PLAN 2197-2 / PROJECT 15240 B
RIGHT

SHEET INDEX

GENERAL NOTES:

THESE PLANS COMPLY WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE AND THE JULY 2017 UNIFORM CODE SUPPLEMENT AND 2015 INTERNATIONAL ENERGY CONSERVATION CODE AND THE 2016 SUPPLEMENT TO THE NYS ENERGY CONSERVATION CONSTRUCTION CODE, EFFECTIVE OCTOBER 2016.

COMPLIANCE METHOD: RES CHECK CERTIFICATE

THESE PLANS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS BY GREATER LIVING ARCHITECTURE. ANY UNAUTHORIZED REPRODUCTION OR MODIFICATION OF THESE PLANS IS A VIOLATION OF COPYRIGHT LAWS. CLIENT RIGHTS ARE LIMITED TO ONE-TIME USE FOR THE CONSTRUCTION OF THESE PLANS.

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS PLAN IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR, BUILDER OR OWNER OF THIS BUILDING TO NOTIFY GREATER LIVING ARCHITECTURE OF ANY DEVIATION FROM THESE DRAWINGS.

CONTRACTOR TO BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE BUILDING/ ELECTRICAL/ MECHANICAL/ SANITARY AND ENERGY CONSERVATION CODES - STATE AND OR LOCAL.

CONTRACTOR TO BE RESPONSIBLE TO LOCAL BUILDING DEPARTMENT AND THAT DEPARTMENT'S INTERPRETATION OF THE BUILDING CODE SHOULD IT DIFFER FROM THESE PLANS.

CONTRACTOR TO BE RESPONSIBLE THAT BRAND NAME OF WINDOWS AND DOORS INSTALLED MEET NEW YORK STATE EXIT REQUIREMENTS.

IN THE EVENT OF ANY DISCREPANCIES BETWEEN PLANS, ELEVATIONS, AND/OR DETAILS, THE CONTRACTOR / SUB-CONTRACTOR SHALL CONTACT GREATER LIVING ARCHITECTURE BEFORE CONSTRUCTION FOR CLARIFICATION. IF GREATER LIVING ARCHITECTURE IS NOT CONTACTED, THE CONTRACTOR / SUB-CONTRACTOR WILL ASSUME FULL RESPONSIBILITY.

CONTRACTOR TO BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY PRECATIONS/ PROGRAMS IN CONNECTION WITH THE WORK.

THESE DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS - USE DIMENSIONS GIVEN.

THE CONTRACTOR/ OWNER SHALL REQUEST LOCATION OF ALL UTILITIES PRIOR TO ANY DIGGING.

THE CONTRACTOR SHALL INDEMNIFY THE OWNER AND OWNER'S AGENTS THROUGH ADEQUATE INSURANCE COVERAGE AGAINST ANY CLAIMS ARISING FROM INJURIES DURING CONSTRUCTION, OR FAILURE TO MAINTAIN SAFE CONDITIONS ON THE SITE.

THESE DRAWINGS HAVE BEEN PREPARED FOR STUCTURAL REFERENCE ONLY. ELECTRICAL, MECHANICAL AND OTHER BUILDING SYSTEMS, IF REQUIRED, ARE TO BE DONE BY OTHERS

R806.2 MINIMUM VENT AREA. THE MINIMUM NET FREE VENTILATION AREA SHALL BE $\frac{1}{300}$ OF THE AREA OF THE VENTED SPACE.

ENERGY EFFICIENCY:

R401.3 CERTIFICATE (MANDATORY) A PERMANENT CERTIFICATE COMPLETED BY OUR FIRM AND INCLUDED AS THE LAST PAGE OF THE RESCHECK SHALL BE POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM OR AN APPROVED LOCATION INSIDE THE BUILDING.

R402.2.4 ATTIC ACCESS SHALL BE INSULATED WITH THE SAME R- VALUE AS THE ATTIC, WEATHER STRIPPED & LATCHED

R402.4 AIR LEAKAGE. THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS R402.4.2 THROUGH R402.4.4.

R402.4.1BUILDING THERMAL ENVELOPE . THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH SECTIONS R402.4.2.2 AND R402.4.1.2. THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION.

R402.4.1.1 INSTALLATION. THE COMPONENTS OF THE BUILDING THERMAL ENVELOPE AS LISTED IN TABLE 402.4.1.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE CRITERIA LISTED IN TABLE R402.4.1.1, AS APPLICABLE TO THE METHOD OF CONSTRUCTION. WHERE REQUIRED BY THE CODE OFFICIAL, AN APPROVED THIRD PARTY SHALL INSPECT ALL COMPONENTS AND VERIFY COMPLIANCE. SEE PAGE N-2 FOR TABLE.

R402.4.1.2 TESTING.THE BUILDING OR DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING FIVE AIR CHANGES PER HOUR IN CLIMATE ZONES 1 AND 2, AND THREE AIR CHANGES PER HOUR IN CLIMATE ZONES 3 THROUGH 8. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E 779 OR ASTM E 1827 AND REPORTED AT A PRESSURE OF 0.2 INCH W,G, (50 PASCALS). WHERE REQUIRED BY THE CODE OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE REST AND PROVIDED TO THE CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE.

DURING TESTING:

1. EXTERIOR WINDOWS AND DOORS, FIREPLACES AND STOVE DOORS SHALL BE CLOSED, BUT NOT SEALED, BEYOND THE INTENDED WEATHERSTRIPPING OR OTHER INFILTRATION CONTROL MEASURES.
2. DAMPERS INCLUDING EXHAUST, INTAKE, MAKEUP AIR, BACKDRAFT AND FLUE DAMPERS SHALL BE CLOSED, BUT NOT SEALED BEYOND INTENDED INFILTRATION CONTROL MEASURES.
3. INTERIOR DOORS, IF INSTALLED AT THE TIME OF THE TEST, SHALL BE OPEN.
4. EXTERIOR DOORS FOR CONTINUOUS VENTILATION SYSTEMS AND HEAT RECOVERY VENTILATORS SHALL BE CLOSED AND SEALED.
5. HEATING AND COOLING SYSTEMS, IF INSTALLED AT THE TIME OF REST, SHALL BE TURNED OFF.
6. SUPPLY AND RETURN REGISTERS, IF INSTALLED AT THE TIME OF REST, SHALL BE FULLY OPEN.

R402.4.5 RECESSED LIGHTING. RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. THEY SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING. THEY SHALL ALSO BE IC-RATED AND LABELED WITH AN AIR LEAKAGE RATE NOT MORE THAN 2.0 CFM.

R402.5 MAXIMUM FENESTRATION U-FACTOR & SHGC (MANDATORY). THE AREA-WEIGHTED AVERAGE MAXIMUM FENESTRATION U-FACTOR PERMITTED USING TRADEOFFS FROM SECT. R402.1.5 OR R405 SHALL BE .48 IN CLIMATE ZONES 4 & 5 AND 0.40 IN CLIMATE ZONES 6-8 FOR VERTICAL FENESTRATION, & 0.75 IN CLIMATE ZONES 4-8 FOR SKYLIGHTS. THE AREA-WEIGHTED AVERAGE MAXIMUM FENESTRATION SHGC PERMITTED USING TRADEOFFS FROM SECTION R405 IN CLIMATE ZONES 1-3 SHALL BE 0.50

R403.1.1 PROGRAMMABLE THERMOSTAT. THE THERMOSTAT CONTROLLING THE PRIMARY HEATING AND COOLING SYSTEM SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY. THIS THERMOSTAT SHALL INC. THE CAPABILITY TO SET BACK OR TEMP. OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55 DEG OR UP TO 85 DEG.. THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED BY THE MANF. WITH A HEATING TEMP. SET POINT NO HIGHER THAN 70 DEG. & A COOLING TEMP. SET POINT NO LOWER THAN 78 DEG.

R403.1.2 HEAT PUMP SUPPLEMENTARY HEAT (MANDATORY). HEAT PUMPS HAVING SUPPLEMENTARY ELECTRIC-RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTAL HEAT OPERATION WHEN THE HEAT PUMP COMPRESSOR CAN MEET THE HEATING LOAD.

R403.3.1 INSULATION (PRESCIPTIVE) SUPPLY & RETURN DUCTS IN ATTICS SHALL BE INSULATED TO A MIN. OF R-6. WITH THE EXCEPTION OF DUCTS OR PORTIONS THEREOF LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE.

R403.3.2 SEALING (MANDATORY). DUCTS, AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR INTERNATIONAL RESIDENTIAL CODE, AS APPLICABLE.

R403.3.3 DUCT TESTING (MANDATORY). DUCTS SHALL BE PRESSURE TESTED TO DETERMINE AIR LEAKAGE BY ONE OF THE FOLLOWING METHODS:

1. ROUGH IN TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH w.g. (25 Pa) ACCROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE IF INSTALLED AT THE TIME OF THE TEST. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
2. POSTCONSTUCTION TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCH w.g. (25 Pa) ACCROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

R403.3.5 BUILDING CAVITIES (MANDATORY). BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.

R403.4 MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 DEGREES F OR BELOW 55 DEGREES F SHALL BE INSULATED TO A MINIMUM OF R-3.

R403.5.1 HEATED WATER CIRCULATION & TEMPERATURE MAINTENANCE SYSTEMS (MANDATORY). HEATED WATER CIRCULATION SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION R403.5.1.1. HEAT TRACE TEMPERATURE MAINTENANCE SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION R403.5.1.2. AUTOMATIC CONTROLS, TEMPERATURE SENSORS & PUMPS SHALL BE ACCESSIBLE. MANUAL CONTROLS SHALL BE READILY ACCESSIBLE.

R403.5.3 HOT WATER PIPE INSULATION (PRESCRIPTIVE). INSULATION FOR HOT WATER PIPE WITH A MIN. R-3 SHALL BE APPLIED TO THE FOLLOWING:

1. PIPING 3/4" AND LARGER IN NOMINAL DIAMETER.
2. PIPING SERVING MORE THAN ONE DWELLING UNIT.
3. PIPING LOCATED OUTSIDE THE CONDITIONED SPACE.
4. PIPING FROM THE WATER HEATER TO A DISTRIBUTION MANIFOLD.
5. PIPING LOCATED UNDER A FLOOR SLAB.
6. BURIED IN PIPING.

R403.6 MECHANICAL VENTILATION (MANDATORY). THE BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF THE IRC OR IMC, AS APPLICABLE, OR WITH OTHER APPROVED MEANS OF VENTILATION. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING

R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY. MECHANICAL VENTILATION SYSTEM FANS SHALL MEET THE EFFICACY REQUIREMENTS OF TABLE R403.6.1.

R403.7 EQUIPMENT SIZING & EFFICIENCY RATING (MANDATORY). HEATING & COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE W/ ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE W/ ACCA MANUAL J OR OTHER APPROVED HEATING & COOLING CALCULATION METHODOLOGIES. NEW OR REPLACEMENT HEATING & COOLING EQUIPMENT SHALL HAVE A EFFICIENCY RATING EQUAL TO OR GREATER THAN THE MINIMUM REQUIRED BY FEDERAL LAW FOR THE GEOGRAPHIC LOCATION WHERE THE EQUIPMENT IS INSTALLED.

R404.1 LIGHTING EQUIPMENT (MANDATORY) A MINIMUM OF 75% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

SITE WORK :

THESE PLANS HAVE BEEN PREPARED ACCORDING TO THE 2015 IRC AND IECC REQUIREMENTS TO SUIT A GENERAL RANGE OF CONDITIONS THAT MAY BE AFFECTED BY A PARTICULAR BUILDING SITE OR BUILDER/ OWNER CONTRACTUAL AGREEMENT. CONTRACTOR TO BE RESPONSIBLE TO ADAPT THESE PLANS TO SUIT THE NEEDS OF THE BUILDING ON SITE AS REQUIRED, PROVIDED THAT SUCH ADJUSTMENTS DO NOT VIOLATE THE CODE OR ALTER THE STRUCTURAL INTEGRITY OF THE BUILDING.

CONTRACTOR/ OWNER SHALL PERFORM EXPLORATORY EXCAVATION TO DETERMINE ACTUAL FIELD CONDITIONS AND NOTIFY THIS OFFICE OF THE FINDINGS TO ALLOW FOR DESIGN CHANGES PRIOR TO ACTUAL CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/ OWNER TO DEVELOP THE NECESSARY FOUNDATION SOIL TO SUSTAIN THE LOAD DESIGNS OF 2500 P.S.F. AND TO HIRE, IF NECESSARY, A SOILS ENGINEER TO INSPECT AND VERIFY SOIL CONDITIONS PRIOR TO POURING OF FOUNDATIONS.

THE CONTRACTOR, BUILDER OR OWNER SHALL NOTIFY GREATER LIVING ARCHITECTURE OF ANY UNUSUAL SITE CONDITIONS WHICH MAY EFFECT THE FOUNDATION, DRAINAGE OR STRUCTURAL MEMBERS INCLUDING REQUIREMENTS FOR ADDITIONAL DEPTH OF FOOTINGS, UNSTABLE SOIL CONDITIONS AND HIGH GROUND WATER TABLE.

NO SITE INSPECTIONS ARE TO BE MADE BY THIS OFFICE. CONTRACTOR TO BE RESPONSIBLE FOR MATERIALS AND WORKMANSHIP. SUBSTITUTIONS FOR MATERIALS SPECIFIED TO BE MADE WITH THE PERMISSION OF THE LOCAL BUILDING DEPT.

FOUNDATION :

ALL FOOTINGS TO REST ON (ORIGINAL) UNDISTURBED SOIL, ASSUMED MINIMUM SOIL BEARING PRESSURE TO BE 2500 P.S.F. CONTRACTOR TO BE RESPONSIBLE FOR ALL SUBGRADE CONDITIONS.

BASEMENT/CELLAR WALLS AND FOOTING DESIGNS ASSUMED PARTIALLY SATURATED SOIL CONDITIONS TO TO THE FULL WALL DEPTH. SHOULD SATURATED CONDITIONS BE ENCOUNTERED, OUR OFFICE SHOULD BE CONTACTED FOR REVIEW AND POSSIBLE REVISIONS TO THE PLANS.

CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR PROVIDING PROPER DRAINAGE SHOULD INTERMITTENT SPRINGS OR PERCHED WATER BE ENCOUNTERED.

POSITIVE DRAINAGE SHALL BE PROVIDED SO THAT FINISHED GRADE SLOPES AWAY FROM PERIMETER WALLS & FOOTINGS.

CONTINUOUS 4" DIAM. PERFORATED DRAIN PIPE SHALL BE PLACED ALONG THE PERIMETER OF THE BASEMENT WALLS WHICH DRAINS TO THE SUMP PUMP. A MINIMUM OF 6" GRANULAR BASE SHALL BE PLACED OVER THE DRAIN TILE AND MINIMUM OF 2" UNDER THE TILE.

CONCRETE AND MASONRY FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH AS PER TABLES ON N-2.

FIREPLACES :

DIRECT VENT GAS FIREPLACE UNIT TO BE SELECTED BY OWNER AND INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

NEW WOOD-BURNING FIREPLACES SHALL HAVE TIGHT-FITTING FLUE DAMPERS OR DOORS, AND OUTDOOR COMBUSTION AIR. WHERE USING TIGHT-FITTING DOORS ON FACTORY BUILT FIREPLACES LISTED AND LABELED IN ACCORDANCE WITH UL 127, THE DOORS SHALL BE TESTED AND LISTED FOR THE FIREPLACE. WHERE USING TIGHT FITTING DOORS ON MASONRY FIREPLACES, THE DOORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 907.

FRAMING :

WOOD ROOF TRUSSES ARE TO BE METAL PLATE CONNECTED WOOD CHORD, WOOD WEB TRUSSES. TRUSS LAYOUT IS SCHEMATIC ONLY. TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN (INCLUDING SPACING) OF ALL TRUSSES. TRUSSES TO BE DESIGNED AND CERTIFIED BY AN ENGINEER LICENSED IN THE GOVERNING STATE.

PROVIDE ALL TEMPORARY BRACING AND SHORING TO AVOID EXCESSIVE STRESSES AND HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION.

UNDER ALL CONCEALED WOOD BEARING POSTS, PROVIDE ADDITIONAL WOOD BLOCKING AS REQUIRED IN FLOOR JOIST SPACE UNDER POST, TO ENSURE SOLID BEARING FROM HEADER OR BEAM DOWN TO FOUNDATION WALL.

ALL WINDOWS AND DOORS ARE TO BE FRAMED WITH MINIMUM 3-2X6 OR 2-2X8 HEADER UNLESS NOTED OTHERWISE.

BUILDER ASSUMES FULL RESPONSIBILITY FOR MAINTAINING THE STRUCTURAL INTEGRITY OF JOISTS, BEAMS OR STUDS WHICH ARE NOTCHED OR DRILLED TO ACCOMMODATE MECHANICAL OR ELECTRICAL LINES. SEE DETAILS ON PG. N-1 FOR ALLOWABLE DRILLING LOCATION ON BEAMS AND JOISTS.

ALL STRESS GRADE LUMBER CONSTRUCTION SHALL COMPLY WITH AITC TIMBER CONSTRUCTION STANDARDS LATEST EDITION. EACH PIECE SHALL BEAR THE STAMP OF A GRADING RULES AGENCY, APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE . GRADE LOSS RESULTING FROM EFFECTS OF WEATHER, HANDLING, STORAGE, RESAWING, OR DIVIDING LENGTHS WILL BE CAUSE FOR REJECTION.

STAIRWAY GUARD REQUIREMENTS:

GUARDS SHALL BE LOCATED ALONG AN OPEN SIDED WALKING SURFACE, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. AS PER SECTION 312.1.1 OF THE 2015 IRC.

REQUIRED GUARDS SHALL NOT BE LESS THAN 36 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE. AS PER SECTION 312.1.2 OF THE 2015 IRC.

GUARDS ON THE OPEN SIDES OF STAIRS SHALL HAVE A HEIGHT NOT LESS THAN 34 INCHES. AS PER SECTION 312.1.2 OF THE 2015 IRC.

WHERE THE TOP OF THE GUARD SERVES AS A HANDRAIL ON THE OPEN SIDES OF THE STAIRS, THE TOP OF THE GUARD SHALL BE NO LOESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES. AS PER SECTION 312.1.2 OF THE 2015 IRC.

REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT THAT ALLOW THE PASSAGE OF A SPHERE 4 INCHES IN DIAMETER. AS PER SECTION 312.1.3 OF THE 2015 IRC.

GARAGE FIREPROOFING :

3/4 HOUR FIRE RESISTANCE RATING REQUIRED BETWEEN HOUSE & GARAGE CAN BE ACHIEVED WITH ONE LAYER 5/8" TYPE X DRYWALL ON GARAGE SIDE AND ONE LAYER 1/2" TYPE X DRYWALL ON THE HOUSE SIDE.

IF HORIZONTAL CONSTRUCTION IS USED TO SEPARATE THE GARAGE FROM LIVING AREA OR BONUS AREAS ABOVE, THEN ONE LAYER OF 5/8" TYPE X DRYWALL ON THE CEILING IS REQUIRED. WHERE THE HORIZONTAL CONSTRUCTION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO PROTECTED BY 5/8" TYPE X DRYWALL.

STRUCTURAL MATERIAL SPECIFICATIONS:

STRUCTURAL STEEL	ASTM A-36, Fy = 36 ksi
REINFORCED STEEL	ASTM A-615, Fy = 40 ksi
WIRE MESH	ASTM A-185, 6 x 6 - 10/10 W.W.M.
LUMBER	ALL STUCTURAL MEMBERS, JOISTS, RAFTERS, ETC. TO BE #2 GRADE LUMBER (DOUGLAS FIR-LARCH, HEM-FIR, SOUTHERN PINE OR SPRUCE PINE-FIR) WITH A MIN. FIBER STRESS OF 850 P.S.I. UNLESS NOTED OTHERWISE
PLYWOOD	CDX, PANEL INDEX
LVL, PSL, LSL	Fb = 2600 Fv = 285 $E \times 10^6$ - 1.9 $Fc^{\perp}$ = 750
MASONRY	ASTM C90, GRADE N-1, Fm = 1350 PSI
MORTAR	ASTM C270, TYPE S
GROUT	Fc = 2000 PSI ASTM C476
CONCRETE	Fc = 2500 PSI MIN. (FOOTINGS, BASEMENT SLAB) Fc = 3500 PSI MIN. (GARAGE SLAB, PORCH SLAB, & POURED FOUNDATION WALLS)
BOLTS	ASTM A307, Fy - 33 KSI

DESIGN CRITERIA:

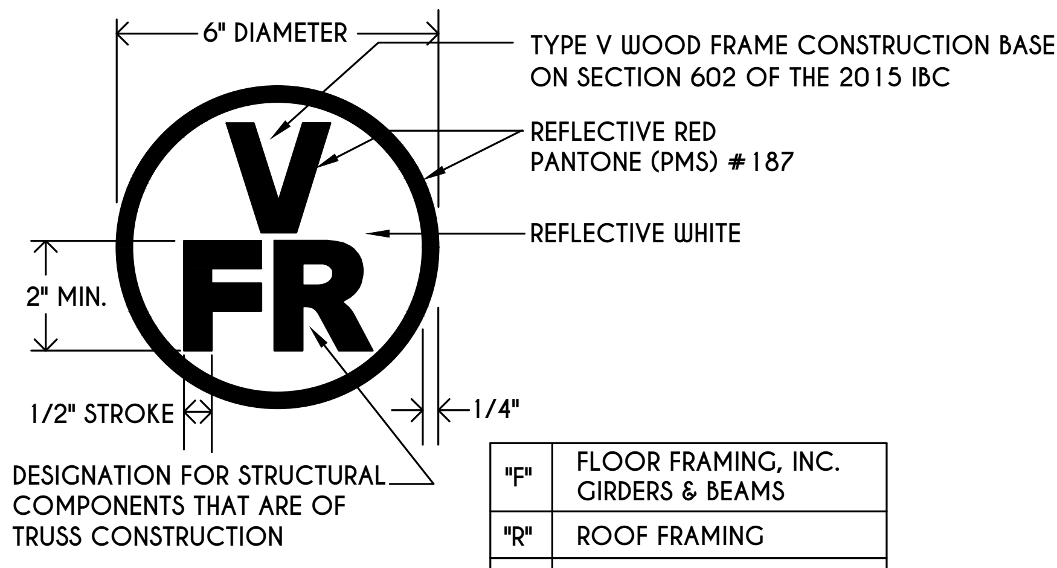
(FOR GREATER ROCHESTER AREA & ADJACENT COUNTIES)

LOCAL JURISDICTION DESIGN CRITERIA MAY VARY AND SHALL BE STRICTLY ADHERED TO

1ST FLOOR LIVING AREA LIVE LOAD	40 P.S.F.
2ND FLOOR LIVING AREA LIVE LOAD	30 P.S.F.
1ST & 2ND FLOOR DEAD LOAD	15 P.S.F.
GROUND SNOW LOAD	40 P.S.F.
ROOF DEAD LOAD	10 P.S.F.
ALLOWABLE SOIL BEARING	2500 P.S.F. AT MINIMUM 42" BELOW FINISHED GRADE
WIND SPEED	115 MPH, EXPOSURE B
SEISMIC DESIGN	CATEGORY B
WEATHERING	SEVERE
FROST LINE DEPTH	42 INCHES
TERMITE DAMAGE	SLIGHT TO MODERATE
DECAY DAMAGE	NONE TO SLIGHT
WINTER DESIGN TEMPERATURE	1 DEGREE
ICE SHEILD UNDERLAYMENT	REQUIRED 24" INSIDE OF EXTERIOR WALL LINE
FLOOD HAZARD	FIRM - 2008
ROOF TIE DOWN REQUIREMENTS	R802.11, BASED UPON SPECIFIC ROOF DESIGN

TRUSS IDENTIFICATION:

IDENTIFICATION OF FLOOR AND ROOF TRUSS CONSTRUCTION SHALL BE PROVIDED BY SIGN OR SYMBOL & SHALL BE AFFIXED TO THE EXTERIOR WALL OF THE RESIDENTIAL STRUCTURE IN COMPLIANCE WITH 19 NYCRR PART 1265. RESIDENTIAL STRUCTURES WITH TRUSS TYPE CONSTRUCTION, PRE-ENGINEERED WOOD CONSTRUCTION AND / OR TIMBER CONSTRUCTION.



"F"	FLOOR FRAMING, INC. GIRDERS & BEAMS
"R"	ROOF FRAMING
"FR"	FLOOR & ROOF FRAMING

WINDOWS: ANDERSEN 200 OR EQUAL

U-FACTOR 0.30
SHGC 0.32

DOORS: SELECTION BY OWNER

AIR INFILTRATION RATE FOR WINDOWS, SKYLIGHTS, & SLIDING DOORS TO BE NO MORE THAN 0.3 cfm/sf. & SWING DOORS NO MORE THAN 0.5 cfm/sf. AS PER SECT. R402.4.3 OF 2015 IECC

WINDOW / DOOR LEGEND:

- E = MEETS OR EXCEEDS EGRESS REQUIREMENTS
  - CLEAR OPENING AREA OF 5.7 SQ.FT.
  - CLEAR OPENING WIDTH OF 20"
  - CLEAR OPENING HEIGHT OF 24"

  PER SECT. R310.1 OF 2015 IRC
- T = SPECIFIES THAT THIS FIXED OR OPERABLE UNIT REQUIRES SAFETY GLAZING PER SECT. R308.4 OF 2015 IRC
- FP = SPECIFIES THAT THIS OPERABLE WINDOW UNIT REQUIRES FACTORY APPLIED FALL PROTECTION PER SECT. R312.2 OF 2015 IRC

GENERAL NOTES:

ALL RAKES & OVERHANGS ARE TO BE 1'-0" UNLESS NOTED OTHERWISE

BUILDER TO PROVIDE ROOF OR RIDGE VENTS AS PER CODE- THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE AREA OF THE VENTED SPACE (SECT. R806.2)

CONTRACTOR TO CONTACT THIS OFFICE PRIOR TO CONSTRUCTION IF THE ASSUMED GRADE DEPICTED IS INACCURATE AND / OR WILL ALTER THE DESIGN AND / OR STRUCTURE NOTED.

MECHANICAL VENTILATION RATE:

THIS PLAN AS DESIGNED REQUIRES (MIN) 1 CONTINUOUSLY RUN EXHAUST FAN CAPABLE OF (MIN) 60 c.f.m. WITH A MANUAL OVERIDE SWITCH AS PER SECTION M1507.3 OF 2015 IRC
(SEE TABLE3 M1507.3.3(1) & M1507.3.3(2) PG 1)

TABLE M1507.3.3(1)
CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

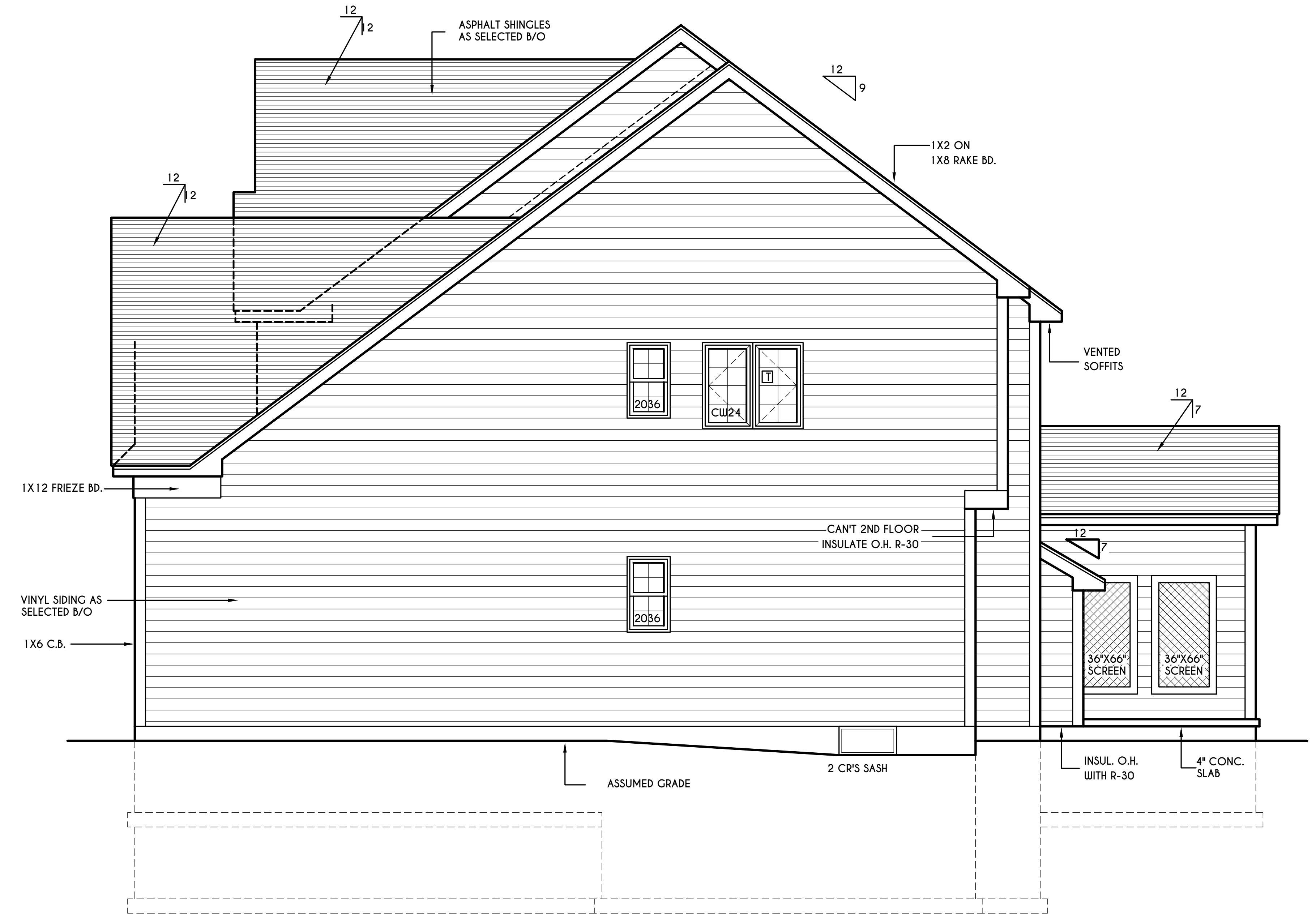
DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0-1	2-3	4-5	6-7	> 7
	AIRFLOW IN CFM				
< 1,500	30	45	60	75	90
1,501-3,000	45	60	75	90	105
3,001-4,500	60	75	90	105	120
4,501-6,000	75	90	105	120	135
6,001-7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

FOR SI: 1 square foot=0.0929 m2, 1 cubic foot per min=0.0004719 m3/s

TABLE M1507.3.3(2)
INTERMITTENT WHOLE-HOUSE MECAHANICAL VENTILATION RATE FACTORS [a,b]

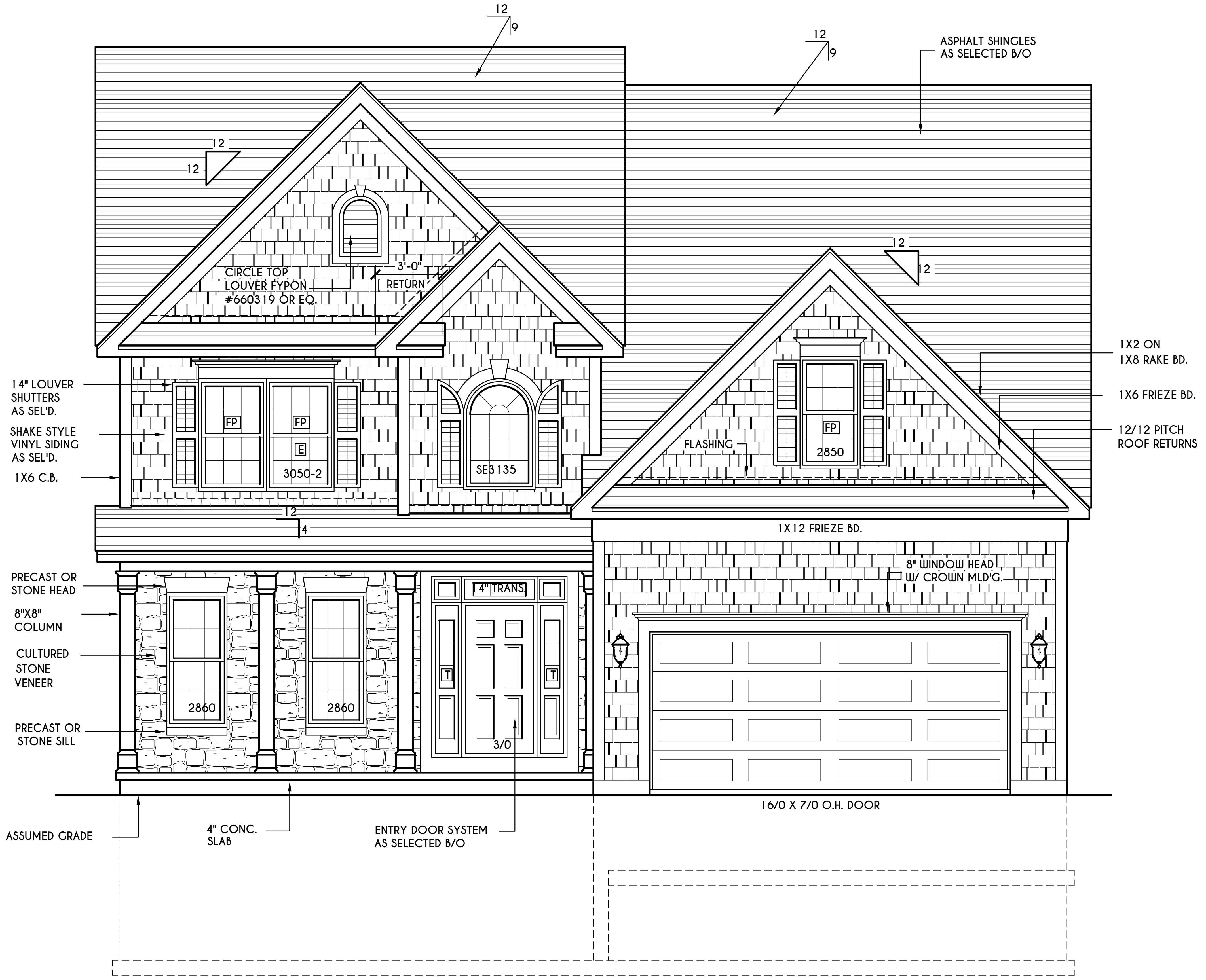
RUN-TIME PERCENTAGE IN EA. 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
FACTOR [a]	4	3	2	1.5	1.3	1.0

a. For ventilation system run time values between those given,the factors are permitted to be determined by interpolation.
b. Extrapolation beyond the table is prohibited.



RIGHT ELEVATION

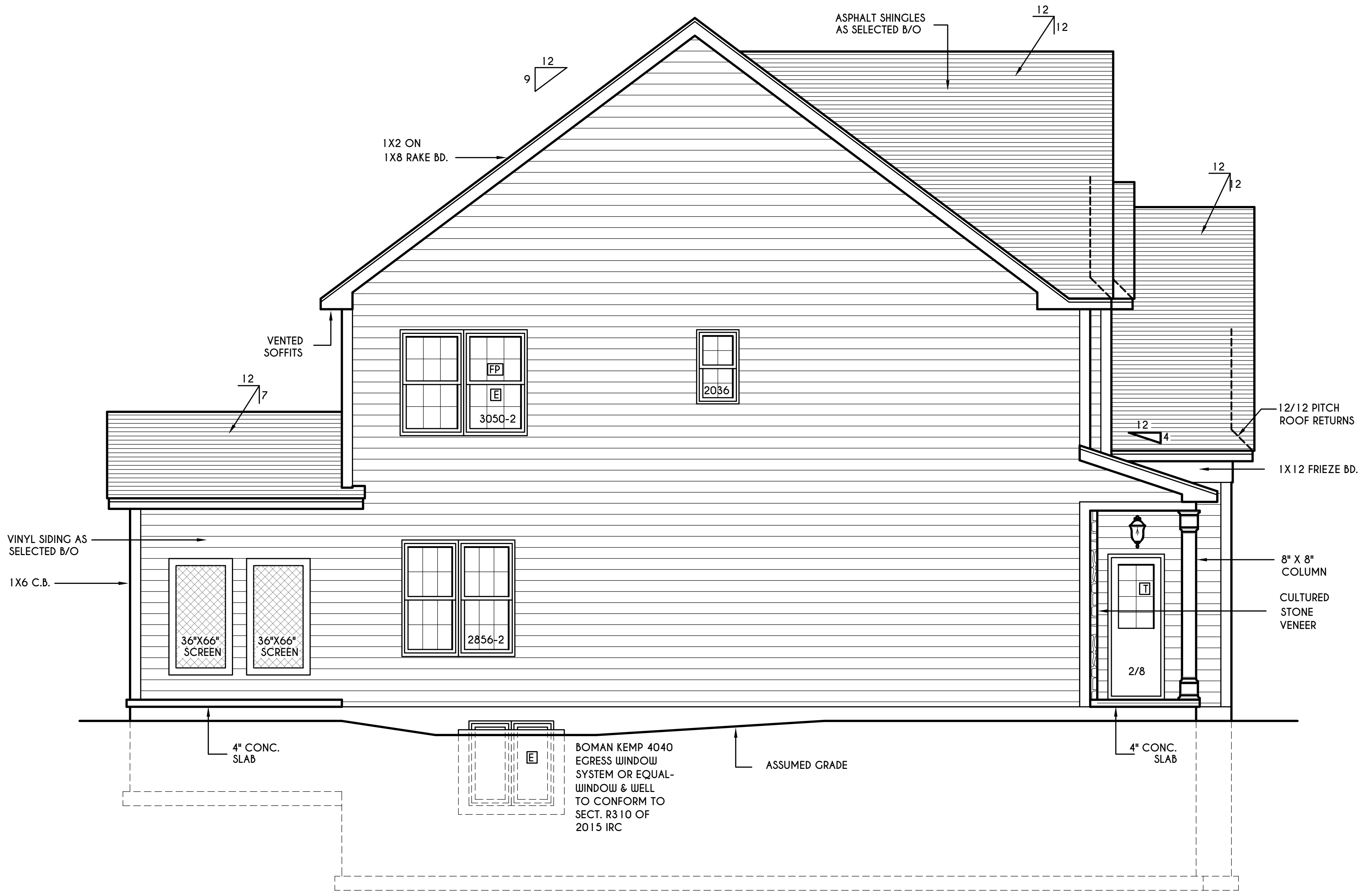
SCALE: 3/16" = 1'-0"



FRONT ELEVATION

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

FIRST FLOOR LIVING AREA = 1133 SQ.FT.
SECOND FLOOR LIVING AREA = 1064 SQ.FT.
TOTAL LIVING AREA = 2197 SQ.FT.
UNFINSHED ATTIC AREA = 264 SQ.FT.
TOTAL CONDITIONED VOLUME = 29,970 CU.FT.
(DOES NOT INC. UNFIN. ATTIC)

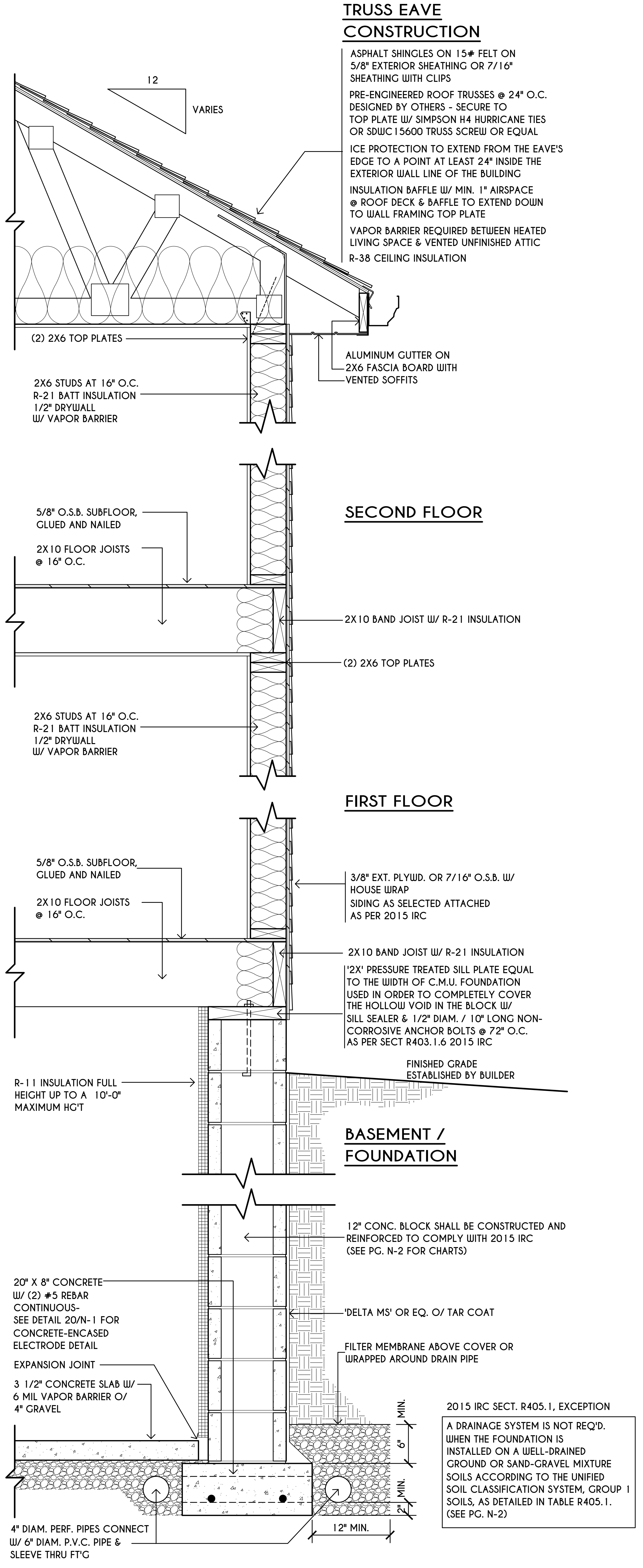


LEFT ELEVATION

SCALE: 3/16" = 1'-0"

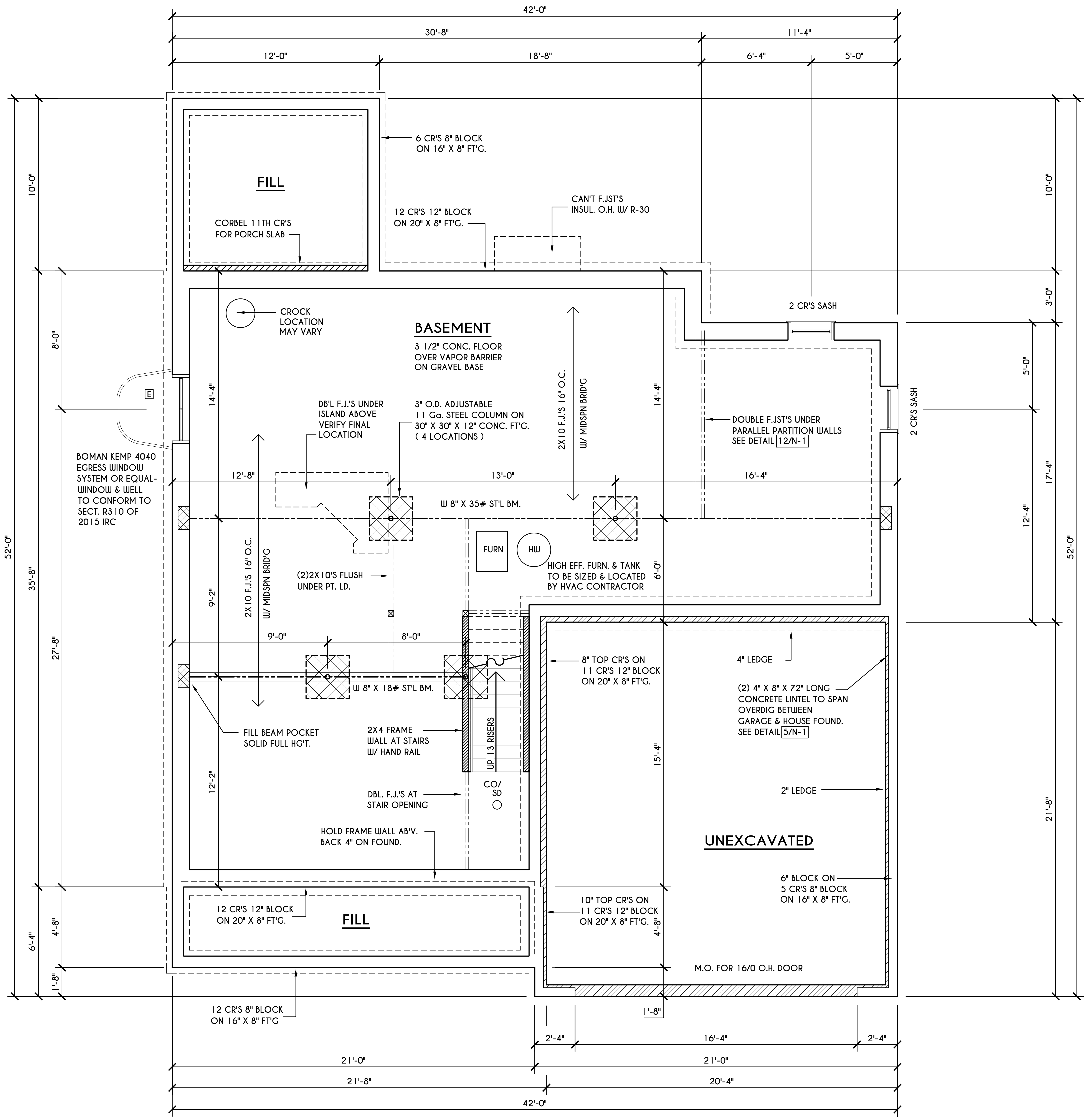
REAR ELEVATION

SCALE: 3/16" = 1'-0"



TYPICAL WALL SECTION

SCALE: 1" = 1'-0"



BASEMENT & FOUNDATION PLAN

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

FRAMING LEGEND:

▨■▨ - PROVIDE SOLID POSTING- GLUED & NAILED, EQUAL TO THE # OF HEADERS TO BE SUPPORTED- UNLESS NOTED OTHERWISE

- - - - DROPPED HEADER

═ - FLUSH HEADER

▨ - 2X4 STUDS @ 16" O.C.

▩ - 2X6 STUDS @ 16" O.C.

NOTES:

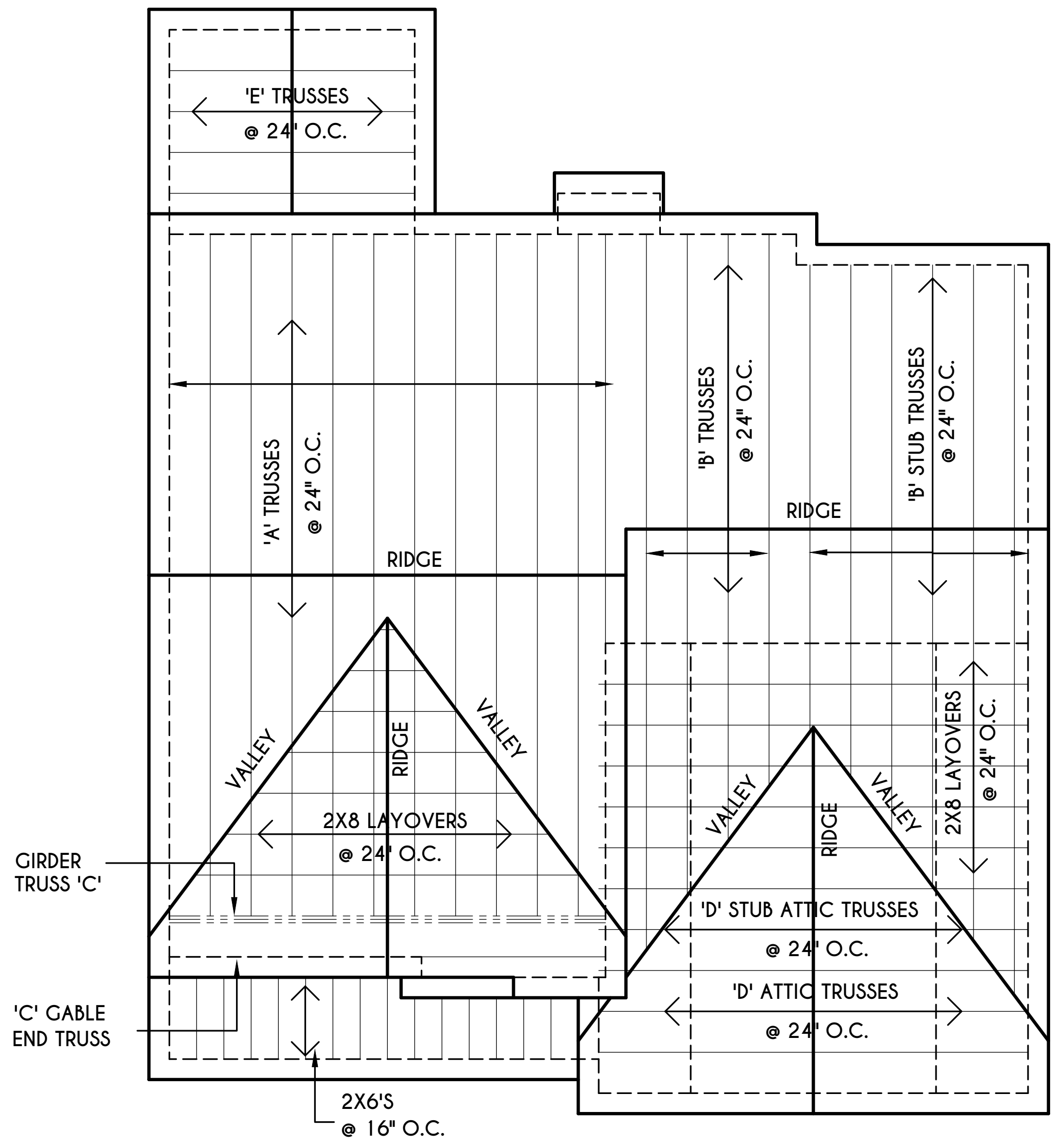
CONTRACTOR TO CONTACT THIS OFFICE PRIOR TO CONSTRUCTION IF THE ASSUMED GRADE DEPICTED IS INACCURATE AND / OR WILL ALTER THE FOUNDATION DESIGN AND /OR STRUCTURE NOTED
ALL WINDOW R.O. HGT'S TO BE 6'-10 1/2" U.N.O.
PROVIDE SOLID BLOCKING UNDER ALL BEARING POINTS DOWN TO FOUNDATION WALL AND / OR BEAMS
PROVIDE DB'L JACK STUDS EA. SIDE OF LOAD BEARING OPENINGS > / = 4'-0"
ALL ANGLES TO BE 45 DEG. U.N.O.
ALL EXTERIOR WINDOW & DOOR HEADERS TO HAVE MIN. R-5 INSUL. & TO BE MIN. (2)2X8'S OR (3)2X6'S (U.N.O.)
ALL APPLIANCES SHOWN TO BE BY OWNER OR AS PER CONTRACT BY BUILDER
SMOKE (SD) & CARBON MONOXIDE (CO) DETECTORS SHALL BE INSTALLED AS PER SECT. R314 OF 2015 IRC
REINFORCE FOUNDATION WALLS AS PER 2015 IRC. SEE PG. N-2 FOR REINFORCING CHARTS
SEE CONCRETE-ENCASED ELECTRODE DETAIL 19/N-1

WINDOW / DOOR LEGEND:

E = MEETS OR EXCEEDS EGRESS REQUIREMENTS
- CLEAR OPENING AREA OF 5.7 SQ.FT.
- CLEAR OPENING WIDTH OF 20"
- CLEAR OPENING HEIGHT OF 24"
PER SECT. R310.1 OF 2015 IRC

T = SPECIFIES THAT THIS FIXED OR OPERABLE UNIT REQUIRES SAFETY GLAZING PER SECT. R308.4 OF 2015 IRC

FP = SPECIFIES THAT THIS OPERABLE WINDOW UNIT REQUIRES FACTORY APPLIED FALL PROTECTION PER SECT. R312.2 OF 2015 IRC



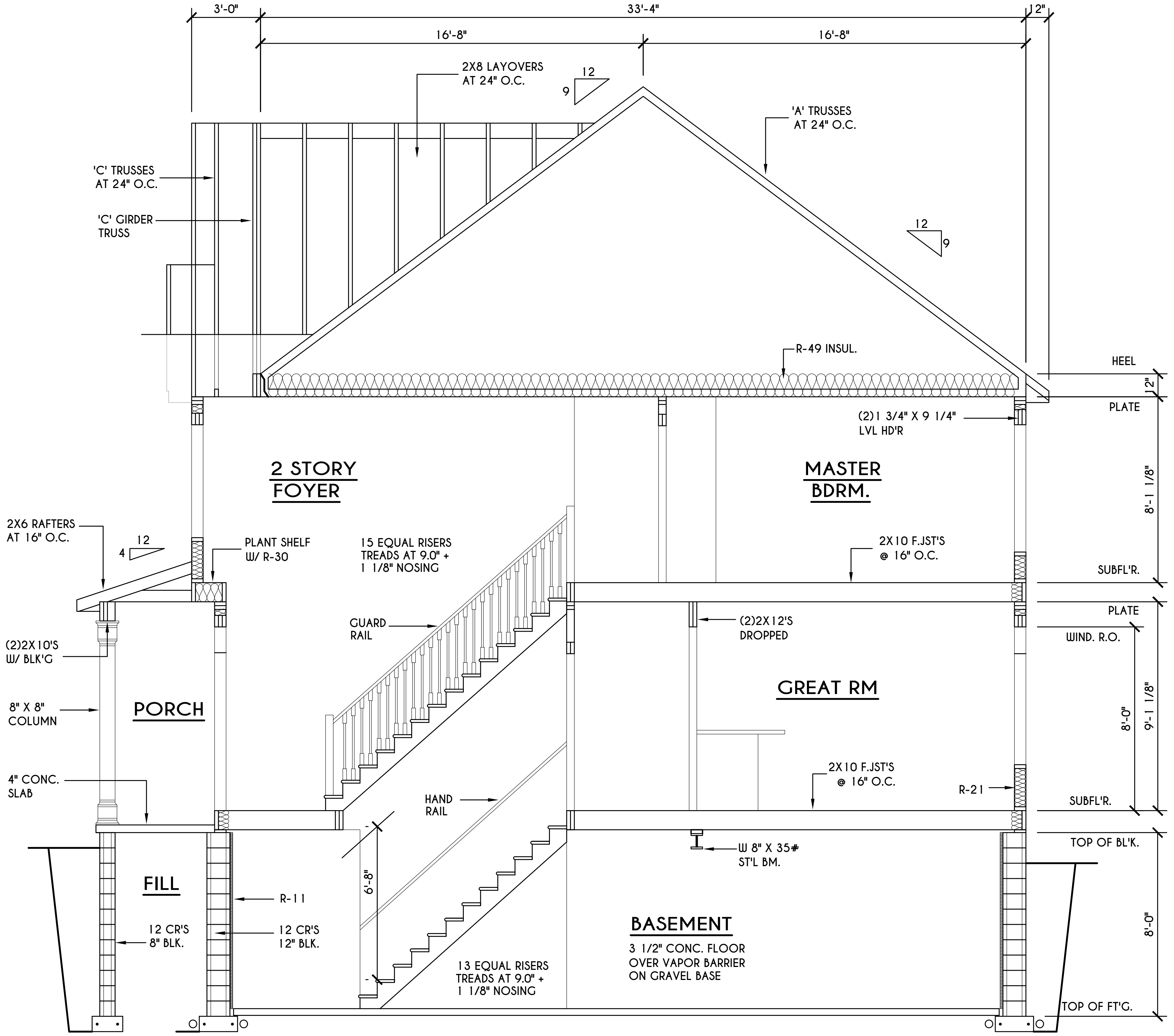
ALL RAKES & OVERHANGS ARE TO BE 1'-0" UNLESS NOTED OTHERWISE

ALL NON-STRUCTURAL VALLEYS TO HAVE 2X12 SLEEPER ATTACHED TO PLYWOOD ROOF SHEATHING

THIS FRAMING DIAGRAM IS INTENDED TO BE SCHEMATIC AND POSITION OF MEMBERS MAY BE ALTERED TO SUIT ACTUAL FIELD CONDITIONS

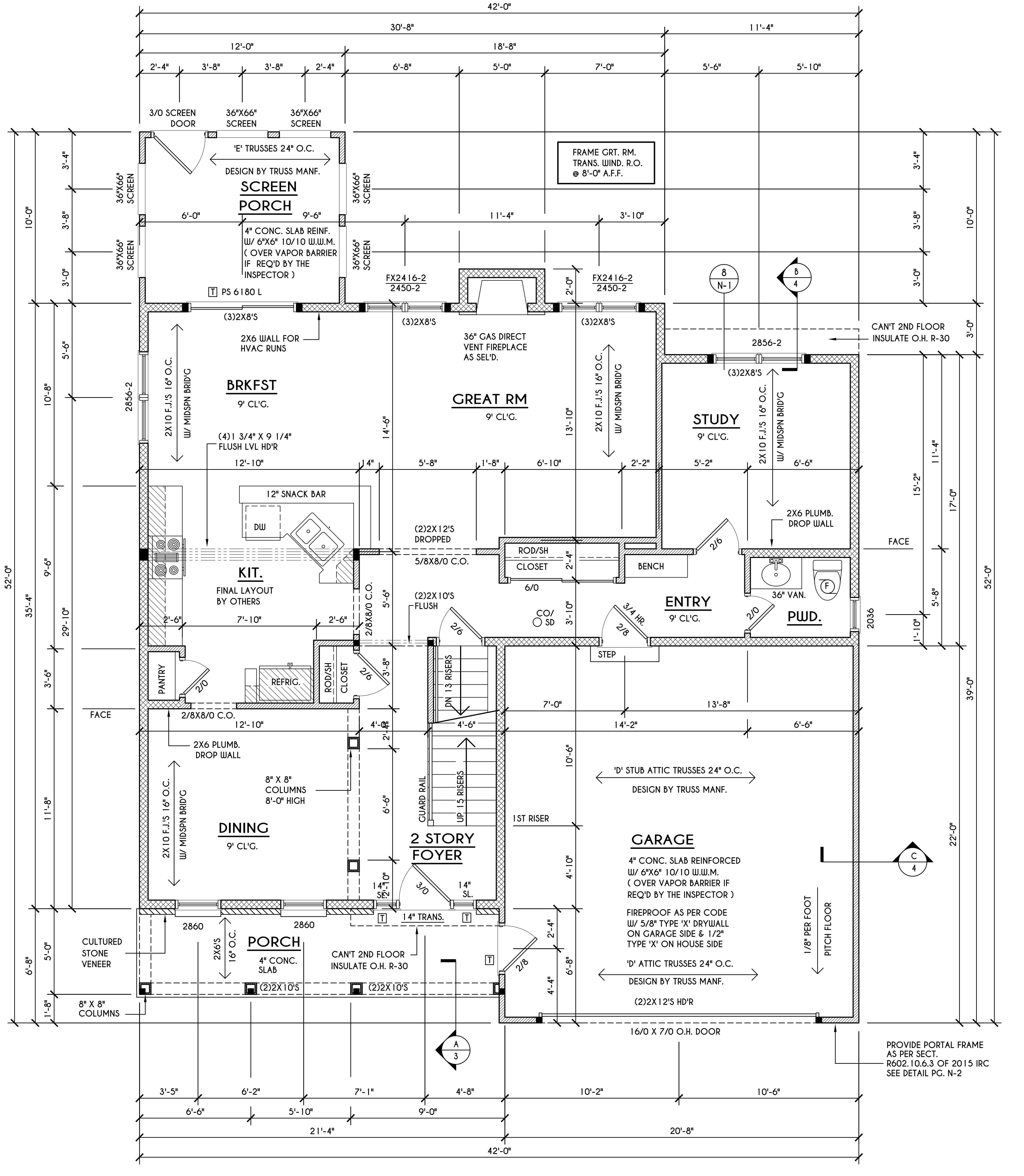
ROOF PLAN

SCALE: 1/8" = 1'-0"



A 3 BUILDING SECTION

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



FIRST FLOOR PLAN

1133 SQ. FT.

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

FRAMING LEGEND:

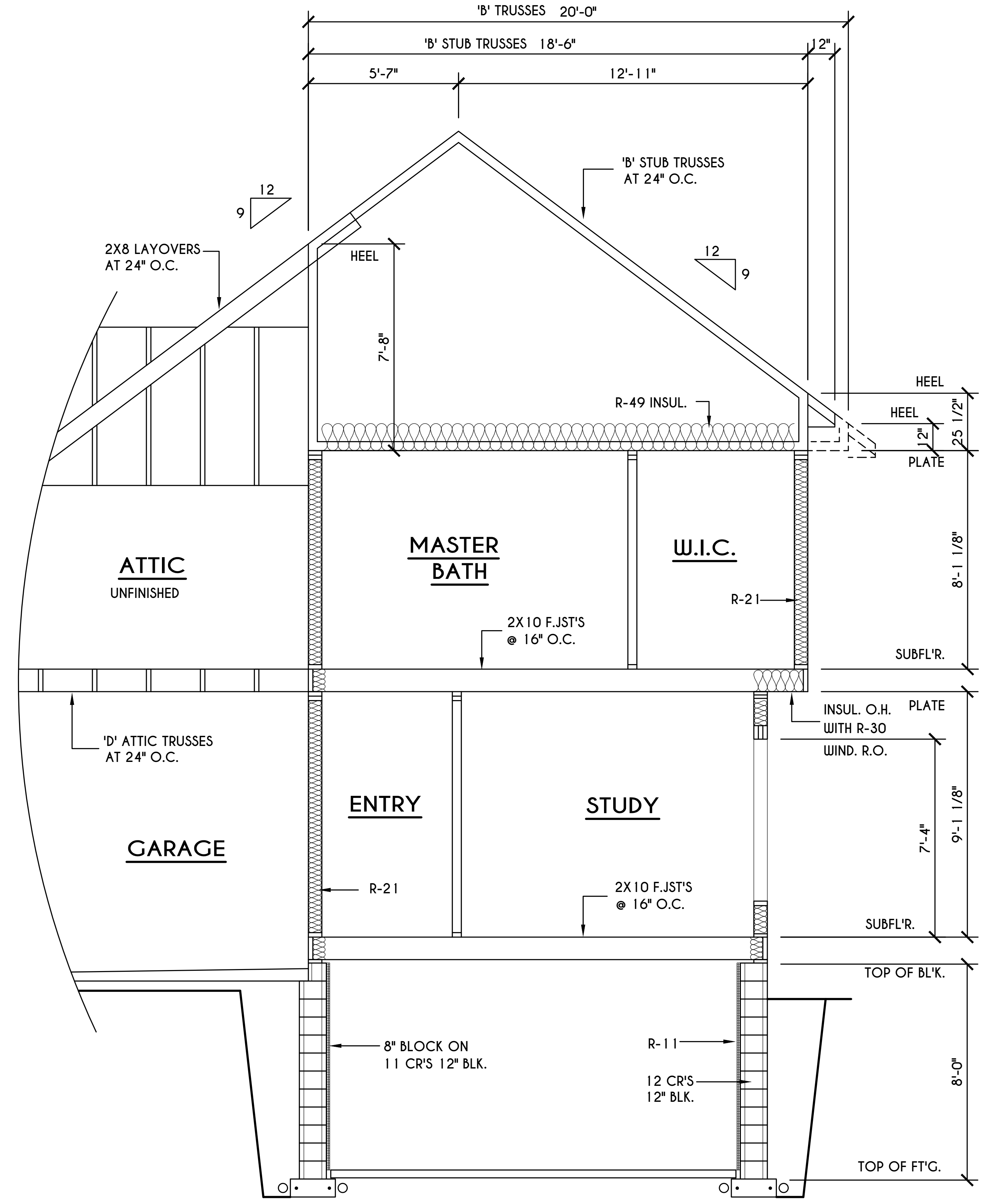
▨■▨	- PROVIDE SOLID POSTING- GLUED & NAILED, EQUAL TO THE # OF HEADERS TO BE SUPPORTED- UNLESS NOTED OTHERWISE
- - - - -	- DROPPED HEADER
≡≡≡	- FLUSH HEADER
▨	- 2X4 STUDS @ 16" O.C.
▩	- 2X6 STUDS @ 16" O.C.

NOTES:

FIRST FLOOR PLATE HG'T TO BE 9'-1 1/8" (UNLESS NOTED OTHERWISE)
ALL WINDOW R.O. HGT'S TO BE 6'-10 1/2" U.N.O.
PROVIDE SOLID BLOCKING UNDER ALL BEARING POINTS DOWN TO FOUNDATION WALL
PROVIDE DB'L JACK STUDS EA. SIDE OF LOAD BEARING OPENINGS > / = 4'-0"
ALL ANGLES TO BE 45 DEG. U.N.O.
ALL EXTERIOR WINDOW & DOOR HEADERS TO HAVE MIN. R-5 INSUL. & TO BE MIN. (2)2X8'S OR (3)2X6'S (U.N.O.)
ALL APPLIANCES SHOWN TO BE BY OWNER OR AS PER CONTRACT BY BUILDER
SMOKE (SD) & CARBON MONOXIDE (CO) DETECTORS SHALL BE INSTALLED AS PER SECT. R314 OF 2015 IRC
THE AIR BARRIER INSTALLED AT EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL SEPARATE THEM FROM THE SHOWER OR TUBS.

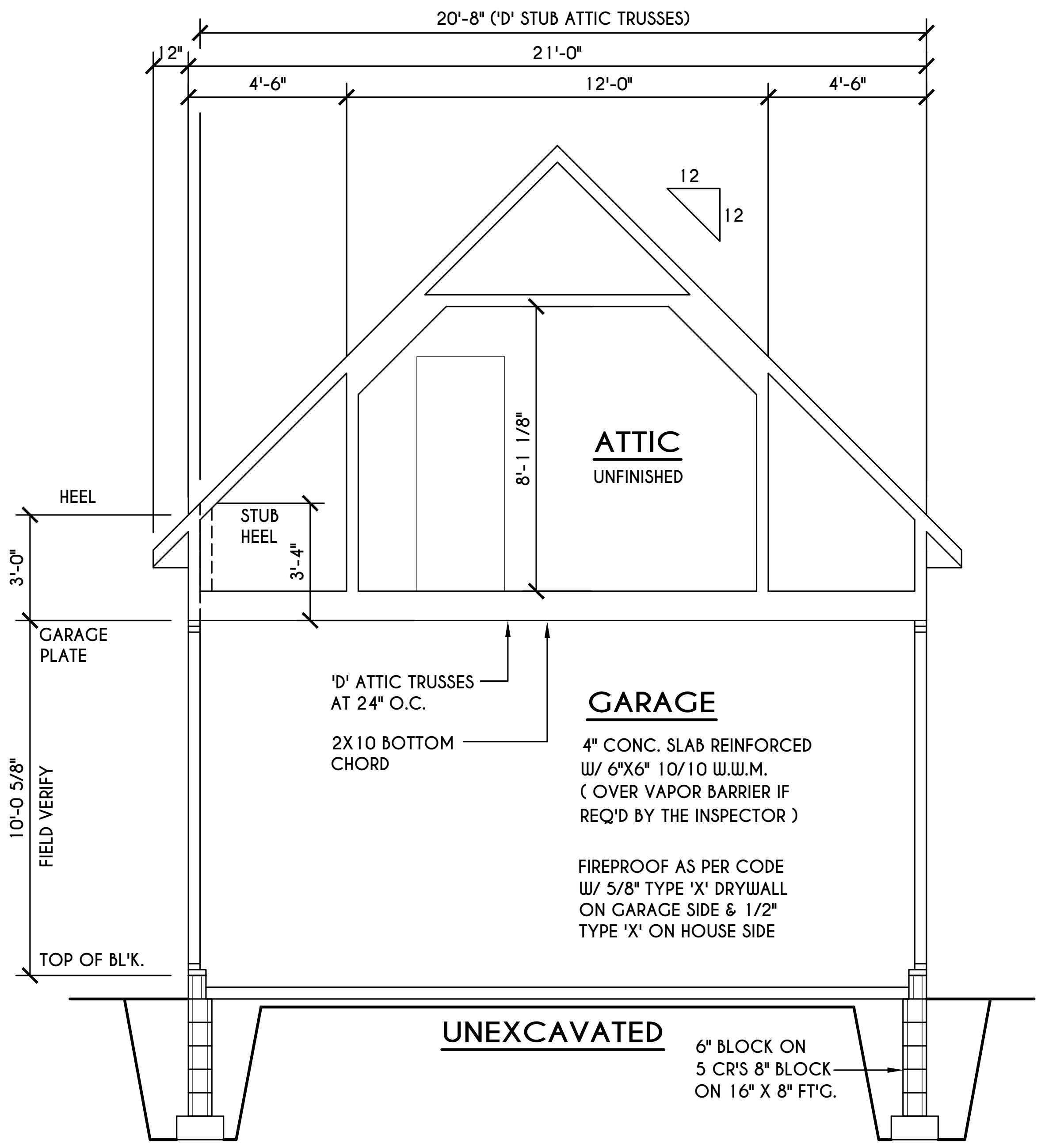
WINDOW / DOOR LEGEND:

E	= MEETS OR EXCEEDS EGRESS REQUIREMENTS - CLEAR OPENING AREA OF 5.7 SQ.FT. - CLEAR OPENING WIDTH OF 20" - CLEAR OPENING HEIGHT OF 24" PER SECT. R310.1 OF 2015 IRC
T	= SPECIFIES THAT THIS FIXED OR OPERABLE UNIT REQUIRES SAFETY GLAZING PER SECT. R308.4 OF 2015 IRC
FP	= SPECIFIES THAT THIS OPERABLE WINDOW UNIT REQUIRES FACTORY APPLIED FALL PROTECTION PER SECT. R312.2 OF 2015 IRC



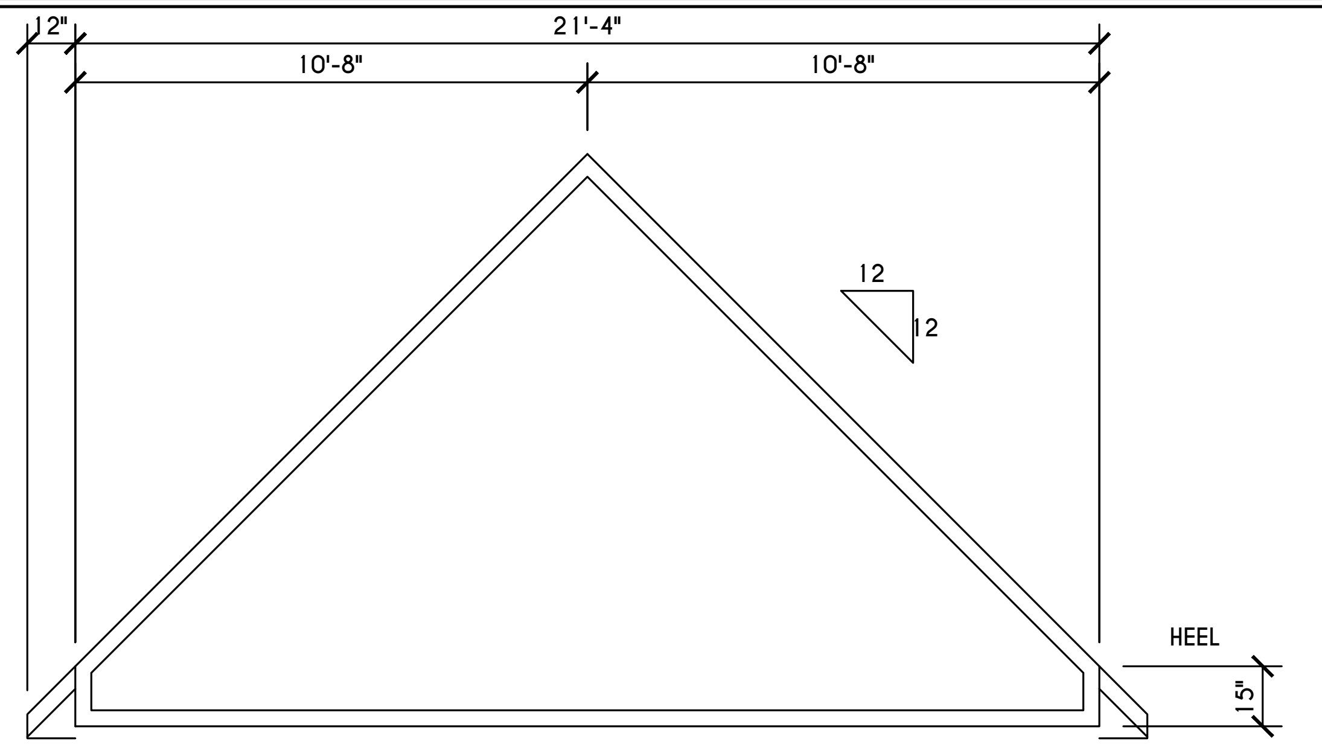
B/4 BUILDING SECTION

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



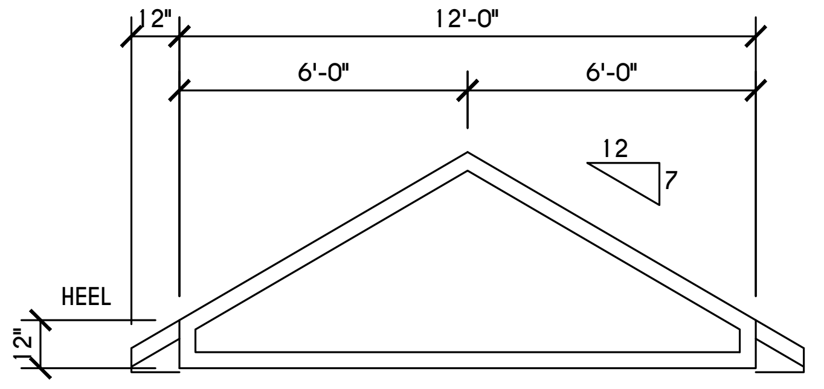
C/4 BUILDING SECTION

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



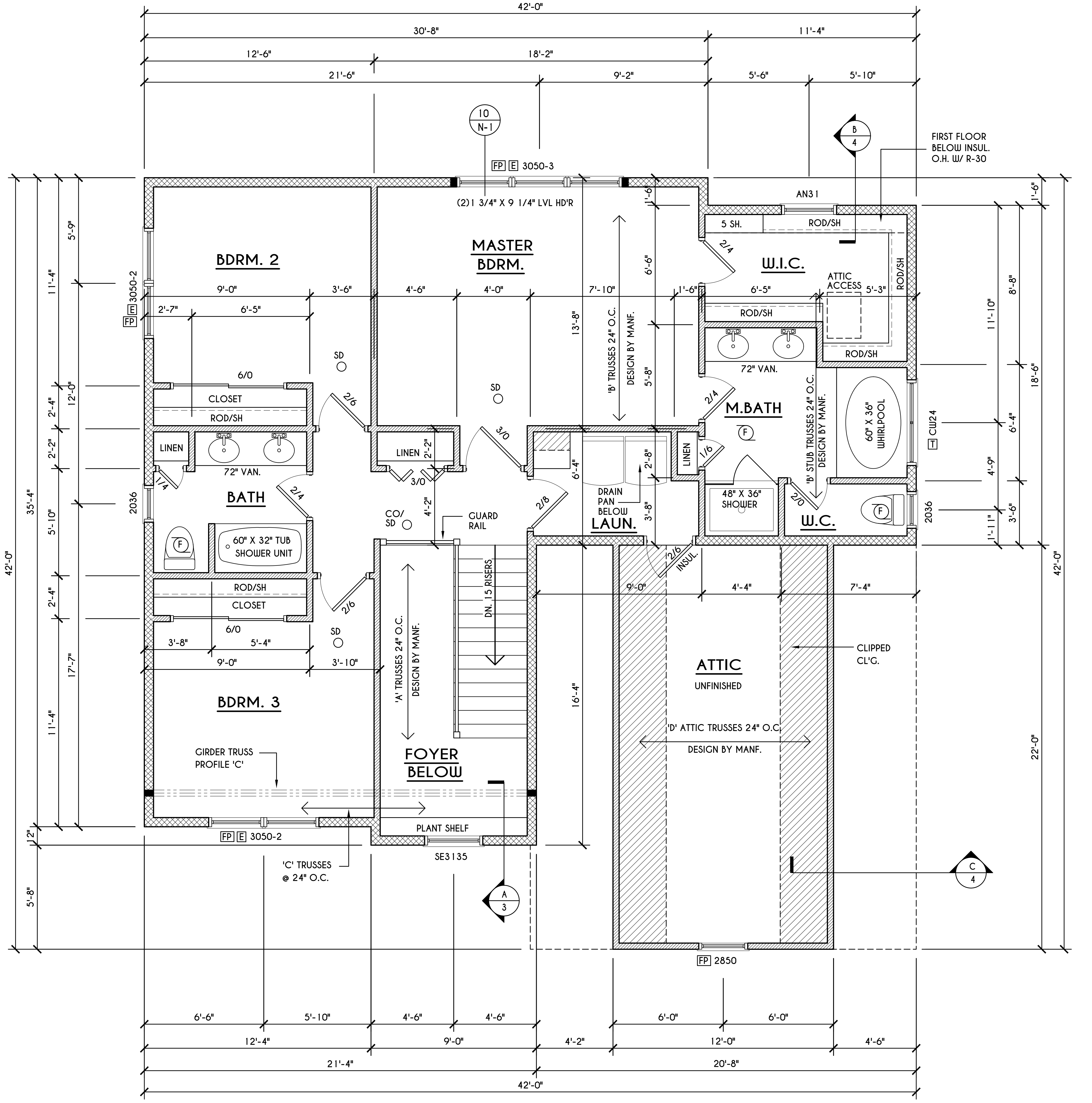
'C' TRUSS PROFILE

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



'E' TRUSS PROFILE

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



FRAMING LEGEND:

- ▨■▨ - PROVIDE SOLID POSTING- GLUED & NAILED, EQUAL TO THE # OF HEADERS TO BE SUPPORTED- UNLESS NOTED OTHERWISE
- - - - - DROPPED HEADER
- ☰ - FLUSH HEADER
- ▨ - 2X4 STUDS @ 16" O.C.
- ▩ - 2X6 STUDS @ 16" O.C.

SECOND FLOOR PLAN

1064 SQ.FT.

+ 264 SQ. FT.
UNFINISHED ATTIC

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

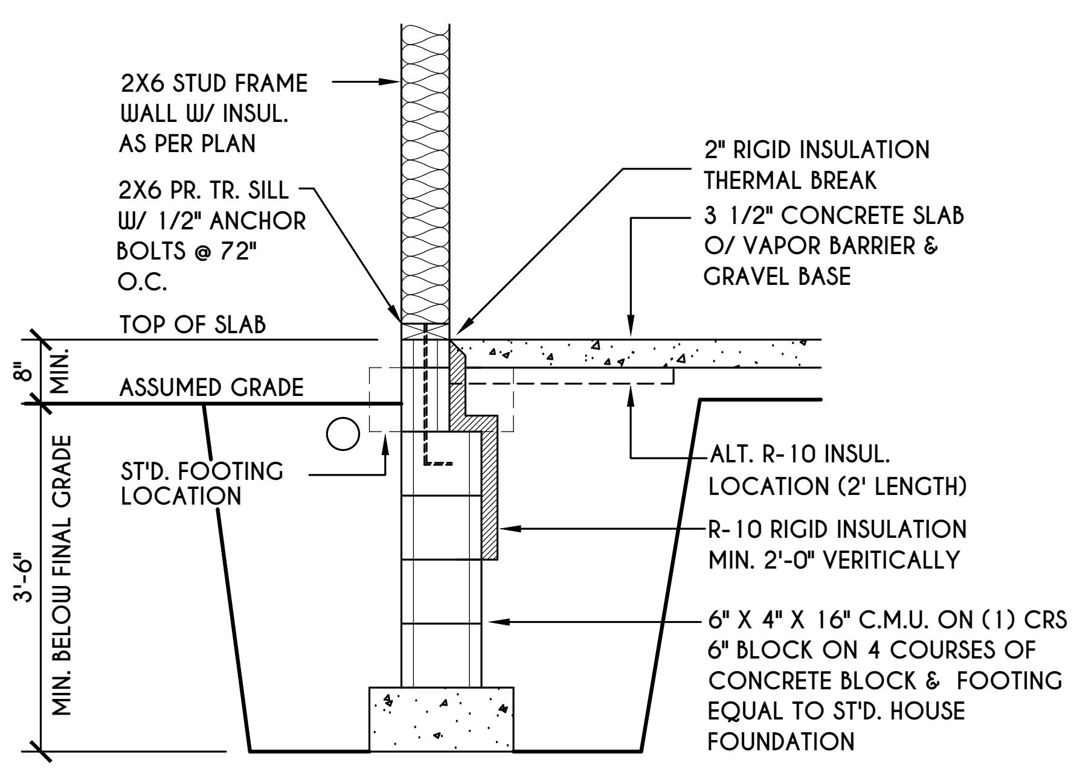
NOTES:
SECOND FLOOR PLATE HG'T TO BE 8'-1 1/8" (UNLESS NOTED OTHERWISE)
ALL WINDOW R.O. HGT'S TO BE 6'-10 1/2" U.N.O.
PROVIDE SOLID BLOCKING UNDER ALL BEARING POINTS DOWN TO FOUNDATION WALL
PROVIDE DB'L JACK STUDS EA. SIDE OF LOAD BEARING OPENINGS > / = 4'-0"
ALL ANGLES TO BE 45 DEG. U.N.O.
ALL EXTERIOR WINDOW & DOOR HEADERS TO HAVE MIN. R-5 INSUL. & TO BE MIN. (2)2X8'S OR (3)2X6'S (U.N.O.)
ALL APPLIANCES SHOWN TO BE BY OWNER OR AS PER CONTRACT BY BUILDER
SMOKE (SD) & CARBON MONOXIDE (CO) DETECTORS SHALL BE INSTALLED AS PER SECT. R314 OF 2015 IRC
THE AIR BARRIER INSTALLED AT EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL SEPARATE THEM FROM THE SHOWER OR TUBS.

WINDOW / DOOR LEGEND:

E = MEETS OR EXCEEDS EGRESS REQUIREMENTS
- CLEAR OPENING AREA OF 5.7 SQ.FT.
- CLEAR OPENING WIDTH OF 20"
- CLEAR OPENING HEIGHT OF 24"
PER SECT. R310.1 OF 2015 IRC

T = SPECIFIES THAT THIS FIXED OR OPERABLE UNIT REQUIRES SAFETY GLAZING PER SECT. R308.4 OF 2015 IRC

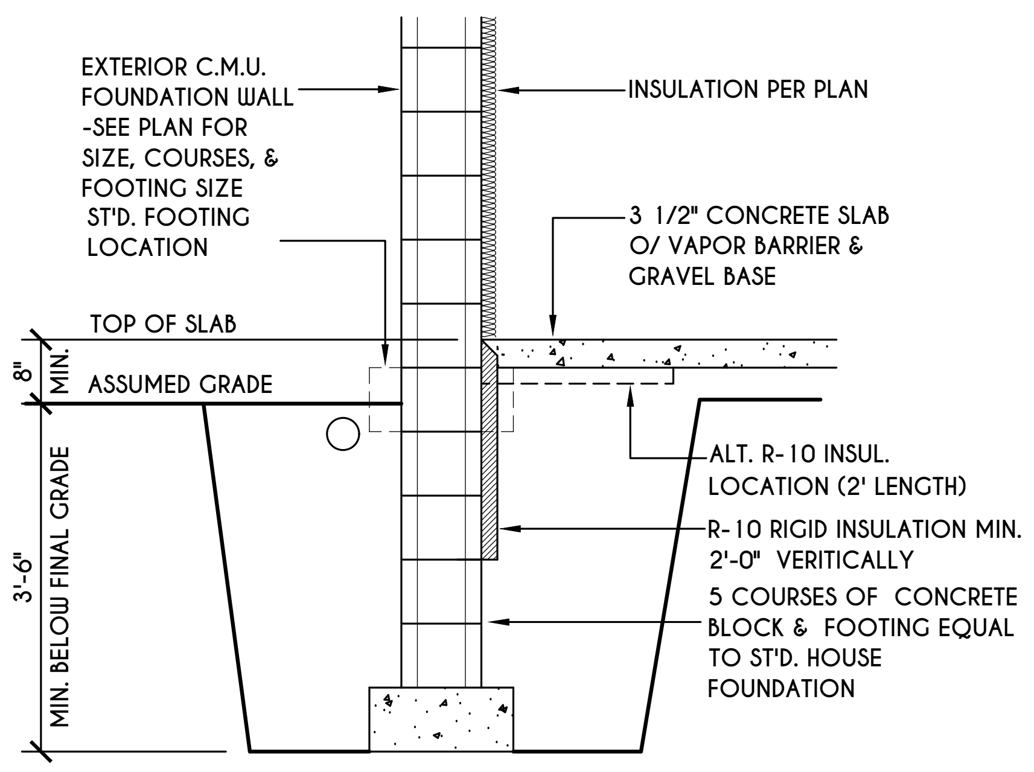
FP = SPECIFIES THAT THIS OPERABLE WINDOW UNIT REQUIRES FACTORY APPLIED FALL PROTECTION PER SECT. R312.2 OF 2015 IRC



1 / N-1 2X6 FRAME WALL ON C.M.U.

WALK OUT DETAIL

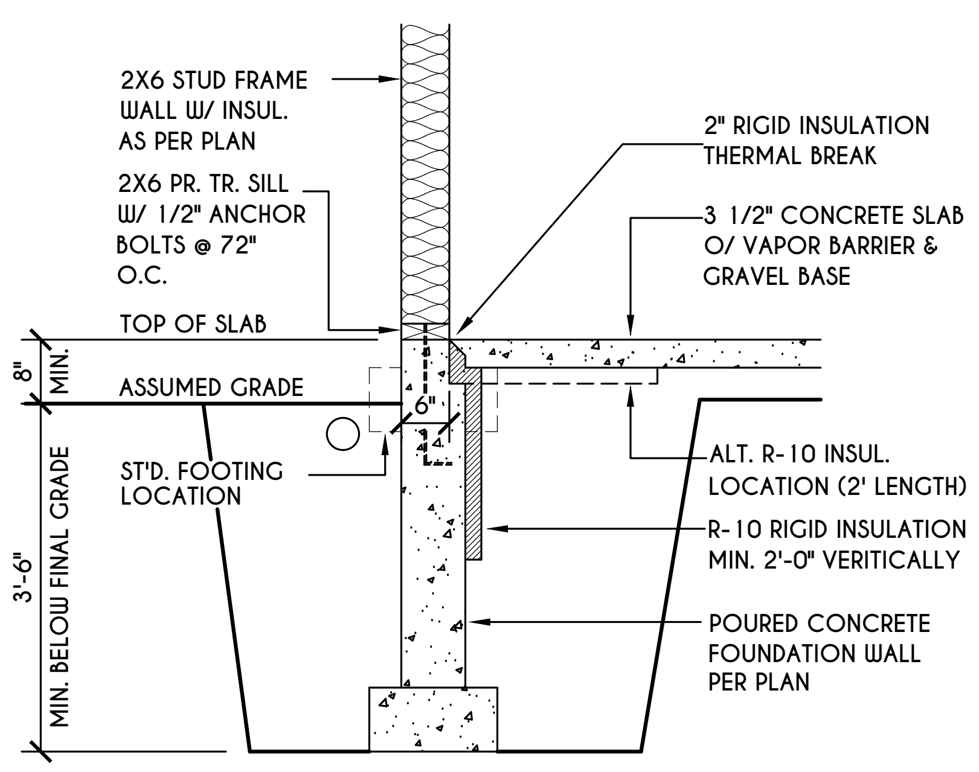
SCALE: 1/2" = 1'-0"



2 / N-1 C.M.U.

WALK OUT DETAIL

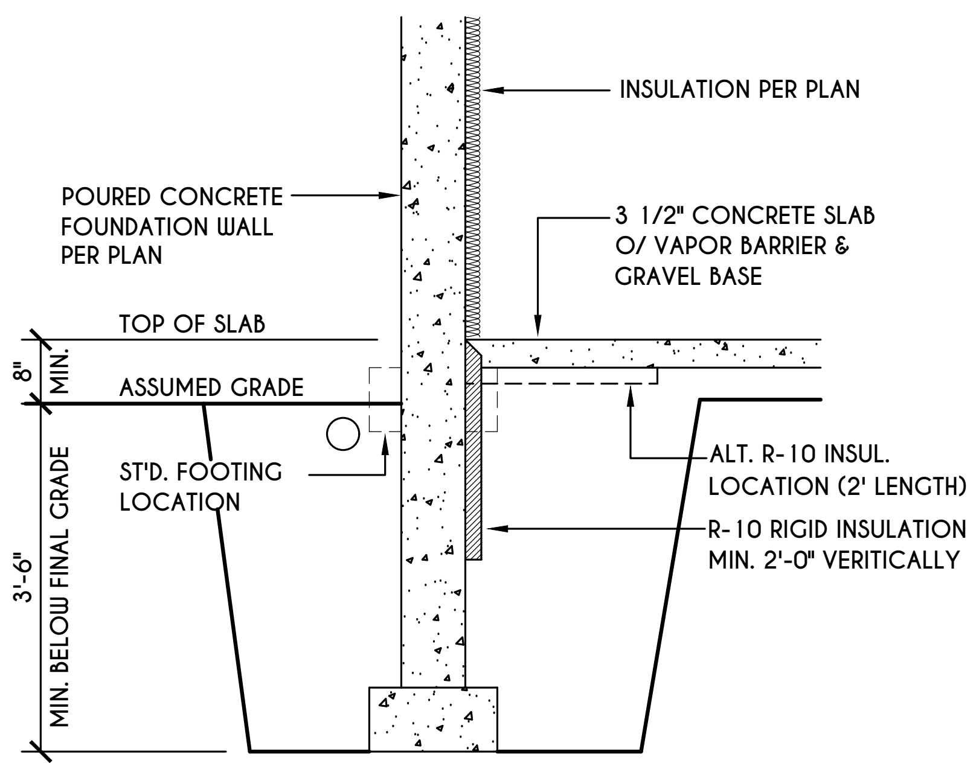
SCALE: 1/2" = 1'-0"



3 / N-1 2X6 FRAME WALL ON POURED CONC.

WALK OUT DETAIL

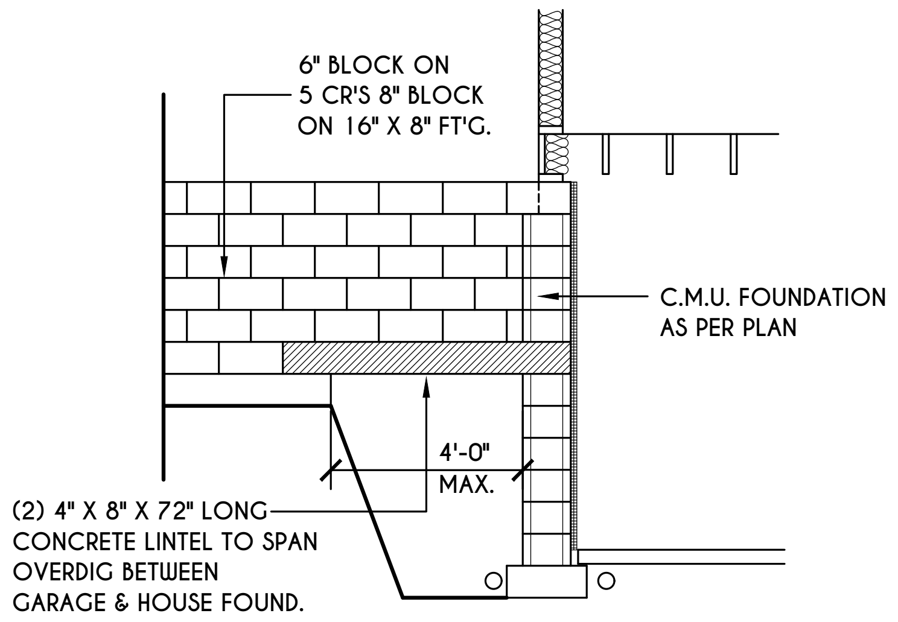
SCALE: 1/2" = 1'-0"



4 / N-1 POURED CONC.

WALK OUT DETAIL

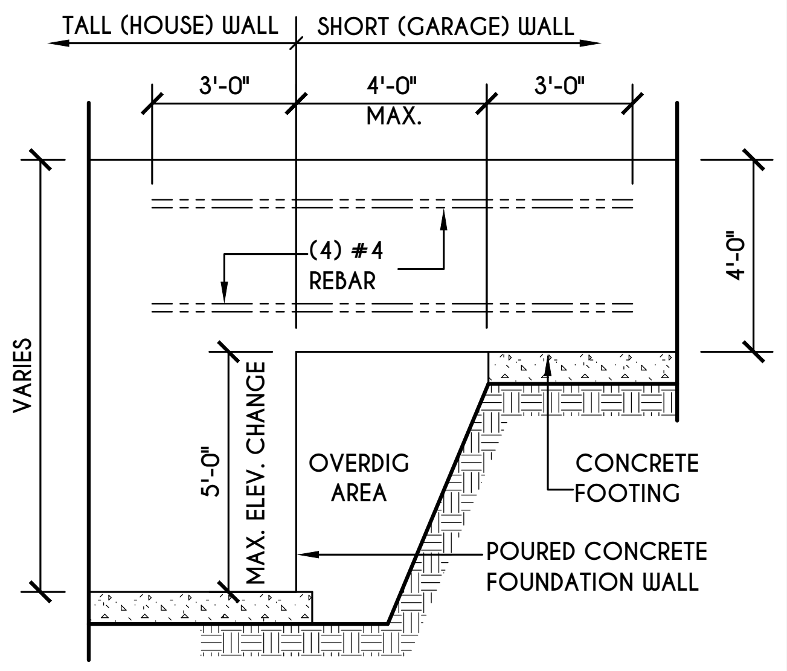
SCALE: 1/2" = 1'-0"



5 / N-1 C.M.U. JUMP

FOOTING DETAIL

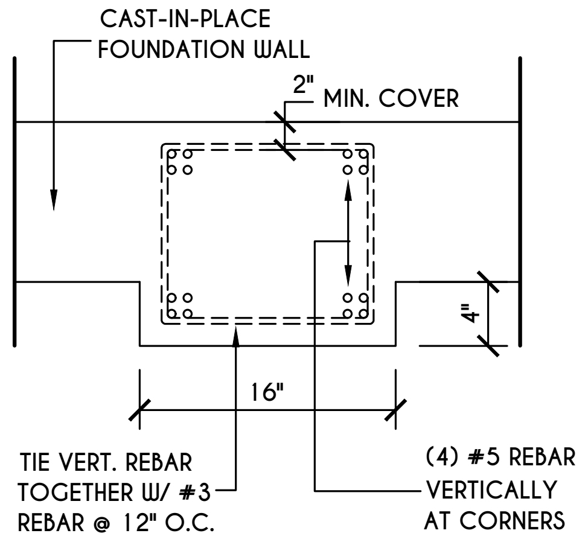
SCALE: 1/4" = 1'-0"



6 / N-1 POURED WALL JUMP

FOOTING DETAIL

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

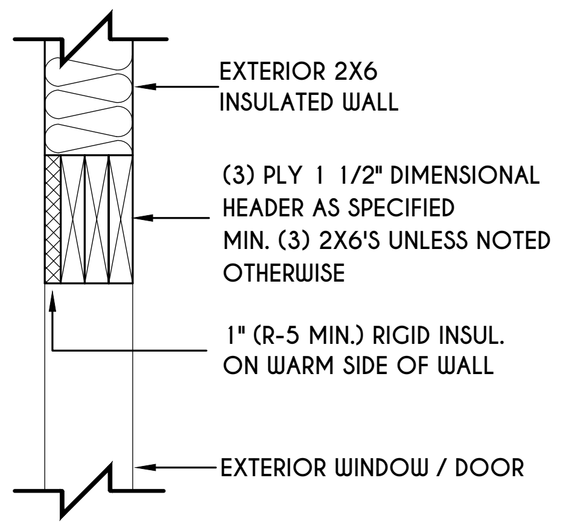


PILASTER TO BE PLACED @ 20'-0" O.C. MAX. ALONG WALL REFER TO PLAN FOR PLACEMENT

7 / N-1 POURED WALL

PILASTER DETAIL

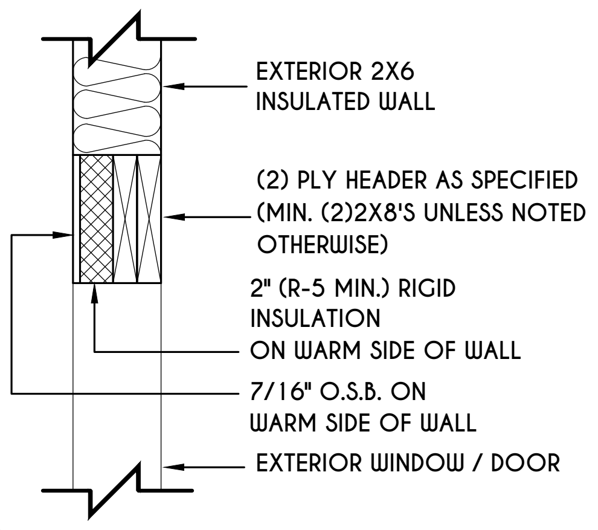
SCALE: 1" = 1'-0"



8 / N-1 EXTERIOR INSULATED

3 PLY HEADER DETAIL

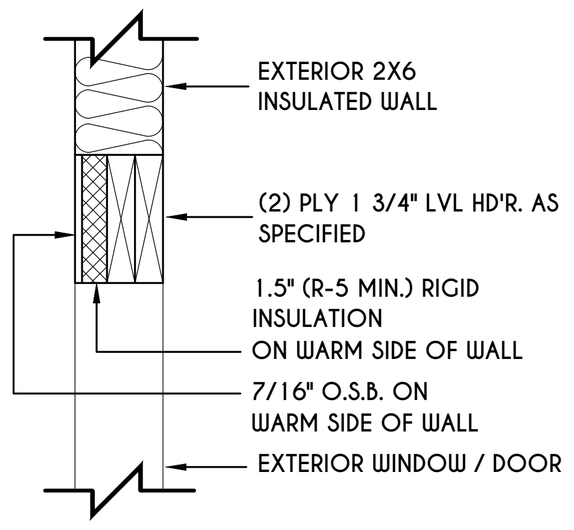
SCALE: 1" = 1'-0"



9 / N-1 EXTERIOR INSULATED

2 PLY HEADER DETAIL

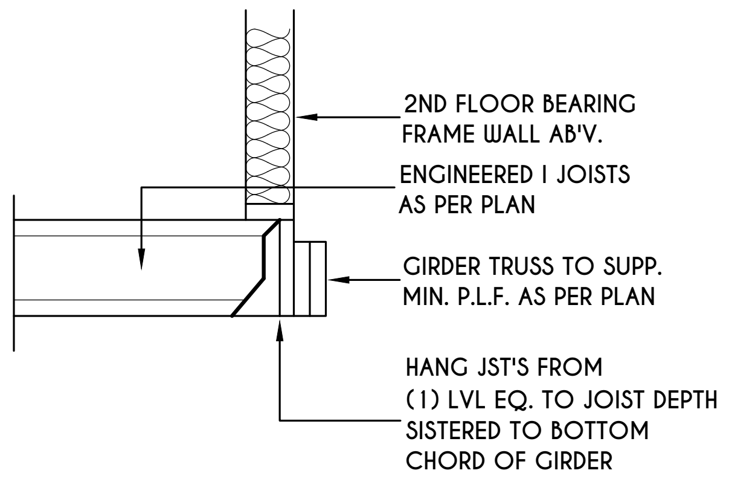
SCALE: 1" = 1'-0"



10 / N-1 EXTERIOR INSULATED

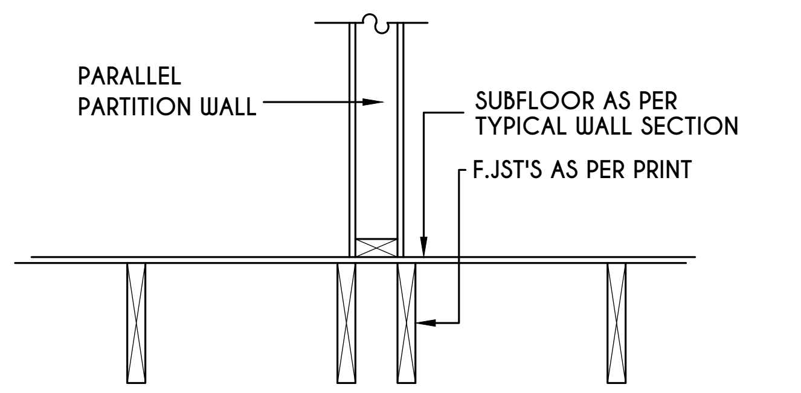
2 PLY LVL HEADER DETAIL

SCALE: 1" = 1'-0"



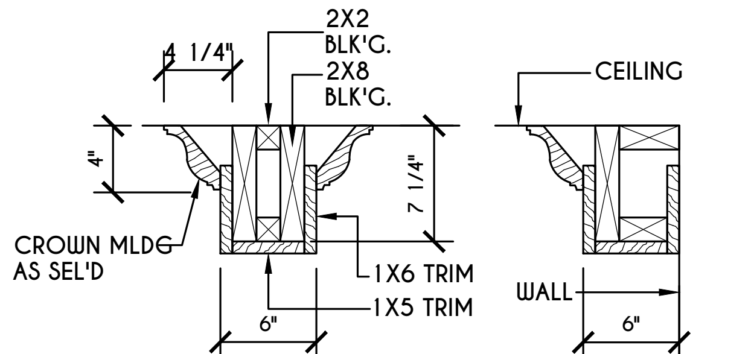
11 / N-1 I JST / GIRDER DETAIL

SCALE: 1/2" = 1'-0"



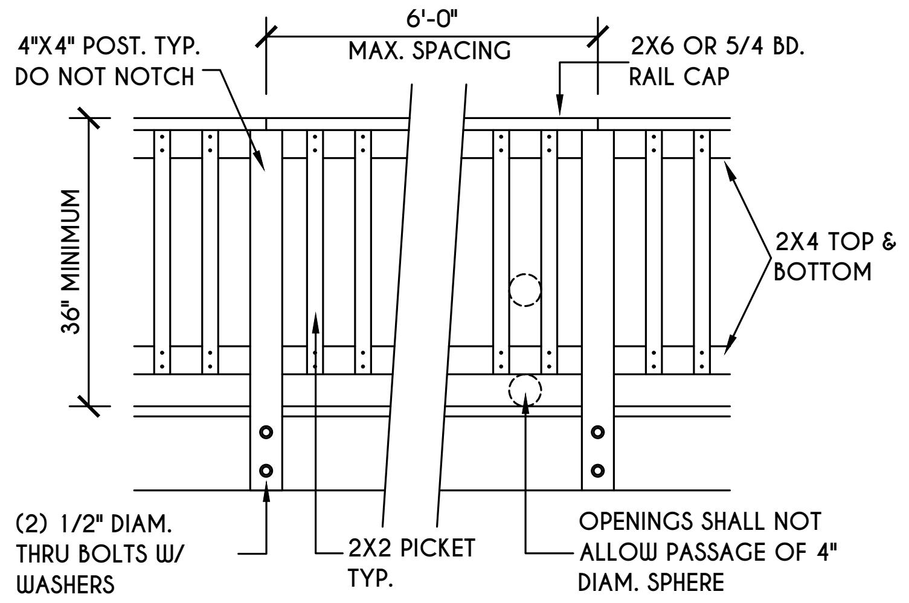
12 / N-1 DOUBLE FLOOR JST'S UNDER PARALLEL PARTITION WALL DETAIL

N.T.S.



13 / N-1 COFFERED BEAM DETAIL

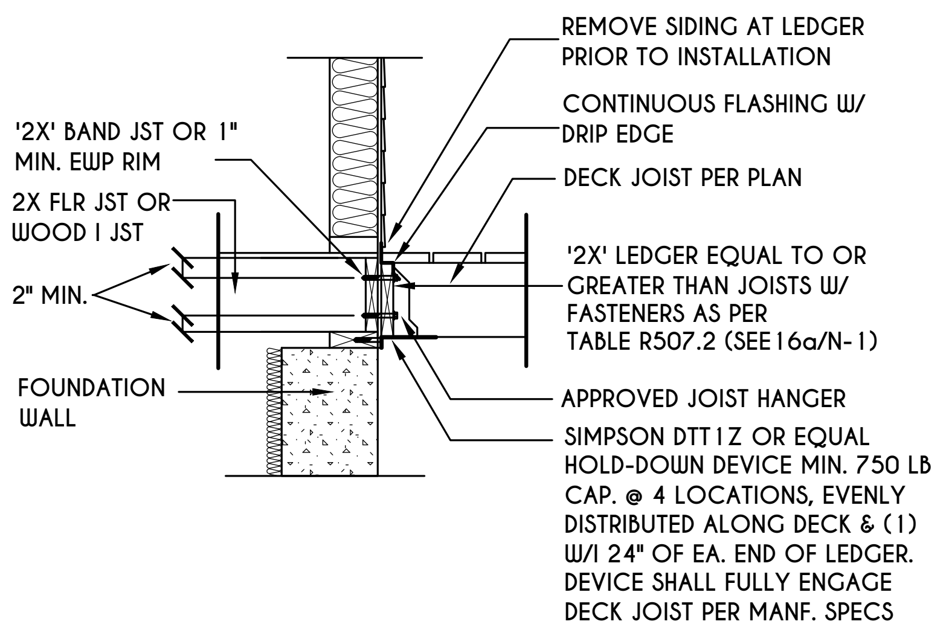
N.T.S.



14 / N-1 TYPICAL GUARD RAIL DETAIL

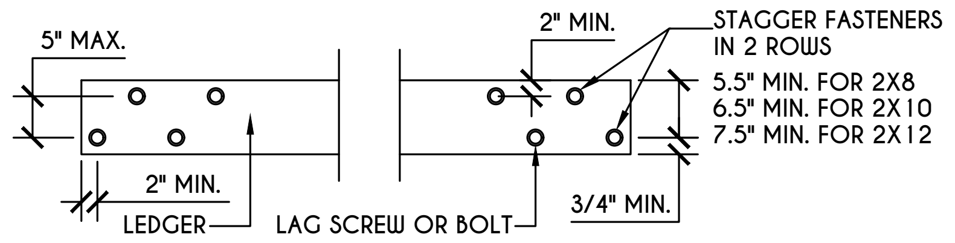
SCALE: 1/2" = 1'-0"

GUARD REQUIREMENT AS PER R312 OF 2015 IRC



15 / N-1 GENERAL ATTACHMENT OF DECK TO LEDGER BD & BAND BD.

SCALE: 1/2" = 1'-0"



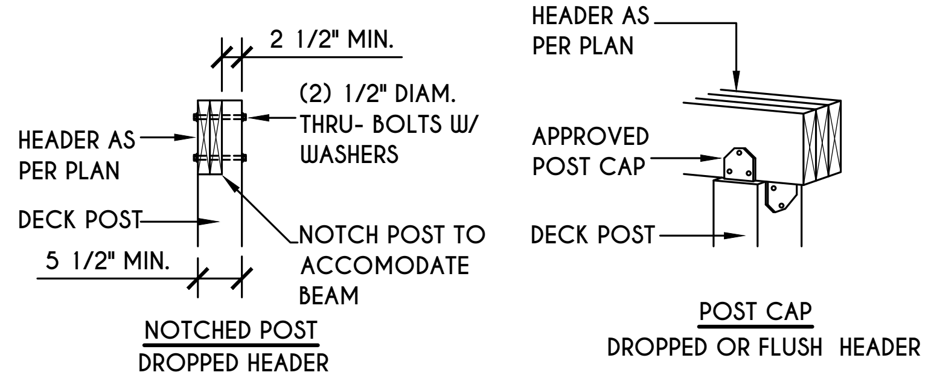
16 / N-1 PLACEMENT OF LAG SCREWS & BOLTS IN LEDGERS

FIGURE R507.2.1(1) IRC
N.T.S.

16a / N-1

TABLE R507.2
DECK LEDGER CONNECTION TO BAND JOIST

CONNECTION DETAILS	JOIST SPAN						
	6' & LESS	6'-1" - 8'	8'-1"-10'	10'-1"-12'	12'-1"-14'	14'-1"-16'	16'-1"-18'
	ON-CENTER SPACING OF FASTENERS (IN.)						
1/2" DIAM. LAG SCREW W/ 1/2" MAX. SHEATHING	30	23	18	15	13	11	10
1/2" DIAM. BOLT W/ 1/2" MAX. SHEATHING	36	36	34	29	24	21	19
1/2" DIAM. BOLT W/ 1" MAX. SHEATHING	36	36	29	24	21	18	16



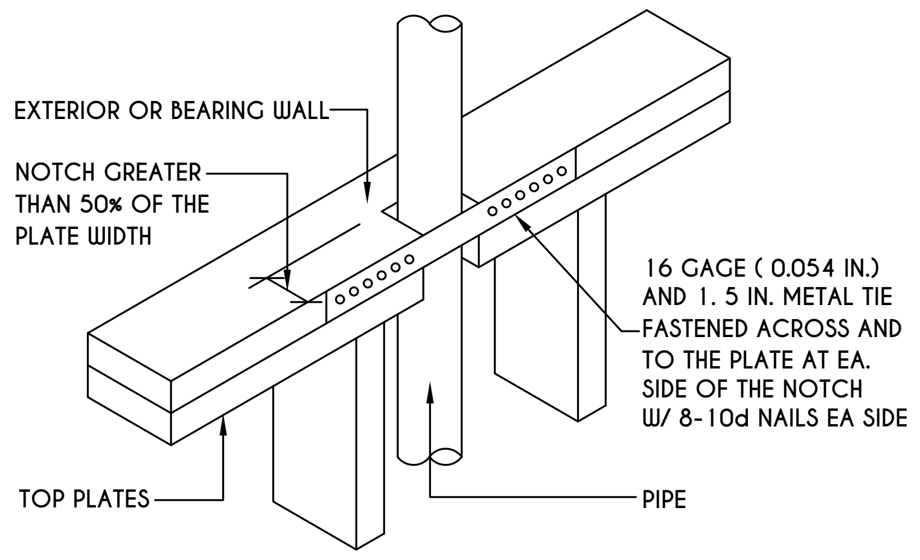
17 / N-1 DECK BEAM TO DECK POST

FIGURE R507.7.1 IRC
N.T.S.

TABLE R507.8

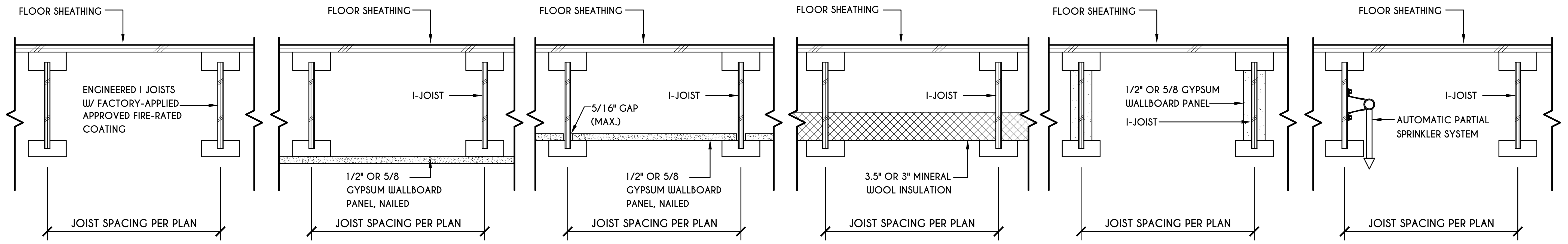
DECK POST SIZE	MAX. HEIGHT [a]
4 X 4	8'
4 X 6	8'
6 X 6	14'

a. MEASURED TO UNDERSIDE OF BEAM



TOP PLATE FRAMING TO ACCOMMODATE PIPING

FIGURE R602.6.1
N.T.S.



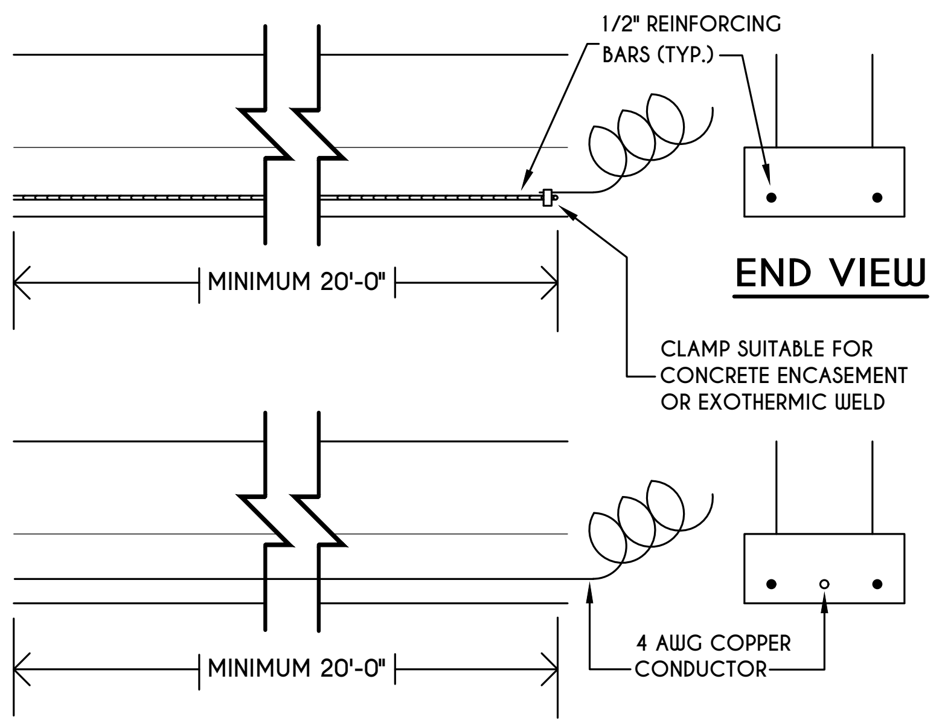
18 / N-1 I-JOIST FLOOR SYSTEMS

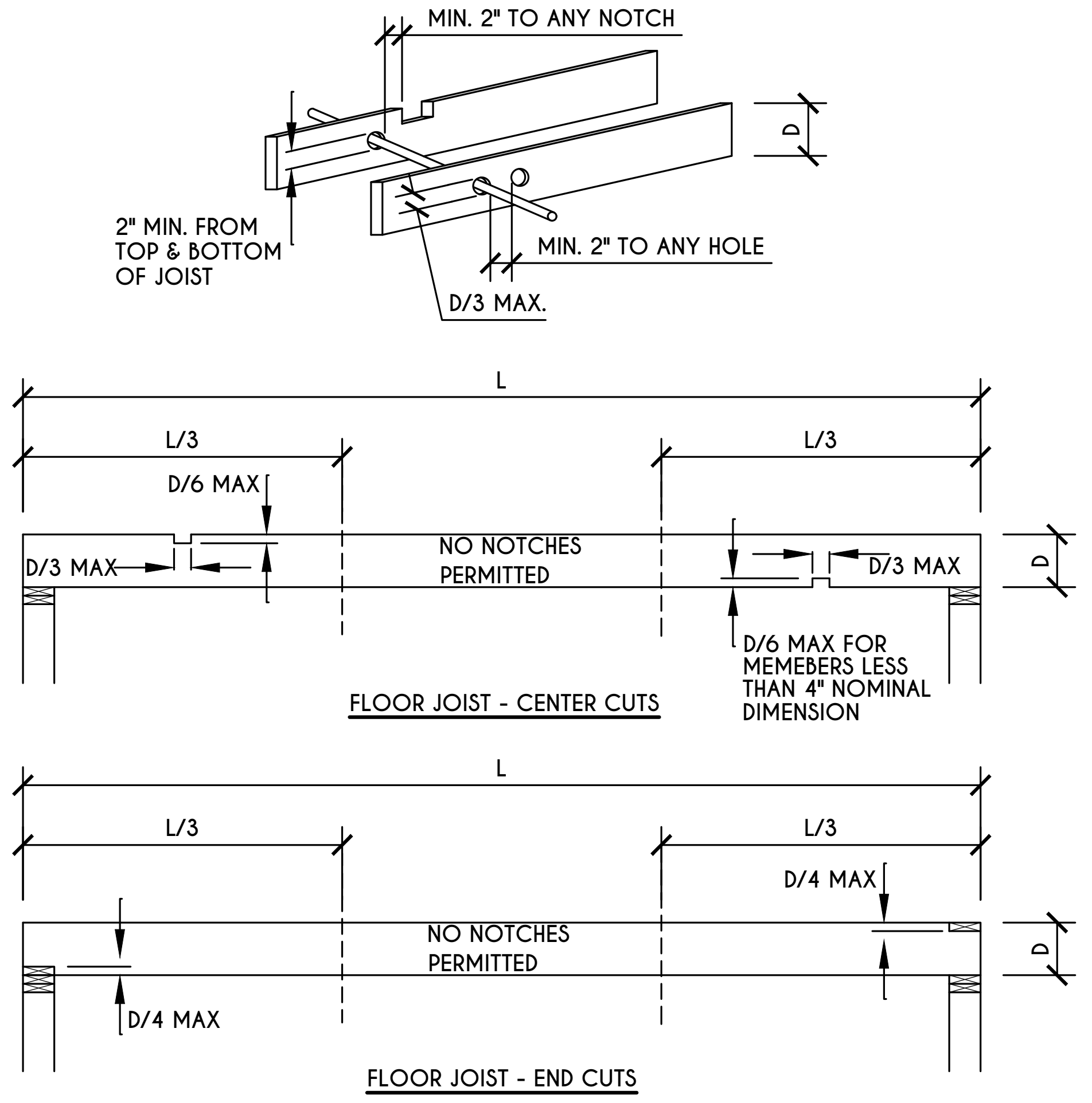
FIRE RATED FLOOR ASSEMBLY

DETAILS AS PER APA FIRE PROTECTION OF FLOORS (FP-01) FOR COMPLIANCE WITH 2015 IRC SECTION R302.13

19 / N-1

250.52(A) (3) CONCRETE-ENCASED ELECTRODES

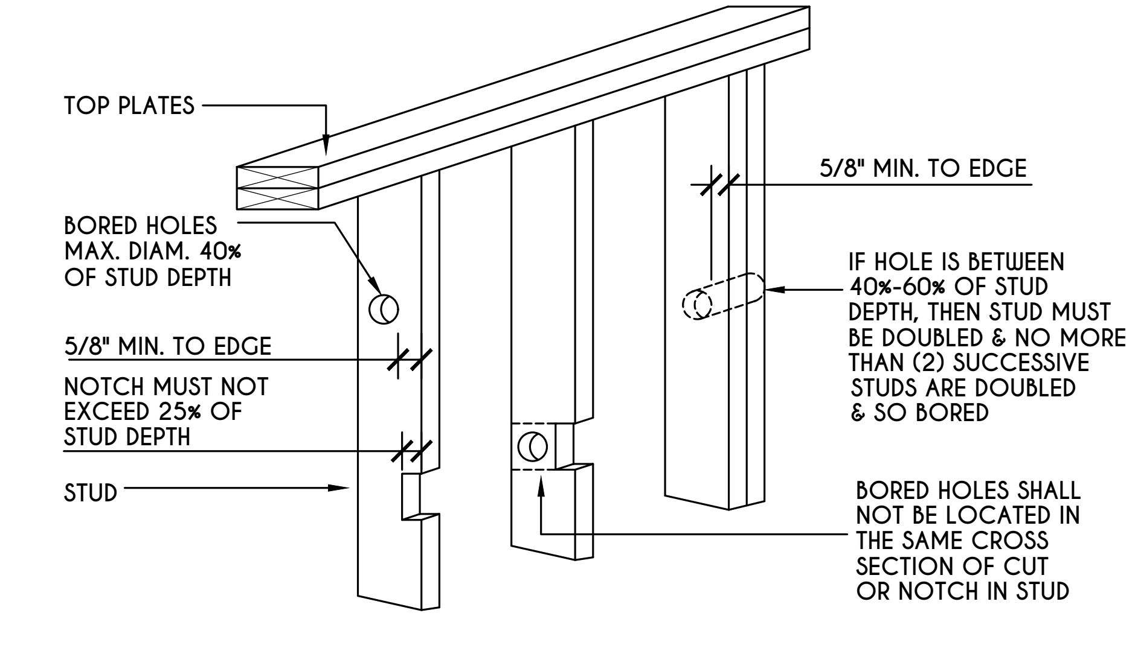




CUTTING, NOTCHING, & DRILLING OF JOISTS

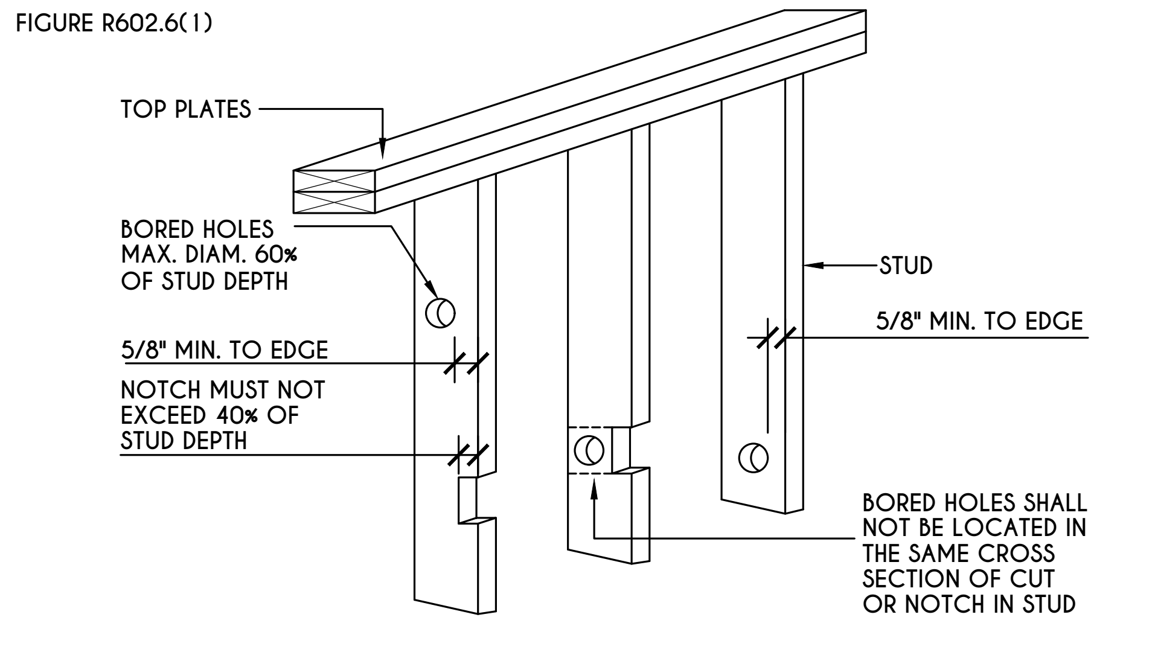
FIGURE R502.8

FOR ENGINEERED WOOD PRODUCTS, PLEASE REFER TO MANUFACTURER'S RECOMMENDATIONS



NOTCHING & BORED HOLE LIMITATIONS FOR EXTERIOR WALLS & BEARING WALLS

FIGURE R602.6(1)



NOTCHING & BORED HOLE LIMITATIONS FOR INTERIOR NONBEARING WALLS

FIGURE R602.6(2)

TABLE R404.1.1(2)

8-INCH MASONRY FOUNDATION WALLS WITH REINFORCING WHERE d > 5 INCHES [a, c, f]

WALL HEIGHT	HEIGHT OF UNBALANCED BACKFILL [e]	MINIMUM VERTICAL REINFORCEMENT AND SPACING (INCHES) [b, c] — SOIL CLASSES AND LATERAL SOIL LOAD [d] (psf PER FOOT BELOW GRADE): GW, GP, SW, AND SP SOILS 30	GM, GS, SM-SC AND ML SOILS 45	SC, MH, ML-CL AND INORGANIC CL SOILS 60
6'-8"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	6'-8"	#4 @ 48" O.C.	#5 @ 48" O.C.	#6 @ 48" O.C.
7'-4"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	6'	#4 @ 48" O.C.	#5 @ 48" O.C.	#5 @ 48" O.C.
	7'-4"	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
8'-0"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	6'	#4 @ 48" O.C.	#5 @ 48" O.C.	#5 @ 48" O.C.
	7'	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
	8'	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 32" O.C.
8'-8"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#5 @ 48" O.C.
	6'	#4 @ 48" O.C.	#5 @ 48" O.C.	#6 @ 48" O.C.
	7'	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
	8'-8"	#6 @ 48" O.C.	#6 @ 32" O.C.	#6 @ 24" O.C.
9'-4"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#5 @ 48" O.C.
	6'	#4 @ 48" O.C.	#5 @ 48" O.C.	#6 @ 48" O.C.
	7'	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
	8'	#6 @ 48" O.C.	#6 @ 40" O.C.	#6 @ 24" O.C.
	9'-4"	#6 @ 40" O.C.	#6 @ 24" O.C.	#6 @ 16" O.C.
10'-0"	4' (OR LESS)	#4 @ 48" O.C.	#4 @ 48" O.C.	#4 @ 48" O.C.
	5'	#4 @ 48" O.C.	#4 @ 48" O.C.	#5 @ 48" O.C.
	6'	#4 @ 48" O.C.	#5 @ 48" O.C.	#6 @ 48" O.C.
	7'	#5 @ 48" O.C.	#6 @ 48" O.C.	#6 @ 32" O.C.
	8'	#6 @ 48" O.C.	#6 @ 32" O.C.	#6 @ 24" O.C.
	9'	#6 @ 40" O.C.	#6 @ 24" O.C.	#6 @ 16" O.C.
	10'	#6 @ 32" O.C.	#6 @ 16" O.C.	#6 @ 16" O.C.

a. MORTAR SHALL BE TYPE M OR S AND MASONRY SHALL BE LAID IN RUNNING BOND.

b. ALTERNATIVE REINFORCING BAR SIZES AND SPACING'S SHALL HAVE AN EQUIVALENT CROSS-SECTIONAL AREA OF REINFORCEMENT PER LINEAL FOOT OF WALL SHALL BE PERMITTED PROVIDED THE SPACING OF THE REINFORCEMENT DOES NOT EXCEED 72" IN SEISMIC DESIGN CATEGORIES A, B AND C, AND 48 INCHES IN SEISMIC DESIGN CATEGORIES D0, D1 AND D2.

c. VERTICAL REINFORCEMENT SHALL BE GRADE 60 MINIMUM. THE DISTANCE FROM THE FACE OF THE SOIL SIDE OF THE WALL TO THE CENTER OF VERTICAL REINFORCEMENT SHALL BE NOT LESS THAN 5 INCHES.

d. SOIL CLASSES ARE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM AND DESIGN LATERAL SOIL LOADS ARE FOR MOIST CONDITIONS WITHOUT HYDROSTATIC PRESSURE. REFER TO TABLE R405.1.

e. UNBALANCED BACKFILL HEIGHT IS THE DIFFERENCE IN HEIGHT BETWEEN THE EXTERIOR FINISH GROUND LEVEL AND THE LOWER OF THE TOP OF THE CONCRETE FOOTING THAT SUPPORTS THE FOUNDATION WALL OR THE INTERIOR FINISH GROUND LEVEL. WHERE AN INTERIOR CONCRETE SLAB-ON-GRADE IS PROVIDED AND IS IN CONTACT WITH THE INTERIOR SURFACE OF THE FOUNDATION WALL, MEASUREMENT OF THE UNBALANCED BACKFILL HEIGHT FROM THE EXTERIOR FINISH GROUND LEVEL TO THE TOP OF THE INTERIOR CONCRETE SLAB IS PERMITTED.

f. THE USE OF THIS TABLE SHALL BE PROHIBITED FOR SOIL CLASSIFICATIONS NOT SHOWN.

TABLE R404.1.1(3)

10-INCH MASONRY FOUNDATION WALLS WITH REINFORCING WHERE d > 6.75 INCHES [a, c ,f]

WALL HEIGHT	HEIGHT OF UNBALANCED BACKFILL [e]	MINIMUM VERTICAL REINFORCEMENT AND SPACING (INCHES) [b, c] — SOIL CLASSES AND LATERAL SOIL LOAD [d] (psf PER FOOT BELOW GRADE): GW, GP, SW, AND SP SOILS 30	GM, GS, SM-SC AND ML SOILS 45	SC, MH, ML-CL AND INORGANIC CL SOILS 60
6'-8"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'-8"	#4 @ 56" O.C.	#5 @ 56" O.C.	#5 @ 56" O.C.
7'-4"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'	#4 @ 56" O.C.	#4 @ 56" O.C.	#5 @ 56" O.C.
	7'-4"	#4 @ 56" O.C.	#5 @ 56" O.C.	#6 @ 56" O.C.
8'-0"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'	#4 @ 56" O.C.	#4 @ 56" O.C.	#5 @ 56" O.C.
	7'	#4 @ 56" O.C.	#5 @ 56" O.C.	#6 @ 56" O.C.
	8'	#5 @ 56" O.C.	#6 @ 56" O.C.	#6 @ 48" O.C.
8'-8"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'	#4 @ 56" O.C.	#4 @ 56" O.C.	#5 @ 56" O.C.
	7'	#4 @ 56" O.C.	#5 @ 56" O.C.	#6 @ 56" O.C.
	8'-8"	#5 @ 56" O.C.	#6 @ 56" O.C.	#6 @ 32" O.C.
9'-4"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'	#4 @ 56" O.C.	#5 @ 56" O.C.	#5 @ 56" O.C.
	7'	#4 @ 56" O.C.	#5 @ 56" O.C.	#6 @ 56" O.C.
	8'	#5 @ 56" O.C.	#6 @ 56" O.C.	#6 @ 40" O.C.
	9'-4"	#6 @ 56" O.C.	#6 @ 40" O.C.	#6 @ 24" O.C.
10'-0"	4' (OR LESS)	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	5'	#4 @ 56" O.C.	#4 @ 56" O.C.	#4 @ 56" O.C.
	6'	#4 @ 56" O.C.	#5 @ 56" O.C.	#5 @ 56" O.C.
	7'	#5 @ 56" O.C.	#6 @ 56" O.C.	#6 @ 48" O.C.
	8'	#5 @ 56" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
	9'	#6 @ 56" O.C.	#6 @ 40" O.C.	#6 @ 24" O.C.
	10'	#6 @ 48" O.C.	#6 @ 32" O.C.	#6 @ 24" O.C.

a. MORTAR SHALL BE TYPE M OR S AND MASONRY SHALL BE LAID IN RUNNING BOND.

b. ALTERNATIVE REINFORCING BAR SIZES AND SPACINGS SHALL HAVE AN EQUIVALENT CROSS-SECTIONAL AREA OF REINFORCEMENT PER LINEAL FOOT OF WALL SHALL BE PERMITTED PROVIDED THE SPACING OF THE REINFORCEMENTDOES NOT EXCEED 72" IN SEISMIC DESIGN CATEGORIES A, B AND C, AND 48 INCHES IN SEISMIC DESIGN CATEGORIES D0, D1 AND D2.

c. VERTICAL REINFORCEMENT SHALL BE GRADE 60 MINIMUM. THE DISTANCE FROM THE FACE OF THE SOIL SIDE OF THE WALL TO THE CENTER OF VERTICAL REINFORCEMENT SHALL BE NOT LESS THAN 6.75 INCHES.

d. SOIL CLASSES ARE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM AND DESIGN LATERAL SOIL LOADS ARE FOR MOIST CONDITIONS WITHOUT HYDROSTATIC PRESSURE. REFER TO TABLE R405.1.

e. UNBALANCED BACKFILL HEIGHT IS THE DIFFERENCE IN HEIGHT BETWEEN THE EXTERIOR FINISH GROUND LEVEL AND THE LOWER OF THE TOP OF THE CONCRETE FOOTING THAT SUPPORTS THE FOUNDATION WALL OR THE INTERIOR FINISH GROUND LEVEL. WHERE AN INTERIOR CONCRETE SLAB-ON-GRADE IS PROVIDED AND IS IN CONTACT WITH THE INTERIOR SURFACE OF THE FOUNDATION WALL, MEASUREMENT OF THE UNBALANCED BACKFILL HEIGHT FROM THE EXTERIOR FINISH GROUND LEVEL TO THE TOP OF THE INTERIOR CONCRETE SLAB IS PERMITTED.

f. THE USE OF THIS TABLE SHALL BE PROHIBITED FOR SOIL CLASSIFICATIONS NOT SHOWN.

TABLE R404.1.1(4)

12-INCH MASONRY FOUNDATION WALLS WITH REINFORCING WHERE d > 8.75 INCHES [a, c, f]

WALL HEIGHT	HEIGHT OF UNBALANCED BACKFILL [e]	MINIMUM VERTICAL REINFORCEMENT AND SPACING (INCHES) [b, c] — SOIL CLASSES AND LATERAL SOIL LOAD [d] (psf PER FOOT BELOW GRADE): GW, GP, SW, AND SP SOILS 30	GM, GS, SM-SC AND ML SOILS 45	SC, MH, ML-CL AND INORGANIC CL SOILS 60
6'-8"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'-8"	#4 @ 72" O.C.	#4 @ 72" O.C.	#5 @ 72" O.C.
7'-4"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'	#4 @ 72" O.C.	#4 @ 72" O.C.	#5 @ 72" O.C.
	7'-4"	#4 @ 72" O.C.	#5 @ 72" O.C.	#6 @ 72" O.C.
8'-0"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'	#4 @ 72" O.C.	#4 @ 72" O.C.	#5 @ 72" O.C.
	7'	#4 @ 72" O.C.	#5 @ 72" O.C.	#6 @ 72" O.C.
	8'	#5 @ 72" O.C.	#6 @ 72" O.C.	#6 @ 64" O.C.
8'-8"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'	#4 @ 72" O.C.	#4 @ 72" O.C.	#5 @ 72" O.C.
	7'	#4 @ 72" O.C.	#5 @ 72" O.C.	#6 @ 72" O.C.
	8'-8"	#5 @ 72" O.C.	#7 @ 72" O.C.	#6 @ 48" O.C.
9'-4"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'	#4 @ 72" O.C.	#5 @ 72" O.C.	#5 @ 72" O.C.
	7'	#4 @ 72" O.C.	#5 @ 72" O.C.	#6 @ 72" O.C.
	8'	#5 @ 72" O.C.	#6 @ 72" O.C.	#6 @ 56" O.C.
	9'-4"	#6 @ 72" O.C.	#6 @ 48" O.C.	#6 @ 40" O.C.
10'-0"	4' (OR LESS)	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	5'	#4 @ 72" O.C.	#4 @ 72" O.C.	#4 @ 72" O.C.
	6'	#4 @ 72" O.C.	#5 @ 72" O.C.	#5 @ 72" O.C.
	7'	#4 @ 72" O.C.	#6 @ 72" O.C.	#6 @ 72" O.C.
	8'	#5 @ 72" O.C.	#6 @ 72" O.C.	#6 @ 48" O.C.
	9'	#6 @ 72" O.C.	#6 @ 56" O.C.	#6 @ 40" O.C.
	10'	#6 @ 64" O.C.	#6 @ 40" O.C.	#6 @ 32" O.C.

a. MORTAR SHALL BE TYPE M OR S AND MASONRY SHALL BE LAID IN RUNNING BOND.

b. ALTERNATIVE REINFORCING BAR SIZES AND SPACINGS SHALL HAVE AN EQUIVALENT CROSS-SECTIONAL AREA OF REINFORCEMENT PER LINEAL FOOT OF WALL SHALL BE PERMITTED PROVIDED THE SPACING OF THE REINFORCEMENTDOES NOT EXCEED 72" IN SEISMIC DESIGN CATEGORIES A, B AND C, AND 48 INCHES IN SEISMIC DESIGN CATEGORIES D0, D1 AND D2.

c. VERTICAL REINFORCEMENT SHALL BE GRADE 60 MINIMUM. THE DISTANCE FROM THE FACE OF THE SOIL SIDE OF THE WALL TO THE CENTER OF VERTICAL REINFORCEMENT SHALL BE NOT LESS THAN 8.75 INCHES.

d. SOIL CLASSES ARE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM AND DESIGN LATERAL SOIL LOADS ARE FOR MOIST CONDITIONS WITHOUT HYDROSTATIC PRESSURE. REFER TO TABLE R405.1.

e. UNBALANCED BACKFILL HEIGHT IS THE DIFFERENCE IN HEIGHT BETWEEN THE EXTERIOR FINISH GROUND LEVEL AND THE LOWER OF THE TOP OF THE CONCRETE FOOTING THAT SUPPORTS THE FOUNDATION WALL OR THE INTERIOR FINISH GROUND LEVEL. WHERE AN INTERIOR CONCRETE SLAB-ON-GRADE IS PROVIDED AND IS IN CONTACT WITH THE INTERIOR SURFACE OF THE FOUNDATION WALL, MEASUREMENT OF THE UNBALANCED BACKFILL HEIGHT FROM THE EXTERIOR FINISH GROUND LEVEL TO THE TOP OF THE INTERIOR CONCRETE SLAB IS PERMITTED.

f. THE USE OF THIS TABLE SHALL BE PROHIBITED FOR SOIL CLASSIFICATIONS NOT SHOWN.

TABLE R404.1.2(8)

MINIMUM VERTICAL REINFORCEMENT FOR 6-, 8-, 10- AND 12-INCH NOMINAL FLAT BASEMENT WALLS [b, c, d, e, f, h, i, k, n, o]

MAXIMUM WALL HEIGHT (FEET)	MAXIMUM UNBALANCED BACKFILL HEIGHT [g] (FEET)	MINIMUM VERTICAL REINFORCEMENT-BAR SIZE & SPACING (inches)											
		SOIL CLASSES [a] AND DESIGN LATERAL SOIL (psf PER FOOT OF DEPTH)											
		GW, GP, SW, AND SP 30				GM, GS, SM-SC AND ML 45				SC, MH, ML-CL AND INORGANIC CL 60			
		MIMIMUM WALL THICKNESS (INCHES)											
		6	8	10	12	6	8	10	12	6	8	10	12
5	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	NR	NR [l]	NR	NR	#4 @ 35"	NR [l]	NR	NR
	6	NR	NR	NR	NR	#5 @ 48"	NR	NR	NR	#5 @ 36"	NR	NR	NR
7	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	NR	NR	NR	NR	#5 @ 47"	NR	NR	NR
	6	NR	NR	NR	NR	#5 @ 42"	NR	NR	NR	#6 @ 43"	#5 @ 48"	NR [l]	NR
	7	#5 @ 46"	NR	NR	NR	#6 @ 42"	#5 @ 46"	NR [l]	NR	#6 @ 34"	#6 @ 48"	NR	NR
8	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	#4 @ 38"	NR [l]	NR	NR	#5 @ 43"	NR	NR	NR
	6	#4 @ 37"	NR [l]	NR	NR	#5 @ 37"	NR	NR	NR	#6 @ 37"	#5 @ 43"	NR [l]	NR
	7	#5 @ 40"	NR	NR	NR	#6 @ 37"	#5 @ 41"	NR [l]	NR	#6 @ 34"	#6 @ 43"	NR	NR
	8	#6 @ 43"	#5 @ 47"	NR [l]	NR	#6 @ 34"	#6 @ 43"	NR	NR	#6 @ 27"	#6 @ 32"	#6 @ 44"	NR
9	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	#4 @ 35"	NR [l]	NR	NR	#5 @ 40"	NR	NR	NR
	6	#4 @ 34"	NR [l]	NR	NR	#6 @ 48"	NR	NR	NR	#6 @ 36"	#6 @ 39"	NR [l]	NR
	7	#5 @ 36"	NR	NR	NR	#6 @ 34"	#5 @ 37"	NR	NR	#6 @ 33"	#6 @ 38"	#5 @ 37"	NR [l]
	8	#6 @ 38"	#5 @ 41"	NR	NR	#6 @ 33"	#6 @ 38"	#5 @ 37"	NR [l]	#6 @ 24"	#6 @ 29"	#6 @ 39"	#4 @ 48" [m]
	9	#6 @ 34"	#6 @ 46"	NR	NR	#6 @ 26"	#6 @ 30"	#6 @ 41"	NR	#6 @ 19"	#6 @ 23"	#6 @ 30"	#6 @ 39"
10	4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	NR	NR	NR	NR	#4 @ 33"	NR [l]	NR	NR	#5 @ 38"	NR	NR	NR
	6	#5 @ 48"	NR [l]	NR	NR	#6 @ 45"	NR	NR	NR	#6 @ 34"	#5 @ 37"	NR	NR
	7	#6 @ 47"	NR	NR	NR	#6 @ 34"	#6 @ 48"	NR	NR	#6 @ 30"	#6 @ 35"	#6 @ 48"	NR [l]
	8	#6 @ 34"	#5 @ 38"	NR	NR	#6 @ 30"	#6 @ 34"	#6 @ 47"	NR [l]	#6 @ 22"	#6 @ 26"	#6 @ 35"	#6 @ 45" [m]
	9	#6 @ 34"	#6 @ 41"	#4 @ 48"	NR [l]	#6 @ 23"	#6 @ 27"	#6 @ 35"	#4 @48" [m]	DR	#6 @ 22"	#6 @ 27"	#6 @ 34"
	10	#6 @ 28"	#6 @ 33"	#6 @ 45"	NR	DR [j]	#6 @ 23"	#6 @ 29"	#6 @ 38"	DR	#6 @ 22"	#6 @ 22"	#6 @ 28"

a. SOIL CLASSES ARE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM. REFER TO TABLE R405.1.

b. TABLE VALUES ARE BASED ON REINFORCING BARS WITH A MINIMUM YEID STRENGTH OF 60,000 PSI

c. VERTICAL REINFOREMENT WITH A YIELD STRENGTH OF LESS THAN 60,000 PSI AND / OR BARS OF A DIFFERENT SIZE THAN SPECIFIED IN THE TABLE ARE PERMITTED IN ACCORDANCE WITH SECTION R404.1.3.3.7.6 AND TABLE R404.1.2 (9)

d. NR INDICATES NO VERTICAL WALL REINFORCEMENT IS REQUIRED, EXCEPT FOR 6-INCH NOMINAL WALLS FORMED WITH STAY-IN-PLACE FORMING SYSTEMS IN WHICH CASE VERTICAL REINFORCEMENT SHALL BE NO. 4 @ 48 INCHES ON CENTER.

e. ALLOWABLE DEFLECTION CRITERION IS L/240, WHERE L IS THE UNSUPPORTED HEIGHT OF THE BASEMENT WALL IN INCHES.

f. INTERPOLATION IS NOT PERMITTED.

g. WHERE WALLS WIL REMAIN 4 FEET OR MORE OF UNBALANCED BACKFILL, THEY SHALL BE LATERALLY SUPPORTED AT THE TOP AND BOTTOM BEFORE BACKFILLING.

h. VERTICAL REINFORCEMENT SHALL BE LOCATED TO PROVIDE A COVER OF 1 1/4 INCHES MEASURED FROM THE INSIDE FACE OF THE WALL. THE CENTER OF THE STEEL SHALL NOT VARY FROM THE SPECIFIED LOCATION BY MORE THAN THE GREATER OF 10 PERCENT OF THE WALL THICKNESS OR 3/8 INCH.

i. CONCRETE COVER FOR THE REINFORCEMENT MEASURE FROM THE INSIDE FACE OF THE WALL SHALL BE NOT LESS THAN 3/4 INCH. CONCRETE COVER FOR REINFORCEMENT MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL BE NOT LESS THAN 1 1/2 INCHES FOR NO. 5 BARS AND SMALLER, AND NOT LESS THAN 2 INCHES FOR LARGER BARS.

j. DR MEANS DESIGN IS REQUIRED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE, OR WHERE THERE IS NO CODE, IN ACCORDANCE WITH ACI 318.

k. CONCRETE SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH, fc OF NOT LESS THAN 2,500 PSI AT 28 DAYS, UNLESS A HIGHER STRENGTH IS REQUIRED BY FOOTNOTE 1 OR m.

l. THE MINIMUM THICKNESS IS PERMITTED TO BE REDUCED 2 INCHES, PROVIDED THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE, fc IS 4,000 PSI.

m. A PLAIN CONCRETE WALL WITH A MINIMUM NOMINAL THICKNESS OF 12 INCHES IS PERMITTED, PROVIDED MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE, fc IS 3,500 PSI.

n. SEE TABLE R608.3 FOR TOLERANCE FROM NOMINAL THICKNESS PERMITTED FOR FLAT WALLS.

o. THE USE OF THIS TABLE SHALL BE PROHIBITED FOR SOIL CLASSIFICATIONS NOT SHOWN.

TABLE R 402.4.1.1
AIR BARRIER AND INSULATION INSTALLATION

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
GENERAL REQUIREMENTS	A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE. THE EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER. BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED.	AIR-PERMEABLE INSULATION SHALL NOT BE USED AS A SEALING MATERIAL.
CEILING / ATTIC	THE AIR BARRIER IN ANY DROPPED CEILING / SOFFIT SHALL BE ALIGNED WITH THE INSULATION AND ANY GAPS IN THE AIR BARRIER SHALL BE SEALED. ACCESS OPENINGS, DROP DOWN STAIRS, OR KNEE WALL DOORS TO UNCONDITIONED ATTIC SPACES SHALL BE SEALED.	THE INSULATION IN ANY DROPPED CEILING / SOFFIT SHALL BE ALIGNED WITH THE AIR BARRIER.
WALLS	THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED. THE JUNCTION OF THE TOP PLATE AND THE TOP OF EXTERIOR WALLS SHE BE SEALED. KNEE WALLS SHALL BE SEALED.	CAVITIES WITH CORNERS AND HEADERS OF FRAME WALLS SHALL BE INSULATED BY COMPLETELY FILLING THE CAVITY WITH A MATERIAL HAVING A THERMAL RESISTANCE OF R-3 PER INCH MINIMUM. EXTERIOR THERMAL ENVELOPE INSULATION FOR FRAMED WALLS SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE AIR BARRIER.
WINDOWS, SKYLIGHTS AND DOORS	THE SPACE BETWEEN WINDOW / DOOR JAMBS AND FRAMING, AND SKYLIGHTS AND FRAMING SHALL BE SEALED.	
RIM JOISTS	RIM JOISTS SHALL INCLUDE THE AIR BARRIER.	RIM JOISTS SHALL BE INSULATED.
FLOORS (INCLUDING ABOVE GARAGE AND CANTILEVERED FLOORS)	THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED EDGE OF INSULATION.	FLOOR FRAMING CAVITY INSULATION SHALL BE INSTALLED TO MAINTAIN PERMANENT CONTACT WITH THE UNDERSIDE OF SUBFLOOR DECKING, OR FLOOR FRAMING CAVITY INSULATION SHALL BE PERMITTED TO BE IN CONTACT WITH THE TOP SIDE OF SHEATHING, OR CONTINUOUS INSULATION INSTALLED ON THE UNDERSIDE OF FLOOR FRAMING AND EXTENDS FROM THE BOTTOM TO THE TOP OF ALL PERIMETER FLOOR FRAMING MEMBERS.
CRAWL SPACE WALLS	EXPOSED EARTH IN UNVENTED CRAWL SPACES SHALL BE COVERED WITH A CLASS I VAPOR RETARDER WITH OVERLAPPING JOINTS TAPED.	WHERE PROVIDED INSTEAD OF FLOOR INSULATION, INSULATION SHALL BE PERMANENTLY ATTACHED TO THE CRAWLSPACE WALLS.
SHAFTS, PENETRATIONS	DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING THE EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.	
NARROW CAVITIES		BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT, OR NARROW CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE.
GARAGE SEPARATION	AIR SEALING SHALL BE PROVIDED BETWEEN THE GARAGE AND CONDITIONED SPACES.	
RECESSED LIGHTING	RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE DRYWALL.	RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT AND IC RATED.
PLUMBING AND WIRING		BATT INSULATION SHALL BE CUT NEATLY TO FIT AROUND WIRING AND PLUMBING IN EXTERIOR WALLS, OR INSULATION THAT ON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE SHALL EXTEND BEHIND PIPING AND WIRING.
SHOWER / TUB ON EXTERIOR WALL	THE AIR BARRIER INSTALLED AT EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL SEPARATE THEM FROM THE SHOWERS AND TUBS.	EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL BE INSULATED.
ELECTRICAL / PHONE BOX ON EXTERIOR WALLS	THE AIR BARRIER SHALL BE INSTALLED BEHIND ELECTRICAL OR COMMUNICATION BOXES OR AIR-SEALED BOXES SHALL BE INSTALLED.	
HVAC REGISTER BOOTS	HVAC REGISTER BOOTS THAT PENETRATE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR OR DRYWALL.	
CONCEALED SPRINKLERS	WHEN REQUIRED TO BE SEALED, CONCEALED FIRE SPRINKLERS SHALL ONLY BE SEALED IN A MANNER THAT IS RECOMMENDED BY THE MANUFACTURER. CAULKING OR OTHER ADHESIVE SEALANTS SHALL NOT BE USED TO FILL VOIDS BETWEEN FIRE SPRINKLER COVER PLATES AND WALL OR CEILINGS.	

a. IN ADDITION, INSPECTION OF LOG WALLS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF ICC-400.

R401.4 SOIL TESTS.

WHERE QUANTIFIABLE DATA CREATED BY ACCEPTED SOIL SCIENCE METHODOLOGIES INDICATE EXPANSIVE, COMPESSIBLE, SHIFTING OR OTHER QUESTIONABLE SOIL CHARACTERISTICS ARE LIKELY TO BE PRESENT, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER TO REQUIRE A SOIL TEST TO DETERMINE THE SOIL'S CHARACTERISTICS AT A PARTICULAR LOCATION. THIS TEST BE DONE BY AN APPROVED AGENCY USING AN APPROVED METHOD.

R401.4.1 GEOTECHNICAL EVALUATION.

IN LIEU OF A COMPLETE GEOTECHNICAL EVALUATION, THE LOAD-BEARING VALUES IN TABLE R401.4.1 SHALL BE ASSUMED.

TABLE R401.4.1

PRESUMPTIVE LOAD-BEARING VALUES OF FOUNDATION MATERIALS [a]

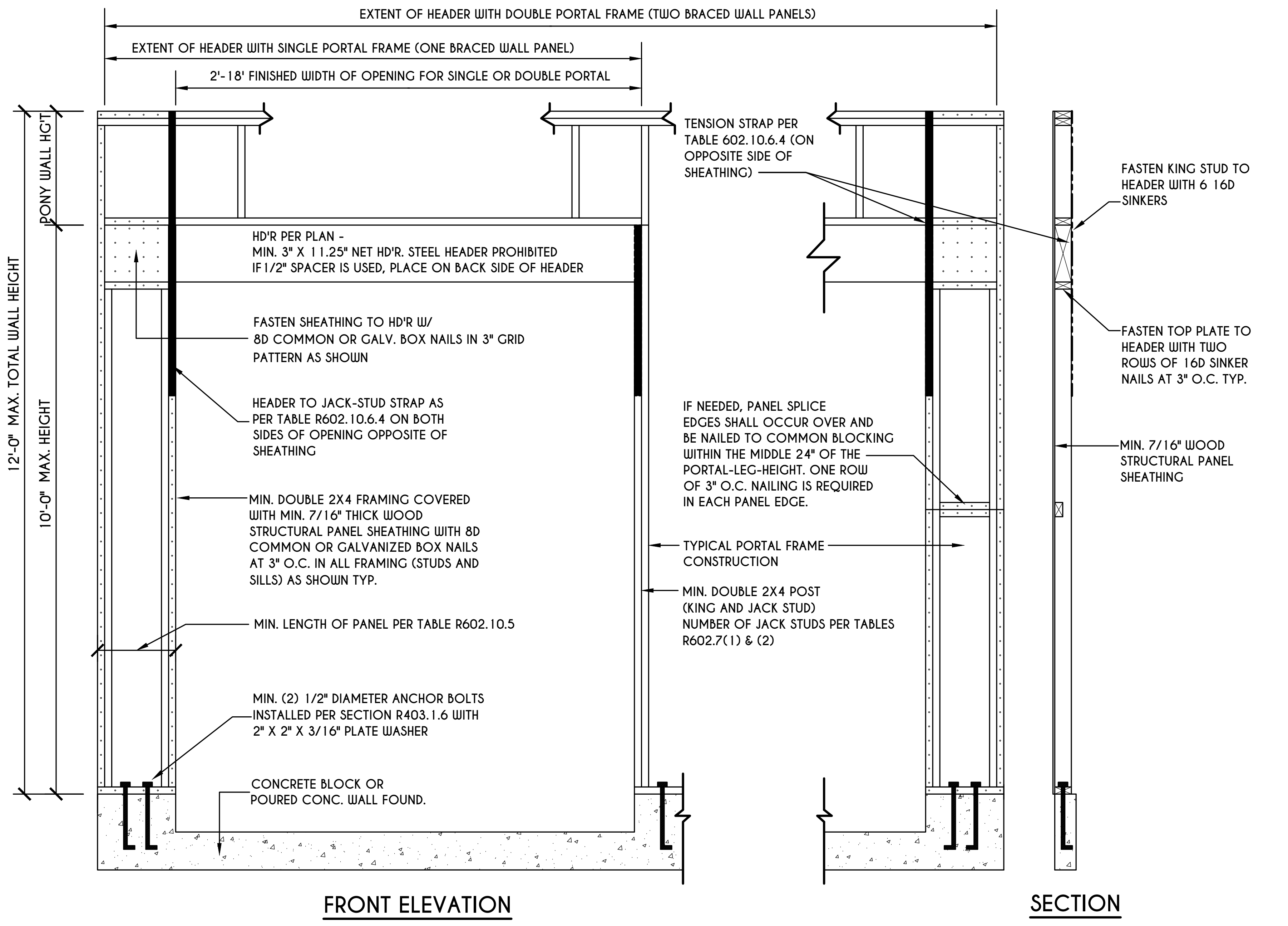
CLASS OF MATERIALS	LOAD-BEARING PRESSURE (pounds per square foot)
CRYSTALLINE BEDROCK	12,000
SEDIMENTARY & FOLIATED ROCK	4,000
SANDY GRAVEL AND/OR GRAVEL (GW & GP)	3,000
SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, AND CLAYEY GRAVEL (SW, SP, SM, SC, GM, & GC)	2,000
CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH, & CH)	1,500 [b]

a. WHERE SOIL TESTS ARE REQUIRED BY SECTION R401.4, THE ALLOWABLE BEARING CAPACITIES OF THE SOIL SHALL BE PART OF THE RECOMMENDATIONS.

b. WHERE THE BUILDING OFFICIAL DETERMINES THAT IN-PLACE SOILS WITH AN ALLOWABLE BEARING CAPACITY OF LESS THAN 1,500 psf ARE LIKELY TO BE PRESENT AT THE SITE, THE ALLOWABLE BEARING CAPACITY SHALL BE DETERMINED BY A SOILS INVESTIGATION.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL	SOIL DESCRIPTION
GW	WELL-GRADED GRAVELS, GRAVEL SAND MIXTURES, LITTLE OR NO FINES
GP	POORLY GRADED GRAVELS OR GRAVEL SAND, LITTLE OR NO FINES
SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
SM	SILTY SAND, SAND-SILT MIXTURES
GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
SC	CLAYEY SANDS, SAND-CLAY MIXTURE MIXTURES
ML	INORGANIC SILTS & VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
PT	PEAT & OTHER HIGHLY ORGANIC SOILS



FRONT ELEVATION

SECTION

PORTAL FRAME AT GARAGE DOOR OPENINGS IN SEISMIC DESIGN CATEGORIES A, B, AND C

SCALE: N.T.S. FIGURE R602.10.6.3