
4'-0"	(2)
8'-0"	(3)
12'-0"	(5)
16'-0"	(6)

WALL STUD SCHEDULE (10FT HEIGHT MAX.)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"
NOTES: 1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C. 2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C. 3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.				

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)		

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:
MICROLAM (LVL): F_b = 2600 PSI, F_v = 285 PSI, E = 2.0x10⁶ PSI
PARALLAM (PSL): F_b = 2900 PSI, F_v = 290 PSI, E = 1.25x10⁶ PSI
- ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED 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/D3f. 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, 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, 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

SHADED WALLS INDICATED LOAD BEARING WALLS

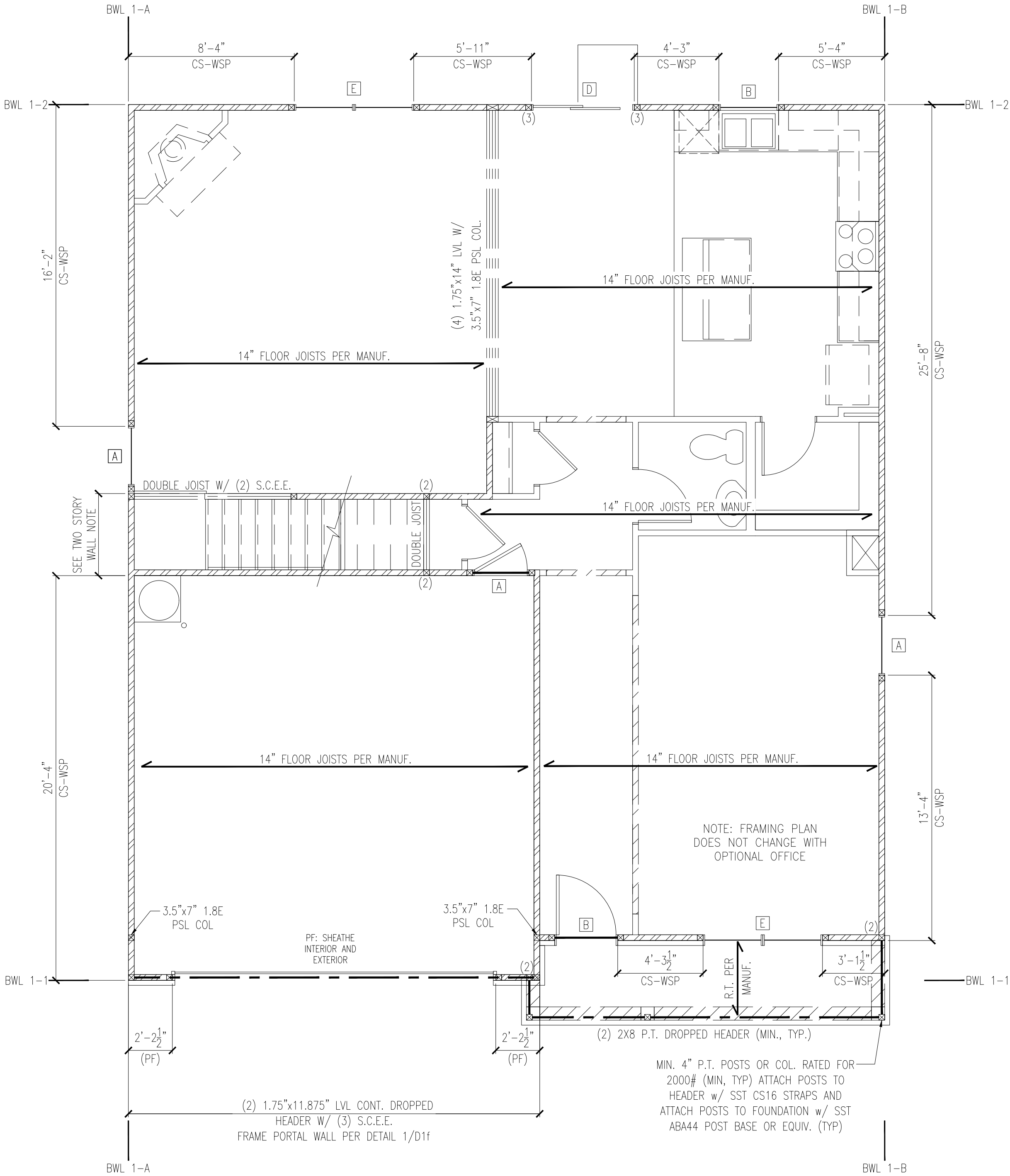
NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

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

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

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



ELEVATION A

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 R602.10.1	PER FIGURE R602.10.1
**OR EQUIVALENT PER TABLE R702.3.5				

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN 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 TABLE R602.10.1
- 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 R602.10.1.
- 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 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

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

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

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)
NOTES: 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (U.N.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).		

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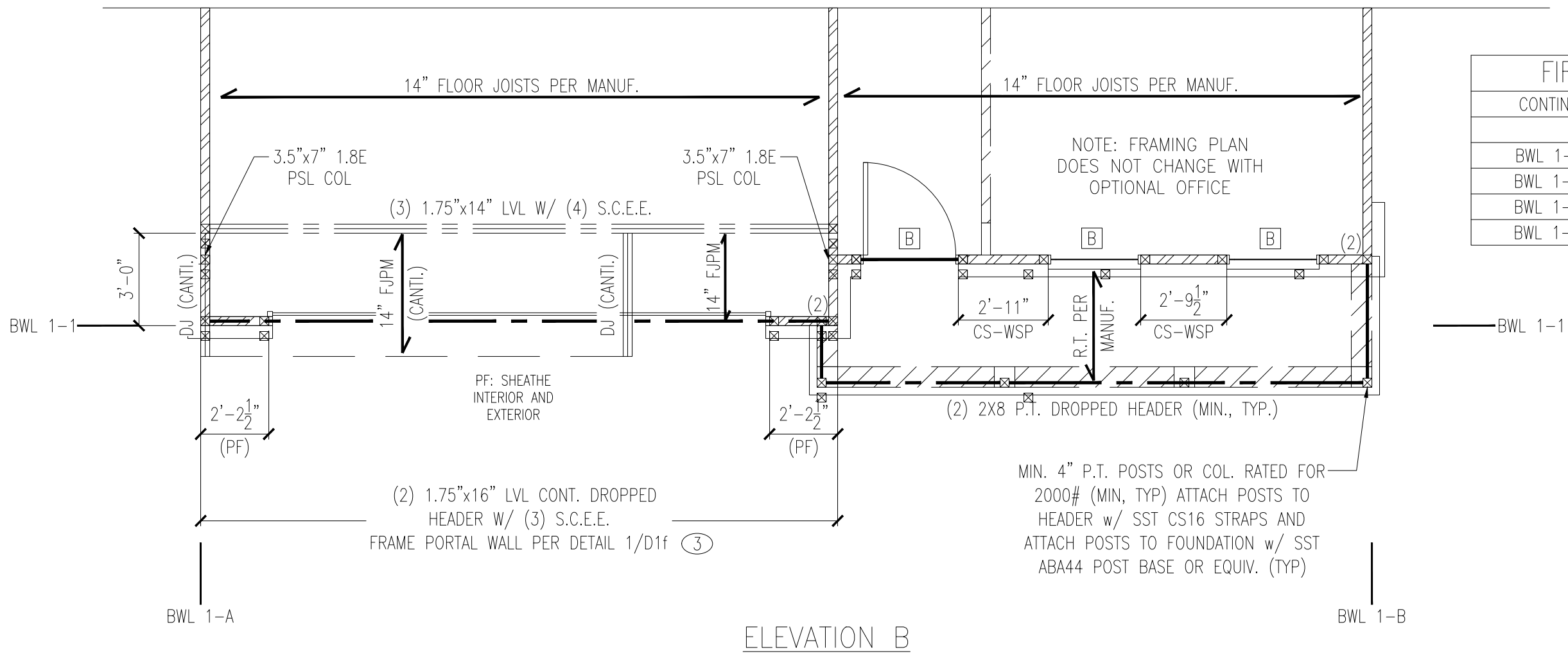
STRUCTURAL MEMBERS ONLY

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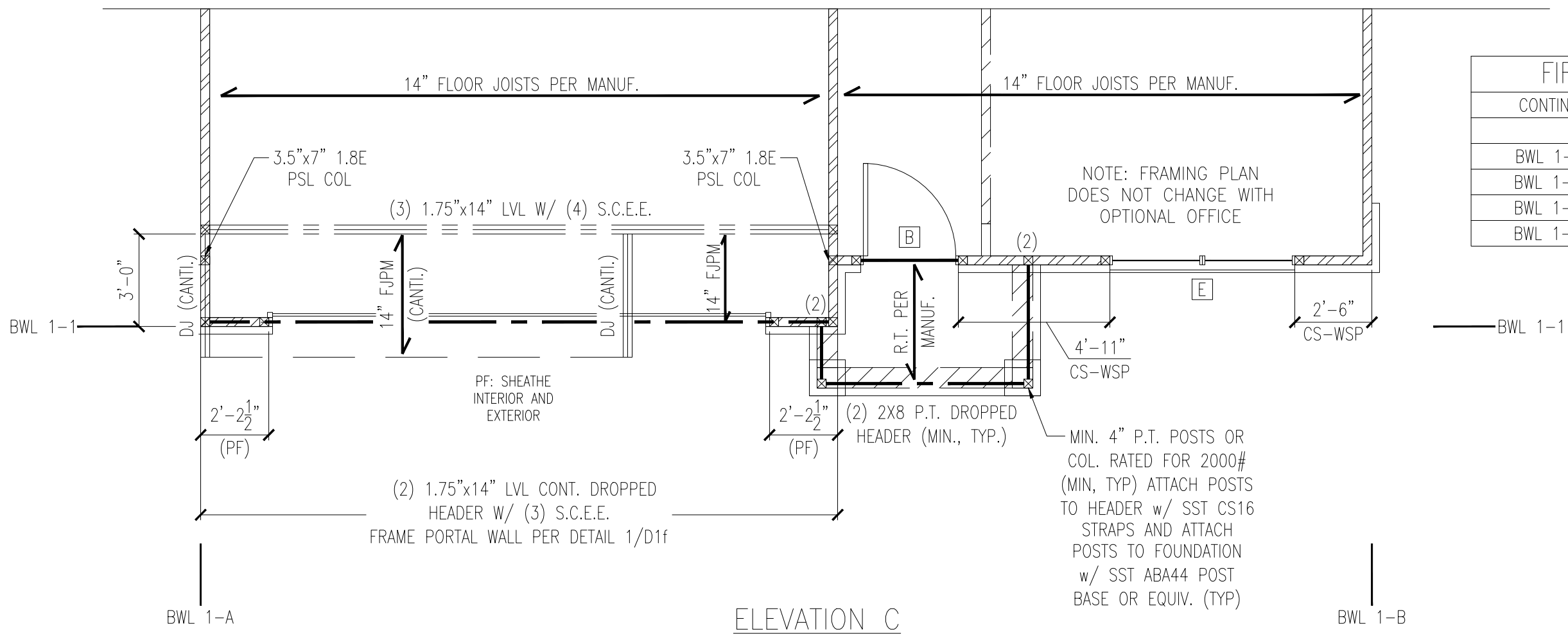
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

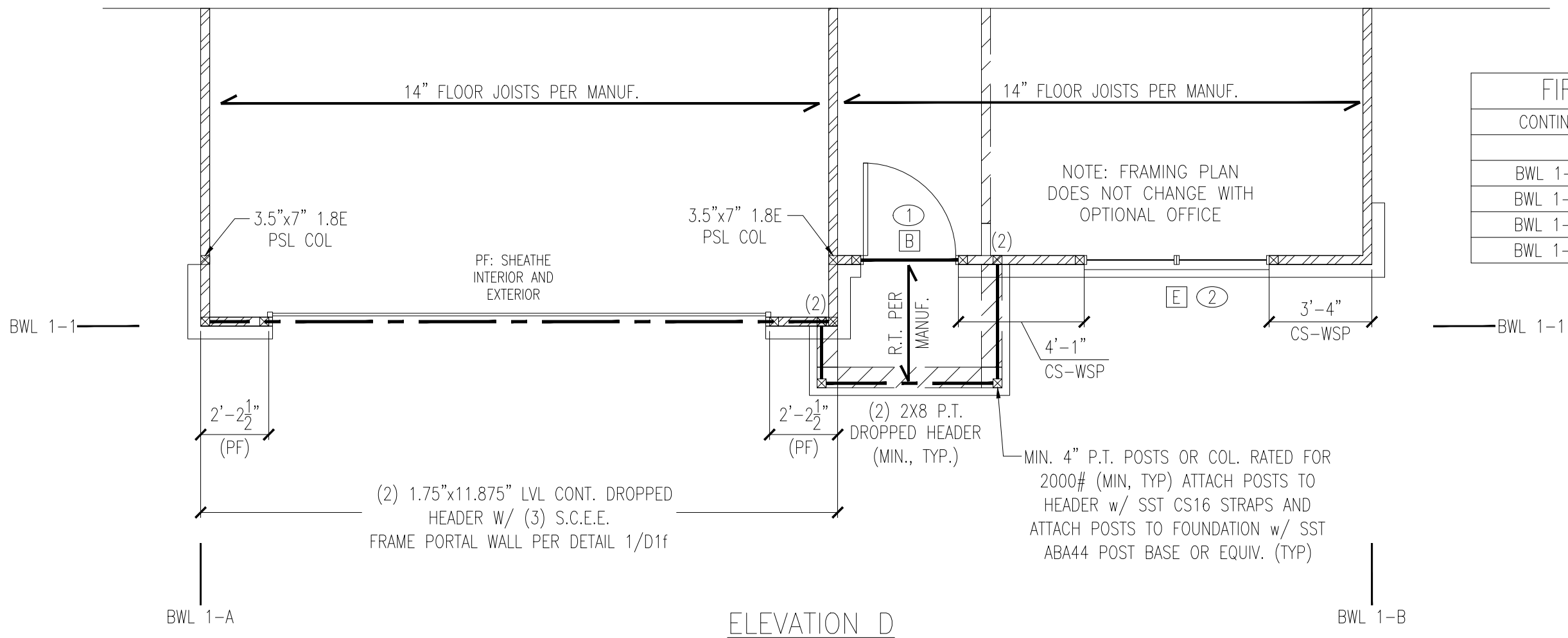
SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - ELEVATION B		
	REQUIRED	PROVIDED
BWL 1-1	13.0	18.9
BWL 1-A	11.4	36.5
BWL 1-2	13.0	23.8
BWL 1-B	11.4	39.0



FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - ELEVATION C		
	REQUIRED	PROVIDED
BWL 1-1	13.0	20.6
BWL 1-A	11.4	36.5
BWL 1-2	13.0	23.8
BWL 1-B	11.4	39.0



FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - ELEVATION D		
	REQUIRED	PROVIDED
BWL 1-1	13.0	20.6
BWL 1-A	11.4	36.5
BWL 1-2	13.0	23.8
BWL 1-B	11.4	39.0

KING STUD SCHEDULE	
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0"	(1)
4'-0"	(2)
8'-0"	(3)
12'-0"	(5)
16'-0"	(6)

WALL STUD SCHEDULE (10FT HEIGHT MAX.)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"
NOTES: 1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C. 2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C. 3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.				

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)		

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:
MICROLAM (LVL): $F_b = 2600$ PSI, $F_v = 285$ PSI, $E = 2.0 \times 10^6$ 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 UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED 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/D3f. 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, 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, 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

SHADED WALLS INDICATED LOAD BEARING WALLS

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

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

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

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

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

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

PROJECT:
Honoror Plan LH (NC)
First Floor Framing Plan

DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT #: A20117.00091.000
DATE: 02/26/2025
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	GYP SUM 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 R602.10.1	PER FIGURE R602.10.1
**OR EQUIVALENT PER TABLE R702.3.5				

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN 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 TABLE R602.10.1
- 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 R602.10.1.
- 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 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (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
ENG-PF = ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

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)
NOTES: 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (U.N.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).		

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR. HORTON. COMPLETED/REVISED ON 02/17/2025. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

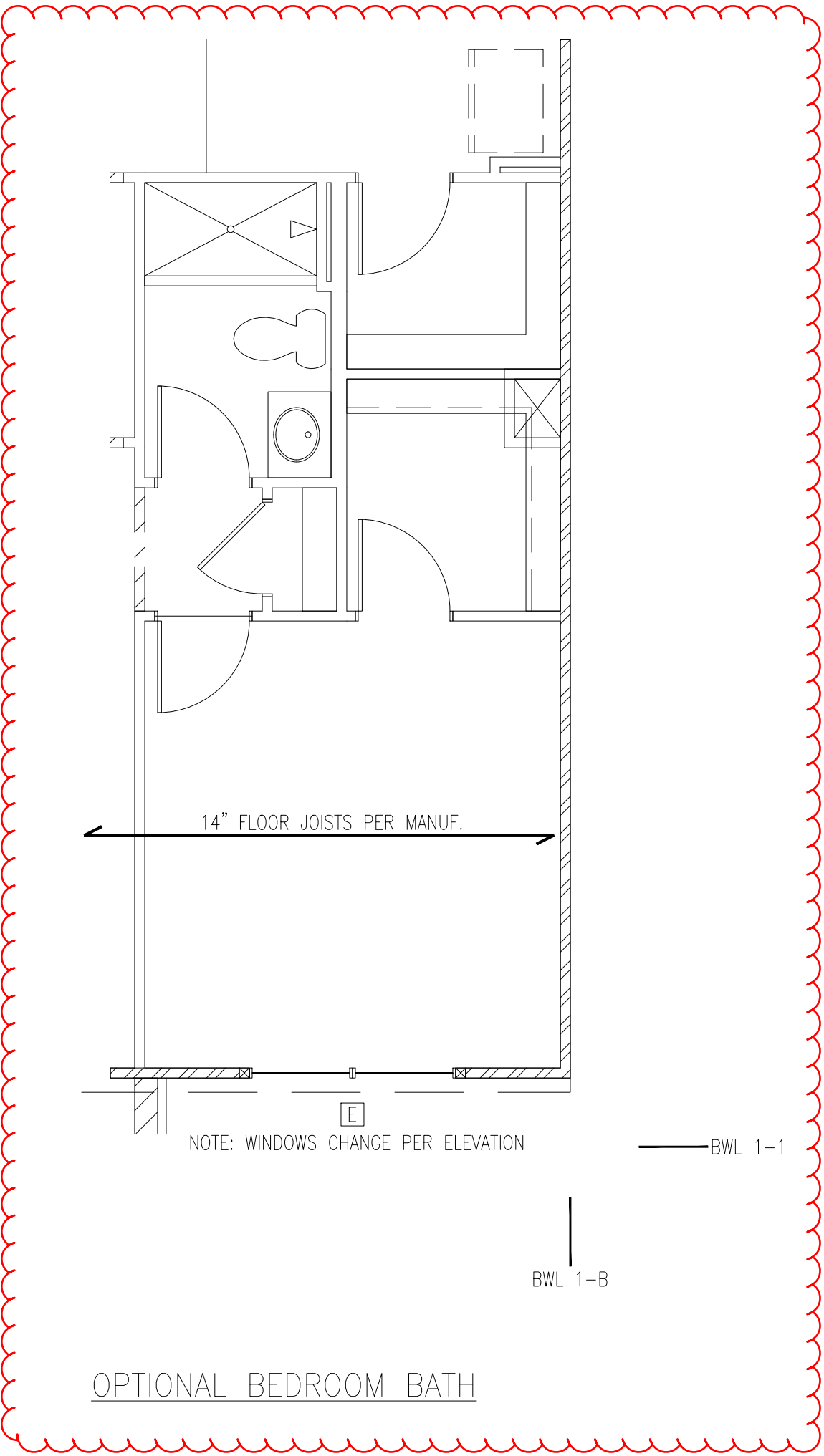
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

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 - OPT. BEDROOM BATH		
	REQUIRED	PROVIDED
BWL 1-1	13.0	PER ELEV.
BWL 1-A	11.4	36.5
BWL 1-2	13.0	23.8
BWL 1-B	11.4	42.0



KING STUD SCHEDULE	
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0"	(1)
4'-0"	(2)
8'-0"	(3)
12'-0"	(5)
16'-0"	(6)

WALL STUD SCHEDULE (10FT HEIGHT MAX.)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

NOTES:
1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.
2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.
3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

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)		

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:
MICROLAM (LVL): F_b = 2600 PSI, F_v = 285 PSI, E = 2.0x10⁶ PSI
PARALLAM (PSL): F_b = 2900 PSI, F_v = 290 PSI, E = 1.25x10⁶ PSI
- ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED 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/D3f. 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, 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, 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

SHADED WALLS INDICATED LOAD BEARING WALLS

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

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

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

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

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



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

PROJECT:
Honor Plan LH (NC)
First Floor Framing Plan



STRUCTURAL MEMBERS ONLY
DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT # A20117.00091.000 DATE 02/26/2025
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S3.2

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 R602.10.1	PER FIGURE R602.10.1
**OR EQUIVALENT PER TABLE R702.3.5				

- BRACED WALL NOTES:
- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
 - WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN 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 TABLE R602.10.1
 - 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 R602.10.1.
 - 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 12 FEET OF EACH END OF A BRACED WALL LINE.
 - THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
 - BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
 - BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
 - CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
 - PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (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
ENG-PF = ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

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)
NOTES: 1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (U.N.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).		

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON COMPLETED/REVISED ON 02/17/2025. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

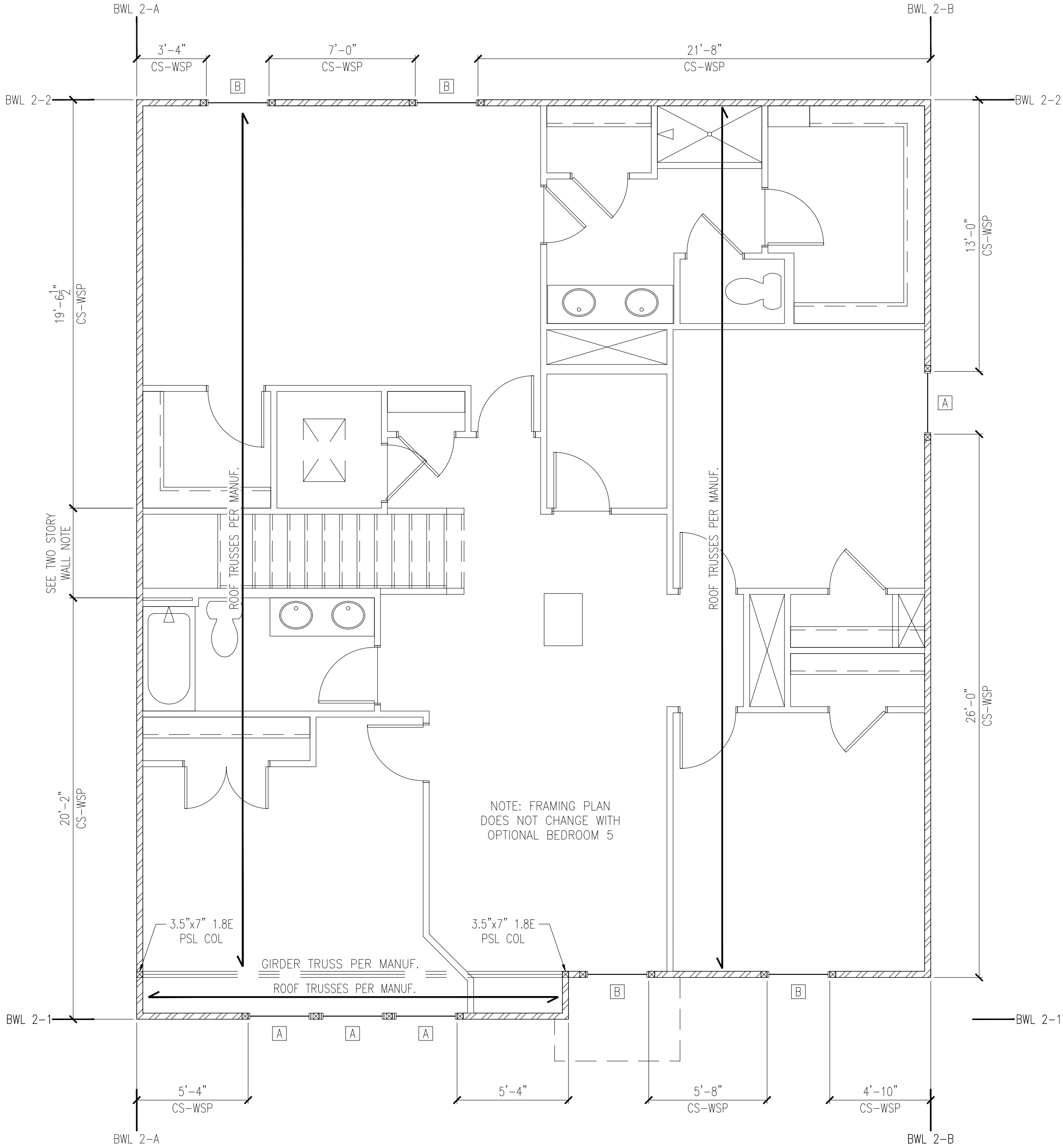
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF UES PROFESSIONAL SOLUTIONS 29,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

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

SECOND FLOOR FRAMING PLAN

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

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - ELEVATION D		
	REQUIRED	PROVIDED
BWL 2-1	5.9	21.1
BWL 2-2	5.9	32.0
BWL 2-A	5.1	39.7
BWL 2-B	5.1	39.0



ELEVATION D

KING STUD SCHEDULE	
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0"	(1)
4'-0"	(2)
8'-0"	(3)
12'-0"	(5)
16'-0"	(6)

WALL STUD SCHEDULE (10FT HEIGHT MAX.)				
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

- NOTES:
- BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.
 - STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.
 - TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

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)		

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:
MICROLAM (LVL): $F_b = 2600$ PSI, $F_v = 285$ PSI, $E = 2.0 \times 10^6$ 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 UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP 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. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDED 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/D3f. 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, 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, 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

SHADED WALLS INDICATED LOAD BEARING WALLS

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

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

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

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

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

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

PROJECT:
Honor Plan LH (NC)
Second Floor Framing Plan

DRAWING
DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT # A20117.00091.000
DATE 02/26/2025
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S4.3

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 NCRC. 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 02/17/2025. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY UES PROFESSIONAL SOLUTIONS 29, INC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. UES PROFESSIONAL SOLUTIONS 29, INC. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

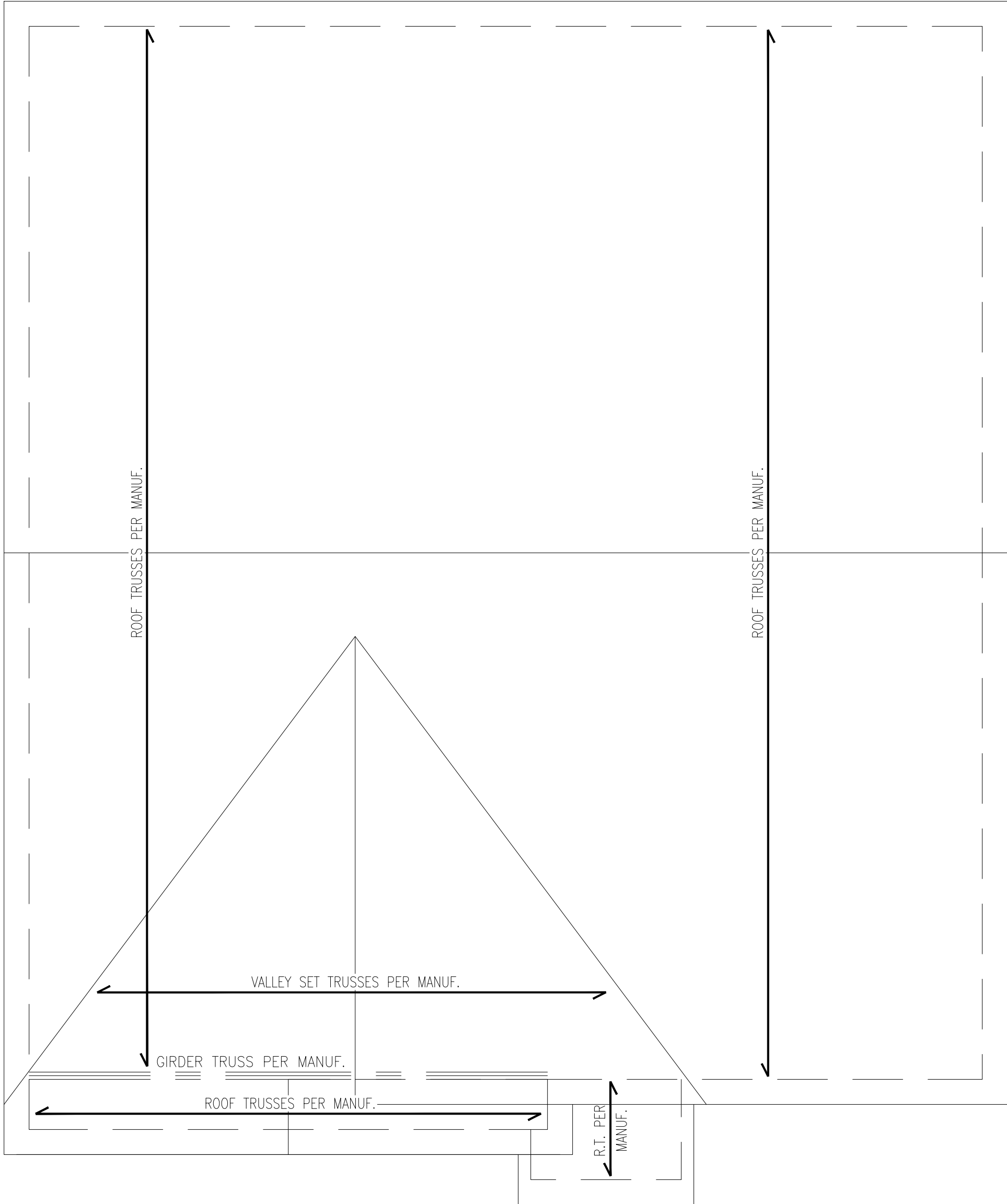
STRUCTURAL MEMBERS ONLY

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.

ROOF FRAMING PLAN

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



ELEVATION D



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.hortonues.com



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

PROJECT:
Horton Plan LH (NC)
Roof Framing Plan



3/13/25

DATE: 03/10/2025
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A20117.00091.000
DRAWN BY: MGC
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT # DATE
A20117.00091.000 02/26/2025

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S5.3

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

STANDARD DETAILS (OX-IS)

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
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYN	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TPY	TYPICAL
PF	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
D1m	Monolithic Slab Foundation Details
D1s	Stem Wall Foundation Details
D1c	Crawl Space Foundation Details
D1b	Basement Foundation Details
D1f	Framing Details

[illegible]

Manager	Signature
Operations	
Operations System	
Operations Product Development	

1. 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.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. 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.
4. 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.
5. 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.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the international residential code.
8. This structure and all construction shall conform to all applicable sections of local building codes.
9. All structural assemblies are to meet or exceed to requirements of the current local building code.

1. 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.

2. The bottom of all footings shall extend below the first 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.
3. Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
4. The resulting soil shall be compacted to a minimum of 95% maximum dry density.
5. 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.
6. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

1. 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.
2. Structural steel shall receive one coat of shop applied rust-inhibitive paint.
3. All steel shall have a minimum yield stress (F_y) of 36 ksi unless otherwise noted.
4. Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D1.1. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

1. Concrete shall have a normal weight aggregate and a minimum compressive strength (f'_c) at 28 days of 3000 psi, unless otherwise noted on the plan.
2. 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".
3. 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:
 - 3.1. Footings: 5%
 - 3.2. Exterior Slabs: 5%
4. No admixtures shall be added to any structural concrete without written permission of the SER.

5. Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
6. 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.
7. 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.
8. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
10. 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.

1. 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.
2. Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
3. Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard).
4. Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
5. Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
6. 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".
7. 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.
8. 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.

9. 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.
10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.
11. Unless otherwise specified, concrete reinforcing is not required.

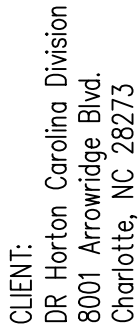
1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Spruce-Yellow-Pine (SYP) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:

- 2.1. $E = 1,900,000 \text{ psi}$
- 2.2. $F_b = 2600 \text{ psi}$
- 2.3. $F_v = 285 \text{ psi}$
- 2.4. $F_c = 700 \text{ psi}$
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWP/A standard C-15. All other moisture exposed wood shall be treated in accordance with AWP/A standard C-2
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. 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.
8. 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.
9. Multi-ply beams shall have each ply attached with (3) 10d nails @ 24" O.C.

1. 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.
2. 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 7-05), 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.
3. 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."
4. 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.
5. 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.

1. 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.

1. 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.
2. All structurally required wood sheathing shall bear the mark of the APA.
3. 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.
4. 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.
5. 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 2x6 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.
6. Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.



PROJECT: Standard Details (OX-IS)

Coversheet

STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 05/06/202

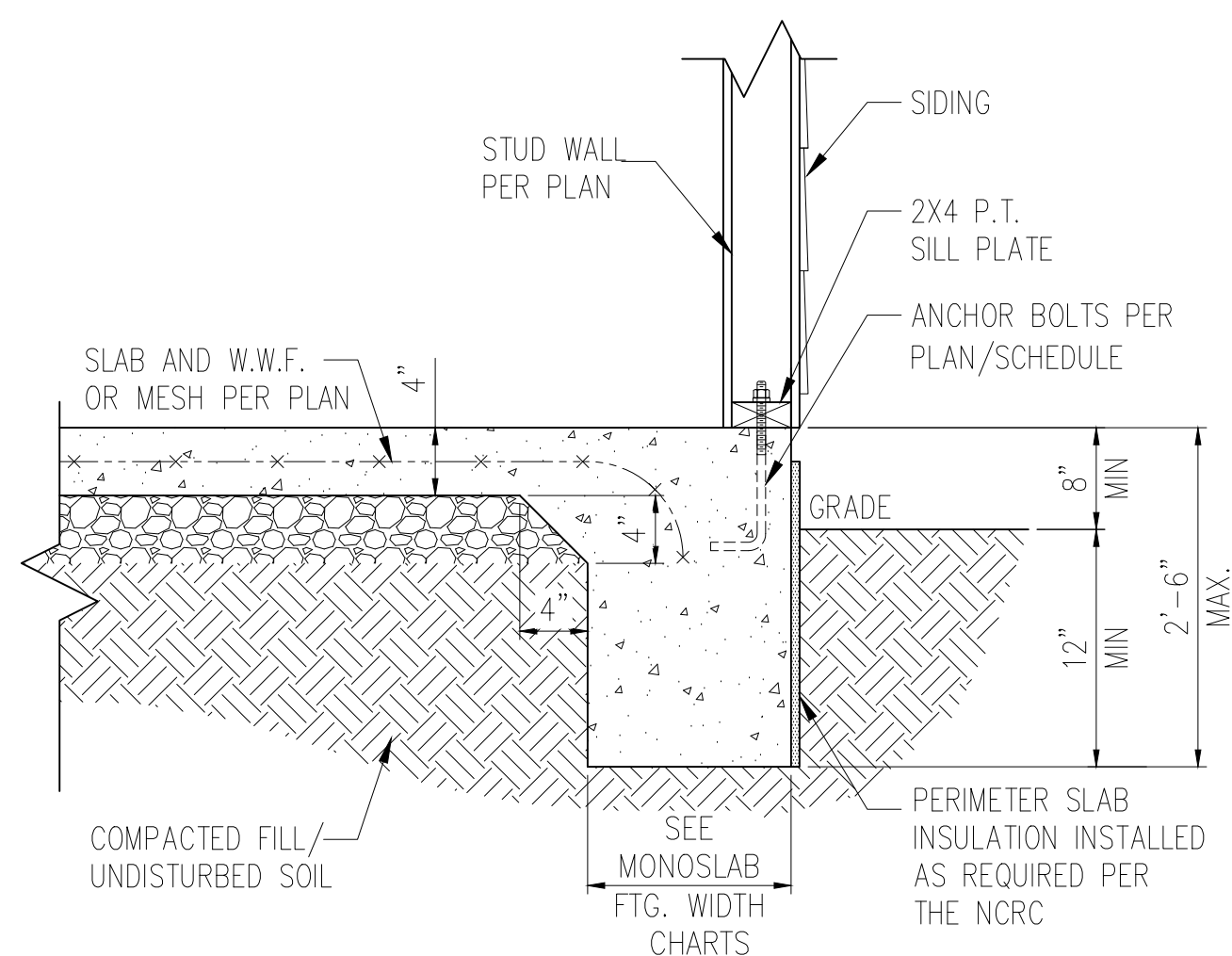
SCALE: 22x34 1/4"=1'-0"
11x17 1/8"=1'-0"
PROJECT #: A21117.00066.000
DRAWN BY: MGC
CHECKED BY: GWS

ORIGINAL INFORMATION
PROJECT # DATE
1/31/2017

REFER TO COVER SHEET FOR A COMPLETE
LIST OF REVISIONS

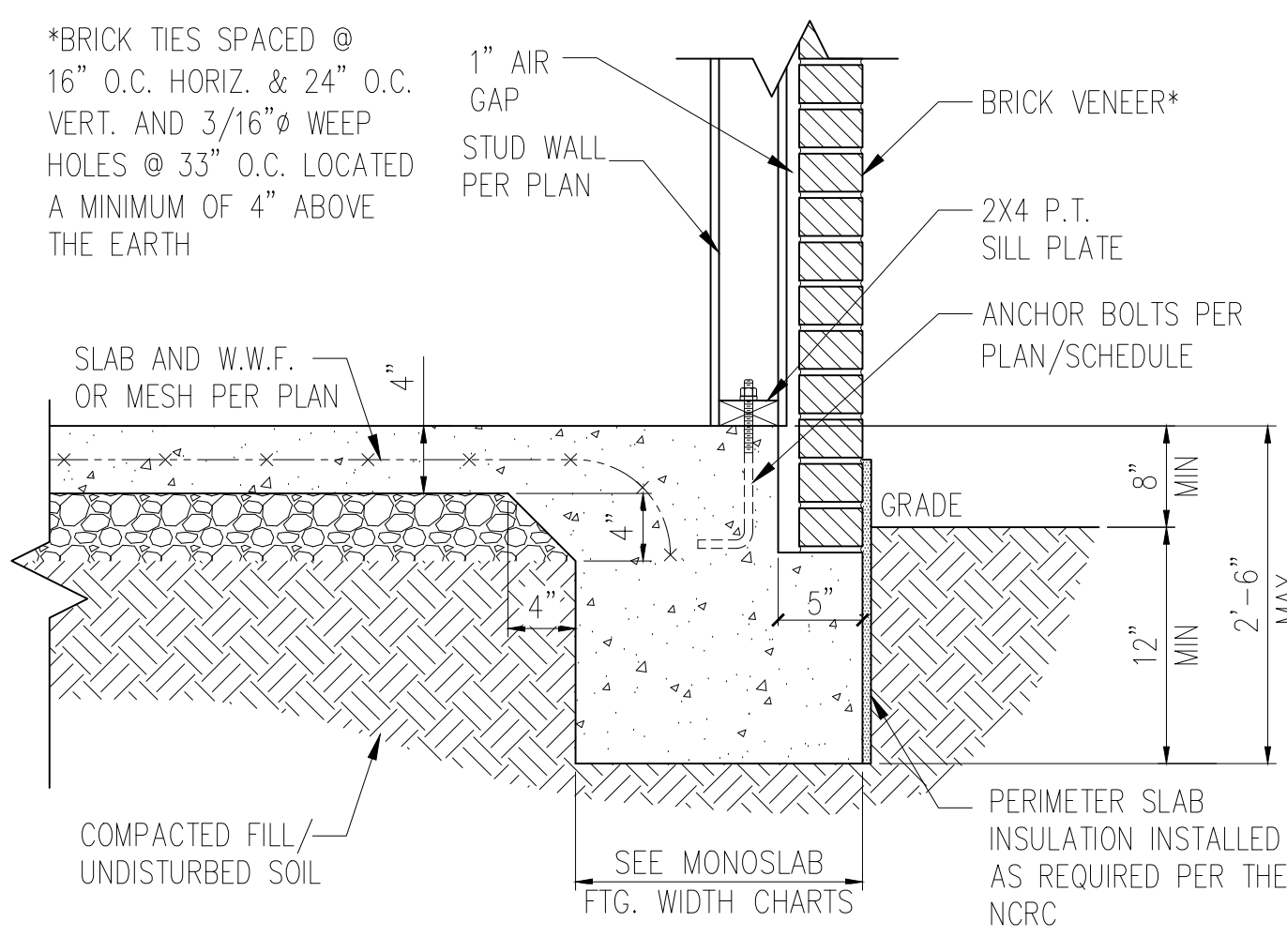
SHEET

CS1



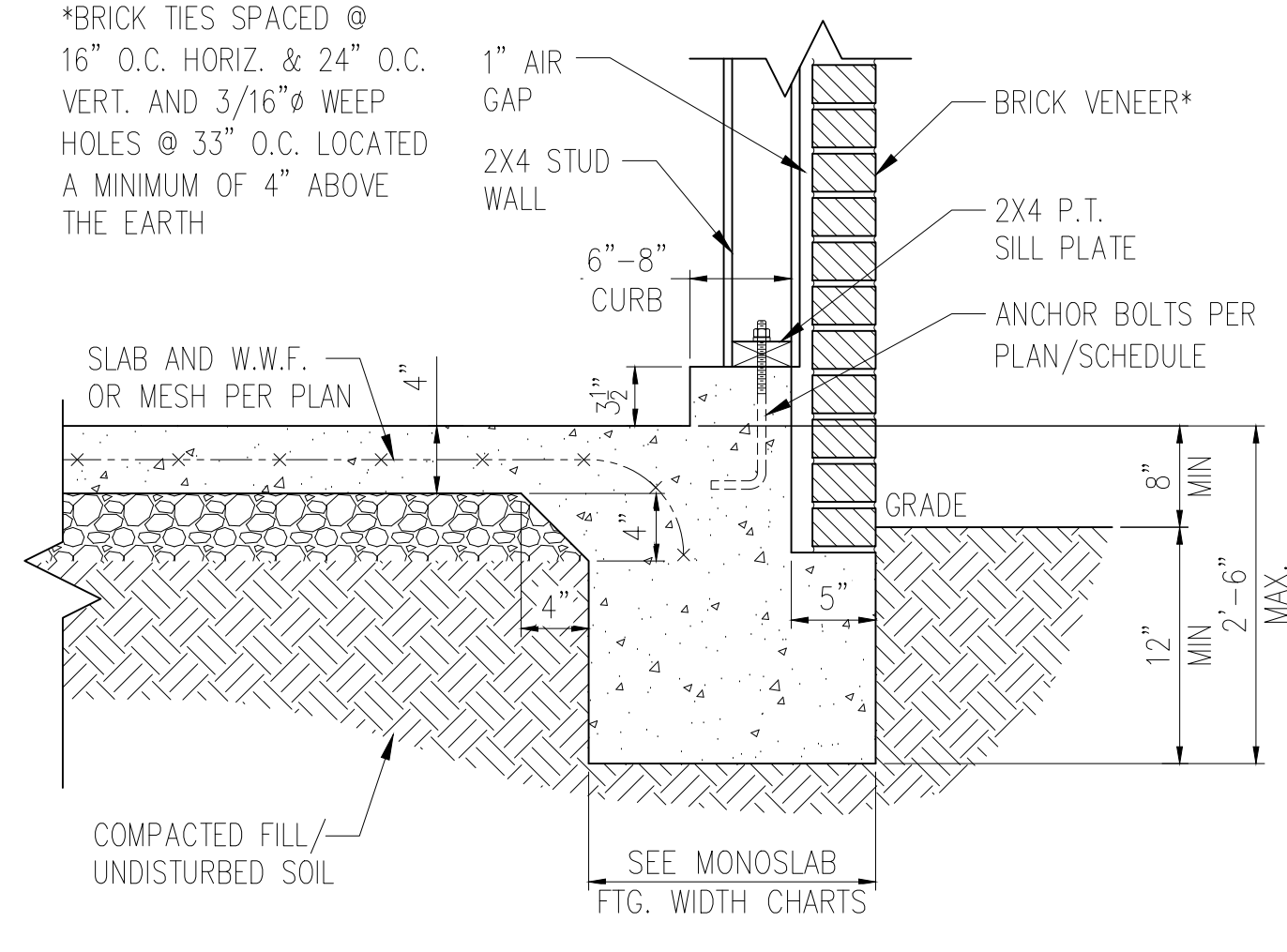
STANDARD – SIDING

1 TYP. SLAB DETAIL
D1m N.T.S.

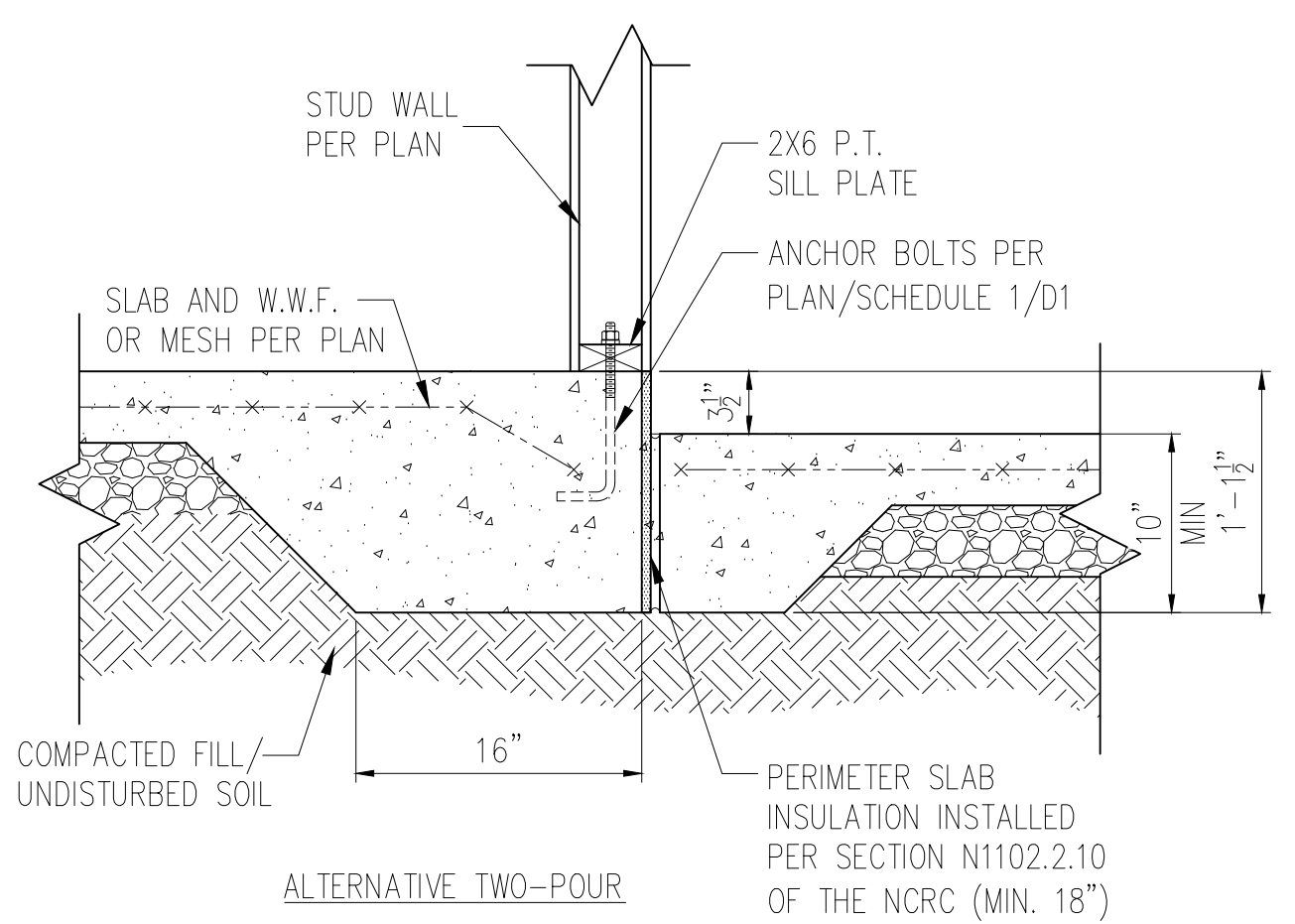


STANDARD – BRICK

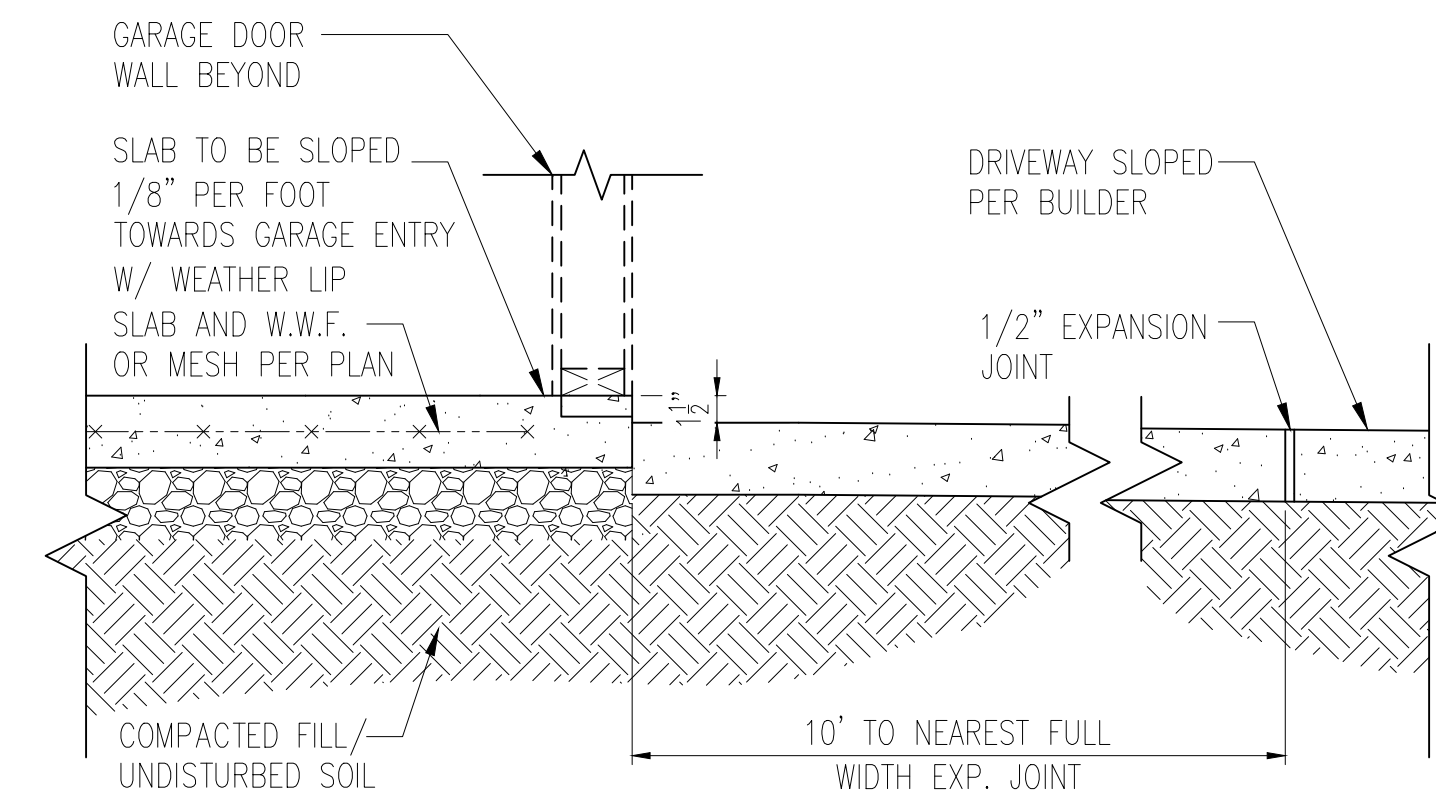
2 TYP. GARAGE CURB DETAIL
D1m N.T.S.



3 STEP IN GARAGE
D1m N.T.S.



3A ALTERNATE TWO-POUR DETAIL
D1m N.T.S.



5 TYP. THICKENED SLAB DETAIL
D1m N.T.S.

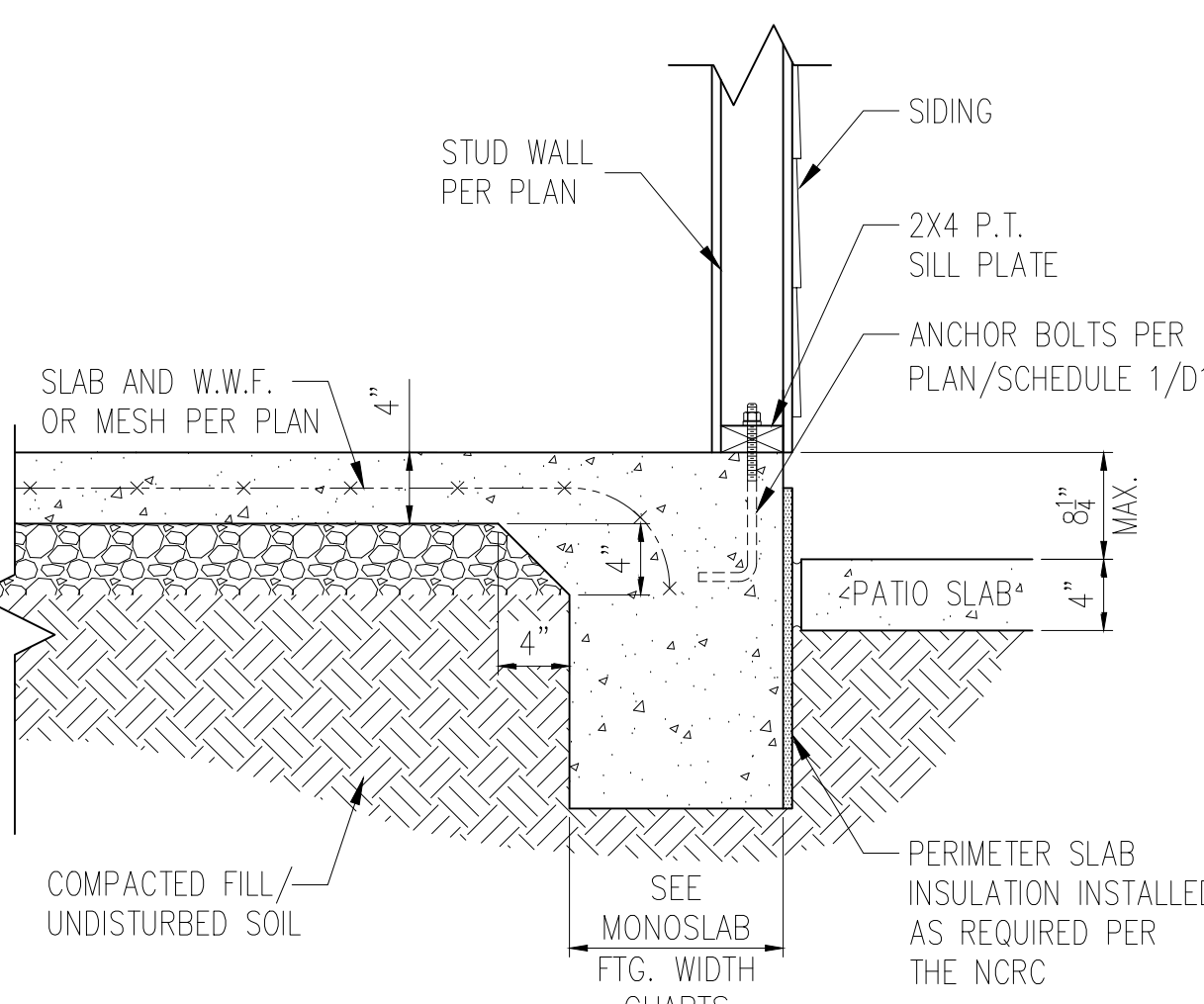
MONOLITHIC FOOTING WIDTH			
# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY – STD.	16"	16"	16"
1 STORY – BRICK VENEER	21"*	21"*	21"*
2 STORY – STD.	16"	16"	16"
2 STORY – BRICK VENEER	21"*	21"*	21"*
3 STORY – STD.	23"	18"	18"
3 STORY – BRICK VENEER	32"*	24"*	24"*

*5" BRICK LEDGE HAS BEEN ADDED TO THE MONOLITHIC 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 ANCHOR	7"	6'-0"	YES	YES – 2

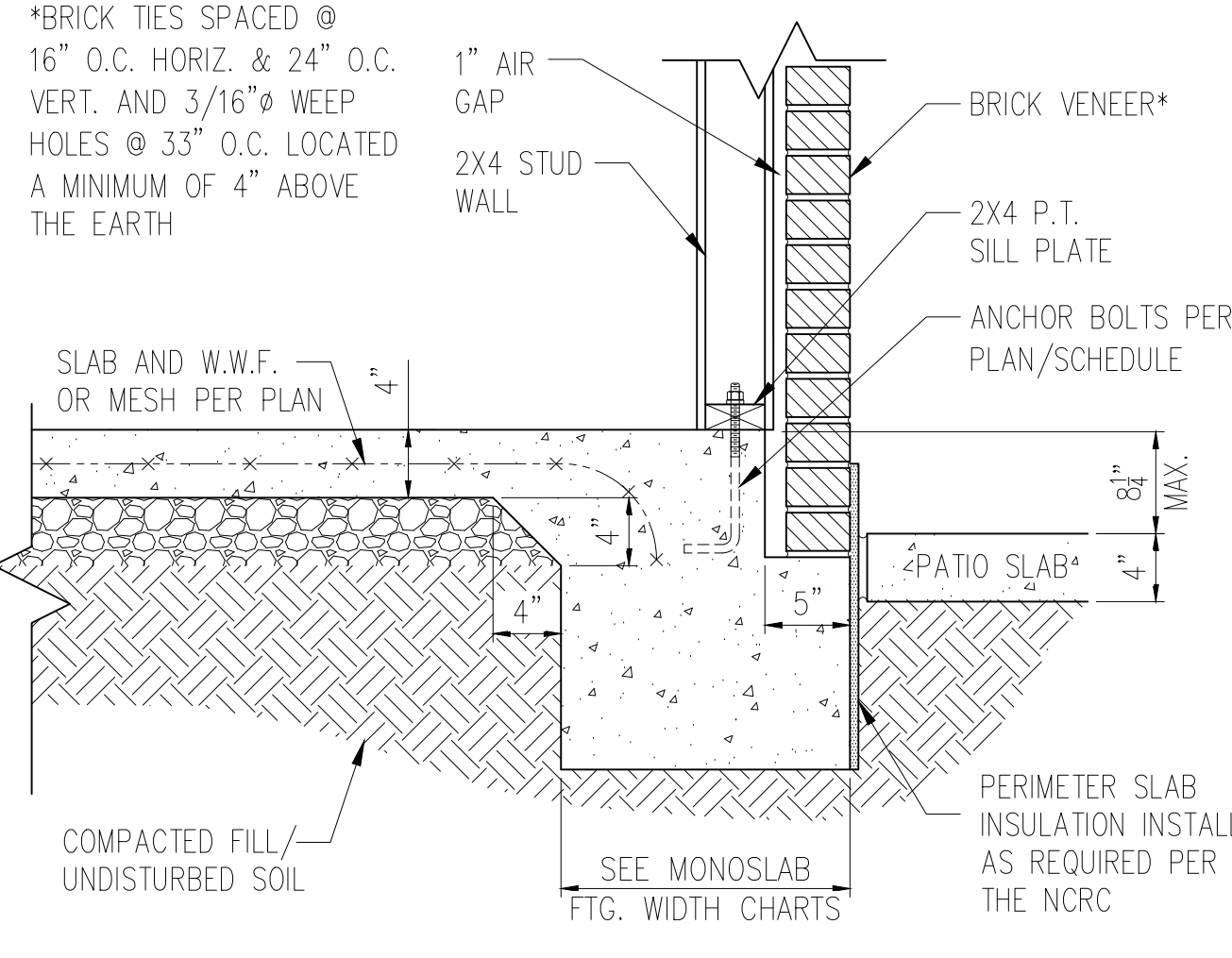
NOTE: 1. INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.
2. EXPANSION ANCHORS MAY BE INSTALLED ONLY AS ALLOWED PER MANUFACTURE SPECIFICATIONS.

- 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

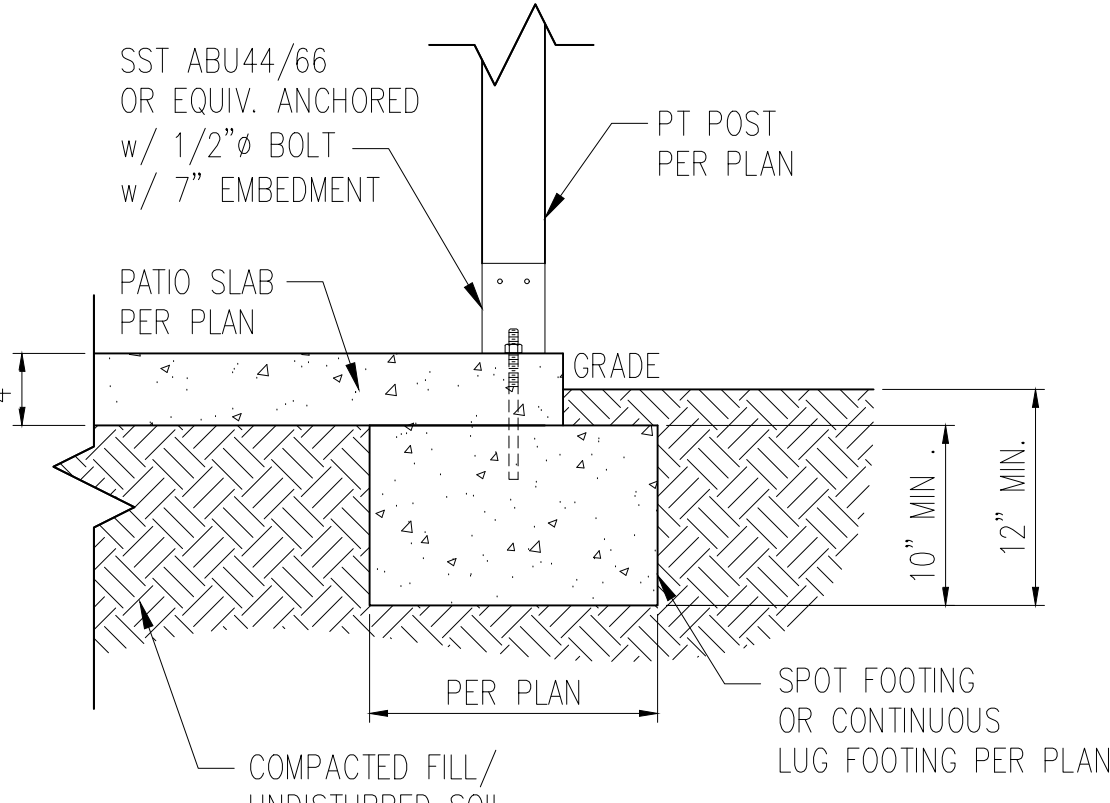


STANDARD – SIDING

6 PATIO SLAB DETAIL
D1m N.T.S.



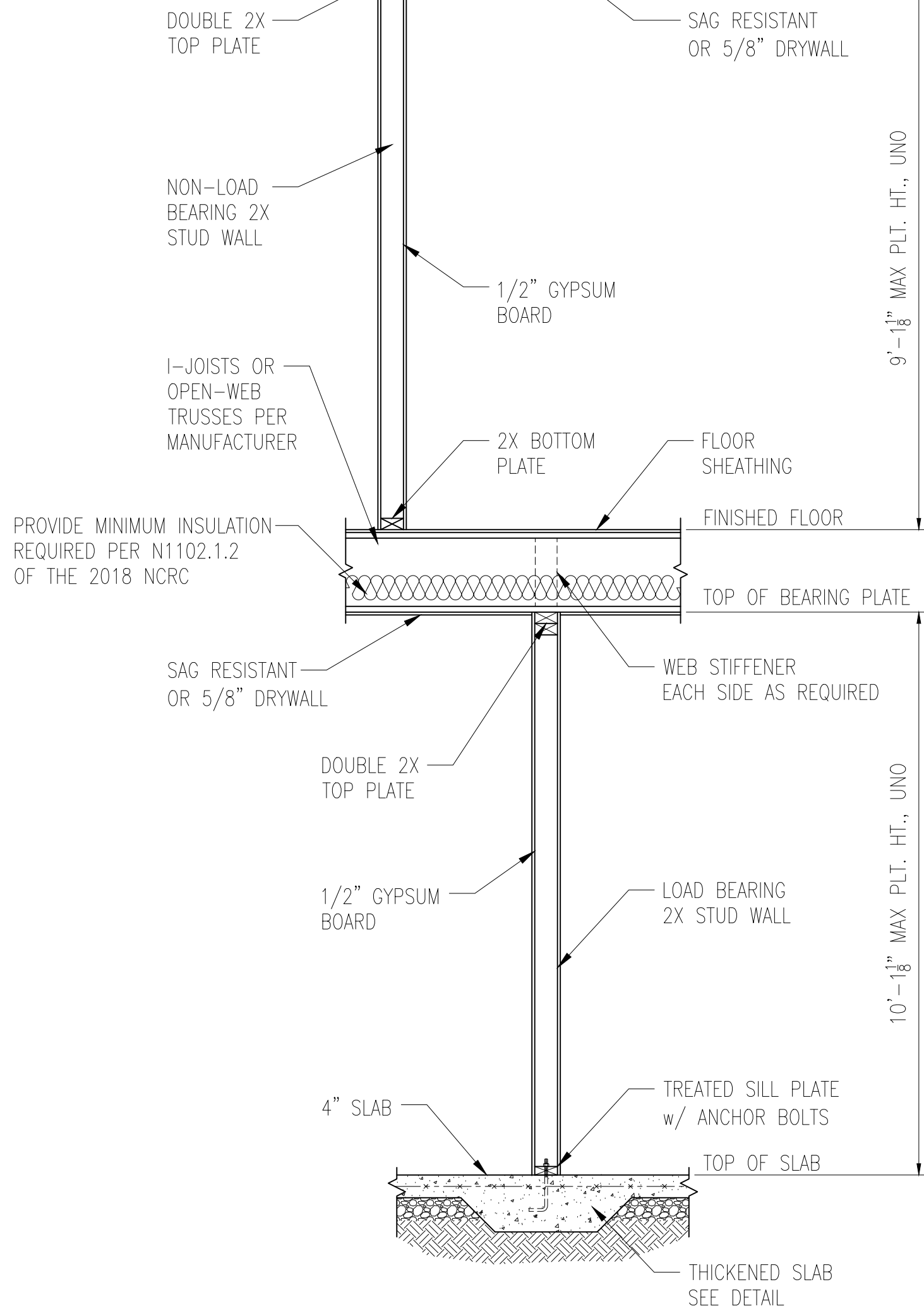
STANDARD – BRICK



6A COVERED PATIO DETAIL
D1m N.T.S.

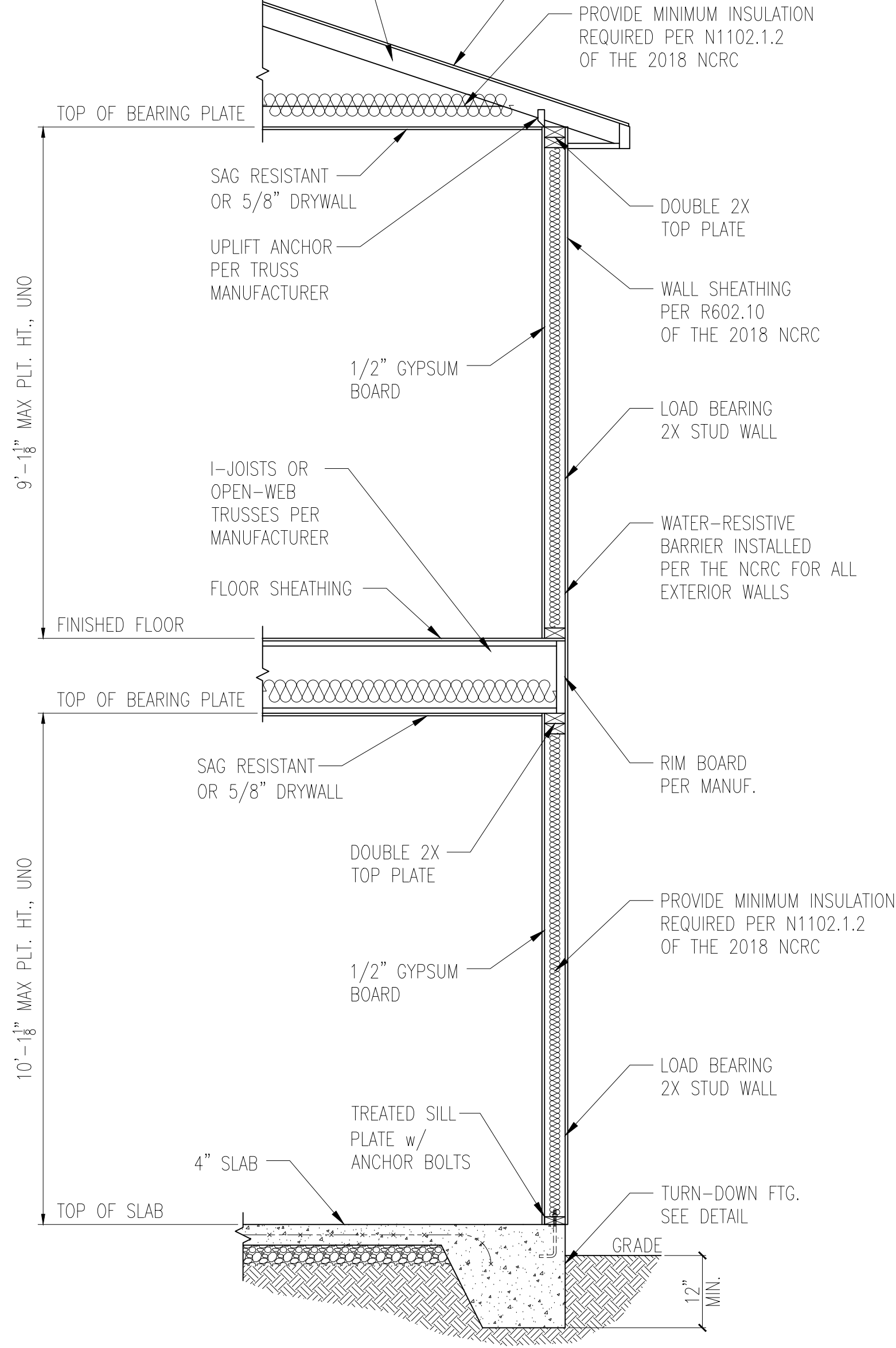
MIN. 3/8" ROOF SHEATHING SECURED IN ACCORDANCE WITH FIGURE TABLE R602.3(1) (SEE NOTE G FOR ULTIMATE WIND SPEEDS GREATER THAN 120MPH). PROVIDE UNDERLAYMENT IN ACCORDANCE WITH CHAPTER 9 OF THE 2018 NCRC

PROVIDE MINIMUM INSULATION REQUIRED PER N1102.1.2 OF THE 2018 NCRC



1 TYP. INTERIOR LOAD BEARING WALL SECTION
D2m N.T.S.

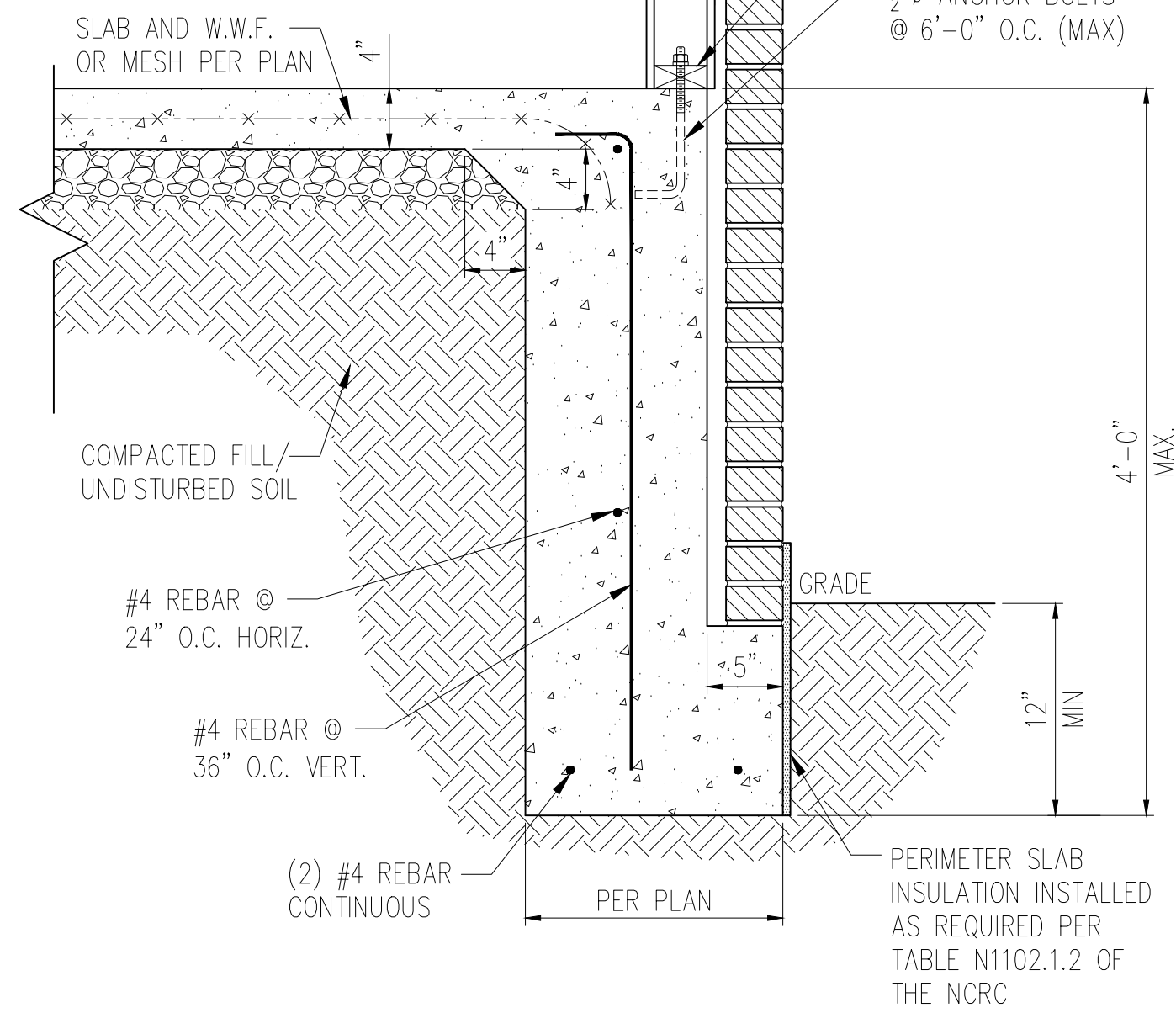
MIN. 3/8" ROOF SHEATHING SECURED IN ACCORDANCE WITH FIGURE TABLE R602.3(1) (SEE NOTE G FOR ULTIMATE WIND SPEEDS GREATER THAN 120MPH). PROVIDE UNDERLAYMENT IN ACCORDANCE WITH CHAPTER 9 OF THE 2018 NCRC



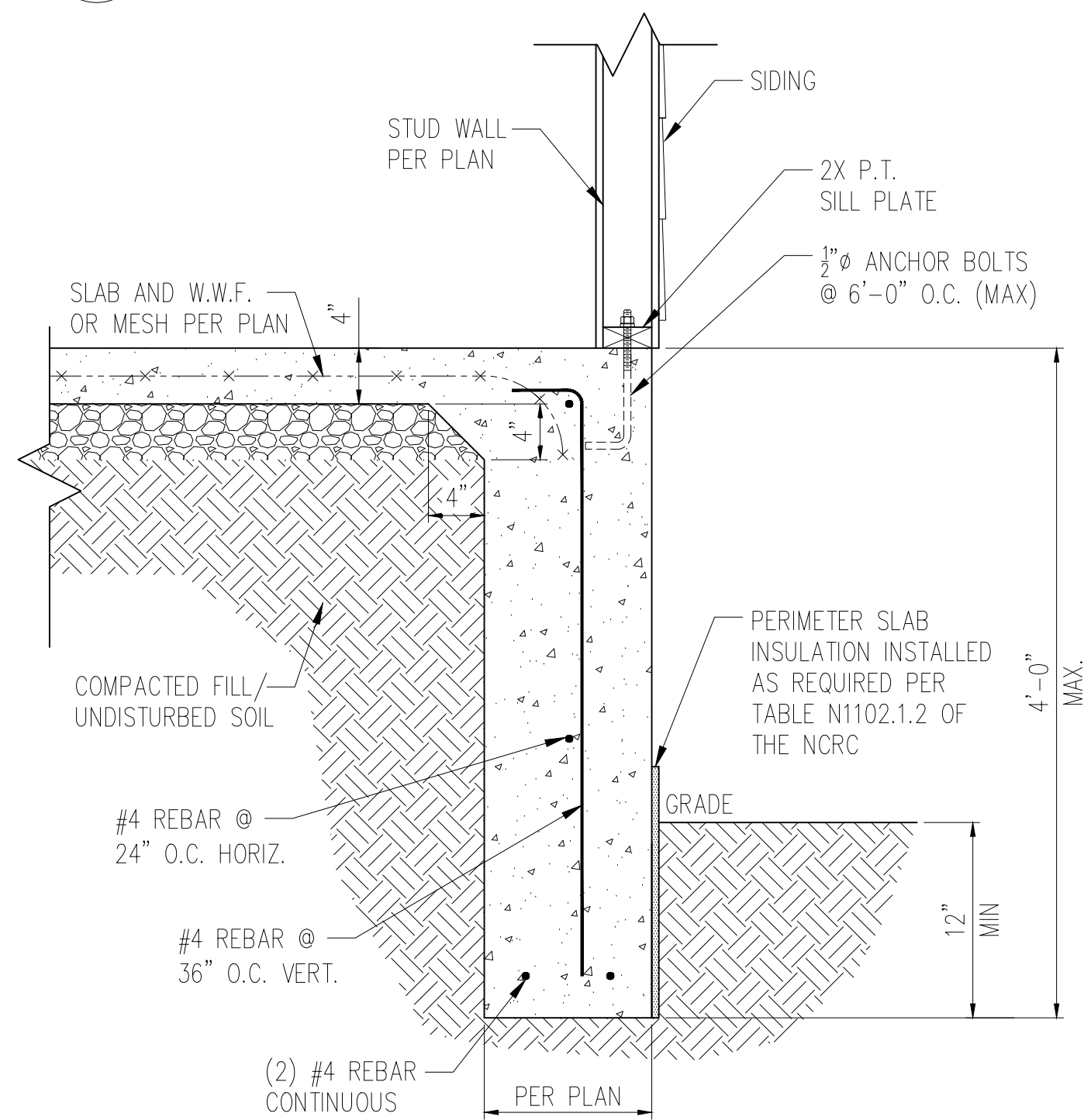
2 TYP. EXTERIOR LOAD BEARING WALL SECTION
D2m N.T.S.

-SIMILAR w/ BRICK AND STONE
-BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.
-MIN. 3/16" WEAP HOLES @ 33" O.C.

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

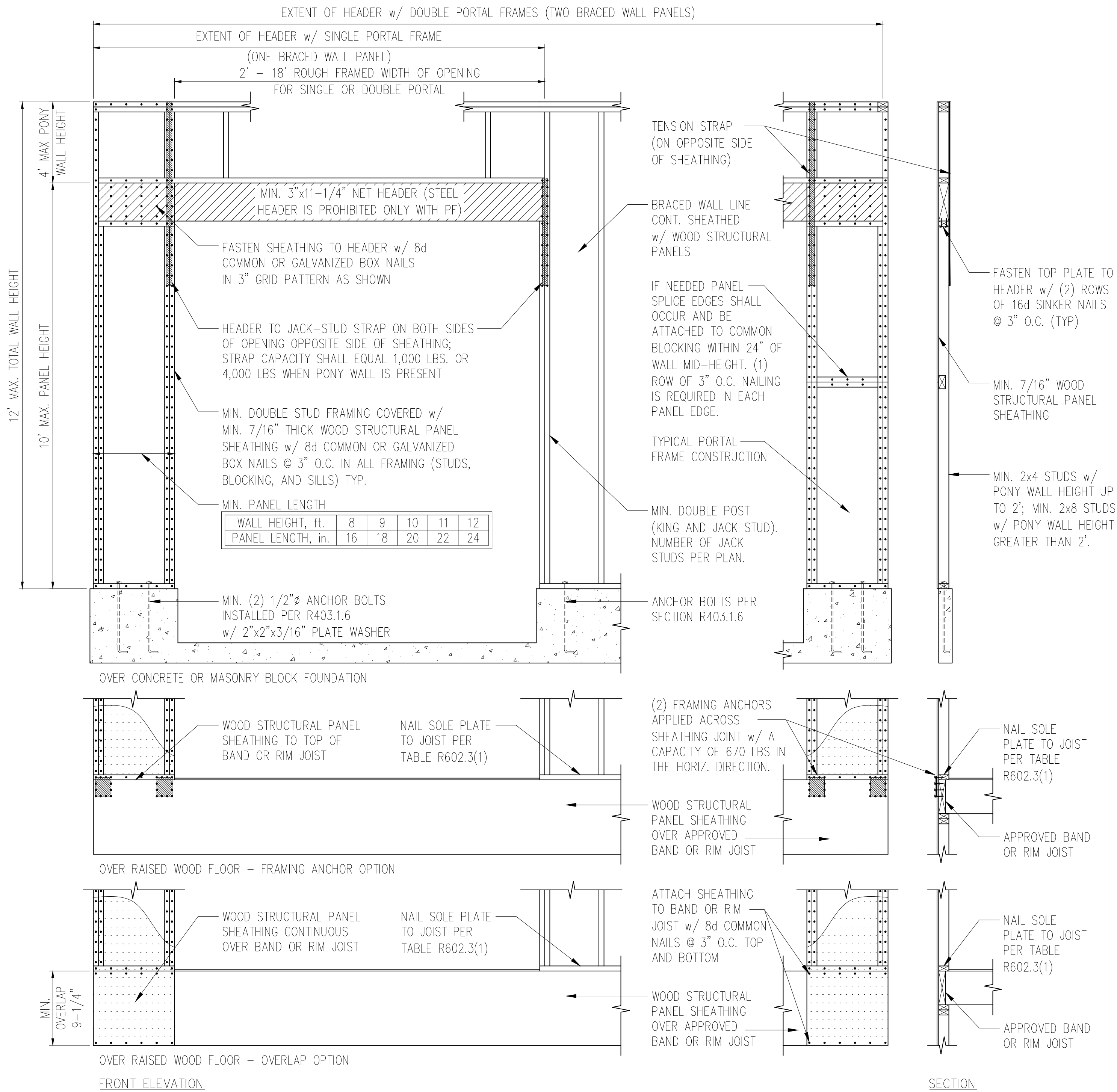


3 TALL SLAB DETAIL w/ BRICK VENEER
D2m N.T.S.

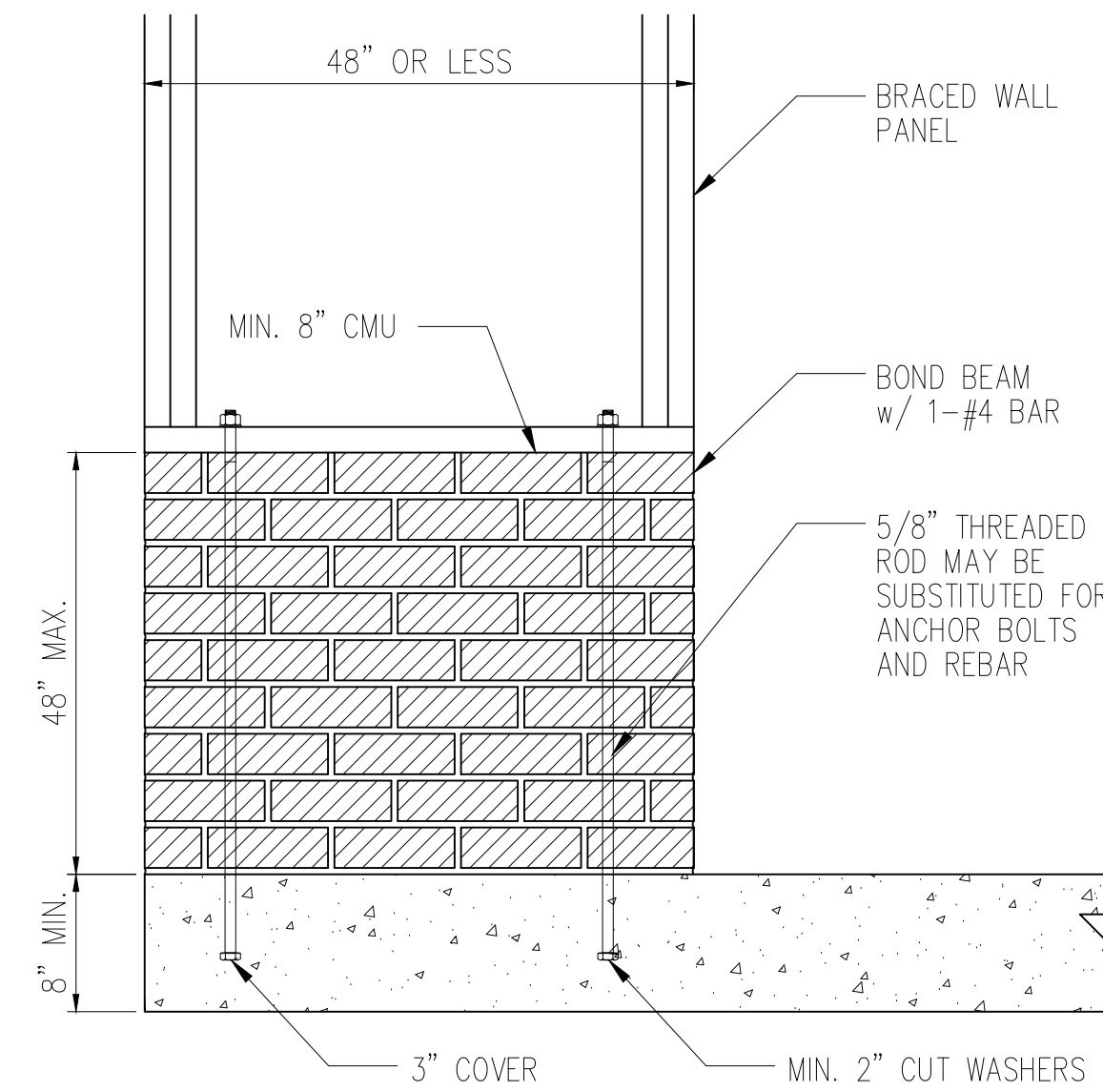
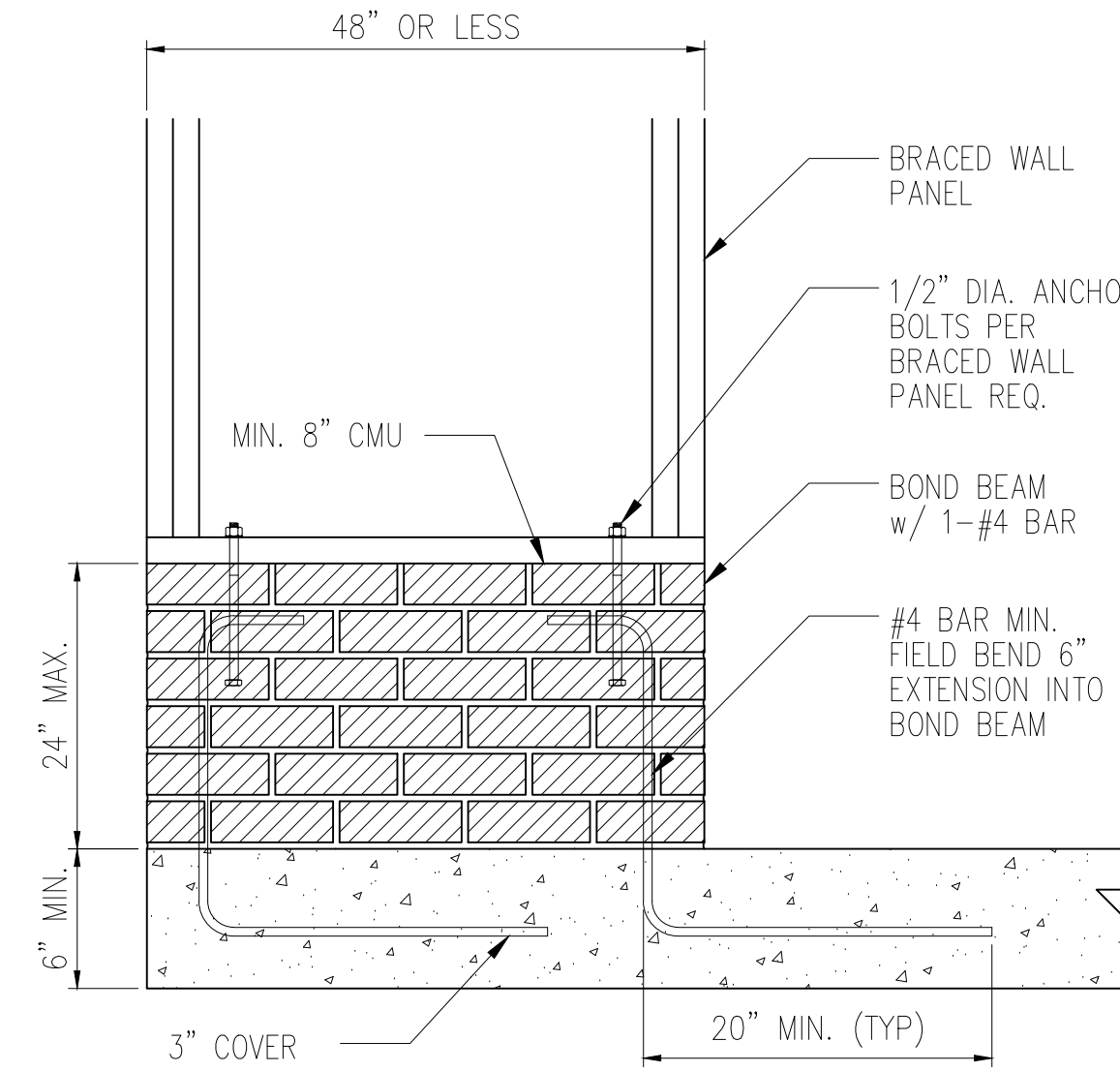


4 TALL SLAB DETAIL w/ SIDING
D2m N.T.S.

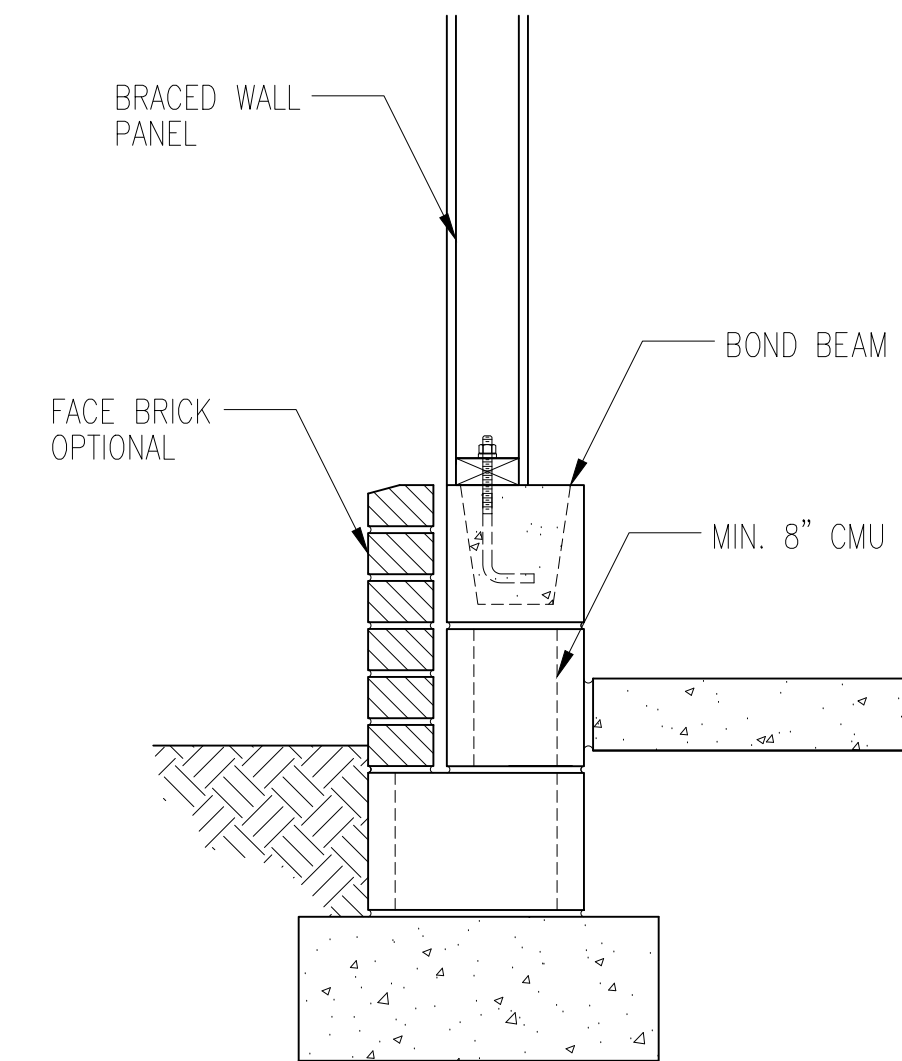
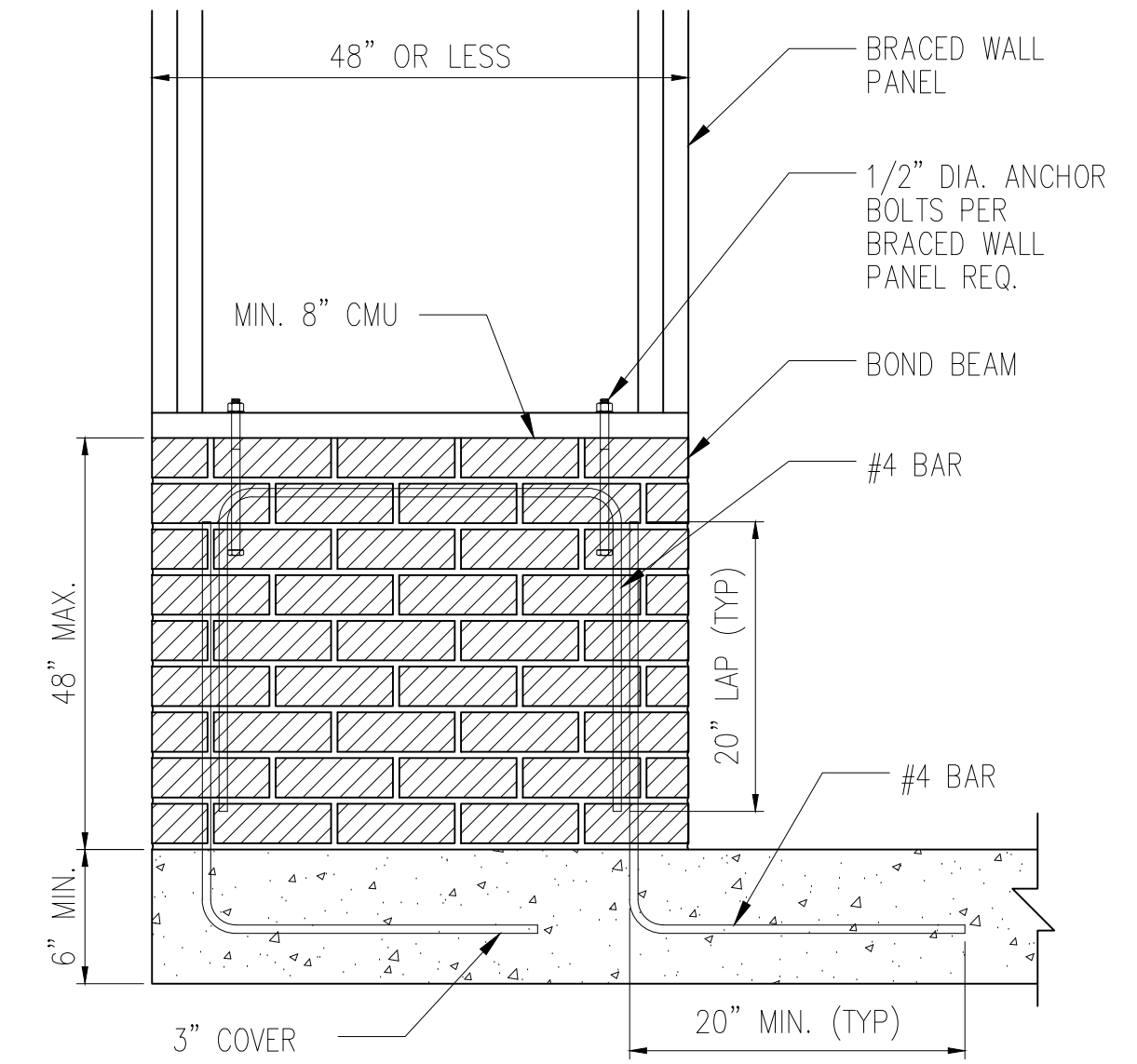
- NOTES:
- REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
 - PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
 - SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
 - REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, 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



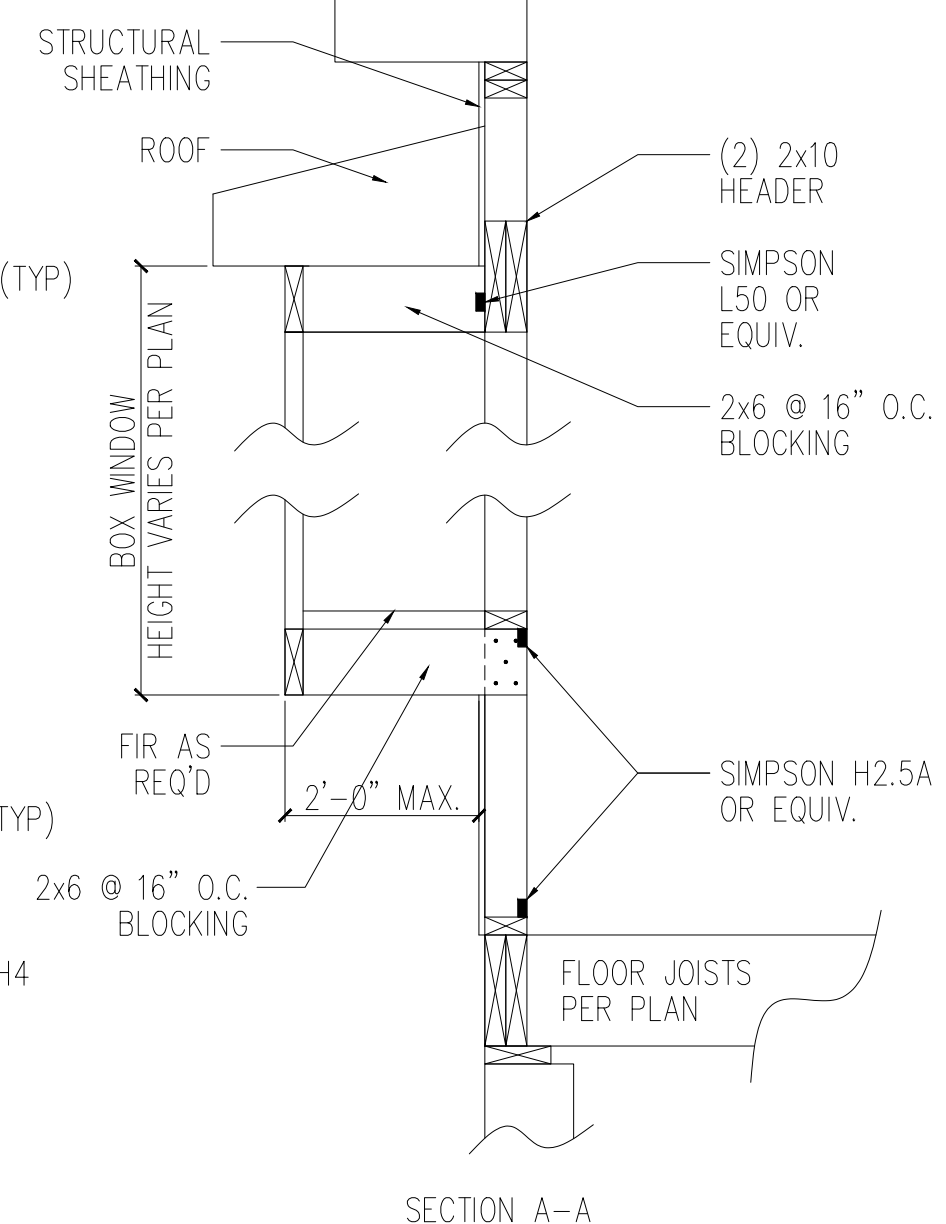
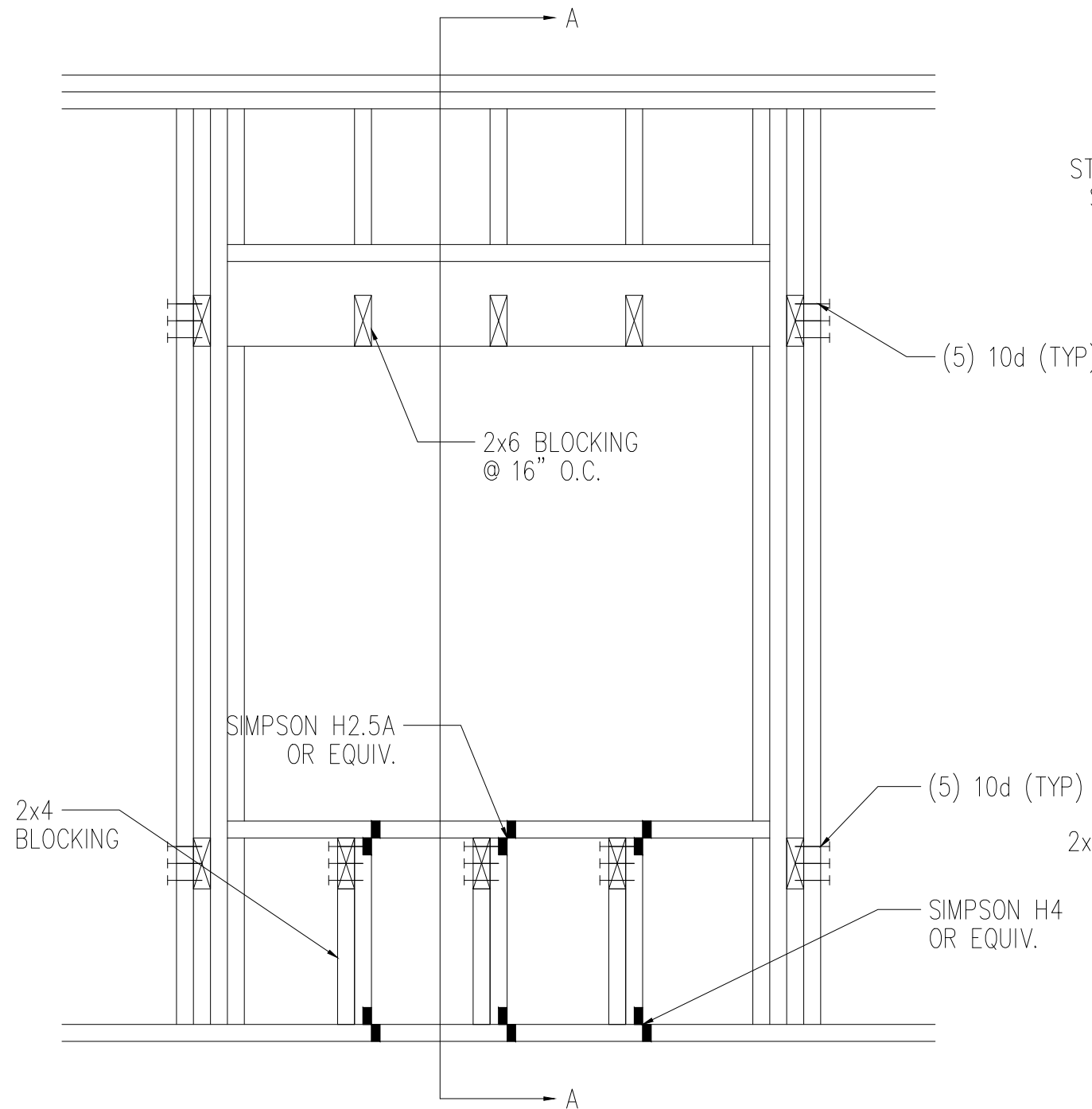
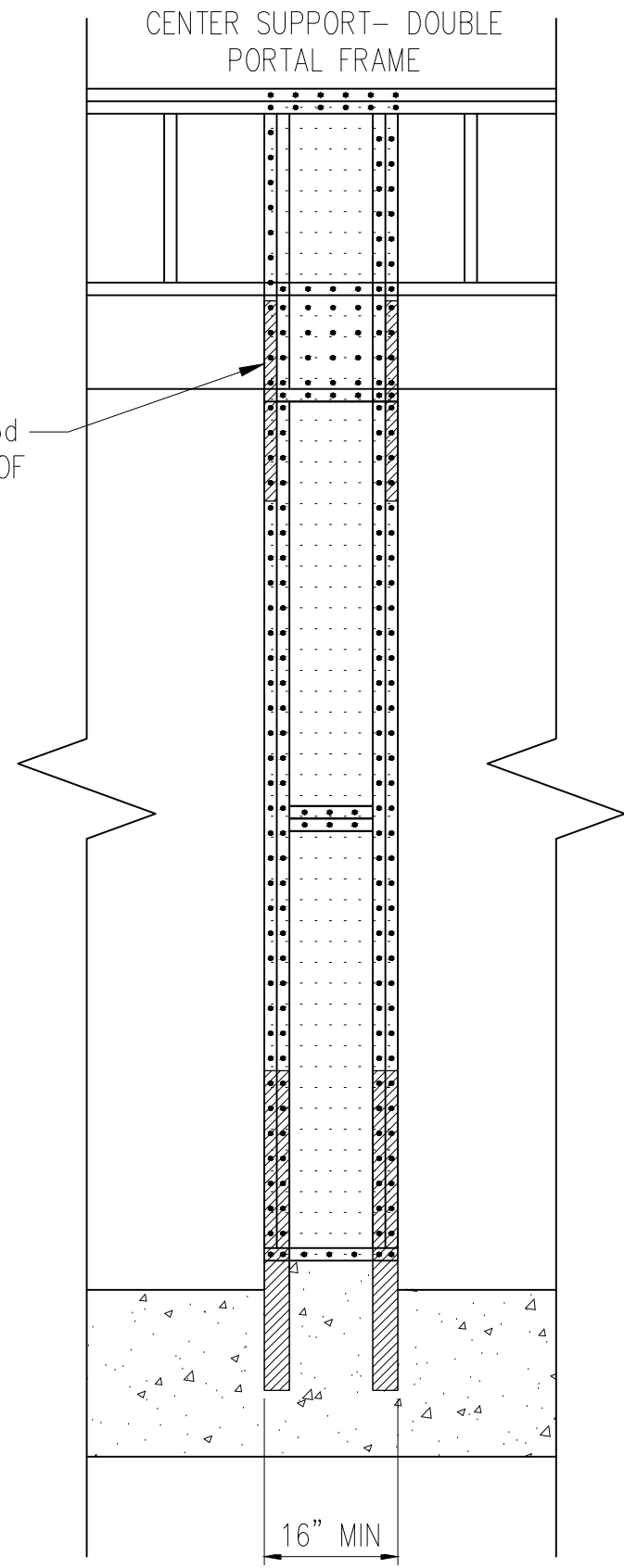
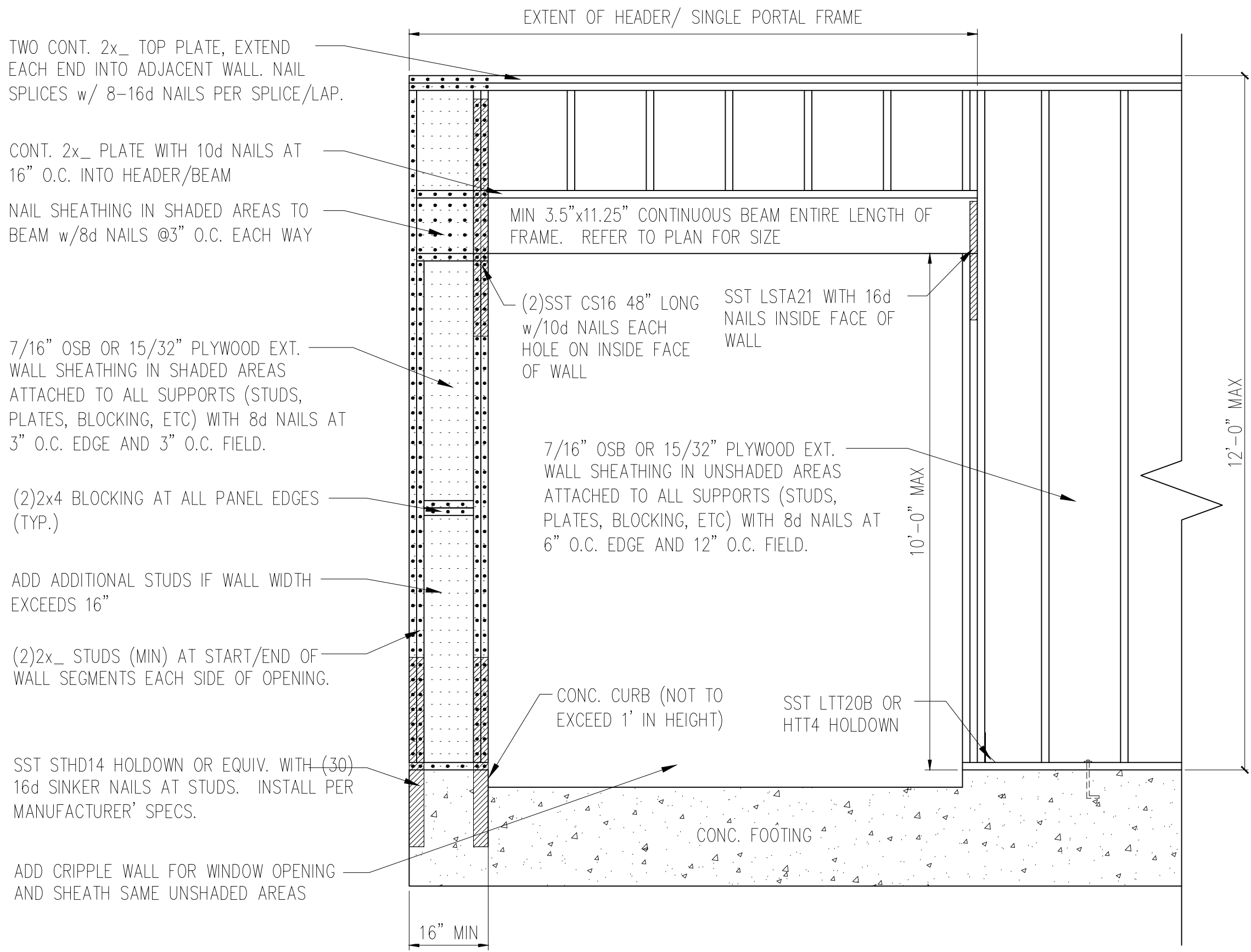
1 METHOD PF: PORTAL FRAME DETAIL
3/8" = 1'-0"



2 MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS
D1f NTS

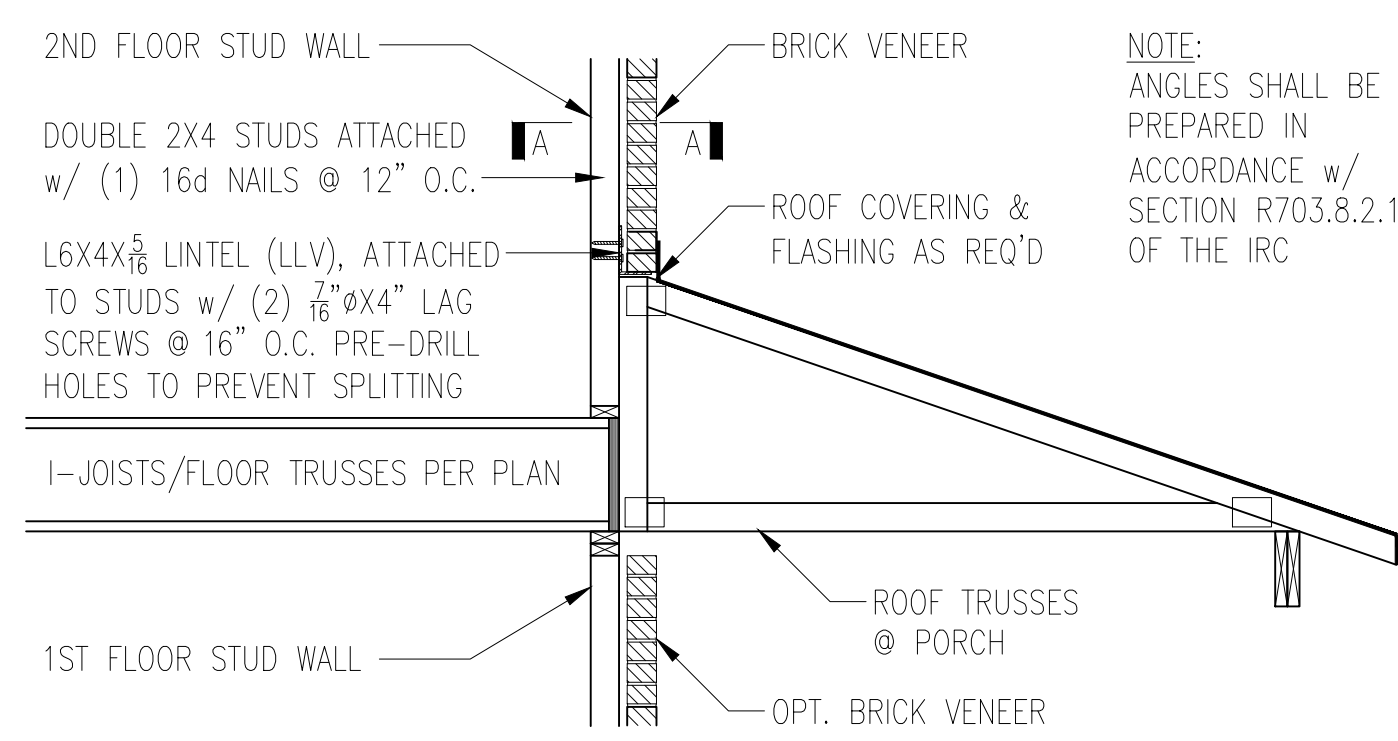


NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

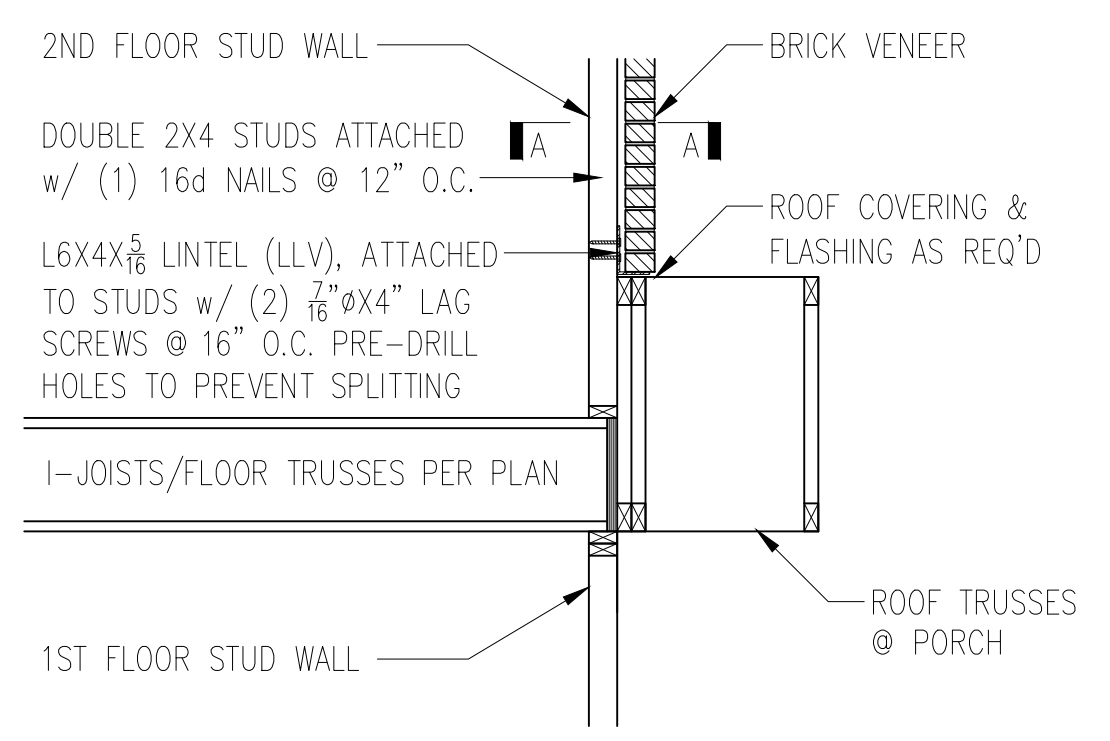


1 METHOD PF: PORTAL FRAME DETAIL w/ HOLD-DOWNS
D2f 3/4" = 1'-0"

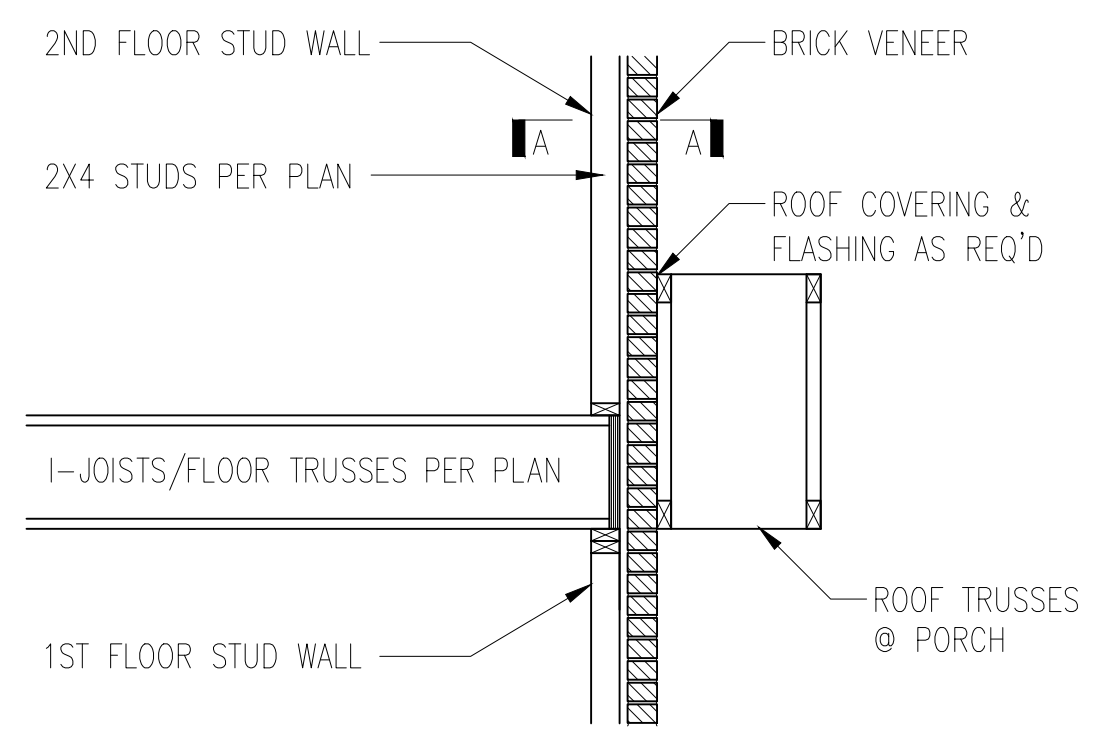
2 BOX WINDOW DETAIL
D2f N.T.S



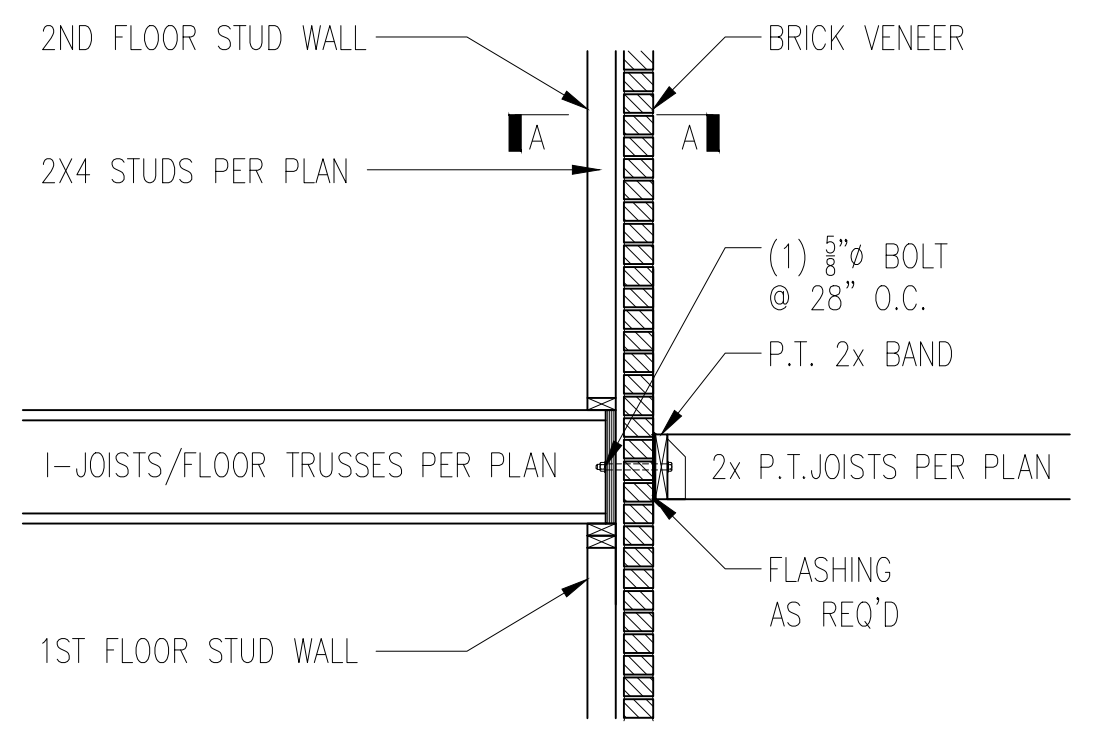
TRUSSES PERPENDICULAR TO STUD WALL



TRUSSES PARALLEL TO STUD WALL

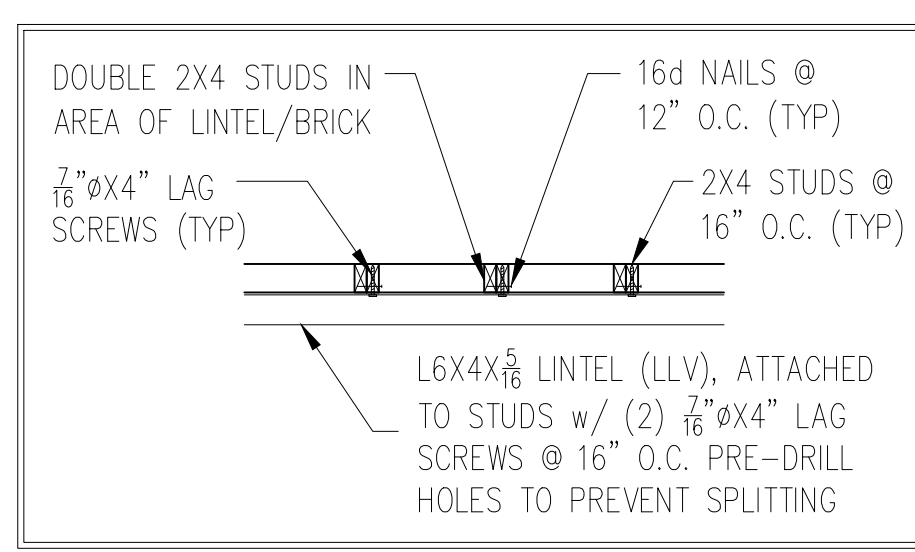


TRUSSES PARALLEL TO STUD WALL w/ CONTINUOUS BRICK VENEER



4 BALCONY JOIST ATTACHMENT
D2f NTS

3 BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL
D2f NTS

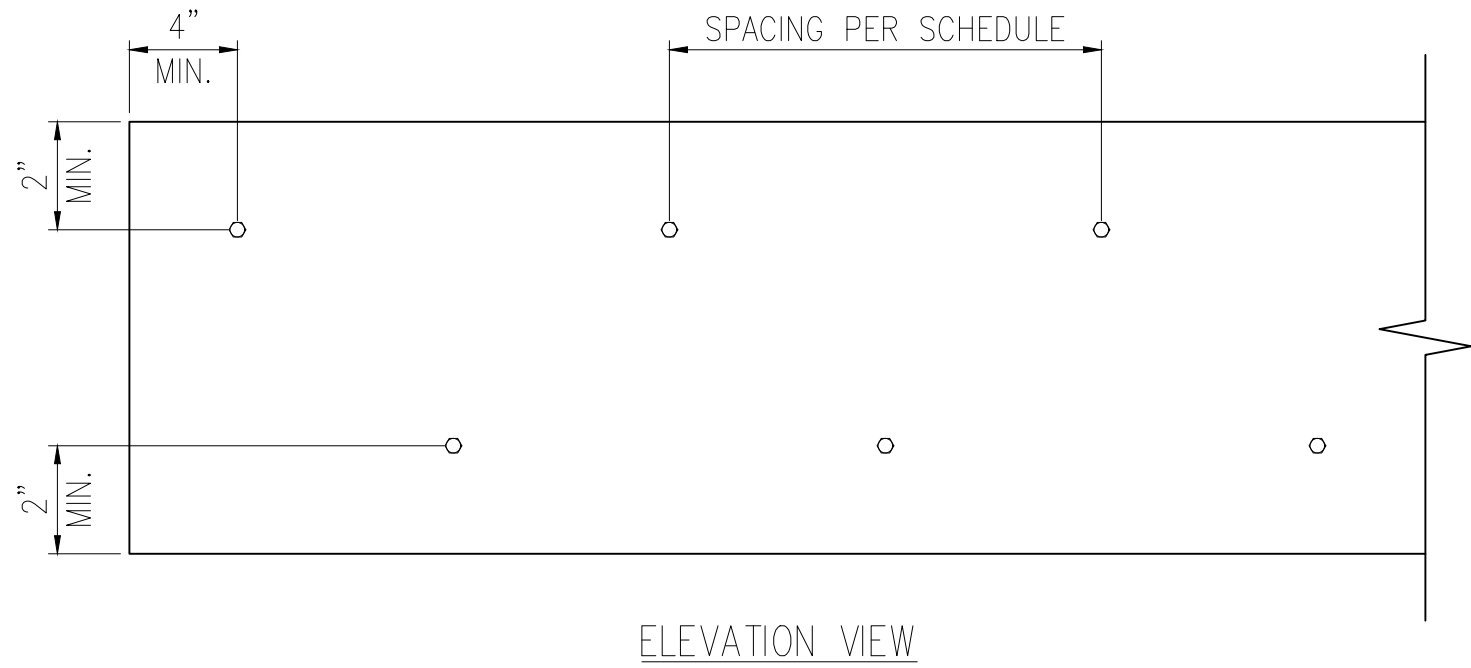


SECTION A-A
NTS

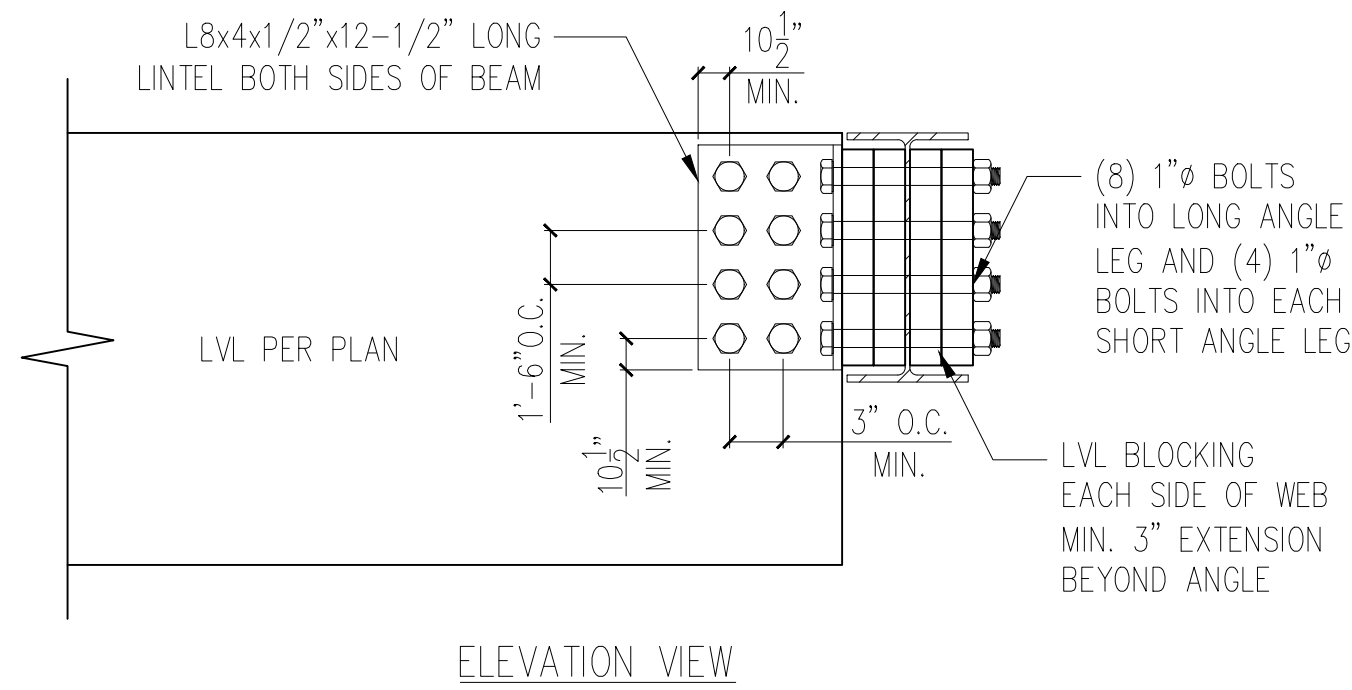
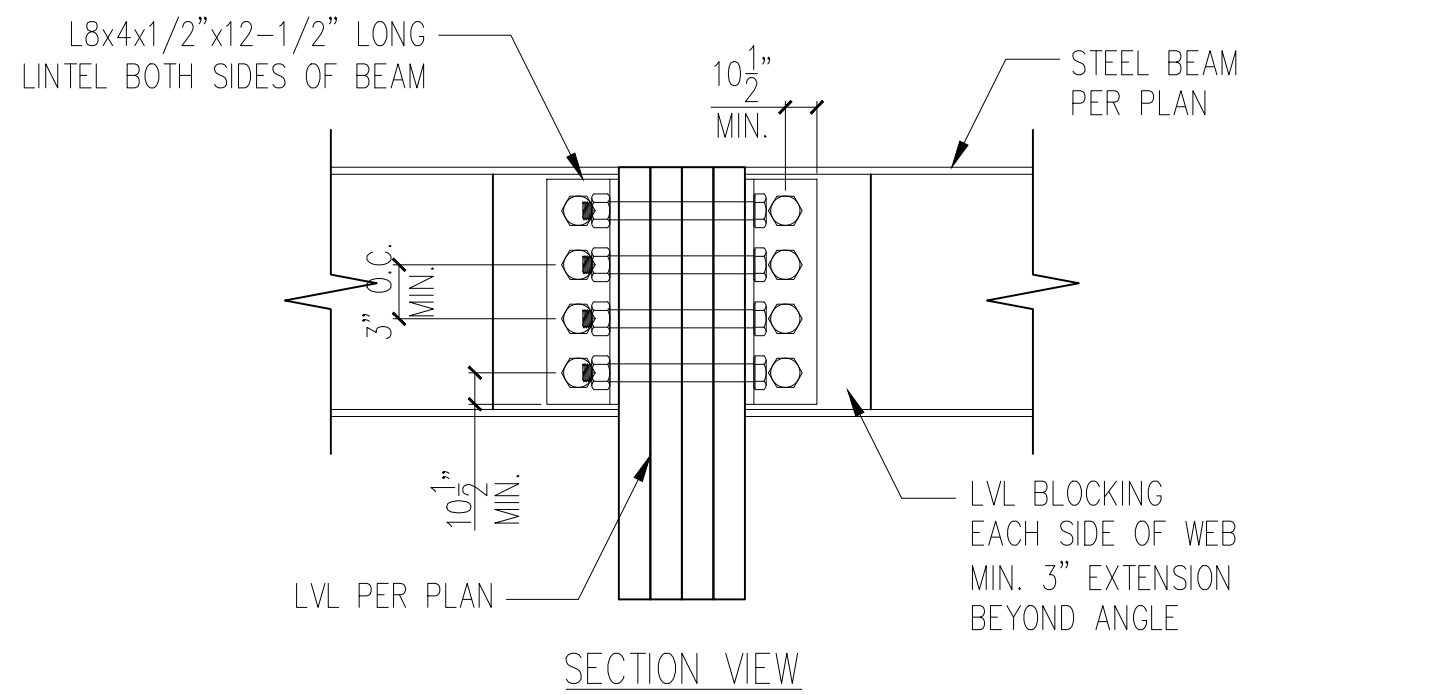
MINIMUM FASTENING
REQUIREMENTS FOR
TOP- AND SIDE-LOADED
MEMBERS

FASTENER TYPE	LVL DEPTH	3 1/2" WIDE	5 1/4" WIDE		7" WIDE		
10d (0.128" x 3") Nails	7/4" ≤ d < 14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
	d ≥ 14"	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 < 14"	2 rows @ 12" o.c.	2 rows @ 12" o.c. (ES)	2 rows @ 12" o.c.	-	2 rows @ 12" o.c. (ES)	-
	d ≥ 14"	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 1/4"	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.		

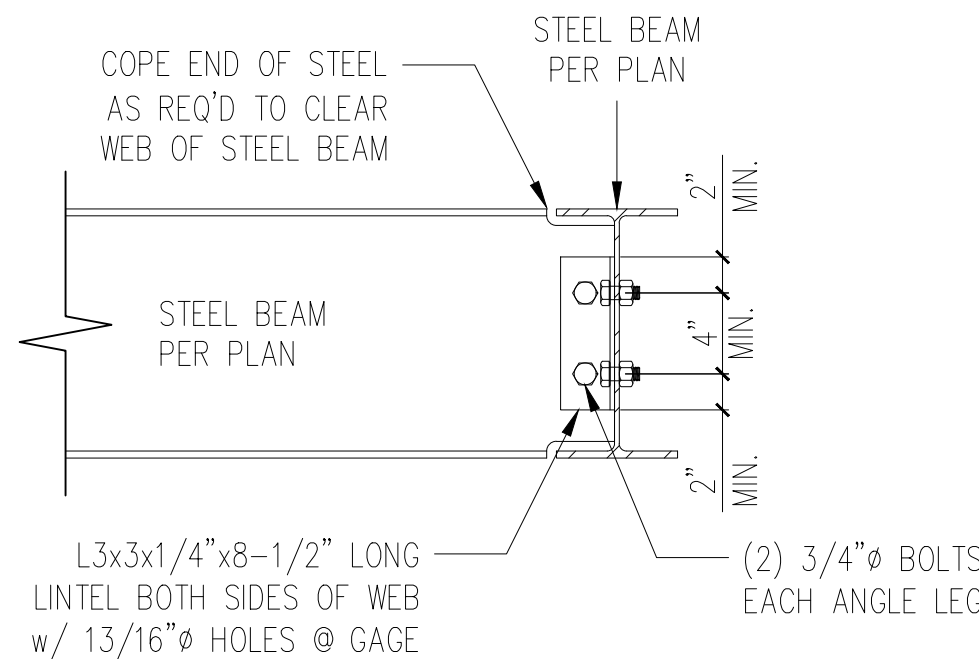
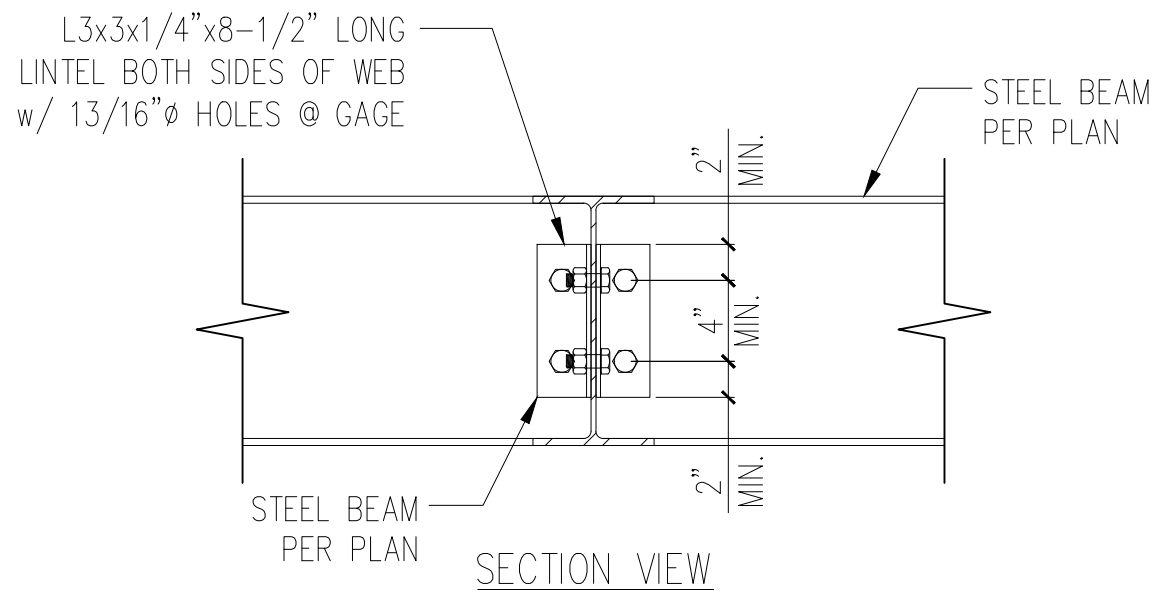
- NOTES:**
- All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.
 - Minimum fastening requirements for depths less than 7 1/4" require special consideration. Please 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).



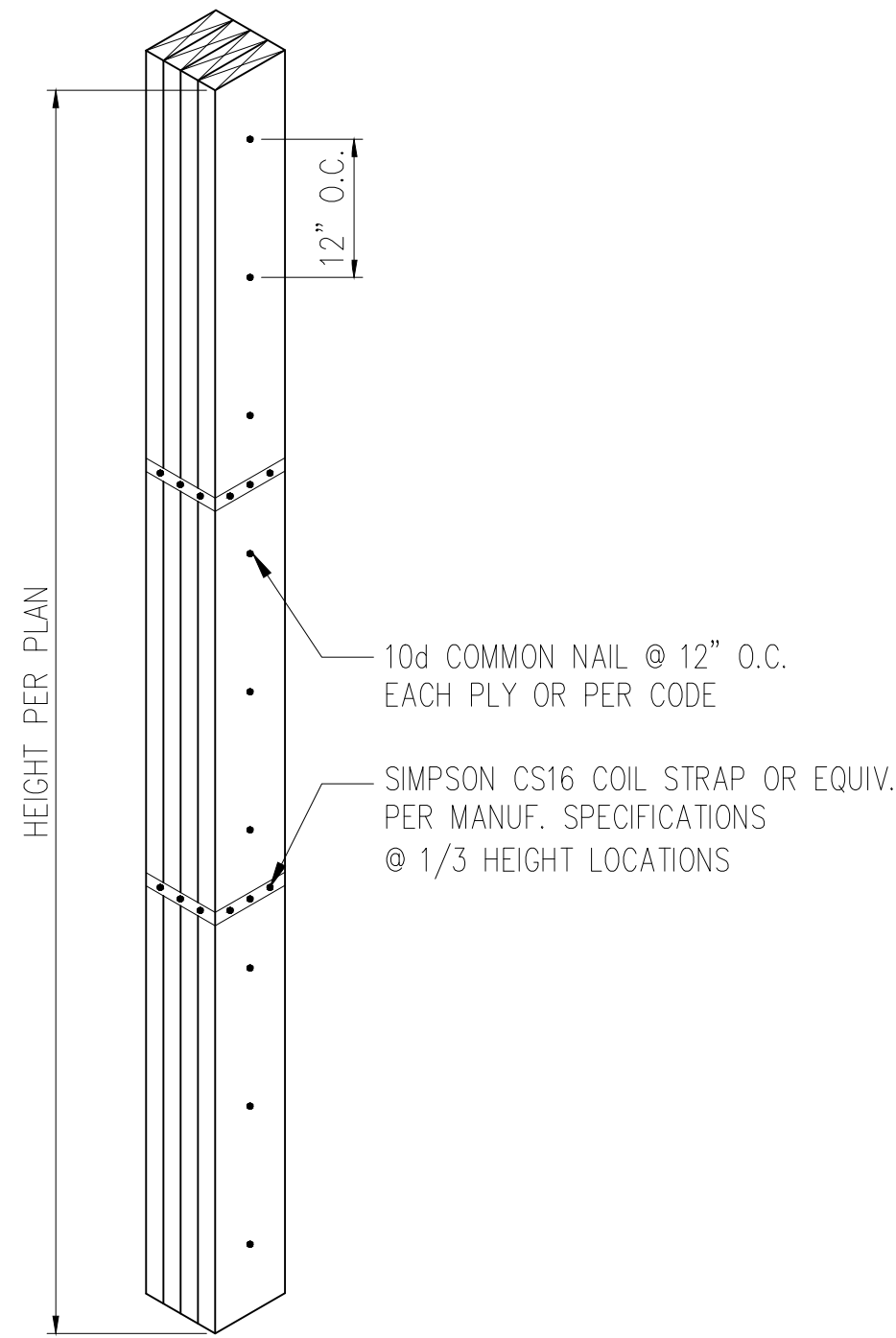
1 MULTI-PLY BEAM CONNECTION DETAIL
D3f N.T.S.



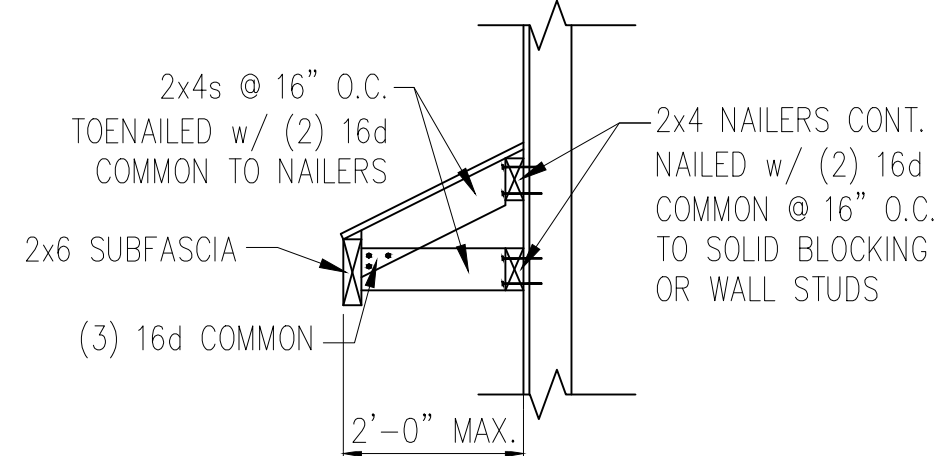
3 LVL TO STEEL DETAIL
D3f N.T.S.



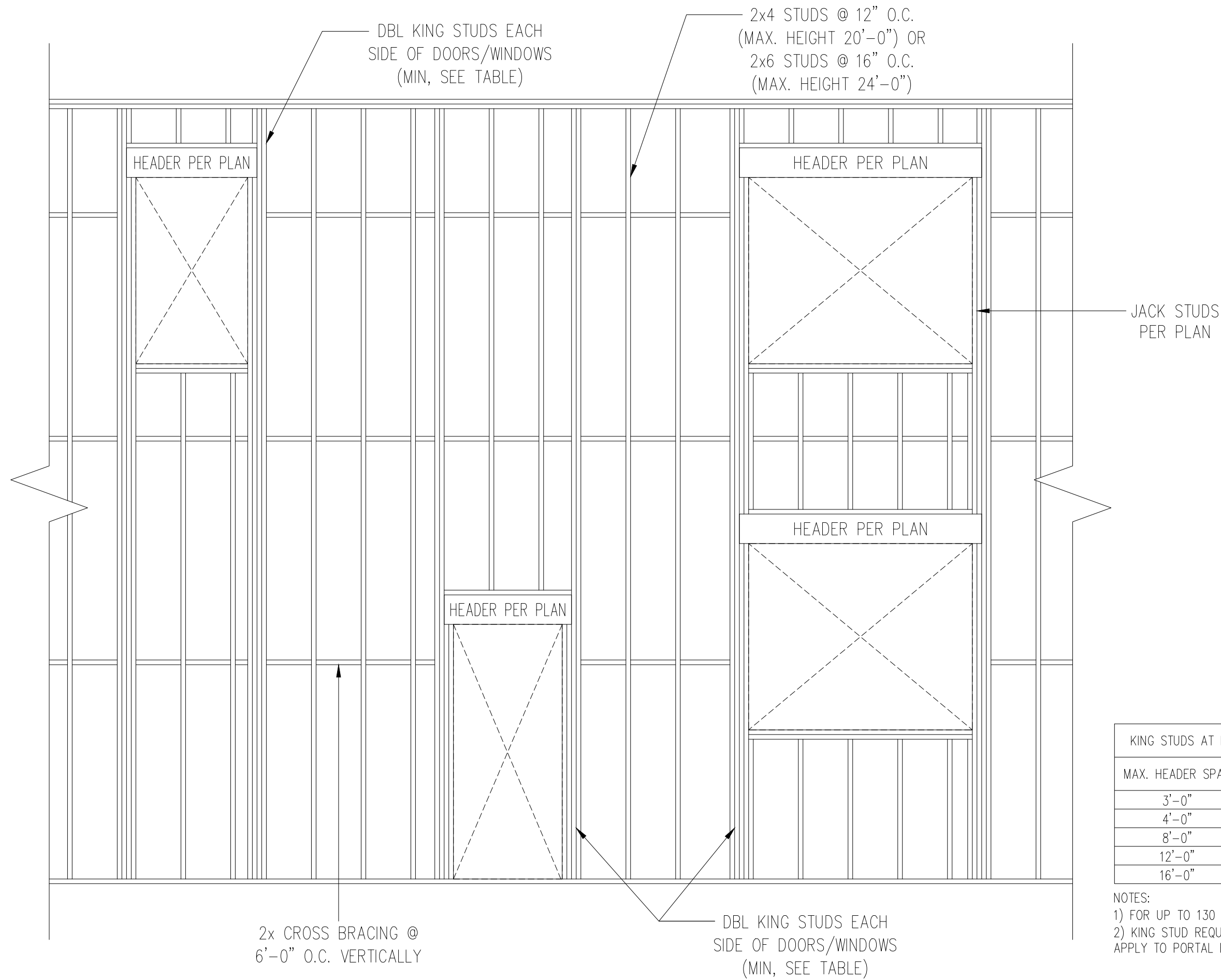
4 STEEL TO STEEL DETAIL
D3f N.T.S.



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



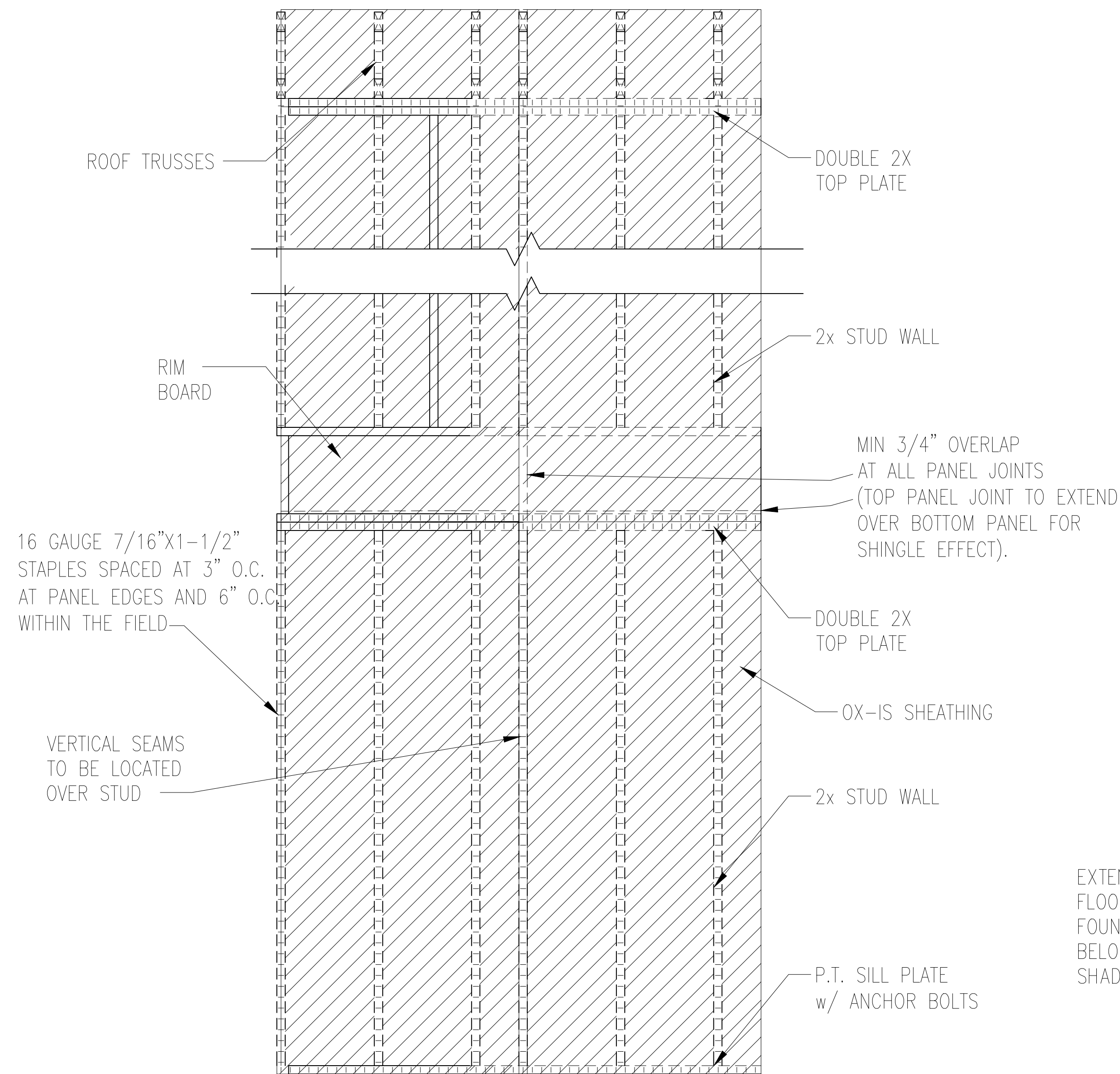
5 GABLE ROOF RETURN
D3f N.T.S.



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.



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.)

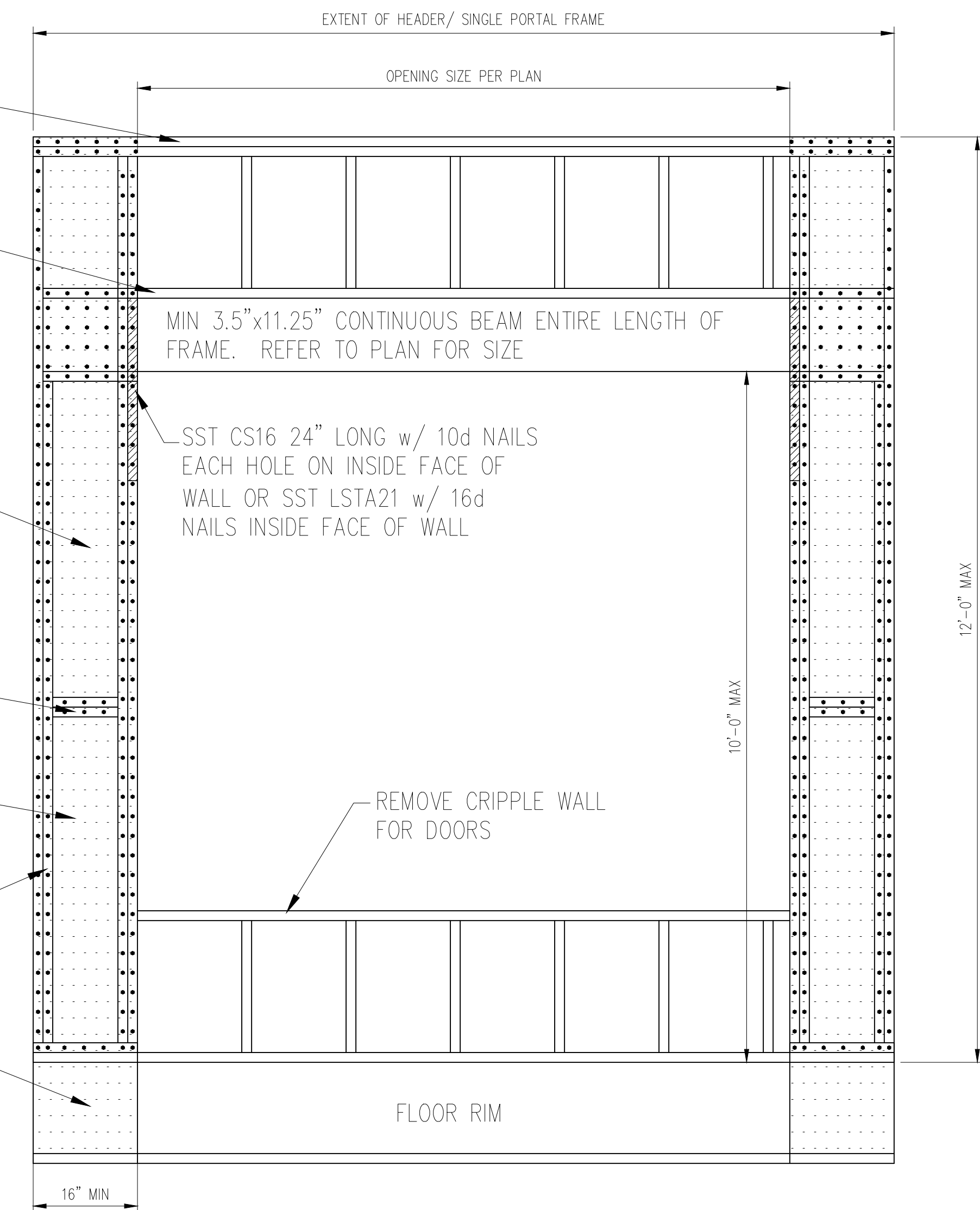
ADD ADDITIONAL STUDS IF WALL WIDTH EXCEEDS 16"

(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.

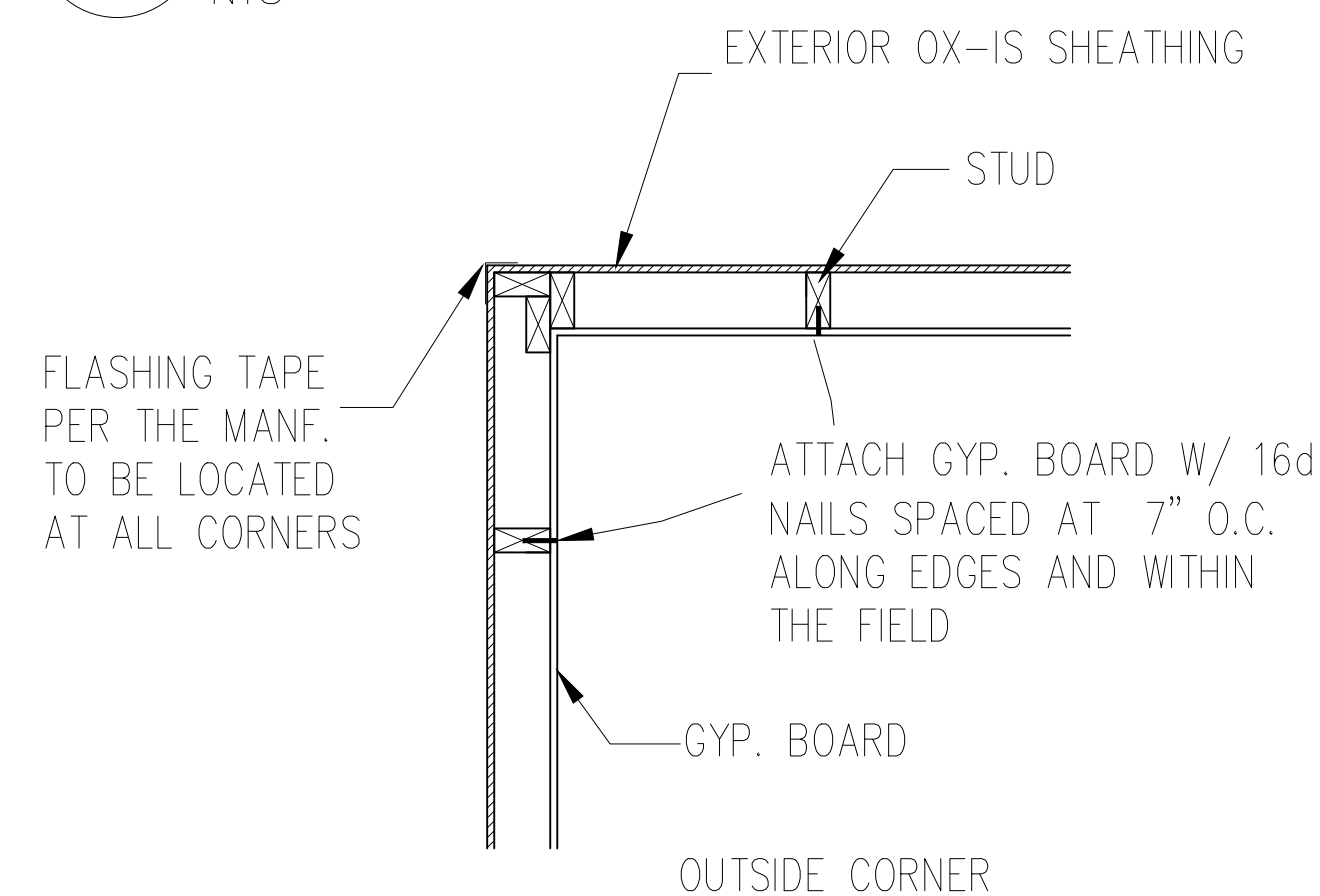
2x4 P.T. PLATE WITH (2)1/2" DIA ANCHOR BOLTS EMBEDDED IN CONC. 7" MIN. WITH 3/16"x2"x2" PLATE WASHERS

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.

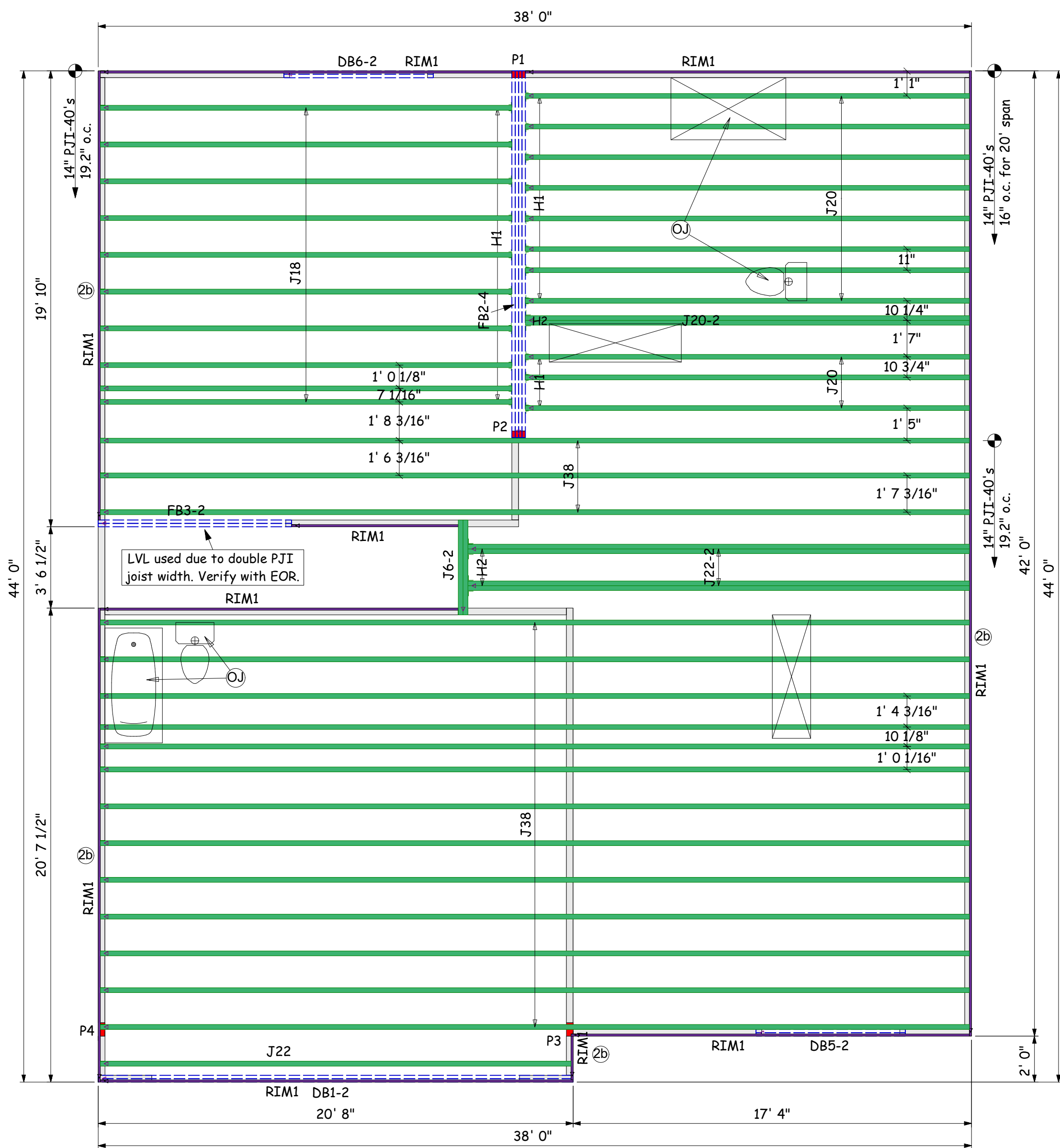


3 METHOD PF: PORTAL FRAME DETAIL
D4f NTS

1 TYP. WALL BRACING
D4f NTS



2 TYP. EXTERIOR CORNER ATTACHMENT
D4f NTS

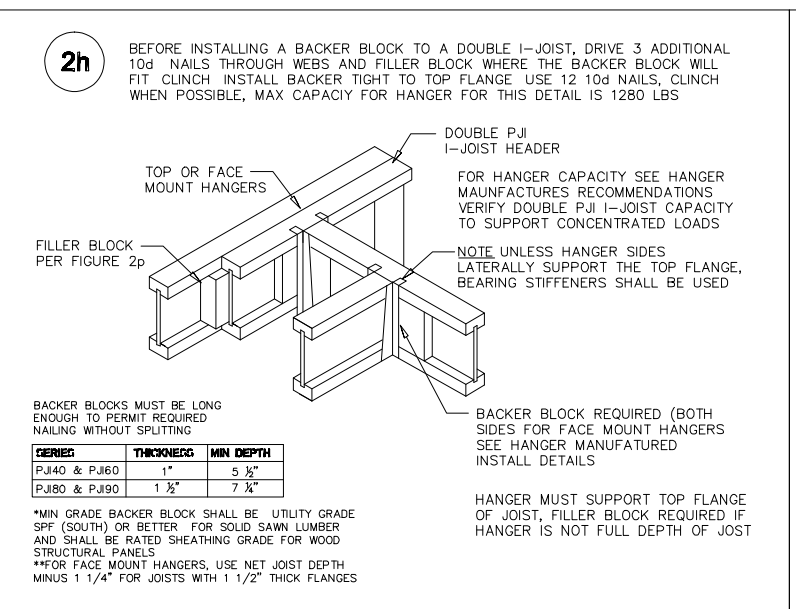
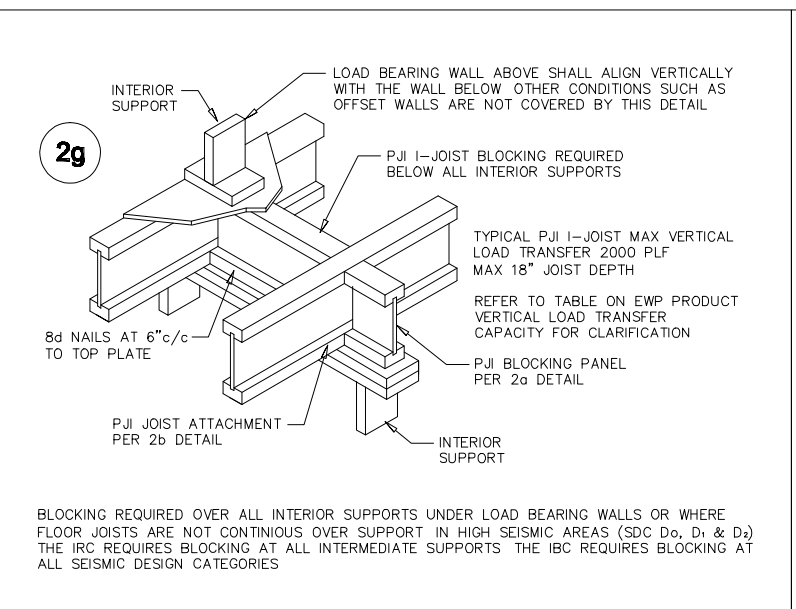
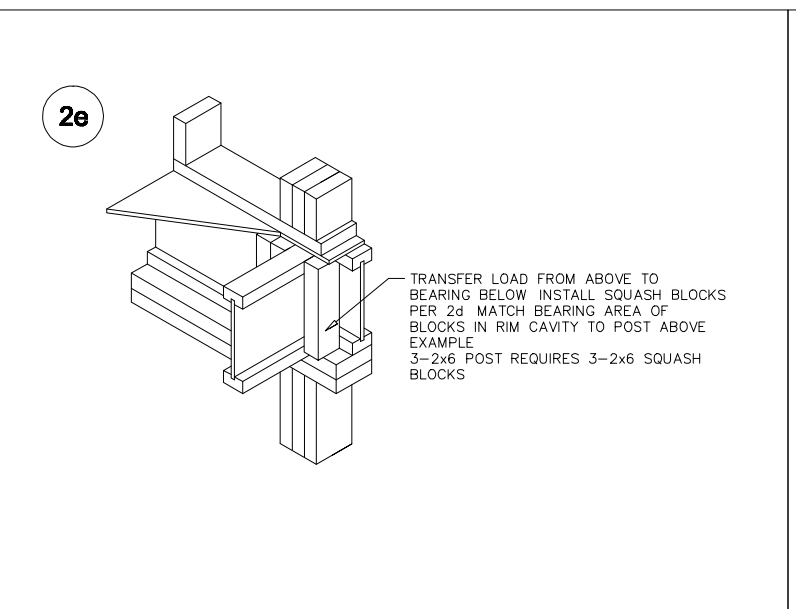
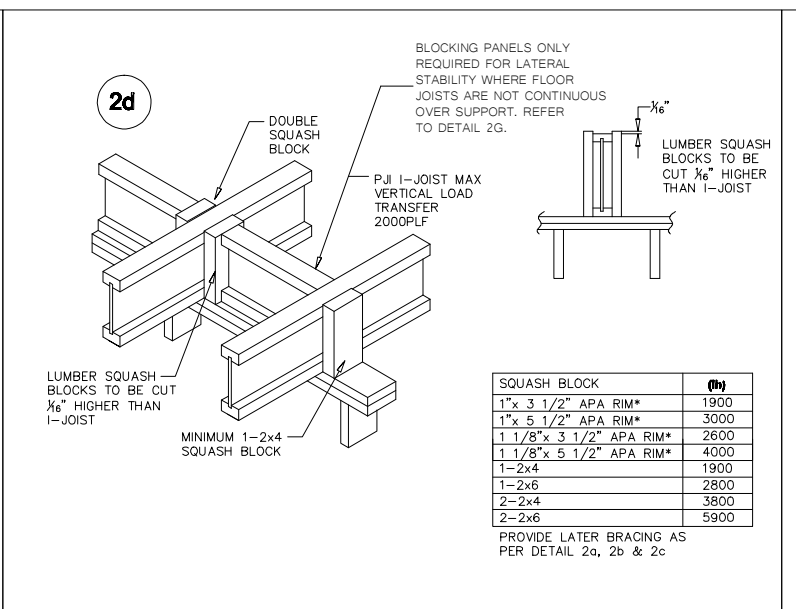
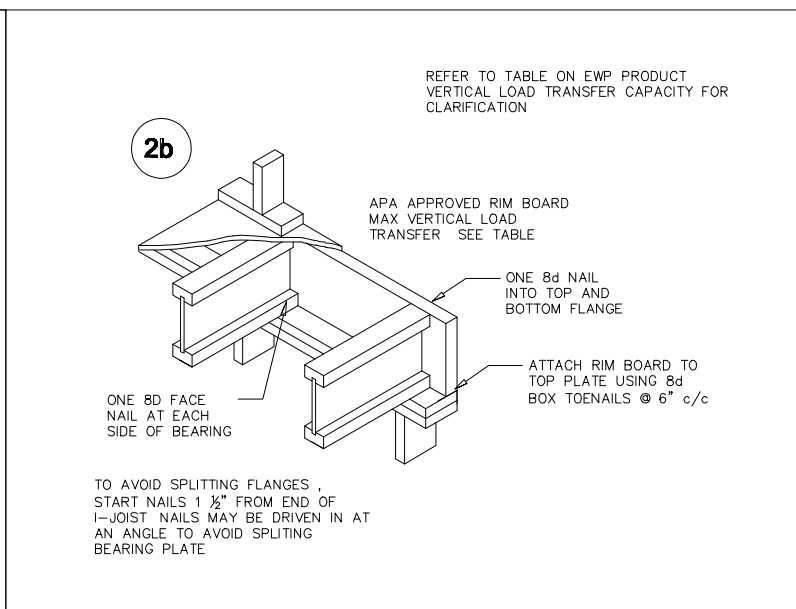
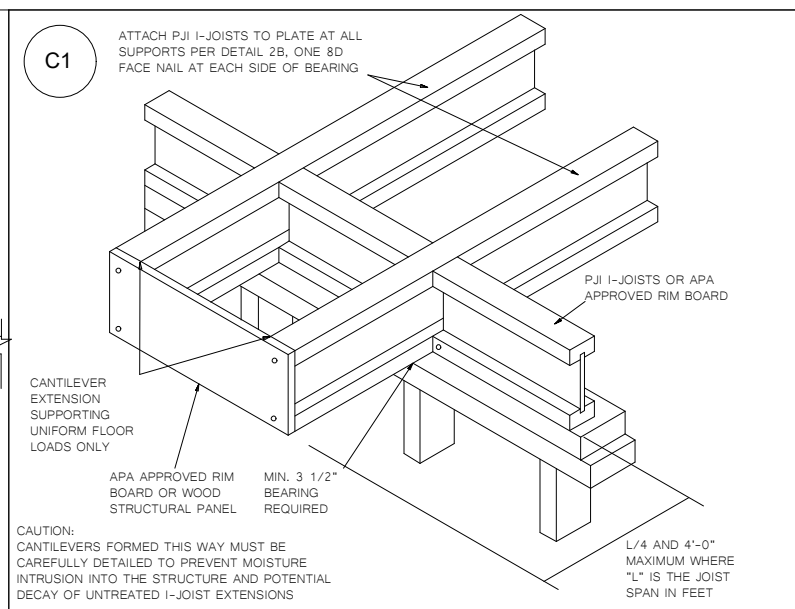
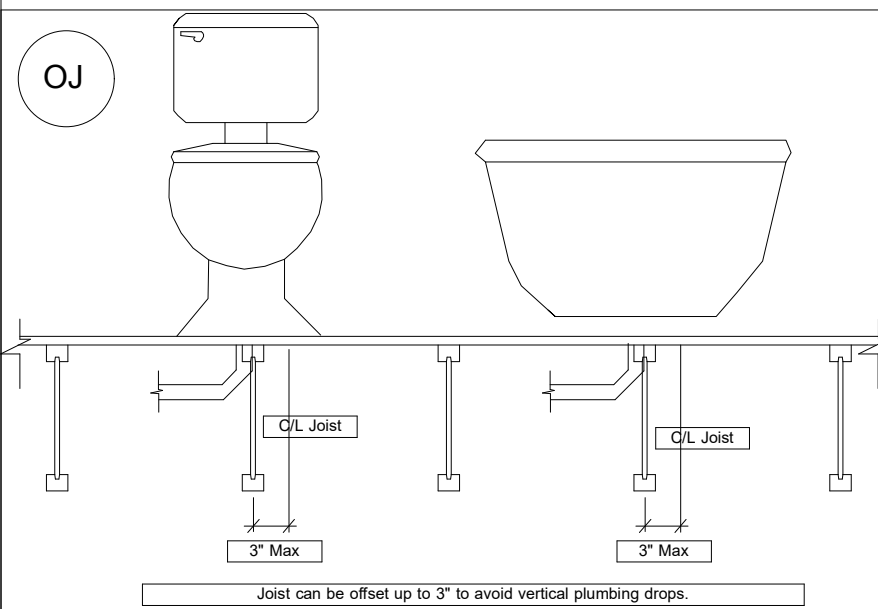


KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL I-JOIST AND LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. 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.

Products				
PlotID	Length	Product	Plies	Net Qty
J38	38' 0"	14" PJI-40	1	16
J22	22' 0"	14" PJI-40	1	1
J22-2	22' 0"	14" PJI-40	2	4
J20	20' 0"	14" PJI-40	1	11
J20-2	20' 0"	14" PJI-40	2	2
J18	18' 0"	14" PJI-40	1	10
J6-2	6' 0"	14" PJI-40	2	2
DB5-2	8' 0"	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2
DB6-2	8' 0"	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2
DB1-2	22' 0"	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	2	2
FB2-4	16' 0"	2.1 RigidLam SP LVL 1-3/4 x 14	4	4
FB3-2	10' 0"	2.1 RigidLam SP LVL 1-3/4 x 14	2	2
RTM1	12' 0"	1 1/8" x 14" APA Rim Board	1	16
P1	10' 0"	3 1/2" x 7" 1.8E Parallam® PSL	1	1
P2	10' 0"	3 1/2" x 7" 1.8E Parallam® PSL	1	1
P3	10' 0"	3 1/2" x 7" 1.8E Parallam® PSL	1	1
P4	10' 0"	3 1/2" x 7" 1.8E Parallam® PSL	1	1

Connector Summary					
PlotID	Qty	Manuf	Product	Backer Blocks	Web Stiff
H1	21	Simpson	IUS2.56/14	No	No
H2	3	Simpson	MIU5.12/14	2 and Filler	No

2ND FLOOR LAYOUT

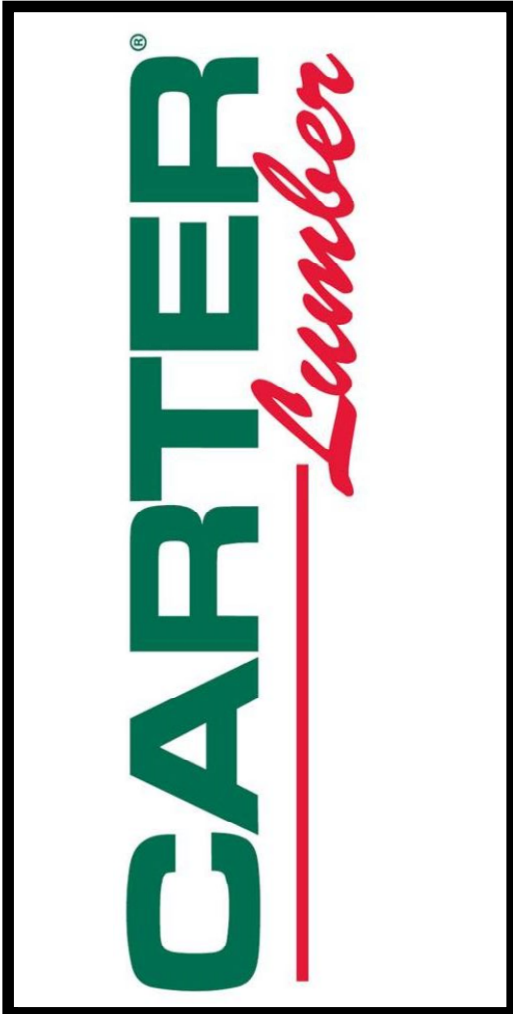


LABEL LEGEND

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

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

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 rafteres on joists without prior approval from the manufacturing Representative unless following hole guidelines in the installation guide or product. Builder takes full responsibility for doing so and NO Back charge will be accepted.



DR Horton
1 Cross Creek Hanover D2
FLOOR JOIST LAYOUT

Scale: 1/4" = 1'-0"
Date: // 10/01/25
Designer: DW
Project #: 25090184
Sheet Number: 1 / 1