

**TOWN OF GLASTONBURY**  
**GL-2017-39**  
**NEW ADDITION GLASTONBURY TOWN HALL**  
**ADDENDUM NO. 1**  
**August 11, 2017**

**Bid Due Date: August 22, 2017 @ 11:00 A.M.**

The attention of bidders submitting proposals for the above-referenced project is called to the following Addendum to the specifications. The items set forth herein, whether of omission, addition, substitution or other change, are all to be included in and form a part of the proposed Contract Documents for the work. Bidders shall acknowledge this Addendum on the Bid Proposal Page (BP-1).

**QUESTION & ANSWERS:**

**Question 1:** *It was mentioned at pre-bid a completion date of this year 2017. I find no such duration in the project documents. Since project requirements, crew sizes and sub commitments are required, we would appreciate a statement on the duration that applies to all bidders?*

**Answer:** Please refer to the bid documents in section 08.00 TIME FOR COMPLETION/NOTICE TO PROCEED of the Special Conditions (Page SC-2) for this information.

**Question 2:** *Kindly confirm that front east entry (both demo and all new work) is by Town?*

**Answer:** Correct.

**Question 3:** *Kindly confirm that in existing and renovated Elevator Lobby 101 that our GC bid work is limited to:*

- a. removal and salvage of existing sliding door assembly*
- b. removal and replacement of exiting tile floor and base*
- c. Modifications to wall surround for new, cased, North entry into lobby 100*
- d. There is no ceiling ACT or painting work*

**Answer:** Existing interior sliding vestibule door removal will be by owner under separate project. All other items are correct. Drawing D101 has been revised as per the attached.

**Question 4:** *Please confirm if Item #9 on 3/D101 (window removal and infill) is part of our GC work?*

**Answer:** Correct.

**Question 5:** *Where does "Typical Concrete Wall Opening Detail" apply to?*

**Answer:** Typical Concrete Wall opening detail is not used anywhere specifically but is included in case something large needs to run through the foundation. It may not be used at all.

**Question 6:** *On S-200, there are several wall cuts that refer to details on S-310, but there isn't a drawing by that name in the set. Will one be issued?*

**Answer:** All references to S310 should be to S400. There is no sheet S310.

**Question 7:** *Is there any way you can release the mechanical and electrical drawings. My subs need some info from those?*

**Answer:** The Mechanical and Electrical drawings have been posted to the Town's website for information only, as Mechanical and Electrical is not part of the scope of work for this project. Coordination with Owner's separate projects will be required as per Section 024119-2. Drawings will be provided to the selected vendor upon request.

**Note: This addendum consists of 1 page and 8 pages of drawings as noted above in questions 3 & 7.**

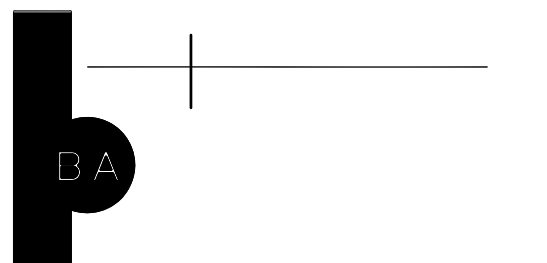
**Glastonbury  
Town Hall  
New Entry Addition  
GL-2017-39**

Town of Glastonbury  
2155 Main Street  
Glastonbury CT, 06033

Structural Engineer

**Morrissey Engineering, LLC**  
58 Essex Street, Deep River, CT06417  
phone 860-532-0312

MEP Engineer



**DEMOLITION PLAN NOTES**

1. THE CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS AS REQUIRED TO COMPLETE THE DEMOLITION AND REMOVAL OF ALL ITEMS AS SHOWN OR NOTED ON THE ARCHITECT'S AND ENGINEER'S DRAWINGS.
2. COORDINATE PROPOSED METHODS AND OPERATIONS WITH PROJECT MANAGER AND BUILDING MANAGEMENT PRIOR TO THE START OF DEMOLITION WORK INCLUDING COORDINATION FOR SHUT-OFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
3. VERIFY AND COORDINATE ALL DIMENSIONS PRIOR TO BEGINNING WORK.
4. ALL DEMOLITION IS TO BE COORDINATED AND PERFORMED BY THE APPROPRIATE TRADE. COORDINATE WORK WITH ALL PLANS, INCLUDING ELECTRICAL, HVAC, PLUMBING AND FIRE PROTECTION.
5. UPON COMPLETION OF THE DEMOLITION WORK, THE CONTRACTOR SHALL LEAVE ALL AREAS BROOM CLEAN.
6. COORDINATE REMOVAL OF ALL STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING RELATED ITEMS WITH ENGINEERING DOCUMENTS.
7. COORDINATE ACCESS POINTS AND STAGING AREAS WITH OWNER.
8. PROVIDE TEMPORARY CONSTRUCTION BARRIERS AS REQUIRED TO PROTECT ADJACENT AREAS FROM CONSTRUCTION DUST.
9. SEE ENGINEER'S DRAWINGS FOR REMOVAL OF EXISTING HVAC SYSTEMS, PLUMBING AND ELECTRICAL LINES.
10. PORTIONS OF THE EXISTING BUILDING INCLUDING FINISHES, MECHANICAL AND ELECTRICAL WORK DISTURBED BY DEMOLITION OR NEW CONSTRUCTION SHALL BE REPAIRED AS REQUIRED AND RETURNED TO ITS ORIGINAL CONDITION OR BETTER, U.O.I.
11. THE CONTRACTOR SHALL COORDINATE ALL TEMPORARY POWER REQUIREMENTS DURING RENOVATIONS. REFER TO ELECTRICAL DRAWINGS.
12. DEFINITIONS:
  - 12.A. REMOVE- DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE, UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.
  - 12.B. REMOVE AND SALVAGE- DETACH ITEMS FROM EXISTING CONSTRUCTION AND DELIVER THEM TO OWNER READY FOR REUSE.
  - 12.C. REMOVE AND REINSTALL- DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE THEM FOR REUSE, STORE, OR REINSTALL THEM WHERE INDICATED.
  - 12.D. EXISTING TO REMAIN- EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED, OR REMOVED AND REINSTALLED.
13. CONTRACTOR SHALL CONTACT OWNER OR ARCHITECT TO CONFIRM ANY ITEM NOT SPECIFICALLY NOTED ON PLAN. IF DISCREPANCY EXISTS, REMOVE AND SALVAGE ITEM FOR OWNER.
14. SEE SPEC SECTION "SELECTIVE DEMOLITION" FOR PROTOCOL REQUIREMENTS IF HAZARDOUS MATERIALS SHOULD BE DISCOVERED DURING DEMOLITION.
15. PROTECT OR SAVE EXISTING FIRE EXTINGUISHER CABINETS, FIRE PULL STATIONS AND EXIT SIGNS FOR RE-USE AS APPLICABLE FOR TURN OVER TO OWNER.
16. FIREPROOF HOLES LEFT BY DEMOLITION TO MATCH FIRE RESISTANCE RATINGS OF EXISTING WALLS AND FLOORS.

**DEMOLITION PLAN LEGEND**

- EXISTING BASE BUILDING CONSTRUCTION TO REMAIN
- EXISTING PARTITION TO BE REMOVED
- EXISTING DOOR, DOOR FRAME AND HARDWARE TO REMAIN
- EXISTING DOOR, DOOR FRAME AND HARDWARE TO BE REMOVED UNLESS OTHERWISE NOTED
- DEMO EXISTING TO REMAIN
- EDGE OF FLOOR FINISH DEMOLITION
- INDICATES ALIGNMENT OF FINISHED SURFACES (EXIST) (NEW)

**DEMOLITION PLAN KEYNOTES**

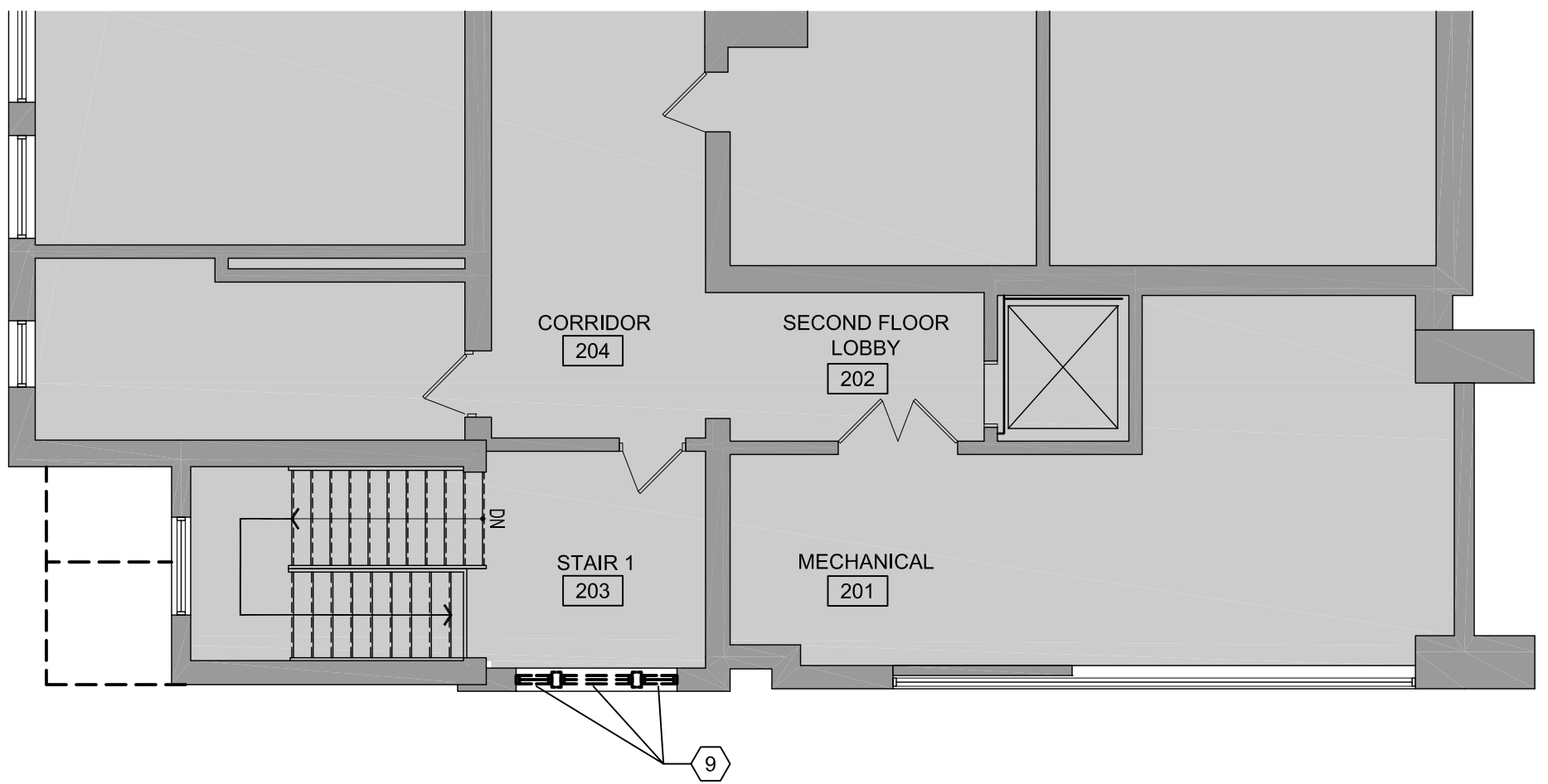
- ① REMOVE EXISTING LIGHTING FIXTURE AND BACK BOX
- ② REMOVE EXISTING MASONRY WALL. PROVIDE SMOOTH SAWCUT AT EACH END. COORDINATE EXTENT OF DEMOLITION WITH FINISHED OPENING AS SHOWN ON PLAN.
- ③ REMOVE AND SALVAGE EXISTING TOWN HALL PLAQUE. REINSTALL IN LOCATION AS DIRECTED BY THE OWNER.
- ④ REMOVE EXISTING TILE FLOORING AND BASE.
- ⑤ NOT USED
- ⑥ NOT USED
- ⑦ NOT USED
- ⑧ REMOVE EXISTING LOUVER, SEE MECHANICAL DRAWINGS
- ⑨ REMOVE EXISTING WINDOW ASSEMBLY AND WOOD TRIM DOWN TO EXISTING MASONRY SURROUND

Revisions		
NO.	ISSUE	DATE
2	ADDENDUM NO. 1	08.11.2017
1	ISSUED FOR BID	07.17.2017
<b>Sheet Information</b>		
Date	07.17.2017	
Job Number	146.02.001	
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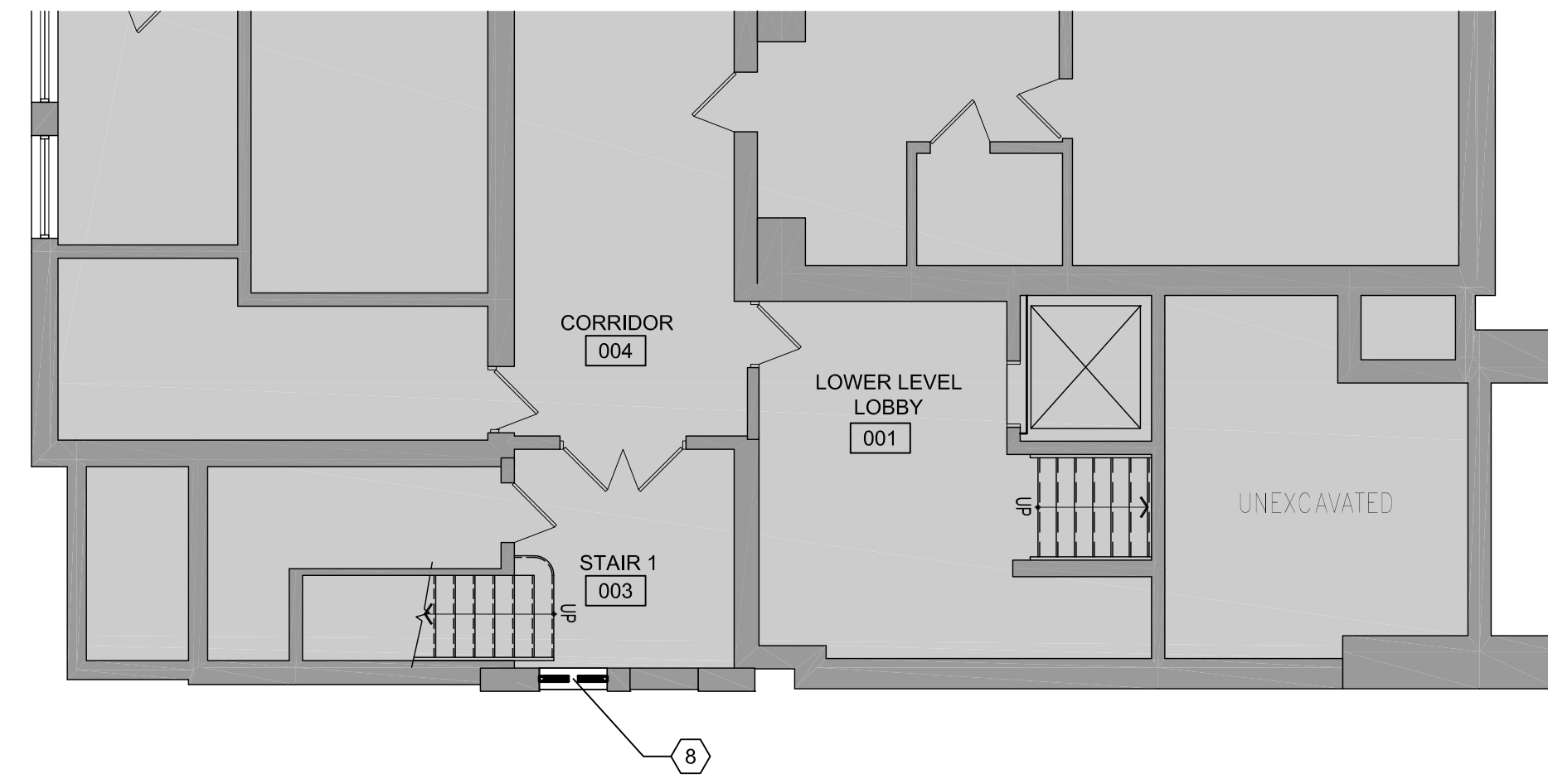
**PARTIAL DEMO  
PLANS**

Sheet

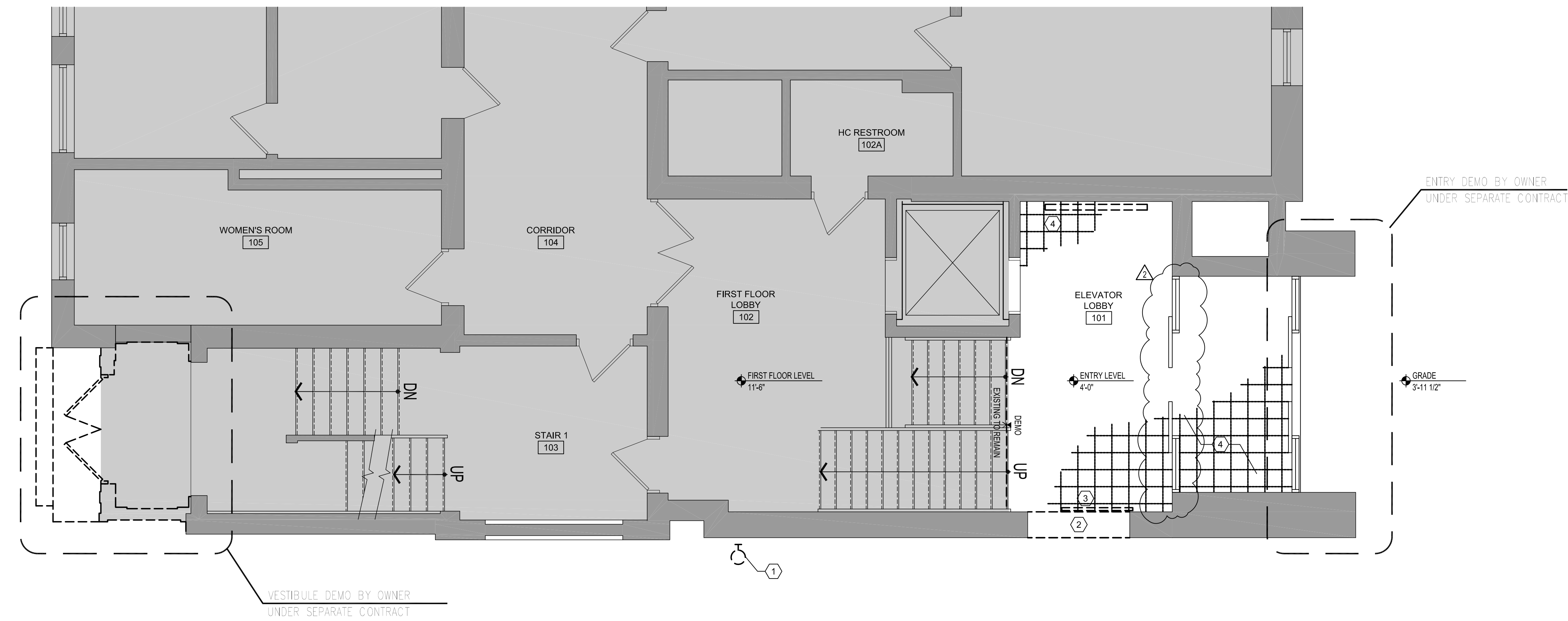
**D-101**



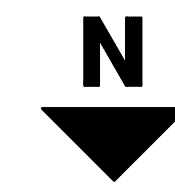
**3** UPPER LEVEL DEMO PLAN  
1/8" = 1'-0"

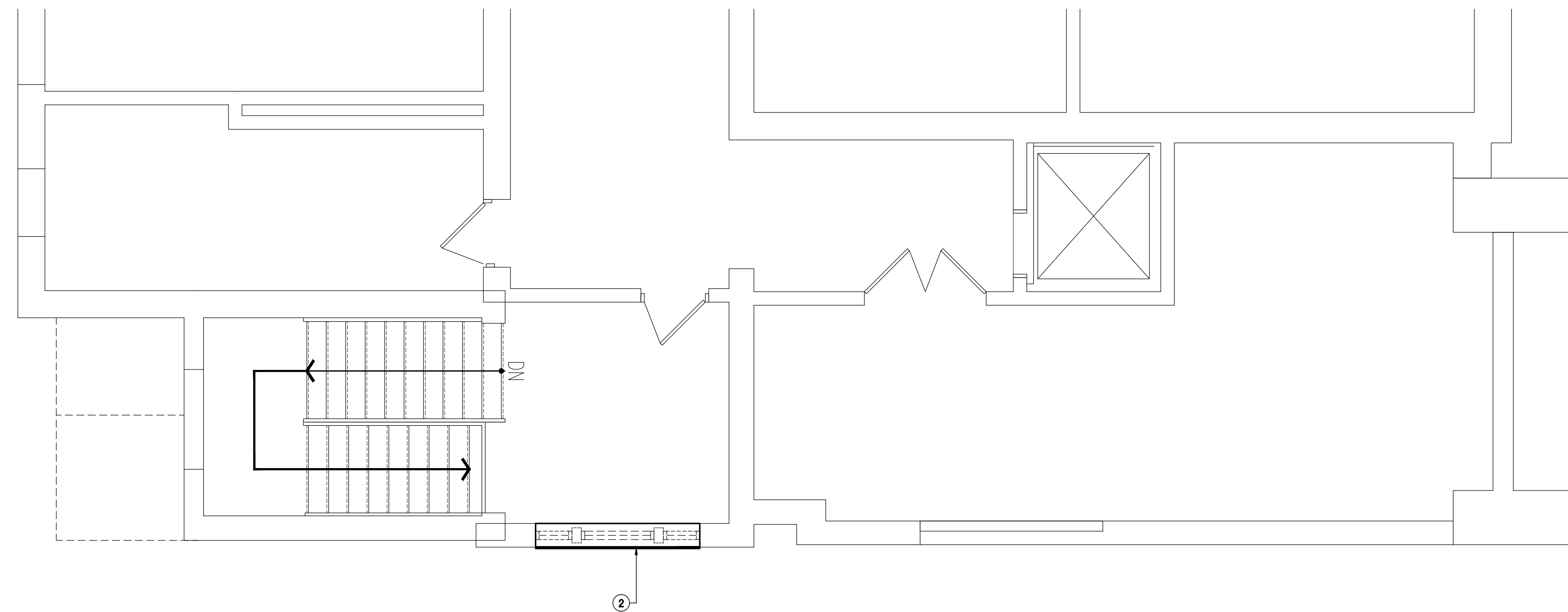


**2** LOWER LEVEL DEMO PLAN  
1/8" = 1'-0"

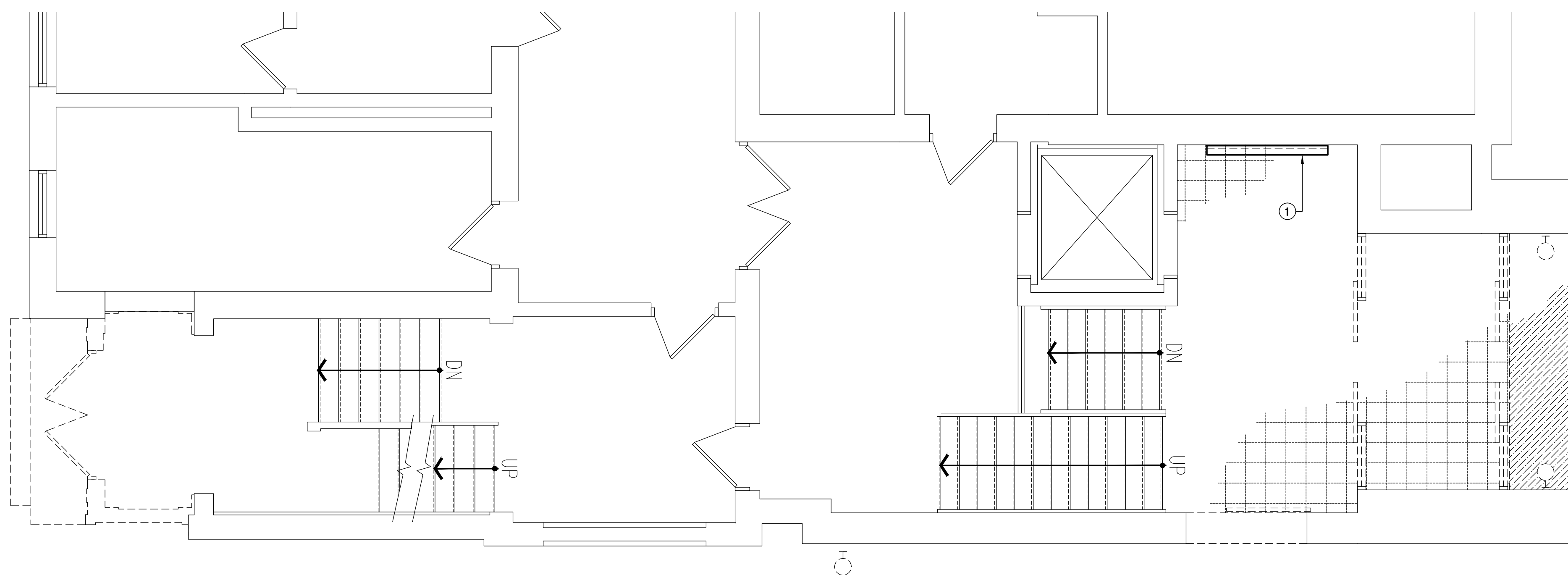


**1** FIRST FLOOR DEMO PLAN  
1/4" = 1'-0"





**TOWN HALL ENTRANCE LOWER LEVEL PART PLAN – MECHANICAL DEMOLITION**  
SCALE: 1/4"=1'-0"



**TOWN HALL ENTRANCE UPPER LEVEL PART PLAN – MECHANICAL DEMOLITION**  
SCALE: 1/4"=1'-0"

**GENERAL DEMOLITION NOTES**

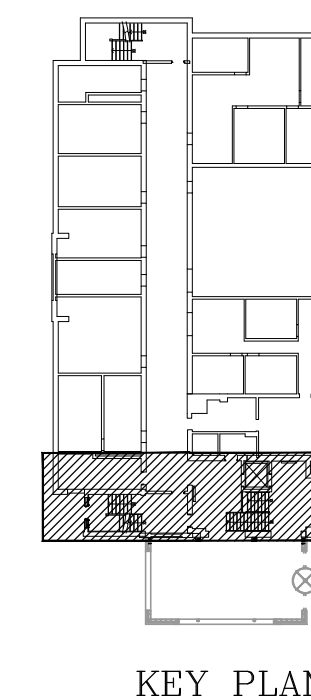
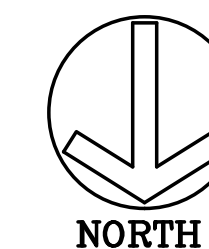
- 1 – THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITY LINES INCLUDING ELECTRICAL, SEWER, WATER, GAS, TELEPHONE, ETC. THE DRAWINGS SHOW DIAGRAMMATICALLY THE APPROXIMATE LOCATION OF UTILITIES WHERE INFORMATION IS AVAILABLE, BUT THE DRAWINGS ARE NOT EXACT AS TO THE QUANTITY, EXTENT OR LOCATION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING ALL PHASES OF THE WORK TO LOCATE, IDENTIFY, AND PROTECT EXISTING UTILITIES. THE CONTRACTOR SHALL RECORD LOCATION OF AND REPAIR DAMAGE TO EXISTING UTILITIES WHICH ARE ENCOUNTERED AS A RESULT OF WORK UNDER THIS CONTRACT.
- 2 – ANY EQUIPMENT REMOVED DURING DEMOLITION WORK MAY BE RETAINED BY THE OWNER AT HIS OPTION. ANY SUCH MATERIAL SHALL BE STORED IN THE BUILDING AT A LOCATION DESIGNATED BY THE OWNER. REMOVAL OF SUCH MATERIAL FROM THE JOB SITE SHALL BE THE OWNER'S RESPONSIBILITY.

**MECHANICAL DEMOLITION WORK NOTES**

- 1 – PRIOR TO SUBMITTING BID, VISIT THE SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. CONTRACTOR SHALL MEASURE, RECORD AND SUBMIT WATER FLOWS PRIOR TO COMMENCING ANY DEMOLITION WORK. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY EXPERIENCED OBSERVERS. INCLUDE IN THE BID ALL DEMOLITION WORK REQUIRED.
- 2 – THE DEMOLITION DRAWINGS ARE INTENDED ONLY TO DEFINE THE GENERAL SCOPE OF DEMOLITION WORK AND TO ASSIST THE CONTRACTOR DURING BIDDING. THE DEMOLITION DRAWINGS MAY NOT SHOW EVERY ITEM WHICH MUST BE DISCONNECTED, REMOVED, OR RELOCATED IN ORDER TO FACILITATE NEW WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED WHETHER OR NOT SHOWN ON THE PLANS.
- 3 – COORDINATE AND SCHEDULE ALL WORK WITH THE OWNER TO MINIMIZE INCONVENIENCE TO THE BUILDING OCCUPANTS. ALL SERVICES AND SYSTEMS SERVING OCCUPIED AREAS OF THE BUILDING SHALL BE MAINTAINED IN OPERATION DURING WORKING SHIFTS.
- 4 – CONTRACTOR IS RESPONSIBLE FOR ANY TEMPORARY WORK REQUIRED TO KEEP THE BUILDING OCCUPIED DURING CONSTRUCTION.
- 5 – REMOVE ALL DEMOLITION MATERIAL FROM THE JOB SITE UNLESS NOTED DIFFERENTLY.
- 6 – CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF EXISTING MECHANICAL EQUIPMENT.

**- MECHANICAL DEMOLITION WORK SYMBOLS -**

KEY NOTES DESCRIBE IN GENERAL THE SCOPE OF EQUIPMENT REMOVED. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH NEW WORK PLANS PRIOR TO REMOVING THE ITEM.	
TAG	ACTION
①	EXISTING CABINET UNIT HEATER SHALL REMAIN. CLEAN AND DISINFECT COIL. EXISTING CONTROL VALVE AND ISOLATION VALVES SHALL BE REPLACED.
②	EXISTING LOUVER AND DUCTWORK CONNECTED TO THE LOUVER SHALL BE REMOVED. TEMPORARILY CAP REMAINING DUCTWORK FOR FUTURE CONNECTION. EXISTING LOUVER SHALL BE RELOCATED AND BLOCKED OFF WITH METAL INSULATING PANEL. DAMPER AND ACTUATOR SHALL BE REMOVED. CONTRACTOR TO FIELD VERIFY EXISTING.



Revisions

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Title

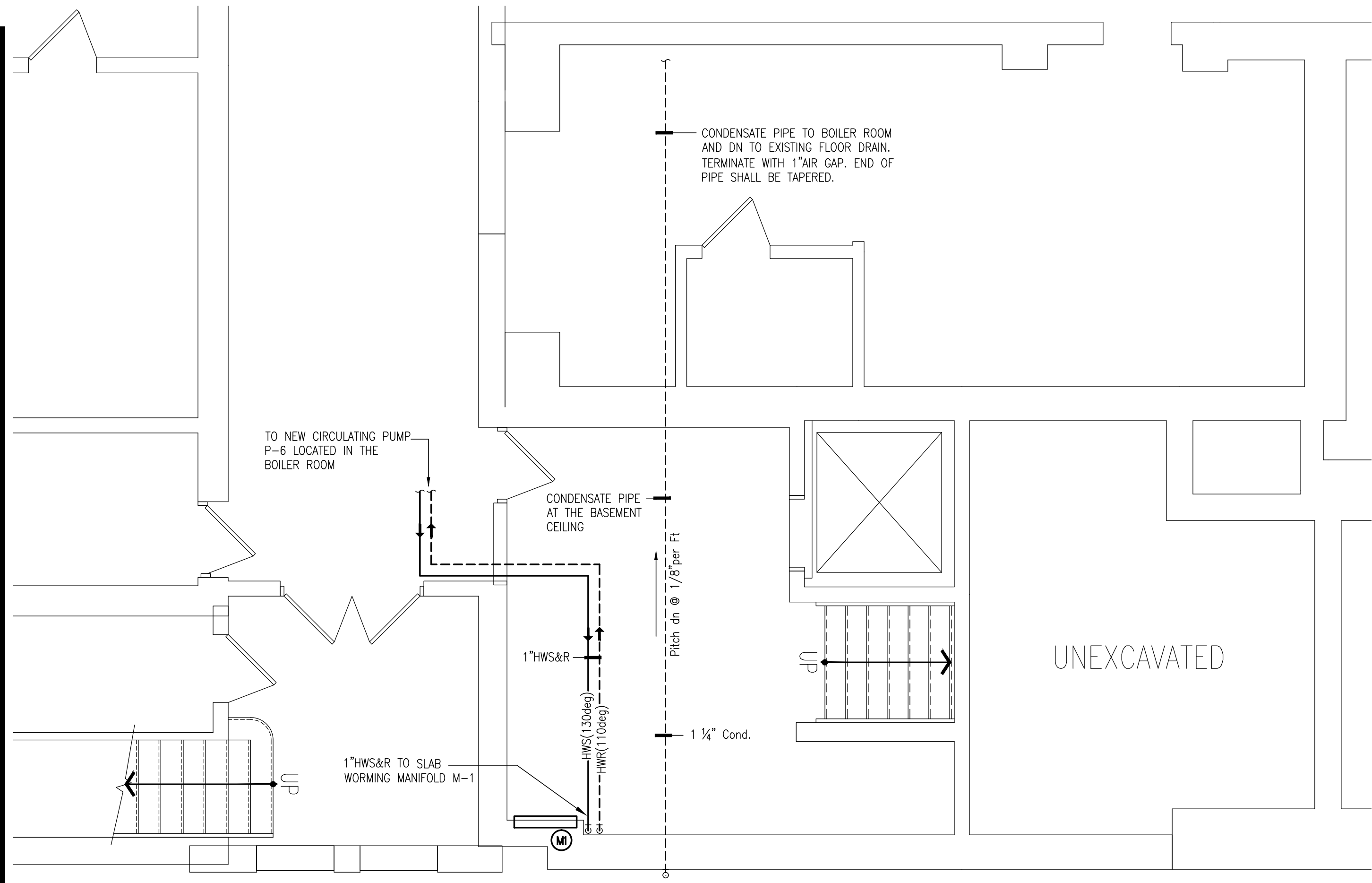
**TOWN HALL  
ENTRANCE LOWER  
AND UPPER LEVEL  
PART PLAN  
MECHANICAL  
DEMOLITION**

Sheet

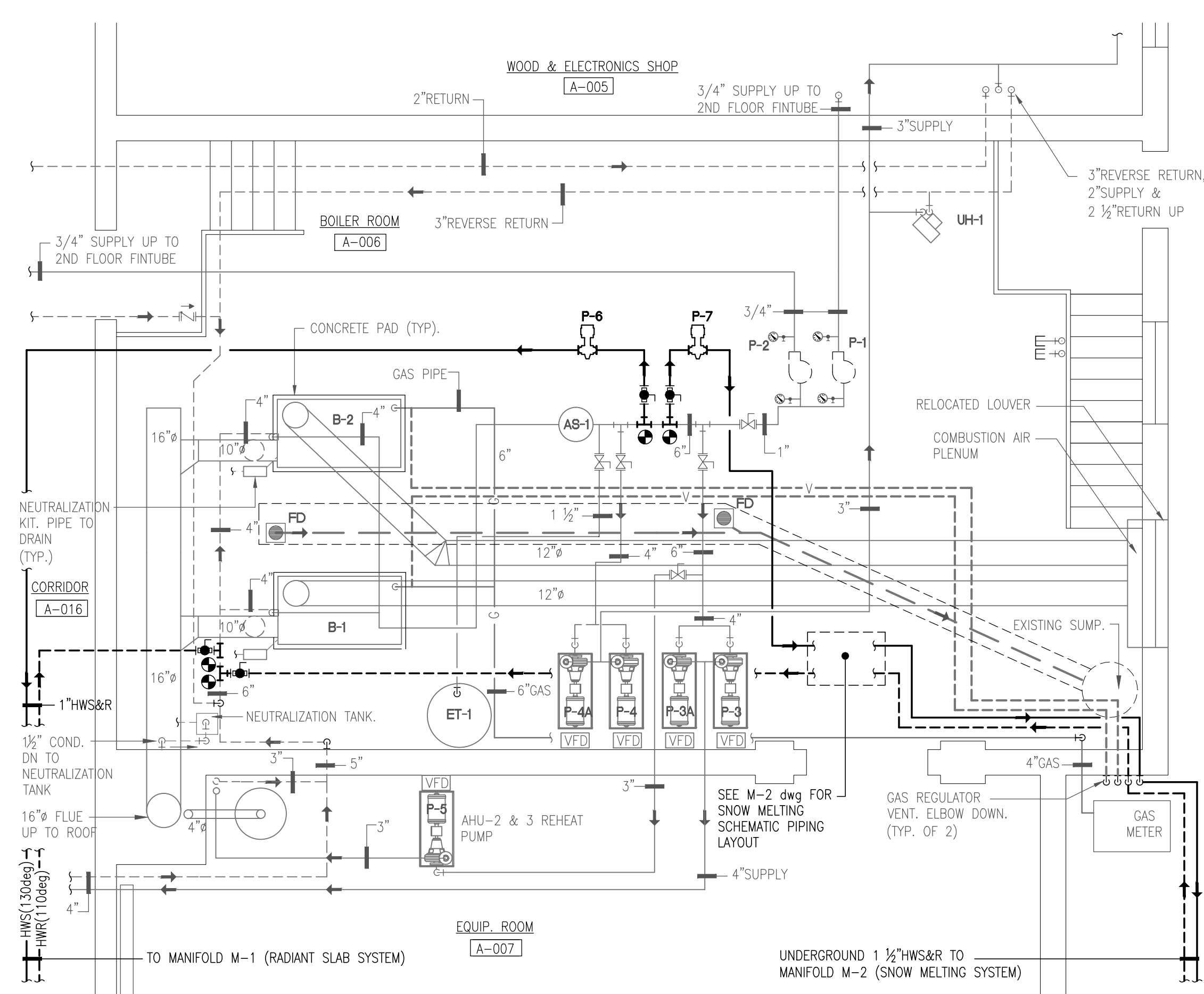
**MD-1**



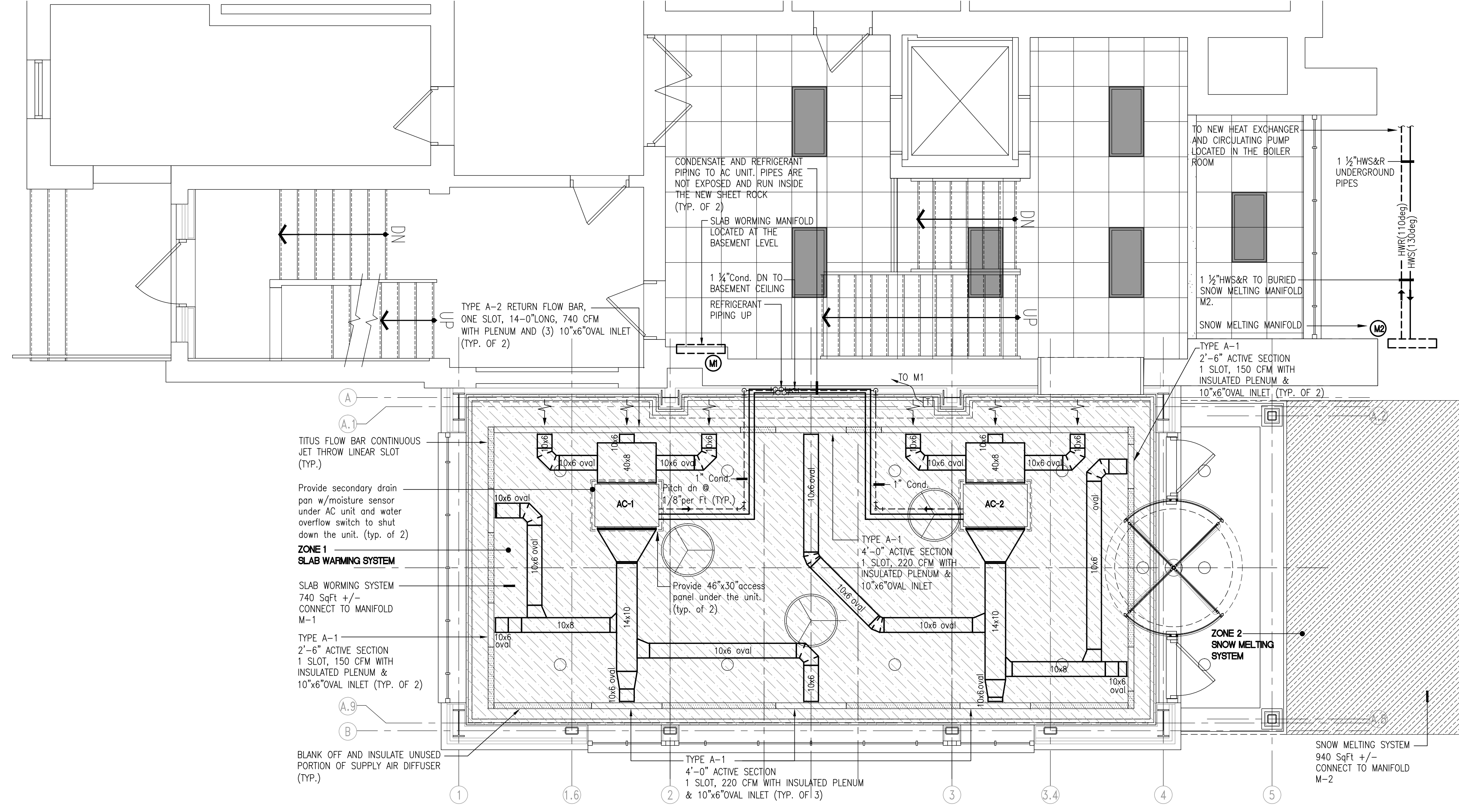
0 1/2" 1" 2"



TOWN HALL LOWER LEVEL ENTRANCE PART PLAN - MECHANICAL  
SCALE: 1/4"=1'-0"



BOILER ROOM PART PLAN - MECHANICAL NEW WORK  
SCALE: 1/4"=1'-0"



TOWN HALL UPPER LEVEL ENTRANCE PART PLAN - MECHANICAL NEW WORK  
SCALE: 1/4"=1'-0"

**GENERAL NOTES**

1. INSTALL PIPES IN SUCH A WAY THAT WILL ALLOW EASY ACCESS TO VALVES. IN GENERAL, PIPES SHALL RUN BELOW DUCTS.
2. ALL BRANCH CONNECTIONS SHALL BE MADE FROM THE BOTTOM OR 45 DEG. FROM THE BOTTOM OF MAINS.
3. INSTALL DRAIN VALVES WITH HOSE CONNECTION AT ALL LOW POINTS.
4. PROVIDE HOSE END CAPS WITH CHAIN ON ALL DRAIN VALVES AND AIR VENTS.
5. PROVIDE AIR VENTS AT ALL HIGH POINTS.
6. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. ALL CONTRACTORS MUST COORDINATE WITH OTHER TRADES BEFORE WORK BEGINS.
7. FINAL SENSOR/THERMOSTAT LOCATION SHALL BE APPROVED BY THE ARCHITECT/ENGINEER.
8. CONDENSATE PIPING SHALL BE COPPER. PIPES SHALL BE INSULATED.
9. THERE SHALL BE NO EXPOSED PIPING. PIPES SHALL RUN CONCEALED ABOVE CEILING OR IN WALLS. WHERE NOT POSSIBLE, THE GENERAL CONTRACTOR SHALL PROVIDE PIPE CHASES. ON EXTERIOR WALLS, PIPES SHALL RUN ON WARM SIDE OF THE INSULATION AND HAVE 2" INSULATION.
10. THIS CONTRACTOR SHALL PROVIDE EXPANSION JOINTS.

DIFFUSER and REGISTER SCHEDULE		
TYPE	DESCRIPTION	
TYPE A-1	TITUS FLOWBAR LINEAR DIFFUSER MODEL FL-10-JT, 1 SLOT, 1" SLOT WIDTH, INSULATED PLENUM AND JETTHROW AIR PATTERN CONTROLLER, 10"x6" OVAL INLET, CEILING BORDER TYPE 22. REFER TO DRAWINGS FOR DIFFUSER LOCATION AND SIZE. CONTRACTOR TO VERIFY COMPATIBILITY WITH CEILING SPECIFIED UNDER ARCHITECTURAL BEFORE ORDERING. COLOR BY ARCHITECT.	
TYPE A-2	TITUS FLOWBAR LINEAR RETURN DIFFUSER MODEL FL-10, 1 SLOT, 1" SLOT WIDTH, CONTINUOUS SLOT INSULATED PLENUM, 10"x6" OVAL INLET, CEILING BORDER TYPE 22. REFER TO DRAWINGS FOR DIFFUSER LOCATION AND SIZE. CONTRACTOR TO VERIFY COMPATIBILITY WITH CEILING SPECIFIED UNDER ARCHITECTURAL BEFORE ORDERING. COLOR BY ARCHITECT.	

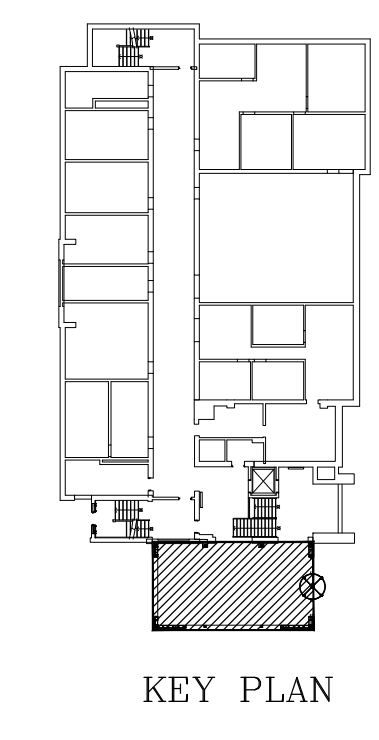
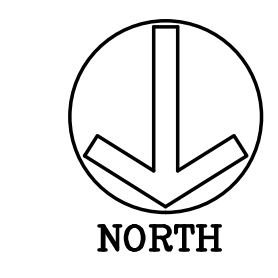
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**TOWN HALL  
ENTRANCE PART  
PLAN & BOILER  
ROOM MECHANICAL  
NEW WORK**

Sheet

**M-1**

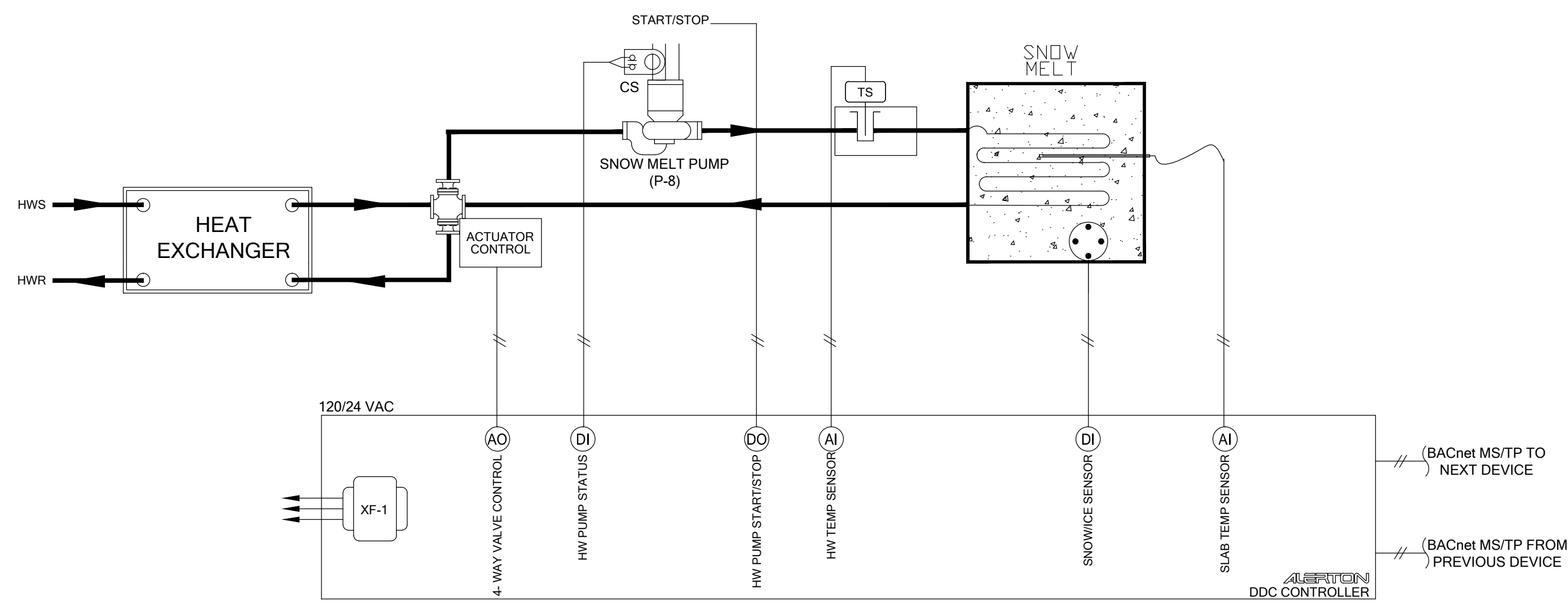




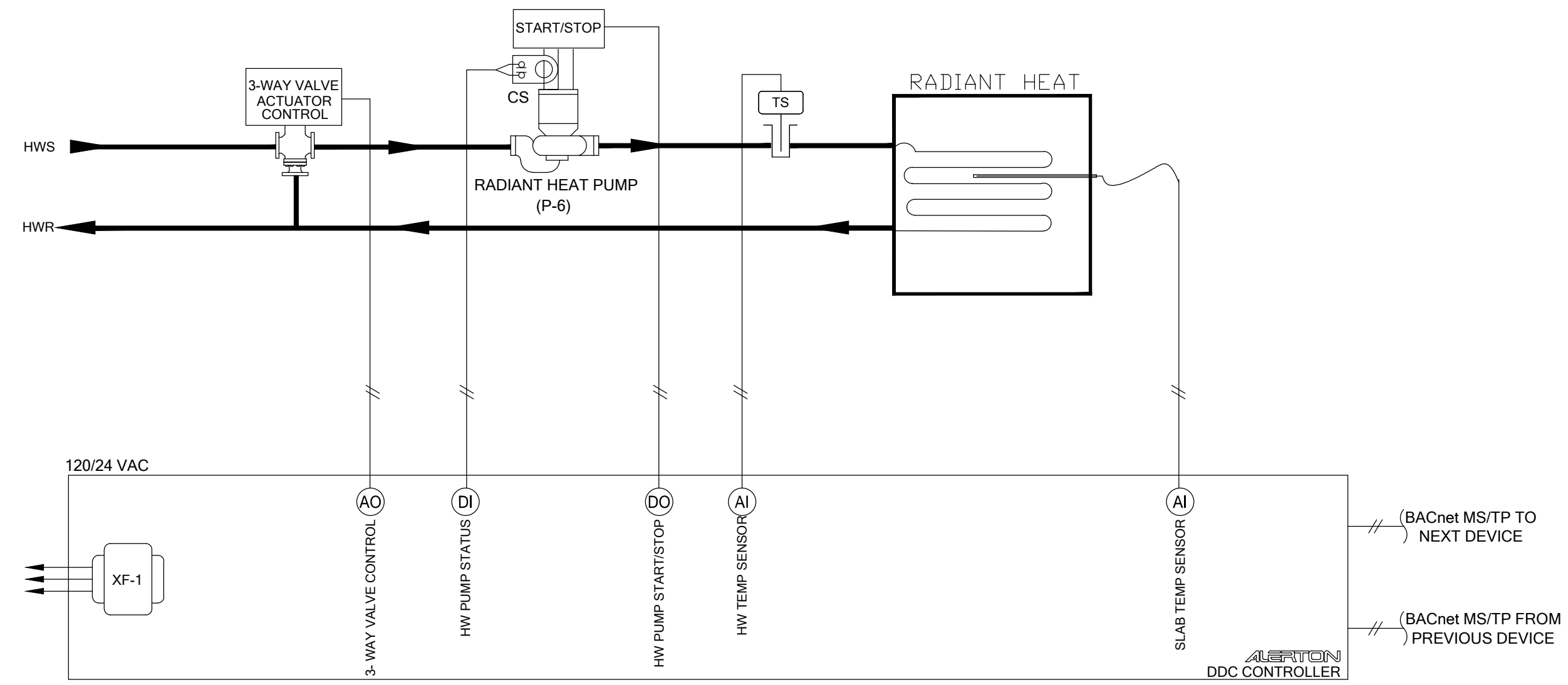




0 1/2" 1" 2"



SNOW MELT SYSTEM DIAGRAM



RADIANT HEAT SYSTEM DIAGRAM

MITSUBISHI CITY MULTI VRF INDOOR UNIT SCHEDULE

System Tag	Room Name	Tag Reference	M-Net Address	Model	Type	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	Corrected Capacity				Estimated Cooling Coil LAT (°F) / [LWT]	Estimated Heating Coil LAT (°F) / [LWT]	Refrig Pipe Dim Liquid/Suction (inch)	Peak Fan Airflow (cfm) / [Design gpm G(US)/min]	Max Fan ESP Setting 208V/230V (IN WG)	Voltage / Phase	Electrical MCA/MFS	Notes / Options	
										Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity	Cooling Sensible Capacity	Heating Diversity Full/Partial (See Note 5, 6)									Heating Capacity (BTU/h)
CU-1		AC-1	1	PEFY-P30NMAU-E3	Ceiling concealed type (ducted)	30,000.0	34,000.0	80.0/67.0	70.0	PARTIAL DEMAND	30,040.0	21,605.0	FULL DEMAND	17,820.1	56.9	88.7	3/8 / 5/8	883	0.6/0.6	208/230V/1-phase	2.73(208V)/2.73(230V)/15	1, 2, 3, 4, 5, 6
CU-1		AC-2	2	PEFY-P30NMAU-E3	Ceiling concealed type (ducted)	30,000.0	34,000.0	80.0/67.0	70.0	PARTIAL DEMAND	30,040.0	21,605.0	FULL DEMAND	17,820.1	56.9	88.7	3/8 / 5/8	883	0.6/0.6	208/230V/1-phase	2.73(208V)/2.73(230V)/15	1, 2, 3, 4, 5, 6

Notes & Options:  
 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)  
 3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities  
 4 See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.  
 5 Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply. It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to generating this schedule.  
 6 It is recommended to always base heating corrected capacity on full demand.

MITSUBISHI CITY MULTI VRF OUTDOOR UNIT SCHEDULE

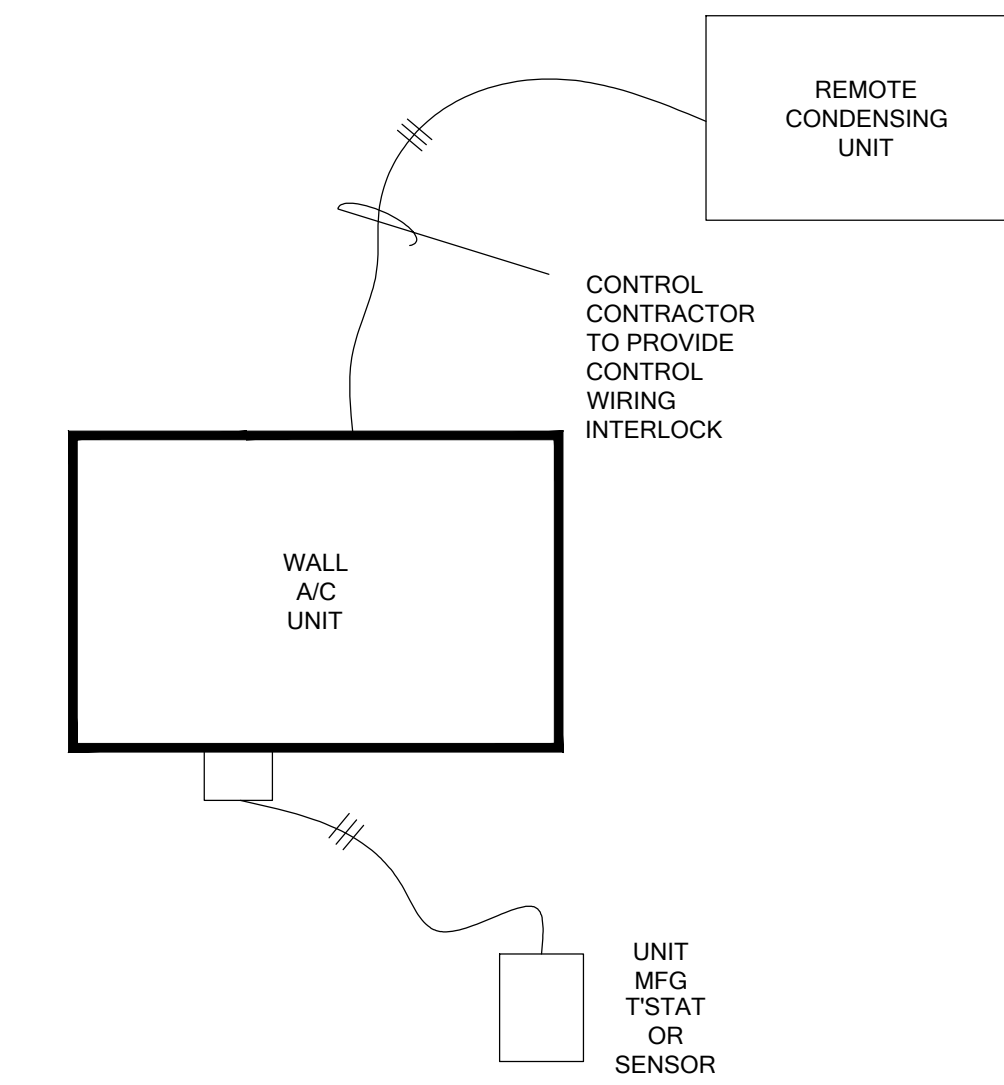
System Tag	Tag Reference	M-Net Address	Model Number	Modules	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Efficiency IEER/IEER [SEER]	Heating COP @ 47°F [HSPF]	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Max Pipe Length from BC or 1st Joint (feet)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Voltage / Phase	Electrical-Per Module			Notes / Options
															MCA 208/230 or [460V]	RFS	MOCOP	
CU-1	CU-1	51	PUMY-P60NKMU1	P60	60,000.0	66,000.0	- / 12.5 [18.6]	3.5 [18.6]	91.0	2.2	25.0	60,080.0	35,640.1	208-230V / 1-phase	36	40	42	1, 2, 3, 4, 5

Notes & Options:  
 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)  
 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)  
 3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units  
 4 For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.  
 5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.  
 6 Include low ambient hood kit with associated wind baffles for 100% low ambient cooling down to minus (-) 10°F.

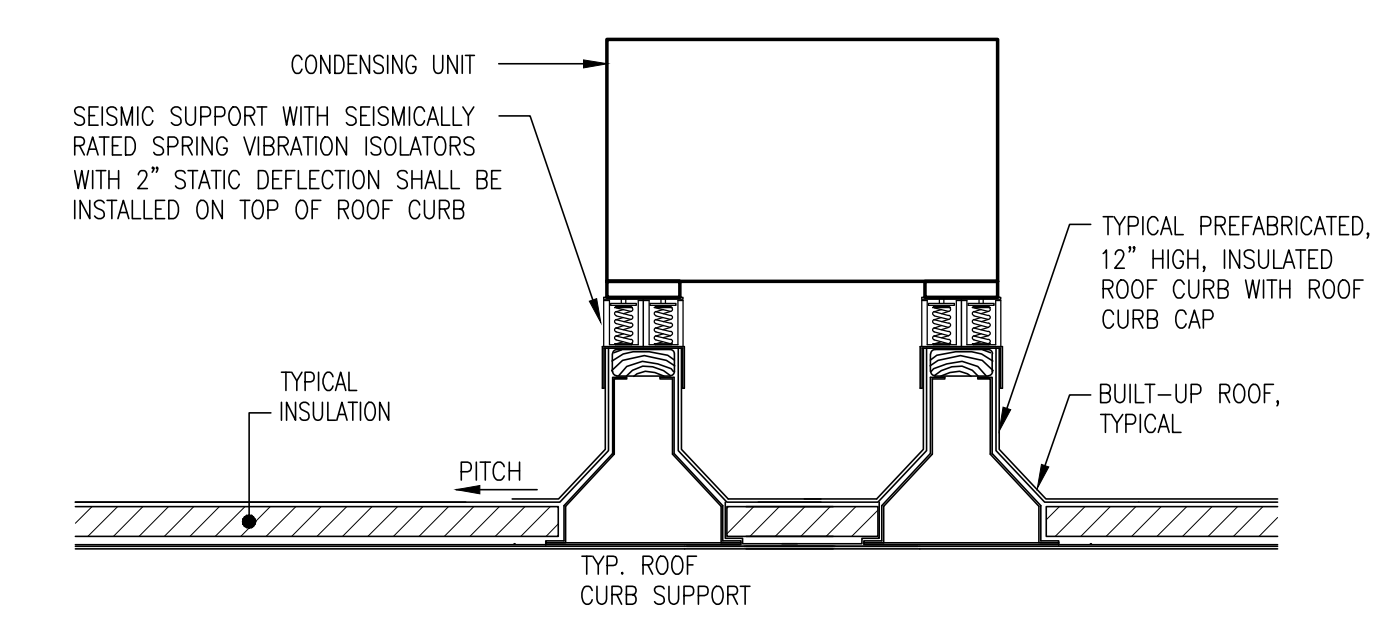
PUMP SCHEDULE

PUMP No.	LOCATION	AREA SERVED	TYPE	MANUFACTURER	MODEL	GPM	HEAD (FT)	RPM	HP	VOLTS	PH	REMARKS
P-6	BOILER RM	TOWN HALL ENTRANCE WARMING SLAB	IN-LINE CIRCULATING	TACO	VR3452 ECM	3 gpm	30	1100-4400	1/4	115	1	1, 2
P-7	BOILER RM	SNOW MELTING SYSTEM	IN-LINE CIRCULATING	TACO	VR3452 ECM	12.26 gpm	30	1100-4400	1/4	115	1	1, 2
P-8	BOILER RM	TOWN HALL ENTRANCE SNOW MELT	IN-LINE CIRCULATING	TACO	VR3452 ECM	10.76 gpm	35	1100-4400	1/4	115	1	1, 2

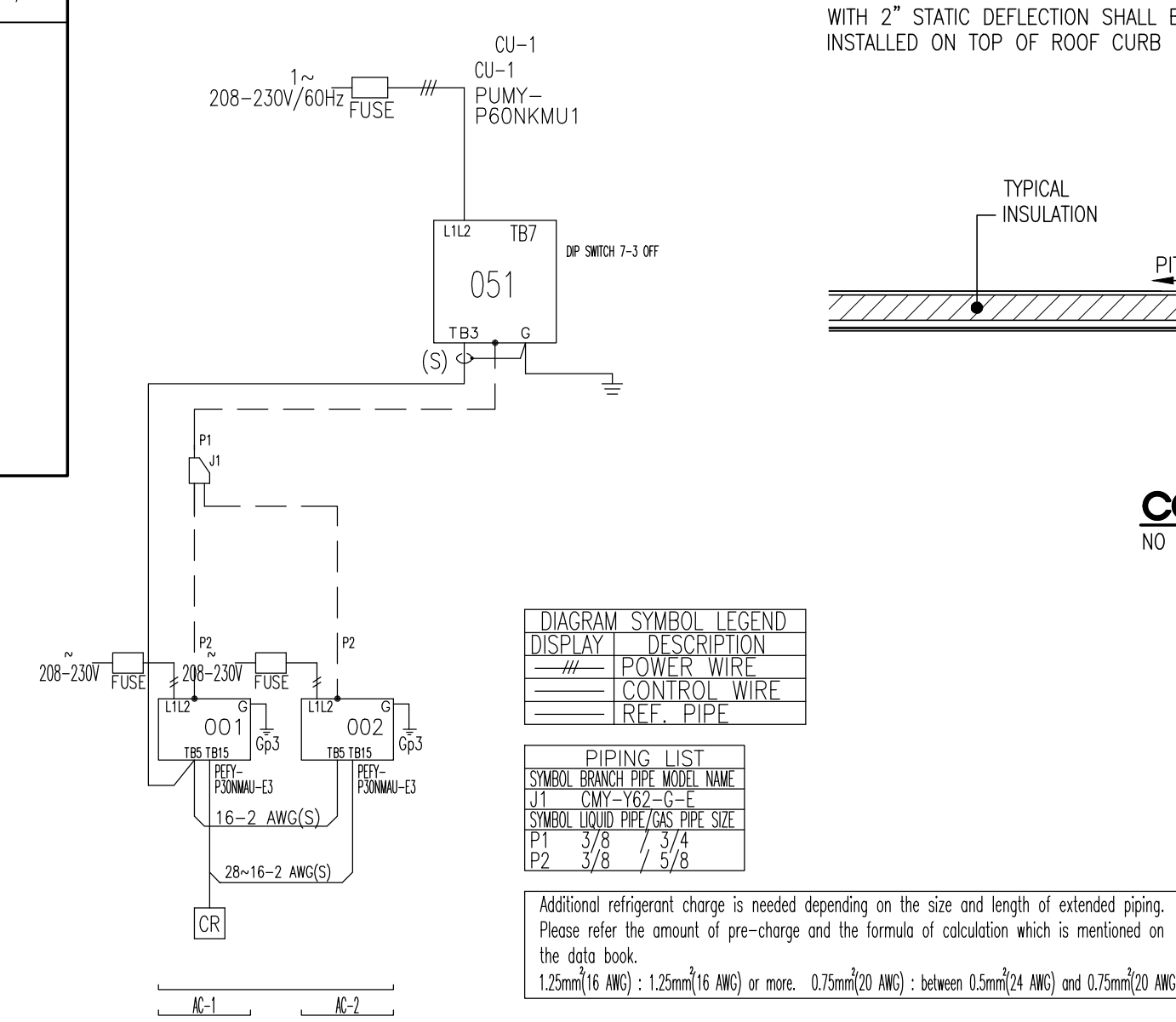
REMARKS:  
 1. UNIT SHALL BE SEISMICALLY SUPPORTED.  
 2. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS



WALL AC UNIT SYSTEM DIAGRAM (TYPICAL OF 2 UNITS)



CONDENSING UNIT DETAIL (CU-1) NO SCALE



CITY MULTI - SYSTEM SCHEMATIC DIAGRAM

Revisions

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Date	08.10.2017
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TEMPERATURE CONTROLS AND MECHANICAL DETAILS AND SCHEDULES





PANEL #PP1 - SQUARE D, SURFACE, 208Y/120V.  
3 PHASE, 4 WIRE, 100AMP MAIN CIRCUIT BREAKER, 10K A.I.C. MIN.

CKT	TRIP	POLE	REMARKS	CKT	TRIP	POLE	REMARKS	
1	20	1	RECEPTACLES	2	20	1	RECEPTACLES	
3	20	1	FLOOR BOXES	4	20	1	RECEPTACLES	
5	20	1	FLOOR BOXES	6	20	1	LIGHTING	
7	20	1	EMERG/EXIT LIGHTING	8	20	1	ROOF RECEPTACLE	
9	15	2	AC-1	10	15	2	AC-2	
11	-	-	12	-	-	-	1	P-6
13	40	2	COND-1	14	20	1	P-6	
15	-	-	16	20	1	P-7		
17	20	1	P-8	18	20	1	SPARE	
19	20	1	SPARE	20	20	1	SPARE	
21	20	1	SPARE	22	20	1	SPARE	
23	20	1	SPARE	24	20	1	SPARE	
25	20	1	SPARE	26	20	1	SPARE	
27	20	1	SPARE	28	20	1	SPARE	
29	20	1	SPARE	30	20	1	SPARE	

**NOTES:**

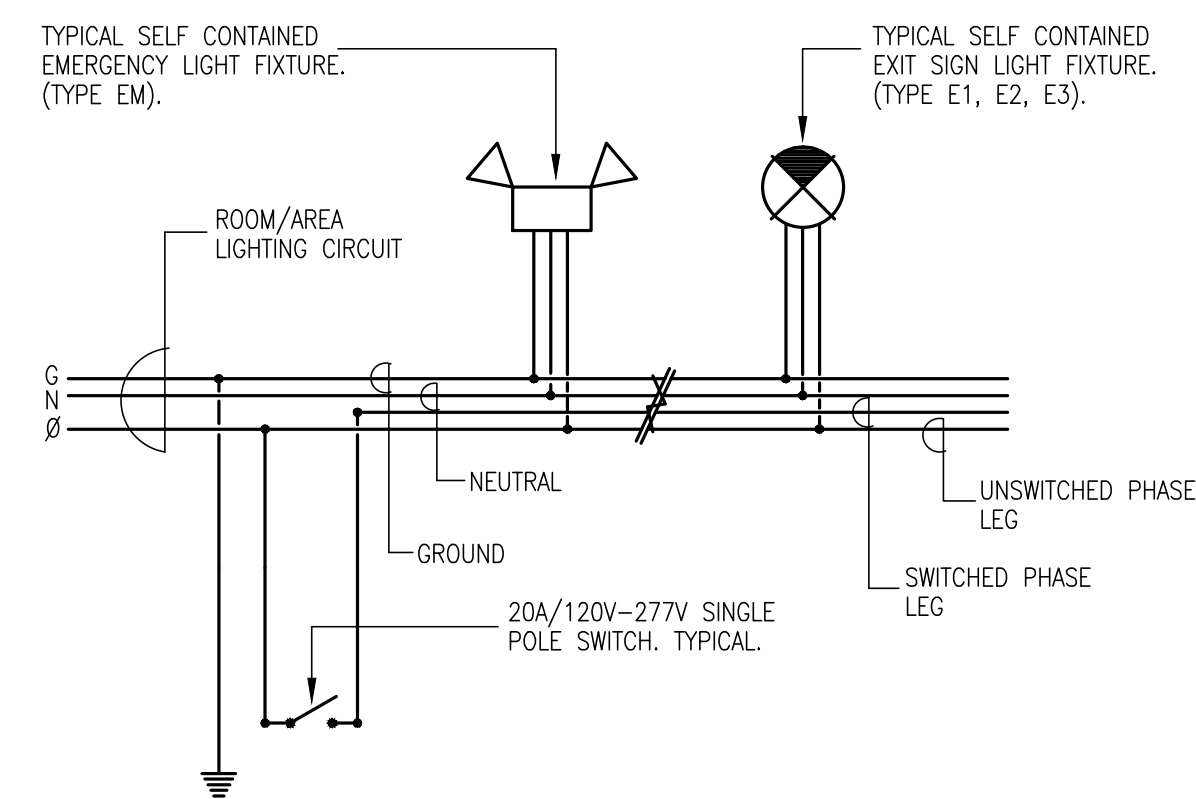
1. PROVIDE WITH SILVER PLATED COPPER BUS BARS AND COPPER GROUND BAR.
2. PROVIDE WITH DOOR-IN-DOOR TRIM.
3. PROVIDE WITH BLACK FACE/WHITE CORE ENGRAVED NAMEPLATE FIXED TO PANEL WITH TWO SCREWS OR BRISKS
4. PROVIDE WITH METAL FRAME, PLASTIC COVER CIRCUIT DIRECTORY FRAME.
5. PROVIDE WITH TYPE WRITTEN CIRCUIT DIRECTORY REPRESENTING CIRCUITS AS ACTUALLY CONNECTED TO PANEL.
6. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE.

**SCHEDULE OF BRANCH CIRCUIT CONDUCTOR SIZES**

C/B SIZE	CIRCUIT SIZE
20A-1P	** 2 X #12 AWG AND 1 X #12 AWG GND. IN 3/4" C.
20A-2P	2 X #12 AWG AND 1 X #12 AWG GND. IN 3/4" C.
20A-3P	3 X #12 AWG AND 1 X #12 AWG GND. IN 3/4" C.
25A-1P	2 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
25A-2P	2 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
25A-3P	3 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
30A-1P	2 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
30A-2P	2 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
30A-3P	3 X #10 AWG AND 1 X #10 AWG GND. IN 3/4" C.
35A-1P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
35A-2P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
35A-3P	3 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
40A-1P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
40A-2P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
40A-3P	3 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
45A-1P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
45A-2P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
45A-3P	3 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
50A-1P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
50A-2P	2 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
50A-3P	3 X #8 AWG AND 1 X #10 AWG GND. IN 3/4" C.
60A-1P	2 X #6 AWG AND 1 X #10 AWG GND. IN 1" C.
60A-2P	2 X #6 AWG AND 1 X #10 AWG GND. IN 1" C.
60A-3P	3 X #6 AWG AND 1 X #10 AWG GND. IN 1" C.
70A-1P	2 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
70A-2P	2 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
70A-3P	3 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
80A-1P	2 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
80A-2P	2 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
80A-3P	3 X #4 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
90A-1P	2 X #3 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
90A-2P	2 X #3 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.
90A-3P	3 X #3 AWG AND 1 X #8 AWG GND. IN 1 1/4" C.

\* PROVIDE CIRCUIT SIZE AND NUMBER OF CONDUCTORS SCHEDULED UNLESS NOTED OR SHOWN DIFFERENTLY ON THE DRAWINGS. CROSS REFERENCE CIRCUIT DESIGNATIONS SHOWN ON DRAWINGS WITH RESPECTIVE PANEL SCHEDULES TO OBTAIN C/B SIZE.

\*\* PROVIDE #10 AWG SIZE CONDUCTORS FOR BRANCH CIRCUIT RUNS EXCEEDING 75' IN CONDUCTOR LENGTH AND #8 AWG SIZE CONDUCTORS FOR BRANCH CIRCUIT RUNS EXCEEDING 150' IN CONDUCTOR LENGTH.



**TYPICAL EMERGENCY LIGHT EXIT SIGN WIRING DIAGRAM**  
NTS

TYPE	BASIS OF DESIGN DESCRIPTION AND MODEL #	LAMP	FIXTURE WATTS	REMARKS
A	6" ROUND RECESSED MOUNTED LED DOWNLIGHT FIXTURE, STEEL HOUSING, HIGH PURITY ALUMINUM ALZAK, IRIDESCENCE SUPPRESSED, SEMI-DIFFUSES REFLECTOR, DIMMING LED DRIVER PRESCOLITE #LF6SLDM1 WITH 6LFL20L35K	LED, 3500K	25.2	-
AE	6" ROUND RECESSED MOUNTED LED DOWNLIGHT FIXTURE, STEEL HOUSING, HIGH PURITY ALUMINUM ALZAK, IRIDESCENCE SUPPRESSED, SEMI-DIFFUSES REFLECTOR, DIMMING LED DRIVER, REMOTE EMERGENCY BATTERY PACK PRESCOLITE #LF6SLDM1-EMR WITH 6LFL20L35K	LED, 3500K	25.2	-
B	2'W X 4'L X 3" DEEP RECESSED LED TROFFER FIXTURE, DIE FORMED, HEAVY GAUGE STEEL HOUSING, FLUSH STEEL DOOR WITH MITERED CORNERS, 100% PRISMATIC VIRGIN PATERN 12 LENS, MULTI-STAGE PHOSPHATE BONDING AND HIGH REFLECTANCE BAKED WHITE ENAMEL FINISH, STEP DIMMING LED DRIVER DAY-BRITE # 21G74L835-4-FS-02F-UV-SVM	LED, 80CRI, 3500K	77.8	-
C	36" ROUND PENDENT LED FIXTURE, BRUSHED ALUMINUM FINISH, OPAL MATTE ACRYLIC BOTTOM LENS, CLEAR SILVER BRAIDED CORD WITH (3) ADJUSTABLE AIRCRAFT CABLES, LED 0-10 DIMMING DRIVER SCOTT ARCHITECTURAL LIGHTING # S2681-L72-35K-BA-	LED, 80CRI, 3500K	72	-
E	5 1/8"H X 12 5/8"L DUAL HEAD EMERGENCY LIGHT FIXTURE, FLAME RATED AND UV STABLE HOUSING, ABS THERMOPLASTIC AND BACK PLATE, TEXTURED WHITE FINISH, NICAD BATTERY, HALOGEN LAMPS, 120V. CHLORIDE # CTX6L24WCSWF	2-12 W, HALOGEN	24	-
X	7 3/4"H X 13"L UNIVERSAL MOUNT EXIT SIGN, EXTRUDED ALUMINUM LED LAMP HOUSING MOUNTS, WHITE POWDER COAT FINISH, ACRYLIC LENS, CHEVRON ARROWS AS INDICATED ON DRAWING EVENLITE #TL66-EM-R-1-W	LED'S	2	-

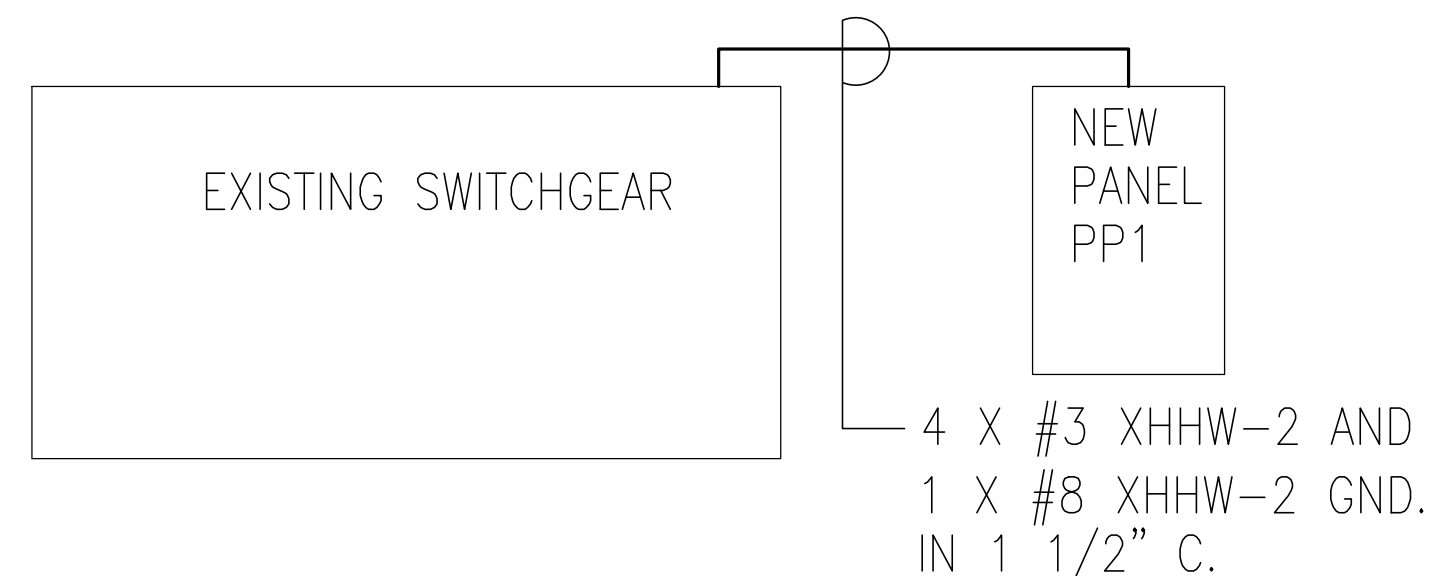
**GENERAL SPECIFICATION NOTES - LIGHTING**

- 1 - PROVIDE LIGHT FIXTURES OF THE TYPES SHOWN AND SCHEDULED ON THE DRAWINGS, OR APPROVED EQUAL, COMPLETE WITH LAMPS.
- 2 - LAMPS AND BALLASTS SHALL BE COMPATIBLE WITH, AND LISTED FOR USE WITH EACH OTHER.
- 3 - LAMPS SHALL BE NEW, OF TYPE, WATTAGE, VOLTAGE, AND SIZE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE. FLUORESCENT LAMPS SHALL BE WHITE COLOR TEMPERATURE 3500K. LAMPS SHALL BE AS MANUFACTURED BY OSRAM, GENERAL ELECTRIC, PHILIPS, OR APPROVED EQUAL.
- 4 - FURNISH TO OWNER ON DATE OF FINAL ACCEPTANCE OF PROJECT, ONE DOZEN SPARE LAMPS OF EACH WATTAGE AND TYPE OF LAMP, AND SIX SPARE BALLASTS FOR EACH TYPE OF BALLAST. REFER TO LIGHTING FIXTURE SCHEDULE FOR LAMP AND BALLAST DATA.
- 5 - PROVIDE FRAME KITS AS REQUIRED FOR FIXTURES RECESSED IN SHEET ROCK CEILINGS. PROVIDE SPECIAL FITTINGS AND MATERIALS AS REQUIRED TO PROPERLY SUPPORT FIXTURES. INSTALL FIXTURES SO THAT THE WEIGHT OF THE FIXTURE IS SUPPORTED, EITHER DIRECTLY OR INDIRECTLY, BY A SOUND AND SAFE STRUCTURAL MEMBER OF THE BUILDING, USING ADEQUATE NUMBER AND TYPE OF FASTENINGS TO ASSURE A SAFE INSTALLATION IN CONFORMANCE WITH CODE.
- 6 - BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS HAS BEEN DESIGNED FOR MAXIMUM ECONOMY CONSISTENT WITH ADEQUATE SIZING FOR VOLTAGE DROPS, CIRCUIT AMPACITIES AND OTHER CONSIDERATIONS. INSTALL THE WIRING WITH CIRCUITS ARRANGED AS SHOWN ON THE DRAWINGS, EXCEPT AS APPROVED IN ADVANCE BY THE ARCHITECT AND ENGINEER. DO NOT MAKE CHANGES AND REARRANGE CIRCUITS WITHOUT PRIOR APPROVAL. PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH 120V SINGLE PHASE CIRCUIT. DO NOT USE A COMMON NEUTRAL FOR GROUPS OF CIRCUITS. PROVIDE A SEPARATE GROUND WIRE FOR EACH CIRCUIT.

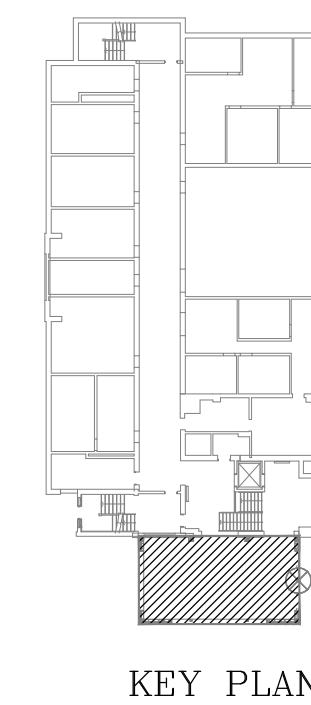
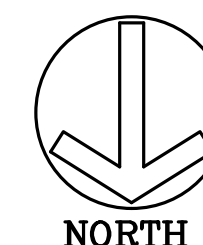
SYMBOL/ABBREVIATION	DESCRIPTION
▲	SPECIAL EQUIPMENT POWER CONNECTION. EQUIPMENT AS DESIGNATED.
□	DISCONNECT SWITCH.
≡≡≡	CONDUCTORS IN CONDUIT. CROSS LINES INDICATE NUMBER OF CONDUCTORS.
≡≡≡→	BRANCH CIRCUIT HOMERUN IN CONDUIT. CROSS LINES INDICATE NUMBER OF CONDUCTORS.
▨	PANELBOARD.
⌘	MANUAL PULL STATION.
▶	HORN/STROBE.
■	STROBE ONLY
⊕	DUPLEX RECEPTACLE
⊕	QUADPLEX RECEPTACLE
▼	4"x4" JUNCTION BOX WITH 3/4" WITH PULL STRING TO ABOVE ACCESSIBLE CEILING
⊕▲	FSR FLOOR BOX SERIES FL-500P, WITH QUADPLEX RECEPTACLE, 1" WITH PULL STRING TO NEAREST WALL, TO ABOVE ACCESSIBLE CEILING FOR DATA, PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE AND OPERATIONAL SYSTEM.
○	RECESSED DOWNLIGHT FIXTURE
○	RECESSED LIGHT FIXTURE
○	PENDENT MOUNTED LIGHT FIXTURE
⊙	EXIT SIGN
⊕	TWO-HEADED EMERGENCY FIXTURE
⊕	SINGLE POLE DIMMER SWITCH
A	AMPS.
C	CONDUIT.
GND.	GROUND.
P	POLE.
W	WIRE.

**GENERAL SPECIFICATION NOTES - POWER**

- 1 - THE CONTRACTOR SHALL VERIFY AND OBTAIN ALL NECESSARY DIMENSIONS AT THE BUILDING.
- 2 - FINISHED WORK: THE INTENT OF THE SPECIFICATIONS AND DRAWINGS IS TO CALL FOR FINISHED WORK, COMPLETED, TESTED AND READY FOR OPERATION.
- 3 - GOOD PRACTICE: IT IS NOT INTENDED THAT THE DRAWINGS SHOW EVERY CONDUIT, JUNCTION BOX, FITTING OR MINOR DETAIL AND IT IS UNDERSTOOD THAT WHILE THE DRAWINGS MUST BE FOLLOWED AS CLOSELY AS CIRCUMSTANCES WILL PERMIT, THE SYSTEMS SHALL BE INSTALLED ACCORDING TO THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS AND IN ACCORDANCE WITH GOOD PRACTICE.
- 4 - ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON DRAWINGS BUT MENTIONED IN SPECIFICATIONS OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND PERFECT IN ALL RESPECTS AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED, SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- 5 - CODES AND STANDARDS - COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES AND STANDARDS WHEREVER APPLICABLE INCLUDING THE FOLLOWING: 2009 AMENDMENT TO THE 2005 CONNECTICUT STATE BUILDING CODE SUPPLEMENT, 2003 INTERNATIONAL BUILDING CODE, 2005 CONNECTICUT FIRE SAFETY CODE, 2003 INTERNATIONAL FIRE CODE, 2011 NATIONAL ELECTRICAL CODE, ICC/ANSI A117.1-2003 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, ADA, NFPA, UNDERWRITERS LABORATORIES, FACTORY MUTUAL INSURANCE COMPANY, NEMA STANDARDS.
- 6 - NOTE THAT THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE ELECTRICAL EQUIPMENT AND SYSTEMS, WITHOUT SHOWING EVERY DETAIL AND FITTING.
- 7 - RACEWAYS: PROVIDE EMT CONDUIT FOR ALL WIRING. EMT CONNECTORS AND COUPLINGS SHALL BE GALVANIZED STEEL SET-SCREW TYPE. PROVIDE GLAND COMPRESSION CONNECTORS AND COUPLINGS WHERE LOCATED IN DAMP AND WET LOCATIONS. PROVIDE FLEXIBLE STEEL CONDUIT FOR FINAL CONNECTIONS TO MOTOR DRIVEN EQUIPMENT. PROVIDE RIGID GALVANIZED STEEL CONDUIT WHERE LOCATED IN DAMP OR WET AREAS.
- 8 - BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, RATED 600 VOLTS, 90 DEG.C., COLOR CODED, TYPE XHHW-2.
- 9 - WIRE SIZE #8 AWG AND LARGER SHALL BE STRANDED. WIRE OF SIZE SMALLER THAN #8 AWG SHALL BE SOLID.
- 10 - MINIMUM SIZE CONDUCTORS FOR POWER AND LIGHTING SHALL BE #12 AWG. PROVIDE MINIMUM #10 AWG SIZE FOR RUNS EXCEEDING 75' IN CONDUCTOR LENGTH, AND #8 AWG SIZE FOR RUNS EXCEEDING 150' IN CONDUCTOR LENGTH. PROVIDE LARGER SIZE CONDUCTORS AS SCHEDULED OR AS NOTED ON THE DRAWINGS.
- 11 - THE NUMBER OF WIRES IN A CONDUIT RUN IS INDICATED ON THE DRAWINGS BY CROSS LINES ON THE CONDUIT RUNS. PROVIDE CODE-SIZED CONDUIT FOR THE NUMBER AND SIZE OF WIRES UNLESS A LARGER SIZE IS SHOWN ON THE DRAWINGS. MINIMUM CONDUIT SIZE SHALL BE 3/4".
- 12 - RACEWAYS SHALL BE CONCEALED WHEREVER POSSIBLE IN ALL FINISHED AREAS.
- 13 - RACEWAYS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALL LINES.
- 14 - RACEWAYS SHALL BE SUPPORTED FROM THE STRUCTURE BY STRAP HANGERS, ROD HANGERS, OR RACK MOUNTED, OR OTHER APPROVED ELECTRICAL MOUNTING.
- 15 - PROVIDE FIRE STOPPING AT ALL FIRE AND/OR SMOKE RATED WALL OR CEILING PENETRATIONS IN ORDER TO MAINTAIN ITS ORIGINAL INTEGRITY.
- 16 - OUTLET BOXES SHALL BE CODE GAUGE GALVANIZED STEEL AND SHALL BE OF SHAPES AND SIZES TO SUIT THEIR RESPECTIVE LOCATIONS AND INSTALLATIONS, AND SHALL BE PROVIDED WITH COVERS TO SUIT THEIR FUNCTION AND INSTALLATION. MINIMUM BOX SIZE SHALL BE 4" SQ. X 2 1/8" DEEP (2-GANG). PROVIDE CAST BOXES FOR OUTDOOR WORK.
- 17 - OUTLET BOXES SHALL BE EQUIPPED WITH FIXTURE STUD OR STRAPS WHERE REQUIRED.
- 18 - INSTALL BOXES IN ACCESSIBLE LOCATIONS AND AT UNIFORM HEIGHTS.
- 19 - SET BOXES AND COVERS SQUARE AND TRUE WITH BUILDING FINISH.
- 20 - BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS HAS BEEN DESIGNED FOR MAXIMUM ECONOMY CONSISTENT WITH ADEQUATE SIZING FOR VOLTAGE DROPS, CIRCUIT AMPACITIES, AND OTHER CONSIDERATIONS. INSTALL THE WIRING WITH CIRCUITS ARRANGED AS SHOWN ON THE DRAWINGS, EXCEPT AS APPROVED IN ADVANCE BY THE ARCHITECT AND ENGINEER. DO NOT MAKE CHANGES WITHOUT PRIOR APPROVAL.
- 21 - PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH 120V SINGLE PHASE CIRCUIT. DO NOT USE A COMMON NEUTRAL FOR GROUPS OF CIRCUITS. PROVIDE A SEPARATE GROUND WIRE FOR EACH CIRCUIT BACK TO THE RESPECTIVE PANEL GROUND. IF MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE INSTALLED IN ONE CONDUIT THEY SHALL BE DE-RATED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. DO NOT INSTALL MORE THAN THREE 30 AMP SINGLE PHASE OR FOUR 20 AMP SINGLE PHASE CIRCUITS IN THE SAME CONDUIT.



**PARTIAL RISER POWER DIAGRAM**  
NTS



**Glastonbury  
Town Hall  
New Entry Addition  
GL-2017-39**

Town of Glastonbury  
2155 Main Street  
Glastonbury CT, 06033

Structural Engineer

**Morrissey Engineering, LLC**  
58 Essex Street, Deep River, CT06417  
phone 860-532-0312

MEP Engineer

**BEMIS | ASSOCIATES, LLC**  
Consulting Engineers

185 Main Street  
Farmington, CT 06032  
(860) 667-3233  
Fax (860) 321-7070  
www.bemisassociates.com

**Revisions**

NO.	ISSUE	DATE

**Sheet Information**

Date	08.10.2017
Job Number	146.02.001
Scale	AS NOTED
Drawn	RDN
Checked	LMD
Title	

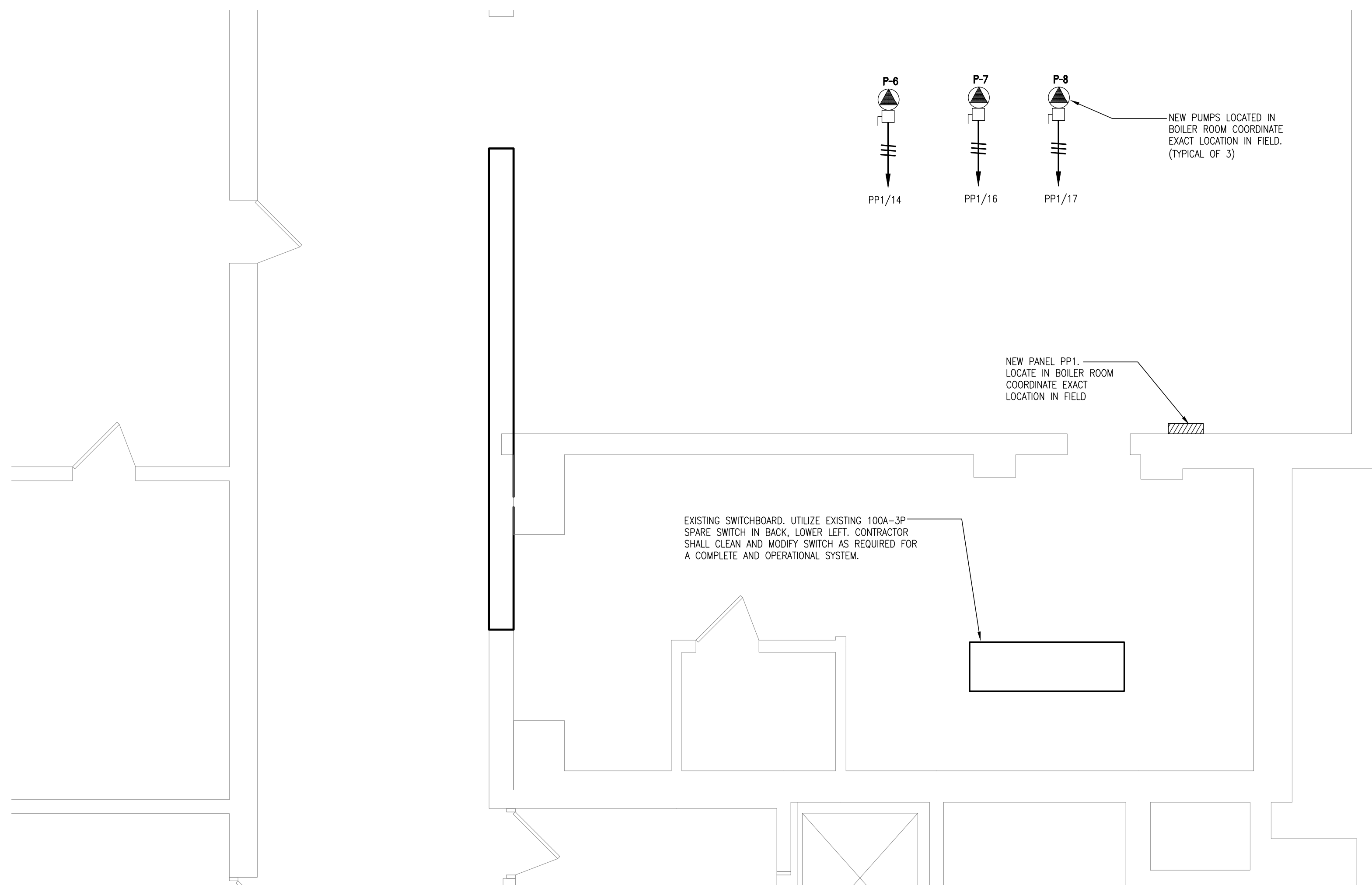
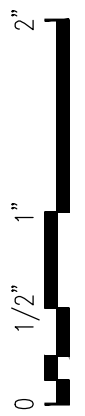
**ELECTRICAL  
SCHEDULES AND  
DETAILS**

Sheet

**E-1**

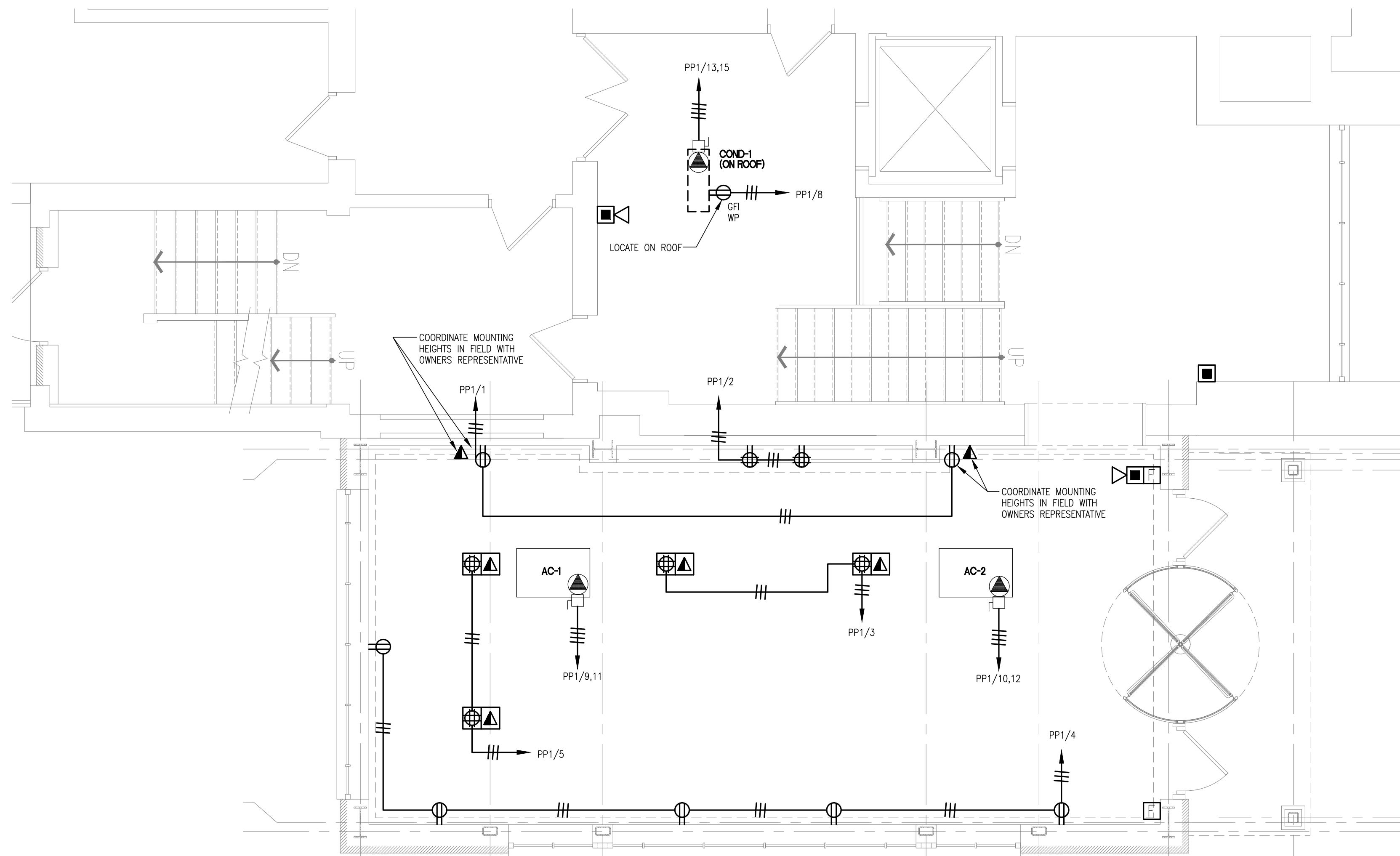






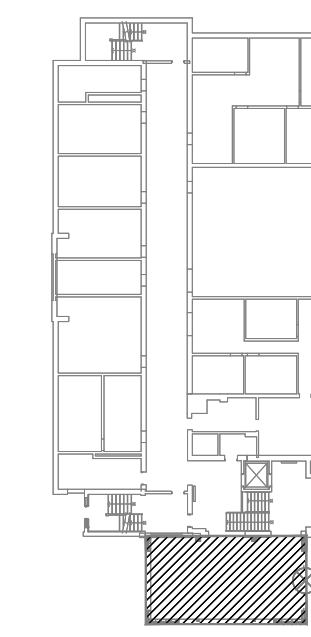
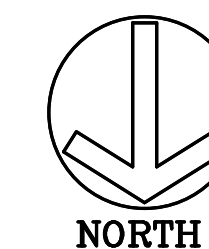
TOWN HALL BASEMENT PART PLAN - ELECTRICAL POWER

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



TOWN HALL ENTRANCE PART PLAN - ELECTRICAL POWER

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



KEY PLAN

Revisions

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Title	

TOWN HALL  
ENTRANCE PART  
PLAN-ELECTRICAL  
DEMOLITION and  
NEW WORK

Sheet

**EP-1**