

# UNIVERSITY OF SOUTHERN MAINE

## SULLIVAN GYMNASIUM ANNEX RENOVATIONS FOR COMMUNICATION AND MEDIA STUDIES

PORTLAND, MAINE

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SULLIVAN GYMNASIUM ANNEX  
RENOVATION FOR COMMUNICATION  
& MEDIA STUDIES  
LOCATION

### DRAWING LIST

GENERAL

GI001 COVER SHEET  
GI002 GENERAL INFORMATION  
GI003 TYPICAL MOUNTING HEIGHTS  
GI004 PARTITION LEGEND  
GI005 KEY NOTES & ABBREVIATIONS

ARCHITECTURAL

A-001 MATERIAL SPECIFICATIONS  
A-002 MATERIAL SPECIFICATIONS  
A-003 MATERIAL SPECIFICATIONS  
  
AD101 REMOVALS PLAN  
  
AE101 FLOOR PLAN  
AE102 REFLECTED CEILING PLAN  
AE103 ROOF PLAN  
  
AE401 LARGE SCALE PLAN  
  
AE501 INTERIOR DETAILS  
AE502 INTERIOR DETAILS  
AE503 ROOF DETAILS  
AE504 ROOF DETAILS  
AE505 FLOOR TRANSITION DETAILS

ARCHITECTURAL CONTINUED

AE601 ROOM FINISH SCHEDULE  
AE602 DOOR SCHEDULE  
  
AE611 DOOR, WINDOW & FRAME  
ELEVATIONS  
AE612 DOOR & WINDOW DETAILS

MECHANICAL

M-001 LEGEND AND ABBREVIATIONS  
M-002 GENERAL NOTES AND  
SPECIFICATIONS  
M-003 GENERAL NOTES AND  
SPECIFICATIONS  
M-004 GENERAL NOTES AND  
SPECIFICATIONS  
M-005 GENERAL NOTES AND  
SPECIFICATIONS  
  
MD101 MECHANICAL DUCTWORK DEMO  
PLAN  
MD102 MECHANICAL PIPING DEMO PLAN  
  
MH101 MECHANICAL DUCTWORK PLAN  
MH102 MECHANICAL DUCTWORK ROOF  
PLAN  
  
MP101 MECHANICAL PIPING PLAN

MECHANICAL CONT.

M-501 DETAILS  
M-502 DETAILS  
M-503 DETAILS  
M-504 DETAILS  
M-505 DETAILS  
M-506 DETAILS  
M-507 DETAILS  
M-508 DETAILS

M-601 SCHEDULES  
M-602 SCHEDULES  
M-603 SCHEDULES  
M-604 SCHEDULES

PLUMBING

P-001 LEGEND AND ABBREVIATIONS  
P-002 GENERAL NOTES AND  
SPECIFICATIONS  
  
PD101 PLUMBING DEMO PLAN  
  
PL101 PLUMBING PLAN  
PL102 PLUMBING PLAN  
PL103 PLUMBING ROOF PLAN  
  
PL501 DETAILS  
PL502 DETAILS  
  
PL601 SCHEDULES

ELECTRICAL

E-001 LEGEND AND GENERAL NOTES  
  
ED101 ELECTRICAL DEMO PLAN  
ED102 ELECTRICAL DEMO PLAN NOTES  
  
EP101 POWER FLOOR PLAN  
EP102 POWER NOTES  
EP103 ELECTRICAL ROOF PLAN  
EP301 MDP DETAIL  
EP302 ELECTRICAL DETAILS  
EP601 PANEL SCHEDULE SHEET 1  
EP602 PANEL SCHEDULE SHEET 2  
EP603 PANEL SCHEDULE SHEET 3  
EP651 ONE LINE DIAGRAM  
  
EL101 LIGHTING FLOOR PLAN  
EL601 LIGHT FIXTURE SCHEDULE  
  
EY101 SYSTEMS FLOOR PLAN  
EY102 SYSTEMS FLOOR PLAN NOTES

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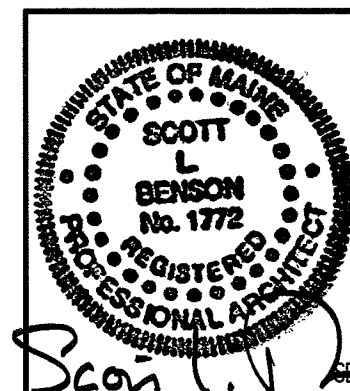
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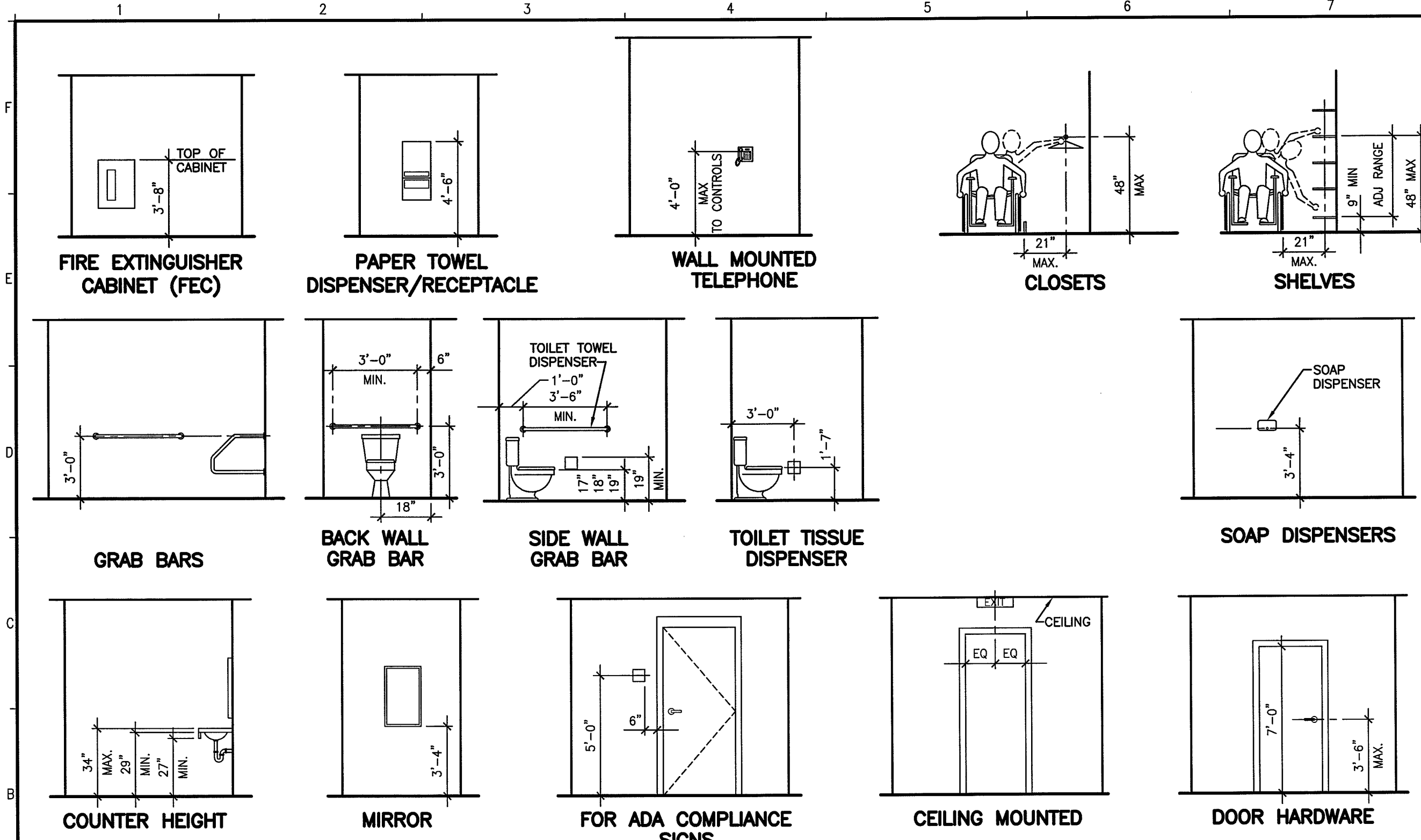
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COVER SHEET

SHEET No. **GI001**  
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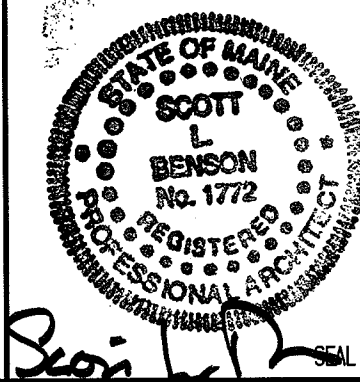
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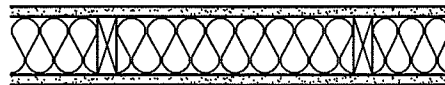
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SHEET No.	GI003

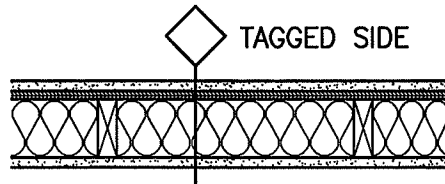


# PARTITION LEGEND

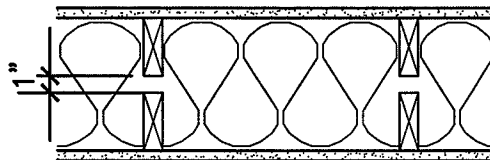
1 PARTITION:  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.  
 1 1/2"x3-1/2" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 3-1/2" UNFACED BATT INSULATION TO UNDERSIDE OF ROOF DECK  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.



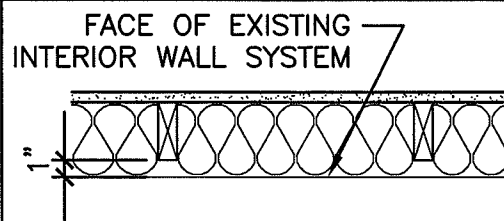
2 1 HR RATED PARTITION: UL DESIGN U344  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK. NOMINAL 2"x4" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 (1) LAYER NOMINAL 3/4" PLYWOOD TO UNDERSIDE OF ROOF DECK (TAGGED SIDE).  
 3-1/2" UNFACED BATT INSULATION TO UNDERSIDE OF ROOF DECK  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.



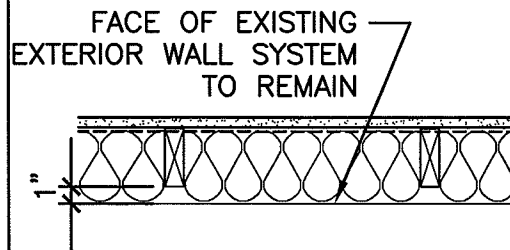
3 ACOUSTIC PARTITION:  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.  
 1 1/2"x3-1/2" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 1" SPACE  
 1 1/2"x3-1/2" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 8" UNFACED BATT INSULATION TO UNDERSIDE OF ROOF DECK  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.



4 ACOUSTIC FURRING:  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK.  
 1 1/2"x3-1/2" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 3-1/2" UNFACED BATT INSULATION TO UNDERSIDE OF ROOF DECK  
 1" SPACE BETWEEN WOOD STUDS & FACE OF EXISTING INTERIOR WALL SYSTEM



5 ACOUSTIC FURRING:  
 (1) LAYER 5/8" GWB TO UNDERSIDE OF ROOF DECK. VAPOR BARRIER TO UNDERSIDE OF ROOF DECK.  
 1 1/2"x3-1/2" WOOD STUDS @ 16" O.C. TO UNDERSIDE OF ROOF DECK.  
 3-1/2" UNFACED BATT INSULATION TO UNDERSIDE OF ROOF DECK  
 1" SPACE BETWEEN WOOD STUDS & FACE OF EXISTING EXTERIOR WALL SYSTEM TO REMAIN



NOTES:  
 MR = MOISTURE RESISTANT GWB ON TAGGED SIDE ONLY

## GENERAL NOTES:

1. RE: G1002 FOR GENERAL NOTES.

## PARTITION NOTES:

- PARTITION TYPE DRAWINGS ARE GRAPHIC REPRESENTATION ONLY, THEY ARE NOT TO SCALE.
- ALL BATT INSULATION IS TO BE FULL THICKNESS AND FULL HEIGHT UNLESS NOTED OTHERWISE.

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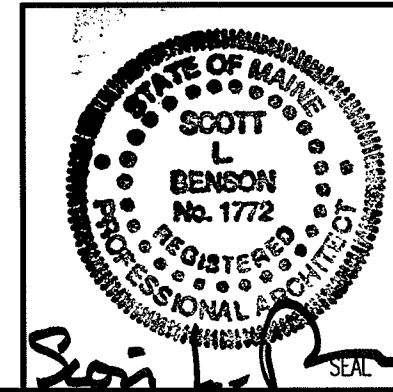
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SHEET TITLE:  
**PARTITION LEGEND**

SHEET No.  
**G1004**  
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**REMOVAL KEY NOTES:**

**FLR PLAN KEY NOTES:**

**RCP KEY NOTES:**

**GENERAL NOTES:**

- 1 REMOVE EXISTING PARTITION ASSEMBLY IN ITS ENTIRETY TO THE EXTENT DESCRIBED.
- 2 REMOVE EXISTING PARTITION TO THE EXTENT REQUIRED FOR INSTALLATION OF DOOR & FRAME ASSEMBLY
- 3 REMOVE EXISTING DOOR & FRAME ASSEMBLY IN ITS ENTIRETY
- 4 REMOVE EXISTING CASEWORK ASSEMBLY IN ITS ENTIRETY.
- 5 REMOVE EXISTING PLAY PEN ASSEMBLIES IN THEIR ENTIRETY
- 6 REMOVE EXISTING WINDOW & FRAME ASSEMBLY IN ITS ENTIRETY
- 7 REMOVE EXISTING PARTITION TO THE EXTENT REQUIRED FOR INSTALLATION OF WINDOW & FRAME ASSEMBLY
- 8 REMOVE EXISTING GWB & VAPOR BARRIER AT LOCATIONS WHERE PARTITION TYPE "5" IS TO BE INSTALLED. RE: AE101 FOR EXTENT OF REMOVAL.
- 9 REMOVE EXISTING SHELF ASSEMBLY IN ITS ENTIRETY
- 10 REMOVE EXISTING PAPER TOWEL DISPENSER, MIRROR, AND/OR SOAP DISPENSER, AND RETURN TO OWNER.
- 11 REMOVE EXISTING LIGHT COVE ASSEMBLY IN ITS ENTIRETY
- 12 REMOVE EXISTING CHALKBOARD
- 13 REMOVE EXISTING TACKBOARD
- 14 REMOVE EXISTING CLIPBOARD
- 15 EXISTING CEILING SYSTEM IS TO REMAIN.
- 16 SAWCUT AND REMOVE EXISTING CONCRETE AS REQUIRED FOR PLUMBING PIPING INSTALLATION. RE: PLUMBING FOR EXTENT OF REMOVALS
- 17 EXISTING FLOORING SYSTEM IS TO REMAIN.

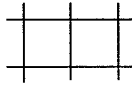












- 1 INFILL WITH PARTITION TYPE REFERENCED TO THE EXTENT OF REMOVED DOOR & FRAME. ALIGN FACE OF GWB WITH FACE OF EXISTING GWB.
- 2 CYCLORAMA FLOOR COVE, RE: SPECIFICATIONS FOR INSTALLATION INSTRUCTIONS
- 3 INFILL WINDOW OPENING @ INTERIOR SIDE OF JAMB W/ 1/2" PLYWOOD. RE: DETAIL D6/AE612 FOR HEAD & JAMB DETAILS
- 4 PROJECTION SCREEN. OWNER SUPPLIED, CONTRACTOR INSTALLED. COORDINATE EXACT LOCATION OF INSTALLATION WITH THE OWNER & PROVIDE AREA BLOCKING REQUIRED FOR SUPPORT.
- 5 WHITE BOARD. OWNER SUPPLIED, CONTRACTOR INSTALLED. COORDINATE EXACT LOCATION OF INSTALLATION WITH THE OWNER & PROVIDE AREA BLOCKING REQUIRED FOR SUPPORT.
- 6 INFILL AREA OF REMOVED CONCRETE WITH NEW CONCRETE. TOP OF CONCRETE IS TO BE SMOOTH & FLUSH WITH ADJACENT EXISTING CONCRETE. COORDINATE EXTENT OF INFILL WITH THE EXTENT OF REMOVAL, RE: AD101 & PLUMBING.
- 7 INFILL BENEATH WINDOW WITH PARTITION TYPE REFERENCED.
- 8 CURVED WALL PARTITION. (1) LAYER FACE LAYER 1/4" GWB, (1) BASE LAYER 3/8" GWB, NOMINAL 2"x2" WOOD STUDS, STEEL TRACK TOP & BOTTOM. RE: SPECIFICATIONS FOR STUD SPACING & INSTALLATION REQUIREMENTS.
- 9 PROVIDE FLOOR TRANSITION PER DETAIL A1-A/AE505
- 10 PROVIDE FLOOR TRANSITION PER DETAIL A1-B/AE505

- 1 RE: C5/AE501 FOR CEILING ASSEMBLY DETAIL
- 2 EQUIPMENT SUPPORT GRID SYSTEM TO BE SUPPLIED & INSTALLED BY THE OWNER. THIS SYSTEM IS DESCRIBED IN CONCEPT ON THE DRAWINGS FOR THE PURPOSE OF COORDINATING BLOCKING AND ELECTRICAL/MECHANICAL DEVICE LOCATIONS BY THE CONTRACTOR. COORDINATE GRID CONFIGURATION, BLOCKING SUPPORT SYSTEM, & ALL ASSOCIATED INSTALLATION REQUIREMENTS WITH WITH THE OWNER AND THE GRID MANUFACTURER'S RECOMMENDATIONS. COORDINATE ALL CEILING MOUNTED FIXTURES TO BE IN ALIGNMENT WITH COMMON CENTERLINES OF EQUIPMENT SUPPORT GRID.

**RCP NOTES:**

- 1. REFERENCE ROOM FINISH SCHEDULE FOR CEILING HEIGHTS AND TYPES
- 2. FIRE SPRINKLERS SHALL BE LOCATED IN ALIGNMENT WITH OTHER CEILING ITEMS, TYPICALLY
- 3. FIRE SPRINKLERS SHALL BE CENTERED IN CEILING TILE
- 4. FIRE SPRINKLERS SHALL BE PLACED TO COORDINATE WITH LIGHT FIXTURE POSITIONS INDICATED.
- 5. ALIGN CEILING ITEMS AS SHOWN, WITH COMMON CENTERLINES, TYPICALLY. CENTER ITEMS IN CEILINGS, OR IN AREA U.N.O

**RCP LEGEND:**

-  SUSPENDED CEILING PANEL AND GRID ASSEMBLY
-  GWB CEILING
-  2x4 LAY-IN LIGHT FIXTURE
-  DOWN LIGHT
-  CEILING MOUNTED EXIT LIGHT
-  RETURN AIR GRILLE
-  SUPPLY AIR GRILLE
-  EXHAUST AIR GRILLE
-  2'x2' ACCESS PANEL
-  SMOKE DETECTOR
-  OCCUPANCY SENSOR
-  LAY-IN RADIANT PANEL
-  SPLIT SYSTEM HEAT PUMP

- 1. RE: G1002 FOR GENERAL NOTES.

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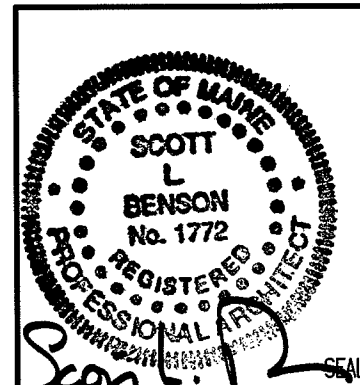
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KEY NOTES &  
ABBREVIATIONS

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**SECTION 03300:**

**CAST-IN-PLACE CONCRETE:**

1. CONCRETE FLOOR REPAIR, LEVELING & FLOOR FILLER STRIP AT CYCLORAMA FLOOR COVE.

A. CONCRETE FLOOR LEVELING COMPOUND UNDERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN THICKNESSES FROM 1/8 INCH (3.2 MM) AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.

1. CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
2. PRIMER: PRODUCT OF UNDERLAYMENT MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
3. AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH (3.2 TO 6 MM) OR COARSE SAND AS RECOMMENDED BY UNDERLAYMENT MANUFACTURER.
4. COMPRESSIVE STRENGTH: NOT LESS THAN 4100 PSI (29 MPA) AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109/C 109M.

B. CONCRETE FLOOR LEVELING COMPOUND OVERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN THICKNESSES FROM 1/8 INCH (3.2 MM) AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.

1. CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
2. PRIMER: PRODUCT OF TOPPING MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
3. AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH (3.2 TO 6 MM) OR COARSE SAND AS RECOMMENDED BY TOPPING MANUFACTURER.

COMPRESSIVE STRENGTH: NOT LESS THAN 5000 PSI (34.5 MPA) AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109/C 109M.

**SECTION 06100:**

**ROUGH CARPENTRY:**

1. WOOD FRAMING STANDARDS: NFPA HOUSE FRAMING MANUAL.
2. INTERIOR PARTITION FRAMING: 2-INCH BY 4-INCH NOMINAL WOOD FRAMING AT SPACING DESCRIBED ON DRAWINGS. PROVIDE NAILERS, BLOCKING AND GROUNDS WHERE REQUIRED FOR SECURE FASTENING OF FINISH WORK.
3. PRESERVATIVE TREATMENT: AWPAC2 FOR LUMBER IN CONTACT WITH CONCRETE, MASONRY, ROOFING OR FLASHING.
4. PROVIDE APA RATED, EXPOSURE 1 PLYWOOD AT PARTITION TYPE "2".

**SECTION 07531:**

**SINGLY PLY MEMBRANE ROOFING:**

1. PROJECT INCLUDES CUTTING, PATCHING AND MODIFYING EXISTING BALLASTED EPDM ROOF MEMBRANE TO THE EXTENT DESCRIBED ON THE DRAWINGS, AND AS OTHERWISE NECESSARY FOR REMOVAL OF EXISTING MECHANICAL EQUIPMENT AND INSTALLATION OF NEW MECHANICAL EQUIPMENT. CUT, PATCH AND MODIFY IN ACCORDANCE WITH EXISTING ROOF MEMBRANE MANUFACTURER'S WRITTEN INSTRUCTIONS, USING MATERIALS AND ACCESSORIES IN KIND WITH EXISTING, AND AS OTHERWISE ACCEPTABLE TO THE EXISTING MEMBRANE MANUFACTURER.

**SECTION 07900:**

**JOINT SEALERS:**

1. PROVIDE LATEX JOINT SEALANTS, ACRYLIC EMULSION TYPE, ASTM C 834, AT INTERIOR JOINTS IN VERTICAL SURFACES WITH LIMITED MOVEMENT.
2. PROVIDE ONE-PART FIRE-STOPPING SEALANT IN FIRE-RATED FLOOR ASSEMBLIES, AND WALL ASSEMBLIES DESIGNED TO RESIST THE PASSAGE OF SMOKE.

**SECTION 08110:**

**STEEL DOORS & FRAMES:**

1. PROVIDE 18 GAUGE, WELDED TYPE FRAMES OF THICKNESS REQUIRED BY WALL ASSEMBLY, FACTORY PRIMED AND READY FOR FIELD PAINTING.

**SECTION 08211:**

**FLUSH WOOD DOORS:**

PROJECT INCLUDES INTERIOR SOLID CORE FLUSH WOOD DOORS. PROVIDE HEAVY DUTY COMMERCIAL GRADE, 5-PLY CONSTRUCTION WITH PARTICLE BOARD CORE WITH PLAIN SAWN, SLIP-MATCHED SELECT WHITE BIRCH FACES. (VERIFY CUT AND SPECIES AS MATCHING EXISTING PRIOR TO ORDERING.) PROVIDE CUSTOM GRADE TRANSPARENT FINISH OVER STAIN TO MATCH EXISTING DOORS. PROVIDE MANUFACTURER'S STANDARD RECTANGULAR PROFILE WOOD BEADS FOR LIGHT OPENINGS, WOOD SPECIES TO MATCH FACES. STORE AND INSTALL DOORS IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

**SECTION 08311:**

**ACCESS DOORS FRAMES:**

PROJECT INCLUDES CEILING MOUNTED ACCESS DOORS. PROVIDE FRAMES MANUFACTURED FROM 16 GAGE SHEET STEEL WITH FLANGE SUITABLE FOR ADJACENT MATERIAL. PROVIDE FLUSH PANEL DOORS MANUFACTURED FROM 14 GAGE SHEET STEEL. PROVIDE SCREWDRIVER OPERATED CAM LATCHES. PRIME DOORS AND FRAMES FOR FIELD PAINTING.

**SPECIFICATION NOTES:**

1. ALL MATERIALS AND EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COORDINATE THE WORK OF ALL SECTIONS. PROVIDE INSERTS AND TEMPLATES AS MAY BE REQUIRED FOR PROPER INSTALLATION OF WORK. INSTALL ALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. INSTALL WORK PLUMB AND LEVEL WITH UNIFORM APPEARANCE.
3. PROTECT ALL STORED MATERIALS AND WORK FROM DAMAGE.

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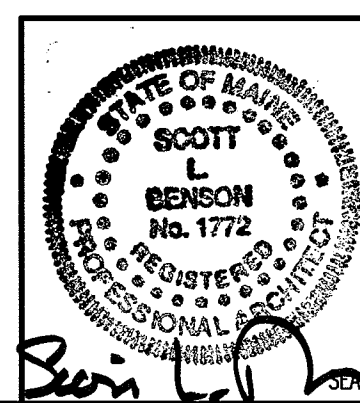


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**SECTION 08710:**

**DOOR HARDWARE:**

1. PROVIDE MATERIALS IN CONFORMANCE WITH ANSI A156 SERIES STANDARDS.
2. PROVIDE HEAVY DUTY COMMERCIAL GRADE HARDWARE OF THE FOLLOWING TYPES:

**A. HWS-1:**

- I. HINGES: MORTISE, ANTI-FRICTION BEARING TYPE, 3 PER LEAF.
- II. CYLINDER LATCH SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. PASSAGE FUNCTION.
- III. STOPS: WALL MOUNTED, BHMA A156.16. (FASTEN TO SOLID IN-WALL BLOCKING.)
- IV. DOOR SILENCERS: GRADE 1, NEOPRENE OR RUBBER, MIN. DIAMETER 1/2 " FABRICATED FOR DRILLED-IN APPLICATION TO FRAME.

**B. HWS-2:**

- I. HINGES: MORTISE, ANTI-FRICTION BEARING TYPE, 3 PER LEAF.
- II. CYLINDER LOCK SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. CLASSROOM LOCK FUNCTION.
- III. STOPS: WALL MOUNTED (FLOOR TYPE AT DOOR C102C), BHMA A156.16. (FASTEN TO SOLID IN-WALL BLOCKING.)
- IV. DOOR SILENCERS: GRADE 1, NEOPRENE OR RUBBER, MIN. DIAMETER 1/2 " FABRICATED FOR DRILLED-IN APPLICATION TO FRAME.

**C. HWS-3:**

- I. HINGES: MORTISE, ANTI-FRICTION BEARING TYPE, 3 PER LEAF.
- II. CYLINDER LOCK SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. CLASSROOM LOCK FUNCTION.
- III. CLOSER: EQUAL TO LCN 4030 SERIES.
- IV. ELECTRICALLY CONTROLLED DOOR HOLDING MAGNET: EQUAL TO LCM SEM 7830.
- V. STOPS: WALL MOUNTED, BHMA A156.16. (FASTEN TO SOLID IN-WALL BLOCKING.)
- VI. DOOR SILENCERS: GRADE 1, NEOPRENE OR RUBBER, MIN. DIAMETER 1/2 " FABRICATED FOR DRILLED-IN APPLICATION TO FRAME.

**D. HWS-4:**

- I. HINGES: MORTISE, ANTI-FRICTION BEARING TYPE, 3 PER LEAF.
- II. CYLINDER LOCK SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. PRIVACY/BATHROOM FUNCTION.
- III. CLOSER: EQUAL TO LCN 4030 SERIES.
- IV. STOP: WALL MOUNTED, BHMA A156.16.
- V. DOOR SILENCERS: GRADE 1, NEOPRENE OR RUBBER, MIN. DIAMETER 1/2 " FABRICATED FOR DRILLED-IN APPLICATION TO FRAME.

**E. HWS-5:**

- I. REMOVE EXISTING LOCKSET. PROVIDE - CYLINDER LATCH SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. PASSAGE FUNCTION. VERIFY BACKSET & THROW AGAINST EXISTING DOOR PREPARATION PRIOR TO ORDERING.

**F. HWS-6:**

- I. REMOVE EXISTING LOCKSET. PROVIDE - CYLINDER LOCK SET: EQUAL TO SCHLAGE D-SERIES WITH SPARTA LEVER HANDLE, 2-3/4" BACKSET, 1/2" THROW AND CLOSED BACK STRIKE. CLASSROOM FUNCTION. VERIFY BACKSET & THROW AGAINST EXISTING DOOR PREPARATION PRIOR TO ORDERING.

PROVIDE HARDWARE AND INSTALLATION IN COMPLIANCE WITH REQUIREMENTS OF ADA ACCESSIBILITY GUIDELINES.

3. PROVIDE BLOCKING FOR SECURE FASTENING OF ALL HARDWARE ITEMS MOUNTED TO WALL ASSEMBLIES.
4. FINISHES TO BE BRUSHED STAINLESS OR BRUSHED CHROME.

**SPECIFICATION NOTES:**

1. ALL MATERIALS AND EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COORDINATE THE WORK OF ALL SECTIONS. PROVIDE INSERTS AND TEMPLATES AS MAY BE REQUIRED FOR PROPER INSTALLATION OF WORK. INSTALL ALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. INSTALL WORK PLUMB AND LEVEL WITH UNIFORM APPEARANCE.
3. PROTECT ALL STORED MATERIALS AND WORK FROM DAMAGE.

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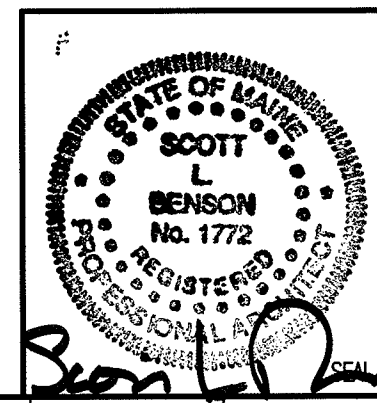


SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES  
 LOCATION

ISSUED FOR PERMITTING AND  
 CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: MLE  
 A/E OF RECORD: SLB  
 CAD FILE: A-002-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10  
 SHEET TITLE:  
**MATERIAL SPECIFICATIONS**  
 SHEET No. **A-002**  
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**SECTION 08800:**

**GLAZING:**

1. PRODUCTS AND INSTALLATION SHALL COMPLY WITH 16 CFR 1201, AND GANA GLAZING MANUAL.
2. PROVIDE FULLY TEMPERED, HEAT-TREATED FLOAT GLASS IN BOTH DOOR VISION PANELS & INTERIOR WINDOW ASSEMBLIES. PROVIDE GLAZING ACCESSORIES INCLUDING GASKETS, SEALANTS AND TAPES AS REQUIRED FOR INSTALLATION IN CONFORMANCE WITH REFERENCED STANDARDS AND GLASS MANUFACTURER'S RECOMMENDATIONS.

**SECTION 09260:**

**GYPSUM BOARD ASSEMBLIES:**

1. PROVIDE 1/4", 3/8", & 5/8" GYPSUM WALLBOARD, ASTM C36. PAPER TAPE, METAL OR PLASTIC CORNER BEAD AND EDGE TRIM, AND SETTING TYPE JOINT COMPOUND, ASTM C 475.
2. AT THE OWNER SUPPLIED CYCLORAMA & ADJACENT SURFACES, PROVIDE JOINT COMPOUND & TAPE AS RECOMMENDED BY THE CYCLORAMA MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE 3-1/2" STEEL RUNNERS, STEEL STRAPPING, AND RC-1 RESILIENT STEEL CHANNELS COMPLYING WITH ASTM C 645 WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT ZINC COATING. PROVIDE MATERIAL THICKNESS TO MEET DEFLECTION CRITERIA OF STUD LENGTH DIVIDED BY 240, AND DEPTH AS INDICATED ON THE CONSTRUCTION DRAWINGS.
4. PROVIDE FASTENERS CONFORMING WITH WALLBOARD AND FRAMING MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR APPLICATION. PROVIDE INSTALLATION IN CONFORMANCE WITH ASTM C 754.
5. PROVIDE TYPE 1 SOUND ATTENUATION BLANKETS WHERE INSULATION IS INDICATED ON DRAWINGS.
6. PROVIDE ASTM C 840, LEVEL 4 FINISH TO ALL WALLBOARD SURFACES EXPOSED TO VIEW, UNLESS NOTED OTHERWISE. PROVIDE LEVEL 1 FINISH TO CONCEALED AREAS.
7. AT THE CURVED WALL DESCRIBED ON THE CONTRACT DRAWINGS PROVIDE 3-1/2" STEEL CHANNELS AT TOP & BOTTOM OF WOOD STUD WALL FRAMING. PROVIDE CHANNEL SPLICES, STRAPPING, & STUD SPACING AS RECOMMENDED BY THE GWB MANUFACTURER'S RECOMMENDATIONS FOR A CURVED WALL. WET 1/4" & 3/8" GWB AS RECOMMENDED BY THE GWB MANUFACTURER TO ACHIEVE THE DESCRIBED RADIUS.
8. **CYCLORAMA FLOOR COVE:**  
 MANUFACTURER: PRO CYC  
 1593 WILLAMETTE FALLS DRIVE  
 WEST LINN, OR 97068  
 PHONE: 503-723-7448  
 PRODUCT: SYSTEM 1.5EZ FLOOR COVE  
 PROVIDE AS DESCRIBED ON THE DRAWINGS. INSTALL PER THE MANUFACTURER'S WRITTEN RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO FINISHING JOINTS AND EDGES & PREPARATION FOR PRIMER & PAINT. PROVIDE A SEAMLESS TRANSITION BETWEEN ALL JOINTS & EDGES.

**SECTION 09511:**

**ACOUSTIC PANEL CEILINGS:**

1. PROVIDE 24X48X3/4 INCH MINERAL BASE PANELS WITH REVEAL EDGE, FISSURED PATTERN AND WHITE PAINTED FINISH EQUAL TO ARMSTRONG "FINE FISSURED SECOND LOOK.."
2. PROVIDE DIRECT HUNG, WIDE-FACE INTERMEDIATE DUTY, DOUBLE-WEB CAPPED STEEL SUSPENSION SYSTEM WITH PAINTED FINISH. PROVIDE ACCESSORIES AS RECOMMENDED BY MANUFACTURER, AND ASTM C 636.

**SECTION 09650:**

**RESILIENT VINYL TILE FLOORING:**

1. PROVIDE ASTM F 1066, CLASS 2, 12X12X1/8 INCH, SMOOTH SURFACED, VINYL COMPOSITION FLOOR TILE, EQUAL TO ARMSTRONG, STANDARD EXCELON, COLOR AS SELECTED BY OWNER.
2. PROVIDE ASTM F 1861, 4 INCH HIGH, GROUP 1, COVE STYLE VINYL WALL BASE WITH JOB FORMED CORNERS, COLOR AS SELECTED BY OWNER.
3. PROVIDE PORTLAND CEMENT BASED LEVELING AND PATCHING COMPOUND, AND WATER-RESISTANT ADHESIVES OF TYPE RECOMMENDED BY TILE AND BASE MANUFACTURERS.
4. INSTALL TILE OVER SOUND, CLEAN, SMOOTH SUBSTRATE IN ALTERNATING "CHECKERBOARD" PATTERN.
5. CLEAN AND POLISH RESILIENT TILE AFTER INSTALLATION. COORDINATE SELECTION OF FLOOR POLISH WITH OWNER'S MAINTENANCE STAFF.
6. PROVIDE VCT EDGE STRIP AT THE TRANSITION BETWEEN CONC & VCT AT THE CYCLORAMA.

**SECTION 09910:**

**PAINTING:**

1. PROJECT INCLUDES SURFACE PREPARATION AND PAINT FOR INTERIOR SURFACES AS SCHEDULED. PROVIDE SURFACE PREPARATION, PRIMER & PAINT APPLICATION AS RECOMMENDED BY THE PRIMER & PAINT MANUFACTURER. PROVIDE COMPATIBLE, FIRST GRADE, LOW V.O.C., PROFESSIONAL LINE PRIMER AND FINISH PRODUCTS FROM EITHER BENJAMIN MOORE OR SHERWIN WILLIAMS. PROVIDE SAMPLES OF FULL RANGE OF MANUFACTURER'S COLOR AND FINISH OPTIONS FOR OWNER SELECTION.
2. AT THE CYCLORAMA FLOOR COVE & ADJACENT WALL & FLOOR SURFACES, PROVIDE KILZ PREMIUM ACRYLIC PRIMER & COMPOSITE DIGITAL GREEN FINISH PAINT AS SPECIFIED BY COMPOSITE COMPONENTS COMPANY, 134 N. AVENUE 61, UNIT 103, LOS ANGELES, CA 90042. TEL: (323) 257-1163

**PROVIDE PAINT AS FOLLOWS:**

- A. **GYPSUM DRYWALL:** 1 COAT LATEX PRIMER, AND TWO COATS LATEX PEARL FINISH.
- B. **FERROUS METALS:** 1 COAT RUST INHIBITING PRIMER, AND TWO COATS LATEX SEMI-GLOSS ENAMEL FINISH.
- C. **GYPSUM DRYWALL, CONCRETE FLOOR & CYCLORAMA FLOOR COVE IN THE STUDIO:** 2 COATS PRIMER, 3 COATS DIGITAL GREEN PAINT.
- D. **EPOXY PAINT IN TOILETS:** 1 COAT PRIMER, 2 COATS GLOSS FINISH.
- E. **NON-SPECULAR BLACK PAINT AT EXTERIOR WINDOWS:** 1 COAT PRIMER, 2 COATS FINISH.

**SECTION 10810:**

**TOILET ACCESSORIES:**

1. PROVIDE TOILET ACCESSORIES EQUAL TO THOSE MANUFACTURED BY BOBRICK WASHROOM EQUIPMENT AS FOLLOWS:
  - A. MIRROR: B-290
  - B. 42 INCH AND 36 INCH FIXED GRAB BAR: B-550 SERIES
2. INSTALL TOILET ACCESSORIES FURNISHED BY OWNER AS FOLLOWS:
  - A. SOAP DISPENSER
  - B. SURFACE MOUNTED PAPER TOWEL DISPENSER
  - C. TOILET TISSUE DISPENSER
3. INSTALL ACCESSORIES IN ACCORDANCE WITH ADAAG REQUIREMENTS FOR HANDICAPPED ACCESSIBILITY. SECURELY FASTEN ACCESSORIES TO SOLID, IN-WALL WOOD BLOCKING.

**SPECIFICATION NOTES:**

1. ALL MATERIALS AND EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COORDINATE THE WORK OF ALL SECTIONS. PROVIDE INSERTS AND TEMPLATES AS MAY BE REQUIRED FOR PROPER INSTALLATION OF WORK. INSTALL ALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. INSTALL WORK PLUMB AND LEVEL WITH UNIFORM APPEARANCE.
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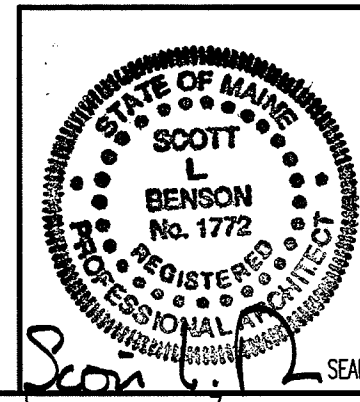
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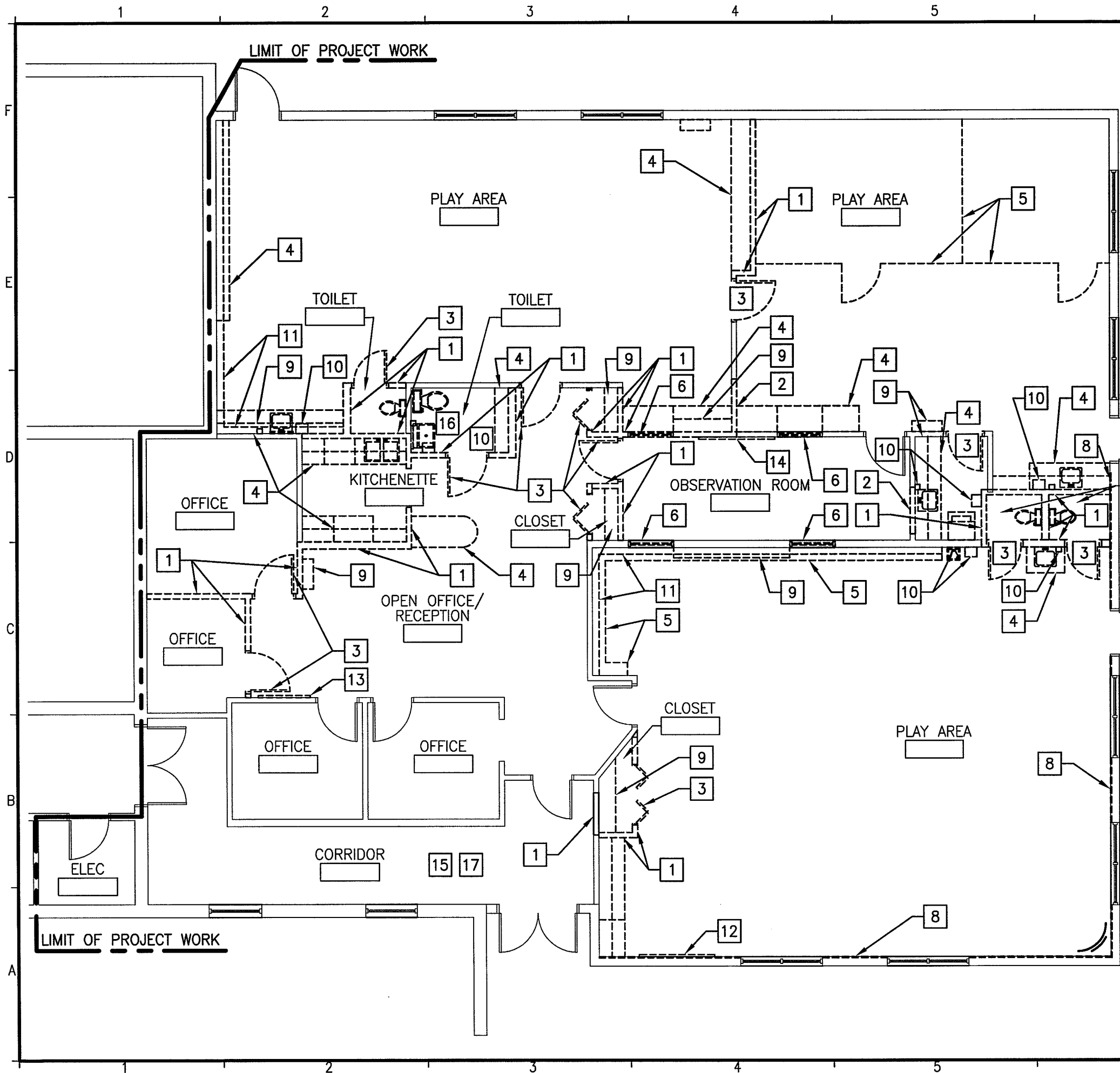
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A/E OF RECORD:	SLB
CAD FILE:	A-003-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**MATERIAL SPECIFICATIONS**

SHEET No. **A-003**  
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**GENERAL NOTES:**

1. SEE G1002 FOR GENERAL NOTES.

**REMOVALS NOTES:**

1. SEE DRAWING AD101A FOR REMOVAL KEY NOTE DESCRIPTIONS
2. COORDINATE EXTENT OF ALL REMOVALS W/ NEW FINISHES & FINISHES TO REMAIN. PATCH & REPAIR ALL DAMAGE TO EXISTING FINISHES TO REMAIN. PREPARE FINISH SUBSTRATES FOR APPLICATION OF FINISH SURFACES IN ACCORDANCE W/ SURFACE MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. REMOVE EXISTING CEILING SYSTEM AT ALL SPACES WITHIN THE LIMIT OF PROJECT WORK IN ITS ENTIRETY, ACCEPT AT THE MAIN ENTRANCE CORRIDOR AS INDICATED BY REMOVALS KEY NOTE FIFTEEN.
4. REMOVE EXISTING FLOORING SYSTEM AT ALL SPACES WITHIN THE LIMIT OF PROJECT WORK IN ITS ENTIRETY, ACCEPT AT THE MAIN ENTRANCE CORRIDOR AS INDICATED BY REMOVALS KEY NOTE SEVENTEEN.

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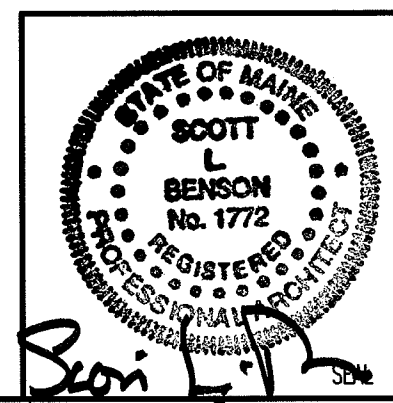
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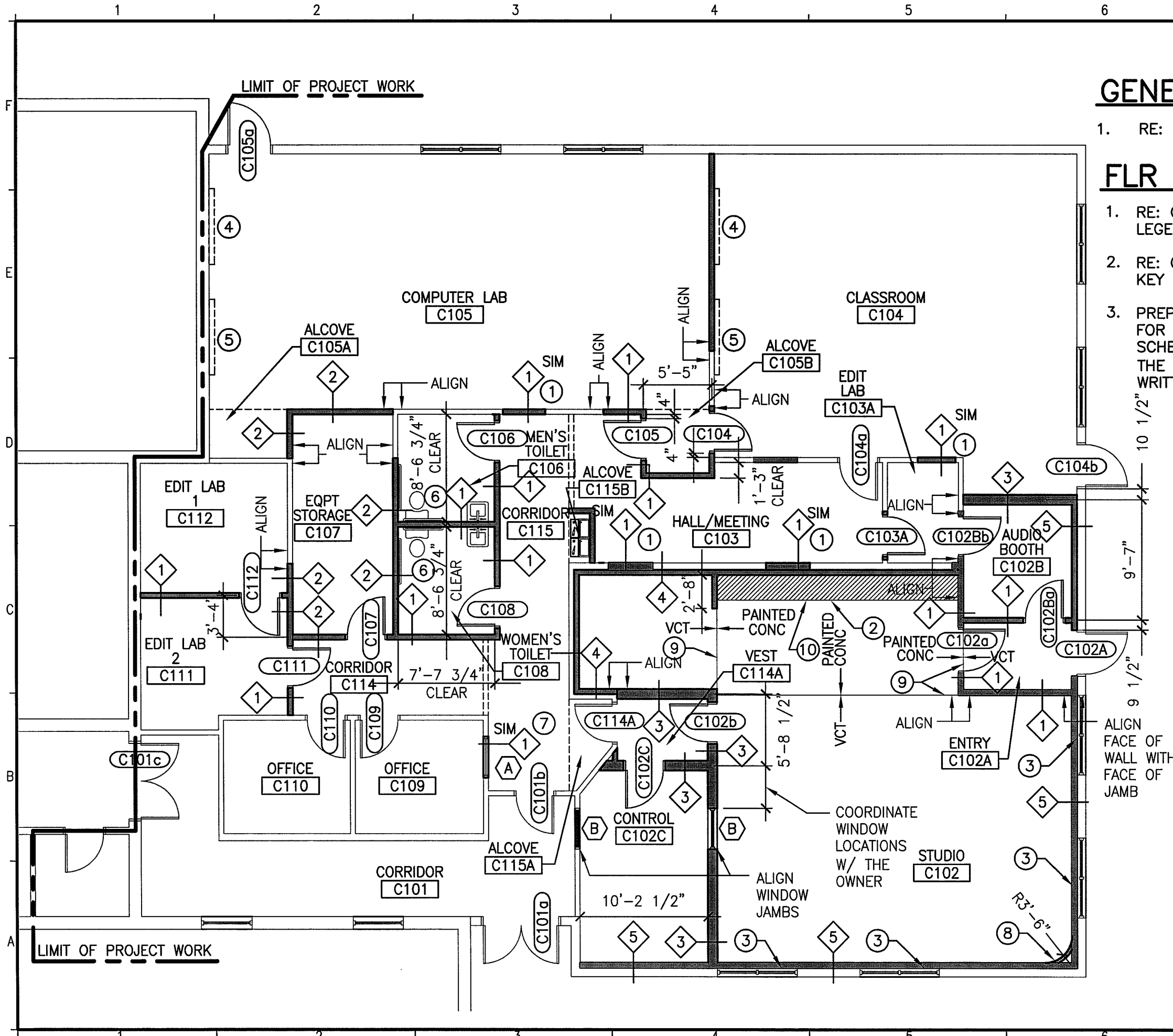
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JC/DRAWN BY:	MLE
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CAD FILE:	AD101-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**REMOVALS PLAN**

SHEET No.  
**AD101**  
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**GENERAL NOTES:**

1. RE: G1002 FOR GENERAL NOTES.

**FLR PLAN NOTES:**

1. RE: G1004 FOR PARTITION LEGEND.
2. RE: G1005 FOR FLOOR PLAN KEY NOTE DESCRIPTIONS
3. PREPARE ALL SUBSTRATES FOR APPLICATION OF SCHEDULED FINISHES PER THE FINISH MANUFACTURER'S WRITTEN RECOMMENDATIONS.

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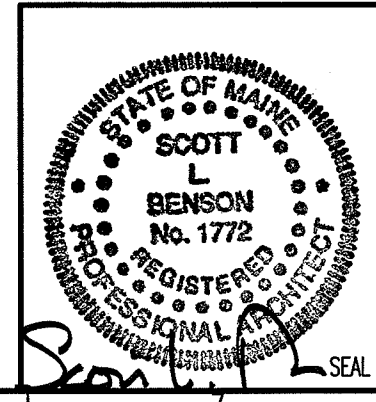
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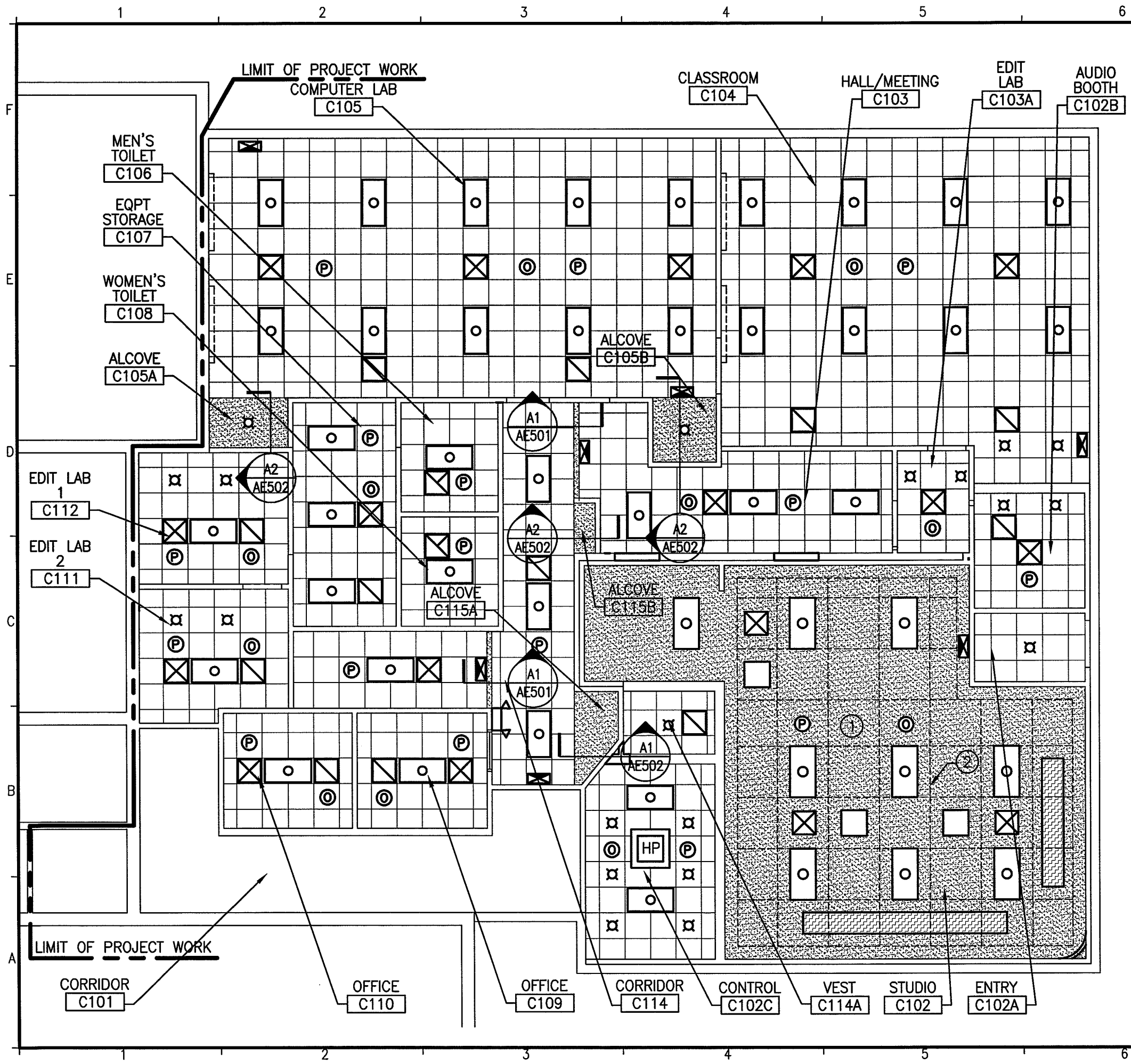
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 RENOVATION FOR COMMUNICATION  
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PROJECT NORTH

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CURRENT ISSUE STATUS:			
1	OWNER RESPONSE	3-22-10	REV
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	REV
	DESCRIPTION		DATE

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CAD FILE:	AE101-09109
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DATE:	3-15-10
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SHEET No.	AE101
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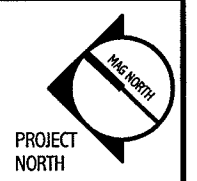
**GENERAL NOTES:**

1. RE: G1002 FOR GENERAL NOTES.

**RCP NOTES:**

1. RE: G1005 FOR REFLECTED CEILING PLAN NOTES, LEGEND, AND KEY NOTE DESCRIPTIONS.

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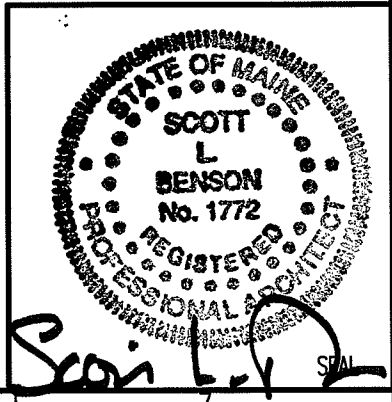
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 & MEDIA STUDIES**

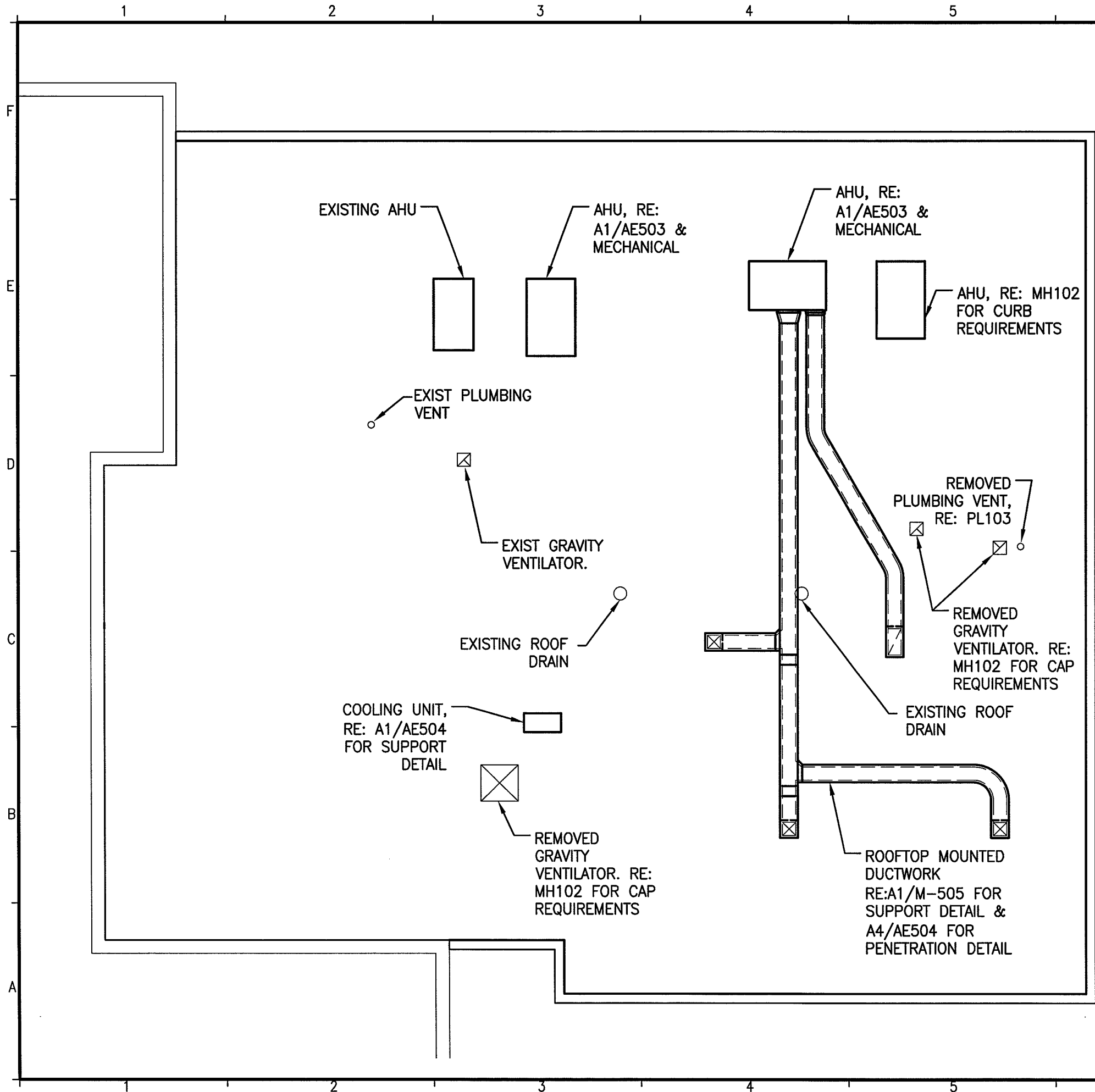
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CAD FILE:	AE102-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**REFLECTED CEILING PLAN**

SHEET No.  
**AE102**  
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**GENERAL NOTES:**

- RE: G1002 FOR GENERAL NOTES.

**ROOF PLAN NOTES:**

- RE: AE503 FOR ROOFTOP MOUNTING LOCATION INFORMATION.

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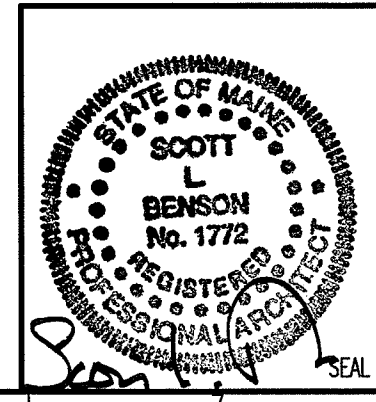
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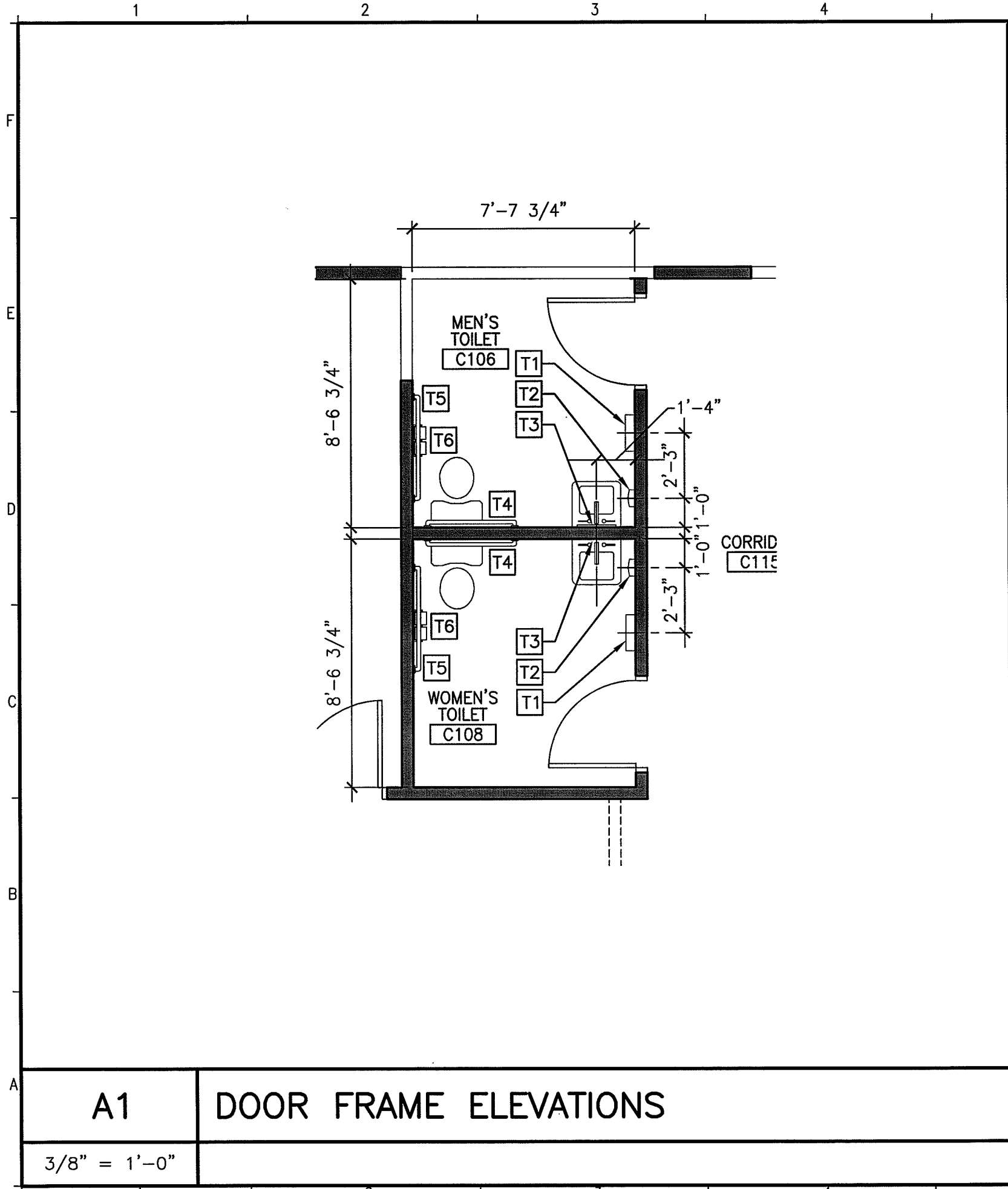
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JC/DRAWN BY:	MLE
A/E OF RECORD:	SLB
CAD FILE:	AE103-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**ROOF PLAN**

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**GENERAL NOTES:**

1. SEE G1002 FOR PROJECT GENERAL NOTES.
2. REFER TO SHEET G1003 FOR TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES, RESTROOM ACCESSORIES & MISCELLANIOUS ITEMS.
3. LARGE SCALE PLAN DIMENSIONS ARE FROM FACE OF FINISH.
4. "TX" DENOTES TOILET ACCESSORY KEYNOTES

**TOILET ACCESSORY KEY NOTES:**

- [T1] PAPER TOWEL DISPENSER AND RECEPTACLE
- [T2] SOAP DISPENSER
- [T3] MIRROR
- [T4] 36" GRAB BAR
- [T5] 42" GRAB BAR
- [T6] TOILET TISSUE DISPENSER

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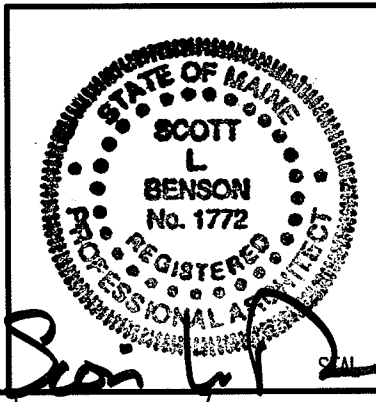
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PROJECT NORTH

ISSUED FOR PERMITTING AND CONSTRUCTION		3-15-10	DATE
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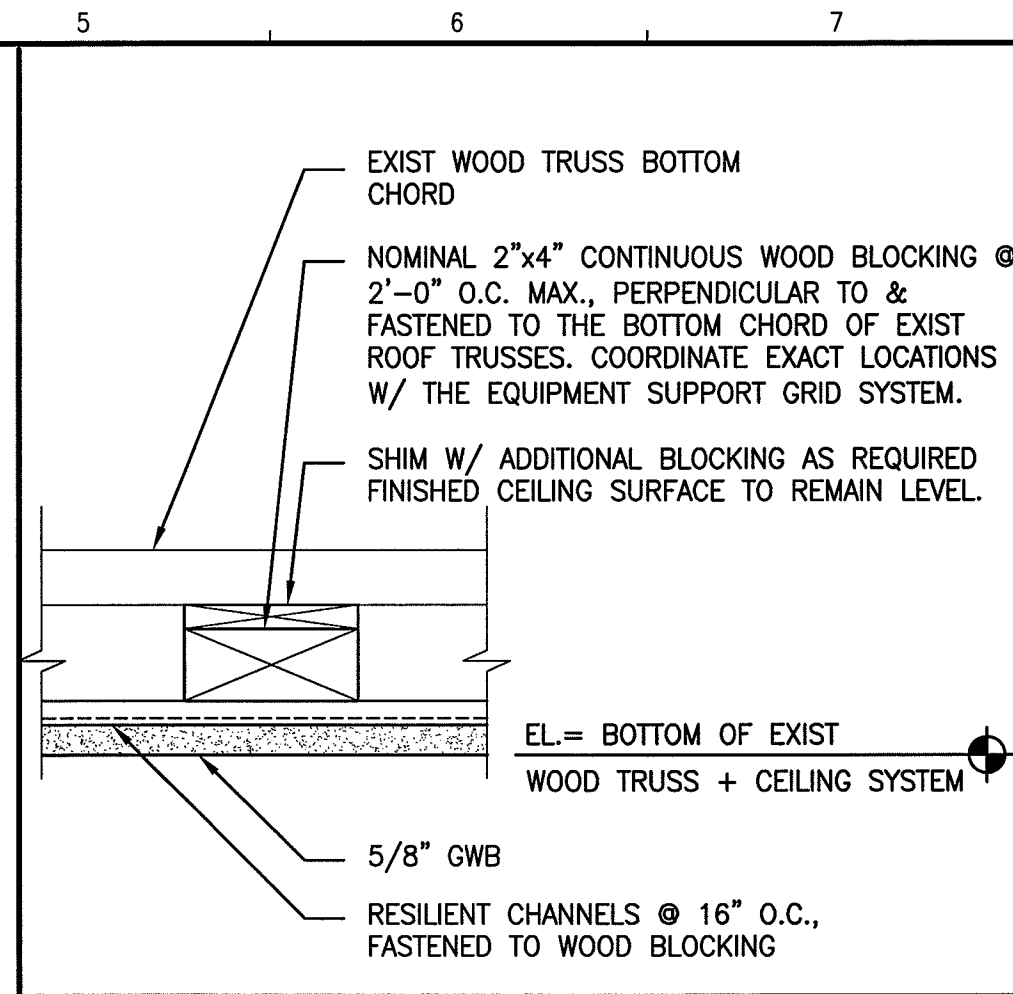
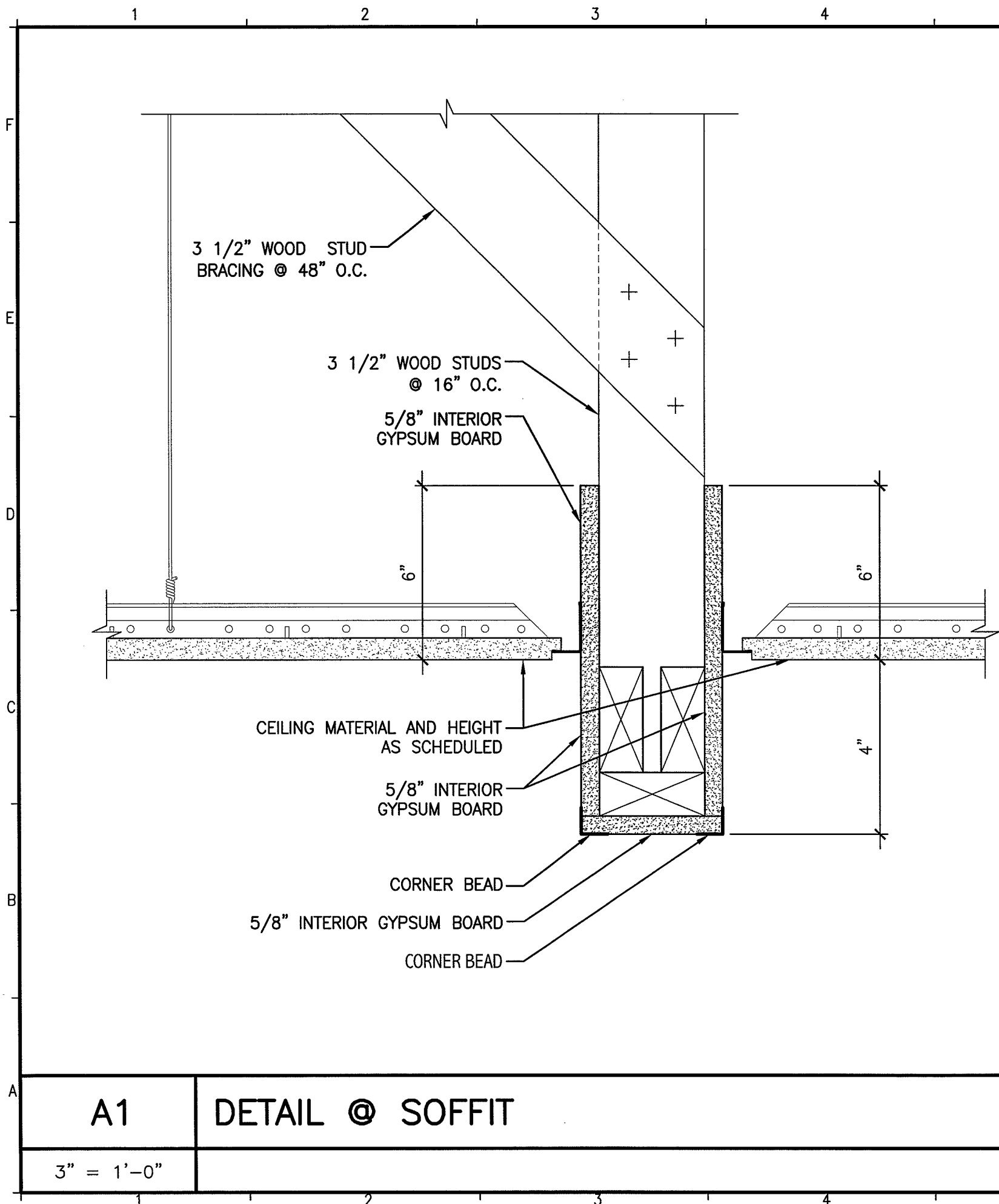
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PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:	LARGE SCALE PLAN
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A1 DOOR FRAME ELEVATIONS

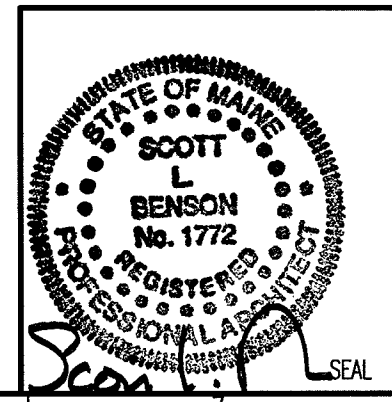
3/8" = 1'-0"



**C5**      **CEILING DETAIL**

**GENERAL NOTES:**

1. RE: G1002 FOR GENERAL NOTES.



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3-15-10

REV	DESCRIPTION	DATE
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CURRENT ISSUE STATUS:  
3-15-10

SCALE: AS NOTED

PROJECT MANAGER: SLB

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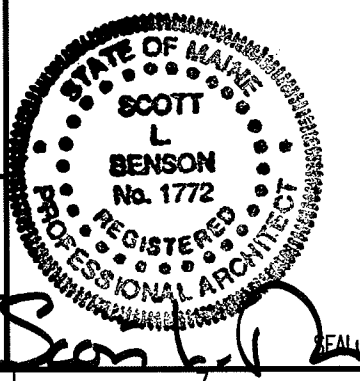
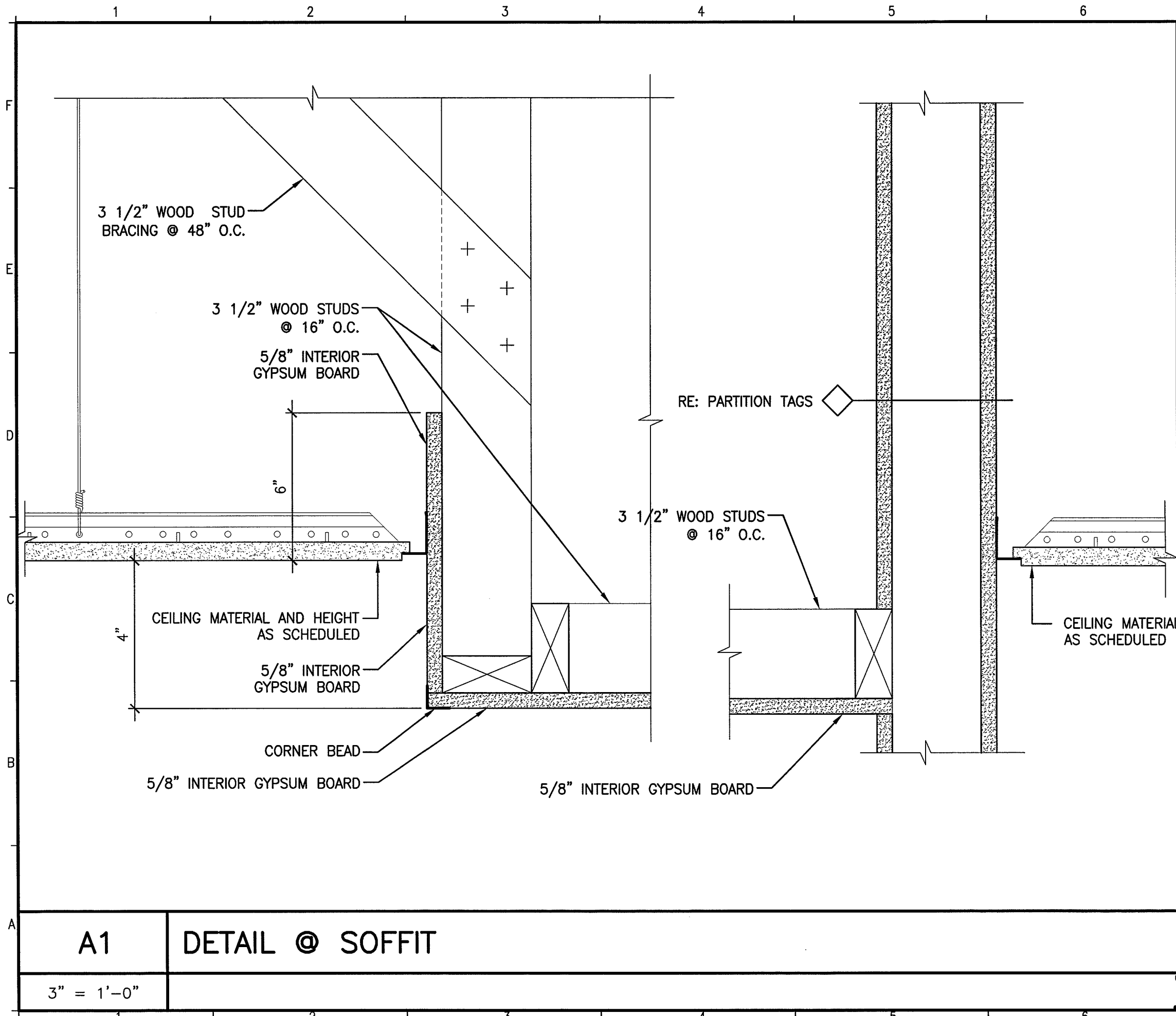
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SHEET TITLE:  
**INTERIOR DETAILS**

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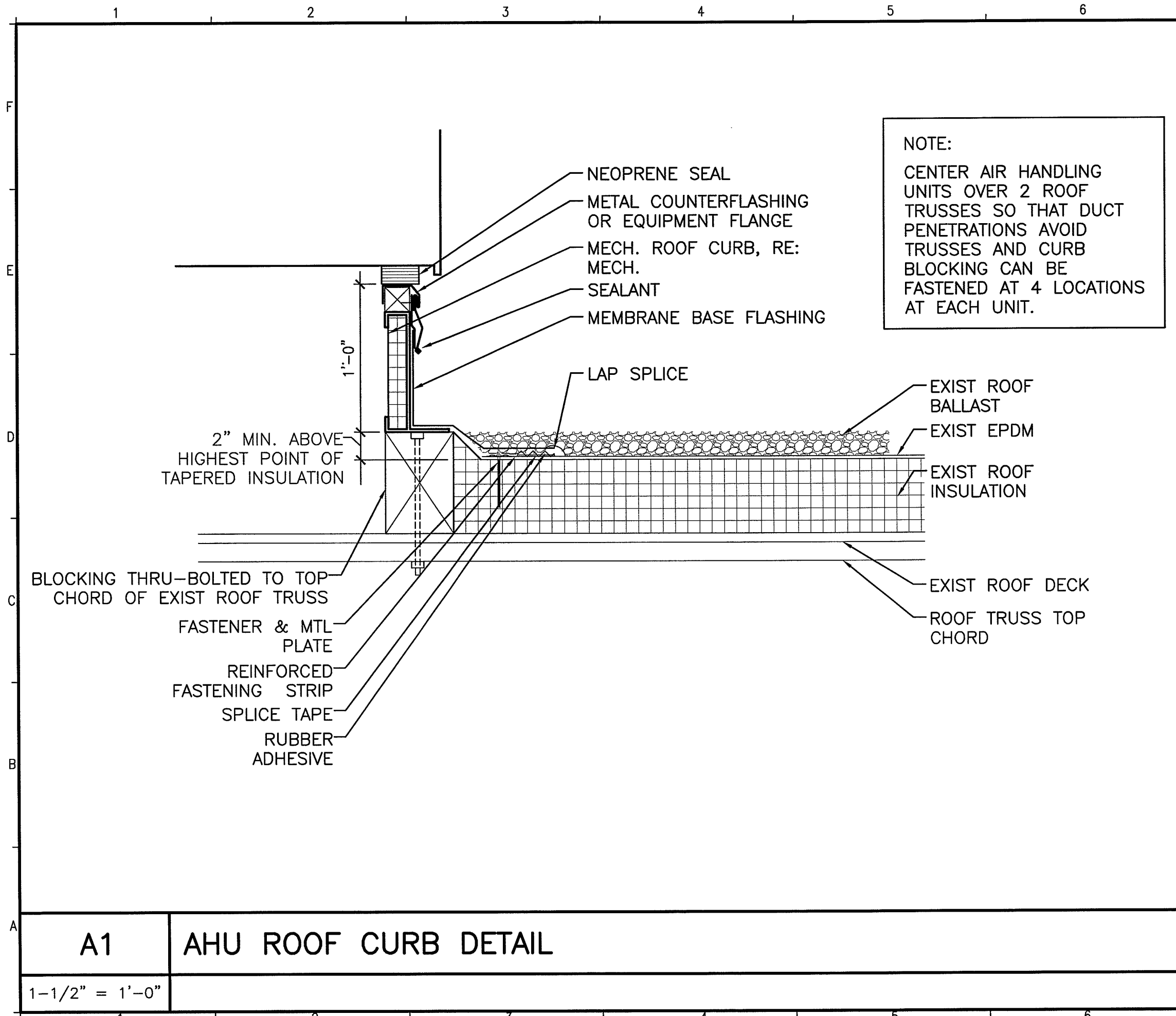
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 A/E OF RECORD: SLB  
 CAD FILE: AE502-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

SHEET TITLE:  
**INTERIOR DETAILS**

SHEET No. **AE502**  
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**A1**      **DETAIL @ SOFFIT**

3" = 1'-0"



**NOTE:**  
 CENTER AIR HANDLING UNITS OVER 2 ROOF TRUSSES SO THAT DUCT PENETRATIONS AVOID TRUSSES AND CURB BLOCKING CAN BE FASTENED AT 4 LOCATIONS AT EACH UNIT.

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 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES  
 LOCATION

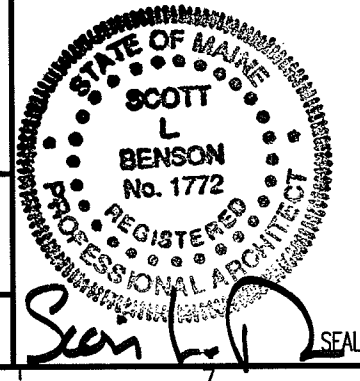
ISSUED FOR PERMITTING AND CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: AS NOTED  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: MLE  
 A/E OF RECORD: SLB  
 CAD FILE: AE503-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

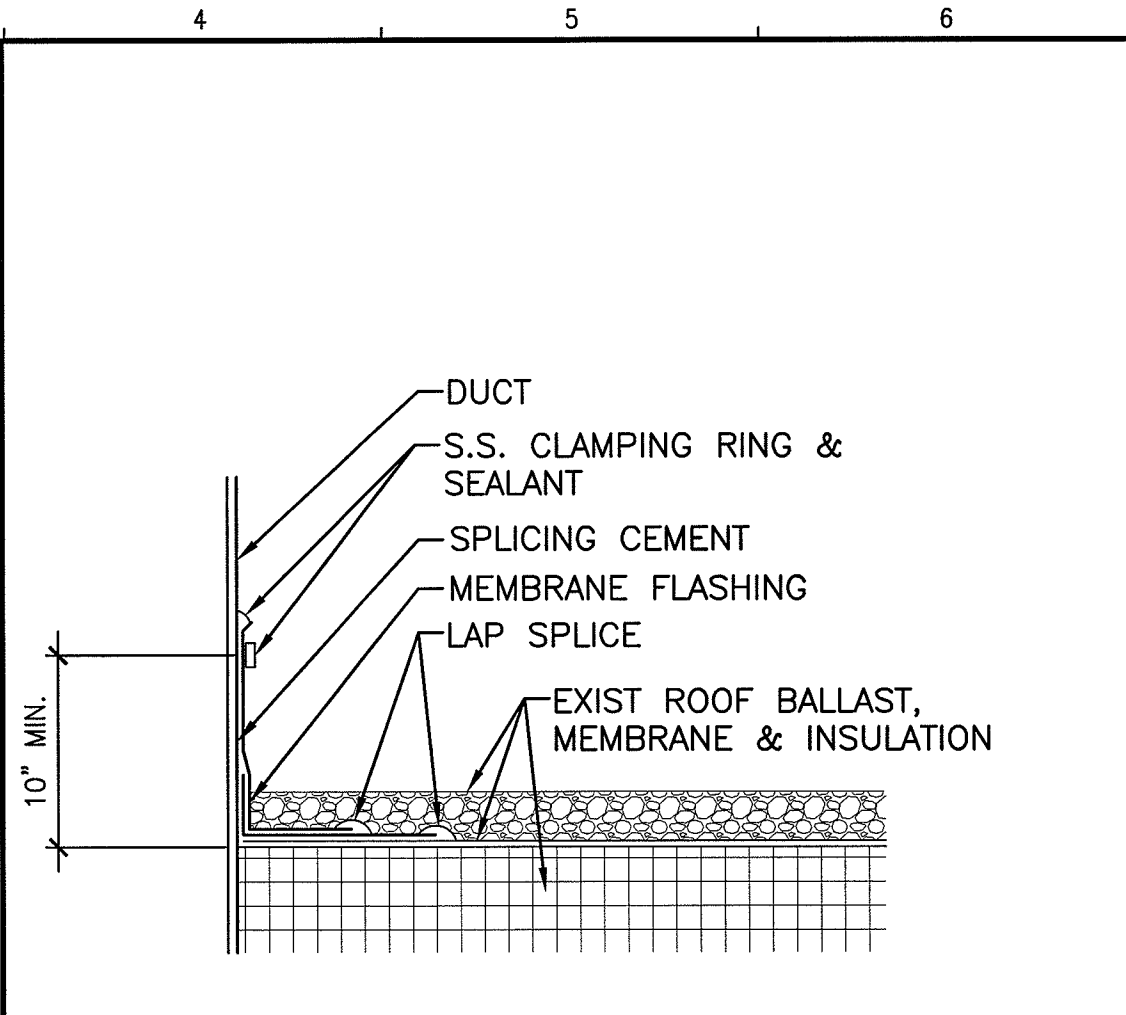
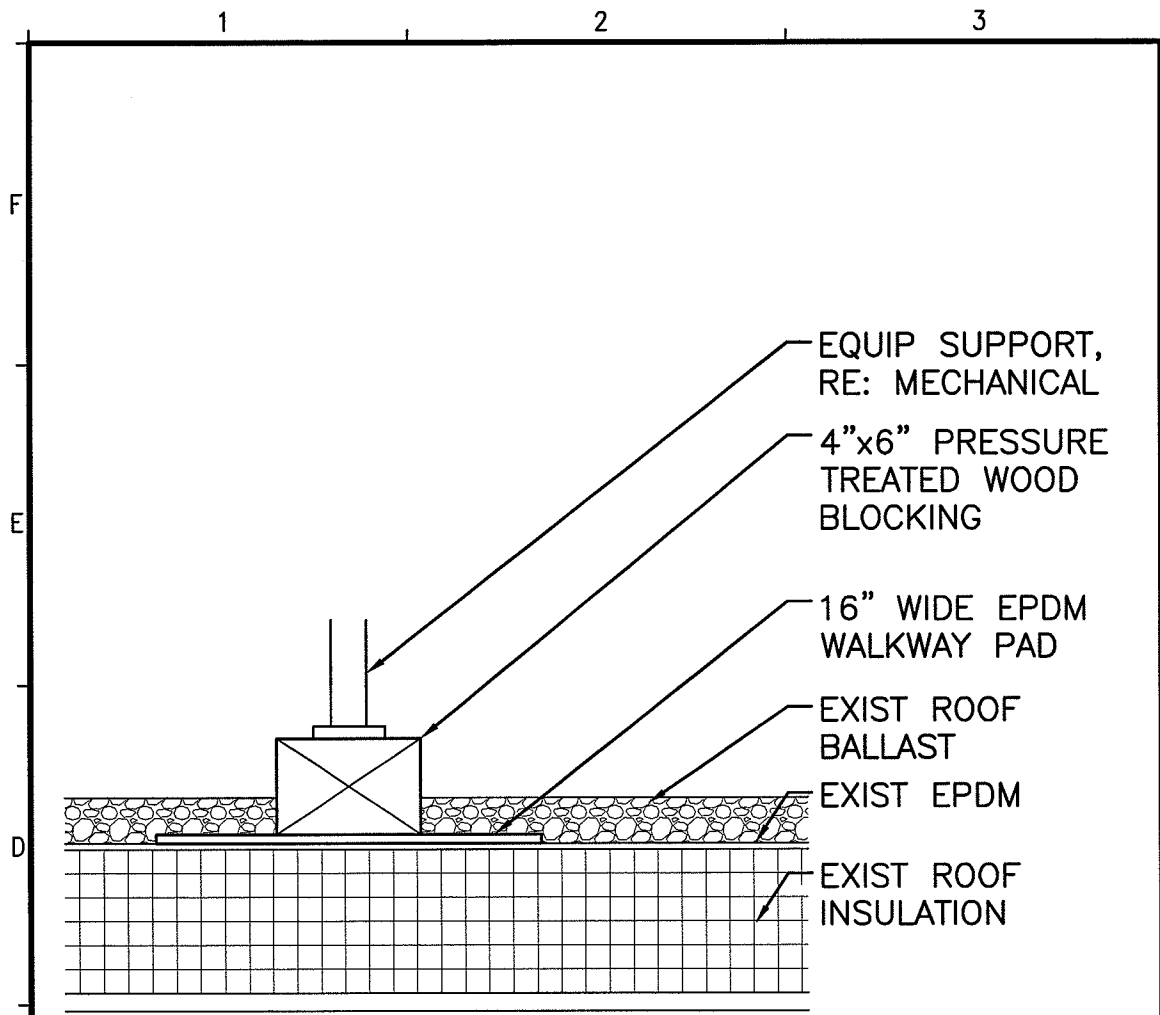
SHEET TITLE:  
**ROOF DETAILS**

SHEET No. **AE503**  
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**A1** AHU ROOF CURB DETAIL  
 1-1/2" = 1'-0"





EQUIP SUPPORT,  
RE: MECHANICAL

4"x6" PRESSURE  
TREATED WOOD  
BLOCKING

16" WIDE EPDM  
WALKWAY PAD

EXIST ROOF  
BALLAST

EXIST EPDM

EXIST ROOF  
INSULATION

EXIST ROOF DECK  
& SUPPORT

DUCT

S.S. CLAMPING RING &  
SEALANT

SPLICING CEMENT

MEMBRANE FLASHING

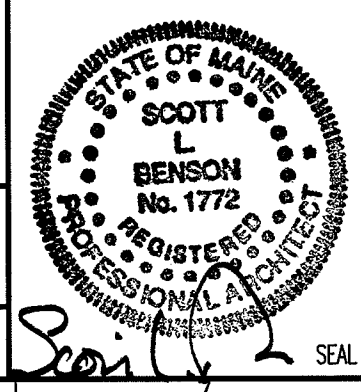
LAP SPLICE

EXIST ROOF BALLAST,  
MEMBRANE & INSULATION

10" MIN.

A1	SLEEPER DETAIL
1-1/2" = 1'-0"	

A4	DUCT PENETRATION
1-1/2" = 1'-0"	



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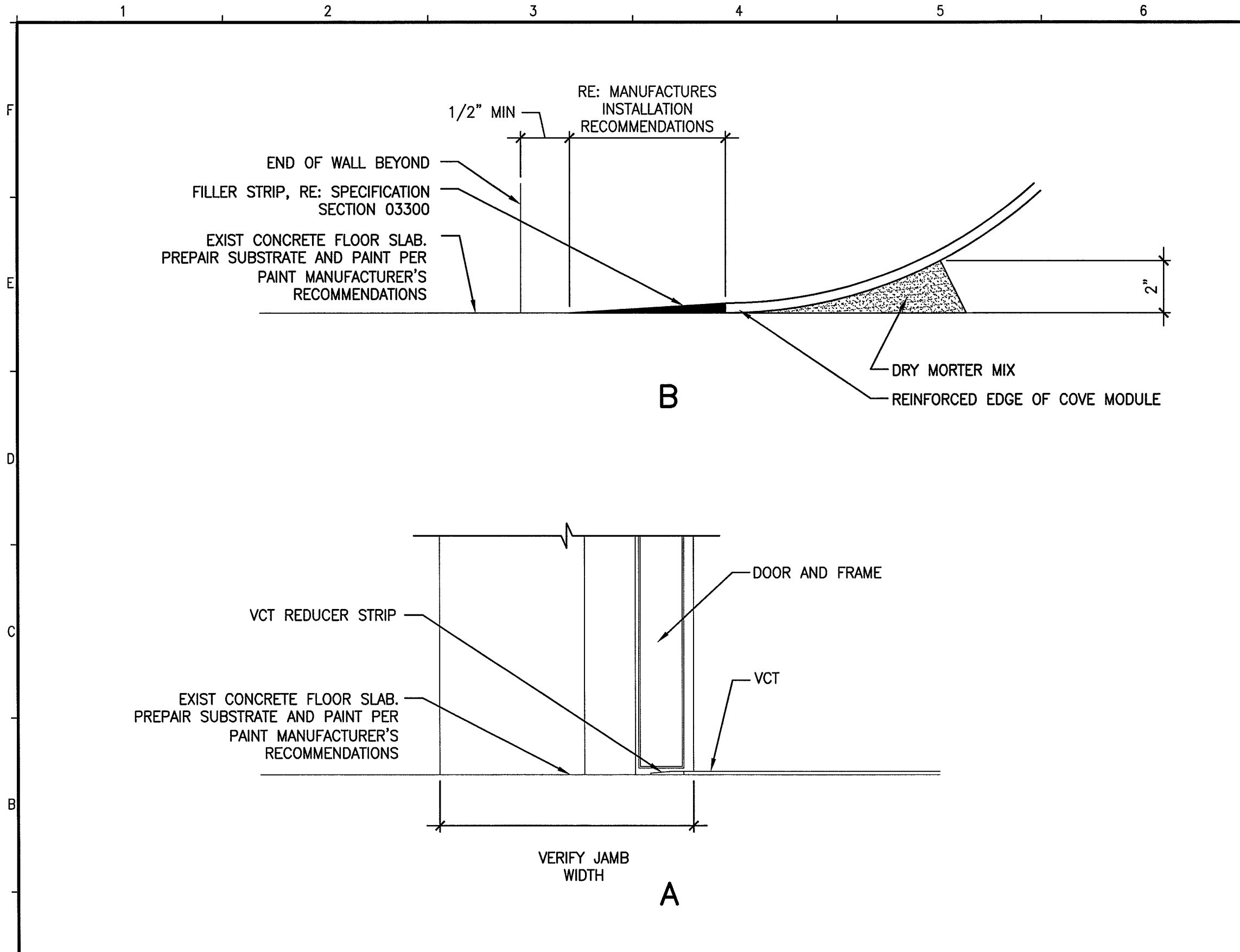
LOCATION

ISSUED FOR PERMITTING AND CONSTRUCTION		3-15-10	
CURRENT ISSUE STATUS:			
1	OWNER RESPONSE	3-22-10	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
REV	DESCRIPTION		DATE

SCALE:	AS NOTED
PROJECT MANAGER:	SLB
JC/DRAWN BY:	MLE
A/E OF RECORD:	SLB
CAD FILE:	AE504-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**ROOF DETAILS**

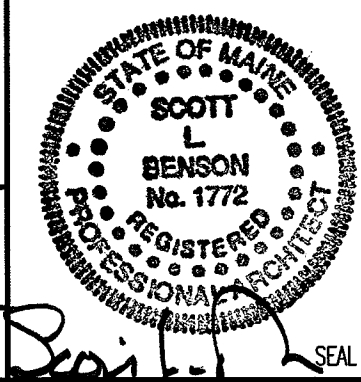
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A1

FLOOR TRANSITION DETAILS

3" = 1'-0"



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ISSUED FOR PERMITTING AND CONSTRUCTION		3-15-10	DATE
CURRENT ISSUE STATUS:			
1	OWNER RESPONSE	3-22-10	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
REV	DESCRIPTION		

SCALE:	AS NOTED
PROJECT MANAGER:	SLB
JC/DRAWN BY:	MLE
A/E OF RECORD:	SLB
CAD FILE:	AE505-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
FLOOR TRANSITION  
DETAILS

SHEET No. **AE505**  
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# ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING		ROOM NUMBER	REMARKS
				NORTH	SOUTH	EAST	WEST	MATERIAL	HEIGHT		
C101	CORRIDOR	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C101	
C102	STUDIO	VCT/PT-CONC	RB	PT	PT	PT	PT	GWB	*	C102	* SEE DETAIL C5/AE505
C102A	ENTRY	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C102A	
C102B	AUDIO BOOTH	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C102B	
C102C	CONTROL	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C102C	
C103	HALL/MEETING	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C103	
C103A	EDIT LAB	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C103A	
C104	CLASSROOM	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C104	
C105	CLASSROOM	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C105	
C105A	ALCOVE	VCT	RB	PT	PT	PT	PT	ACT	7'-8"	C105A	
C105B	ALCOVE	VCT	RB	PT	PT	PT	PT	ACT	7'-8"	C105B	
C106	MEN'S TOILET	VCT	RB	EPT	EPT	EPT	EPT	ACT	8'-0"	C106	
C107	EQPT STORAGE	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C107	
C108	WOMEN'S TOILET	VCT	RB	EPT	EPT	EPT	EPT	ACT	8'-0"	C108	
C109	OFFICE	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C109	
C110	OFFICE	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C110	
C111	EDIT LAB 2	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C111	
C112	EDIT LAB 1	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C112	
C114	CORRIDOR	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C114	
C114A	VEST	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C114A	
C115	CORRIDOR	VCT	RB	PT	PT	PT	PT	ACT	8'-0"	C115	
C115A	ALCOVE	VCT	RB	PT	PT	PT	PT	ACT	7'-8"	C115A	
C115B	ALCOVE	VCT	RB	PT	PT	PT	PT	ACT	7'-8"	C115B	

## FINISH ABBREVIATIONS

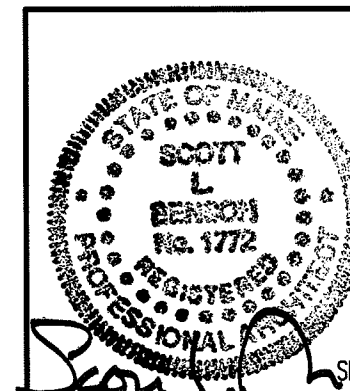
ACT	ACOUSTICAL CEILING TILE
CONC	EXISTING CONCRETE FLOOR SLAB
GWB	GYPSUM WALLBOARD
PT	PAINT
VCT	VINYL TILE
WM	WIRE MESH

## FINISH NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING FINISH MATERIALS.
2. PATCH & REPAIR EXISTING GWB PARTITIONS TO CREATE A CONTINUOUS SMOOTH SURFACE READY TO RECEIVE PAINT.
3. CONTRACTOR SHALL FIELD VERIFY WALL SUBSTRATES TO BE PATCHED, FILLED, & OTHERWISE PREPARED TO RECEIVE PRIMER & FINISH PAINT SURFACE IN ACCORDANCE WITH PAINT MANUFACTURER'S REQUIREMENTS
4. FINISH PAINT ALL EXISTING DOOR FRAMES TO REMAIN, WITHIN SPACES SCHEDULED TO RECEIVE PAINT.
5. RE: A1/AE505 FOR FLOOR TRANSITION STRIP DETAILS.

## GENERAL NOTES:

1. SEE G1001 FOR GENERAL NOTES.



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CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
1	OWNER RESPONSE	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: N/A  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: MLE  
 A/E OF RECORD: SLB  
 CAD FILE: AE601-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

SHEET TITLE:  
**ROOM FINISH  
 SCHEDULE**

SHEET No. **AE601**  
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# DOOR SCHEDULE

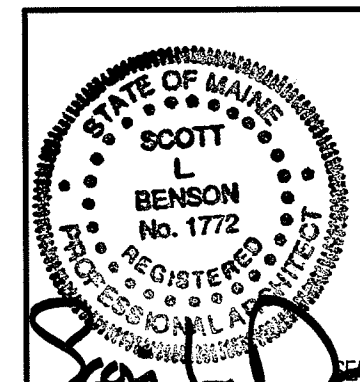
DOOR NUMBER	DOOR			GLAZING	FRAME			HWS	FIRE RATING (MIN.)	DOOR NUMBER	REMARKS		
	SIZE	MATERIAL	ELEVATION		MATERIAL	ELEVATION	HEAD					JAMB	SILL
C101a	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C101a	
C101b	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C101b	
C101c	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C101c	
C102a	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	2	-	C102a	
C102b	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	2	-	C102b	
C102A	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C102A	
C102Ba	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	1	-	C102Ba	
C102Bb	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	1	-	C102Bb	
C102C	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	2	-	C102C	
C103A	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	1	-	C103A	
C104	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	1	-	C104	
C104a	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	5	-	C104a	
C104b	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C104b	
C105	3'-0" x 7'-0"	WD	NL	TEMP	HM	1	D4/AE611	A4/AE611	-	1	-	C105	
C105a	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	EXIST	-	C105a	
C106	3'-0" x 7'-0"	WD	F	-	HM	1	D4/AE611	A4/AE611	-	4	-	C106	
C107	3'-0" x 7'-0"	WD	F	-	HM	1	D4/AE611	A4/AE611	-	3	45	C107	
C108	3'-0" x 7'-0"	WD	F	-	HM	1	D4/AE611	A4/AE611	-	4	-	C108	
C109	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	6	-	C109	
C110	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	6	-	C110	
C111	3'-0" x 7'-0"	WD	F	-	HM	1	D4/AE611	A4/AE611	-	1	-	C111	
C112	3'-0" x 7'-0"	WD	F	-	HM	1	D4/AE611	A4/AE611	-	1	-	C112	
C114A	EXIST	EXIST	EXIST	-	EXIST	EXIST	EXIST	EXIST	-	6	-	C114A	

## DOOR/FRAME ABBREVIATIONS

HM	HOLLOW METAL
WD	WOOD
TEMP	TEMPERED GLASS
EXIST	EXISTING

## DOOR NOTES

1. SEE A-002 HARDWARE SET DESCRIPTIONS.
2. SEE TITLE SHEET G001 FOR STANDARD ABBREVIATIONS.
3. ALL SWINGING DOORS TO BE 1-3/4" THICK (U.N.O.).
4. ALL DOORS SHALL BE 3/4" UNDERCUT (TYPICAL) EXCEPT WHEN THERE IS A BOTTOM FRAME OR SILL THRESHOLD OR SPECIFICALLY NOTED OTHERWISE.
5. ALL DOORS WITH BOTTOM FRAMES OR SILL THRESHOLDS SHALL HAVE MANUFACTURERS RECOMMENDED STANDARD UNDERCUT.



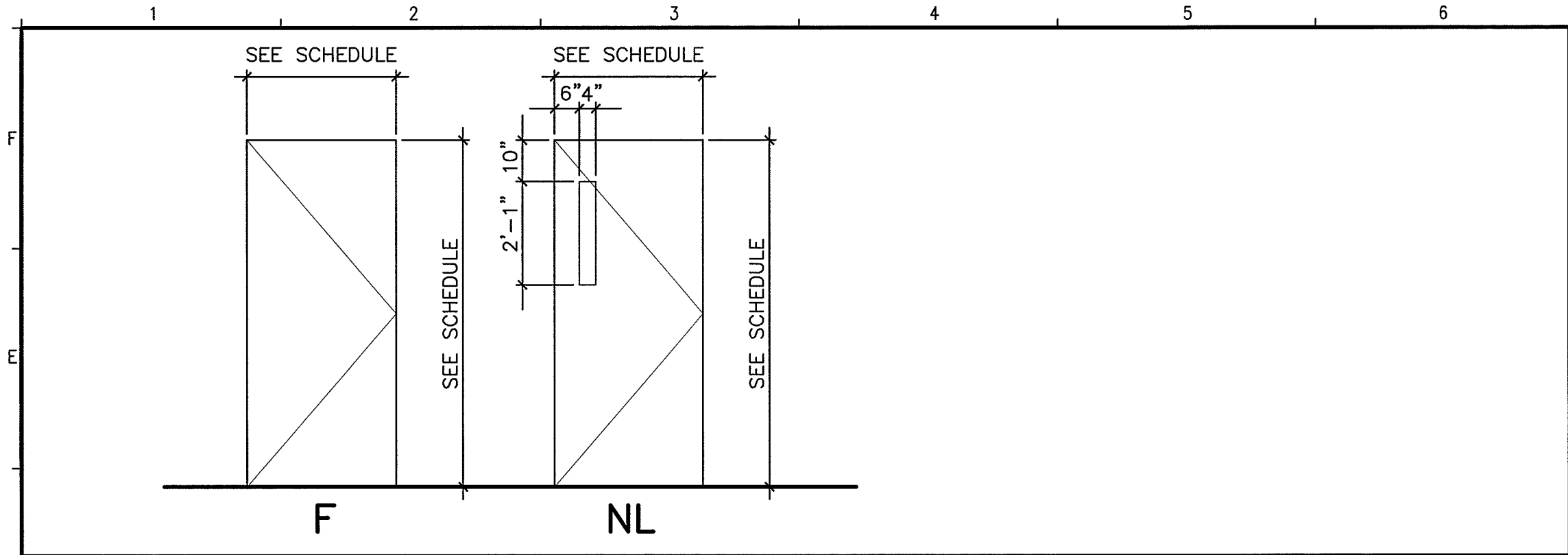
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	ISSUED FOR PERMITTING AND CONSTRUCTION	DESCRIPTION	DATE	REV	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10			

SCALE:	N/A
PROJECT MANAGER:	SLB
JC/DRAWN BY:	MLE
A/E OF RECORD:	SLB
CAD FILE:	AE602-09109
PROJECT NO:	09109
DATE:	3-15-10
SHEET TITLE:	DOOR SCHEDULE
SHEET No.	<b>AE602</b>
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**GENERAL NOTES:**

- RE: G1002 FOR GENERAL NOTES.

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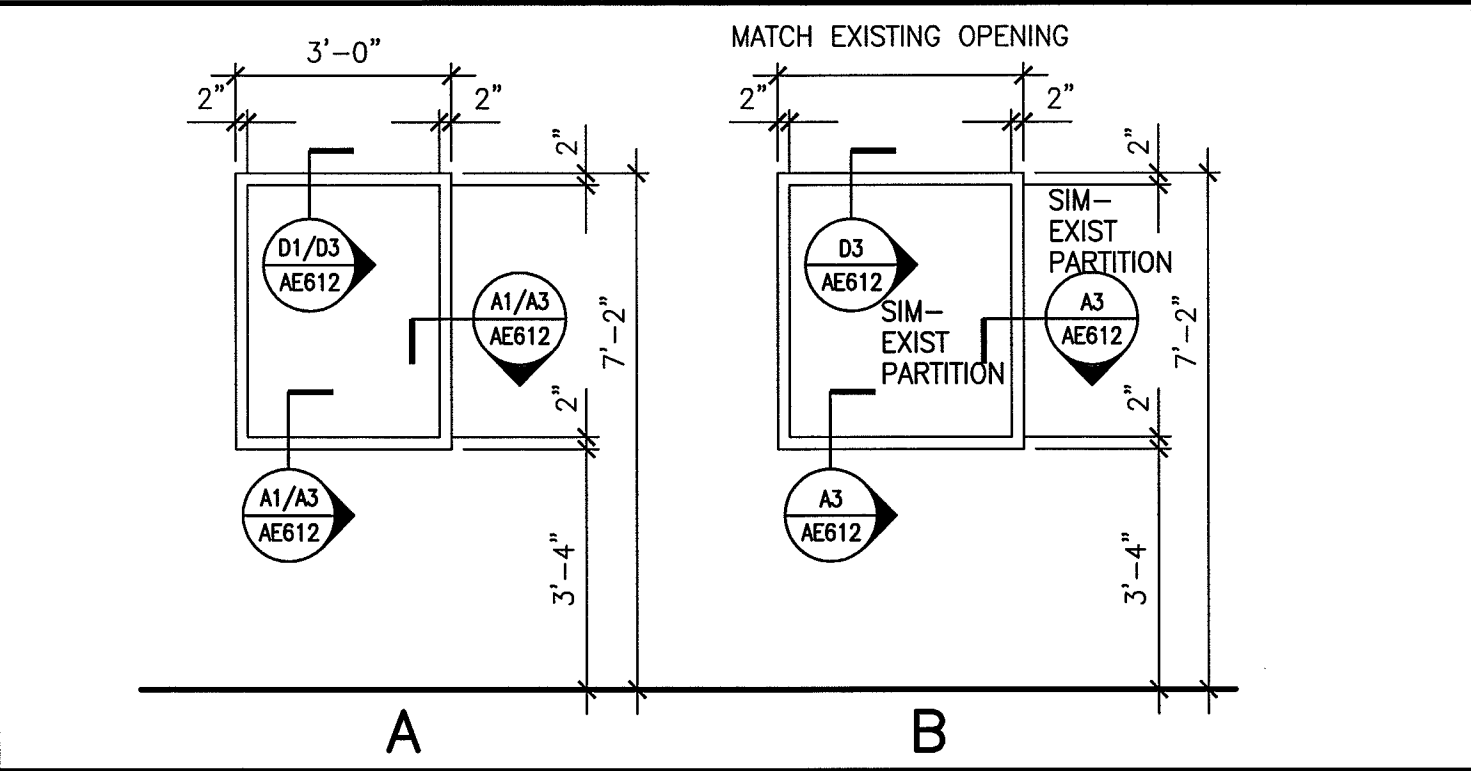
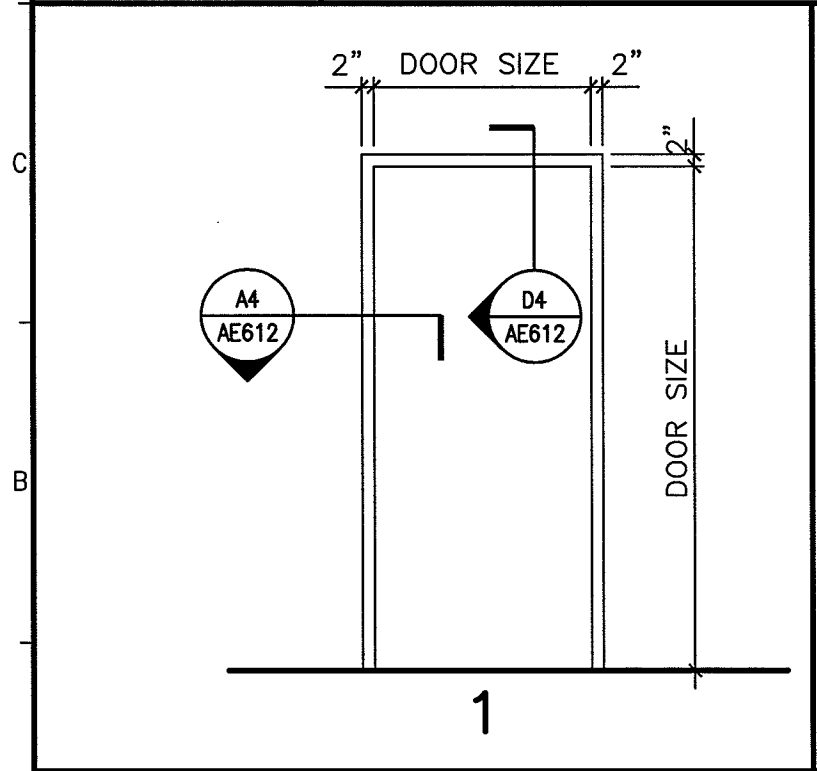
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**D1 DOOR TYPE ELEVATIONS**

3/8" = 1'-0" \*



**A1 DOOR FRAME ELEVATION**

**A3 WINDOW FRAME ELEVATION**

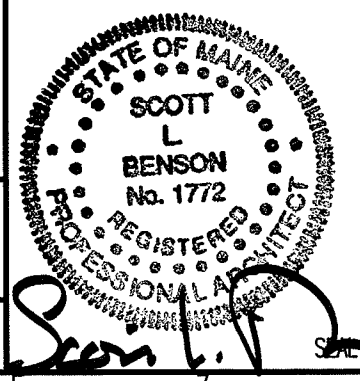
3/8" = 1'-0" \*

3/8" = 1'-0" \*

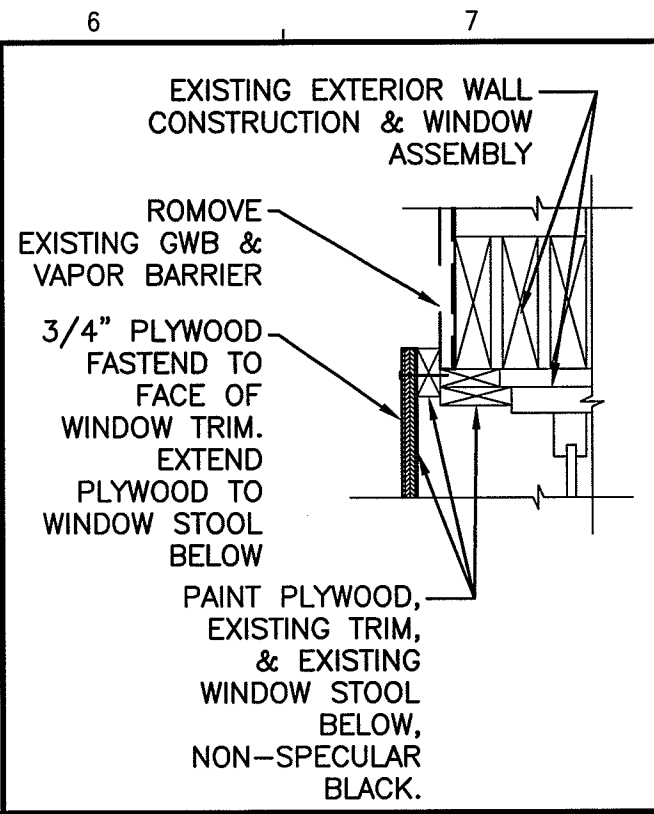
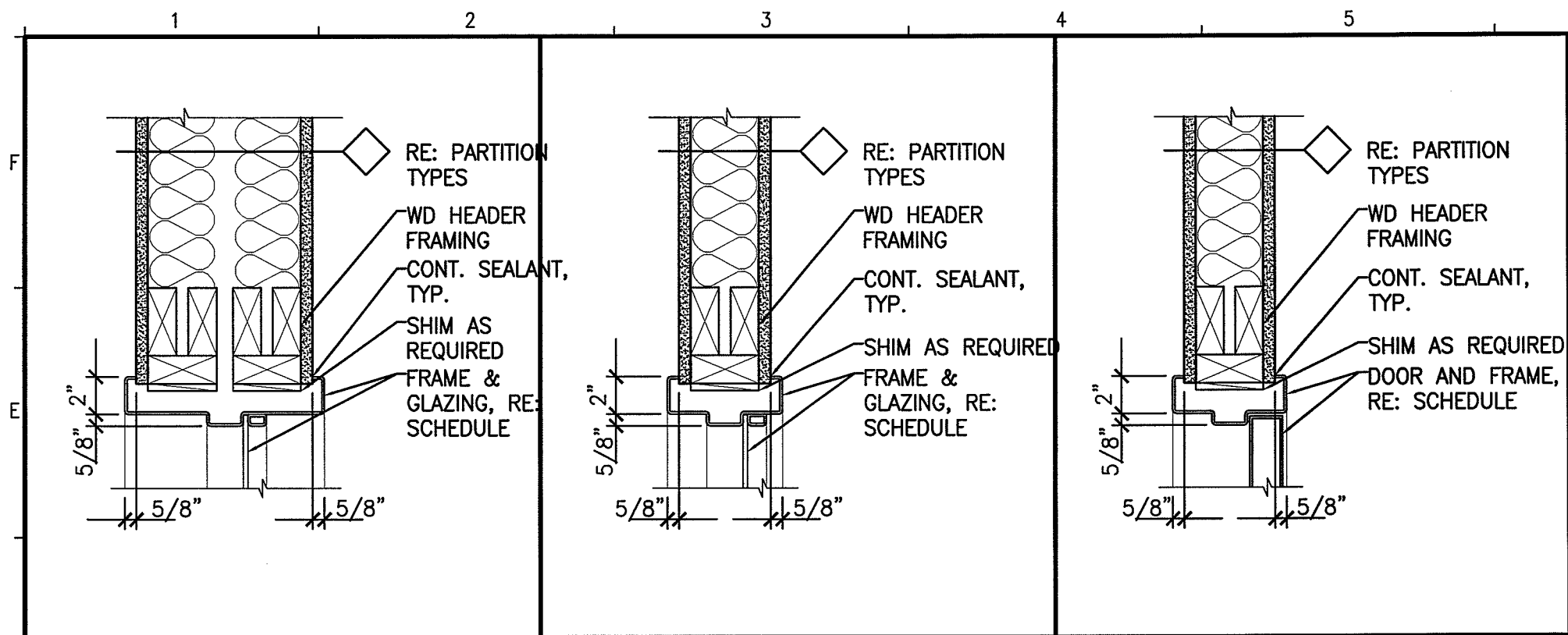
ISSUED FOR PERMITTING AND CONSTRUCTION  
 3-15-10

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: AS NOTED  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: MLE  
 A/E OF RECORD: SLB  
 CAD FILE: AE602-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10



SHEET TITLE:  
**DOOR, WINDOW, & FRAME ELEVATIONS**  
 SHEET No. **AE611**  
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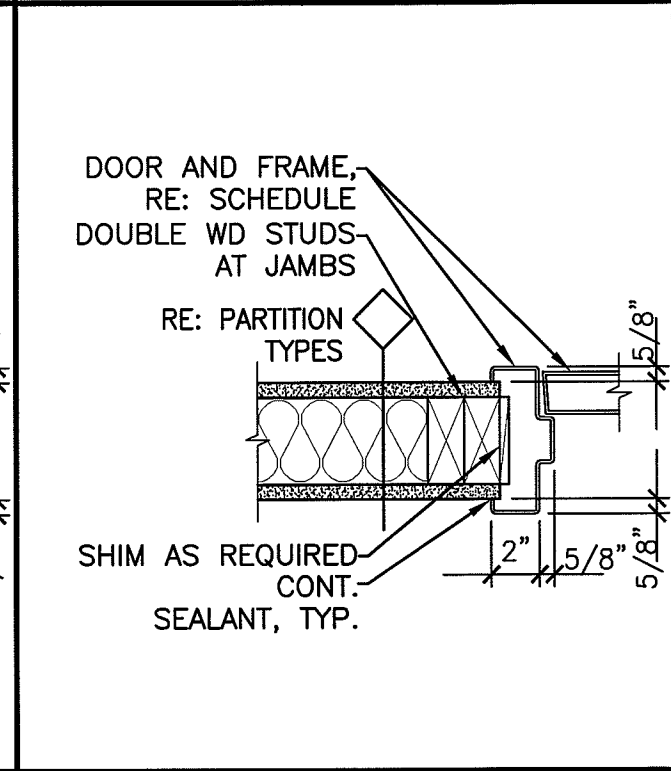
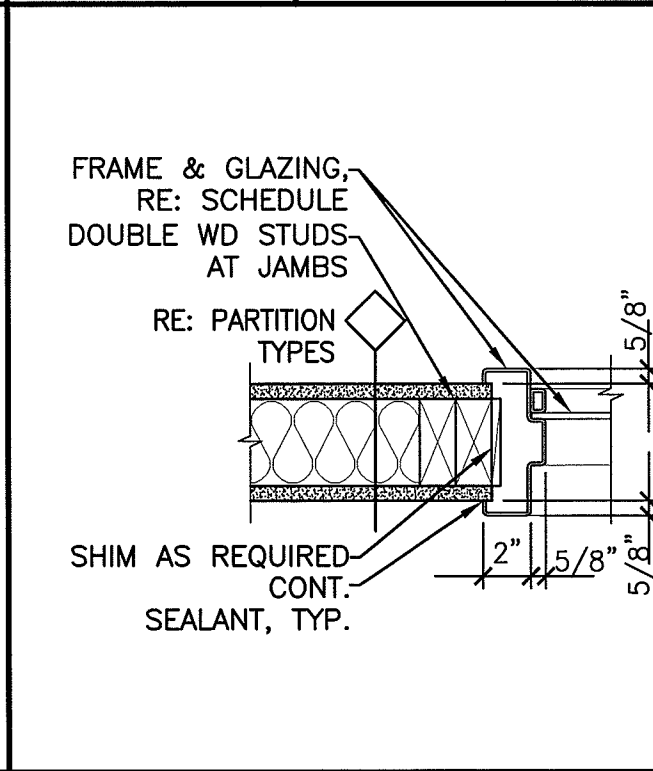
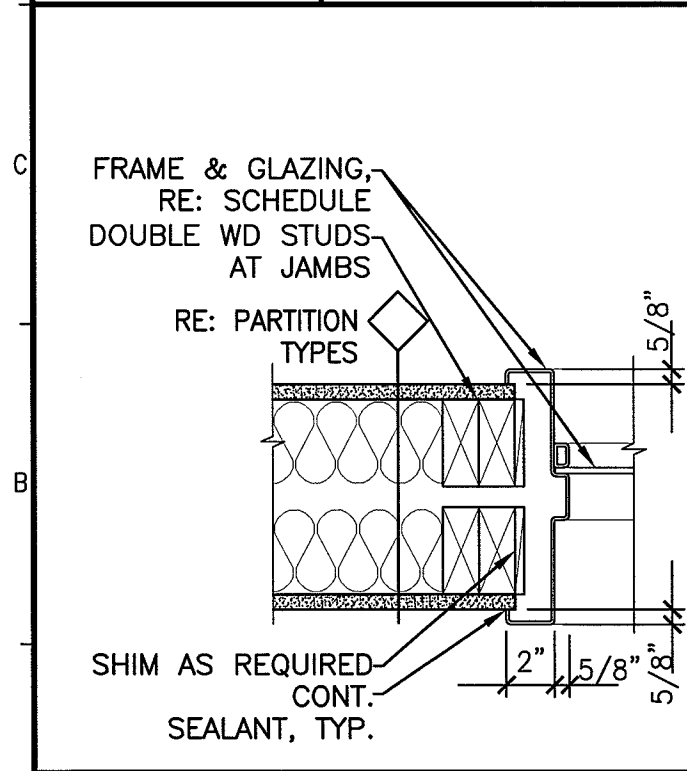


**D1** HEAD DETAIL  
1 1/2" = 1'-0"

**D3** HEAD DETAIL  
1 1/2" = 1'-0"

**D4** HEAD DETAIL  
1 1/2" = 1'-0"

**D6** HEAD/JAMB DETAIL  
1 1/2" = 1'-0"



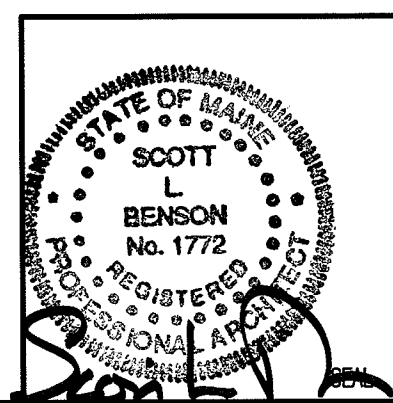
**A1** JAMB/SILL DETAIL  
1 1/2" = 1'-0"

**A3** JAMB/SILL DETAIL  
1 1/2" = 1'-0"

**A4** JAMB DETAIL  
1 1/2" = 1'-0"

**GENERAL NOTES:**

1. RE: G1002 FOR GENERAL NOTES.



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REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: AS NOTED

PROJECT MANAGER: SLB

JC/DRAWN BY: MLE

A/E OF RECORD: SLB

CAD FILE: AE612-09109

PROJECT NO: 09109

DATE: 3-15-10

SHEET TITLE:  
**DOOR & WINDOW DETAILS**

SHEET No. **AE612**  
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**AIR DISTRIBUTION SYMBOLS**

	RECTANGULAR DUCT. (FIRST NUMBER IS SIDE SHOWN) DIMENSIONS IN INCHES
	12 INCH ROUND DUCT
	MOTORIZED DAMPER
	FLEXIBLE DUCT
	DUCT FLEXIBLE CONNECTOR (FC)
	DUCT DROPS AND RISES IN DIRECTION OF AIR FLOW
	RETURN DUCT TURNED UP OR DOWN (DASHED)
	SUPPLY DUCT TURNED UP OR DOWN (DASHED)
	EXHAUST DUCT TURNED UP OR DOWN (DASHED)
	ACOUSTICAL LINING (DUCT DIM. FOR NET FREE AREA)
	ROUND DUCT ELBOW DOWN
	ROUND DUCT ELBOW UP
	SQUARE TO ROUND TRANSITION
	CAP (DUCT AND/OR PIPE)
	INDICATES DUCT, PIPING, EQUIPMENT TO BE REMOVED.
	EA EXHAUST AIR
	RA RETURN AIR
	SA SUPPLY AIR
	VOLUME DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION SMOKE/FIRE DAMPER
	RECTANGULAR ELBOW W/TURNING VANES
	DIRECTION OF AIR FLOW (IN)
	HUMIDISTAT OR HUMIDITY SENSOR
	THERMOSTAT (T*STAT) OR TEMP. SENSOR
	SMOKE DETECTOR
	DEFUSER, REGISTER OR GRILLE TAG
	FINNED TUBE TAG
	DETAIL NO. SHEET NO. WHERE DETAIL IS LOCATED
	EQUIPMENT TAG EQUIPMENT NO.

**PIPING SYMBOLS**

	UNION		ORIFICE FLOWMETER
	FLANGE		FLEXIBLE PIPE CONNECTOR
	PIPE ANCHOR		EXPANSION JOINT
	PIPE GUIDE OR SLEEVES		STEAM TRAP (FLOAT AND THERMOSTATIC INDICATED T.T., THERMOSTAT, B.T., BUCKET TRAP, T.D., THERMODYNAMIC TRAP)
	PIPE ELBOW TURNED DOWN		CONCENTRIC REDUCER/INCREASER
	PIPE ELBOW TURNED UP		ECCENTRIC REDUCER/INCREASER
	PIPING TEE-DOWN		HOSE BIBB
	PIPING TEE-UP		WALL HYDRANT
	PIPE RISER		DIRECTION OF FLOW
	FLOOR CLEAN OUT		FIRE DEPARTMENT CONNECTION
	CLEAN OUT		PUMP
	WALL CLEAN OUT		WATER HAMMER SUPPRESSOR
	PIPE PITCHES DOWN		FINNED TUBE BASEBOARD
	GENERIC VALVE. SEE SPECIFICATIONS FOR TYPE		HUMIDIFIER
	GATE VALVE		DIFFERENTIAL PRESSURE TRANSMITTER
	BALL VALVE		SPRINKLER HEAD
	BUTTERFLY VALVE (MANUAL)		GAS TURRET
	2-WAY CONTROL VALVE		MEDICAL OXYGEN OUTLET
	3-WAY CONTROL VALVE		MEDICAL VACUUM INLET
	BALANCING VALVE (CIRCUIT SETTER)		MEDICAL AIR OUTLET
	CHECK VALVE		NITROUS OXIDE OUTLET
	PLUG VALVE		
	GLOBE VALVE		
	NEEDLE VALVE		
	BACK FLOW PREVENTER		
	SOLENOID VALVE		
	PRESSURE REDUCING OR REGULATING VALVE		
	PRESSURE RELIEF VALVE		
	STRAINER W/BLOWDOWN		
	MANUAL AIR VENT		
	AUTOMATIC AIR VENT		
	PRESSURE SWITCH		
	FLOW SWITCH		
	PRESSURE GAUGE AND COCK		
	THERMOMETER AND WELL		
	TEMPERATURE & PRESSURE TAP (PETE'S PLUG)		
	HOSE END DRAIN VALVE WITH CAP		

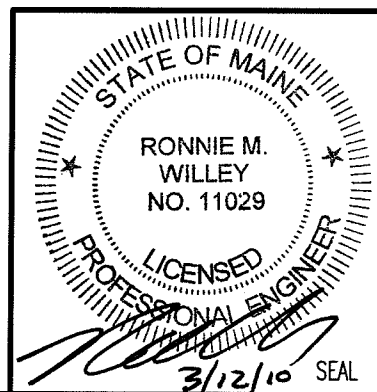
**ABBREVIATIONS**

AAV	AUTOMATIC AIR VENT	DW	DOWN IN WALL	OA	OUTSIDE AIR
ACC	AIR COOLED CONDENSER	DN	DOWN	OBD	OPPOSED BLADE DAMPER
ACU	AIR CONDITIONING UNIT	DS	DOWNSPOUT	OED	OPEN ENDED DUCT
AD	ACCESS DOOR	DT	DROP AND TRANSITION	P-f	PLUMBING FIXTURE TAG
AE	ACID EXHAUST	DWG	DRAWING	PAE	PROCESS ACID EXHAUST
AFF	ABOVE FINISHED FLOOR	DWH	DOMESTIC WATER HEATER	PHE	PROCESS HEAT EXHAUST
AFMS	AIR FLOW MEASURING STATION	EA	EXHAUST AIR	PSE	PROCESS SOLVENT EXHAUST
AHU	AIR HANDLING UNIT	EF	EXHAUST FAN	PP	POLY-PROPYLENE
AP	ACCESS PANEL	ENC	ENCLOSURE	PPE	PRE PURCHASED EQUIPMENT
ATC	AUTOMATIC TEMPERATURE CONTROL	ER	EXHAUST REGISTER	PRS	PRESSURE REDUCING STATION
AV	AIR VENT	(E)	EXISTING	PRV	PRESSURE REDUCING VALVE
BA	BREATHING COMPRESSED AIR	EXST.	EXISTING	PVD	PNEUMATIC VOLUME DAMPER
BB	BASEBOARD	FBO	FURNISHED BY OWNER	(R)	REMOVE
BDD	BACKDRAFT DAMPER	FBP	FACE AND BYPASS	RA	RETURN AIR
BG	BLAST GATE	FC	FLEXIBLE CONNECTION	RD	ROOF DRAIN
BFP	BACKFLOW PREVENTER	FCD	FLOOR CLEANOUT	(REL.)	RELOCATED
BLDG	BUILDING	FD-f	FLOOR DRAIN TAG	RF	RETURN FAN
BOD	BOTTOM OF DUCT	FD	FIRE DAMPER	RG	RETURN GRILLE
BOP	BOTTOM OF PIPE	FG	FIBERGLASS	RHC	REHEAT COIL
BTU	BRITISH THERMAL UNIT	F & T	FLOAT AND THERMOSTATIC	RM	ROOM
CBQ	COUNTER BALANCED DAMPER	FO	FLAT OWAL	RPZ	REDUCED PRESSURE ZONE BFP
CD	CEILING DIFFUSER	FRHB	FREEZE RESISTANT HOSE BIBB	RR	RETURN REGISTER
CF	CAPPED FOR FUTURE	FTR	FINNED TUBE RADIATION	RV	RELIEF VALVE
CFM	CUBIC FEET PER MINUTE	FS	FLOW SWITCH	SA	SUPPLY AIR
CLD	CEILING	GC	GENERAL CONTRACTOR	SCV	SELF CONTAINED VALVE
CO	CLEANOUT	GPM	GALLONS PER MINUTE	SD	SMOKE DETECTOR
CONT	CONTINUATION	H	HUMIDIFIER	SF	SUPPLY FAN
COORD	COORDINATE	HB	HOSE BIB	SG	SUPPLY GRILLE
CP	CONDENSATE PUMP & RECEIVER	HRTU	HEAT RECOVERY UNIT	SR	SUPPLY REGISTER
CT	COOLING TOWER	HTR	HEATER	SS	STAINLESS STEEL
CTE	CONNECT TO EXISTING	H & V	HEATING AND VENTILATION	TE	TEMPERATURIZED ELEMENT (SENSOR)
CU	COPPER	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	TO	TRANSFER GRILLE
CUH	CABINET UNIT HEATER	HW	HOT WATER	TOO	TOP OF DUCT
CV	CONTROL VALVE	HX	HEAT EXCHANGER	TOP	TOP OF PIPE
CW	COLD WATER	IN WG	INCHES WATER GAUGE	TTS	TIGHT TO STEEL
CW-P	CITY WATER-PROCESS	LD	LINED DUCT	TV	TURNING VANE(S)
DC	DOUBLE CONTAINED	MAU	MAKE UP AIR UNIT	TYP	TYPICAL
DDC	DIRECT DIGITAL CONTROL	MAX	MAXIMUM	UH	UNIT HEATER
DA	DIAMETER	MBH	1000 BTU/HR.	UC	UP IN CHASE
DC	DOWN IN CHASE	ME	MECHANICAL ENGINEER	UW	UP IN WALL
		MFR	MANUFACTURER	UV	UNIT VENTILATOR
		MIN	MINIMUM	VW	VARIABLE AIR VOLUME BOX
		MO	MOTOR OPERATED DAMPER	VB	VACUUM BREAKER
		MPV	MULTI-PURPOSE VALVE	VTR	VENT THRU ROOF
		MTD	MOUNTED	VD	MANUAL VOLUME DAMPER
		MUA	MAKE UP AIR	VCFF	VALVED AND CAPPED FOR FUTURE
		NPW	NON-POTABLE WATER	VOC	VOLATILE ORGANIC COMPOUNDS
		NTS	NOT TO SCALE	VFD	VARIABLE FREQUENCY DRIVE
		P-f	PLUMBING FIXTURE TAG	W/	WITH
		PEA	ALKALI EXHAUST	WOO	WALL CLEANOUT
		PEH	HEAT EXHAUST	WH	WALL HYDRANT

**PIPING SYSTEMS**

10:1 HF	10:1 HF	GCR	GRAVITY STEAM CONDENSATE RETURN	IV	MEDICAL VACUUM	TW	TEMPERED WATER
AV	ACID VENT	GLY	GLYCOL	N2NP	NON-PROCESS NITROGEN	TWS	TEMPERED CHILLED WATER SUPPLY
AD	ACID DRAIN	GV	GAS VENT	N2	PROCESS NITROGEN	TWR	TEMPERED CHILLED WATER RETURN
AD	ACID DRAIN (BELOW SLAB)	H	HYDROGEN	NG	NATURAL GAS	VAC	PLANT VACUUM
BA	BREATHING AIR	H2O2	HYDROGEN PEROXIDE	HHG	HIGH PRESSURE NATURAL GAS	ZB	ZONE VALVE BOX
CD	CONDENSATE DRAIN	HCR	HOT/ CHILLED WATER RETURN	HO2	NITROUS OXIDE	TEMP	DOMESTIC HOT WATER (TEMP °F)
CDA	COMPRESSED DRY AIR	HCS	HOT/ CHILLED WATER SUPPLY	HEP. SOLV.	NEGATIVE SOLVENT DRAIN	TEMP	RECIRC. DOMESTIC HOT WATER (TEMP °F)
CHWS	CHILLED WATER SUPPLY	HCV	HOUSE CLEAN VACUUM	NPW	NON POTABLE COLD WATER	CW	DOMESTIC COLD WATER
CHWR	CHILLED WATER RETURN	HG	HOT GAS	O2	OXYGEN	HW	DOMESTIC HOT WATER (120° F)
CWS	CONDENSER WATER SUPPLY	HPS	HIGH PRESSURE STEAM	OFA	OIL FREE COMPRESSED AIR	RCW	RECIRCULATED DOMESTIC HOT WATER (120° F)
CWR	CONDENSER WATER RETURN	HPR	HIGH PRESSURE CONDENSATE RETURN	PCWR	PROCESS COOLING WATER RETURN	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE
DB	DISTRIBUTION VALVE BOX	HWS	HOT WATER SUPPLY	PC	PUMPED STEAM CONDENSATE	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (EXIST.)
DS	DEIONIZED WATER SUPPLY	HWR	HOT WATER RETURN	PD	PUMPED DISCHARGE	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (BELOW SLAB)
DR	DEIONIZED WATER RETURN	IAD	ISOPROPYL ALCOHOL DRAIN	POS. SOLV.	POSITIVE SOLVENT DRAIN	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (BELOW SLAB-EXIST.)
EDC	EYE WASH	LP	LIQUID PROPANE GAS	PW	POTABLE WATER	SD	SD STORM DRAIN
ESEW	EYEWASH	HLP	HIGH PRESSURE LIQUID PROPANE GAS	R	RELIEF LINE	SD	SD STORM DRAIN (EXIST.)
FCS	FREE COOLING SUPPLY	LPS	LOW PRESSURE STEAM	RL	REFRIGERANT LIQUID	SD	SD STORM DRAIN (BELOW SLAB)
FCR	FREE COOLING RETURN	LPR	LOW PRESSURE RETURN	RS	REFRIGERANT SUCTION	SD	SD STORM DRAIN (BELOW SLAB-EXIST.)
FOS	FUEL OIL SUPPLY	MA	MEDICAL AIR	SLD	MIXED SOLVENT DRAIN	V	V SANITARY VENT
FOR	FUEL OIL RETURN	MPS	MEDIUM PRESSURE STEAM	SV	SOLVENT	V	V SANITARY VENT (EXIST.)
FOV	FUEL OIL VENT	MPR	MEDIUM PRESSURE RETURN	SP	SPRINKLER	V	V SANITARY VENT (BELOW SLAB)
						V	V SANITARY VENT (BELOW SLAB-EXIST.)

**GENERAL NOTE**  
 1. ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL HVAC AND PLUMBING 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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# SPECIFICATIONS

## SPECIFICATIONS AND NOTES

### GENERAL

1. VERIFY ALL MEASUREMENTS AND EXISTING CONDITIONS IN THE FIELD. GENERAL SCHEMATIC LAYOUT IS INDICATED, ALL OFFSETS, OBSTRUCTIONS, AND EXISTING CONFIGURATIONS AND CONSTRAINTS MUST BE FIELD VERIFIED.
2. INSTALL ALL NEW COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, ALL LOCAL CODES AND STANDARDS.
3. PERFORM PLUMBING WORK PER THE MAINE STATE INTERNAL PLUMBING RULES.
4. COORDINATE ELECTRICAL POWER REQUIREMENTS FOR ALL MOTORS.
5. SEAL ALL DUCT AND PIPE PENETRATIONS WITH FIRE SEALANT.
6. EQUIPMENT LISTED IS THE BASIS OF DESIGN, OR APPROVED EQUAL.

### SUBMITTALS

1. PRODUCT DATA: SUBMIT MANUFACTURERS PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.
2. OPERATION AND MAINTENANCE DATA: SUBMIT MANUFACTURERS OPERATION AND MAINTENANCE DATA, INCLUDING OPERATION INSTRUCTIONS, LIST OF SPARE PARTS AND MAINTENANCE SCHEDULE.

### PIPING INSULATION

1. FIBERGLASS INSULATION WITH ALL SERVICE JACKET, 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
2. DOMESTIC HOT WATER: RUNOUTS TO FIXTURES: 1/2" THICKNESS.
3. DOMESTIC COLD WATER: RUNOUTS TO FIXTURES: 1/2" THICKNESS.
4. REFRIGERANT LINES: FLEXIBLE ELASTOMERIC EQUAL TO ARMAFLEX OR NOMACO K-FLEX.

### IDENTIFICATION

1. LABELING SHALL APPEAR AT INTERVALS OF NOT MORE THAN 20 FEET AND AT LEAST ONCE IN EACH ROOM AND EACH STORY TRAVERSED BY THE PIPING SYSTEM. ALL PIPING SHALL BE CLEARLY IDENTIFIED SPECIFICALLY FOR TYPE OF SERVICE WITH COILED PLASTIC PIPE MARKERS AND FLOW DIRECTION ARROWS.

## ROOFTOP AIR CONDITIONERS 2 TO 5 TONS (SEE SCHEDULE)

1. DESCRIPTION: FACTORY ASSEMBLED AND TESTED; DESIGNED FOR EXTERIOR INSTALLATION; CONSISTING OF COMPRESSOR, INDOOR AND OUTSIDE REFRIGERANT COILS, INDOOR FAN AND OUTSIDE COIL FAN, REFRIGERATION AND TEMPERATURE CONTROLS, FILTERS, AND DAMPERS, AND ROOF CURB. BASIS OF DESIGN IS TRANE, OR APPROVED EQUAL.
2. CASING: GALVANIZED-STEEL CONSTRUCTION WITH ENAMEL PAINT FINISH, HINGED ACCESS DOORS WITH NEOPRENE GASKETS FOR INSPECTION AND ACCESS TO INTERNAL PARTS, MINIMUM 1/2-INCH THICK THERMAL INSULATION, KNOCKOUTS FOR ELECTRICAL AND PIPING CONNECTIONS, INTERIOR THROUGH THE BASE CONDENSATE DRAIN CONNECTION, AND LIFTING LUGS.
3. INDOOR FAN: FORWARD CURVED, CENTRIFUGAL, BELT DRIVEN, GREASE- LUBRICATED BALL BEARINGS, AND MOTOR.
4. OUTSIDE COIL FAN: PROPELLER TYPE, DIRECTLY DRIVEN BY PERMANENTLY LUBRICATED MOTOR.
5. REFRIGERANT COILS: ALUMINUM-PLATE FIN AND SEAMLESS COPPER TUBE IN STEEL CASING WITH EQUALIZING-TYPE VERTICAL DISTRIBUTOR.
6. COMPRESSOR(S): HERMETIC COMPRESSORS WITH INTEGRAL VIBRATION ISOLATORS, INTERNAL OVERCURRENT AND OVERTEMPERATURE PROTECTION, INTERNAL PRESSURE RELIEF, AND CRANKCASE HEATER(S).
7. REFRIGERATION SYSTEM:
  - A. COMPRESSOR(S).
  - B. OUTSIDE COIL AND FAN.
  - C. INDOOR COIL AND FAN.
  - D. EXPANSION VALVES WITH REPLACEABLE THERMOSTATIC ELEMENTS.
  - E. REFRIGERANT DRYERS.
  - F. HIGH-PRESSURE SWITCHES.
  - G. LOW-PRESSURE SWITCHES.
  - H. THERMOSTATS FOR COIL FREEZE-UP PROTECTION DURING LOW-AMBIENT TEMPERATURE OPERATION OR LOSS OF AIR.
  - I. INDEPENDENT REFRIGERANT CIRCUITS.
  - J. BRASS SERVICE VALVES INSTALLED IN DISCHARGE AND LIQUID LINES.
  - K. CHARGE OF REFRIGERANT.
8. FILTERS: 2-INCH THICK, PLEATED, THROWAWAY FILTERS IN FILTER RACK, WITH MINIMUM MERV 8 EFFICIENCY RATING.

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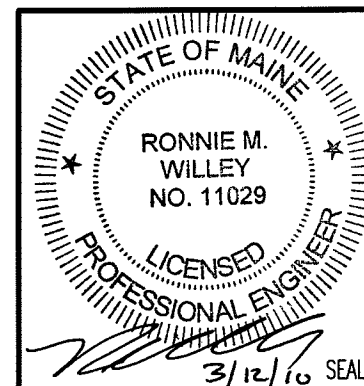
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# SPECIFICATIONS (CONT.)

9. HEAT EXCHANGER: ALUMINIZED-STEEL CONSTRUCTION FOR NATURAL GAS-FIRED BURNERS WITH THE FOLLOWING CONTROLS:
- REDUNDANT DUAL GAS VALVE WITH MANUAL SHUTOFF.
  - DIRECT-SPARK PILOT IGNITION.
  - ELECTRONIC FLAME SENSOR.
  - INDUCED-DRAFT BLOWER.
  - FLAME ROLLOUT SWITCH.
10. ECONOMIZER: RETURN AND OUTSIDE-AIR DAMPERS WITH NEOPRENE SEALS, OUTSIDE-AIR FILTER, AND HOOD.
- DAMPER MOTOR: FULLY MODULATING SPRING RETURN WITH ADJUSTABLE MINIMUM POSITION.
  - CONTROL: ELECTRONIC-CONTROL SYSTEM USES MIXED-AIR TEMPERATURE AND SELECTS BETWEEN OUTSIDE-AIR AND RETURN-AIR ENTHALPY TO ADJUST MIXING DAMPERS.
  - RELIEF DAMPER: GRAVITY ACTUATED WITH BIRD SCREEN AND HOOD.
12. POWER CONNECTION: PROVIDE FOR SINGLE CONNECTION OF POWER THROUGH THE BASE TO UNIT WITH UNIT-MOUNTED DISCONNECT SWITCH ACCESSIBLE FROM OUTSIDE UNIT AND CONTROL-CIRCUIT TRANSFORMER WITH BUILT-IN CIRCUIT BREAKER.
13. UNIT CONTROLS: SOLID-STATE CONTROL BOARD AND COMPONENTS CONTAIN AT LEAST THE FOLLOWING FEATURES:
- INDOOR FAN ON/OFF DELAY.
  - DEFAULT CONTROL TO ENSURE PROPER OPERATION AFTER POWER INTERRUPTION.
  - SERVICE RELAY OUTPUT.
  - UNIT DIAGNOSTICS AND DIAGNOSTIC CODE STORAGE.
  - FIELD-ADJUSTABLE CONTROL PARAMETERS.
  - ECONOMIZER CONTROL.
  - GAS VALVE DELAY BETWEEN FIRST- AND SECOND-STAGE FIRING.
  - LOW-AMBIENT CONTROL, ALLOWING OPERATION DOWN TO 0 DEG F.
  - MINIMUM RUN TIME.
  - NIGHT SETBACK MODE AND MORNING WARM UP.
  - LOW-REFRIGERANT PRESSURE CONTROL.
  - DIGITAL DISPLAY OF OUTSIDE TEMPERATURE, SUPPLY-AIR TEMPERATURE, RETURN-AIR TEMPERATURE, ECONOMIZER DAMPER POSITION, INDOOR-AIR QUALITY, AND CONTROL PARAMETERS.
14. DDC TEMPERATURE CONTROL: INSTALL STAND-ALONE CONTROL MODULE AND PROVIDE INTERFACE WITH EXISTING BAS SYSTEM.
15. OPTIONAL ACCESSORIES:
- SERVICE OUTLETS: ONE, 115-V GROUND-FAULT, CIRCUIT-INTERRUPTER TYPE.
  - DIRTY-FILTER SWITCH.
  - FAN FAILURE SWITCH TO LOCK OUT IF FAN FAILS.

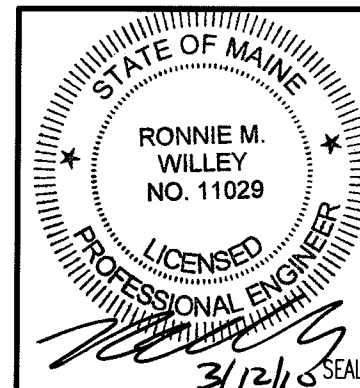
16. ROOF CURB: STEEL WITH CORROSION-PROTECTION COATING, GASKETING, AND FACTORY-INSTALLED WOOD NAILER; COMPLYING WITH NRCA STANDARDS; MINIMUM HEIGHT OF 14 INCHES.

## WALL-MOUNTED MINI-SPLIT HEAT PUMP UNIT (SEE SCHEDULE)

1. EVAPORATOR-FAN COMPONENTS
- CABINET: ENAMELED STEEL WITH REMOVABLE PANELS ON FRONT AND ENDS IN COLOR SELECTED BY ARCHITECT, AND DISCHARGE DRAIN PANS WITH DRAIN CONNECTION.
  - REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINNS, COMPLYING WITH ARI 210/240, AND WITH THERMAL-EXPANSION VALVE.
  - FAN: DIRECT DRIVE, CENTRIFUGAL FAN.
  - FILTERS: PERMANENT, CLEANABLE.
2. AIR-COOLED, COMPRESSOR-CONDENSER COMPONENTS
- CASING: STEEL, FINISHED WITH BAKED ENAMEL IN COLOR SELECTED BY ARCHITECT, WITH REMOVABLE PANELS FOR ACCESS TO CONTROLS, WEEP HOLES FOR WATER DRAINAGE, AND MOUNTING HOLES IN BASE. PROVIDE BRASS SERVICE VALVES, FITTINGS, AND GAGE PORTS ON EXTERIOR OF CASING.
  - COMPRESSOR: HERMETICALLY SEALED WITH CRANKCASE HEATER AND MOUNTED ON VIBRATION ISOLATION. COMPRESSOR MOTOR SHALL HAVE THERMAL AND CURRENT-SENSITIVE OVERLOAD DEVICES, START CAPACITOR, RELAY, AND CONTACTOR.
    - COMPRESSOR TYPE: SCROLL.
    - TWO-SPEED COMPRESSOR MOTOR WITH MANUAL-RESET HIGH-PRESSURE SWITCH AND AUTOMATIC-RESET LOW-PRESSURE SWITCH.
  - REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINNS, COMPLYING WITH ARI 210/240, AND WITH LIQUID SUBCOOLER.
  - FAN: ALUMINUM-PROPELLER TYPE, DIRECTLY CONNECTED TO MOTOR.
  - MOTOR: PERMANENTLY LUBRICATED, WITH INTEGRAL THERMAL-OVERLOAD PROTECTION.
  - LOW AMBIENT KIT: PERMITS OPERATION DOWN TO 0 DEG F.
  - MOUNTING BASE: POLYETHYLENE.

## 3. ACCESSORIES

- THERMOSTAT: LOW VOLTAGE WITH SUBBASE TO CONTROL COMPRESSOR AND EVAPORATOR FAN.
- AUTOMATIC-RESET TIMER TO PREVENT RAPID CYCLING OF COMPRESSOR.
- REFRIGERANT LINE KITS: SOFT-ANNEALED COPPER SUCTION AND LIQUID LINES FACTORY CLEANED, DRIED, PRESSURIZED, AND SEALED; FACTORY-INSULATED SUCTION LINE WITH FLARED FITTINGS AT BOTH ENDS.



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# SPECIFICATIONS (CONT.)

## RADIANT CEILING PANELS (SEE SCHEDULE)

1. DESCRIPTION: SHEET-METAL PANEL WITH SERPENTINE COPPER WATER COIL, MECHANICALLY OR METALLURGICALLY BONDED TO BACKSIDE, SUITABLE FOR LAY-IN INSTALLATION FLUSH WITH T-BAR CEILING GRID.
  - A. FABRICATION: 0.0396-INCH THICK, ALUMINUM SHEET.
  - B. COPPER COIL: NPS 1/2.

## CEILING POWER VENTILATORS (SEE SCHEDULE)

1. DESCRIPTION: CENTRIFUGAL FANS DESIGNED FOR INSTALLING IN CEILING OR WALL OR FOR CONCEALED IN-LINE APPLICATIONS.
2. HOUSING: STEEL, LINED WITH ACOUSTICAL INSULATION.
3. FAN WHEEL: CENTRIFUGAL WHEELS DIRECTLY MOUNTED ON MOTOR SHAFT. FAN SHROUDS, MOTOR, AND FAN WHEEL SHALL BE REMOVABLE FOR SERVICE.
4. GRILLE: ALUMINUM, LOUVERED GRILLE WITH FLANGE ON INTAKE AND THUMBSCREW ATTACHMENT TO FAN HOUSING.
5. ELECTRICAL REQUIREMENTS: JUNCTION BOX FOR ELECTRICAL CONNECTION ON HOUSING AND RECEPTACLE FOR MOTOR PLUG-IN.

## DUCTWORK

1. GALVANIZED STEEL DUCTWORK: ASTM A653 GALVANIZED STEEL SHEETS, LOCK FORMING QUALITY, G90 ZINC COATING.
2. FLEXIBLE DUCTWORK: UL 181 CLASS 1 AIR DUCT, INSULATED, ATCO, OR APPROVED EQUAL.
3. ALL DUCTWORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. SEAL ALL DUCT JOINTS (CLASS "A", 2" PRESSURE CLASS).
4. DUCT SEALANT SHALL BE HARDCAST, INC."IRON GRIP", WATER-BASED, VINYL ACRYLIC SEALANT.
5. INSTALL DIFFUSERS TO DUCTWORK WITH AIRTIGHT CONNECTION. SEAL GAPS BETWEEN SURFACE MOUNTED AIR INLETS AND OUTLETS AIRTIGHT.
6. INSULATE SUPPLY AIR DUCTWORK WITH 1-1/2" THICK FIBERGLASS INSULATION BLANKET W/VAPOR BARRIER, 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
7. PROVIDE DUCT ACCESS DOORS AT ALL COMPONENTS THAT REQUIRE SERVICING; INCLUDING BUT NOT LIMITED TO CONTROL DAMPERS, TEMPERATURE CONTROL DEVICES, AND FIRE DAMPERS. PROVIDE SHEET-ROCK CEILING ACCESS PANELS WHERE REQUIRED.

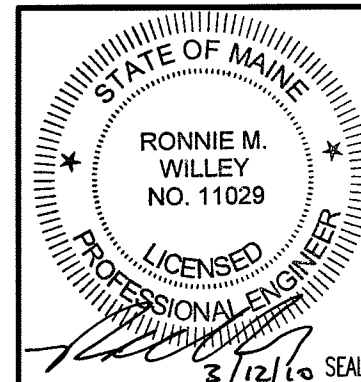
8. DUCT LINER SHALL BE EITHER 1/2" NOMACO K-FLEX ELASTOMERIC DUCT LINER OR REFLECTIX, INC. NATURAL FIBER DUCT LINER.

## REGISTERS & DIFFUSERS (SEE SCHEDULE)

1. SUPPLY DIFFUSERS: PRICE MODEL SPD, PLAQUE FACE HIGH CAPACITY, WHITE FINISH, MOUNTING FRAMES TO SUIT CONDITIONS.
2. EXHAUST REGISTERS: PRICE MODEL 635, LOUVERED FACE GRILL WITH 1/2" SPACING, ALUMINUM CONSTRUCTION, WHITE FINISH.
3. RETURN REGISTERS: PRICE MODEL 535, LOUVERED FACE GRILL WITH 1/2" SPACING, STEEL CONSTRUCTION, WHITE FINISH.

## AUTOMATIC TEMPERATURE CONTROLS

1. AUTOMATIC TEMPERATURE CONTROLS SHALL BE AS MANUFACTURED BY DELTA AND SHALL INTEGRATE WITH EXISTING DELTA BUILDING AUTOMATION SYSTEM.
2. PROVIDE ALL COMPONENTS NECESSARY TO PROVIDE A COMPLETE NETWORK OF COMMUNICATION BETWEEN HVAC EQUIPMENT AND INPUT/OUTPUT MODULES TO CONTROL A FULL ARRAY OF ANCILLARY DEVICES AND SENSORS.
3. THERMOSTAT: ZONE THERMOSTAT SHALL BE A SENSOR TYPE WITH NO OCCUPANT ADJUSTABILITY.
4. PROVIDE INPUT/OUTPUT MODULE FOR COMMUNICATION WITH CEILING MOUNTED EXHAUST FAN AND MINI-SPLIT HEAT PUMP UNIT.
5. CONTROLS TESTING SHALL BE ACCOMPLISHED ON EACH CONTROL DEVICE. ACTUATORS SHOULD BE CHECKED AND ADJUSTED FOR START AND EXTENT OF TRAVEL. ALL RELAYS AND ADAPTERS SHOULD BE CHECKED FOR PROPER OPERATION. CONTROLLERS SHOULD BE CHECKED FOR PROPER ACTION. ALL SYSTEM INTERLOCKS, INTERCONNECTIONS, AND SAFETY DEVICES SHOULD BE CHECKED FOR PROPER FUNCTION.
6. ALL CONTROL DEVICES SHALL BE ADJUSTED AND CALIBRATED. ALL CONTROL SETTINGS SHOULD BE VERIFIED BY COMPARING ACTUAL INPUT AND OUTPUT VALUES TO CALIBRATED VALUES.
7. FURNISH ALL COMPONENTS AS REQUIRED FOR COMPLETE AND FUNCTIONING SYSTEM.
8. COORDINATE SENSOR LOCATION.
9. PROVIDE INPUT/OUTPUT MODULE FOR COMMUNICATION WITH ROOF MOUNTED EXHAUST FAN AND MINI-SPLIT AIR CONDITIONING UNIT.



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JC/DRAWN BY: KPB  
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CAD FILE: M-004-09109  
PROJECT NO: 09109  
DATE: 3-15-10

SHEET TITLE:  
**GENERAL NOTES AND SPECIFICATIONS**

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# SPECIFICATIONS (CONT.)

10. START AND COMMISSION SYSTEMS. PROVIDE ALL REQUIRED SOFTWARE MODIFICATIONS AND DE-BUGGING. ALLOW SUFFICIENT TIME FOR START-UP AND COMMISSIONING PRIOR TO PLACING CONTROL SYSTEMS IN PERMANENT OPERATION. ALLOW FOR COORDINATION WITH THE TESTING, ADJUSTING, AND BALANCING CONTRACTOR. ASSISTANCE SHALL BE PROVIDED AS REQUIRED FOR REPROGRAMMING, COORDINATION, AND PROBLEM RESOLUTION.

11. ALL POINTS SHALL BE INTERFACED AND CONNECTED TO THE HOST WORKSTATION. SEQUENCES OF OPERATION AS FOLLOWS:

TESTING, ADJUSTING, AND BALANCING (T.A.B.) (BY OWNER)

1. TEST, ADJUST, AND BALANCE EQUIPMENT AND DISTRIBUTION SYSTEMS IN ACCORDANCE WITH NEBB OR AABC PROCEDURAL STANDARDS. TESTS SHALL BE PERFORMED BY AN INDEPENDENT T-A-B AGENCY.
2. T-A-B ALL NEW AND REVISED AIR INLETS AND OUTLETS, INCLUDING DESIGN AND ACTUAL CFM. TEST AND ADJUST ADJACENT AFFECTED AREAS IF REQUIRED.
3. THE TAB AGENCY SHALL ASSIST THE BUILDING CONTROL SYSTEMS CONTRACTOR IN VERIFYING THE OPERATION AND CALIBRATION OF ALL HVAC AND TEMPERATURE CONTROL SYSTEMS.
4. T-A-B NEW RADIANT CEILING PANELS AND RELATED COMPONENTS.

SEQUENCES OF OPERATION AS FOLLOWS:

ROOFTOP AC UNIT (RTU):

1. THE DDC SYSTEM SHALL PROVIDE ALL RTU CONTROLS EXCEPT FOR INTERNAL REFRIGERATION CONTROLS AND GAS HEATER CONTROL.
2. AIR HANDLING SYSTEM SHALL START THROUGH THE DDC SYSTEM PROVIDED ALL SAFETIES HAVE BEEN SATISFIED. OCCUPIED/UNOCCUPIED CONTROL OF THE SYSTEM SHALL BE BASED ON A USER-DEFINED OCCUPANCY SCHEDULE.
3. IN OCCUPIED MODE, THE ROOFTOP UNIT SHALL OPERATE CONTINUOUSLY TO MAINTAIN SUPPLY AIR TEMPERATURE. DISCHARGE AIR TEMPERATURE SHALL BE RESET AS HIGH AS POSSIBLE, WHILE STILL SATISFYING ALL ZONE COOLING REQUIREMENTS.
4. OUTSIDE AIR VOLUME SHALL BE CONTROLLED BY THE BMS ACCORDING TO INPUT FROM A CARBON DIOXIDE SENSOR LOCATED AS SHOWN ON PLANS. THE UNIT SHALL MAINTAIN MINIMUM OUTSIDE AIR, AS SCHEDULED, WHENEVER THE SYSTEM IS IN OCCUPIED MODE AND THE CO2 LEVEL IS BELOW THE SETPOINT (UNLESS OVERRIDDEN BY THE ECONOMIZER COOLING CONTROL). AS THE CARBON DIOXIDE LEVEL INCREASES, THE OUTSIDE AIR DAMPER SHALL MODULATE TO MEET THE SPACE VENTILATION REQUIREMENTS.

5. UNOCCUPIED: THE FAN SHALL REMAIN OFF AND THE OUTSIDE AIR DAMPER SHALL BE CLOSED. ANY SPACE SENSOR SHALL HAVE THE ABILITY TO CYCLE THE UNIT TO MAINTAIN NIGHT-SETBACK TEMPERATURE. AN OVERRIDE BUTTON ON THE SPACE SENSOR SHALL ALLOW THE RTU TO RUN IN THE OCCUPIED MODE FOR A TIMED PERIOD.
6. A MANUAL RESET FREEZE-STAT SHALL STOP THE UNIT AND CLOSE THE OUTSIDE AIR DAMPER IF THE TEMPERATURE FALLS BELOW SETPOINT.
7. AN ALARM CONDITION SHALL BE ACTIVATED ANYTIME THE RTU IS ENABLED AND FAILS TO OPERATE.

EXHAUST FAN:

1. THE EXHAUST FAN SHALL OPERATE CONTINUOUSLY DURING THE OCCUPIED PERIOD.
2. THE EXHAUST FAN SHALL NOT OPERATE DURING THE UNOCCUPIED PERIOD.
3. IF THE EXHAUST FAN IS ENABLED AND FAILS TO OPERATE, AN ALARM SHALL BE LOGGED AT THE USER WORKSTATION.

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3-15-10

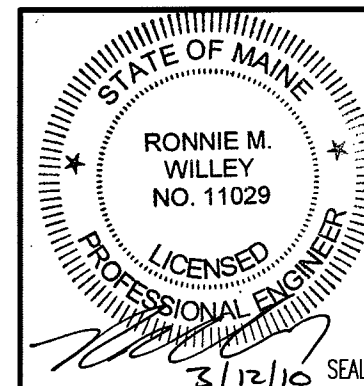
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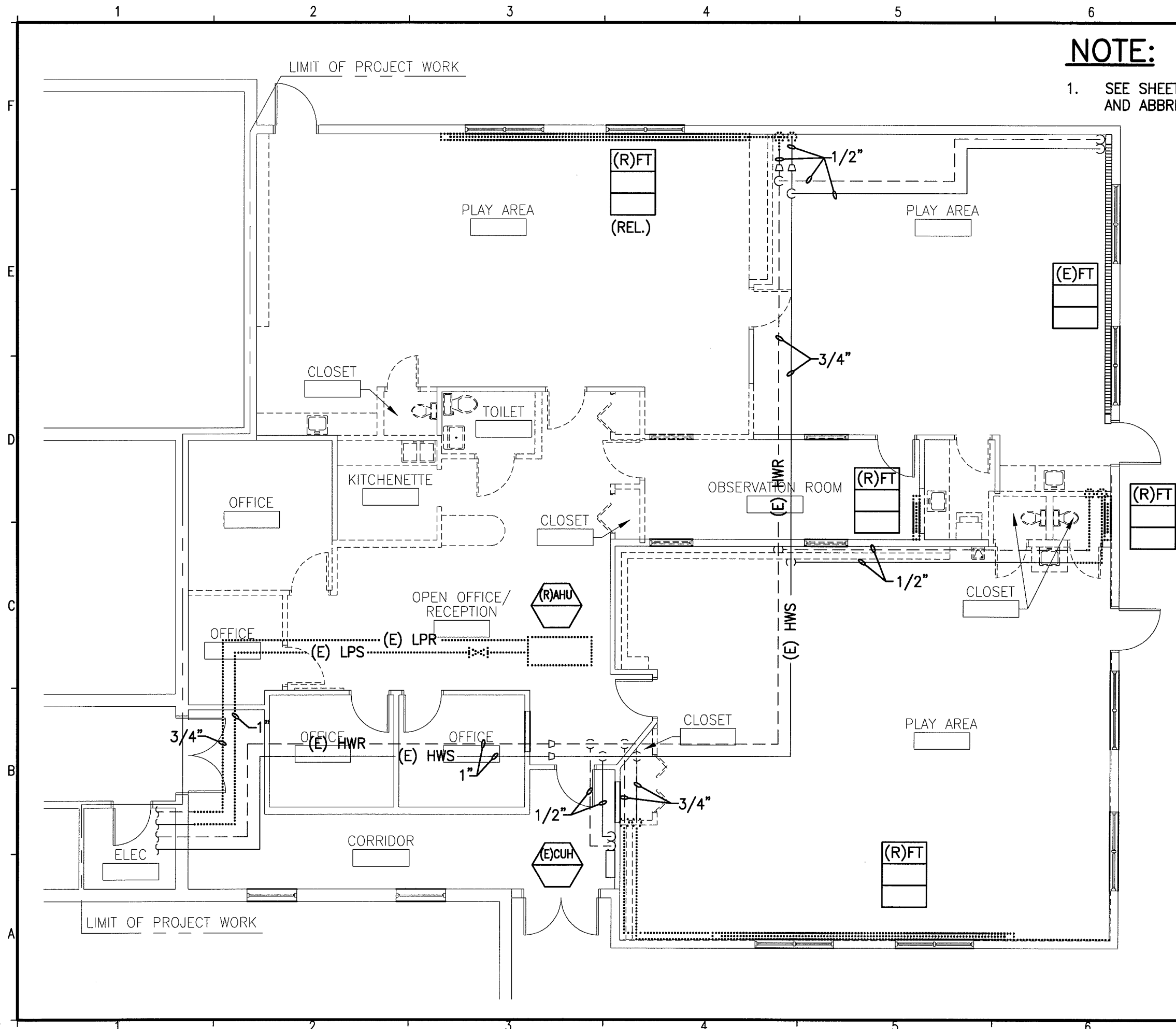
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A/E OF RECORD: RMW  
CAD FILE: M-005-09109  
PROJECT NO: 09109  
DATE: 3-15-10

SHEET TITLE:  
**GENERAL NOTES AND SPECIFICATIONS**

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PROJECT NORTH

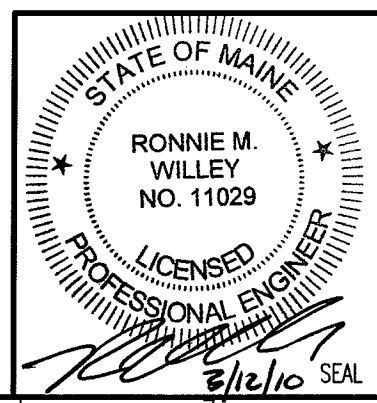
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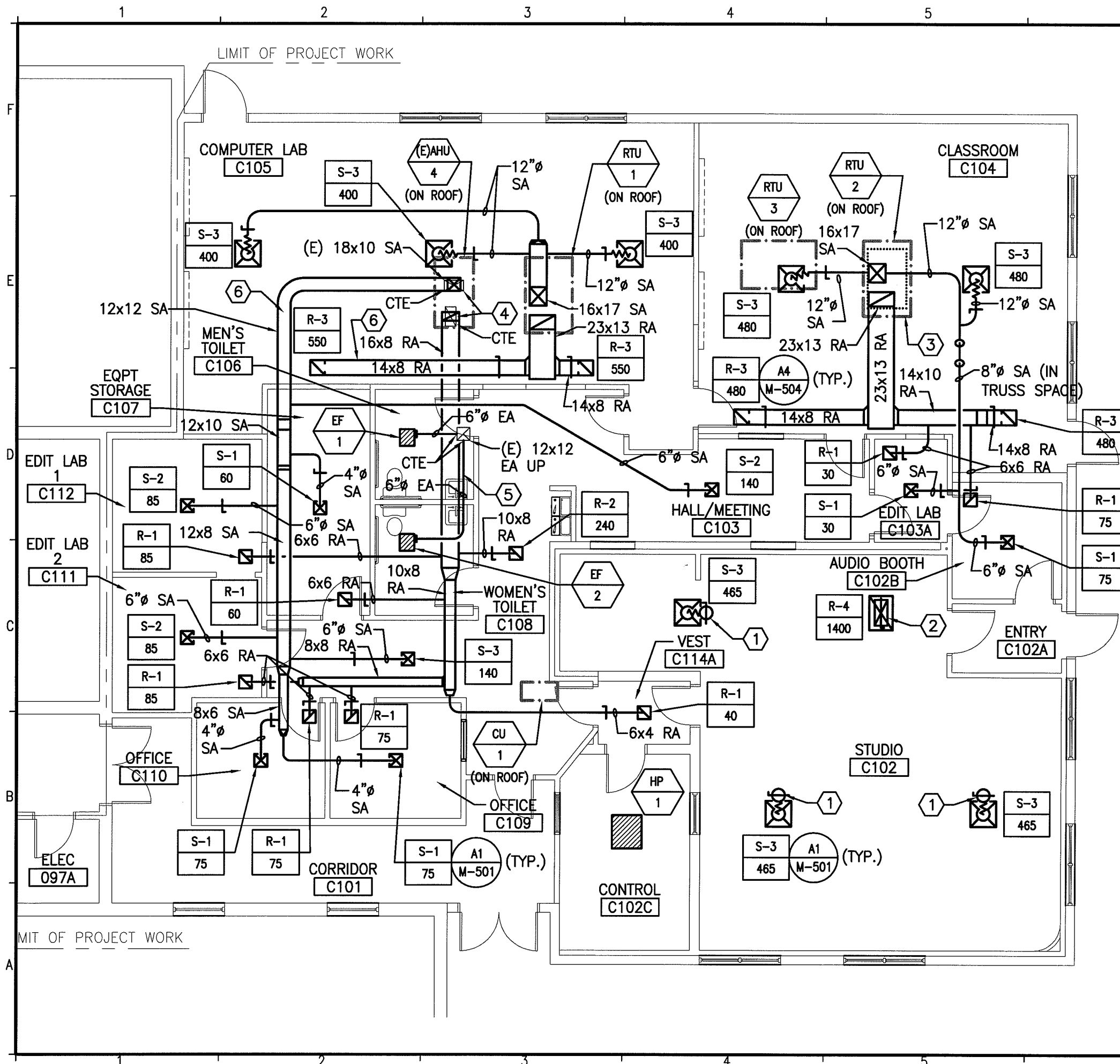
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SCALE:	1/8"=1'-0"
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A/E OF RECORD:	RMW
CAD FILE:	MD102-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**MECHANICAL PIPING DEMO PLAN**

SHEET No. **MD102**  
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**NOTE:**

1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**KEYED NOTES:**

- ① 12x12 SA DOWN THRU ROOF TRANSITION TO 12" FLEX IN CEILING SPACE. CONNECT TO DIFFUSER.
- ② 12x24 RA DOWN THRU ROOF. TRANSITION TO NECK SIZE OF RETURN GRILLE IN SPACE ABOVE CEILING. CONNECT TO GRILLE.
- ③ PROVED CURB ADAPTER AS REQUIRED TO INSTALL RTU-2 ON EXISTING CURB FROM REMOVED AIR HANDLING UNIT. (FIELD VERIFY EXISTING CURB SIZE).
- ④ TRANSITION AS REQUIRED TO CONNECT TO EXISTING DUCTWORK THRU ROOF FROM EXISTING ROOF TOP UNIT.
- ⑤ LOCATE 6" EA DUCTWORK FROM EF-1 AND EF-2 THRU WEBBING OF EXISTING STRUCTURE.
- ⑥ INSTALL DUCT TIGHT TO BOTTOM OF EXISTING ROOF STRUCTURE.

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PROJECT NORTH

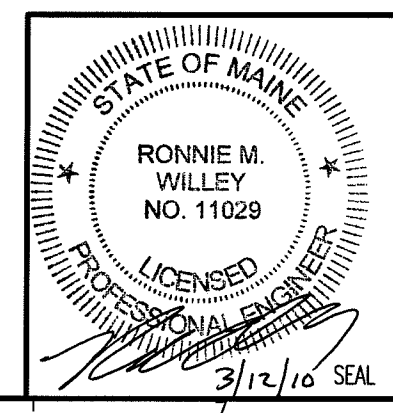
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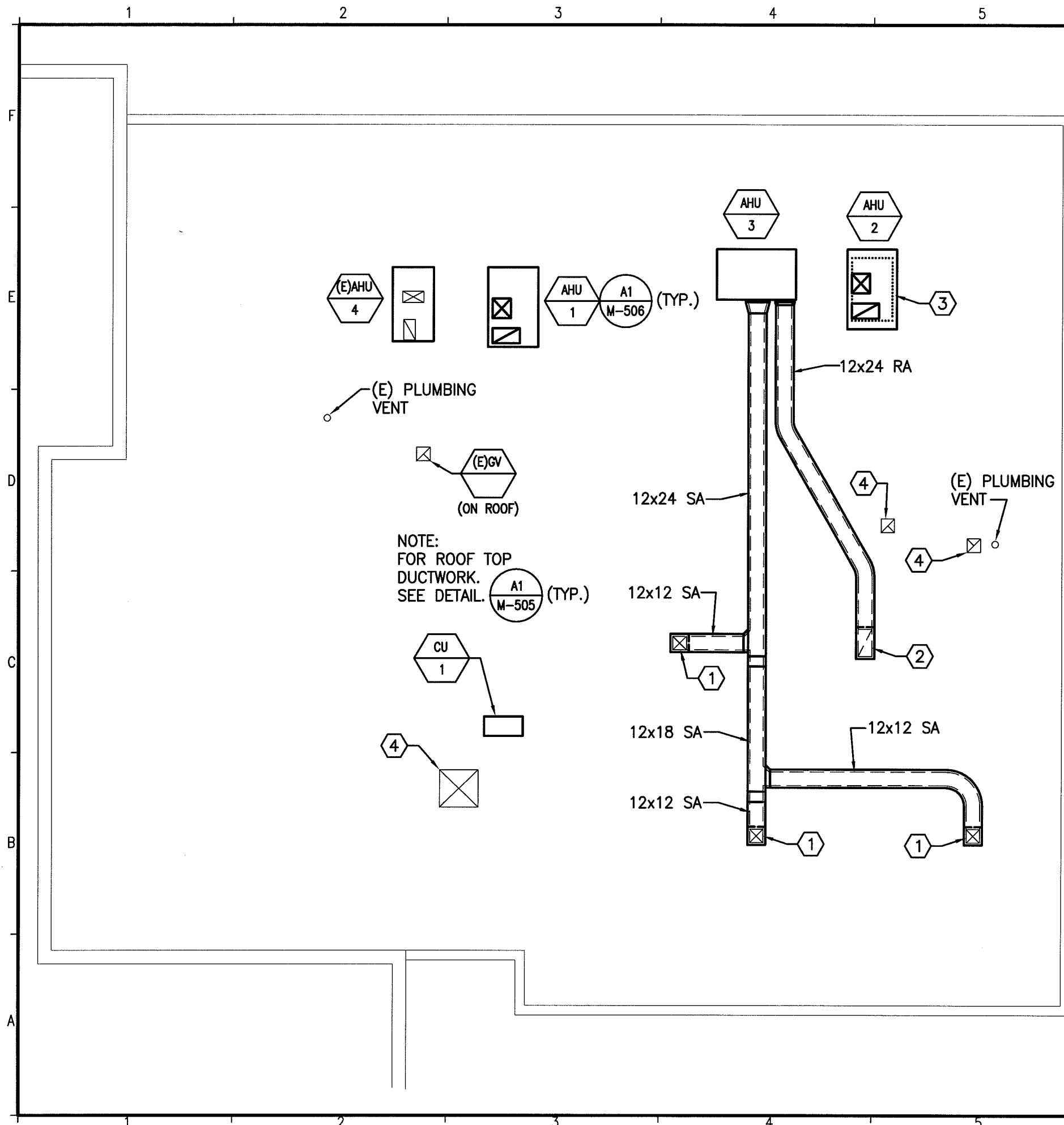
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CURRENT ISSUE STATUS:	REV	0

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JC/DRAWN BY:	KPB
A/E OF RECORD:	RMW
CAD FILE:	MH101-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:	<b>MECHANICAL DUCTWORK PLAN</b>
SHEET No.	<b>MH101</b>
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**NOTE:**

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**KEYED NOTES:**

- 12x12 SA DOWN THRU ROOF TRANSITION TO 12" FLEX IN CEILING SPACE. CONNECT TO DIFFUSER.
- 12x24 RA DOWN THRU ROOF. TRANSITION TO NECK SIZE OF RETURN GRILLE IN SPACE ABOVE CEILING. CONNECT TO GRILLE.
- PROVED CURB ADAPTER AS REQUIRED TO INSTALL RTU-2 ON EXISTING CURB FROM REMOVED AIR HANDLING UNIT. (FIELD VERIFY EXISTING CURB SIZE).
- REMOVE EXISTING GRAVITY VENTILATOR. EXISTING ROOF CURB TO REMAIN. PROVIDE WEATHER TIGHT 16 GA. GALV. SHEET METAL CAP OVER EXISTING CURB AND FILL CURB WITH BATT INSULATION. WELD ALL CAP CORNERS.

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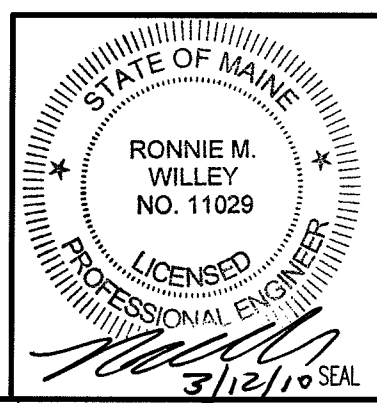
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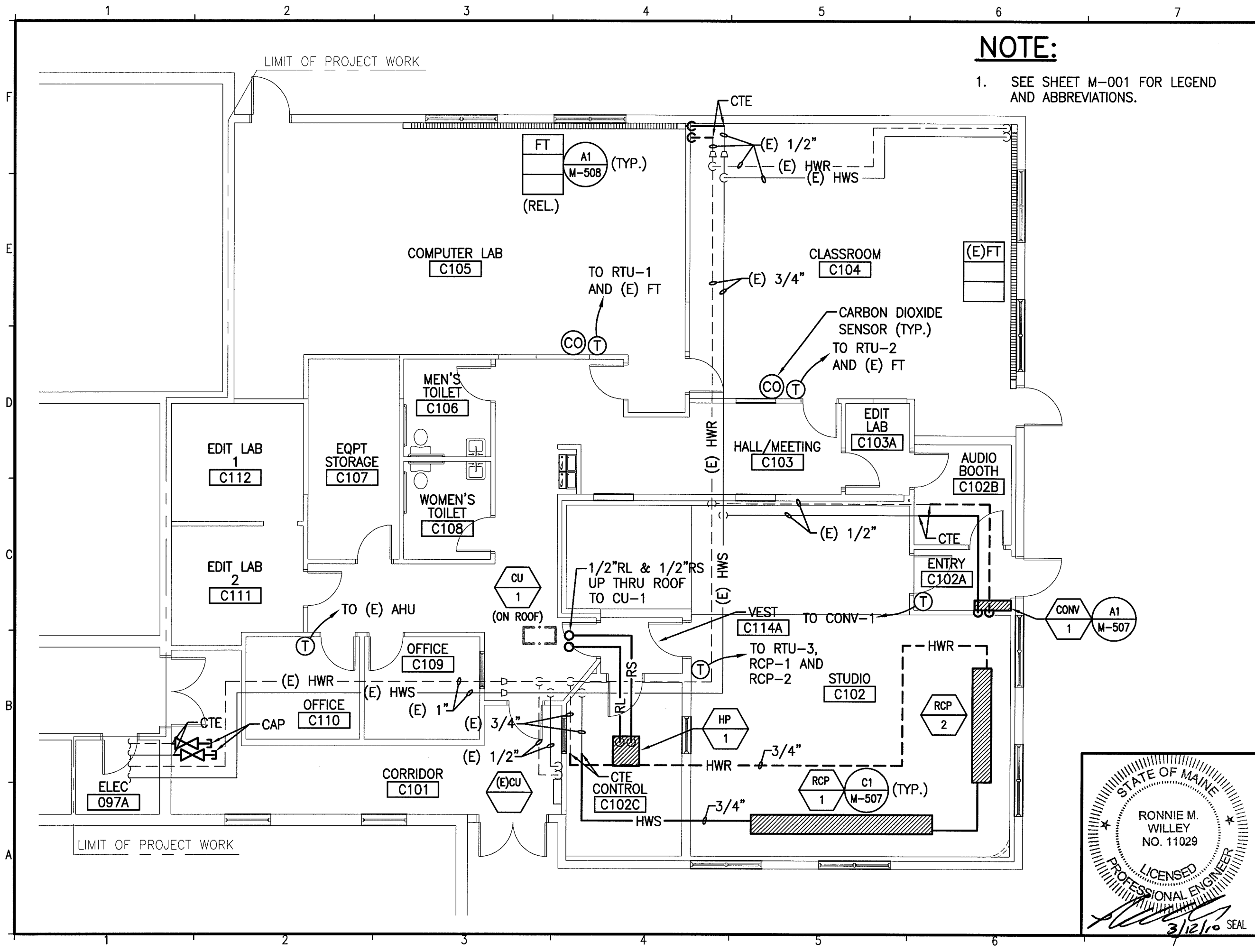
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 A/E OF RECORD: RMW  
 CAD FILE: MH102-09109  
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SHEET TITLE:  
**MECHANICAL DUCTWORK  
 ROOF PLAN**

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**NOTE:**

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PROJECT NORTH

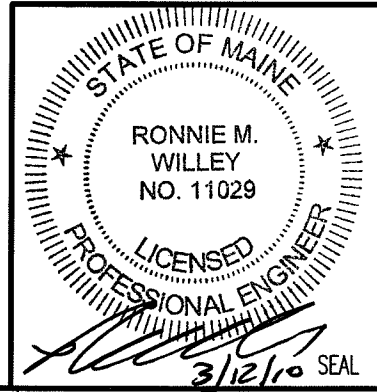
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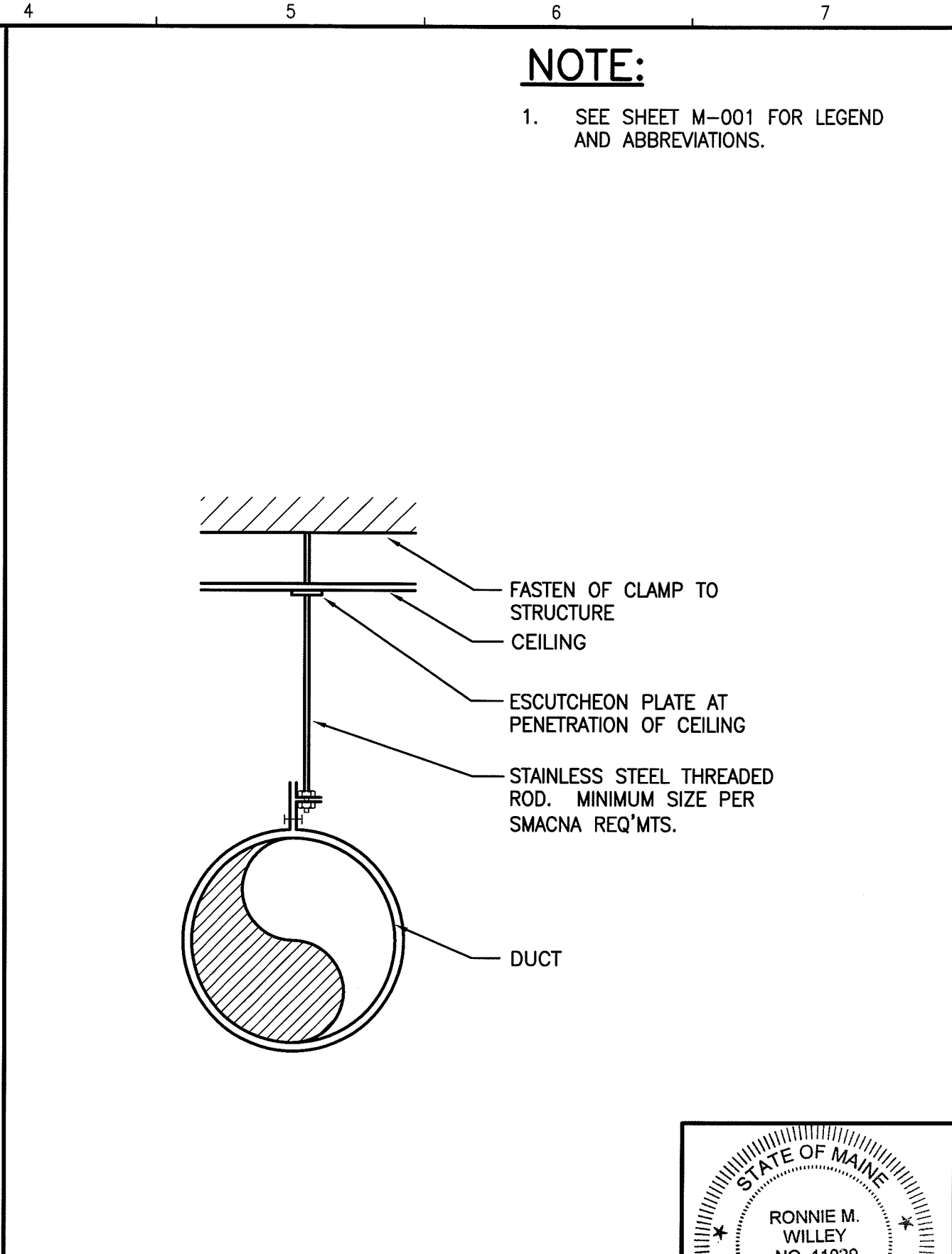
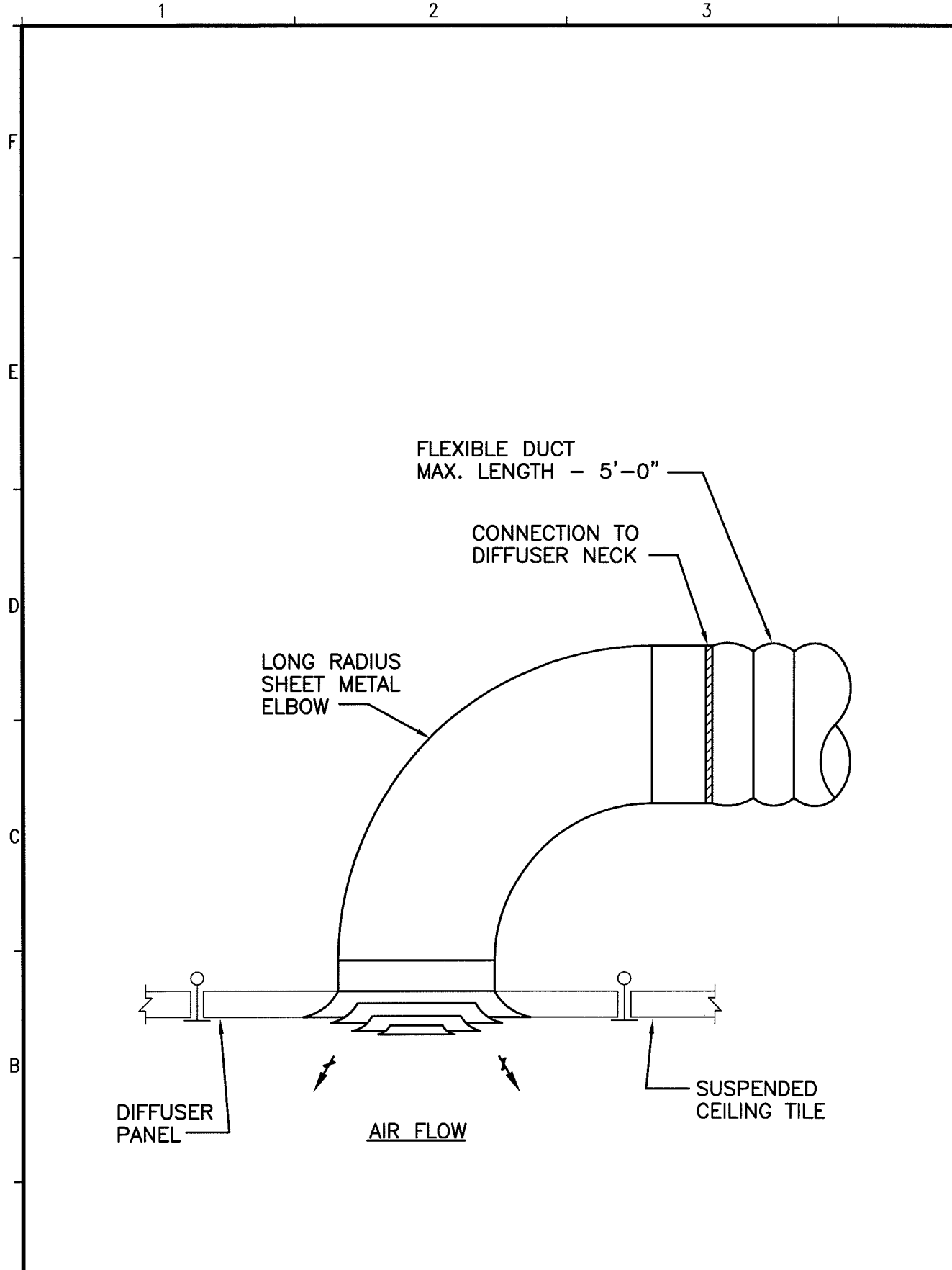
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REV	DESCRIPTION	DATE
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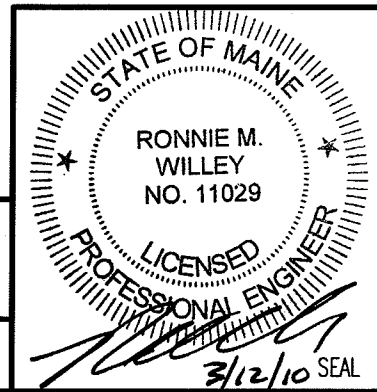
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DATE: 3-15-10

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**DETAILS**

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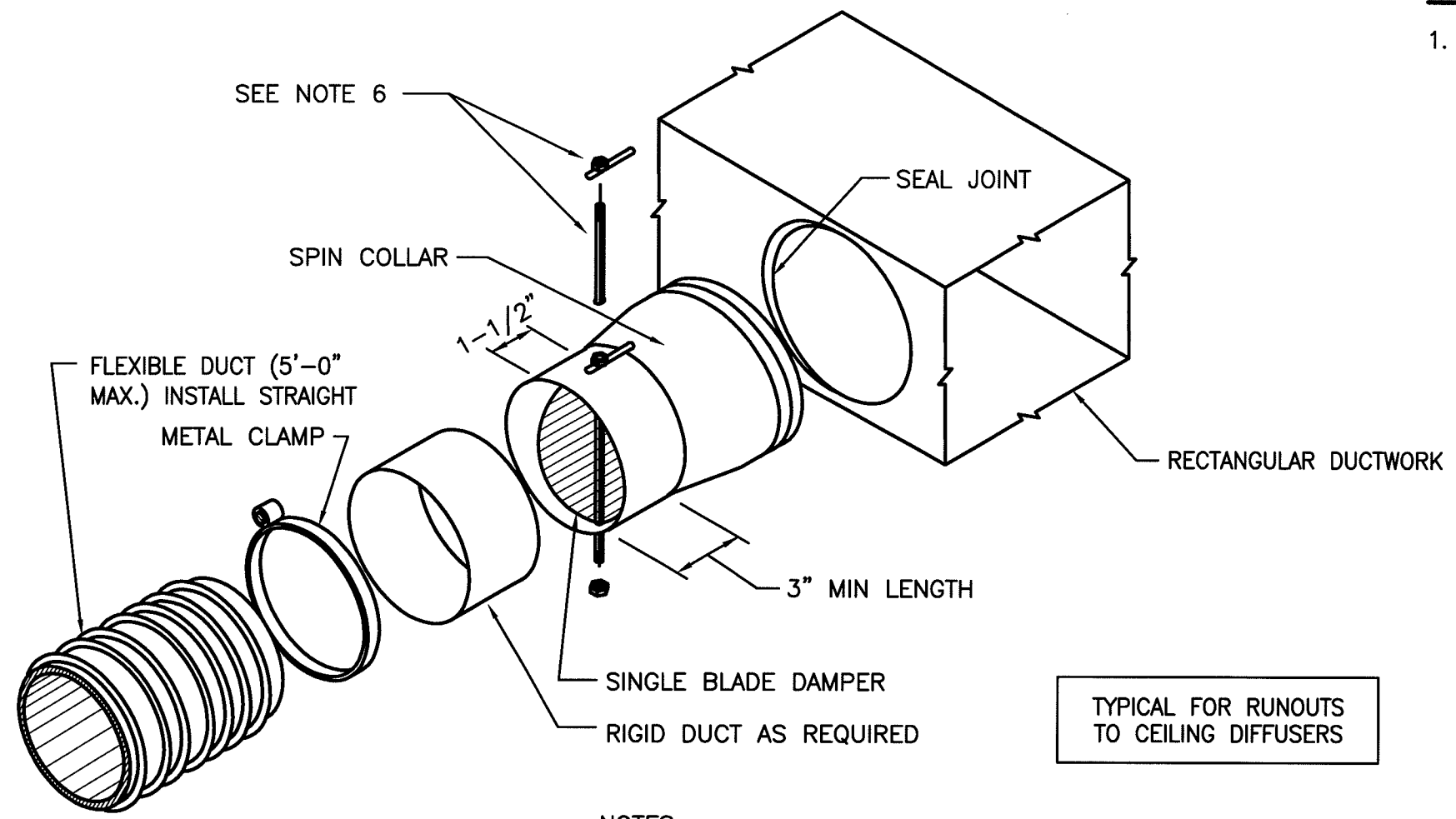


**A1**  
NOT TO SCALE

**FLEXIBLE DUCT**

**A4**  
NOT TO SCALE

**DUCT HANGER**



**NOTE:**

1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**NOTES:**

1. SUPPORT IN ACCORDANCE W/ SMACNA GUIDELINES.
2. BAND FLEX TO COLLAR 1/2" MINIMUM FROM OUTBOARD END OF COLLAR.
3. INSTALL SPIN COLLAR DAMPER IN OPEN POSITION; FINAL ADJUSTMENT BY TESTING AND BALANCING CONTRACTOR.
4. POP RIVET OR SHEET METAL SCREWS, MINIMUM 3 EA AT 120" INTERVALS, CONNECTING DUCT TO COLLAR. ENSURE RIVETS OR SCREWS DO NOT INTERFERE W/DAMPER.
5. SEAL JOINTS TO PREVENT LEAKAGE USE SPECIFIED SEALANTS.
6. INSTALL LOCKING QUADRANT AND HANDLE ON BOTTOM OF DUCT FOR EASY SERVICE (SHOWN ON TOP FOR EASE OF ILLUSTRATION ONLY).

TYPICAL FOR RUNOUTS TO CEILING DIFFUSERS

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PROJECT MANAGER: SLB

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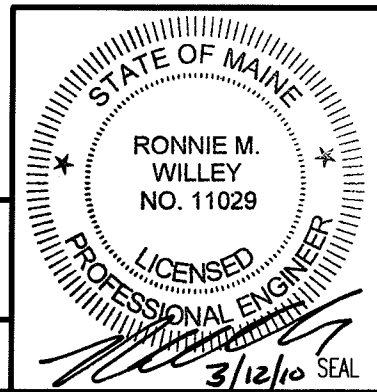
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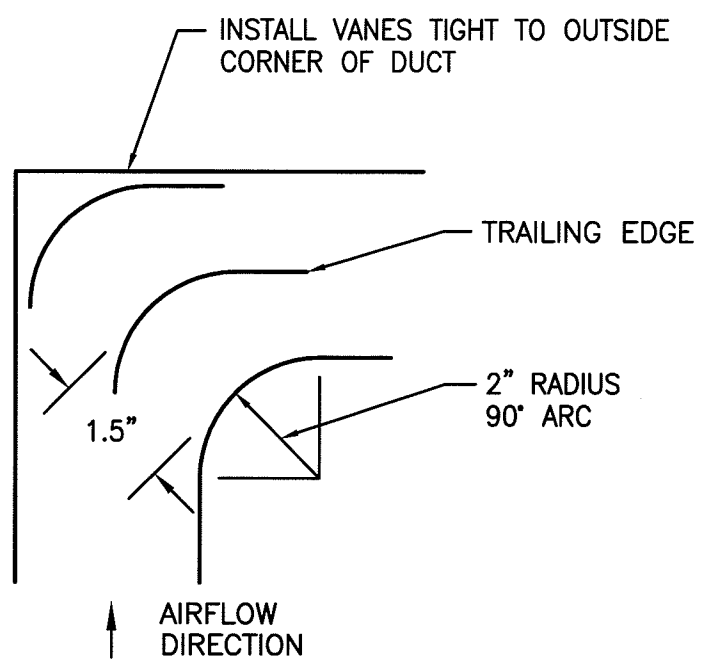


**A1**

**SPIN COLLAR DUCT CONNECTOR WITH DAMPER**

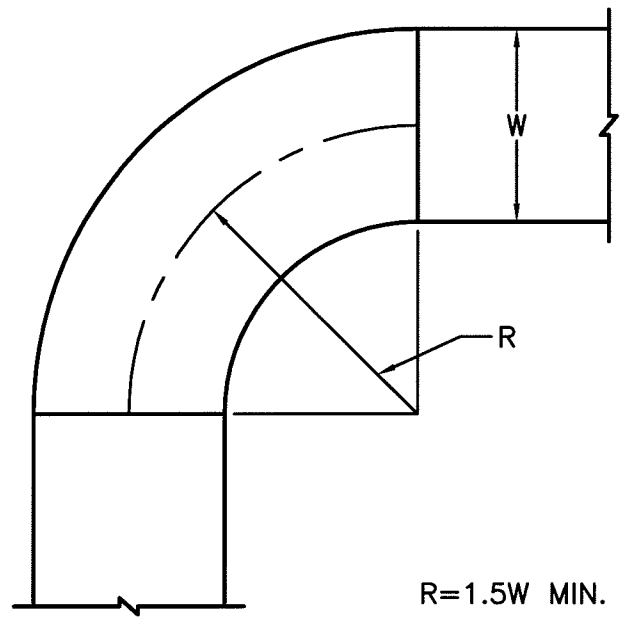
NOT TO SCALE

F  
E  
D  
C  
B  
A

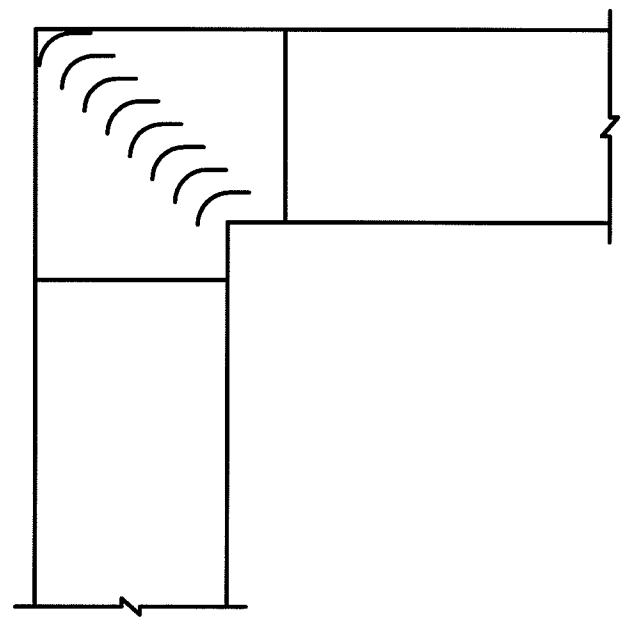


**NOTE:**  
1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**NOTE:**  
1. INSTALL VANE EDGES TO PROJECT TANGENTS PARALLEL TO DUCT SIDES.



RADIUS ELBOW  
N.T.S.



RECT. ELBOW W/TURNING VANES  
N.T.S.

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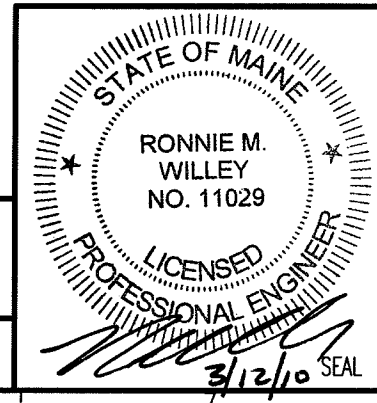
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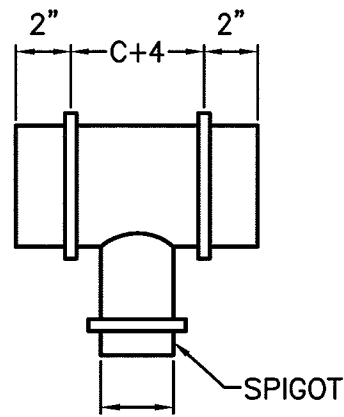
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DATE: 3-15-10



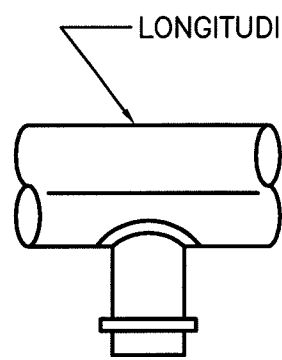
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**DETAILS**  
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**A1 LOW PRESSURE DUCT ELBOWS - TYPICAL**

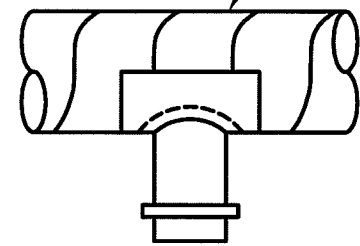
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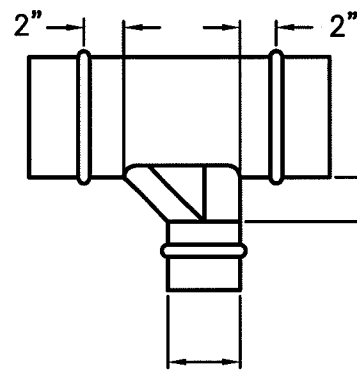
90° TEE FITTING



90° TAP

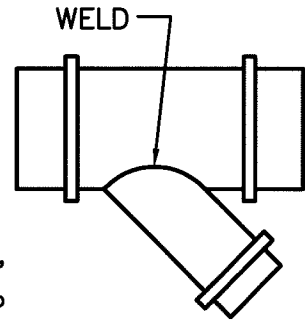


90° SADDLE TAP

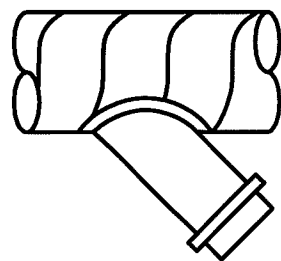


90° TEE WITH OVAL TO ROUND TAP

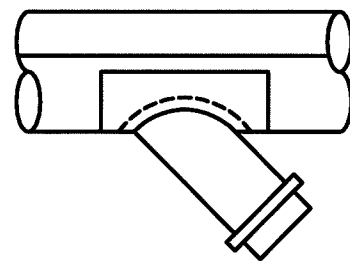
Y = 3" WHEN C=3-8"  
 6" WHEN C=9-16"  
 9" WHEN C=17-24"  
 12" WHEN C=25"-UP



45° LATERAL FITTING



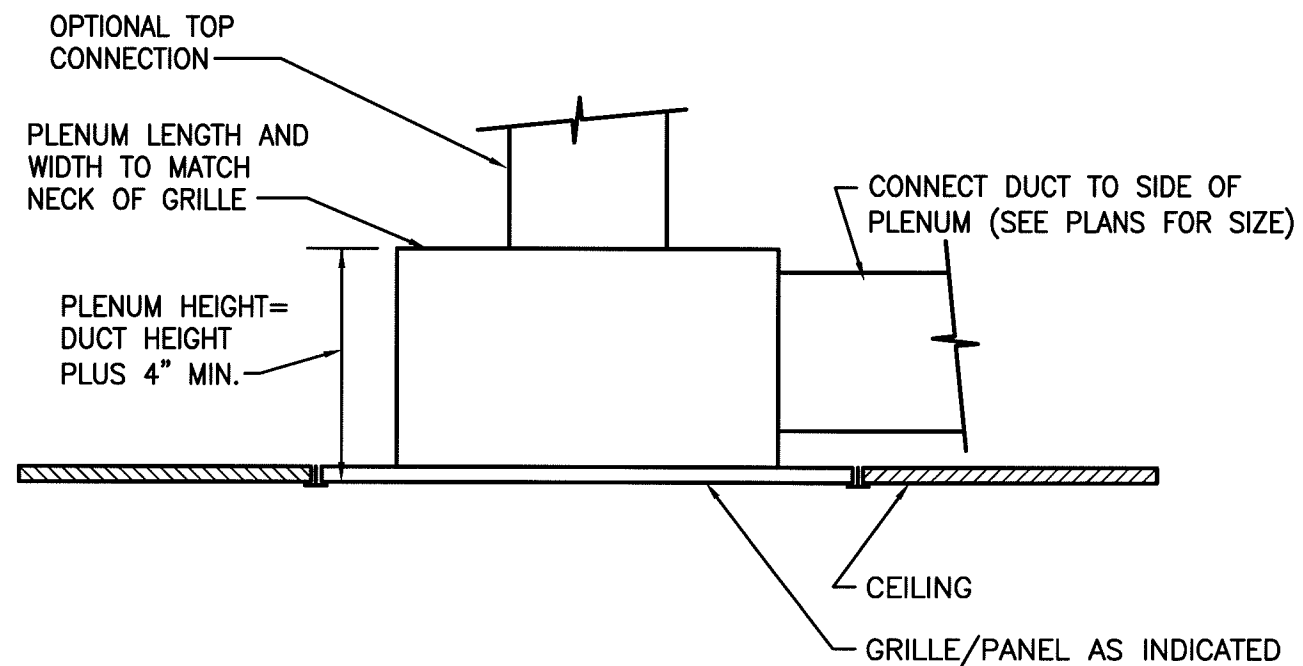
45° LATERAL TAP



45° LATERAL SADDLE TAP

**NOTE:**

1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.



A1

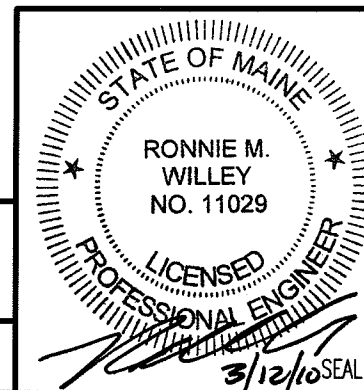
TEES AND LATERALS

A4

RETURN AIR PLENUM

NOT TO SCALE

NOT TO SCALE



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REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE

PROJECT MANAGER: SLB

JC/DRAWN BY: KPB

A/E OF RECORD: RMW

CAD FILE: M-504-09109

PROJECT NO: 09109

DATE: 3-15-10

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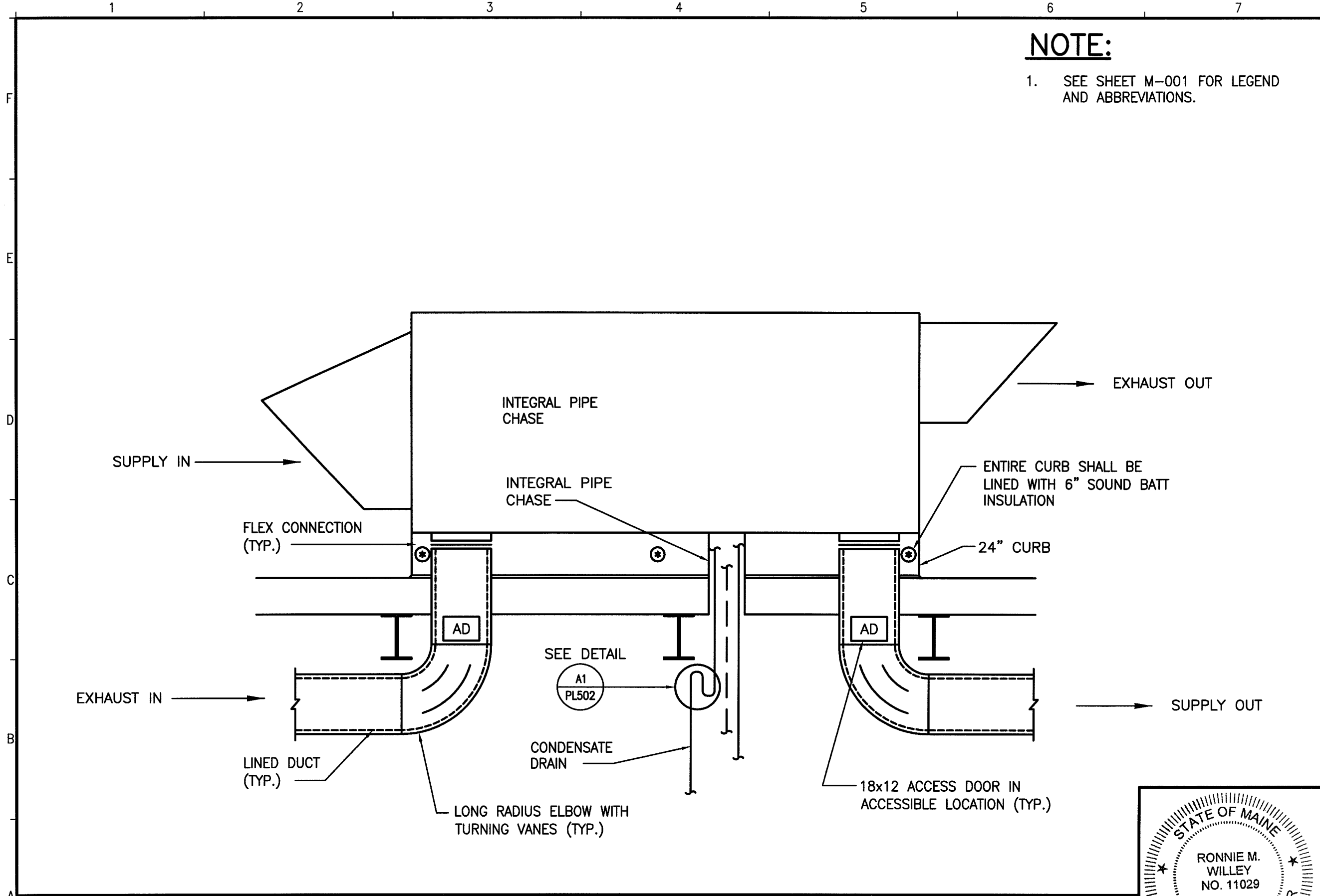
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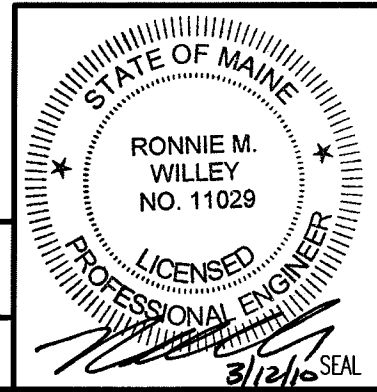
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CURRENT ISSUE STATUS:	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	NOT TO SCALE
PROJECT MANAGER:	SLB
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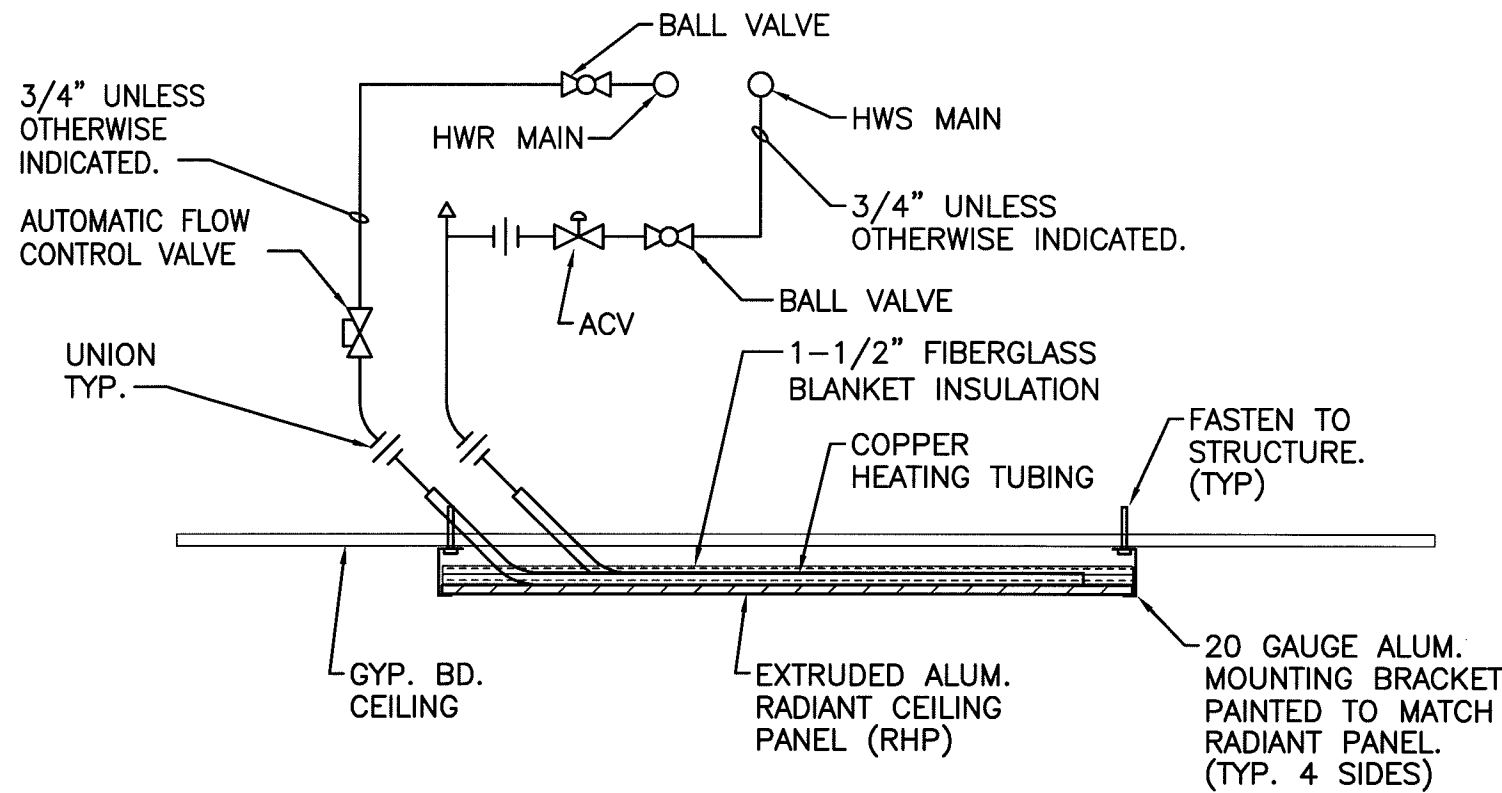
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 NOT TO SCALE

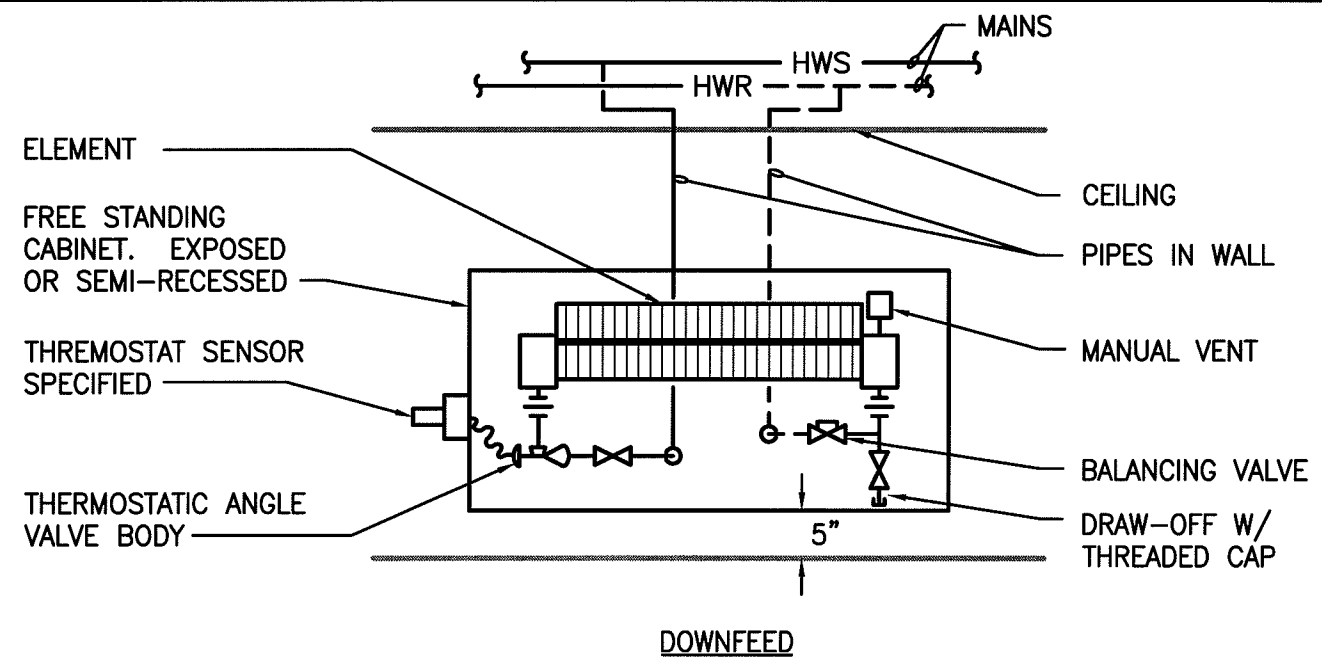
**SECTION THRU TYPICAL ROOFTOP HRU**



**NOTE:**  
1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**C1 RADIANT CEILING PANEL PIPING DETAIL**

NOT TO SCALE



**A1 CONVECTOR PIPING SCHEMATIC**

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**SULLIVAN GYMNASIUM ANNEX  
RENOVATION FOR COMMUNICATION  
& MEDIA STUDIES**  
LOCATION

ISSUED FOR PERMITTING AND CONSTRUCTION  
3-15-10

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE

PROJECT MANAGER: SLB

JC/DRAWN BY: KPB

A/E OF RECORD: RMW

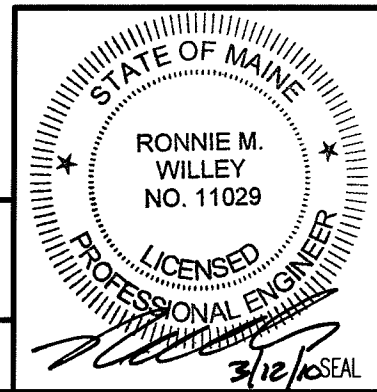
CAD FILE: M-507-09109

PROJECT NO: 09109

DATE: 3-15-10

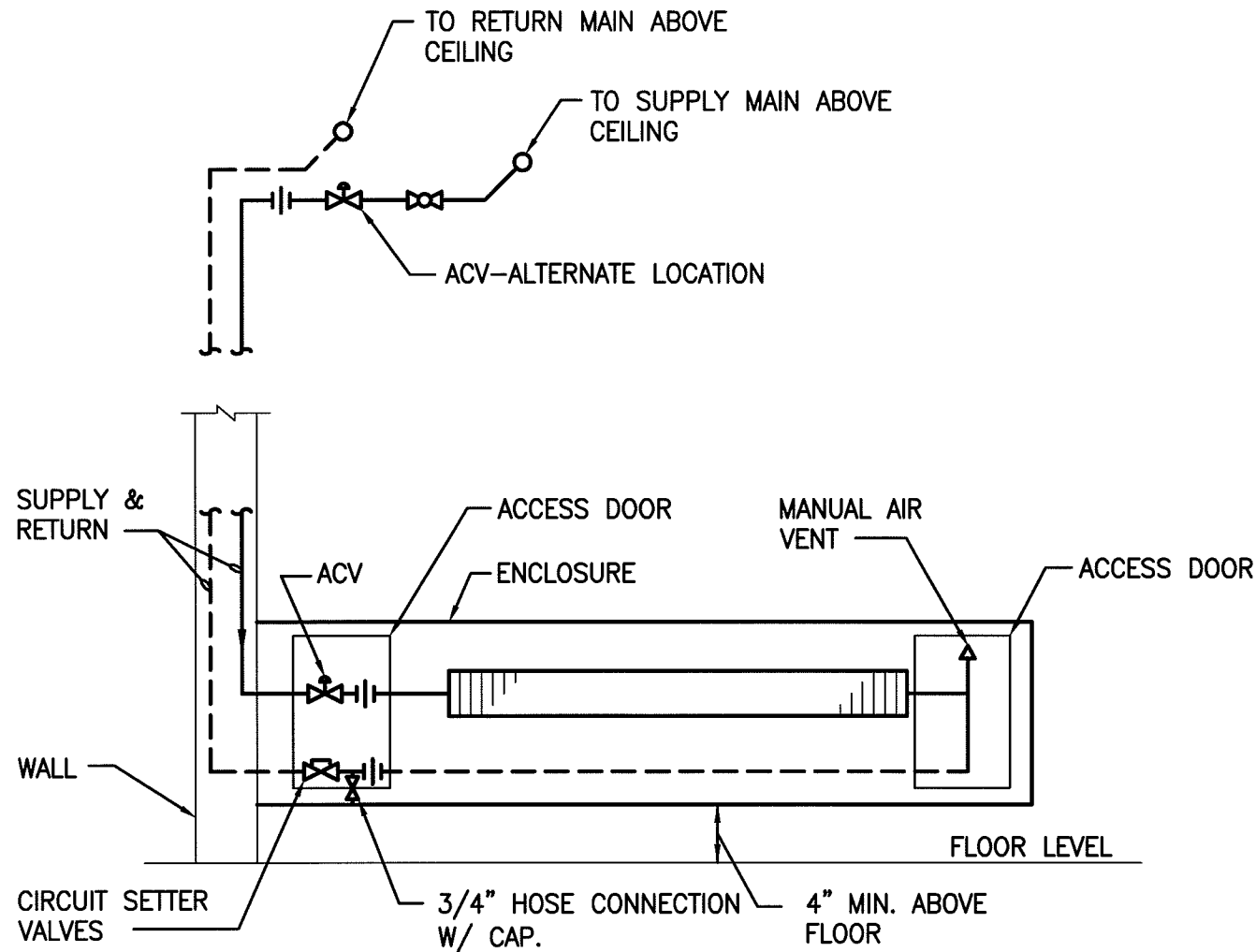
SHEET TITLE:  
**DETAILS**

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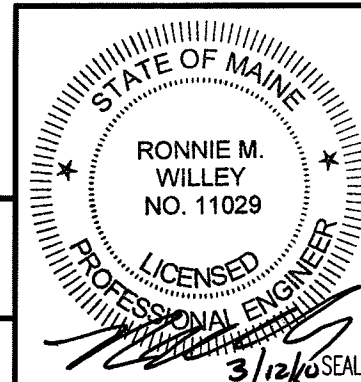
**NOTE:**

- SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.



**NOTE:**

- ALL PIPING SHALL BE CONCEALED.
- ALL FITTINGS SHALL BE EASILY ACCESSIBLE. VALVES TO BE ACCESSIBLE IN FIN TUBE VALVE ENCLOSURES, WHERE POSSIBLE.
- PIPING AND FITTINGS WITHIN ENCLOSURES DO NOT REQUIRE INSULATION.
- ALL RUNOUT PIPING SHALL BE CONCEALED.
- SCHEMATICS ARE SHOWN FOR TYP. ARRANGMENTS AND SHOW REQUIRED FITTINGS, VARIATIONS MAY OCCUR.
- ZONE VALVES MAY BE INSTALLED ABOVE ACCESSIBLE CEILINGS WHERE DROPS OR RISERS FEED SINGLE ZONES.



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 CAD FILE: M-508-09109  
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 DATE: 3-15-10

SHEET TITLE:  
**DETAILS**

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**A1**

**HOT WATER FIN-TUBE PIPING**

NOT TO SCALE



**NOTE:**

1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**FAN SCHEDULE**

TAG	LOCATION	SERVICE	TYPE	ROOF OPENING	CFM	SP IN W.G.	RPM	ELECTRICAL DATA			TYPICAL UNIT MFG & MODEL NO.	NOTES:
								BHP / HP	VOLTS	PH		
EF-1	C106	C106	CEILING MOUNT	EXISTING	75	.3"	900	64 WATTS	115	1	COOK / GEMINI GC-124	1
EF-2	C108	C108	CEILING MOUNT	EXISTING	75	.3"	900	64 WATTS	115	1	COOK / GEMINI GC-124	1

NOTES: 1. ALUMINUM GRILLE  
2.  
3.

**CONVECTOR SCHEDULE**

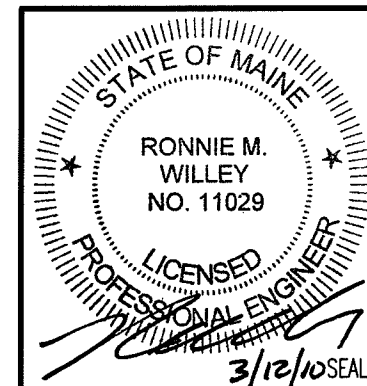
TAG	MBTU	GPM	LOCATION	EWT °F	LWT °F	EAT °F	ENCLOSURE				TYPICAL UNIT MFG & MODEL NO.	NOTES:
							H	D	W	STYLE		
CONV-1	5700	0.6	ENTRY C102A	180	160	65	32"	6"	40"	SLOPED TOP SURFACE MOUNTED	STERLING / SF-A32	*

NOTES: 1.  
2.  
3.

**RADIANT CEILING PANEL SCHEDULE**

TAG	BTU/LF	AVG. WATER TEMP.	DIM. (LxW)	TOTAL BTUH	PASSES	TYPICAL UNIT MFG & MODEL NO.	NOTES:
RCP-1	264	150	18'-0"x20"	4700	5	STERLING / SURFACE MOUNTED LINEAR RADIANT PANEL	
RCP-2	264	150	10'-0"x20"	2600	5	STERLING / SURFACE MOUNTED LINEAR RADIANT PANEL	

NOTES: 1.  
2.  
3.



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CAD FILE: M-601-09109  
PROJECT NO: 09109  
DATE: 3-15-10  
SHEET TITLE:  
**SCHEDULES**

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**NOTE:**

- SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**REGISTER, DIFFUSER & GRILL SCHEDULE**

TAG	CFM	NECK SIZE	TYPE	$\Delta P$	MAX NC	TYPICAL UNIT MFG & MODEL NO.	NOTES
R-1	90	6x6	LOUVERED	0.08"WG	<20	PRICE / 535	3
R-2	270	10x10	LOUVERED	0.08"WG	<25	PRICE / 535	3
R-3	550	14x14	LOUVERED	0.07"WG	<25	PRICE / 535	3
R-4	1400	32x22	LOUVERED	0.03"WG	<20	PRICE / 535	3
S-1	75	4"DIA.	LOUVERED	0.08"WG	<20	PRICE / SPD 12x12	2
S-2	140	6"DIA.	LOUVERED	0.08"WG	<20	PRICE / SPD 12x12	2
S-3	500	12"DIA.	LOUVERED	0.09"WG	<20	PRICE / SPD 24x24	1

- NOTES:
- PROVIDE BORDER TYPE 3 FOR LAY-IN CEILINGS AND BORDER TYPE 1 FOR SURFACE MOUNTED.
  - PROVIDE BORDER TYPE 3P FOR LAY-IN CEILINGS AND BORDER TYPE 1 FOR SURFACE MOUNTED.
  - PROVIDE BORDER TYPE TBP FOR LAY-IN CEILINGS AND BORDER TYPE 1 FOR SURFACE MOUNTED.

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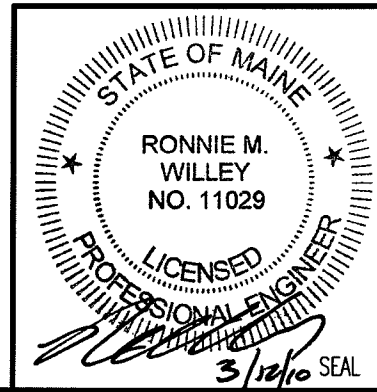
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0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE  
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 A/E OF RECORD: RMW  
 CAD FILE: M-602-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

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**SCHEDULES**

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# SPLIT SYSTEM HEAT PUMP SCHEDULE

INDOOR SECTION TAG	OUTDOOR SECTION TAG	TYPE	SERVES	TOTAL COOLING BTUH	EER	TOTAL HEATING BTUH	COP	INDOOR SECTION		
								CFM (DRY) HI-SPEED	FAN FLA	V/PH/HZ
HP-1	CU-1	*	CONTROL C102C	35400	9.8	38	3.2	1060	1.4	208/1/60

NOTES: 1.  
2.  
3.

## NOTE:

- SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

# SPLIT SYSTEM HEAT PUMP SCHEDULE (CONT)

OUTDOOR SECTION					INDOOR SECTION MODEL NO.	OUTDOOR SECTION MODEL NO.	NOTES:
FAN FLA	COMP RLA	COMP LRA	MCA	V/PH/HZ			
.75+.75	17.5	87	*	208/1/60	MITSUBISHI / PLA-36	MITSUBISHI / PUZ-36	1

NOTES: 1. UNIT PROVIDED WITH CONDENSATE DRAIN PUMP.  
2.  
3.

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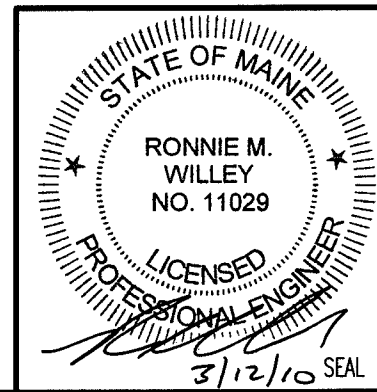


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REV	DESCRIPTION	DATE
1	OWNER RESPONSE	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: KPB  
 A/E OF RECORD: RMW  
 CAD FILE: M-603-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10



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**SCHEDULES**  
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## ROOFTOP AIR COND. UNIT SCHEDULE

TAG	LOCATION	NOM. TONS	SUPPLY FAN				COOLING CAPACITY				
			CFM	OA CFM	ESP (IN. W.C.)	BHP / HP	TOTAL MBH	SENS MBH	EAT °F		AMB °F
									DB	WB	
RTU-1	ROOF TOP	3	1200	240	.75"	0.48 / 1	37.06	25.98	77.3	64.8	95
RTU-2	ROOF TOP	3	1070	255	.75"	0.48 / 1	34.91	25.38	77.3	64.8	95
RTU-3	ROOF TOP	3	1400	45	.75"	0.48 / 1	36.93	29.32	77.3	64.8	95

NOTES: 1.  
2.  
3.

### NOTE:

1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

## ROOF TOP AIR COND. UNIT SCHEDULE (CONT.)

HTG CAP. N.G.		ELECTRICAL DATA			TYPICAL UNIT MFG & MODEL NO.	NOTES:
INPUT MBH	OUTPUT MBH	FAN HP	VOLT/Ø	MCA		
60	48	0.33	208/3	21.9	TRANE / YHC036	*
60	48	0.33	208/3	21.4	TRANE / YSC036	
60	48	0.33	208/3	21.4	TRANE / YSC036	1

NOTES: 1. PROVIDE UNIT WITH LOW AMBIENT CONTROLS.  
2.  
3.

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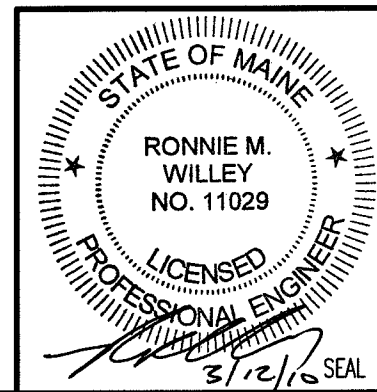
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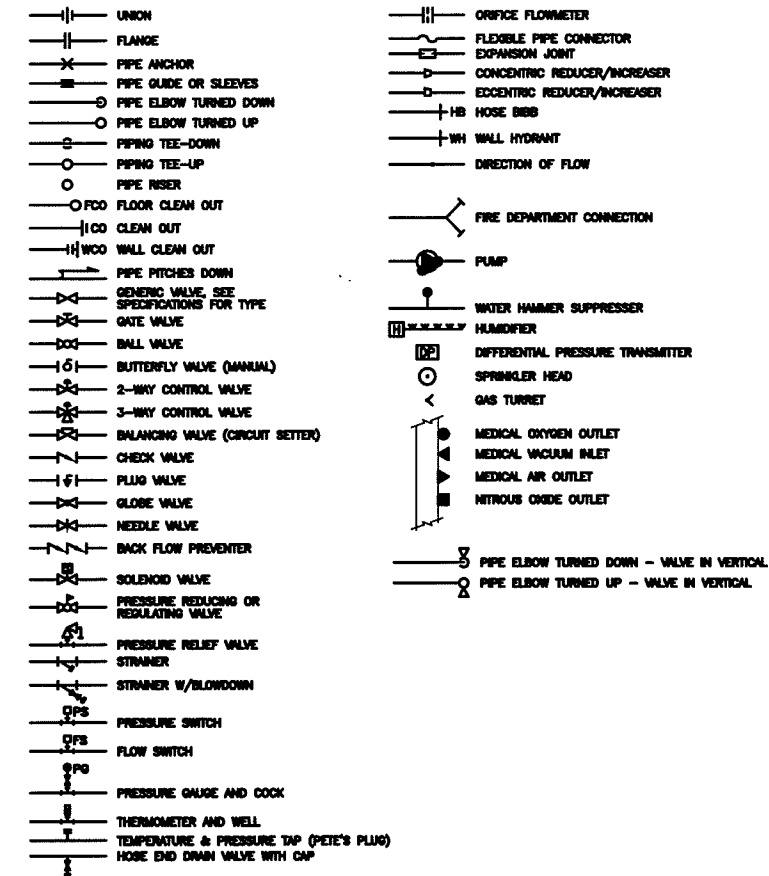
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 JC/DRAWN BY: KPB  
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 PROJECT NO: 09109  
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**SCHEDULES**  
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**PIPING SYMBOLS**



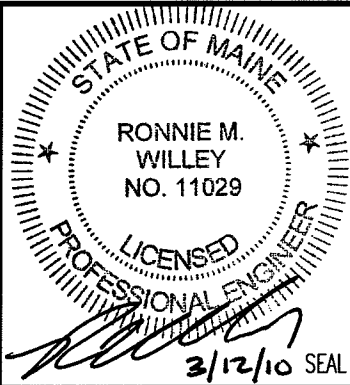
**ABBREVIATIONS**

AW	AUTOMATIC AIR VENT	ENC	ENCLOSURE	PPE	PRE PURCHASED EQUIPMENT
AD	ACCESS DOOR	(E)	EXISTING	PRS	PRESSURE REDUCING STATION
AF	ABOVE FINISHED FLOOR	EXST.	EXISTING	PRV	PRESSURE REDUCING VALVE
AHU	AIR HANDLING UNIT	FBO	FURNISHED BY OWNER	(R)	REMOVE
ATC	AUTOMATIC TEMPERATURE CONTROL	FC	FLEXIBLE CONNECTION	(REL.)	RELOCATED
AV	AIR VENT	FDO	FLOOR CLEANOUT	RD	ROOF DRAIN
BA	BREATHING COMPRESSED AIR	FD-f	FLOOR DRAIN TAG	RHC	REHEAT COIL
BFP	BACKFLOW PREVENTER	FG	FIBERGLASS	RM	ROOM
BLDG	BUILDING	FRHB	FREEZE RESISTANT HOSE BIBB	RPZ	REDUCED PRESSURE ZONE BFP
BOD	BOTTOM OF DUCT	FS	FLOW SWITCH	RV	RELIEF VALVE
BOP	BOTTOM OF PIPE	GC	GENERAL CONTRACTOR	SCV	SELF CONTAINED VALVE
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE	SS	STAINLESS STEEL
CF	CAPPED FOR FUTURE	H	HUMIDIFIER	TE	TEMPERATURIZED ELEMENT (SENSOR)
CFH	CUBIC FEET PER HOUR	HB	HOSE BIB	TOP	TOP OF PIPE
CLD	CEILING	HRTU	HEAT RECOVERY UNIT	TTS	TIGHT TO STEEL
CO	CLEANOUT	HTR	HEATER	TYP	TYPICAL
CONT	CONTINUATION	H & V	HEATING AND VENTILATION	UC	UP IN CHASE
COORD	COORDINATE	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	UN	UP IN WALL
CT	COOLING TOWER	HW	HOT WATER	UV	UNIT VENTILATOR
CIE	CONNECT TO EXISTING	HX	HEAT EXCHANGER	VB	VACUUM BREAKER
CU	COPPER	IN WG	INCHES WATER GAUGE	VTR	VENT THRU ROOF
CV	CONTROL VALVE	MAU	MAKE UP AIR UNIT	VCF	VALVED AND CAPPED FOR FUTURE
CW	COLD WATER	MAX	MAXIMUM	VFD	VARIABLE FREQUENCY DRIVE
CW-P	CITY WATER-PROCESS	MBH	1000 BTU/HR.	VOC	VOLATILE ORGANIC COMPOUNDS
DC	DOUBLE CONTAINED	ME	MECHANICAL ENGINEER	W/	WITH
DCO	DANDY CLEANOUT	MFR	MANUFACTURER	W&T	WASTE AND TRAP
DDC	DIRECT DIGITAL CONTROL	MIN	MINIMUM	WCO	WALL CLEANOUT
DA	DIAMETER	MPV	MULTI-PURPOSE VALVE	WH	WALL HYDRANT
DIC	DOWN IN CHASE	MTD	MOUNTED		
DIW	DOWN IN WALL	MUA	MAKE UP AIR		
DN	DOWN	NPW	NON-POTABLE WATER		
DS	DOWNSPOUT	NTS	NOT TO SCALE		
DT	DROP AND TRANSITION	P-f	PLUMBING FEATURE TAG		
DWG	DRAWING	PP	POLY-PROPYLENE		
DWH	DOMESTIC WATER HEATER				

**PIPING SYSTEMS**

AV	ACID VENT	MV	MEDICAL VACUUM	TEMP	DOMESTIC HOT WATER (TEMP °F)
AD	ACID DRAIN	N2NP	NON-PROCESS NITROGEN	TEMP	RECIRC. DOMESTIC HOT WATER (TEMP °F)
AD	ACID DRAIN (BELOW SLAB)	N2	NITROGEN	CW	DOMESTIC COLD WATER
BA	BREATHING AIR	NG	NATURAL GAS	HW	DOMESTIC HOT WATER
CD	CONDENSATE DRAIN	HNG	HIGH PRESSURE NATURAL GAS	RHW	RECIRCULATED DOMESTIC HOT WATER
COA	COMPRESSED DRY AIR	NO2	NITROUS OXIDE	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE
DB	DISTRIBUTION VALVE BOX	NEG. SOLV.	NEGATIVE SOLVENT DRAIN	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (DGST.)
DIS	DEIONIZED WATER SUPPLY	NPW	NON POTABLE COLD WATER	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (BELOW SLAB)
DR	DEIONIZED WATER RETURN	O2	OXYGEN	S, W or KW	S SANITARY, W WASTE & KW KITCHEN WASTE (BELOW SLAB-EXIST.)
ENC	ENCLOSURE	OFA	OIL FREE COMPRESSED AIR	SD	STORM DRAIN
EW	EYEWASH	PD	PUMPED DISCHARGE	SD	STORM DRAIN (EXIST.)
GLY	GLYCOL	POS. SOLV.	POSITIVE SOLVENT DRAIN	SD	STORM DRAIN (BELOW SLAB)
GV	GAS VENT	PW	POTABLE WATER	SD	STORM DRAIN (BELOW SLAB-EXIST.)
H	HYDROGEN	R	RELIEF LINE	V	SANITARY VENT
H2O2	HYDROGEN PEROXIDE	S/D	MIXED SOLVENT DRAIN	V	SANITARY VENT (EXIST.)
HCV	HOUSE CLEAN VACUUM	SV	SOLVENT	V	SANITARY VENT (BELOW SLAB)
IA	ISOPROPYL ALCOHOL DRAIN	SP	SPRINKLER	V	SANITARY VENT (BELOW SLAB-EXIST.)
LP	LIQUID PROPANE GAS	VAC	VACUUM		
HLP	HIGH PRESSURE LIQUID PROPANE GAS	ZB	ZONE VALVE BOX		
MA	MEDICAL AIR				

**GENERAL NOTE**  
 1. ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING 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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SHEET TITLE:

**LEGEND AND ABBREVIATIONS**

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# SPECIFICATIONS

## SPECIFICATIONS AND NOTES

### GENERAL

1. VERIFY ALL MEASUREMENTS AND EXISTING CONDITIONS IN THE FIELD. GENERAL SCHEMATIC LAYOUT IS INDICATED, ALL OFFSETS, OBSTRUCTIONS, AND EXISTING CONFIGURATIONS AND CONSTRAINTS MUST BE FIELD VERIFIED.
2. INSTALL ALL NEW COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, ALL LOCAL CODES AND STANDARDS.
3. PERFORM PLUMBING WORK PER THE MAINE STATE INTERNAL PLUMBING RULES.
4. COORDINATE ELECTRICAL POWER REQUIREMENTS FOR ALL MOTORS.
5. THIS RENOVATION WORK WILL TAKE PLACE IN AN OCCUPIED OFFICE BUILDING. INSTALLATIONS SHALL NOT AFFECT ONGOING OPERATIONS. HOURS AVAILABLE TO PERFORM WORK (PREMIUM TIME) WILL NEED TO BE COORDINATED WITH SARTOMER COMPANY, INC.
6. SEAL ALL DUCT AND PIPE PENETRATIONS WITH FIRE SEALANT.
7. EQUIPMENT LISTED IS THE BASIS OF DESIGN, OR APPROVED EQUAL.

### SUBMITTALS

1. PRODUCT DATA: SUBMIT MANUFACTURERS PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.
2. OPERATION AND MAINTENANCE DATA: SUBMIT MANUFACTURERS OPERATION AND MAINTENANCE DATA, INCLUDING OPERATION INSTRUCTIONS, LIST OF SPARE PARTS AND MAINTENANCE SCHEDULE.

### PLUMBING PIPING

1. ALL PIPING SHALL BE PRESSURE TESTED. SUPPORT ALL PIPING IN ACCORDANCE WITH MSS STANDARD PRACTICE SP-69. PROVIDE ADJUSTABLE CLEVIS HANGERS AND FLOOR SUPPORTS, WITH INSULATION SHIELDS AS REQUIRED.
2. PROVIDE COMPONENTS AND INSTALLATIONS CAPABLE OF PRODUCING PIPING SYSTEMS WITH THE FOLLOWING MINIMUM WORKING PRESSURE RATINGS, UNLESS OTHERWISE NOTED.
  - A. WATER SUPPLY SYSTEMS, ABOVE GROUND: 125 PSIG.
  - B. WATER SUPPLY SYSTEMS, BELOW GROUND: 150 PSIG.
  - C. DWV, (GRAVITY) SYSTEMS: 10 FOOT OF HEAD OF WATER.
3. WATER SUPPLY PIPING, ABOVE GRADE: TYPE L SEAMLESS HARD DRAWN COPPER TUBING, COPPER FITTINGS, AND LEAD FREE SOLDERED JOINTS.
4. WATER SUPPLY VALVES: FULL SIZE BRONZE GATE VALVES OR FULL-PORT BRONZE BALL VALVES. PROVIDE BALANCING VALVES ON EACH RE-CIRCULATED HOT WATER BRANCH. PROVIDE LOW-POINT DRAIN VALVES AND HIGH POINT VENT VALVES ON SERVICES.
  - A. MANUFACTURERS: HAMMOND, JENKINS, NIBCO OR APPROVED EQUAL.

### PLUMBING FIXTURES

1. FIXTURES TO BE COMMERCIAL GRADE, LOW CONSUMPTION, AND ADA COMPLIANT WHERE INDICATED ON THE PLANS AND WHERE REQUIRED BY CODE.
2. WATER CLOSETS TO BE FLUSH VALVE TYPE, FLOOR MOUNTED.
  - A. MANUFACTURERS, (OR APPROVED EQUALS)
    1. VITREOUS CHINA FIXTURES: KOHLER, ELJER, AMERICAN STANDARD.
    2. FLUSH VALVES: SLOAN, ZURN, DELANY.
3. LAVATORIES TO BE WALL MOUNTED WITH SENSOR OPERATED FAUCETS.
  - A. MANUFACTURERS, (OR APPROVED EQUALS):
    1. VITREOUS CHINA FIXTURES: KOHLER, ELJER, AMERICAN STANDARD.
    2. FAUCETS: CHICAGO, SYMMONS, SPEAKMAN, WITH 0.5 GPM AERATORS.
    3. CARRIERS AND SUPPORTS: ZURN, CHICAGO, MCGUIRE

### PIPING INSULATION

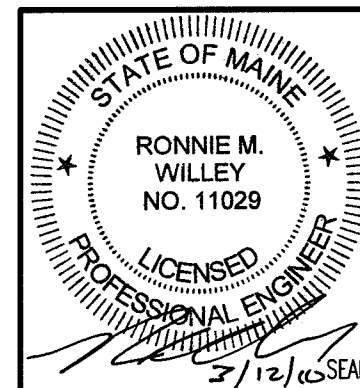
1. FIBERGLASS INSULATION WITH ALL SERVICE JACKET, 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
2. DOMESTIC HOT WATER: RUNOUTS TO FIXTURES: 1/2" THICKNESS.
3. DOMESTIC COLD WATER: RUNOUTS TO FIXTURES: 1/2" THICKNESS.
4. REFRIGERANT LINES: FLEXIBLE ELASTOMERIC EQUAL TO ARMAFLEX OR NOMACO K-FLEX.

### FUEL GAS PIPING (NATURAL GAS)

6. ALL PIPING SHALL BE INSPECTED, TESTED AND PURGED ACCORDING TO ANSI Z2232.1, CHAPTER 7 "INSPECTION, TESTING, AND PURGING.
7. GAS PIPING: ASTM A 53; TYPE E OR S; GRADE B; SCHEDULE 40; BLACK.
8. GAS VALVES, NPS 2 AND SMALLER: ASME B16.33 AND IAS-LISTED BRONZE BODY AND 125PSIG PRESSURE RATING. END CONNECTIONS TO BE THREADED OT FLANGED.

### IDENTIFICATION

1. LABELING SHALL APPEAR AT INTERVALS OF NOT MORE THAN 20 FEET AND AT LEAST ONCE IN EACH ROOM AND EACH STORY TRAVERSED BY THE PIPING SYSTEM. ALL PIPING SHALL BE CLEARLY IDENTIFIED SPECIFICALLY FOR TYPE



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LOCATION

CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
1	OWNER RESPONSE	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE

PROJECT MANAGER: SLB

JC/DRAWN BY: KPB

A/E OF RECORD: RMW

CAD FILE: P-002-09109

PROJECT NO: 09109

DATE: 3-15-10

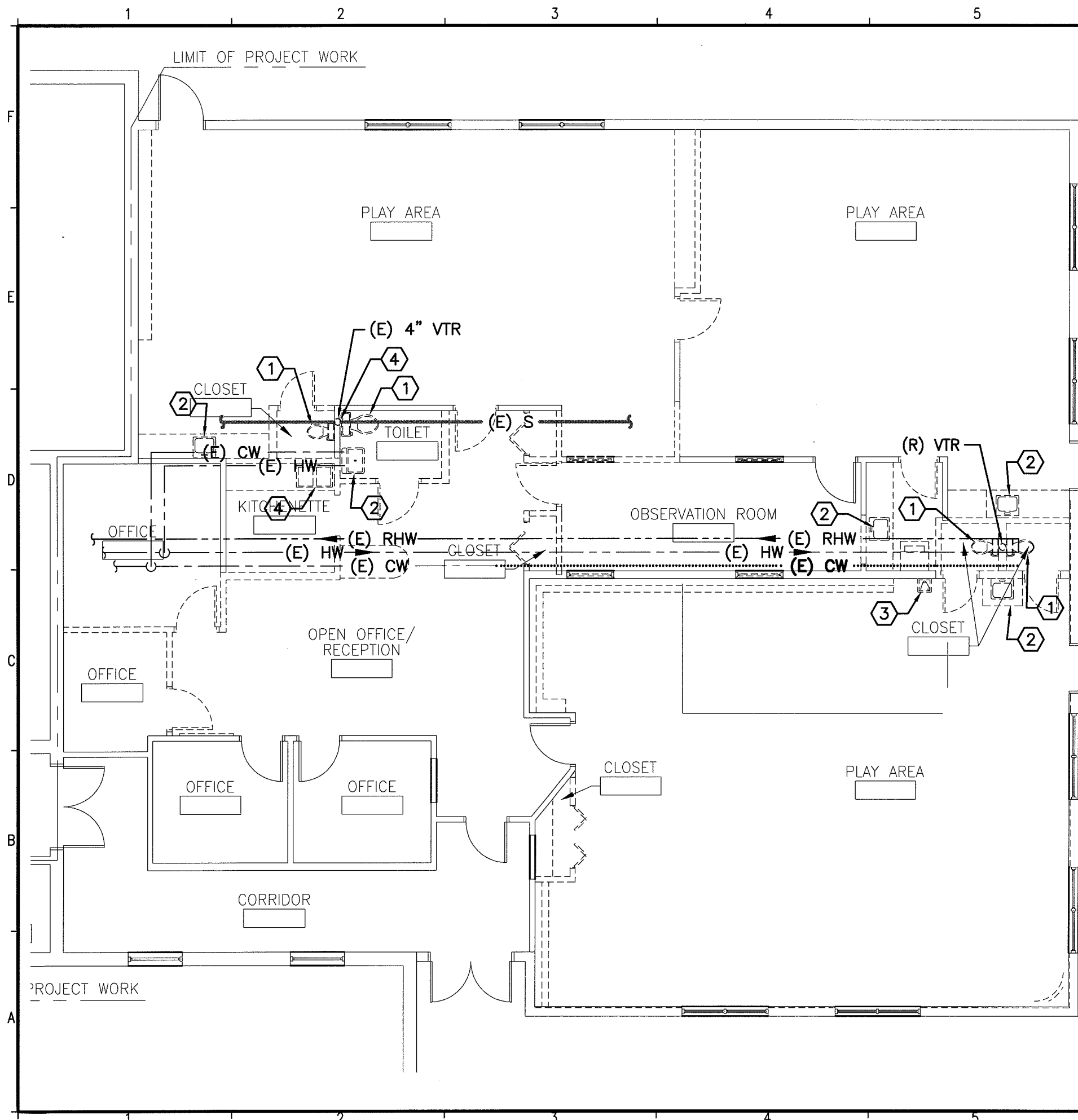
SHEET TITLE:

**GENERAL NOTES AND  
SPECIFICATIONS**

SHEET No.

**P-002**

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**NOTE:**

1. SEE SHEET P-001 FOR LEGEND AND ABBREVIATIONS.

**KEYED NOTES:**

- ① REMOVE EXISTING WATER CLOSET AND ASSOCIATED CW PIPING COMPLETE BACK TO ISOLATION VALVE ABOVE CEILING AND CAP. REMOVE ASSOCIATED VENT PIPING AND CAP. REMOVE ASSOCIATED SANITARY PIPING TO BELOW SLAB AND INSTALL CAP. (SAW CUT AND PATCH SLAB AS REQUIRED).
- ② REMOVE EXISTING SINK AND/OR LAVATORY AND ASSOCIATED HW AND CW PIPING COMPLETE BACK TO ISOLATION VALVE ABOVE CEILING AND CAP. REMOVE ASSOCIATED VENT PIPING AND CAP. REMOVE ASSOCIATED SANITARY PIPING TO BELOW SLAB AND INSTALL CAP. (SAW CUT AND PATCH SLAB AS REQUIRED).
- ③ REMOVE EXISTING DRINKING FOUNTAIN AND ASSOCIATED HW AND CW PIPING COMPLETE BACK TO ISOLATION VALVE ABOVE CEILING AND CAP. REMOVE ASSOCIATED VENT PIPING AND CAP. REMOVE ASSOCIATED SANITARY PIPING TO BELOW SLAB AND INSTALL CAP. (SAW CUT AND PATCH SLAB AS REQUIRED).
- ④ REMOVE EXISTING VENT STACK IN WALL COMPLETE TO BELOW SLAB AND INSTALL CAP. (SAW CUT AND PATCH SLAB AS REQUIRED).

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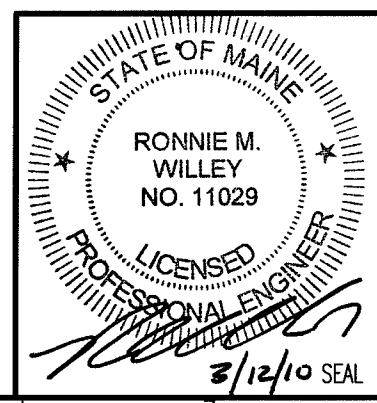
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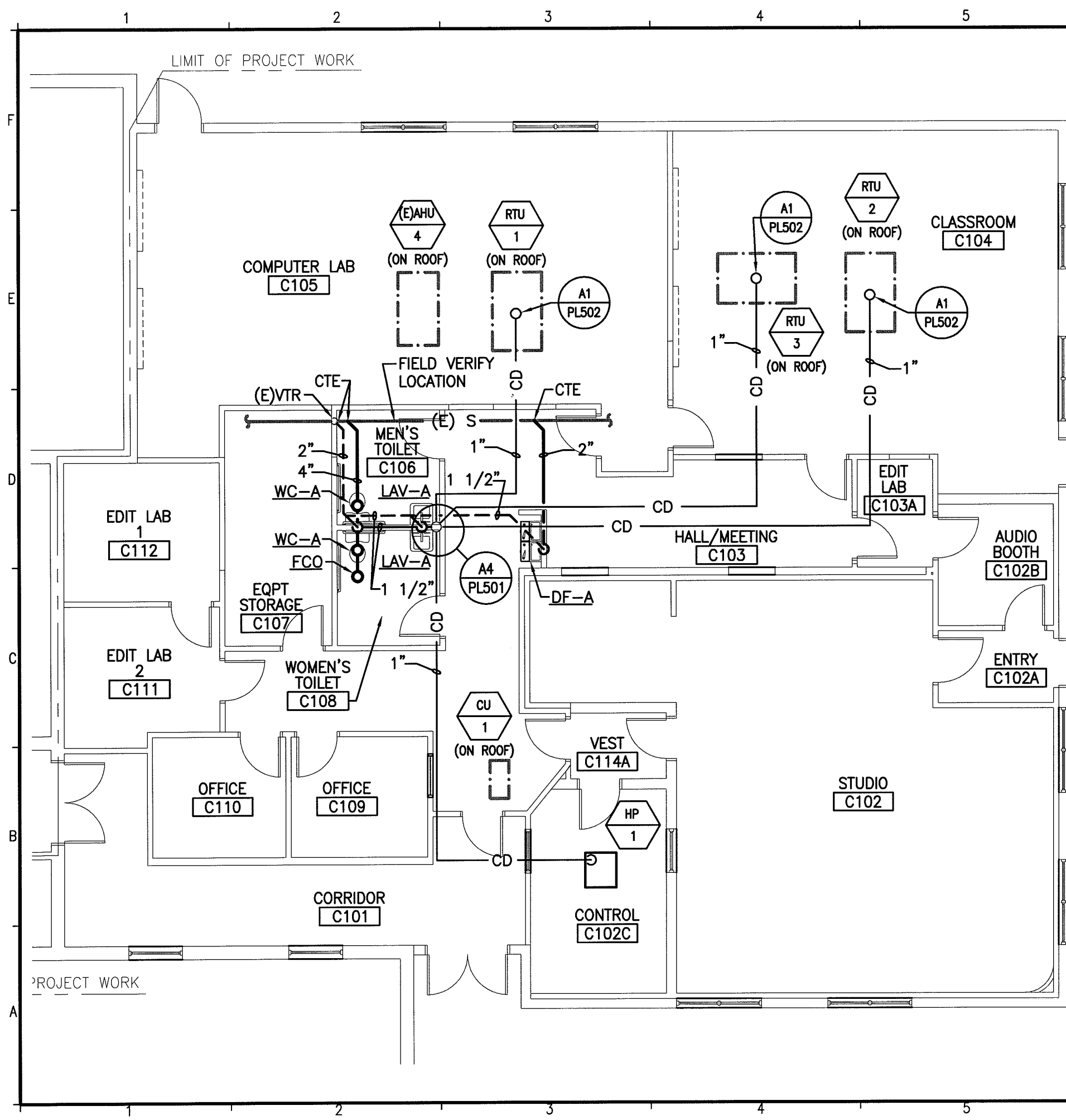
ISSUED FOR PERMITTING AND CONSTRUCTION		3-15-10	DATE
CURRENT ISSUE STATUS:			
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
	DESCRIPTION		REV

SCALE:	1/8"=1'-0"
PROJECT MANAGER:	SLB
JC/DRAWN BY:	KPB
A/E OF RECORD:	RMW
CAD FILE:	PD101-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:	PLUMBING DEMOLITION PLAN
SHEET No.	PD101

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**NOTES:**

1. SEE SHEET P-001 FOR LEGEND AND ABBREVIATIONS.
2. REWORK EXISTING SPRINKLER LAYOUT PER NFPA 13 REQUIREMENTS TO MATCH NEW CEILING GRID (RE:ARCHITECTURAL.)
3. PROVIDE SPRINKLER COVERAGE ABOVE AND BELOW CEILINGS PER AHJ REQUIREMENTS. ADD SPRINKLER HEADS AS REQUIRED.
4. MODIFY AND REWORK EXISTING SPRINKLER SYSTEMS TO AVOID CONFLICTS WITH HVAC AND OTHER NEW INSTALLATIONS.
5. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND IDENTIFY POTENTIAL CONFLICTS WITH NEW INSTALLATION PRIOR TO FINALIZING PROJECT BID. CHANGE ORDERS BASED ON CONFLICTS BETWEEN EXISTING PIPING AND NEW INSTALLATIONS WILL NOT BE ALLOWED.

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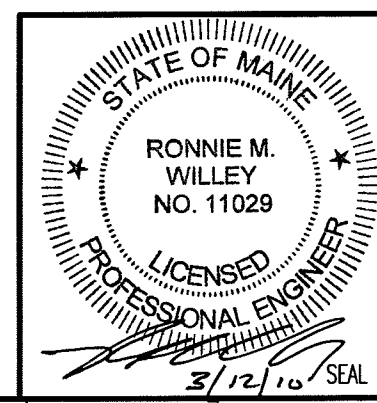
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ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
CURRENT ISSUE STATUS:		
OWNER RESPONSE	3-22-10	
ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	
REV	DESCRIPTION	DATE
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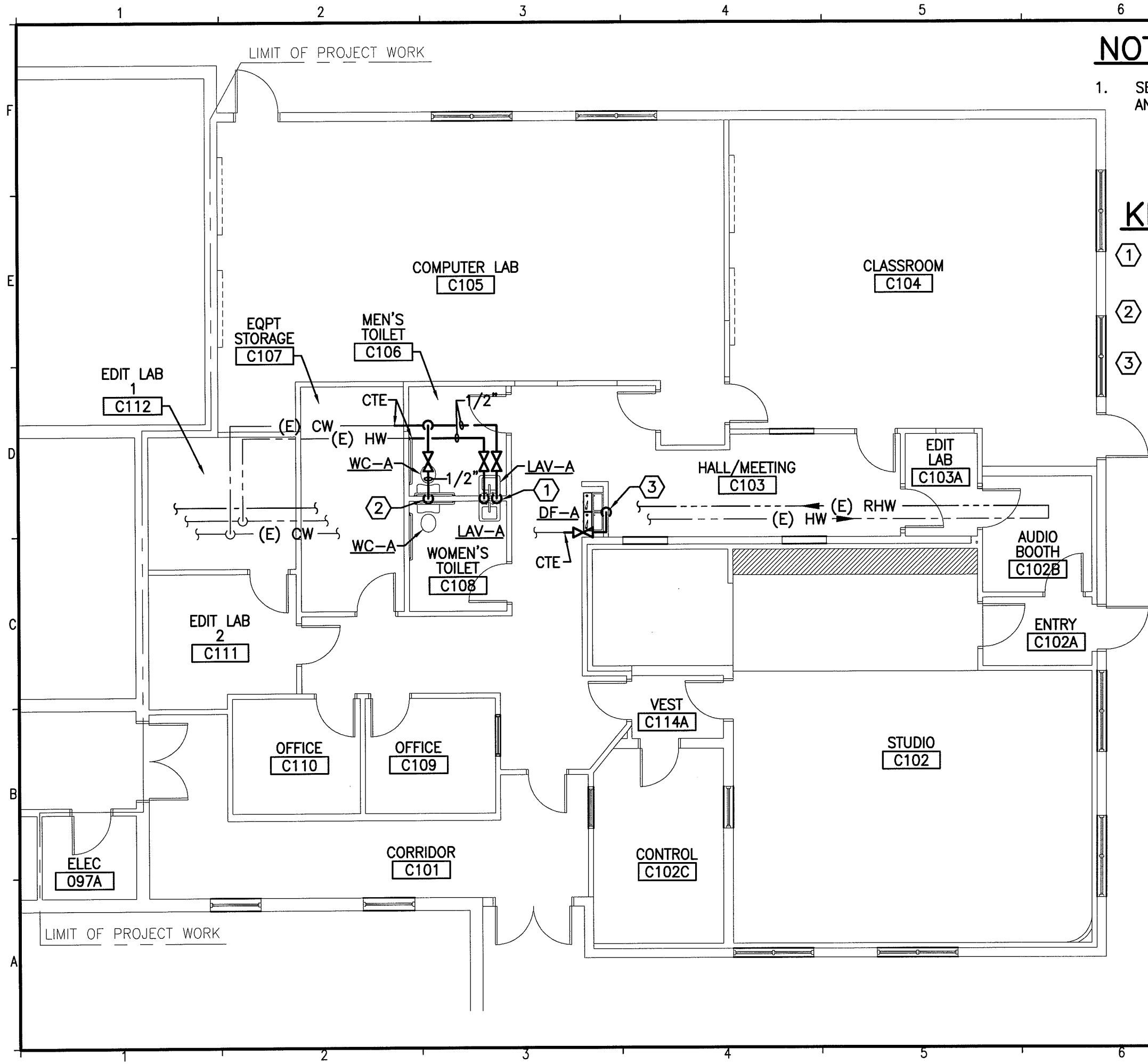
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JC/DRAWN BY:	KPB
A/E OF RECORD:	RMW
CAD FILE:	PL101-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**PLUMBING PLAN**

SHEET No. **PL101**  
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**NOTE:**

- SEE SHEET P-001 FOR LEGEND AND ABBREVIATIONS.

**KEYED NOTES:**

- 1/2" CW AND 1/2" HW DOWN IN WALL TO (2) LAV-A.
- 1/2" CW DOWN IN WALL TO (2) WC-A.
- 1/2" CW DOWN IN WALL TO DF-A.

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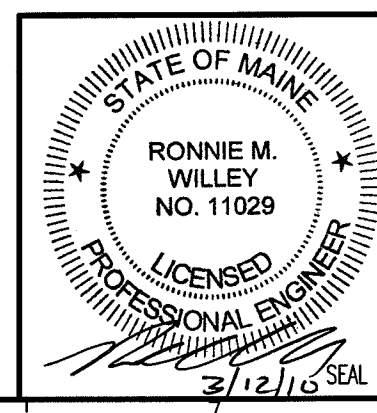
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 3-15-10**

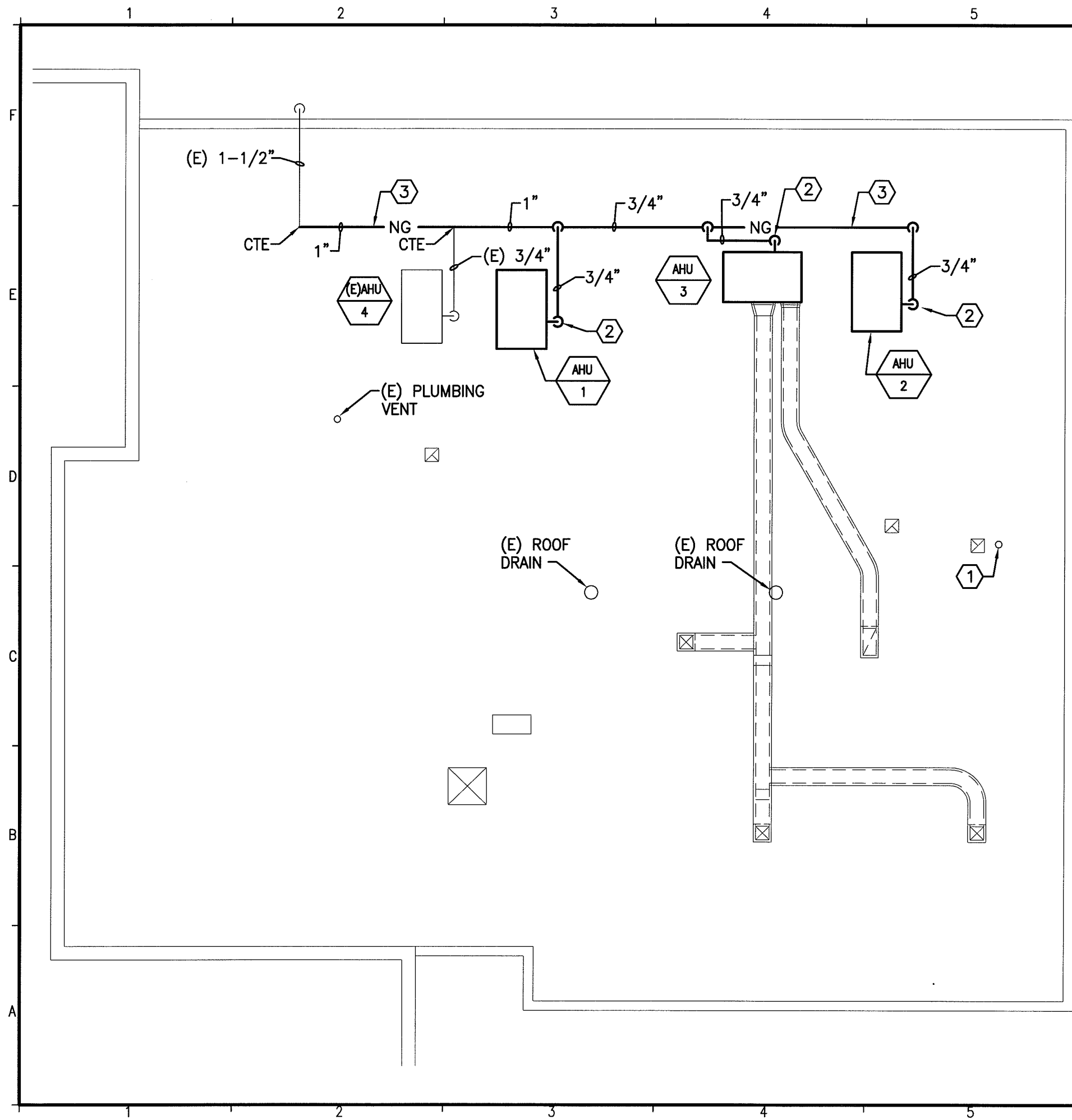
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1	OWNER RESPONSE	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	1/8"=1'-0"
PROJECT MANAGER:	SLB
JC/DRAWN BY:	KPB
A/E OF RECORD:	RMW
CAD FILE:	PL102-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**PLUMBING PLAN**

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**NOTE:**

1. SEE SHEET P-001 FOR LEGEND AND ABBREVIATIONS.

**KEYED NOTES:**

- ① REMOVE VENT THRU ROOF. REPAIR / PATCH ROOF TO MATCH EXISTING.
- ② 1/2" NG WITH REGULATOR. CONNECT TO GAS TRAIN PROVIDED BY UNIT MANUFACTURER. PROVIDE GAS TRAIN VENT AS/IF REQUIRED BY MANUFACTURER. COORDINATE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. SEE DETAIL D4/PL501.
- ③ REPLACE EXISTING 3/4" NG ALONG ROOF WITH NEW CONNECT TO EXISTING 1 1/2" NG AT ELBOW. (SEE PLAN FOR NEW NG PIPING SIZES).

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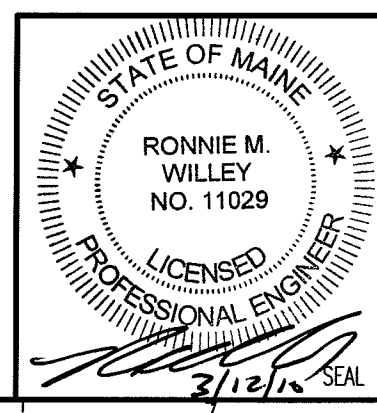
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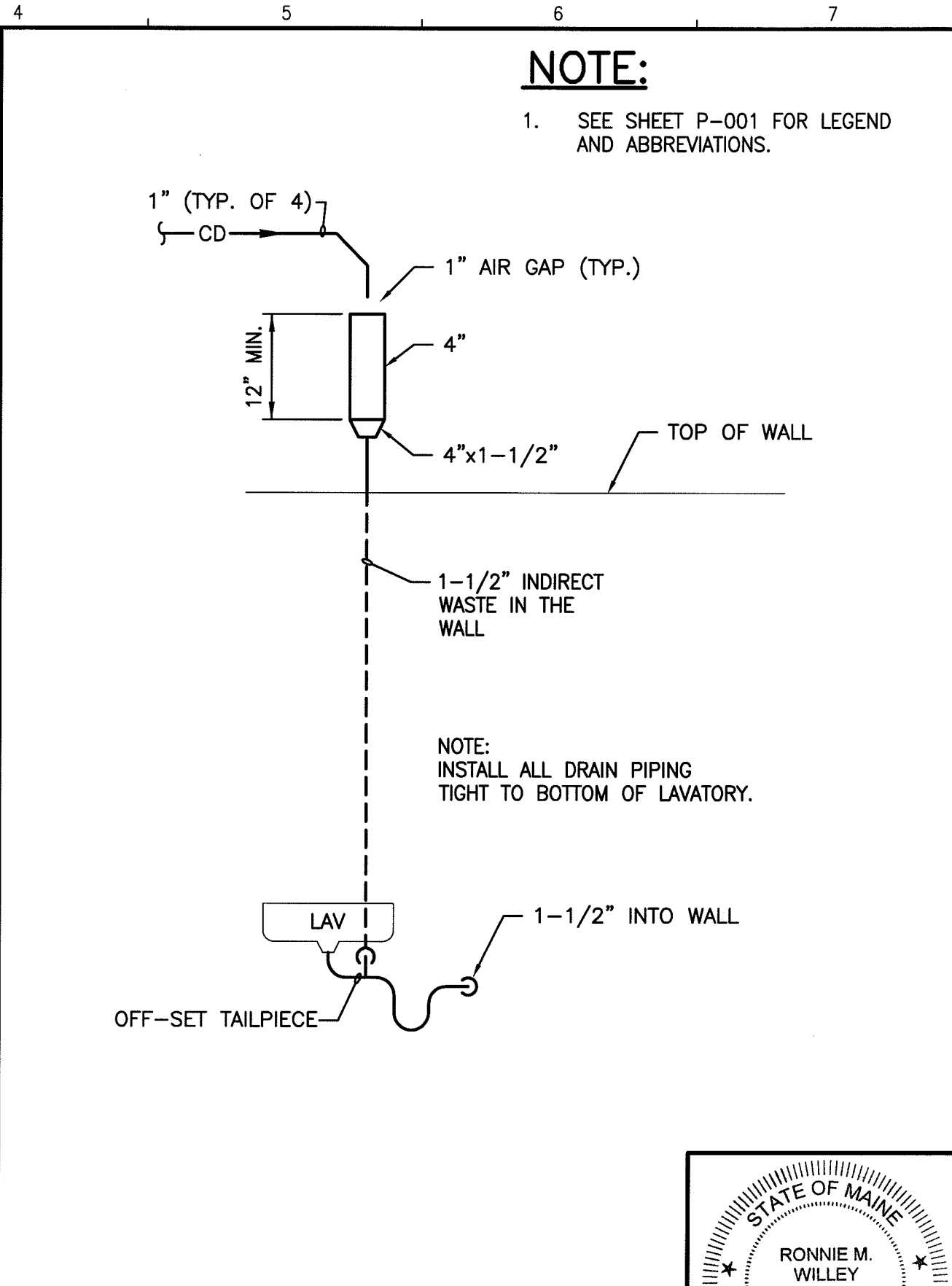
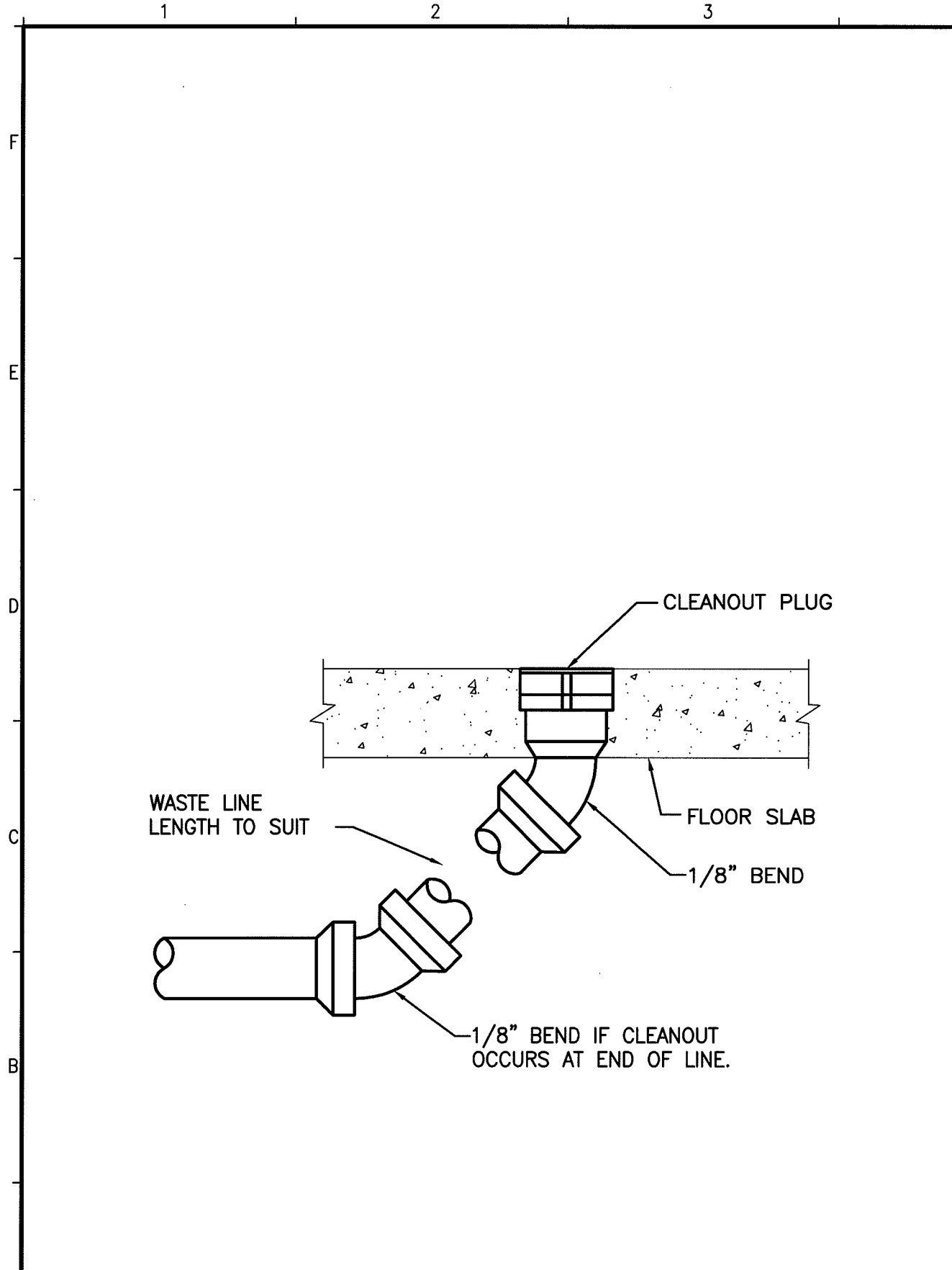
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ISSUED FOR PERMITTING AND CONSTRUCTION 3-15-10	DATE	3-15-10
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CURRENT ISSUE STATUS:	REV	
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SCALE:	1/8"=1'-0"
PROJECT MANAGER:	SLB
JC/DRAWN BY:	KPB
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CAD FILE:	PL103-09109
PROJECT NO:	09109
DATE:	3-15-10
SHEET TITLE:	PLUMBING ROOF PLAN
SHEET No.	PL103

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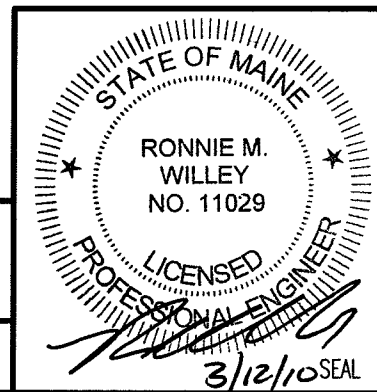
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REV	DESCRIPTION	DATE
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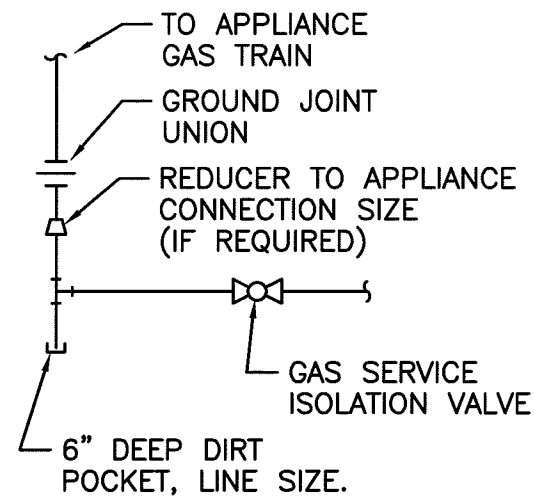
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PROJECT MANAGER:	SLB
JC/DRAWN BY:	KPB
A/E OF RECORD:	RMW
CAD FILE:	PL501-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**LEGEND AND ABBREVIATIONS**

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A1	1-WAY FLOOR CLEANOUT (FCO)	A4	INDIRECT WASTE
NOT TO SCALE		NOT TO SCALE	



**NOTE:**  
 APPLIANCES WITH REGULATORS:  
 LOCATE PIPING SHOWN HEREIN  
 UPSTREAM OF THE APPLIANCE  
 REGULATOR.

PROVIDE A TEST PLUG DOWNSTREAM  
 OF THE APPLIANCE REGULATOR.

DO NOT INSTALL ISOLATION VALVES  
 ABOVE CEILINGS OR IN CONFINED  
 AREAS.

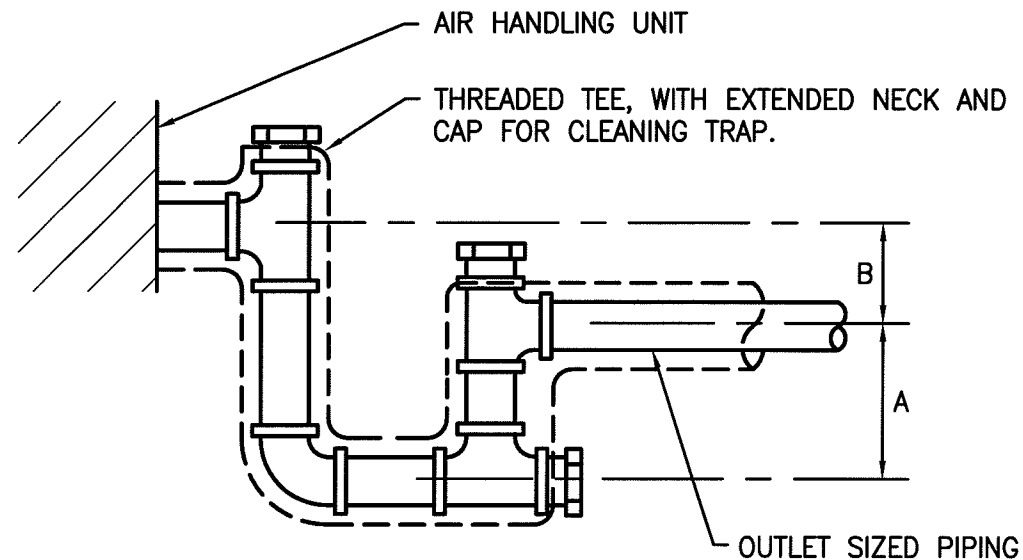
**NOTE:**

1. SEE SHEET P-001 FOR LEGEND  
 AND ABBREVIATIONS.

D1

**GAS PIPING CONNECTION DETAIL**

NOT TO SCALE



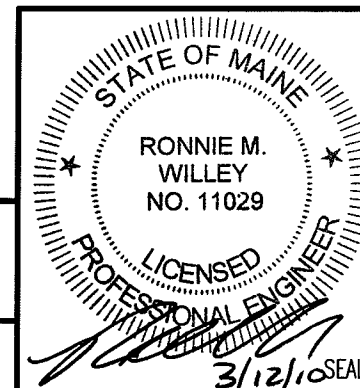
**DRAWTHRU**  
 A = 1/2 B  
 B = GREATER OF 2" OR 1" PLUS  
 AHU TOTAL PRESSURE IN  
 INCHES-WC

**NOTES:**  
 1. 1" MIN. PIPE SIZE OR SIZE  
 PER DRAIN TAP IN AHU INSULATE  
 FOR CONDENSATE CONTROL AS  
 REQUIRED.

A1

**CONDENSATE DRAIN TRAP**

NOT TO SCALE



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SCALE: NOT TO SCALE

PROJECT MANAGER: SLB

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A/E OF RECORD: RMW

CAD FILE: PL502-09109

PROJECT NO: 09109

DATE: 3-15-10

SHEET TITLE:

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# PLUMBING FIXTURE SCHEDULE

TAG	DISCRIPTION	FIXTURE	FAUCET / DRAIN	TRIM	SUPPORT	NOTES:
WC-A	FLOOR MOUNTED FLUSH TANK WATER CLOSET - ADA	KOHLER #K3754 "KELSTON" VITRIOUS CHINA, ELONGATED BOWL, 16 1/2" RIM HEIGHT, 1.6 GPF 2 1/8" GLAZED TRAPWAY.	*	MCGUIRE ANGLE STOPS, CHURCH #9500-SSC SEAT	-	-
LAV-A	WALL HUNG LAVATORY - ADA	KOHLER #K1729 "CHESAPEAKE" VITRIOUS CHINA, 20"x'8" (3) HOLES ON 3" CENTERS	CHICAGO #802-VE2805-317 FAUCET, MCGUIRE #155 WC DRAIN, OFFSET TAILPIECE, CROME PLATED FINISHES	MCGUIRE ANGLE STOPS, P-TRAP, ESCUTCHEONS AND RISERS - CROME PLATED	JAY R. SMITH #0710-DZ BACK TO BACK	1 & 2
DF-A	DUAL HEIGHT DRINKING FOUNTAIN	HALSEY-TAYLOR HRFSEBP BI-LEVEL, ROUNDED CORNERS, 300 SS W/ SATIN FINISH, PUSH BUTTON ACTUATION	-	-	-	-

NOTES: 1. INSULATE EXPOSED PIPING  
 2. PROVIDE SYMMONS #5-110-CK ON HW SUPPLY - OUTLET TO BE SET AT 105 DEG. F.  
 3.

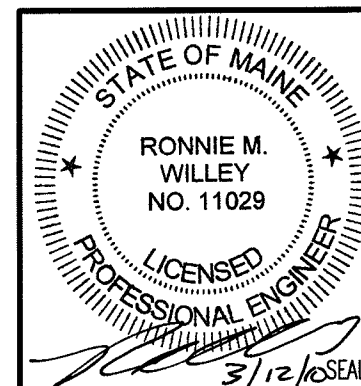
## PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	FIXTURE	CW	HW	WASTE	VENT	NOTES:
WC-A	WATER CLOSET FLUSH TANK - ADA	1/2"	-	4"	2"	*
LAV-A	LAVATORY WALL HUNG - ADA	1/2"	1/2"	1-1/2"	1-1/2"	
DF-A	DUAL HEIGHT DRINKING FOUNTAIN - ADA	1/2"	-	1-1/2"	1-1/2"	

NOTES: 1.  
 2.  
 3.

### NOTE:

- SEE SHEET P-001 FOR LEGEND AND ABBREVIATIONS.












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
REV	DESCRIPTION	DATE
1	OWNER RESPONSE	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NOT TO SCALE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: KPB  
 A/E OF RECORD: RMW  
 CAD FILE: PL601-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10  
 SHEET TITLE:  
**LEGEND AND ABBREVIATIONS**  
 SHEET No. **PL601**  
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



# LIGHTING

-  Ab 2x4 FLUORESCENT FIXTURE ASSOCIATED CONTROL DEVICE
-  1x4 FLUORESCENT FIXTURE
-  2x2 FLUORESCENT FIXTURE
-  S<sub>3</sub> 3-WAY TOGGLE SWITCH
-  S<sub>a</sub> SINGLE POLE TOGGLE SWITCH INDICATES CONTROLLED FIXTURE
-  S<sub>4</sub> 4-WAY TOGGLE SWITCH
-  X OCCUPANCY SENSOR
-  a. INDICATES CONTROLLED FIXTURE
-  INDICATES AIMING DIRECTION





# COMMUNICATION & DATA SYSTEMS

-  TELEPHONE SYSTEM WALL JACK
- W-INDICATES WALL MOUNTED AT 60" AFF
- P-INDICATES PAYPHONE
- (2)-INDICATES 2 OUTLETS, SINGLE BOX
-  DATA SYSTEM OUTLET
-  COMBINATION VOICE/DATA SYSTEM OUTLET
-  CEILING MOUNTED DATA SYSTEM OUTLET

# POWER

-  E DUPLEX RECEPTACLE, NEMA 5-20R. INSTALLED ON EMERGENCY CIRCUIT (TYPICAL)
-  GFI DUPLEX RECEPTACLE, NEMA 5-20R
-  DOUBLE DUPLEX (QUADRUPLEX) RECEPTACLE, NEMA 5-20R
-  PANELBOARD, NORMAL POWER
-  PANELBOARD, EMERGENCY POWER




# FIRE ALARM

-  F FIRE ALARM MANUAL PULL STATION
-  F FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
-  F(110) FIRE ALARM VISIBLE ONLY NOTIFICATION APPLIANCE CANDELA INTENSITY-15/75 UNLESS OTHERWISE NOTED
-  C CEILING MOUNTED

# GENERAL NOTES:

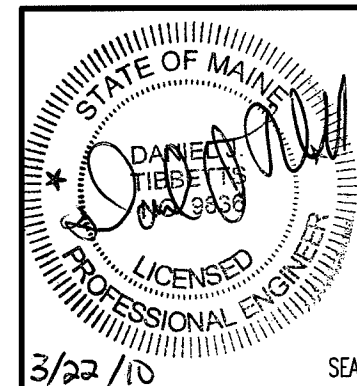
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE (NEC).
2. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE PROVIDED BY DIVISION 16000 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
3. UNLESS OTHERWISE NOTED CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18-INCHES AFF, LIGHTING TOGGLE SWITCHES 48-INCHES AFF, DATA SYSTEM OUTLETS 18-INCHES AFF, FIRE ALARM NOTIFICATION DEVICES 80-INCHES AFF OR 6-INCHES BELOW CEILING, WHICHEVER IS LOWER, AND FIRE ALARM MANUAL PULL STATIONS 48-INCHES TO TOP OF DEVICE.
4. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF SEPARATION.
5. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
6. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
7. UNLESS OTHERWISE NOTED WIRING SHALL BE 2#12 AWG CONDUCTORS AND #12 GND. HOME RUNS FED FROM 20A-1P CIRCUITS IN EXCESS OF 100 FEET SHALL BE #10 AWG.
8. FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, UNLESS OTHERWISE NOTED.
9. LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE 120 VOLT, SIDE WIRED AND PROVIDED WITH GROUNDING SCREW. LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
10. CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE GROUNDING TYPE NEMA 5-20R, SIDE WIRED. LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
11. PROVIDE WALL PLATES FOR ALL WIRING DEVICES, COLORED SMOOTH TYPE THERMOPLASTIC IN FINISHED AREAS AND GALVANIZED IN UNFINISHED AREAS.
12. ALL WIRING SHALL BE 600V, COPPER WITH THHN/THWN INSULATION.

# LINE TYPES

-  EXISTING
-  NEW
-  DEMOLITION

# GENERAL NOTE

1. ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.



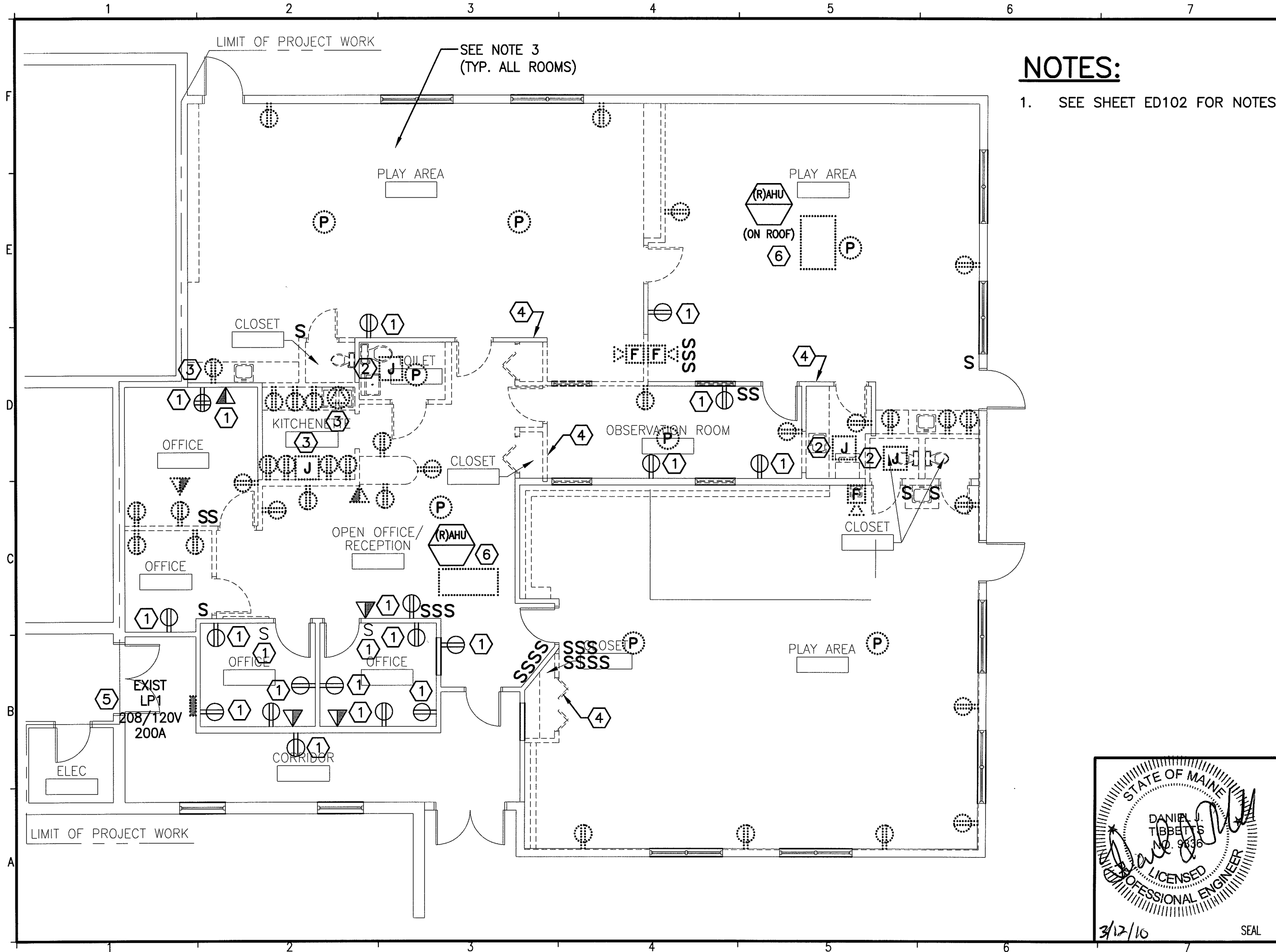
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	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
CURRENT ISSUE STATUS:	1	0	REV
			DESCRIPTION

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	E-001-09109
PROJECT NO:	09109
DATE:	3-15-10
SHEET TITLE:	LEGEND AND GENERAL NOTES
SHEET No.	E-001
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**NOTES:**

1. SEE SHEET ED102 FOR NOTES.

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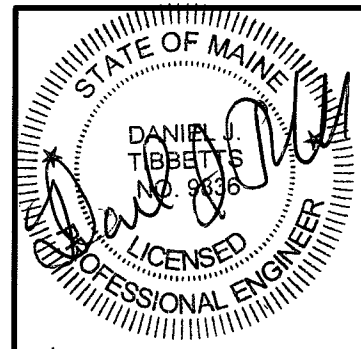
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 & MEDIA STUDIES

PROJECT NORTH

ISSUED FOR PERMITTING AND CONSTRUCTION 3-15-10		DATE
CURRENT ISSUE STATUS:		
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10
REV	DESCRIPTION	DATE

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	ED101-09109
PROJECT NO:	09109
DATE:	3-15-10



3/12/10

SEAL

SHEET TITLE:  
**ELECTRICAL DEMO PLAN**

SHEET No. **ED101**  
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# NOTES:

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
2. ALL ELECTRICAL CONDUITS, JUNCTION BOXES, SUPPORTS, WIRING AND DEVICES FOR ALL ELECTRICAL SYSTEMS INCLUDING BUT NOT LIMITED TO POWER, VOICE/DATA, FIRE ALARM, SECURITY, ETC NOT SHOWN AS EXISTING TO REMAIN ARE BE COMPLETELY REMOVED BACK TO SOURCE.
3. ALL CEILINGS IN THIS RENOVATED SPACE ARE BEING COMPLETELY REMOVED. ALL CEILING MOUNTED ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, EXIT LIGHTING, FIRE ALARM, SECURITY, VOICE/DATA SYSTEMS, ETC ARE TO BE COMPLETELY REMOVED AND RETURNED TO OWNER OR DISPOSED OF AS DIRECTED BY OWNER.

# KEYED NOTES:

- ① EXISTING OUTLET TO REMAIN. REFEED EXISTING RECEPTACLE FROM NEW BRANCH CIRCUIT AS INDICATED ON EP101.
- ② REMOVE ALL CONDUIT, WIRING AND DISCONNECTS ASSOCIATED WITH EXHAUST FANS BEING REMOVED.
- ③ REMOVE POWER FOR DISHWASHER AND RECEPTACLE FOR RANGE. REMOVAL TO INCLUDE THE REMOVAL OF ALL CONDUIT AND WIRING BACK TO SOURCE.
- ④ REMOVE ALL ELECTRICAL DEVICES AND EQUIPMENT LOCATED ON THIS WALL AND RETURN TO OWNER. REMOVE ALL CONDUIT AND WIRING BACK TO SOURCE.
- ⑤ EXISTING PANELBOARD LP1 TO REMAIN AND BE REFEED FROM NEW PANELBOARD DP1. REMOVE EXISTING FEEDER BACK TO PANELBOARD LP SHOWN ON DRAWING EP101.
- ⑥ REMOVE ALL CONDUIT, WIRING, STARTERS AND DISCONNECTS ASSOCIATED WITH AIR HANDLERS BEING REMOVED.

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SULLIVAN GYMNASIUM ANNEX  
RENOVATION FOR COMMUNICATION  
& MEDIA STUDIES  
LOCATION

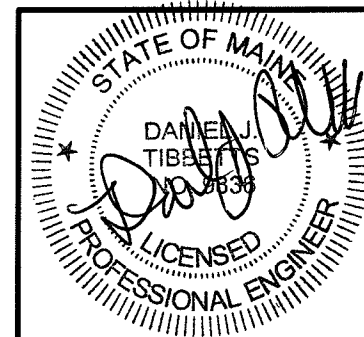
ISSUED FOR PERMITTING AND  
CONSTRUCTION  
3-15-10  
CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	ED102-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**ELECTRICAL  
DEMO PLAN NOTES**

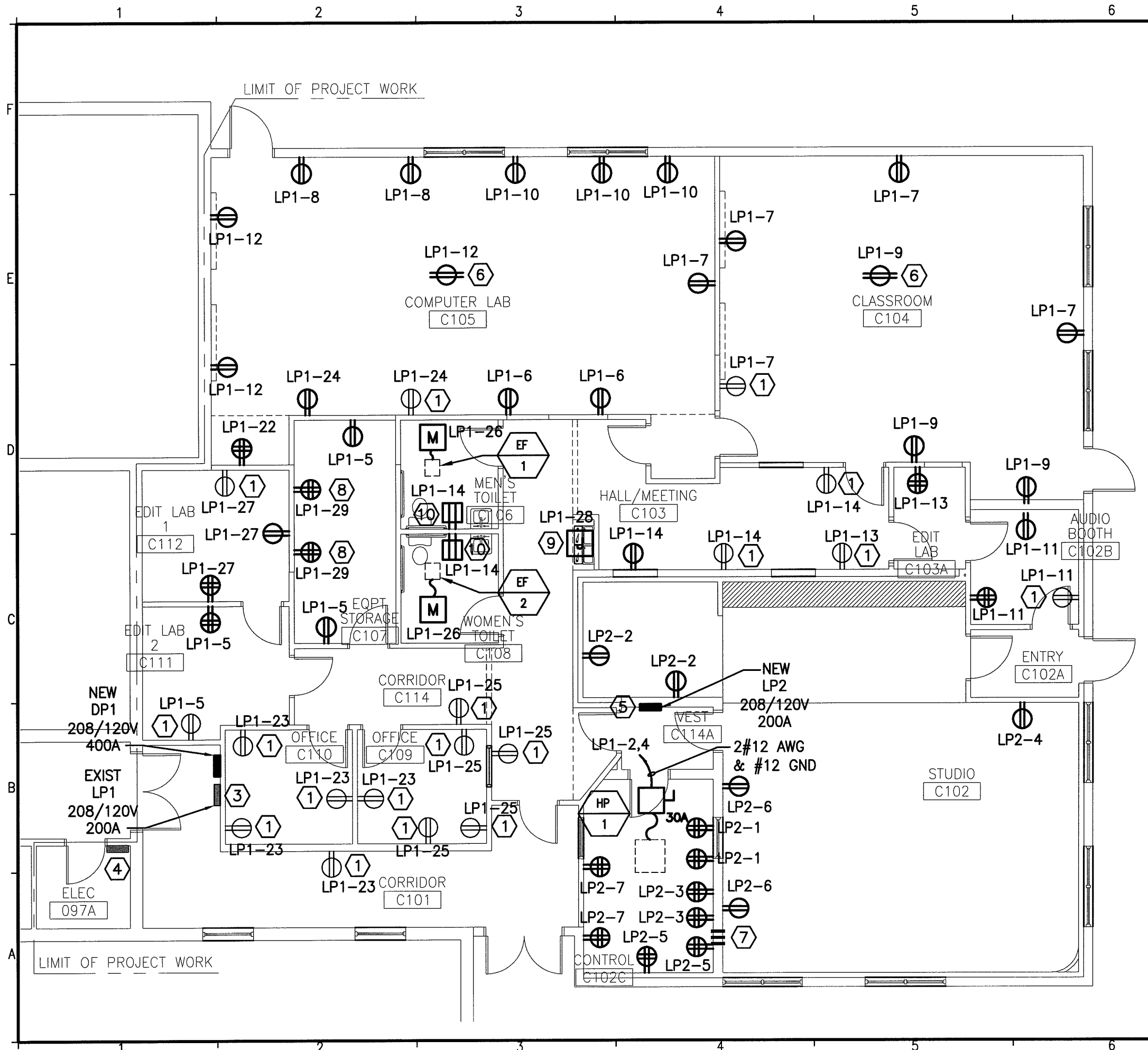
SHEET No. **ED102**  
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SEAL





**NOTES:**

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
2. SEE EP102 FOR GENERAL AND KEYED NOTES.

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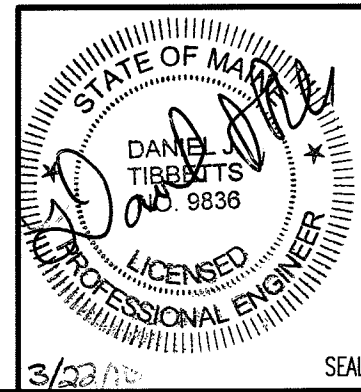


**SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES**  
 LOCATION

ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	DATE
CURRENT ISSUE STATUS:		
OWNER RESPONSE	3-22-10	
ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10	
DESCRIPTION		DATE
REV		

SCALE:	1/8"=1'-0"
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	EP101-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**POWER FLOOR PLAN**  
 SHEET No. **EP101**  
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SEAL

# NOTES:

- SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
- ALL DEVICES ARE TO BE LABELED WITH PANEL AND CIRCUIT NUMBER INFORMATION. LABELS ARE TO BE BLACK LETTERING ON CLEAR TAPE. THE INSIDE OF THE JUNCTION BOX IS TO BE LABELED WITH THE SAME INFORMATION USING A PERMANENT MARKER.

# KEYED NOTES:

- EXISTING RECEPTACLE TO REMAIN AND BE REFEED FROM NEW BRANCH CIRCUIT INDICATED.
- FURNISH AND INSTALL A NEW SQUARE-D NQ SERIES 208/120V, 400A, 3 $\phi$ , 4 WIRE, 42 CIRCUIT, MLO PANEL. FED FROM MDP LOCATED IN ROOM 058 APPROXIMATELY 200' AWAY. REFER TO SHEET EP301 AND EP651 FOR INFORMATION ON FEEDER SIZE AND NEW BREAKER IN MDP TO FEED PANELBOARD. FURNISH AND INSTALL NEW WHITE ON BLACK PHENOLIC LABEL DP1 MOUNTED ON PANEL COVER. PROVIDE AND INSTALL NEW TYPE WRITTEN DIRECTORY ON HARD STOCK. IN ADDITION TO THE BRANCH CIRCUIT INFORMATION THIS PANEL SCHEDULE WILL LIST THE PANEL NAME, VOLTAGE, AMPERAGE AND WERE IT IS FED FROM.
- EXISTING 208/120V, 200A, 3 $\phi$ , 42 CIRCUIT PANEL, MLO PANEL LABELED LP2 FED FROM PANEL LABELED LP LOCATED IN ROOM 097A. REMOVE EXISTING FEEDER AND REFEED THIS PANEL FROM NEW PANELBOARD DP1. RECIRCUIT THIS PANEL AS SHOWN ON SHEET EP101. FURNISH AND INSTALL NEW WHITE ON BLACK PHENOLIC LABEL LP1 MOUNTED ON PANEL COVER. PROVIDE AND INSTALL NEW TYPE WRITTEN DIRECTORY ON HARD STOCK. IN ADDITION TO THE BRANCH CIRCUIT INFORMATION THIS PANEL SCHEDULE WILL LIST THE PANEL NAME, VOLTAGE, AMPERAGE AND WERE IT IS FED FROM.
- IN EXISTING PANEL LP REMOVE MAIN FEED TO PANEL LP2 AS CALLED FOR IN KEY NOTE 2. REMOVE ALL CIRCUITS FEEDING AREAS LOCATED WITHIN THE AREA BEING RENOVATED AND REFEED THE LOADS AS SHOWN ON SHEET EP101. LEAVE EXISTING BREAKERS IN PLACE. FURNISH AND INSTALL NEW TYPE WRITTEN DIRECTORY ON HARD STOCK INDICATING EXISTING REMAINING LOADS AND SPARES. THIS PANEL DIRECTORY WILL LIST THE PANEL NAME, VOLTAGE, AMPERAGE AND WERE IT IS FED FROM. FURNISH AND INSTALL NEW WHITE ON BLACK PHENOLIC LABEL "LP" MOUNTED ON PANEL COVER.
- FURNISH AND INSTALL NEW SQUARE-D NQ SERIES 208/120V, 200A, 42 CIRCUIT, MLO PANEL FED FROM DP1. FURNISH AND INSTALL NEW WHITE ON BLACK PHENOLIC LABEL LP2 MOUNTED ON PANEL COVER. PROVIDE AND INSTALL NEW TYPE WRITTEN DIRECTORY ON HARD STOCK. IN ADDITION TO THE BRANCH CIRCUIT INFORMATION THIS PANEL DIRECTORY WILL LIST THE PANEL NAME, VOLTAGE, AMPERAGE AND WERE IT IS FED FROM.
- COORDINATE EXACT LOCATION OF CEILING MOUNTED RECEPTACLE WITH OWNER.
- 3 EMPTY 3" NIPPLES STUBED THRU THE WALL. THREADED ON BOTH ENDS. INSTALL PLASTIC BUSHINGS ON BOTH ENDS.
- THESE OUTLETS WILL FEED BATTERY CHARGERS LOCATED ON SHELIVING. COORDINATE EXACT LOCATION AND MOUNTING HIEGHT WITH OWER AND SHELIVING INSTALLER.
- PROVIDE POWER FOR ELECTRIC WATER COOLER. COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTION WITH PLUMBING CONTRACTOR.
- MOUNT RECEPTACLE 42" AFF TO BOTTOM OF DEVICE.

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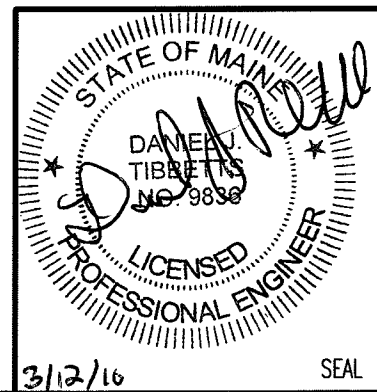
**SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES**  
 LOCATION

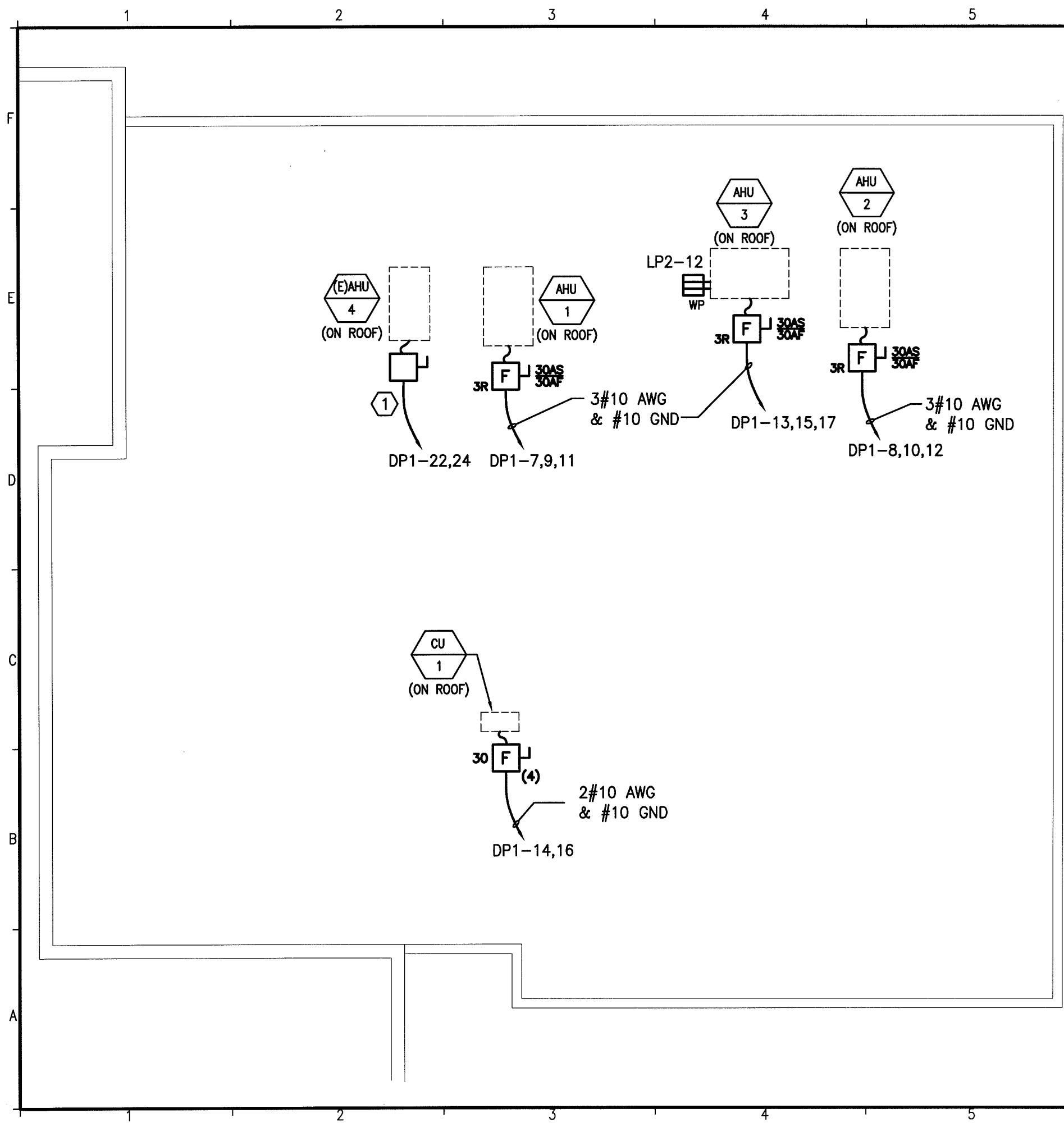
ISSUED FOR PERMITTING AND  
 CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	EP102-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**POWER NOTES**  
 SHEET No. **EP102**  
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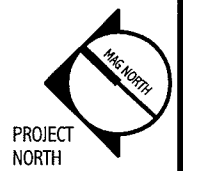
**NOTE:**

- SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

**KEYED NOTE:**

- UTILIZE EXISTING DISCONNECT AND WIRING TO THE EXTENT POSSIBLE TO REFEED EXISTING AIR HANDLER FROM NEW PANELBOARD DP1.

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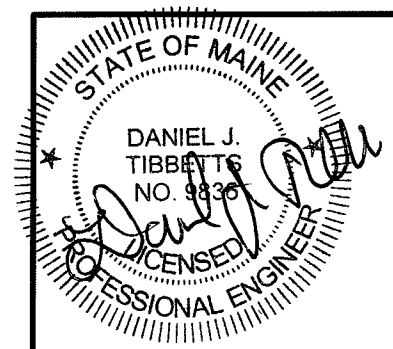
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SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES

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 3-15-10

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: 1/8" = 1'-0"  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: CDS  
 A/E OF RECORD: DJT  
 CAD FILE: EP103-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

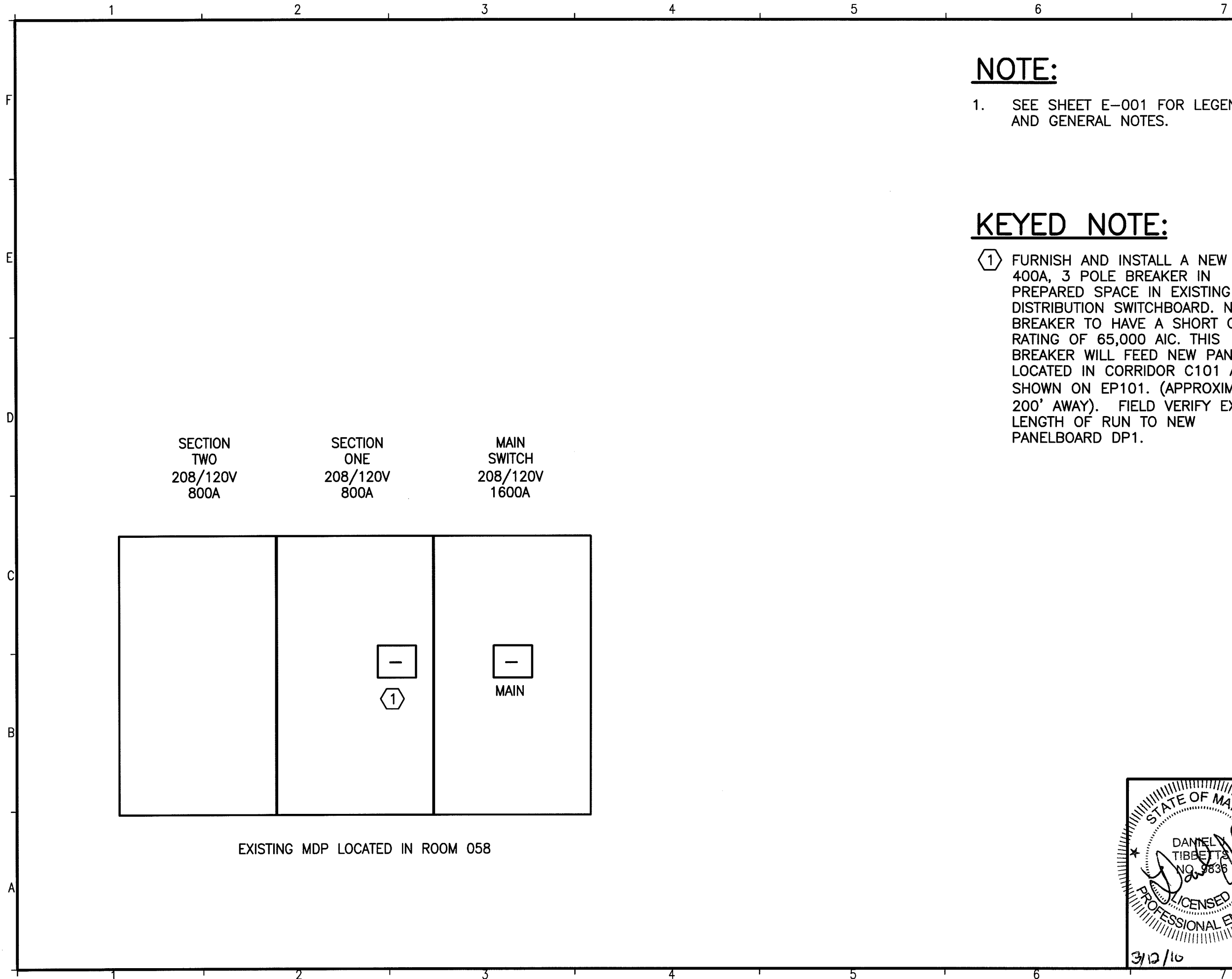


3/8/10

SEAL

SHEET TITLE:  
**ELECTRICAL  
 ROOF PLAN**

SHEET No. **EP103**  
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SECTION TWO  
208/120V  
800A

SECTION ONE  
208/120V  
800A

MAIN SWITCH  
208/120V  
1600A

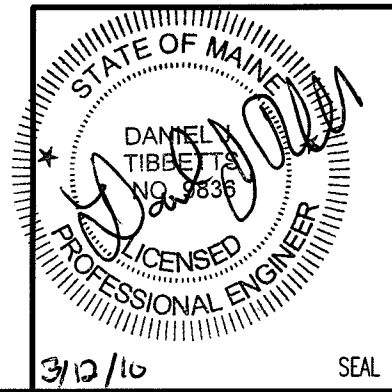
EXISTING MDP LOCATED IN ROOM 058

**NOTE:**

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

**KEYED NOTE:**

- 1 FURNISH AND INSTALL A NEW GE 400A, 3 POLE BREAKER IN PREPARED SPACE IN EXISTING MAIN DISTRIBUTION SWITCHBOARD. NEW BREAKER TO HAVE A SHORT CIRCUIT RATING OF 65,000 AIC. THIS BREAKER WILL FEED NEW PANEL DP1 LOCATED IN CORRIDOR C101 AS SHOWN ON EP101. (APPROXIMATELY 200' AWAY). FIELD VERIFY EXACT LENGTH OF RUN TO NEW PANELBOARD DP1.



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LOCATION

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3-15-10  
CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	EP301-09109
PROJECT NO:	09109
DATE:	3-15-10
SHEET TITLE:	MDP DETAIL
SHEET No.	EP301

**NOTE:**

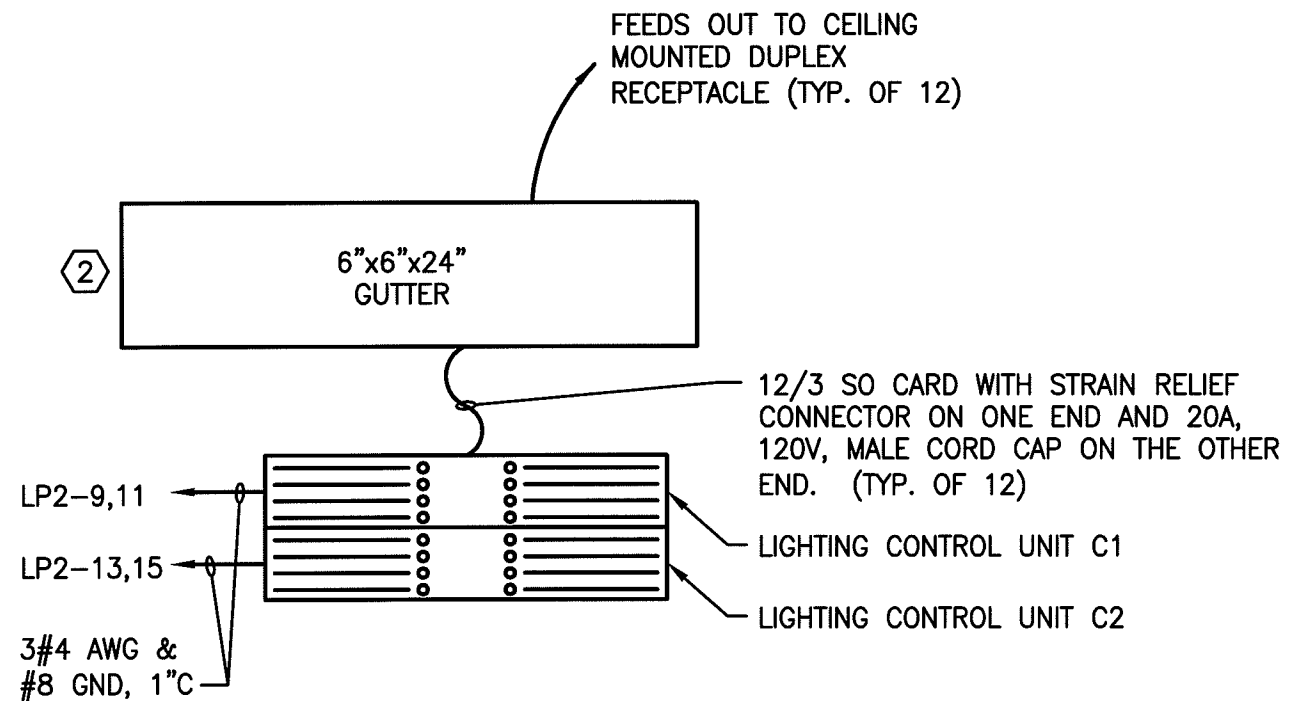
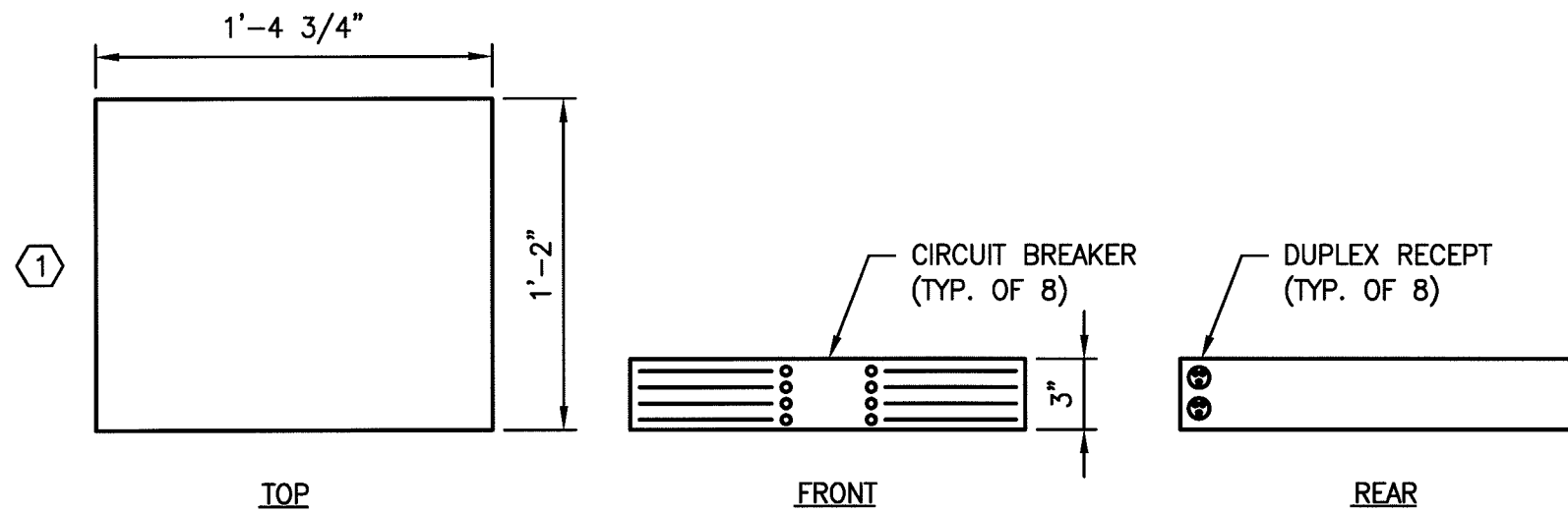
1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

**KEYED NOTES:**

- ① INSTALL TWO EXISTING LIGHTING CONTROL UNITS SUPPLIED BY OWNER AT LOCATION SHOWN ON SHEET EL101. THESE WILL BE FED OUT OF PANEL LP2. EACH UNIT WILL HAVE A 208/120V, SINGLE PHASE, 80A FEED BROUGHT TO IT. EACH UNIT IS EQUIPPED WITH EIGHT CIRCUIT BREAKERS. EACH CIRCUIT BREAKER FEEDS ONE 20A DUPLEX RECEPTACLE LOCATED ON THE BACK OF THE CONTROL UNIT.

BOTH UNITS WILL BE MOUNTED ON TOP OF EACH OTHER AS SHOWN. COORDINATE MOUNTING BRACKET FABRICATION AND INSTALLATION WITH OWNER.

- ② FURNISH AND INSTALL 6"X6"X24" GUTTER ABOVE LIGHTING CONTROLLERS. RECESS GUTTER IN WALL LEAVING APPROXIMATELY 3" OF THE GUTTER OUT OF THE WALL. FURNISH AND INSTALL 12 - 12/3 SO CORDS WITH STRAIN RELIEF CONNECTORS ON ONE END AND 20A, 120V MALE CORD CAPS ON THE OTHER END. EACH CORD CAP WILL BE PLUGGED INTO ONE CONTROLLER DUPLEX RECEPTACLE. EXTEND CONCEALED FEEDS TO CEILING MOUNTED DUPLEX RECEPTACLES AS SHOWN ON SHEET EL101. SPLICE CEILING FEEDS TO SO CORDS IN THE GUTTER. ONE CEILING MOUNTED DUPLEX RECEPTACLE PER CONTROL UNIT RECEPTACLE.



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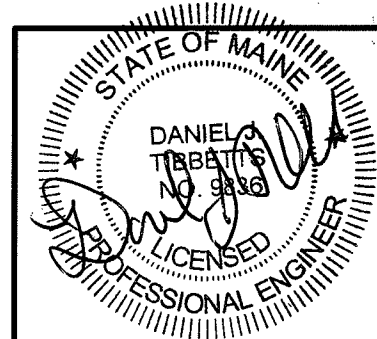
**SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES**  
 LOCATION

ISSUED FOR PERMITTING AND  
 CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

ISSUED FOR PERMITTING AND CONSTRUCTION	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10
REV		

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	EP302-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**ELECTRICAL  
 DETAILS**  
 SHEET No. **EP302**  
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3/12/10 SEAL

DIRECTORY	KVA LOAD			CKT NO.	BKR AMPS	A	B	C	BKR AMPS	CKT NO.	KVA LOAD			DIRECTORY		
	A	B	C								A	B	C			
	5.6			1	200	•			200	2	10.0					
PANEL LP1		5.6		3		•				4		4	10.0			PANEL LP2
			5.6	5		•				6		6		10.0		
	2.6			7	30	•			30	8	2.6					
AHU-1		2.6		9		•				10		10	2.6			AHU-2
			2.6	11		•				12		12		2.6		
	2.6			13	30	•			30	14	2.3					
AHU-3		2.6		15		•				16		16	2.3			
			2.6	17		•				18		18				SPARE
SPACE				19	20	•			20	20						
SPACE				21		•				22		22	1.4			AHU-4
SPACE				23		•				24		24		1.4		
SPACE				25	20	•			20	26						
SPACE				27		•				28		28				SPACE
SPACE				29		•				30		30				SPACE
SPACE				31	20	•			20	32						
SPACE				33		•				34		34				SPACE
SPACE				35		•				36		36				SPACE
SPACE				37	20	•			20	38						
SPACE				39		•				40		40				SPACE
SPACE				41		•				42		42				SPACE
SUB-TOTAL	10.8	10.8	10.8		NEUTRAL BUS				14.9			16.3	16.3	SUB-TOTAL		
					GROUND BUS											
VOLTAGE: 208/120V	3 PHASE 4 WIRE			400 AMP BUS	TOTAL KVA	A	25.7			PANEL NO.	NEW DP1					
MAIN LUGS ONLY				400 AMP LUGS	TOTAL KVA	B	27.1									
MOUNTING: SURFACE					TOTAL KVA	C	27.1			LOCATION	CORRIDOR - C101					
SC RATING: 22,000 AIC					TOTAL KVA		79.9									
NOTES:																

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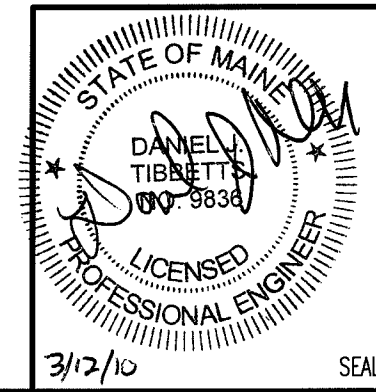
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 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES  
 LOCATION

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 CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

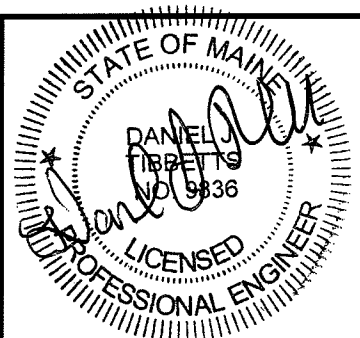
REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NONE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: CDS  
 A/E OF RECORD: DJT  
 CAD FILE: EP601-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

SHEET TITLE:  
**PANEL SCHEDULE  
 SHEET 1**  
 SHEET No. **EP601**  
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DIRECTORY	KVA LOAD			CKT NO.	BKR AMPS	A B C			BKR AMPS	CKT NO.	KVA LOAD			DIRECTORY
	A	B	C			A	B	C						
(1) SPARE				1	20	●			20	2	0.2			HEAT PUMP HP-1 (1)
				3	20				20	4		0.2		
(1) RECEPT - RM C107 & C111			0.9	5	20			●	20	6			0.4	RECEPT - RM C105 (1)
(1) RECEPT - RM C104	0.8			7	20	●			20	8	0.4			RECEPT - RM C105 (1)
(1) RECEPT - RM C104		0.6		9	20		●		20	10		0.6		RECEPT - RM C105 (1)
(1) RECEPT - RM C102B, EXTERIOR GFI			0.8	11	20			●	20	12			0.6	RECEPT - RM C105 (1)
(1) RECEPT - RM C103 & 103A	0.6			13	20	●			20	14	0.9			RECEPT - RM C103, C106 & C108 (1)
(1) LGT - RM C102A,C102B,C103 & C103A		0.8		15	20		●		20	16		0.9		LTG - RM, C107, & C112 (1)
(1) LGT - RM C105			1.0	17	20			●	20	18			0.9	LTG - RM C109, C110, C111 & C114(1)
(1) SPARE				19	20	●			20	20	0.6			LTG - CORR C101 (2)
				21	20			●	20	22		0.4		RECEPTS - RM C105 (2)
(2) RECEPTS - RMS C101, C109, C110			0.9	23	20			●	20	24		0.4		RECEPTS - RM C105 (2)
(2) RECEPTS - RMS C108, C114	0.9			25	20	●			20	26	0.4			EXHAUST FANS EF-1,2 (2)
(2) RECEPTS - RM C112		0.8		27	20		●		20	28		1.0		ELECTRIC WATER COOLER (2)
(2) RECEPTS - RM C107			0.8	29	20			●	20	30				SPACE
SPACE				31		●				32				SPACE
SPACE				33			●			34				SPACE
SPACE				35				●		36				SPACE
SPACE				37		●				38				SPACE
SPACE				39			●			40				SPACE
SPACE				41				●		42				SPACE
SUB-TOTAL	2.3	2.2	4.4	NEUTRAL BUS			GROUND BUS			2.5	3.1	2.3	SUB-TOTAL	
VOLTAGE: 208/120V	3 PHASE 4 WIRE			200 AMP BUS			TOTAL KVA			A	4.8		PANEL NO.	EXIST LP1
MAIN LUGS ONLY				200 AMP LUGS			TOTAL KVA			B	5.3			
MOUNTING: SURFACE							TOTAL KVA			C	6.7		LOCATION	CORRIDOR C101
SC RATING: EXISTING							TOTAL KVA				16.8			
NOTES: (1) EXISTING CIRCUIT BREAKER TO REMAIN. (2) PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD.														



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 LOCATION

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 3-15-10  
 CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NONE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: CDS  
 A/E OF RECORD: DJT  
 CAD FILE: EP602-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10  
 SHEET TITLE:  
**PANEL SCHEDULE  
 SHEET 2**  
 SHEET No. **EP602**  
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SEAL

DIRECTORY	KVA LOAD			CKT NO.	BKR AMPS	A B C			BKR AMPS	CKT NO.	KVA LOAD			DIRECTORY
	A	B	C			A	B	C						
RECEPT - CONTROL RM C102C	0.8			1	20	•			20	2	0.4		RECEPT - STUDIO RM C102	
RECEPT - CONTROL RM C102C		0.8		3	20		•		20	4		0.4	RECEPT - STUDIO RM C102	
RECEPT - CONTROL RM C102C			0.8	5	20			•	20	6			0.4	RECEPT - STUDIO RM C102
RECEPT - CONTROL RM C102C	0.8			7	20	•			20	8	0.9			LTG - RM C102
STUDIO LIGHTING CONTROLLER C1		6.0		9	80	•			20	10		0.5		LTG - RM C102C
			6.0	11			•			20	12			0.2
STUDIO LIGHTING CONTROLLER C2	6.0			13	80	•			20	14				SPARE
		6.0		15			•			20	16			
SPARE				17	20			•	20	18				SPARE
SPARE				19	20			•	20	20				SPARE
SPARE				21	20			•	20	22				SPARE
SPARE				23	20			•	20	24				SPARE
SPACE				25				•		26				SPACE
SPACE				27				•		28				SPACE
SPACE				29				•		30				SPACE
SPACE				31				•		32				SPACE
SPACE				33				•		34				SPACE
SPACE				35				•		36				SPACE
SPACE				37				•		38				SPACE
SPACE				39				•		40				SPACE
SPACE				41				•		42				SPACE
SUB-TOTAL	7.6	12.8	6.8	NEUTRAL BUS			GROUND BUS			1.3	0.9	0.6	SUB-TOTAL	
VOLTAGE: 108/120V	3 PHASE			4 WIRE			200 AMP BUS			TOTAL KVA	A	8.9	PANEL NO.	NEW LP2
MAIN LUGS ONLY				200 AMP LUGS			TOTAL KVA	B	13.7					
MOUNTING: RECESSED							TOTAL KVA	C	7.4	LOCATION			ROOM C114A	
SC RATING: 22,000 AIC							TOTAL KVA		30.0					
NOTES:														

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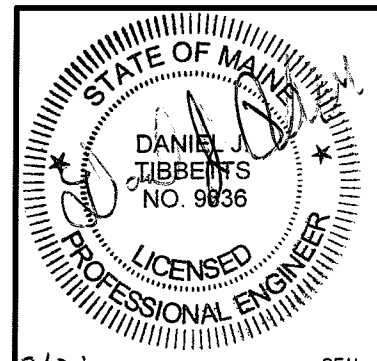


SULLIVAN GYMNASIUM ANNEX  
 RENOVATION FOR COMMUNICATION  
 & MEDIA STUDIES  
 LOCATION

ISSUED FOR PERMITTING AND  
 CONSTRUCTION  
 3-15-10  
 CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE: NONE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: CDS  
 A/E OF RECORD: DJT  
 CAD FILE: EP603-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

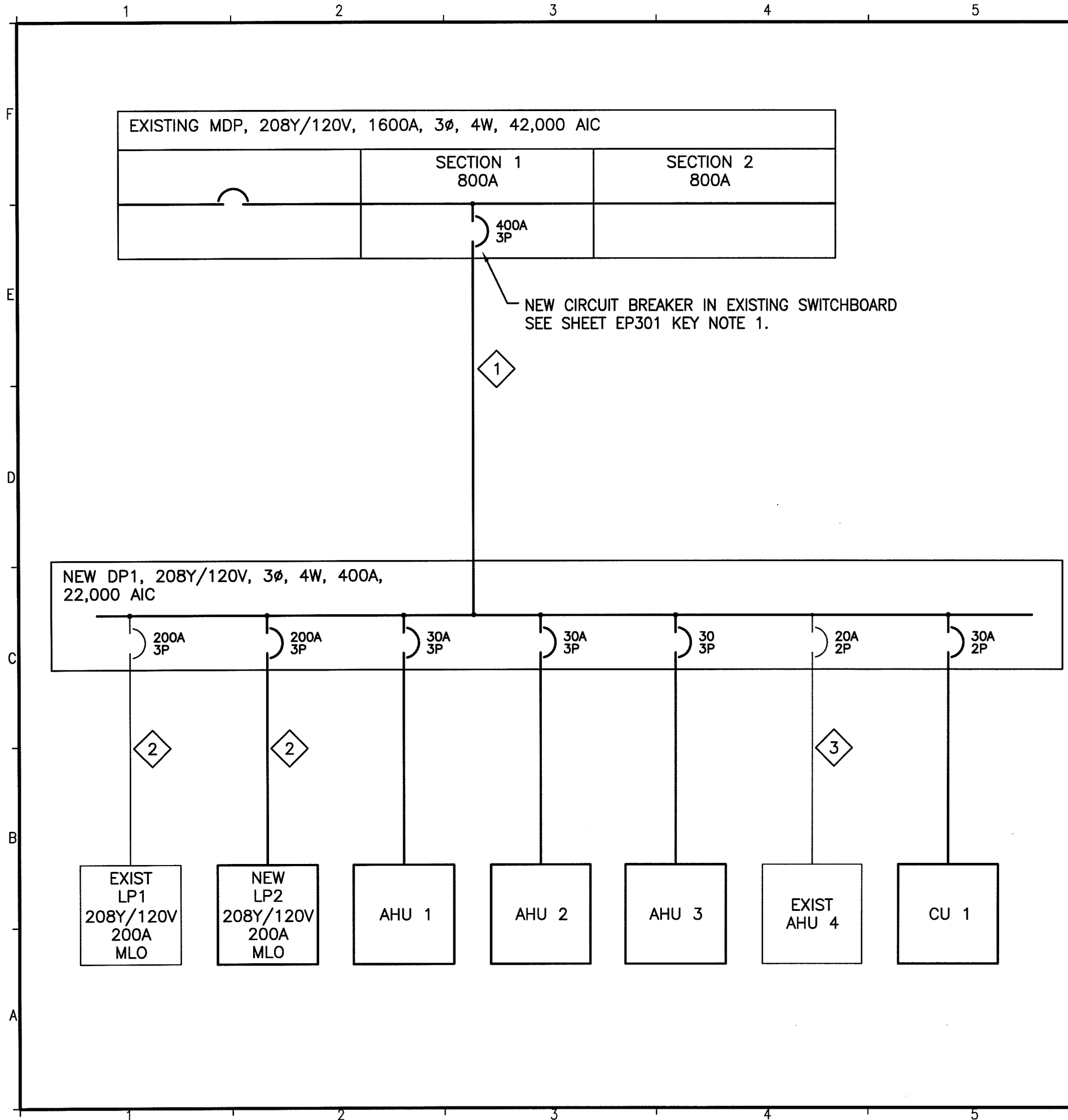


SHEET TITLE:  
**PANEL SCHEDULE  
 SHEET 3**  
 SHEET No. **EP603**  
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**NOTE:**

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

**CABLE SCHEDULE:**

- 1 4#600 MCM & #3 GND, 3 1/2" C
- 2 4#3/0 AWG & #6 GND, 2" C
- 3 EXISTING WIRING TO BE REWORKED INTO NEW PANEL

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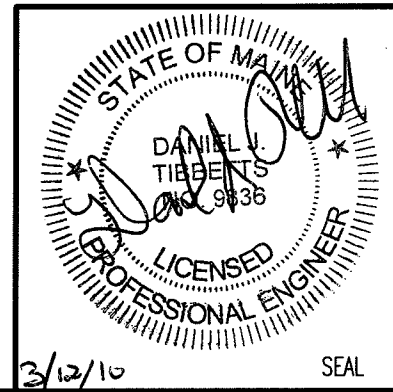
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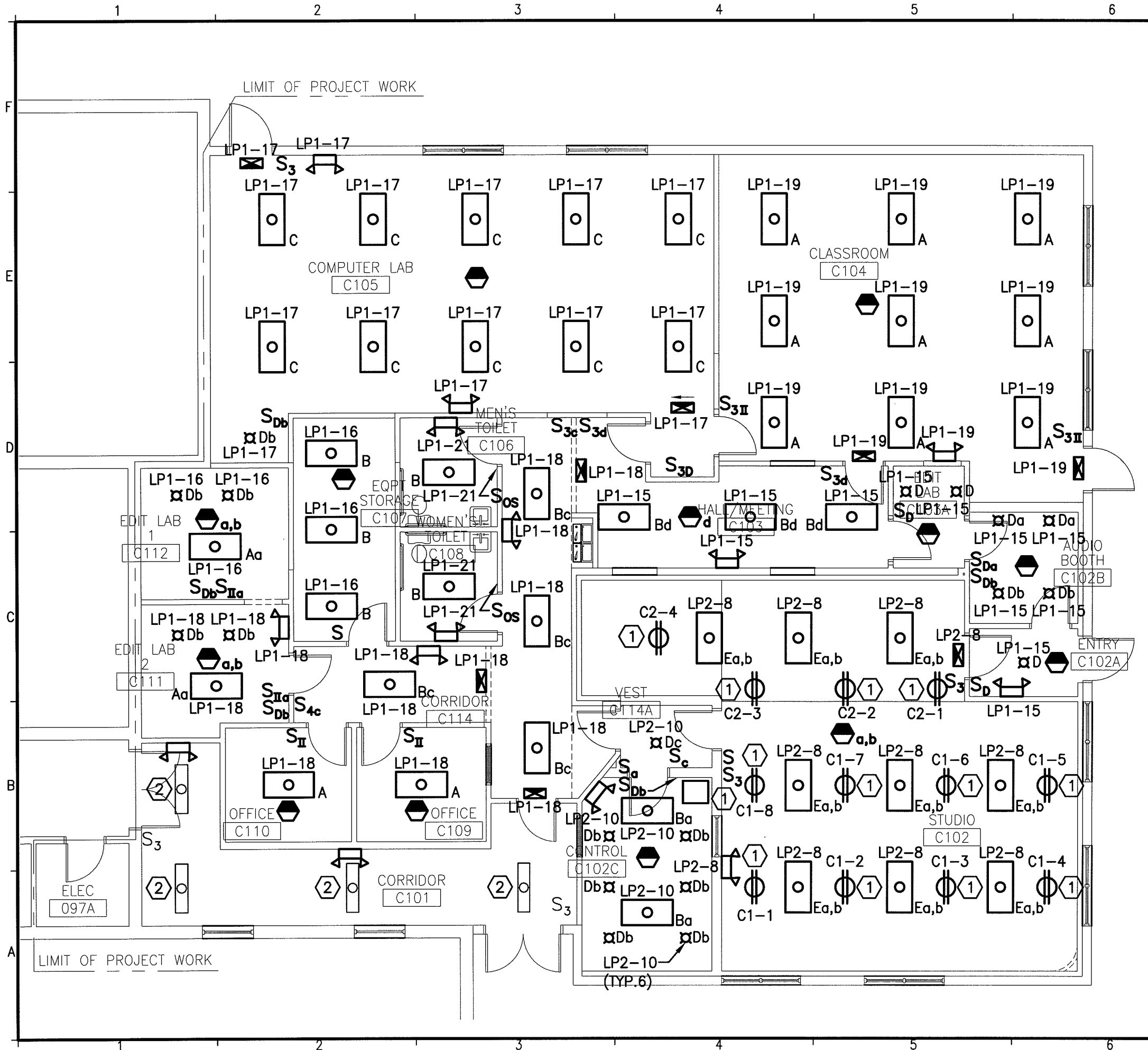
REV	DESCRIPTION	DATE
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10

SCALE:	NONE
PROJECT MANAGER:	SLB
JC/DRAWN BY:	CDS
A/E OF RECORD:	DJT
CAD FILE:	EP651-09109
PROJECT NO:	09109
DATE:	3-15-10

SHEET TITLE:  
**ONE LINE  
DIAGRAM**

SHEET No. **EP651**  
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**NOTE:**

- SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

**KEYED NOTES:**

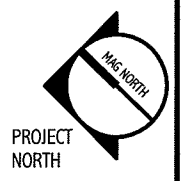
- RECEPTACLES TO BE FED VIA LIGHTING CONTROL UNITS LOCATED IN CONTROL ROOM. SEE SHEET EP302 FOR LIGHTING CONTROL UNIT DETAILS.
- EXISTING LIGHT FIXTURES AND SWITCHING TO REMAIN.

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	DESCRIPTION
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REV	DATE

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

PROJECT MANAGER: SLB

JC/DRAWN BY: CDS

A/E OF RECORD: DJT

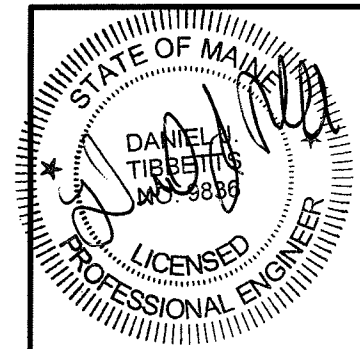
CAD FILE: EL101-09109

PROJECT NO: 09109

DATE: 3-15-10

SHEET TITLE:  
**LIGHTING FLOOR PLAN**



SHEET No. **EL101**  
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# LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MFR.	LAMPS	MOUNTING	NOTES
A	2x4 PARABOLIC TROFFER W/SEMI SPECULAR, 18 CELL LOUVER. <span style="float: right;">120V</span>	COLUMBIA P4D24 SERIES	3-F28T8 3500K	CEILING RECESSED	PROVIDE WITH DUAL BALLAST TO ALLOW DUAL LEVEL SWITCHING.
B	2x4 SPECIFICATION GRADE TROFFER WITH PATTERN 12 ACRYLIC LENS. <span style="float: right;">120V</span>	COLUMBIA 4PS SERIES	2-F28T8 3500K	CEILING RECESSED	
C	2x4 PARABOLIC TROFFER W/SEMI SPECULAR, 18 CELL LOUVER. <span style="float: right;">120V</span>	COLUMBIA P4D24 SERIES	3-F28T8 3500K	CEILING RECESSED	PROVIDE WITH DIMMING BALLAST
D	6" ROUND APERTURE DOWN LIGHT WITH AMERICAN MATTE REFLECTOR. <span style="float: right;">120V</span>	PRESOCOLITE CFT6 SERIES	1-32W TRIPLE TUBE	CEILING RECESSED	PROVIDED WITH DIMMING BALLAST
E	2x4 PARABOLIC TROFFER W/SEMI SPECULAR, 18 CELL LOUVER. <span style="float: right;">120V</span>	LITHONIA 2POMX SERIES	3-F28T8 3500K	CEILING SURFACE	PROVIDE WITH DUAL BALLAST TO ALLOW DUAL LEVEL SWITCHING.
	EMERGENCY LIGHTING UNIT WITH MAINTENANCE FREE BATTERY. <span style="float: right;">120V</span>	DUAL LITE SL1 SERIES	INTEGRAL W/UNIT	SURFACE WALL	MOUNT 7'-6" AFF TO BOTTOM.
	EMERGENCY EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING. <span style="float: right;">120V</span>	DUAL LITE LX SERIES	LED	SURFACE OR CEILING	

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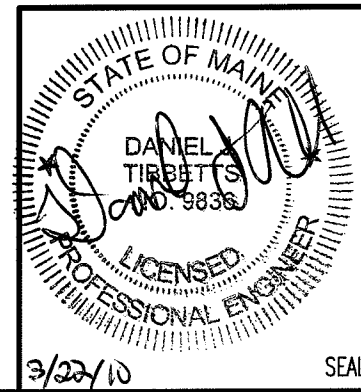
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CONSTRUCTION  
3-15-10**

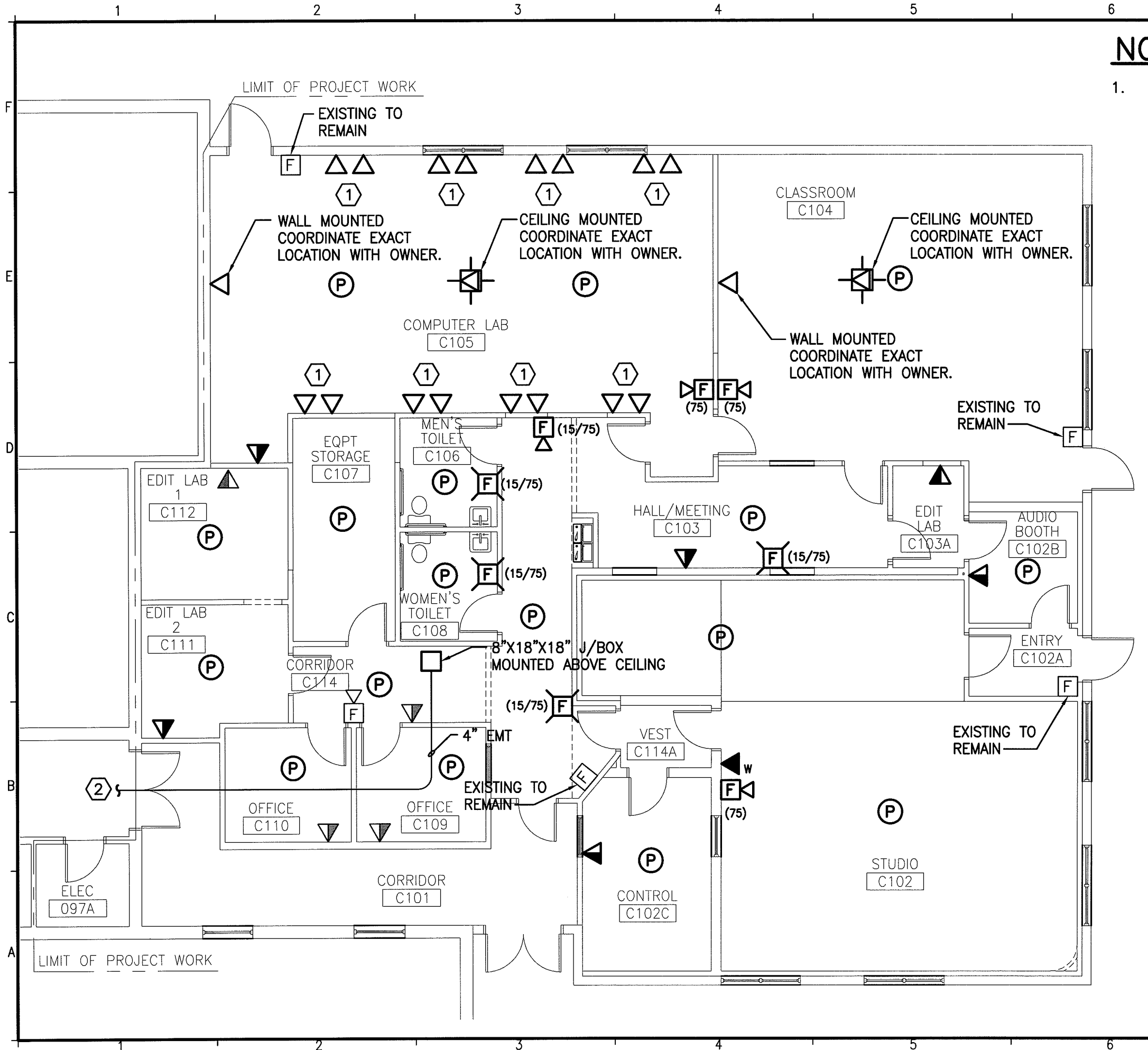
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	3-22-10
	3-15-10
	DESCRIPTION
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	3-22-10
	ISSUED FOR PERMITTING AND CONSTRUCTION
	3-15-10
	REV
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	0

SCALE: NONE  
PROJECT MANAGER: SLB  
JC/DRAWN BY: CDS  
A/E OF RECORD: DJT  
CAD FILE: EL601-09109  
PROJECT NO: 09109  
DATE: 3-15-10

SHEET TITLE:  
**LIGHT FIXTURE  
SCHEDULE**

SHEET No. **EL601**  
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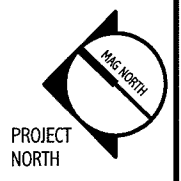




**NOTES:**

1. SEE SHEET EY102 FOR NOTES.

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

PROJECT MANAGER: SLB

JC/DRAWN BY: CDS

A/E OF RECORD: DJT

CAD FILE: EY101-09109

PROJECT NO: 09109

DATE: 3-15-10

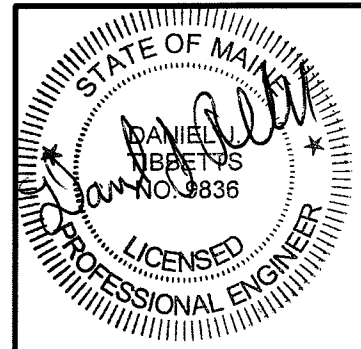
SHEET TITLE:

**SYSTEMS  
 FLOOR PLAN**

SHEET No.

**EY101**

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# NOTES:

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
2. ALL DATA AND VOICE/DATA OUTLETS SHALL BE 4" SQUARE OUTLET BOXES WITH APPROPRIATE TRIM RING (2"x4" STANDARD) AND 3/4" EMT WITH PULL STRING STUBBED UP INTO AN ACCESSIBLE CEILING. VOICE/DATA WIRING TO BE BY OTHERS.
3. ALL NEW FIRE ALARM NOTIFICATION AND INITIATING DEVICES SHALL BE TIED INTO THE EXISTING FIRE ALARM SYSTEM. PROVIDE ALL BOXES, CONDUIT, WIRING, DEVICES, EQUIPMENT, POWER SUPPLIES AND PROGRAMMING FOR A COMPLETE AND OPERABLE SYSTEM. COORDINATE ALL WORK WITH OWNERS FIRE ALARM VENDOR.

# KEYED NOTES:

- ① COORDINATE EXACT PLACEMENT OF DATA OUTLETS WITH FURNITURE LAYOUT.
- ② INSTALL 4" EMT RUN TO VOICE/DATA DEMARCATION POINT LOCATED IN RM 058 AROXIMATLY 200' AWAY. INSTALL 8"x18"x18" J/BOX AT 90 DEGREE TURN LOCATED AT STAIRWELL C IN CORRIDOR 097. ALSO INSTALL AN 8"x18"x18" J/BOX IN 4" EMT RUN LOCATED HALFWAY DOWN CORRIDOR 027 AND ALSO WHERE THE 4" EMT MAKE A 90 DEGREE TURN INTO RM 058. INSTALL PLASTIC BUSHINGS ON ALL 4" TERMINATION AND INSTALL 1/4" PULL ROPE THROUGH THE ENTIRE 4" EMT INSTALLATION.

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	1	3-22-10
0	ISSUED FOR PERMITTING AND CONSTRUCTION	3-15-10
REV	DESCRIPTION	DATE

SCALE: NONE  
 PROJECT MANAGER: SLB  
 JC/DRAWN BY: CDS  
 A/E OF RECORD: DJT  
 CAD FILE: EY102-09109  
 PROJECT NO: 09109  
 DATE: 3-15-10

SHEET TITLE:  
**SYSTEMS FLOOR PLAN NOTES**

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