STRUCTURAL PLANS FOR:

BELMONT PLAN

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- 1. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT, INCLUDING ROOF GEOMETRY. JDS CONSULTING, PLLC ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
- 2. DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS.
- 3. PLANS MUST HAVE SIGNED SEAL TO BE VALID AND ARE LIMITED TO THE FOLLOWING USES:

NOTES

- A. IF THESE PLANS ARE ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR 18 MONTHS FROM THE DATE ON THE SEAL, UNLESS ANY CODE-REQUIRED UPDATES ARE PLACED IN EFFECT BY THE MUNICIPALITY.
- B. IF THESE PLANS ARE NOT ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR A CONDITIONAL, ONE-TIME USE FOR THE LOT OR ADDRESS SPECIFIED ON THE TITLE BLOCK.

CODE

ALL CONSTRUCTION, WORKMANSHIP, AND MATERIAL QUALITY AND SELECTION SHALL BE PER:

2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE

JDS CONSULTING, PLLC ENGINEERING · DESIGN · ENERGY

ENGINEERING · DESIGN · ENERGY

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RALEIGH, NC 27617

FIRM LIC. NO: P-0961

PROJECT REFERENCE: 22900087

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22900087

TITLE SHEET

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NOTE: ALL CHAPTERS, SECTIONS, TABLES, AND FIGURES CITED WITHOUT A PUBLICATION TITLE ARE FROM THE APPLICABLE RESIDENTIAL CODE (SEE TITLE SHEET).

GENERAL

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. FURTHERMORE, CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND SAFETY ON SITE. NOTIFY JDS CONSULTING, PLLC IMMEDIATELY IF DISCREPANCIES ON PLAN EXIST.
- 2. BRACED-WALL DESIGN IS BASED ON <u>SECTION R602.10 WALL BRACING</u>. PRIMARY PRESCRIPTIVE METHOD TO BE CS-WSP. SEE WALL BRACING PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
- ALL NON-PRESCRIPTIVE SOLUTIONS ARE BASED ON GUIDELINES ESTABLISHED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS PUBLICATION ASCE 7 AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC.
- 3. SEISMIC DESIGN SHALL BE PER SECTION R301.2.2 SEISMIC PROVISIONS, INCLUDING ASSOCIATED TABLES AND FIGURES, BASED ON LOCAL SEISMIC DESIGN CATEGORY.

DESIGN LOADS

ASSUMED SOIL BEARING-CAPACITY	2,000 PSF
	LIVE LOAD
ULTIMATE DESIGN WIND SPEED	115 MPH, EXPOSURE B
GROUND SNOW	15 PSF
ROOF	20 PSF
DECIDENTIAL CODE TABLE BOOK S	LIVE LOAD (DOE)
RESIDENTIAL CODE TABLE R301.5	LIVE LOAD (PSF)
DWELLING UNITS	40
SLEEPING ROOMS	30
ATTICS WITH STORAGE	20
ATTICS WITHOUT STORAGE	10
STAIRS	40
DECKS	40
EXTERIOR BALCONIES	60
PASSENGER VEHICLE GARAGES	50
FIRE ESCAPES	40
GUARDS AND HANDRAILS	200 (pounds, concentrated)

COMPONENT AND CLADDING LOADS, INCLUDING THOSE FOR DOORS AND WINDOWS, SHALL BE DERIVED FROM <u>TABLES R301.2(2)</u> AND <u>R301.2(3)</u> FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 35 FEET, LOCATED IN EXPOSURE B.

ABBREVIATIONS			KS	KING STUD COLUMN
<u> </u>			LVL	LAMINATED VENEER LUMBE
	ABV	ABOVE	MAX	MAXIMUM
		ABOVE FINISHED FLOOR	MECH	MECHANICAL
		ALTERNATE	MFTR	MANUFACTURER
	BRG		MIN	MINIMUM
	BSMT		NTS	NOT TO SCALE
	CANT		OA	OVERALL
	CJ		ОС	
	CLG		PT	PRESSURE TREATED
	CMU		R	RISER
	CO	CASED OPENING	REF	REFRIGERATOR
		COLUMN	RFG	ROOFING
	CONC		RO	ROUGH OPENING
	CONT		RS	ROOF SUPPORT
	D	CLOTHES DRYER	SC	STUD COLUMN
	DBL	DOUBLE	SF	SQUARE FOOT (FEET)
	DIAM	DIAMETER	SH	SHELF / SHELVES
	DJ	DOUBLE JOIST	SHTG	
	DN	DOWN	SHW	SHOWER
	DP	DEEP	SIM	
	DR	DOUBLE RAFTER	SJ	
	DSP	DOUBLE STUD POCKET	SP	STUD POCKET
	EA	EACH	SPEC'D	SPECIFIED
	EE	EACH END	SQ	SQUARE
	EQ	EQUAL	T	TREAD
	EX		TEMP	TEMPERED GLASS
	FAU		TEMP THK	THICK(NESS)
		FOUNDATION	TJ	TRIPLE JOIST
	FF	FINISHED FLOOR	TOC	TOP OF CURB / CONCRETE
	FLR	FLOOR(ING)	TR TYP UNO	TRIPLE RAFTER
	FP	FIREPLACE	TYP	TYPICAL
	FTG	FOOTING		UNLESS NOTED OTHERWISE
	НВ		W	CLOTHES WASHER
	HDR		WH	WATER HEATER
	HGR		WWF	WELDED WIRE FABRIC
	JS	JACK STUD COLUMN	XJ	EXTRA JOIST
	-			

MATERIALS

1. INTERIOR / TRIMMED FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES (#2 SOUTHERN YELLOW PINE MAY BE SUBSTITUTED):

Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI

- 2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:
- Fb = 975 PSI Fv = 95 PSI E = 1.6E6 PSI
- 3. LVL STRUCTURAL MEMBERS TO BE LAMINATED VENEER LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

4. PSL STRUCTURAL MEMBERS TO BE PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2900 PSI Fv = 290 PSI E = 2.0E6 PSI

5. LSL STRUCTURAL MEMBERS TO BE LAMINATED STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2250 PSI Fv = 400 PSI E = 1.55E6 PSI

- 6. STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fy = 50 KSI
- 7. REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615, GRADE 60.
- 8. POURED CONCRETE COMPRESSIVE STRENGTH TO BE A MINIMUM 3,000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN AMERICAN CONCRETE INSTITUTE STANDARD ACI 318 OR ASTM C1157
- 9. CONCRETE SUBJECT TO MODERATE OR SEVERE WEATHERING PROBABILITY PER TABLE R301.2(1) SHALL BE AIR-ENTRAINED WHEN REQUIRED BY TABLE R402.2.
- 10. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.
- 11. MORTAR SHALL COMPLY WITH ASTM INTERNATIONAL STANDARD
- 12. INDICATED MODEL NUMBERS FOR ALL METAL HANGERS, STRAPS, FRAMING CONNECTORS, AND HOLD-DOWNS ARE SIMPSON STRONG-TIE BRAND. EQUIVALENT USP BRAND PRODUCTS ARE ACCEPTABLE.
- 13. REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES.

FOUNDATION

- 1. MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY IF UNSATISFACTORY CONDITIONS EXIST
- 2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER <u>SECTION R404</u> OR AMERICAN CONCRETE INSTITUTE STANDARD ACI 318.
- 3. MASONRY FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 AND/OR AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND/OR THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.
- 4. CONCRETE WALL HORIZONTAL REINFORCEMENT TO BE PER TABLE R404.1.2(1) OR AS NOTED OR DETAILED. CONCRETE WALL VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.2(3 AND 4) OR AS NOTED OR DETAILED. ALL CONCRETE WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
 - B. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405.
- 5. PLAIN-MASONRY WALL DESIGN TO BE PER TABLE R404.1.1(1) OR AS NOTED OR DETAILED. MASONRY WALLS WITH VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.1 (2 THROUGH 4) OR AS NOTED OR DETAILED. ALL MASONRY WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
 - B. WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).
 - C. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405.
- 6. WOOD SILL PLATES TO BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE SECTION R403.1.6 FOR SPECIFIC CONDITIONS.
- 7. 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.
- 8. CENTERS OF PIERS TO BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF THE PIERS.
- OF FOUNDATION WALLS (SEE DETAILS).

 10. ALL REBAR NOTED IN CONCRETE TO HAVE AT LEAST 2" COVER

9. ALL FOOTINGS TO HAVE MINIMUM 2" PROJECTION ON EACH SIDE

- FROM EDGE OF CONCRETE TO EDGE OF REBAR.

 11. FRAMING TO BE FLUSH WITH FOUNDATION WALLS.
- 12. WITH CLASS 1 SOILS, VAPOR BARRIER AND CRUSHED STONE MAY BE OMITTED.

FRAMING

- 1. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK STUD AND (1) KING STUD EACH END, UNO.
- 2. ALL NON-BEARING HEADERS TO BE (2) 2x4, UNO.
- 3. NON-BEARING INTERIOR WALLS NOT MORE THAN 10' NOMINAL HEIGHT AND NOT SHOWN AS BRACED WALLS MAY BE FRAMED WITH 2x4 STUDS @ 24" OC.
- 4. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
- 5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION.
- 6. ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- 7. PORCH / PATIO COLUMNS TO BE 4x4 MINIMUM PRESSURE-TREATED
 - A. ATTACH PORCH COLUMNS TO SLAB / FDN WALL USING ABA, ABU, ABW, OR CPT SIMPSON POST BASES TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
 - B. ATTACH PORCH COLUMNS TO PORCH BEAMS USING AC OR BC SIMPSON POST CAPS TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
 - C. TRIM OUT COLUMN(S) AND BEAM(S) PER BUILDER AND DETAILS.
- 8. ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER SPECIFICATIONS.
- 9. ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS:

 A. SHOP DRAWINGS FOR THE SYSTEMS SHALL BE PROVIDED

 TO THE ENGINEER OF RECORD FOR REVIEW AND

 COORDINATION BEFORE CONSTRUCTION.
 - B. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS
 - MANUFACTURER.
 C. INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
 - D. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE DRAWINGS.
- 10. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED, WITH A MINIMUM OF THREE STUDS, UNO.
- 11. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MIN BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS, UNO.
- 12. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS TO BE SPACED AT 24" OC (MAX) AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH TWO BOLTS TO BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.
- 13. WHEN A 4-PLY LVL BEAM IS USED, ATTACH WITH (1) 1/2" DIAMETER BOLT, 12" OC, STAGGERED TOP AND BOTTOM, 1 1/2" MIN FROM ENDS. ALTERNATE EQUIVALENT ATTACHMENT METHOD MAY BE USED, SUCH AS SDS, SDW, OR TRUSSLOK SCREWS (SEE MANUFACTURER SPECIFICATIONS).
- 14. FOR STUD COLUMNS OF 4-OR-MORE STUDS, INSTALL SIMPSON STRONG-TIE CS16 STRAPS ACROSS STUDS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).
- 15. FLOOR JOISTS ADJACENT AND PARALLEL TO THE EXTERIOR FOUNDATION WALL SHALL BE PROVIDED WITH FULL-DEPTH SOLID BLOCKING, NOT LESS THAN TWO (2) INCHES NOMINAL IN THICKNESS, PLACED PERPENDICULAR TO THE JOIST AT SPACING NOT MORE THAN FOUR (4) FEET. THE BLOCKING SHALL BE NAILED TO THE FLOOR SHEATHING, THE SILL PLATE, THE JOIST, AND THE EXTERIOR RIM JOIST / BOARD.
- 16. BRACED WALL PANELS SHALL BE FASTENED TO MEET THE UPLIFT-RESISTANCE REQUIREMENTS IN CHAPTERS 6 AND 8 OF THE APPLICABLE CODE (SEE TITLE SHEET). REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE CODE MINIMUM SHALL BE MET.

FASTENER SCHEDULE							
CONNECTION 3" x 0.131" NAIL 3" x 0.120" NAI							
JOIST TO SILL PLATE	(4) TOE NAILS	(4) TOE NAILS					
SOLE PLATE TO JOIST / BLOCKING	NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels)	NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels)					
STUD TO SOLE PLATE	(4) TOE NAILS	(4) TOE NAILS					
TOP OR SOLE PLATE TO STUD	(3) FACE NAILS	(4) FACE NAILS					
RIM JOIST OR BAND JOIST TO TOP PLATE OR SILL PLATE	TOE NAILS @ 6" OC	TOE NAILS @ 4" OC					
BLOCKING BETWEEN JOISTS TO TOP PLATE OR SILL PLATE	(4) TOE NAILS	(4) TOE NAILS					
DOUBLE STUD	NAILS @ 8" OC	NAILS @ 8" OC					
DOUBLE TOP PLATES	NAILS @ 12" OC	NAILS @ 12" OC					
DOUBLE TOP PLATES LAP (24" MIN LAP LENGTH)	(12) NAILS IN LAPPED AREA, EA SIDE OF JOINT	(12) NAILS IN LAPPED AREA, EA SIDE OF JOINT					
TOP PLATE LAP AT CORNERS AND INTERSECTING WALLS	(3) FACE NAILS	(3) FACE NAILS					
OPEN-WEB TRUSS BOTTOM CHORD TO TOP PLATES OR SILL PLATE (PARALLEL TO WALL)	NAILS @ 6" OC	NAILS @ 4" OC					
BOTTOM CHORD OF TRUSS TO TOP PLATES OR SILL PLATE (PERPENDICULAR TO WALL)	(3) TOE NAILS	(3) TOE NAILS					

SEE <u>TABLE R602.3(1)</u> FOR ADDITIONAL STRUCTURAL-MEMBER FASTENING REQUIREMENTS.

DETAILS AND NOTES ON DRAWINGS GOVERN.

BALLOON WALL FRAMING SCHEDULE (USE THESE STANDARDS UNLESS NOTED OTHERWISE ON THE FRAMING PLAN SHEETS)

FRAMING MEMBER SIZE	MAX HEIGHT (PLATE TO PLATE) 115 MPH ULTIMATE DESIGN WIND SPE
TRAINING MEMBER GIZE	TIO IIII TI OLITIMATE DEGIGIN WIND OF E
2x4 @ 16" OC	10'-0"
2x4 @ 12" OC	12'-0"
2x6 @ 16" OC	15'-0"
2x6 @ 12" OC	17'-9"
2x8 @ 16" OC	19'-0"
2x8 @ 12" OC	22'-0"
(2) 2x4 @ 16" OC	14'-6"
(2) 2x4 @ 12" OC	17'-0"
(2) 2x6 @ 16" OC	21'-6"
(2) 2x6 @ 12" OC	25'-0"
(2) 2x8 @ 16" OC	27'-0"
(2) 2x8 @ 12" OC	31'-0"

- a. ALL HEIGHTS ARE MEASURED SUBFLOOR TO TOP OF WALL PLATE.
- b. WHEN SPLIT-FRAMED WALLS ARE USED FOR HEIGHTS OVER 12', THE CONTRACTOR SHALL ADD 6' MINIMUM OF CS16 COIL STRAPPING (FULLY NAILED), CENTERED OVER THE WALL BREAK.
- c. FINGER-JOINTED MEMBERS MAY BE USED FOR CONTINUOUS HEIGHTS WHERE TRADITIONALLY MILLED LUMBER LENGTHS ARE LIMITED.
- d. FOR GREATER WIND SPEED, SEE ENGINEERED SOLUTION FOR CONDITION IN DRAWINGS.

ROOF SYSTEMS

TRUSSED ROOF - STRUCTURAL NOTES

1.	PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR POINT LOADS.
2.	DENOTES OVER-FRAMED AREA
•	MINIMUM 7/46" OCD DOOF CUFATUING

- 3. MINIMUM 7/16" OSB ROOF SHEATHING
- 4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTION.
- 6. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 7. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

STICK-FRAMED ROOF - STRUCTURAL NOTES

- 1. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE.
- 2. FUR RIDGES FOR FULL RAFTER CONTACT.
- 3. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

4.	DENOTES OVER-FRAMED ARE
4.	DENOTES OVER-FRANCED ARE

- 5. MINIMUM 7/16" OSB ROOF SHEATHING
- 6. PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45° BETWEEN RAFTERS AND CEILING JOISTS. USE (4) 16d NAILS AT EACH CONNECTION. RAFTER TIES MAY BE SPACED AT 48" OC AT LOCATIONS WHERE NO KNEE WALLS ARE INSTALLED.
- 7. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH RAFTER-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 8. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

BRICK VENEER LINTEL SCHEDULE			
SPAN	STEEL ANGLE SIZE	END BEARING LENGTH	
UP TO 42"	L3-1/2"x3-1/2"x1/4"	8" (MIN. @ EACH END)	
UP TO 72"	L6"x4"x5/16"* (LLV)	8" (MIN. @ EACH END)	
OVER 72"	L6"x4"x5/16"* (LLV) ATTACH LINTEL w/ 1/2" THRU BOLT @ 12" OC, 3" FROM EACH END		

* FOR QUEEN BRICK: LINTELS AT THIS CONDITION MAY BE 5"x3-1/2"x5/16"

NOTE: BRICK LINTELS AT SLOPED AREAS TO BE 4"x3-1/2"x1/4" STEEL ANGLE WITH 16D NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" OC TO TRIPLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3"x3"x1/4" PLATES SHALL BE WELDED AT 24" OC ALONG THE STEEL ANGLE.



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APER, NOT TO SCALE FOR 11x17 PAPER, OR AS NOTED

BELMONT

CATION:

NORTH CAROLINA

22900087

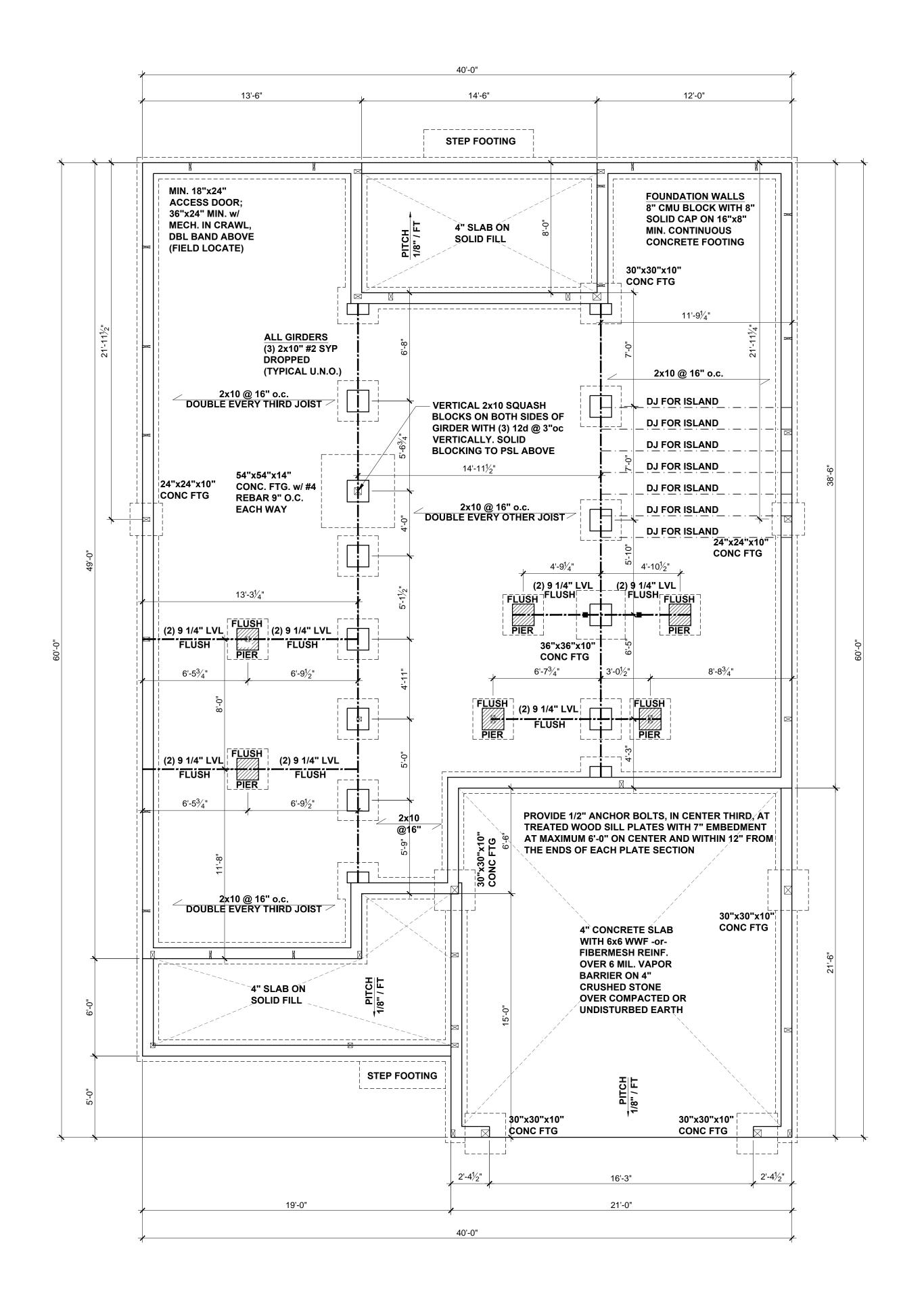
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GENERAL NOTES

03/07/2022

GN1.0



CRAWL SPACE FOUNDATION PLAN

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

STANDARD VERSION

BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL

----- ROOF RAFTER / TRUSS SUPPORT
----- DOUBLE RAFTER / DOUBLE JOIST

DOUBLE RAFTER / DOUBLE JOIST

STRUCTURAL BEAM / GIRDER
WINDOW / DOOR HEADER

POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

CRAWL SPACE VENTILATION

THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDERFLOOR SPACE AREA, AND ONE SUCH OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

EXCEPTION: THE TOTAL AREA OF VENTILATION MAY BE REDUCED TO 1/1500 OF THE UNDERFLOOR AREA WHERE THE GROUND SURFACE IS TREATED WITH AN APPROVED VAPOR RETARDER MATERIAL AND THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION.

1604 SQUARE FEET OF TOTAL CRAWL SPACE / 150 =

____10.7___ SQUARE FEET OF NET-FREE VENTILATION REQUIRED

FOUNDATION STRUCTURAL NOTES:

1. CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE HOLLOW MASONRY SOLID MASONRY

8x16 UP TO 32" HIGH UP TO 5'-0" HIGH 12x16 UP TO 48" HIGH UP TO 9'-0" HIGH 16x16 UP TO 64" HIGH UP TO 12'-0" HIGH 24x24 UP TO 96" HIGH

WITH 30" x 30" x 10" CONCRETE FOOTING, UNO.

8"x16" PIERS AT FOUNDATION WALL SUPPORTING DROPPED GIRDER TO HAVE A 30"x10"x8" FOOTING PROJECTION FROM THE MAIN WALL FOOTING.

EXTRA JOISTS UNDER ALL NON LOAD BEARING WALLS THAT RUN AT LEAST 30% OF THE JOIST SPAN.



P-09

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DRAFTY OR AS A MASTER PILAN AS SPECIFIED ON TITLE

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JDS Consulting PLLC; 8600 TD' JERSEY CT, RALEIG INFO@JDSCONSULTING.NET; WWW.JDSC CONSTRUCTION METHODS OR ANY CHANGES TO BY CONSTRUCTION METHODS OR ANY CHANGES TO BY CONTRACTOR OR BY OTHERS. DRAWINGS ARE THE LOT NUMBER, PROPERTY, OR AS A MASTER PI SHEET. DIMENSIONS SHALL GOVERN OVER SG

NOT TO SCALE FOR 11x17 PAPER, OR AS NOTED

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TRIANGLE BUILDING

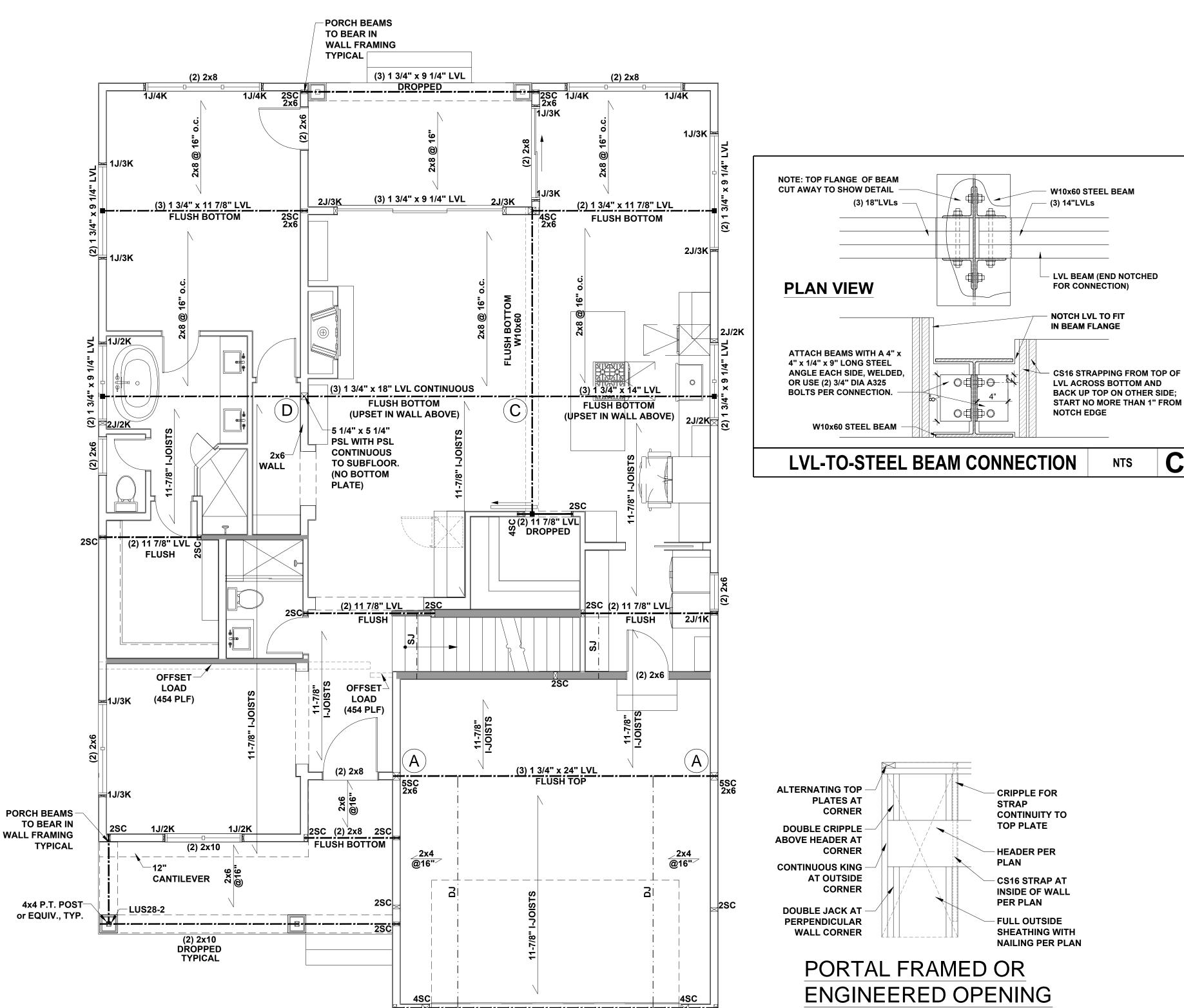
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03/07/2022 CAR

STANDARD FOUNDATION PLAN

F1.0

OUTSIDE CORNER DETAIL



BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL —-—- ROOF RAFTER / TRUSS SUPPORT

----- DOUBLE RAFTER / DOUBLE JOIST ———— STRUCTURAL BEAM / GIRDER

WINDOW / DOOR HEADER POINT LOAD TRANSFER

POINT LOAD FROM ABOVE **BEARING ON BEAM / GIRDER**

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

ALL FRAMING TO BE #2 SPF MINIMUM.

ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED w/ MIN (1) JACK AND (1) KING EACH END, UNO.

EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.

ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J /

PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

ALL HANGERS AND CONNECTORS SPECIFIED ARE TO BE SIMPSON STRONG-TIE OR EQUIVALENT.

ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION. MINIMUM BEAM SUPPORT IS (1) 2x4 STUD.

ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.

FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.

10. PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.

WHEN A 4-PLY LVL IS USED, ATTACH WITH (1) 1/2" Ø BOLT 12" OC STAGGERED, TOP AND BOTTOM, 1-1/2" MIN FROM ENDS. ALTERNATE ATTACHMENT **EQUIVALENT METHOD MAY BE USED, SUCH AS** SDW OR TRUSSLOK SCREWS (SEE MANUFACTURER'S SPECIFICATIONS).

12. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

STICK-FRAMED ROOF - STRUCTURAL NOTES

1. FRAMING SHALL BE #2 SPF OR BETTER, UNO.

2. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE ON PLAN.

3. FUR RIDGES FOR FULL RAFTER CONTACT.

4. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

DENOTES OVER-FRAMED AREA

6. MINIMUM 7/16" OSB ROOF SHEATHING

PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45° BETWEEN RAFTERS AND CEILING JOISTS. USE (4) 16d NAILS AT EACH CONNECTION. RAFTER TIES MAY BE SPACED AT 48" OC AT LOCATIONS WHERE NO KNEE WALLS ARE INSTALLED.

PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT **EACH RAFTER-TO-TOP PLATE CONNECTION AT** OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.

UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

ALL FLUSH BEAMS TO BE DIRECTLY SUPPORTED BY (2) 2x_ STUDS UNLESS OTHERWISE NOTED. STUD COLUMNS TO BE SUPPORTED BY SOLID BLOCKING TO FOUNDATION OR TO BEARING COMPONENT BELOW

FLOOR FRAMING TO BE 11 7/8" DEEP TJI 210 SERIES OR EQUAL, 19.2" OC MAXIMUM SPACING UNLESS OTHERWISE NOTED ON THE PLANS

**REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES

EXTRA JOISTS UNDER ALL NON LOAD BEARING

WALLS THAT RUN AT LEAST 30% OF THE JOIST SPAN.



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STANDARD FIRST FLOOR CEILING FRAMING PLAN

2J/1K

- BEAM AS SPECIFIED

FACES (INT WALL)

(D) DIRECT STUD BEARING

- BEAM AS SPECIFIED

DOUBLE TOP PLATE (CUT @ BEAM)

(A) DIRECT STUD BEARING

1-1/2" W, 16" L., 18 GA. STRAP (EACH SIDE)

DIRECT BEARING COLUMN AS SPECIFIED

- ADDTIONAL SUPPORT STUDS PER PLAN. FOR STUD COLUMNS OF 4 OR MORE,

INSTALL HORIZ SST CS16 STRAPS @ 30"

OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXT WALL), ON BOTH

(CUT @ DIRECT BEARING STUDS)

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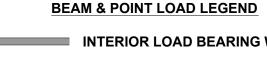
OC, 6" MAX FROM PLATES, ON INSIDE

(3) 1 3/4" x 16" LVL CONTINUOUS

PORTAL FRAME

2J/1K





INTERIOR LOAD BEARING WALL

---- ROOF RAFTER / TRUSS SUPPORT ----- DOUBLE RAFTER / DOUBLE JOIST ——— STRUCTURAL BEAM / GIRDER

WINDOW / DOOR HEADER

POINT LOAD TRANSFER POINT LOAD FROM ABOVE

BEARING ON BEAM / GIRDER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

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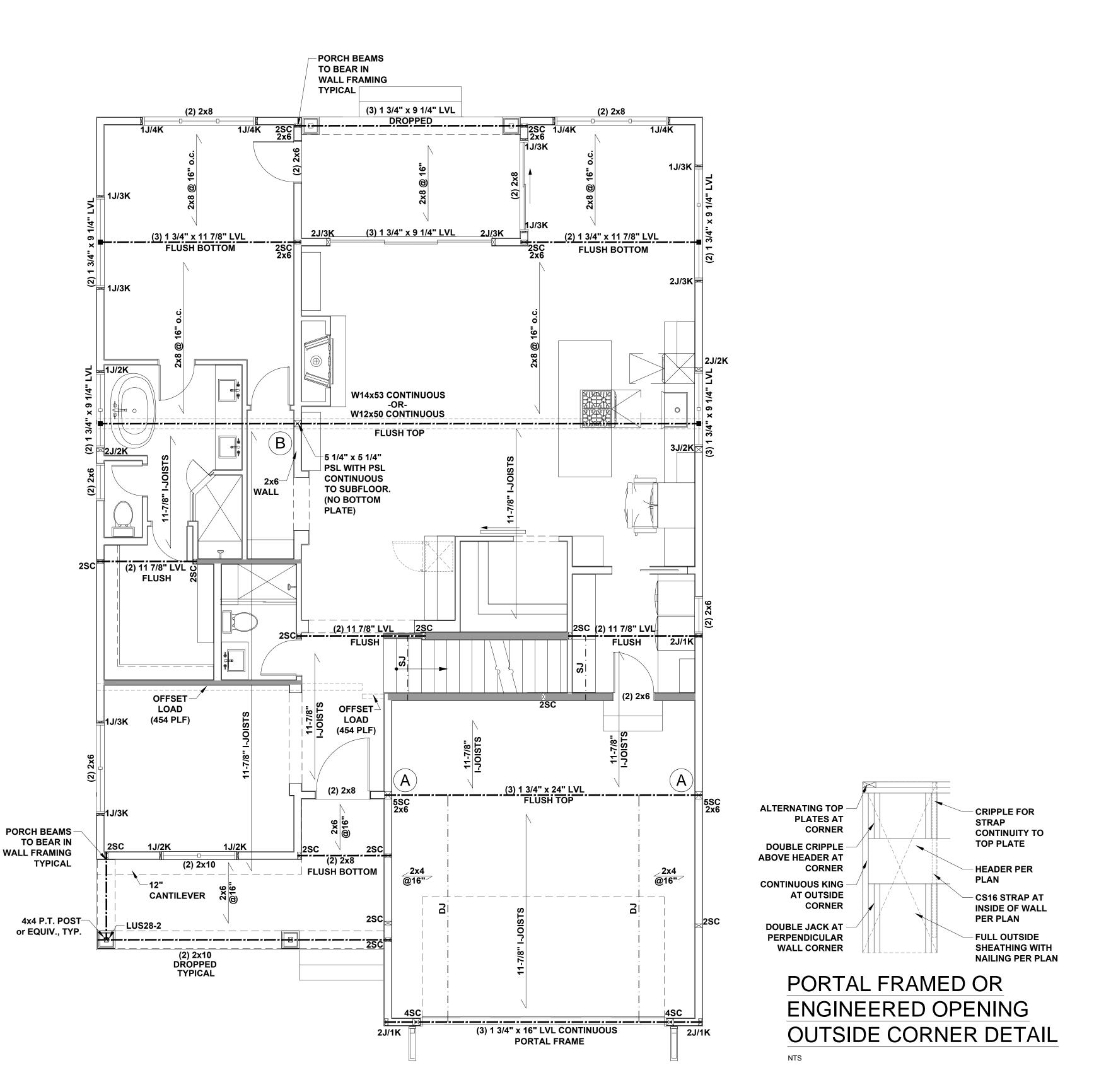
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EXTRA JOISTS UNDER ALL NON LOAD BEARING WALLS THAT RUN AT LEAST 30% OF THE JOIST SPAN.



FIRST FLOOR CEILING FRAMING PLAN

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

- BEAM AS SPECIFIED

DOUBLE TOP PLATE

FACES (INT WALL)

- BEAM AS SPECIFIED

DOUBLE TOP PLATE (CUT @ BEAM)

(A) DIRECT STUD BEARING

1-1/2" W, 16" L., 18 GA. STRAP (EACH SIDE)

DIRECT BEARING COLUMN AS SPECIFIED

- ADDTIONAL SUPPORT STUDS PER PLAN. FOR STUD COLUMNS OF 4 OR MORE,

INSTALL HORIZ SST CS16 STRAPS @ 30"

OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXT WALL), ON BOTH

(B) DIRECT STUD BEARING

(CUT @ DIRECT BEARING STUDS)

1-1/2" W, 16" L., 18 GA. STRAP (EACH SIDE)

DIRECT BEARING STUDS AS SPECIFIED ADDTIONAL SUPPORT STUDS PER PLAN.

FOR STUD COLUMNS OF 4 OR MORE,

INSTALL HORIZ SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXT WALL), ON BOTH

ALTERNATE VERSION



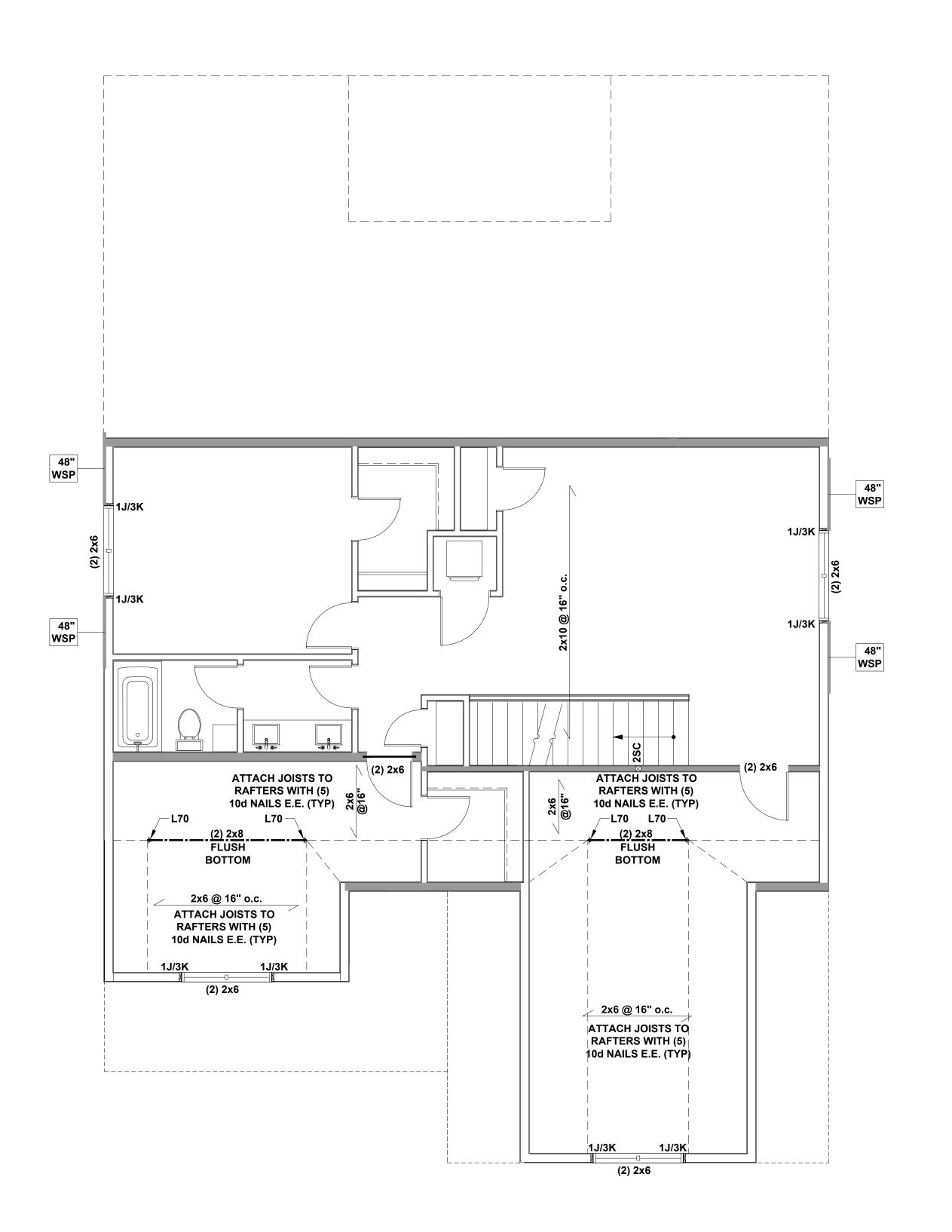
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ALTERNATE FIRST FLOOR CEILING FRAMING PLAN

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- INTERIOR LOAD BEARING WALL
- —·—· ROOF RAFTER / TRUSS SUPPORT
- ----- DOUBLE RAFTER / DOUBLE JOIST
- ———— STRUCTURAL BEAM / GIRDER
- WINDOW / DOOR HEADER
- POINT LOAD FROM ABOVE

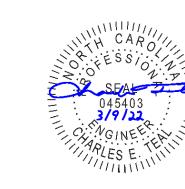
BEARING ON BEAM / GIRDER

POINT LOAD TRANSFER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

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- 2. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED w/ MIN (1) JACK AND (1) KING EACH END, UNO.
- EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.
- ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J / (1) K, UNO.
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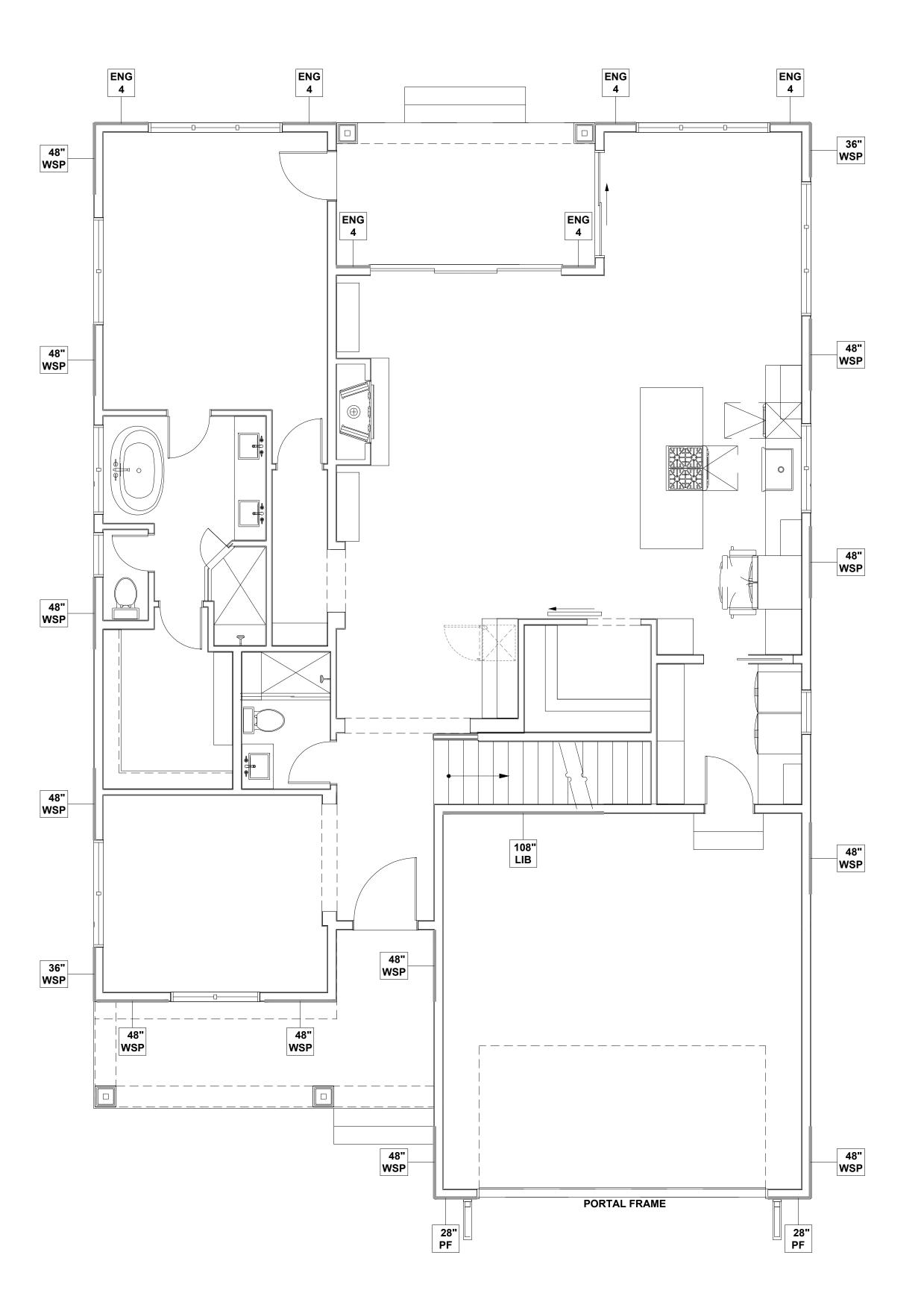
TRIANGLE BUILDING NORTH CAROLINA BELMONT

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03/07/2022 CAR

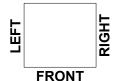
SECOND FLOOR CEILING FRAMING PLAN

SECOND FLOOR CEILING FRAMING PLAN SCALE: 1/4"=1'-0"



WALL BRACING REQUIREMENTS

- MINIMUM PANEL WIDTH IS 24" - FIGURES BASED ON THE CONTINUOUS SHEATHING METHOD USING THE RECTANGLE CIRCUMSCRIBED AROUND THE FLOOR PLAN OR PORTION OF THE FLOOR PLAN. IF NO RECTANGLE IS NOTED, THE STRUCTURE HAS BEEN FIGURED ALL WITHIN ONE RECTANGLE.
- ALL WSP NOTED ON PLAN ARE TO BE CONSIDERED
- CS-WSP - PANELS MAY SHIFT UP TO 36" EITHER DIRECTION FOR EASE OF CONSTRUCTION (NAILING & BLOCK REQUIREMENTS STILL APPLY).
- FOR ADDITIONAL WALL BRACING INFORMATION, REFER TO WALL BRACING DETAIL SHEET(S). - SCHEMATIC BELOW INDICATES HOW SIDES OF RECTANGLE ARE TO BE INTERPRETED IN BRACING CHART WHEN APPLIED TO STRUCTURE:



CS16 STRAP FROM STUD, CROSS HEADER, TO WALL TOP PLATE, 36" LONG MINIMUM

SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAP TO BE LOCATED AT EDGE OF BRACED WALL PANEL. (CS16 STRAPPING MAY BE SUBSTITUTED w/ SIMILAR LENGTH AND NAILING PATTERN.) USE HTT4 FOR ATTACHMENT TO CONCRETE.

NUMERICAL SCALED LENGTH 24" OF WALL PANEL AT LOCATION —

LENGTH OF PANEL - PANEL TYPE

WALLS WITH PROVIDED LENGTH LISTED AS "N/A" DO NOT MEET THE REQUIREMENTS OF PRESCRIPTIVE WALL BRACING FOUND IN THE NCRC. THESE WALLS ARE ENGINEERED DESIGN BASED ON DESIGN **GUIDELINES ESTABLISHED IN ASCE-07 AND THE NDS:** WIND & SEISMIC PROVISIONS SUPPLEMENT.

ENGINEERED WALL SCHEDULE

WALL BRACING NOTE:

ENG1: CONTINUOUSLY SHEATH WITH 7/16" OSB ATTACHED WITH 8d NAILS @ 6" OC EDGE AND 12" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

ENG2: CONTINUOUSLY SHEATH WITH 7/16" OSB WITH 10d NAILS @ 3" OC EDGE AND 3" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

ENG3: CONTINUOUSLY SHEATH 7/16" OSB ATTACHED BOTH SIDES WITH 8d NAILS @ 4" OC EDGE AND 8" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

ENG4: CONTINUOUSLY SHEATH 7/16" OSB ATTACHED WITH 8d NAILS @ 4" OC EDGE AND 8" OC FIELD. FULLY BLOCKED AT ALL PANEL EDGES.

WALL BRACING: RECTANGLE 1				
SIDE	REQUIRED LENGTH	PROVIDED LENGTH		
FRONT	16.0 FT.	17.25 FT.		
RIGHT	11.0 FT.	19.0 FT.		
REAR	16.0 FT.	N/A		
LEFT	11.0 FT.	19.0 FT.		



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NORTH CAROLINA BELMONT

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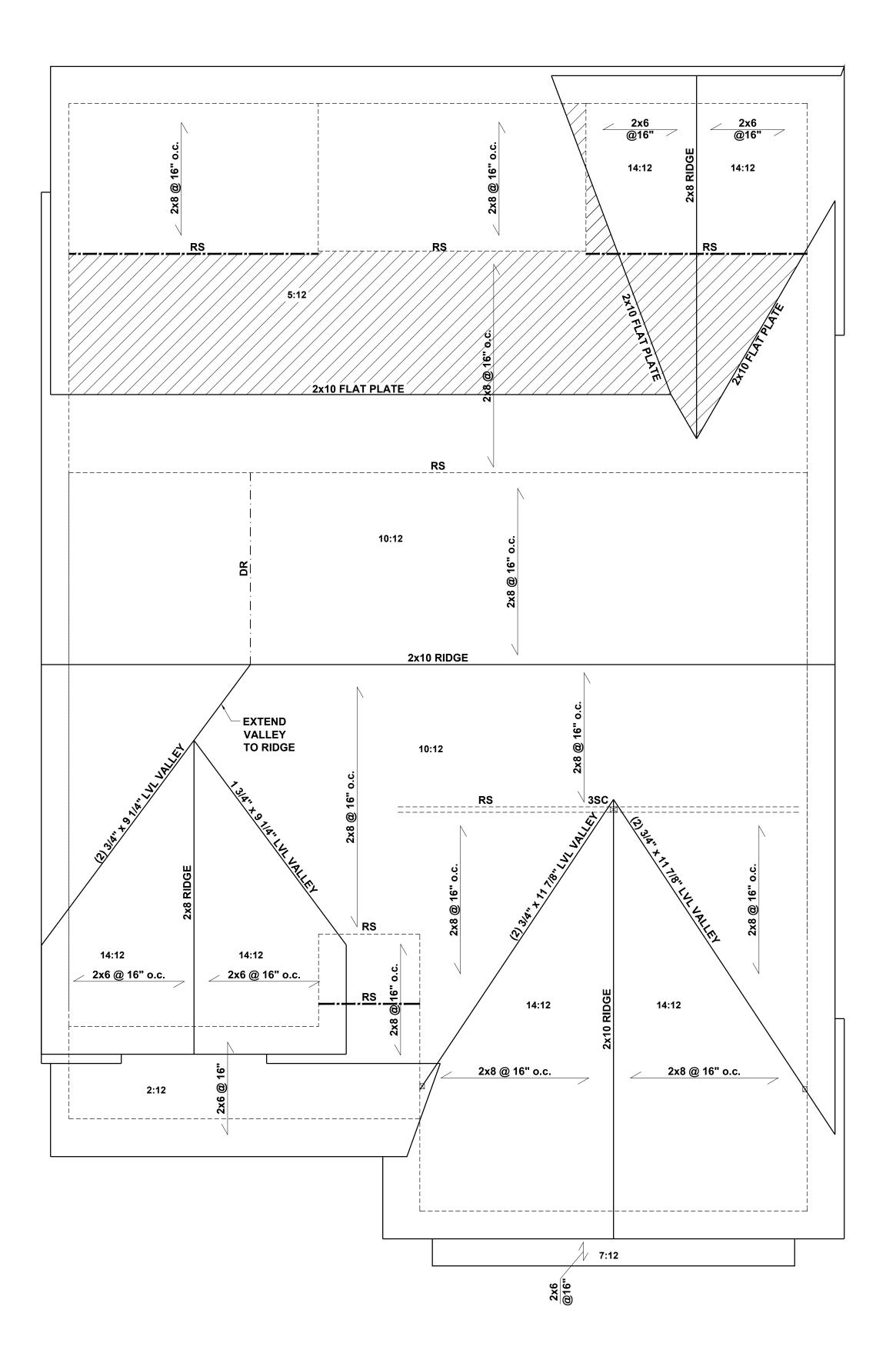
TRIANGLE BUILDING

03/07/2022 CAR

FIRST FLOOR WALL BRACING PLAN

S4.0

FIRST FLOOR WALL BRACING PLAN



ROOF FRAMING PLAN SCALE: 1/4"=1'-0"

BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL

----- ROOF RAFTER / TRUSS SUPPORT
----- DOUBLE RAFTER / DOUBLE JOIST

----- STRUCTURAL BEAM / GIRDER

WINDOW / DOOR HEADER

☑ POINT LOAD TRANSFER

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

STICK-FRAMED ROOF - STRUCTURAL NOTES

- 1. FRAMING SHALL BE #2 SPF OR BETTER, UNO.
- 2. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE ON PLAN.
- 3. FUR RIDGES FOR FULL RAFTER CONTACT.
- 4. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.



DENOTES OVER-FRAMED AREA

- 6. MINIMUM 7/16" OSB ROOF SHEATHING
- 7. PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45°
 BETWEEN RAFTERS AND CEILING JOISTS. USE
 (4) 16d NAILS AT EACH CONNECTION. RAFTER
 TIES MAY BE SPACED AT 48" OC AT LOCATIONS
 WHERE NO KNEE WALLS ARE INSTALLED.
- 8. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH RAFTER-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 9. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

ATTIC VENTILATION

THE TOTAL NET-FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE ATTIC SPACE TO BE VENTILATED. THE TOTAL VENTILATION MAY BE REDUCED TO 1/300 PROVIDED AT LEAST 50% BUT NOT MORE THAN 80% OF THE REQUIRED VENTILATION BE LOCATED IN THE UPPER PORTION OF THE AREA TO BE VENTILATED, OR AT LEAST 3' ABOVE THE SOFFIT VENTILATION INTAKE.

2684 SQUARE FEET OF TOTAL ATTIC / 150 =

18 SQUARE FEET OF NET-FREE VENTILATION REQUIRED

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0" FOR 24x36 PAPER, NOT TO SCALE FOR 11x17 PAPER, O

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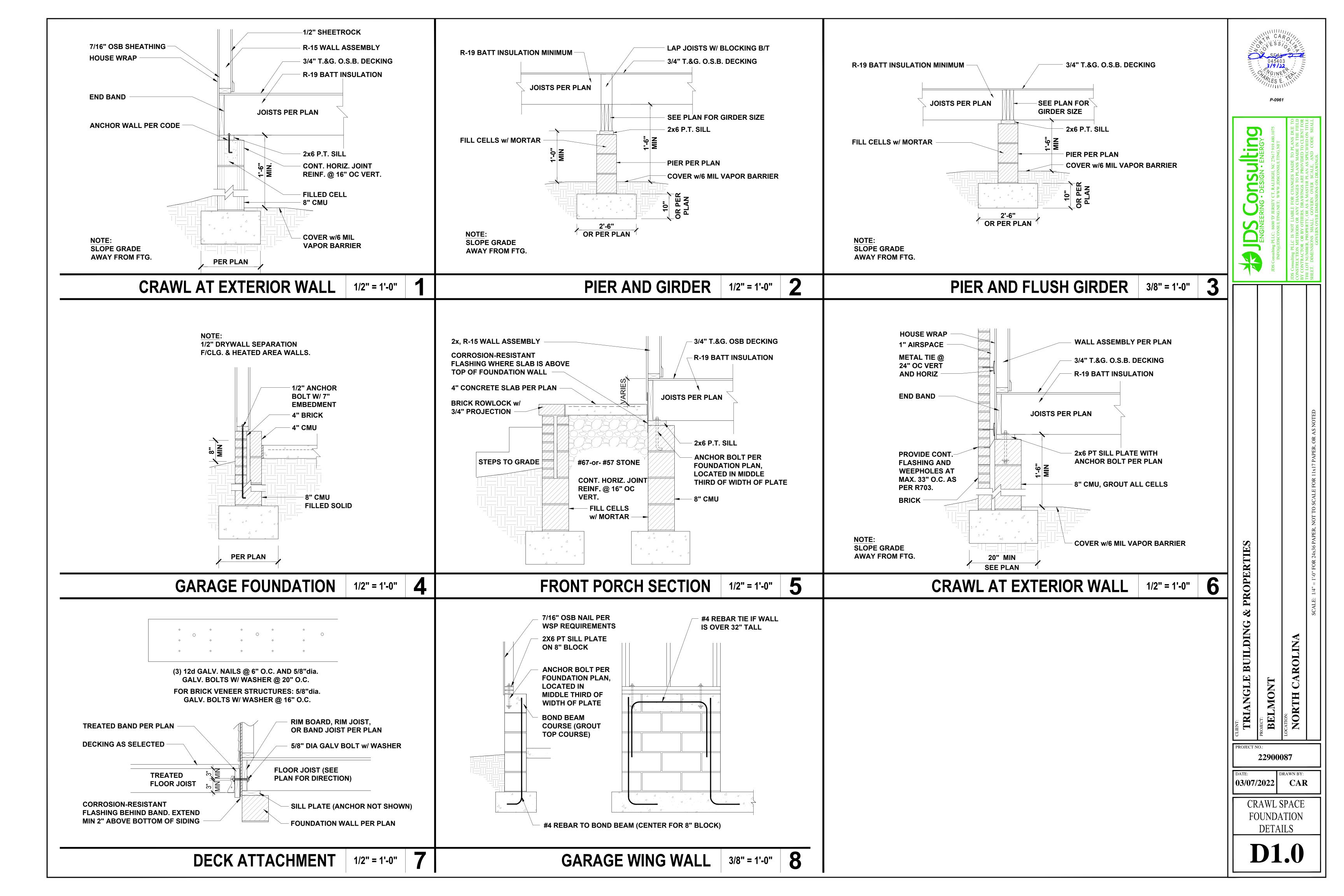
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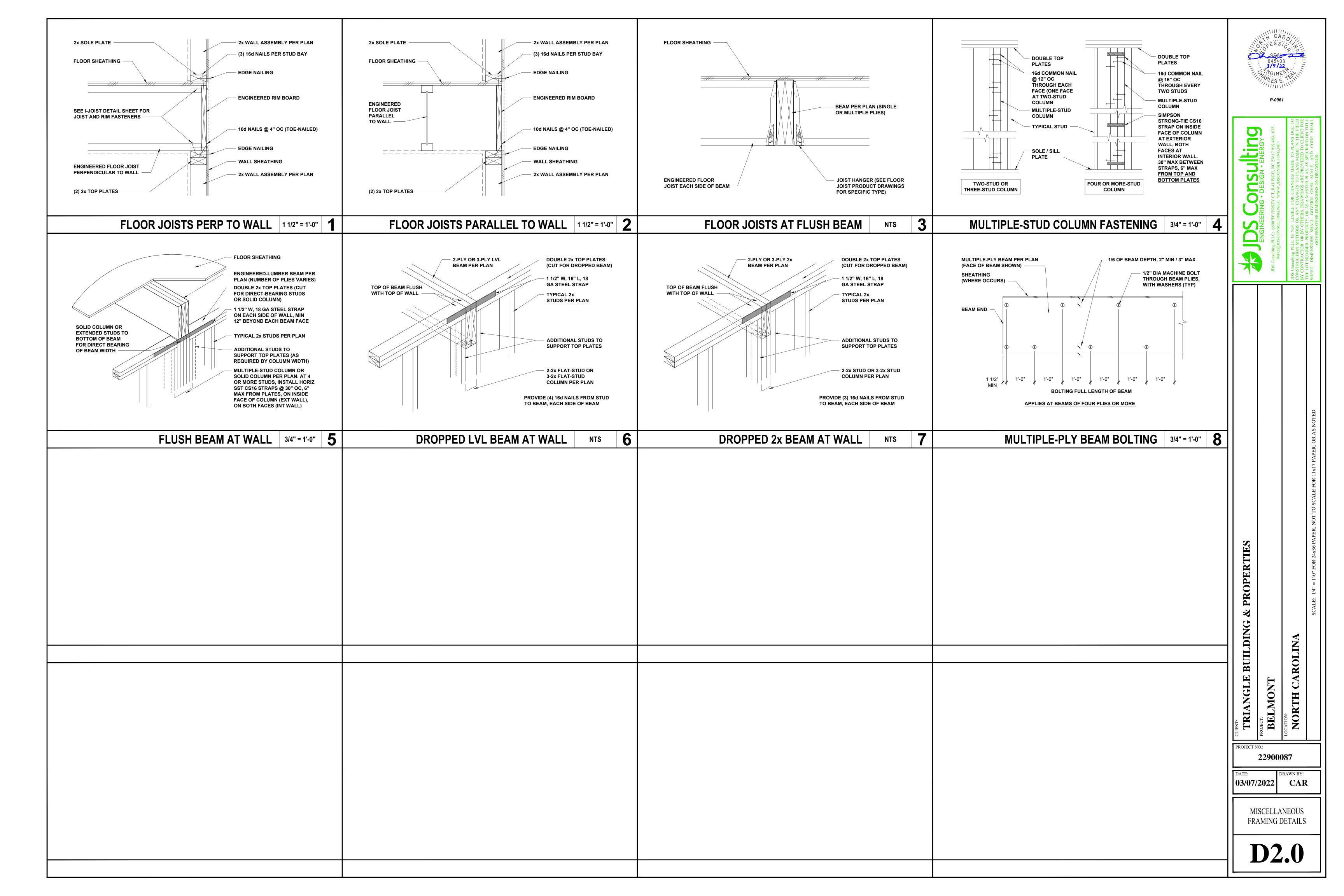
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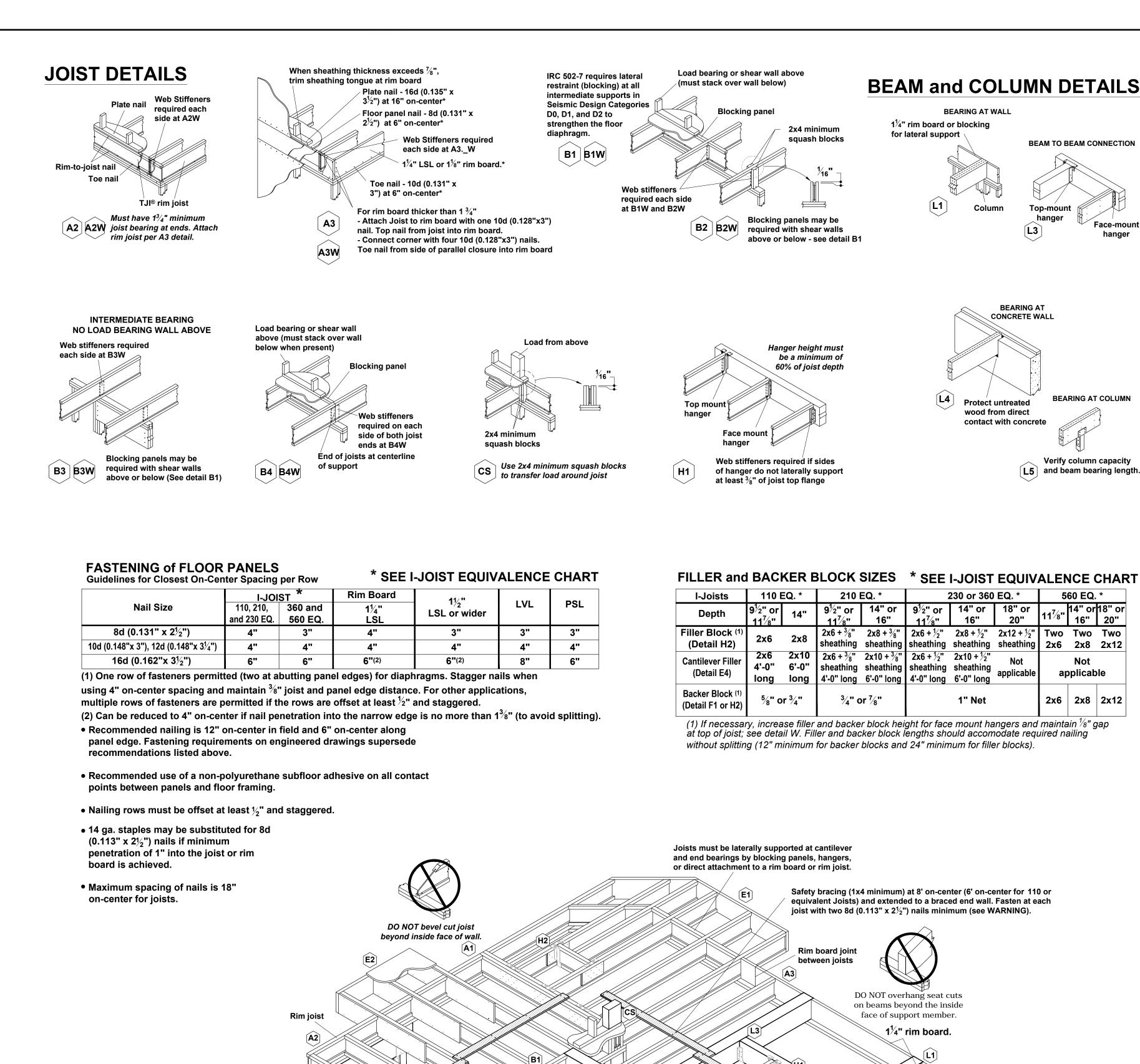
03/07/2022 CAR

ROOF FRAMING PLAN

S6.0







Use B1 or B2 at intermediate bearings with load bearing or

shear wall from above

Braced end wall see note 3 under WARNING

DO NOT use sawn lumber for rim board or blocking, as it may shrink after

installation. Use only

engineered lumber.

End of joists at

centerline of support

Protect untreated

wood from direct

contact with concrete

1½" knockouts at

Bearing plate to be

flush with inside face of wall or beam

approximately

12" on-center

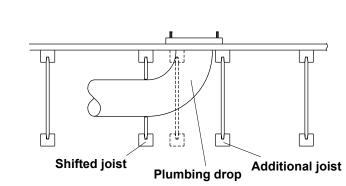
INSTALLATION TIPS

Subfloor adhesive will improve floor performance, but may not be required.

Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.

When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.

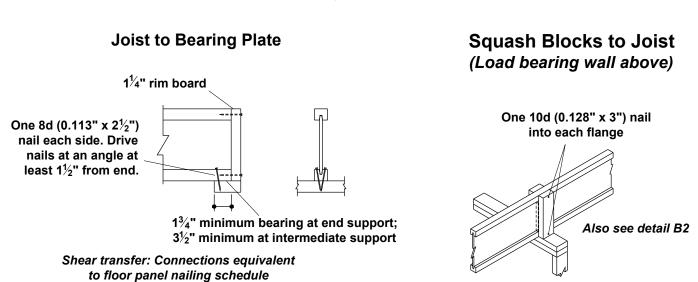
Additional joist at plumbing drop (see detail).



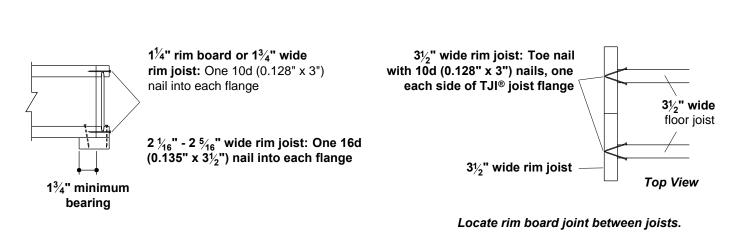
* I-JOIST EQUIVALENCY CHART

EQUIVALENT IN SPAN AND SPACING				
Depth	Mftr & Series	Mftr & Series	Mftr & Series	
	TJI - 110	BCI 4500		
9 <u>1</u> "	TJI - 210	BCI 5000		
•	TJI - 230	BCI 6000	EverEdge 20	
		BCI 6500		
	TJI - 110	BCI 4500		
	TJI - 210	BCI 5000		
11 ⁷ / ₈ "	TJI - 230	BCI 6000	EverEdge 20	
8		BCI 6500		
	TJI - 360	BCI 60'S	EverEdge 30	
	TJI - 560	BCI 90'S	EverEdge 50/0	
	TJI - 110	BCI 4500		
	TJI - 210	BCI 5000		
14"	TJI - 230	BCI 6000	EverEdge 20	
[BCI 6500		
	TJI - 360	BCI 60'S	EverEdge 30	
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	TJI - 110	BCI 4500		
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		BCI 6500		
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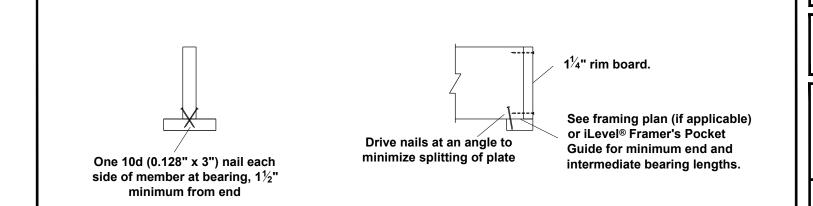
JOIST NAILING REQUIREMENTS at BEARING







BEAM ATTACHMENT at BEARING







Onsulting 3. Design . ENERGY

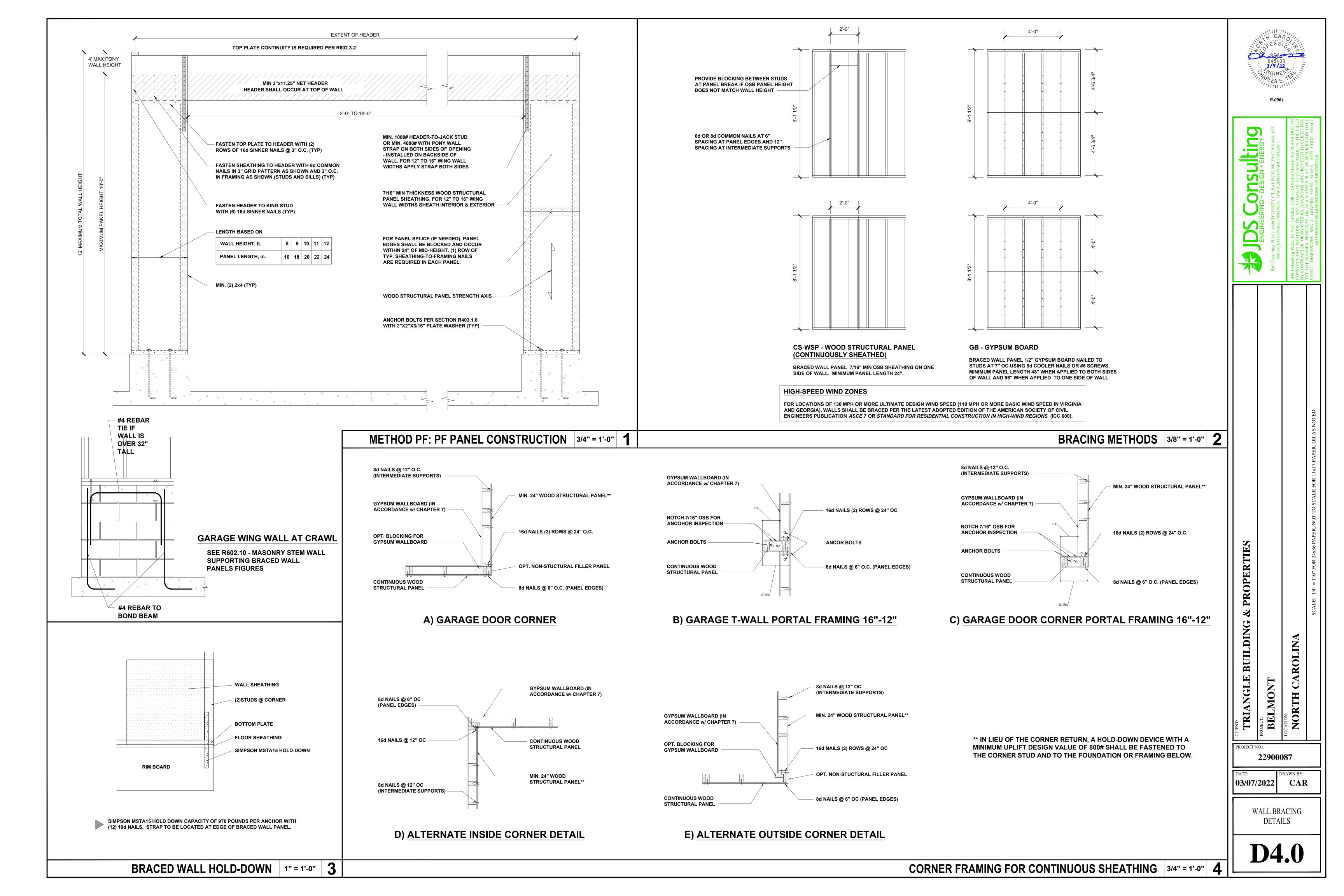
BUILDING

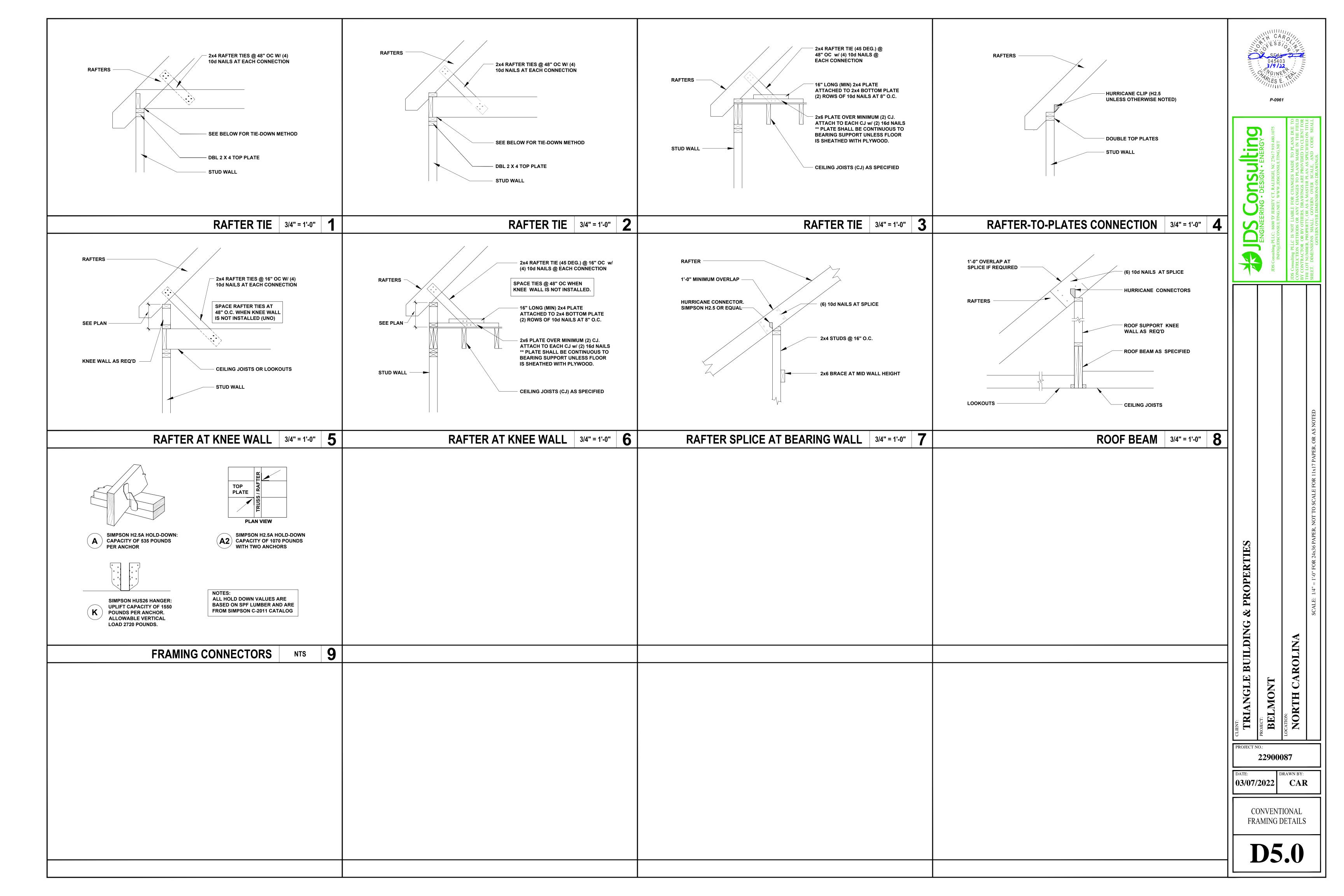
ROLINA TRIANGLE BELMONT

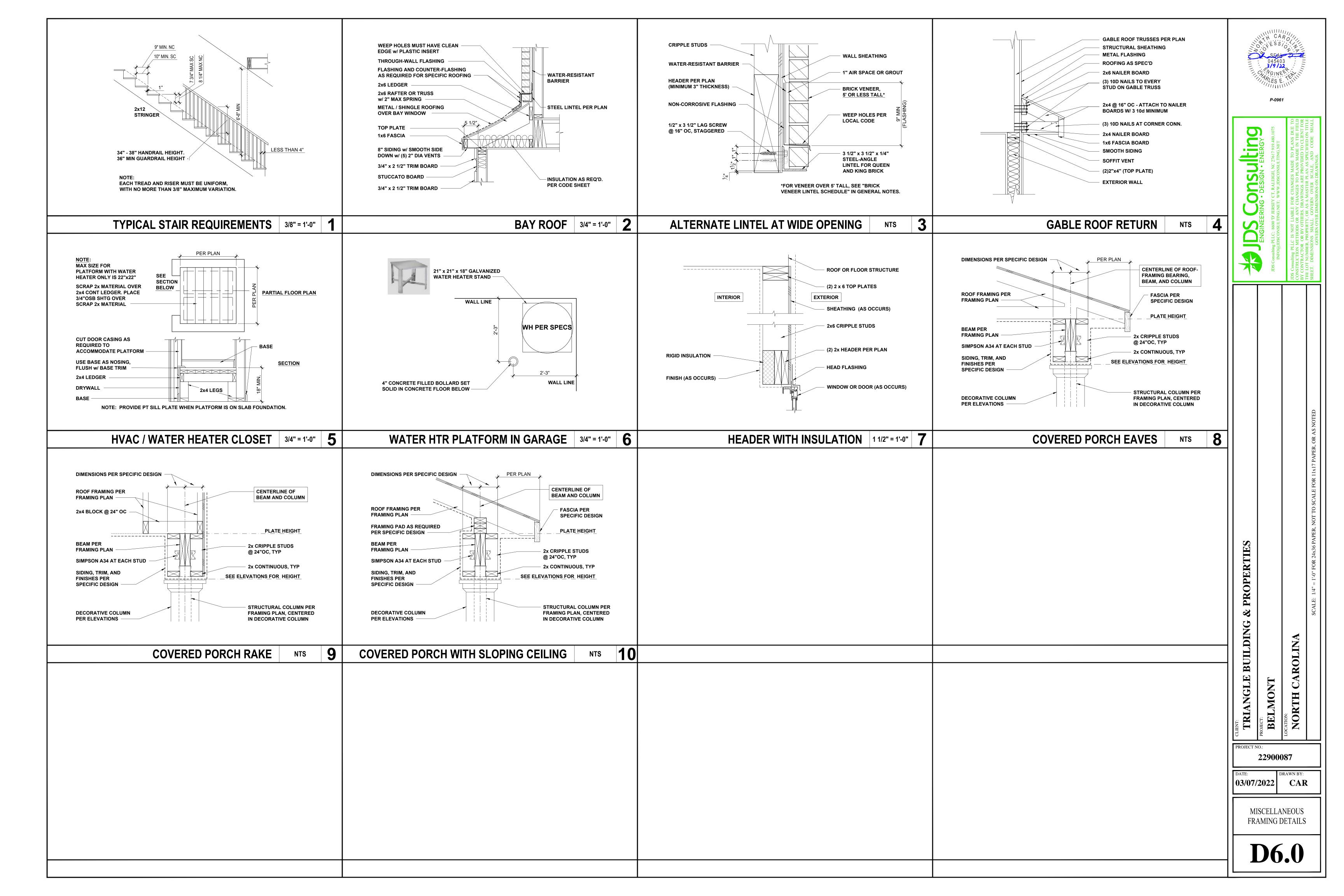
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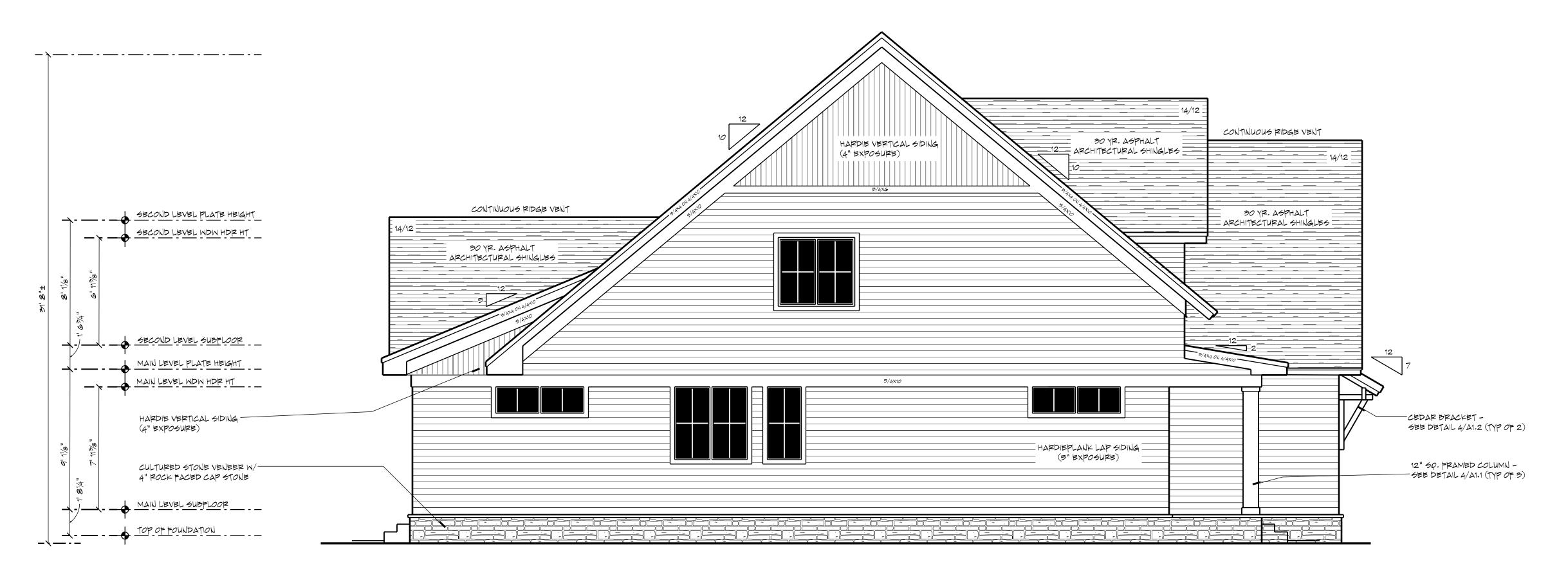
03/07/2022 CAR

> **ENGINEERED JOIST DETAILS**



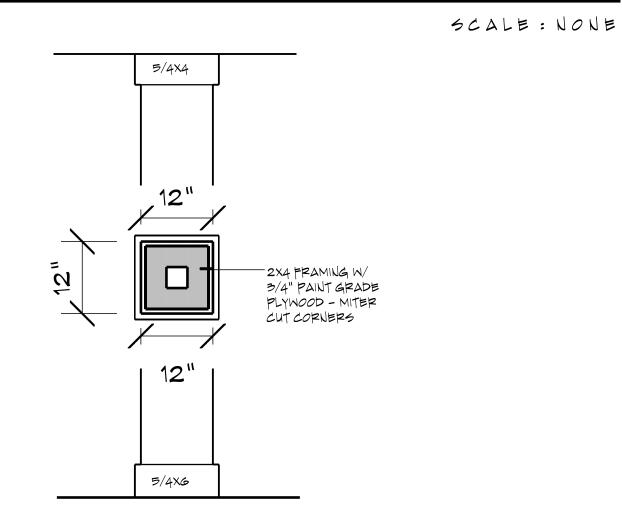






7' 11/8"

GABLE TIMBER DETAIL



A1.1

FRONT ELEVATION

SCALE: 1/4" = 1'0"

LEFT ELEVATION

5CALE: 1/4" = 1'0"



FIELD VERIFY STEP AND

SIDEWALK LOCATIONS BASED

on finished grade

AREA TABULATION

CRAWLSPACE 1605 SF

MAIN LEVEL 1605 SF

UPPER LEVEL 973 SF

FUTURE BONUS 301 SF

TOTAL FINISHED 2578 SF

TOTAL LIVABLE 2879 SF

INCL. BONUS

GARAGE 462 SF FRONT PORCH 129 SF REAR PORCH 112 SF

AND/OR OUTSIDE FACE OF EXTERIOR STUD AT FRAMED WALLS.

FLOOR AREAS ARE CALCULATED FROM

THE OUTSIDE OF FOUNDATION WALLS

STAIRS ARE INCLUDED IN CALCULATIONS AT ALL LEVELS.

GENERAL NOTES

- ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALING OF DRAWINGS - KICKOUT FLASHING TO BE INSTALLED AS NEEDED - EXTERIOR WALL FINISHER TO VERIFY KICKOUT FLASHING IS INSTALLED PRIOR TO FINISHING - CAPPENTER TO FLASH ALL EXTERIOR WINDOWS & DOORS PER MIN. AND IRC CODE REQUIREMENTS - WHILE EVERY EFFORT HAS BEEN MADE TO INSURE THESE PLANS ARE ACCURATE AND COMPLETE, THE OWNER/BUILDER MUST VERIFY ALL DIMENSIONS, CONSTRUCTION METHODS, SITE CONDITIONS AND SPECIFICATIONS AND BE RESPONSIBLE FOR SAME. - ANY NOTATIONS OF SIZES OF STRUCTURAL MEMBERS SUCH AS FOOTINGS, FOUNDATION SIZING, POSTS, BEAMS, JOISTS, RAFTERS, TRUSSES ETC. THAT APPEAR ON THESE PLANS ARE FOR DESIGN REVIEW AND BIDDING PURPOSES ONLY. IT IS RECOMMENDED a professional engineer be engaged to CALCULATE AND DESIGN ALL STRUCTURAL COMPONENTS INVOLVED IN THIS STRUCTURE.

<u>windows</u>

- MARVIN ESSENTIAL SERIES

- TYPE AND SIZE PER PLAN
- WINDOWS DESIGNATED WITH 'T' TO HAVE TEMPERED GLASS
- WINDOWS DESIGNATED WITH 'E' MEET EGRESS CODES
- BUILDER TO VERIFY ALL ROUGH OPENING DIMENSIONS
AND HEADER HEIGHTS.

EXTERIOR FINISHES

- SIDING (AS NOTED)

- HARDIEPLANK LAP SIDING - 5" EXPOSURE

- HARDIEPANEL VERTICAL SIDING

- 4" EXPOSURE - THIN SET BRICK VENEER OR CULTURED STONE

W/ 21/4" ROCK FACE STONE CAP

- HARDIETRIM BOARDS - THICKNESS AND WIDTH AS NOTED

TRUSS SUPPLIER TO VERIFY ALL SPANS, PITCHES, HEEL HEIGHTS AND OTHER CONDITIONS CRITICAL TO PROPER TRUSS FABRICATION.

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+++ STRUCTURAL NOTICE +++

ALL STRUCTURAL BEAM AND HEADER
SIZES, BEARING CONDITIONS AND
ANCHORING REQUIREMENTS MUST BE
REVIEWED BY A STRUCTURAL ENGINEER
BASED ON EXISTING SITE CONDITIONS.
OWNER/BUILDER TO ASSUME ALL
RESPONSIBILITY FOR ENTIRE STRUCTURE.

++ FOUNDATION ENGINEEPING ++

ALL BUILDING FOUNDATION,
FOOTING SIZES AND
PEINFORCING, INCLUDING
POST FOOTINGS, TO BE DESIGNED
ON SITE BY LOCAL ENGINEER
OR FOUNDATION CONTRACTOR
BASED ON EXISTING SITE
CONDITIONS.

++ FOOTING FROST DEPTH: ++

OWNER/CONTRACTOR TO ADJUST DEPTH OF ALL HOUSE, GARAGE, SLAB AND DECK POST FOOTINGS TO MEET LOCAL CODES. ROYAL OAKS
DESIGN
EST. 1988

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www.royaloaksdesign.com

CERTIFIED PROFESSIONAL BUILDING DESIGNER



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FOR THE WORKMANSHIP OF THE SUB-CONTRACTORS.

L-ZO-015 HE BELMONI CRAWLSPACE

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Drawn by: OFM

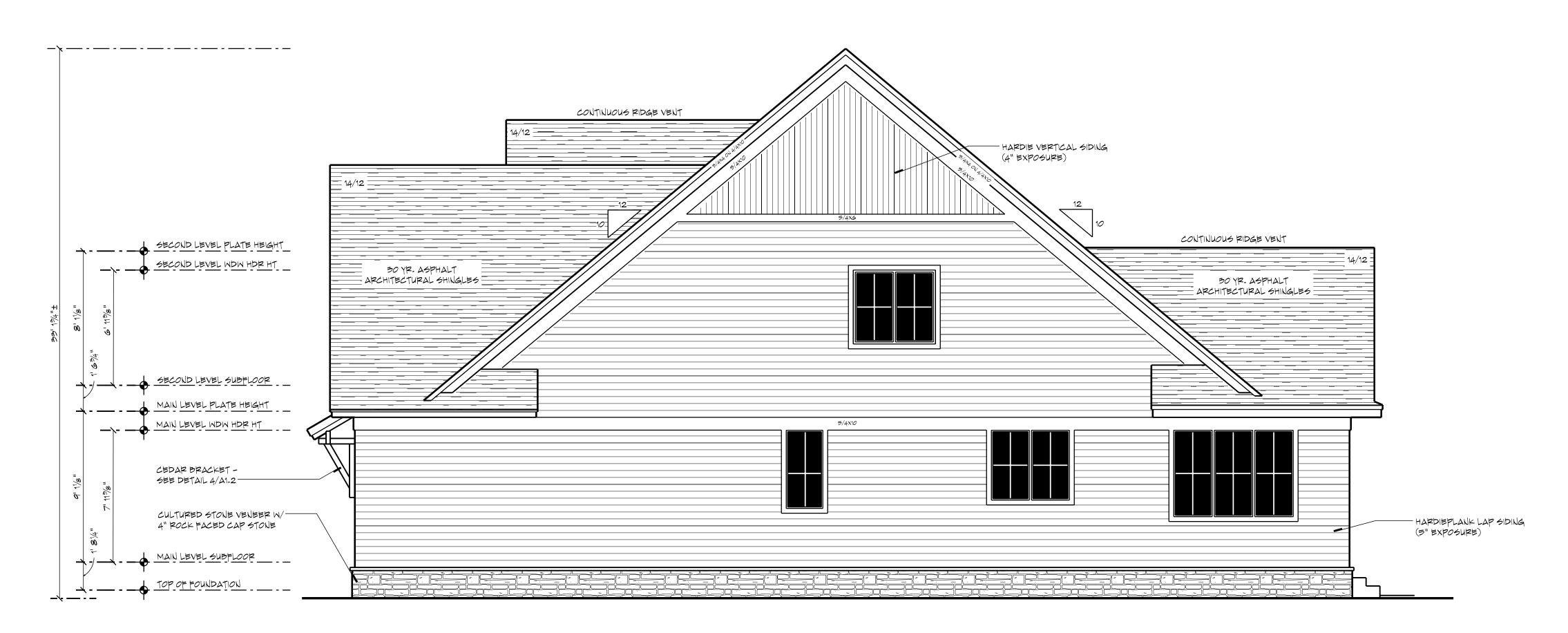
ISSUE DATE REMARK

EXTERIOR ELEVATIONS
BRACKET DETAIL
WINDOW OPENING DETAIL

A1.1 8

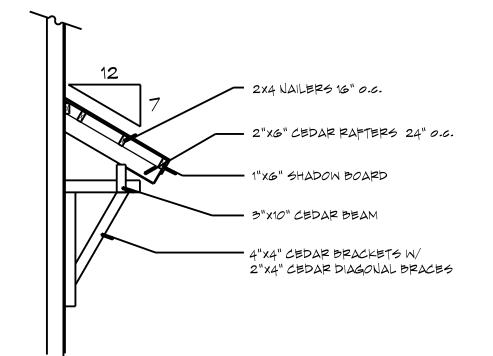
SCALE: 1/4" = 1'0"

COLUMN DETAIL

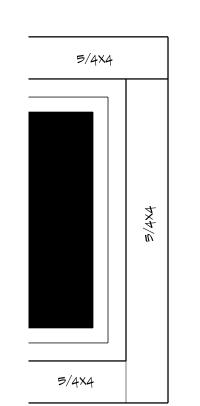


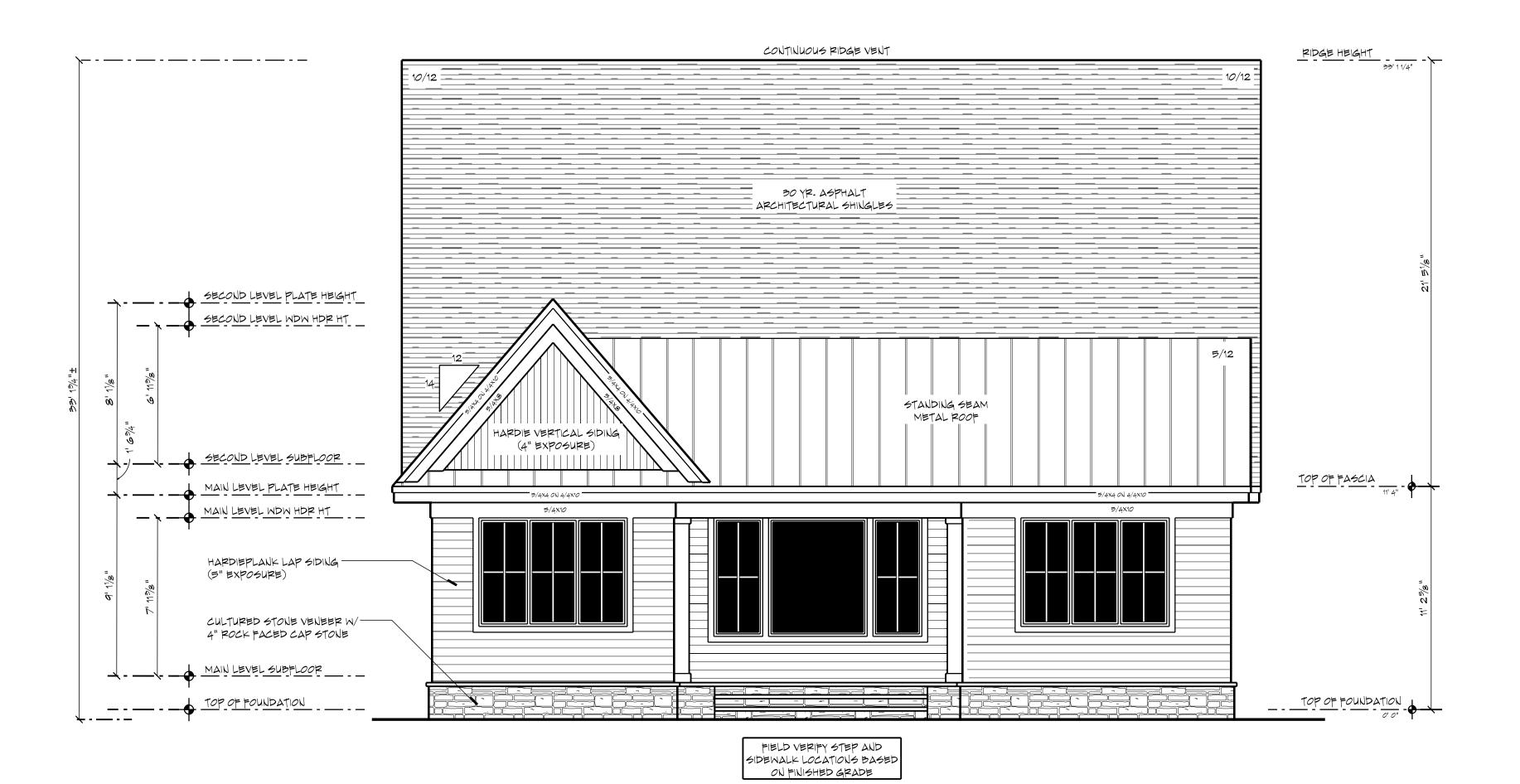


5CALE: 1/4" = 1'0"









REAR ELEVATION

5CALE: 1/4" = 1'0"

AREA TABULATION CRAWLSPACE MAIN LEVEL 1605 54 upper level 973 54 FUTURE BONUS 3015 TOTAL FINISHED TOTAL LIVABLE 2879 5 INCL. BONUS gapage 4625 FRONT PORCH 1295

FLOOR AREAS ARE CALCULATED FROM THE OUTSIDE OF FOUNDATION WALLS AND/OR OUTSIDE FACE OF EXTERIOR STUD AT FRAMED WALLS.

REAR PORCH

STAIRS ARE INCLUDED IN CALCULATIONS AT ALL LEVELS.

112 5

GENERAL NOTES

- ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALING OF DRAWINGS - KICKOUT FLASHING TO BE INSTALLED AS NEEDED - EXTERIOR WALL FINISHER TO VERIFY KICKOUT FLASHING IS INSTALLED PRIOR TO FINISHING - CAPPENTER TO FLASH ALL EXTERIOR WINDOWS & DOORS PER MIN. AND IRC CODE REQUIREMENTS - WHILE EVERY EFFORT HAS BEEN MADE TO INSURE THESE PLANS ARE ACCURATE AND COMPLETE, THE OWNER/BUILDER MUST VERIFY ALL DIMENSIONS, CONSTRUCTION METHODS, SITE CONDITIONS AND SPECIFICATIONS AND BE RESPONSIBLE FOR SAME. - ANY NOTATIONS OF SIZES OF STRUCTURAL MEMBERS SUCH AS FOOTINGS, FOUNDATION SIZING, POSTS, BEAMS, JOISTS, RAFTERS, TRUSSES ETC. THAT APPEAR ON THESE PLANS ARE FOR DESIGN REVIEW AND BIDDING PURPOSES ONLY. IT IS RECOMMENDED a professional engineer be engaged to CALCULATE AND DESIGN ALL STRUCTURAL COMPONENTS INVOLVED IN THIS STRUCTURE.

<u>windows</u>

- MARVIN ESSENTIAL SERIES

- TYPE AND SIZE PER PLAN - WINDOWS DESIGNATED WITH 'T' TO HAVE TEMPERED GLASS - WINDOWS DESIGNATED WITH 'E' MEET EGRESS CODES - BUILDER TO VERIFY ALL ROUGH OPENING DIMENSIONS and header heights.

EXTEPIOR FINISHES

- SIDING (AS NOTED) - HARDIEPLANK LAP SIDING

- 5" EXPOSUPE

- HARDIEPANEL VERTICAL SIDING - 4" EXPOSURE

- THIN SET BRICK VENEER OR CULTURED STONE W/21/4" ROCK FACE STONE CAP

- HARDIETRIM BOARDS - THICKNESS AND WIDTH AS NOTED

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+++ STRUCTURAL NOTICE +++

ALL STRUCTURAL BEAM AND HEADER SIZES, BEARING CONDITIONS AND ANCHOPING REQUIREMENTS MUST BE PEVIEWED BY A STRUCTURAL ENGINEER BASED ON EXISTING SITE CONDITIONS. OWNER/BUILDER TO ASSUME ALL RESPONSIBILITY FOR ENTIRE STRUCTURE.

<u>++ FOUNDATION ENGINEEPING ++</u>

ALL BUILDING FOUNDATION, FOOTING SIZES AND REINFORCING, INCLUDING POST FOOTINGS, TO BE DESIGNED ON SITE BY LOCAL ENGINEER OR FOUNDATION CONTRACTOR BASED ON EXISTING SITE CONDITIONS.

++ FOOTING FROST DEPTH: ++

OWNER/CONTRACTOR TO adjust depth of all HOUSE, GARAGE, SLAB and deck post footings TO MEET LOCAL CODES.

ROYAL OAKS DESIGN

3459 Lake Elmo Ave Lake Elmo, MN 651-964-2726

www.royaloaksdesign.com

CERTIFIED PROFESSIONAL BUILDING DESIGNER Kieran J. Liebl 24-10

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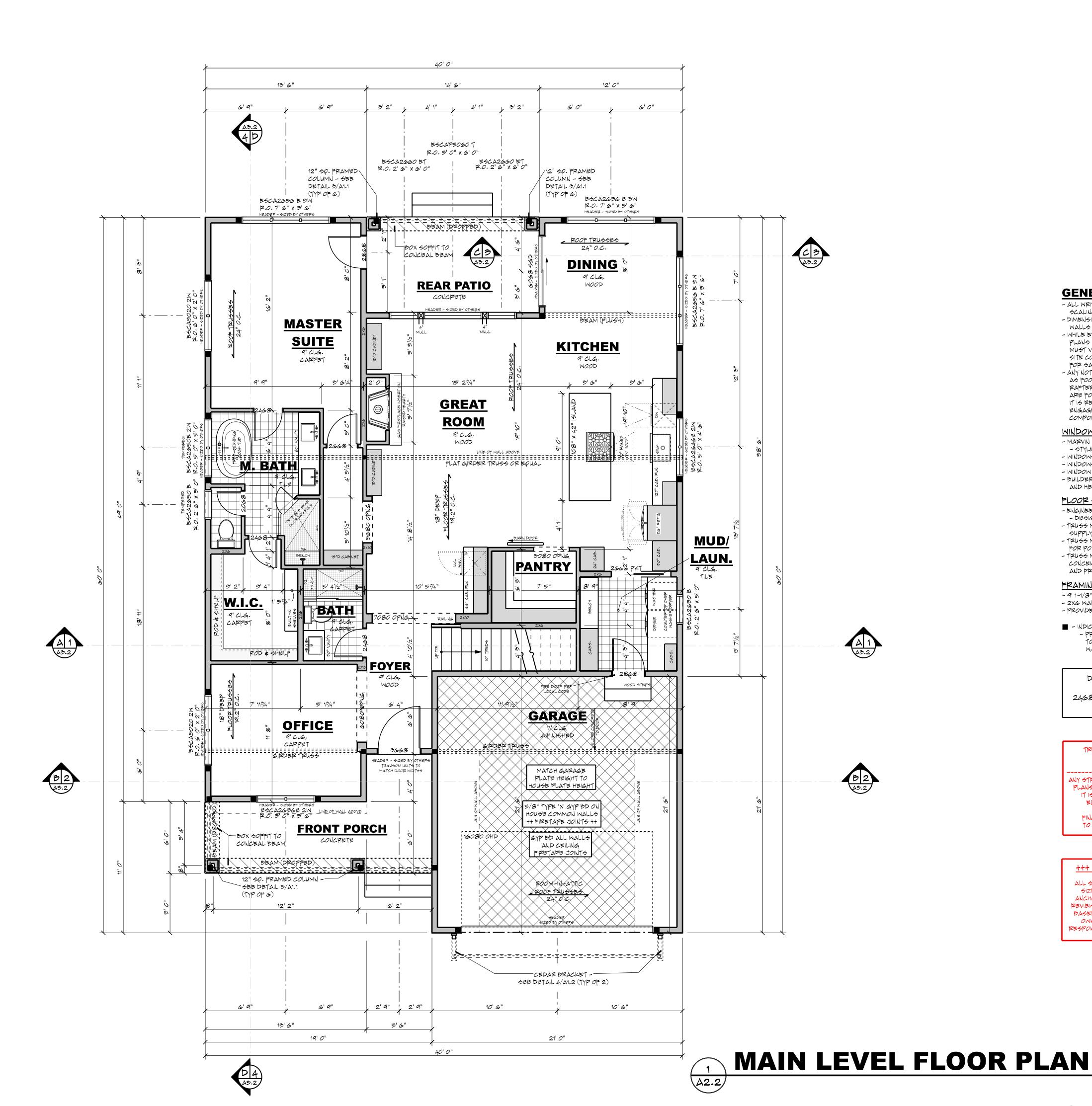
EXTERIOR ELEVATIONS REAR BRACKET DETAIL

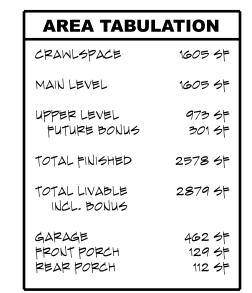
COLUMN DETAIL

TRIM DETAIL

5CALE: 1-1/2" = 1'0"

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FLOOR AREAS ARE CALCULATED FROM THE OUTSIDE OF FOUNDATION WALLS AND/OR OUTSIDE FACE OF EXTERIOR STUD AT FRAMED WALLS.

STAIRS ARE INCLUDED IN CALCULATIONS AT ALL LEVELS.

GENERAL NOTES

- ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER
- SCALING OF DRAWINGS - DIMENSIONS ARE FROM EXTERIOR FACE OF EXTERIOR STUD
- WALLS AND CENTERLINE OF INTERIOR PARTITIONS - WHILE EVERY EFFORT HAS BEEN MADE TO INSURE THESE PLANS ARE ACCURATE AND COMPLETE, THE OWNER/BUILDER MUST VERIFY ALL DIMENSIONS, CONSTRUCTION METHODS, SITE CONDITIONS AND SPECIFICATIONS AND BE RESPONSIBLE FOR SAME.
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MINDOMS

- MARVIN ESSENTIAL SERIES
- STYLE AND SIZE AS NOTED - WINDOWS DESIGNATED WITH 'T' TO HAVE TEMPERED GLASS
- WINDOWS DESIGNATED WITH 'E' MEET EGRESS CODES - WINDOW HEADER HEIGHTS SET TO 7' 11-3/8" (U.N.O.)
- BUILDER TO VERIFY WINDOW AND DOOR ROUGH OPENINGS AND HEADER HEIGHTS

FLOOP SYSTEM

- ENGINEERED WOOD FLOOR TRUSSES
- DESIGNED TO MIN. L/480 DEFLECTION OF LESS - TRUSS MANUFACTURER TO PROVIDE CHASES FOR ALL
- SUPPLY AND RETURN DUCTWORK
- TRUSS MANUFACTURER TO VERIFY FRAMING AT CANTILEVERS FOR POINT LOADS FROM ABOVE
- TRUSS MANUFACTURER TO VERIFY LOCATIONS OF ANY CONCENTRATED LOADS, SUCH AS GRANITE COUNTERTOPS, AND PROVIDE PROPER FRAMING AS NEEDED

FRAMING

- 9' 1-1/8" PLATE HEIGHT (U.N.O.)
- 2XG WALLS AT ALL POCKET DOORS - PROVIDE SOLID BLOCKING AT ALL POINT LOADS
- INDICATES BEARING POINT LOAD - PROVIDE CONTINUOUS SOLID BLOCKING TO FOUNDATION BELOW - VERIFY LOADS

DOOR SCHEDULE SYMBOL

2468 REPRESENTS A 2'-4" WIDE X 6'-8" HIGH DOOR

W/LOCAL STRUCTURAL ENGINEER

TRUSS SUPPLIER TO VERIFY ALL SPANS, PITCHES, HEEL HEIGHTS AND OTHER CONDITIONS CRITICAL TO PROPER TRUSS FABRICATION.

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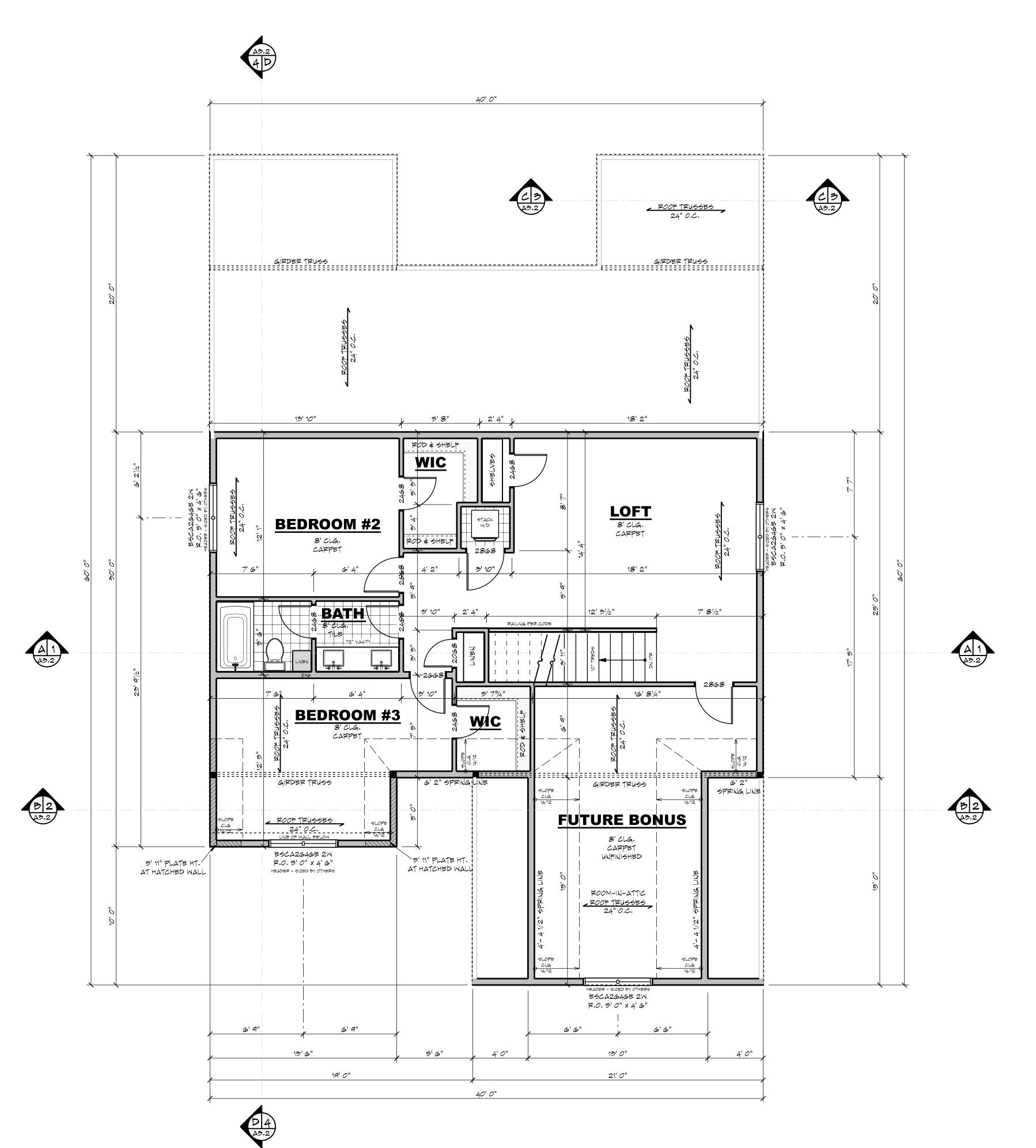
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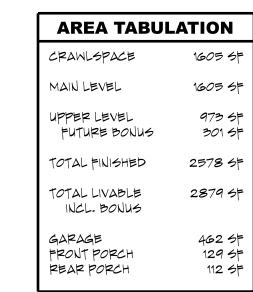
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UPPER LEVEL FLOOR PLAN **ROOF PLAN**

5CALE: 1/4" = 1'0"





FLOOP AREAS ARE CALCULATED FROM THE OUTSIDE OF FOUNDATION WALLS AND/OR OUTSIDE FACE OF EXTERIOR STUD AT FRAMED WALLS.

STAIRS ARE INCLUDED IN CALCULATIONS at all levels.

GENERAL NOTES

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MINDOMS

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- WINDOWS DESIGNATED WITH 'E' MEET EGRESS CODES - WINDOW HEADER HEIGHTS SET TO 6' 11-3/8" (U.N.O.) - BUILDER TO VERIFY WINDOW AND DOOR ROUGH OPENINGS and header heights

FLOOP SYSTEM

- ENGINEERED WOOD FLOOR TRUSSES
- DESIGNED TO MIN. L/480 DEFLECTION OF LESS - TRUSS MANUFACTURER TO PROVIDE CHASES FOR ALL
- SUPPLY AND RETURN DUCTWORK - TRUSS MANUFACTURER TO VERIFY FRAMING AT CANTILEVERS FOR POINT LOADS FROM ABOVE
- TRUSS MANUFACTURER TO VERIFY LOCATIONS OF ANY CONCENTRATED LOADS, SUCH AS GRANITE COUNTERTOPS, AND PROVIDE PROPER FRAMING AS NEEDED

FRAMING

- 8' 1-1/8" PLATE HEIGHT (U.N.O.)
- 2XG WALLS AT ALL POCKET DOORS
- PROVIDE SOLID BLOCKING AT ALL POINT LOADS
- INDICATES BEARING POINT LOAD - PROVIDE CONTINUOUS SOLID BLOCKING TO FOUNDATION BELOW - VERIFY LOADS W/ LOCAL STRUCTURAL ENGINEER

DOOR SCHEDULE SYMBOL

2468 REPRESENTS A 2'-4" WIDE X 6'-8" HIGH DOOR

TRUSS SUPPLIER TO VERIFY ALL SPANS, PITCHES, HEEL HEIGHTS AND OTHER CONDITIONS CRITICAL TO PROPER TRUSS FABRICATION.

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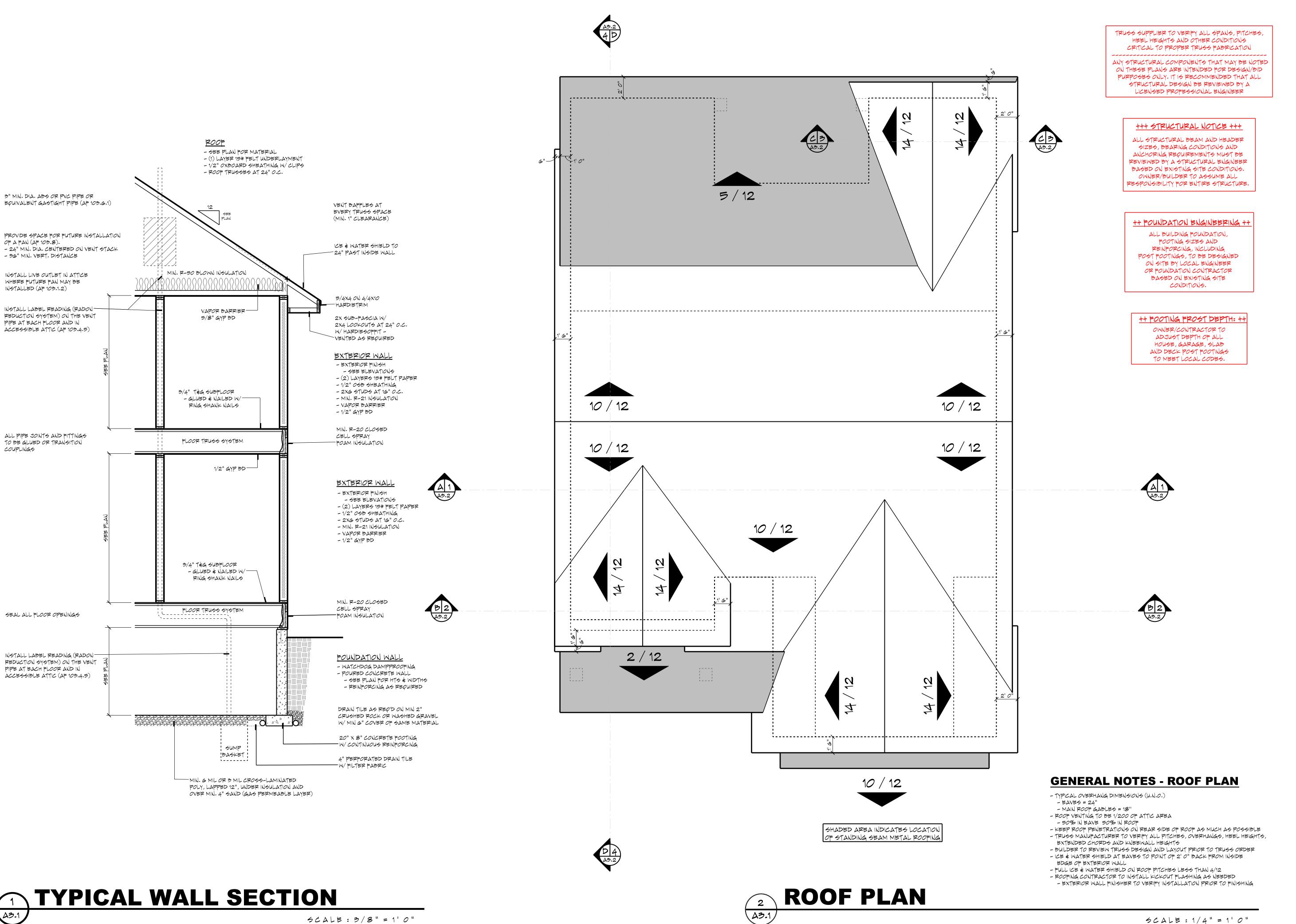
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UPPER LEVEL FLOOR PLAN **ROOF PLAN**

UPPER LEVEL FLOOR PLAN

SCALE: 1/4" = 1'0"



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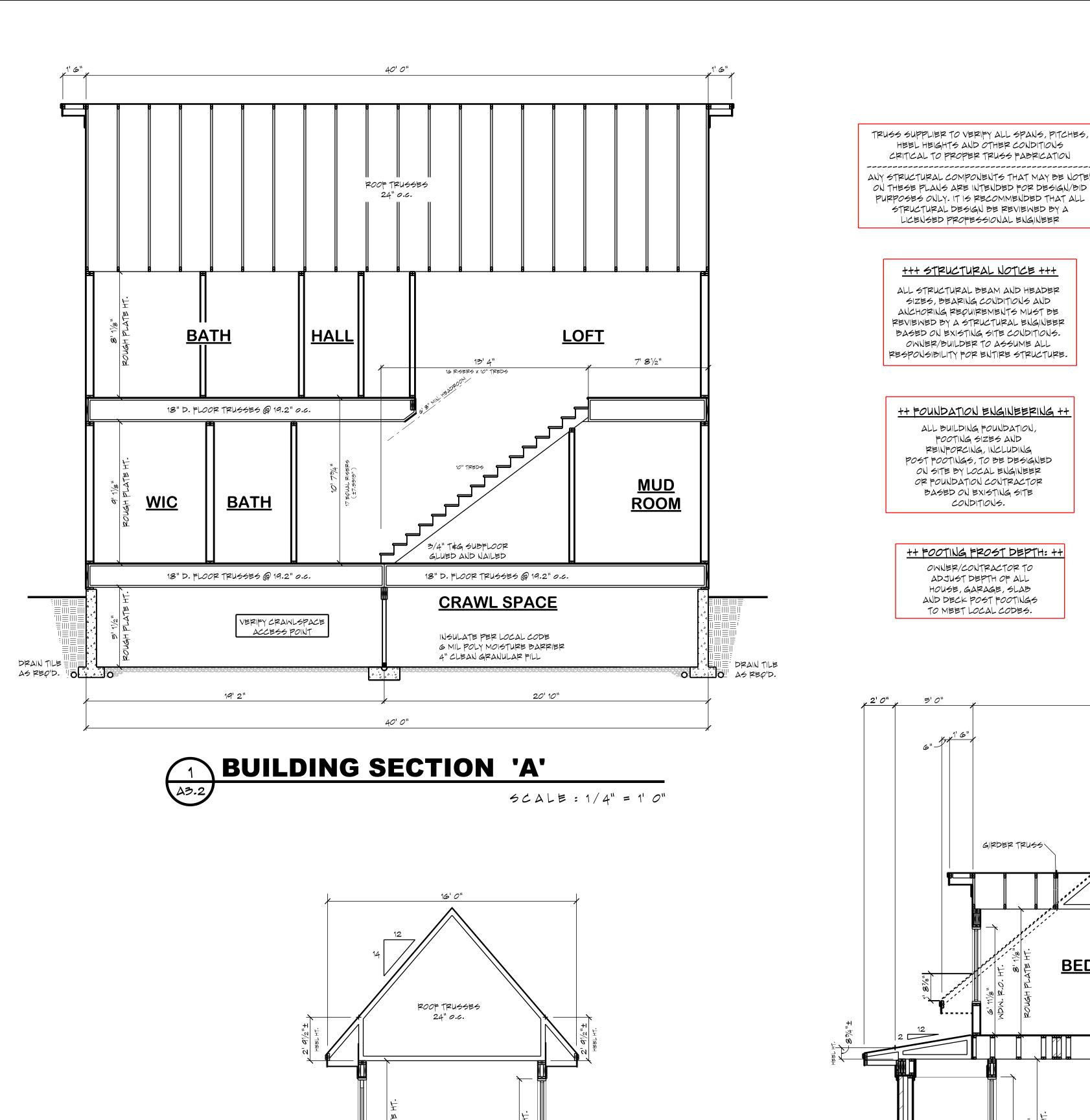
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TYP. SECTION **ROOF PLAN**



DINING

3/4" T&G SUBFLOOP

glued and nailed

18" D. FLOOR TRUSSES @ 19.2" O.C.

CRAWL SPACE

INSULATE PER LOCAL CODE

G MIL POLY MOISTURE BARRIER

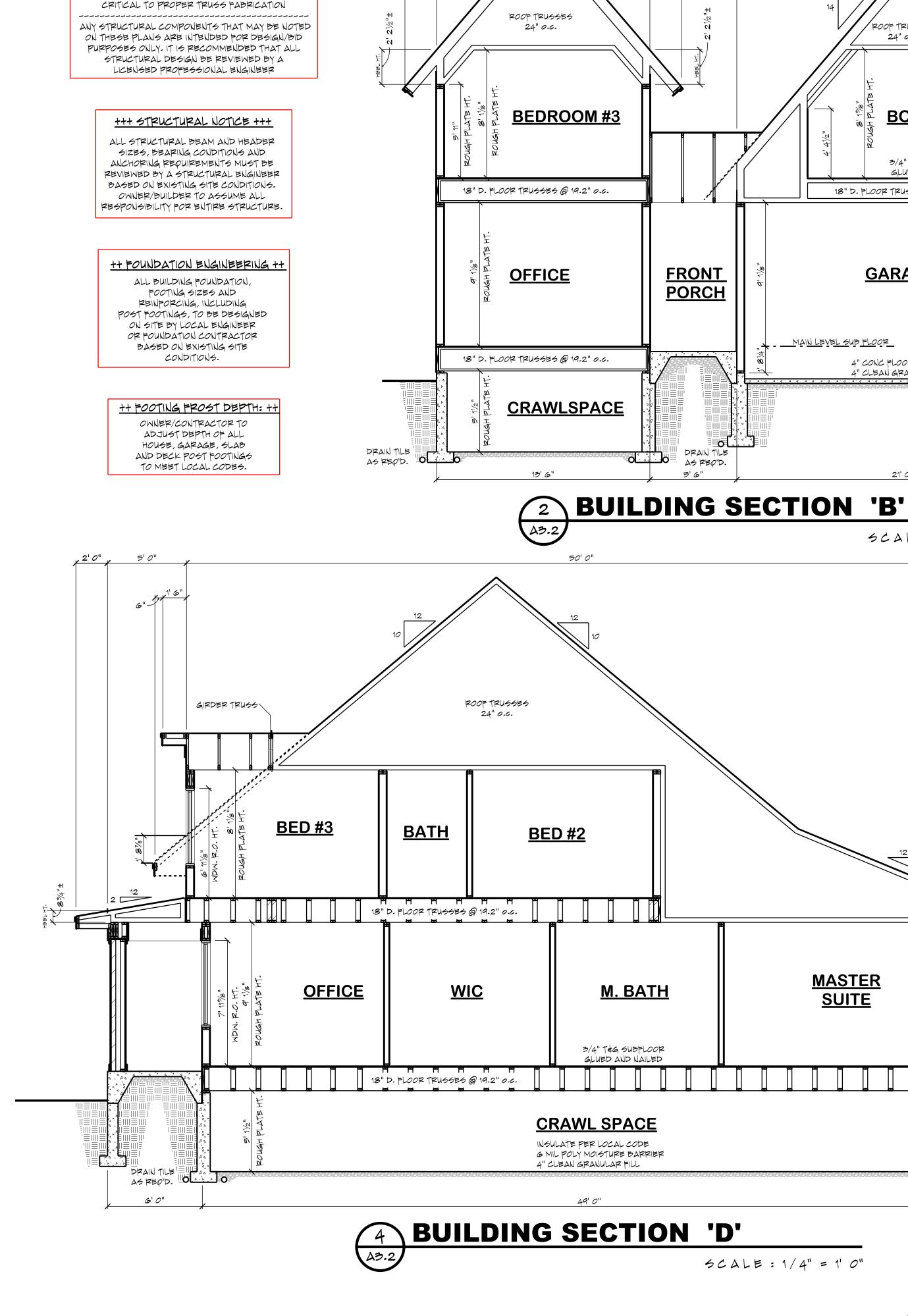
G 4" CLEAN GRANULAR FILL

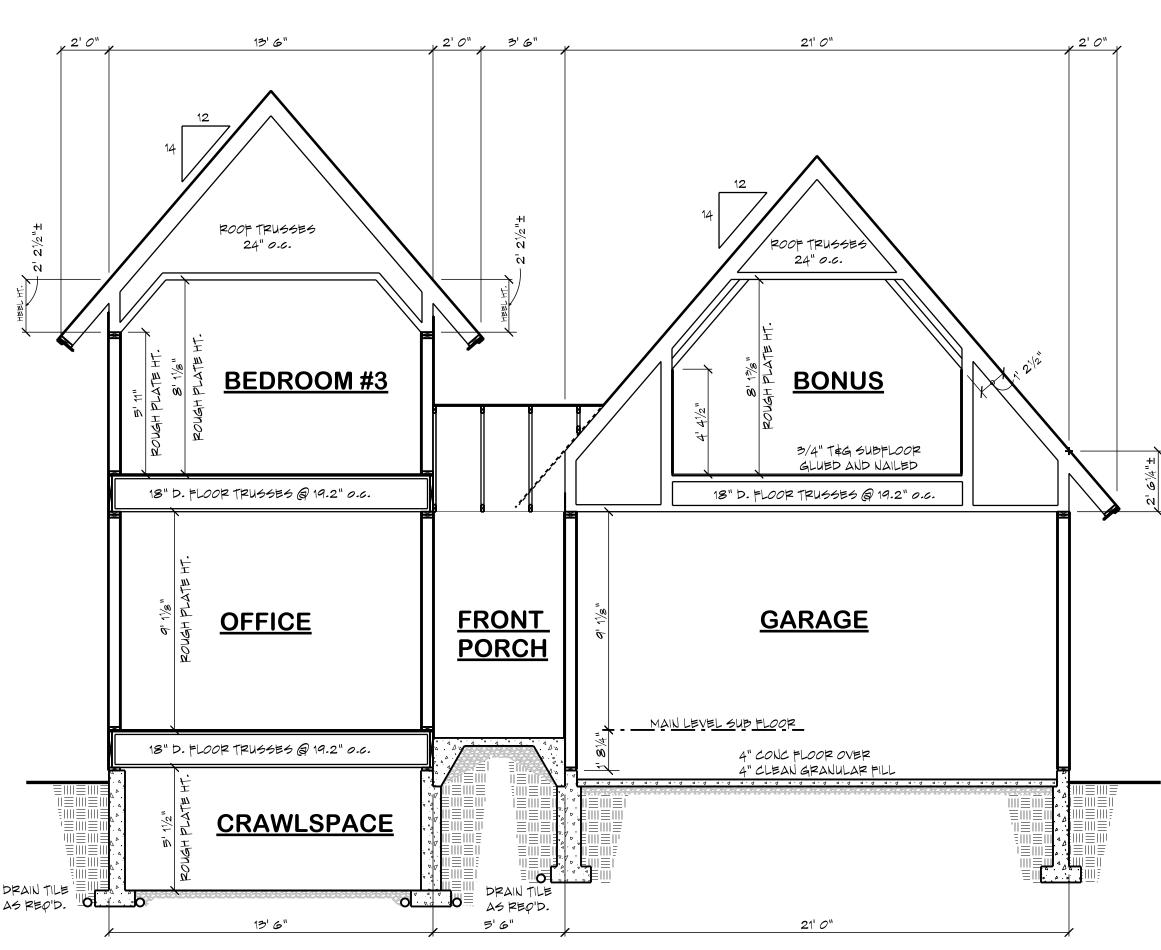
BUILDING SECTION 'C'

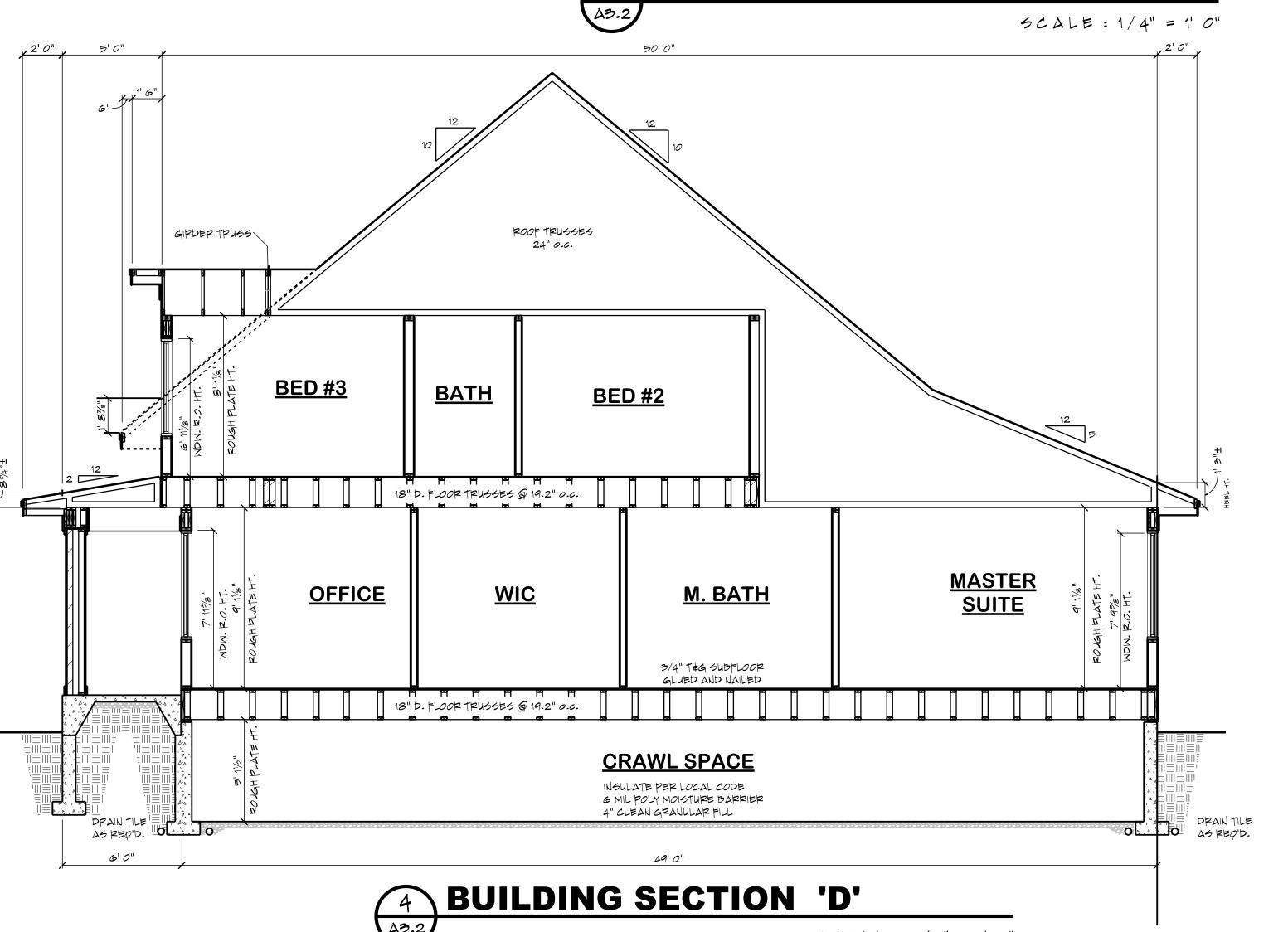
DRAIN TILE

ろとムレ目:1/4"=1'0"

DRAIN TILE | BILL









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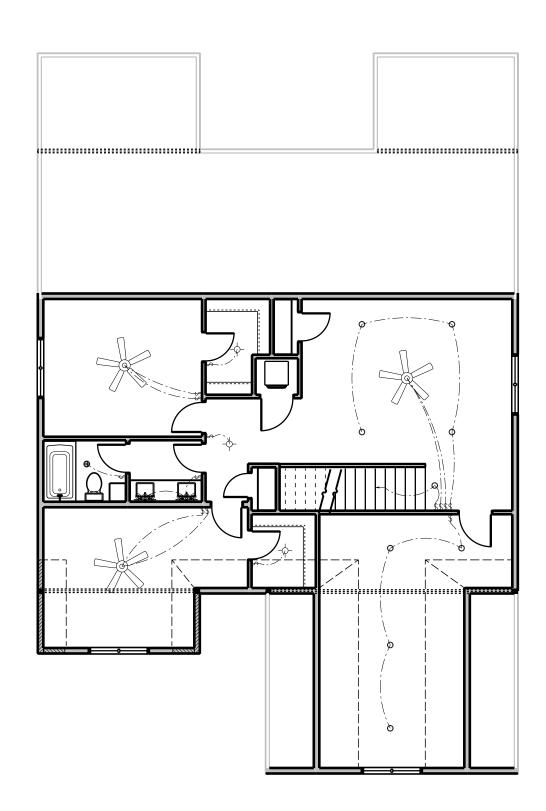
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BUILDING SECTIONS

A3.2



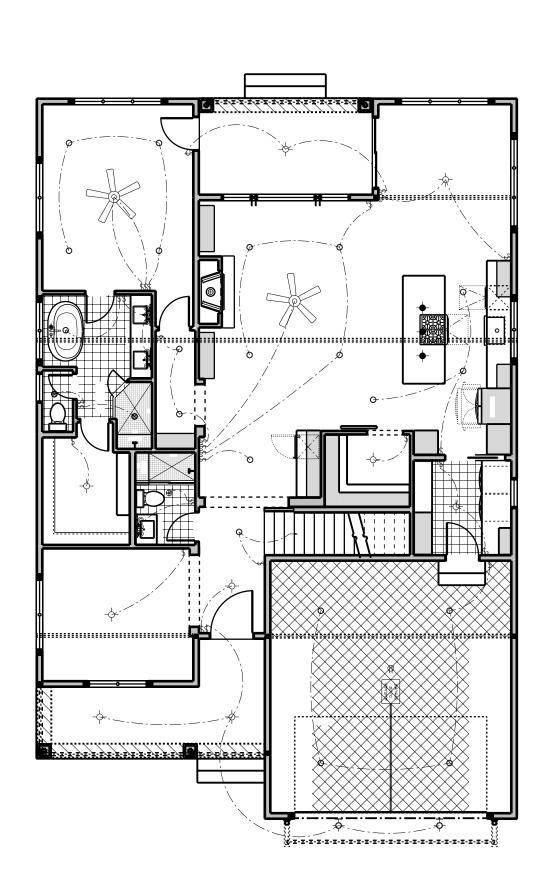
CEILING MOUNT LIGHT FIXTURE PENDANT LIGHT FIXTURE WALL MOUNT LIGHT FIXTURE RECESSED CAN LIGHT FIXTURE BATH EXHAUST FAN COMBO LIGHT / BATH EXHAUST FAN SWITCH SWITCH - 3-WAY SWITCH - 4-WAY Smoke detector lacksquareCARBON MONOXIDE DETECTOR VANITY LIGHT BAR UNDER CABINET LIGHTING 120v outlet FAN/LIGHT COMBO FIXTURE

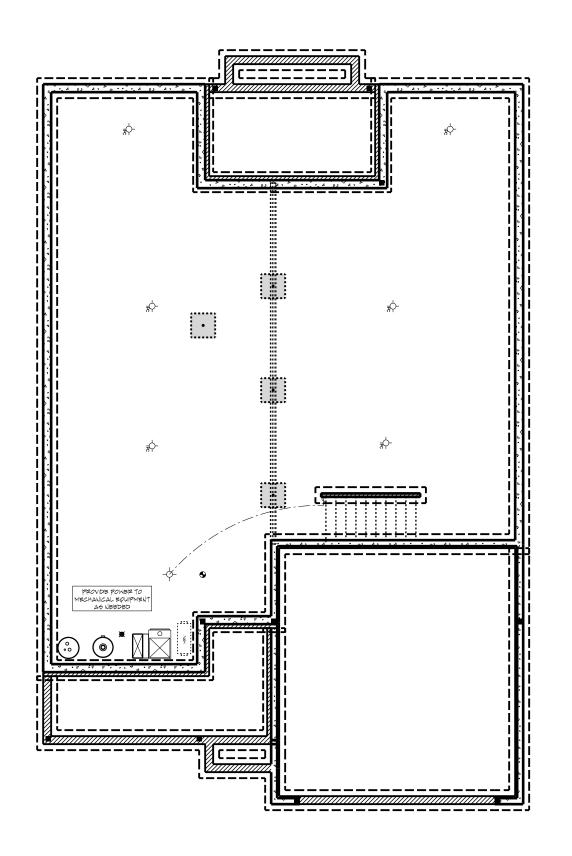
ELECTRICAL LEGEND

ALL ELECTRICAL TO BE INSTALLED IN ACCORDANCE TO THE LATEST NATIONAL AND LOCAL CODES

UPPER LEVEL LIGHTING LAYOUT

5CALE: 1/8" = 1'0"





ROYAL OAKS DESIGN

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Lake Elmo, MN 651-964-2726

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NATIONAL COUNCIL OF

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ISSUE DATE REMARK

MAIN LEVEL LIGHTING LAYOUT

5CALE: 1/8" = 1'0"

CRAWL SPACE LIGHTING LAYOUT

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