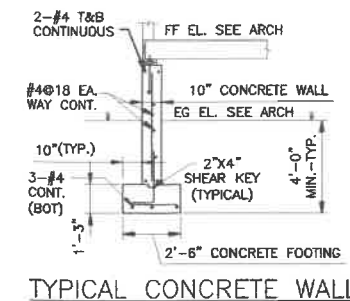
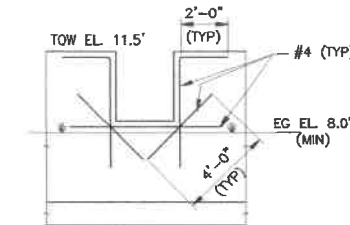


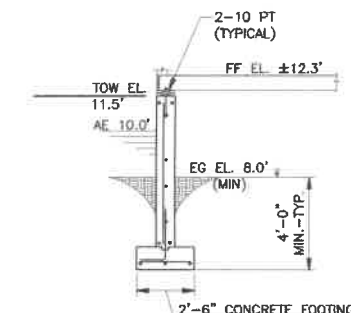
NEW FOUNDATION PLAN
FRONT OF HOUSE
118 CADISH STREET



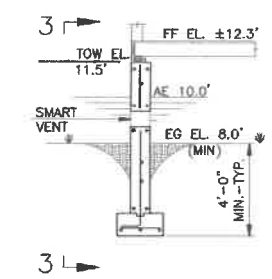
TYPICAL CONCRETE WALL



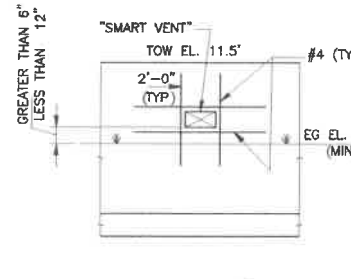
SECTION 4-4
AT ACCESS



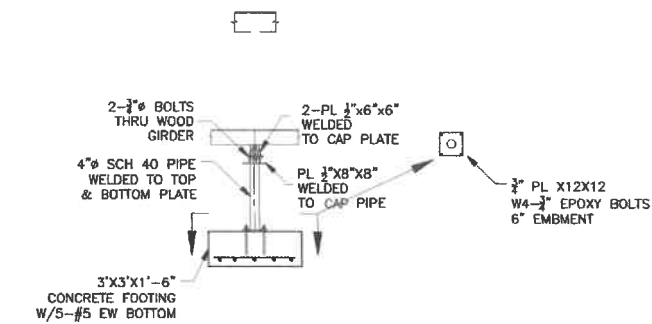
SECTION 1-1



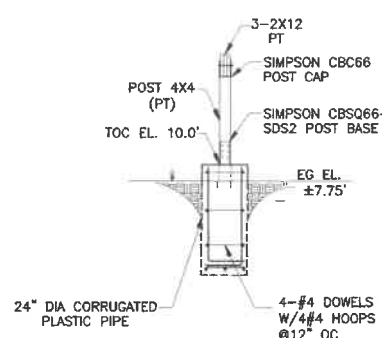
SECTION 2-2



SECTION 3-3
AT SMART VENT



SECTION 5-5



SECTION 6-6

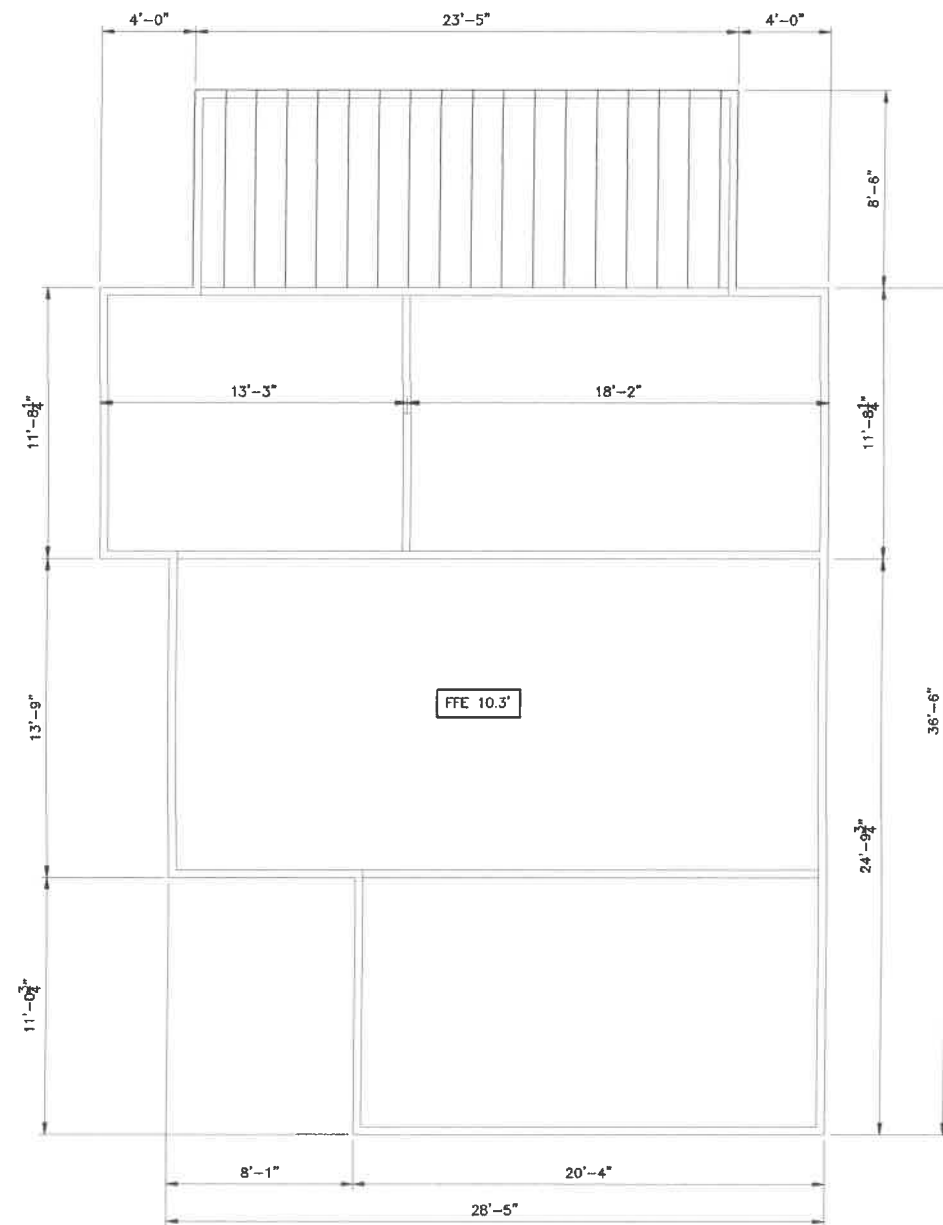
REVISION 3
Progress set Review
12/08/19



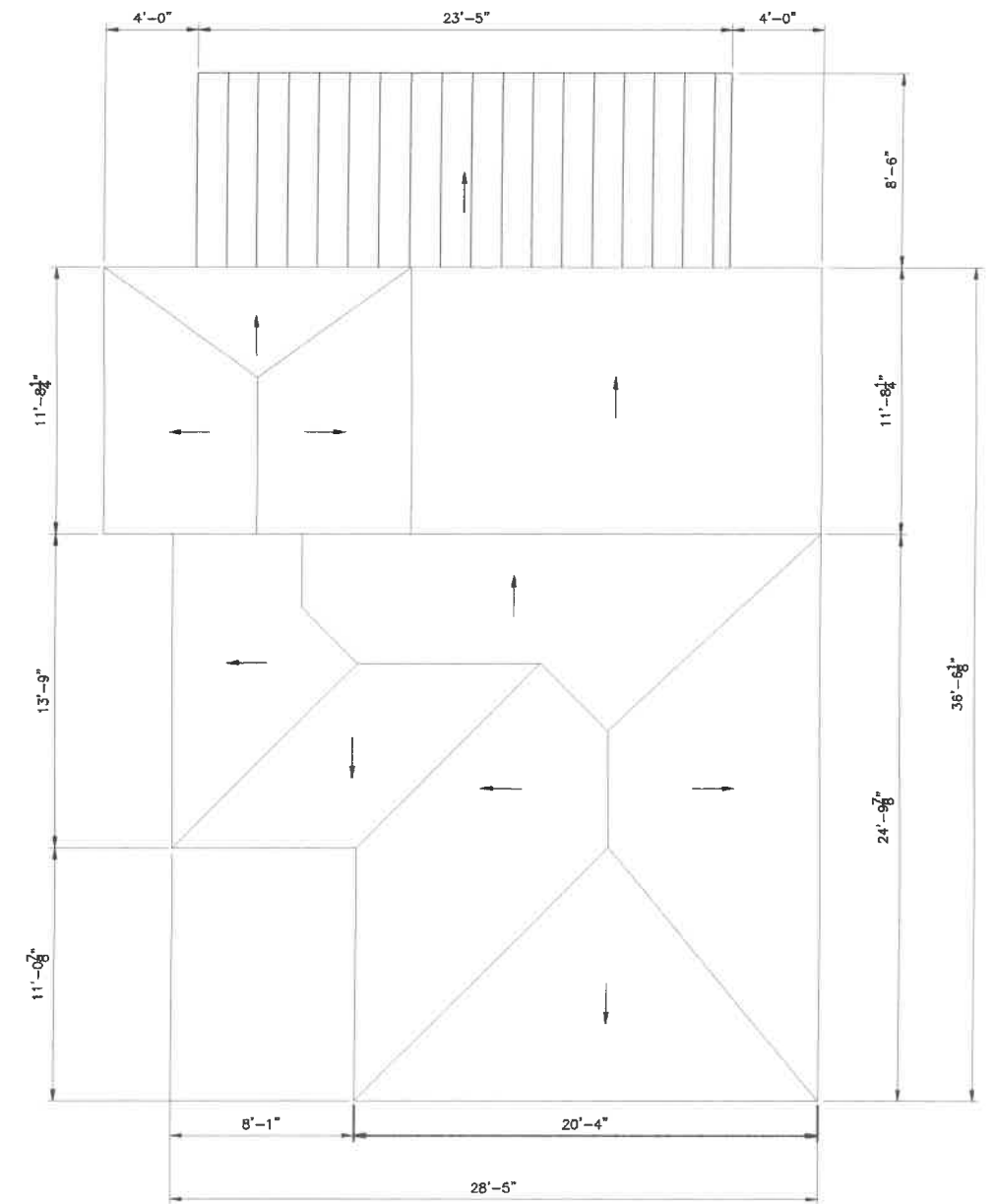
10/05/19

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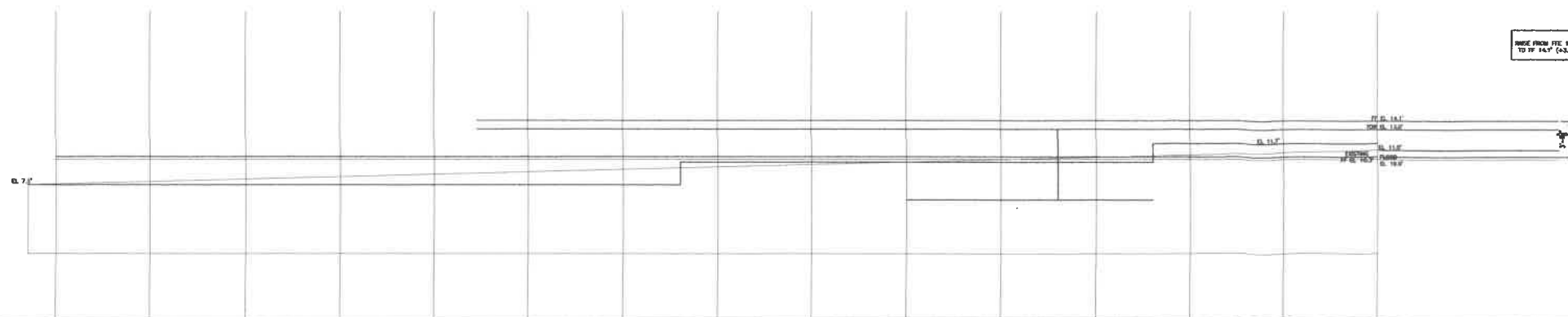
Progress Set Drawings Updated 10/05/19	
NOTE: 11" x 17" DRAWING SIZE IS NOT TO SCALE	
Paul Bonarrigo, P	
Structural Engineer 52 Northern Avenue • Weymouth, MA 021 Tel (781) 708-3287	
1/4"=1'-0"	Responsible Design: 10/06/19 Paul Bonarrigo, PE
Existing Foundation 118 Cadish Avenue	



EXISTING FOUNDATION BEARING PLAN



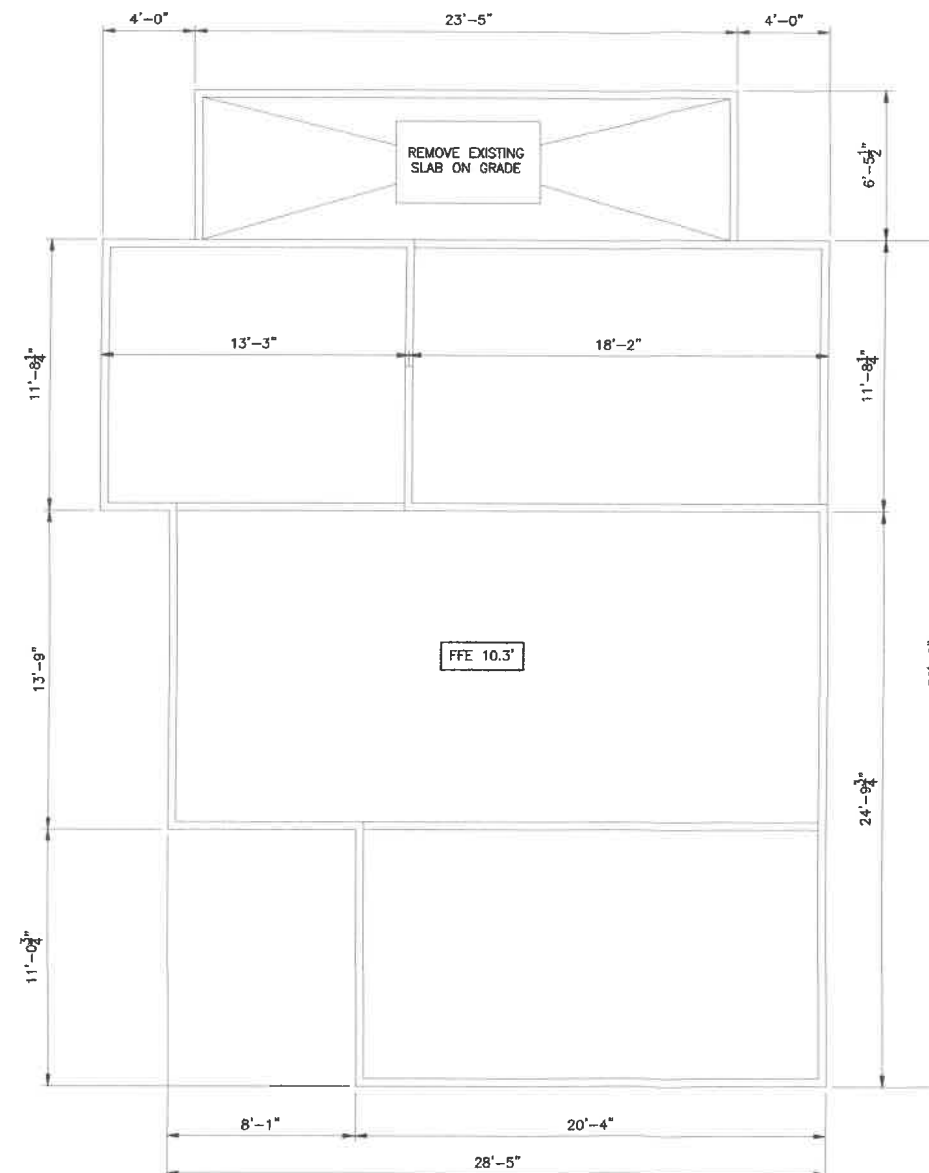
REVISION 3
Progress set Review
12/08/19



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Progress Set Drawings Updated 10/05/19	
NOTE: 11" x 17" DRAWING SIZE IS NOT TO SCALE	
Paul Bonarrigo, P.E.	
Structural Engineer 62 Northern Avenue • Weymouth, MA 02 Tel (781) 706-3287	
Scale: 1/4"=1'-0" 10/08/19	Responsible Charge: Paul Bonarrigo, PE
Existing Foundation 118 Cadish Avenue	



EXISTING FOUNDATION BEARING PLAN

REVISION 3
Progress set Review
12/08/19



10/05/19

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Progress Set Drawings Updated 05/22/19	
NOTE: 11" x 17" DRAWING SET IS NOT TO SCALE	
Paul Bonarrigo, P.E.	
Structural Engineer 52 Northern Avenue • Weymouth, MA 02 Tel (781) 708-3287	
Scale: 1/8"=1'-0" 10/08/10	Responsible Charge: Paul Bonarrigo, PE
Existing Foundation 118 Cadish Avenue	

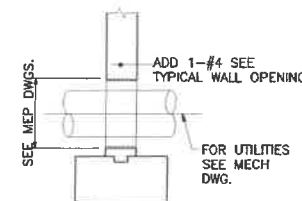
- GENERAL NOTES:
1. THE DESIGN SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE 8th ED.
 2. THE CONTRACTOR IS RESPONSIBLE TO FOLLOW ALL LOCAL, STATE, AND APPLICABLE NATIONAL CODES.
 3. THE CONTRACTOR IS RESPONSIBLE TO VISIT THE SITE TO REVIEW ALL EXISTING CONDITIONS AND REPORT ANY VARIATIONS ON THE DRAWINGS TO THE ARCHITECT FOR CLARIFICATION.
 4. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER FOR CLARIFICATION.
 5. CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER, ALSO FOR THE STABILITY OF THE STRUCTURE DURING ERECTION AND CONSTRUCTION.
 6. THE CONTRACTOR IS TO IMPLEMENT THE REQUIREMENTS OF WFCM 110 MPH EXPOSURE B.

- DESIGN LOADS:
1. THE BUILDING SHALL BE DESIGNED TO CONFORM TO THE MASSACHUSETTS STATE BUILDING CODE EIGHTH EDITION, AND TO RESIST THE FOLLOWING LOADS:
WIND: 110 MPH (EXPOSURE B)
SNOW: $P_g=35$ PSF
FLOOR: $LL=40$ PSF
DECK & PORCH: $LL=60$ PSF
 2. DIMENSIONS COLONIAL CTM-L ELEVATIONS
FILE NAME "COASTAL 3"
WINCHESTER MODULAR HOMES, INC
30 REAGANS MILL ROAD
WINGATE, NY 12594 DATED 04/02/07
(845) 832-9400
 3. FLOOD ZONE DATA BASED ON
NASTASKET SURVEY ENGINEERING, LLC
JOB # 1-1604 DATED 04/03/15

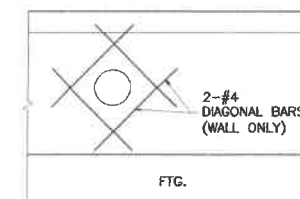
- FOUNDATIONS AND CONCRETE SLAB-ON-GRADE:
1. FOUNDATIONS SHALL BEAR ON COMPACTED GRANULAR FILL OR NATURAL UNDISTURBED SOILS HAVING A MINIMUM BEARING CAPACITY OF 2 TONS PER SQUARE FOOT - VERIFIED BY THE CONTRACTOR. SOIL USED AS FILL SHALL BE COMPACTED.
 2. ALL EXTERIOR FOUNDATIONS SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE, TO PROVIDE ADEQUATE FROST PROTECTION FOR FOOTINGS.
 3. CAST-IN-PLACE ANCHOR BOLTS SHALL BE $\frac{3}{4}$ " DIAMETER AT 4'-0" ON CENTER EMBEDDED 1'-0" INTO TOP OF THE FOUNDATION WALL AND BOLTED INTO THE SILL. BOLTS SHALL BE ASTM A307 MATERIAL-GALVANIZED AND SHALL BE SET PRIOR TO PLACING CONCRETE (SEE DETAIL).
 4. ALL STRUCTURAL CONCRETE SHALL BE NORMAL WEIGHT, STONE AGGREGATE CONCRETE, AND SHALL BE PROPORTIONED, MIXED AND PLACED UNDER THE SUPERVISION OF A CONTROL ENGINEER IN ACCORDANCE WITH ACI 315, 318 AND 301 STANDARDS, LATEST EDITIONS. CONCRETE SHALL DEVELOP THE FOLLOWING 28 DAY STRENGTHS:
A. CONCRETE FLATWORK EXPOSED TO WEATHER 3500 PSI (8% AIR ENTRAINMENT)
B. EXTERIOR: WALLS, FOOTINGS, PIERS AND SLABS EXPOSED TO WEATHER 3000 PSI (6% AIR ENTRAINMENT)
C. ALL OTHER CONCRETE: 3000 PSI
 5. REINFORCING BARS INCLUDING STIRRUPS SHALL CONFORM TO ASTM A615 WITH 60,000 PSI YIELD STRENGTH WITH MINIMUM ANCHORAGE AND SPLICE REQUIREMENTS FOR REINFORCING IN ACCORDANCE WITH ACI 318, LATEST EDITION.
 6. SLABS ON GRADE SHALL BE PLACED IN STRIPS IN ACCORDANCE WITH THE LATEST ACI RECOMMENDATIONS. SLABS SHALL BE PLACED ON GRADED GRANULAR MATERIAL COMPACTED TO 95% OF MAXIMUM DRY DENSITY. SLABS SHALL BE 5" THICK MINIMUM AND REINFORCED W/WWR 6X6XW2.9XW2.9.
 7. FOUNDATIONS AND SLABS SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.

- WOOD CONSTRUCTION:
1. ALL LUMBER USED SHALL CONFORM TO THE FOLLOWING SPECIFICATION:
A. ALL SAWN LUMBER SHALL BE SPRUCE-PINE-FIR AS FOLLOWS:
1. STUDS - NO. 1/NO. 2 OR BETTER
2. JOISTS & RAFTERS - NO. 1/NO. 2 OR BETTER
3. BEAMS & GIRDERS - NO. 1 OR BETTER
B. LAMINATED VENEER LUMBER (LVL) BEAMS AND HEADERS:
2.0E $\frac{1}{4}$ " LAM LVL ALLOWABLE DESIGN STRESSES
PRODUCT BY GEORGIA-PACIFIC OR ENGINEER APPROVED EQUAL.
 $E=2,000$ KSI
 $F_b=2,950$ PSI
 $F_v=285$ PSI
 $F_{c\perp}=750$ PSI
 $F_{c\parallel}=2,750$ PSI
C. PARALLAMS (LAM) COLUMNS:
1.8E PARALLAM PSL COLUMN ALLOWABLE DESIGN PROPERTIES PRODUCT BY TRUSJOIST® OR ENGINEER APPROVED EQUAL
 $E=1,800$ KSI
 $F_b=2,400$ PSI
 $F_{c\parallel}=2,500$ PSI
D. WOOD I BEAMS FOR FLOOR JOISTS OR ROOF RAFTERS:
SIZE AND MANUFACTURER SHALL BE AS SPECIFIED ON THE CONTRACT DRAWING OR ENGINEER APPROVED EQUAL.
 2. ALL HANGERS, CAPS, AND STRAPS SHALL BE BY THE CONTRACTOR AND BASED ON THE LOADS SHOWN ON THE CONTRACT DRAWING. SEE REACTION (R)=LOAD IN KIPS. (1 KIP =1000 LBS) UPLIFT REACTION (U)=LOAD IN KIPS.
 3. ALL EXTERIOR WALLS SHALL BE 2X6'S (UNO) @ 16" OC AND SHALL BE SHEATHED WITH $\frac{1}{2}$ " WOOD STRUCTURAL PANELS - SHEATHING. BLOCKING IS REQUIRED AT ALL FREE EDGES. NAILING PATTERN: 6d NAILS @ 6" AT EDGES AND 6" IN FIELD.
 4. ALL FLOOR SHEATHING SHALL BE $\frac{3}{4}$ " ADVANTECH T&G GLUED AND NAILED TO FLOOR MEMBERS.
 5. ALL ROOF SHEATHING SHALL BE $\frac{3}{4}$ " APA EXPOSURE 1 PLYWOOD AND HAVE PLYWOOD EDGE CLIPS WITH ASPHALT SHINGLES ON 15# FELT PAPER.
 6. PROVIDE ONE ROW OF WOOD BLOCKING AT MID-HEIGHT OF STUDS FOR ALL WALLS OVER 8' IN HEIGHT. PROVIDE BLOCKING AT ALL EXTERIOR WALL PLYWOOD JOINTS.
 7. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.
 8. ALL GABLE END DOOR HEADERS 3-2X10 W/1/8" ES AND ALL ROOF BEARING DOOR HEADERS 3-2X10 W/2/8" ES.
 9. PLACE AN ADDITIONAL FLOOR JOIST UNDER EACH PARTITION WALL WHEN THE WALL RUNS PARALLEL WITH THE FLOOR JOISTS.
 10. CONTRACTOR TO OBTAIN MASSACHUSETTS P.E. STAMP DRAWING FOR TJI'S, LVL'S AND LAM POST FROM LUMBER SUPPLIER AND FORWARD TO THE ENGINEER FOR THE PROJECT RECORDS.
 11. PROVIDE HOLD DOWN CLIPS ON EACH ROOF RAFTER. PROVIDE LAM POST CAPS AND BASES ON ALL POST SUPPORTING ROOF BEAMS.

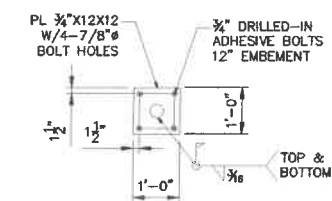
- STRUCTURAL STEEL NOTES:
1. STRUCTURAL STEEL FOR ROLLED STEEL SHAP NEW CARBON STEEL AND HAVE 50 KSI MINIMUM STRENGTH.
 2. STRUCTURAL STEEL FOR HOLLOW STRUCTURAL SHALL BE NEW CARBON STEEL AND HAVE 46 YIELD STRENGTH.
 3. STRUCTURAL STEEL FOR PLATES SHALL BE NEW CARBON STEEL AND HAVE 36 KSI MINIMUM STRENGTH.
 4. MINIMUM THICKNESS FOR CLIP ANGLES AND (SHALL BE $\frac{3}{8}$ ".
 5. BOLTED CONNECTIONS SHALL HAVE A MINIMUM STEEL ASTM A36 AND HAVE 36 KSI MINIMUM STRENGTH. TYPE 1 HIGH STRENGTH BOLTS, AND $\frac{3}{8}$ " DIAM AND HAVE NUTS AND WASHERS.
 6. ALL BRACING CONNECTIONS WITH POSTED MEMBERS SHALL DEVELOP 100% OF THE FORCE IN THE THE $\frac{1}{2}$ INCREASE FOR ALLOWABLE STRESSES.
 7. ALL BOLTS FOR FRAMING MEMBERS SHALL BE BY TURN OF THE NUT METHOD.
 8. WELDING SHALL CONFORM TO THE STRUCTURAL CODE AWS D1.1. WELDING ELECTRODES SHALL BE E7018, LOW HYDROGEN.
 9. FIELD CUTTING, DRILLING, OR MODIFICATION IS UNLESS APPROVED BY THE ENGINEER.
 10. ALL STRUCTURAL STEEL SHALL BE SHOP BASE AMERLOCK 2 AND FINISHED WITH AMPERSHIELD SURFACE PREPARATION AND PAINT APPLICATION BE SSPC-SP10 IN ACCORDANCE WITH THE MA RECOMMENDATIONS.
 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ACTUAL FIELD CONDITIONS AND DIMENSIONS SI PLANS PRIOR TO FABRICATING STRUCTURAL STEEL.
 12. DESIGN PROCEDURES AND CALCULATIONS FOR CONNECTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO SUBMITTAL OF SHOP DRAWINGS. PROCEDURES AND CALCULATIONS SHALL BE SI PROFESSIONAL ENGINEER REGISTERED IN THE MASSACHUSETTS.



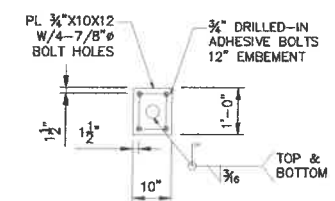
TYPICAL WALL PENETRATION FOR UTILITY SLEEVE



TYPICAL SECTION WALL OR SLAB PENETRATION FOR UTILITY SLEEVE

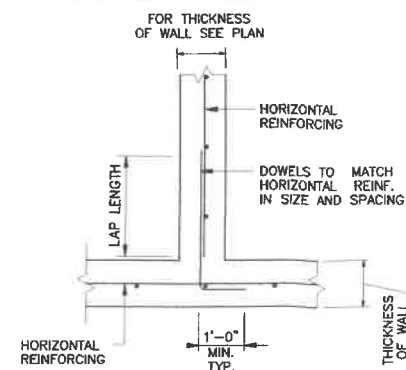


SECTION A-A

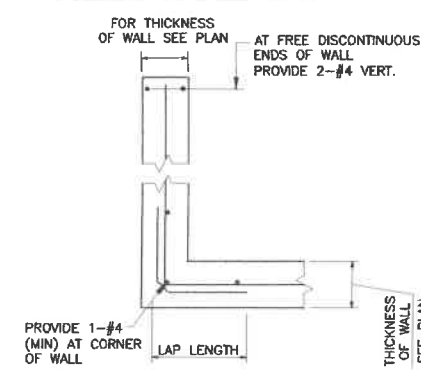


SECTION B-B

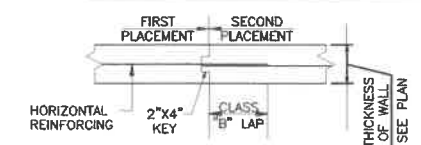
ANCHOR BC



HORIZONTAL REINFORCING FOR WALLS & FOOTINGS



HORIZONTAL REINFORCING FOR WALLS & FOOTINGS



WALL OR SLAB CONSTRUCTION JOINT SLOPE

REVISION 3
Issued for Review
12/08/19



12/8/19

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Paul Bonarrigo, P	
Structural Engineer	
52 Northern Avenue • Weymouth, MA 02	
Tel (781) 706-3287	
1/4"=1'-0"	Responsible Charge
08/01/18	Paul Bonarrigo, PE
Notes foundation 118 Cadish Ave	