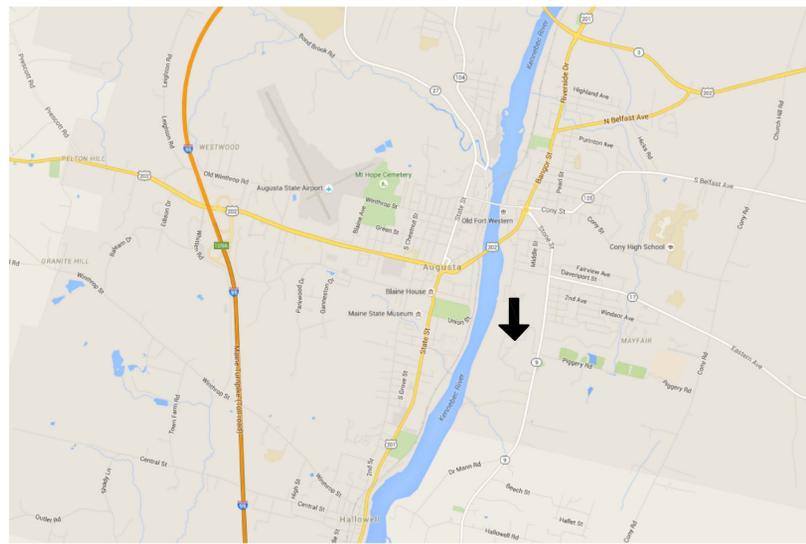


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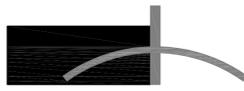
ALLIED PROJECT No. 15056



LOCATION MAP

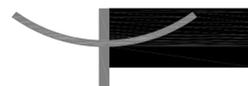
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23 DECEMBER, 2015
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| DRAWING STATUS LIST | | ISSUE | | DATE | |
|---------------------|--|---------------------|------------|-------------|------------|
| | | DESCRIPTION | DATE | DESCRIPTION | DATE |
| | | 80% PROGRESS REVIEW | 11-16-2015 | 95% CD SET | 12-08-2015 |
| | | ISSUED FOR BID | 12-23-2015 | | |
| DRAWINGS | | | | | |
| SH No. | SHEET TITLE | | | | |
| - | COVER SHEET | | | | |
| C-1 | SITE PLAN | | | | |
| C-2 | GRADING PLAN | | | | |
| S-0 | STRUCTURAL - NOTES | | | | |
| SD-1 | STRUCTURAL - DEMOLITION PLANS | | | | |
| SB-1 | STRUCTURAL - FOUNDATION PLAN AND DETAILS | | | | |
| SF-1 | STRUCTURAL - FRAMING PLANS | | | | |
| SF-5 | STRUCTURAL - DETAILS | | | | |
| A-0 | ARCHITECTURAL - GENERAL INFORMATION | | | | |
| AD-1 | ARCHITECTURAL - DEMOLITION FLOOR PLANS | | | | |
| AD-2 | ARCHITECTURAL - DEMOLITION EXTERIOR ELEVATIONS | | | | |
| A-1 | ARCHITECTURAL - PROPOSED FLOOR PLANS | | | | |
| A-2 | ARCHITECTURAL - PROPOSED EXTERIOR ELEVATIONS | | | | |
| A-3 | ARCHITECTURAL - BUILDING SECTION AND STAIR DETAILS | | | | |
| A-4 | ARCHITECTURAL - DOORS AND WINDOWS | | | | |
| A-5 | ARCHITECTURAL - DETAILS | | | | |
| A-6 | ARCHITECTURAL - ACCESSIBILITY DETAILS AND NOTES | | | | |
| PD-1 | MECHANICAL DEMOLITION PLANS | | | | |
| PL-0 | PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS | | | | |
| PL-1 | PLUMBING PLANS | | | | |
| MH-1 | MECHANICAL PLANS | | | | |
| MH-5 | MECHANICAL DETAILS AND SCHEDULES | | | | |
| MH-6 | MECHANICAL SPECIFICATIONS | | | | |
| E-0 | ELECTRICAL LEGEND NOTES AND ABBREVIATIONS | | | | |
| E-1 | ELECTRICAL SPECIFICATION BASIC ELECTRICAL REQUIREMENTS | | | | |
| E-2 | ELECTRICAL DETAILS | | | | |
| ES-1 | ELECTRICAL SITE PLAN | | | | |
| EL-1 | ELECTRICAL LIGHTING PLANS | | | | |
| EP-1 | ELECTRICAL POWER AND SYSTEMS PLANS | | | | |

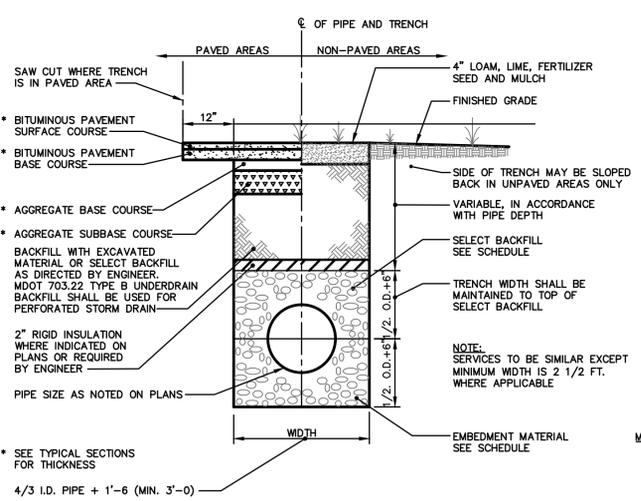
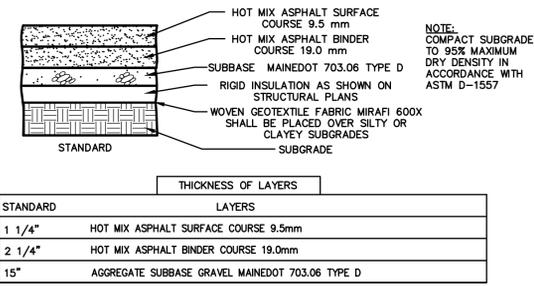
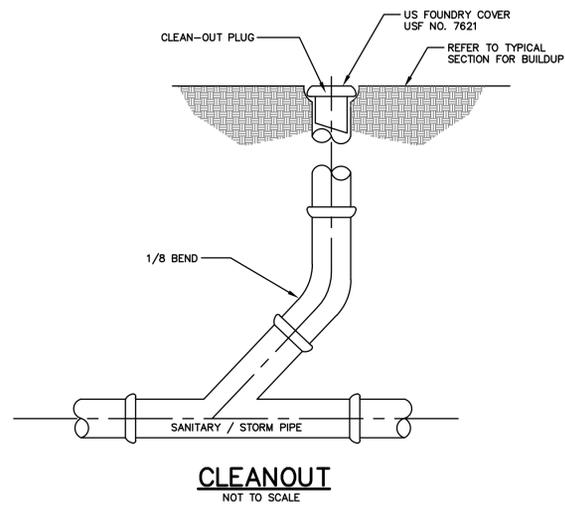


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SCHEDULE OF TRENCH BACKFILL

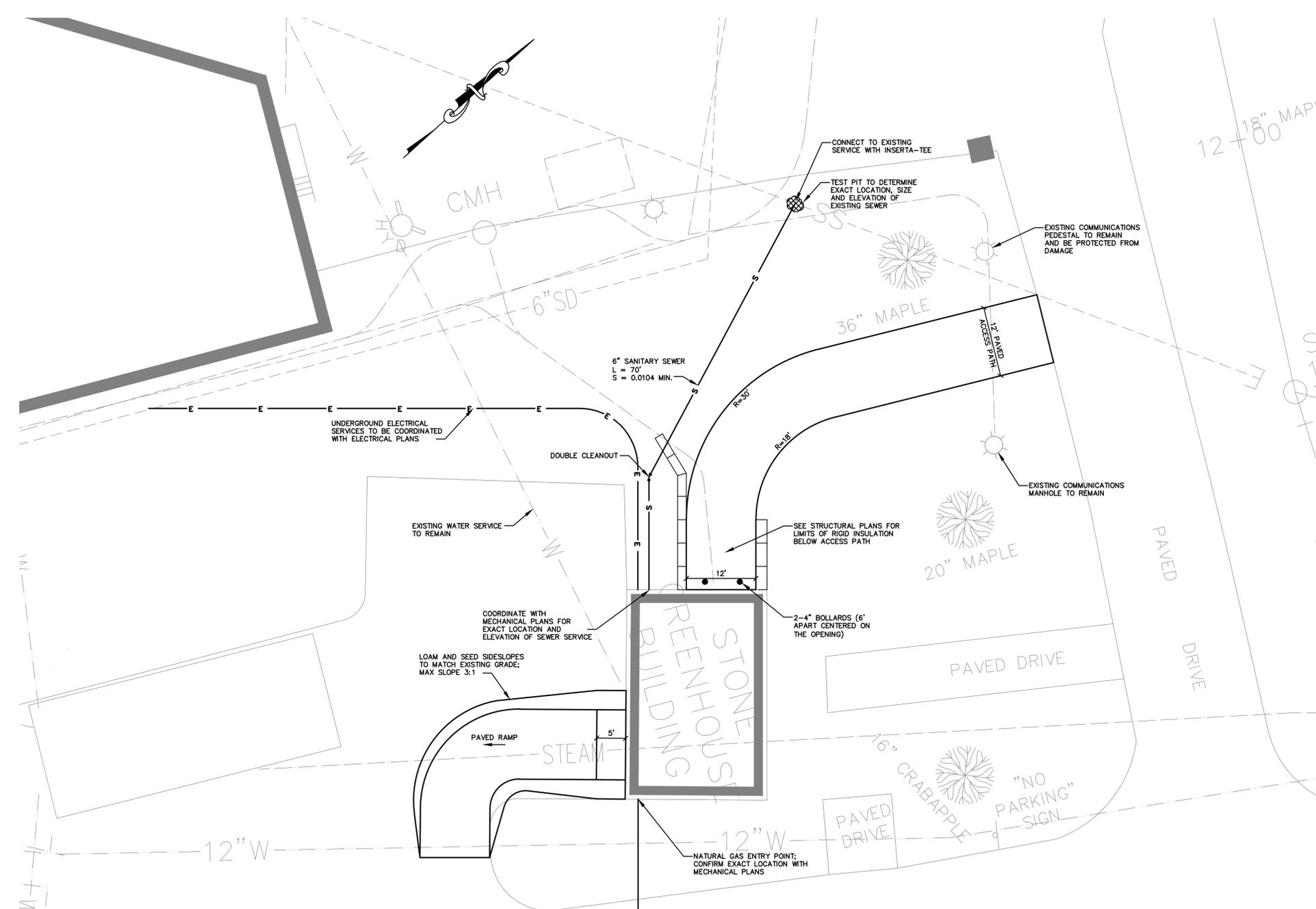
| TYPE OF PIPE | EMBEDMENT MATERIAL | SELECT BACKFILL | SELECT BACKFILL ON CITY PROPERTY |
|---------------------------|---------------------------------------|---------------------------------------|---|
| CMP DUCTILE IRON RCP | MDOT 703.22 TYPE B UD BACKFILL | MDOT 703.22 TYPE B UD BACKFILL | 3/4" CRUSHED STONE, 12" ABOVE TOP OF PIPE |
| PVC-SDR 35 HDPE | MDOT 703.22 TYPE C 3/4" CRUSHED STONE | MDOT 703.22 TYPE B UD BACKFILL | 3/4" CRUSHED STONE, 12" ABOVE TOP OF PIPE |
| PERFORATED PVC-SDR35 HDPE | MDOT 703.22 TYPE C 3/4" CRUSHED STONE | MDOT 703.22 TYPE C 3/4" CRUSHED STONE | 3/4" CRUSHED STONE, 12" ABOVE TOP OF PIPE |

NOTE:
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES, 12" BELOW FINISH GRADE.
3. RIBBED CORRUGATED POLYETHYLENE PIPE MATERIAL, SMOOTH WALL INTERIOR, IS NOT PERMITTED WITHIN CITY PROPERTY, EXCEPT FOR UNDERDRAIN.

MINIMUM COVER

| PIPE | MINIMUM COVER |
|-----------|---------------|
| DRAIN (1) | 2'-0" |
| WATER | 5'-5" |
| SEWER | 5'-0" |

(1) COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION.



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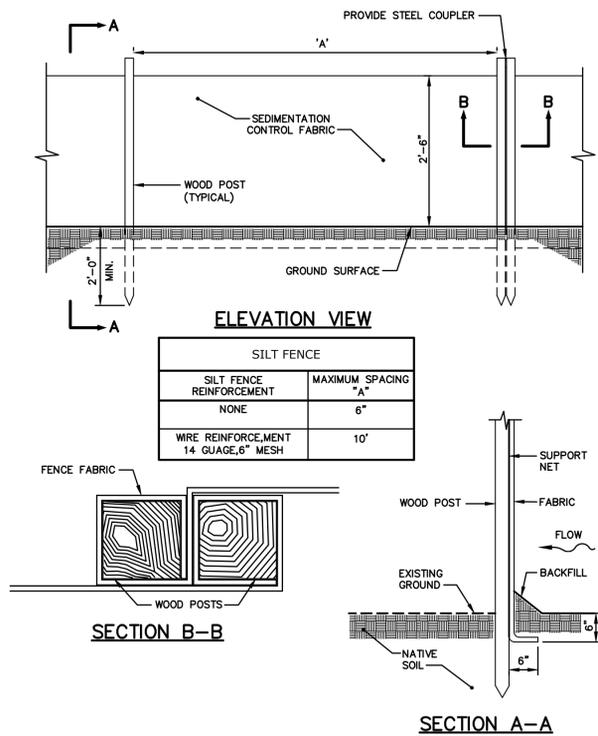
Date: NOV. 2015
Drawn By: MFC
Checked By: DER
Project Mgr: WPF
Project No.: 15066
Cad File: ALLIED-PBASE
Graphic Scale: 1" = 10'
Scale: 0 10 20

SITE PLAN

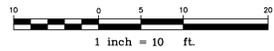
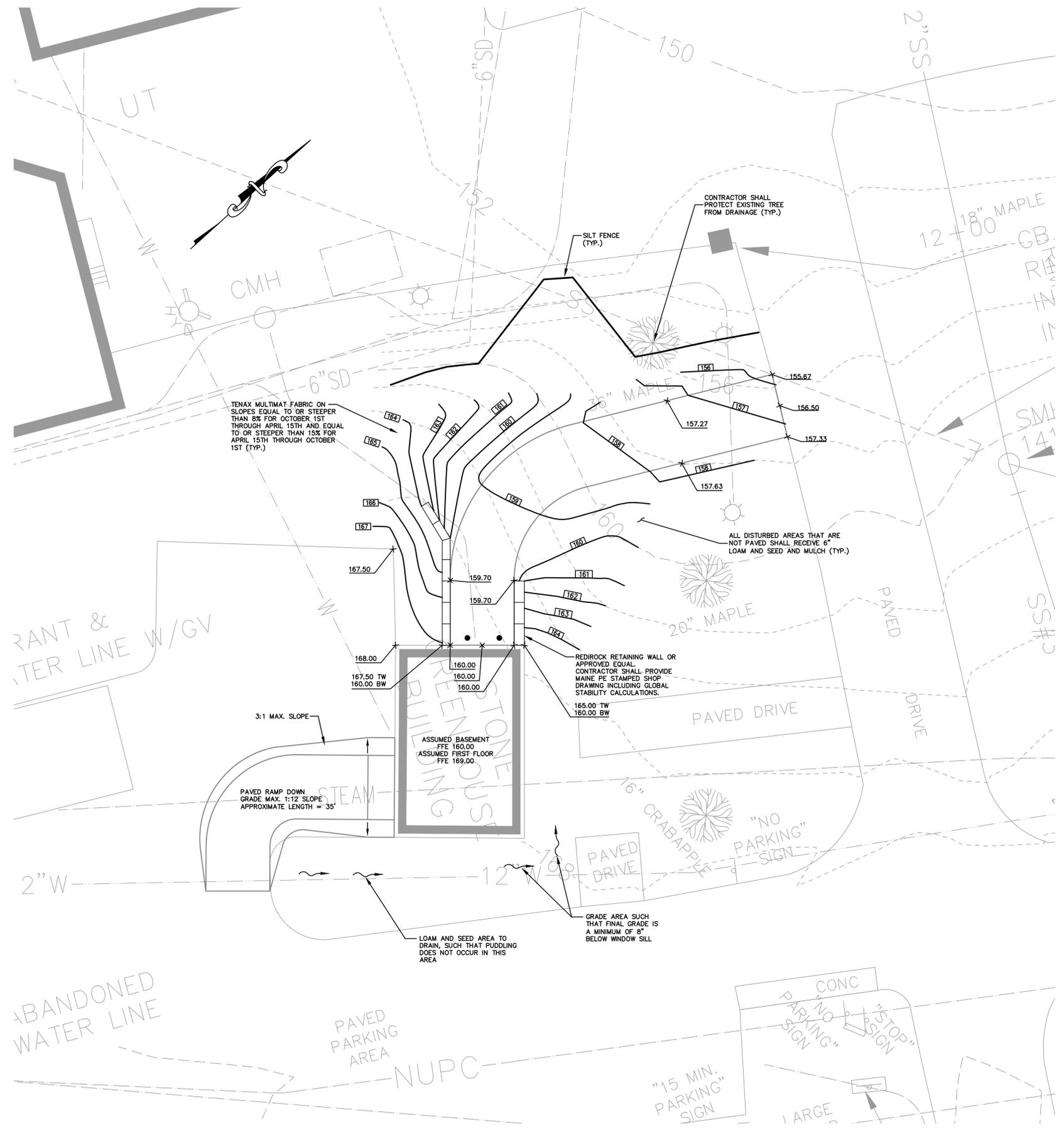
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C-1

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| Date: | - |
| Drawn By: | MFC |
| Checked By: | DIER |
| Project Mgr.: | WPF |
| Project No.: | 15096 |
| Cad File: | ALLIED-PBASE |
| Graphic Scale: | 1" = 10' |

GRADING PLAN

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FOUNDATIONS:

- FOUNDATIONS HAVE BEEN DESIGNED WITH A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF TO BE VERIFIED BY THE GENERAL CONTRACTOR IN THE FIELD.
- ALL BEDDING AND FILL PROFILES BENEATH SLABS ON GRADE AND FOUNDATION FOOTINGS SHALL COMPLY WITH THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT REFERENCED ABOVE.
- INTERIOR SPREAD FOOTINGS AND EXTERIOR STRIP FOOTINGS SHALL BE FOUNDED ON UNDISTURBED NATIVE SOIL OR COMPACTED STRUCTURAL FILL.
- EXTERIOR STRIP AND SPREAD FOOTINGS SHALL HAVE MINIMUM 4' GRADE COVER TO BOTTOM OF FOOTING ELEVATIONS.
- SLABS ON GRADE SHALL BEAR ON A MINIMUM OF 12" OF COMPACTED STRUCTURAL FILL OR COMPACTED 3/8" CRUSHED STONE, IF LOOSE OR UNDESIRABLE FILLS ARE ENCOUNTERED AT THE SLAB SUBGRADE LEVEL, THEY SHALL BE OVER EXCAVATED TO THE SURFACE OF THE NATURAL SOIL AND REPLACED WITH STRUCTURAL FILL. REFER TO DRAWINGS FOR VAPOR BARRIER REQUIREMENTS, MOIST CURE SLABS IN ACCORDANCE WITH ACI.
- STRUCTURAL FILL SHALL BE USED AT ALL LOCATIONS BELOW FOOTINGS AND SLABS AND ADJACENT TO THE FOUNDATION WALLS. PRIOR TO PLACEMENT OF STRUCTURAL FILL, REMOVE ALL TOPSOIL AND OTHER UNSUITABLE MATERIAL. COMPACTED STRUCTURAL FILL SHALL CONSIST OF CLEAN GRANULAR MATERIAL FREE OF ORGANICS, LOAM, TRASH, SNOW, ICE, FROZEN SOIL OR ANY OTHER OBJECTIONABLE MATERIAL. IT SHALL BE WELL GRADED WITHIN THE FOLLOWING LIMITS:

| SCREEN OR SEIVE SIZE | PERCENT FINER BY WEIGHT |
|----------------------|-------------------------|
| 6 INCH | 100 |
| 3 INCH | 70-100 |
| NO. 4 | 35-70 |
| NO. 40 | 5-35 |
| NO. 200 | 0-5 |
- STRUCTURAL FILL (OR 3/8" CRUSHED STONE) BENEATH SLABS SHALL BE PLACED IN LAYERS NOT EXCEEDING 6 INCHES IN LOOSE MEASURE AND COMPACTED BY SELF-PROPELLED COMPACTION EQUIPMENT AT APPROXIMATE OPTIMUM MOISTURE CONTENT TO A DRY DENSITY OF AT LEAST 95% OF THE MAXIMUM IN PLACE DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-1557). FOR STRUCTURAL FILL OR 100% OF THE RODDED UNIT WEIGHT AS DETERMINED BY ASTM C-29 FOR 3/8" CRUSHED STONE.
- UNDERDRAINS SHALL BE PLACED AS SHOWN ON THE SITE DRAWINGS. UNDERDRAINS SHALL BE INSTALLED TO POSITIVELY DRAIN TO A SUITABLE DISCHARGE POINT AWAY FROM THE STRUCTURE. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
- EXTERIOR CONCRETE SLABS ON GRADE, SHALL BE UNDERLAIN BY AT LEAST 4 FEET OF STRUCTURAL FILL MEETING GRADATION AND COMPACTION REQUIREMENTS NOTED ABOVE. REINFORCE SLABS WITH #4 @ 12" EACH WAY AT CENTER OF SLAB.
- FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE ANCHOR BOLTS
- EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.
- IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
- CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

CONCRETE:

- CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".
- CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.
- CONCRETE SHALL BE:
 - FOOTING AND FOUNDATION WALLS: 3,000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 4-INCHES (W/C = 0.46).
 - INTERIOR SLABS-ON-GRADE: 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 3-INCHES (W/C = 0.43).
 - EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 3-INCHES (W/C = 0.45).
- CONCRETE MATERIALS:
 - PORTLAND CEMENT: ASTM C150, TYPE I OR II. USE ONE TYPE THROUGHOUT PROJECT.
 - NORMAL WEIGHT AGGREGATES: ASTM C33. PROVIDE FROM SINGLE SOURCE FOR ENTIRE PROJECT. NO AGGREGATE CONTAINING SOLUBLE SALTS, IRON SULFIDES, PYRITE, MARCASITE, OR OCHRE WHICH CAN CAUSE STAINS ON EXPOSED CONCRETE SURFACES.
 - LIGHTWEIGHT AGGREGATES: ASTM C330
 - WATER: POTABLE
 - AIR-ENTRAINING ADMIXTURE: ASTM C260
 - HIGH RANGE WATER REDUCING ADMIXTURES (SUPER PLASTICIZER): ASTM C494, TYPE F OR G CONTAINING NOT MORE THAN 1% CHLORIDE IONS.
 - NORMAL RANGE WATER REDUCING ADMIXTURES: ASTM C494 TYPE A CONTAINING NO CALCIUM CHLORIDE.
 - ACCELERATING ADMIXTURES: ASTM C494, TYPE C OR E.
- PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH CONCRETE WALLS OR SLABS.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS, AND SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 315-LATEST EDITION.
- COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
- ALL CONSTRUCTION JOINTS FOR SLABS SHALL BE KEY JOINTED AT MID-SPAN WITH REINFORCING DISCONTINUOUS AT JOINT.
- FLOOR SLAB CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN (SLAB ON GRADE) OR AS DIRECTED BY THE ENGINEER, UNLESS OTHERWISE NOTED, CONTROL JOINTS WILL BE SPACED NOT TO EXCEED 15'-0" ON-CENTER IN BOTH DIRECTIONS AND SHALL BE FILLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.
- CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING AND EXTENTS OF AREA SLOPE TO DRAIN DEVELOPMENT. SEE ARCHITECTURAL AND PLUMBING PLANS TO ENSURE COMPLETE AREA DRAINAGE.
- WELDING OF REINFORCEMENT IS NOT PERMITTED.
- EXPOSED CONCRETE SHALL BE NEATLY FINISH-RUBBED.
- MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB SHALL HAVE A 4-INCH HIGH CONCRETE PAD UNDERNEATH, EXTENDING A MINIMUM OF 6-INCHES BEYOND UNIT EDGE (EACH DIRECTION), REINFORCED WITH #3 BARS AT 18-INCHES ON-CENTER EACH WAY.

- ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
- PROVIDE IN SLABS ON GRADE (2) BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.
- REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.
- UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:

| BAR SIZE | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------|----|----|----|----|----|----|----|----|----|
| LAP IN.) | 22 | 29 | 36 | 43 | 63 | 72 | 80 | 89 | 98 |
- COORDINATE SLAB DEPRESSIONS AND ALL INTERIOR FLOOR SLOPES TO DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- SLAB THICKNESSES (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE SPECIFICATION.
- ANCHOR BOLTS SHALL CONFORM TO ASTM A307 HOT DIPPED GALVANIZED UNLESS NOTED OTHERWISE ON PLAN.
- DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:
 - LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.
 - DEPTH IS BASED ON A CLEAN HOLE WITH ROUGH SIDES. ROTARY PERCUSSION EQUIPMENT AND COURSE ROCK CUTTING CHISELS ARE RECOMMENDED. DIAMOND CORE BITS SHOULD BE AVOIDED AS EMBEDMENT LENGTHS MAY NEED TO BE INCREASED. HOLE SIZE TO BE PER MANUFACTURER'S RECOMMENDATIONS.
 - CLEAN HOLES WITH COMPRESSED AIR OR VACUUM. REMOVE ANY FREE-STANDING WATER AND ALLOW HOLE TO DRY.
 - GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-150 ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (HILTI HVA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-150 ADHESIVE.)
- FOOTINGS SHALL BEAR ON VIRGIN SOIL OR STRUCTURAL BACKFILL COMPACTED TO ACHIEVE 95 PERCENT RELATIVE COMPACTION AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557)

- BUILDING CODE:**
 - INTERNATIONAL BUILDING CODE - 2009 EDITION
 - ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- MINIMUM LOADING REQUIREMENTS:**
 - ROOF SNOW LOADS: LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)**
 - GROUND SNOW LOAD: $P_g = 70.0$ PSF
 - IMPORTANCE FACTOR: $I = 1.0$
 - COLD ROOF SLOPE FACTOR: $C_s = 0.72$
 - THERMAL FACTOR: $C_t = 1.1$
 - EXPOSURE FACTOR: $C_e = .9$
 - TERRAIN CATEGORY: C
 - FLAT ROOF SNOW LOAD: $P_f = 35.1$ PSF
 - ROOF DEAD LOAD:** 30.0 PSF
 - ROOF LIVE LOAD:** 20 PSF
 - STANDARD ROOF LIVE LOAD:
 - FLOOR LIVE LOADS:**

| | UNIFORM | CONCENTRATED | PARTITION |
|--------------------------|---------|--------------|-----------|
| a. STORES | | | |
| 1. 1 ST FLOOR | 125 PSF | 1,000 POUNDS | 0 POUNDS |
| 2. ATTIC FLOOR | 60 PSF | 500 POUNDS | 0 POUNDS |
- WIND:**
 - FACTORS:
 - BASIC WIND SPEED: 95 MPH
 - EXPOSURE CATEGORY: 'C'
 - BUILDING CLASSIFICATION: II
 - IMPORTANCE FACTOR: 1.0
 - BUILDING HEIGHT: <25'
 - WIND DESIGN PRESSURE
 - MWFRS
 - END ZONE WIDTH: 6 FEET
 - TRANSVERSE
 - INTERIOR ZONE: 13.3 PSF
 - END ZONE: 15.7 PSF
 - LONGITUDINAL
 - INTERIOR ZONE: 10.4 PSF
 - END ZONE: 14.2 PSF
 - ROOF UPLIFT (IBC 2009)
 - FIELD: 17.4 PSF
 - PERIMETER: 39.7 PSF
 - CORNERS: 57.1 PSF
 - STRIP WIDTH: 3 FEET
- SEISMIC**
 - COEFFICIENTS:
 - RESPONSE SPECTRAL ACC. (0.2 sec.) $S_s = 0.209g$
 - RESPONSE SPECTRAL ACC. (1.0 sec.) $S_1 = 0.078g$
 - SOIL CLASSIFICATION: (ASSUMED)
 - SITE COEFFICIENTS: $F_a = 1.581$; $F_v = 2.40$
 - MAX CONSIDERED EARTHQUAKE ACC @ 5% DAMPED DESIGN: $S_{DS} = 0.311$; $S_{D1} = 0.125$
 - BUILDING CATEGORY: II - STANDARD
 - SEISMIC DESIGN CATEGORY FOR 0.1 AND 1.0 SECONDS: B
 - FUNDAMENTAL PERIOD $T_s = 0.224$ SEC
 - SEISMIC RESPONSE COEFFICIENT $C_s = 0.207$
 - DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS
 - BUILDING FRAME SYSTEM
 - ORDINARY PLAIN MASONRY SHEAR WALLS.

| | |
|------------------------------------|------------------|
| a. RESPONSE MODIFICATION | R = 1.5 |
| b. SYSTEM OVERSTRENGTH FACTOR | $\Omega_e = 2.5$ |
| c. DEFLECTION AMPLIFICATION FACTOR | $C_d = 1.25$ |

- STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STEEL BEAMS SHALL CONFORM TO ASTM A992, F_y = 50KSI; MISCELLANEOUS PLATES, SHAPES, CHANNELS, ANGLES ETC. SHALL CONFORM TO ASTM A36, F_y = 36KSI; HSS SECTIONS SHALL BE COLD-FORMED STEEL TUBING COMPLYING WITH ASTM A 500, F_y = 46KSI.
- STEEL FLOOR FORM DECK SHALL BE GALVANIZED 1 1/2" X 22 GAUGE COMPOSITE FLOOR DECKING. FASTENED TO STEEL BEAMS AND PERIMETER ANGLES AS NOTED BELOW UNLESS DIRECTED OTHERWISE ON STRUCTURAL DETAILS.
 - PRIME-PAINTED STEEL SHEET: ASTM A 1008/A 1008M, STRUCTURAL STEEL (SS), GRADE 33 (230) MINIMUM, WITH UNDERSIDE SURFACE SHOP PRIMED WITH MANUFACTURER'S STANDARD BAKED-ON, RUST-INHIBITIVE PRIMER.
 - COLOR: GRAY.
 - PROFILE DEPTH: 1.5 VL. BASIS OF DESIGN IS VULCRAFT (14 mm) (38 mm).
 - DESIGN UNCOATED-STEEL THICKNESS: 0.0295 INCH (0.75 mm).
 - SPAN CONDITION: DOUBLE SPAN.
 - FASTENING: 5/8" PUDDLE WELDS ON A 36/3 PATTERN
 - EDGE ANGLE/BEAM FASTENING: 5/8" PUDDLE WELDS AT 12" O.C.
 - SIDE LAPS: INTERLOCKING SEAM.
- ALL STRUCTURAL STEEL TO RECEIVE STANDARD PRIMER. ALL EXPOSED STRUCTURAL STEEL TO RECEIVE MIN. (2) COATS TNEC PAINT (WHITE PALET) TO BE PROVIDED TO OWNER FOR CHOICE SELECTION), EXCEPT FOR FLOOR DECKING. GALVANIZED FLOOR DECKING SHALL NOT RECEIVE PAINT.
- SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.
- STRUCTURAL WOOD TO CONFORM TO THE LATEST NDS STANDARDS.
- PLYWOOD TO CONFORM TO THE LATEST PDS STANDARDS.
- OPENINGS IN WOOD-FRAMED WALLS SHALL HAVE A MINIMUM OF (2) JACK STUDS ON EACH END, UNLESS OTHERWISE NOTED.
- PROVIDE A BUILT-UP STUD COLUMN UNDER EACH BEAM UNLESS NOTED. NUMBER OF STUDS TO MATCH NUMBER OF PLYS IN BEAM. (EX. (2) 2x8 BEAM WOULD REQUIRE (2) STUDS)

CONNECTIONS:

- ALL DETAILS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED OTHERWISE.
- FIELD CONNECTIONS SHALL BE FIELD BOLTED WITH A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. WASHERS SHALL CONFORM TO ASTM F436, NUTS SHALL CONFORM TO ASTM A563.
- UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE WELDED OR BOLTED WITH 1/2" DIAMETER BOLTS (BEARING TYPE, DESIGNATION N, THREADS IN SHEAR PLANE) BEAM TO COLUMN CONNECTIONS SHALL BE FULL DEPTH (BOLT SPACING 3" ON-CENTER).
- OVERSIZE OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY ENGINEER OF RECORD.
- MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE 2.
- ALTERNATE CONNECTIONS WILL BE ACCEPTED ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD; HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THOSE SPECIFIC DETAILS SHOWN ON THE DRAWINGS. IN ANY EVENT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS.
- ALL WELDS INDICATED SHALL BE THE MINIMUM WELD SIZED SPECIFIED BY THE AISC MANUAL OF STEEL DESIGN (SINGLE PASS AS REQUIRED) ALL BUTT AND FULL PENETRATION WELDS SHALL BE MADE USING RUN OFF TABS THAT SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED. ALL WELD BACK UP BARS SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED.
- SHOP CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL BE WELDED. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BEAM CONNECTION CAPABILITIES SHALL BE CALCULATED IN ACCORDANCE WITH AISC'S "THE STEEL CONSTRUCTION MANUAL", 13TH EDITION, FOR EACH SHEAR CONNECTION PROVIDE THE GREATER OF THE FOLLOWING SHEAR CAPACITIES:
 - BEAMS: SUPPORT A REACTION @ EQUAL TO HALF TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR GIVEN SHAPE, SPAN AND STEEL SPECIFICATION (AISC) WITH EFFECT OF CONCENTRATED LOADS ACCOUNTED FOR OR THE (UNFACTORED) REACTIONS SHOWN ON PLAN, WHICHEVER IS GREATER.
- CONNECTION DESIGN IS THE RESPONSIBILITY OF THE FABRICATOR FOR OTHER THAN THE STANDARD CONNECTIONS NOTED ON S-000. CONNECTIONS CALCULATIONS SHALL BE SIGNED, SEALED BY A PE REGISTERED IN THE PROJECT STATE AND SUBMITTED FOR REVIEW WITH THE SHOP DRAWINGS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PARTIAL SUBMITTAL PACKAGES WILL BE RETURNED.

SPECIAL INSPECTIONS

- SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE ARRANGED BY THE BUILDING OWNER AND THE STRUCTURAL ENGINEER OF RECORD.
- A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC-2009 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
- INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.
- THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSIGHT: INSTALLATION OF ALL CONCRETE PLACEMENT, STRUCTURAL FILL PLACEMENT, AND WOOD CONSTRUCTION ELEMENTS INCLUDING WALL, FLOOR AND ROOF FRAMING ELEMENTS.

FIELD TESTING

- CHECK BY CALIBRATION TORQUE WRENCH 25% OF BOLTS IN EACH NON-SC SHEAR CONNECTION BUT NOT LESS THAN (2) PER CONNECTION.
- CONDUCT TESTING OF 10% OF WELDS ON STRUCTURAL STEEL BY DYE PENETRATION OR MAGNETIC PARTICLE TESTING.
- CONDUCT TESTING OF 100% OF GROOVE, PLUG, OR SLOT WELDS IN STRUCTURAL STEEL BY ULTRASONIC TESTING OR OTHER NONDESTRUCTIVE TESTING APPROVED BY ENGINEER OF RECORD.
- RADIOGRAPHICALLY TEST 5% OF ALL FULL PENETRATION WELDS.
- THE STRUCTURAL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.

- WORK SHALL BE DONE IN COMPLIANCE WITH THE LATEST EDITION OF IBC-2009.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS. ANY INCONSISTENCIES WITH THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
- THE STRUCTURE HAS BEEN DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK CONTAINED ON THESE DRAWINGS HAS BEEN COMPLETED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING PRECAUTIONS DURING BUILDING OPERATIONS. PROTECTION OF PUBLIC AND WORKERS, REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY, PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS OF EMPLOYEES AND SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
- WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUBCONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
- UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES OR AS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK, INCLUDING SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SEE STRUCTURAL NOTES FOR SPECIFIC SHOP SUBMITTAL REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION; SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNER'S SATISFACTION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
-

E9 GENERAL NOTES

-

- GENERAL:
 - ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE AITC TIMBER CONSTRUCTION MANUAL - LATEST EDITION, AND THE AF & PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) LATEST EDITION.
 - EACH PIECE OF LUMBER SHALL BE "D-DRY" AND BEAR THE GRADE STAMP OF A GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE.
 - DOUBLE UP STUDS AT JAMBS AND UNDER BEAMS UNLESS POSTS ARE NOTED ON PLANS.
 - DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT APPROVAL.
 - PROVIDE OPENING HEADERS AS INDICATED ON DRAWINGS. MINIMUM SIZE SHALL BE (2) 2 x 8's.
- CONNECTIONS:
 - FOLLOW TABLE 2304.9.1 OF THE 2009 INTERNATIONAL BUILDING CODE FOR NAILING REQUIREMENTS NOT INDICATED ON THESE DRAWINGS.
 - NAIL ROOF PLYWOOD WITH 100 COMMON NAILS AT 6" O.C. AT ALL EDGES AND BOUNDARY MEMBERS AND 10" O.C. AT INTERMEDIATE SUPPORTS.
 - NAIL WALL PLYWOOD WITH 80 COMMON NAILS AT 12" O.C. AT ALL EDGES AND BOUNDARY MEMBERS AND 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE NAILING FOR SHEAR WALL AS INDICATED ON DRAWINGS.
 - PROVIDE METAL HANGERS BY SIMPSON STRONGTIE AT ALL FLUSH FRAMING CONDITIONS.
- STRUCTURAL SAWN LUMBER:
 - A 2 X 6 THRU 2 X 14 JOISTS: SPRUCE PINE FIR NO. 1 WITH FB (REPETITIVE) = 1200 P.S.I.
 - STUDS: SPRUCE PINE FIR STUD GRADE, Fb (repetitive) = 1,200 PSI, Fc = 1,100 PSI
- PLYWOOD:
 - ROOF SHEATHING: C-D INT-APA (PS 1-95) WITH EXTERIOR GLUE; 5/8" WITH IDENTIFICATION INDEX 24/0. LAY UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER JOINTS.
 - EACH PLYWOOD PIECE TO BE CONTINUOUS OVER A MINIMUM OF TWO SPANS WITH A MINIMUM WIDTH OF 1'-0" UNLESS BLOCKING IS PROVIDED AT ALL JOINTS.
 - SUB-FLOORING: C-D INT-APA (PS 1-95) WITH EXTERIOR GLUE; 3/4" WITH IDENTIFICATION INDEX 36/16. LAY UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER JOINTS. EACH PLYWOOD PIECE TO BE CONTINUOUS OVER A MINIMUM OF TWO SPANS WITH A MINIMUM WIDTH OF 1'-0" UNLESS BLOCKING IS PROVIDED AT ALL JOINTS.
 - INTERIOR WALL SHEATHING: C-D INT-APA (PS 1-95) WITH EXTERIOR GLUE, 1/2" CDX WITH IDENTIFICATION INDEX 24/0. ALL PANEL EDGES BACKED WITH 2" NOMINAL OR WIDER FRAMING.

| | | | | | |
|----|-------------------------------|----|------------------|----|--------------------|
| A1 | FOUNDATION AND CONCRETE NOTES | A4 | STRUCTURAL NOTES | A9 | WOOD FRAMING NOTES |
|----|-------------------------------|----|------------------|----|--------------------|

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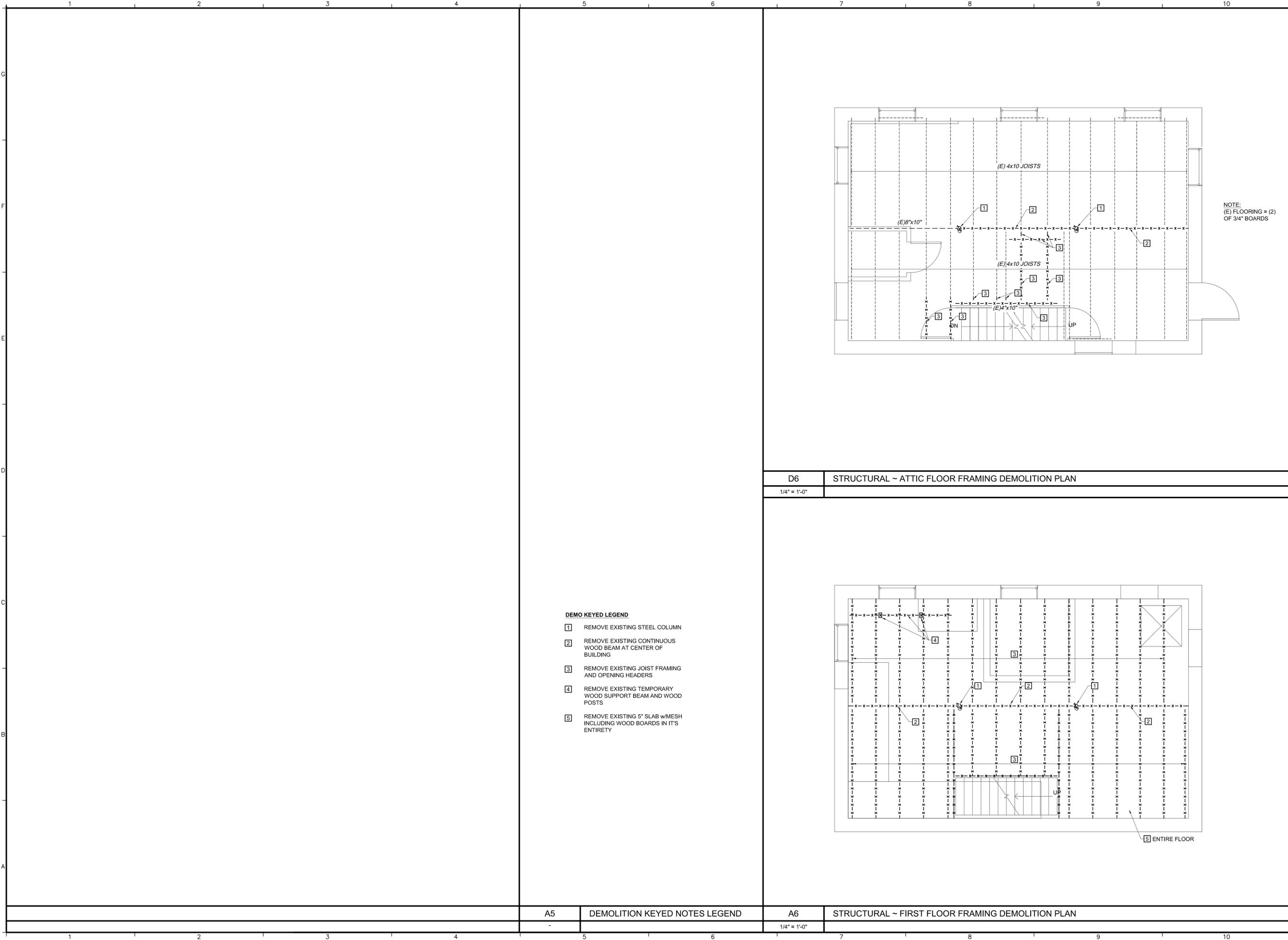
STRUCTURAL - NOTES

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S-0

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- DEMO KEYED LEGEND**
- 1 REMOVE EXISTING STEEL COLUMN
 - 2 REMOVE EXISTING CONTINUOUS WOOD BEAM AT CENTER OF BUILDING
 - 3 REMOVE EXISTING JOIST FRAMING AND OPENING HEADERS
 - 4 REMOVE EXISTING TEMPORARY WOOD SUPPORT BEAM AND WOOD POSTS
 - 5 REMOVE EXISTING 5" SLAB w/MESH INCLUDING WOOD BOARDS IN ITS ENTIRETY

NOTE:
(E) FLOORING = (2)
OF 3/4" BOARDS

D6 STRUCTURAL ~ ATTIC FLOOR FRAMING DEMOLITION PLAN

1/4" = 1'-0"

A6 STRUCTURAL ~ FIRST FLOOR FRAMING DEMOLITION PLAN

1/4" = 1'-0"

| | |
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| Date: | - |
| Drawn By: | PEB |
| Checked By: | WPF |
| Project Mgr: | WPF |
| Project No.: | 15056 |
| Card File: | 15056S.dwg |
| Graphic Scale: | 0 1' |

STRUCTURAL - DEMOLITION PLANS

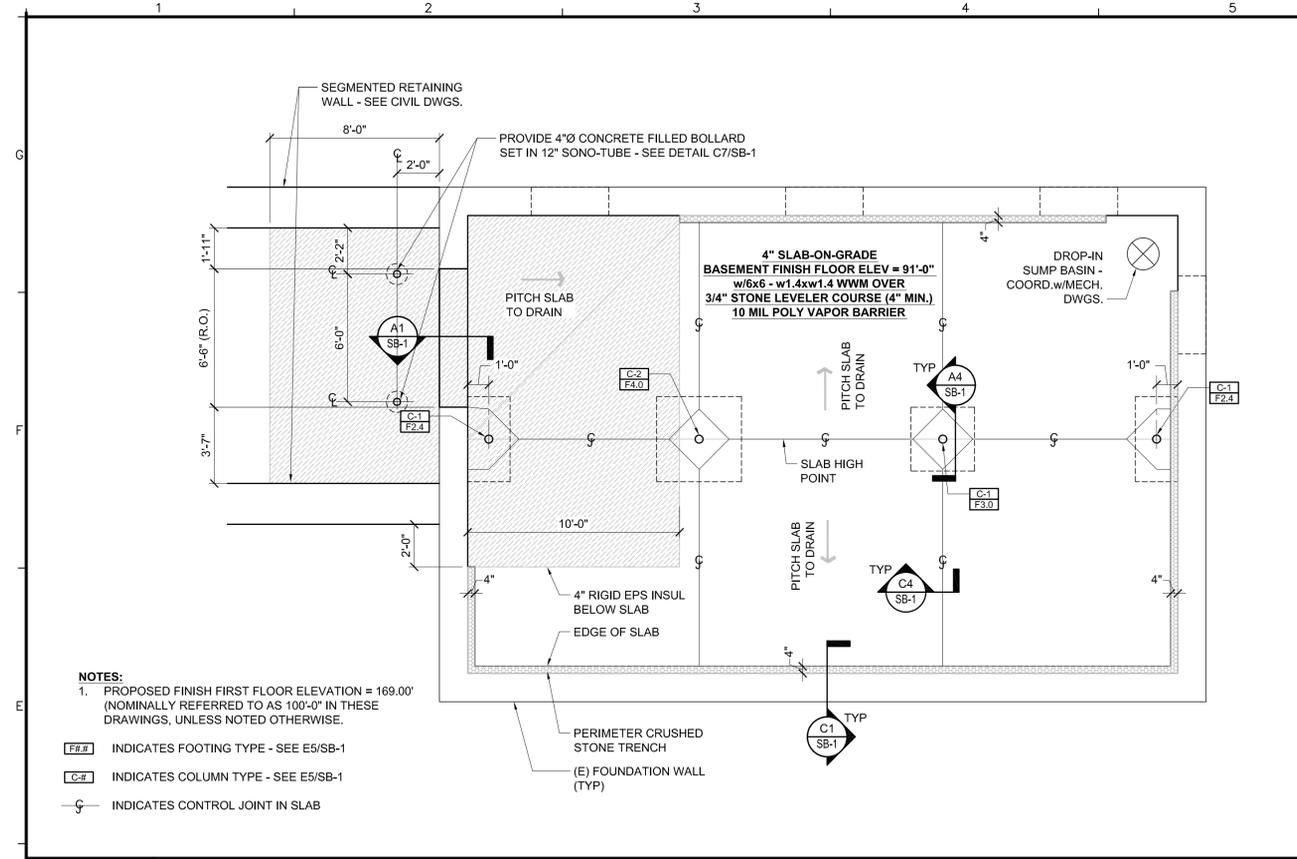
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SD-1

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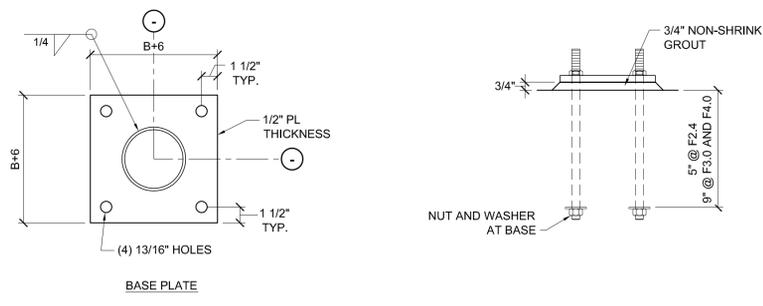
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| COLUMN SCHEDULE | |
|-----------------|-------------------|
| TYPE | SIZE |
| C-1 | 4"Ø STANDARD PIPE |
| C-2 | 4"Ø XS PIPE |

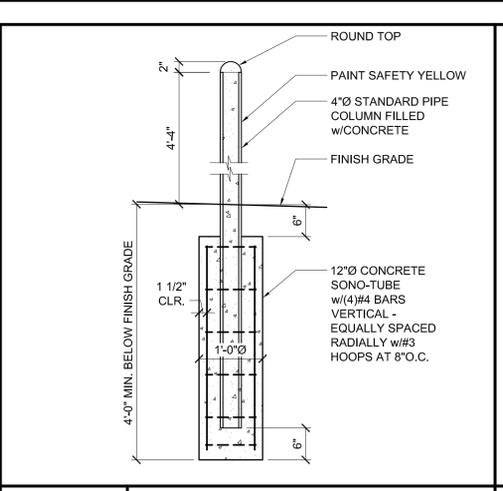
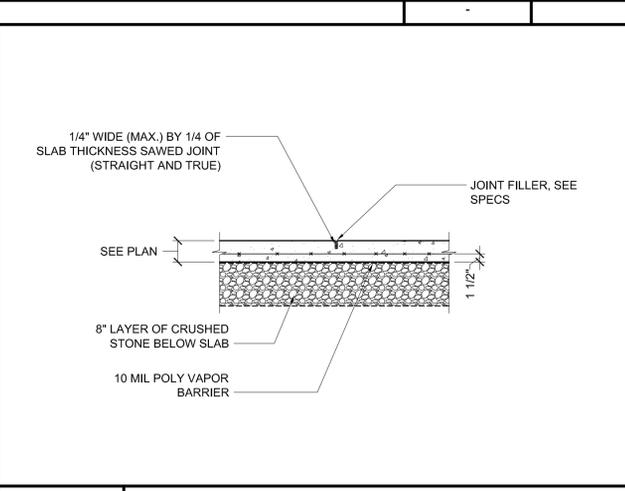
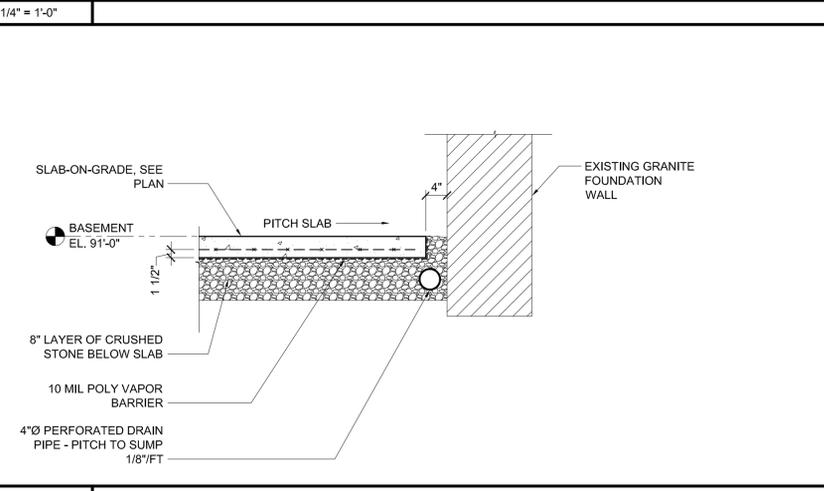
| FOOTING SCHEDULE | | | |
|------------------|---------------|-----------|---------------------|
| TYPE | SIZE | THICKNESS | REINFORCING |
| F2.4 | 2'-0" X 4'-0" | 8" | #4 @ 8" E.W. BOTTOM |
| F3.0 | 3'-0" X 3'-0" | 12" | 4-#4 E.W. BOTTOM |
| F4.0 | 4'-0" X 4'-0" | 12" | 7-#4 E.W. BOTTOM |

NOTE: FOOTINGS SHALL BE SET 16" BELOW TOP OF SLAB (TYP)



E1 STRUCTURAL ~ FOUNDATION PLAN

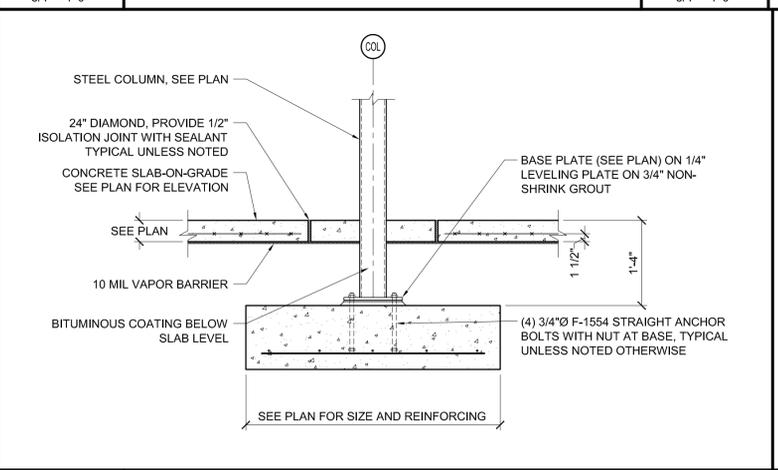
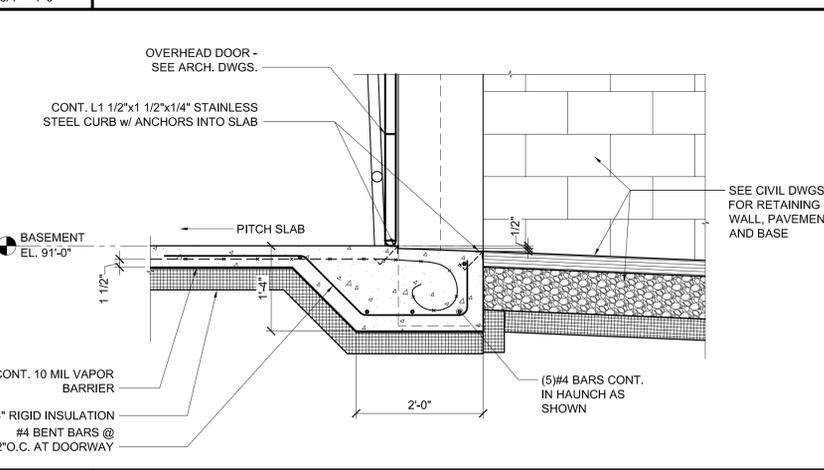
E5 SCHEDULES AND BASE PLATE DETAIL



C1 DETAIL

C4 TYPICAL CONTROL JOINT DETAIL

C7 TYPICAL BOLLARD DETAIL



A1 DETAIL

A4 TYPICAL DETAIL AT COLUMN TO FTG

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| Date: | Drawn By: PED |
| Checked By: WPF | Project Mgr: WPF |
| Project No: 15056 | Card File: 15056S.dwg |
| Graphic Scale: 0 1" | |

STRUCTURAL -
 FOUNDATION PLAN AND DETAILS

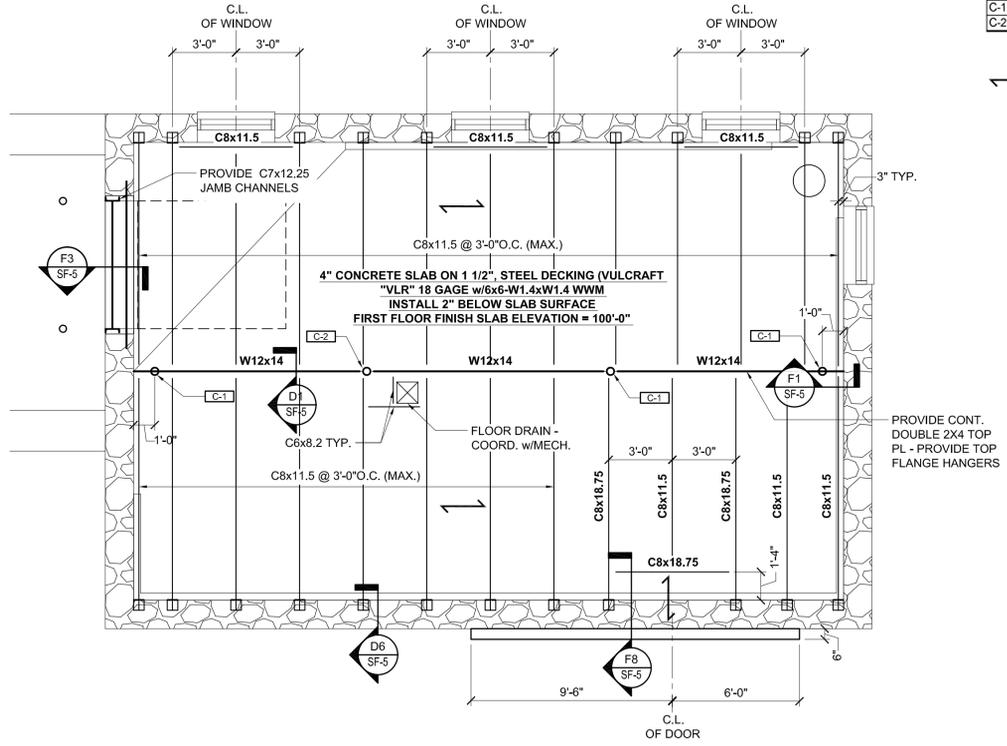
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| COLUMN SCHEDULE | |
|-----------------|-------------------|
| TYPE | SIZE |
| C-1 | 4"Ø STANDARD PIPE |
| C-2 | 4"Ø XS PIPE |

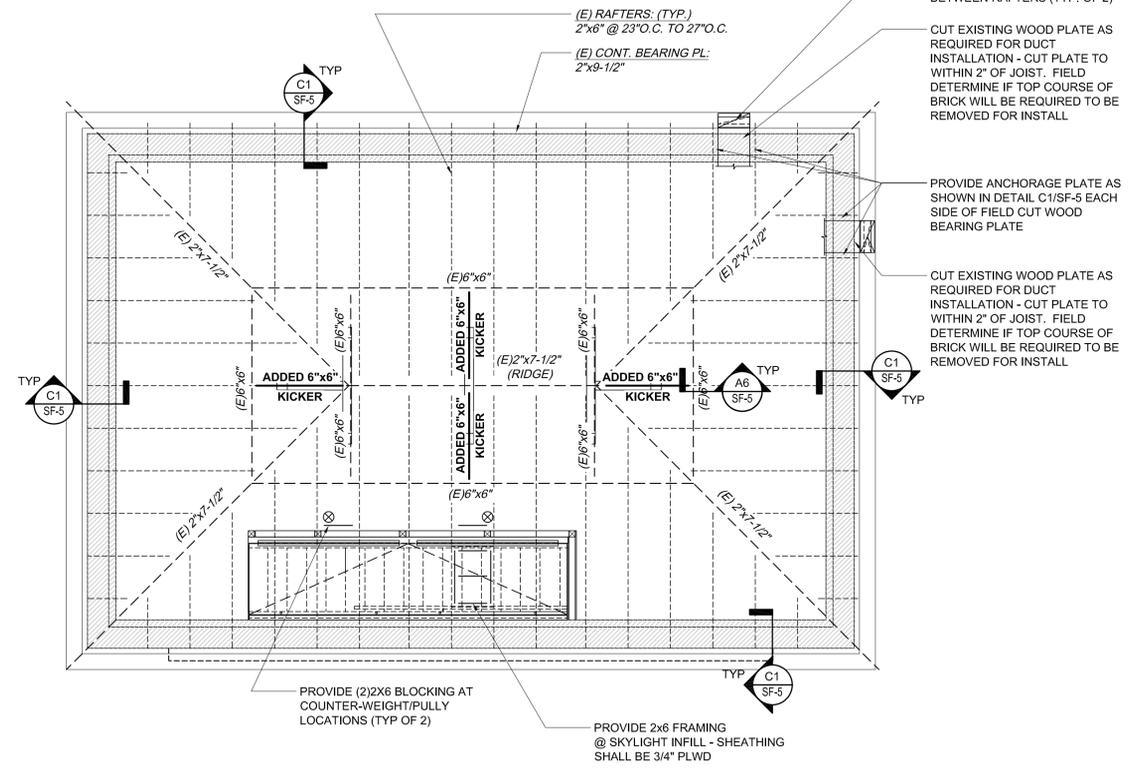
← INDICATES DECK SPAN DIRECTION



E1 STRUCTURAL ~ FIRST FLOOR FRAMING PLAN

1/4" = 1'-0"

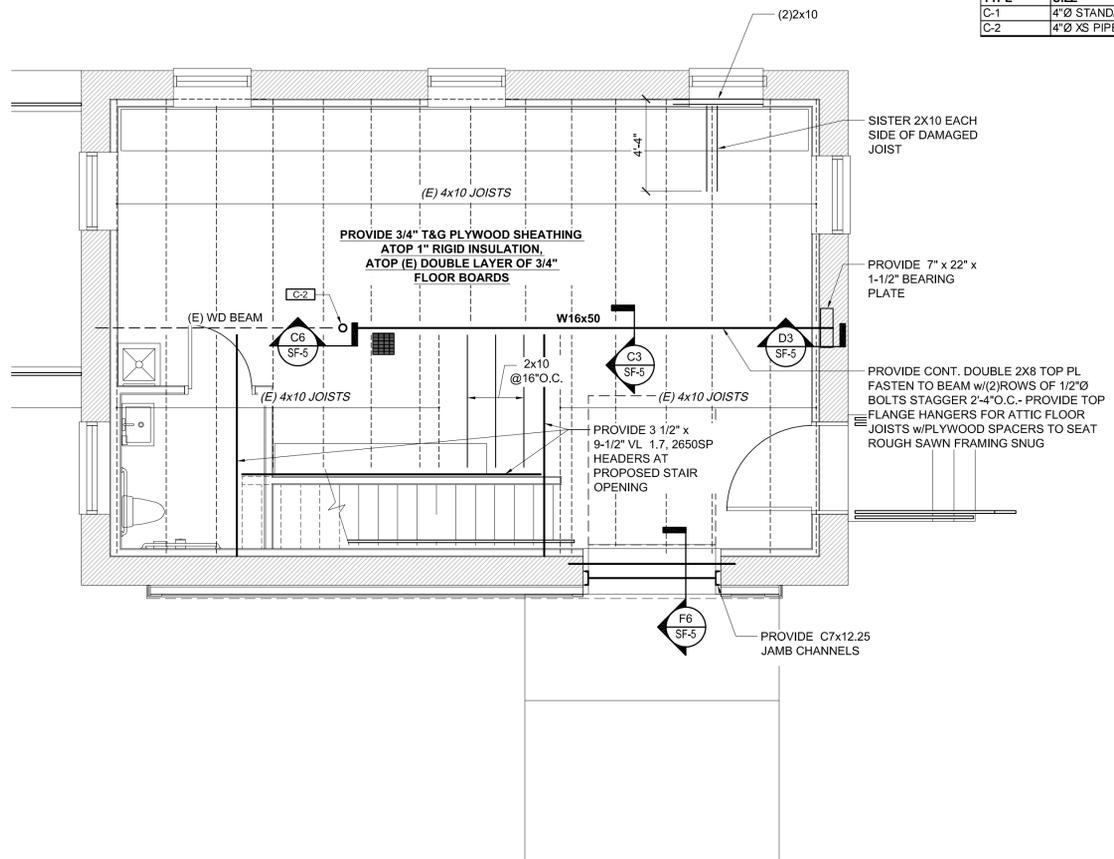
| COLUMN SCHEDULE | |
|-----------------|-------------------|
| TYPE | SIZE |
| C-1 | 4"Ø STANDARD PIPE |
| C-2 | 4"Ø XS PIPE |



D6 STRUCTURAL ~ ROOF FRAMING PLAN

1/4" = 1'-0"

| COLUMN SCHEDULE | |
|-----------------|-------------------|
| TYPE | SIZE |
| C-1 | 4"Ø STANDARD PIPE |
| C-2 | 4"Ø XS PIPE |



A6 STRUCTURAL ~ ATTIC FLOOR FRAMING PLAN

1/4" = 1'-0"

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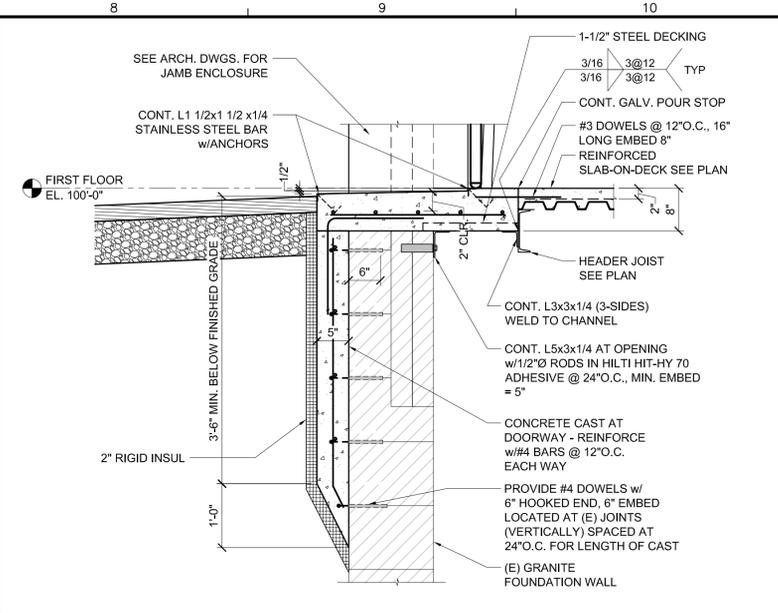
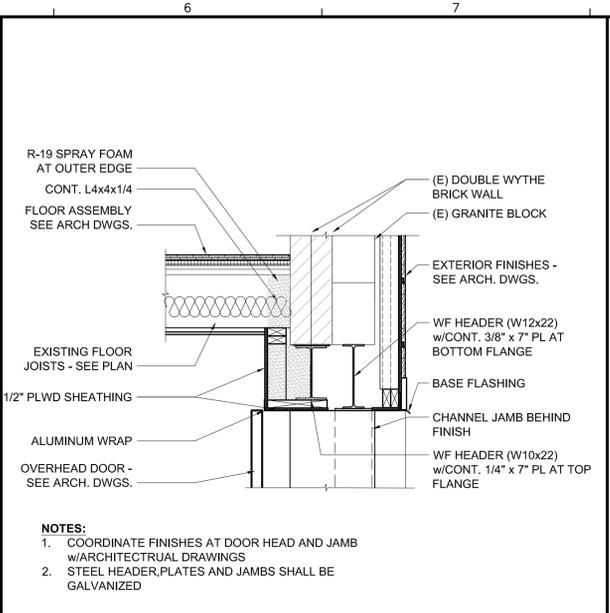
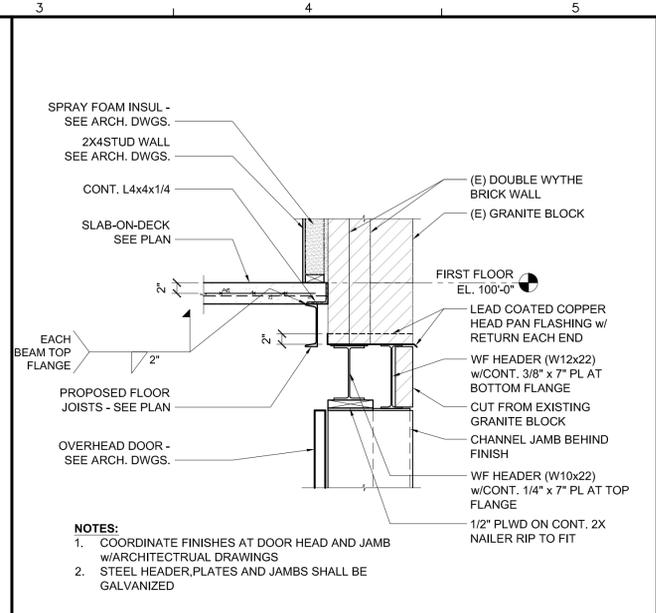
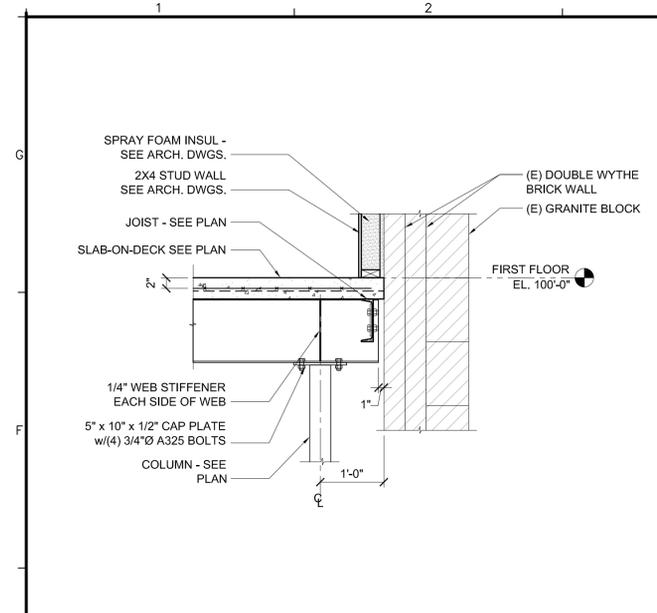
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| Project Mgr: | WPF |
| Project No.: | 15056 |
| Card File: | 15056S.dwg |
| Graphic Scale: | 0 1" |

STRUCTURAL - FRAMING PLANS

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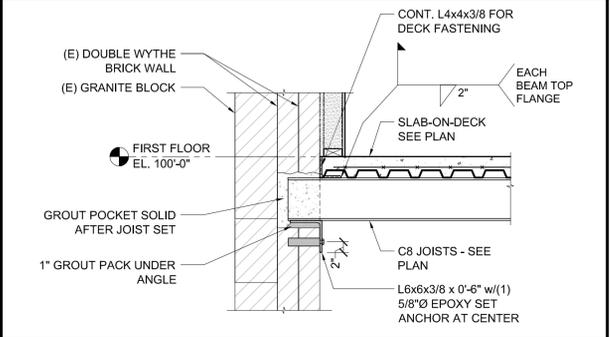
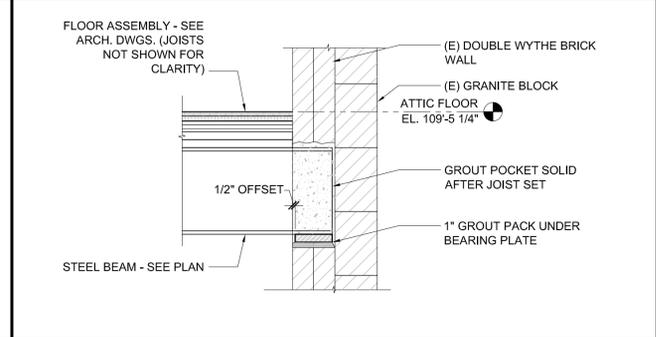
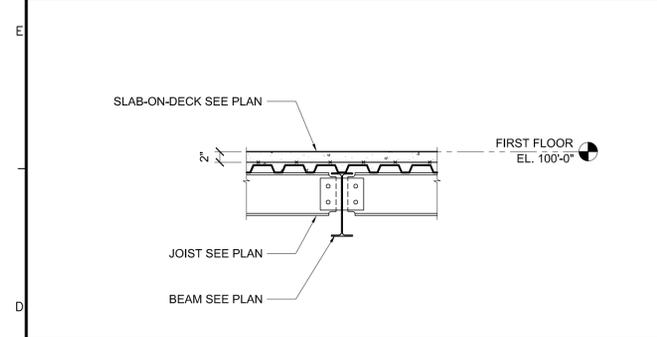


F1 DETAIL
3/4" = 1'-0"

F3 DETAIL AT OVERHEAD DOOR HEADER AT BASEMENT
3/4" = 1'-0"

F6 DETAIL AT OVERHEAD DOOR HEADER AT FIRST FLR
3/4" = 1'-0"

F8 DETAIL
3/4" = 1'-0"

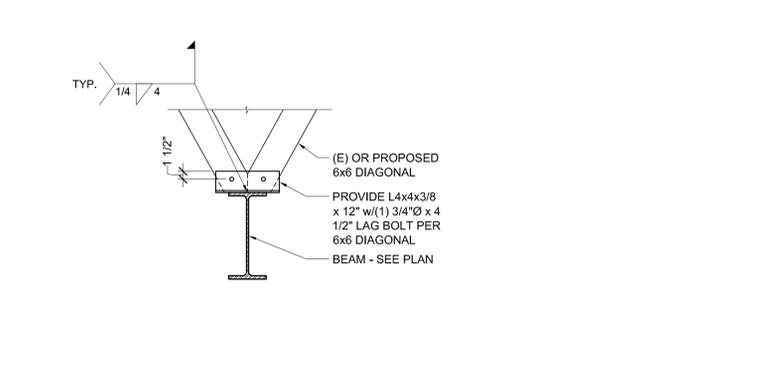
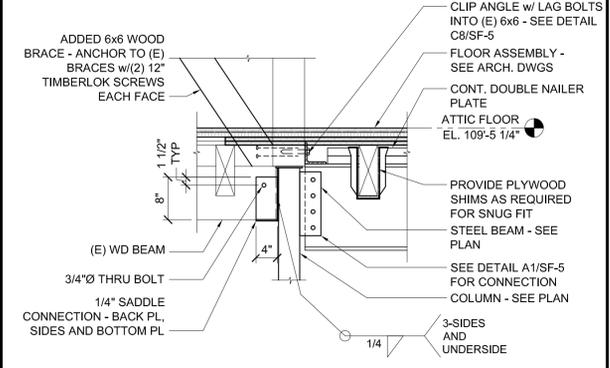
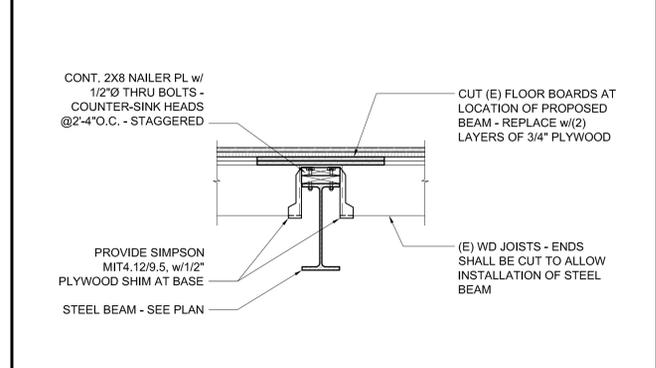
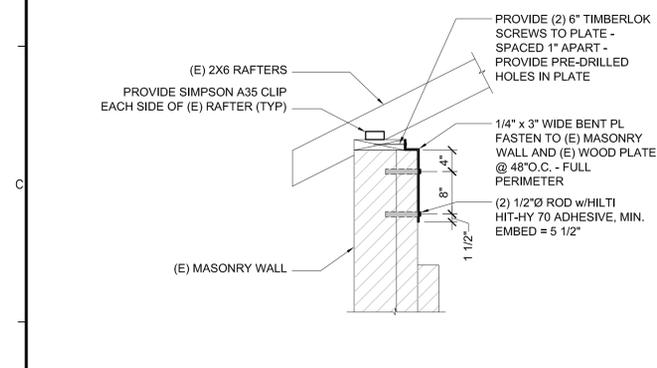


D1 DETAIL AT FIRST FLOOR FRAMING
3/4" = 1'-0"

D3 DETAIL
3/4" = 1'-0"

D6 DETAIL AT JOIST BEARING AT FIRST FLOOR
3/4" = 1'-0"

D8 DETAIL
3/4" = 1'-0"

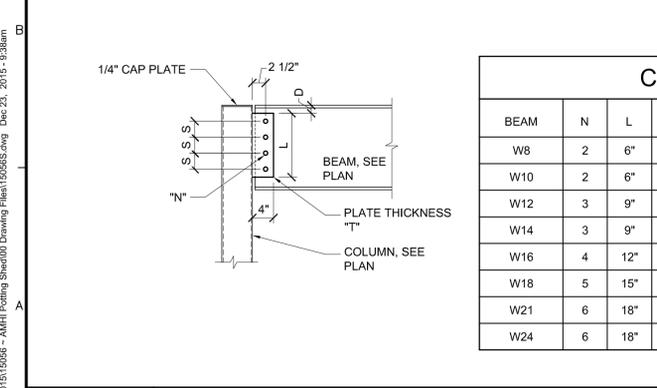


C1 DETAIL AT EXISTING RAFTER BEARING
3/4" = 1'-0"

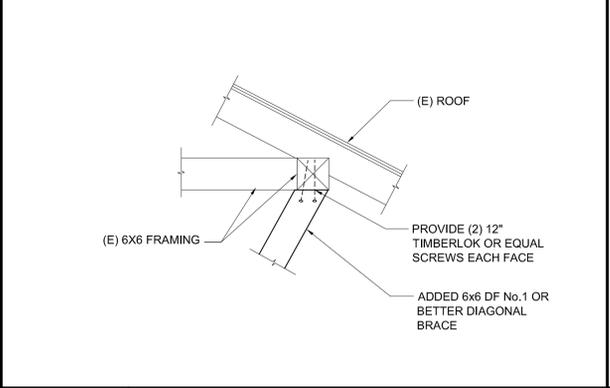
C3 (E) JOIST BEARING AT STEEL BEAM
3/4" = 1'-0"

C6 DETAIL
3/4" = 1'-0"

C8 DETAIL
3/4" = 1'-0"



| CONNECTION SCHEDULE | | | | | | NOTES: 1. ALL BOLTS SHALL BE 3/4" DIA A325N (U.N.O.) 2. N = NUMBER OF BOLTS 3. L = LENGTH OF PLATE 4. T = THICKNESS OF PLATE 5. D = DEPTH OF PLATE FROM TOP FLANGE OF BEAM 6. S = BOLT SPACING |
|---------------------|---|-----|------|--------|----|--|
| BEAM | N | L | T | D | S | |
| W8 | 2 | 6" | 3/8" | 1" | 3" | |
| W10 | 2 | 6" | 3/8" | 1 1/2" | 3" | |
| W12 | 3 | 9" | 3/8" | 1 1/2" | 3" | |
| W14 | 3 | 9" | 3/8" | 1 1/2" | 3" | |
| W16 | 4 | 12" | 3/8" | 1 1/2" | 3" | |
| W18 | 5 | 15" | 3/8" | 1 1/2" | 3" | |
| W21 | 6 | 18" | 3/8" | 1 1/2" | 3" | |
| W24 | 6 | 18" | 3/8" | 1 1/2" | 3" | |



A1 TYPICAL STEEL BEAM TO COLUMN CONNECTION DETAIL
3/4" = 1'-0"

A6 DETAIL
3/4" = 1'-0"

A8 DETAIL
3/4" = 1'-0"

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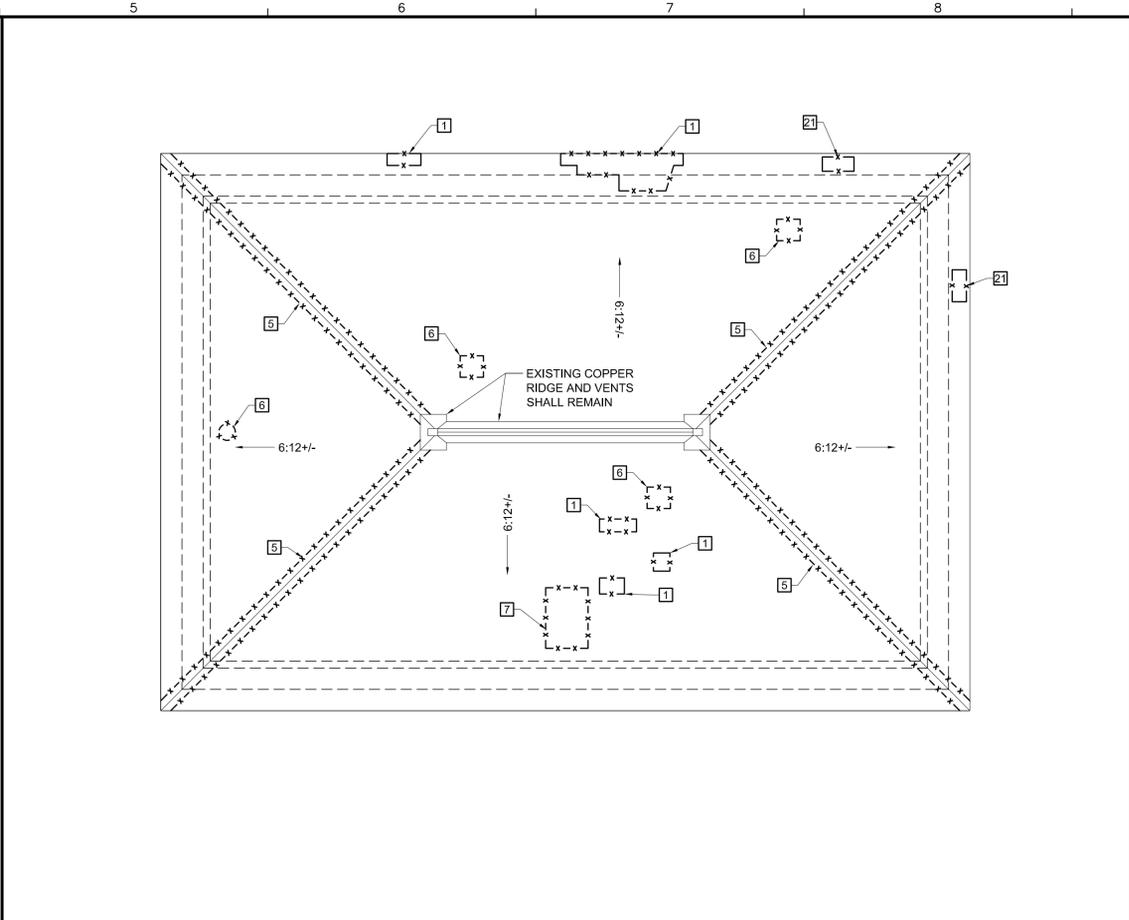
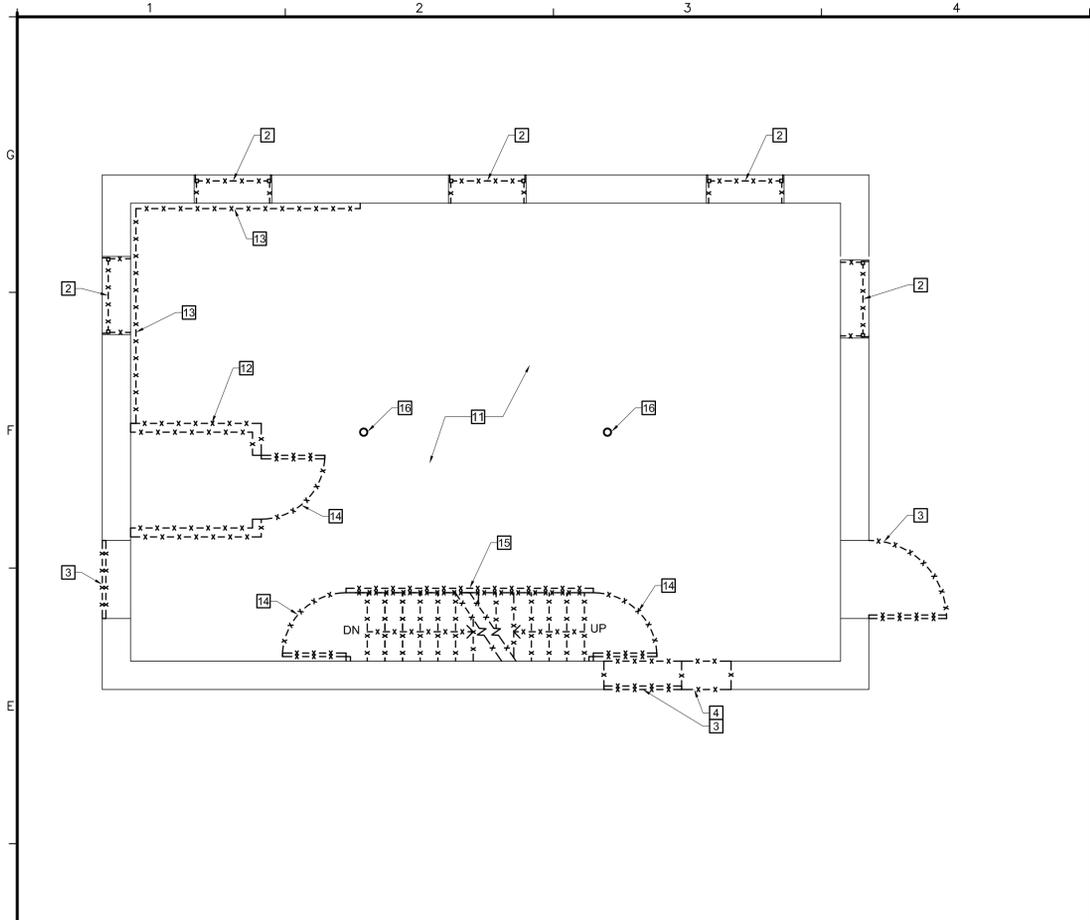
STRUCTURAL - DETAILS

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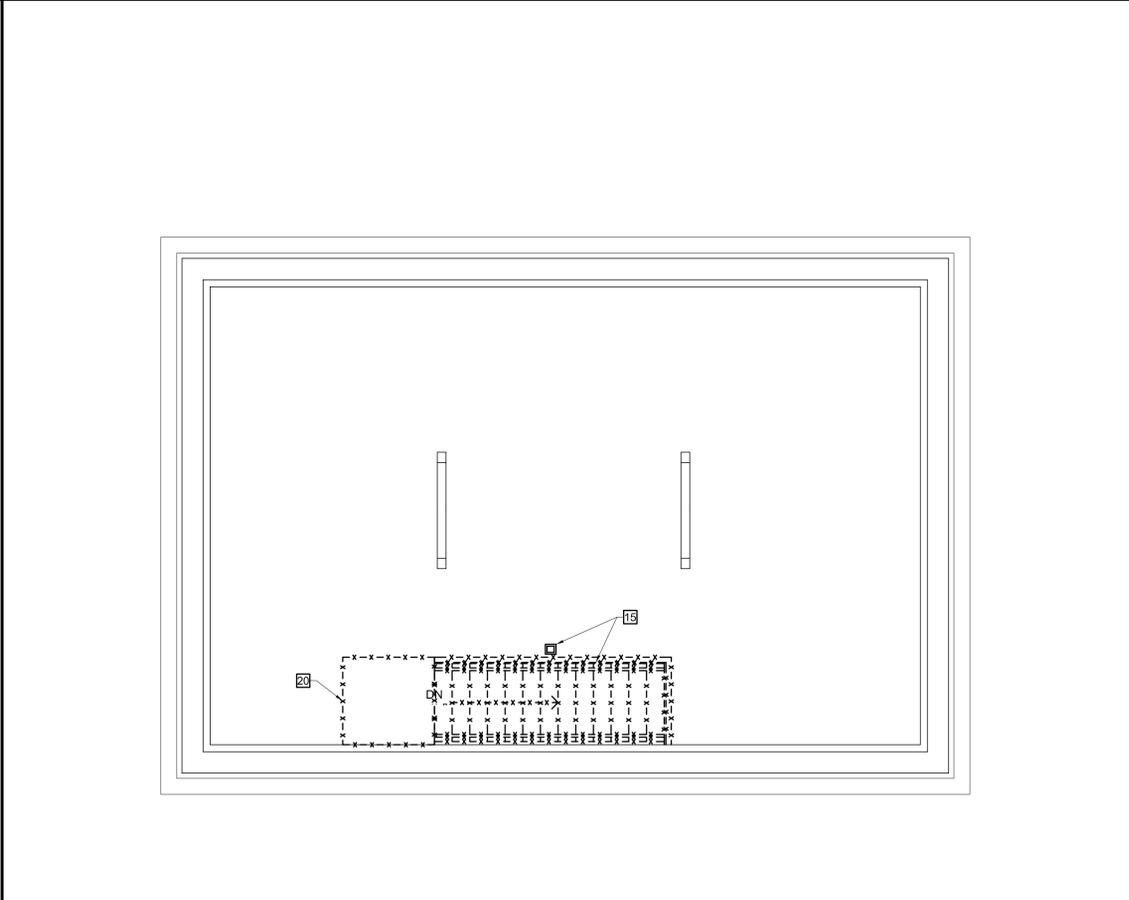
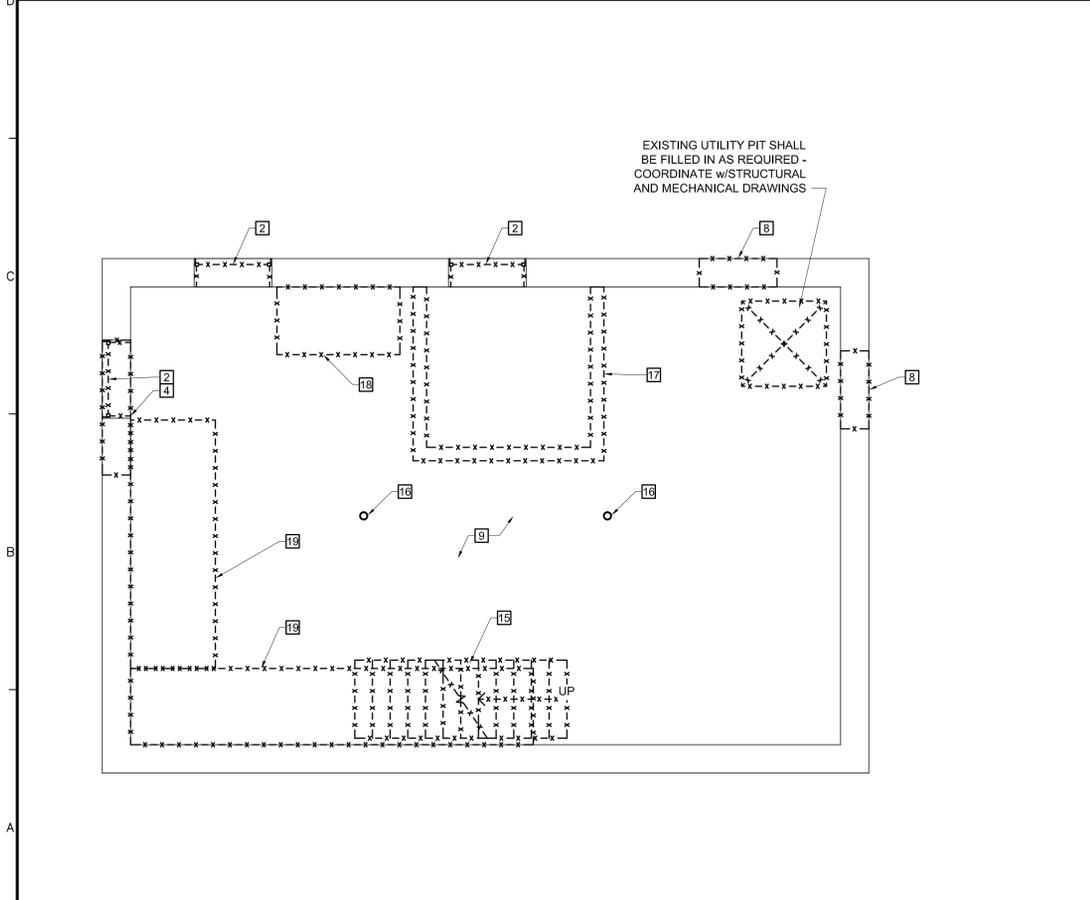
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E1 ARCHITECTURAL ~ FIRST FLOOR PLAN
1/4" = 1'-0"

E5 ARCHITECTURAL ~ ROOF PLAN
1/4" = 1'-0"



A1 ARCHITECTURAL ~ BASEMENT PLAN
1/4" = 1'-0"

A5 ARCHITECTURAL ~ ATTIC FLOOR PLAN
1/4" = 1'-0"

GENERAL DEMOLITION NOTES:

- REFER TO DRAWINGS SD-1, PD-1 AND E-0 FOR STRUCTURAL AND MEP DEMOLITION REQUIREMENTS NOT SHOWN ON DRAWINGS AD-1 AND AD-2

DEMO KEYED LEGEND

- REPLACE MISSING AND/OR BROKEN EXISTING SLATE ROOFING TILES MATCH (E)
- REMOVE EXISTING WINDOW TO EXPOSE ROUGH OPENING
- REMOVE EXISTING DOOR TO EXPOSE ROUGH OPENING - SET ASIDE GRANITE AND CUT TO FIT FOR HEADER SOAP AT OVERHEAD DOOR AT BASEMENT
- REMOVE EXISTING WALL IN FULL AT PROPOSED OPENING LOCATIONS - COORDINATE W/ DRAWING A-1
- REMOVE EXISTING HIP CAP SLATE
- REMOVE EXISTING VENT - INFILL AS REQUIRED FOR PROPOSED STACKS THRU EXISTING OPENING
- REMOVE EXISTING SKYLIGHT - INFILL W/DECKING AND SLATE ROOF TILE MATCH (E)
- REMOVE EXISTING BRICK INFILL AT EXISTING M.O.
- REMOVE GRAVEL TO PROPOSED BASE ELEVATION
- NOT USED
- REMOVE EXISTING CONCRETE FLOOR - REFER TO STRUCTURAL DRAWINGS FOR FRAMING DEMOLITION
- REMOVE EXISTING INTERIOR STUD WALLS INCLUDING WALL PLATES AND SHEATHING
- REMOVE EXISTING WAINSCOTING
- REMOVE EXISTING INTERIOR DOOR AND HARDWARE
- REMOVE EXISTING STAIR AND STAIR ENCLOSURE, INCLUDING TREADS, RISERS AND STRINGERS, HANDRAILS AND ASSOCIATED HARDWARE
- REMOVE EXISTING STEEL COLUMN - REFER TO STRUCTURAL DRAWINGS
- REMOVE EXISTING 8" THICK x APPROX 60" HIGH MASONRY WALL
- REMOVE EXISTING CONCRETE SINK
- REMOVE EXISTING CONCRETE SLABS
- REMOVE EXISTING FLOOR FRAMING AND DECKING FOR PROPOSED STAIR OPENING - COORDINATE W/ STRUCTURAL DRAWINGS FOR FRAMING
- CUT UNDERSIDE SOFFIT FOR MECHANICAL INTAKE AND EXHAUST, SEE MECH. DWGS.

A9 DEMOLITION KEYED LEGEND

N:\Projects\2015\15056 - AMHI Potting Shed\00 Drawing Files\15056A.dwg Dec 23, 2015 - 12:28pm

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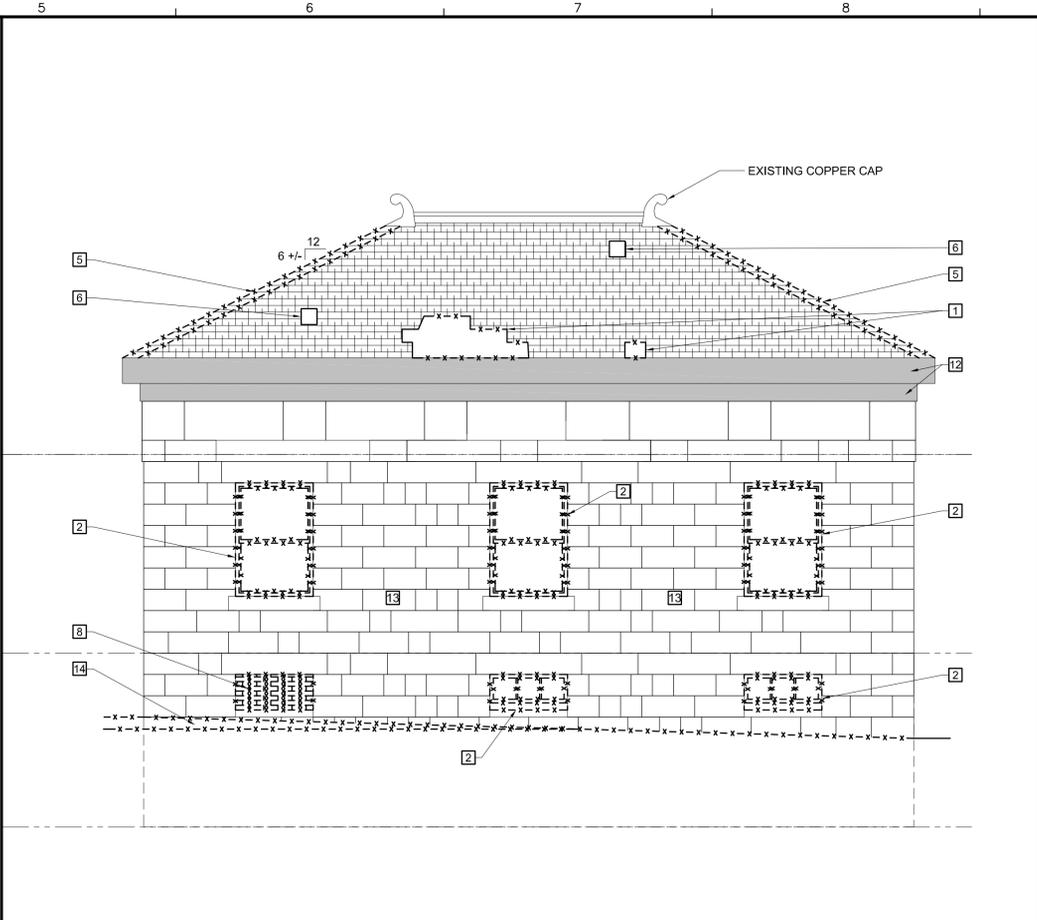
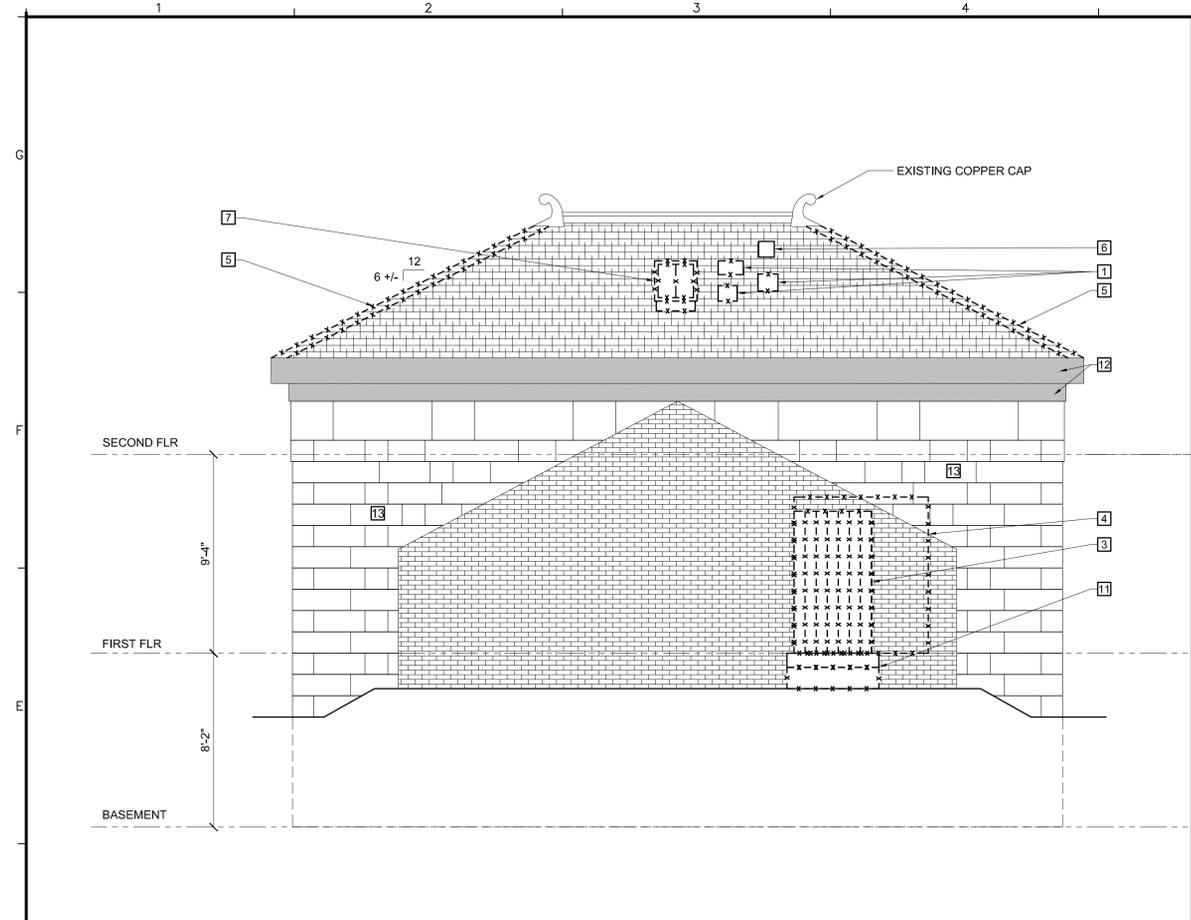
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| Date: | Drawn By: PED |
| Checked By: MFH | Project Mgr: WPF |
| Project No: 15056 | Card File: 15056A.dwg |
| Graphic Scale: 0 1' | |

ARCHITECTURAL - DEMOLITION FLOOR PLANS

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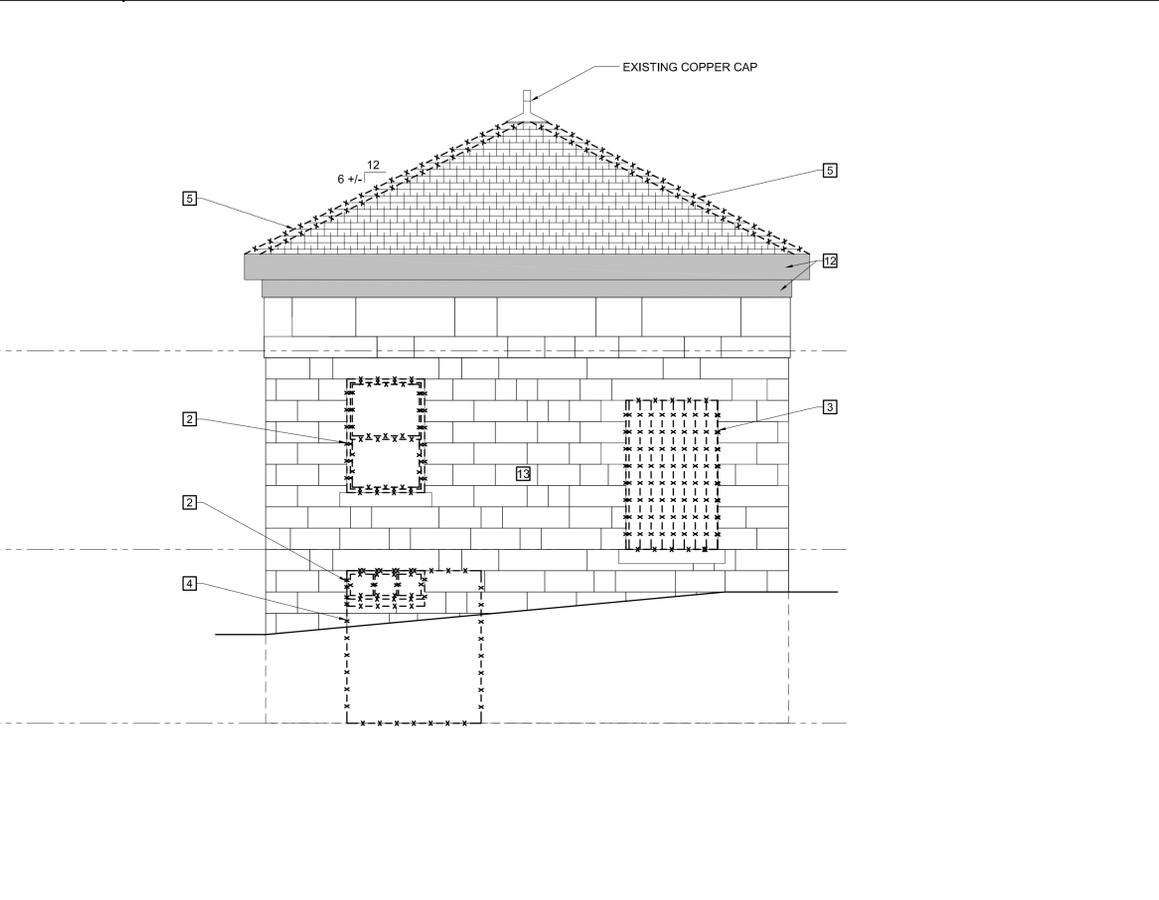
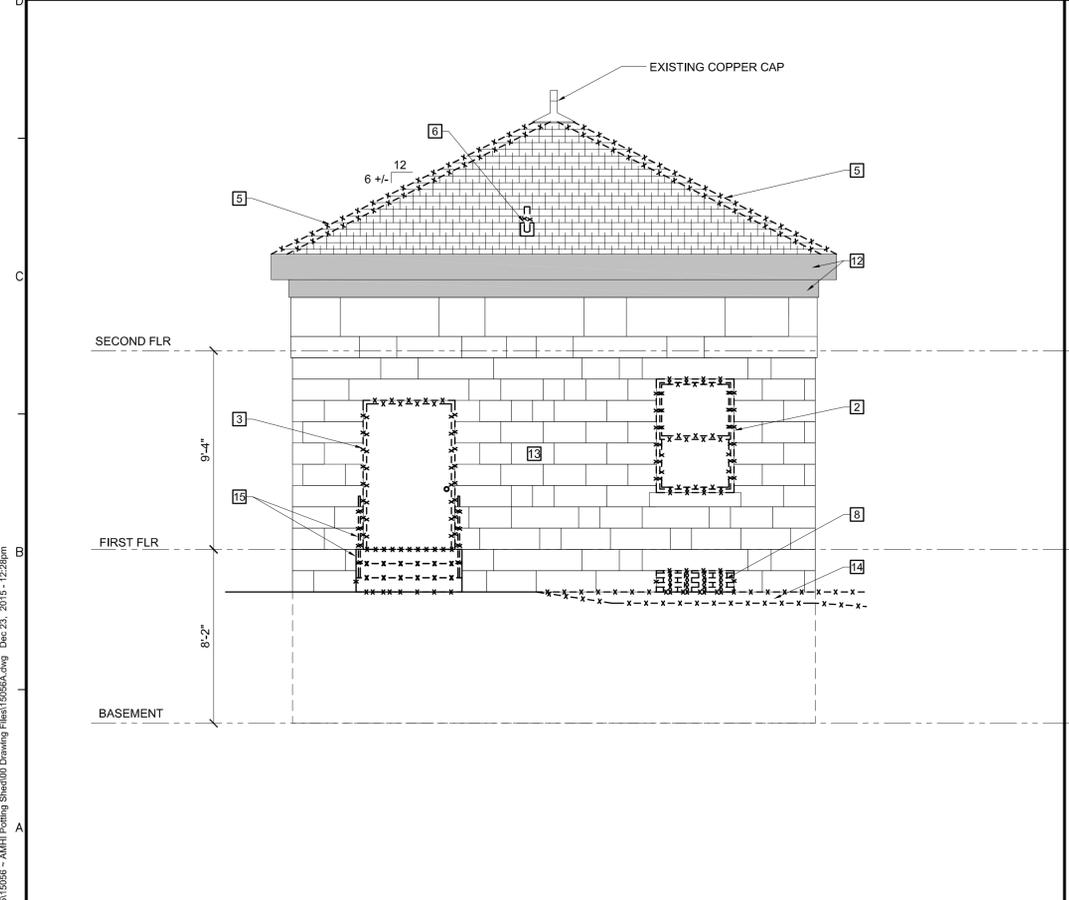
AD-1

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E1 ARCHITECTURAL ~ LEFT ELEVATION
1/4" = 1'-0"

E5 ARCHITECTURAL ~ RIGHT ELEVATION
1/4" = 1'-0"



A1 ARCHITECTURAL ~ FRONT ELEVATION
1/4" = 1'-0"

A5 ARCHITECTURAL ~ REAR ELEVATION
1/4" = 1'-0"

DEMO KEYED LEGEND

| | |
|----|--|
| 1 | REPLACE MISSING AND/OR BROKEN EXISTING SLATE ROOFING TILES MATCH (E) |
| 2 | REMOVE EXISTING WINDOW TO EXPOSE ROUGH OPENING - SET ASIDE GRANITE AND CUT TO FIT FOR HEADER SOAP AT OVERHEAD DOOR AT BASEMENT |
| 3 | REMOVE EXISTING DOOR TO EXPOSE ROUGH OPENING |
| 4 | REMOVE EXISTING WALL IN FULL AT PROPOSED OPENING LOCATIONS - COORDINATE w/ DRAWING A-1 |
| 5 | REMOVE EXISTING HIP CAP SLATE |
| 6 | REMOVE EXISTING VENT - INFILL AS REQUIRED FOR PROPOSED STACKS THRU EXISTING OPENING |
| 7 | REMOVE EXISTING SKYLIGHT - INFILL w/DECKING AND SLATE ROOF TILE MATCH (E) |
| 8 | REMOVE EXISTING BRICK INFILL AT EXISTING M.O. |
| 9 | NOT USED |
| 10 | NOT USED |
| 11 | REMOVE EXISTING EXTERIOR STAIR |
| 12 | REPAIR/RE-ATTACH AS REQUIRED, FILL ALL VOIDS, SCRAPE AND PREPARE SURFACES FOR PAINTING OF EXISTING WOOD TRIM. |
| 13 | MAINTENANCE OF STONE ASSEMBLIES - PER SPECIFICATION (04 01 40) |
| 14 | REMOVE EXISTING GRADE - COORDINATE w/ SITE DRAWINGS |
| 15 | REMOVE EXISTING GRANITE STEPS AND RAILING |

A9 DEMOLITION KEYED LEGEND

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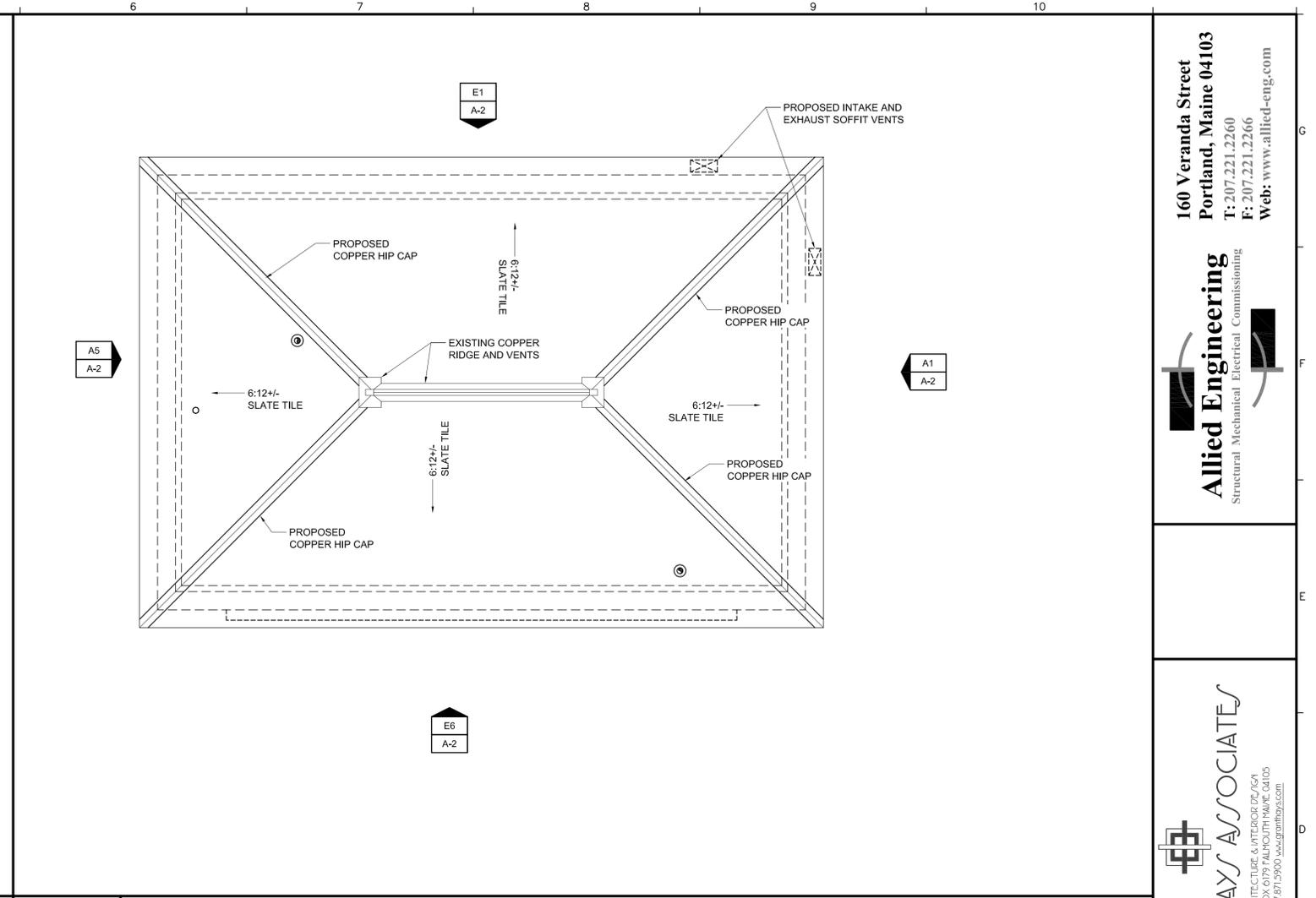
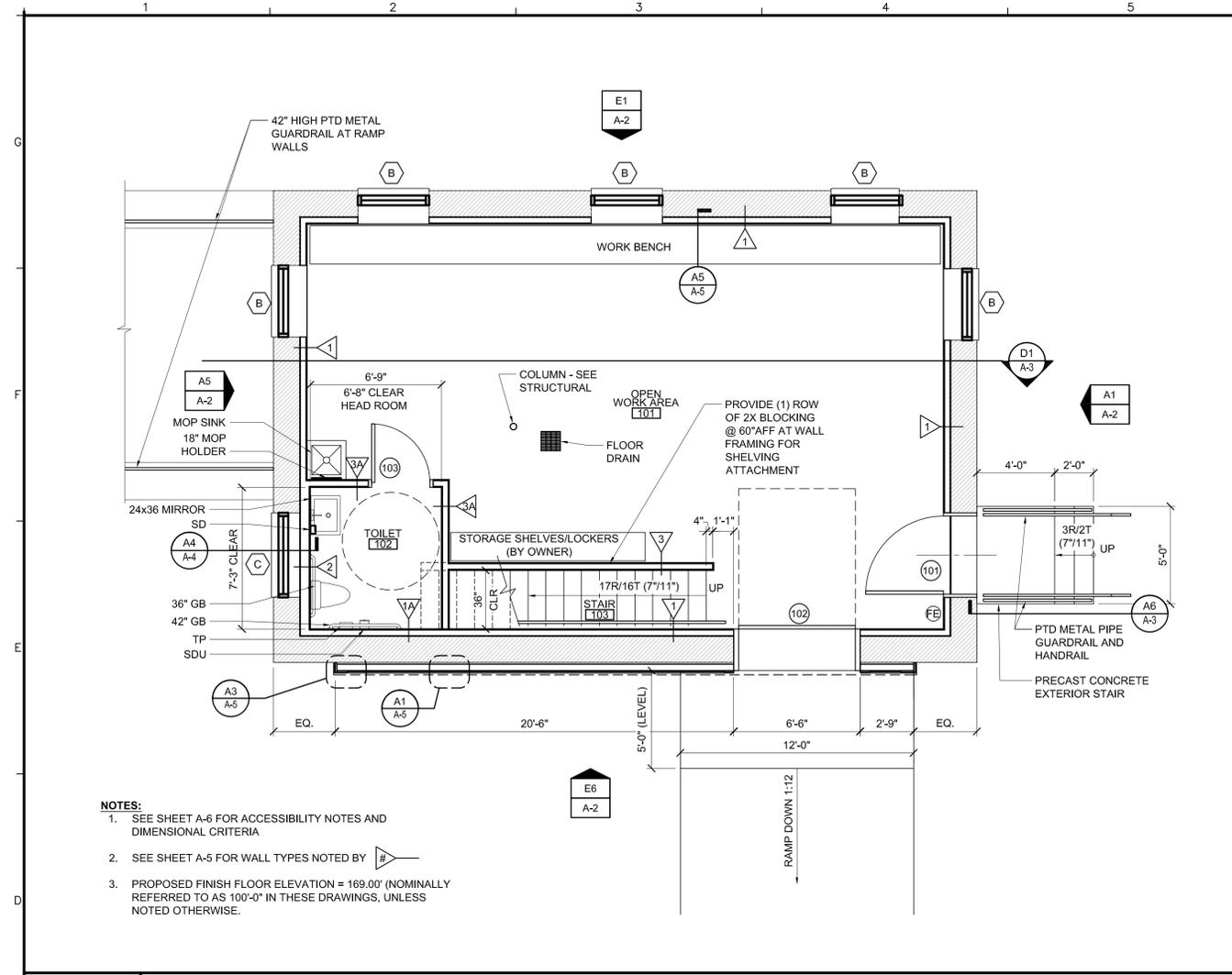
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| Drawn By: | PEB |
| Checked By: | MFH |
| Project Mgr: | WPF |
| Project No.: | 15056 |
| Card File: | 15056A.dwg |
| Graphic Scale: | 0 1' |

ARCHITECTURAL - DEMOLITION EXTERIOR ELEVATIONS

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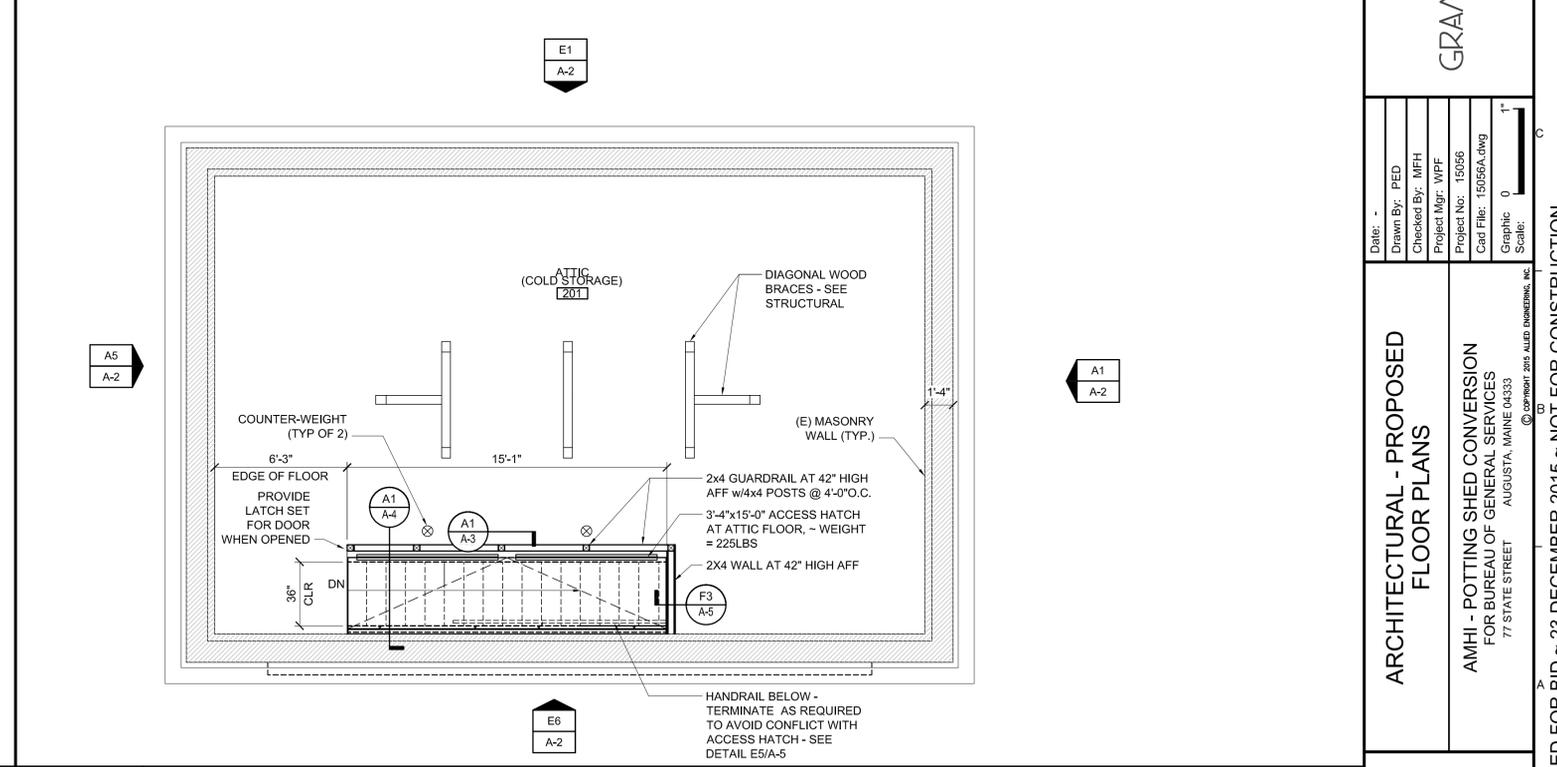
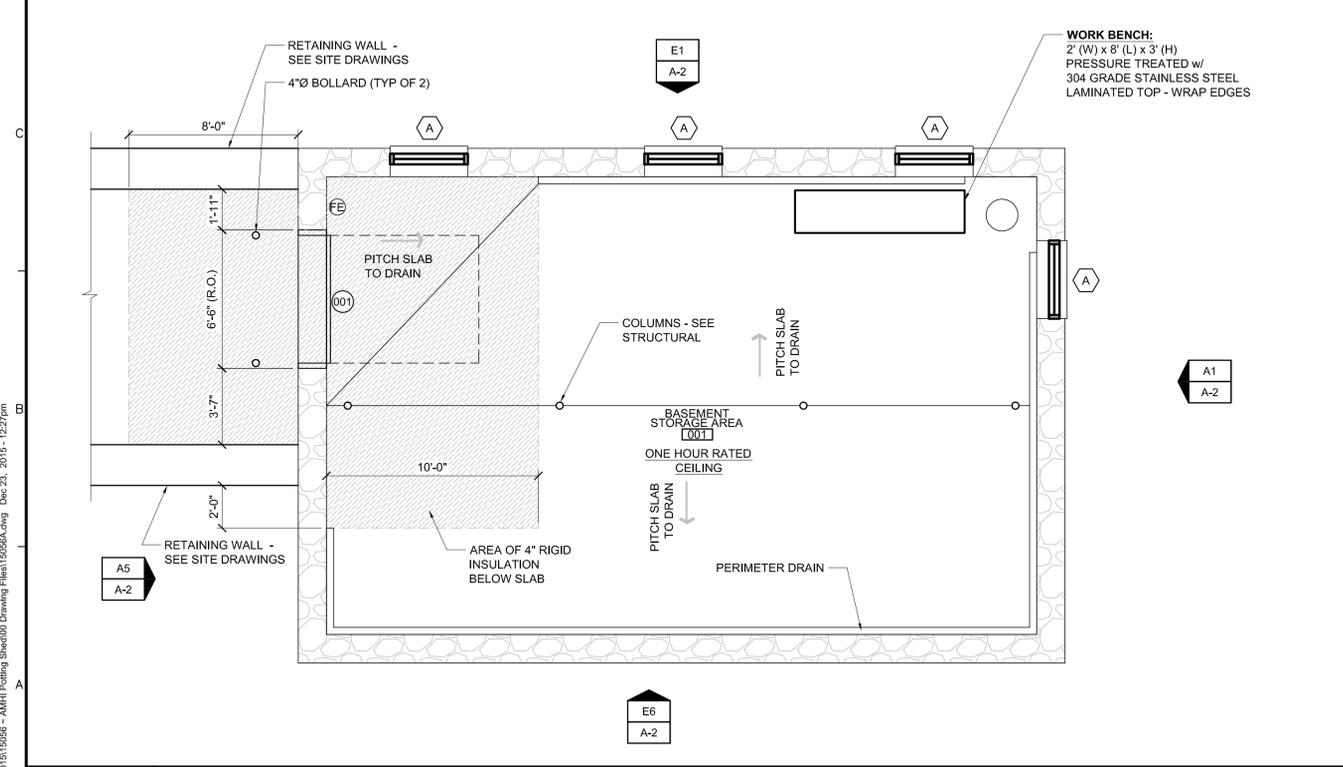
AD-2

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D1 ARCHITECTURAL ~ FIRST FLOOR PLAN
1/4" = 1'-0"

D6 ARCHITECTURAL ~ ROOF PLAN
1/4" = 1'-0"



A1 ARCHITECTURAL ~ BASEMENT PLAN
1/4" = 1'-0"

A6 ARCHITECTURAL ~ SECOND FLOOR PLAN
1/4" = 1'-0"

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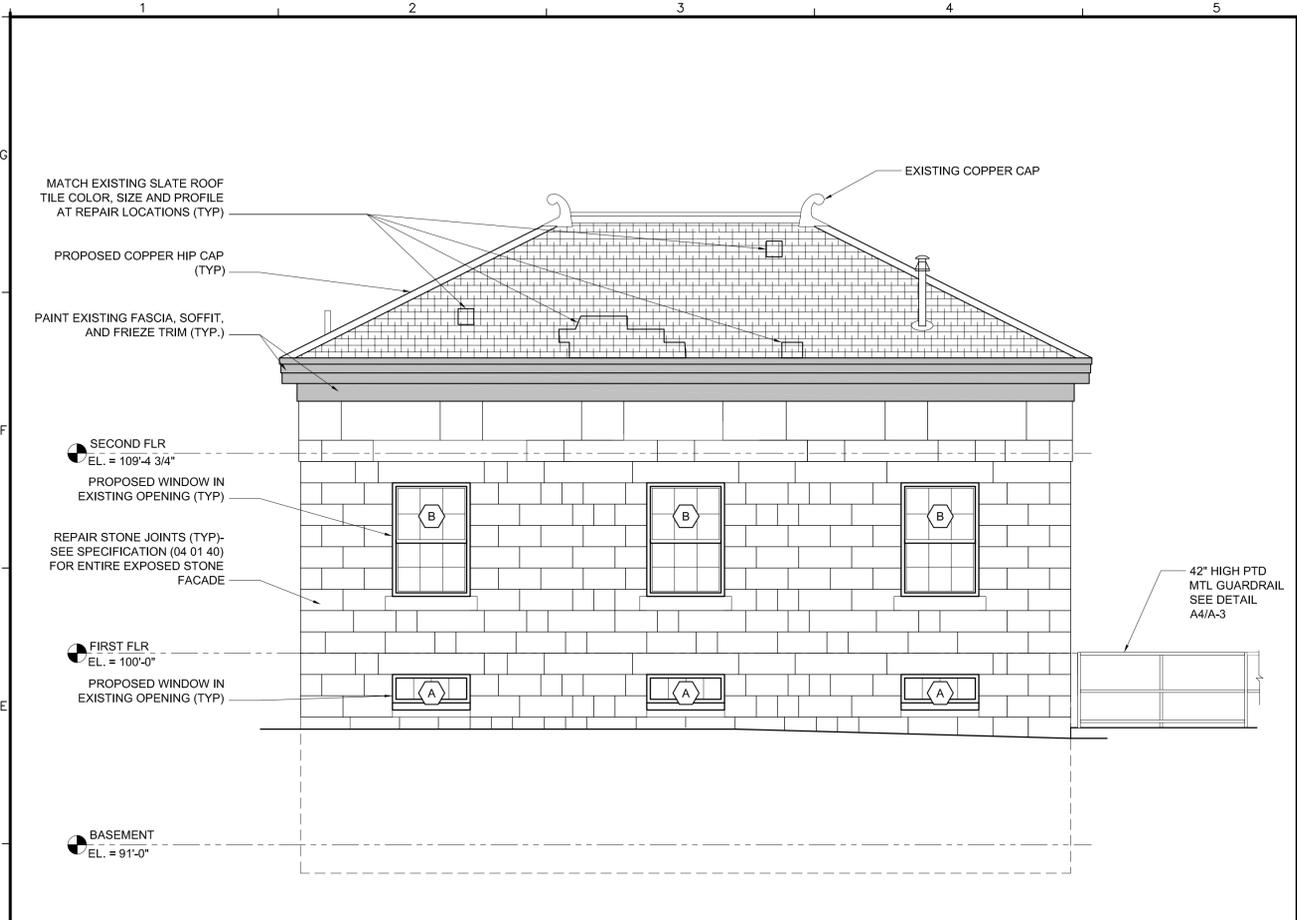
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| Project Mgr: | WPF |
| Project No.: | 15056 |
| Card File: | 15056A.dwg |
| Graphic Scale: | 0 1' |

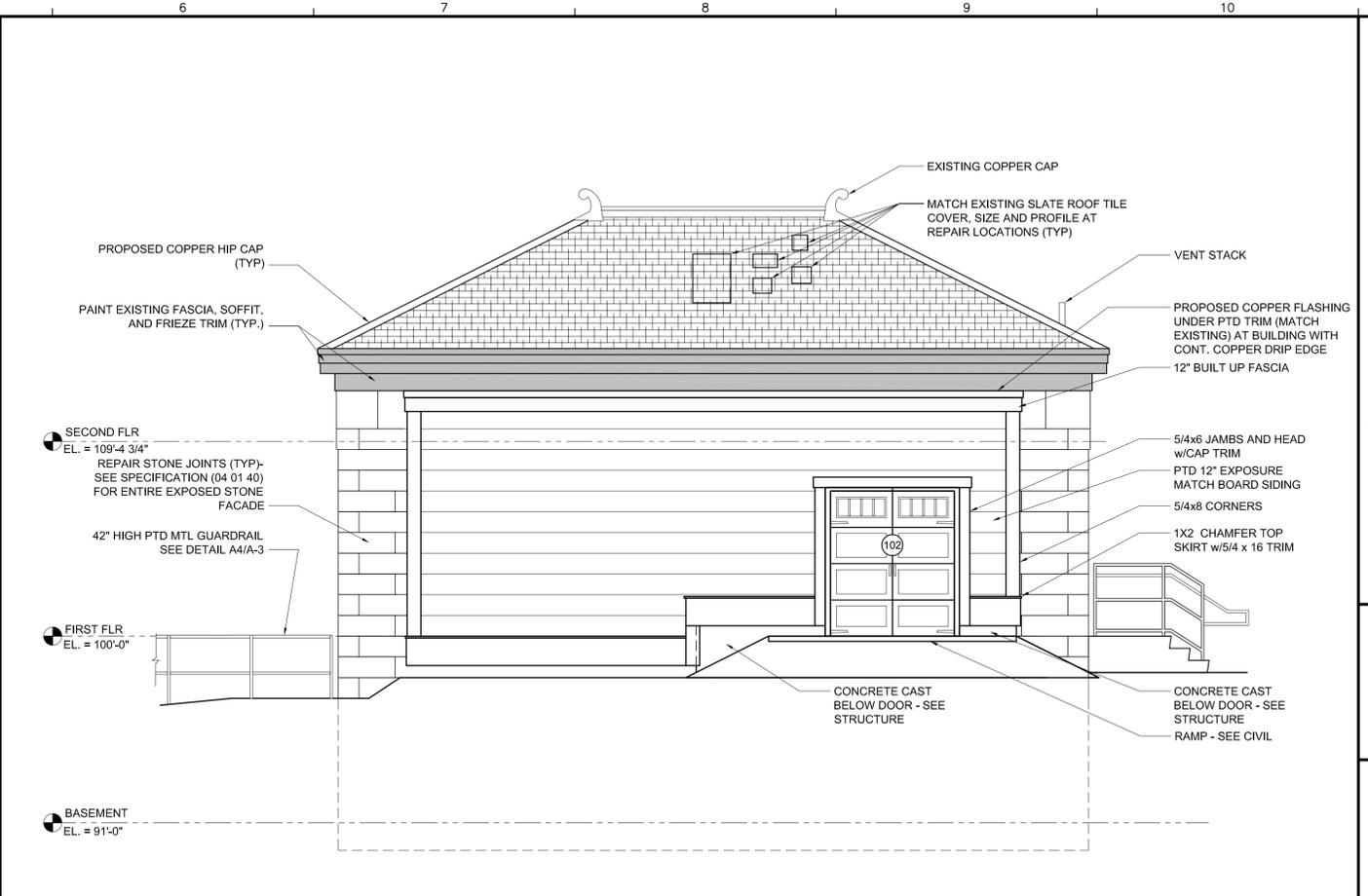
ARCHITECTURAL - PROPOSED FLOOR PLANS
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A-1

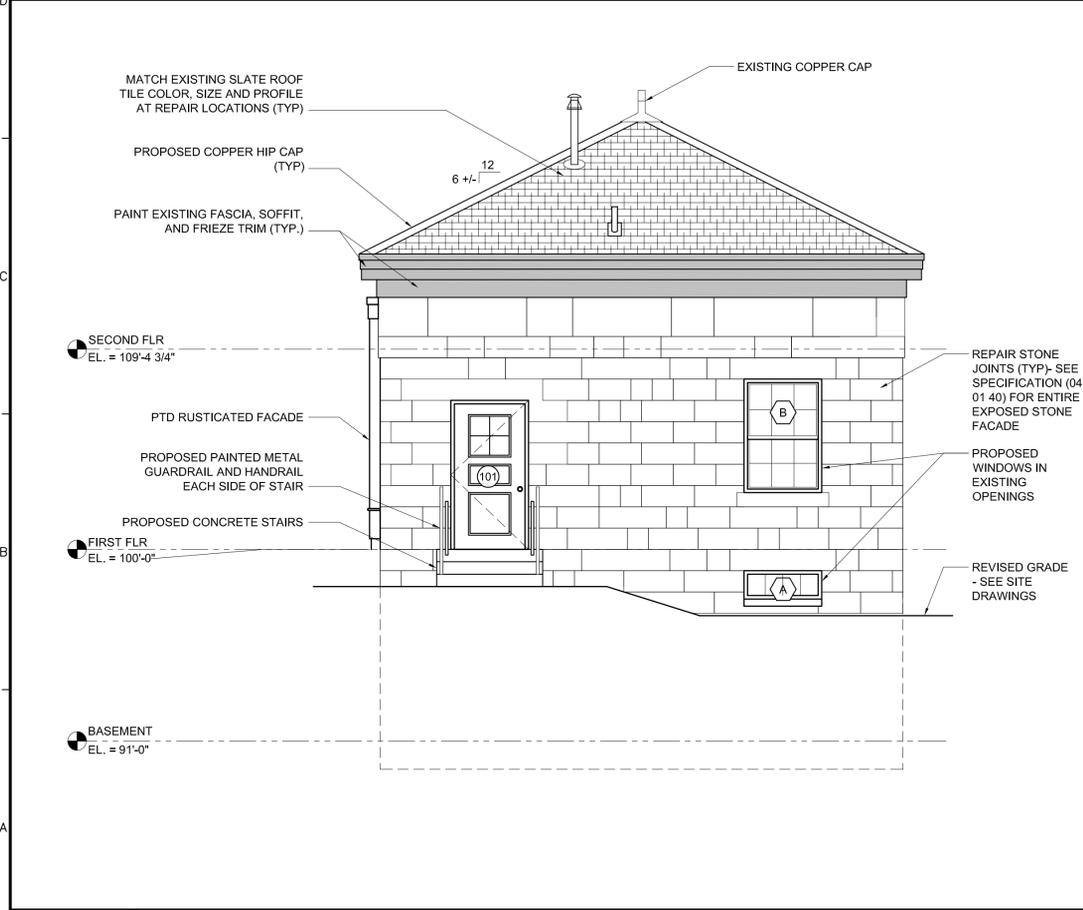
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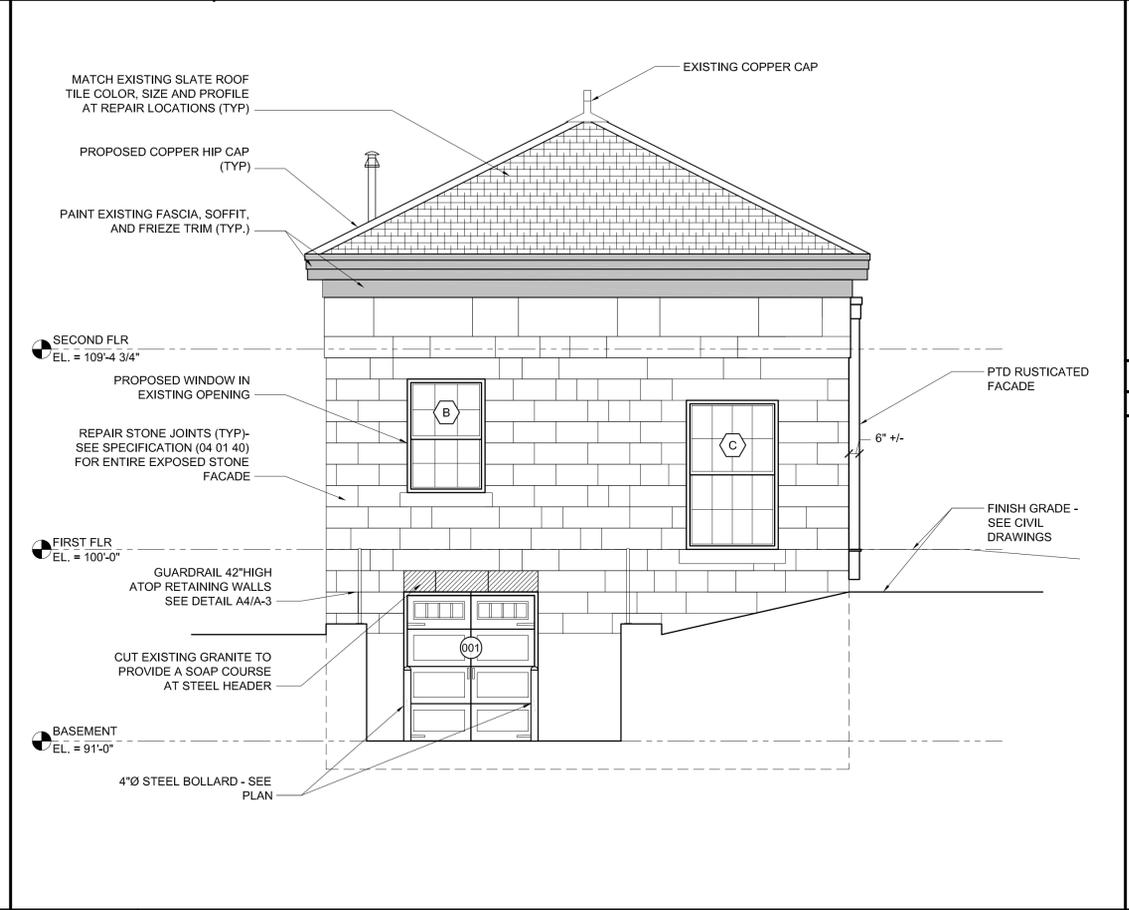
E1 ARCHITECTURAL ~ LEFT ELEVATION
1/4" = 1'-0"



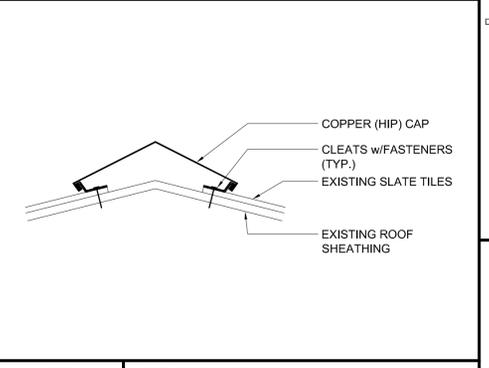
E6 ARCHITECTURAL ~ RIGHT ELEVATION
1/4" = 1'-0"



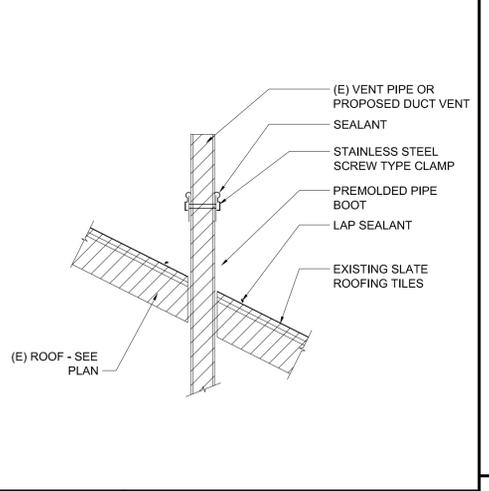
A1 ARCHITECTURAL ~ FRONT ELEVATION
1/4" = 1'-0"



A5 ARCHITECTURAL ~ REAR ELEVATION
1/4" = 1'-0"



C9 HIP CAP DETAIL
NTS



A9 VENT THRU ROOF DETAIL
NTS

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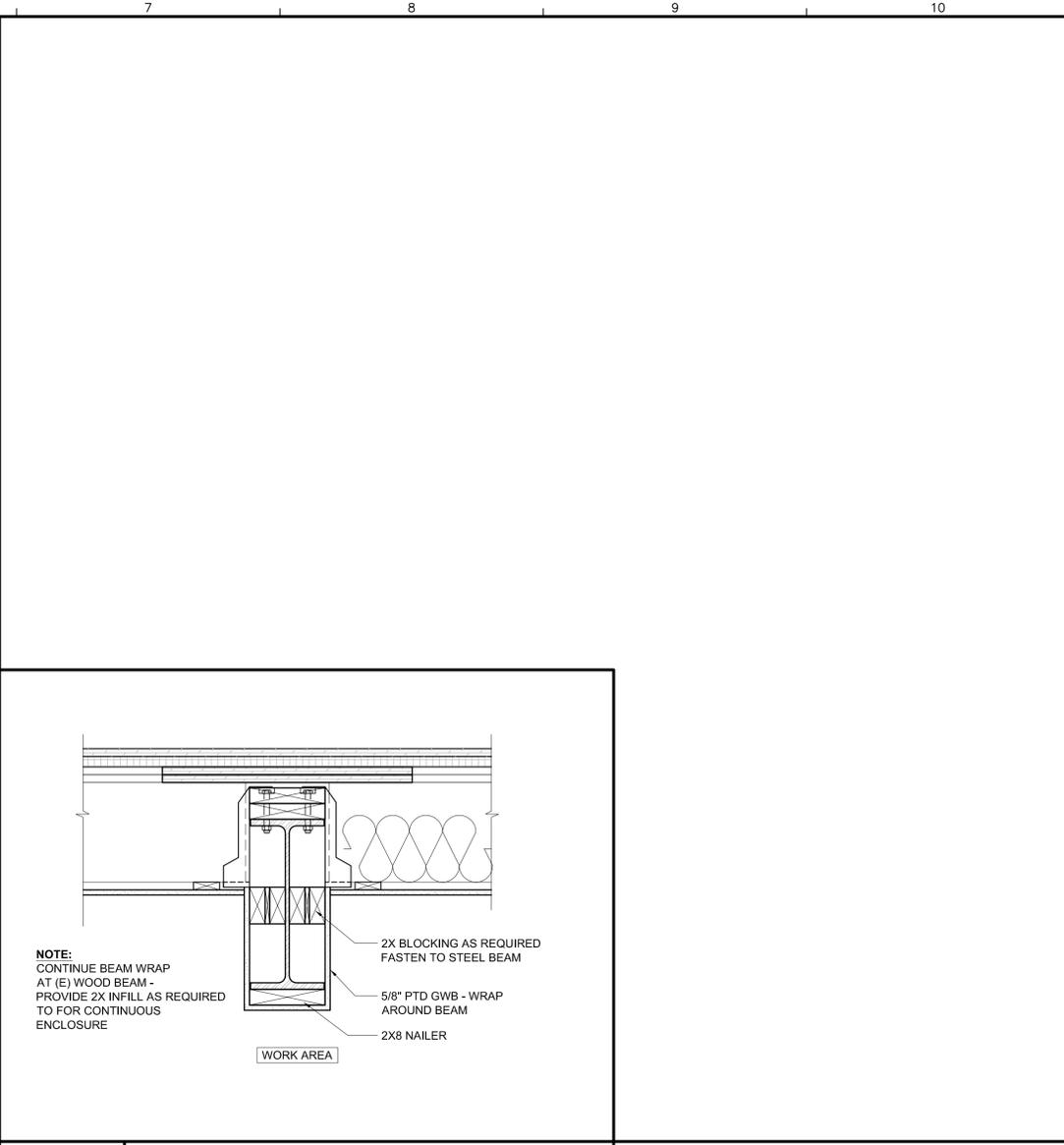
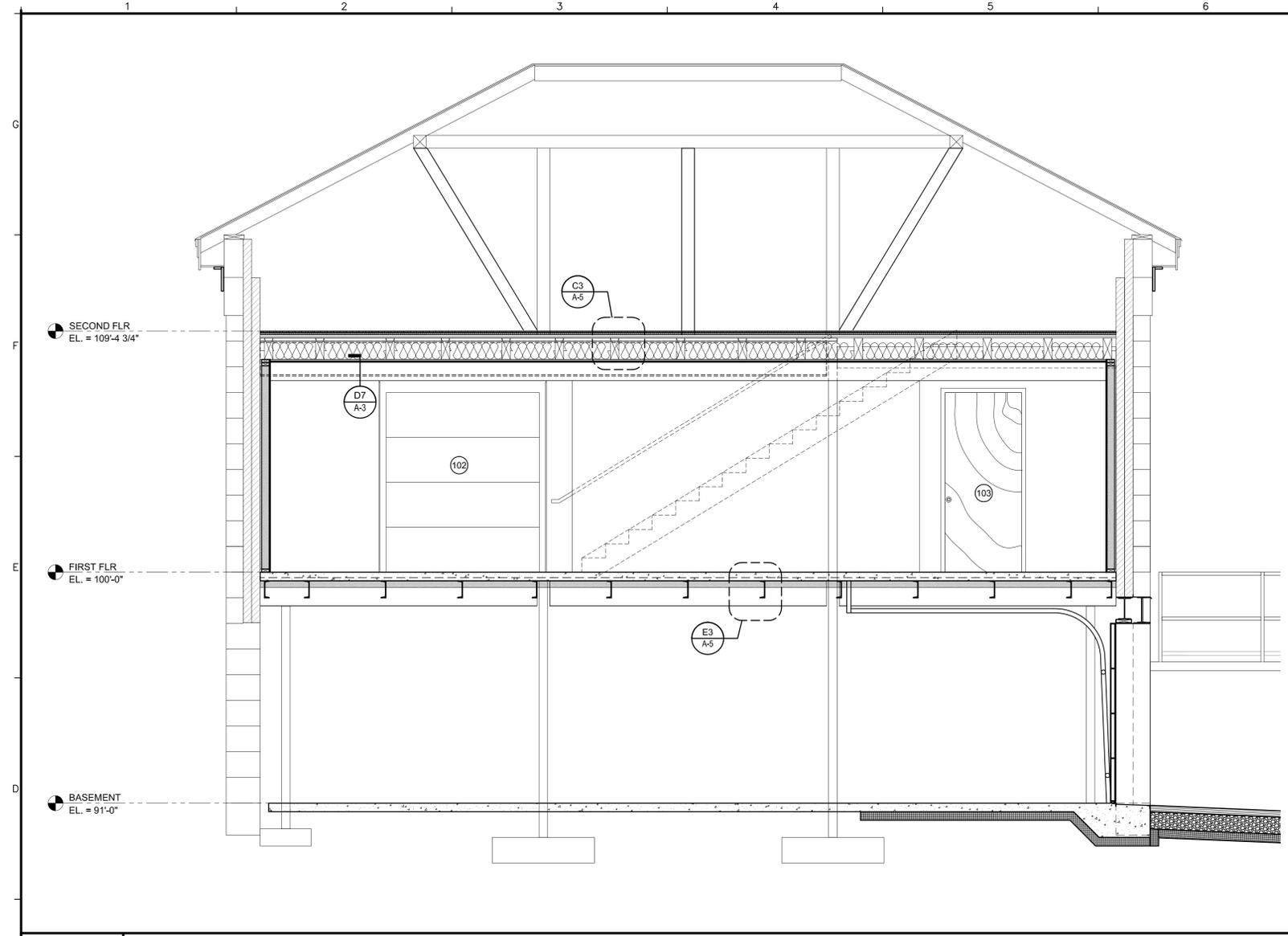
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 Project Mgr: WPF
 Project No: 15056
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ARCHITECTURAL - PROPOSED EXTERIOR ELEVATIONS
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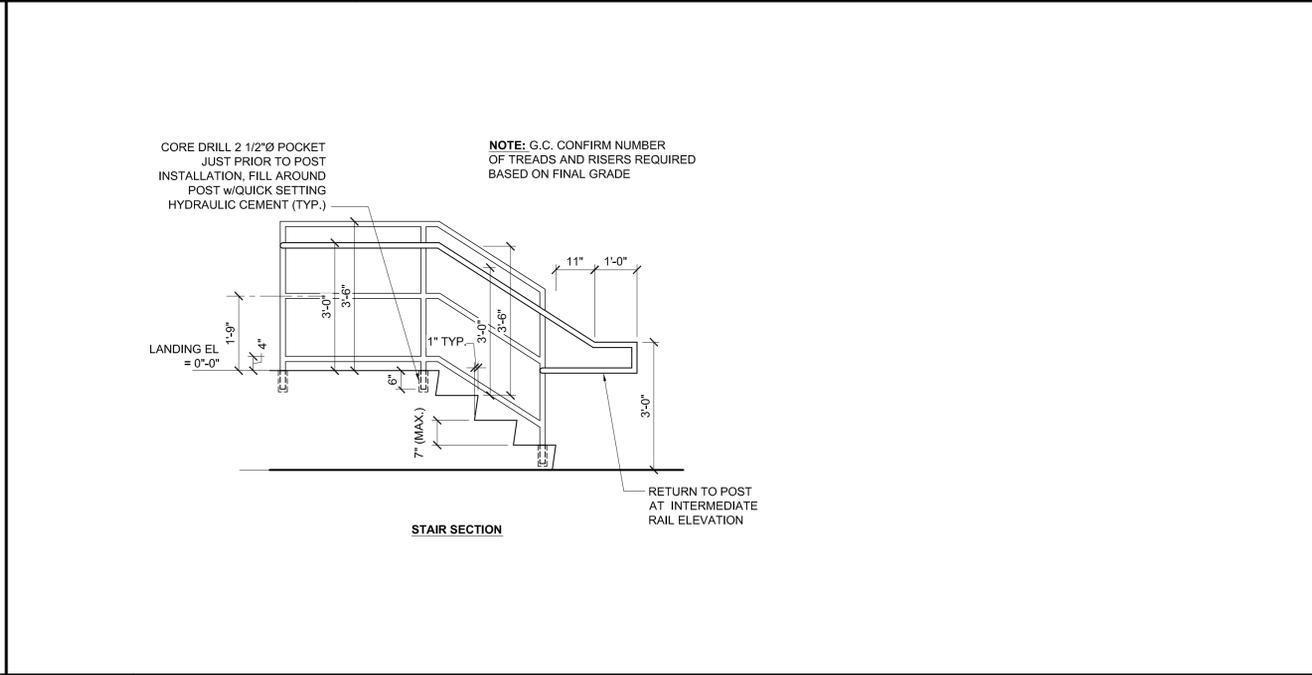
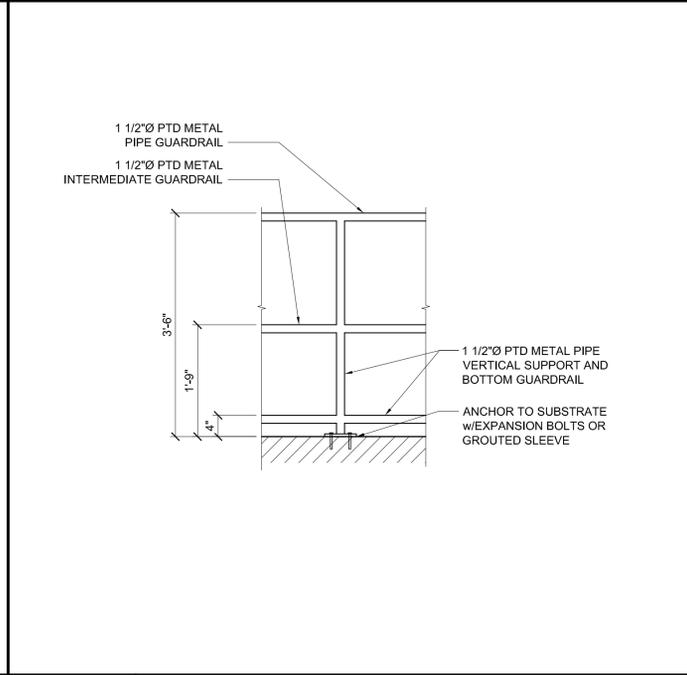
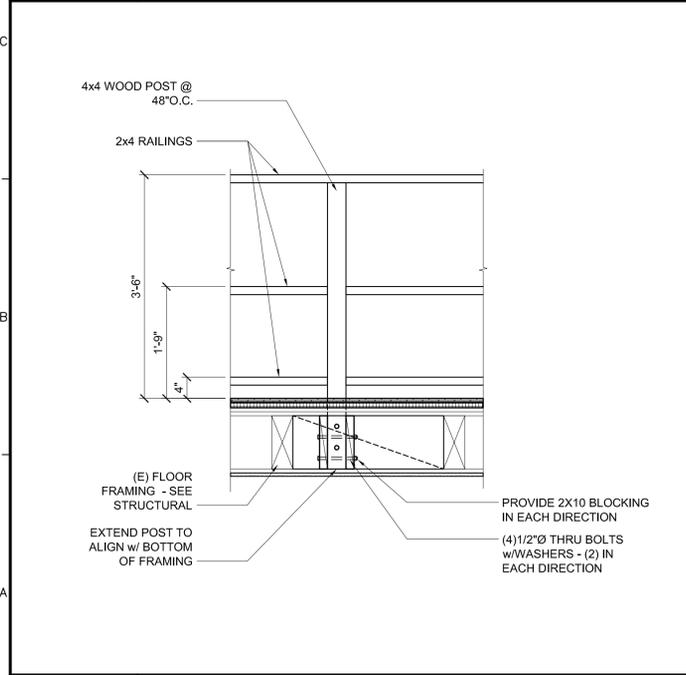
A-2

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D1 ARCHITECTURAL ~ BUILDING SECTION
3/8" = 1'-0"

D7 DETAIL
1-1/2" = 1'-0"



A1 GUARDRAIL DETAIL AT STAIR (ATTIC LEVEL)
3/4" = 1'-0"

A4 GUARDRAIL DETAIL AT RETAINING WALL
3/4" = 1'-0"

A6 GUARD/HAND RAIL DETAIL AT EXTERIOR ENTRANCE
1/2" = 1'-0"

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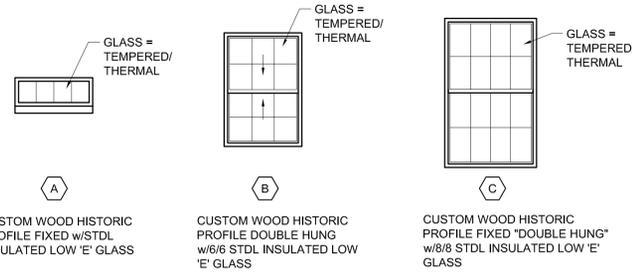
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ARCHITECTURAL - BUILDING SECTION AND STAIR DETAILS
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A-3

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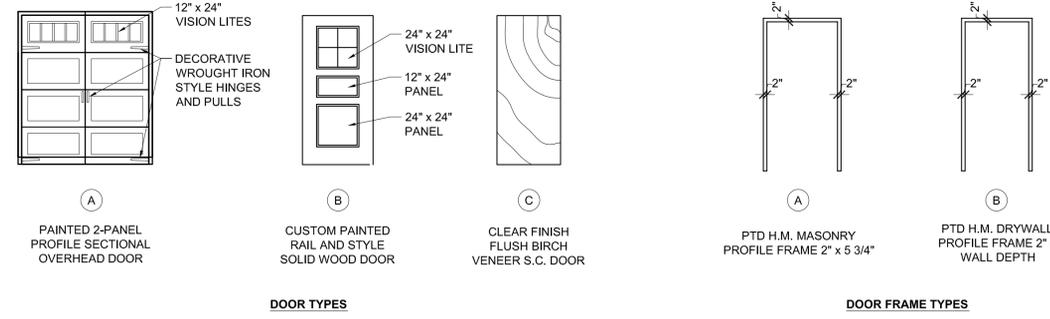


G1 WINDOW TYPES
1/4" = 1'-0"

| DOOR SCHEDULE | | | | | | | | | | | | | | | | | |
|---------------|------|---------------|--------|-------|------|----|-------|---------|---------|--------|------|------|--------------|--------------|----------|--------------|-------------|
| NO | TYPE | SIZE (w x h) | THK | INSUL | HDWR | FR | GLASS | | REMARKS | FRAMES | | | THRESHOLDS | | | | |
| | | | | | | | TYPE | SIZE | | TYPE | FR | TYPE | DETAILS HEAD | DETAILS JAMB | MATERIAL | DETAILS SILL | DETAILS FIN |
| 001 | A | 6'-0" X 8'-0" | MFGR | YES | HW-3 | NO | NONE | NONE | | MTL | NONE | C | | | RUBBER | NA | CONC |
| 101 | B | 3'-6" X 7'-0" | 1-3/4" | NO | HW-1 | NO | T/TH | 2' X 2' | | MTL | NONE | A | | | ALUM | NA | NA |
| 102 | A | 6'-0" X 8'-0" | MFGR | YES | HW-4 | NO | NONE | NONE | | MTL | NONE | C | | | NONE | NA | NA |
| 103 | C | 3'-0" X 7'-0" | 1-3/4" | NO | HW-2 | NO | NONE | NONE | | MTL | NONE | B | | | NONE | NA | NA |

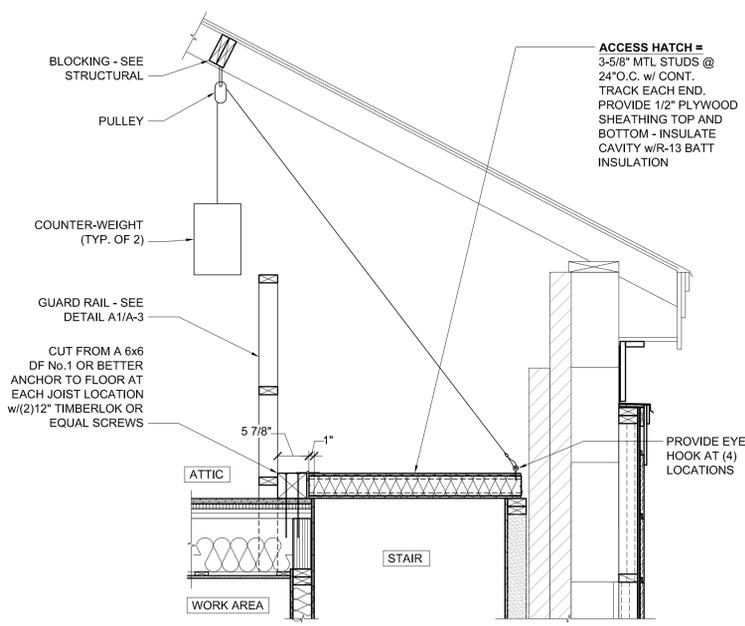
| WINDOW SCHEDULE | | | | | | | | | | | | |
|-----------------|-------------|--------------|--------|--------------|--------|---------|------|------|------|------|---------|----------------|
| NO | TYPE | MANUFACTURER | | NOMINAL SIZE | | DETAILS | | | | | REMARKS | |
| | | MATERIAL | MODEL | WIDTH | HEIGHT | HEAD | JAMB | SILL | MUNT | MULL | | |
| A | FIXED | WOOD | CUSTOM | 3'-8" | 1'-4" | | | | NA | NA | | MATCH HISTORIC |
| B | DOUBLE HUNG | WOOD | CUSTOM | 3'-8" | 5'-2" | | | | NA | NA | | MATCH HISTORIC |
| C | DOUBLE HUNG | WOOD | CUSTOM | 4'-4" | 7'-0" | | | | NA | NA | | MATCH HISTORIC |

| FINISH SCHEDULE | | | | | | | | | | |
|-----------------|--------------------|--------------------|----------------|----------------|----------------|----------|----------|----------|----------|------------------|
| NO | NAME | WALLS (BOTH FACES) | | | | FLOOR | | CLG | | REMARKS |
| | | N | E | S | W | MATL | BASE | TYPE | HT | |
| 001 | BASEMENT | EXISTING | EXISTING | EXISTING | EXISTING | CONC | NONE | P GWB | EXISTING | |
| 101 | OPEN WORK AREA | P PLYWD | P PLYWD | P PLYWD | P PLYWD | CONC | VCB | P GWB | EXISTING | |
| 102 | TOILET | SEE WALL TYPES | SEE WALL TYPES | SEE WALL TYPES | SEE WALL TYPES | CONC | VCB | P GWB | EXISTING | |
| 103 | STAIR | P PLYWD | P PLYWD | P PLYWD | P PLYWD | RUBBER* | VINYL | P GWB | VARIES | *TREADS & RISERS |
| 201 | ATTIC COLD STORAGE | EXISTING | EXISTING | EXISTING | EXISTING | EXISTING | EXISTING | EXISTING | EXISTING | |

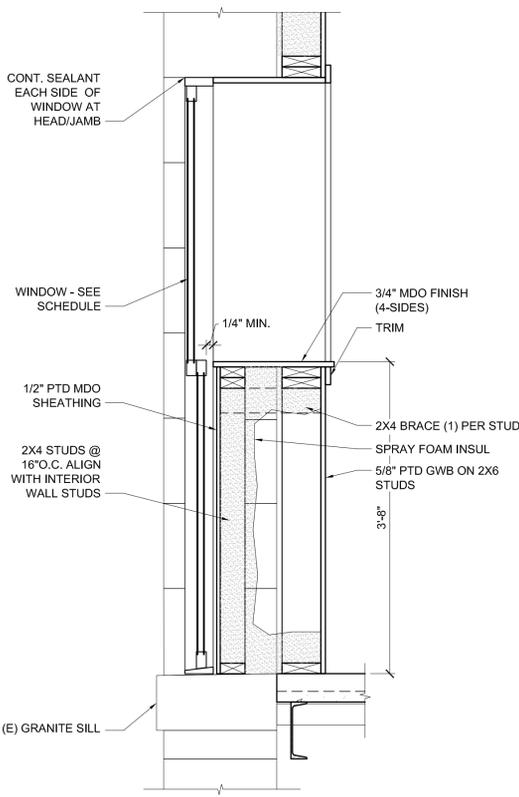


E1 DOOR AND DOOR FRAME TYPES
1/4" = 1'-0"

E6 SCHEDULES



A1 SECTION THRU ACCESS HATCH
3/4" = 1'-0"



A4 SECTION THRU WINDOW TYPE 'C'
1" = 1'-0"

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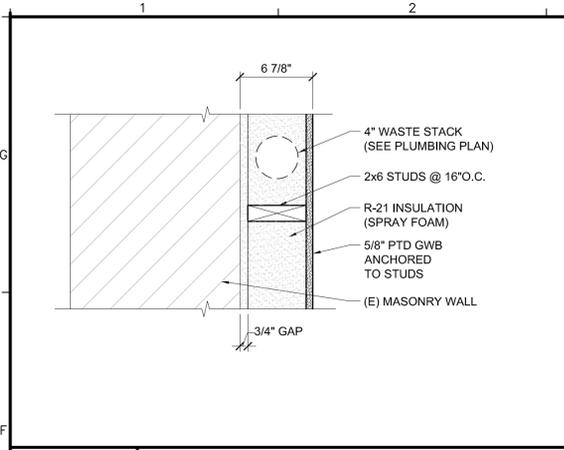
Date: -
Drawn By: PED
Checked By: MIFH
Project Mgr: WPF
Project No: 15056
Card File: 15056A.dwg
Graphic Scale: 0 1"

ARCHITECTURAL - DOORS AND WINDOWS
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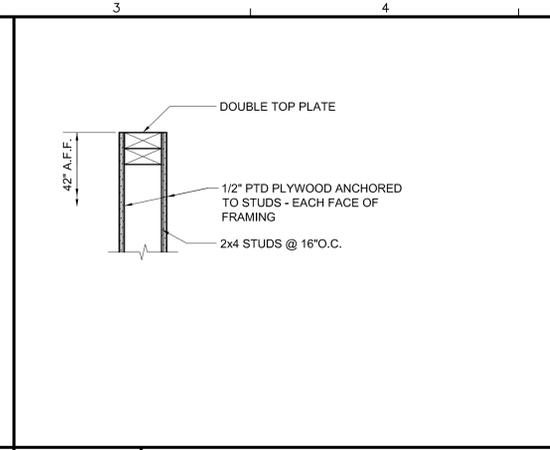
A-4

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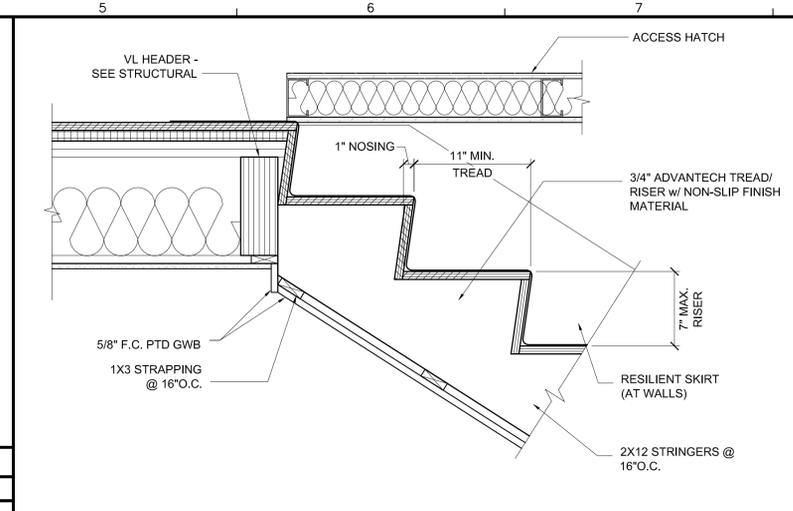
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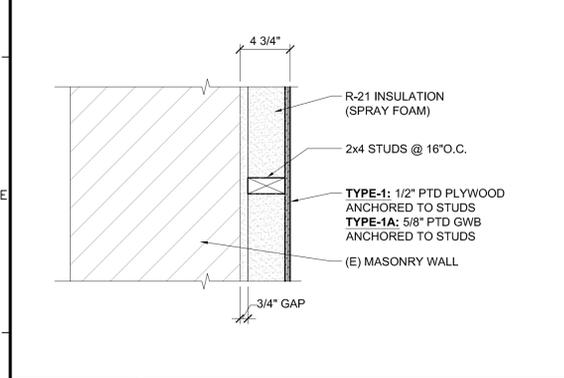
F1 EXTERIOR FURRED WALL AT TOILET-102
1-1/2" = 1'-0"
WALL TYPE - 2



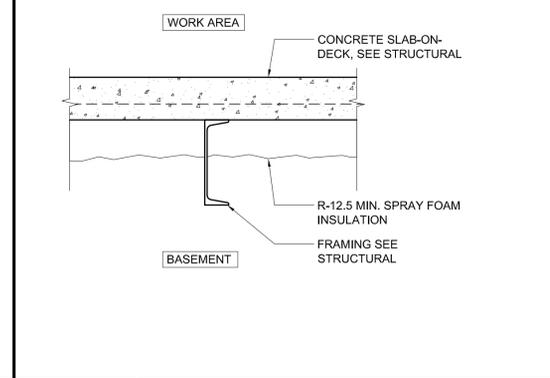
F3 GUARD WALL DETAIL
1-1/2" = 1'-0"



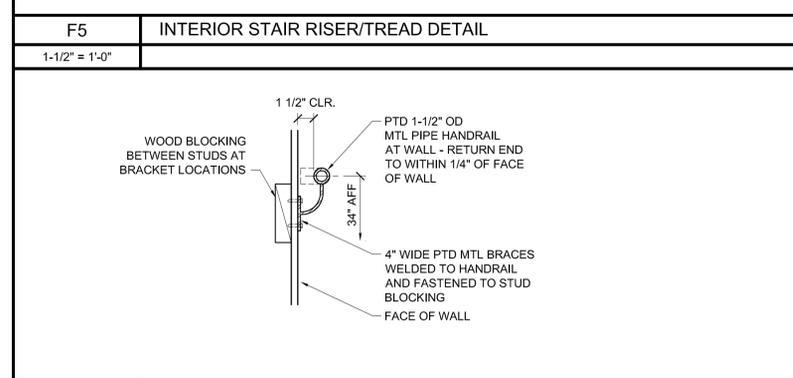
F5 INTERIOR STAIR RISER/TREAD DETAIL
1-1/2" = 1'-0"



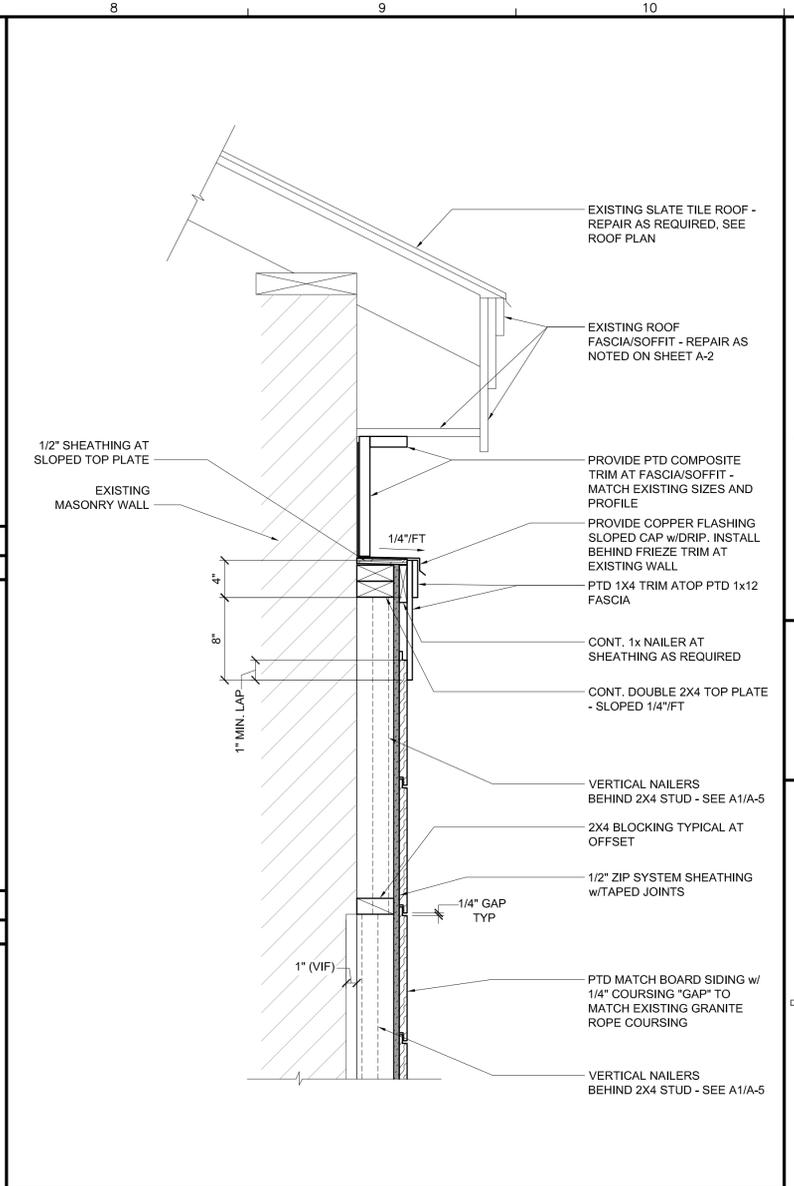
E1 TYPICAL EXTERIOR FURRED WALL
1-1/2" = 1'-0"
WALL TYPE - 1 AND 1A



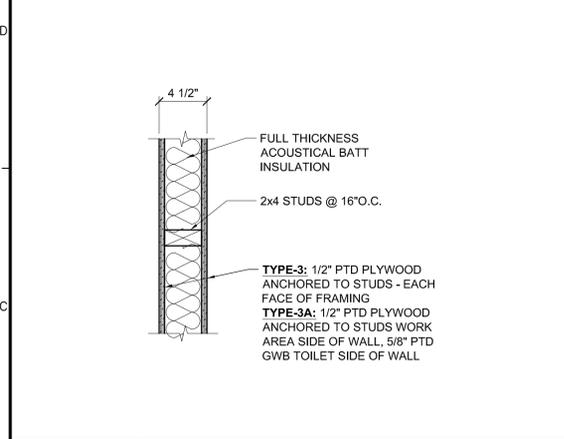
E3 FIRST FLOOR ASSEMBLY
1-1/2" = 1'-0"
(1-HOUR RATED)



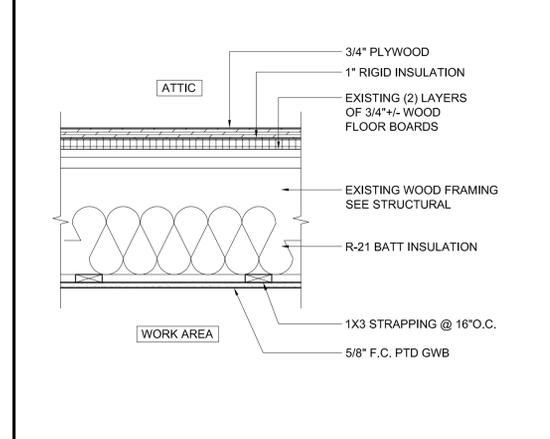
E5 TYPICAL WALL HANDRAIL DETAIL
1-1/2" = 1'-0"



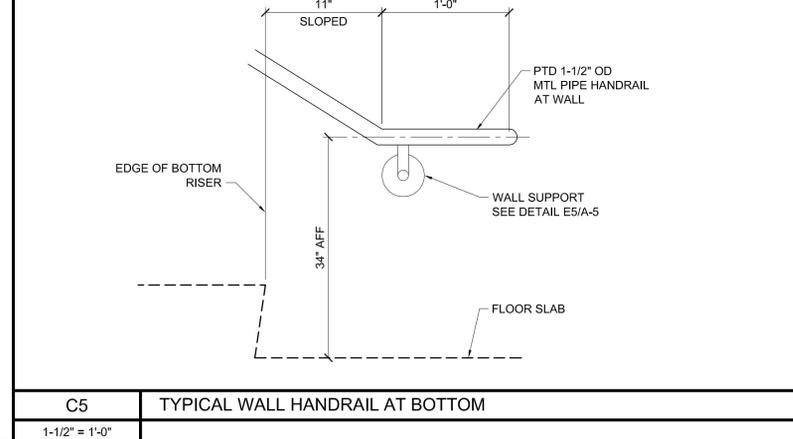
D8 SECTION AT RUSTICATION TOP / FLASHING TIE-IN
1-1/2" = 1'-0"



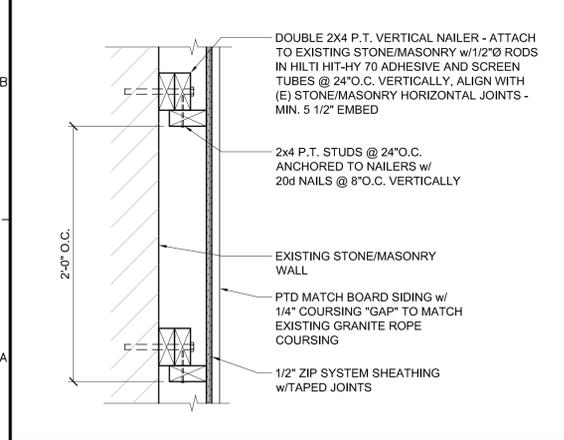
C1 TYPICAL INTERIOR PARTITION
1-1/2" = 1'-0"
WALL TYPE - 3



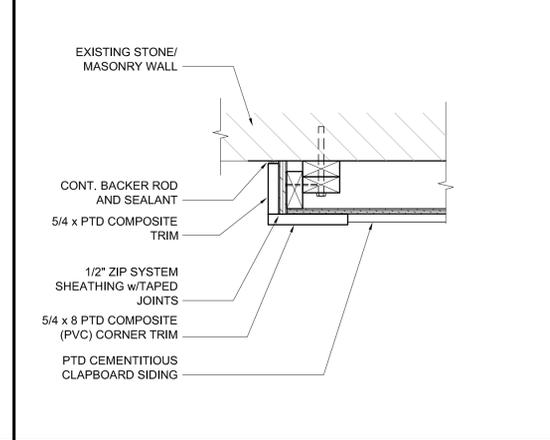
C3 FLOOR/CEILING ASSEMBLY
1-1/2" = 1'-0"



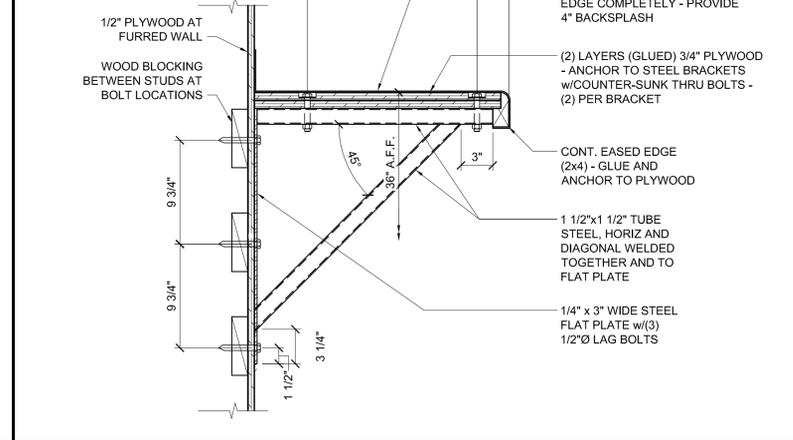
C5 TYPICAL WALL HANDRAIL AT BOTTOM
1-1/2" = 1'-0"



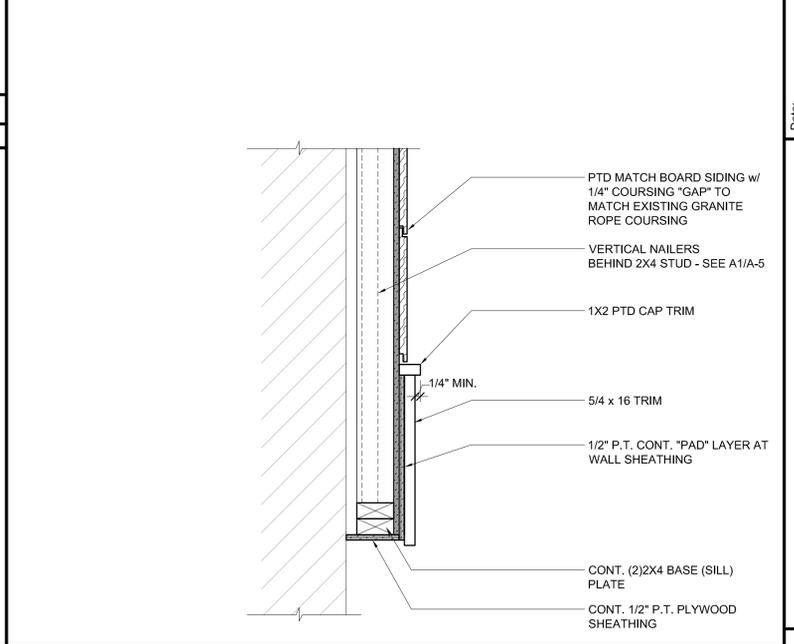
A1 RUSTICATION WALL PLAN DETAIL
1-1/2" = 1'-0"



A3 RUSTICATION CORNER TRIM PLAN DETAIL
1-1/2" = 1'-0"



A5 SECTION AT STANDING WORK BENCH
1-1/2" = 1'-0"



A8 WATER TABLE TRIM DETAIL AT RUSTICATION
1-1/2" = 1'-0"

ARCHITECTURAL - DETAILS

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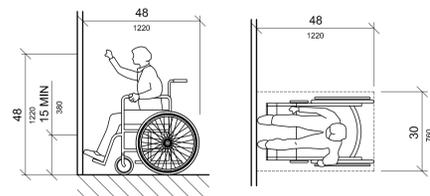
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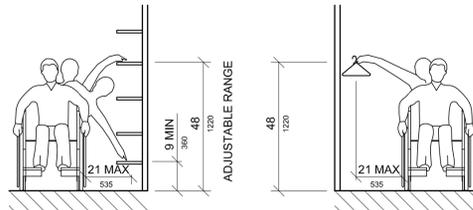
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Project Mgr: WPF
Project No: 15056
Card File: 15056A.dwg
Graphic Scale: 0 1'

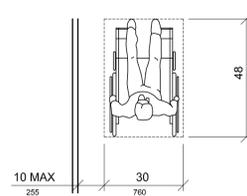
1" = 1'-0"



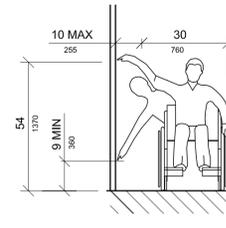
HIGH FORWARD REACH LIMIT
NTS



STORAGE SHELVES AND CLOSETS
NTS



**CLEAR FLOOR SPACE
PARALLEL APPROACH**
NTS



**HIGH AND LOW
SIDE REACH LIMITS**
NTS

LEGEND

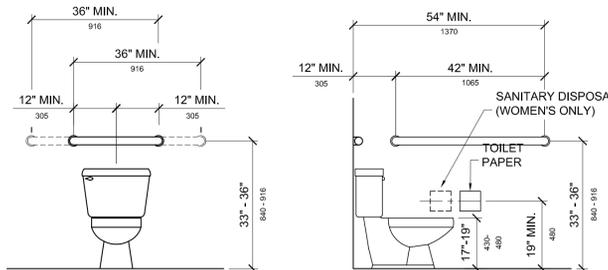
- (S) STANDARD MOUNTING HEIGHT
- (BR) BARRIER FREE ADULT MOUNTING HEIGHT
- ◆ FINISH FLOOR LINE

NOTE

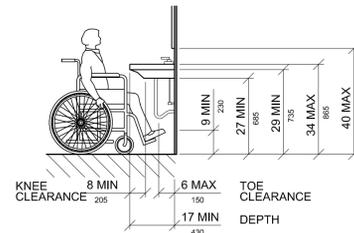
MOUNT ALL FIXTURES AT STANDARD MOUNTING HEIGHT UNLESS INDICATED ON PLAN BY A SYMBOL. A SYMBOL AT ANY ROOM SHALL INCLUDE ONE OF ANY FIXTURE AND ACCESSORY WITHIN THE ROOM.

GENERAL ACCESSIBILITY NOTES

1. DOORWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 32-INCHES WITH THE DOOR OPEN 90-DEGREES MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.
2. DOORS SHALL HAVE LEVER HANDLE HARDWARE.
3. CLOSURES SHALL BE 5-POUNDS PULL MAXIMUM AT DOORS EQUIPPED WITH LEVER HANDLE HARDWARE.
4. DOORS WITH CLOSURES SHALL HAVE 18-INCHES CLEAR DISTANCE FROM THE LATCH SIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PULL SIDE OF THE OPENING.
5. DOORS WITH CLOSURES SHALL HAVE 12-INCHES CLEAR DISTANCE FROM THE LATCH SIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PUSH SIDE OF THE OPENING.
6. SIGNAGE SHALL BE MOUNTED 60-INCHES ABOVE FINISH FLOOR TO BRAILLE COMPONENT AT LATCH SIDE WALL OF DOORS AND OPENINGS.

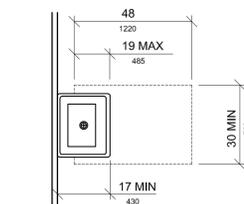


GRAB BARS AT WATER CLOSETS
NTS



LAVATORY CLEARANCES
NTS

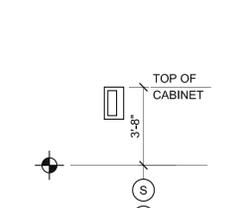
NOTE: PROVIDE PIPE PROTECTION COVERINGS UNDER ALL LAVATORIES.



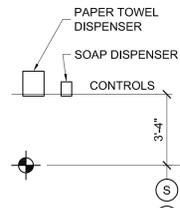
**CLEAR FLOOR SPACE
AT LAVATORIES**
NTS

ACCESSORY MOUNTING HEIGHTS SCHEDULE

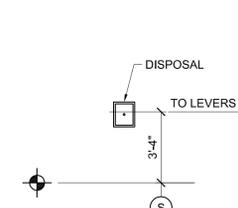
| | |
|-----------------------------------|-----------|
| GRAB BARS | 33" - 36" |
| TOILET PAPER HOLDER | 19" MIN |
| TOWEL BAR / PAPER TOWEL DISPENSER | 48" MAX |
| SOAP DISH / DISPENSER AT WALL | 48" MAX |
| SANITARY DISPOSAL UNIT | 19" MIN |
| MIRROR (BOTTOM) | 40" MAX |
| SHELVES / STORAGE | 48" MAX |
| ELECTRICAL SWITCHES / OUTLETS | 48" MAX |
| COAT HOOKS / RODS | 48" MAX |



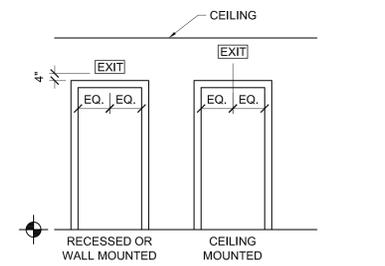
**FIRE EXTINGUISHER
CABINET (FEC)**
NTS



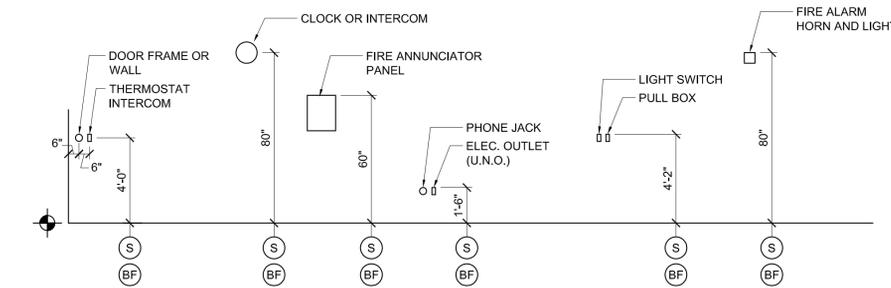
TOWEL & SOAP DISPENSERS
NTS



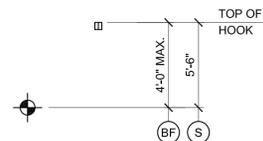
**SANITARY
DISPOSAL UNIT**
NTS



EXIT SIGNS
TYPICAL UNLESS OTHERWISE NOTED
NTS



ELECTRICAL AND FIRE PROTECTION DEVICES
TYPICAL UNLESS NOTED OTHERWISE
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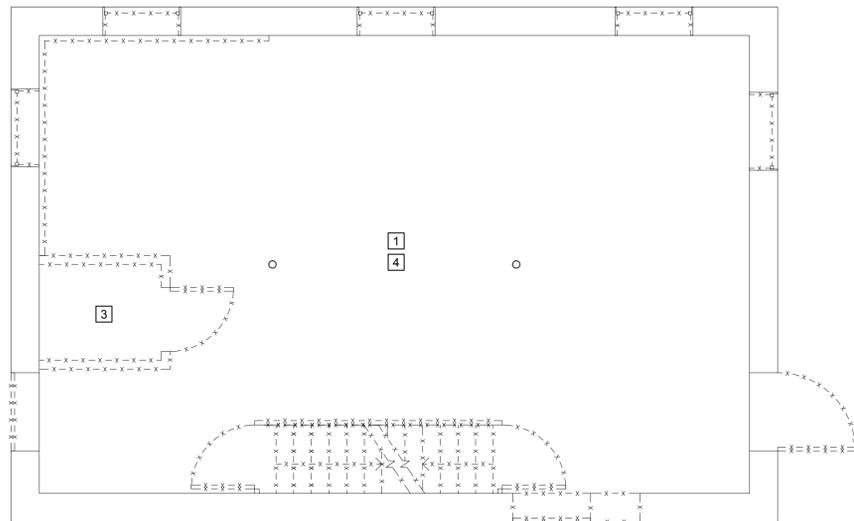
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P.O. BOX 6179 FALMOUTH MAINE 04103
207.871.9900 www.granthays.com

Date: -
Drawn By: PED
Checked By: MFH
Project Mgr: WPF
Project No: 15056
Cad File: 15056A.dwg
Graphic Scale: 0 1'

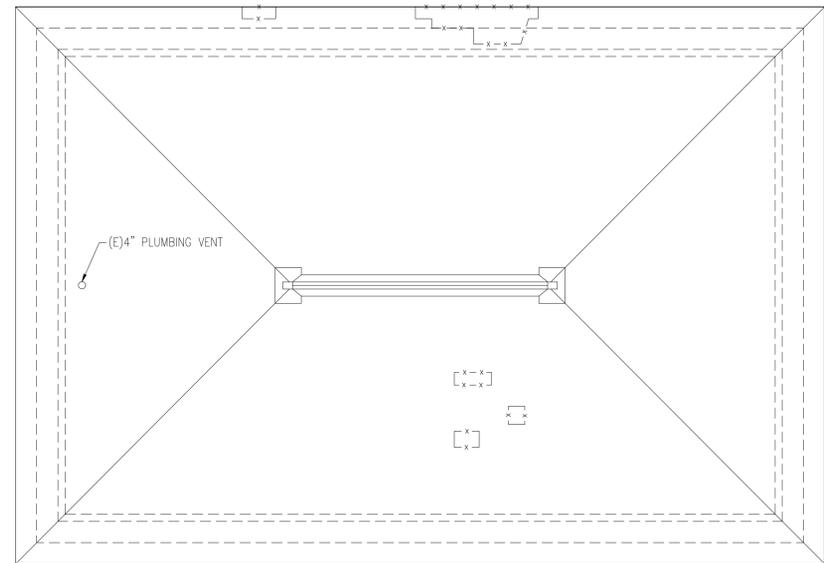
**ARCHITECTURAL -
ACCESSIBILITY DETAILS AND NOTES**
AMHI - POTTING SHED CONVERSION
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A-6

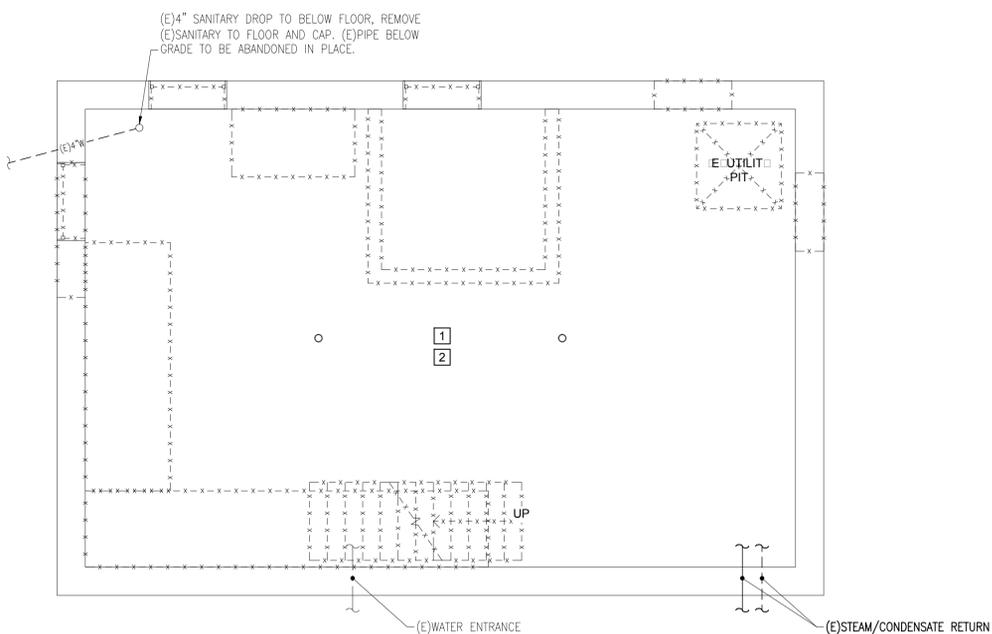
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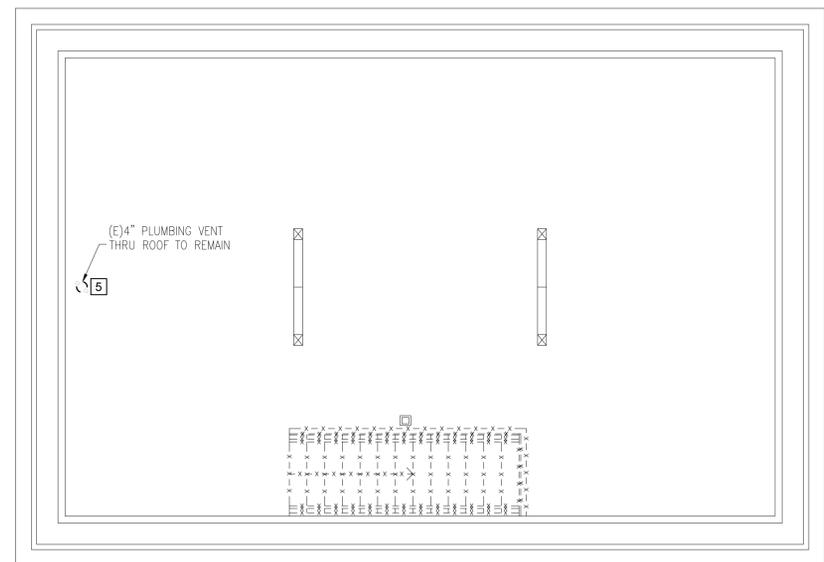
D1 MECHANICAL DEMOLITION PLAN ~ FIRST FLOOR



D5 MECHANICAL DEMOLITION PLAN ~ ROOF



A1 MECHANICAL DEMOLITION PLAN ~ BASEMENT



A5 MECHANICAL DEMOLITION PLAN ~ SECOND FLOOR

- 1 REMOVE ALL EXISTING SANITARY PIPING, WATER DISTRIBUTION PIPING, PLUMBING FITURES, PIPE HANGERS AND APPURTENANCES COMPLETE TO WITHIN 6" OF BASEMENT WALLS/FLOOR.
- 2 REMOVE ALL EXISTING STEAM AND CONDENSATE RETURN PIPING, HANGERS, CONDENSATE PUMP RECEIVER, APPURTENANCES SUCH AS VALVES, STRAINERS, TEMPERATURE CONTROLS, ETC. COMPLETE TO WITHIN 6" OF BASEMENT WALLS.
- 3 REMOVE EXISTING SANITARY WASTE VENT.
- 4 REMOVE EXISTING STEAM AND CONDENSATE PIPING, BASEBOARD FIN TUBE COMPLETE WITH HANGERS.
- 5 REMOVE EXISTING SANITARY VENT TO WITHIN 3'-0" OF ROOF.

A DEMOLITION KEED NOTES

N:\Project_101515956 - AMHI Potting Shed.dwg Dec 23, 2015 - 12:39pm

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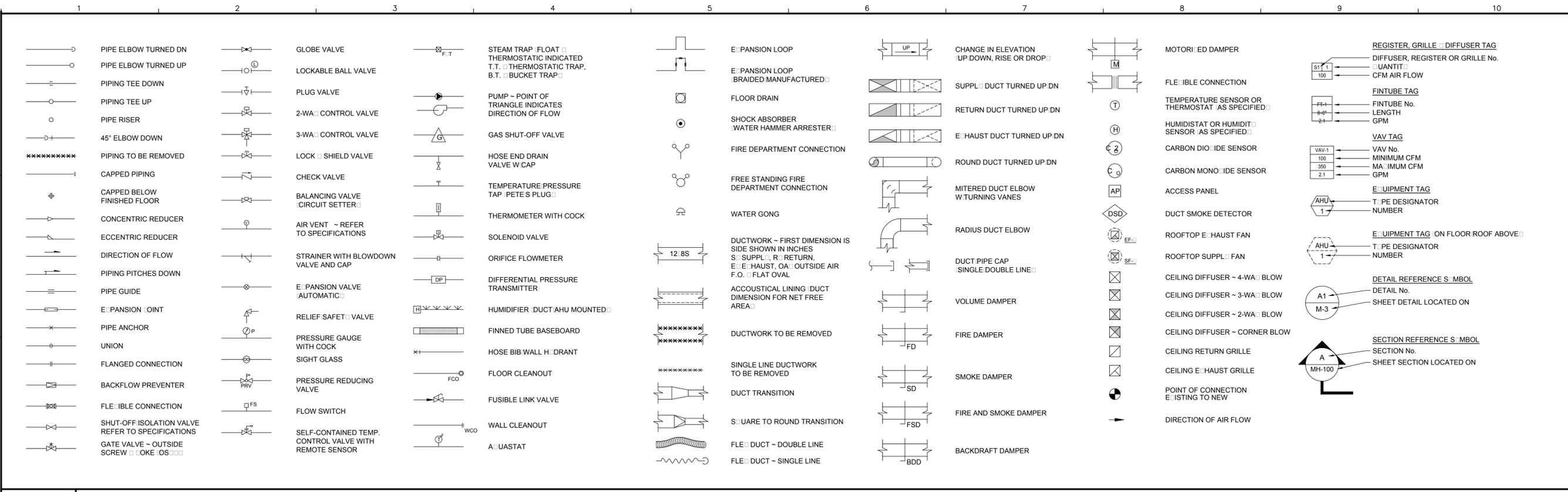
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| | |
|----------------|------------|
| Date: | - |
| Drawn By: | REW |
| Checked By: | HAG |
| Project Mgr: | WPF |
| Project No: | 15056 |
| Cad File: | 15056M.dwg |
| Graphic Scale: | 0 1" |

MECHANICAL DEMOLITION PLANS
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PD-1

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E1 SYMBOLS LEGEND

| | | | |
|---|--|------|--|
| NONE | | NONE | |
| <p>AW ACID WASTE</p> <p>ATV AIR RELIEF</p> <p>BBD BOILER BLOWDOWN</p> <p>C CONDENSATE (HVAC DRAIN PAN)</p> <p>C CONDENSATE (HVAC DRAIN PAN - BELOW FLOOR)</p> <p>CA COMPRESSED AIR</p> <p>CHWR CHILLED WATER RETURN</p> <p>CHWS CHILLED WATER SUPPLY</p> <p>CWS CONDENSER WATER SUPPLY</p> <p>CWR CONDENSER WATER RETURN</p> <p>DCW DOMESTIC COLD WATER</p> <p>DHW DOMESTIC HOT WATER</p> <p>DHWR DOMESTIC WATER RECIRC. (DHW)</p> <p>D DRAIN</p> <p>FM PUMP FORCE MAIN</p> <p>FOF FUEL OIL FILL</p> <p>FOR FUEL OIL RETURN</p> <p>FOS FUEL OIL SUPPLY</p> <p>FOV FUEL OIL TANK VENT</p> <p>FW FEEDWATER</p> <p>GR GLYCOL RETURN</p> <p>GS GLYCOL SUPPLY</p> <p>H HUMIDIFICATION LINE</p> <p>H2 HYDROGEN GAS</p> <p>HPWR HEAT PUMP WATER RETURN</p> <p>HPWS HEAT PUMP WATER SUPPLY</p> <p>HPC HIGH-PRESSURE CONDENSATE</p> <p>HPS HIGH-PRESSURE STEAM</p> <p>HTWR HIGH-TEMP. HOT WATER RETURN</p> <p>HWR HOT WATER RETURN</p> <p>HWS HOT WATER SUPPLY</p> <p>IND INDUSTRIAL WASTE</p> <p>IW INDIRECT WASTE</p> <p>LN LIQUID NITROGEN</p> <p>LO LIQUID OIL</p> <p>LPC LOW-PRESSURE CONDENSATE</p> <p>LP LIQUID PETROLEUM GAS</p> <p>LPR LOW-PRESSURE CONDENSATE</p> <p>LPS LOW-PRESSURE STEAM</p> <p>MA MEDICAL AIR</p> <p>MPR MEDIUM-PRESSURE CONDENSATE</p> <p>MPS MEDIUM-PRESSURE STEAM</p> <p>MU MAKEUP WATER</p> <p>N2 NITROGEN</p> <p>NCW NON-POTABLE COLD WATER</p> <p>NG NATURAL GAS</p> <p>NHW NON-POTABLE HOT WATER</p> <p>NO NITROUS OXIDE</p> <p>O OIL</p> <p>PC PUMPED CONDENSATE</p> <p>PCWR PROCESSED COLD WATER RETURN</p> <p>PCWS PROCESSED COLD WATER SUPPLY</p> <p>RD REFRIGERANT DISCHARGE</p> <p>RL REFRIGERANT LIQUID</p> <p>RS REFRIGERANT SUCTION</p> <p>RO REVERSE OSMOSIS WATER</p> <p>RW RAIN WATER ABOVE FLOOR</p> <p>RWB RAIN WATER BELOW GRADE</p> <p>SP SPRINKLER MAIN PIPING</p> <p>SWR SOLAR WATER RETURN</p> <p>SWS SOLAR WATER SUPPLY</p> <p>TP TRAP PRIMER PIPING ABOVE GRADE</p> <p>TP TRAP PRIMER PIPING BELOW GRADE</p> <p>TWR TEMPERED RETURN WATER</p> <p>TWS TEMPERED SUPPLY WATER</p> <p>V SANITARY SOIL VENT ABOVE FLOOR</p> <p>V SANITARY SOIL VENT BELOW FLOOR</p> <p>VAC VACUUM AIR</p> <p>VAC VACUUM CLEANING (HOUSE)</p> <p>VPD VACUUM PUMP DISCHARGE</p> <p>W SANITARY SOIL WASTE ABOVE FLOOR</p> <p>W SANITARY SOIL WASTE BELOW FLOOR</p> <p>WV SANITARY WET VENT ABOVE FLOOR</p> <p>WV SANITARY WET VENT BELOW FLOOR</p> | <p>AAV AUTOMATIC AIR VENT</p> <p>AC ABOVE CEILING</p> <p>ACC AIR COOLED CONDENSER</p> <p>ACU AIR CONDITIONING UNIT</p> <p>ADA AMERICANS WITH DISABILITIES ACT</p> <p>AD ACCESS DOOR</p> <p>AE ACID EXHAUST</p> <p>AW ACID WASTE</p> <p>AFF.A.F.F. ABOVE FINISHED FLOOR</p> <p>AHU AIR HANDLING UNIT</p> <p>AP ACCESS PANEL</p> <p>APPRO APPROXIMATE APPROXIMATE</p> <p>APMR AS PER MFR'S RECOMMENDATIONS</p> <p>ATC AUTOMATIC TEMPERATURE CONTROL</p> <p>AV AIR VENT</p> <p>BC BALANCING COCK</p> <p>BDD BACKDRAFT DAMPER</p> <p>BG BLAST GATE</p> <p>BF BARRIER FREE</p> <p>BFP BACKFLOW PREVENTER</p> <p>BHP BRAKE HORSEPOWER</p> <p>BLDG BUILDING</p> <p>BOD BOTTOM OF DUCT</p> <p>B.T.U. BRITISH THERMAL UNIT</p> <p>C.CONV. CONVECTOR</p> <p>CCW COUNTER CLOCKWISE</p> <p>OFF CAPPED FOR FUTURE</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CLG CEILING</p> <p>CO CLEANOUT</p> <p>CM CONSTRUCTION MANAGER</p> <p>CNTR COUNTER/COUNTERTOP</p> <p>CONN CONNECT CONNECTION</p> <p>CONT CONTINUE/CONTINUATION</p> <p>COORD COORDINATE</p> <p>CORR CORRIDOR</p> <p>CR CHEMICAL RESISTING</p> <p>CT COOLING TOWER</p> <p>CTE CONNECT TO EXISTING</p> <p>CTR CENTER</p> <p>CTRLN CENTERLINE</p> <p>CU COPPER</p> <p>CUH CABINET UNIT HEATER</p> <p>C.V. CONTROL VALVE</p> <p>CW COLD WATER CLOCKWISE</p> <p>DB DRY BULB TEMPERATURE, °F</p> <p>DC DOUBLE CONTAINED</p> <p>DDC DIRECT DIGITAL CONTROL</p> <p>DET DETAIL</p> <p>DIA DIAMETER</p> <p>DIC DOWN IN CHASE</p> <p>DIW DOWN IN WALL</p> <p>DN DOWN</p> <p>DS DOWNSPOUT</p> <p>DT DROP AND TRANSITION</p> <p>DV DRAIN VALVE</p> <p>DWG DRAWING</p> <p>EA EXHAUST AIR</p> <p>EF EXHAUST FAN</p> <p>EG EXHAUST GRILLE</p> <p>ELEV ELEVATION</p> <p>ELONG ELONGATE</p> <p>ENC ENCLOSURE</p> <p>ER EXHAUST REGISTER</p> <p>ESP EXTERNAL STATIC PRESSURE</p> <p>ET EXHAUST TANK</p> <p>EXIST EXISTING</p> <p>F.T. FLOAT AND THERMOSTATIC</p> <p>FBO FURNISHED BY OTHERS</p> <p>FBP FACE AND B-PASS</p> <p>FC FLEXIBLE CONNECTION</p> <p>FCO FLOOR CLEANOUT</p> <p>FD FLOOR DRAIN TAG</p> <p>FD FIRE DAMPER</p> <p>FIN FINISH</p> <p>FL FLOOR</p> <p>FTG FOOTING</p> <p>FTR FINNED TUBE RADIATION</p> <p>FS FLOW SWITCH</p> <p>FM FORCE MAIN</p> <p>GC GENERAL CONTRACTOR</p> <p>GPM GALLONS PER MINUTE</p> <p>GV GRAVITY VENTILATOR</p> <p>H COUNTER/COUNTERTOP</p> <p>HB HOSE BIB</p> <p>HC HDC</p> <p>HGT, HT. HEIGHT</p> <p>HP HEAT PUMP</p> <p>HRU HEAT RECOVERY UNIT</p> <p>HTR HEATER</p> <p>H.V. HEATING AND VENTILATION</p> <p>HVAC HEATING, VENTILATING, & AIR COND.</p> <p>HW HOT WATER</p> <p>HWR HOT WATER RETURN</p> <p>HWS HOT WATER SUPPLY</p> <p>HV HEAT EXCHANGER</p> <p>ID INSIDE DIAMETER</p> <p>IN WG INCHES WATER GAUGE</p> <p>INCL INCLUDING</p> <p>INVEL INVERT ELEVATION</p> <p>IPS IRON PIPE SIZE</p> <p>KE KITCHEN EQUIPMENT NUMBER</p> <p>LD LINEAR DIFFUSER</p> <p>LE SCIENCE LAB EQUIPMENT NUMBER</p> <p>LP LIQUID PETROLEUM GAS</p> <p>LPR LOW PRESSURE STEAM RETURN</p> <p>LPS LOW PRESSURE STEAM SUPPLY</p> <p>MA MAXIMUM</p> <p>MBH 1000 BTU/HR.</p> <p>MFR MANUFACTURER</p> <p>MIN MINIMUM</p> <p>MOD MOTOR OPERATED DAMPER</p> <p>MPG MEDIUM PRESSURE GAS</p> <p>MPV MULTI-PURPOSE VALVE</p> <p>MTD MOUNTED</p> <p>MTG MOUNTING</p> <p>MUA MAKE UP AIR</p> <p>N.C. NORMAL CLOSED</p> <p>N.O. NORMAL OPEN</p> <p>NIC NOT IN CONTRACT</p> <p>NPT NATIONAL PIPE THREAD</p> <p>NTS NOT TO SCALE</p> <p>OA OUTSIDE AIR</p> <p>OBDO OPPOSED BLADE DAMPER</p> <p>OD OUTSIDE DIAMETER</p> <p>OED OPEN ENDED DUCT</p> <p>P PLUMBING FITURE TAG</p> <p>PD PUMPED DISCHARGE</p> <p>PRS PRESSURE REDUCING STATION</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>RA RETURN AIR</p> <p>RD ROOF DRAIN</p> <p>REC RECOMMENDATION</p> <p>REG REGULAR</p> <p>RF RETURN FAN</p> <p>RG RETURN GRILLE</p> <p>RHC REHEAT COIL</p> <p>RM ROOM</p> <p>RP REDUCED PRESSURE BFP</p> <p>RR RETURN REGISTER</p> <p>RV RELIEF VALVE</p> <p>RW RAIN WATER</p> <p>S SUPPLY AIR</p> <p>SA SHOCK ABSORBER OF PDI SIZE AS INDICATED</p> <p>SCV SELF CONTAINED VALVE</p> <p>SD SMOKE DAMPER</p> <p>SF SUPPLY FAN</p> <p>SG SUPPLY GRILLE</p> <p>SGL SINGLE</p> <p>SHT SHEET</p> <p>SPLR SPRINKLER</p> <p>S.F.S.F. SQUARE FEET</p> <p>SR SUPPLY REGISTER</p> <p>SO SHUT OFF</p> <p>S.S. STAINLESS STEEL</p> <p>TD TRENCH DRAIN</p> <p>TG TRANSFER GRILLE</p> <p>TOD TOP OF DUCT</p> <p>TP TRAP PRIMER</p> <p>TSP TOTAL STATIC PRESSURE</p> <p>TTS TIGHT TO STEEL STRUCTURE</p> <p>TV TURNING VANE</p> <p>TW TEMPERED WATER</p> <p>TYP TYPICAL</p> <p>UH UNIT HEATER</p> <p>UIC UP IN CHASE</p> <p>UIW UP IN WALL</p> <p>UV UNIT VENTILATOR</p> <p>V VENT</p> <p>VAC VACUUM</p> <p>VB VACUUM BREAKER</p> <p>VCF VALVE CAP FOR FUTURE</p> <p>VD VOLUME DAMPER - MANUAL</p> <p>VLV VALVE</p> <p>VS VENT STACK</p> <p>VTR VENT THROUGH ROOF</p> <p>W WASTE</p> <p>W WITH</p> <p>WB WET BULB TEMPERATURE, °F</p> <p>WCO WALL CLEANOUT</p> <p>WH WATER HEATER</p> <p>WH.D WALL H. DRANT</p> <p>NTS NOT TO SCALE</p> <p>Ø DIAMETER</p> <p>□ AT</p> <p>□ AND</p> <p>□ PERCENT</p> | | |

A1 PIPING LINE/PIPE LEGEND **A4 ABBREVIATIONS**

| | | | |
|------|--|------|--|
| NONE | | NONE | |
|------|--|------|--|

NOTE
 ALL GENERAL NOTES, SYMBOL LEGENDS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

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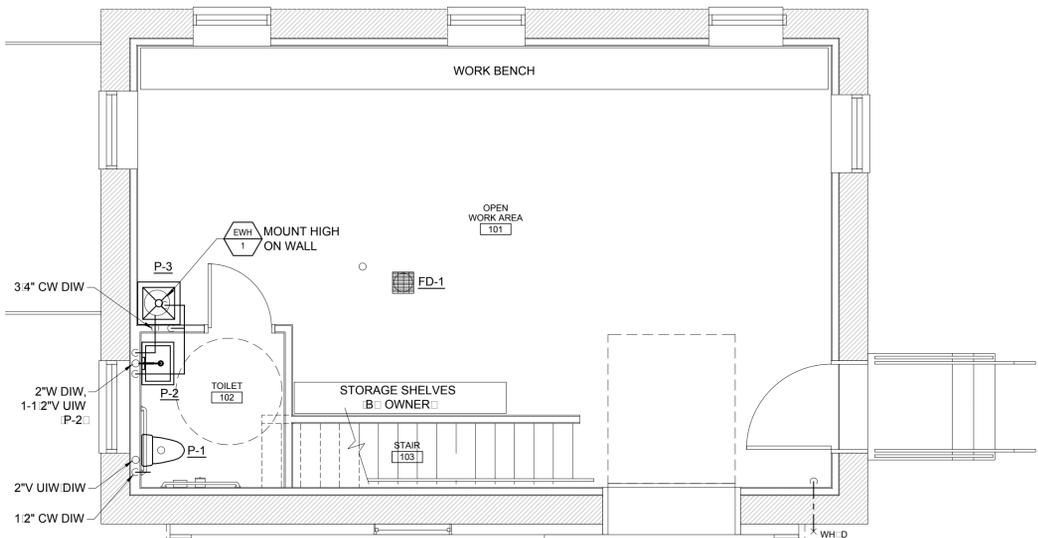
PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS

AMHI - POTTING SHED CONVERSION FOR BUREAU OF GENERAL SERVICES
 AUGUSTA, MAINE 04333

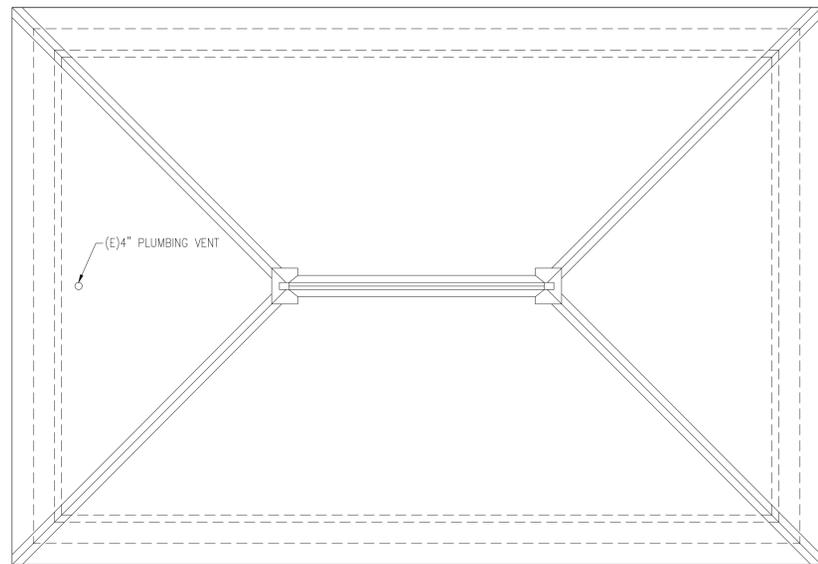
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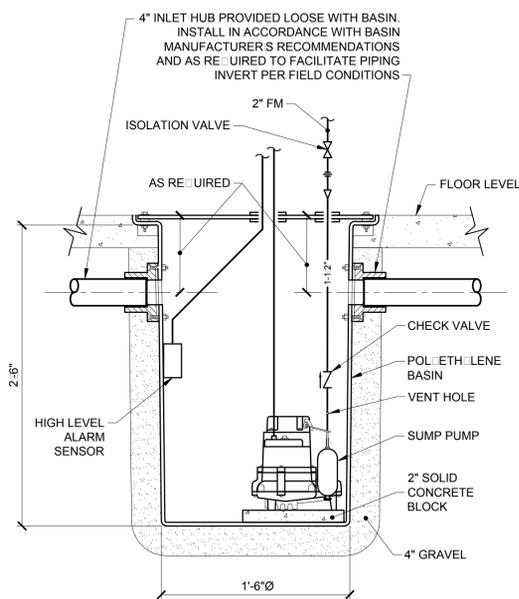


| PLUMBING FIXTURE SCHEDULE | | | | | |
|---------------------------|--|--------------|------|------------|-----------------|
| TAG | DESCRIPTION | BRANCH SIZES | | | NOTES |
| | | CW | HW | VENT WASTE | |
| P-1 | WATER CLOSET - TANK TYPE - PRESSURE ASSISTED | 1/2" | --- | 2" 3" | |
| P-2 | LAVATORY WALL MOUNT | 1/2" | 1/2" | 1 1/2" 2" | |
| P-3 | MOP SINK | 1/2" | 1/2" | 2" 3" | |
| EWH | ELECTRIC WATER HEATER | 3/4" | 3/4" | --- | WALL HANGER KIT |
| WHYD | WALL HYDRANT | 1/2" | --- | --- | |



| DOMESTIC PLUMBING PUMPS | | | | | | | | | | | | | | |
|-------------------------|-----------|--------------|-------------|-----|------|------------|-------------------|------|--------|------|------------|------------|-------|------------|
| TAG | SERVES | MAKE & MODEL | TYPE | GPM | HEAD | ELECTRICAL | | | BASIN | | | | NOTES | |
| | | | | | | MOTOR HP | VOLTS/PH (60 Hz.) | DIA. | HEIGHT | GAL. | INLET TYPE | INLET SIZE | | DISCH SIZE |
| SP-1 | SUMP PUMP | ZOELLER N152 | SUBMERSIBLE | 53 | 15 | 0.4 | 115/1 | 18" | 30" | 30 | PIPED | 4" | 2" | 1 & 2 |

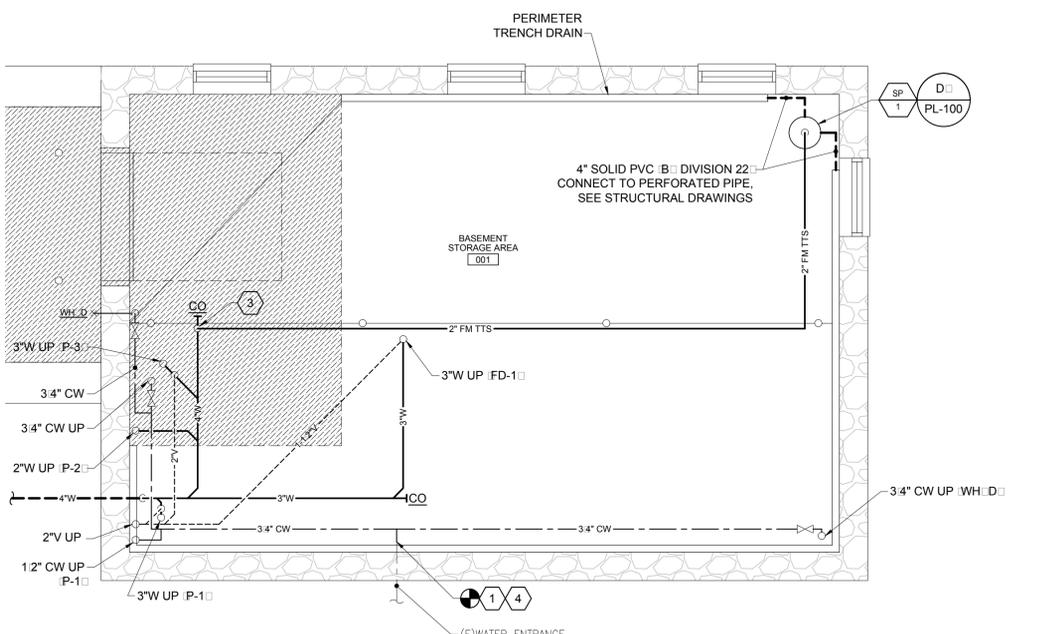
NOTES:
 1. PLUG CONNECTION, COORDINATE WITH DIV 26.
 2. COORDINATE HIGH LEVEL AUDIBLE ALARM AND FLASHING LIGHT ALARM LOCATIONS WITH OWNER.



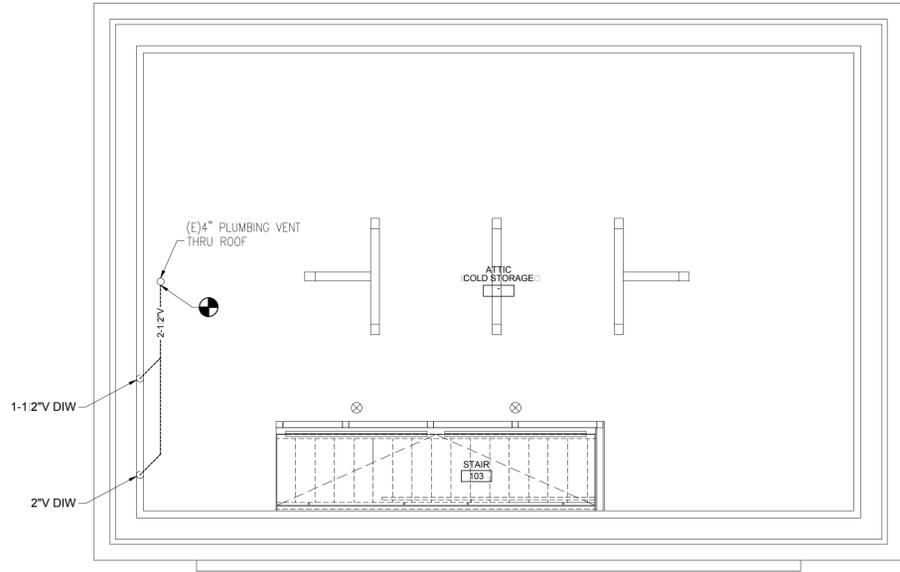
D1 PLUMBING PLAN ~ FIRST FLOOR
 1/4" = 1'-0"

D5 PLUMBING PLAN ~ ROOF
 1/4" = 1'-0"

D PLUMBING KEYED NOTES
 NOT TO SCALE



A1 PLUMBING PLAN ~ BASEMENT
 1/4" = 1'-0"



A5 PLUMBING PLAN ~ SECOND FLOOR
 1/4" = 1'-0"

- 1 PROVIDE DOUBLE CHECK BACKFLOW PREVENTER WITH PIPELINE STRAINER.
- 2 COORDINATE SANITARY INVERT WITH EXISTING CONDITIONS AND NEW SLAB ELEVATION.
- 3 CONNECT WITH SANITARY W/ PER MAINE STATE PLUMBING CODE.
- 4 PROPOSED LOCATION OF WATER TREATMENT SYSTEM BY OWNER UNDER SEPARATE CONTRACT.

A PLUMBING KEYED NOTES
 NONE

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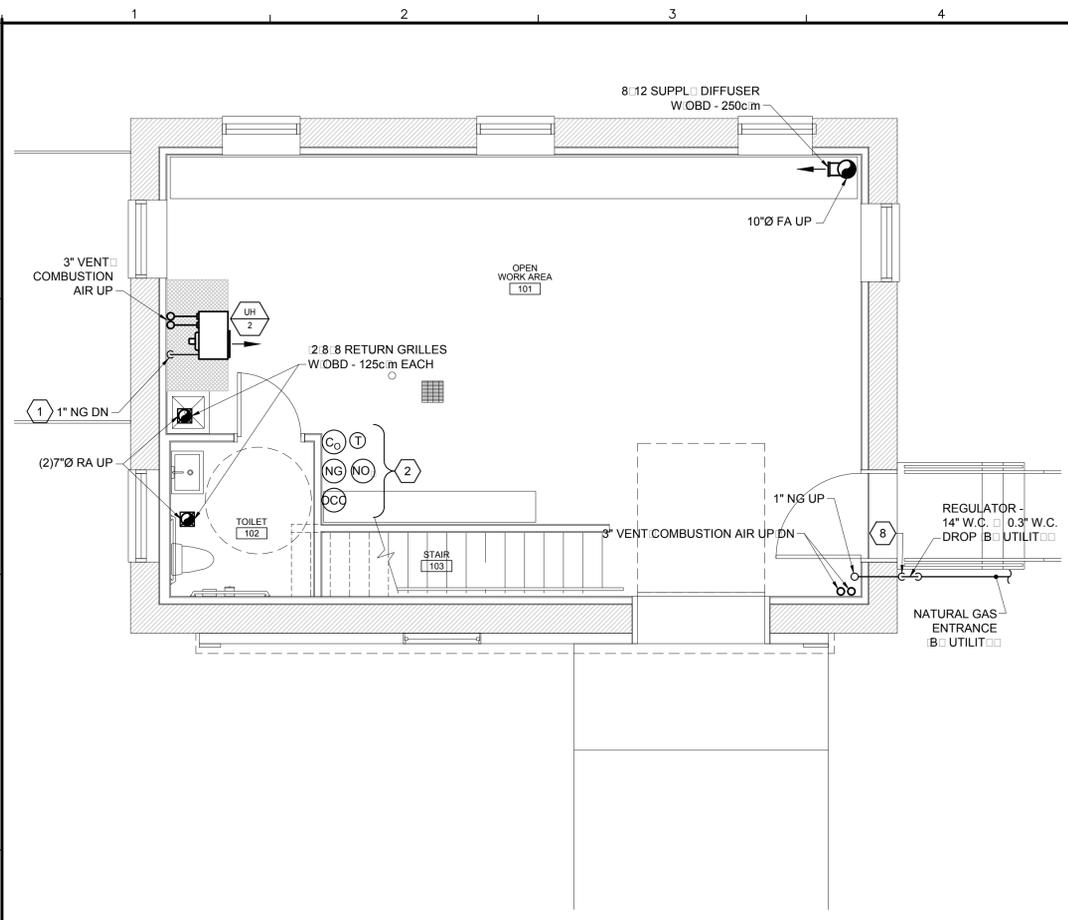
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| Date: | - |
| Drawn By: | RAW |
| Checked By: | HAG |
| Project Mgr: | WPF |
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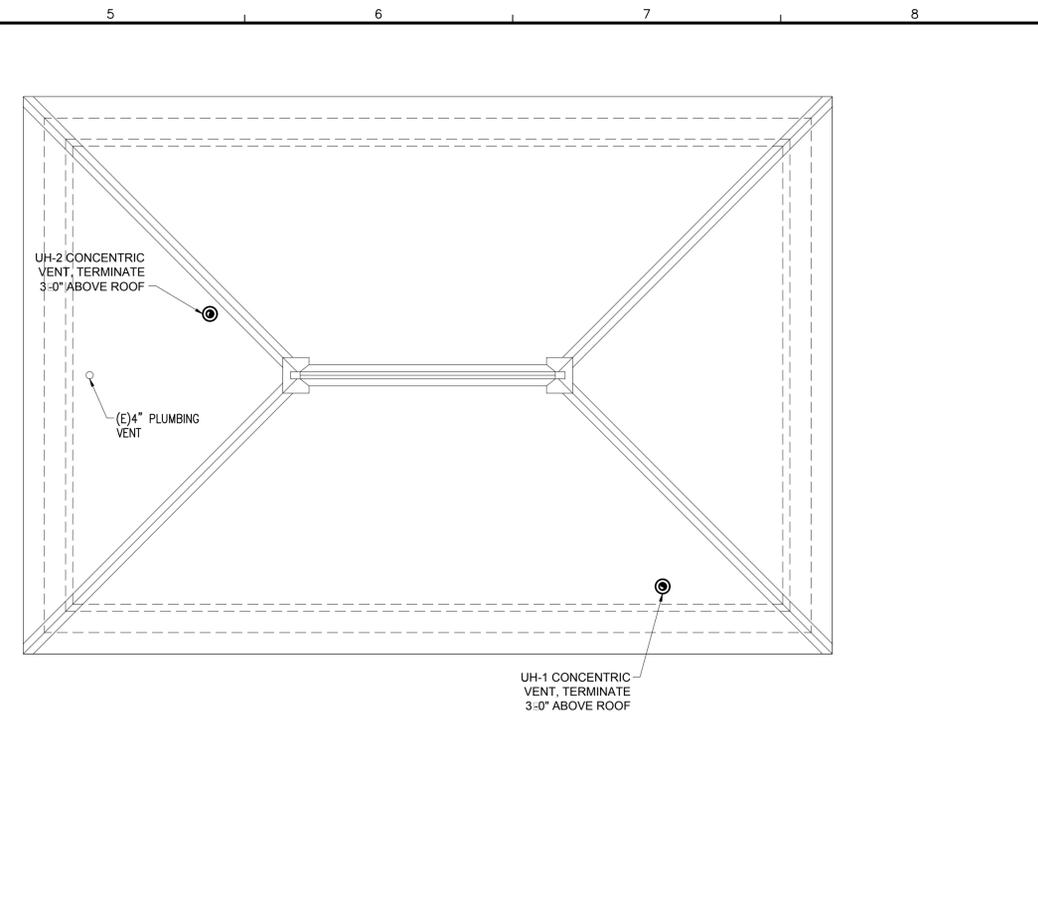
PLUMBING PLANS
 AMHI - POTTING SHED CONVERSION
 FOR BUREAU OF GENERAL SERVICES
 77 STATE STREET
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PL-1

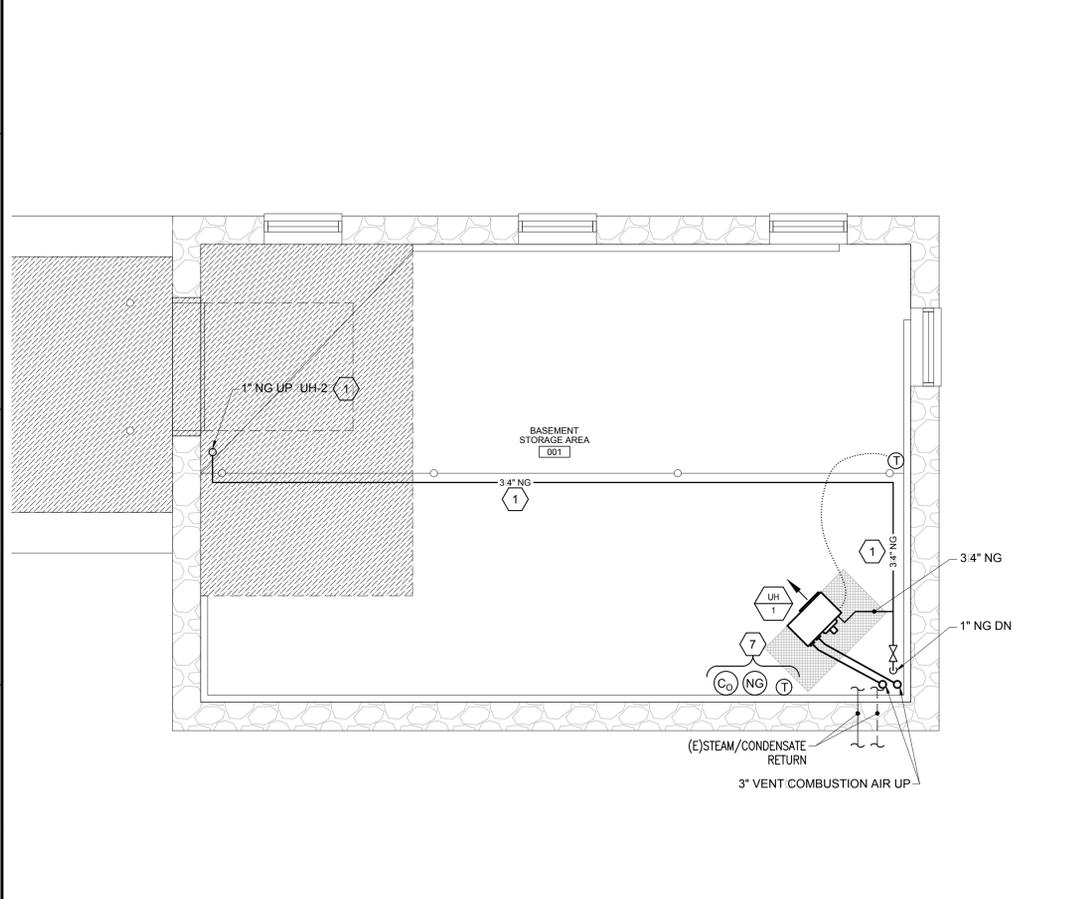
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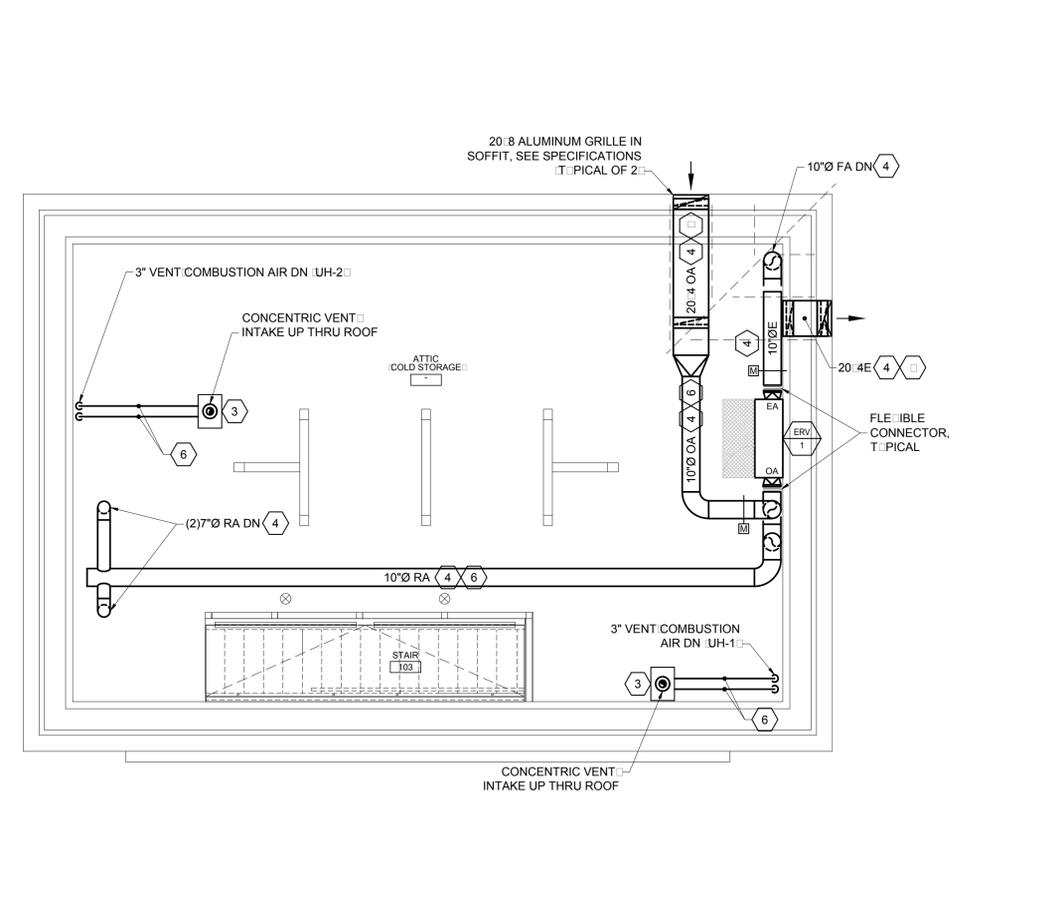
D1 MECHANICAL PLAN ~ FIRST FLOOR
1/4" = 1'-0"



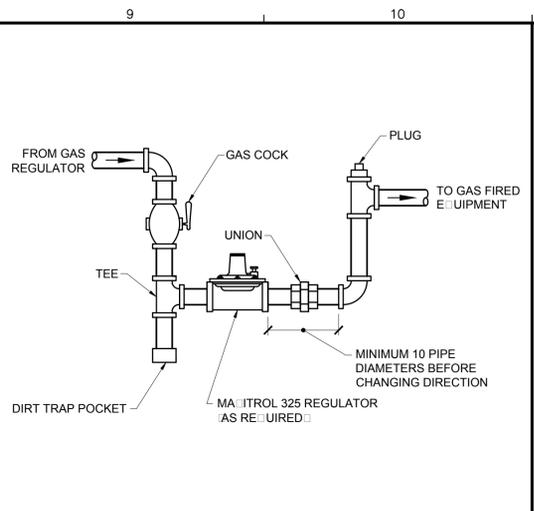
D5 MECHANICAL PLAN ~ ROOF
1/4" = 1'-0"



A1 MECHANICAL PLAN ~ BASEMENT
1/4" = 1'-0"



A5 MECHANICAL PLAN ~ SECOND FLOOR
1/4" = 1'-0"



F1 DETAIL ~ GAS PIPING CONNECTION
NOT TO SCALE

- 1 PAINT ALL NATURAL GAS PIPING SAFETY YELLOW.
- 2 - WALL MOUNTED SPACE SENSOR - OCCUPANCY SENSOR TO ENABLE VENTILATION (ERV-1) - CO - SEE SEQUENCE OF OPERATION - NO - SEE SEQUENCE OF OPERATION - NG - SEE SEQUENCE OF OPERATION
- 3 CONCENTRIC VENT ADAPTER BOX
- 4 INSULATE DUCT WITH 2" FIBERGLASS W/VAPOR BARRIER.
- 5 3" COMBUSTION AIR AND VENT PIPING TO CONCENTRIC VENT ADAPTER BOX. INSULATE VENT PIPE WITH NON-COMBUSTIBLE INSULATION WITH A MINIMUM RATING OF 500°F.
- 6 PITCH DUCT UP AND RUN TIGHT TO ROOF STRUCTURE TO MAINTAIN HEADROOM.
- 7 - WALL MOUNTED SPACE SENSOR - CO - SEE SEQUENCE OF OPERATION - NG - SEE SEQUENCE OF OPERATION
- 8 LIMIT OF CONTRACT FOR NATURAL GAS PIPING.
- 9 RUN 20-4 DUCT BETWEEN 24" O.C. ROOF TRUSSES AND FOLLOW ROOF SLOPE DOWN TO ALUMINUM GRILLE IN SOFFIT.

A1 MECHANICAL KEED NOTES
NONE

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Date: -
Drawn By: REW
Checked By: HMG
Project Mgr: WPF
Project No: 150566
Cad File: 150566M.dwg
Graphic Scale: 0 1'

MECHANICAL PLANS

AMHI - POTTING SHED CONVERSION
FOR BUREAU OF GENERAL SERVICES
77 STATE STREET
AUGUSTA, MAINE 04333

ISSUED FOR BID ~ 23 DECEMBER 2015 ~ NOT FOR CONSTRUCTION

MH-1

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| ENERGY RECOVERY UNIT SCHEDULE | | |
|---|------------------------|------------------------|
| GENERAL | TAG | ERU-1 |
| | SERVES | UH-1 |
| | LOCATION | 1st FLOOR |
| | TYPE | FIXED-PLATE SENSIBLE |
| | MFR | RENEWAIRE |
| | MODEL | EV450IN ECM |
| FILTER SECTION | FILTERS | MERV 8 2" Pleated |
| (TYP for SUPPLY & EXH) | MIN. AREA, sf | 1.9 |
| | VELOCITY | NA |
| OUTSIDE AIR FAN | TYPE | FC |
| | AIRFLOW, cfm | 250 |
| | ESP, in.wc | 1 |
| | MOTOR SPEEDS | DIRECT DRIVE ECM MOTOR |
| | HP | 0.85 |
| EXHAUST AIR FAN | TYPE | FC |
| | AIRFLOW, cfm | 250 |
| | ESP, in.wc | 1 |
| | MOTOR SPEEDS | DIRECT DRIVE ECM MOTOR |
| | HP | 0.85 |
| OVERALL DIMENSIONS | LENGTH | 44" |
| | WIDTH | 36" |
| | DEPTH | 16" |
| | OPERATING WEIGHT, lbs. | 150 |
| HEAT RECOVERY CORE | SUMMER OA DB/WB | 88 / 71 |
| | WINTER OA DB | -5 |
| | SUMMER SA DB/WB | 78.5 / 66 |
| | WINTER SA DB | 51.5 |
| | SENSIBLE EFF. WINTER | 0.75 |
| | SENSIBLE EFF. SUMMER | 0.72 |
| | FROST CONTROL | NONE REQUIRED |
| ELECTRICAL DATA | V-PH-HZ | 240/1/60 |
| | UNIT FLA | 4.9 |
| | UNIT MCA | 6.4 |
| | MAX FUSE SIZE | 15 |
| | SUPPLY AND RETURN | NO |
| | SMOKE DETECTORS | NO |
| NOTES: | | |
| 1. ERU MANUFACTURER SHALL PROVIDE NON-FUSED DISCONNECT, 24vac TRASNFER RELAY PACKAGE. | | |
| 2. PROVIDE SC-ECM REMOTE SPEED CONTROL | | |

| ELECTRIC DHW HEATER SCHEDULE | | | | | | | | | | | | | | |
|------------------------------|--------------------|---------------------|--------------|-------|-------|-------|-----------------|------|---------------|-------------------|---------------------|-----------------|----------------|----------------|
| TAG | TYPE | SERVES | MANUFACTURER | MODEL | VOLTS | PHASE | HEAT INPUT (KW) | AMPS | RECOVERY FLOW | TEMP RISE (DEG-F) | WATER STORAGE (GAL) | HEIGHT (INCHES) | WIDTH (INCHES) | DEPTH (INCHES) |
| EW-H-1 | TANK - LOW PROFILE | SIGN SHOP LAV / JAN | A. O. SMITH | DEL-6 | 120 | 1 | 2.0 | NA | 11 GPH | 72 | 6 | 15" | 14" DIAM | NA |

| GAS FIRED SEPARATED COMBUSTION UNIT HEATER SCHEDULE | | | | | | | | | | | | | | | | |
|---|----------------|-------------------|----------|-------------------|--------------------|-----------|------------|----------------|---------------------|-----------------|-----|----------|----------|------------|------|--------|
| TAG | MFR -MODEL | TYPE | LOCATION | EXPOSED FACE DIM. | EXPOSED DEPTH DIM. | INPUT MBH | OUTPUT MBH | GAS CONN. SIZE | Gas Min. Inlet Prs. | VENT CONN. SIZE | CFM | MOTOR HP | VOLTAGE | TOTAL AMPS | MOP | WEIGHT |
| UH-1 | MODINE - HDS30 | NAT. GAS FIRED UH | BASEMENT | 27 W x 12H | 25 | 30 | 24 | 1/2" | 7" wc | 3" | 505 | 1/15 | 115/1/60 | 3.7 | 15.0 | 55 |
| UH-2 | MODINE - HDS30 | NAT. GAS FIRED UH | BASEMENT | 27 W x 12H | 25 | 30 | 24 | 1/2" | 7" wc | 3" | 505 | 1/15 | 115/1/60 | 3.7 | 15.0 | 55 |

NOTE: PROVIDE CONCENTRIC VENT KIT.

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| Date: - |
| Drawn By: REV |
| Checked By: HAG |
| Project Mgr: WPF |
| Project No: 15056 |
| Cad File: 15056M.dwg |
| Graphic Scale: 0 1" |

MECHANICAL SCHEDULES

AMHI - POTTING SHED CONVERSION
FOR BUREAU OF GENERAL SERVICES
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MH-5

A6 MECHANICAL SCHEDULES

ISSUED FOR BID ~ 23 DECEMBER 2015 ~ NOT FOR CONSTRUCTION

CODE REVIEW:

- A. IBC, International Building Code – 2009
- B. ASHRAE Standard 62.1 – 2007
- C. ASHRAE Standard 90.1 – 2010
- D. Maine Internal Plumbing Code 2007
- E. NFPA 54, National Fuel Gas Code
- F. NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems

PART 1 – GENERAL – COMMON WORK

1.1 SCOPE OF WORK

Refer to the HVAC and Plumbing sections.

1.2 GENERAL

- A. Furnish all services, skilled and common labor, and all apparatus and materials required for the complete installation as shown and within the intent of the drawings and/or these Specifications.
- B. Provide finished work, fully tested and ready for operation. Any components or labor not mentioned but required for functioning systems shall be provided.
- C. The Contractor, his Subcontractors and Suppliers shall provide to the Owner all paperwork necessary to support the Owners pursuit of incentive grants related to energy conservation.
- D. 1.3 SUBMITTALS
 - A. Provide in accordance with Division 1 of the specifications.
 - B. Submittals required for the following:
 1. Energy recovery unit (ERU).
 2. Gas fired unit heater (UH).
 3. Gas fired unit heater vent piping and concentric vent box.
 4. Plumbing fixtures.
 5. Oil water interceptor.
 6. Electric water heater.
 7. Ductwork, dampers, duct flex connectors, ductwork specialties, RG&Ds.
 8. Mechanical insulation for ductwork and piping.
 9. Domestic water distribution piping and valves.
 10. Sanitary piping and fittings.
 11. Natural gas piping and valves
 12. Sump pump, high water level alarm and sump basin.
 13. Temperature controls: controller, wall temperature sensor, NO2 sensor, CO sensor, Occupancy sensor, Natural gas sensor, wiring and points list.
 14. TAB report for ERU system.
 15. Startup reports for gas unit heaters, sump pump, and ERU.
 16. Mechanical ID for all equipment.
 17. Owner's manuals and warranties for all equipment.

1.4 COORDINATION & QUALITY ASSURANCE

- A. All work, materials, and equipment shall comply with the rules and regulations of all codes and ordinances of the local, state, and federal authorities.
- B. Follow the recommended procedures of the SMACNA IAQ Guidelines for Occupied Buildings under Construction.

1.5 IDENTIFICATION

- A. Provide pipe labeling per ASME A13.1, "Scheme for the Identification of Piping Systems," for letter size, length of color field, colors, and viewing angles of identification devices for piping.
- B. Equipment Markers: Engraved, color-coded laminated plastic; attach with screws or contact-type, permanent adhesive. Size: 2-1/2" x 1" or as applicable

1.6 PIPE HANGERS

- A. Install in accordance with MSS SP69 – Manufacturers Standardization Society: Pipe Hangers and Supports-Selection and Application.

1.7 PIPE PENETRATIONS

- A. Escutcheons: Provide for wall, ceiling, and floor penetrations in finished spaces where pipes are exposed.

PART 2 – HVAC SCOPE OF WORK

2.1 REMOVALS

- A. Remove existing ductwork, piping and other HVAC items shown and noted on demolition plans.

2.2 NATURAL GAS SERVICE

- A. There will be a new 14 in w.g. service entrance provided by the owner's contracted gas utility.

2.3 HVAC SYSTEMS

- A. Ventilation air is provided by an energy recover unit (ERU).
 1. ERU shall be equal to Renewaire as scheduled on drawings.
 2. ERU shall transfer both heat and humidity.
 3. Certified by AHRI under its Standard 1060 for Energy Recovery Ventilators.
 4. ERU shall transfer both sensible and latent energy between air streams with positive airstream separation.
 5. The ERU shall perform energy transfer without condensing or frosting under normal operating conditions (above -10F).
 6. Unit construction shall be G90, 20 ga steel, zinc fasteners, insulated with 1 inch 4 pound density foil scrim faced, fiberglass board (min R of 4.3).
 7. Power shall be single point connection. Motors shall be direct drive ECM motors.
- B. Gas fired unit heaters provide heat for the basement and the first floor.
 1. UH shall be equal to Modine (Hot Dawg) as scheduled on drawings.
 2. Separated combustion Model HDS.
 3. Provide optional concentric vent box adapter and termination cap.
 4. 10 year warranty on heat exchanger.
 5. Provide all required appurtenances such as regulator, isolation valves, hanging system, for a complete installation.
 6. Install units in strict accordance to manufacturer's written instructions.

2.4 TEMPERATURE CONTROLS

- A. DDC contractor shall be approved by the owner as a qualified installer.
- B. DDC controls shall integrate with the existing Honeywell EBI front end via one of the following: Lon Works, Bacnet, Modbus, or OPC communication protocols; Lon Works is owner preferred. The DDC controller shall be wired (via 3/4" conduit) to a network switch (provided by owner) at the tel/data backboard located in the Potting Shed basement.
 1. Provide unitary stand-alone controllers with sufficient memory to support its operating system, database, and programming requirements with sufficient I/O capacity. Local keypad and display, with battery backup. Lon Works and ASHRAE 135 compliance.
 2. Sensors:
 - a. Temperature: Thermistor or RTD. Digital display with manual dial adjuster (+- 5 F).
 - b. Occupancy: Occupancy sensor shall have the sensitivity activation suitable for the given work environment. Passive infrared, with time delay, flush mounting device.
 - c. Natural Gas Detection: equal to Kele Model GDS with 4-20 mA output to BMS for monitoring and alarm.
 - d. Carbon Monoxide and Nitrogen Dioxide.: Equal to Kele Model GDS with 4-20 mA output to BMS for monitoring and alarm.
- C. Power wiring: All electrical wiring required for automatic controls shall be installed in conduit in accordance with Division 26. All power requirements shall comply with the following:
 3. Power wiring to controls junction box and all line voltage HVAC operators by Div 26.
 4. All electrical work shall comply with DIV 26, as well as N.E.C. and local electrical codes.

D. Coordination:

- 1. Sheet Metal Contractor shall install motor operated dampers (MODs) furnished by Controls Contractor.

A. Sequence of Operations:

- 1. UH-1 (Basement) & UH-2 (First Floor).
 - a. UH-1 & 2 shall operate thru its own factory provided safeties and burner control.
 - b. UH-1: OCC/UNOCC temperature setpoint (adj) shall be 50 F (adj).
 - c. UH-2: OCC/UNOCC temperature setpoints (adj) via Occupancy Sensor; UNOCC temp shall be 50 F (adj), OCC temp shall be 65 F (will dial adjustment +- 5F).
 - d. BMS shall have the ability to adjust OCC/UNOCC setpoint temperatures.
 - e. BMS shall monitor each space temperature.
- 2. Energy recovery unit (ERU).
 - a. ERU shall operate via occupancy sensor so that when the space is occupied the ERU shall operate continuously after the OA and EA motor dampers open 100%. BMS shall monitor ERU status and control Start/Stop.
- 3. Monitored & alarm points:
 - a. Low temperature set point of 40 F (adj). Alarm BMS
 - b. Natural gas detector to alarm to BMS when gas is detected.
 - c. Carbon monoxide (CO) detector shall have audible alarm and alarm BMS when CO is detected at setpoint.
 - d. Nitrogen dioxide (NO2) detector shall have audible alarm and alarm BMS when NO2 is detected at setpoint.
 - e. Sump Pump high water detection shall alarm BMS.
 - f. Monitor UH-1 & 2 status/failure via BMS.

2.5 TESTING, ADJUSTING AND BALANCING (TAB)

- A. Examine design and approved HVAC equipment submittals.
- B. Perform TAB in accordance with AABC and SMACNA's HVAC TAB section.

2.6 DUCTWORK AND ACCESSORIES

- A. Duct shall be constructed of galvanized, sheet steel, normal service: Lock-forming quality; ASTM A 653, G60 (All interior ductwork) or G90 (All exterior ductwork). Hanger materials shall be sheet steel or round, threaded steel rod. Straps and rod sizes shall comply with SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for sheet steel width and thickness and for steel rod diameters. Fabricate supply & return ducts of galvanized steel according to SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" latest edition.
 - A. Round ducts: Concealed round ducts shall be longitudinal Grooved Seam Flat lock (RL-5 seam) at 2-inch wg construction. NO Snap Lock joints.
 - B. Manual volume dampers shall be factory fabricated with required hardware and accessories. Stiffen damper blades for stability. Include locking device to hold single-blade dampers in a fixed position without vibration.
 - C. Seam And Joint Sealing: Seal duct seams and joints according to the duct pressure class indicated and as described in SMACNA's "HVAC Duct Construction Standards--Metal and Flexible." Seal to SMACNA Class A; all joints, longitudinal and transverse seams, and connections in ductwork shall be securely fastened and sealed with welds, gaskets, or duct sealant.
 - D. Gas Fired Unit Heater Vent: Per manufacturer's recommendations and local codes, Type B vent is basis of design. Provide thimbles or required clearance to combustibles for floor and roof penetrations.
- E. Ductwork Insulation:
 1. Knauf mfg or equal.
 2. Flexible Fiber Glass Blanket, ASTM C553, k value 0.29 at 75F mean temperature, vapor retarder jacket:FSK.
 3. Supply & return ducts within unconditioned envelope: R=7, 2" thickness.
 4. Unit Heater Vent duct: Knauf 1000 F pipe insulation with ECOSE technology.

2.7 REGISTERS, GRILLES, AND DIFFUSERS

- A. Supply Register shall be PRICE model 520D steel, flush face, two way pattern supply with damper, sized as shown on drawing. Finish shall be white powder coat.
- B. Ceiling Exhaust Grille (duct mounted) shall be Price 530D louver face grille, sized as shown on drawing, 3/4" blade spacing, steel construction, with damper. Finish shall be white powder coat.
- C. Soffit Grilles shall be Price 610Z, 0-deflection, 3/4" spaced blades, primed finish for field painting. Install aluminum insect screen to back of grille.

2.8 PIPE, FITTINGS, AND ACCESSORIES

- A. Domestic hot and cold water piping shall be hard copper tube, ASTM B 88, Types L, water tube, drawn temper and shall utilize copper pressure fittings complying with ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint fittings. Sample procedure as indicated: purge new piping and parts of existing domestic water piping that have been altered, extended, or repaired before using, use purging and disinfecting procedures prescribed by authorities having jurisdiction.
- B. Natural gas piping: ASTM 106, Grade B, Schedule 40, black steel.
 1. Malleable-iron threaded fittings: ASME B16.1, class 150.
 2. Specialty valves: appliance connector--ANSI Z21.15 listed; Gas valves 2" and smaller--ASME B16.33 listed bronze body 125 rating.
- C. Insulation
 1. Domestic hot water: Pipe size 1-1/4" and less: Mineral fiber; k 0.23; 1" thickness.
 2. Domestic cold water: Pipe size 1-1/4" and less: Mineral fiber; k 0.23; 1" thickness; with vapor retarder.

2.9 PLUMBING

- A. Sanitary waste and vent piping shall be Schedule 40 PVC. PVC Pipe shall comply with ASTM D 2665, solid-wall drain, waste, and vent (DWV), PVC Socket Fittings: ASTM D 2665, socket type, made to ASTM D 3311; DWV patterns. Inspect plumbing fixture connections for gas and water leaks. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained. Prepare reports for tests and required corrective action.
 1. Force main (pressure) piping shall be PVC schedule 40 pressure pipe and fitting system equal to Charlotte Pipe, cell class of 12454 as identified in ASTM D 1784
 - B. Isolation Valves for domestic hot, cold water & gas shall be 600# W.O.G., equal to Apolo 70LF-1 series, cast bronze two piece body, hard chrome plated forged brass ball, true adjustable packing nut ("O"-ring only type stem seal not acceptable), blow-out proof stem. Swing check valves for non potable domestic hot and cold water shall be Class 125, bronze body, screwed cap, Teflon disc Iron Body Valves. Install shutoff valve on each water supply to equipment and on each water supply to plumbing fixtures without supply stops. Use ball or gate valves for piping NPS 2 and smaller.
- 2.10 PLUMBING FIXTURES
- A. P-1 Toilet: American Standard Cadet Right Height, #2467.016, Elongated pressure assisted toilet 1.6 gpf, with open seat, white toilet color, ADA.
 - B. P-2 Lavatory: American Standard, Lucerne, Wall-hung, vitreous china.
 1. Provide stops, trap, grid strainer, ADA pipe covering.
 2. Provide American Standard, Reliant 3, single control faucet, ADA
 - C. P-3 Service Sink: 24 x 24 x 10" H Mop Service Basin: Zurn Z1996-24. Molded high density molded stone basin, PVC drain body, stainless steel strainer, and 3" gasketed outlet connection. Certifications: Meets ANSI Z124.6, CSA listed, and IAPMO listed under file # 3561.
 1. Wall Guard (-WG) Provide 20 gage type 304 stainless steel bumpers used to protect walls adjacent to mop basin. Two panels shall be supplied for corner installation
 2. Bumper Guards (-BS) Provide 20 gage type 304 stainless steel bumper guards to protect top edge of basin.
 3. Faucet: Chicago Faucets Company, model 540-LDB97SGCCP service sink faucet with long spout and vacuum breaker, wrist blade handles.
 - a. 8" rough-in dimension.
 - b. 6 3/4" spout with mop hook, wall support bracket, and garden hose end outlet.
 - c. Internal spring loaded check valves.
 - d. Atmospheric vacuum breaker.
 - D. Electric Water Heater:
 1. Equal to AO Smith Dura-Power, Commercial EWH. Model and recovery rate scheduled on drawings. Shall meet standby loss requirements of the US Dept of energy and ASHRAE/IESNA 90.1.
 - E. Freeze Proof Wall Hydrant:
 1. Zurn Z1322-EZ ceramic disc Non freeze, anti-siphon auto draining wall hydrant.
 - F. Oil/Sediment Interceptor with Heavy Duty Gate:
 1. Equal to Zurn model Z1189, Size 12.
 2. Acid resistant coated interior and fabricated steel oil/sediment interceptor with bronze cleanout plug.
 - G. Sump Pump: Equal to Zoeller sump pump and basin size as scheduled on drawings. Basin shall be high density polyethylene, equal to Zoeller FMO487, with (2) 4" grommets for sidewall pipe connections (field installed). Basin cover shall be watertight with 1 1/2" discharge and cord grommets, and bushings for access of pump. Unit shall be provided with high water alarm that has dry contacts for BMS, audible alarm, and remote blinking light.

PART 3 – EXECUTION

3.1 DEMOLITION AND REMOVALS

- A. Refer to Division 1 for general demolition requirements and procedures.
- B. Coordinate requirements for access panels and doors for mechanical items requiring access that are concealed behind finished surfaces. Access panels and doors are specified in Division 8.
- C. Coordinate location of piping, sleeves, inserts, hangers, ductwork and equipment. Locate piping, sleeves, inserts, hangers, ductwork and equipment clear of windows, doors, openings, light outlets, and other services and utilities. Follow manufacturer's published recommendations for installation methods not otherwise specified.

3.2 COMMON REQUIREMENTS

D. General Requirements

1. Install equipment in accordance with manufactures recommendations.
 2. Install piping, ductwork, and equipment to allow maximum possible headroom unless specific mounting heights are not indicated.
 3. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.
 4. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.
 5. Any structural member weakened or impaired by cutting, notching, or otherwise shall be reinforced, repaired, or replaced so as to be left in safe structural condition in accordance with the local building code requirements.
 6. Install piping and ductwork in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
 7. Install mechanical systems above accessible ceilings to allow sufficient space for ceiling panel removal.
 8. Install piping to permit valve servicing.
 9. Install free of sags and bends.
 10. Install fittings for changes in direction and branch connections.
 11. Make allowances for application of insulation.
 12. Verify final equipment locations for roughing-in.
 13. Coordinate work between trades, such as sheet metal contractor installs motor dampers provided by the temperature controls contractor.
- E. TAB: perform air balance report per AABC and NEBB.
 1. ERU shall be initially balanced via ECM controlled motors.
 - F. Painting of plumbing and mechanical systems, equipment, and components is specified in Division 9.
 - G. ROOFING
 1. Refer to Division 7.
 2. Coordinate installation of roof curbs, equipment supports, and roof penetrations.
 - H. PROJECT CLOSEOUT
 1. Provide Demonstration and Training in accordance Division 1.

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| | |
|------|---------------------------|
| A1 | MECHANICAL SPECIFICATIONS |
| NONE | |

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MECHANICAL SPECIFICATIONS

AMHI - POTTING SHED CONVERSION
FOR BUREAU OF GENERAL SERVICES
77 STATE STREET
AUGUSTA, MAINE 04333

MH-6

ISSUED FOR BID ~ 23 DECEMBER 2015 ~ NOT FOR CONSTRUCTION

| | | | |
|--------|---------------------------------------|-------|---|
| A | AMPERE | MC | MICROPHONE |
| AC | ALTERNATING CURRENT | MICRO | MICROWAVE |
| AFF | ABOVE FINISHED FLOOR | MLO | MAIN LUG ONLY |
| AFG | ABOVE FINISHED GRADE | MT | MOUNT |
| AHU | AIR HANDLING UNIT | MTS | MANUAL TRANSFER SWITCH |
| AIC | AMPERES INTERRUPTING CAPACITY | MCP | MOTOR CONTROL PANEL |
| ATS | AUTOMATIC TRANSFER SWITCH | MH | METAL HALIDE |
| AWG | AMERICAN WIRE GAUGE | MDP | MAIN DISTRIBUTION PANEL |
| BAS | BUILDING AUTOMATION SYSTEM | MIN | MINIMUM |
| BKBD | BACKBOARD | N | NEUTRAL |
| C | CONDUIT | NC | NORMAL CLOSURE |
| CAT | CATALOG, CATEGORY | NEC | NATIONAL ELECTRICAL CODE |
| CATV | CABLE TV | NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION |
| CB | CIRCUIT BREAKER | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| CCTV | CLOSED CIRCUIT TELEVISION | NIC | NOT IN CONTRACT |
| CM | CIRCULAR MILS | NF | NON-FUSED |
| COMM | COMMUNICATIONS | NO | NORMAL OPEN |
| CU | MECH CONDENSING UNIT | NO. | NUMBER |
| CU | COPPER | NTS | NOT TO SCALE |
| CUH | CABINET UNIT HEATER | OC | ON CENTER |
| DC | DIRECT CURRENT | OCC | OCCUPANCY |
| DDC | DIGITAL DIRECT CONTROL | OH | OVERHEAD |
| DN | DOWN | P | POLE |
| DW | DISHWASHER | PA | PUBLIC ADDRESS |
| DWG | DRAWING | PH | PHASE |
| EF | ELECTRIC FAN | PIR | PASSIVE INFRARED |
| ELEV | ELEVATOR | PNL | PANELBOARD |
| EMT | ELECTRICAL METALLIC TUBING | P.O. | PART OF |
| EP | EXPLOSION PROOF | PV | PHOTOVOLTAIC |
| ERU | ENERGY RECOVERY UNIT | PVC | POLYVINYL CHLORIDE |
| EWC | ELECTRIC WATER COOLER | REC | RECEPTACLE |
| FACP | FIRE ALARM CONTROL PANEL | REF | REFRIGERATOR |
| FB | FLOOR BOARD | REF | REFRIGERATOR RECEPTACLE |
| FLA | FULL LOAD AMPS | RF | RETURN FAN |
| FWE | FURNISHED WITH EQUIPMENT | RGS | RIGID GALVANIZED STEEL |
| G, GND | GROUND | RM | ROOM |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER | RMC | RIGID METAL CONDUIT |
| GFP | GROUND FAULT PROTECTION | RTU | ROOFTOP UNIT |
| HID | HIGH INTENSITY DISCHARGE | S | SQUARE |
| HOA | HAND-OFF-AUTO SELECTOR SWITCH | TEL | TELEPHONE |
| HP | HORSEPOWER | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| HVAC | HEATING, VENTILATION AND COOLING UNIT | T.P. | TYPICAL |
| IDS | INTRUSION DETECTION SYSTEM | UF | UNDER FLOOR |
| IG | ISOLATED GROUND | UG | UNDERGROUND |
| IMC | INTERMEDIATE METAL CONDUIT | UH | UNIT HEATER |
| IR | INFRARED | UL | UNDERWRITERS LABORATORY |
| K | KILO | UNO | UNLESS NOTED OTHERWISE |
| KCMIL | KILO CIRCULAR MILS | UPS | UNINTERRUPTIBLE POWER SUPPLY |
| KW | KILOWATT | V | VOLTS |
| KVA | KILO VOLT-AMPS | VFD | VARIABLE FREQUENCY DRIVE |
| LAN | LOCAL AREA NETWORK | W | WATT |
| LC | LIGHTING CONTACTOR | WP | WEATHERPROOF |
| LF | LINEAR FEET | WG | WIREGUARD |
| LC | LOADCENTER | WFM | TRANSFORMER |
| LCP | LIGHTING CONTROL PANEL | E | EXISTING ITEM TO REMAIN |
| LED | LIGHT EMITTING DIODE | R | REMOVE ITEM AND DISPOSE OF PROPERLY |
| LTG | LIGHTING | ER | RELOCATED ITEM AT NEW LOCATION |
| LTS | LIGHTS | RL | REMOVE AND RELOCATE |
| MA | MAXIMUM | | |
| MCB | MAIN CIRCUIT BREAKER | | |
| MECH | MECHANICAL | | |
| MH | MOUNTING HEIGHT | | |

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| | DUPLICATE RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R |
| | DOUBLE DUPLICATE RECEPTACLE |
| | DUPLICATE RECEPTACLE, HATCH INDICATES CONNECTION TO |
| | GFCI DUPLICATE RECEPTACLE, MOUNT 44" AFF UNO |
| | GFCI DOUBLE DUPLICATE RECEPTACLE, MOUNT 44" AFF UNO |
| | GFCI RECEPTACLE WITH WEATHERPROOF COVER |
| | GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF |
| | MULTI-OUTLET STRIP, PROVIDE OUTLETS 24" OC UNO, MOUNT 48" AFF UNO |

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| F3 | RECEPTACLES |
| NO SCALE | |

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| | FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72" AFF |
| | FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72" AFF |
| | SMOKE DETECTOR |
| | SMOKE DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL |
| | SINGLE STATION SMOKE DETECTOR WITH AUDIBLE INDICATING APPLIANCE, MOUNT ON WALL |
| | SINGLE STATION SMOKE DETECTOR WITH AUDIBLE VISUAL INDICATING APPLIANCE |
| | HEAT DETECTOR |
| | HEAT DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL |
| | DUCT SMOKE DETECTOR |
| | GAS VALVE |
| | FLAME DETECTOR, ARROW INDICATES DIRECTION OF COVERAGE |
| | REMOTE TEST INDICATOR FOR DUCT SMOKE, MOUNT ON CEILING BENEATH UNIT, OR WALL MOUNT WHERE INDICATED ON PLANS |
| | MANUAL PULL STATION, MOUNT 48" AFF |
| | HORN STROBE NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS |
| | SPEAKER STROBE NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS |
| | STROBE ONLY NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS |
| | STROBE NOTIFICATION APPLIANCE, 15 CANDELA, 120V, CONNECT TO OPERATE UPON ACTIVATION OF ROOM SMOKE DETECTOR |
| | MINI HORN NOTIFICATION APPLIANCE |
| | HORN STROBE WITH PULL STATION DIRECTLY BELOW |

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| C3 | FIRE ALARM SYSTEM |
| NO SCALE | |

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| A3 | GENERAL NOTES |
| NO SCALE | |
| 1. | BRANCH CIRCUIT WIRING NOT SHOWN. WIRE AND CONNECT ELECTRICAL ITEMS TO CIRCUITS INDICATED. |
| 2. | DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ELECTRICAL CONDUIT, WIRING, DEVICES, BOXES, FIXTURES, EQUIPMENT, ETC. AS INDICATED AND AS REQUIRED TO FACILITATE THE WORK OF DIVISION 26 AND OTHER DIVISIONS. THESE DRAWINGS ARE NOT INTENDED TO INDICATE ALL ITEMS TO BE REMOVED. |
| 3. | DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR EXACT DIMENSIONS. |
| 4. | THE LOCATION OF EQUIPMENT, OUTLETS, ETC. AS GIVEN ON THE DRAWINGS IS APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THESE LOCATIONS ARE SUBJECT TO MODIFICATION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION IN ORDER TO MEET PROJECT REQUIREMENTS. SUCH CHANGES SHALL BE MADE WITHOUT EXTRA CHARGE. |
| 5. | COORDINATE ALL WORK WITH OTHER DIVISIONS AND THE OWNER. |
| 6. | VERIFY EXISTING POWER REQUIREMENTS OF EQUIPMENT PRIOR TO ROUGH IN. |
| 7. | POWER WIRING FOR EQUIPMENT CONTROL SHALL BE PERFORMED BY DIVISION 26. ALL CONTROL WIRING OPERATING AT LESS THAN 120 VOLTS FOR MECHANICAL EQUIPMENT SHALL BE BY DIVISION 23. |
| 8. | NO WIRING THAT BECOMES UNUSED AS PART OF THIS PROJECT SHALL BE ABANDONED IN PLACE. |

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| | 20A, 125V, 2P, 3W, NEMA 5-20R |
| | 20A, 125V, 2P, 3W, NEMA L5-20R TWISTLOCK |
| | 30A, 125V, 2P, 3W, NEMA 14-30R, 30A TO 100 TO 30A, 2P CIRCUIT BREAKER |
| | 30A, 250V, 2P, 3W, NEMA 6-30R |
| | 50A RANGE RECEPTACLE ~ 125/250V, 3P, 4W, GROUNDING, NEMA 14-50R, 30A TO 100 TO 50A, 2P CIRCUIT BREAKER |

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| F5 | SINGLE RECEPTACLES |
| NO SCALE | |

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| | TELEPHONE WALL OUTLET, 44" AFF UNO |
| | TELEPHONE OUTLET, 18" AFF UNO |
| | TEL. DATA OUTLET, 18" AFF UNO |
| | WIRELESS ACCESS POINT CEILING MOUNTED |
| | WIRELESS ACCESS POINT WALL MOUNTED |

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| E5 | TECHNOLOGY GENERAL NOTES |
| NO SCALE | |

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| | CARD READER ~ PROVIDE 4" SINGLE FUNCTION BOX AT 48" AFF |
| | DOOR ALARM CONTACT ~ PROVIDE CONDUIT STUBBED OUT OF WALL AT CEILING |
| | REQUEST TO EXIT ~ PROVIDE 4" SINGLE FUNCTION BOX AT 48" AFF |
| | MOTION DETECTOR ~ PROVIDE CONDUIT STUBBED OUT OF CEILING |
| | CAMERA ~ PROVIDE CONDUIT STUBBED OUT OF WALL AT CEILING |
| | SECURITY PANEL |
| | DOOR RELEASE ~ PROVIDE CONDUIT STUBBED OUT OF WALL AT CEILING |
| | MEDICAL PANIC ALARM ~ PROVIDE 4" SINGLE FUNCTION BOX AT 48" AFF |

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| D5 | SECURITY SYSTEM |
| NO SCALE | |

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| A5 | DEMOLITION GENERAL NOTES |
| NO SCALE | |
| 1. | REFER TO FLOOR PLANS FOR SCOPE OF WORK AREA. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE ADDITIONAL DEMOLITION SCOPE OF WORK. |
| 2. | REMOVE ALL EXISTING ELECTRICAL ITEMS WITHIN DEMOLITION AREA, UNLESS NOTED OR INDICATED OTHERWISE. REMOVAL SHALL INCLUDE BUT NOT BE LIMITED TO WIRING DEVICES, OUTLET BOXES, PULL BOXES, LIGHTING FIXTURES AND SWITCHES, WIRING AND CONDUIT, TELECOMMUNICATIONS, ETC. |
| 3. | DISCONNECT AND REMOVE ALL WIRING FOR EQUIPMENT TO BE REMOVED BACK TO THE POINT OF CONNECTION. NOTHING SHALL BE ABANDONED IN PLACE. |
| 4. | VERIFY ALL EXISTING SOURCES OF POWER TO EQUIPMENT PRIOR TO FINAL REMOVAL. |
| 5. | COORDINATE ALL SHUTDOWN PROCEDURES WITH THE OWNER PRIOR TO DISCONNECTING ANY CIRCUITS. |
| 6. | WHERE REMOVALS IMPACT WIRING TO EXISTING ITEMS TO REMAIN, PROVIDE WIRING AND CONNECTIONS AS REQUIRED TO RE-FEED ITEMS TO REMAIN. |
| 7. | THE WORK INCLUDES DISPOSAL OF ALL REMOVED ELECTRICAL ITEMS INCLUDING BALLASTS, LAMPS, THERMOSTATS, ETC. LEGALLY DISPOSE OF ALL HAZARDOUS MATERIALS. |

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| | LIGHT FIXTURE, RECESSED TROFFER, TYPICAL |
| | RECESSED DOWNLIGHT |
| | RECESSED WALL WASHER DOWNLIGHT |
| | WALL MOUNTED LIGHT FIXTURE |
| | CEILING SURFACE MOUNTED LIGHT FIXTURE |
| | PENDANT MOUNTED LIGHT FIXTURE |
| | LINEAR LIGHT FIXTURE, CEILING SURFACE MOUNTED |
| | LINEAR LIGHT FIXTURE, PENDANT MOUNTED |
| | LINEAR LIGHT FIXTURE, WALL MOUNTED |
| | REMOTE BALLAST, ALLOW 1" IN ALL DIRECTIONS BETWEEN BALLASTS |

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| F7 | LUMINAIRES |
| NO SCALE | |

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| | HATCHING INDICATES FIXTURE WITH ONE LAMP ON EMERGENCY BATTERY BALLAST |
| | EMERGENCY BATTERY UNIT WITH NO HEADS, MOUNT 7'-6" AFF. BP1 INDICATES BATTERY UNIT DESIGNATION. CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O. |
| | EMERGENCY BATTERY UNIT WITH INTEGRAL HEADS, WALL MOUNTED 7'-6" AFF U.N.O. BP1 INDICATES BATTERY UNIT DESIGNATION. CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O. |
| | SINGLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6" AFF. BP1 INDICATES BATTERY UNIT CONNECTED TO |
| | DOUBLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6" AFF. BP1 INDICATES BATTERY UNIT CONNECTED TO |
| | EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE SIDE. ARROWHEAD INDICATES CHEVRON SIDE. REQUIRED TO CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O. |
| | EXIT SIGN, WALL MOUNTED, SHADING INDICATES FACE SIDE. MOUNT AT 7'-6" AFF OR OVER DOOR. CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O. |

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| D7 | EMERGENCY LUMINAIRES |
| NO SCALE | |

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| A7 | LIGHT SWITCHES |
| NO SCALE | |
| \$1 | LIGHT SWITCH, 20A, 125/277V |
| \$3 | THREE-WAY LIGHT SWITCH |
| \$4 | FOUR-WAY LIGHT SWITCH |
| \$2 | TWO-POLE SWITCH |
| \$K | KEY OPERATED SWITCH |
| \$M | MOTOR RATED SWITCH |
| \$P | SINGLE POLE SWITCH WITH RED PILOT LIGHT - RED LIGHT SHALL GLOW WHEN CIRCUIT IS ENERGIZED |
| \$B | MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING |
| \$OS | OCCUPANCY SENSOR SWITCH, WALL MOUNTED |
| \$OS2 | 2-BUTTON OCCUPANCY SENSOR SWITCH |
| \$CS | OCCUPANCY SENSOR, CEILING MOUNTED |
| \$W | OCCUPANCY SENSOR, WALL MOUNTED |
| \$D | DIMMER SWITCH ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED |
| \$F | HANDICAP SWITCHES FOR HOOD LIGHT AND FAN |
| \$T | TIMER SWITCH, 60 MINUTES |
| \$LV | LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT |
| \$LC | LIGHTING CONTACTOR |
| \$PC | PHOTOCELL |

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| | PANELBOARD ~ SURFACE MOUNTED |
| | PANELBOARD ~ FLUSH MOUNTED |
| | FUSED DISCONNECT SWITCH |
| | NON-FUSED DISCONNECT SWITCH |
| | MOTOR STARTER ~ NUMBER INDICATES NEMA SIZE |
| | COMBINATION MOTOR STARTER FUSED DISCONNECT |
| | MOTOR OR FAN |
| | POWER METER |
| | JUNCTION BOX ~ CEILING MOUNTED |
| | JUNCTION BOX ~ WALL MOUNTED |
| | JUNCTION BOX ~ FLOOR MOUNTED |
| | JUNCTION BOX ~ PEDESTAL MOUNTED |
| | TRANSFORMER ~ NUMBER INDICATES DESIGNATION SEE TRANSFORMER SCHEDULE |
| | VARIABLE FREQUENCY DRIVE |
| | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| | EMERGENCY SHUTOFF SWITCH - WALL MOUNTED 48" TO CENTERLINE - PROVIDE TAMPER-PROOF COVER |
| | CONDUIT TURNING UP |
| | CONDUIT TURNING DOWN |
| | WIRING UNDERGROUND OR UNDERSLAB |
| | HOMERUN ~ 12" TO 12" UNO OR ACCEPT LIGHTING CIRCUITS: 12" TO 12" UNO OR 12" UNO |
| | SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT |
| | 3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT |
| | FLEXIBLE CONNECTION |
| | GROUNDING SYSTEM |
| | POWER POLE |
| | PUSHBUTTON |
| | DOORBELL CHIME |
| | SYSTEMS FURNITURE WHIP |
| | MOTOR/RED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIVISION 08, WIRED BY DIVISION 26 |
| | ENCLOSED CIRCUIT BREAKER |

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| D | POWER DISTRIBUTION |
| NO SCALE | |

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| A | FLOOR AND CEILING DEVICES |
| NO SCALE | |
| F | DUPLICATE RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX |
| F | DOUBLE DUPLICATE RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX |
| F | JUNCTION BOX, MOUNT IN FLUSH FLOOR BOX |
| F | EMPTY FLUSH FLOOR BOX |
| F | DUPLICATE RECEPTACLE, PEDESTAL MOUNTED |
| F | SINGLE RECEPTACLE, PEDESTAL MOUNTED |
| F | JUNCTION BOX, PEDESTAL MOUNTED |
| C | DUPLICATE RECEPTACLE, FLUSH MOUNTED IN CEILING |
| C | DOUBLE DUPLICATE RECEPTACLE, FLUSH MOUNTED IN CEILING |
| C | DUPLICATE GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING |
| C | DOUBLE DUPLICATE GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING |
| C | DATA OUTLET, FLUSH MOUNTED IN CEILING, SEE SCHEDULE FOR TYPE |
| C | JUNCTION BOX, FLUSH MOUNTED IN CEILING |
| C | OVERHEAD RECEPTACLE DROP, DUPLICATE |
| C | OVERHEAD RECEPTACLE DROP, DOUBLE DUPLICATE |
| C | OVERHEAD RECEPTACLE DROP, GFCI |

NOTE
 SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY INDICATE THEIR INCORPORATION INTO THE DESIGN

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ELECTRICAL LEGEND
NOTES AND ABBREVIATIONS

AMHI - POTTING SHED CONVERSION
FOR BUREAU OF GENERAL SERVICES
 AUGUSTA, MAINE 04333

E-O

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| SECTION 261000 - BASIC ELECTRICAL REQUIREMENTS | | | | | | | | | |
| PART 1 - GENERAL | | | | | | | | | |
| 1.1 RELATED DOCUMENTS | | | | | | | | | |
| A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section. | | | | | | | | | |
| 1.2 SUMMARY | | | | | | | | | |
| A. Alternates: Refer to Division 01 to determine extent of, if any, work of this section that will be affected by any alternates if accepted. | | | | | | | | | |
| B. Furnish all materials, equipment, labor, and supplies and perform all operations necessary to complete the electrical work in accordance with the intent of the drawings and these specifications. | | | | | | | | | |
| C. Temporary Power and Lighting: Provide separate meter and service for construction area. | | | | | | | | | |
| 1. Power Distribution: Provide weatherproof, grounded circuits with ground-fault interruption features, with proper power characteristics and either permanently wired or plug-in connections as appropriate for intended use. Provide overload-protected disconnect switch for each circuit at distribution panel. Space 4-gang convenience outlets (20 amp circuit) so that every portion of work can be reached with 100' extension cord. | | | | | | | | | |
| 2. Temporary Lighting: Provide lighting of intensity and quality sufficient for proper and safe performance of the work and for access thereto and security thereof. (Consult OSHA requirements.) | | | | | | | | | |
| 1.3 QUALITY ASSURANCE | | | | | | | | | |
| A. All wiring shall be in accordance with the latest issue of the National Electrical Code. | | | | | | | | | |
| B. The service equipment shall be grounded at the service entrance switch enclosure. This shall also be the grounding point for the service conduit, boxes, fittings and metal enclosed equipment used in the building wiring system. Any grounding methods allowed under Article 250 of the National Electrical Code may be used provided the ground resistance is less than 25 ohms. This resistance shall be tested. | | | | | | | | | |
| C. The Contractor shall show evidence, upon request, of having successfully completed at least five similar projects. Installation of each system shall be under the supervision of a factory-authorized organization. | | | | | | | | | |
| D. The Contractor shall show evidence, upon request, that he maintains a fully equipped service organization capable of furnishing adequate inspection and service to the system. The Contractor must have a service contract program for the maintenance of the system after the guarantee period. | | | | | | | | | |
| E. All electrical equipment shall be listed by Underwriters Laboratories, Inc. Each system shall be products of a single manufacturer of established reputation and experience. The Contractor shall have supplied similar apparatus to comparable installations rendering satisfactory service for at least three years. | | | | | | | | | |
| F. Prior to submission for review of any item of equipment, determine whether or not it will fit in the space provided. Any changes in the size or location of the material or equipment supplied, which may be necessary in order to meet field conditions or in order to avoid conflicts between trades, shall be brought to the immediate attention of the Architect/Engineer and approval received before such alterations are made. | | | | | | | | | |
| 1.4 FIRE ALARM SYSTEM | | | | | | | | | |
| A. Provide an automatic, addressable electrically supervised, low-voltage fire alarm system, to be wired, connected and left in first-class operating condition. Fire alarm systems shall generally comply with requirements of NFPA 72 except as supplemented by this specification. All units of equipment shall be listed by Underwriters Laboratories and shall consist of a battery-backed fire alarm control panel, with audio/visual and visual alarm indicating devices, heat detectors and pull stations. All equipment shall be located as shown on the plans and wired in accordance with the manufacturer's instructions to form a complete and workable emergency evacuation life safety system as hereinafter described. The fire alarm system shall fully integrate with the existing Honeywell EBI integrated network. | | | | | | | | | |
| 1.5 SUBMITTALS | | | | | | | | | |
| A. In accordance with Division 01, furnish the following: | | | | | | | | | |
| 1. Manufacturer's descriptive literature: For each type of product indicated. | | | | | | | | | |
| 2. Submit shop drawings which include engineering drawings of the system with specification sheets covering all component parts of the system and interconnection diagrams. | | | | | | | | | |
| 3. Certification: | | | | | | | | | |
| a. Prior to final inspection, deliver to the Owner's Representative certification that the material is in accordance with the drawings and specifications and has been properly installed. | | | | | | | | | |
| b. Submit certification of system operating test. | | | | | | | | | |
| 4. Manuals: Submit copies of complete set of operating instructions including circuit diagrams and other information of system components. | | | | | | | | | |
| 1.6 PROJECT CONDITIONS | | | | | | | | | |
| A. Regulatory Requirements: | | | | | | | | | |
| 1. Conform to the requirements of all laws and regulations applicable to the work. | | | | | | | | | |
| 2. Cooperate with all authorities having jurisdiction. | | | | | | | | | |
| 3. Compliance with laws and regulations governing the work on this project does not relieve the Contractor from compliance with more restrictive requirements contained in these specifications. | | | | | | | | | |
| 4. If the Contract Documents are found to be at variance with any law or regulation, the Contractor shall notify the Architect/Engineer promptly in writing. The Contractor shall assume full responsibility for any work contrary to law or regulation, and shall bear all costs for the corrections thereof. | | | | | | | | | |
| 5. Minimum Requirements: The National Electrical Code (NEC), Underwriters Laboratories, Inc. (UL), the National Fire Codes, and National Fire Protection Association (NFPA) are a minimum requirement for work under this section. Design drawings and other specification sections shall govern in those instances where requirements are greater than those required by code. | | | | | | | | | |
| B. Permits, Fees, and Inspections: | | | | | | | | | |
| 1. Secure and pay for all permits, fees, licenses, inspections, etc., required for the work under Division 26. | | | | | | | | | |
| 2. Schedule and pay for all legally required inspections and cooperate with inspecting officers. | | | | | | | | | |
| 3. Provide Certificates of Inspection and Approval from all regulatory authorities having jurisdiction over the work in Division 26. | | | | | | | | | |
| C. Drawings: | | | | | | | | | |
| 1. Do not scale the drawings. The general location of the apparatus and the details of the work are shown on the drawings, which form a part of this specification. Exact locations are to be determined at the building as the work progresses, and shall be subject to the Architect/Engineer's approval. Actual field conditions shall govern all dimensions. | | | | | | | | | |
| 2. Anything shown on the drawings and not mentioned in the specifications or vice versa shall be provided as if it were both shown and specified. | | | | | | | | | |
| 3. It is not intended that the drawings shall show every wire, device, fitting, conduit or appliance, but it shall be a requirement to furnish without additional expense, all material and labor necessary to complete the systems in accordance with applicable codes and the best practice of the trade. | | | | | | | | | |
| 1.7 WARRANTY | | | | | | | | | |
| A. The Contractor shall guarantee all equipment and wiring free from inherent mechanical or electrical defects for one year from date of acceptance. | | | | | | | | | |
| 1.8 RELATED WORK | | | | | | | | | |
| A. Division 23 - Mechanical | | | | | | | | | |
| PART 2 - PRODUCTS | | | | | | | | | |
| 2.1 MATERIALS | | | | | | | | | |
| A. Switches | | | | | | | | | |
| 1. Toggle Switches: 20A, 277V, 1-pole, ivory specification grade, mount 4'-0" above finished floor at door entrance. | | | | | | | | | |
| 2. Photo eyes shall be Fisher Pierce, Mod. 7790B-SSS, 105-285VAC. | | | | | | | | | |
| 3. Switchbox type occupancy sensors: Adaptive-technology type, 120/277 V, adjustable time delay up to 20 minutes, 180-degree field of view, with a minimum coverage area of 900 sq. ft. Configure for manual-on/automatic-off operation. | | | | | | | | | |
| 4. Occupancy sensors shall be Hubbell H-MOSS series with adaptive technology. | | | | | | | | | |
| B. Receptacles shall be ivory specification grade, mounted 18" above finished floor unless otherwise noted. | | | | | | | | | |
| C. Duplex Receptacles With Ground Fault Interrupter shall be an integral unit suitable for mounting in a standard outlet box. | | | | | | | | | |
| 1. Ground Fault Interrupter shall consist of a differential current transformer, solid state sensing circuitry and a circuit interrupter switch. It shall be rated for operation on a 60 Hz, 120-volt, 20-ampere branch circuit. Device shall have nominal sensitivity to ground leakage current of five milliamperes and shall function to interrupt the current supply to any value of ground leakage current above five milliamperes on the load side of the device. Device shall have a minimum nominal tripping time of 1/30th of a second. | | | | | | | | | |
| 2. Receptacle shall be rated 20 amperes, 125 volts for indoor use and shall be the standard duplex, three-wire, grounding type. | | | | | | | | | |
| E. Weatherproof Receptacles shall consist of a duplex GFI receptacle, as specified, mounted in a weatherproof box with a gasketed, weatherproof, cast metal cover plate. This shall also be the grounding point for the service conduit, boxes, fittings and metal enclosed equipment used in the building wiring system. Any grounding methods allowed under Article 250 of the National Electrical Code may be used provided the ground resistance is less than 25 ohms. This resistance shall be tested. | | | | | | | | | |
| F. Plates shall be 302 stainless steel. | | | | | | | | | |
| G. Boxes shall be steel minimum 2-1/2" deep. | | | | | | | | | |
| H. Light Fixtures: The light fixtures shall be as described on the drawings or approved equal. | | | | | | | | | |
| I. Disconnect Switches shall be heavy-duty type, horsepower rated. | | | | | | | | | |
| J. Motor Starters: | | | | | | | | | |
| 1. Manual motor starters shall be toggle-switch type with melting alloy thermal overload relay. Thermal units shall be one-piece construction and interchangeable. Starter shall be inoperative with thermal unit removed. Contacts shall be double break, silver alloy. Starters in finished areas shall be flush mounted over the light switch at 60" above finished floor. Starters shall be mounted behind stainless steel device plate and shall have adjacent pilot lights. Square D Class 2510 Type FS-1P-FL1 or approved equal. Starters in unfinished areas shall be surface mounted 60" above finished floor. Square D Class 2510 Type FG-6P or approved equal. | | | | | | | | | |
| 2. Magnetic motor starters shall be combination circuit breaker or fused disconnect switch type, mounted in a common enclosure. Starters shall be three-pole with three melting alloy overload relays. Overload heaters shall be coordinated with Division 23. Thermal units shall be of one-piece construction and interchangeable. Starter shall be inoperative with any thermal unit removed. The disconnect operating handle shall be position indicating. | | | | | | | | | |
| a. Provide a control device and pilot light on the cover of each combination starter. Control devices for motors with remote manual or automatic control shall be "hand-off-auto" switches. Control devices for locally controlled motors shall be "start-stop" pushbuttons. | | | | | | | | | |
| b. 120-volt magnetic motor starters may consist of a circuit breaker or fused disconnect switch and a magnetic starter in separate enclosures mounted next to each other. | | | | | | | | | |
| c. Control circuits shall operate at a maximum of 120 volts. Provide control transformers as required. | | | | | | | | | |
| 3. Starters shall be mounted within NEMA-1 enclosures unless specified otherwise. | | | | | | | | | |
| 4. All starters shall be lockable in the "off" position. | | | | | | | | | |
| 5. Overload heaters shall be sized for the motor nameplate full-load amperes per the manufacturer's recommendations. | | | | | | | | | |
| K. Wiring Materials: | | | | | | | | | |
| 1. Wiring shall be enclosed in electrical rigid galvanized steel, intermediate metal conduit, or electrical metallic tubing sized in accordance with code requirements for the conductors. Type MC cable may be used where concealed in walls or ceilings and allowed by code. | | | | | | | | | |
| a. Conduit fittings shall be steel compression type. | | | | | | | | | |
| b. Terminations for all conduit shall have insulated bushings or insulated throat connectors in accordance with code requirements. | | | | | | | | | |
| c. All conduits shall be substantially supported with approved clips or hangers spaced not to exceed ten feet on center. Minimum conduit size shall be 1/2". | | | | | | | | | |
| 2. Flexible Metal Conduit shall be used for all connections to motors and vibrating equipment and shall comply with Fed. Spec. WW-C-566. | | | | | | | | | |
| 3. Liquid-Tight Flexible Metal Conduit shall consist of flexible steel conduit with a liquid-tight PVC jacket over the conduit. | | | | | | | | | |
| a. Fittings shall incorporate a threaded grounding cone, a steel or plastic compression ring, and a gland for tightening. | | | | | | | | | |
| b. Liquid-tight flexible metal conduit shall be used in damp or wet locations when flexible metal conduit would otherwise be used. | | | | | | | | | |
| c. Liquid-tight flexible metal conduit shall not penetrate the roof or exterior walls, and shall not be installed in lengths exceeding 72' except where necessary for flexibility. | | | | | | | | | |
| 4. Nonmetallic Conduit: Fed. Spec. W. C. 1094, Type II or Type III shall apply. Conduit shall be Schedule 40 heavy wall PVC or high density PE. Conduit shall be UL listed for use above ground and direct burial underground and be sunlight resistant. | | | | | | | | | |
| 5. All Wiring shall be type THW, XHHW, or THWN, UL labeled, copper conductors with 600-volt insulation, except as otherwise noted. Minimum wire size shall be No. 12 AWG. All feeders and branch circuits shall be stranded wire except in MC cable. | | | | | | | | | |
| 6. Type MC Cable shall have minimum No. 12 AWG type THWN or XHHW insulated copper conductors with an internal bare or insulated copper ground wire. | | | | | | | | | |
| L. Fire-Stop Material: | | | | | | | | | |
| 1. Fire-stopping material shall maintain its dimension and integrity while preventing the passage of flame, smoke, and gases under conditions of installation and use when exposed to the ASTM E 119 time-temperature curve for a time period equivalent to the rating of the assembly penetrated. Cotton waste shall not ignite when placed in contact with the non-fire side during the test. Fire-stopping material shall be noncombustible as defined by ASTM E 136, and in addition for insulation materials, melt point shall be a minimum of 1700°F for one-hour protection and 1850°F for two-hour protection. | | | | | | | | | |
| 2. Seals for floor, exterior wall, and roof shall also be watertight. | | | | | | | | | |
| M. Panelboards: | | | | | | | | | |
| 1. Manufacturer: subject to compliance with requirements, provide products by Square D; a brand of Schneider Electric, type NQ00 only. | | | | | | | | | |
| 2. All panels shall be dead front safety type. | | | | | | | | | |
| 3. All panelboards shall be completely factory assembled with molded case circuit breakers. | | | | | | | | | |
| 4. Panels shall have main breaker or main lugs, bus size, voltage, phase, and flush or surface mounting all as scheduled on the drawings. Panelboards to be used as service equipment shall be listed for such use. | | | | | | | | | |
| 5. Panelboards shall have the following features: | | | | | | | | | |
| a. Non-reduced size copper or aluminum bus bars and connection straps bolted together and rigidly supported on molded insulators. Bus bar taps shall be arranged for sequence phasing of branch circuit devices. | | | | | | | | | |
| b. Full size neutral bar mounted on insulated supports. | | | | | | | | | |
| c. Ground bar with sufficient terminals for all grounding wires. The ground bar shall be insulated and isolated where called for on the drawings. | | | | | | | | | |
| d. Buses branched for the available short-circuit current, but not less than scheduled and never less than 10,000 amperes symmetrical. All panelboards shall be fully rated. Series rated assemblies are not acceptable. | | | | | | | | | |
| e. All breakers arranged so that it will be possible to substitute a two-pole breaker for two single pole breakers or a three-pole breaker for three single pole breakers when frame size is 100 amperes or less. | | | | | | | | | |
| f. Design interior so that protective devices can be replaced without removing adjacent units, main bus connectors and without drilling or tapping. | | | | | | | | | |
| g. Where designated, on panel schedule as "space", include all necessary bussing, device supports and connections. Provide blank cover for each space. | | | | | | | | | |
| h. Provide galvanized steel cabinets to house panelboards. Cabinets for panelboards may be factory primed and suitably treated with a corrosion-resisting paint finish meeting UL standard for outdoor applications. | | | | | | | | | |
| i. Back and sides shall be of one-piece formed steel. Cabinets for panelboards may be of formed sheet steel with end and side panels welded, riveted or bolted as required. | | | | | | | | | |
| j. Provide minimum of four interior mounted studs and necessary hardware for in and out adjustment of panel interior. | | | | | | | | | |
| k. Fabricate trim of sheet steel consisting of frame with door attached by concealed hinges. Provide flush or surface trim as shown on the drawings. | | | | | | | | | |
| l. Surface trim shall have the same width and height as the box. | | | | | | | | | |
| m. Provide doors with flush type latch and manufacturer's standard lock. | | | | | | | | | |
| n. In making switching devices accessible, doors shall not uncover any live parts. | | | | | | | | | |
| o. Provide concealed butt hinges welded to the doors and trims. | | | | | | | | | |
| p. Provide keyed alike system for all panelboards. | | | | | | | | | |
| q. Provide a directory card, metal holder, and transparent cover. Permanently mount holders on inside of doors. | | | | | | | | | |
| r. Circuit breakers in panelboards shall be bolt on type on phase bus bar or branch circuit bar. Molded case circuit breakers shall have automatic, trip free, non-adjustable, inverse time, and instantaneous magnetic trips. | | | | | | | | | |
| N. Circuit Breakers: Circuit breakers to be added to existing panelboards shall match existing circuit breakers. | | | | | | | | | |
| O. Grounding Conductors: | | | | | | | | | |
| 1. Grounding conductors shall be soft-drawn bare copper. | | | | | | | | | |
| 2. Insulated grounding wires shall be UL and NEC approved types, copper, with THWN or XHHW insulation color identified green, except where otherwise shown on the drawings or specified. | | | | | | | | | |
| 3. Wire shall not be less than shown on the drawings and not less than required by the NEC. | | | | | | | | | |
| P. Ground Rods: | | | | | | | | | |
| 1. Ground rods shall be copperweld steel, 5/8" diameter by ten feet long. Each rod shall be die-stamped near the top with the name or trademark of the manufacturer and the length of the rod. | | | | | | | | | |
| 2. Ground rods shall have hard, clean, smooth, continuous copper jacket surface throughout the length of the rod. | | | | | | | | | |
| Q. Ground Clamps: | | | | | | | | | |
| 1. Ground clamps shall be cast bronze or cast copper and shall be UL listed for grounding connections. | | | | | | | | | |
| 2. Ground clamps shall be sized for the specific conductor and electrode to be clamped. | | | | | | | | | |
| R. Grounding Connections: Connections shall be of the exothermic type wetting process as manufacturer by Caldweld or approved equal. | | | | | | | | | |
| S. Equipment Grounding Connections: Connections shall be of the compression type solderless connectors. | | | | | | | | | |
| T. Fire Alarm System Components: | | | | | | | | | |
| 1. Fire Alarm Control Panel: The control panel shall be a Honeywell XLS120 furnished in a lockable steel cabinet and located as shown on the plans. The panel shall contain all the necessary common components, power supply, battery charger, and batteries for completion of a totally operational fire alarm panel that is integrated with the existing campus Honeywell EBI system. Terminal strips shall be supplied for all system field wiring. The following features shall be included: | | | | | | | | | |
| a. Strobe flash rate shall be multi-candela rated and intensity shall be field selectable. | | | | | | | | | |
| b. The maximum pulse duration shall be 2/10 of one second. Clear Lexan lens in housing. | | | | | | | | | |
| c. Strobe intensity shall meet the requirements of UL 1971. | | | | | | | | | |
| d. The flash rate shall meet the requirements of UL 1971. | | | | | | | | | |
| e. Strobes in the same area shall be synchronized. | | | | | | | | | |
| f. Outdoor units shall be weatherproof as well as any indicated on plans to be weatherproof that are inside the building. | | | | | | | | | |
| 4. Audible/Visual Combination Devices: | | | | | | | | | |
| a. Shall meet the audibility requirements specified herein for horns. | | | | | | | | | |
| b. Shall meet the visibility requirements specified for strobes. | | | | | | | | | |
| 5. Addressable Devices - General: | | | | | | | | | |
| a. Addressable devices shall provide an address setting means using rotary decimal switches. | | | | | | | | | |
| b. Addressable devices shall use simple to install and maintain decade (numbered 0 to 9) type address switches. Devices which use a binary address or special tools for setting the device address, such as a dip switch are not an allowable substitute. | | | | | | | | | |
| c. Detectors shall be analog and addressable, and shall be capable of sensitivity adjustment through field programming of the system and automatically adjusted by the panel on a time of day basis. | | | | | | | | | |
| d. Addressable smoke and thermal detectors shall provide dual (2) status LEDs. Both LEDs shall flash under normal conditions, indicating that the detector is operational and in regular communication with the control panel, and both LEDs shall be placed into steady illumination by the control panel, indicating that an alarm condition has been detected. | | | | | | | | | |
| e. Using software in the FACP, detectors shall automatically compensate for dust accumulation and other slow environmental changes that may affect their performance. The detectors shall be listed by UL as meeting the calibrated sensitivity test requirements of NFPA Standard 72, Chapter 7. | | | | | | | | | |
| f. The detectors shall be ceiling mount and shall include a separate twist-lock base which includes a tamper proof feature. | | | | | | | | | |
| g. The following auxiliary functions shall be provided where indicated on the drawings, and where required by code: | | | | | | | | | |
| 1) Form-C Relay base rated 30VDC, 2.0A | | | | | | | | | |
| 2) Auxiliary relay for HVAC shutdown. | | | | | | | | | |
| h. The detectors shall provide a test means whereby they will simulate an alarm condition and | | | | | | | | | |
| report that condition to the control panel. Such a test may be initiated at the detector itself (by activating a magnetic switch) or initiated remotely on command from the control panel. | | | | | | | | | |
| i. Detectors shall also store an internal identifying type code that the control panel shall use to identify the type of device (ION, PHOTO, THERMAL). | | | | | | | | | |
| 6. Addressable Pull Box (manual station): | | | | | | | | | |
| a. Addressable pull boxes shall, on command from the control panel, send data to the panel representing the state of the manual switch and the addressable communication module status. They shall use a key operated test_reset lock, and shall be designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key. Units shall be supplied with plastic tamper covers that produce an audible alarm when lifted. | | | | | | | | | |
| b. All operated stations shall have a positive, visual indication of operation. | | | | | | | | | |
| c. Manual stations shall be constructed of metal with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in raised letters. | | | | | | | | | |
| 7. Intelligent Thermal Detectors: | | | | | | | | | |
| a. Thermal detectors shall be intelligent addressable devices rated at 190 degrees Fahrenheit, fixed temperature (except as otherwise indicated). It shall connect via two wires to the fire alarm control panel signaling line circuit. | | | | | | | | | |
| 8. Provide addressable modules as required to monitor and control non-addressable devices such as solenoid valves, water flow switches, etc. indicated on the drawings and where required to provide a complete and operational system in accordance with the intent of the drawings and specifications. All shall be monitored separately. | | | | | | | | | |
| 9. Knox Rapid Entry System: | | | | | | | | | |
| a. Provide Knox Box as specified by the local fire department. Coordinate all required keying, options, etc., with the local fire department. | | | | | | | | | |
| 10. Conduit and Wire: | | | | | | | | | |
| a. Wiring shall be in accordance with NEC Article 760, as shown on the drawings, and as recommended by the manufacturer of the fire alarm system. All wires shall be color-coded. Exposed wiring in unfinished areas shall be installed in metal conduit. Conduit fill shall not exceed 40 percent of interior cross sectional area. Number and size of conductors shall be as recommended by the fire alarm system manufacturer. Conduit shall be 1/2" minimum. Type FPL cable shall be permitted where concealed and acceptable to the Authority Having Jurisdiction. | | | | | | | | | |
| b. Wires in junction boxes and cabinets shall be permanently tagged and identified with tags. | | | | | | | | | |
| 11. Terminal Boxes, Junction Boxes and Cabinets: | | | | | | | | | |
| a. Shall be galvanized steel in accordance with UL. | | | | | | | | | |
| b. Paint red and identify with white markings as "Fire". | | | | | | | | | |
| 12. Junction boxes shall have a volume 40 percent greater than required by the NEC. Minimum sized wire shall be considered as 14 AWG for calculation purposes. | | | | | | | | | |
| PART 3 - EXECUTION | | | | | | | | | |
| 3.1 INSTALLATION | | | | | | | | | |
| A. General: | | | | | | | | | |
| 1. All work shall be in accordance with the National Electrical Code's requirements as amended to date, with the local electric utility company's rules, the Fire Underwriter's requirements, and all local, state and federal laws and regulations. | | | | | | | | | |
| 2. In general, all wiring in finished areas shall be concealed in walls or above ceilings. Where wiring cannot be concealed due to existing construction, exposed wiring shall be installed in conduit or surface metal raceway as indicated on the drawings. Exposed wiring shall not be installed in finished areas without prior written authorization from the Engineer. | | | | | | | | | |
| 3. Conduits shall be of sizes required by the National Electrical Code. Exposed conduits shall be installed with runs parallel or perpendicular to walls and ceiling, with right-angle turns consisting of bends, fittings, or outlet boxes. No wire shall be installed until work that might cause damage to wires or conduits has been completed. Conduits shall be thoroughly cleaned of water or other foreign matter before wire is installed. | | | | | | | | | |
| 4. Where conduits, wireways and other electrical raceways pass through fire partitions, fire walls, or floor, install a fire stop that provides an effective barrier against the spread of fire, smoke and gases. Fire stop material shall be packed tight and completely fill clearances between raceways and openings. Floor, exterior wall, and roof seals shall also be made watertight. | | | | | | | | | |
| 5. Where raceways puncture roof, coordinate with Division 07. | | | | | | | | | |
| 6. Surface metal raceways shall be sized as required by the National Electrical code and as recommended by the manufacturer. Surface metal raceways shall be installed with runs parallel or perpendicular to walls and ceiling. Changes in direction shall only be made at device box locations or with fittings designed for the particular application. Installation shall be as visually unobtrusive as possible: | | | | | | | | | |
| a. Surface metal raceways shall be painted to match wall finishes. | | | | | | | | | |
| 7. All splices shall be mechanically and electrically perfect, using crimp type wire connectors. | | | | | | | | | |
| 8. Provide all disconnect switches required by the N.E.C. | | | | | | | | | |
| 9. Locate motor starters as shown on drawings. | | | | | | | | | |
| 10. Mount disconnect switches and starters at a height of 60" above finished floor unless otherwise noted. | | | | | | | | | |
| 11. Provide all necessary hardware for mounting motor starters. | | | | | | | | | |
| 12. Locate panelboards so that the present and future conduits can be conveniently connected. | | | | | | | | | |
| 13. A typewritten schedule of circuits, approved by the Owner's Representative shall be on the panel directory cards. Type the room numbers and items served on the cards. Three-complete separate copies of all directories, neatly bound, shall be delivered to the Owner's Representative. | | | | | | | | | |
| 14. Revise existing panelboard directories. Furnish new cards as needed. Directories shall be typewritten or printed using a computer. | | | | | | | | | |
| 15. Mount the panelboard so that maximum height of circuit breakers above finished floor shall not exceed 76". | | | | | | | | | |
| 16. Circuit numbers indicated on the drawings are the actual numbers assigned to the circuit in the panelboard and shall not be varied without the consent of the Architect/Engineer. | | | | | | | | | |
| a. Use a separate neutral for each circuit and label the circuit number in every panelboard, gear, pull box, outlet and junction box, and at each load connection. | | | | | | | | | |
| 17. Provide all necessary hardware for mounting panelboards. | | | | | | | | | |
| 18. Underground wiring may be installed in rigid nonmetallic conduit. In locations where nonmetallic conduits are used, change to heavy wall metallic conduit of the same internal diameter before rising out of ground. Provide metallic conduit elbows. | | | | | | | | | |
| a. Pitch conduits a minimum slope of 1:300 down toward manholes and handholes and away from buildings and equipment. Slope ducts from a high point in runs between two manholes to drain in both directions. | | | | | | | | | |
| b. Provide a means for drainage, such a hole drilled in the bottom of the conduit, at low point of underground conduits. Coordinate drainage with Divisions 31 and 33. | | | | | | | | | |
| 19. Feeder circuit wiring shall be in conduit or EMT. | | | | | | | | | |
| 20. All wiring in outside walls shall be in conduit or EMT. | | | | | | | | | |
| 21. All wiring in masonry walls shall be in conduit or EMT. | | | | | | | | | |
| 22. In general, conductors shall be the same size from the last protective device to the load and shall have an ampacity the same as or greater than the ampacity of the protective device where the wire size is not shown on the drawings. Use the 60°C ampacity rating for wire sizes No. 12 through No. 1. For 120V circuits, home runs longer than 75 feet shall be minimum No. 10 AWG. | | | | | | | | | |

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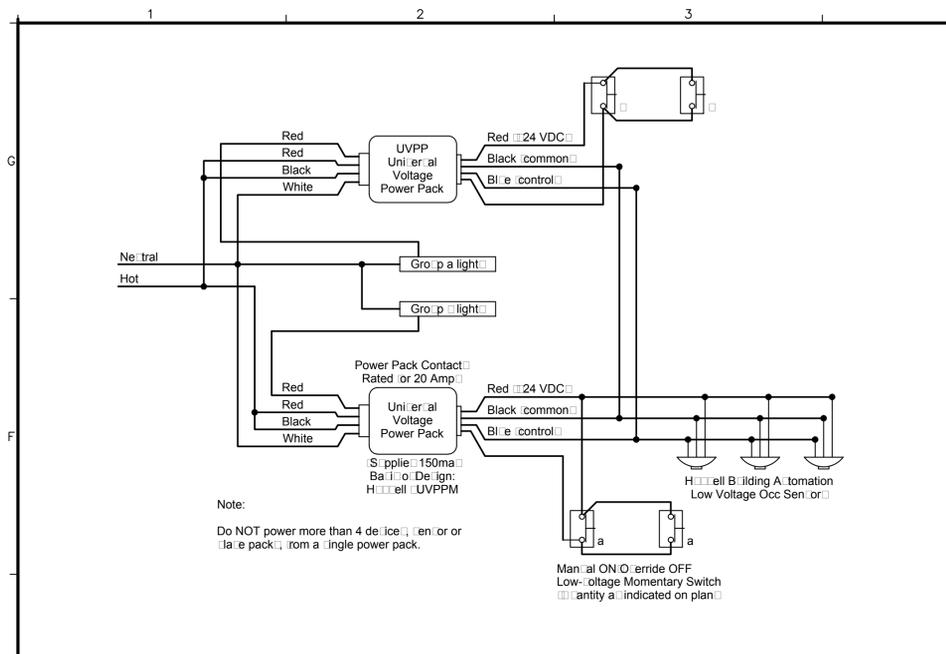
**ELECTRICAL SPECIFICATION
BASIC ELECTRICAL REQUIREMENTS**

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FOR BUREAU OF GENERAL SERVICES**
AUGUSTA, MAINE 04333

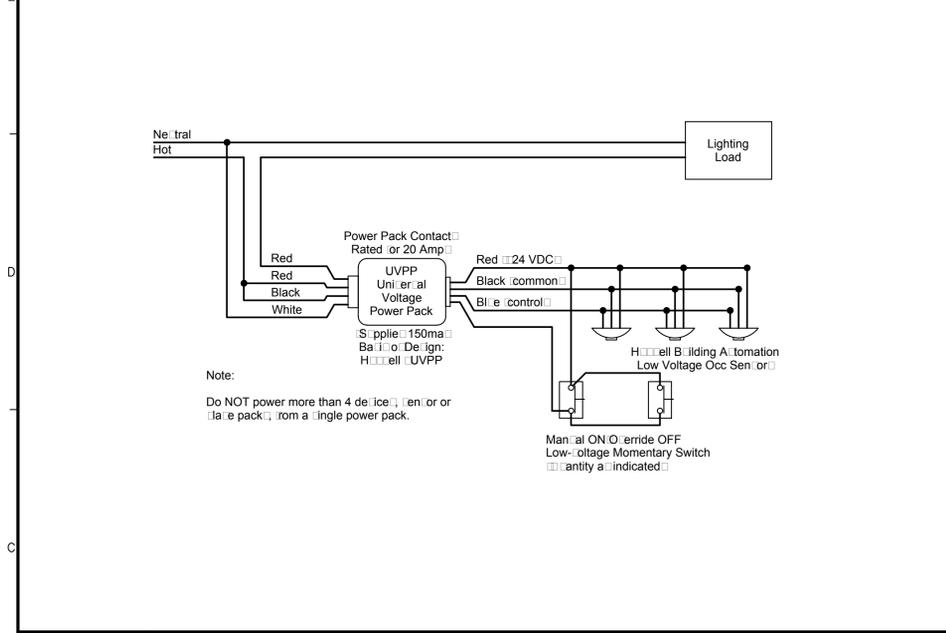
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Checked By: SRM
Project Mgr: WPF
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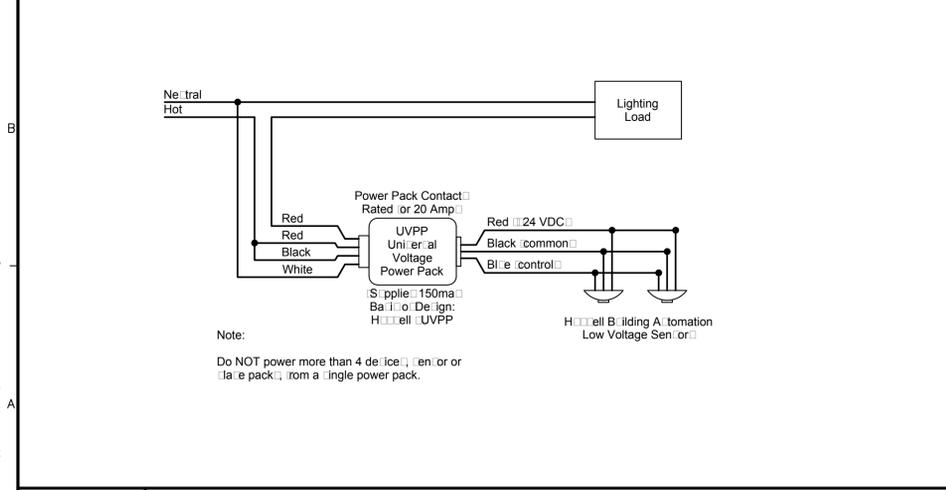
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E1 TWO MANUAL ON/AUTO OFF GROUPS WITH CEILING SENSORS



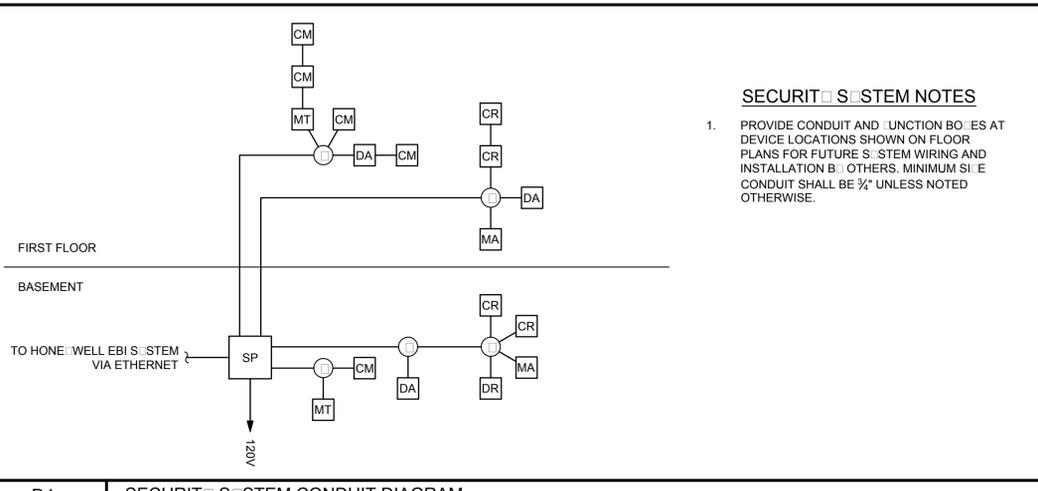
C1 MANUAL SWITCHING WITH AUTO OFF



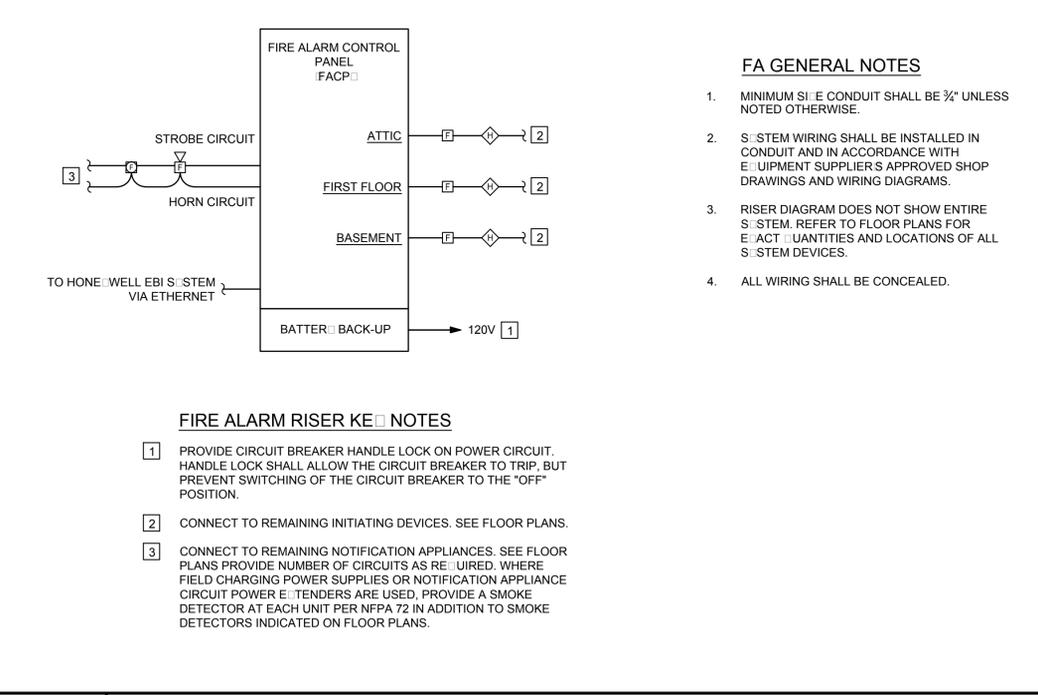
A1 AUTO ON/AUTO OFF

| TAG | DESCRIPTION | VOLTS | PH | LOAD | MCA | MOPD | DISCONNECT SWITCH | | | | STARTER (NEMA) | | | | PANEL | WIRING IN CONDUIT | NOTES |
|--------|-----------------------|-------|----|--------|-----|------|-----------------------|-------|------|-----------|----------------|----------|-----|-----|-------------------|-------------------|-------|
| | | | | | | | FRAME | POLES | FUSE | NEMA ENCL | FBD | SI/E VFD | FBD | CBD | | | |
| EW-H-1 | ELECTRIC WATER HEATER | 120 | 1 | 2 KW | -- | -- | 20 | 1 | NF | 1 | 26 | -- | -- | 22 | P1 | 2 x 12 x 1 x 12 G | |
| UH-1 | UNIT HEATER | 120 | 1 | 3.7A | -- | 15 | 20 | 1 | NF | 1 | 26 | -- | -- | 23 | P1 | 2 x 12 x 1 x 12 G | |
| UH-2 | UNIT HEATER | 120 | 1 | 3.7 A | -- | 15 | 20 | 1 | NF | 1 | 26 | -- | -- | 23 | P1 | 2 x 12 x 1 x 12 G | |
| SP-1 | SUMP PUMP | 120 | 1 | 0.4 HP | -- | -- | NEMA 5-20R RECEPTACLE | | | | 26 | -- | 23 | P1 | 2 x 12 x 1 x 12 G | | |
| ERU-1 | ENERGY RECOVER UNIT | 208 | 1 | 5.1 A | 6.4 | 15 | FWE | | | | 23 | -- | 23 | P1 | 2 x 12 x 1 x 12 G | | |

ABBREVIATIONS:
 FWE FURNISHED WITH EQUIPMENT
 NF NOT FUSED
 SWBD SWITCHBOARD
 FBD FURNISHED BY DIVISION
 CBD CONTROL WIRING BY DIVISION



D4 SECURITY SYSTEM CONDUIT DIAGRAM



A4 FIRE ALARM RISER DIAGRAM

SECURITY SYSTEM NOTES

1. PROVIDE CONDUIT AND FUNCTION BOXES AT DEVICE LOCATIONS SHOWN ON FLOOR PLANS FOR FUTURE SYSTEM WIRING AND INSTALLATION BY OTHERS. MINIMUM SIZE CONDUIT SHALL BE 1/2" UNLESS NOTED OTHERWISE.

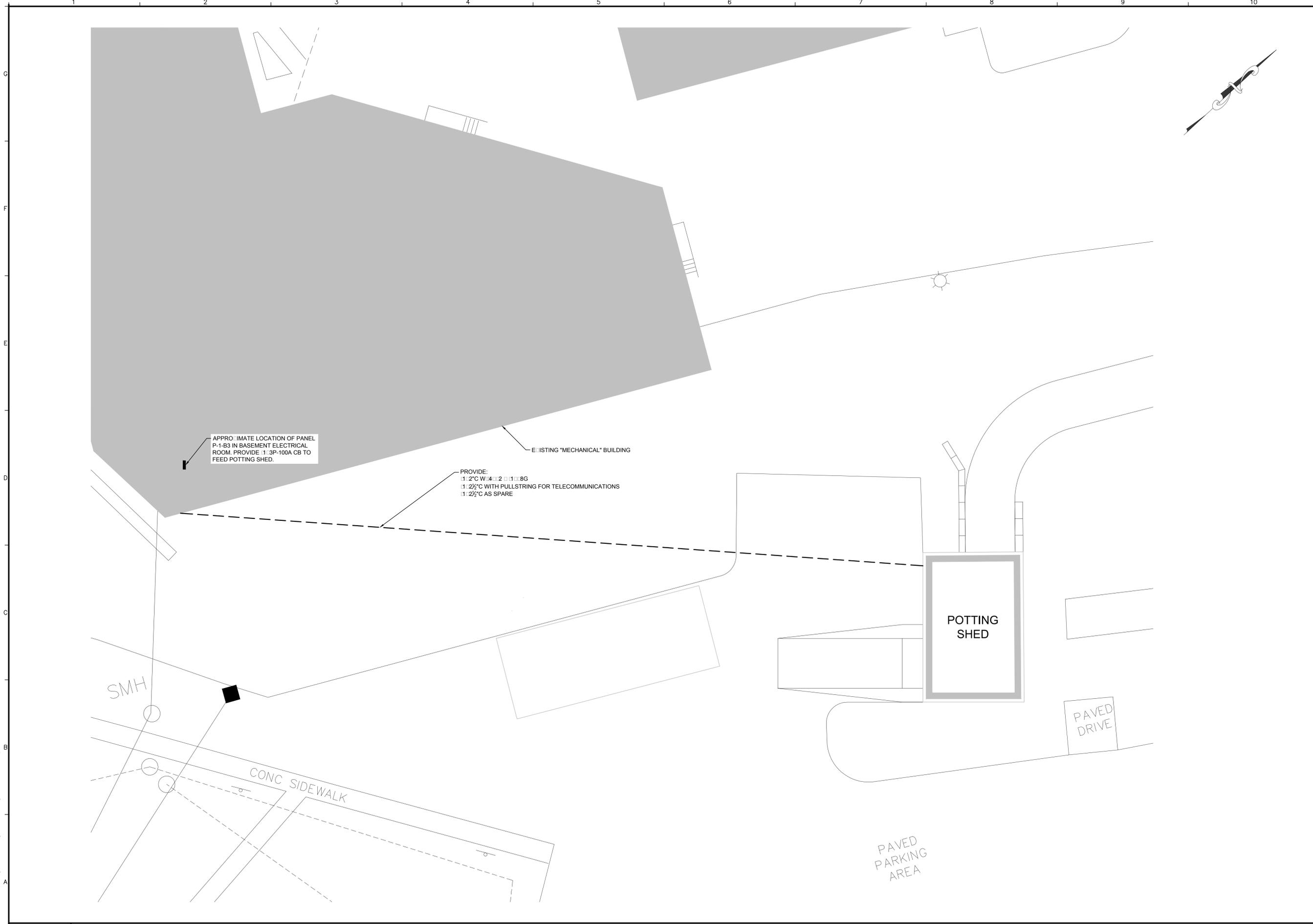
FA GENERAL NOTES

1. MINIMUM SIZE CONDUIT SHALL BE 1/2" UNLESS NOTED OTHERWISE.
2. SYSTEM WIRING SHALL BE INSTALLED IN CONDUIT AND IN ACCORDANCE WITH EQUIPMENT SUPPLIER'S APPROVED SHOP DRAWINGS AND WIRING DIAGRAMS.
3. RISER DIAGRAM DOES NOT SHOW ENTIRE SYSTEM. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF ALL SYSTEM DEVICES.
4. ALL WIRING SHALL BE CONCEALED.

FIRE ALARM RISER KEY NOTES

1. PROVIDE CIRCUIT BREAKER HANDLE LOCK ON POWER CIRCUIT. HANDLE LOCK SHALL ALLOW THE CIRCUIT BREAKER TO TRIP, BUT PREVENT SWITCHING OF THE CIRCUIT BREAKER TO THE "OFF" POSITION.
2. CONNECT TO REMAINING INITIATING DEVICES. SEE FLOOR PLANS.
3. CONNECT TO REMAINING NOTIFICATION APPLIANCES. SEE FLOOR PLANS PROVIDE NUMBER OF CIRCUITS AS REQUIRED. WHERE FIELD CHARGING POWER SUPPLIES OR NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDERS ARE USED, PROVIDE A SMOKE DETECTOR AT EACH UNIT PER NFPA 72 IN ADDITION TO SMOKE DETECTORS INDICATED ON FLOOR PLANS.

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| Drawn By: | GMC |
| Checked By: | SRM |
| Project Mgr: | WPF |
| Project No: | 15096 |
| Card File: | 15096E.dwg |
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ELECTRICAL SITE PLAN

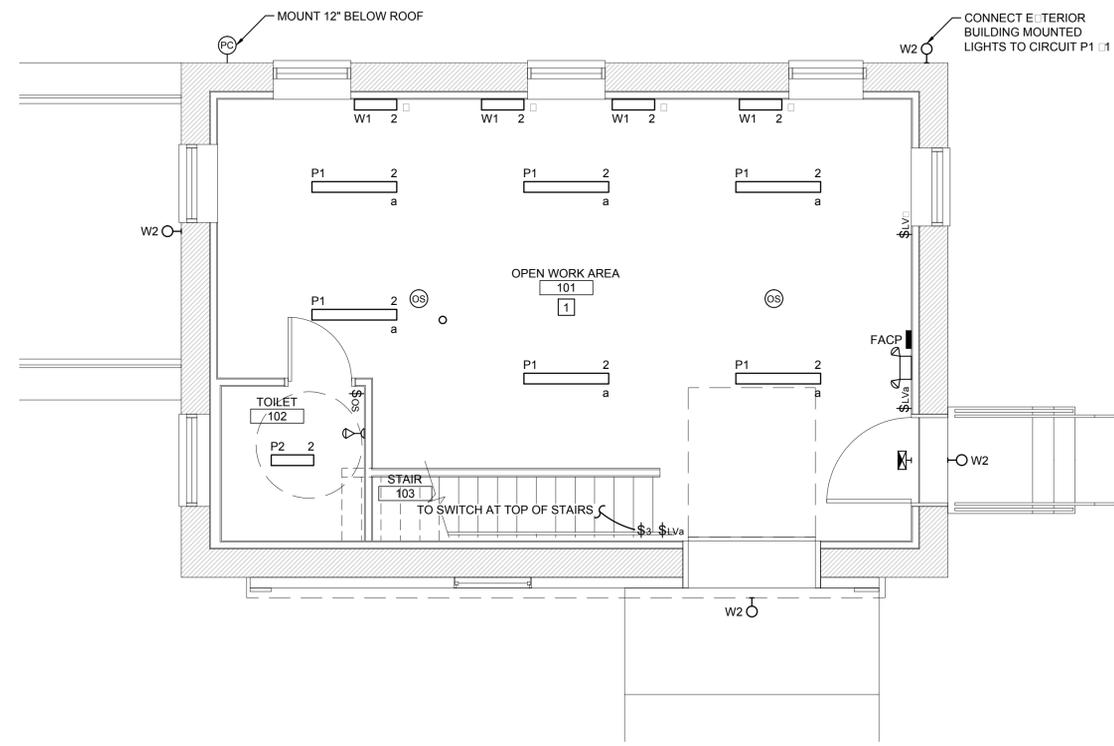
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ES-1

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A1 ELECTRICAL SITE PLAN
 SCALE: 1"=20'



| TYPE | DESCRIPTION | MFR | CATALOG SERIES NUMBER SEE NOTE 1 | MOUNTING | VOLTS | LAMP | | | KEY NOTES |
|------|---------------------------------------|----------|-------------------------------------|---|-------|-------------------|-------|-------------------|-----------|
| | | | | | | QTY PER FITURE | WATTS | TYPE | |
| P1 | 4 PENDANT MOUNTED LED STRIP WITH LENS | METALUX | 4-SNLED-LD4-46SL-LC-L835 | PENDANT - 8'-0" AFF | 120 | 1 | 41 | LED ARRA 3500K | |
| P2 | 2 SURFACE MOUNTED LED STRIP WITH LENS | METALUX | 2-SNLED-LD4-18SL-LC-L835 | SURFACE | 120 | 1 | 17 | LED ARRA 3500K | |
| W1 | 2 LED WALL BRACKET | METALUX | 2BCLED-LD4-20SL-L835 | SURFACE - 7'-0" AFF | 120 | 1 | 23 | LED ARRA 3500K | |
| W2 | LED FLOOD LIGHT | BASELITE | L14-21 | SURFACE - 1'-0" BELOW SECOND FLOOR LEVEL | 120 | 1 | 21 | LED ARRA | 4 |
| EXIT | EXIT SIGN WITH BATTERY BACKUP | COOPER | SL-7 | SEE NOTE 2 | 120 | 1 | 3.8 | LED ARRA | 2 |
| EBU | EMERGENCY BATTERY UNIT | CHLORIDE | CMF-W-WTB-2 | CEILING | 6VDC | 2 | | TUNGSTEN | 5 |

NOTES

1 NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.

2 PROVIDE WALL, CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.

3 VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.

4 FINISH TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD FINISHES.

5 PROVIDE WATTAGE AS REQUIRED TO SERVE REMOTE HEADS LOCATED ON SAME FLOOR AS UNIT.

F6 LUMINAIRE SCHEDULE

NO SCALE

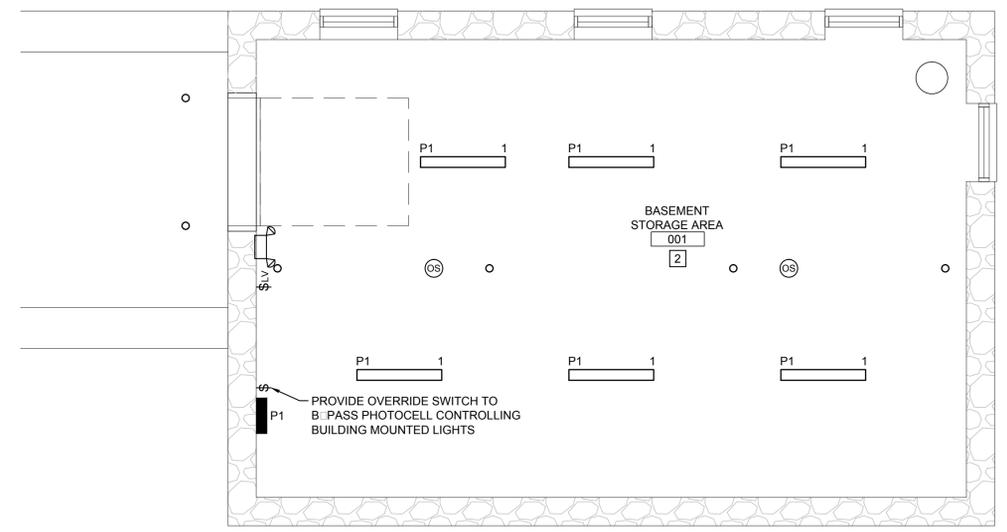
- 1 LIGHTING CONTROL SHALL BE MANUAL ON BATTERY LOCAL LOW VOLTAGE SWITCHES. SWITCH SHALL CONTROL SWITCH GROUP AND SWITCH SHALL CONTROL SWITCH GROUP. AUTO OFF SHALL BE BATTERY CEILING OCCUPANCY SENSOR. SEE DETAIL E1-E2
- 2 LIGHTING CONTROL SHALL BE MANUAL ON BATTERY LOCAL LOW VOLTAGE WALL SWITCH AND AUTO OFF BATTERY CEILING OCCUPANCY SENSOR. SEE DETAIL C1-E2
- 3 LIGHTING CONTROL SHALL BE AUTO ON AND AUTO OFF BATTERY CEILING OCCUPANCY SENSOR. SEE DETAIL A1-E2

D LIGHTING CONTROL KEY NOTES

NO SCALE

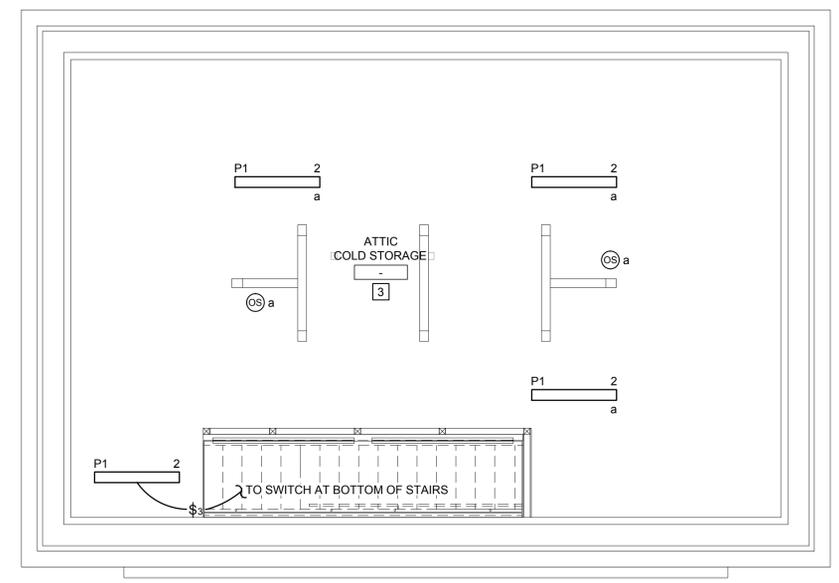
D1 FIRST FLOOR LIGHTING PLAN

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



A1 BASEMENT LIGHTING PLAN

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



A6 ATTIC LIGHTING PLAN

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

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Date: -
Drawn By: GMC
Checked By: SRM
Project Mgr: WPF
Project No: 15056
Cad File: 15056E.dwg
Graphic: 0
Scale: 1"

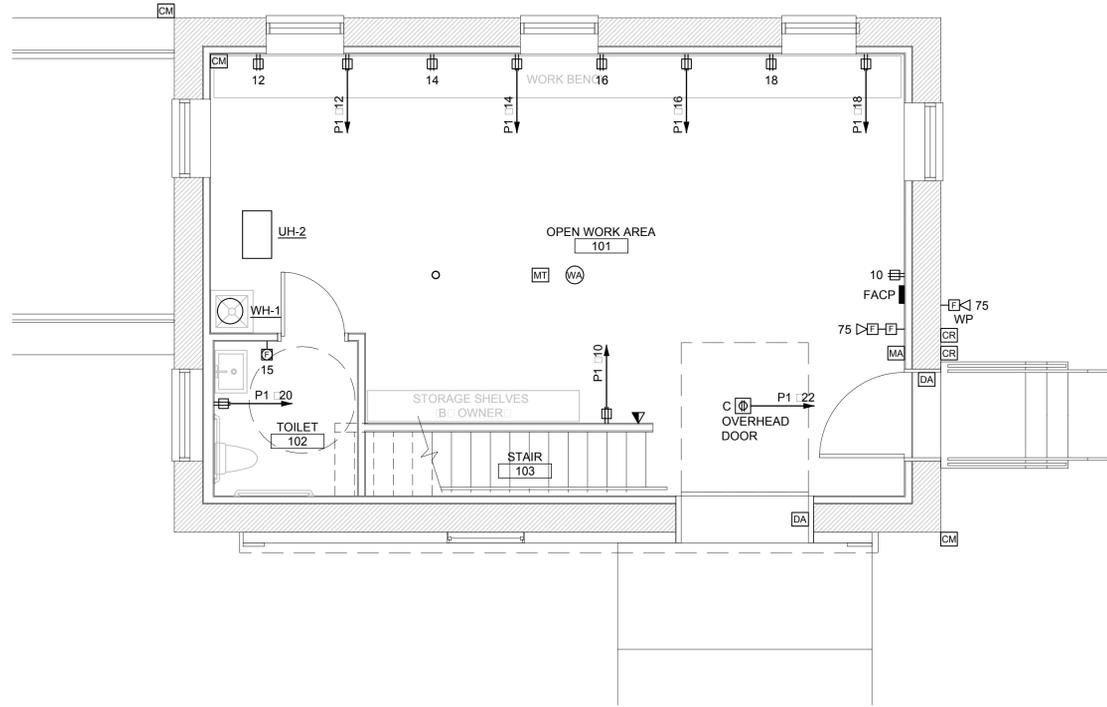
ELECTRICAL LIGHTING PLANS

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AUGUSTA, MAINE 04333

EL-1

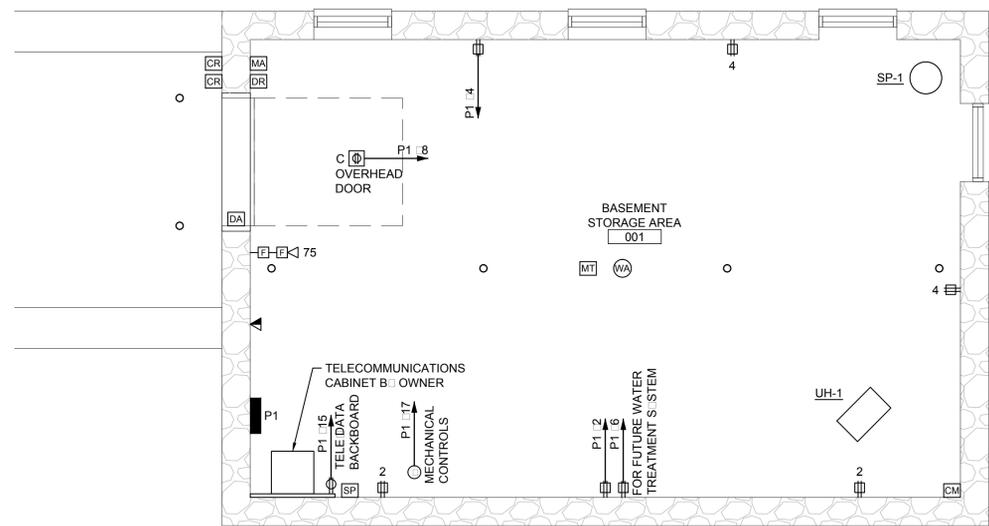
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D1 FIRST FLOOR POWER SYSTEMS PLAN

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



A1 BASEMENT POWER SYSTEMS PLAN

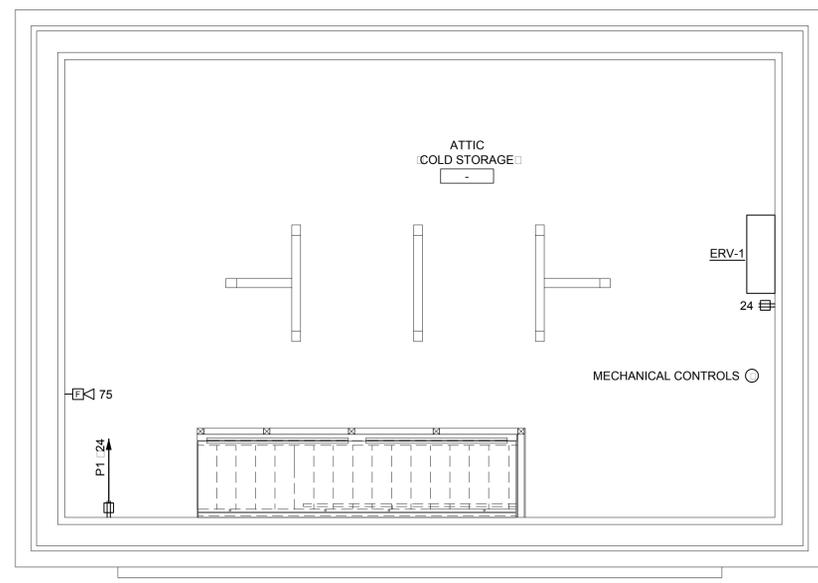
SCALE: 1/4"=1'-0"

| PANEL SCHEDULE ~ P1 | | | | | | | | | |
|---------------------|---------|---|-------------|-----------------|------|------|----------------------------|----------------------------|-------------------------------|
| VOLTAGE: 208/120V | | | | MCB: 100A | | | AIC: 10KA | | |
| 3-PHASE, 4-WIRE | | | | CIRCUIT BREAKER | | | CIRCUIT LOAD KVA CONNECTED | | |
| CKT NO | BRKR SI | E | NO OF POLES | PH | A | B | C | BRANCH CIRCUIT DESCRIPTION | |
| 1 | 20 | | 1 | A | 0.33 | | | | BASEMENT INTERIOR LIGHTS |
| 3 | 20 | | 1 | B | 0.52 | | | | FIRST FLOOR ATTIC LIGHTS |
| 5 | 20 | | 1 | C | | 2.00 | | | EW-1 |
| 7 | 15 | | 1 | A | 1.00 | | | | UH-1, UH-2 |
| | 20 | | 1 | B | | 1.18 | | | SP-1 |
| 11 | 15 | | 2 | C | | | 1.06 | | ERU-2 |
| 13 | | | | A | 1.06 | | | | |
| 15 | 20 | | 1 | B | 0.00 | | | | TELEPHONE BACKBOARD REC |
| 17 | 20 | | 1 | C | | 0.00 | | | MECHANICAL CONTROLS |
| 1 | 20 | | 1 | A | 0.00 | | | | SPARE |
| 21 | 20 | | 1 | B | 0.00 | | | | SPARE |
| 23 | 20 | | 1 | C | | 0.00 | | | SPARE |
| 25 | 20 | | 1 | A | 0.00 | | | | SPARE |
| 27 | 20 | | 1 | B | | 0.00 | | | SPARE |
| 2 | 20 | | 1 | C | | | 0.00 | | SPARE |
| SUBTOTAL | | | | | 2.3 | 1.70 | 3.06 | | |
| 2 | 20 | | 1 | A | 0.54 | | | | BASEMENT RECEPTACLES |
| 4 | 20 | | 1 | B | 0.54 | | | | BASEMENT RECEPTACLES |
| 6 | 20 | | 1 | C | | 0.00 | | | WATER TREATMENT SYSTEM REC |
| 8 | 20 | | 1 | A | 0.00 | | | | BASEMENT OVERHEAD DOOR REC |
| 10 | 20 | | 1 | B | 0.36 | | | | FIRST FLOOR REC |
| 12 | 20 | | 1 | C | | 0.36 | | | WORKBENCH REC |
| 14 | 20 | | 1 | A | 0.36 | | | | WORKBENCH REC |
| 16 | 20 | | 1 | B | | 0.36 | | | WORKBENCH REC |
| 18 | 20 | | 1 | C | | | 0.36 | | WORKBENCH REC |
| 20 | 20 | | 1 | A | 0.18 | | | | BATHROOM REC |
| 22 | 20 | | 1 | B | 0.18 | | | | FIRST FLOOR OVERHEAD DOOR REC |
| 24 | 20 | | 1 | C | | | 0.36 | | ATTIC REC |
| 26 | 20 | | 1 | A | 0.00 | | | | SPARE |
| 28 | 20 | | 1 | B | | 0.00 | | | SPARE |
| 30 | 20 | | 1 | C | | | 0.00 | | SPARE |
| SUBTOTAL | | | | | 1.08 | 1.44 | 1.08 | | |

D6 PANEL SCHEDULE

| SECURITY SYSTEM | | | | | | | | | |
|---------------------------|--|------------------|-------------------------|----------------------|---------------|-------------|-------------|------------------------|--|
| DOORWAY / ROOM / CORRIDOR | DESCRIPTION | CARD READER (CR) | DOOR ALARM CONTACT (DA) | REQUEST TO EXIT (RE) | DOOR HARDWARE | MOTION (MT) | CAMERA (CM) | OTHER | COMMENTS |
| DOOR 101 | PERSONNEL ENTRANCE | CR | DA | | HW | | | | |
| AREA 001 | BASEMENT STORAGE AREA | | | | | | | 600 SP | PCSC SECURITY PANEL W/ POWER SUPPLIES |
| OVERHEAD DOOR 001 | BASEMENT ENTRANCE | | DA | | HW | | | DOOR RELEASE DR | NOTE - POWER DOOR OPERATOR REQUIRED TIED INTO SECURITY |
| AREA 001 | BASEMENT STORAGE AREA | | | | | 360 | | | |
| AREA 101 | OPEN WORK AREA | | | | | 360 | | | |
| OVERHEAD DOOR 102 | NORTH EAST INTERIOR ENTRANCE | | DA | | | | | | |
| DOOR 101 | ASR | CR BEIGE | | | | | | | ACCESS SECURE READER FOR 1ST FLOOR SECURITY |
| SOUTH EAST CORNER | INTERIOR | | | | | | PT | | |
| NORTH WEST CORNER | INTERIOR | | | | | | PT | | |
| SOUTH EAST CORNER 101 | INTERIOR | | | | | | FI | | |
| SOUTH EAST CORNER 001 | INTERIOR | | | | | | FI | | |
| OVERHEAD DOOR 001 | BASEMENT ENTRANCE | CR BEIGE | | | | | | | ACCESS SECURE READER FOR BASEMENT FLOOR SECURITY |
| AREA 101 | OPEN WORK AREA | | | | | | | MEDICAL PANIC ALARM MA | WILL BE PUSH ST. LE WITH PLASTIC SHIELD. |
| NOTES | | | | | | | | | |
| CARD READERS | BLACK UNLESS NOTED IN SCHEDULE ABOVE. | | | | | | | | |
| PCSC SECURITY PANELS | PCSC SECURITY PANELS ARE REQUIRED FOR THIS PROJECT, ONLY CERTIFIED CONTRACTORS WILL COMPLETE PANEL WORK. SECURITY SYSTEM WILL INTERGRATE WITH THE HONEYWELL EBI. | | | | | | | | |
| HONEYWELL EBI | PRODUCT IS PROPRIETARY TO HONEYWELL, WORK WILL INCLUDE PROGRAMMING AND GRAPHICS TO STATE OF MAINE STANDARDS. | | | | | | | | |
| CAMERA SYSTEM | UNLESS NOTED ALL CAMERAS WILL BE POWER OVER ETHERNET POE. CAMERAS WILL INTERGRATE WITH THE HONEYWELL DIGITAL VIDEO MANAGER | | | | | | | | |

C6 SECURITY SYSTEM SCHEDULE



A6 ATTIC POWER SYSTEMS PLAN

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

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Date: -
Drawn By: GMC
Checked By: SRM
Project Mgr: WPF
Project No: 15065
Cad File: 15065E.dwg
Graphic: 0
Scale: 1"

ELECTRICAL POWER AND SYSTEMS PLANS
AMHI - POTTING SHED CONVERSION
FOR BUREAU OF GENERAL SERVICES
77 STATE STREET
AUGUSTA, MAINE 04333

EP-1

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