	TABLE R602.3(1)—continued FASTENING SCHEDULE						
TEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ^{2, b, c}	SPACING AND LOCATION				
\neg	To the second selection of the second selection	16d common (3 ¹ / ₂ "× 0.162")	16" o.c. face nail				
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d box (3 ¹ / ₂ " × 0.135"); or 3" × 0.131" mails	12" o.c. face nail				
15	Bottom plate to joist, rim joist, band joist or	3-16d box (3 ¹ / ₂ " × 0.135"); or	3 each 16" o.c. face nail				
	blocking (at braced wall panel)	2-16d common (3 ¹ / ₂ " × 0.162"); or 4-3" × 0.131" naïls	2 each 16" o.c. face nail 4 each 16" o.c. face nail				
16	Top or bottom plate to stud	4-8d box (2 ¹ / ₂ " × 0.113"); or 3-16d box (3 ¹ / ₂ " × 0.135"); or 4-8d common (2 ¹ / ₂ " × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe naîl				
		3-16d box (3 ¹ / ₂ " × 0.135"); or 2-16d common (3 ¹ / ₂ " × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Enď nail				
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3 ¹ / ₂ " × 0.162"); or 3-3" × 0.131" nails	Face naîl				
18	I * brace to each stud and plate	3-8d box (2 ¹ / ₂ " × 0.113"); or 2-8d common (2 ¹ / ₂ " × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1 ³ / ₄ "	Face naïl				
19	I " × 6" sheathing to each bearing	3-8d box (2 ¹ / ₂ " × 0.113"); or 2-8d common (2 ¹ / ₂ " × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 ³ / ₄ " long	Face naîl				
20	I " × 8" and wider sheathing to each bearing	3-8d box (2 ¹ / ₂ " × 0.113"); or 3-8d common (2 ¹ / ₂ " × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1 ³ / ₄ " long Wider than 1" × 8"	Face naĭl				
		4-8d box (2 ¹ / ₂ " × 0.113"); or 3-8d common (2 ¹ / ₂ " × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1 ³ / ₄ " long					
Floor							
21	Joist to sill, top plate or girder	4-8d box (2 ¹ / ₂ " × 0.113"); or 3-8d common (2 ¹ / ₂ " × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail				
\dashv	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2 ¹ / ₂ " × 0.113")	4" e.c. tee naïl				
22		8d common (2 ¹ / ₂ "× 0.131"); or 10d box (3"× 0.128"); or 3"× 0.131" nails	6" o.c. toe naîl				
23	I * × 6 * subfloor or less to each joist	3-8d box (2 ¹ / ₂ " × 0.113"); or 2-8d common (2 ¹ / ₂ " × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 ³ / ₄ " long	Face naîl				

REINFORCED CONCRETE NOTES: (CONT.)

STEEL REINFORCEMENT: ASTM A615 GRADE 60

ASTM A185 FOR WIRE FABRIC. PROVIDE #6 CHAIR BARS, HIGH CHAIRS, TIES, CLIPS, SLAB BOLSTERS AND OTHER ACCESSORIES WHERE NOT SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE OR DETAILING REINFORCING CONCRETE STRUCTURES ACI 315 OR CRSI-WRSI MANUAL OF STANDARD PRACTICE. USE PLASTIC TIPS ON ALL CHAIRS PLACED ON THE SIDES OF CONCRETE FORM-WORK.

PROVIDE 2-#6 AT EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS AND EXTEND 2'-6" BEYOND THE OPENING OR AS DETAILED, EXCEPT VERTICAL BARS AT SIDES OF OPENINGS IN WALLS ARE TO EXTEND FROM FLOOR TO FLOOR. BARS MAY BE MOVED ASIDE AT OPENINGS OR SLEEVES BUT DO NOT CUT OR OMIT.

SPLICING OF AS SHOWN ON PLANS BUT NOT LESS THAN 40 DIAMETERS FOR SLABS AND BEAM REINFORCEMENT: BOTTOM BARS, AND NOT LESS THAN 48 BAR DIAMETERS FOR WALLS AND BEAM TOP

> BARS. PROVIDE A LAP OF 8" OR 1 $\frac{1}{2}$ SPACES, WHICHEVER IS LARGER, FOR WWF. TIE WIRES TOGETHER AT LAP. SUBMIT FOR DESIGNER'S APPROVAL COMPLETE BENDING AND PLACING DETAILS

AT ALL REINFORCING STEEL INCLUDING WELDED WIRE FABRIC (WWF), INCLUDING POSITION OF SPLICES. INCLUDE ACCESSORY DRAWINGS. STANDARD COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE

> AMERICAN CONCRETE INSTITUTE. ACI 301 STRUCTURAL CONCRETE FOR BUILDINGS ACI 302 CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 304 MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE

ACI 305 HOT WEATHER CONCRETING ACI 306 COLD WEATHER CONCRETING ACI 315 DETAILING REINFORCING STEEL ACI 318 GENERAL DESIGN OF ITEMS NOT OTHERWISE SPECIFIED ACI 347 FORMWORK

CRSI MANUAL OF STANDARD PRACTICE. SURFACE TREATMENT: ROUGHEN ALL EXISTING CONCRETE SURFACES COMMON WITH NEW CONCRETE

TO AN AMPLITUDE OF 1/4" DRILL AND EPOXY GROUT REBAR INTO EXISTING FOOTINGS USING HILTI HVA ADHESIVE RFRAR SYSTEM OR APPROVED EQUAL. **ANCHORING**

WOOD NOTES:

SYSTEMS:

OPENINGS:

SHOP DRAWINGS:

SPECIFICATIONS:

- a. ALL JOISTS, HEADERS, BEAMS, BUILT UP COLUMNS, EXTERIOR AND INTERIOR BEARING WALL STUDS, TOP PLATES AND BOTTOM PLATES TO BE MINIMUM SPF#2 UNLESS NOTED OTHERWISE. SEE WALL STUD SCHEDULE FOR SPACING.
- b. DOUBLE TOP PLATES WITH ROOF TRUSSES BEARING ABOVE ARE TO BE SOUTHERN YELLOW PINE #2.
- c. NON-BEARING INTERIOR WALL STUDS MAY BE SPF-STUD
- GRADE 2X4 AT 24" O.C.
- d. THE DESIGN VALUES SHOWN IN THE TABLE BELOW ARE IN ACCORDANCE WITH THE 2015 ANSI/AWC NATIONAL DESIGN SPECIFICATIONS (NDS)

LUMBER GRADE	Fb (PSI)	Fb (PERP) (PSI)	FC (II) (PSI)	FV (PSI)	E (PSI)
SPF #2 STUDS PLATES ETC.	875	425	1150	135	1,400,000
6"x6" POSTS SP SPF #2	850	375	525		1,200,000
8"x8" POSTS DFL (N) #2	725	625	700		1,300,000
SP P.T.	1500	525		175	1,600,000
LVL , VSL	2800	750		285	2,000,000
PSL	2900	750		290	2,000,000
PSL- WOLMANIZED USE SERVICE LEVEL 2	2088	385		177	1,740,000

- e. ALL LUMBER USED IN EXTERIOR APPLICATIONS, INCLUDING: BALCONY DECK BOARDS, LEDGER, JOISTS BEAMS, AND SILL PLATES EXPOSED TO CONCRETE SHALL BE SOUTHERN PINE PRESSURE TREATED IN ACCORDANCE WITH AWPA C2 SPECIFICATIONS. ALL FASTENERS FOR PRESSURE TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STAINLESS STEEL. OR OTHER CORROSION RESISTANT MATERIALS THAT ARE COMPATIBLE WITH THE PRESERVATIVE USED. CONTRACTOR TO VERIFY THE SUITABILITY OF CONNECTORS WITH THE MANUFACTURER AND THE GOVERNING
- JURISDICTION. f. LVL'S (LAMINATED VENEER LUMBER) SHALL BE 1-3/4" WIDE, OF THE DEPTH SPECIFIED BY THE
- MANUFACTURER UNLESS NOTED OTHERWISE. g. PSL'S (PARALLEL STRAND LUMBER) SHALL BE OF THE WIDTH AND DEPTH SPECIFIC ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BT THE MANUFACTURER UNLESS NOTED OTHERWISE.
- h. ALL STUDS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA (NATIONAL FOREST PRODUCTS ASSOCIATION) REQUIREMENTS. MEMBERS ARE NOT TO BE DRILLED IN EXCESS OF NDS OR LOCAL CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ALL POSTS AND STUDS SHALL STACK CONTINOUSLY TO SOLID BEARING ON FOUNDATION WALLS OR BEAMS; PROVIDE SOLID BLOCKING AND/OR CRIPPLES AS REQUIRED BETWEEN FLOORS.
- i. SHEATHING: EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF APA PRP-108 PERFORMANCE STANDARDS. ALL PANELS WHICH HAVE ANY EDGE OR SURFACE PERMANENTLY EXPOSED TO THE WEATHER SHALL BE CLASSED EXTERIOR GRADE. PANEL THICKNESS, GRADE, AND GROUP NUMNBER OR SPAN RATING SHALL BE AT LEAST EQUAL TO THAT SHOWN ON THE DRAWINGS. APPLICATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION. ALL ADHESIVES SHALL CONFORM TO APA SPECIFICATION AFG-01 AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. LAP SHEATHING OVER WALL PLATES TO PREVENT UPLIFT.
- FLOOR DECKING SHALL BE GLUED AND NAILED PER APA RECOMMENDATIONS FOR THE STURDI-FLOOR SYSTEM AND IN ACCORDANCE WITH THE SCHEDULE PROVIDED.
- k. DIMENSIONAL PROPERTIES OF WOOD CAN VARY SIGNIFICANTLY WITH MOISTURE CONTENT. WHENEVER POSSIBLE, GENERAL CONTRACTOR SHALL STORE FLOOR SHEATHING PANELS, ROOF SHEATHGIN PANELS, WALL STUDS, AND FLOOR TRUSSES UNDER ROOF. IF MATERIALS ARE TO BE STORED OUTSIDE, STACK THEM ON A LEVEL SURFACE AND BLOCK UP OFF THE GROUND. UTILIZE A MINIMUM OF THREE (3) SUPPORT POINTS. NEVER LEAVE MATERIALS IN DIRECT CONTACT WITH THE GROUND. COVER STACKS LOOSELY AND OPEN AT THE BASE TO ALLOW FOR VENTILATION.
- I. GENERAL CONTRACTOR SHALL ALLOW FOR DIFFERENTIAL MOVEMENT BETWEEN WOOD AND
- i. WOOD AT EXTERIOR WALLS BACKING BRICK VENEER SHOULD BE VERIFIED FOR A MAXIMUM
- MOISTURE CONTENT LESS THAN 10% PRIOR TO THE PLACEMENT OF MASONRY VENEER. ii. BUILDING SHOULD BE FULLY ENCLOSED AND DRYWALL SHOULD BE 'STACKED' WITHIN UNITS PRIOR
- TO THE PLACVEMENT OF MASONRY VENEER. iii. VERIFY PROPER TOLERANCES FOR MOVEMENT AND PROPER FLASHNIG IS INCORPORATED INTO FINISH WORK CONSTRUCTED AT WINDOW SILLS AND TRANSITIONS FROM MASONRY VENEER TO ALTERNATE FINISH MATERIAL.

REINFORCED CONCRETE NOTES:

- 1. ALL CONCRETE WORK SHALL CONFORM TO ACI-318 BUILDING CODE AND TO THE STATE BUILDING CODE. IN CASE OF CONFLICT, THE MOST STRINGENT GOVERNS.
- 2. ALL CONCRETE SHALL BE CONTROLLED, MIXED AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY.
- 3. ALL CONCRETE EXPOSED TO THE WEATHER SHALL CONTAIN 7% AIR ENTRAINMENT ADMIXTURE.
- 4. FOR LOCATIONS LISTED BELOW, CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH SAND AND GRAVEL AGGREGATE, TYPE I OR TYPE II PORTLAND CEMENT AND A MINIMUM COMPRESSIVE STRENGTH (f'c) IN 28 DAYS AS FOLLOWS FOOTINGS .. 3,000 PSI . 4,000 PSI PIERS & WALLS . SLABS ON GRADE. .. 3.500 PSI

SIDEWALK SLAB . . 4,000 PSI ALL OTHER CONCRETE. . 3,000 PSI

5. CONCRETE QUALITY IN ACCORDANCE WITH THE REQUIREMENTS OF THESE DRAWINGS AND SPECIFICATIONS IS ESSENTIAL TO THE STRUCTURAL PERFORMANCE OF THIS BUILDING. CONCRETE THAT IS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WILL NOT BE ACCEPTED.

6. AGGREGATE: NORMAL WEIGHT: ASTM C35, WITH MAXIMUM SIZE OF 3/4".

- 7. CONSTRUCTION JOINT LOCATIONS OTHER THAN SHOWN ON THE DRAWINGS ARE PERMITTED SUBJECT TO PRIOR APPROVAL OF THE ENGINEER. EXPANSION JOINT AND CONTROL JOINT LOCATIONS ARE MANDATORY, AS SHOWN.
- 8. REINFORCING BARS SHALL CONFORM TO ASTM A615 WITH 60,000 PSI YEILD STRENGTH, AS INDICATED AND SHALL HAVE THE FOLLOWING CONCRETE COVER, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
 - A. SURFACES PLACED IN CONTACT WITH THE GROUND.. B. FORMED SURFACE EXPOSED TO GROUND.. C. INSIDE FACE OF FORMED WALL ..1 1/2" D. WALL PIER TIES.. ..1 1/2" E. SLAB REINFORCING. ...3/4"

F. SLAB ON GRADE TOP 9. WELDED WIRE FABRIC WILL CONFORM TO ASTM A185; LAP TWO SQUARES AT ALL

10. PROVIDE CLASS B SPLICE FOR ALL CONTINUOUS REINFORCEMENT, UNLESS OTHERWISE

11. PROVIDE BAR SUPPORTS, SPACERS AND ACCESSORIES RECOMMENDED IN THE LATEST ADDITION OF THE ACI DETAILING MANUAL, PUBLICATION SP-66. ALL REINFORCEMENT DETAILING, LAP SPLICES AND EMBEDMENT WILL CONFORM TO THIS MANUAL. ALL ACCESSORIES, SUCH AS SLAB BOLSTERS AND BEAM AND SLAB CHAIRS IN CONTACT WITH EXPOSED SURFACES SHALL BE ZINC COATED OR PLASTIC TYPE.

12. PIPES OR CONDUITS PLACED IN SLABS ON GRADE SHALL NOT BE PLACED CLOSER THAN 3 DIAMETER ON CENTER AND SHALL HAVE AN OUTSIDE DIAMETER LESS THAN 1/3 OF THE SLAB THICKNESS. ALUMINUM CONDUITS SHALL NOT BE PLACED IN CONCRETE.

13. OMITTED

SPLICES AND TIE AT 3 FOOT CENTERS.

14. DETAILING OF REINFORCEMENT SHALL BE ACCORDING TO THE LATEST EDITION OF ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONRETE STRUCTURES".

15. SET AND TIE ALL REINFORCEMENT BEFORE PLACING CONCRETE. SETTING DOWELS AND REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

16. ALL REINFORCING WILL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

17. FOR CONCRETE FILL AND TOPPINGS, PLACE CONSTRUCTION AND EXPANSION JOINTS AT THE SAME LOCATION AS THE CONSTRUCTION AND EXPANSION JOINTS IN THE SUPPORTING CONCRETE.

18. OMITTED

19. EXPOSED EDGES OF CONCRETE ELEMENTS, SUCH AS PILASTERS, CURBS AND EQUIPMENT PADS WILL HAVE 1 INCH CHAMFER.

20. ALL KEYS SHALL BE 2" x 4" (NOMINAL) UNLESS SHOWN OTHERWISE ON DRAWINGS.

21. NOT ALL OPENINGS THROUGH CONCRETE SLABS AND WALLS ARE SHOWN ON STRUCTURAL DRAWINGS. OPENINGS INDICATED, OR ANY ADDITIONAL OPENINGS OR INSERTS REQUIRED, SHALL BE VERIFIED WITH RESPECTIVE TRADES BEFORE POURING OF CONCRETE.

22. USE NON-SHRINK, NON-METALLIC GROUT, WHERE INDICATED. SEE SECTION 03300, CAST-IN-PLACE CONCRETE OF THE SPECIFICATIONS FOR ALL THE REQUIREMENTS.

23. FLOOR SLOPES WILL BE AN INTEGRAL PART OF STRUCTURAL SLABS. SEPERATE CONCRETE FILL IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATIONS UNTIL THE INTENDED POUR IS COMPLETED.

24. SEE ARCHITECTURAL DRAWINGS FOR FINISHES, DEPRESSIONS, REGLETS, NOTCHES AND OTHER ARCHITECTURAL FEATURES.

25. PROVIDE SEALANT JOINTS FOR ALL EXPOSED TO VIEW CONSTRUCTION JOINTS, CONTROL JOINTS AND SHEAR KEYS.

26. SET ANCHOR BOTLS AND EMBEDDED PLATES REQUIRED FOR CONNECTION OF WORK BY

27. PROVIDE A MINIMUM OF #4 @ 24" EACH WAY, INSIDE FACE FOR ALL WALLS, UNLESS

NOTED OTHERWISE.

28. MINIMUM ANCHORAGE AND SPLICE REQUIREMENTS FOR REINFORCING BARS SHALL BE

ACCORDING TO ACI 318.

29. PROVIDE TEMPERATURE REINFORCEMENT IN ALL CONCRETE SLABS AND WALLS IN ACCORDANCE WITH ACI 318, UNLESS OTHERWISE SHOWN ON DRAWING.

30. PROVIDE CONCRETE PADS FOR MECHANICAL EQUIPMENT ACCORDING TO THE REQUIREMENTS OF THE MANUFACTURER AND IN ACCORDANCE WITH THE TYPICAL DETAILS. ALWAYS PROVIDE MINIMUM REINFORCEMENT FOR PADS, UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH MECHANICAL DRAWINGS.

31. PROVIDE CONDENSATE PITS AND OTHER DEPRESSIONS OR CURBS AS REQUIRED FOR COMPLETION OF THE MECHANICAL WORK.

32. NO CONCRETE SHALL BE CAST BEFORE REVIEW AND APPROVAL OF THE REINFORCING AND EMBEDDED ITEMS HAVE BEEN OBTAINED FROM THE ARCHITECT.

GENERAL NOTES:

- 1. THE INTENT OF THE STRUCTURAL DRAWINGS IS TO SHOW THE MAIN STRUCTURAL FEATURES AND DESIGN FOR THE COMPLETED PROJECT. ARCHITECTURAL DETAILS AND OTHER COMPONENTS THAT MAY BE NECESSARY TO CONSTRUCT THE PROJECT ARE SHOWN INCIDENTALLY ONLY, AND NOT COMPLETELY. THEREFORE ALL CONTRACT DRAWINGS AND SPECIFICATIONS MUST BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS DURING ALL PHASES OF CONSTRUCTION. DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS, IF NOT CLARIFIED IN THE ADDENDA AT THE REQUEST OF THE CONTRACTOR, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING CONSTRUCTION FOR CLARIFICATIONS.
- 2. THE CONTRACTOR SHALL INFORM THE ARCHITECT OF ALL DISCREPANCIES BETWEEN DRAWINGS OF DIFFERENT TRADES, PRIOR TO INITIATION OF ANY WORK.
- 3. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF ADJACENT STRUCTURES, PROPERTY AND THE PUBLIC.
- 4. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATIONS AND DIMENSIONS OF ALL CHASES, SLOTS, INSERTS, CURBS, OPENINGS, SLEEVES, ANCHOR BOLTS, FLOOR PITCHES, ANGLE FRAMES AND ALL OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- 5. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING LOCATION, SHALL BE INCLUDED.
- 6. DETAILS SHOWN AS TYPICAL ARE APPLICABLE TO ALL SIMILAR CONDITIONS.
- 7. CONTRACTOR SHALL FIELD MEASURE ALL EXISTING CONDITIONS AND COORDINATE THEIR FINDINGS WITH THE NEW WORK.
- 8. SUBMIT SHOP DRAWINGS FOR EVERY TRADE FOR REVIEW AND APPROVAL

BY ARCHITECT / ENGINEER.

DESIGN CRITERIA:

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE 9TH EDITION & IRC 2015.

DESIGN LOADS: ROOF DEAD LOADS: 10 PSF

ROOF SNOW LOADS A. GROUND SNOW LOAD Pg 50 PSF

E. DESIGN ROOF SNOW LOAD

FLOOR DEAD LOAD 20 PSF

FLOOR LIVE LOAD 125 PSF ATTIC LIVE LOAD AND 30 PSF SLEEPING AREA ALL OTHER AREAS 40 PSF

A. BASIC WIND SPEED Vult 126 MPH B. RISK CATEGORY C. WIND EXPOSURE D. ROOF PITCH

FOUNDATION NOTES:

- 1. THE FOUNDATION DESIGN IS BASED ON 2,000 PSF SOIL BEARING CAPACITY. STRUCTURAL FILL SHOULD BE PREPARED TO PROVIDE THE CAPACITY. CONSULT
- WITH THE GEOTECH ENGINEER. 2. ALL BACKFILL UNDER STRUCTURAL SLABS, MATS, AND FOOTINGS WILL BE ENGINEERED BACKFILL COMPACTED IN SPECIFIC LIFTS TO 95 PERCENT OF MAXIMUM DRY DENSITY,

7° - 27°

- UNLESS OTHERWISE INDICATED OR SPECIFIED. 3. ALL EMBANKMENTS AND BACKFILL COMPACTED IN SPECIFIED LIFTS TO 90 PERCENT OF
- MAXIMUM DRY DENSITY, UNLESS OTHERWISE INDICATED OR SPECIFIED. 4. PROVIDE SHEETING, BRACING, AND UNDERPINNING AS REQUIRED TO PRESERVE
- ADJACENT STRUCTURES. 5. FOUNDATIONS SHALL NOT BE POURED IN WATER OR ON FROZEN GROUND.
- 6. VERIFY LOCATIONS AND REQUIREMENTS FOR INSERTS, SLEEVES, CONDUITS, EMBEDMENTS AND PENETRATIONS WITH RESPECTIVE TRADES BEFORE PLACING
- CONCRETE 7. DOWELS FROM FOUNDATIONS INTO PIERS, COLUMNS, BUTTRESSES OR WALLS SHALL BE THE SAME SIZE AND NUMBER AS REINFORCEMENT IN PIERS, COLUMNS,
- BUTTRESSES OR WALLS ABOVE, EXCEPT AS OTHERWISE SHOWN. 8. CONTRACTOR SHALL PROVIDE CONTINUOUS DRAINAGE BY MECHANICAL METHODS TO CONTROL SURFACE AND UNDERGROUND WATER, AS REQUIRED DURING
- CONSTRUCTION. 9. CONTRACTOR SHALL ENSURE THAT GROUND WATER LEVELS UNDER ADJACENT STRUCTURES AND PROPERTIES ARE NOT ALTERED.
- 10. ALL FOUNDATION UNITS (PIERS) SHALL BE CENTERED SUPPORT MEMBERS, UNLESS OTHERWISE NOTED ON PLANS.
- 11. COORDINATE UNDER FLOOR AND PERIMETER DRAIN REQUIREMENTS WITH ARCHITECTURAL, CIVIL AND PLUMBING DRAWINGS AND THE
- REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. 12. ALL BEARING MATERIALS SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL DETERMINE THE SUITABILITY OF THE BEARING
- MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED. 13. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN
- 14. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.
- 15. ALL FOOTING EXCAVATIONS ARE TO BE FINISHED BY HAND. 16. SEE THE REQUIREMENTS OF THE SPECIFICATIONS FOR BACKFILLING UNDER OR ADJACENT TO ANY PORTION OF THE BUILDING.
- 17. PROTECT IN-PLACE FOUNDATIONS, SLABS AND ADJACENT STRUCTURES, NEW CONSTRUCTION, STREET UTILITIES FROM FROST PENETRATION OR DAMAGE FROM CONSTRUCTION ACTIVITIES UNTIL THE PROJECT IS COMPLETED.

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RJ Farah Engineering, Inc

STRUCTURAL ENGINEERS

800 WEST CUMMINGS PARK

SUITE 4600

CLIENT:

WOBURN, MA 01801

T 617.645.0901

PROJECT NUMBER: R19005 DRAWN BY: R.H. CHECKED BY: R.J.F.

REV DATE

SEAL:

DRAWING ISSUE: PERMIT &

ISSUE DATE: 19 AUGUST 2019

DESCRIPTION

CONSTRUCTION

GENERAL

OPENING	ROOF BEARING ABOVE	ROOF & 1 FLOOR BEARING ABOVE	ROOF & 2 FLOORS BEARING ABOVE	ROOF & 3 FLOORS BEARING ABOVE
0'-0" UP TO 3'-0"	1J&1S	1J&1S	1 J & 1 S	1 J & 1 S
3'-1" UP TO 5'-0"	2 J & 1 S	2 J & 1 S	1 J & 2 S	1 J & 2 S
5'-1" UP TO 7'-0"	2 J & 1 S	2 J & 1 S	2 J & 2 S	2 J & 3 S
7'-1" UP TO 9'-0"	2 J & 1 S	2 J & 1 S	2 J & 2 S	2 J & 4 S
	JACK SCH	EDULE (2x4 INTERIOR	BEARING WALLS)	
OPENING 1 FLOOR BEARING ABOVE		2 FLOORS BEARING ABOVE	3 FLOORS BEARING ABOVE	
0'-0" UP TO 3'-0"	1J&1S	1J&1S	1 J & 1 S	
3'-1" UP TO 6'-0"	2 J & 1 S	2 J & 1 S	1 J & 2 S	
6'-1" UP TO 9'-0"	2 J & 1 S	2 J & 1 S	2 J & 3 S	
3. ALL JACKS & S	HT STUD NAILED TO JA STUDS TO BE 2x6 SPF - ‡	CK ALONGSIDE OF JACK. 2 GRADE OR BETTER. 3 GETHER W/ 12d NAILS (

WOOD CONNECTOR SCHEDULE					
MEMBER	SIZE	CONNECTOR TYPE	SIMPSON CONNECTOR MODEL		
JOIST	2x6	HANGER	LU26-10d		
JOIST	2x10	HANGER	U210		
DOUBLE JOIST	(2)2x6	HANGER	U26-2 -10d		
DOUBLE JOIST	(2)2x10	HANGER	U26-2 -10d		
STAIR TREAD TO STRINGER		ANGLE	TA9		
CENTER STRINGER - HEADER		SKEWABLE HANGER	LSS210		
EXTERIOR STRINGER-HEADER		ANGLE	L90		
DECKING TO JOIST		SCREWS	2-DECKING SCREW		
BEAM TO POST		THROUGH BOLTS	2-DECKING SCREW		

	FLOOR & ROOF SHEATHING SCHEDULE
SHEATHING	NAILING REQUIRMENTS
	FLOORS
²³ %2" APA RATED T&G FLOOR SHEATHING	NAILED WITH 6d RING OR SCREW SHANK NAILS AT 6" O.C. ALONG PANEL EDGES WHICH ALIGN WITH FLOOR TRUSSES AND / OR RIBBONS AT 12" ALONG INTERMEDIATE SUPPORTS
	ALTERNATE: GLUED AND NAILED WITH 6d RING OR SCREW SHANK NAILS AT 12" O.C. ALONG PANEL EDGES AND INTERMEDIATE SUPPORTS. SEE NOTE 1
	PITCHED ROOFS
¹⁹ ⁄ ₃₂ " APA RATED OSB	NAILED WITH 8d COMMON SMOOTH OR DEFORMED SHANK NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. ALONG INTERMEDIATE SUPPORTS. INSTALL CLIPS AT PANEL EDGES. STAPLES ARE NOT ALLOWED.
	FLAT ROOFS
²³ ⁄ ₃₂ " APA RATED OSB	NAILED WITH 8d COMMON SMOOTH OR DEFORMED SHANK NAILS AT 6" O.C. ALONG PANEL EDGES WHICH ALIGN WITH ROOF TRUSSES AT 12" O.C. ALONG INTERMEDIATE SUPPORTS. INSTALL CLIPS AT PANEL EDGES. STAPLES ARE NOT ALLOWED.

1. USE ONLY ADHESIVES CONFORMING TO APA SPECIFICATION AFG-01 OR ASTM D3498. APPLY IN ACCORDANCE WITH MANUFACTURERS

THIS TABLE IS BASED UPON THE APA RECOMMENDATIONS FOR STURD-I-FLOOR.

RECOMMENDATIONS.

WOOD COLUMN SCHEDULE					
MARK	SIZE	MARK	SIZE		
1 - 44	(1) 4x4	2 - 26	(2) 2x6		
2 - 24	(2) 2x4	3 - 26	(3) 2x6		
3 - 24	(3) 2x4	3.5 x 7 PSL	3 ½" x 7" PSL COLUMN		
4 - 24	(4) 2x4	SC - 3	3"Ø STD. STEEL PIPE COLUMN		
5 - 24	(5) 2x4	HSS - 4	HSS4x4x ⁵ ∕ ₁₆ COLUMN		
1 - 66	(1) 6x6				
1 - 46	(1) 4x6				
HSS-3	HSS3x3x ⁵ / ₁₆				

1. WHERE COLUMNS ARE SHOWN ON EITHER SIDE OF OPENING, JACK SCHEDULE REQUIREMENTS ARE NOT APPLICABLE FOR THAT OPENING.

ALL COLUMNS ARE ASSUMED TO BE SPF - #2 GRADE OR BETTER U.N.O. 3. ALL BUILT-UP COLUMNS TO BE NAILED TOGETHER W/ 12d NAILS SPACED 8" O.C.

4. PRE - FAB STRUCTURAL COLUMNS ~ CONTRACTOR TO SUPPLY ENGINEER WITH SPECIFICATIONS AND DESIGN CRITERIA.

O SINGLE FAMILY DWELLING 5 LAKEVIEW AVENUE LYNNFIELD, MA

O rv _

1

ION AT

ADD

RJ Farah Engineering, Inc

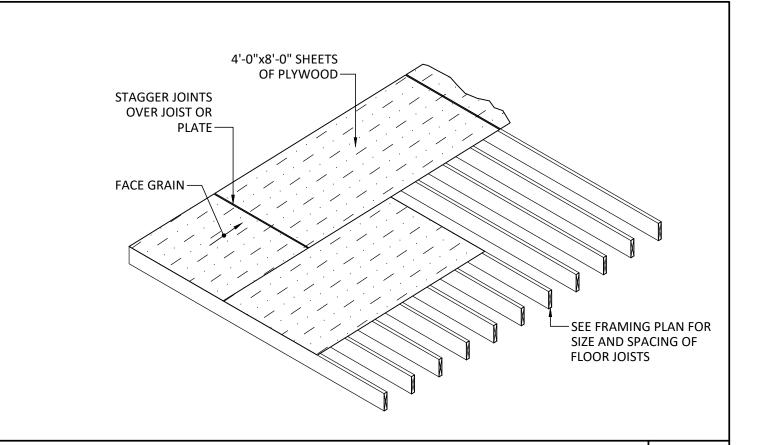
STRUCTURAL ENGINEERS

800 WEST CUMMINGS PARK

SUITE 4600

CLIENT:

WOBURN, MA 01801 T 617.645.0901

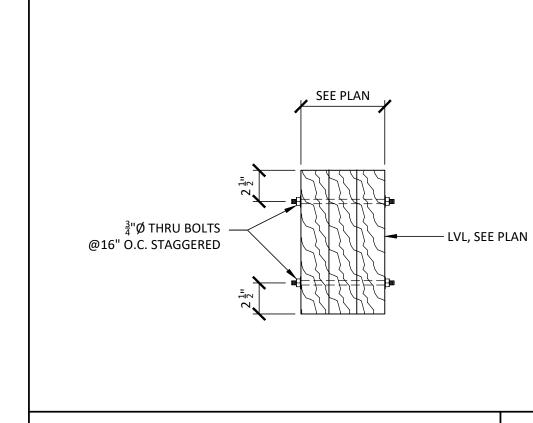


5. FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL

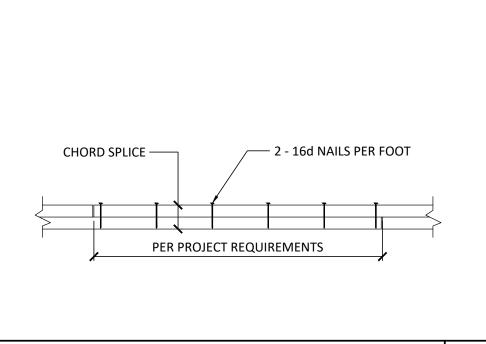
ALL OF THEM UNDER THE BEAM. BLOCK AS REQUIRED.

NUMBER OF JACKS AND STUDS SHOWN IN THE SCHEDULE ABOVE, EXCEPT LOCATE

SHEATHING PLACEMENT DETAIL NTS B3



TYP LVL CONNECTION DETAIL B2

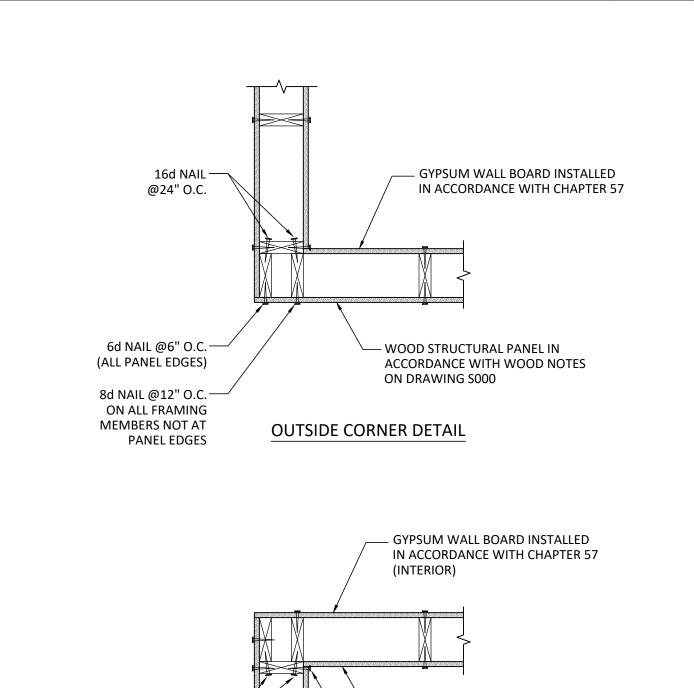


TOP PLATE SPLICE DETAIL NTS B1

HEADER SCHEDULE				
	2x6 STUD WALLS			
OPENING	ROOF	ONE FLOOR	ONE FLOOR + ROOF	
OPENING				
LESS THAN 3'-0"	2-2x6	2-2x6	2-2x6	
3'-1" to 5'-0"	2-2x6	2-2x8	2-2x8	
5'-1" to 7'-0"	2-2x8	2-2x10	2-2x10	
7'-1" to 8'-0"	2-2x8	2-2x10	2-2x12	

1. PROVIDE AND INSTALL HEADERS IN ACCORDANCE WITH THE ABOVE SCHEDULE FOR INDICATED ROUGH OPENINGS ON ARCHITECTURAL PLANS AND UNLESS NOTED OTHERWISE. HEADER SPANS EXCEEDING TABULATED VALUES SHALL BE NOTED ON FRAMING PLANS.

2. PROVIDE 3" MINIMUM BEARING AT EACH END.

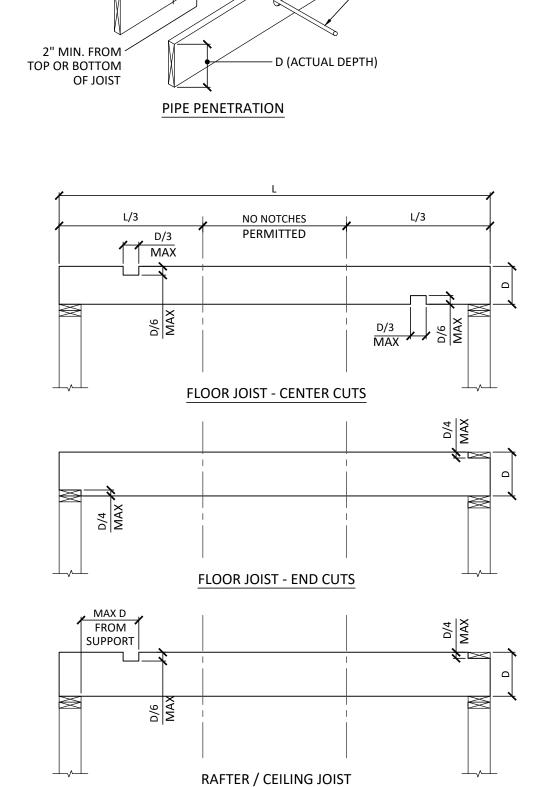


- WOOD STRUCTURAL PANEL IN ACCORDANCE WITH WOOD NOTES

ON DRAWING S000

– 8d NAIL @6" O.C. ON ALL FRAMING MEMBERS AT

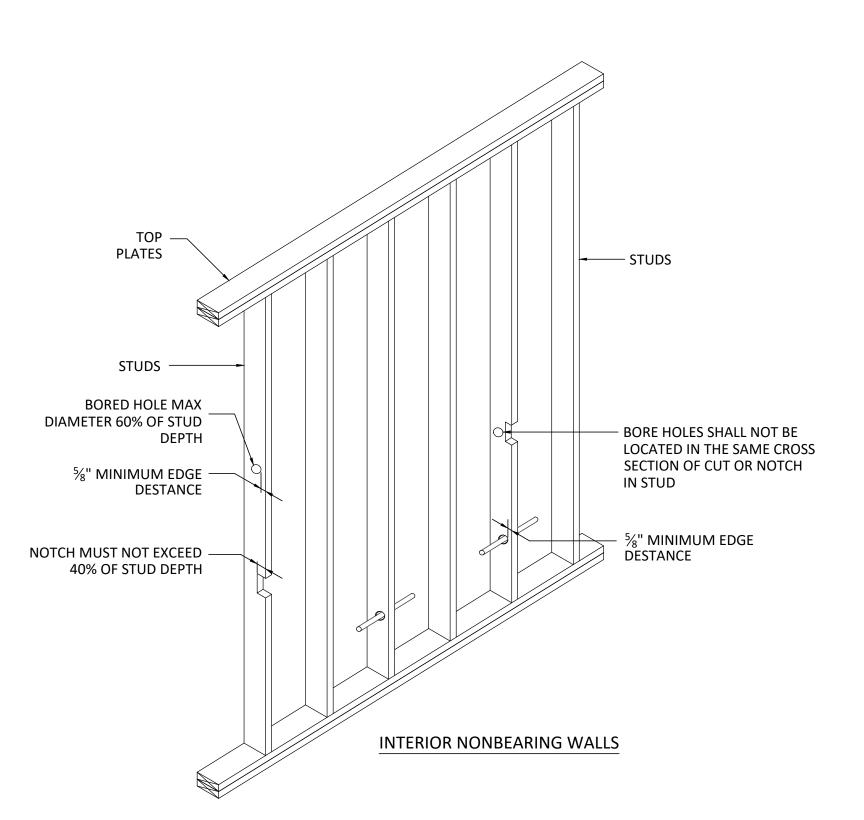
PANEL EDGES AND 12" O.C. ON ALL FRAMING MEMBERS NOT AT PANEL EDGES.

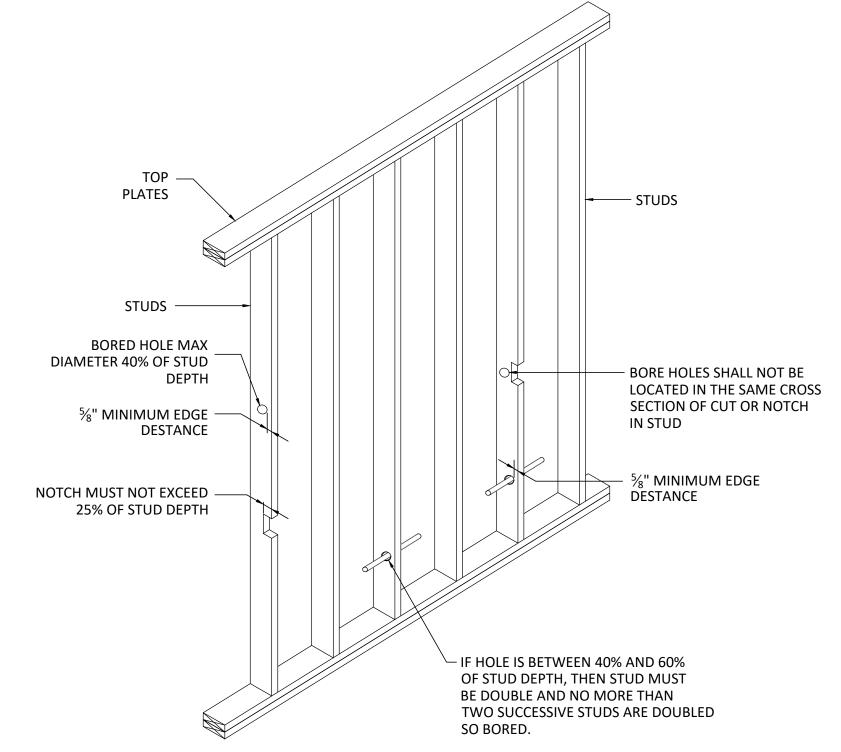


D/3 MAX -

- JOISTS OR RAFTERS

– PIPE OR CONDUIT





EXTERIOR AND BEARING WALLS

REV DATE DESCRIPTION DRAWING ISSUE: ISSUE DATE: SEAL:

PROJECT NUMBER: R19005 DRAWN BY: R.H. CHECKED BY: R.J.F.

WOOD TYPICAL DETAILS & **SCHEDULES**

S_{0.1}

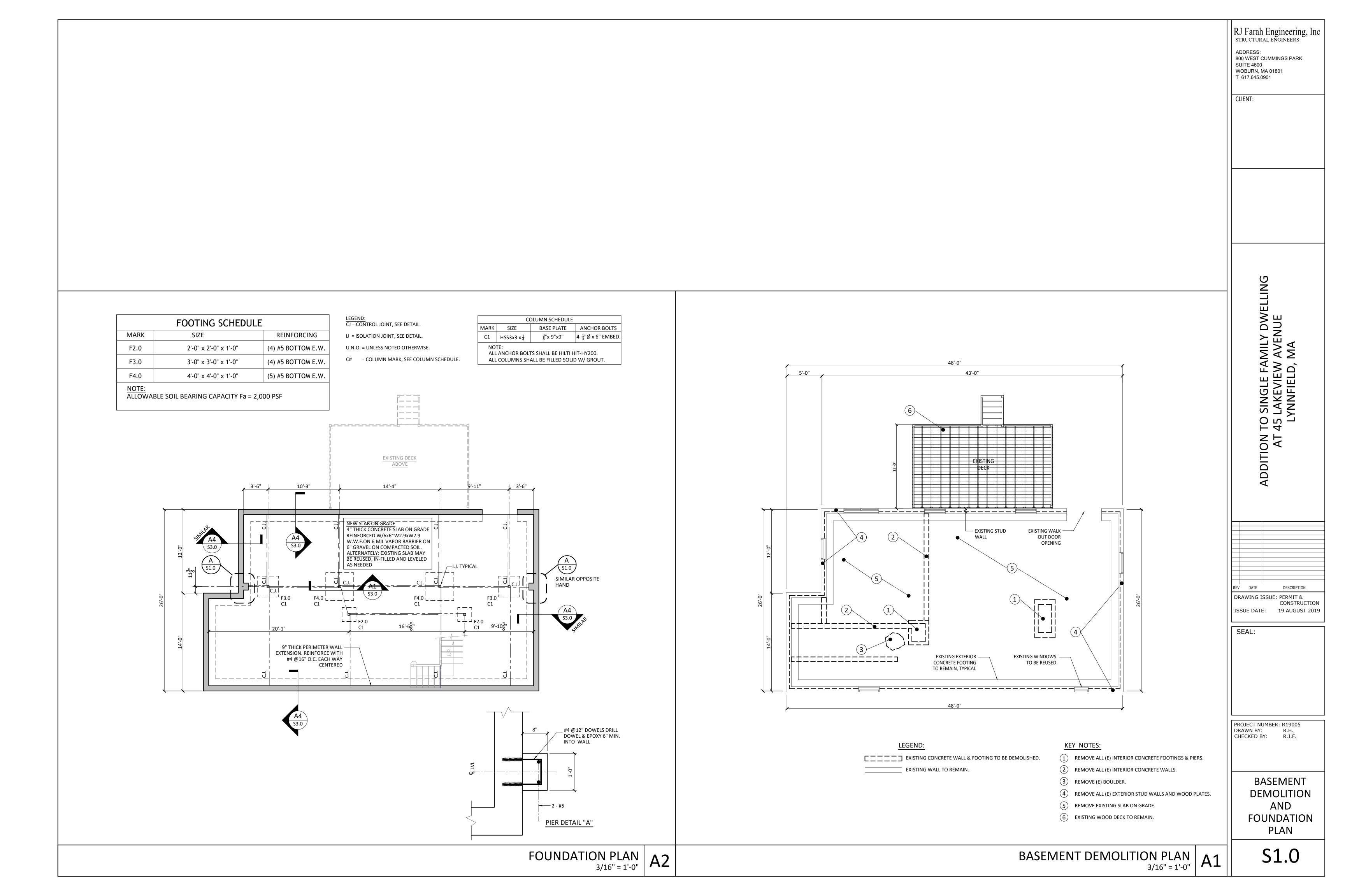
EXTERIOR CORNER FRAMING DETAILS A3

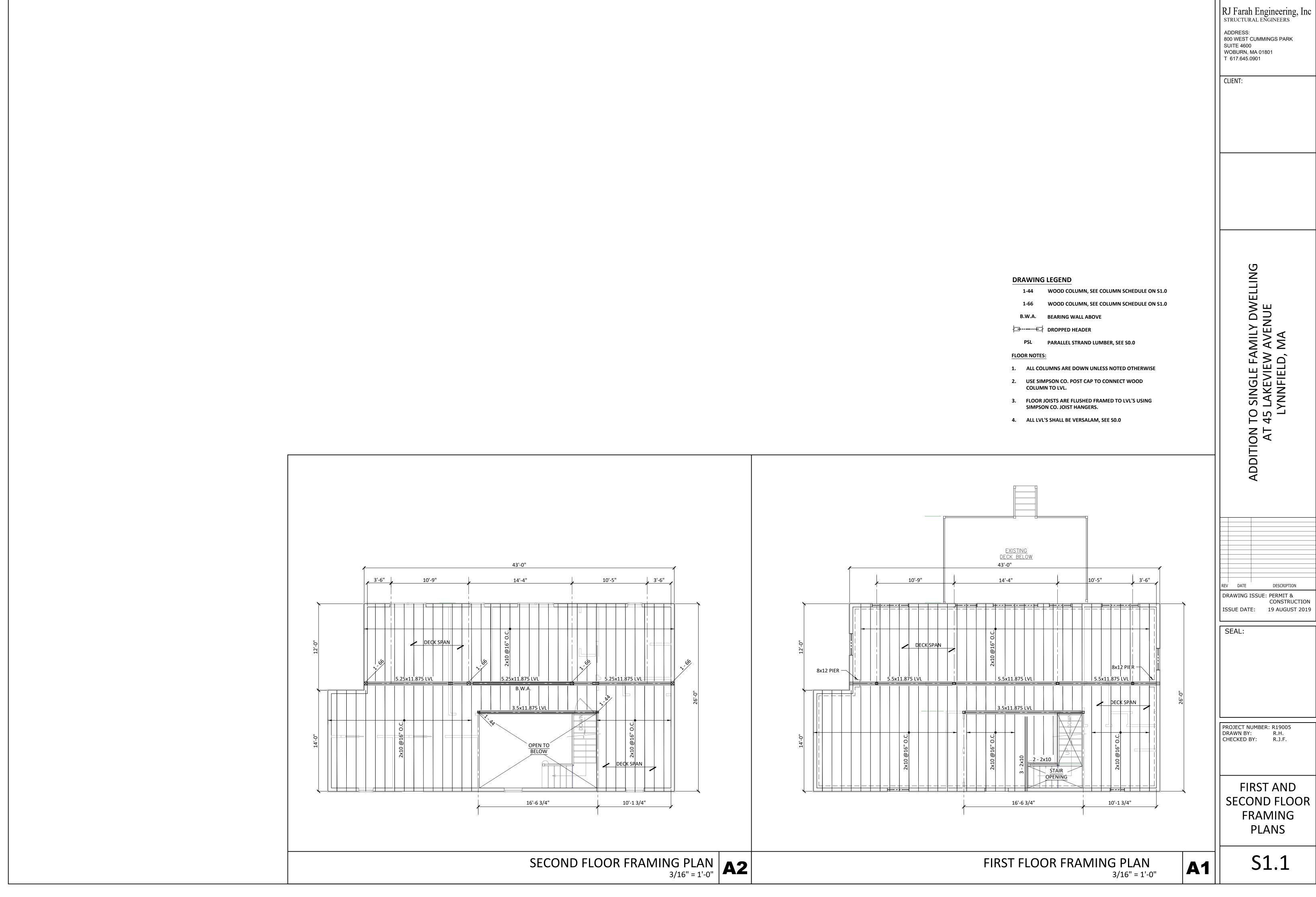
INSIDE CORNER DETAIL

16d NAIL -@24" O.C.

WOOD PENETRATION DETAILS A2

NOTCHING & BORED HOLE LIMITATIONS A1





RJ Farah Engineering, Inc ADDRESS: 800 WEST CUMMINGS PARK SUITE 4600 WOBURN, MA 01801 T 617.645.0901 CLIENT: O SINGLE FAMILY DWELLING 5 LAKEVIEW AVENUE LYNNFIELD, MA **DRAWING LEGEND** 1-44 WOOD COLUMN, SEE COLUMN SCHEDULE ON \$1.0 B.W.A. BEARING WALL ABOVE DROPPED HEADER PSL PARALLEL STRAND LUMBER, SEE SO.0 T0 45 B.W.B. BEARING WALL BELOW ADDITION AT **ROOF NOTES:** 1. ALL ROOF RAFTERS SHALL BE ATTACHED TO THE EXTERIOR WALL WITH SIMPSON H2.5A CLIP. 2. SEE ATTIC FRAMING PLAN FOR WINDOW HEADERS. **KEY NOTES:** 1 BEARING WALL 2x4 @16" O.C. 14'-4" 3'-6" REV DATE DESCRIPTION DRAWING ISSUE: PERMIT & CONSTRUCTION ISSUE DATE: 19 AUGUST 2019 SEAL: DECK SPAN 3.5x11.875 LVL l 2x12 RIDGE BOARD 3.5x11.875 LVL PROJECT NUMBER: R19005 DRAWN BY: R.H. CHECKED BY: R.J.F. DECK SPAN ATTIC & ROOF 16'-6 3/4" 10'-1 3/4" FRAMING **PLANS** S1.2 ROOF FRAMING PLAN
3/16" = 1'-0" ATTIC FRAMING PLAN
3/16" = 1'-0"

