

- SEE SOIL REPORT FOR FOOTING SIZE AND REINFORCEMENT.
- PROVIDE 6-MIL POLY VAPOR BARRIER MIN. BLOCK ALL POINT THROUGH FLOOR SYSTEM TO FOUNDATION, TYP.
- 4. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL HAVING THE STATED MINIMUM SOIL
- DESIGN BEARING CAPACITY.
- NO FOOTING SHALL BE PLACED IN WATER OR ON FROZEN SOIL.
- BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 18" BELOW FINISHED GRADE. ALL POURED CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.
- PROVIDE METAL TERMITE SHIELD AT THE TOP OF FOUNDATIONS WALLS BELOW SILL PLATE AT 45° ANGLE. EXTEND METAL SHIELD 2" TO 3" PAST FOUNDATION WALLS ON BOTH SIDES. SEAL ALL SEAMS AND HOLES.

- 1. ALL WINDOW AND DOOR HEADERS TO BE (2) 2X6'S WITH (1) JACK STUDS UNLESS OTHERWISE NOTED.
- SECOND FLOOR FRAMING TO BE 14" DEEP PRE-ENGINEERED FLOOR JOIST AT 24" OC. 3. INTERIOR DOORS IN CLOSE PROXIMITY TO A PERPENDICULAR WALL ON THE HINGE SIDE TO MAINTAIN 4" CLEAR FROM JAMB TO ADJACENT PERPENDICULAR WALL SURFACE. COORDINATE THIS DIMENSION WITH
- DOOR SURROUND TRIM. 4. CLOSET DOORS (SINGLE AND DOUBLE TYPE) ARE TO BE CENTERED WITHIN THE CLOSET THEY SERVE,
- DOOR SIZES PROVIDED AND WINDOWS DIMENSIONED ARE NOMINAL. COORDINATE ROUGH FRAMING OPENING SIZES WITH WINDOW AND DOOR MANUFACTURER/INSTALLERS REQUIREMENTS AND CLEARANCES.
- 6. PROVIDE WOOD BLOCKING IN 2X4 FRAMING AT ALL BUILT-IN CABINETRY LOCATIONS. REQUIRED GRAB BAR LOCATIONS, CLOSET SHELVING, AND WALL MOUNTED TV LOCATIONS.
- 7. CLOSETS AND OTHER SURFACES NOT CALLED OUT OTHERWISE HAVE FLOOR, WALL, AND CEILING MATERIALS AND FINISHES TO MATCH THE SPACE THEY ARE ACCESSED FROM. REFER TO PLANS FOR ANY INTERRUPTION OF FLOORING BETWEEN THESE SPACES.

STAIR RISERS NOT TO EXCEED 8 1/4" PER CODE. TREADS TO BE 9" MIN. WITH 1" NOSING. HANDRAILS & PICKETS:

- 36" HIGH HANDRAILS @ ALL STAIRS. 36" RAILING @ ALL BALCONIES. PICKETS SPACED TO NOT ALLOW A 4" SPHERE TO PASS THROUGH.
- LABEL DRYER VENT LENGTH ON DUCT ALL DRYWALL TO BE 1/2" EXCEPT GARAGE CEILING TO BE 5/8" TYPE X
- FE) = FIRE EXTINGUISHER TO BE LOCATED IN CABINET UNDER KITCHEN SINK
- **■** = BATH FAN VENTED TO EXTERIOR = CARBON MONOXIDE DETECTOR = SMOKE DETECTOR

SQUARE FOOTAGES FIRST FLOOR

SECOND FLOOR 680 SF TOTAL HEATED 1360 SF

105 SF FRONT PORCH REAR PATIO 60 SF

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10-18-2020

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Project Location:

3114 Groveland Ave

3119 Veranda Ave

3117 Veranda Ave

Richmond VA 23222

WATCHTOWER homes & construction

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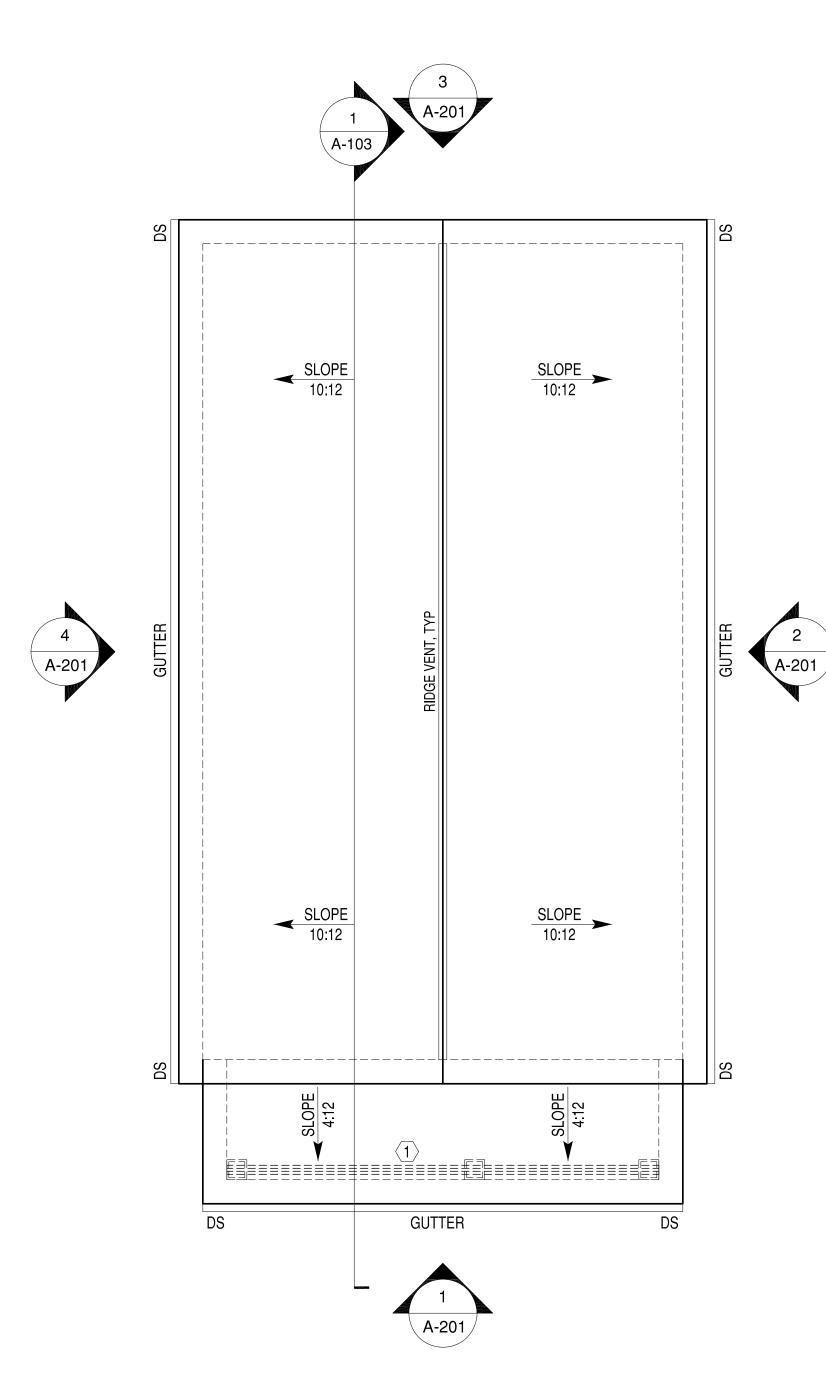
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SECOND

AND

FOUNDATION,

A-101



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

PLAN NOTES

- 1. ROOF FRAMING TO BE PRE-ENGINEERED ROOF TRUSSES AT 24" OC, TYP UNLESS OTHERWISE NOTED.
- 2. 12" OVERHANGS AND 12" GABLE END EXTENSIONS, TYP.

MARK	BEAM SIZE	REMARKS
1	(3) SPF NO.2 2X10 OR BETTER	DROPPED GIRDER

ATTIC AREA VENTILATION CALCULATIONS PER UNIT

ATTIC AREA: 1565 SQ.FT. / 300*144 = 751 SQ. IN. NET FREE AREA REQUIRED (50% MIN AT RIDGE) RIDGE VENT: 20 L.F. X 18 SQ. IN. PER LINEAR FOOT = 360 SQ. IN. PROVIDED SOFFIT VENT: 146 L.F. X 5.867 SQ. IN. PER LINEAR FOOT = 856 SQ. IN. PROVIDED

TOTAL NET FREE ARE PROVIDED = 1,216 SQ. IN.

POWER VENT = (1) 12" AIRVENT, INC POWERCOOL PLUS 12 AUTOMATIC THERMOSTAT W/ HUMIDSTAT VENT FOR UP TO 1,650 SF OF ATTIC SPACE, INSTALL MULTIPLE VENTS FOR ADDITIONAL AREA.

IF INSTALLING POWER VENT, DO NOT INSTALL RIDGE VENT

PRE-ENGINEERED, PRE-FABRICATED WOOD TRUSSES

- 1. THE DESIGN, FABRICATION AND INSTALLATION OF ALL PRE-ENGINEERED, PRE-FABRICATED WOOD TRUSSES SHALL CONFORM TO THE LATEST, ADOPTED EDITIONS OF THE STANDARDS AND MATERIAL SPECIFICATIONS REFERENCED HEREIN.
- REFERENCE STANDARDS NDS "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY THE AMERICAN FOREST & PAPER
- TPI-1, "DESIGN STANDARDS FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" BY THE TRUSS PLATE
- MATERIALS
- THE TERM "TRUSS" USED IN THIS SECTION APPLIES TO TRUSSES THAT ARE DESIGNED AND FABRICATED AS SEPERATE ENGINEERED PRODUCTS, AND DELIVERED TO THE PROJECT SITE FOR INSTALLATION.
- LUMBER: SPECIES PER DESIGN BY THE TRUSS MANUFACTURER, NO.2 GRADE OR BETTER, 15% MAXIMUM M.C., EXCEPT THE TRUSS MANUFACTURER MAY USE STUD-GRADE FOR WEB MEMBERS.
- 4.1. THE TRUSS MANUFACTURER SHALL DESIGN, DETAIL, PROVIDE AND INSTALL ALL INTERNAL TRUSS COMPONENT
- THE TRUSS MANUFACTURER SHALL DESIGN AND DESIGNATE ALL TRUSS-TO-TRUSS HANGERS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRUSS-TO TRUSS HANGERS IN ACCORDANCE WITH THE HANGER MANUFACTURER'S
- METAL CONNECTOR PLATES: USE GALVANIZED SHEET STEEL CONFORMING WITH ASTM A653, COATING CLASS G60. MANUFACTURE WITH HOLES, PLUGS, TEETH, OR PRONGS UNIFORMLY SPACED AND FORMED.
- 4.4. IN ADDITION TO THE UNIFORM LOADS INDICATED BELOW, DESIGN TRUSSES FOR ALL SUPERIMPOSED DEAD LOADS INCLUDING BUT NOT LIMITED TO OVERLAY FRAMING, CHIMNEYS, MECHANICAL EQUIPMENT, ETC. DESIGN TRUSSES AND REQUIRED BRACING TO RESIST THE NET WIND UPLIFT INDICATED ON THE DRAWINGS.
- DESIGN OF MEMBERS AND CONNECTIONS SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE DISTRICT OF COLUMBIA, EXPERIENCED IN SIMILAR DESIGN, RETAINED BY THE MANUFACTURER.
- DESIGN BOTTOM CHORDS OF GIRDER TRUSSES FOR THE END REACTIONS OF SUPPORTED TRUSSES.
- DESIGN ALL TRUSSES FOR ADDITIONAL SERVICE LOADS INDICATED ON PLAN. 5. DESIGN LOADS

5.1. ROOF

TOP CHORD DEAD LOAD = 10 TOP CHORD LIVE LOAD 5.1.2. = 20 BOTTOM CHORD DEAD LOAD = 10 PSF 5.1.3. 5.1.4. BOTTOM CHORD LIVE LOAD = 0 PSF

5.1.5. WIND LOADING: SEE DESIGN LOADS SECTION ON SHEET S 001 5.1.5.1. NET WIND UPLIFT = 8 PSF

5.2. DEFLECTIONS 5.2.1. ROOF

5.2.1.1. MAXIMUM LIVE LOAD DEFLECTION = L/360, OR .625" MAXIMUM MAXIMUM TOTAL LOAD DEFLECTION = L/240, OR 1.0" MAXIMUM

5.3. DESIGN ALL BRACING AND BRACING CONNECTIONS FOR ALL TRUSS TO CHORDS, BOTTOM CHORDS AND WEB MEMBERS. PARTICULAR ATTENTION SHALL BE GIVEN TO AREAS IN THE FINISHED STRUCTURE WHICH CONTAIN TRUSSES WITH UN-SHEATHED TOP AND/OR BOTTOM CHORD MEMBERS.

6. SUBMITALS

- SUBMIT TRUSS SHOP DRAWINGS WHICH EXHIBIT THE SEAL OF THE ENGINEER RESPONSIBLE FOR TRUSS DESIGN.
- SUBMIT LAYOUT DRAWING WHICH INDICATES THE LOCATION OF EACH TRUSS.
- SUBMIT HANGER CONNECTOR TYPES AND LOCATIONS.
- INDICATE ALL TEMPORARY AND PERMANENT BRACING REQUIREMENTS OF TRUSS MEMBERS. IN AREAS WHERE TRUSS TOP CHORDS AND/OR BOTTOM CHORDS DO NOT RECEIVE SHEATHING, INDICATE THE REQUIRED CHORD BRACING AND

BRACE SPACINGS FOR ALL APPLICABLE LOAD CASES. INDICATE ANCHORAGE OF "CAP" TRUSSES AND/OR "OVERLAY" TRUSSES.

	EXTERIOR DOOR SCHEDULE								
MARK	DESCRIPTION	WIDTH	HEIGHT	OPERATION	HARDWARE	NOTES			
DR01	FRONT ENTRY	3'-0"	6'-8"	SINGLE SWING DOOR	01	1/2 LITE STEEL DOOR			
DR02	REAR ENTRY	3'-0"	6'-8"	SINGLE SWING DOOR	01	1/2 LITE STEEL DOOR			

DOOR NOTES:

- 1. GENERAL CONTRACTOR SHALL VERIFY ALL DOOR SCHEDULE INFORMATION PRIOR TO ORDERING DOORS AND FRAMES.
- 2. ALL EXTERIOR DOORS SHALL BE PROVIDED WITH WEATHERSTRIPPING AND THRESHOLD.
- 3. ALL SWING DOORS SHALL BE PROVIDED WITH HINGE-OR WALL-MOUNTED DOOR STOPS. 4. ALL GLASS IN DOORS AND TRANSOMS SHALL BE TEMPERED.

DOOR HARDWARE SETS:

1. (3) HINGES, ENTRY HANDLE LOCK SET, DEAD BOLT.

	WINDOW SCHEDULE						
MARK	DESCRIPTION	WIDTH	HEIGHT	HEADER HEIGHT	NOTES		
SH01	SINGLE HUNG	3'-0"	5'-0"	6'-8"	VINYL 1 OVER 1		
SH02	SINGLE HUNG	3'-0"	3'-0"	6'-8"	VINYL 1 OVER 1		
FIXED	FIXED WINDOW	3'-0"	2'-0"	SEE PLAN	VINYL 1 OVER 1		
TR01	TRANSOM	1-0"	4'-0"	6'-8"	VINYL		

WINDOW NOTES:

- 1. GENERAL CONTRACTOR SHALL VERIFY ALL WINDOW SCHEDULE INFORMATION PRIOR TO ORDERING WINDOWS AND FRAMES.
- 2. ALL WINDOWS NOMINAL. GENERAL CONTRACTOR TO VERIFY ACTUAL SIZES AND FRAMING
- REQUIREMENTS WITH WINDOW MANUFACTURER. SECOND FLOOR WINDOWS REQUIRED FOR EMERGENCY EGRESS SHALL MEET THE

REQUIREMENTS OF IRC R310.1, GENERALLY 20" MIN. CLEAR WIDTH, 24" MIN. CLEAR HEIGHT, AND

- 5.7 SQUARE FEET NET CLEAR OPENING. 4. NO WINDOW GLAZING SHALL BE WITHIN 18" OF FINISH FLOOR.
- 5. SAFETY GLAZING SHALL BE TEMPERED.

Project Location:

3114 Groveland Ave 3119 Veranda Ave 3117 Veranda Ave

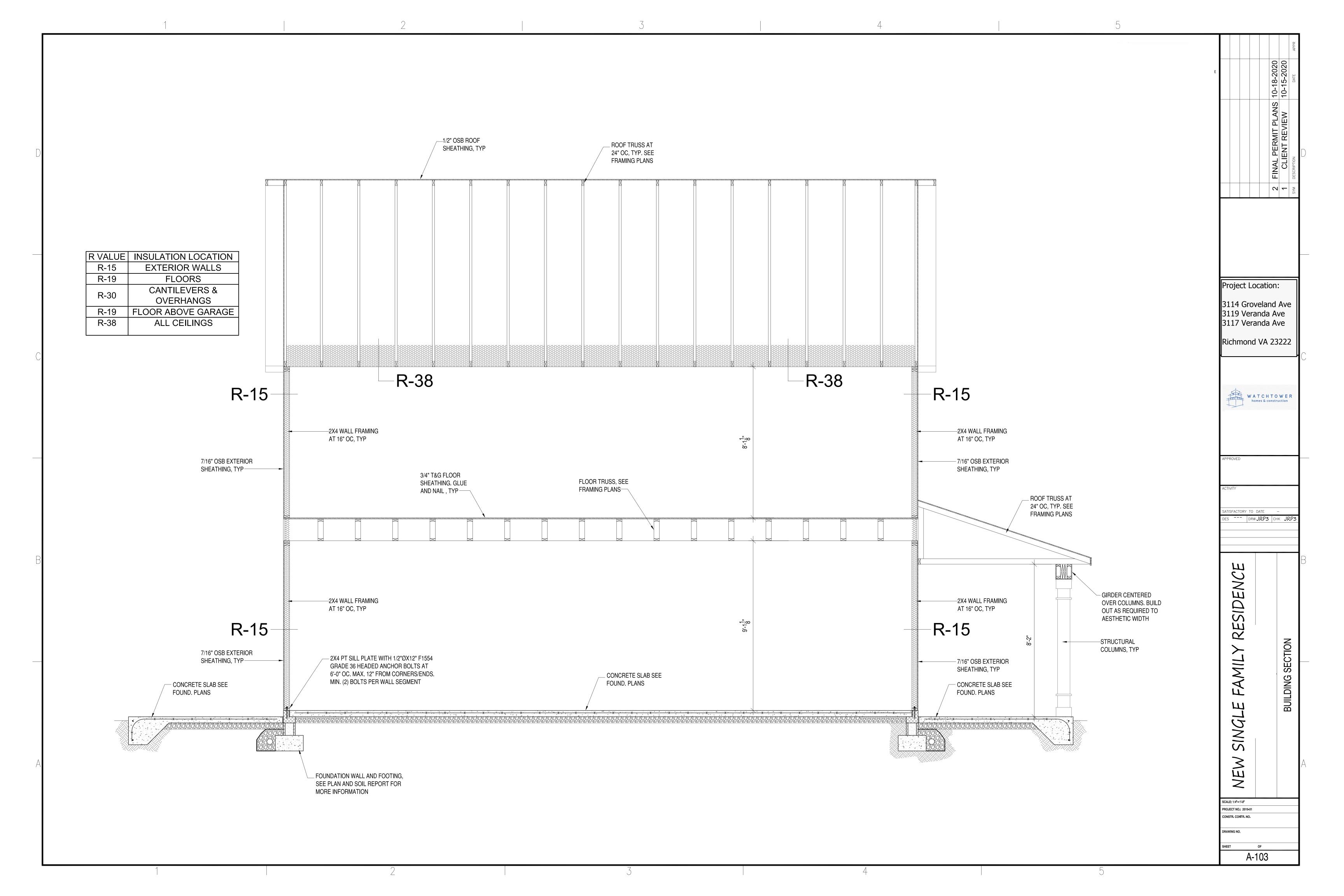
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Z SCALE: 1/4"=1'-0" PROJECT NO.: 2019-01 CONSTR. CONTR. NO. DRAWING NO. A-102





GENERAL NOTES

- 1. DESIGN BUILD CODE: 2015 VIRGINIA RESIDENTIAL BUILDING CODE
- 2. THE CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS WITH ARCHITECTURAL AND OTHER TRADES DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR OMISSIONS PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AND SHORING. AS REQUIRED TO INSURE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR PORTION THEREOF DURING CONSTRUCTION. THE DESIGN PROCEDURES SHALL CONFORM TO ALL GOVERNING CODES AND SAFETY REQUIREMENTS. TEMPORARY BRACING AND SHORING SHALL BE IN CONFORMANCE WITH OSHA REGULATIONS.

WITH CONA NEGOLATIONS.				
DESIGN LOADS:	LIVE	LOADS	DEAD	LOADS
A. FLOOR	40	PSF	10	PSF
B. EXTERIOR DECKS	40	PSF	10	PSF
C. ROOF	20	PSF	10	PSF
D. SNOW (Pg)	20	PSF		

90 MPH, 3 SECOND GUST (ASD) - 115 MPH (ULTIMATE)

- SUBGRADE DESIGN VALUES: THE FOLLOWING SUBSURFACE INFORMATION IS ASSUMED FOR DESIGN PURPOSES. THE CONTRACTOR SHALL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE ADEQUACY OF THE SUBGRADE ASSUMPTIONS FOR THE PROPOSED CONSTRUCTION. A. BEARING OF VIRGIN MATERIAL: LEAN CLAY OR BETTER
- B. BEARING PRESSURE: 1500 PSF 2. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE MINIMUM OF 1'-6" BELOW GRADE,
- 3. ALL FOOTINGS SHALL PROJECT AT LEAST 1'-0" INTO UNDISTURBED NATURAL SOIL OR COMPACTED STRUCTURAL FILL. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED. NO EXCAVATION SHALL BE CLOSER THAT AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING. DO NOT PLACE CONCRETE OVER FROZEN SOIL. FOOTINGS SHALL NOT BE FOUNDED ON EXISTING FILL, LOOSE OR WET SOIL. STEP FOOTINGS WITH A RATIO OF 2 HORIZONTAL TO 1 VERTICAL.

CAST-IN-PLACE CONCRETE

- 1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301, ACI 318 AND ACI 302, EDITIONS REFERENCED BY BUILDING CODE.
- REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615 GRADE 60.
- 3. REINFORCEMENT SPLICES SHALL BE LAP SPLICES WITH A MINIMUM LAP OF 40 BAR DIAMETERS UNLESS
- 4. CONCRETE COMPRESSIVE STRENGTHS AT 28 DAY CURE = 3000 PSI.
- 5. CAST-IN-PLACE CONCRETE SHALL BE READY-MIX PER ASTM C94. THE MIX SHALL BE PROPORTIONED
- A. PORTLAND CEMENT, ASTM C150
- B. AGGREGATES, ASTM C33 WITH .75 INCH MAXIMUM DIAMETER
- C. NO CALCIUM CHLORIDE SHALL BE PERMITTED
- D. AIR ENTRAINMENT, ASTM C260
- E. WATER REDUCING ADMIXTURE, ASTM C494
- F. FLYASH. ASTM C618-78 CLASS F. 15% MAXIMUM BY WEIGHT
- G. WATER. CLEAN AND POTABLE
- 6. PROVIDE PROPERLY TIED SPACERS, CHAIRS, BOLSTERS, ETC, AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE BAR TYPE SUPPORTS COMPLYING WITH CRSI RECOMMENDATIONS, USE PLASTIC TIP LEGS ON ALL EXPOSED SURFACES.
- 7. CONTRACTOR SHALL VERIFY EMBEDDED ITEMS, INCLUDING BUT NOT LIMITED TO ANCHOR BOLTS, BOLT CLUSTERS, WELD PLATES, ETC., BEFORE PLACING CONCRETE NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.
- 8. STEP AND SLOPE ALL BALCONIES, WALKWAYS, AND PATIOS AWAY FROM THE BUILDING.
- 9. RESTRICT THE ADDITION OF MIX WATER AT THE JOB SITE. DO NOT ADD WATER WITHOUT THE APPROVAL OF THE GENERAL CONTRACTOR AND DO NOT EXCEED SLUMP LIMITATIONS. USE COLD WATER FROM THE TRUCK TANK AND REMIX TO ACHIEVE CONSISTENCY. THE REPORTS SHALL INDICATE HOW MUCH WATER WAS ADDED AT THE JOB SITE.
- 10. CONCRETE SHALL BE PLACED WITHIN 90 MINUTES IF BATCH TIME.

- ALL FOLLOWING DESIGN VALUES ARE IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATIONS (NDS) AND SUPPLEMENT NATIONAL DESIGN SPECIFICATIONS (EDITION REFERENCED BY BUILDING CODE.)
- 2. ALL HEADERS AND BEAMS SHALL BE SPF NO. 2 OR OTHER SPECIES HAVING THE FOLLOWING MINIMUM
 - PROPERTIES: UNLESS NOTED OTHERWISE Fb = 875Fc = 425PSI Fv = 70
- E = 1,400,000 PSI3. EXTERIOR AND INTERIOR BEARING WALL STUDS SHALL BE SPF NO. 2 OR OTHER SPECIES HAVING THE FOLLOWING MINIMUM PROPERTIES: UNLESS NOTED OTHERWISE
 - Fb = 875425 PSI 70
- E = 1,400,000 PSI4. WALL TOP PLATES AT BEARING LOCATIONS, TO BE SYP #2 MIN OR OTHER SPECIES HAVING THE
 - FOLLOWING MINIMUM PROPERTIES (UNO) Fb = 1500565 Fc = Fv = 90
- E = 1,600,000 PSI5. ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE AND EXPOSED TO WEATHER (FOR BALCONY DECK BOARDS, LEDGER, JOISTS, BEAMS, AND SILL PLATES) SHALL BE SOUTHERN PINE PRESSURE TREATED TO .40 LB RETENTION. PER AWPA STANDARDS. HAVING THE FOLLOWING MINIMUM
 - PROPERTIES: Fb = 1500 PSI, 1250 PSI, 1200 PSI, 1050 PSI AND 975 PSI FOR 4, 6, 8,10 AND 12 INCH WIDE SECTIONS RESPECTIVELY.
 - Fc = 565PSI Fv = 90 PSI E = 1,600,000 PSI

- LVL (LAMINATED VENEER LUMBER) SHALL BE 1-3/4" WIDE, OF THE DEPTH SPECIFIED ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BY THE MANUFACTURER UNO. THE FOLLOWING MINIMUM PROPERTIES SHALL APPLY.
 - Fb = 2600PSI FOR 12" DEPTH, FOR OTHERS MULTIPLY BY [12/D].136 Fc = 750PSI PER Fv = 285
- E = 2,000,000 PSI7. ALL LUMBER SHALL BE SOUND, SEASONED, AND FREE FROM WARP.
- 8. ALL STUDS SHALL BE INSTALLED IN ACCORDANCE WITH AF & PA (AMERICAN FOREST & PAPER 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 CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALLS OR BEAMS; PROVIDE SOLID BLOCKING AND OR CRIPPLES AS REQUIRED BETWEEN FLOORS.
- STUD BEARING WALLS AND EXTERIOR STUD WALLS SHALL BE CONTINUOUSLY BRIDGED WITH WOOD BLOCKING AT MIDSPAN VERTICAL SPACING BETWEEN FLOORS (AND ROOF) LEVELS. STUDS AND POSTS SHALL BE ONE-PIECE-CONTINUOUS BETWEEN FLOOR LEVELS AND BETWEEN FLOOR LEVEL AND ROOF DIAPHRAGMS. ALL DOUBLE STUDS SHALL BE NAILED TO EACH OTHER AT 8" MAXIMUM SPACING FULL
- 10. MINIMUM GRADES, FOR DIMENSIONED LUMBER, SHALL BE SPF NO. 2 GRADE AS DEFINED BY THE NDS FOR WOOD CONSTRUCTION, NFPA. ALL WOOD MEMBERS SHALL BE MANUFACTURED TO COMPLY WITH PS20 OF "AMERICAN SOFTWOOD LUMBER STANDARDS" AND SHALL HAVE 19% MAXIMUM MOISTURE
- 11. ALL MULTIPLE MEMBERS ARE TO BE FASTENED TOGETHER WITH 16d NAILS AT 12" OC 2 ROWS FOR
- BEAMS 9"-12" DEEP, 3 ROWS FOR BEAMS 14"-18" DEEP (STAGGERED). 12. PLYWOOD SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 13. FASTENING OF WOOD FRAMING MEMBERS AND SHEATHING BY BUILDING CODE, SEE STRUCTURAL DETAILS FOR INCREASED FASTENING SCHEDULES WHERE APPLICABLE
- 14. WALL SHEATHING .50" WOOD STRUCTURAL PANEL EXTERIOR, .50" MIN GYPSOM WALL BOARD INTERIOR. INSTALLATION OF GYPSUM SHEATHING SHALL COMPLY TO IRC.
- 15. WOOD COLUMNS AND POST SHALL BE FRAMED TO TRUE END BEARINGS, AND SHALL BE POSITIVELY ANCHORED TO FOUNDATION WITH APPROVED POST BASES. SUPPORT COLUMN AND POST SECURELY IN POSITION AND PROTECT BASE FROM DETERIORATION. COLUMNS AND POSTS OF TREATED WOOD MAY BE PLACED DIRECTLY ON CONCRETE OR MASONRY. USE TREATED WOOD FOR ALL FLOOR JOIST AND BEAMS, WHICH ARE EXPOSED, OR WITHIN 18" OF THE GROUND, OR IN PERMANENT CONTACT WITH EARTH, ALL EXTERIOR P.T. WOOD SECURED WITH HOT SIPPED GALVANIZED FASTENERS
- 16. BEAR BEAMS AND GIRDERS AT LEAST 4" ON MASONRY OR CONCRETE, FLOOR, JOISTS, CEILING JOISTS AND ROOF RAFTERS SHALL HAVE 4" MIN BEARING ON WOOD OR WOOD PLATES ON METAL OR MASONRY
- 17. PROVIDE 2" NOMINAL THICKNESS FULL DEPTH SOLID BLOCKING FOR JOISTS AND RAFTERS AT ENDS AND AT SUPPORTS. OMIT SOLID BLOCKING WHEN JOISTS ARE NAILED TO A CONTINUOUS HEADER. LAP JOISTS FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION AT LEAST 6". SECURE JOISTS FRAMED END TO END WITH METAL STRAPS. USE APPROVED FRAMING ANCHORS TO SUPPORT JOISTS FRAMING INTO THE SIDES OF WOOD OR STEEL BEAMS.
- 18. FLOOR DECKING SHALL BE APA RATED FLOOR SHEATHING, GLUED AND NAILED PER APA RECOMMENDATIONS FOR THE STURDI-FLOOR SYSTEM.

CONCRETE MASONRY

- HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE 1, GRADE N WITH A MINIMUM 28 DAY NET COMPRESSIVE UNIT STRENGTH OF 1900 PSI. NET AREA COMPRESSIVE MASONRY STRENGTH f'm = 1500 PSI.
- MORTAR SHALL BE TYPE M BELOW GRADE AND IN CONTACT WITH SOIL AND TYPE S AT ALL OTHER LOCATIONS. MORTAR SHALL CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATIONS).
- 3. FILLED CELLS SHALL BE FILLED WITH COARSE GROUT. COARSE GROUT SHALL CONFORM TO ASTM C476, PROPERTIES SHALL INCLUDE: 2500 PSI AT 28 DAY. 3/8" MAX. AGGREGATE, AND 8"-11" SLUMP. FILLED CELLS MAY ALTERNATIVELY BE FILLED WITH A 3000 PSI PEA GRAVEL MIX CONCRETE. THE PEA GRAVEL MIX SHALL BE PROPORTIONED WITH A MAX. AGGREGATE SIZE OF 3/8 INCH DIAMETER TO PROVIDE A MIN. OF 1/2" CLEARANCE. ADDITIONALLY, THE PEA GRAVEL MIX SHALL PROVIDE AN 8" TO 11" SLUMP.
- 4. CODES AND STANDARDS INCLUDE: ACI 530/ASCE 5, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", ACI 530.1/ASCE 6, "SPECIFICATIONS FOR MASONRY STRUCTURES"
- VERTICAL REINFORCING BARS SHALL BE HELD IN POSITION, WITH BAR POSITIONERS, AT THE TOP AND BOTTOM OF BAR AND AT 8'-0" OC MAX, WITH A MIN CLEARANCE OF 1/2" FROM MASONRY, THE CLEAR DISTANCE BETWEEN BARS SHALL NOT BE LESS THAN ONE BAR DIAMETER. NOR LESS THAN 1". CENTER BARS IN WALLS UNO.
- PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTINGS AND ROOF TIE BEAM. MAINTAIN VERTICAL REINFORCING SHOWN ON DRAWINGS. ABOVE AND BELOW MASONRY OPENINGS EXCEEDING 10'-0"
- CLEAR. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS. 7. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.
- MINIMUM LAP SPLICE SHALL BE 48 BAR DIAMETERS. WIRE TIE LAP SPLICES.
- WHEN FOUNDATION DOWELS DOES NOT LINE UP WITH VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THEN ONE HORIZONTAL IN SIX VERTICAL. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN IF IT IS IN A CELL ADJACENT TO THE VERTICAL WALL REINFORCEMENT.
- 10. HORIZONTAL WALL REINFORCEMENT SHALL BE 9 GA. GALVANIZED LADUR TYPE DUR-O-WAL (OR EQUIVALENT) SPACED AT 16" OC MAX., VERTICAL LAP SPLICE 12" MIN.
- 11. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT MASONRY OPENINGS SUCH AS DOORS AND WINDOWS, CONTINUE JOINT REINFORCING FOR THE FIRST AND SECOND BLOCK COURSE ABOVE AND
- BELOW MASONRY OPENING. EXTEND JOINT REINFORCING A MINIMUM OF TWO FEET BEYOND OPENING. 12. CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE OF MASONRY IN EACH GROUT POUR WHEN THE POUR HEIGHT EXCEEDS 5'-0". CLEANOUTS SHALL BE SAW-CUT 4"X4".
- 13. GROUT POUR HEIGHT SHALL NOT EXCEED 24'. PLACE GROUT IN 5' MAXIMUM LIFTS HEIGHTS.
- 14. CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT.
- 15. PLACE ALL MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS. PROVIDE COMPLETE COVERAGE FACE SHELL MORTAR BEDDING. HORIZONTAL AND VERTICAL. FULLY MORTAR WEBS IN ALL COURSES OR PIERS, COLUMNS, AND PILASTERS AND ADJACENT TO GROUTED CELLS.
- 16. MASONRY CONTROL JOINTS SHALL BE INSTALLED AT LOCATIONS INDICATED ON THE DRAWINGS. ADDITIONALLY, INSTALL MASONRY CONTROL JOINTS SPACE AT 26'-0" OC AT EXTERIOR WALLS, 32'-0" AT INTERIOR WALLS UNO.

MASONRY

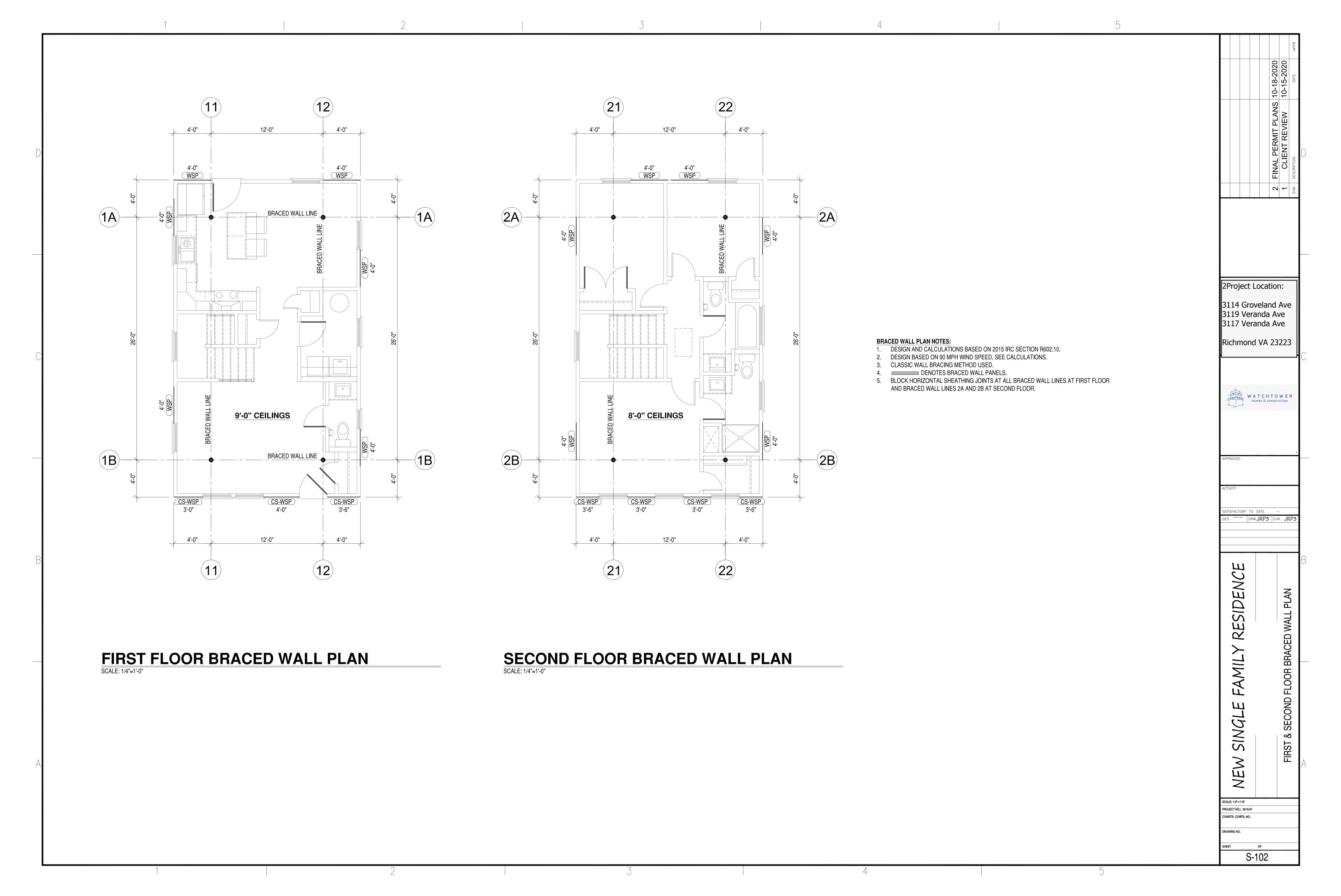
- 1. ALL MASONRY SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530/ASCE 5/TMS 402) AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602) FOR THE YEAR REFERENCED IN THE BUILDING CODE NOTED.
- 2. ALL BRICK AND CONCRETE MASONRY AND CONSTRUCTION SHALL COMPLY WITH THE RECOMMENDATIONS OF BRICK INSTITUTE OF AMERICA (BIA) AND THE NATIONAL CONCRETE MASONRY
- ASSOCIATION (NCMA) AND MINIMUM REQUIREMENTS ESTABLISHED BY NOTED BUILDING CODES. GROUT TO FILL CORES SHALL BE ASTM C476, COARSE GROUT (3/8" MAXIMUM AGGREGATE) WITH A
- MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS. CONCRETE MASONRY UNITS (CMU) SHALL BE MEDIUM WEIGHT UNITS CONFORMING TO ASTM C90.
- ASTM C270 TYPE "S" MORTAR WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI SHALL BE USED FOR ALL MASONRY. MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'M)=1500 PSI UNLESS NOTED OTHERWISE.
- 5. WHEN STRUCTURAL REINFORCEMENT IS INCORPORATED IN MASONRY CEMENT MORTAR, THE MAXIMUM AIR CONTENT SHALL BE 18%.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- DEFORMED BAR ANCHORS (DBA) SHALL CONFORM TO ASTM 496, 75 KSI YIELD STRENGTH.
- 8. ALL MASONRY UNITS SHALL HAVE GALVANIZED HORIZONTAL JOINT REINFORCEMENT AS FOLLOWS: A.A. 9 GA. SIDE AND CROSS RODS (LADDER TYPE) SPACED 16" O.C. VERTICALLY
- LAP JOINT REINFORCING AS SHOWN IN THE TABLE BELOW.
 - WIRE JOINT REINFORCING SPLICE LENGTH W1.1 (11 GA.) W1.7 (9 GA.) W2.1 (8 GA.) W2.8 (3/16 WIRE)
- W4.9 (1/4 WIRE) 10. ALL CORES WITH REINFORCEMENT SHALL BE FILLED SOLID WITH GROUT. ALL GROUT SHALL BE
- CONSOLIDATED IN PLACE BY VIBRATION TO INSURE COMPLETE FILLING OF CELLS.
- PLACE REINFORCING BARS BEFORE GROUTING. PLACE GROUTS IN LIFTS NOT EXCEEDING 5 FEET. CONSOLIDATE EACH LIFT BY MECHANICAL VIBRATION. THE NEXT LIFT OF THE POUR MAY BE MADE AFTER THE INITIAL WATER LOSS AND RECONSOLIDATION OF THE PRIOR LIFT, WHILE IT IS STILL PLASTIC.
- 12. PROPERLY SECURE REINFORCING BARS TO MAINTAIN THE POSITIONS INDICATED ON THE DRAWINGS. BARS TO BE LOCATED IN CENTER OF CELLS UNLESS OTHERWISE NOTED. 13. MORTAR PROTRUSIONS, EXTENDING INTO CELLS OR CAVITIES TO BE REINFORCED AND FILLED, SHALL
- BE REMOVED. LAY MASONRY UNITS WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. BED WEBS IN MORTAR IN STARTING COURSE OF FOOTING AND IN ALL COURSES OF COLUMN AND PILASTERS, AND WHERE ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH
- GROUT ONE (1) COURSE OF MASONRY SOLID UNDER ALL WALL BEARING SLABS.
- 16. PROVIDE 16" OF SOLID MASONRY UNDER WALL BEARING BEAMS AND JOIST GIRDERS UNLESS NOTED
- 17. ALL CORNERS TO BE TIED BY MASONRY BOND.
- GROUT CORES SOLID A MINIMUM OF ONE COURSE BELOW ANY CHANGE IN WALL THICKNESS.
- PROVIDE 8" SOLID MASONRY 24" WIDE MINIMUM UNDER WALL BEARING JOISTS.
- 20. ALL MASONRY WALLS SHALL HAVE VERTICAL CONTROL JOINTS AT A MAXIMUM SPACING OF 25'.
- COORDINATE WITH LOCATIONS INDICATED ON ARCHITECTURAL DRAWINGS, CONTROL JOINTS SHALL EXTEND THROUGH THE ENTIRE WALL THICKNESS, EXCEPT AT 21, CONTINUOUS BOND BEAMS AT THE ROOF LINE THE MASONRY SHALL BE SCORED ONLY.
- 22. ALL CMU SHALL BE TEMPORARILY BRACED DURING CONSTRUCTION FOR THE GOVERNING BUILDING CODE FOR LATERAL DESIGN LOADS UNTIL PERMANENT RESTRAINTS HAVE BEEN INSTALLED. TEMPORARY BRACING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIRS RESULTING FROM IMPROPER OR INSUFFICIENT BRACING.
- 23. THE COLLAR JOINT IN MULTI-WYTHE WALLS BELOW GRADE SHALL BE FULLY GROUTED AS THE WALL IS CONSTRUCTED.
- 24. MISCELLANEOUS STEEL LINTEL SCHEDULE
- A.A. FOR MASONRY WALLS 8" OR THICKER OR MASONRY VENEER AND WOOD STUDS:
 - FOR OPENINGS UP TO 4'-0" USE 3 1/2X3 1/2X5/16 ANGLE. - FOR OPENINGS FROM 4'-0" TO 5'-0" USE 4X3 1/2X5/16 LLV.
 - FOR OPENINGS FROM 5'-0" TO 6-'0" USE 5X3 1/2X5/16 LLV.
 - FOR OPENINGS FROM 6'-0" TO 7-'0" USE 6X3 1/2X5/16 LLV. - FOR OPENINGS FROM 7'-0" TO 10-0" USE W8X21+5/16" BOTTOM PLATE.
- USE ONE ANGLE FOR EACH 4" WYTHE OF MASONRY.
- C.C. ALL LINTELS SHALL HAVE A BEARING AT EACH END OF 1 INCH PER FOOT OF OPENING WITH A
- MINIMUM OF 6".
- ALL LINTELS SHALL BEAR ON 16" SOLID MASONRY EXTENDING 16" BEYOND END OF LINTEL. ALL LINTELS ON THE BUILDING EXTERIOR SHALL BE GALVANIZED.
- E.F. ALL LINTELS ARE NOT DESIGNED FOR MASONRY WALLS THAT CARRY FLOOR LOADS. PROVIDE (1) #5 IN FULLY GROUTED CELLS (ONE CELL BELOW LINTEL BEARING, AND ONE CELL
- ADJACENT FULL HEIGHT) AT EACH SIDE OF OPENINGS. 25. LAP SPLICES SHALL BE AS FOLLOWS:
 - #5 BAR SIZE = 45" SPLICE LENGTH
 - #6 BAR SIZE = 54" SPLICE LENGTH
- #7 BAR SIZE = 63" SPLICE LENGTH
- 26. POWER ACTUATED FASTENERS (PAFS) NOT PERMITTED AT MASONRY
- 27. ALL REINFORCING HOOKS AND BENDS SHALL BE STANDARD ACI TYPE. 28. ALL WALL DOWELS SHALL MATCH REINFORCING SIZE AND QTY.

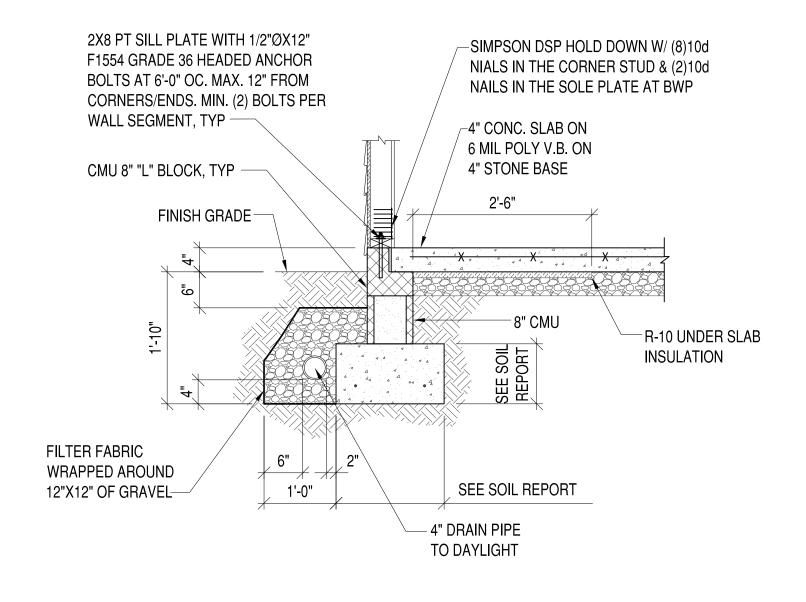
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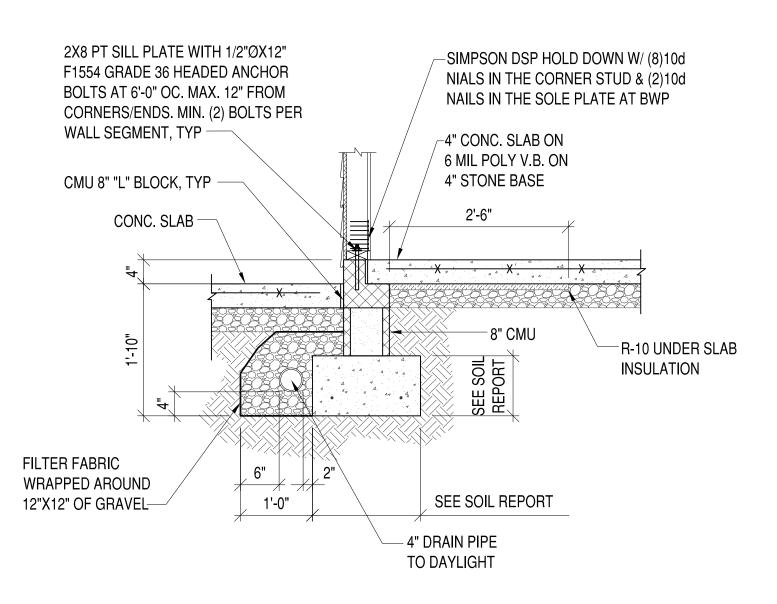
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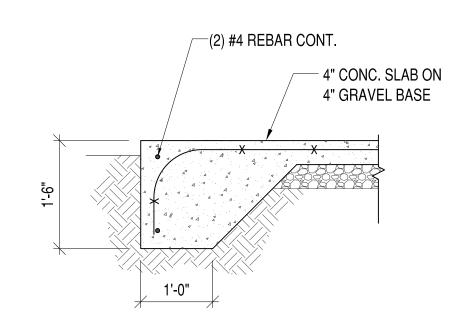
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S-001







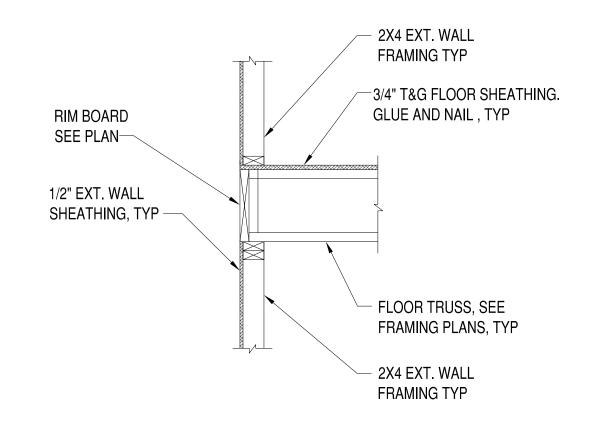


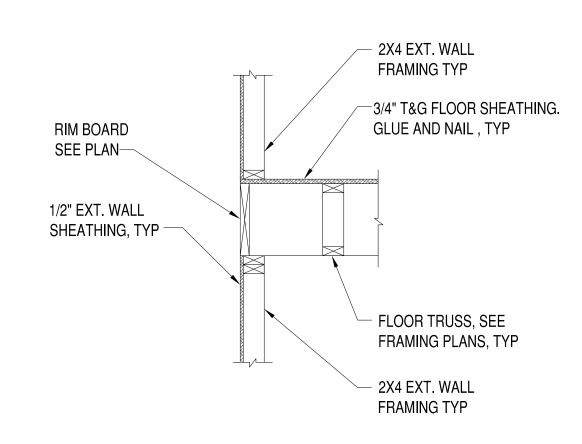
TYP. FOUNDATION SECTION

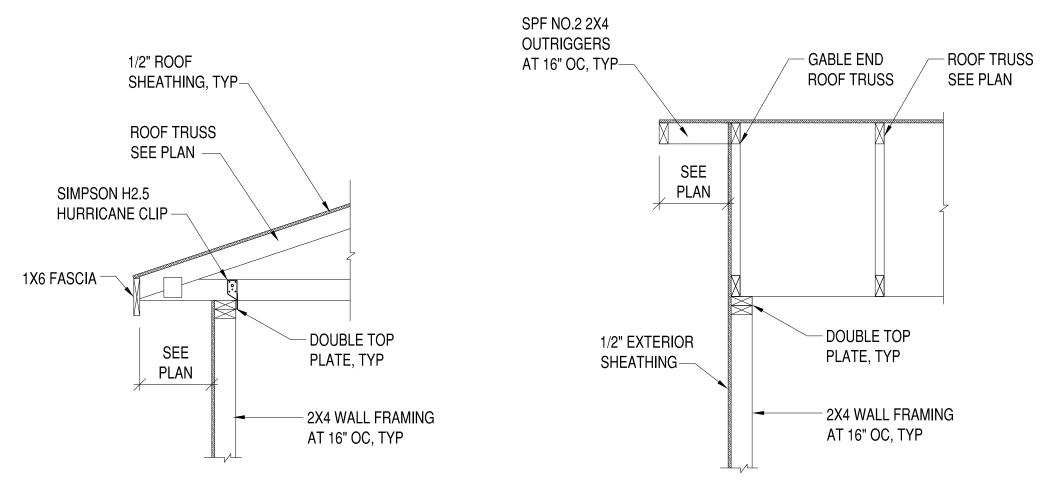
S-201 3/4"=1'-0"

FOUNDATION SECTION AT PORCH S-201 3/4"=1'-0"

FOUNDATION SECTION AT PORCH EDGE S-201 3/4"=1'-0"







SECTION AT 2ND. FLOOR JOIST

S-201 3/4"=1'-0"

SECTION AT 2ND. FLOOR JOIST S-201 3/4"=1'-0"

SECTION @ ROOF TRUSS 6 SECT S-201 3/4"=1'-0"

SECTION @ ROOF GABLE END S-201 3/4"=1'-0"

7 7 Project Location: 3114 Groveland Ave 3119 Veranda Ave 3117 Veranda Ave Richmond VA 23223 WATCHTOWER homes & construction --- DRW JRP3 CHK JRP RESIDENCE SINGLE NEW SCALE: 1/4"=1'-0" PROJECT NO.: 2019-01 CONSTR. CONTR. NO. DRAWING NO.

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