

**SPECIFICATIONS & NOTES:**

- CONTRACTOR SHALL VISIT THE SITE TO DETERMINE PRE-EXISTING CONDITIONS AND ALL WORK NECESSARY, PRIOR TO BIDDING. 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.
- OBTAIN NECESSARY PERMITS AND PAY ASSOCIATED FEES.
- COORDINATE ANY SERVICE DISRUPTIONS WITH THE OWNER.
- INSTALL ALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, ALL LOCAL CODES AND STANDARDS, AND UNIFORM PROVIDENT REQUIREMENTS.
- DRAWINGS ARE DIAGRAMMATIC ONLY; FIELD-VERIFY ALL EXISTING CONDITIONS. COORDINATE INSTALLATIONS WITH OTHER TRADES.
- THE INTENTION OF THESE CONTRACT DOCUMENTS IS TO CALL FOR FINISHED WORK, FULLY TESTED AND READY FOR OPERATION. ANY COMPONENTS OR LABOR NOT MENTIONED IN THE CONTRACT DOCUMENTS BUT REQUIRED FOR FUNCTIONING SYSTEMS SHALL BE PROVIDED. SHOULD THERE APPEAR TO BE ANY DISCREPANCIES OR OMISSIONS, THE CONTRACTOR SHALL REPORT THE MATTER TO THE ARCHITECT/ENGINEER FOR DECISION BEFORE START OF ANY RELATED WORK.
- PERFORM WORK IN ACCORDANCE WITH LOCAL CODES.
- SEAL ALL DUCT AND PIPE PENETRATIONS WITH FIRE SEALANT.
- OBSERVE THE OWNER'S CLEANLINESS PROTOCOLS.
- "PROVIDE" MEANS "FURNISH AND INSTALL".

**METAL DUCTWORK**

- GALVANIZED STEEL DUCTWORK: ASTM A653 GALVANIZED STEEL SHEET, LOCK-FORMING QUALITY, AND 680 ZINC COATING.
- ALL DUCTWORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE STANDARDS.
- CONSTRUCT DUCT SYSTEMS SO THAT LEAKAGE DOES NOT EXCEED ONE PERCENT OF THE TOTAL AIR QUANTITIES.
- SEAL ALL DUCT JOINTS AIRTIGHT WITH GASKETED CONNECTIONS, DUCTMAE, OR EQUAL.
- SEAL GAPS BETWEEN SURFACE MOUNTED AIR INLETS AND OUTLETS AIRTIGHT.
- COORDINATE EXACT LOCATIONS OF DIFFUSERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- PROVIDE VOLUME DAMPERS AT ALL BRANCH DUCTS.
- PROVIDE FLEXIBLE CONNECTORS AT OUTLET OF CABINET UNIT HEATERS.

**SPECIFICATIONS & NOTES: (CONT)**

- DUCTWORK INSULATION**
- INSULATE ALL SUPPLY AIR DUCTWORK (NEW AND EXISTING) WITH 1-1/2" FIBER GLASS INSULATION BLANKET WITH VAPOR BARRIER JACKET EQUAL TO SCHULLER MICOLITE TYPE 75, ASTM C533, WITH FSK FACING.
- HYDRONIC PIPING**
- ASTM B88, TYPE L, HARD DRAWN COPPER TUBE, COPPER FITTINGS WITH ALLOY 5185 SOLDER JOINTS.
- INSULATED FLEXIBLE DUCTS**
- POLYESTER FILM WITH LATEX ADHESIVE SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE, FIBERGLASS INSULATION, POLYETHYLENE VAPOR BARRIER FILM, R-VALUE = 4.2, UL 181, CLASS 1. MAXIMUM LENGTH: 5 FEET.
- AUTOMATIC TEMPERATURE CONTROLS**
- EXTEND THE EXISTING AND/OR CONTROL SYSTEM TO SERVE THE RENOVATED AREA. ALL NEW CONTROLS SHALL BE ELECTRONIC/DCC.
- TESTING, ADJUSTING, AND BALANCING (T-A-B)**
- TEST, ADJUST, AND BALANCE EQUIPMENT AND DISTRIBUTION SYSTEMS IN ACCORDANCE WITH NEBB OR ABC PROCEDURAL STANDARDS. TESTS SHALL BE PERFORMED BY AN INDEPENDENT T-A-B AGENCY.
  - T-A-B ALL NEW AIR INLETS AND OUTLETS, INCLUDING DESIGN AND ACTUAL CFM.
  - T-A-B ALL CABINET UNIT HEATERS WATER FLOWS.
  - T-A-B ALL CABINET UNIT HEATER AIRFLOWS.

**REGISTER, DIFFUSER & GRILLE SCHEDULE**

TAG	CFM	NECK SIZE	TYPE	ΔP	NC	TYPICAL UNIT MFG & MODEL NO.	NOTES
S-1	200	N/A LINEAR SLOT DIFFUSER ONLY	LINEAR SLOT	0.057	23	TITUS ML-39 4 FT. LONG/2-SLOT	
S-2	100	6x6 SURFACE MOUNT	SURFACE MOUNT	0.02	11	TITUS MCD 3-WAY	
R-1	200	N/A LINEAR SLOT DIFFUSER ONLY	LINEAR SLOT	0.057	23	TITUS MLR-39 4 FT. LONG/2-SLOT	
R-2	500	22x10 LAY-IN	LAY-IN	0.05	21	TITUS 355 RL	

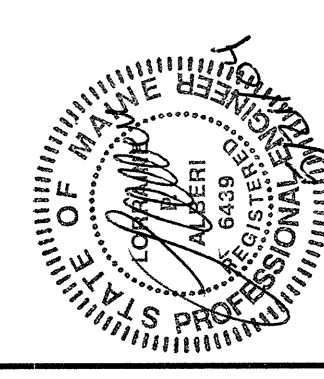
NOTES:

**NOTE:**

- SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.



ARCHITECTURE ENGINEERING PLANNING  
 SMART  
 144 Fore Street, P.O. Box 618  
 Portland, Maine 04104  
 Tel: (207) 772-3846  
 Fax: (207) 772-1070

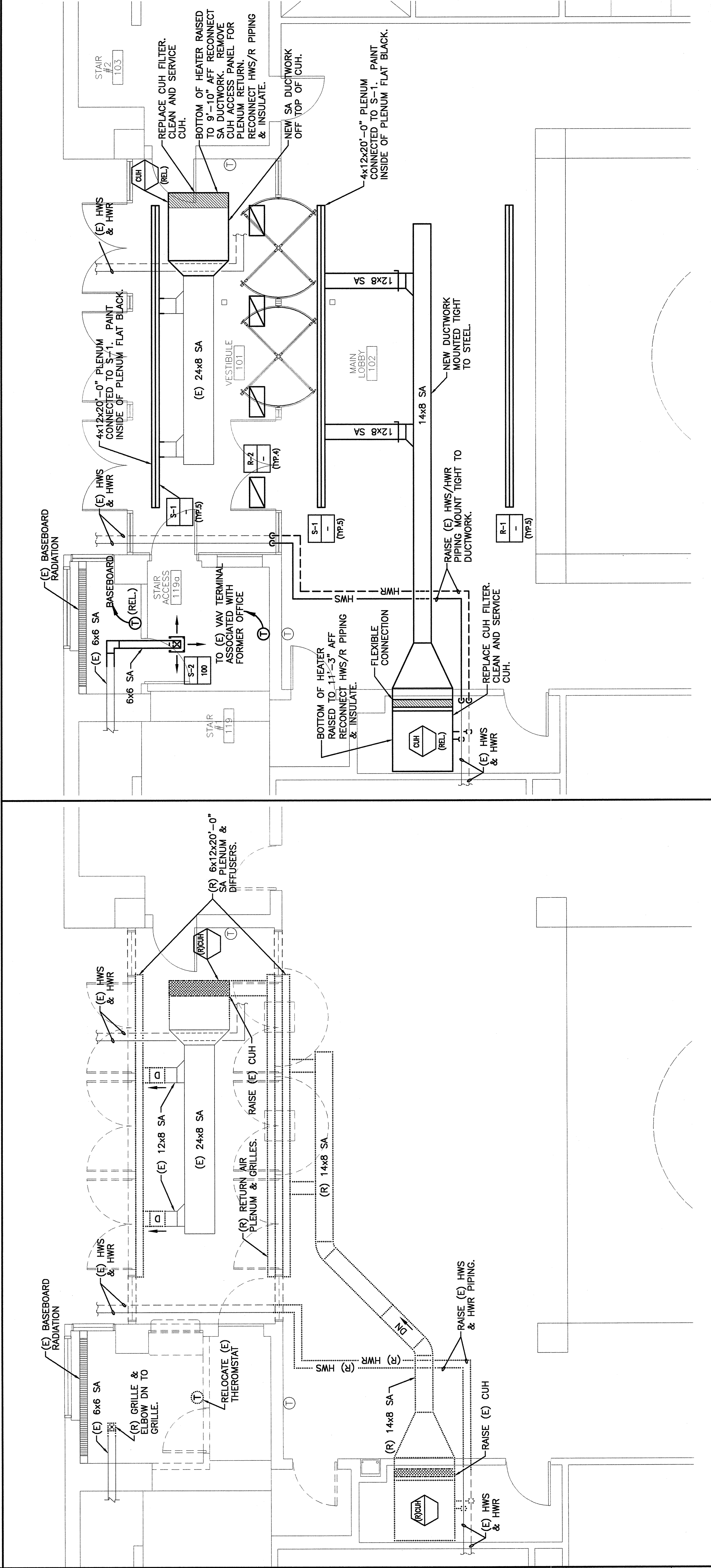


UNMPROVIDENT CORPORATION  
 PORTLAND, MAINE  
 HO1 SECURITY DOORS  
 ISSUED FOR CONSTRUCTION 5-21-04  
 PROJECT TITLE:  
 CURRENT ISSUE STATUS:  
 DATE: 5-21-04

REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	5-21-04

GRAPHIC SCALE:  
 0" 1"  
 SCALE: AS NOTED  
 PROJECT MANAGER: J.H.H.  
 AC/DRAWN BY: R.J./B.G.G.  
 A/E OF RECORD: EPA  
 CAD FILE: M-101-03146  
 PROJECT NO: 03146  
 DATE:  
 SHEET TITLE:

HVAC PLANS, SCHEDULES, AND SPECIFICATIONS  
 SHEET No. M-101



A1 HVAC DEMOLITION PLAN 1/4"=1'-0"  
 A7 HVAC PLAN 1/4"=1'-0"  
 SHEET No. M-101