

Tobacco Road Lot 103

BIRCH II
ELEVATION - B



FRONT DOOR
STYLE PER
PURCHASE
ORDER

INCLUDED OPTIONS:

1st FLOOR
SCREENED PORCH (in footprint)
GOURMET KITCHEN
FIREPLACE
FIXED WINDOWS @ FAMILY ROOM
OWNERS DELUXE BATH
STUDY ILO DINING ROOM
TUB W/TILE ILO FG TUB @ BATH 2
SIDE LOAD GARAGE

2nd FLOOR
UNFINISHED STORAGE

GENERAL NOTES:

SITE CONSTRUCTION:

- 1) SOIL BEARING CALCULATIONS BASED ON 2000 PSF MIN. REFER TO THE FOUNDATION/FOOTING SCHEDULE.
- 2) BACK FILL SHALL BE FREE FROM VEGETATION AND CONSTRUCTION DEBRIS.
- 3) BACK FILL SHALL BE PLACED IN LIFTS AND COMPACTED IN SUCH A MANNER AS TO NOT DAMAGE THE FOUNDATION WALLS OR ANY WATERPROOFING/ DAM PROOFING MATERIALS.

FRAMING:

- 1) ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD. ALL STUDS ARE 3 1/2" UNLESS NOTED. ALL DIMENSIONS PRESENTED HERE ARE FRAME DIMENSIONS ONLY.
- 2) PROVIDE 1x BLOCKING UNDER ALL EXTERIOR SLIDING DOORS.
- 3) JOIST HANGERS, WHERE REQUIRED, SHALL BE USED WITHOUT ANGLES.
- 4) INSTALL FIRE STOPPING AND/ OR DRAFT STOPPING AS REQUIRED.
- 5) PROVIDE CUTTING, NOTCHING, NAILING REQUIREMENTS PER 2009-IRC SECTIONS R502.8 R602, R802.7.

THERMAL & MOISTURE PROTECTION:

- 1) INSTALL FIRE STOPPING AND/ OR DRAFT STOPPING AS REQUIRED.
- 2) ATTIC VENTILATION SHALL BE PROVIDED AT 1/150th OF THE AREA OF THE SPACE VENTILATED. CROSS VENTILATION WITH HALF OF THE VENTILATED AREA SHALL BE PROVIDED BY RIDGE OR GABLE VENTS AND THE OTHER HALF BY EAVE OR CORNICE VENTS. VENTS SHALL BE PLACED SO AS TO NOT ALLOW INFILTRATION OF RAIN OR SNOW.
- 3) PROVIDE APPROVED TILE BACKER BOARD FOR ALL SHOWER AND BATH SPACE.
- 4) PROVIDE ICE-SHIELD PER CODE.
- 5) ROOF VENTING TO BE PROVIDED AS SHOWN. SOFFIT, RIDGE, AND OTHER ROOF VENTS TO BE INSTALLED AS NOTED ON THE DRAWINGS & AS PER MANUFACTURERS RECOMMENDATIONS.

DOORS & WINDOW:

- 1) WINDOW CALL OUT PER PLAN. VERIFY WINDOW MANUFACTURER WITH PROJECT MANAGER.
- 2) REVIEW ALL WINDOW HEADER HEIGHTS PER PLATE HT. AND VERIFY W/ ELEVATIONS AND CORNICE DETAILS.
- 3) TEMPERED GLASS SHALL BE USED IN ALL HAZARDOUS AREAS.
- 4) FRONT DOOR WIDTH AS REQUIRED BY CODE.
- 5) GARAGE DOOR AS REQUIRED BY CODE.
- 6) EMERGENCY - SLEEPING ROOMS SHALL HAVE AT LEAST ONE EGRESS OPENING OF NOT LESS THAN 5.7 SF AND A CLEAR OPENING OF NOT LESS THAN 20" WIDE X 24" HIGH AND SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR.

INSULATION:

EXTERIOR WALLS ZONE 3:
R-13 BATTS MINIMUM. VERIFY

CEILING WITH ATTIC ABOVE COMPRESSED INSULATION:
R-38 BATTS MINIMUM. VERIFY

CEILING WITH ATTIC ABOVE UNCOMPRESSED INSULATION (HEELS IN TRUSSES):
R-30 BATTS MINIMUM. VERIFY

FLOOR OVER GARAGE:
R-19 BATTS MINIMUM. VERIFY

ATTIC KNEEWALL:
R-19 BATTS MINIMUM. VERIFY

BUILDING CODE ANALYSIS

APPLICABLE CODES	2018 NCRC/ 2018 IBC
USER GROUP:	SINGLE FAMILY
CONSTRUCTION CLASS:	UNPROTECTED
HEIGHT LIMITATION:	N/A
EMERGENCY ESCAPE:	EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOM SHALL HAVE A MINIMUM OF 5.7 SQ. FT.
GARAGE / HOUSE CEILING/ HOUSE ASSEMBLY:	1½" GYPSUM BD. WALL & ⅝" TYPE "X" GYPSUM BD. CEILING W/ 20 MINUTE GARAGE/HOUSE DOOR
DESIGN LOAD:	LIVE LOAD: SLEEPING = 30 PSF NON-SLEEPING = 40 PSF DECKS = 40 PSF DEAD LOAD = 10 PSF BASIC WIND SPEED = 115 MPH EXPOSURE B (CHARLOTTE) STAIR LOAD = 40 PSF ROOF LIVE LOAD = 20 PSF LATERAL SOIL PRESSURE = 30 PCF (ASSUMED)
NOTE:	VERIFY ALL APPLICABLE BUILDING CODES WITH STATE AND LOCAL JURISDICTION PRIOR TO CONSTRUCTION

- 1) THE ATTACHED PLANS & SPECIFICATIONS ARE THE SOLE PROPERTY OF DAVIDSON HOMES. ANY UNAUTHORIZED USE OF THESE PLANS WITHOUT PRIOR WRITTEN CONSENT OF DAVIDSON HOMES IS STRICTLY PROHIBITED.
- 2) MAIN STREET DESIGNS OF GEORGIA, LLC DESIGNS HOUSING AS SET FORTH BY THE FORMAT AND PROVISIONS OF THE INTERNATIONAL RESIDENTIAL CODE (IRC), AND THE NATIONAL ELECTRIC CODE (NEC).
- 3) THESE PLANS ARE SUBJECT TO MODIFICATIONS TO MEET CODE REQUIREMENTS AND/OR TO FACILITATE MECHANICAL/ ELECTRICAL/ PLUMBING INSTALLATION AND/ OR TO IMPLEMENT DESIGN IMPROVEMENTS.
- 4) CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AFFECTING CONTRACTOR'S PRODUCTS, INSTALLATIONS, OR FABRICATIONS IN THE FIELD PRIOR TO EXPEDITING THE CONSTRUCTION OF SUCH WORK. FIELD VERIFY ALL DIMENSIONS - DO NOT SCALE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR SURVEYING THE PROJECT AND BECOMING FAMILIAR WITH THE EXISTING CONDITIONS AND SCOPE OF WORK INCLUDING BUT NOT LIMITED TO SITE AND SOIL BEARING CONDITIONS.
- 5) ERRORS AND OMISSIONS WHICH MAY OCCUR IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF MAIN STREET DESIGNS OF GEORGIA, LLC IN WRITING, AND WRITTEN INSTRUCTION SHALL BE OBTAINED PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ERRORS, DISCREPANCIES, OR OMISSIONS FOR WHICH THE CONTRACTOR FAILED TO NOTIFY MAIN STREET DESIGNS OF GEORGIA, LLC PRIOR TO CONSTRUCTION AND/ OR FABRICATION OF THE WORK.
- 6) FLAME SPREAD AND SMOKE DENSITY NOTES:

WALLS AND CEILING:

WALL AND CEILING FINISHES SHALL HAVE A FLAME - SPREAD CLASSIFICATION OF NOT GREATER THAN 200. WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450.

INSULATION:

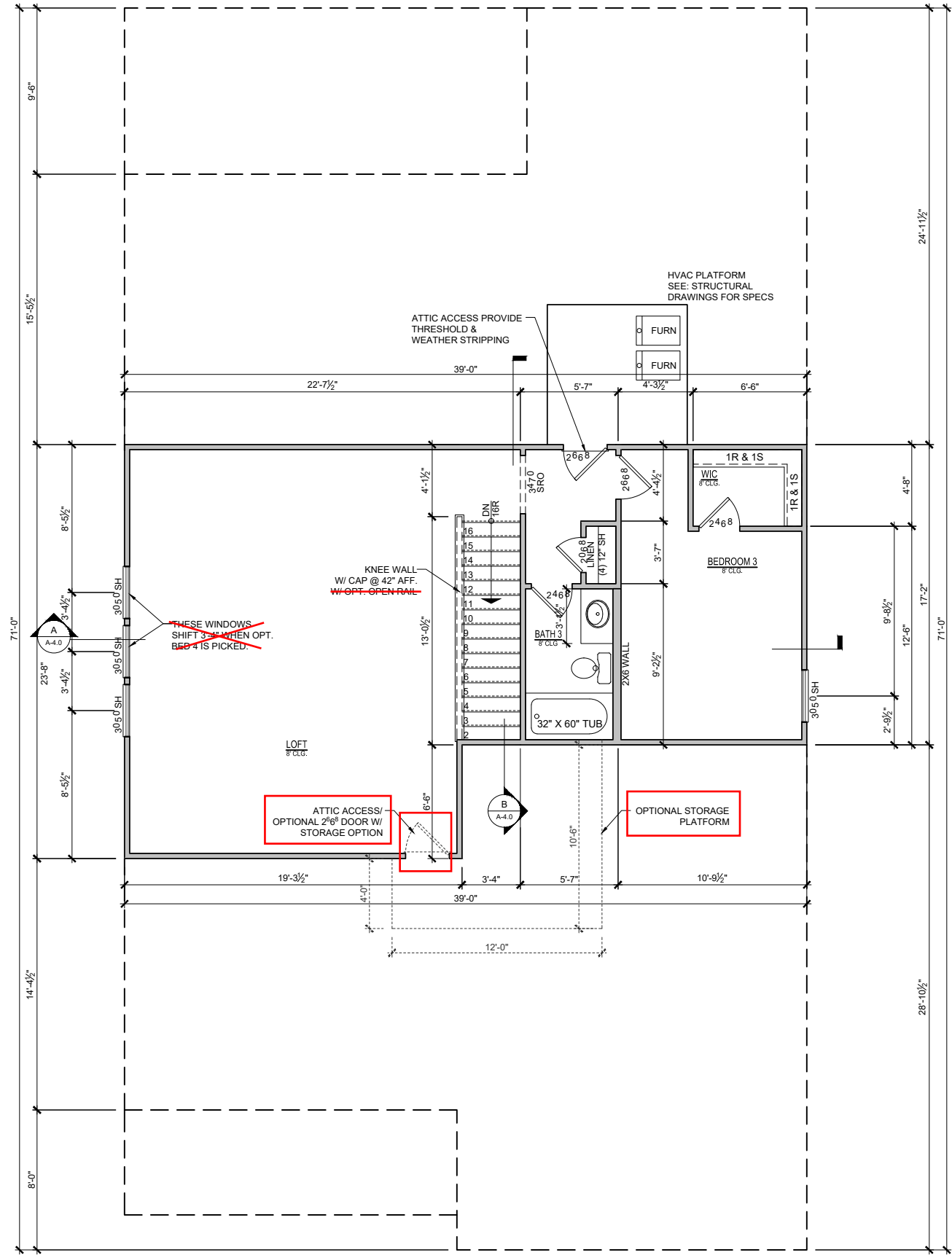
IF BATT OR BLANKET INSULATION, INCLUDING FACINGS SUCH AS VAPOR RETARDERS OR OTHER VAPOR PERMEABLE MEMBRANES ARE LEFT EXPOSED (IN AREAS LIKE UNFINISHED BASEMENTS), THE MATERIAL SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPMENT RATING OF 450 OR LESS. FLAME-SPREAD AND SMOKE-DEVELOPMENT LIMITATIONS DO NOT APPLY TO FACINGS THAT IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR, OR WALL FINISH.

EXCEPT WHERE OTHERWISE NOTED IN SECTION R314.2, ALL FOAM PLASTIC OR FOAM PLASTIC CORES IN MANUFACTURED ASSEMBLIES USED IN BUILDING CONSTRUCTION SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 75 AND SHALL HAVE A SMOKE-DEVELOPMENT RATING OF NOT MORE THAN 450 WHEN TESTED IN THE MAXIMUM THICKNESS INTENDED FOR USE IN ACCORDANCE WITH ASTM E 84.

R314.1.2 THERMAL BARRIER. FOAM PLASTIC, EXCEPT WHERE OTHERWISE NOTED, SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY MINIMUM 1/2-INCH (12.7 MM) GYPSUM BOARD OR AN APPROVED FINISH MATERIAL EQUIVALENT TO A THERMAL BARRIER TO LIMIT THE AVERAGE TEMPERATURE RISE OF THE UNEXPOSED SURFACE TO NO MORE THAN 250°F(121°C) AFTER 15MINUTES OF FIRE EXPOSURE TO THE ASTM E 119 STANDARD TIME TEMPERATURE CURVE. THE GYPSUM BOARD SHALL BE INSTALLED USING A MECHANICAL FASTENING SYSTEM IN ACCORDANCE WITH SECTIOR702.3.5. RELIANCE ON ADHESIVES TO ENSURE THAT THE GYPSUM BOARD WILL REMAIN IN PLACE WHEN EXPOSED TO FIRE SHALL BE PROHIBITED.

BASE HOUSE SQUARE FOOTAGE CALCULATIONS							TOTAL UNDER ROOF	OPTIONS SQUARE FOOTAGE CALCULATIONS	
ELEVATION	1st FL.	2nd FL.	TOTAL FIN.	PORCH	COV'D. PORCH	GARAGE		OPTIONS:	1st FLOOR
ELEV. B	1,984 s.f.	752 s.f.	2,736 s.f.	118 s.f.	224 s.f.	415 s.f.	3,368 s.f.	FIREPLACE "A"	+12 s.f.

REVISION NUMBER	02/21/2020	PROTOTYPE REVISIONS	MAIN STREET DESIGNS Main Street Designs of Georgia, LLC www.MainStreetDesignsLLC.com 3050 Royal Blvd. South, Suite 135 Alpharetta, GA 30022 O: (404) 996-5722 DAVIDSON HOMES 1/8"=1'-0"
	3/6/2020	ADDED BASEMENT FOUNDATIONS	
	12/02/2021	ADDED STUDY OPTION, CHANGED BATH PLUMBING WALL TO 2X6 REMOVED FIREPLACE OPTION A	
	07/11/2022	REMOVED 2 LEDS FROM OPT. STUDY	
	11/16/2023	ADDED 12" TRANS. ON ELEVS. D-F	
SHEET NO. CS-1.0			



ELEVATION - B
2nd FLOOR PLAN
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

Tobacco Road Lot 103

MODEL BIRCH II	RELEASE DATE	12-1-2023	
	DRAWING TITLE	PROJECT NUMBER	OPTION NO.
	SECOND FLOOR PLAN	----	----
	OPTION DESCRIPTION	ELEVATION - B	
	SHEET NO. A-2.0B		



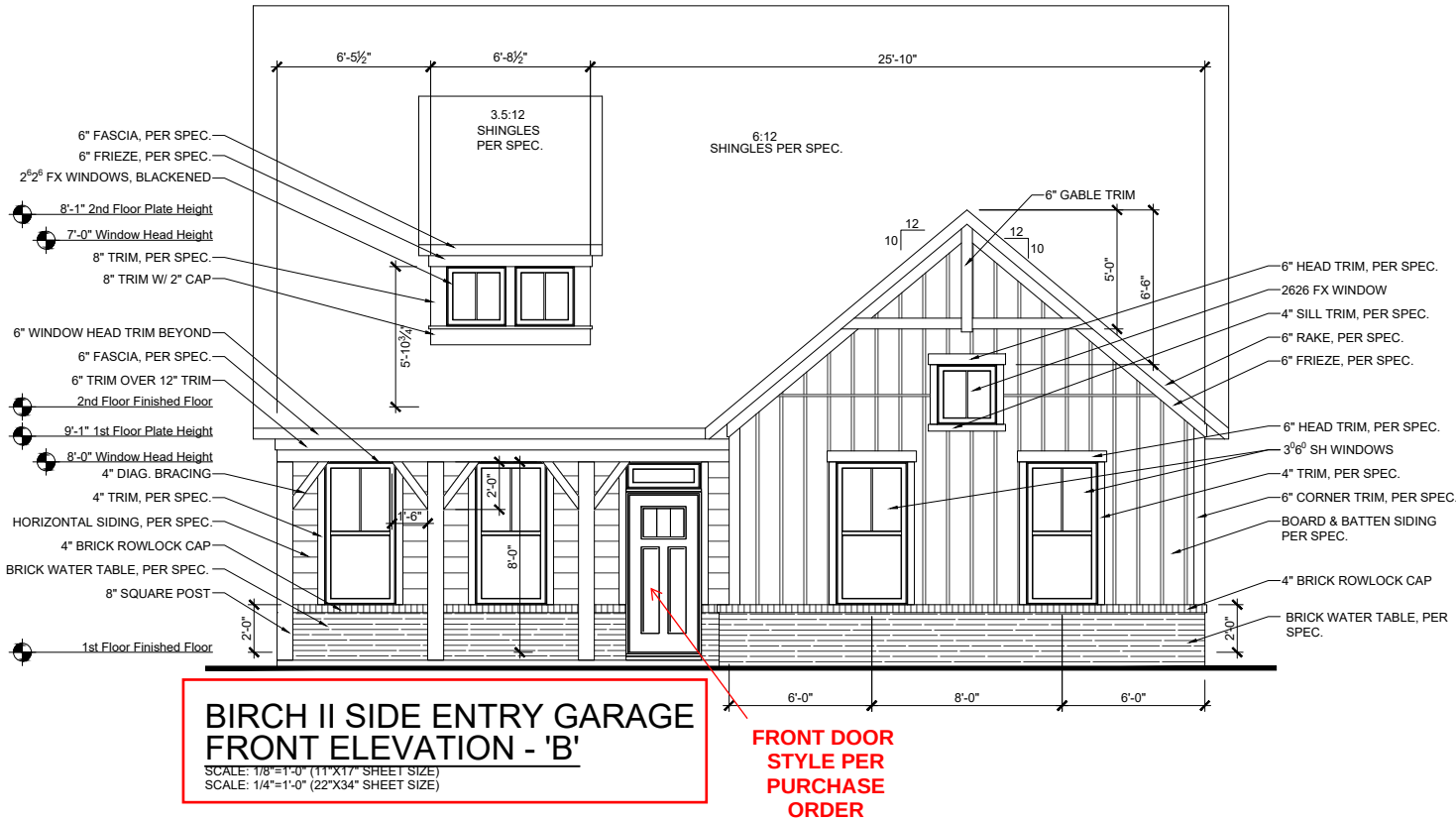
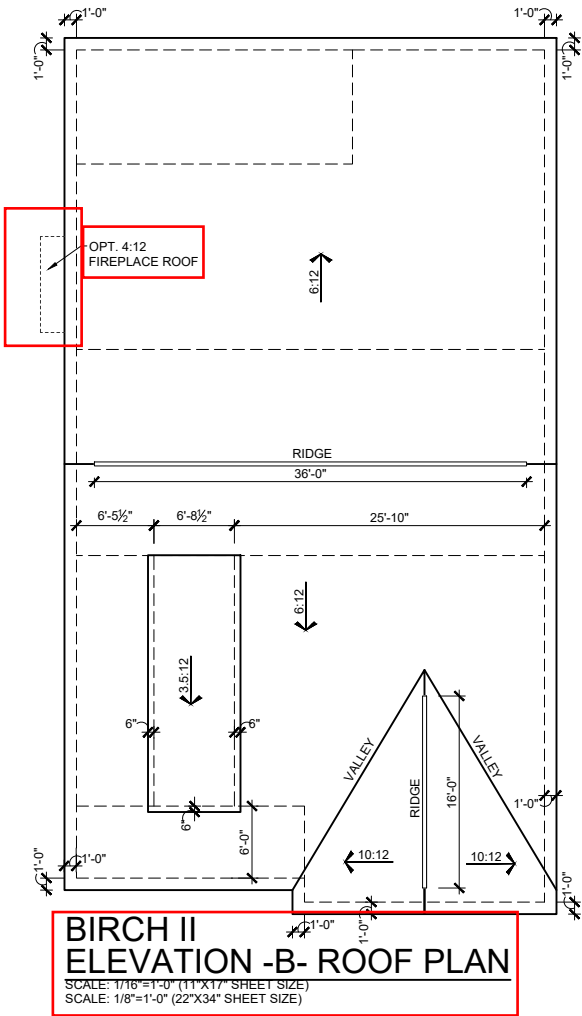
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Alpharetta, GA 30022
O. (404) 996-5722



DAVIDSON
HOMES

REVISION NUMBER	
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11/16/2023	ADDED 12" TRANS. ON ELEV. D-F

Tobacco Road Lot 103



ATTIC VENT CALCULATIONS

NOTES:

- 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.
- 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

MAIN ROOF

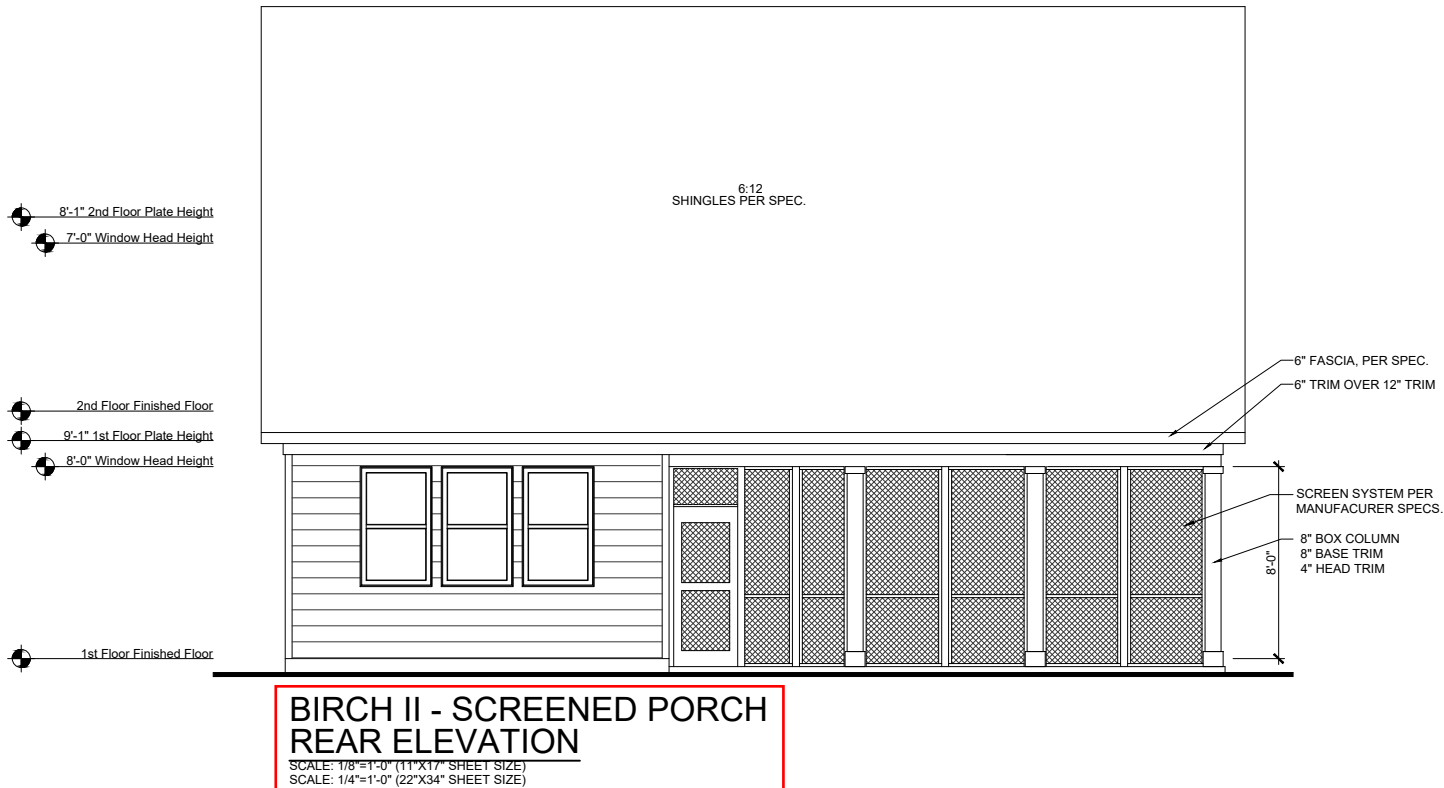
2731 SQ FT UNDER ROOF ATTIC
300 SQ FT / 1 SQ FT = 9.10 SQ FT VENTILATION

RIDGE VENTS 18 SQ IN = (.125 SQ FT)
VENTED SOFFIT 9 SQ IN = (.0625 SQ FT)
BOX VENTS 50 SQ IN = (.347 SQ FT)
INTAKE VENTS 36 SQ IN = (.25 SQ FT)

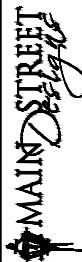
9.10 SQ FT x 50% = 4.552 SQ FT OF RIDGE
9.10 SQ FT x 50% = 4.552 SQ FT OF SOFFIT

RIDGE VENT
4.552 SQ FT = 36.4 FEET OF RIDGE VENT
0.125 SQ FT
SOFFIT VENT
4.552 SQ FT = 72.8 FEET OF VENTED SOFFIT
0.0625 SQ FT

RIDGE VENT PROVIDED 52 FEET
VENTED SOFFIT PROVIDED 64 FEET
BOX VENTS @ RIDGE 5.4 COUNT
INTAKE VENTS @ SOFFIT 2.2 COUNT
(NEGATIVE = 0)



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02/21/2020	ADDED BASEMENT FOUNDATIONS
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11/16/2023	



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1/8"=1'-0"

RELEASE DATE	PROJECT NUMBER	OPTION NO.
12-1-2023	-----	-----
MODEL	DRAWING TITLE	OPTION DESCRIPTION
BIRCH II	EXT. ELEV/ ROOF PLAN	ELEVATION - B

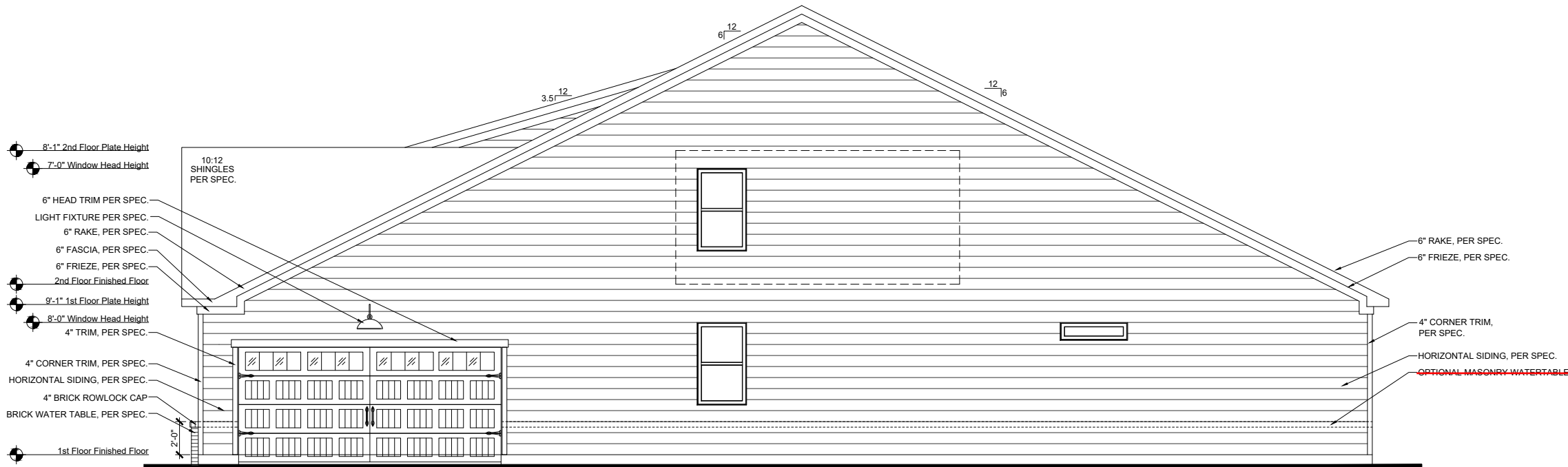
SHEET NO.
A-3.0B

Tobacco Road Lot 103



BIRCH II - SCREENED PORCH
LEFT ELEVATION

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



BIRCH II SIDE ENTRY GARAGE
RIGHT ELEVATION - 'B'

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

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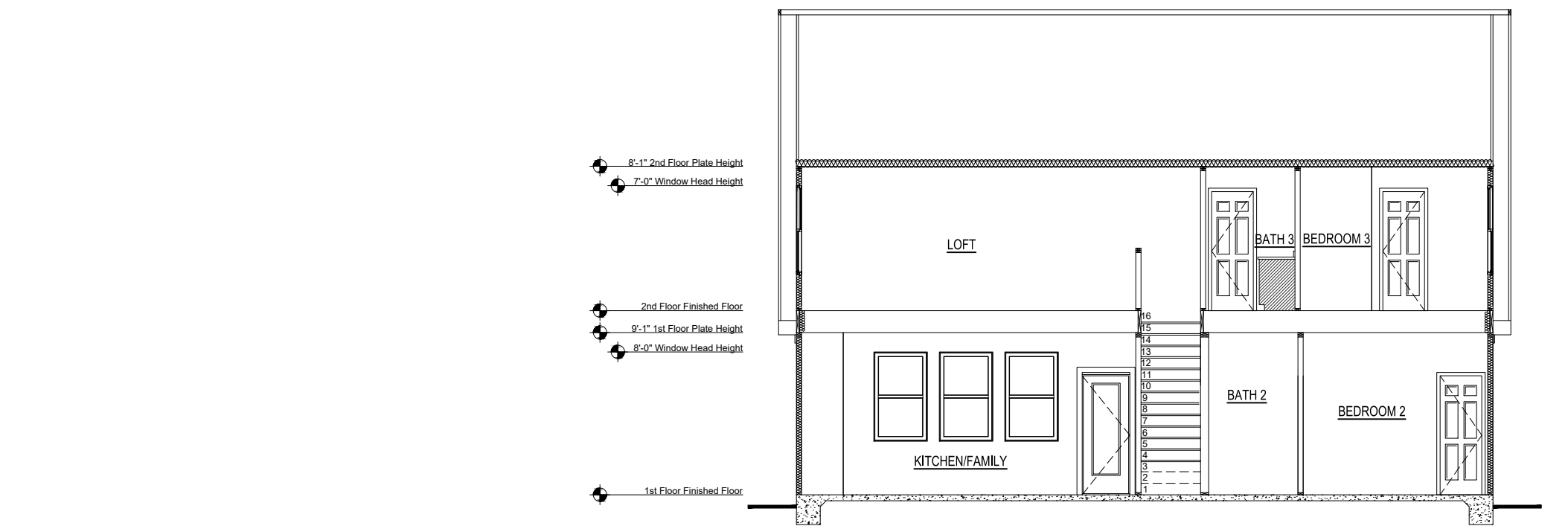
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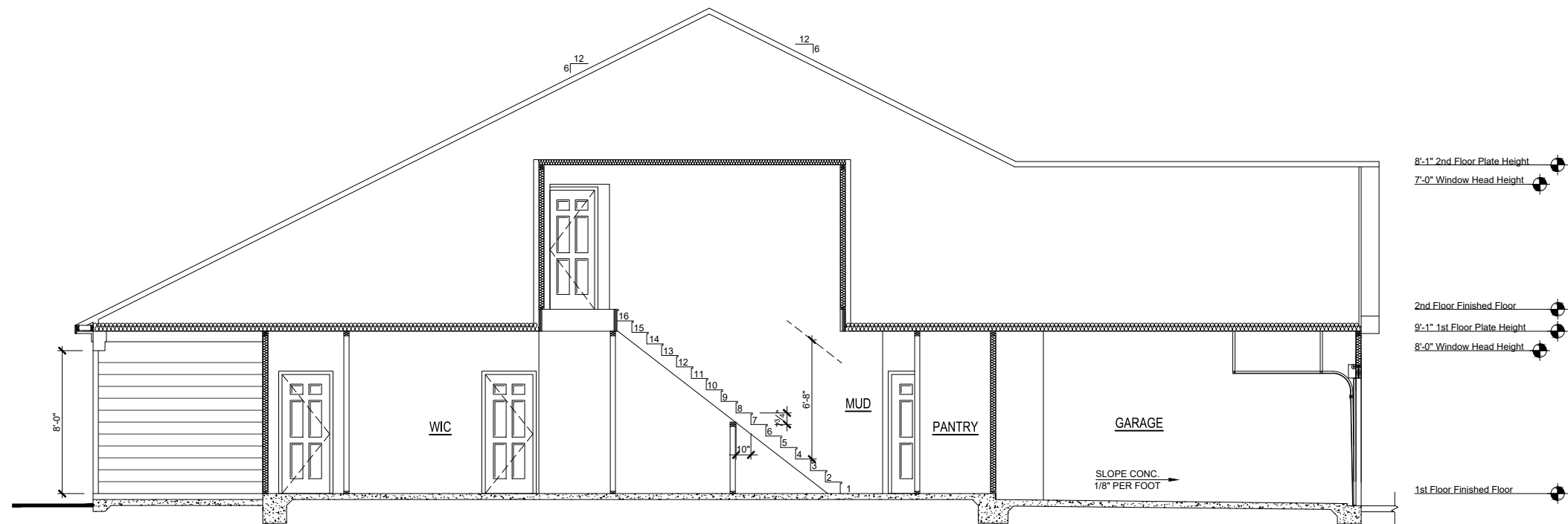
1/8"=1'-0"

MODEL	RELEASE DATE	PROJECT NUMBER	OPTION NO.
BIRCH II	12-1-2023	---	---
DRAWING TITLE	SIDE ELEVATIONS		
OPTION DESCRIPTION	ELEVATION - B		

SHEET NO.
A-3.1B



SECTION - A
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



SECTION - B
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

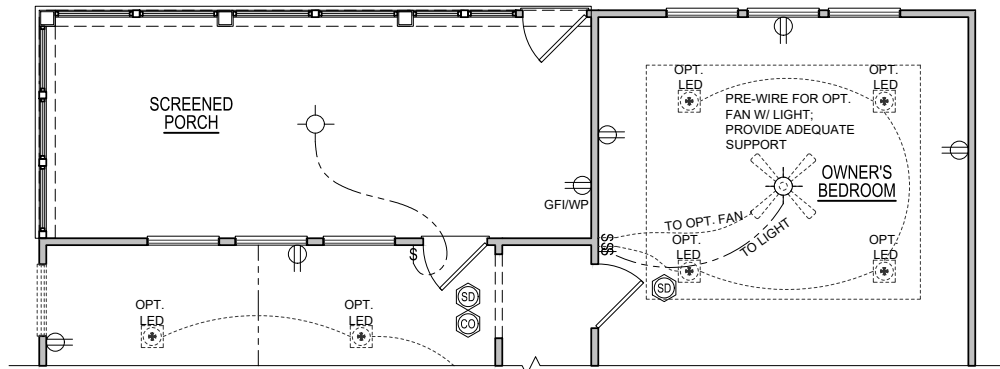
Tobacco Road Lot 103

MODEL	SHEET NO.	DRAWING TITLE	OPTION DESCRIPTION	RELEASE DATE	1/8"=1'-0"		REVISION NUMBER
					PROJECT NUMBER	OPTION NO.	
BIRCH II	A-4.0B	BUILDING SECTIONS		12-1-2023	---	---	02/21/2020
							PROTOTYPE REVISIONS
							3/6/2020
							ADDED BASEMENT FOUNDATIONS
							12/02/2021
DAVIDSON HOMES	1/8"=1'-0"	BUILDING SECTIONS		12-1-2023	---	---	ADDED STUDY OPTION, CHANGED BATH 3
							PLUMBING WALL TO 2X6 REMOVED
							FIREPLACE OPTION A
MAIN STREET DESIGN	1/8"=1'-0"	BUILDING SECTIONS		12-1-2023	---	---	07/11/2022
							REMOVED 2 LEDS FROM OPT. STUDY
DAVIDSON HOMES	1/8"=1'-0"	BUILDING SECTIONS		12-1-2023	---	---	11/16/2023
							ADDED 12" TRANS. ON ELEVS. D-F



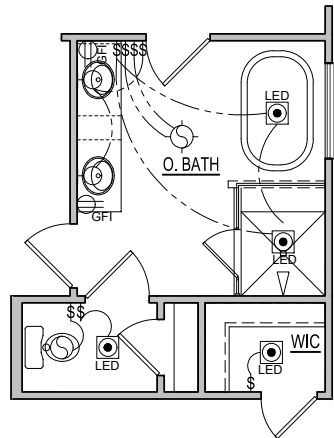
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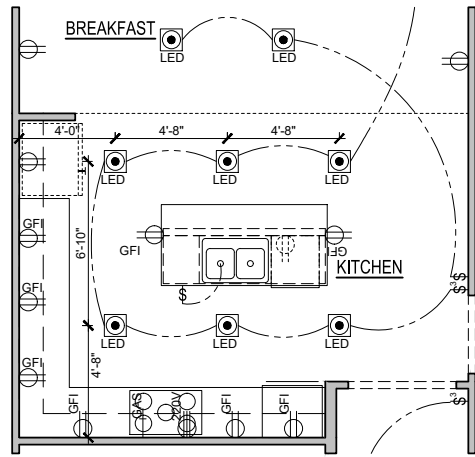
ELECTRICAL PLAN
1st OPT. SCREENED PORCH

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



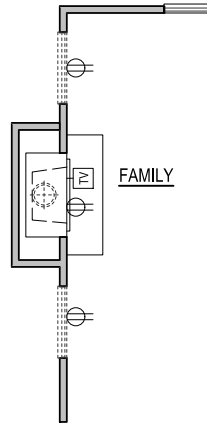
OPT. DELUXE BATH

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



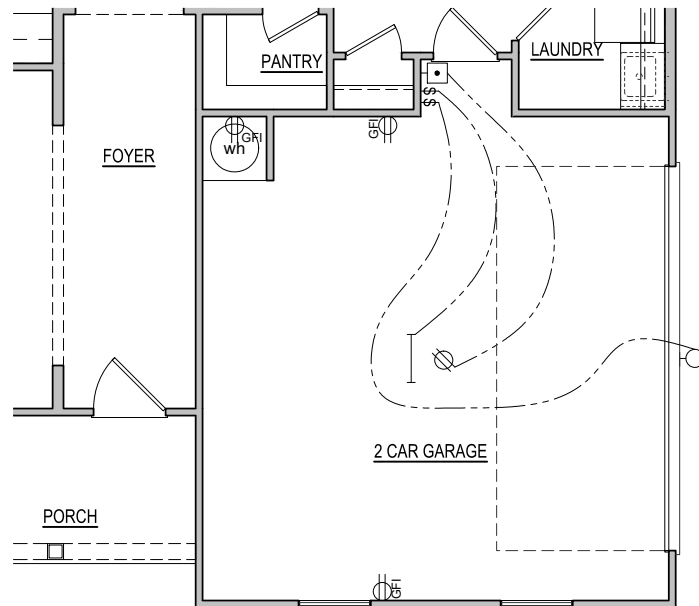
OPT. GOURMET KITCHEN

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



OPT. FIREPLACE - 'A'

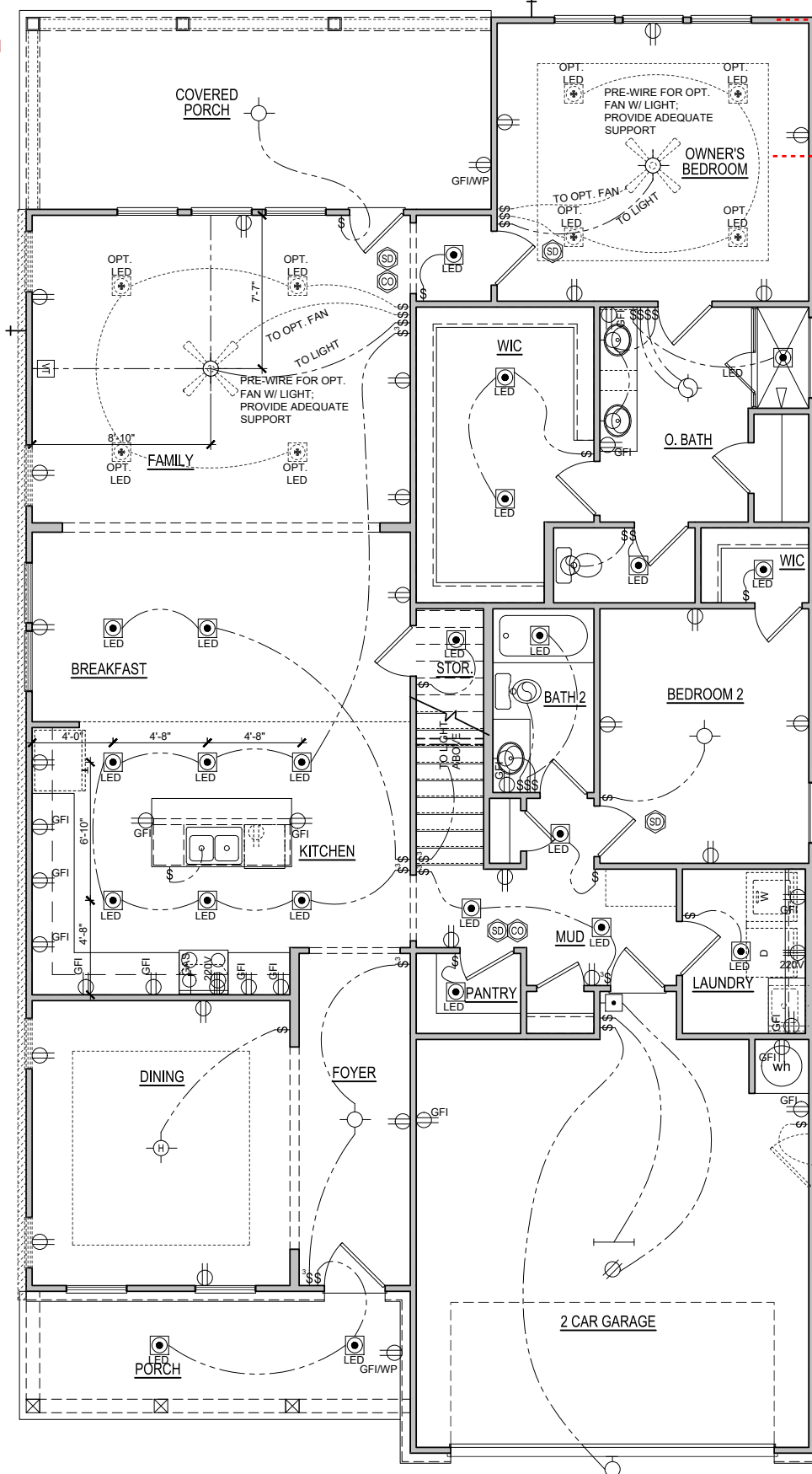
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



OPT. SIDE ENTRY GARAGE
1st FLOOR ELECTRICAL PLAN

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

NOTE: PROPANE TANK
TO BE SET
5' FROM VENTS
10' FROM IGNITION



ELEVATION - B
FIRST FLOOR ELECTRICAL PLAN

SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

ELECTRICAL KEY
PROPANE TANK

- FLOOR RECEPT
- QUADPLEX RECEPT
- GROUND FAULT RECEPT
- GFI/IMP WEATHER PROOF RECEPT
- 220V 220V RECEPT
- EXHAUST FAN
- EXHAUST FAN / LIGHT
- EXHAUST FAN / HEAT LIGHT
- LED
- VAPOR PROTECTED LIGHT
- CEILING LIGHT
- HANGING CEILING LIGHT
- WALL LIGHT
- WALL SCONCE LIGHT
- SINGLE SWITCH
- 3-WAY SWITCH
- 4-WAY SWITCH
- DIMMER SWITCH
- CABLE T.V. JACK
- BUTTON
- PHONE JACK
- DIRECT WIRE
- SECURITY SYSTEM PHONE JACK
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- ELECTRICAL PANEL
- DISCONNECT SWITCH
- ELECTRIC METER
- 1 TUBE FLUORESCENT
- 2 TUBE FLUORESCENT
- FLOOD LIGHT
- CHIMES
- CEILING FAN
- CEILING FAN W/ LIGHT

REVISION NUMBER	PROTOTYPE REVISIONS
02/21/2020	ADDED BASEMENT FOUNDATIONS
3/6/2020	ADDED STUDY OPTION, CHANGED BATH 3
12/02/2021	PLUMBING WALL TO 2X6 REMOVED
07/11/2022	FIREPLACE OPTION A
11/16/2023	REMOVED 2 LEDS FROM OPT. STUDY
	ADDED 12" TRANS. ON ELEV. D-F

MAIN STREET DESIGN

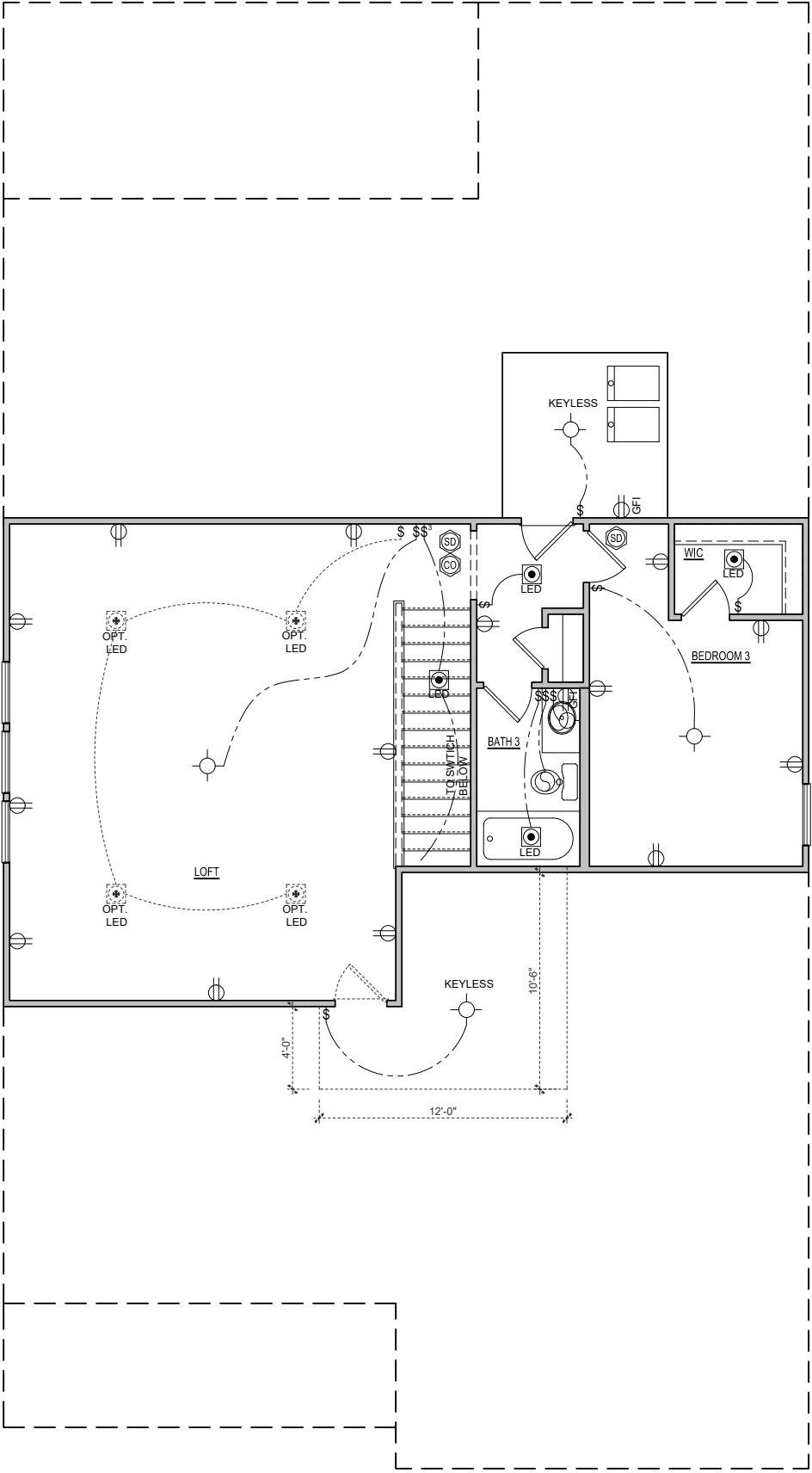
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DAVIDSON
HOMES

RELEASE DATE	PROJECT NUMBER	OPTION NO.
12-1-2023	---	---
MODEL	DRAWING TITLE	OPTION DESCRIPTION
BIRCH II	1ST FLOOR ELEC. PLAN	ELEVATION - B

SHEET NO.
E-1.0B

Tobacco Road Lot 103



ELEVATION - B
SECOND FLOOR ELECTRICAL PLAN
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

Tobacco Road Lot 103

MODEL BIRCH II		RELEASE DATE 12-1-2023	1/8" = 1'-0"		 DAVIDSON HOMES		 MAIN STREET Design LLC	
DRAWING TITLE SECOND FLOOR PLAN		PROJECT NUMBER -----					Main Street Designs of Georgia, LLC www.MainStreetDesigns.LLC.com 3050 Royal Blvd. South, Suite 135 Alpharetta, GA 30022 C: (404) 996-8722	
OPTION DESCRIPTION ELEVATION - B		OPTION NO.					REVISION NUMBER	
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SHEET NO. E-2.0B								



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THE BIRCH II ABC

RH

RALEIGH, NORTH CAROLINA

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. THIS COORDINATION IS NOT THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD (SER). SHOULD ANY DISCREPANCIES BECOME APPARENT, THE CONTRACTOR SHALL NOTIFY KSE ENGINEERING, P.C. BEFORE CONSTRUCTION BEGINS. IT IS THE INTENT OF THE ENGINEER LISTED ON THESE DOCUMENTS THAT THESE DOCUMENTS BE ACCURATE, PROVIDING LICENSED PROFESSIONALS CLEAR INFORMATION. EVERY ATTEMPT HAS BEEN MADE TO PREVENT ERROR. THE BUILDER AND ALL SUBCONTRACTORS ARE REQUIRED TO REVIEW ALL OF THE INFORMATION CONTAINED IN THESE DOCUMENTS PRIOR TO THE COMMENCEMENT OF ANY WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ANY PLAN ERRORS, OMISSIONS, OR MISINTERPRETATIONS UNDETECTED AND NOT REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION. ALL CONSTRUCTION MUST BE IN ACCORDANCE TO THE INFORMATION FOUND IN THESE DOCUMENTS.

DESIGN SPECIFICATIONS:

DESIGN BUILDING CODE (REFERRED TO HEREIN AS 'THE BUILDING CODE'):

- 2018 NORTH CAROLINA RESIDENTIAL CODE. WALL BRACING PER INTERNATIONAL RESIDENTIAL CODE 2015 EDITION.

DESIGN LIVE LOADS:

- ROOF = 20 PSF (LOAD DURATION FACTOR=1.25)
- UNINHABITABLE ATTICS WITH LIMITED STORAGE = 20 PSF (WHERE SPECIFIED ON PLANS)
- HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS = 30 PSF
- FLOOR = 40 PSF
- FLOOR (SLEEPING AREAS) = 30 PSF
- DECK/BALCONY = 40 PSF
- STAIRS = 40 PSF

DESIGN DEAD LOADS:

- ROOF TRUSS = 17 PSF (TC=7, BC=10)
- FLOOR TRUSS = 15 PSF (TC=10, BC=5)
- FLOOR JOIST = 10 PSF
- STANDARD BRICK = 40 PSF
- QUEEN ANNE BRICK = 25 PSF

NOTE: STRUCTURAL FRAMING HAS NOT BEEN DESIGNED FOR TILE, GRANITE, MARBLE OR OTHER MATERIALS HEAVIER THAN THE ABOVE LOADING UNLESS SPECIFICALLY NOTED ON PLANS..

DESIGN WIND LOADS:

- ULTIMATE WIND SPEED = 120 MPH
- EXPOSURE CATEGORY = B

ASSUMED SOIL BEARING CAPACITY = 2000 PSF

ASSUMED LATERAL SOIL PRESSURE = 45 PCF

FROST DEPTH = 12" MINIMUM

SEISMIC DESIGN CATEGORY = B

ENGINEERED LUMBER SHALL HAVE THE FOLLOWING MINIMUM DESIGN VALUES:

- TJI 210 SERIES (SERIES AND SPACING PER PLANS)
- LSL: E=1,550,000 PSI, F_b=2,325 PSI, F_v=310 PSI, F_c=900 PSI
- LVL: E=2,000,000 PSI, F_b=2,600 PSI, F_v=285 PSI, F_c=750 PSI
- PSL: E=2,000,000 PSI, F_b=2,900 PSI, F_v=290 PSI, F_c=625 PSI

THIS PLAN HAS BEEN DESIGNED PER THE 2018 EDITION OF THE NC RESIDENTIAL CODE. WHERE FRAMING, FOUNDATION, OR OTHER STRUCTURAL ITEMS DO NOT COMPLY WITH THE PRESCRIPTIVE METHODS OF THE CODE, THOSE ITEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE PER NCRC R301.1.3.

Tobacco Road Lot 103



GENERAL STRUCTURAL NOTES:

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 CONSENT OF KSE ENGINEERING, P.C. OR THE SER. FOR THE PURPOSES OF THESE CONSTRUCTION DOCUMENTS, THE SER AND KSE ENGINEERING 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. THE SER DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF GEOMETRY. THE SER ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. THE SER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
5. 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 KSE ENGINEERING 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 KSE ENGINEERING, P.C.
6. 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 KSE ENGINEERING, P.C. BEFORE CONSTRUCTION BEGINS.
7. THE SER IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL ELEMENTS OR NON-STRUCTURAL ELEMENTS, EXCEPT FOR THE ELEMENTS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS.
8. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE AND ANY LOCAL CODES OR RESTRICTIONS.
9. 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.
10. PROVIDE MOISTURE PROTECTION AND FLASHING PER ARCHITECTURAL DETAILS.

FOUNDATIONS:

1. FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE BUILDING CODE.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. THE BUILDER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE GEOTECHNICAL ENGINEER ON THE STUDY OF THE PROPOSED SITE TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
3. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN THE BUILDING CODE.
4. THE SER HAS NOT PERFORMED A SUBSURFACE INVESTIGATION. VERIFICATION OF THE 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.
5. THE BOTTOM OF ALL FOOTINGS SHALL EXTEND BELOW THE FROST LINE FOR THE REGION IN WHICH THE STRUCTURE IS TO BE CONSTRUCTED, BUT NOT LESS THAN A MINIMUM OF 12" BELOW GRADE. ALL FOOTINGS TO HAVE A MINIMUM PROJECTION OF 2" ON EACH SIDE OF FOUNDATION WALLS. MAXIMUM FOOTING PROJECTION SHALL NOT EXCEED THE THICKNESS OF THE FOOTING.
6. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH ½" ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" O.C. INSTALL MINIMUM 2 ANCHOR BOLTS PER SECTION, 12" MAXIMUM FROM CORNERS. ½" DIAMETER x 8" LONG SIMPSON TITEN HD OR USP SCREW-BOLT+ SCREWS MAY BE SUBSTITUTED ON A 1 FOR 1 BASIS.
7. 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.
8. 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.
9. NO CONCRETE SHALL BE PLACED AGAINST ANY SUBGRADE CONTAINING WATER, ICE, FROST, OR LOOSE MATERIAL.
10. PROVIDE FOUNDATION WATERPROOFING AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS (SEE ARCHITECTURAL PLANS AND DETAILS).
11. NONE OF THE FOUNDATION DESIGNS IN THESE DOCUMENTS ARE SUITABLE FOR INSTALLATION IN SHRINK/SWELL CONDITIONS. REFER TO GEOTECHNICAL ENGINEER FOR APPROPRIATE DESIGN.
12. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST TEN FEET.
13. CRAWL SPACE TO BE GRADED LEVEL AND CLEAR OF ALL DEBRIS.
14. PROVIDE MINIMUM 6 MIL APPROVED VAPOR BARRIER. ALL JOINTS TO BE LAPPED MINIMUM 12" AND SEALED.

CONCRETE & REINFORCING

1. CONCRETE DESIGN BASED ON ACI 318 AND ACI 318.1 OR ACI 332. CONCRETE SHALL HAVE A NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (f'c) = 3,000 PSI MINIMUM AT 28 DAYS PER CODE (VARIES W/ WEATHER), 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 5% FOR FOOTINGS AND EXTERIOR SLABS.
4. NO ADMIXTURES SHALL BE ADDED TO ANY STRUCTURAL CONCRETE WITHOUT WRITTEN PERMISSION OF THE SER. WATER ADDED TO CONCRETE ON SITE SHALL NOT EXCEED THAT ALLOWED BY THE MIX DESIGN.
5. CONCRETE SLABS-ON-GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R: "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION".
6. CONTROL OR SAW CUT JOINTS (CUT OR TOOLED) 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. CARE SHALL BE TAKEN TO AVOID RE-ENTRANT CORNERS.
7. CONTROL OR SAW CUT JOINTS SHALL BE PRODUCED USING CONVENTIONAL CUT OR TOOLED PROCESSES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED.
8. 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. FIBROUS CONCRETE REINFORCEMENT, OR POLYPROPYLENE FIBERS MAY BE USED IN LIEU OF W.W.F. APPLICATION OF POLYPROPYLENE FIBERS PER CUBIC YARD OF CONCRETE SHALL BE PER MANUFACTURER AND COMPLY WITH ASTM C1116, ANY LOCAL BUILDING CODE REQUIREMENTS AND SHALL MEET OR EXCEED CURRENT INDUSTRY STANDARD.
9. POLYPROPYLENE REINFORCING TO BE 100% VIRGIN, CONTAINING NO REPROCESSED OLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED FOR USE AS CONCRETE SECONDARY REINFORCEMENT.
10. STEEL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
11. 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".
12. 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.
13. PROVIDE REINFORCEMENT LAP AS NOTED BELOW, UNLESS NOTED OTHERWISE:
#4 BARS - 30" LENGTH
#5 BARS - 38" LENGTH
#6 BARS - 45" LENGTH
14. 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. SEE KSE FOUNDATION DETAILS.
15. WHERE FOOTING BOTTOMS ARE TO BE STEPPED AT SLOPING GRADE CONDITIONS, PROVIDE CONTINUOUS REINFORCING WITH Z BARS (TO MATCH FOOTING REINFORCING) AS REQUIRED.
16. BAR SUPPORT ACCESSORIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, EXCEPT THAT REINFORCING SHALL BE CHAIRED ON THE BOTTOM AND/OR THE SIDES ON BOLSTERS SPACED NOT MORE THAN 4 FEET ON CENTER. NO ROCKS, CMU, CLAY TILE, OR BRICK SHALL BE USED TO SUPPORT REINFORCING.
17. FOR GRADE SUPPORTED SLABS, SLAB REINFORCING SHALL BE HELD IN PLACE BY BAR SUPPORTS AND ACCESSORIES AS DESCRIBED IN THE CRSI MANUAL OF STANDARD PRACTICE. BAR SUPPORTS SHALL BE SPACED A MAXIMUM OF 4'-0" O.C. BOTH WAYS IN STRAIGHT LINES ON THE MESH GRID.

MASONRY

1. ALL MASONRY SHALL CONFORM TO ASTM C-90, F'm=1500 PSI. ALL BRICK SHALL CONFORM TO ASTM C-216, F'm=1500 PSI. ALL MORTAR SHALL BE TYPE 'S' (TYPE 'M' BELOW GRADE) AND CONFORM TO ASTM C-270. COARSE GROUT SHALL CONFORM TO ASTM C-476 WITH A MAXIMUM AGGREGATE SIZE OF ¾" AND A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
2. ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530/ASCE 5/TMS 402 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" ACI 530.1/ ASCE 6/TMS 602.
3. THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION.
4. EACH CRAWL SPACE PIER SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING AND EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
5. TOP COURSE OF MASONRY SHALL BE GROUTED SOLID.
6. HORIZONTAL WALL JOINT REINFORCEMENT SHALL BE STANDARD 9 GAGE GALVANIZED LADDER OR TRUSS TYPE SPACED AT 16" O.C., UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
7. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6". LAP WITH STANDARD 'I' AND 'L' SHAPED PIECES AT INTERSECTIONS AND CORNERS.

WOOD FRAMING:

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-PINE-FIR (SPF) WITH THE FOLLOWING MINIMUM DESIGN VALUES:
E=1,400,000 PSI, F_b=875 PSI, F_v=135 PSI
1.1. FRAMING: SPF #2.
1.2. PLATES: SPF #2.
1.3. STUDS: SPF STUD GRADE.
2. WALL STUD SPACING, (MAXIMUM 10' NOMINAL PLATE HEIGHT):
1 & 2 STORY EXTERIOR AND INTERIOR BEARING:
2x4 @ 16" O.C. OR 2x6 @ 24" O.C., U.N.O.
BOTTOM OF 3 STORIES EXTERIOR AND INTERIOR BEARING:
2x6 @ 16" O.C., U.N.O.
INTERIOR NON-BEARING:
2x @ 24" O.C., U.N.O.
3. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE TREATED SOUTHERN YELLOW PINE #2 OR BETTER.
4. ANCHOR SILL PLATES IN ACCORDANCE W/ GENERAL STRUCTURAL NOTES.
5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY BE SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION.
6. NAILS SHALL BE COMMON WIRE NAILS UNLESS OTHERWISE NOTED.
7. BOLT HOLES AND LEAD HOLES FOR LAG SCREWS SHALL BE IN ACCORDANCE WITH NDS SPECIFICATIONS.
8. INDIVIDUAL STUDS FORMING A COLUMN SHALL BE ATTACHED WITH (2) ROWS 10d NAILS @ 6" O.C. STAGGERED. THE STUD COLUMN SHALL BE FULLY BLOCKED AT ALL FLOOR LEVELS TO ENSURE PROPER LOAD TRANSFER. WALL SHEATHING SHALL BE NAILED TO EDGE OF EACH STUD. FACE NAIL ALL MULTI-PLY BEAMS AND HEADERS WITH (2) ROWS 16d COMMON NAILS @ 16" O.C., STAGGERED, OR PER MANUFACTURER'S SPECIFICATIONS FOR ENGINEERED LUMBER. APPLY NAILING FROM BOTH FACES FOR (3) OR MORE PLIES.
10. FASTEN 4-PLY BEAMS WITH (1) ½" DIAMETER THROUGH BOLT W/ NUTS AND WASHERS AT 12" O.C. STAGGERED TOP AND BOTTOM, 1½" MINIMUM EDGE DISTANCE. (UNLESS OTHERWISE NOTED)
11. ALL BEAMS AND HEADERS SHALL HAVE (1)2x JACK STUD & (1)2x KING STUD UNLESS OTHERWISE NOTED. THE NUMBER OF STUDS INDICATED ON PLANS ARE THE TOTAL NUMBER OF JACK STUDS REQUIRED, UNLESS OTHERWISE NOTED.
12. PROVIDE KING STUDS AT EACH END OF HEADERS AS NOTED BELOW.
(1) STUD UP TO 6' OPENING
(2) STUDS UP TO 8' OPENING
(3) STUDS UP TO 9' OPENING
13. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED Laterally AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF TWO STUDS, UNLESS OTHERWISE NOTED. ALL BEAM SPLICES SHALL OCCUR OVER SUPPORTS.
14. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
15. ALL LUMBER SPECIFIED ON DRAWINGS IS INTENDED FOR DRY USE ONLY (MOISTURE CONTENT <19%) UNLESS OTHERWISE NOTED.
16. ALL WATERPROOFING AND FIRE SAFETY SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHERS.
17. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IN THE CENTER OF THE STUD UP TO 1" DIAMETER SHALL HAVE STUD PROTECTION SHIELDS. ALL HOLES OVER 1" IN DIAMETER FOR PLUMBING LINES, ETC. SHALL BE REPAIRED WITH SIMPSON HSS2 OR USP STS1 STUD SHOES, TYPICAL, UNLESS OTHERWISE NOTED.
18. BEARING WALLS SHALL BE SHEATHED ON NOT LESS THAN ONE SIDE WITH OSB OR GYPSUM BOARD. BRIDGING SHALL BE INSTALLED NOT GREATER THAN 4 FEET APART MEASURED VERTICALLY FROM EITHER END OF THE STUD IN LIEU OF SHEATHING.
19. DIAGONAL BRACING SHALL BE INSTALLED AT EACH END OF BASEMENT BEARING WALLS AND NOT MORE THAN 20' ON CENTER.

EXTERIOR WOOD FRAMED DECKS:

1. DECKS ARE TO BE FRAMED IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND AS REFERENCED ON THE STRUCTURAL PLANS, EITHER THROUGH CODE REFERENCES OR CONSTRUCTION DETAILS.
2. PRESERVATIVE TREATED WOOD FRAMING TO BE SOUTHERN YELLOW PINE #2 OR BETTER.
3. GUARD RAILS REQUIRED AT DECKS. DESIGN BY OTHERS TO MEET MINIMUM CODE REQUIREMENTS.
4. PROVIDE DECK LATERAL LOAD AND BRACING CONNECTIONS PER BUILDING CODE.

RAFTER FRAMED ROOF CONSTRUCTION:

1. PROVIDE 2x4x4'-0" RAFTER TIES AT 48" O.C.
2. RAFTERS SHALL BE SUPPORTED BY PURLINS AND PURLIN BRACES AS SHOWN ON THE PLAN. PURLIN BRACES SHALL NOT BEAR ON ANY CEILING JOIST, STRONGBACK OR HEADER UNLESS SPECIFICALLY SHOWN ON PLAN. RAFTERS MAY BE SPLICED AT PURLIN LOCATIONS.
3. CEILING JOISTS SHALL HAVE LATERAL SUPPORT W/ 1x4 FLAT BRACING ON TOP EDGE OF JOIST AT LOOSE JOIST ENDS (WHERE JOISTS NOT FASTENED TO RAFTERS) OR FULL DEPTH BLOCKING. FASTEN END OF BRACING TO RAFTER OR CABLE END FRAMING.
4. FASTEN RAFTER AND CEILING JOIST WITH (6) 12d NAILS UNLESS OTHERWISE NOTED.
5. PROVIDE VERTICAL 2x6 STRONGBACKS AT CEILING JOISTS @ 8'-0" O.C. TIE STRONGBACK ENDS TO CABLE STUDS OR RAFTERS WHERE POSSIBLE. PROVIDE BLOCKING BETWEEN TOP PLATES AND STRONGBACKS. PROVIDE 2x4 FLAT FASTENED TO EACH JOIST WITH (2) 12d NAILS. FASTEN STRONGBACK TO 2x4 FLAT WITH 12d NAILS @ 12" O.C. AND FASTENED TO EACH JOIST WITH (1) 12d TOENAIL.

WOOD TRUSSES (FLOOR & ROOF):

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 (5) DAYS FOR REVIEW. THE REVIEW BY THE SER SHALL BE FOR OVERALL COMPLIANCE OF THE DESIGN DOCUMENTS. THE SER SHALL ASSUME NO RESPONSIBILITY FOR THE CORRECTNESS OF 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), 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 ANSI/TPI 1: "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION".
4. THE TRUSS MANUFACTURER SHALL PROVIDE ADEQUATE BRACING INFORMATION IN ACCORDANCE WITH "BUILDING COMPONENT SAFETY INFORMATION GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" (BCSI). 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. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING TEMPORARY BRACING AND SHORING FOR THE FLOOR AND ROOF TRUSSES AS REQUIRED DURING CONSTRUCTION. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE LATEST BCSI. THE CONTRACTOR SHALL KEEP A COPY OF THE BCSI SUMMARY SHEETS ON SITE.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PERMANENT TRUSS BRACING SHOWN IN THE STRUCTURAL DRAWINGS AND IN THE TRUSS DESIGNS. ALL CONTINUOUS LATERAL BRACING OF WEBS REQUIRES BRACES. REFER TO BCSI SUMMARY SHEET B3 FOR TYPES OF DIAGONAL BRACES TO PROVIDE AT EACH CONTINUOUS LATERAL BRACE LINE. SUCH DIAGONAL BRACES SHALL NOT BE SPACED MORE THAN 20 FEET O.C. DIAGONAL BRACES SHALL BE FASTENED TO EACH TRUSS WEB WITH A MINIMUM OF TWO 10d FACE NAILS. WHERE CONTINUOUS LATERAL BRACING CANNOT BE INSTALLED, DUE TO A MINIMUM OF THREE ADJACENT TRUSSES NOT BEING IDENTICAL, THE CONTRACTOR SHALL COORDINATE WITH THE TRUSS SPECIALTY ENGINEER/MANUFACTURER TO DETERMINE WHAT TYPE OF ALTERNATE BRACE (I.E., T OR L BRACE, ETC.) IS REQUIRED.
7. 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.
8. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN ON THE SEALED STRUCTURAL DRAWINGS. TRUSS PROFILES TO BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS.
9. TRUSS MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTORS FOR ALL TRUSSES.
10. PROVIDE SIMPSON H2.5A, USP RT7 OR EQUIVALENT AT EACH TRUSS TO TOP PLATE CONNECTION, UNLESS OTHERWISE NOTED.

WOOD STRUCTURAL PANELS:

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 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. EXTERIOR WALLS TO BE FULLY SHEATHED USING ¾" OSB OR PLYWOOD MINIMUM. AT BRACED WALL PANELS, PROVIDE BLOCKING AT ALL SHEET EDGES NOT FALLING ON STUDS OR PLATES.
4. ROOF SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ROOF SHEATHING SHALL BE CONTINUOUS OVER TWO SUPPORTS MINIMUM AND ATTACHED TO ITS SUPPORTING ROOF FRAMING WITH 8d NAILS 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. PROVIDE SUITABLE EDGE SUPPORT BY USE OF PLYWOOD CLIPS OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING. ROOF SHEATHING TO BE ¾" OSB MINIMUM.
5. WOOD FLOOR SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ATTACH SHEATHING TO ITS SUPPORTING FRAMING WITH (1) 10d 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. PROVIDE SUITABLE EDGE SUPPORT BY USE OF T&G PLYWOOD OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING.
6. SHEATHING SHALL HAVE A ½" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE APA.

STRUCTURAL FIBERBOARD PANELS:

1. STRUCTURAL FIBERBOARD SHEATHING SHALL ONLY BE USED WHERE SPECIFICALLY NOTED ON THE STRUCTURAL PLANS.
2. FABRICATION AND PLACEMENT OF STRUCTURAL FIBERBOARD SHEATHING SHALL BE IN ACCORDANCE WITH THE APPLICABLE AFA STANDARDS.
3. 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.
4. SHEATHING SHALL HAVE A ½" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE AFA.

STRUCTURAL STEEL:

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 OF THE MANUAL OF STEEL CONSTRUCTION "LOAD RESISTANCE FACTOR DESIGN" LATEST EDITIONS.
2. ALL STEEL SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 50 KSI UNLESS OTHERWISE NOTED.
3. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE AWA D1.1. ELECTRODES FOR SHOP AND FIELDING WELDING SHALL BE CLASS E70XX. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER PER THE ABOVE STANDARDS.
4. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3½" AND FULL FLANGE WIDTH UNLESS OTHERWISE NOTED. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR (2) ½" x 4" LAG SCREWS UNLESS OTHERWISE NOTED.
5. INSTALL 2x WOOD PLATE ON TOP OF STEEL BEAMS, RIPPED TO MATCH BEAM WIDTH. FASTEN PLATE TO BEAM W/ HILTI X-DNI 52 P8 PINS AT 12" O.C. STAGGERED OR ½" DIAMETER BOLTS AT 24" O.C.

MECHANICAL FASTENERS:

1. ALL METAL HARDWARE AND FASTENERS TO BE SIMPSON STRONG-TIE OR APPROVED EQUIVALENT.
2. ALL HARDWARE AND FASTENERS IN CONTACT WITH PRESERVATIVE PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153, G-185.
3. MANY OF THE NEW PRESSURE TREATED WOODS USE CHEMICALS THAT ARE CORROSIVE TO STEEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPE OF WOOD TREATMENT AND SELECT APPROPRIATE CONNECTORS THAT WILL RESIST THE APPLICABLE CORROSIVE CHEMICALS.

LEGEND:

- PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- INTERIOR BEARING WALL ABOVE
- INTERIOR BEARING WALL
- WALL BRACING/SHEAR WALL
- SEE HOLD DOWN SCHEDULE AND DETAILS FOR TYPICAL INSTALLATION
- AREA OF OVERFRAMING

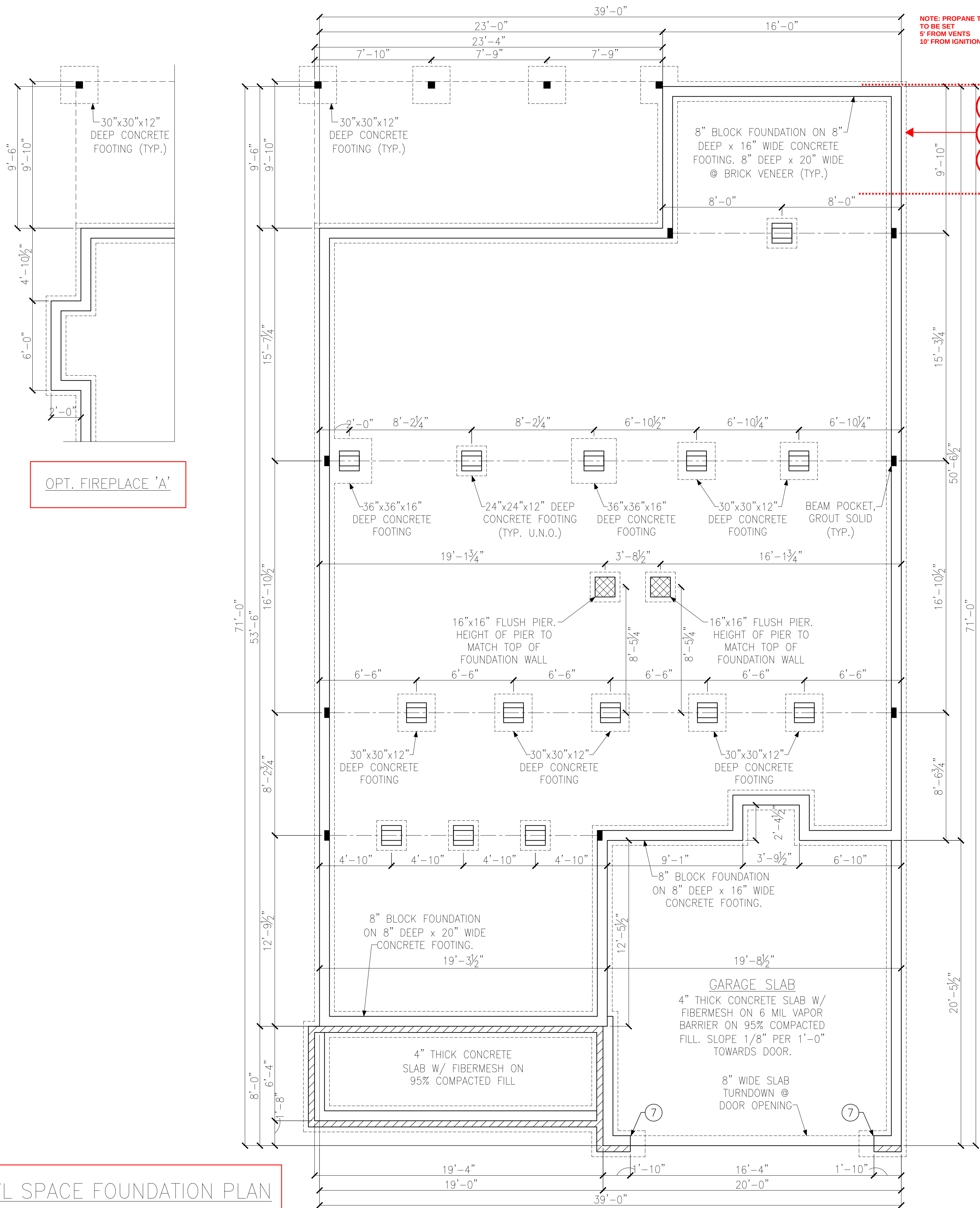
BRICK VENEER LINTEL SCHEDULE

SPAN	LINTEL SIZE	END BEARING
UP TO 3'-0"	3½"x3½"x¼"	4"
UP TO 6'-3"	5"x3½"x¾" L.L.V.	8"
UP TO 9'-6"	6"x3½"x¾" L.L.V.	12"

LINTELS ARE NOT DESIGNED TO BE BOLTED TO HEADERS UNLESS SPECIFIED ON UNIT PLANS.
SPANS OVER 4'-0" SHALL BE SHORED UP UNTIL CURED.

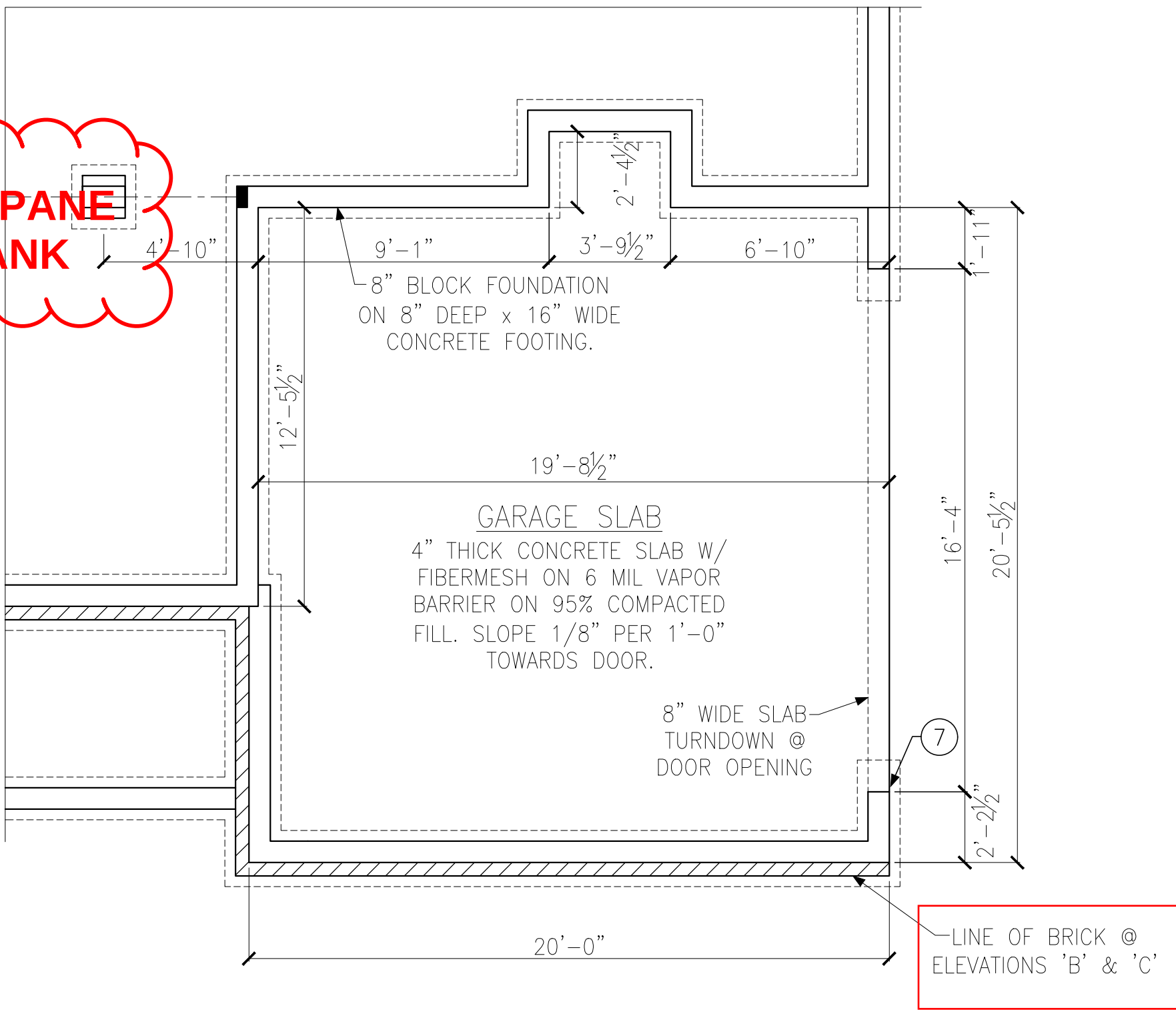


CRAWL SPACE FOUNDATION PLAN
ELEVATION 'B'



PROPANE TANK

PARTIAL FOUNDATION PLAN
OPT. SIDE ENTRY GARAGE



FOUNDATION PLAN FOR
2x10 FLOOR FRAMING

FOUNDATION PLAN FOR
I-JOIST FLOOR FRAMING

SEE PIER AND
FOOTING
SCHEDULE (TYP.)

PIER ELEV. TO BE
9 1/2" BELOW TOP OF
WALL ELEV. (TYP.)

LEGEND

- ★ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- ⇒ BEARING WALL ABOVE
- ⇒ INTERIOR BEARING WALL
- ⇒ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

KEYNOTES:

- ⑦ REINFORCE 8" CMU WALL AND FOOTING UNDER PORTAL FRAME PER DETAIL A OR B/SD-4.



Tobacco Road Lot 103

Crawl Space Foundation Plans
Elevation 'B' & Option
The Birch II Model - RH
Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-23005
Designed By:	AAM
Checked By:	KRK
Issue Date:	12/6/23
Re-Issue:	9/27/24
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

TYPICAL DECK POST CONNECTION:
NOTCH 6X6 POST TO MATCH GIRDER SIZE. FASTEN GIRDER TO POST W/ (2) 1/2" DIA. HDG BOLTS W/ WASHERS & NUTS.

6x6 P.T. POST (TYP.)

(2)2x10 P.T. (2)2x10 P.T. (2)2x10 P.T.

2x8 P.T. JOISTS @ 16" O.C.

2x10 P.T. LEDGER W/ ATTACHMENT PER NCR, APPENDIX M.

RIM BOARD (TYP.)

2x10 SPF #2 @ 16" O.C. MAX

(3)2x10 (3)2x10

2x10 SPF #2 @ 16" O.C. MAX

(4)2x10 (4)2x10

2x10 SPF #2 @ 12" O.C. MAX

(2)2x10 FLUSH (2)2x10 FLUSH (2)2x10 FLUSH

LINE OF KITCHEN ISLAND ABOVE

(2)1 1/4"x8 1/4" LVL FLUSH @ BEARING WALL ABOVE

16"x16" FLUSH PIER. HEIGHT OF PIER TO MATCH TOP OF FOUNDATION WALL

(2)1 1/4"x8 1/4" LVL FLUSH @ BEARING WALL ABOVE

LINE OF KITCHEN COUNTER ABOVE

2x10 SPF #2 @ 12" O.C. MAX

(2)2x10 FLUSH @ POST ABOVE

LINE OF BEARING WALL ABOVE

(3)2x10 (3)2x10 (3)2x10 (2)2x10

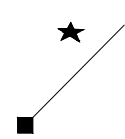
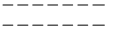
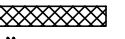
RIM BOARD (TYP.)

RIM BOARD (TYP.)

LOCATE DOUBLE JOIST EACH END OF KITCHEN ISLAND

OPT. FIREPLACE 'A'

LEGEND

	⇒ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
	⇒ BEARING WALL ABOVE
	⇒ INTERIOR BEARING WALL
 48" WSP	⇒ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

REFER TO KSE STRUCTURAL DETAILS SET
FOR GENERAL STRUCTURAL NOTES AND
TYPICAL DETAILS

FLOOR FRAMING TO BE 2x10 SPF #2 @
16" O.C. MAX OR EQUAL (U.N.O.).

The Birch II Model – RH
Up to 120 M.P.H.
Raleigh, North Carolina



DAVIDSON
HOMES

CRAWL SPACE FRAMING PLAN

ELEVATION 'B'

Tobacco Road Lot 103



S-2.4



NOTE:
2x BEAMS, HEADERS AND
FLOOR TRUSSES MAY BE
SYP #2 GRADE LUMBER.

LEGEND

★ → PROVIDE SOLID BLOCKING
WITHIN FLOOR SYSTEM TO
MATCH POST SIZE ABOVE.

----- → BEARING WALL ABOVE

||||| → INTERIOR BEARING WALL

48" WSP → BRACED WALL PANEL
(SEE KSE STRUCTURAL DETAILS
SET FOR BRACED WALL PANEL
SHEATHING FASTENING &
BLOCKING DETAILS)

NH → NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET
FOR GENERAL STRUCTURAL NOTES AND
TYPICAL DETAILS

PLAN DESIGNED WITH 9' WALL PLATES

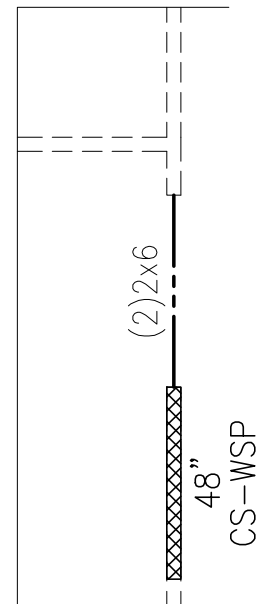
FLOOR FRAMING TO BE 14" DEEP OPEN
WEB TRUSSES @ 24" O.C. MAXIMUM OR
EQUAL (U.N.O.).

KEYNOTES:

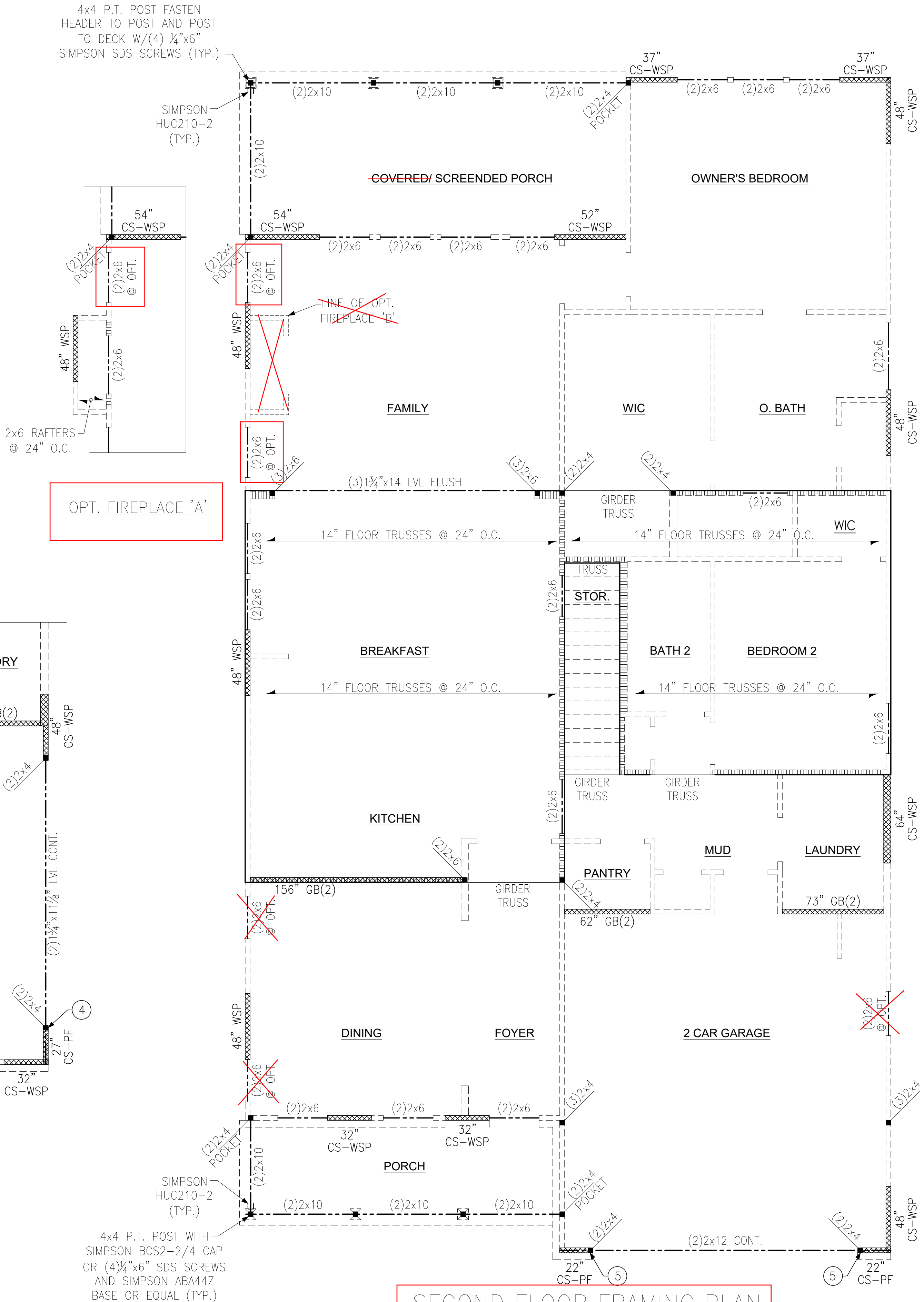
④ INSTALL ONE PANEL CS-PF PORTAL
FRAME PER DETAIL A OR B/SD-4.

⑤ INSTALL TWO PANEL CS-PF PORTAL
FRAME PER DETAIL A OR B/SD-4.

OPT. DELUXE BATH



SECOND FLOOR FRAMING PLAN
ELEVATION 'B'



4x4 P.T. POST WITH
SIMPSON BCS2-2/4 CAP
OR (4) 1/4"x6" SDS SCREWS
AND SIMPSON ABA44Z
BASE OR EQUAL (TYP.)

SIMPSON
HUC210-2
(TYP.)

2x6 RAFTERS
@ 24" O.C.

OPT. FIREPLACE 'A'

LINE OF OPT.
FIREPLACE 'B'

(2) 2x6
@ OPT.

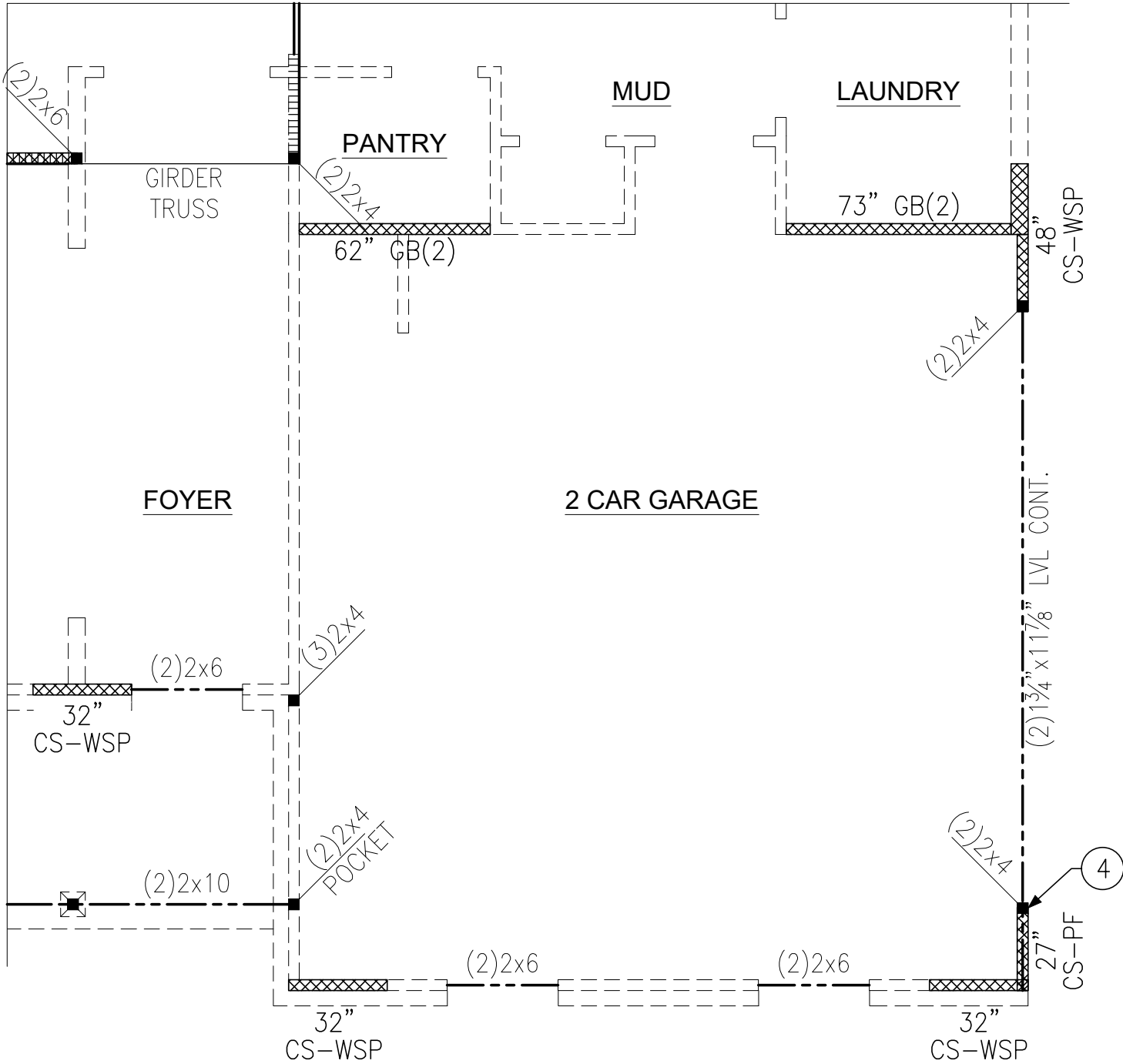
(2) 2x6
@ OPT.

(2) 2x6
@ OPT.

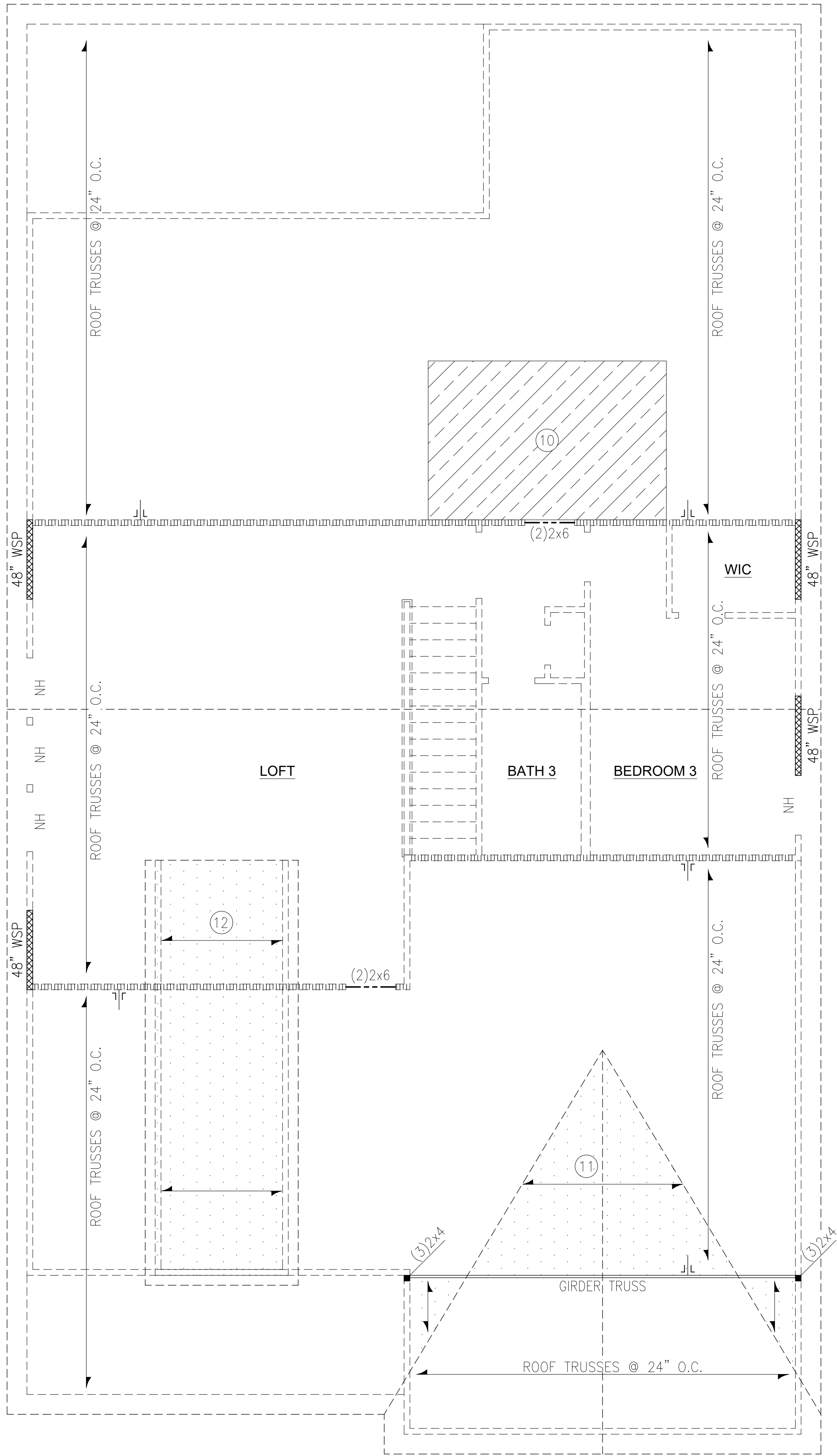
SIMPSON
HUC210-2
(TYP.)

4x4 P.T. POST FASTEN
HEADER TO POST AND POST
TO DECK W/(4) 1/4"x6"
SIMPSON SDS SCREWS (TYP.)

PARTIAL FRAMING PLAN
ELEVATION 'B'
OPT. SIDE ENTRY GARAGE



Tobacco Road Lot 103



ROOF FRAMING PLAN
ELEVATION 'B'

NOTE:
2x BEAMS, HEADERS AND
FLOOR JOISTS MAY BE SYP
#2 GRADE LUMBER.

LEGEND

★

⇒

PROVIDE SOLID BLOCKING
WITHIN FLOOR SYSTEM TO
MATCH POST SIZE ABOVE.

⇒

BEARING WALL ABOVE

|||||

⇒

INTERIOR BEARING WALL

48" WSP

⇒

BRACED WALL PANEL
(SEE KSE STRUCTURAL DETAILS
SET FOR BRACED WALL PANEL
SHEATHING FASTENING &
BLOCKING DETAILS)

NH

⇒

NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET
FOR GENERAL STRUCTURAL NOTES AND
TYPICAL DETAILS

PLAN DESIGNED WITH 8' WALL PLATES

KEYNOTES:

10

8'x12' HVAC PLATFORM TRUSSES
DESIGNED TO SUPPORT HVAC UNITS.

11

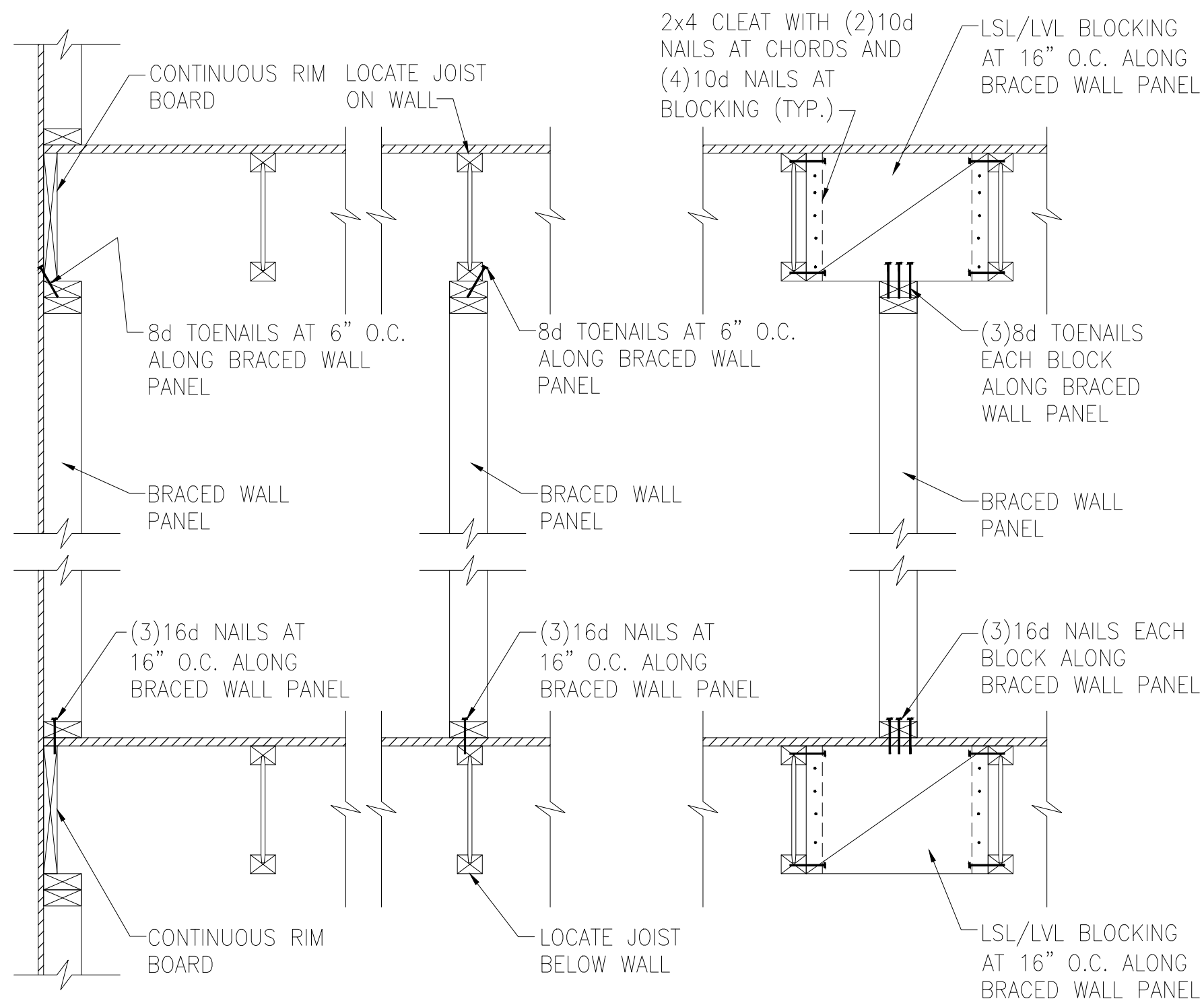
VALLEY SET TRUSSES @ 24" O.C.
OR 2x6 OVERFRAMING @ 24" O.C.
W/ 2x8 RIDGE & VALLEY PLATES
(TYP.)

12

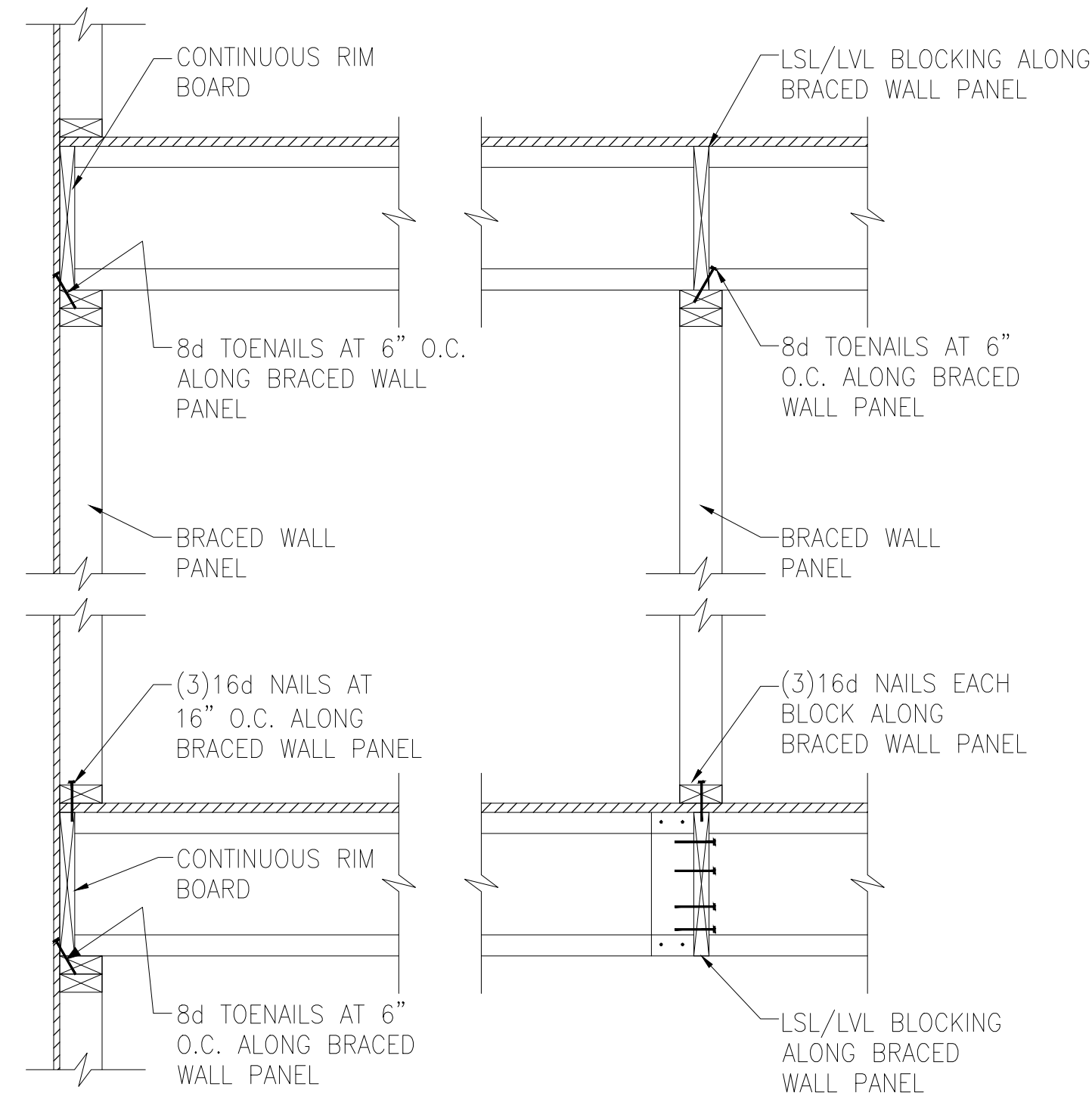
2x6 RAFTERS @ 24" O.C. ON 2x4
RAKED KNEE WALLS. PROVIDE 2x4
BLOCKING BETWEEN TRUSSES UNDER
KNEE WALLS. (TYP.)



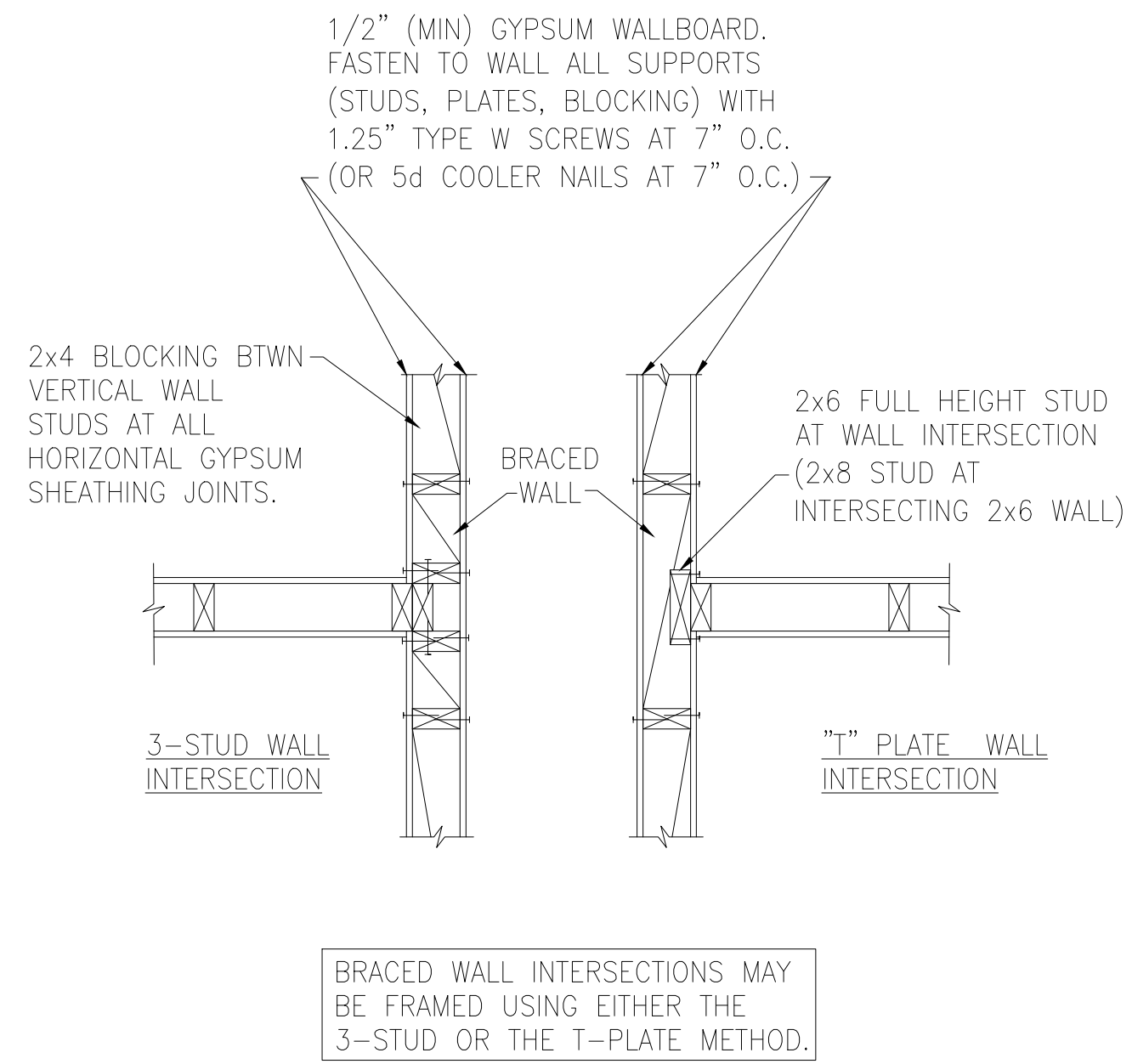
Tobacco Road Lot 103



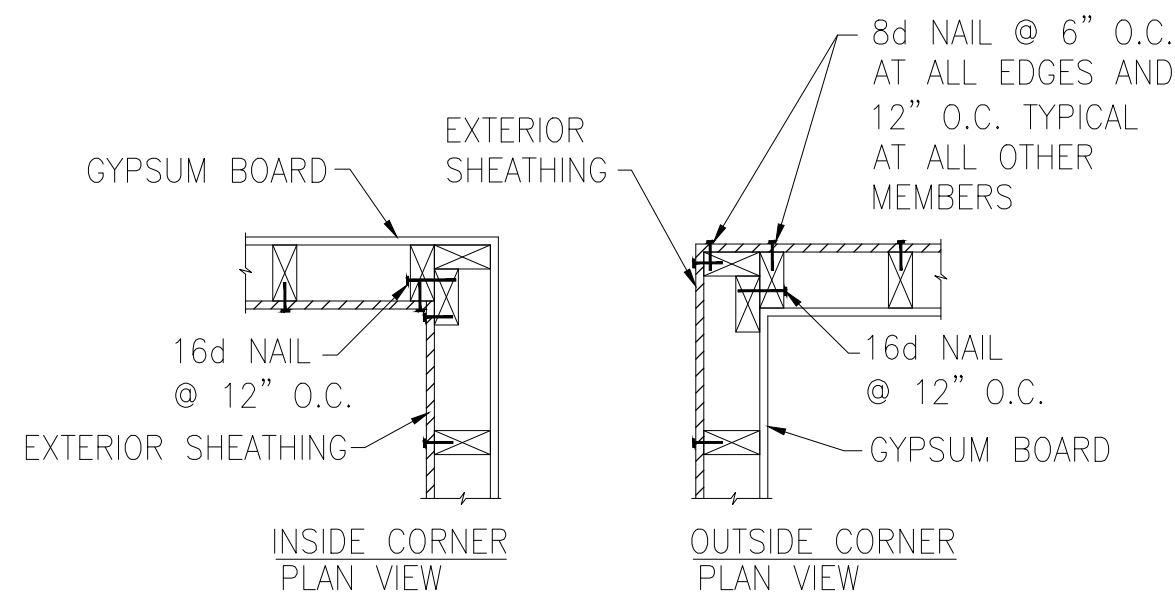
A TYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION
BRACED WALL PANELS PARALLEL TO I-JOISTS



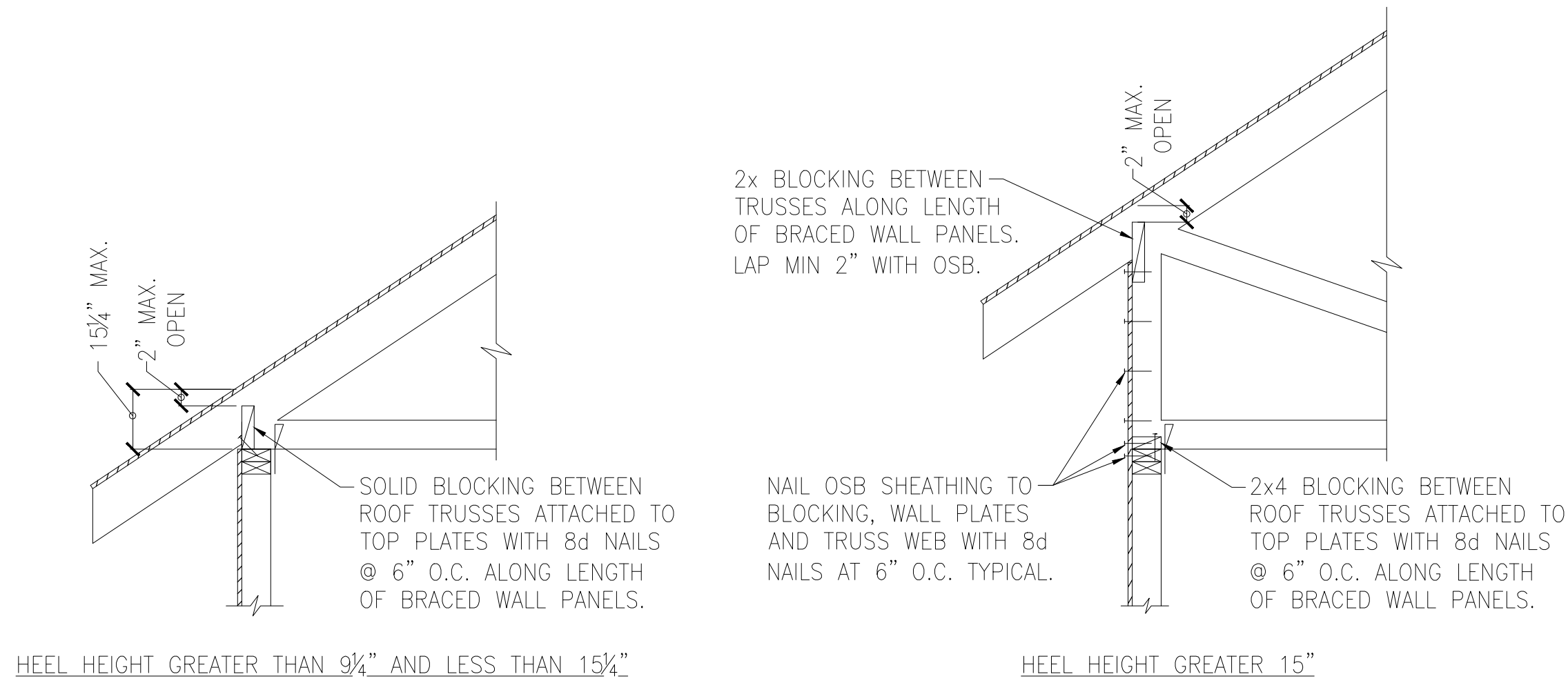
B TYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION
BRACED WALL PANELS PERPENDICULAR TO I-JOISTS



C METHOD GB(1) AND GB(2) INTERSECTION DETAILS



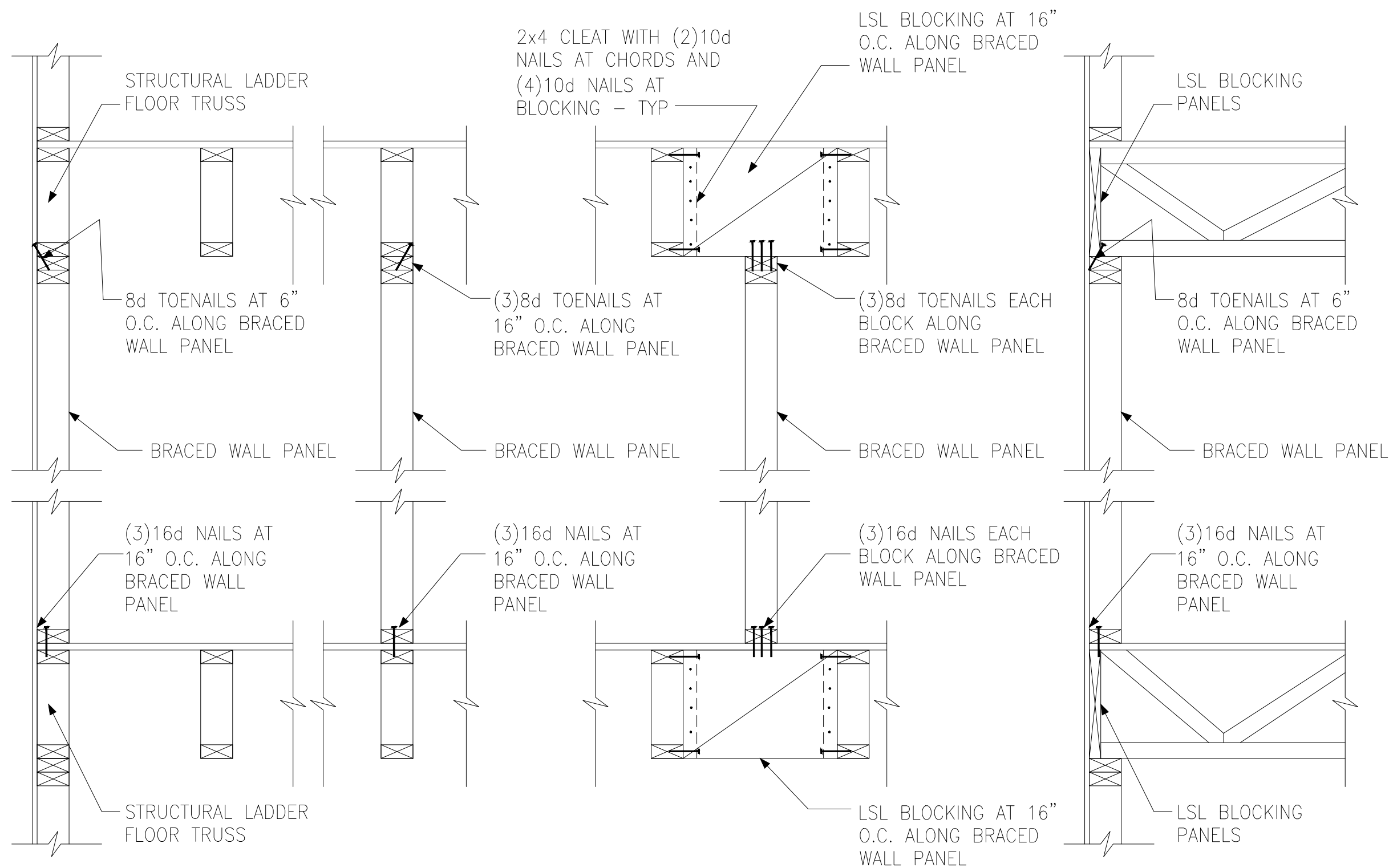
D TYPICAL EXTERIOR CORNER WALL FRAMING



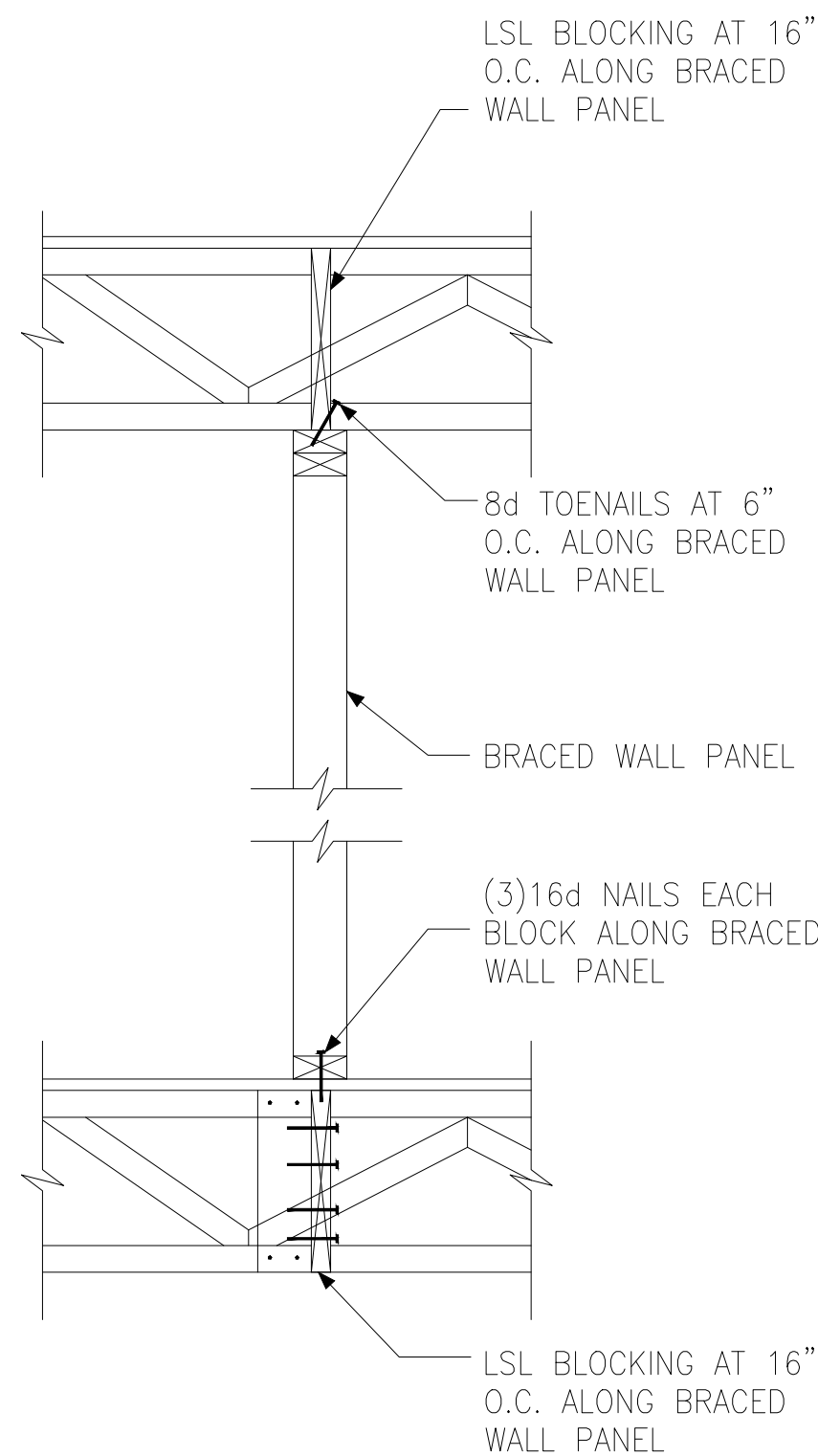
E ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS
ONLY REQUIRED AT BRACED WALL PANELS

Tobacco Road Lot 103

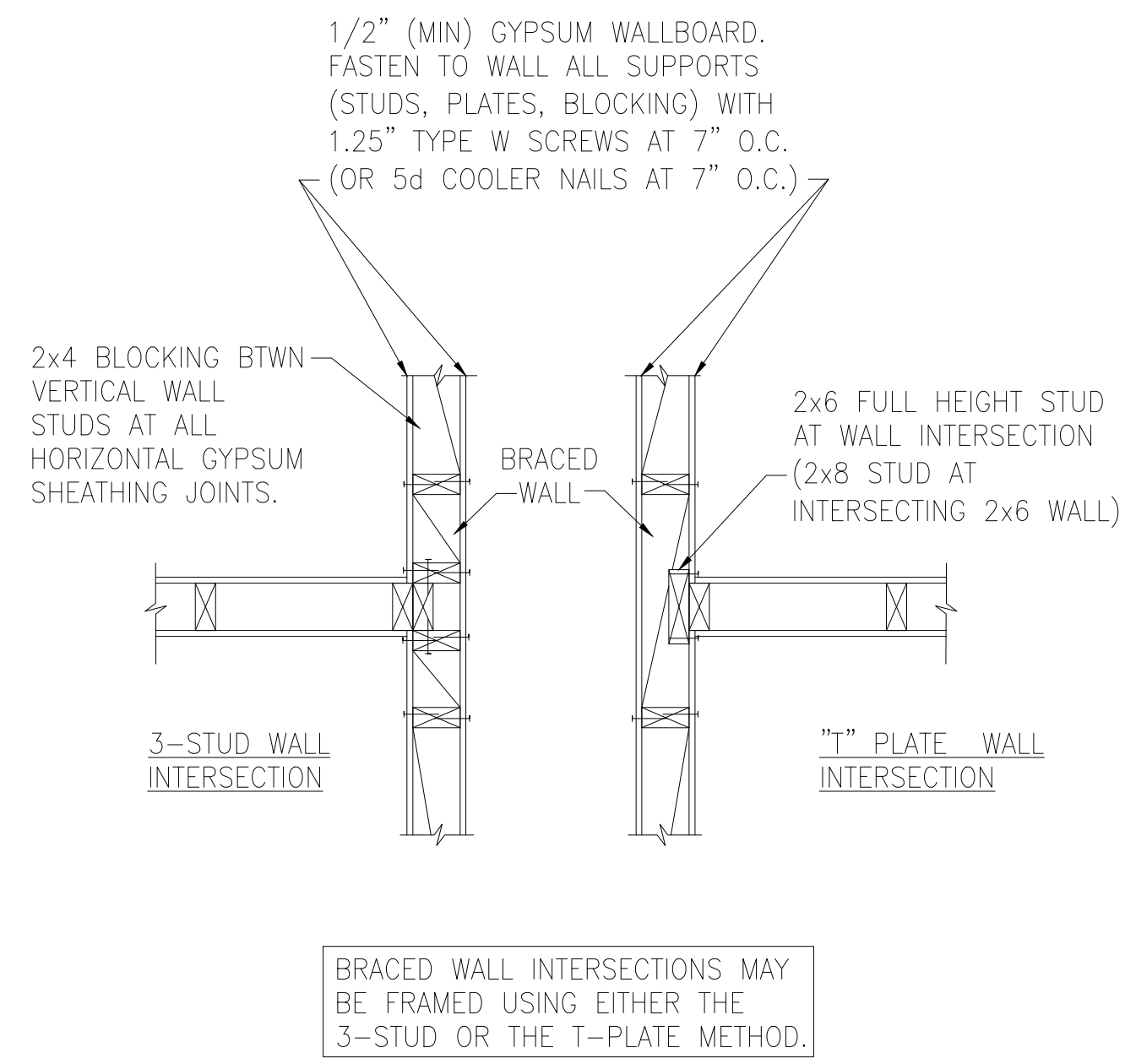




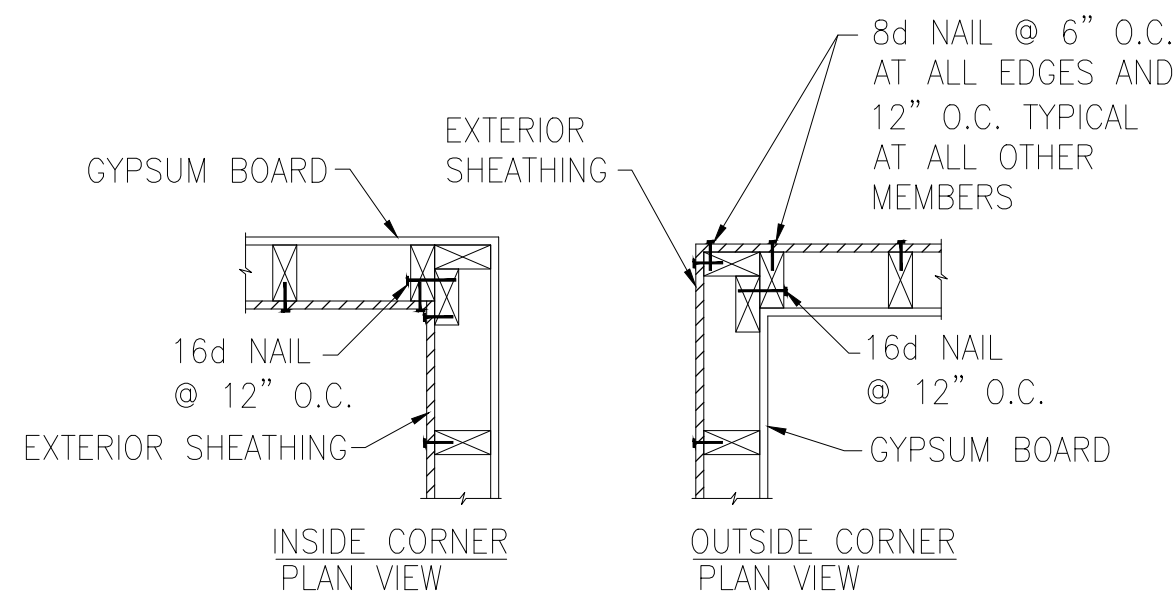
A TYPICAL BRACED WALL PANEL TO FLOOR / CEILING CONNECTION
BRACED WALL PANELS PARALLEL TO TRUSSES



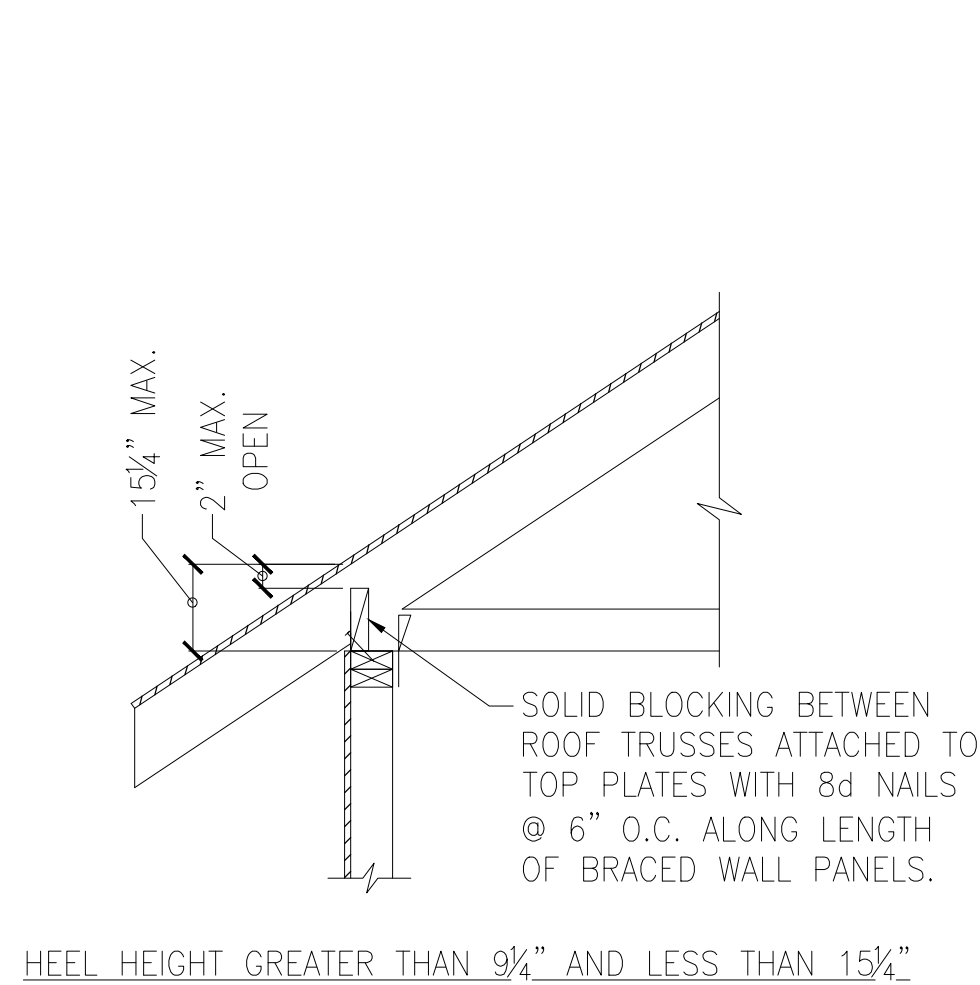
B TYPICAL BRACED WALL PANEL TO FLOOR / CEILING CONNECTION
BRACED WALL PANELS PERPENDICULAR TO TRUSSES



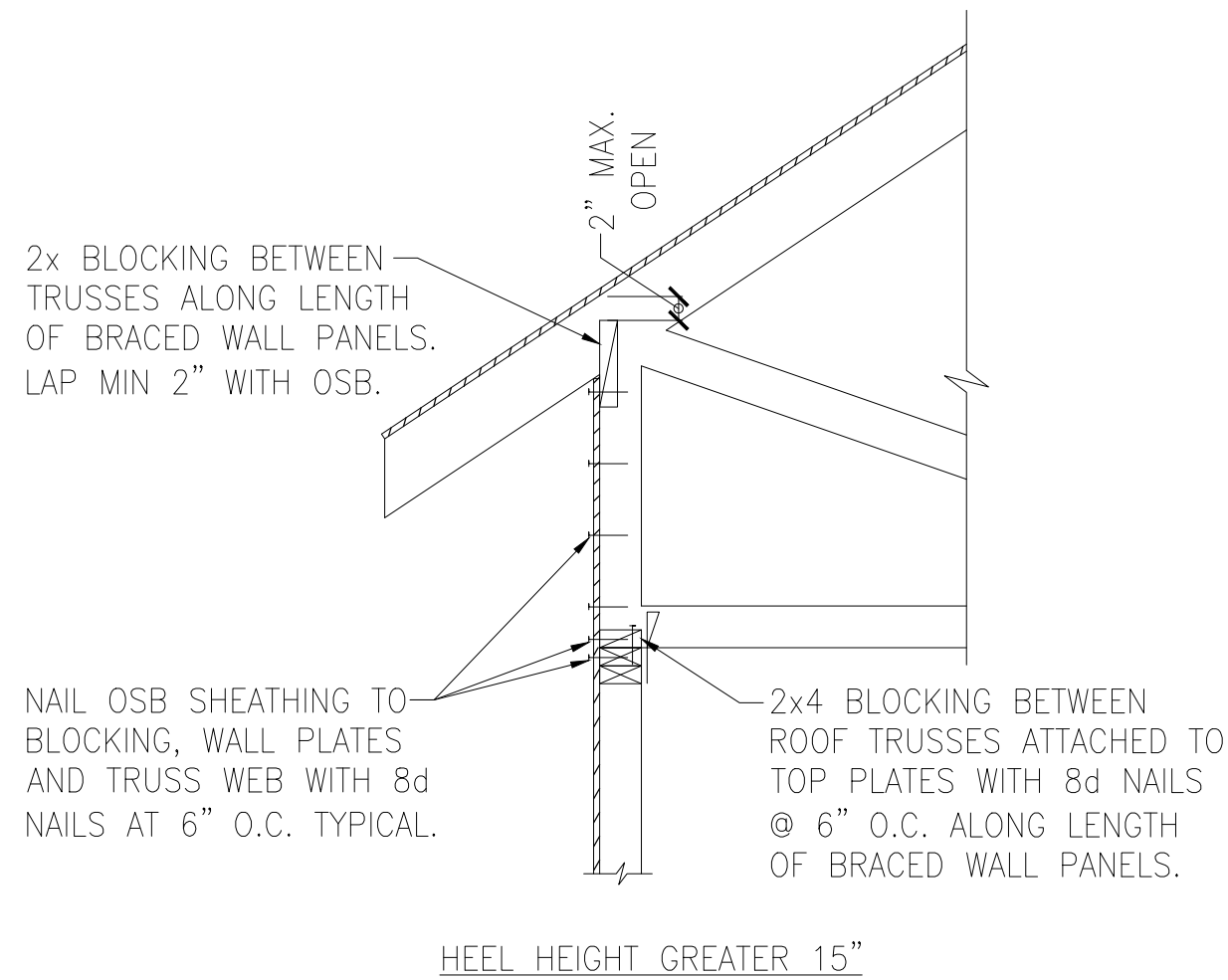
C METHOD GB(1) AND GB(2) INTERSECTION DETAILS



D TYPICAL EXTERIOR CORNER WALL FRAMING

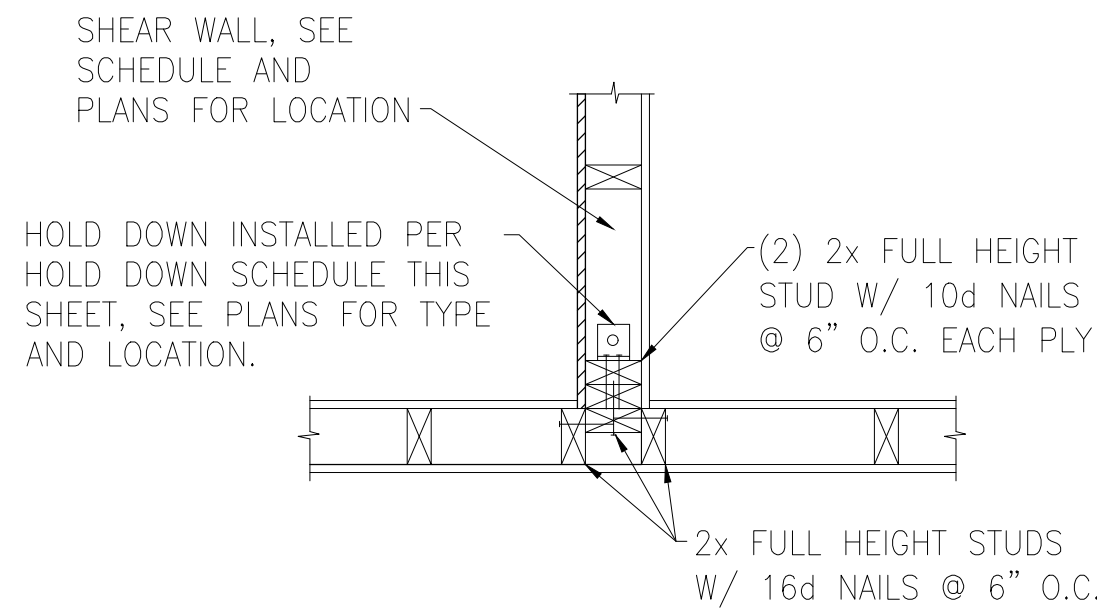


E ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS
ONLY REQUIRED AT BRACED WALL PANELS

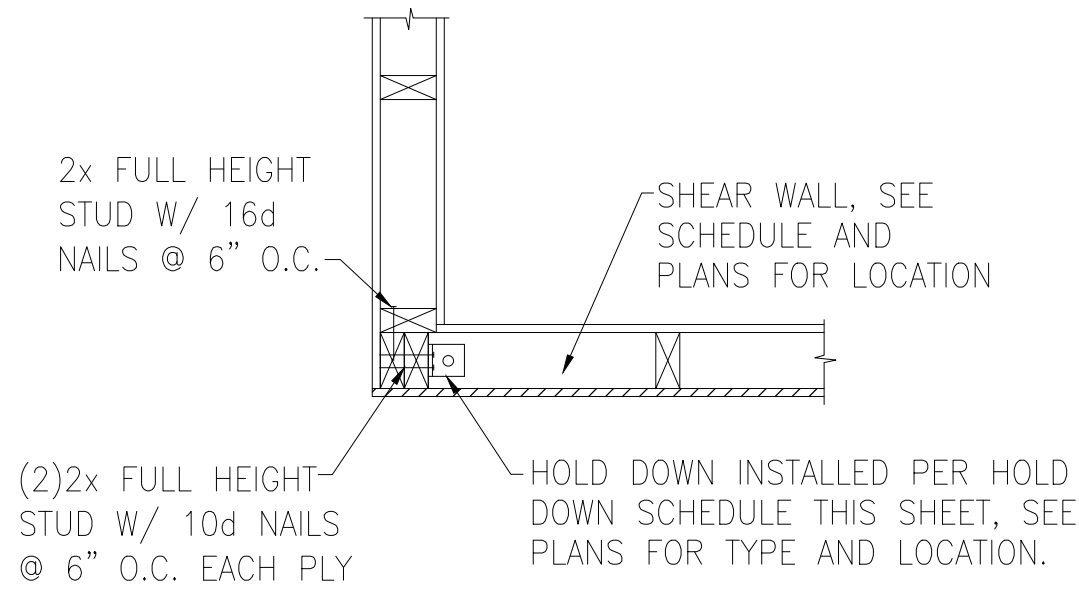


Tobacco Road Lot 103

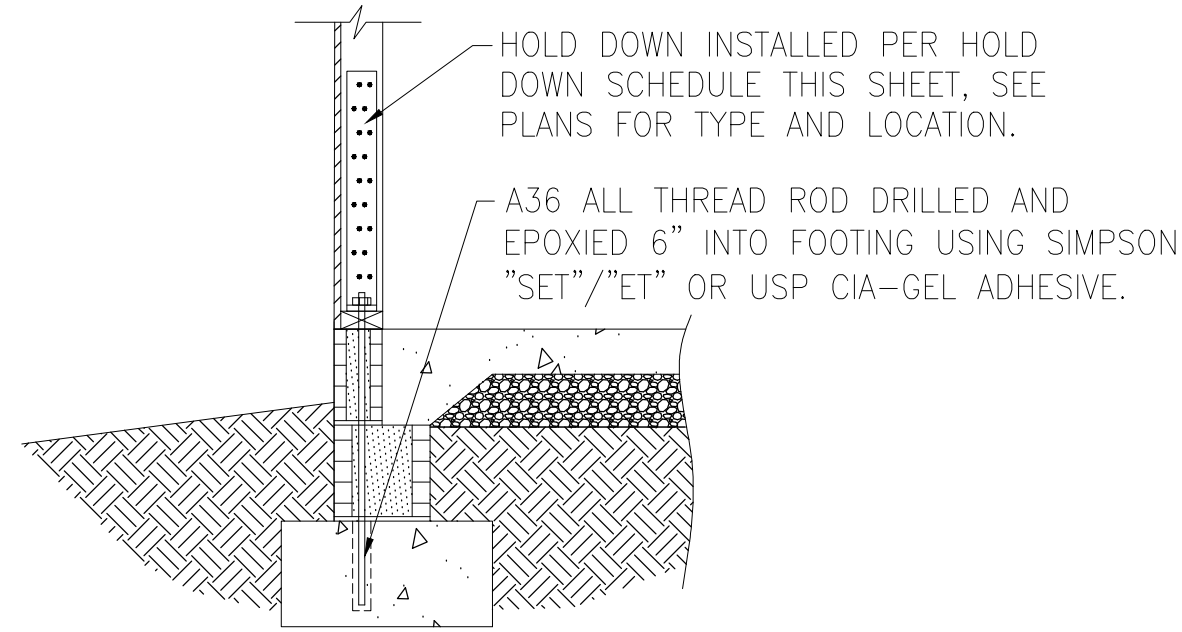




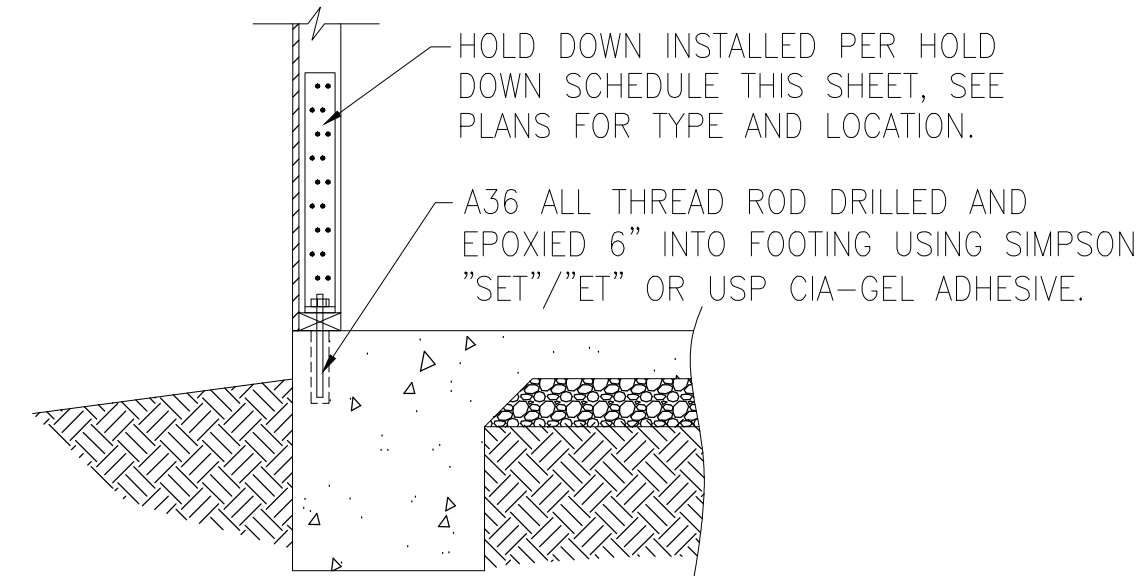
A TYPICAL HOLD DOWN DETAIL



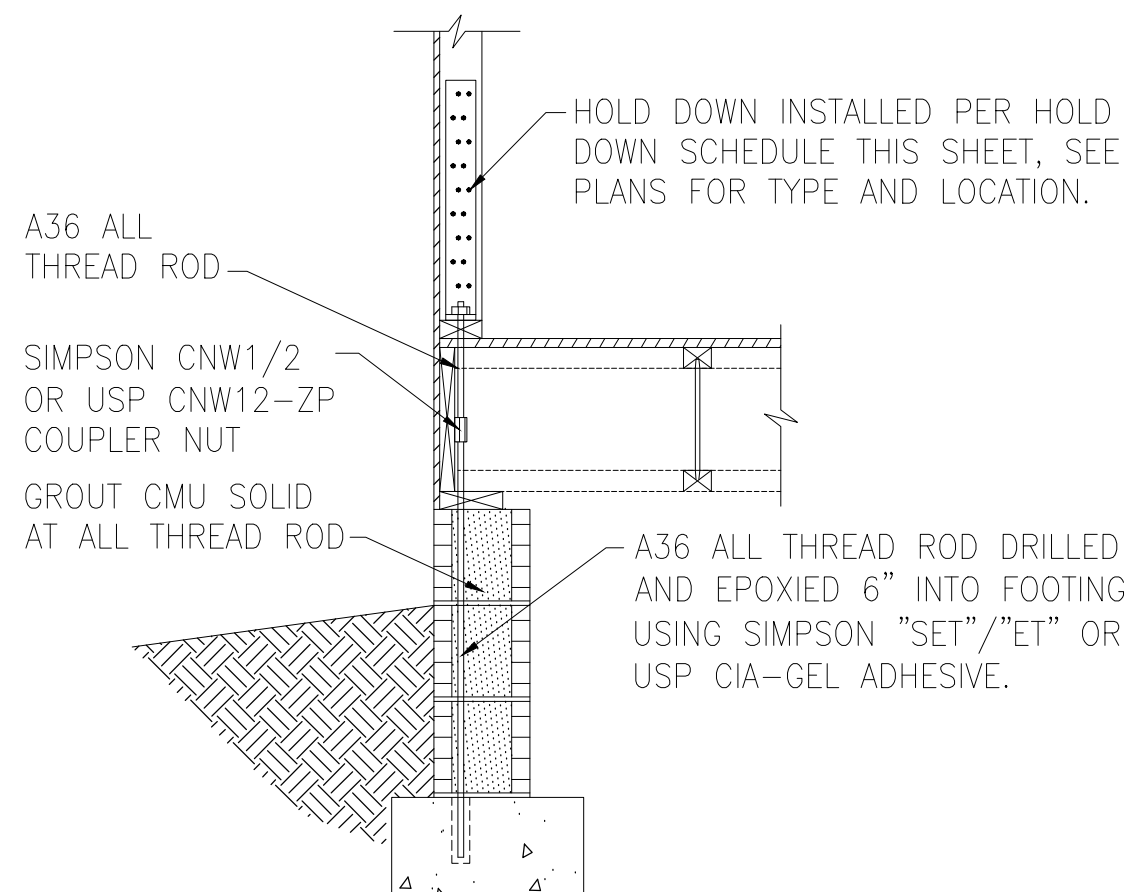
B TYPICAL HOLD DOWN DETAIL



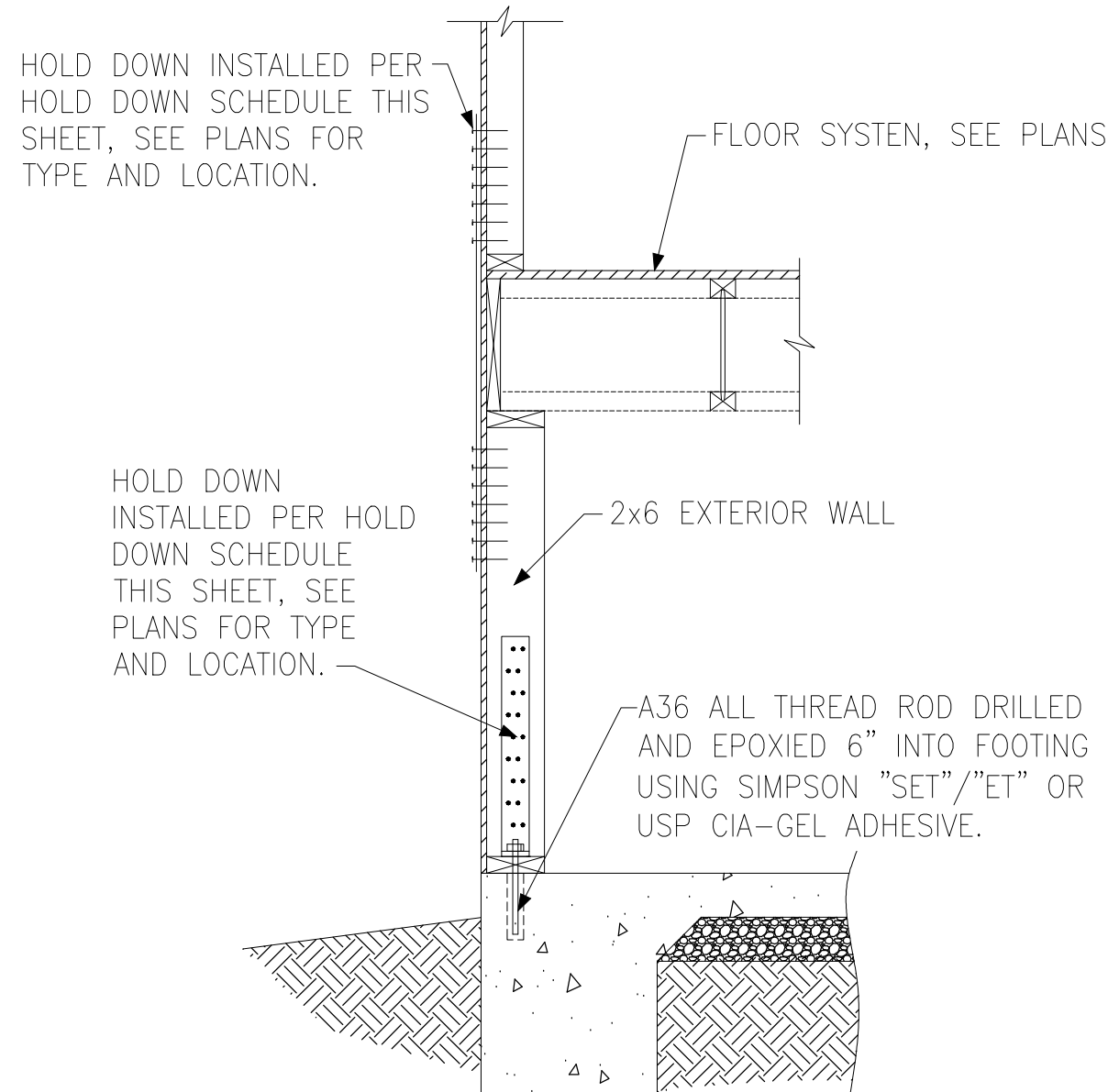
C HOLD DOWN AT STEMWALL SLAB FOUNDATION



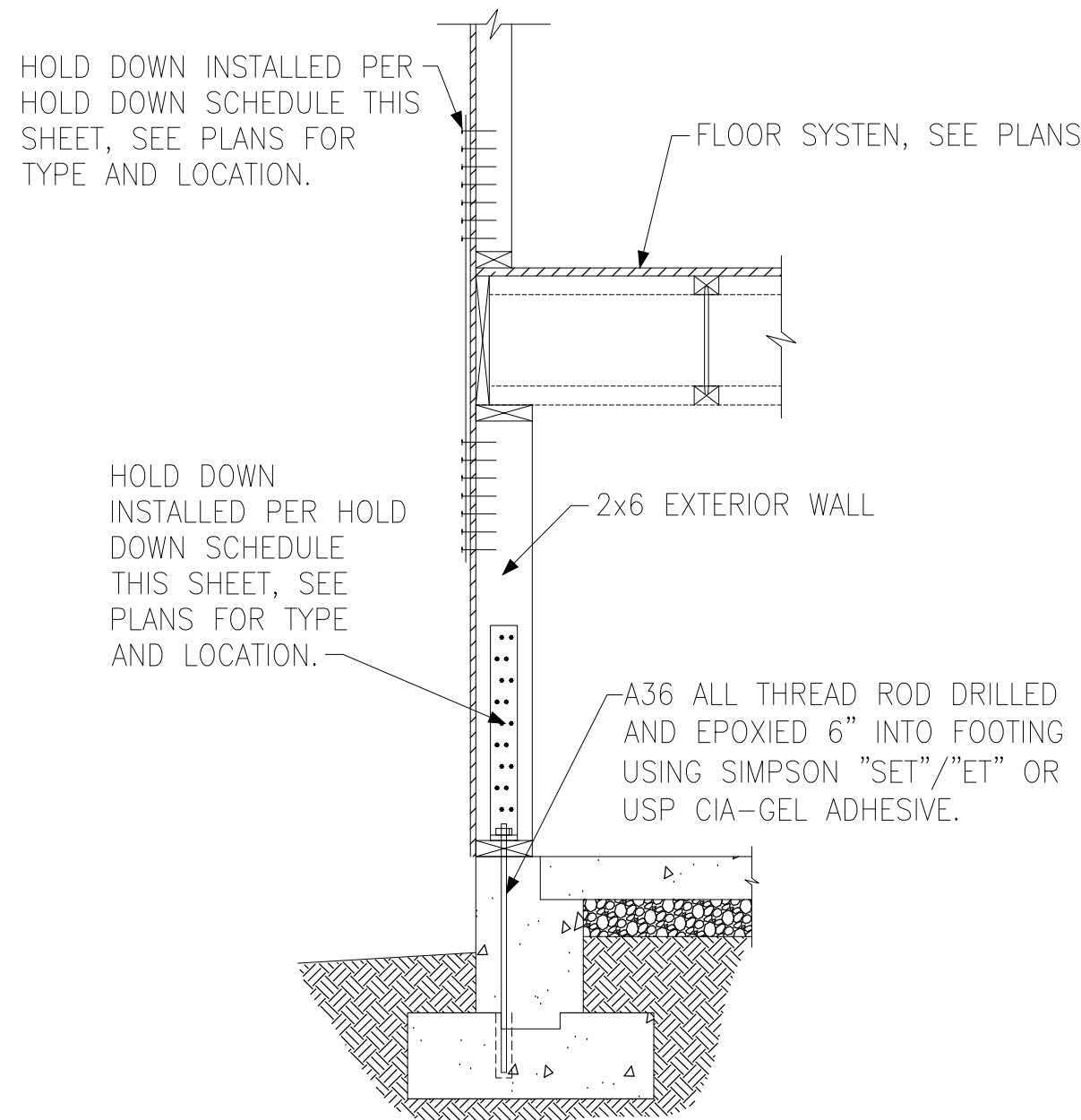
D HOLD DOWN AT MONOLITHIC SLAB FOUNDATION



E HOLD DOWN AT CRAWL SPACE FOUNDATION



F HOLD DOWN AT BASEMENT FOUNDATION MONOLITHIC TURN-DOWN

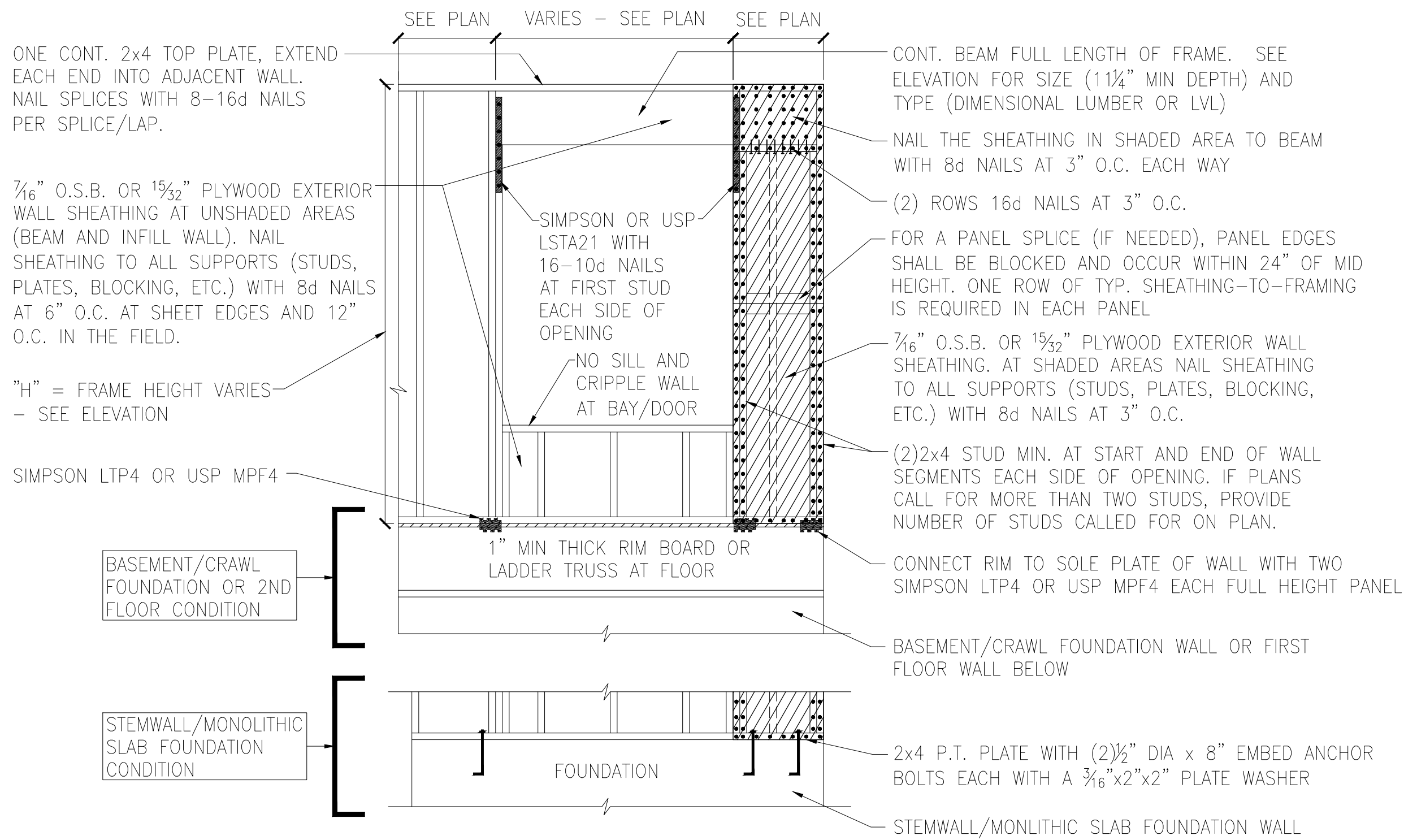


G HOLD DOWN AT BASEMENT FOUNDATION STEM WALL

HOLD DOWN SCHEDULE			
HOLD DOWN		ALL THREAD ROD	FASTENERS
SIMPSON	USP		
LTP2	LTS20B	½" DIA.	(12)0.148"x2.5" LONG NAILS
HTT4	HTT16	⅝" DIA.	(18)0.162"x2.5" LONG NAILS
HTT5	HTT45	⅝" DIA.	(26)0.162"x2.5" LONG NAILS

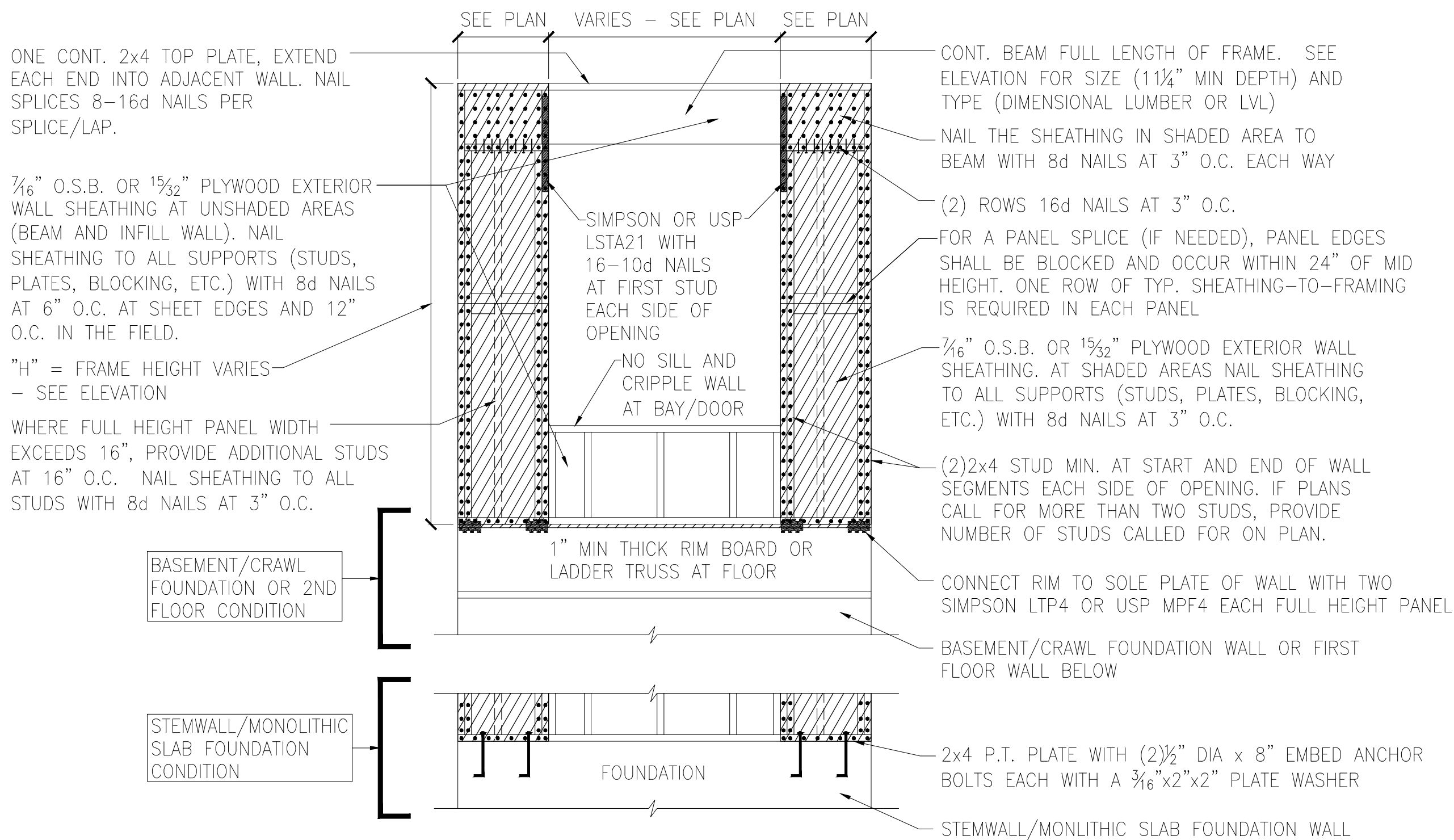
Tobacco Road Lot 103



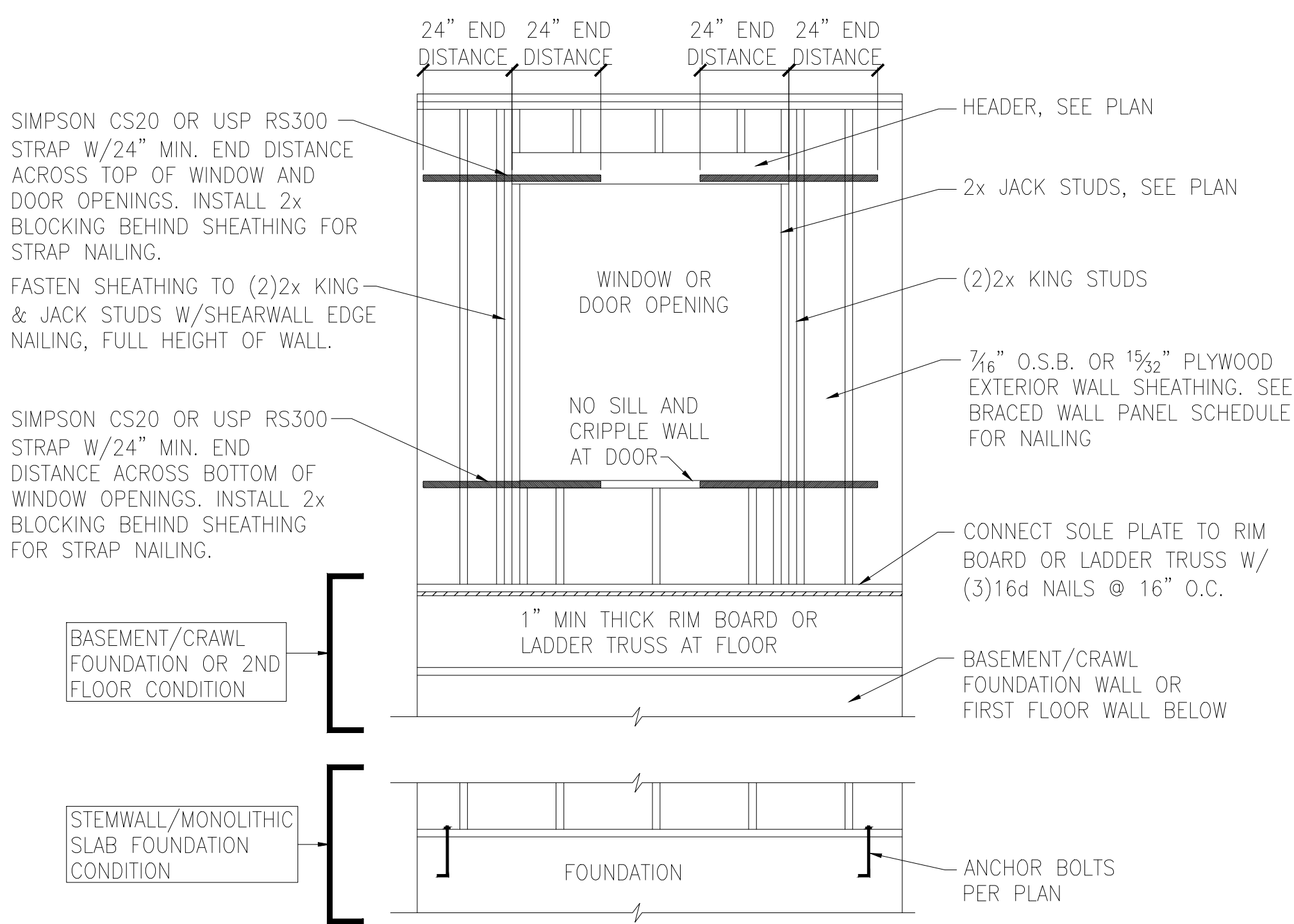


A METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
ONE BRACED WALL SEGMENT

Tobacco Road Lot 103



B METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
TWO BRACED WALL SEGMENTS



C WINDOW OR DOOR REINFORCEMENT IN ENGINEERED SHEAR WALL
ONLY REQUIRED WHERE SPECIFIED ON PLANS

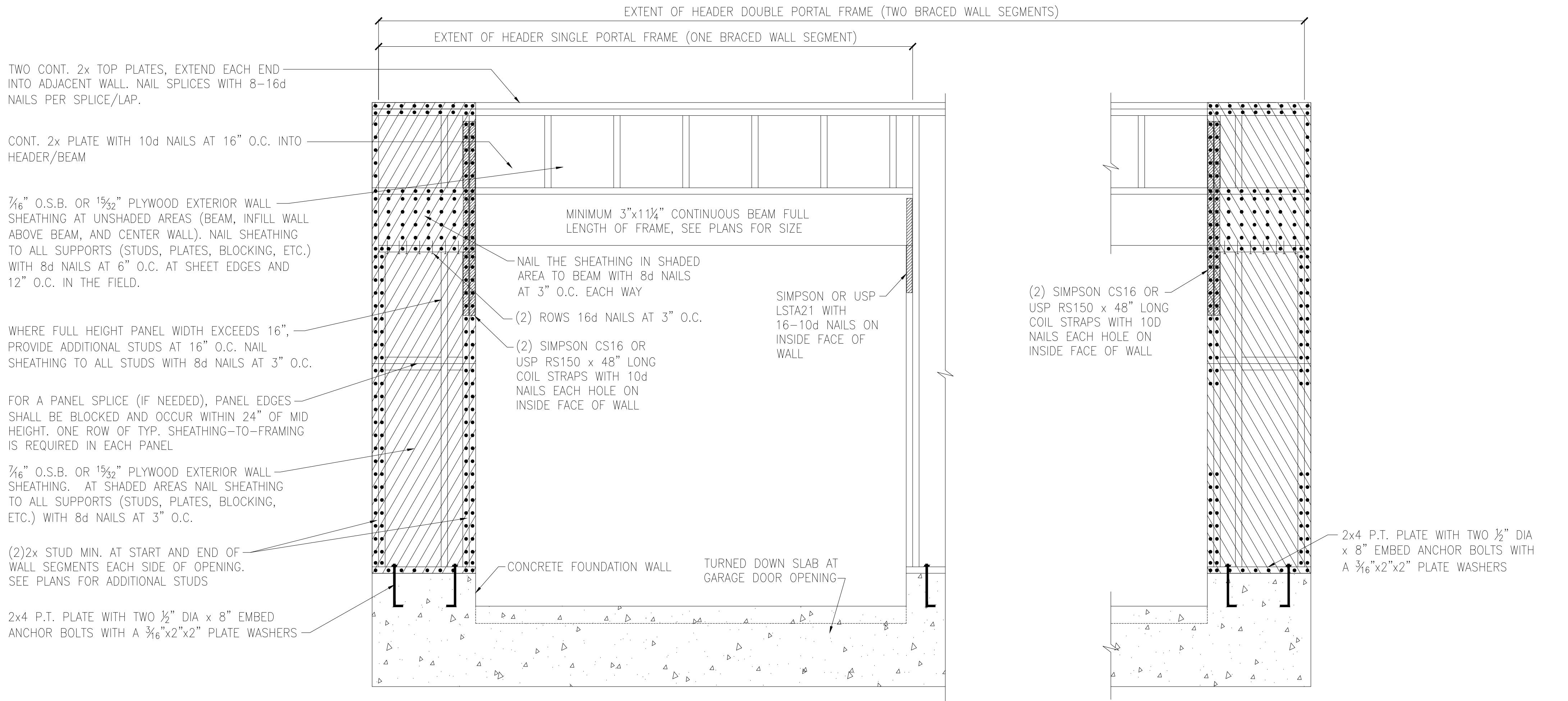
BRACED WALL PANEL AND ENGINEERED SHEAR WALL SCHEDULE			
PANEL TYPES	PANEL TYPE	MATERIAL	FASTENERS
WSP	INTERMITTENT WOOD STRUCTURAL PANEL	7/16" OSB	6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS
GB(1)	INTERMITTENT GYPSUM BOARD (SHEATHING ONE FACE OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
GB(1)-4	INTERMITTENT GYPSUM BOARD (SHEATHING ONE FACE OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 4" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
GB(2)	INTERMITTENT GYPSUM BOARD (SHEATHING BOTH FACES OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
CS-WSP	CONTINUOUS SHEATHED WOOD STRUCTURAL PANEL	7/16" OSB	6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS
CS-PF	CONTINUOUS SHEATHED PORTAL FRAME	7/16" OSB	NAILING PER DETAIL
PFH	PORTAL FRAME WITH HOLD DOWNS	7/16" OSB	NAILING PER DETAIL
CS-ESW(1)	ENGINEERED SHEAR WALL, TYPE 1	7/16" OSB	8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS
CS-ESW(2)	ENGINEERED SHEAR WALL, TYPE 2	7/16" OSB	8D COMMON NAILS AT 4" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS
CS-ESW(3)	ENGINEERED SHEAR WALL, TYPE 3	7/16" OSB	8D COMMON NAILS AT 3" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS
BRACED WALL PANEL NOTES:			
1. ALL BRACED WALL PANELS, EXCEPT GB(1) & GB(2), SHALL HAVE 2x BLOCKING BETWEEN WALL STUDS AT ALL HORIZONTAL SHEET EDGES.			
2. PROVIDE NAILING/BLOCKING ABOVE AND BELOW ALL BRACED WALL PANELS PER KSE BRACED WALL DETAILS.			
3. SHEATH ALL EXTERIOR WALLS OF THE HOUSE WITH 7/16" O.S.B., OR 1 1/32" PLYWOOD, FASTENED PER IRC. AT EXTERIOR CORNERS, SHEATHING SHALL BE FASTENED PER KSE BRACED WALL DETAILS. AT INTERIOR WALL INTERSECTIONS, FASTEN STUDS & WALL BRACING PER KSE BRACED WALL DETAILS.			
4. BRACED WALL PANELS AND ENGINEERED SHEAR WALLS ARE PROVIDED PER IRC. PANEL LENGTHS SHOWN ON PLANS ARE THE MINIMUM LENGTH REQUIRED.			

Braced Wall Notes & Details

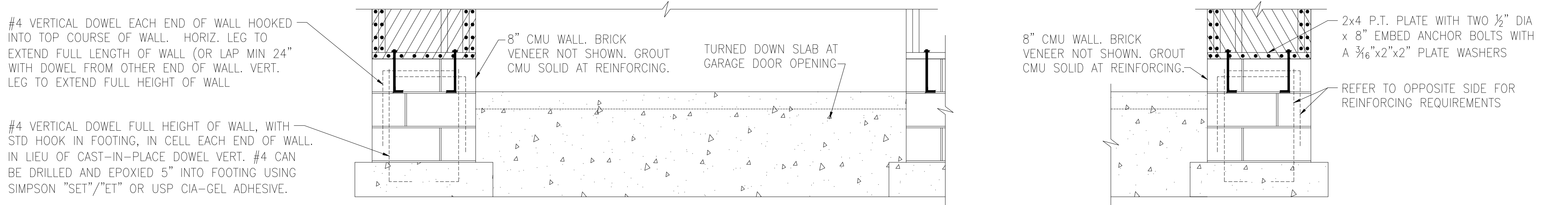
Up to 120 M.P.H.
Raleigh, North Carolina

Project #: 214-22000
Designed By: KRK
Checked By:
Issue Date: 3/6/23
Re-Issue:
Scale: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

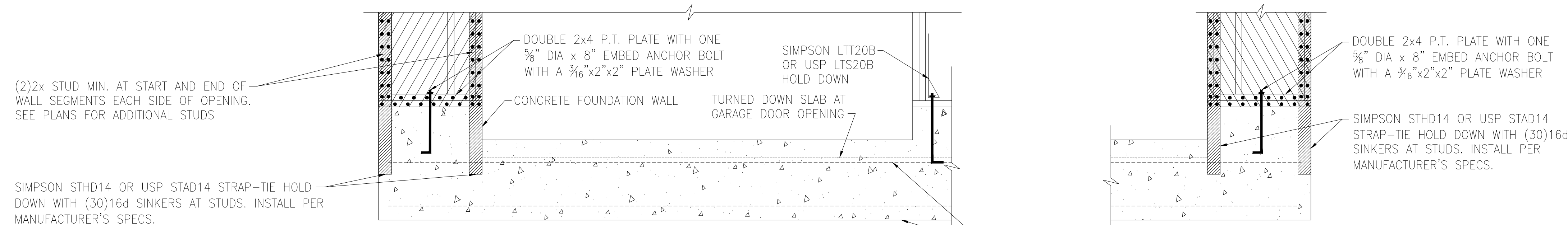




A METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
MONOLITHIC SLAB OR BASEMENT FOUNDATION

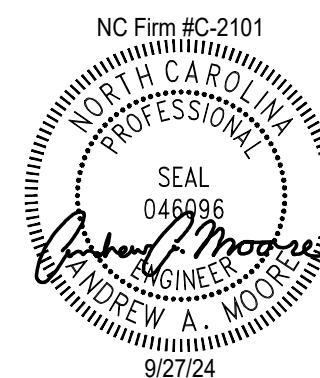


B METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
STEMWALL SLAB OR CRAWL SPACE FOUNDATION



C METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS
MONOLITHIC SLAB OR BASEMENT FOUNDATION

Tobacco Road Lot 103



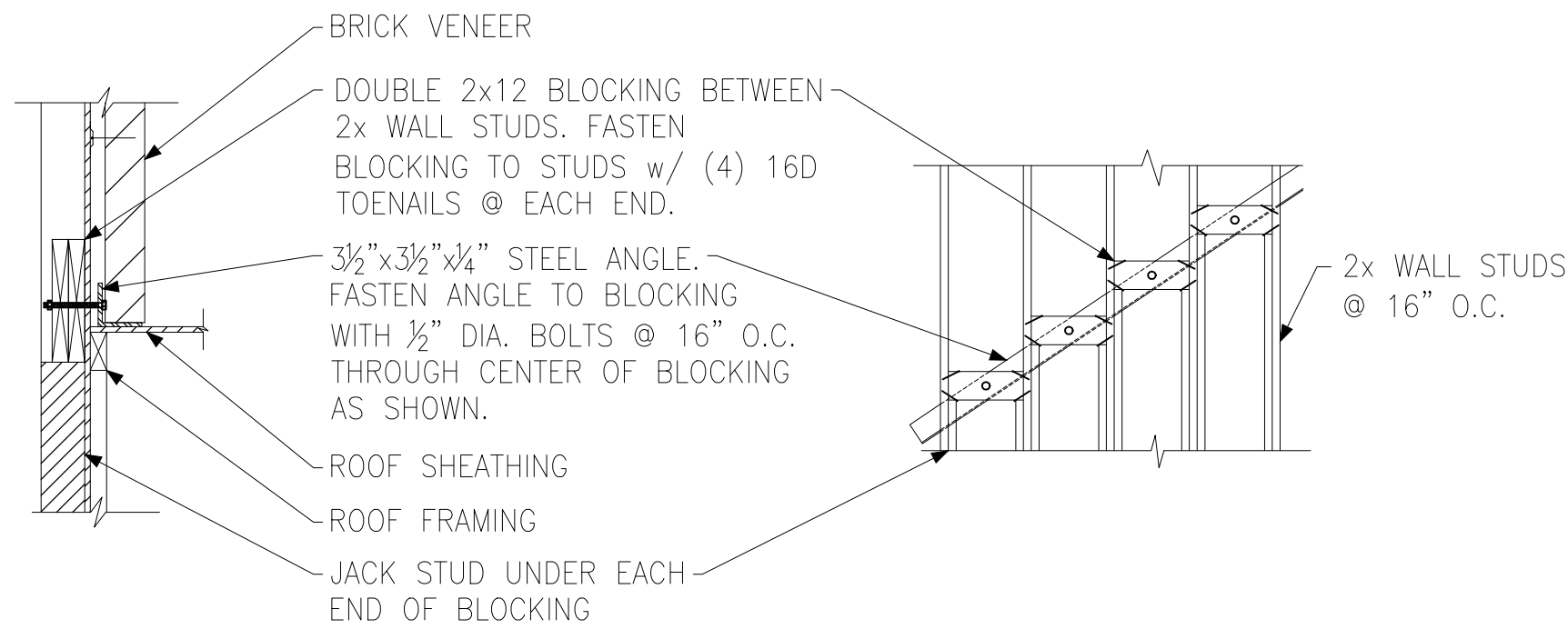
Portal Frame Details

Up to 120 M.P.H.
Raleigh, North Carolina

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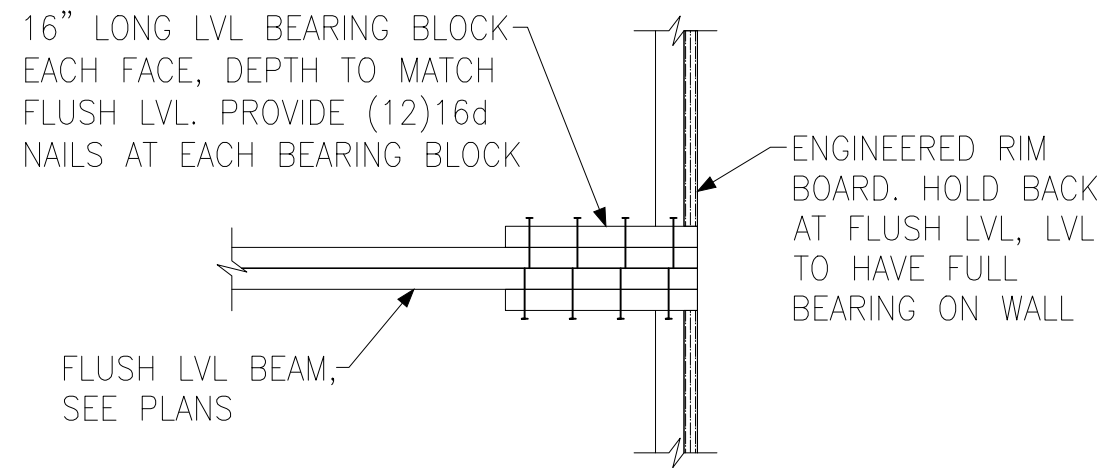


SD-4

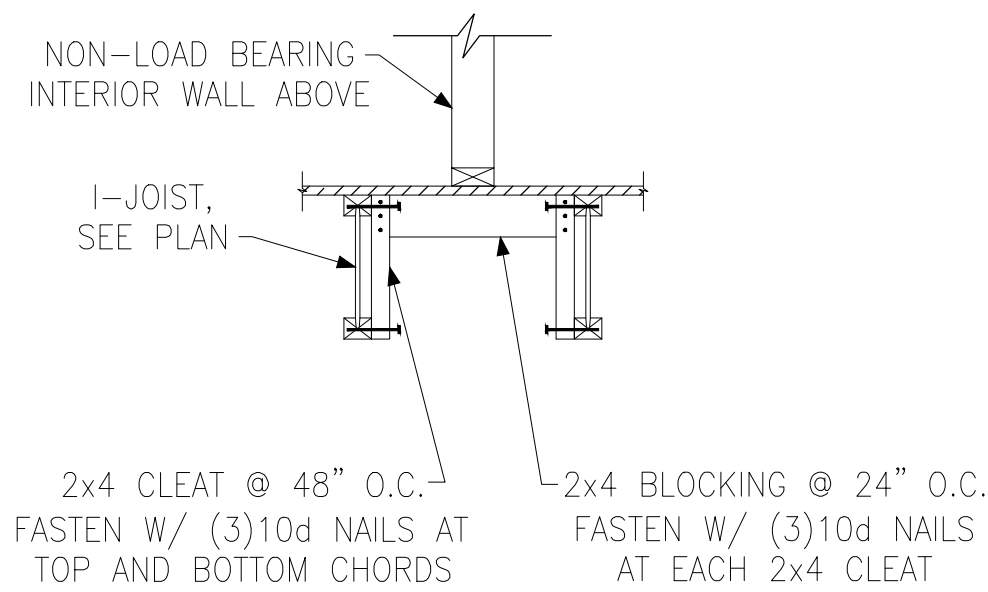


SECTION VIEW ELEVATION VIEW

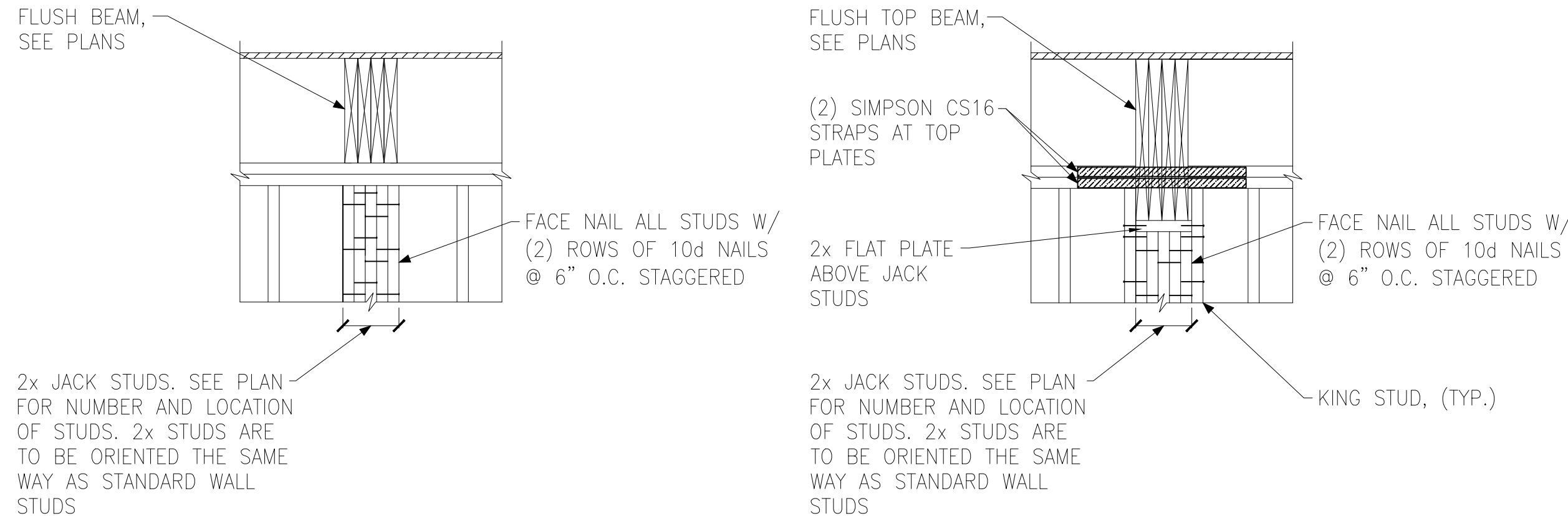
A BRICK LEDGER CONNECTION DETAIL



B BEARING ENHANCER FLUSH LVL



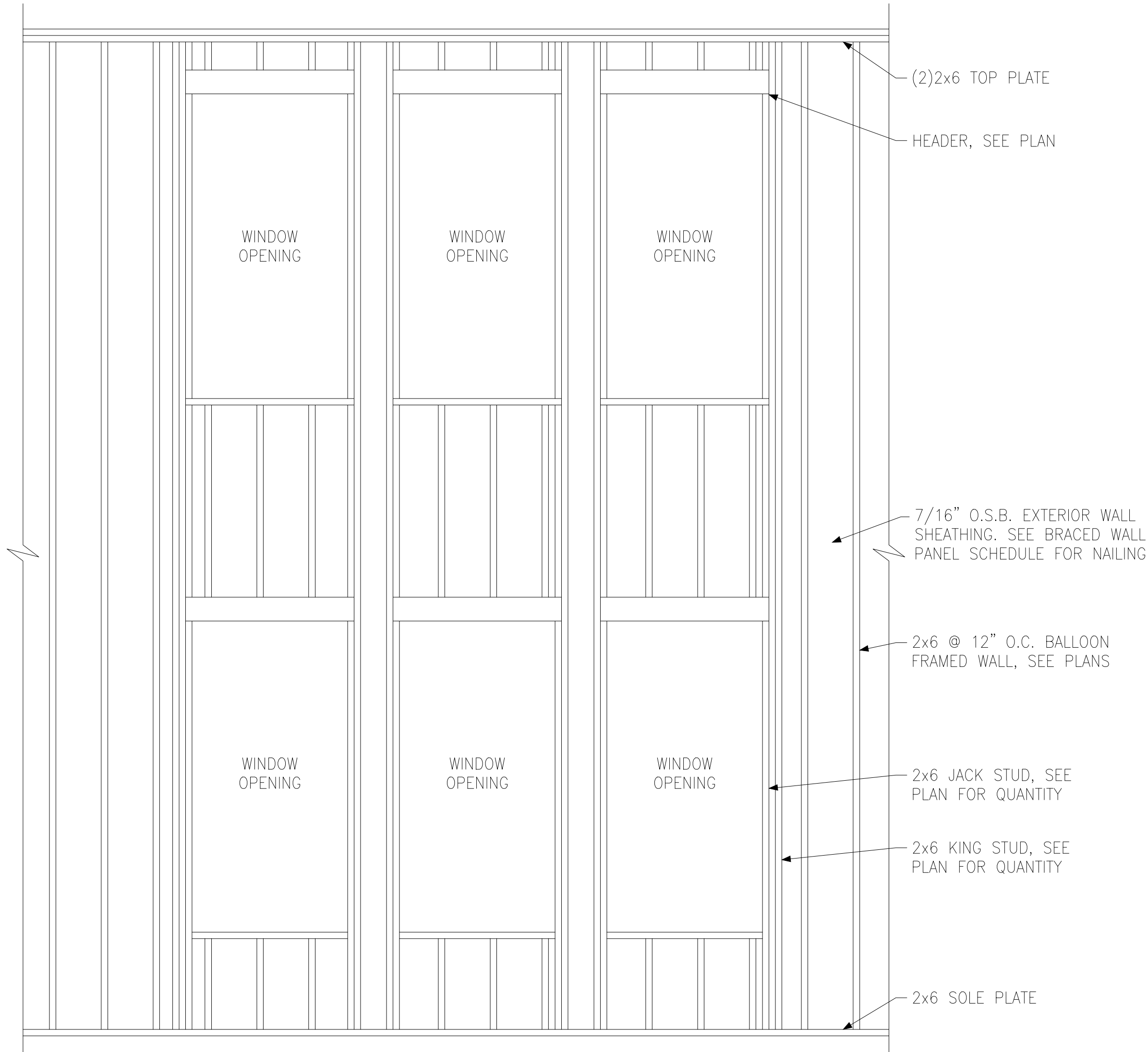
C I-JOIST LADDER BLOCKING AS REQUIRED @ PARALLEL WALLS



FLUSH BEAM

FLUSH TOP BEAM

E BUILT-UP STUD DETAIL SUPPORTING BEAM



D BALLOON FRAMED WALL DETAIL N.T.S.

Tobacco Road Lot 103



Miscellaneous Framing Details

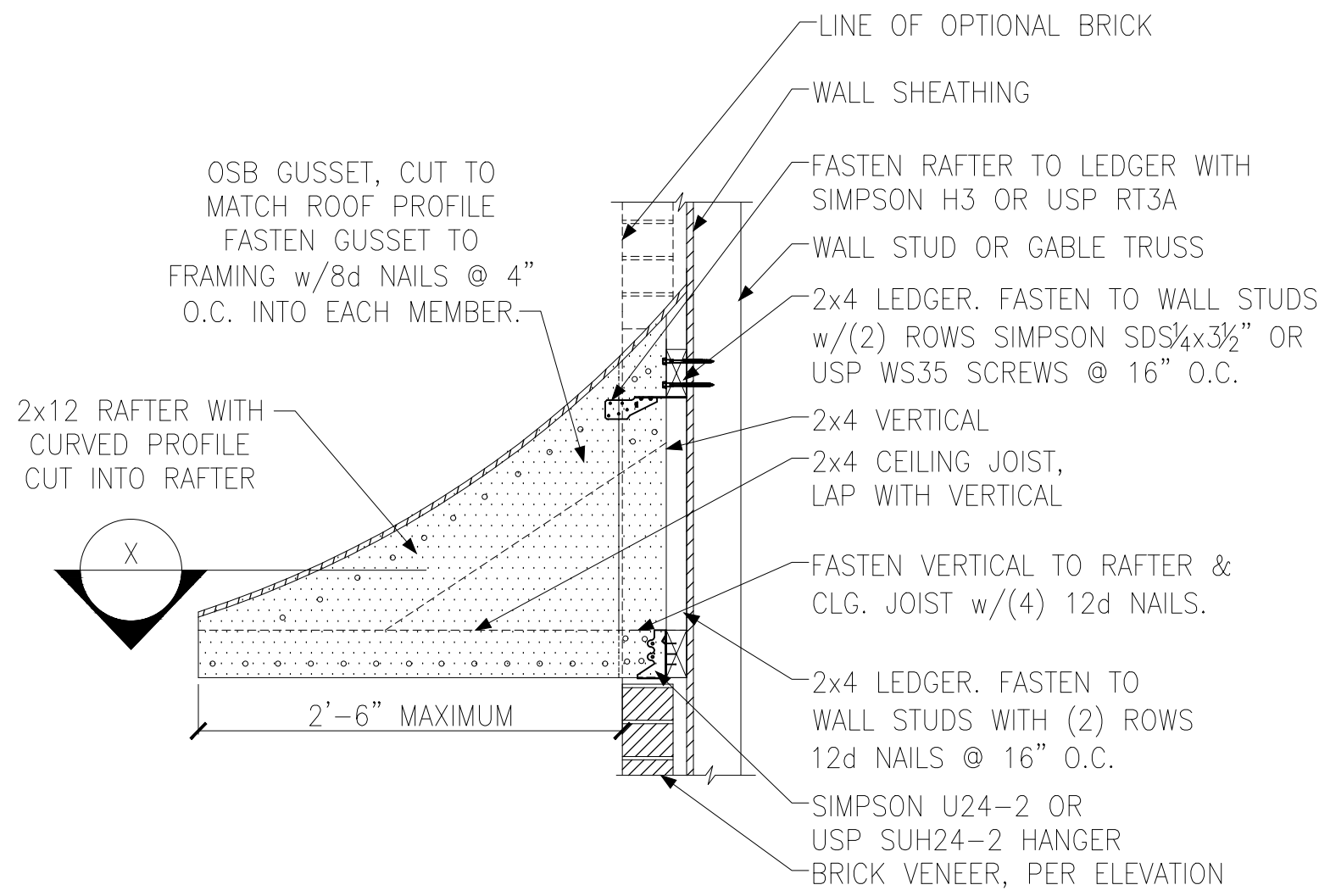
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Raleigh, North Carolina

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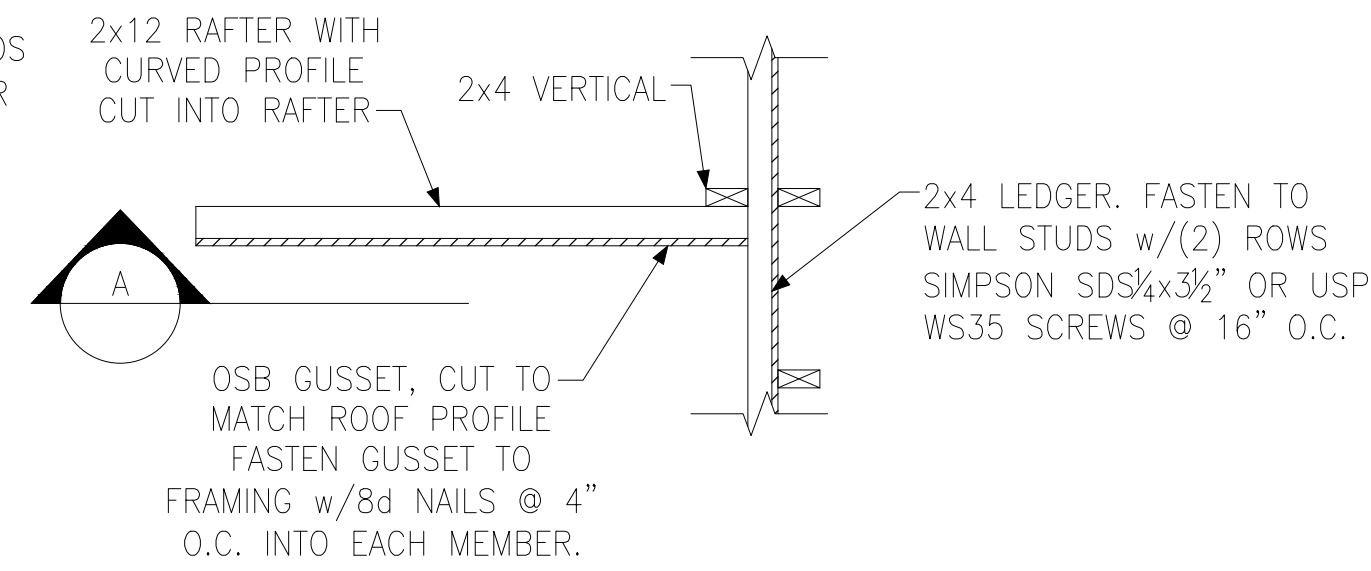
SD-5

KSE
ENGINEERING
1900 AM DRIVE, SUITE 201, OAKERTOWN, PA 18951
www.kse-eng.com (215) 804-4449

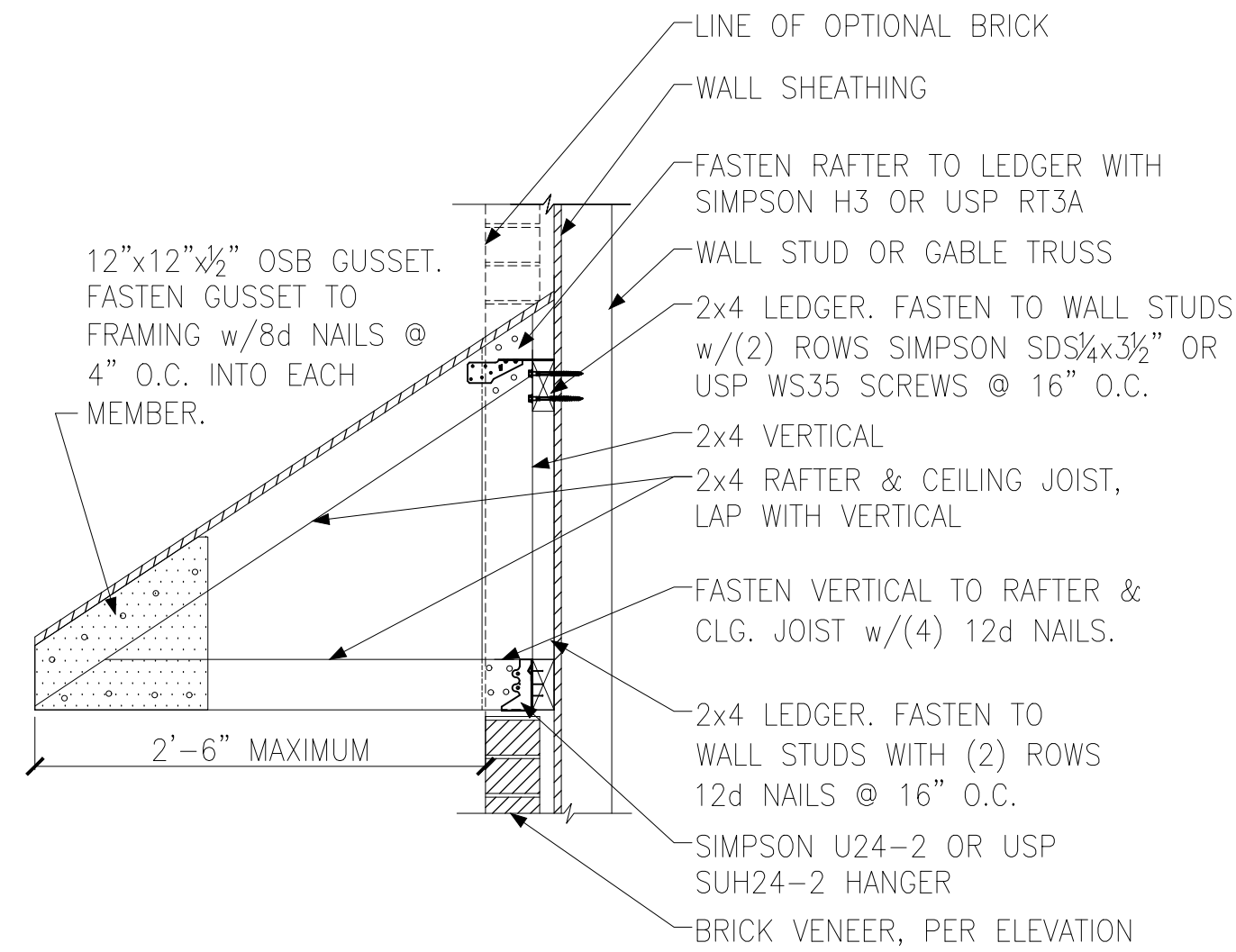
DAVIDSON
HOMES



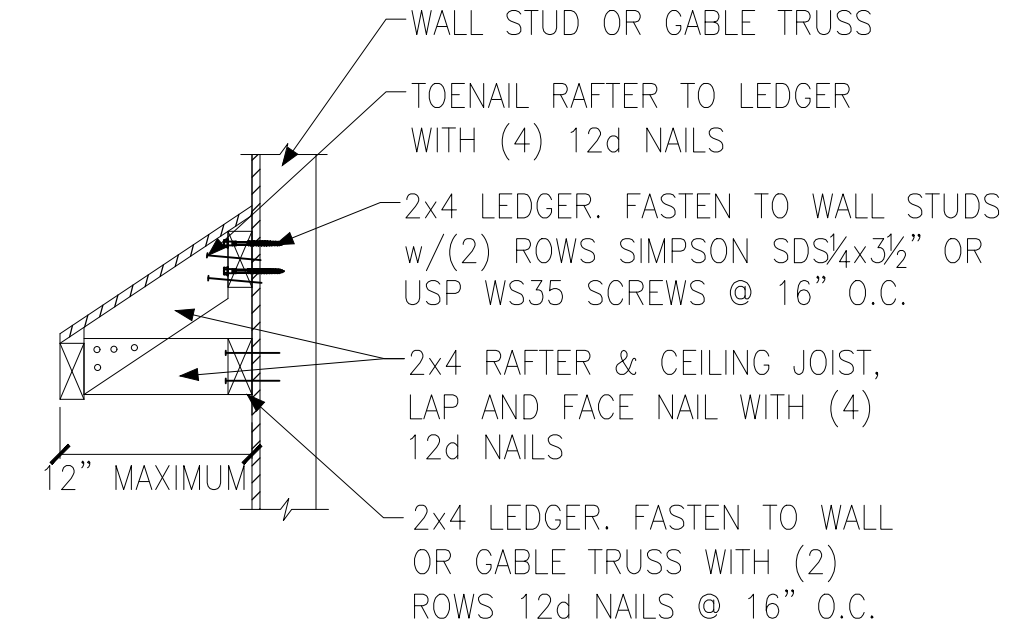
A PENT ROOF DETAIL
CURVED ROOF



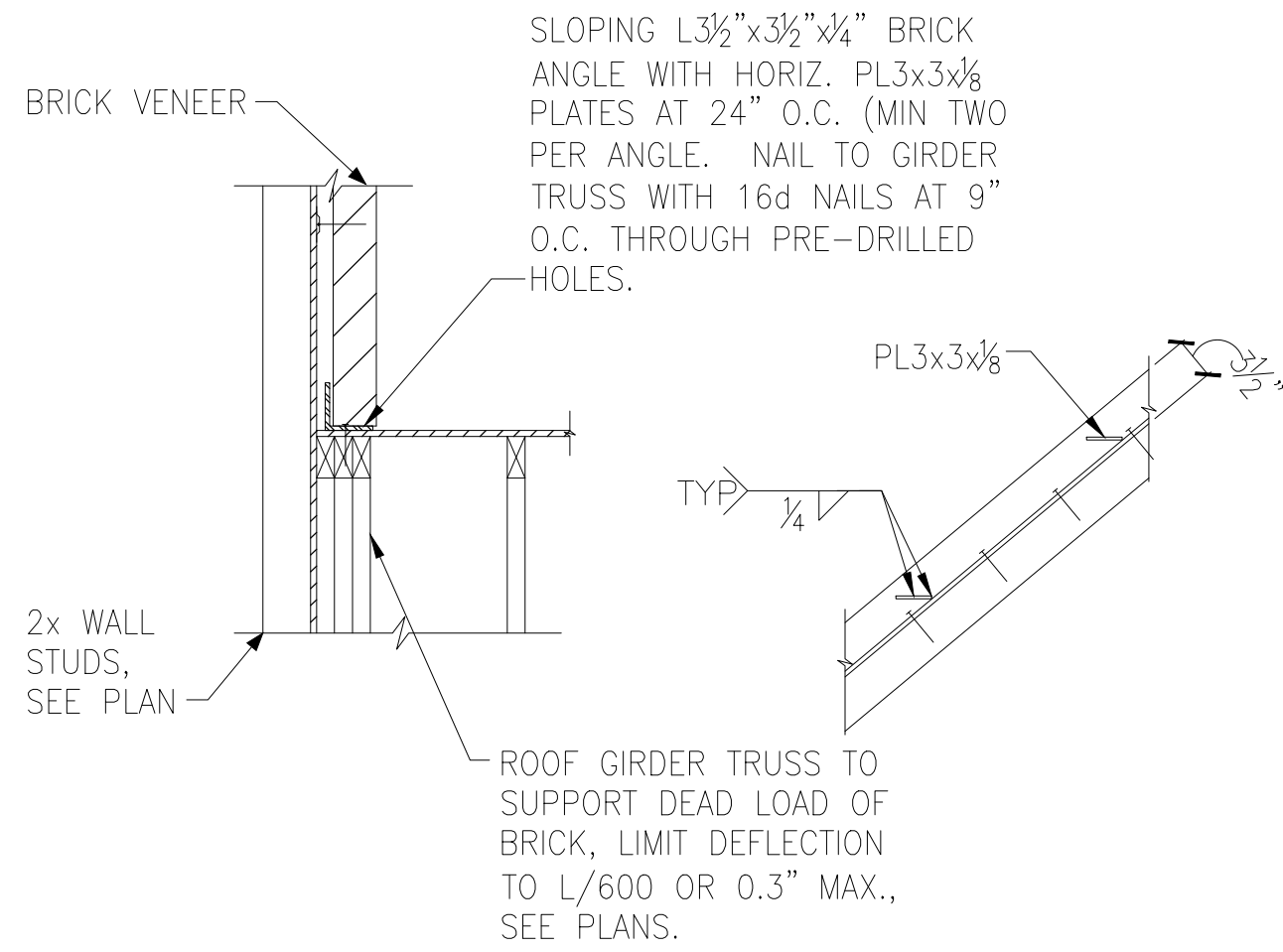
X SECTION
CURVED ROOF



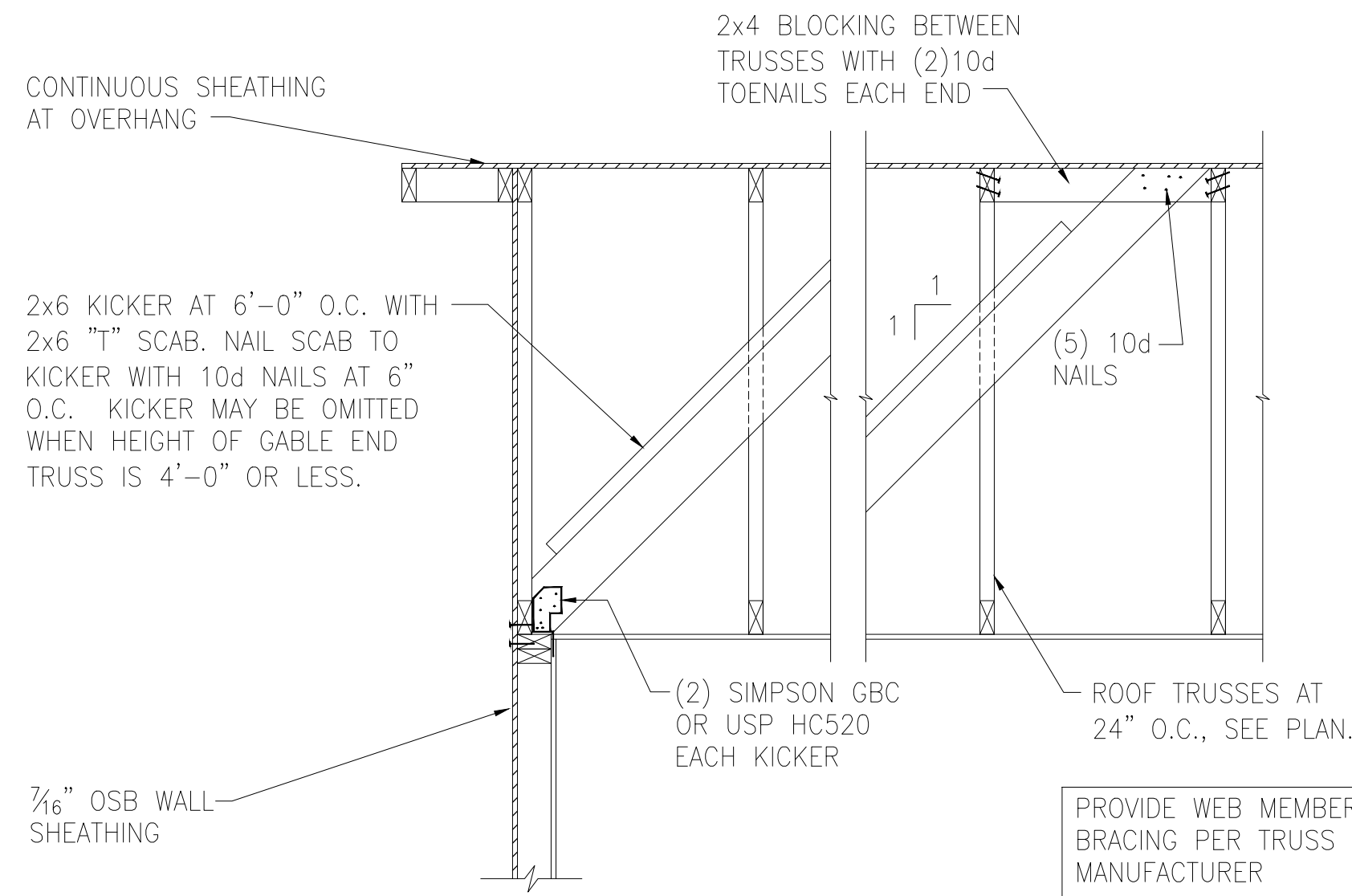
B PENT ROOF DETAIL
STRAIGHT ROOF



C EYEBROW ROOF DETAIL
STRAIGHT ROOF

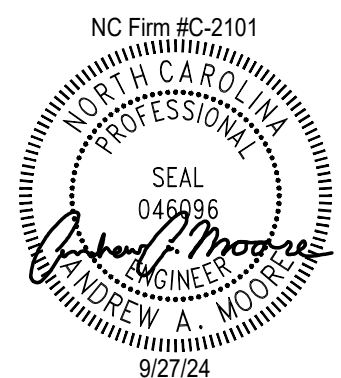


D TRUSS DETAIL



E GABLE END WALL DETAIL

Tobacco Road Lot 103



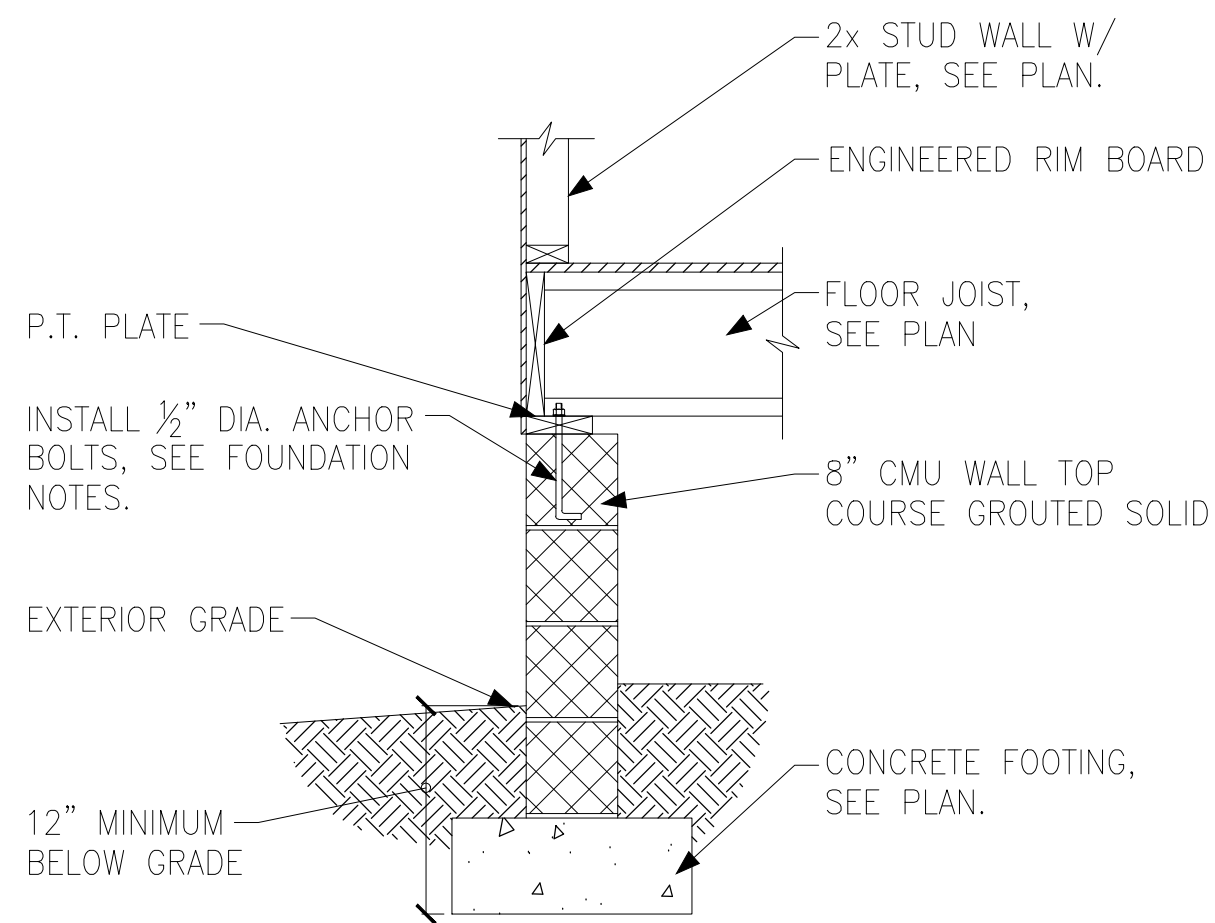
Miscellaneous Framing Details



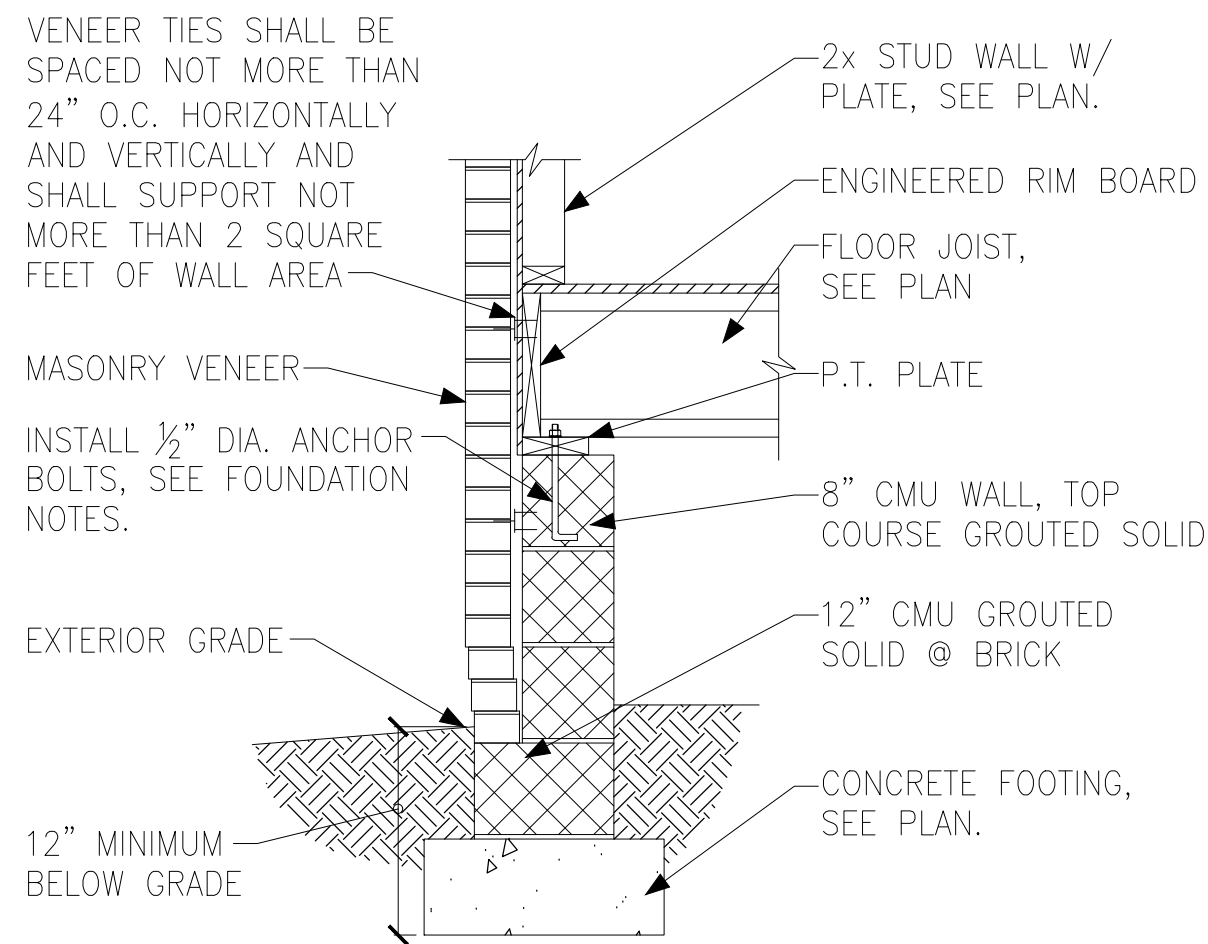
Up to 120 M.P.H.
Raleigh, North Carolina

Project #: 214-22000
Designed By: KRK
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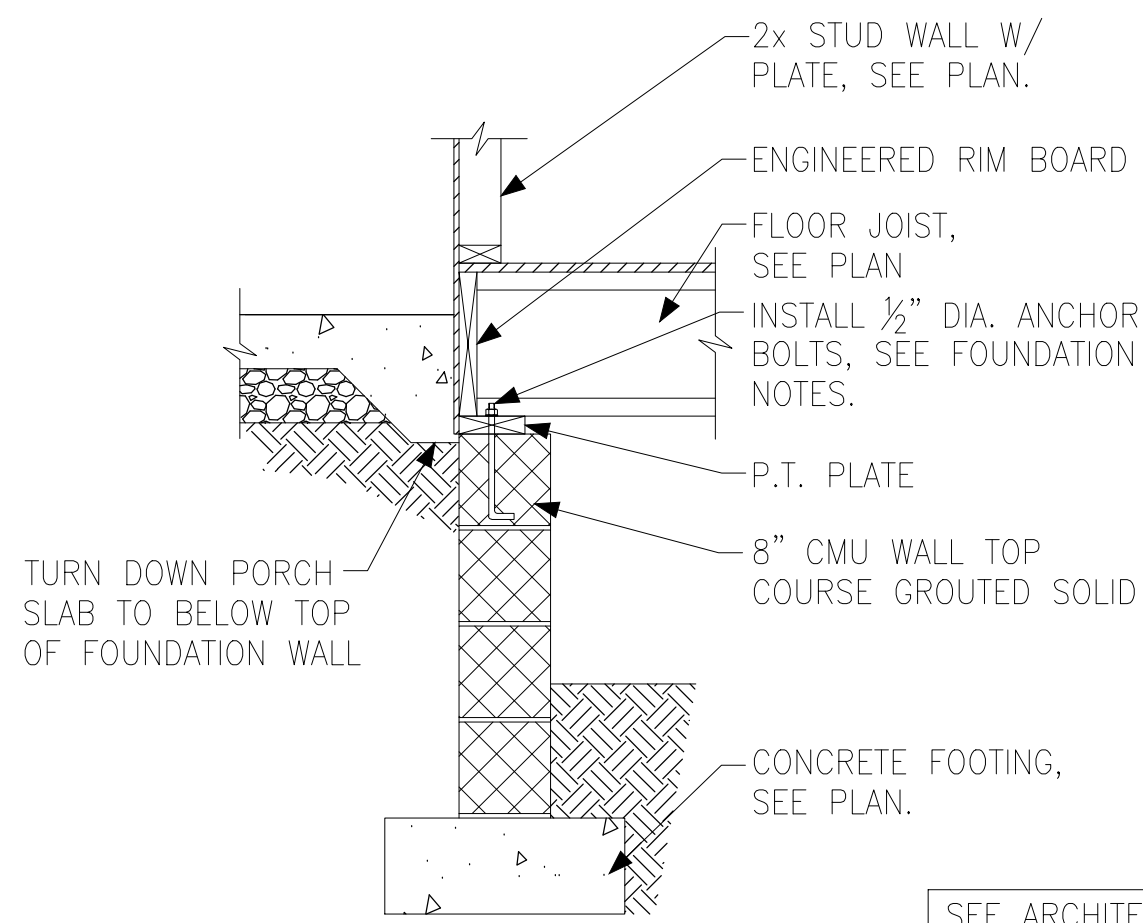
SD-6



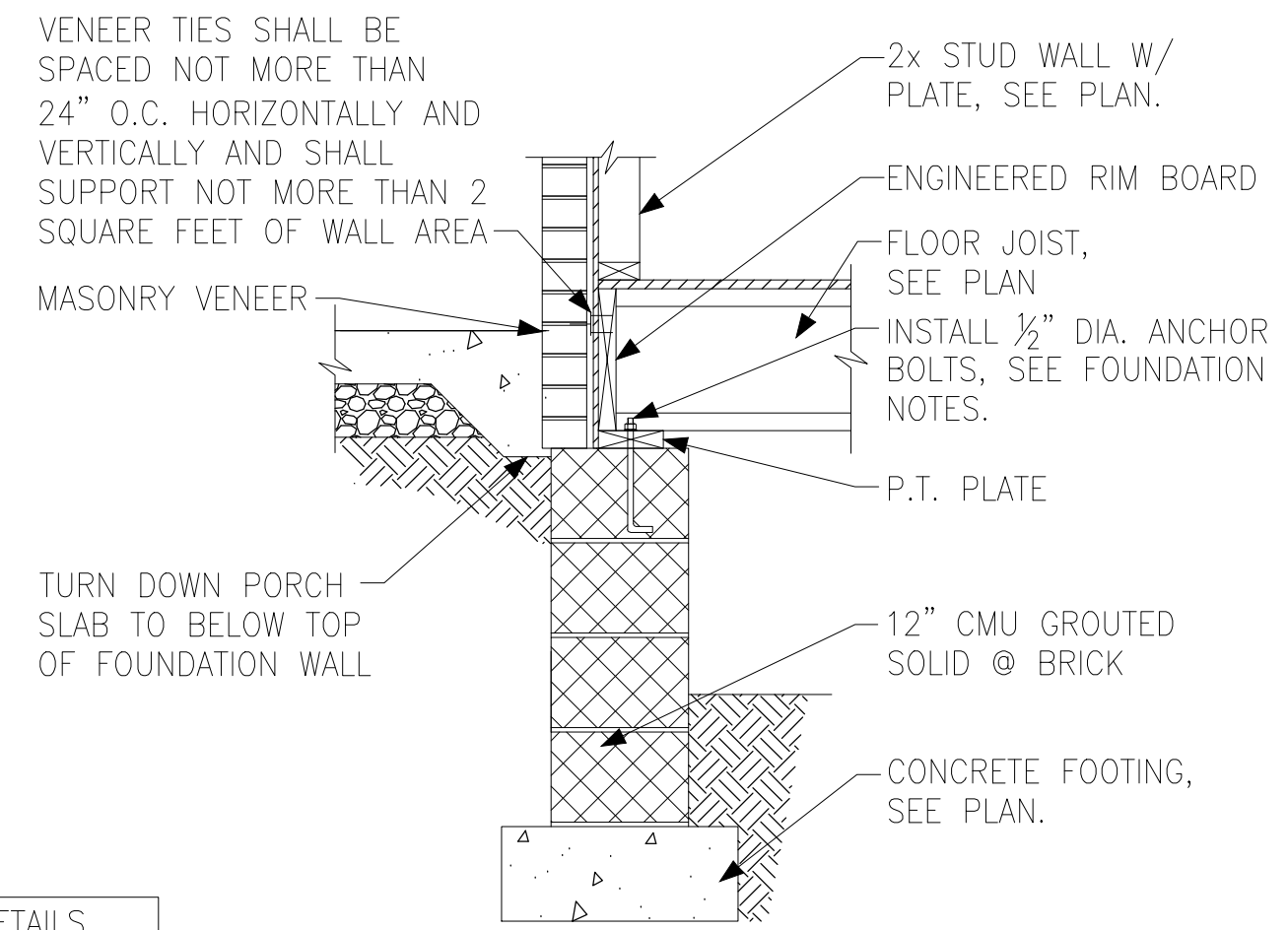
A FOUNDATION SECTION
EXTERIOR WALL



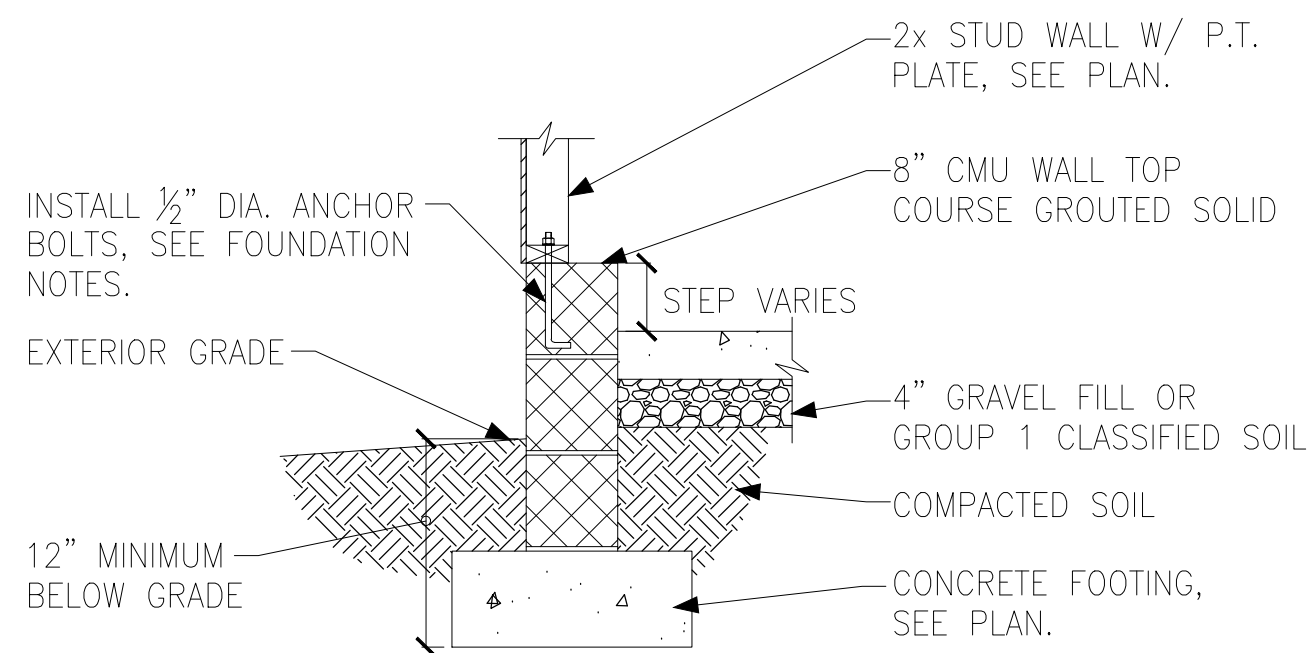
B FOUNDATION SECTION
EXTERIOR WALL @ MASONRY
VENEER



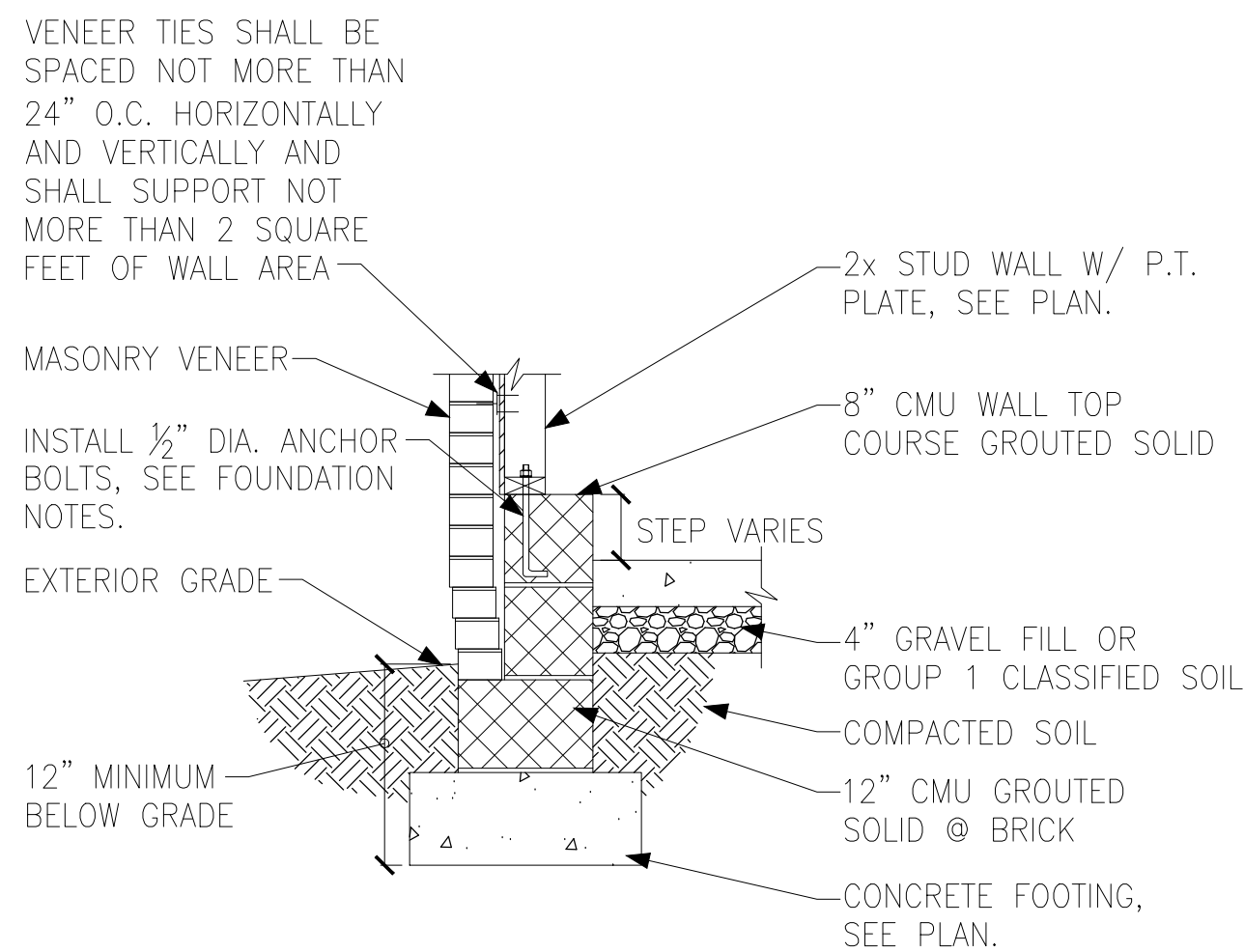
C FOUNDATION SECTION
EXTERIOR WALL AT PORCH



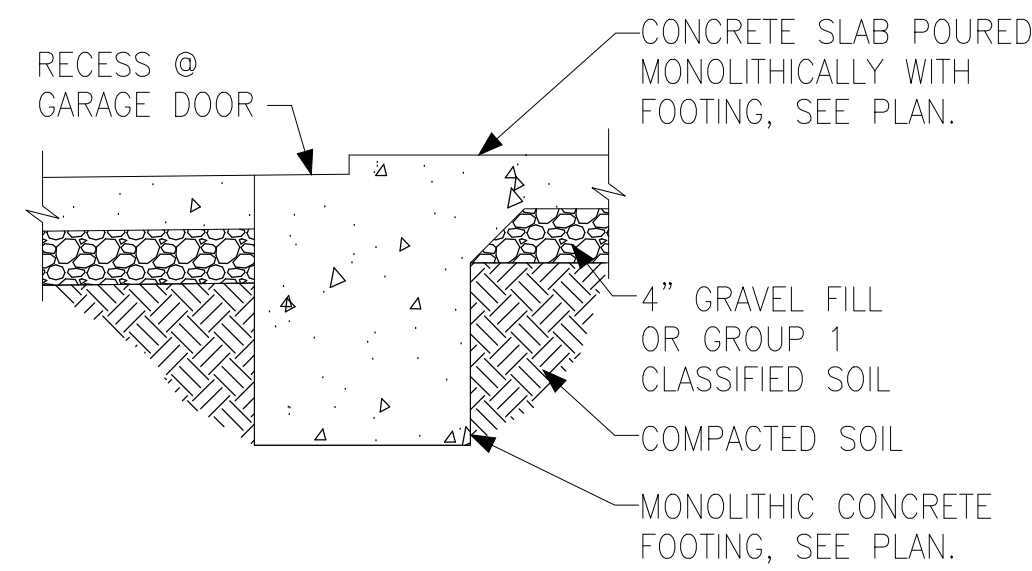
D FOUNDATION SECTION
EXTERIOR WALL AT PORCH W/ MASONRY
VENEER



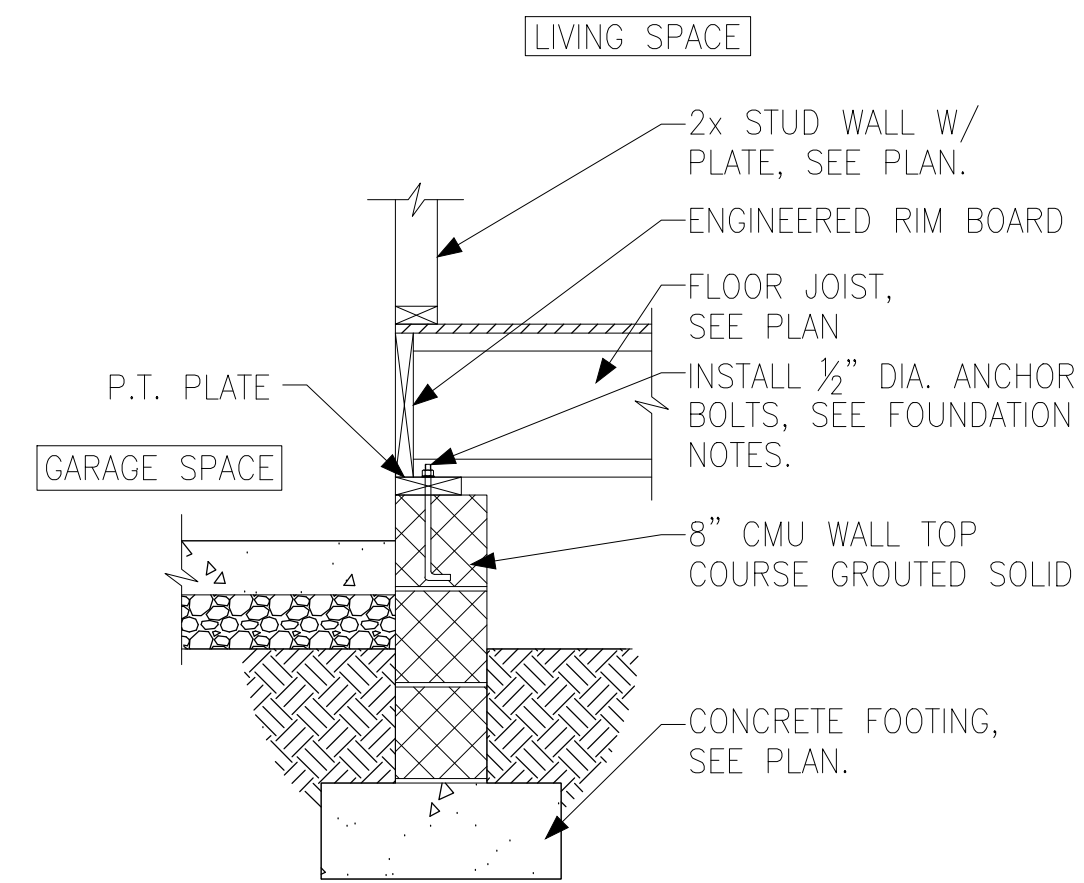
E FOUNDATION SECTION
EXTERIOR GARAGE WALL



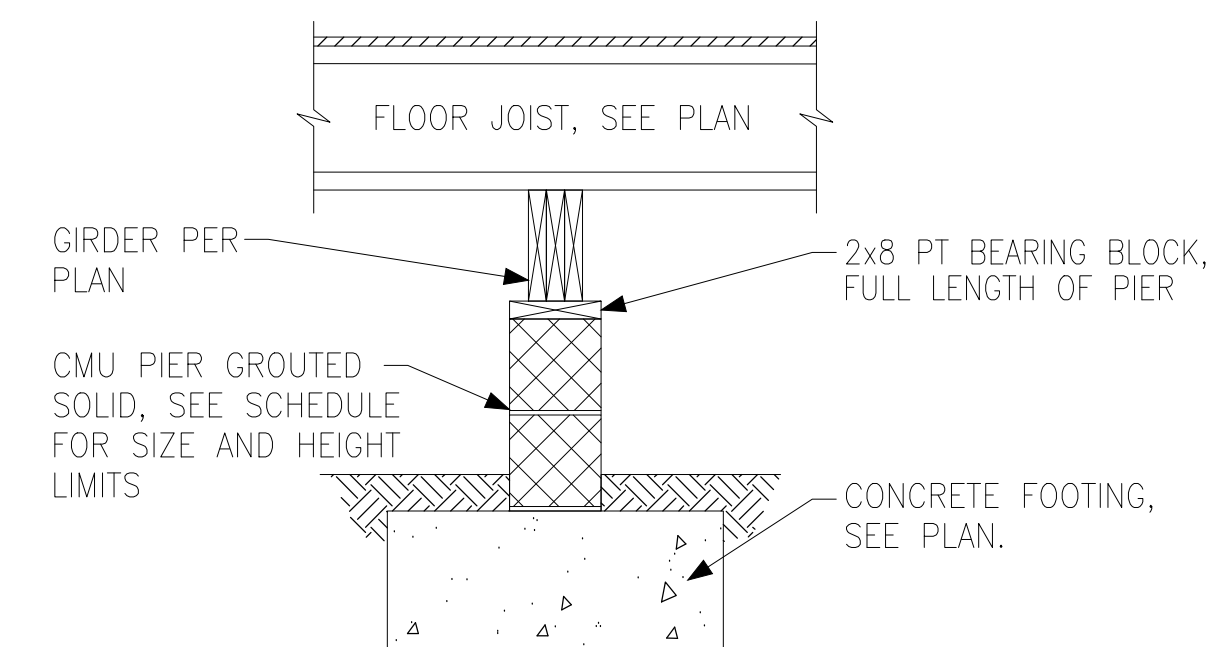
F FOUNDATION SECTION
EXTERIOR GARAGE WALL @ MASONRY
VENEER



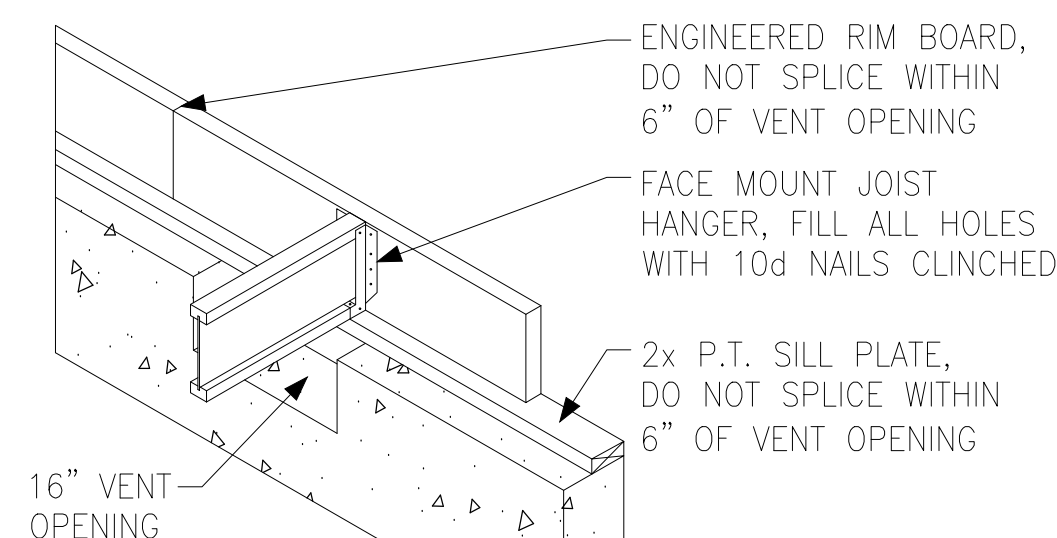
G FOUNDATION SECTION
GARAGE DOOR



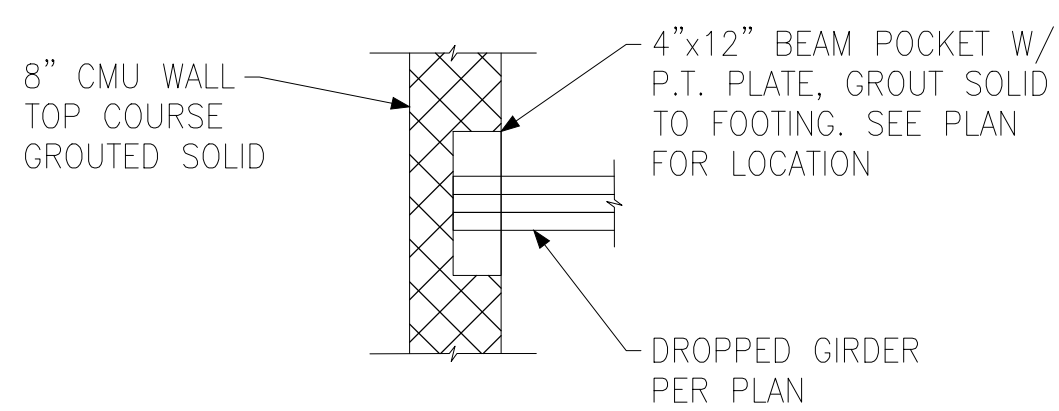
H FOUNDATION SECTION
INTERIOR GARAGE WALL



J FOUNDATION SECTION
INTERIOR PIER



K CRAWL SPACE VENT DETAIL



L CRAWL SPACE BEAM POCKET DETAIL

PIER AND FOOTING SCHEDULE		
PIER HEIGHT	PIER SIZE	MIN. FOOTING SIZE
UP TO 2'-8"	8" x 16"	24" x 24" x 12" U.N.O.
UP TO 5'-4"	16" x 16"	24" x 24" x 12" U.N.O.
UP TO 8'-0"	16" x 16"	30" x 30" x 12" U.N.O.

NOTE:
PIERS SHALL BE CAPPED WITH 8" OF SOLID MASONRY OR CONCRETE OR TOP COURSE FILLED SOLID WITH CONCRETE/MORTAR.
PIERS OVER 5'-4" SHALL BE BE FILLED SOLIDLY WITH CONCRETE OR TYPE M OR S MORTAR.
FOR PIERS OVER 8'-0" CONTACT KSE ENGINEERING FOR PIER AND FOOTING DESIGN.



Tobacco Road Lot 103



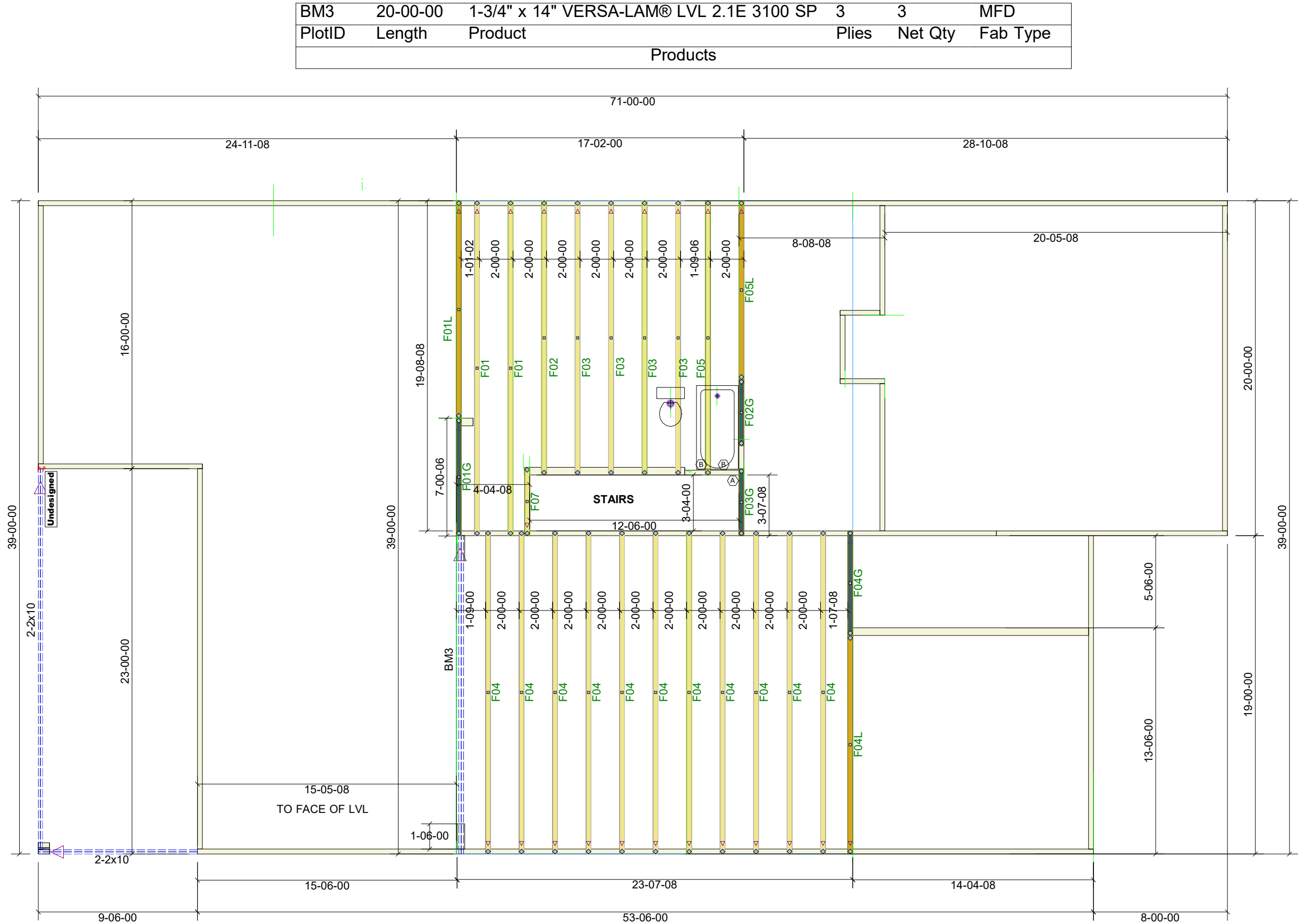
Crawl Space Foundation Details

Up to 120 M.P.H.
Raleigh, North Carolina

Project #: 214-22000
Designed By: KRK
Checked By:
Issue Date: 3/6/23
Re-Issue:
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SD-9

Tobacco Road Lot 103



84 Components
200 Emmett Rd
Dunn NC 28334
United States
Office: (910) 892-8400

Davidson Homes
103 Tobacco Road
103 Tobacco Road - FLOOR
Job# - P01321-23455

Location 2383-Dunn
Designer Brenda Sierra

DO NOT CUT, NOTCH, OR BORE HOLES
UNLESS SPECIFIC, WRITTEN PERMISSION IS
PROVIDED BY AN AUTHORIZED REPRESENTATIVE OF
84 LUMBER.

TRUSS INSTALLATION REQUIRES TEMPORARY AND
PERMANENT BRACING. GENERAL GUIDANCE IS
PROVIDED IN SBCA DOC's
B-1 and B-3. THESE ARE INCLUDED WITH EACH JOB
IN YOUR TRUSS PACKET.

Sheet # 1 of 1

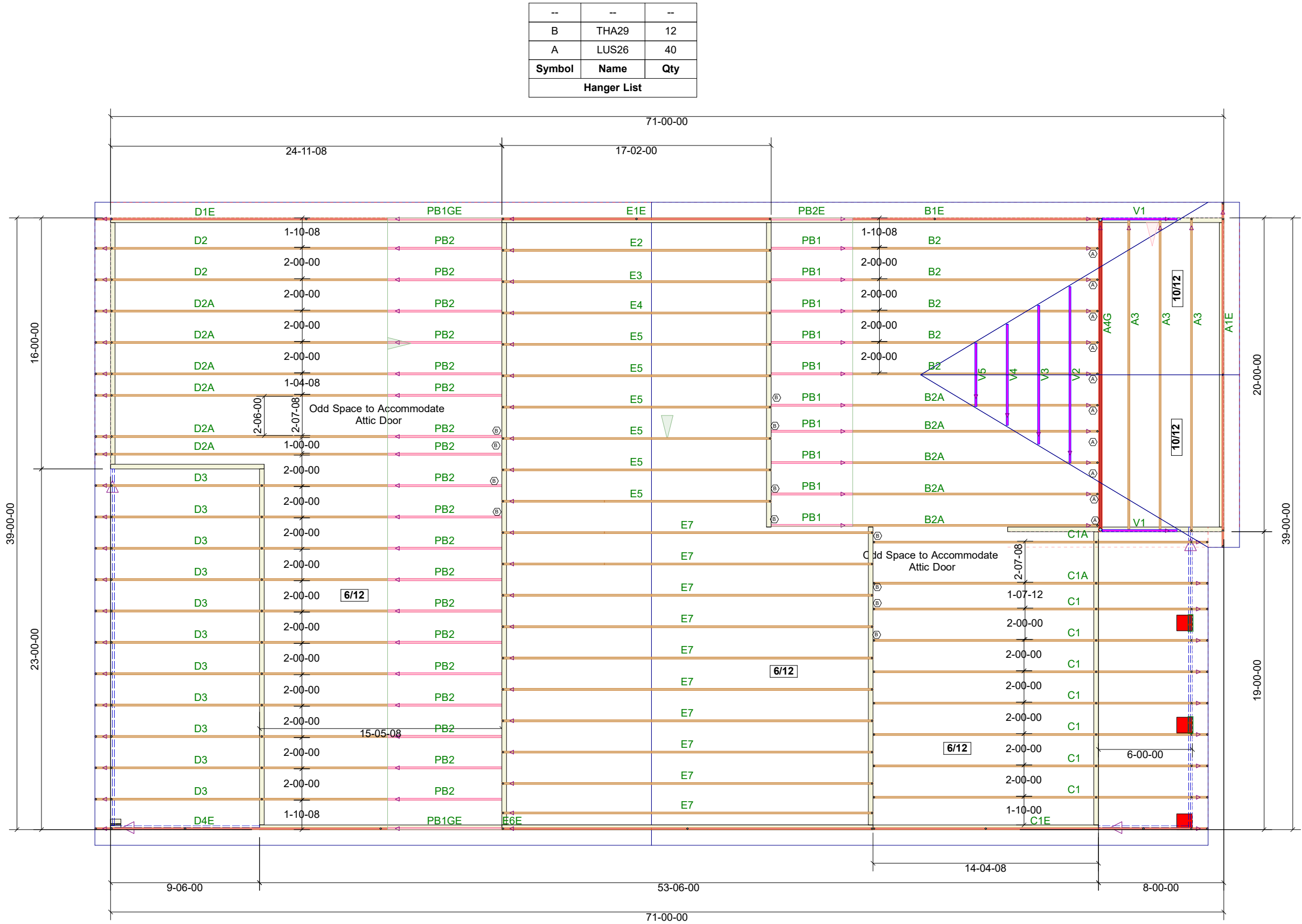
Floor Truss
Placement Plan

NOT TO SCALE

DESIGNED DATE

3/21/2025

Tobacco Road Lot 103



84 Components
200 Emmett Rd
Dunn NC 28334
United States
Office: (910) 892-8400

Davidson Homes

103 Tobacco Road

BIRCH II - ROOF

Job# - P01321-23454

Location	2383-Dunn
Designer	Brenda Sierra

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Sheet # 1 of 1

Roof Truss
Placement Plan

NOT TO SCALE

DESIGNED DATE

3/21/2025