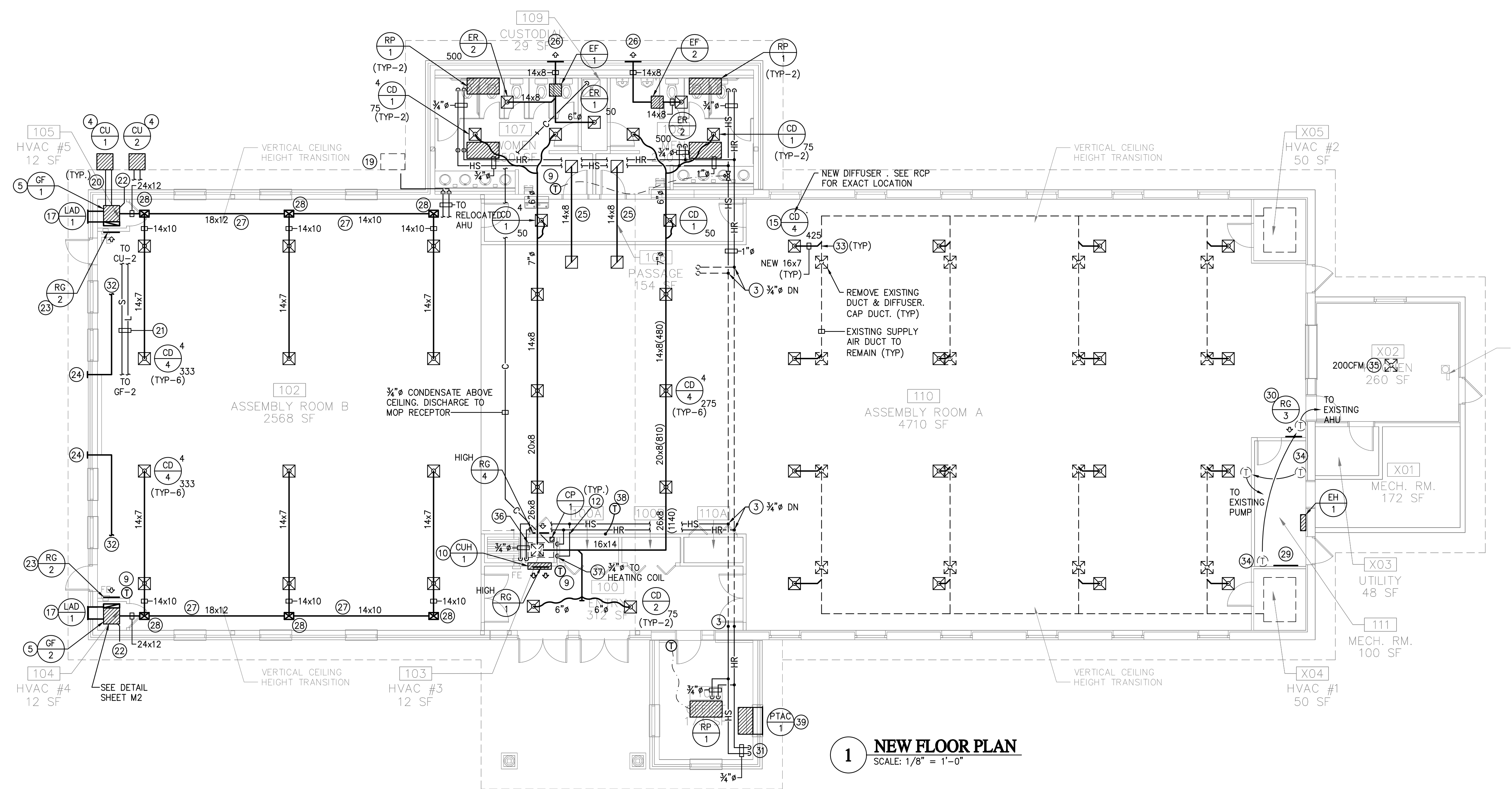
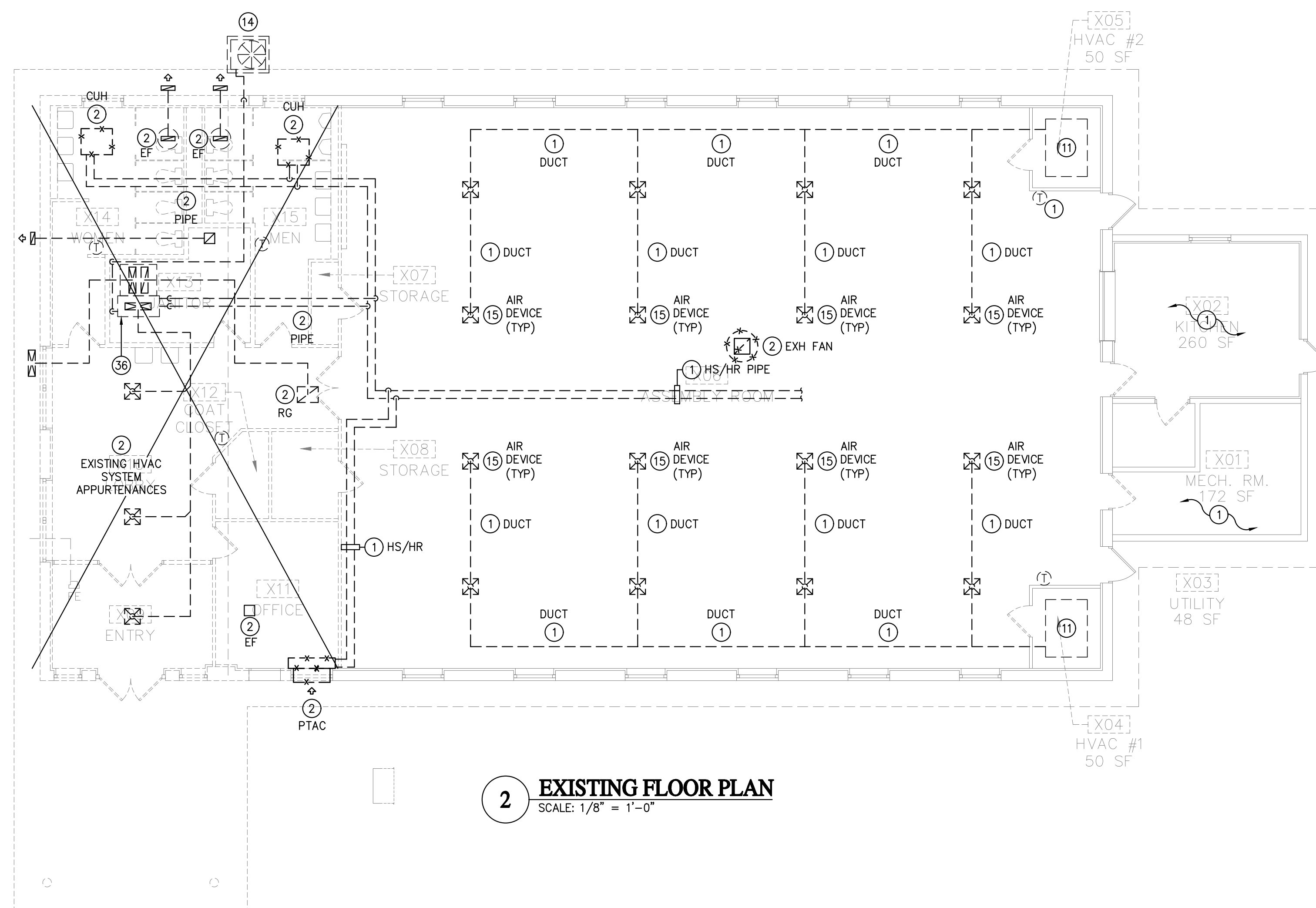


ALL NOTES ON PLANS MAY NOT BE ON THIS SHEET
FOR ALL NOTES REFER TO NOTES ON M2

PRIOR TO BIDDING, MECHANICAL CONTRACTOR
TO VISIT SITE PER SPECIFICATION 15010
ALL WORK NEW U.N.O.
ALL WORK BASE BID U.N.O.



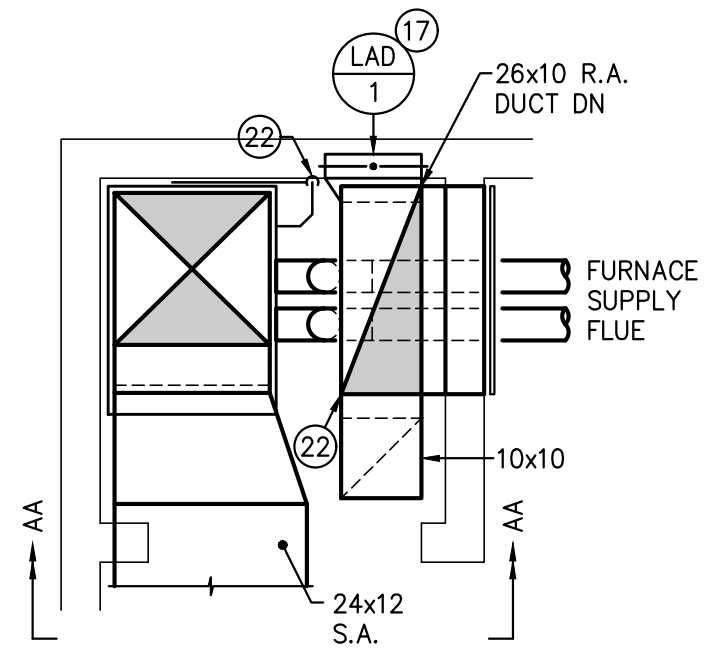
REVISIONS

a.	e.
b.	f.
c.	g.

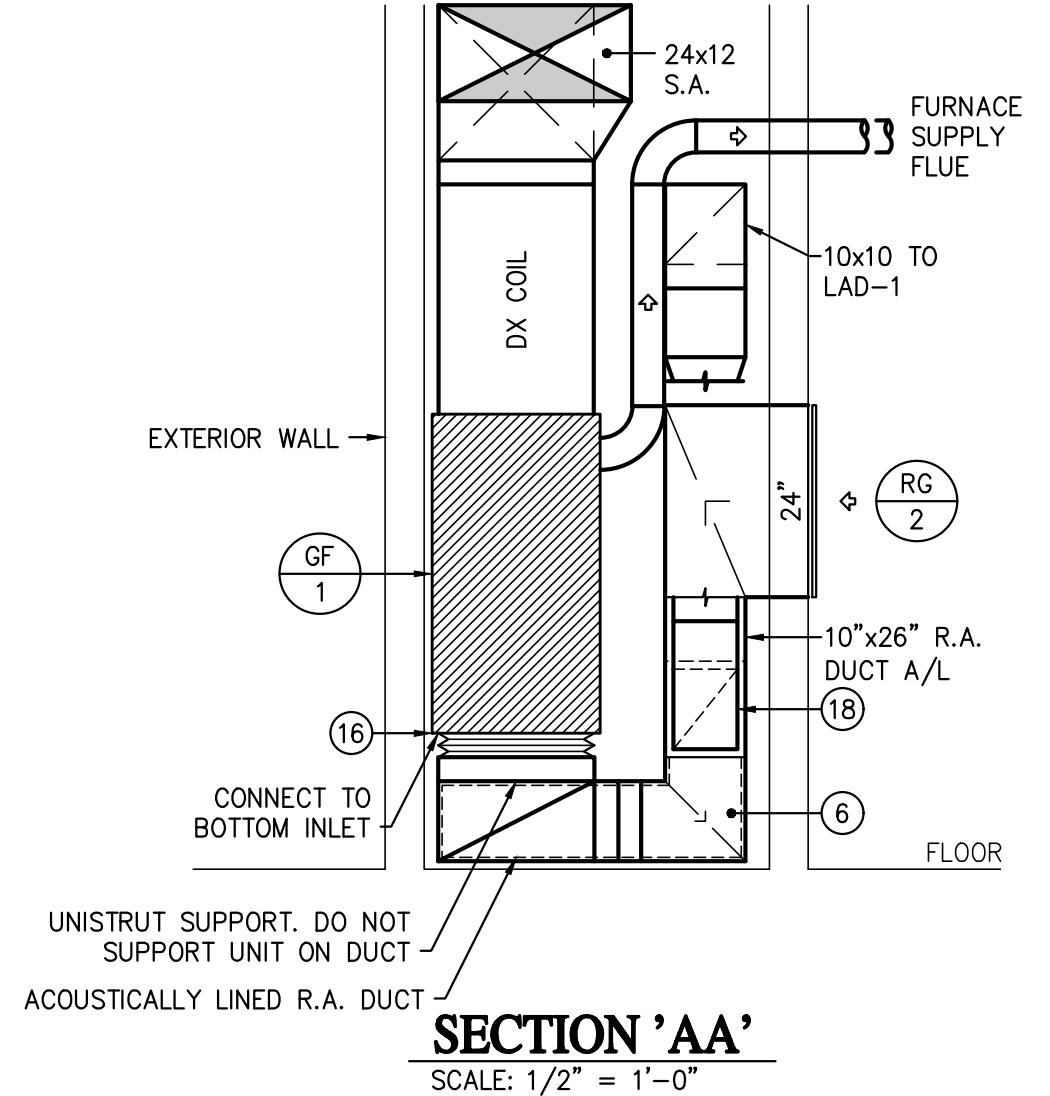
Project No. 18-107
Date: 01/08/20
Scale: AS NOTED

MECHANICAL
FLOOR
PLANS

M1

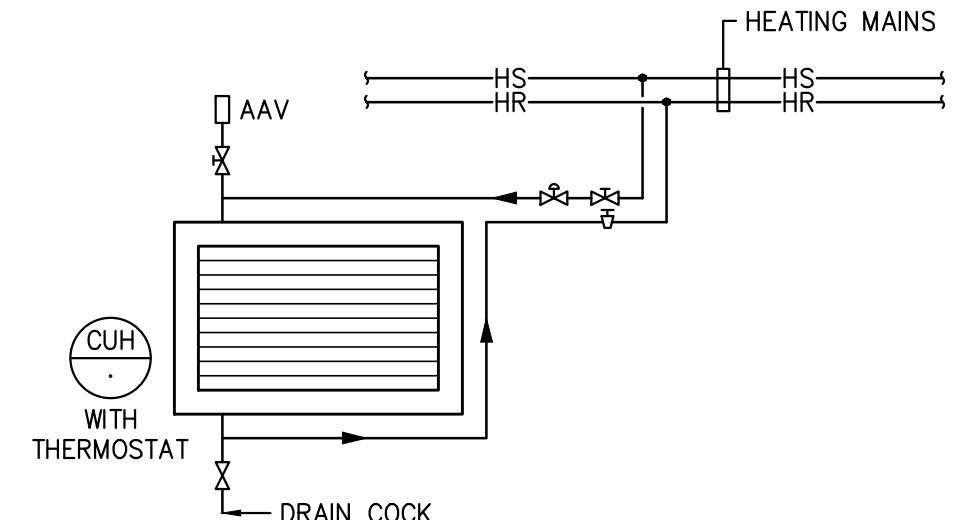


PARTIAL PLAN - NEW GF UNITS
SCALE: 1/2" = 1'-0"

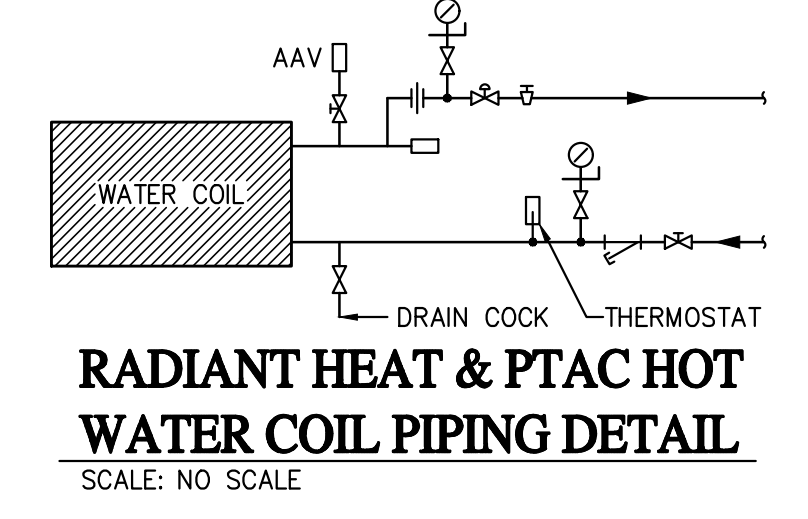


SECTION 'AA'
SCALE: 1/2" = 1'-0"

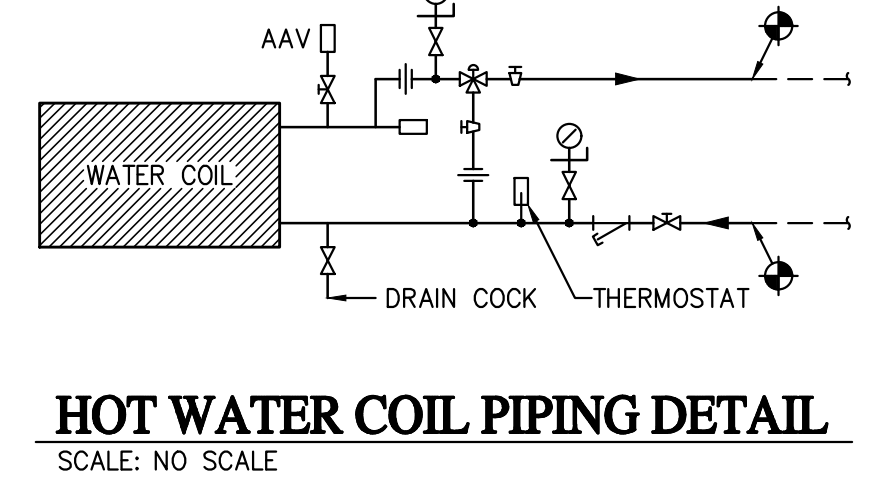
HOT WATER RADIANT HEAT PANEL SCHEDULE						
NO.	NOMINAL SIZE	TOTAL HTG CAPACITY BTU	ENT LWT	GPM	NO. OF PASSES	REMARKS
1	48x24	1816	180	.18	6	STERLING LINEAR RADIANT HEAT PANEL



HOT WATER CABINET UNIT HEATER PIPING DETAIL
SCALE: NO SCALE



RADIANT HEAT & PTAC HOT WATER COIL PIPING DETAIL
SCALE: NO SCALE



HOT WATER COIL PIPING DETAIL
SCALE: NO SCALE

AIR DEVICE SCHEDULE									
NO.	CD	LID	SR SG	RR RG	ER EG	LAD LBD	WMS	REMARKS	
1	6"			12x12	6x6	16x16			
2	9"			24x30	16x16				
3	12"			20x54					
4	15"			48x18					

CD X - INDICATES NUMBER OF BLOWS
XXX - INDICATES AMOUNT OF CFM
ALL DIFFUSERS 24"x24" PANEL TYPE

FLEXIBLE DUCT SIZING SCHEDULE			
SIZE	MAXIMUM CFM		REMARKS
	HIGH PRESSURE	LOW PRESSURE	
6"	160	110	
8"	320	240	
10"	610	420	
12"	1000	700	
14"	1500	N/A	

FLEX DUCT TO BE PULLED TIGHT AND BANNED, WITH A MAXIMUM OF ONE 90° ELBOW, AND A MAXIMUM OF 10'-0" IN LENGTH

SUPPLY/EXHAUST FAN SCHEDULE						
NO.	CFM	S.P.	RPM	H.P.	TYPE	REMARKS
1	550	0.375	1375	206 WATTS	INLINE CENTRIFUGAL	COOKE MODEL GN-720
2	500	0.375	1500	162 WATTS	INLINE CENTRIFUGAL	COOKE MODEL GN-642

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE							
NO.	COOLING CAPACITY MBH	HEATING CAPACITY MBH	CFM	ESP.	H.P.	O.A. CFM (MIN.)	REMARKS
1	60.0	80	2000	0.50	3/4	350	GF-1: CARRIER MODEL 58-MVB-080 CU-1: CARRIER MODEL 24AHA460
2	60.0	80	2000	0.50	3/4	350	GF-2: CARRIER MODEL 58-MVB-080 CU-2: CARRIER MODEL 24AHA460

GAS FURNACE SHALL BE HIGH EFFICIENCY; VARIABLE SPEED; CONDENSING UNIT, PROVIDE RAYWALL VALVE; PROVIDE ALL REFRIGERANT PIPE PER MANUFACTURER'S REQUIREMENTS; PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT; PROVIDE CO₂ SENSOR WHICH SHALL OPEN OUTSIDE AIR DAMPER WHEN UNIT IS ENERGIZED, AND UPON A RISE ABOVE SETPOINT, SETPOINT SHALL BE 400PPM ABOVE OUTSIDE AMBIENT. PROVIDE 3" FLUE & INTAKE, CONDENSATE NEUTRALIZING KIT P808-0001, CONCENTRIC KIT KGAVT080.

CABINET UNIT HEATER / UNIT HEATER SCHEDULE									
NO.	MBH	P.D. FT. WATER	ENTER AIR TEMP.	ENTER WATER TEMP.	CFM	FINAL AIR TEMP.	GPM	FAN H.P.	REMARKS
1	17.4	0.24	60	180	230	130	2.0	1/15	VERTICAL CABINET HEATER STERLING MODEL RW1-112-02 3/8" RECESSED W/ WALL SEAL ACCESSORY

PACKAGED TERMINAL AIR CONDITIONING UNIT SCHEDULE							
NO.	CFM	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU	EER	GPM	REMARKS	O.A. CFM
1	370	12.0	12.6		1.3	ISLANDAIRE MODEL EZNY12	60

*NOTE: HEATING CAPACITY BASED ON ENTERING WATER TEMPERATURE AT 180° AND 160° LWT ENTERING AIR TEMPERATURE, 70° EAT.

ELECTRIC HEATER SCHEDULE			
NO.	HEATING CAPACITY KW	KW	REMARKS
1	INSERT	3	WITH INTEGRAL THERMOSTAT BERKO MODEL

MECHANICAL LEGEND	
A/L	ACOUSTICALLY LINED
AP	ACCESS PANEL
ACD	ACCESS DOOR
ADR	AUTOMATIC DAMPER
BDD	BACK DRAFT DAMPER
BTJ	BETWEEN THE JOISTS
CS	CHILLED WATER SUPPLY
CR	CHILLED WATER RETURN
CD	CEILING DIFFUSER
CU	CONDENSING UNIT
DBR	DOWN BLOW REGISTER
DL	DOOR LOUVER
DN	DOWN
DX	DIRECT EXPANSION COIL
(E)	EXISTING
EF	EXHAUST FAN
EG	EXHAUST GRILLE
FDR	FIRE DAMPER
FVAV	FAN POWERED VAV UNIT
GV	GATE VALVE
HR	HOT WATER HEATING RETURN
HS	HOT WATER HEATING SUPPLY
LAD	LOUVER/AUTO DAMPER
LBD	LOUVER/BACKDRAFT DAMPER
LID	LINEAR DIFFUSER
LMD	LOUVER/MANUAL DAMPER
LVR	LOUVER
MJA	MAKEUP AIR UNIT
MVD	MANUAL VOLUME DAMPER
OAI	OUTSIDE AIR INTAKE
RG	RETURN GRILLE
RR	RETURN REGISTER
SG	SUPPLY GRILLE
SF	SUPPLY FAN
SR	SUPPLY REGISTER
SDR/FDR	SMOKE/FIRE DAMPER
TF	TRANSFER FAN
TWJ	THROUGH WEB OF JOIST
TYP	TYPICAL (OF QUANTITY)
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME TERMINAL UNIT
VVT	VARIABLE AIR VOLUME TEMPERATURE UNIT
WMS	WIRE MESH SCREEN

- MECHANICAL NOTES
- EXISTING TO REMAIN, ITEM AS INDICATED. PROTECT DURING CONSTRUCTION. VERIFY ALL CONDITIONS IN FIELD.
 - EXISTING TO BE REMOVED, REMOVE ALL EXISTING PIPE, DUCT AND APPURTENANCES. CAP ALL PIPE BEHIND FINISHED SURFACES AND PATCH ROOF MEMBRANE AT ALL REMOVED ROOFTOP EQUIPMENT.
 - CONNECT NEW HOT WATER HEATING PIPE TO EXISTING PIPE. VERIFY EXISTING LOCATION OF EXISTING PIPE IN FIELD.
 - NEW CONDENSING UNIT ON NEW 6" CONCRETE PAD.
 - NEW VERTICAL GAS FIRED FURNACE.
 - 26"x10" ACOUSTICALLY INSULATED RETURN AIR DUCT CONNECT TO RETURN AIR GRILLE AND OFFSET TO BELOW UNIT, CONNECT TO UNIT HORIZONTAL BOTTOM INLET.
 - NOT USED.
 - NOT USED.
 - NEW THERMOSTAT WITH LOCKABLE COVER.
 - NEW CABINET UNIT HEATER.
 - EXISTING HVAC UNIT TO REMAIN. REBALANCE FOR AIR QUANTITY INDICATED.
 - NEW PIPE THRU WALL, VERIFY EXACT LOCATION IN FIELD.
 - NOT USED.
 - EXISTING CONDENSING UNIT, NOMINAL 6 TONS TEMPORARILY REMOVED AND TO BE USED IN NEW LOCATION. CAPTURE REFRIGERANT. REMOVE EXISTING REFRIGERANT PIPE.
 - EXISTING CEILING DIFFUSER TO BE REMOVED AND REPLACED WITH NEW DIFFUSER, PROVIDE NEW DUCT. REBALANCE FOR AIR QUANTITY INDICATED.
 - PROVIDE STRUCTURAL BASE FOR UNIT. PROVIDE ACOUSTICALLY LINED RETURN AIR DUCT AND CONNECT TO GF UNIT BOTTOM RETURN AIR OPENING.
 - PROVIDE NEW OUTSIDE AIR INTAKE LOUVER WITH MOTORIZED DAMPER.
 - CONNECT NEW OUTSIDE AIR DUCT TO RETURN AIR DUCT.
 - NEW LOCATION OF EXISTING 6-TON CONDENSING UNIT. PROVIDE NEW REFRIGERANT PIPE REFRIGERANT.
 - NEW REFRIGERANT PIPE THRU WALL AND UP TO NEW UNIT AND TO ABOVE CEILING.
 - NEW REFRIGERANT PIPE ABOVE CEILING.
 - 3/4" DIA. CONDENSATE LINE THRU WALL, DISCHARGE TO GRADE.
 - RETURN AIR GRILLE APPROXIMATELY 42" AFF.
 - 3" DIA. INTAKE AND DISCHARGE THRU WALL WITH COMBINATION TERMINATION FITTING. LOCATE MINIMUM 15' FROM O.A.T.
 - PROVIDE NEW 14"x8" ACOUSTICALLY LINED TRANSFER DUCT WITH TWO RG-1.
 - PROVIDE NEW WALL CAP PAINTED COLOR SELECTED.
 - LOCATE NEW AIR DUCT IN SOFFIT.
 - OFFSET NEW BRANCH SUPPLY AIR DUCT UP TO BETWEEN ROOF TRUSS. NOTE- ALL DUCT SHALL BE INSULATED. ALL DUCT OUTSIDE OF THERMAL ENVELOPE SHALL HAVE INSULATION R VALUE AND THICKNESS PER SPECIFICATIONS, R=8.
 - EXISTING 36"x24" RETURN AIR GRILLE TO REMAIN AND BE OPEN TO SPRINKLER ROOM.
 - NEW RETURN AIR GRILLE OPEN TO SPRINKLER ROOM.
 - NEW PIPE DOWN IN SHEET METAL ENCLOSURE. PROVIDE HORIZONTAL ENCLOSURE TO PTAC UNIT, PAINTED AND FINISHED.
 - 3" DIA. INTAKE AND VENT, CONNECT TO FURNACE AND OFFSET ABOVE CEILING.
 - CONNECT NEW DUCT TO EXISTING DUCT.
 - RELOCATE EXISTING THERMOSTAT, EXTEND ALL WIRING.
 - EXISTING CEILING DIFFUSER TO REMAIN, REBALANCE.
 - EXISTING VERTICAL TRANE AIR HANDLING UNIT; NOMINAL 2,000 CFM WITH HOT WATER HEATING COIL TO BE REMOVED AND RELOCATED. REMOVE ALL DUCT, CAPTURE ALL REFRIGERANT AND RELOCATE UNIT. REMOVE ALL EXISTING HOT WATER HEATING PIPE AND REFRIGERANT PIPE. PROTECT DURING CONSTRUCTION.
 - NEW 3/4" DIA. DOWN TO RELOCATED UNIT. PROVIDE NEW CONTROLS AND PIPE.
 - NEW THERMOSTAT FOR EXISTING RELOCATED AIR HANDLER.
 - PROVIDE NEW PTAC UNIT WITH NEW GRILLE THRU WALL.

MULHERN
and ASSOCIATES, Incorporated
321 South York Road
Hatboro, Pennsylvania 19040
Phone: (215) 293-9900
Fax: (215) 293-9214

ALL NOTES ON PLANS MAY NOT BE ON THIS SHEET
FOR ALL NOTES REFER TO NOTES ON M2

PRIOR TO BIDDING, MECHANICAL CONTRACTOR
TO VISIT SITE PER SPECIFICATION 15010
ALL WORK NEW U.N.O.
ALL WORK BASE BID U.N.O.

GARIBOLDI architects
A Professional Corporation of Architects and Planners
713 CREEK ROAD, BELLMAWR, NEW JERSEY 08031 (856) 396-6200

**WINSLOW TOWNSHIP SENIOR CENTER
2020 ADDITIONS & RENOVATIONS**
33 COOPER FOLLY ROAD, ATCO, NEW JERSEY 08004

REVISIONS	
a.	e.
b.	f.
c.	g.

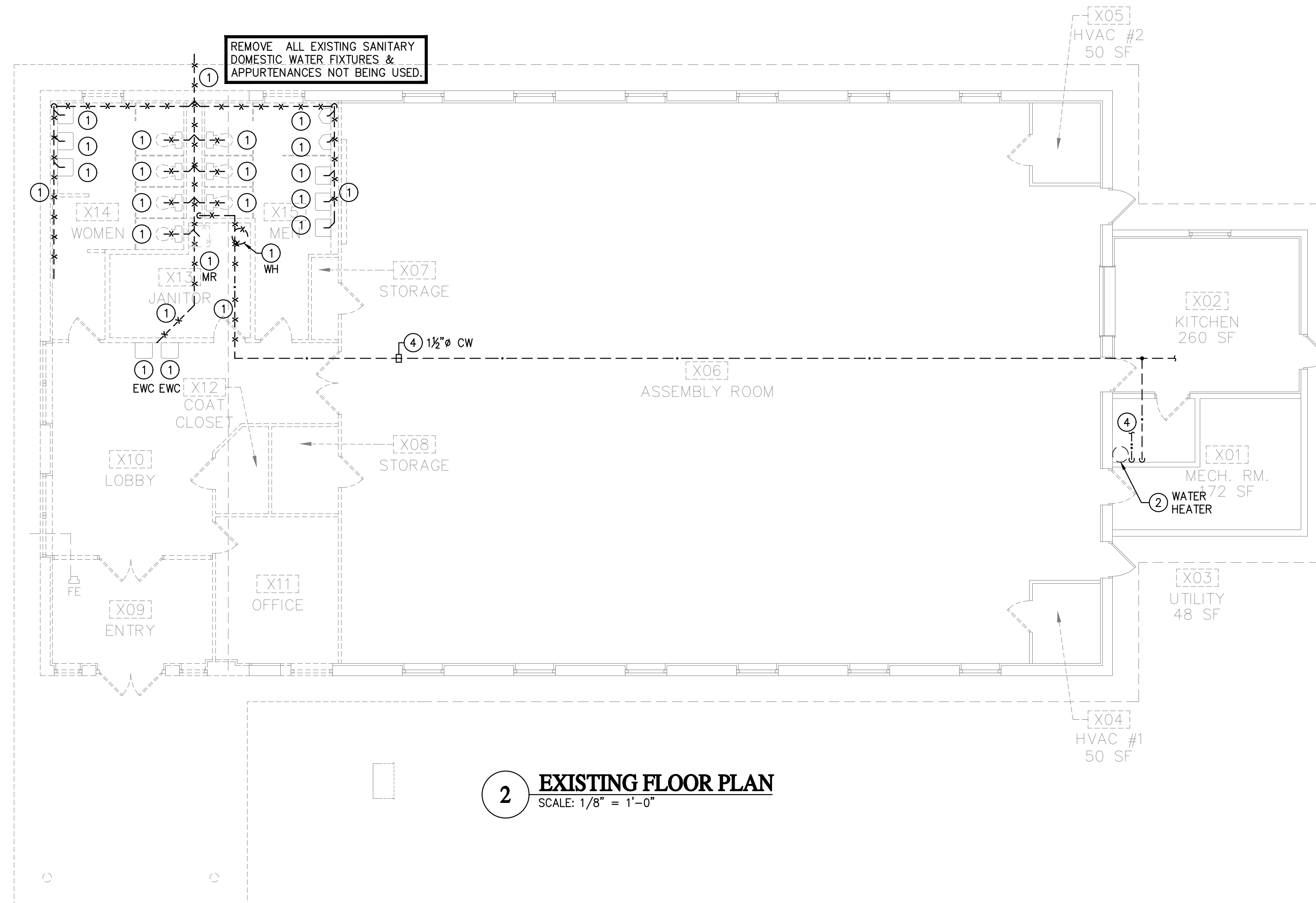
Project No. 18-107
Date: 01/08/20
Scale: AS NOTED

**MECHANICAL
LEGEND,
SCHEDULES
AND NOTES**
M2

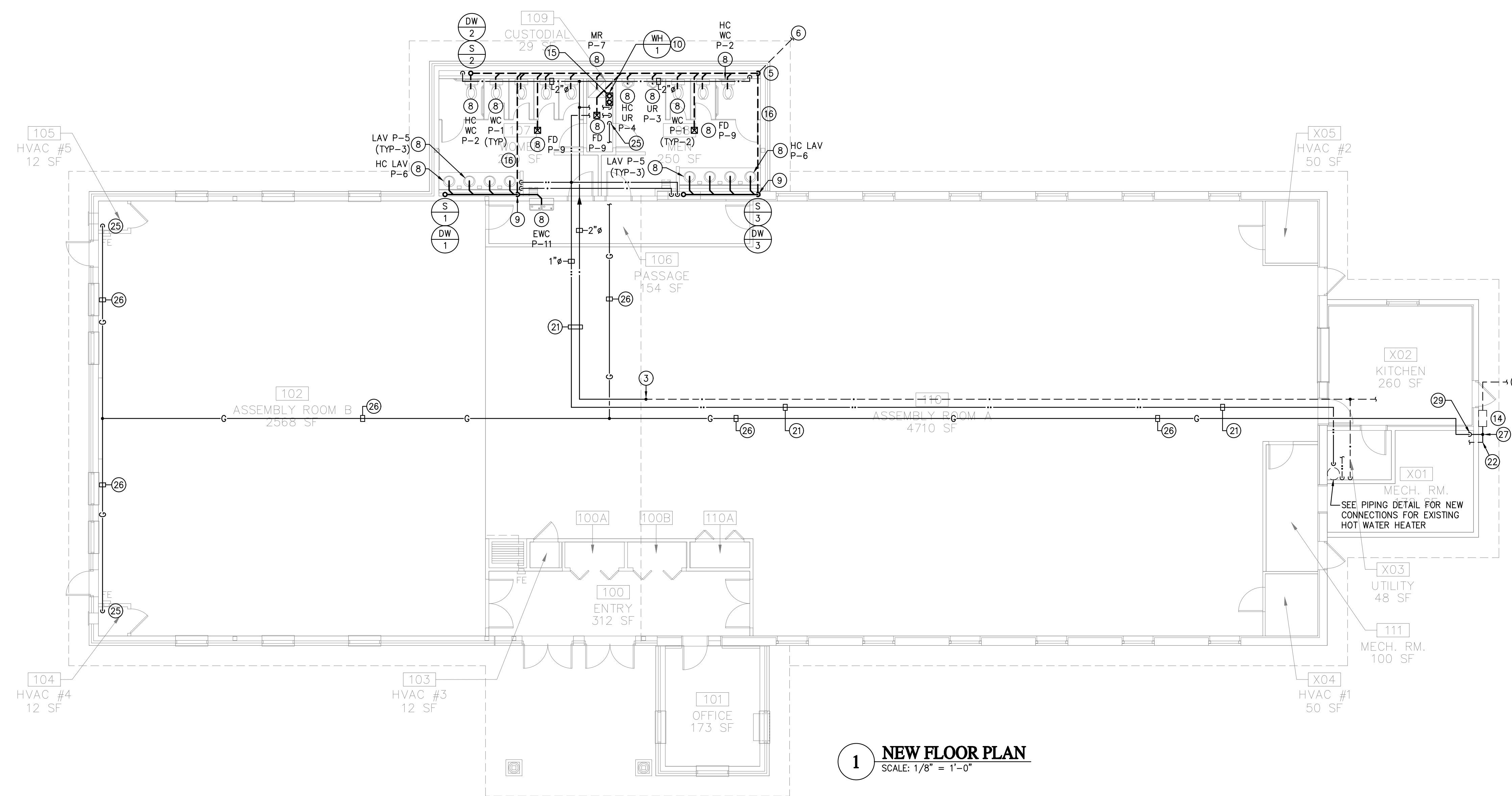
MULHERN
and ASSOCIATES, Incorporated
321 South York Road
Hatboro, Pennsylvania 19040
Phone: (215) 293-9900
Fax: (215) 293-9214

ALL NOTES ON PLANS MAY NOT BE ON THIS SHEET
FOR ALL NOTES REFER TO NOTES ON P-

ALL WORK BY PLUMBING CONTRACTOR U.N.O.
ALL WORK NEW U.N.O.
ALL WORK BASE BID U.N.O.
FOR RISER DIAGRAMS SEE SHEET P2



2 EXISTING FLOOR PLAN
SCALE: 1/8" = 1'-0"



1 NEW FLOOR PLAN
SCALE: 1/8" = 1'-0"

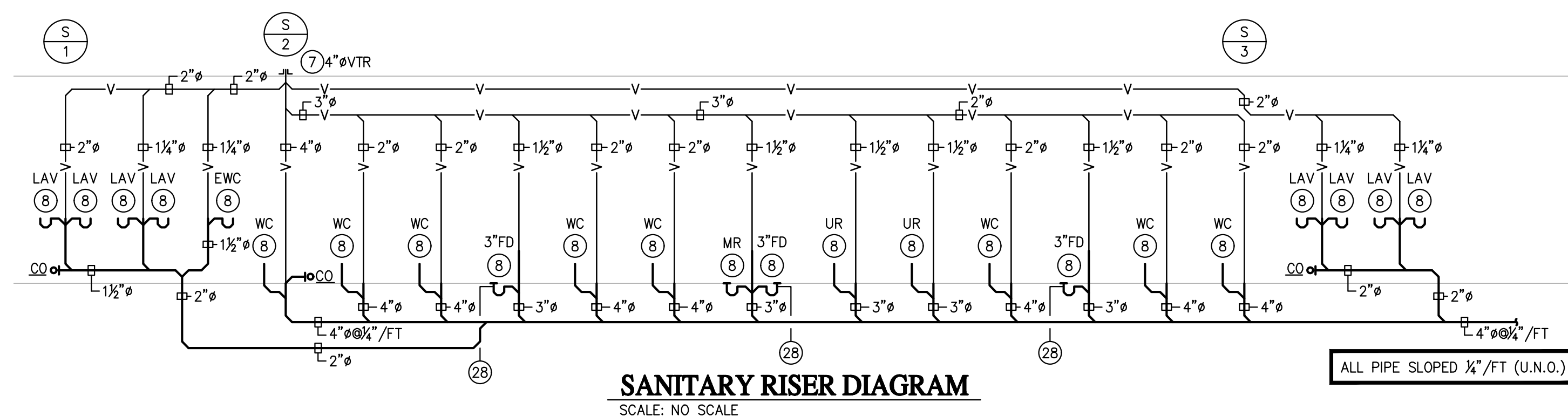
REVISIONS	
a.	e.
b.	f.
c.	g.

Project No. 18-107
Date: 01/08/20
Scale: AS NOTED

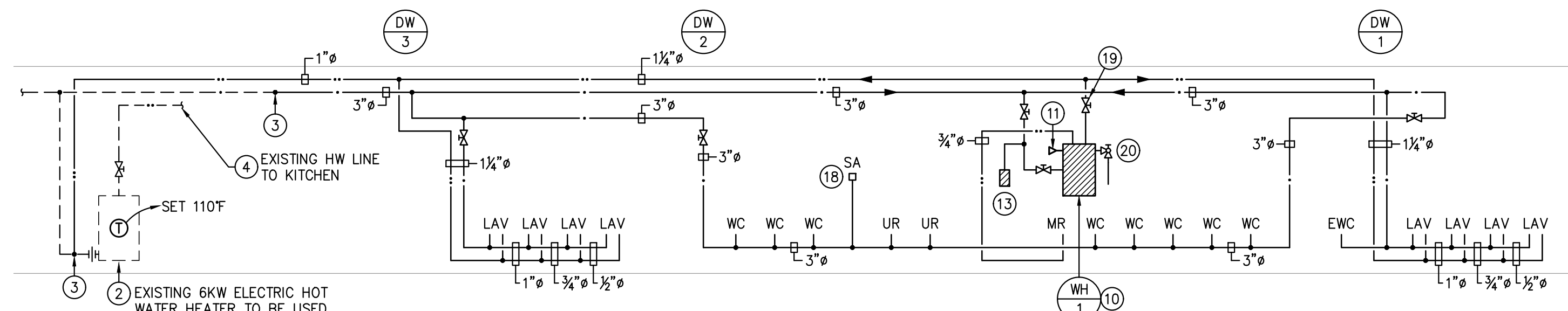
**PLUMBING
FLOOR
PLANS**

P1

© GARRISON ARCHITECTS EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF GARRISON ARCHITECTS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL PREVAIL OVER ANY DIMENSIONS SHOWN ON THE JOB, AND THIS OFFICE SHALL BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

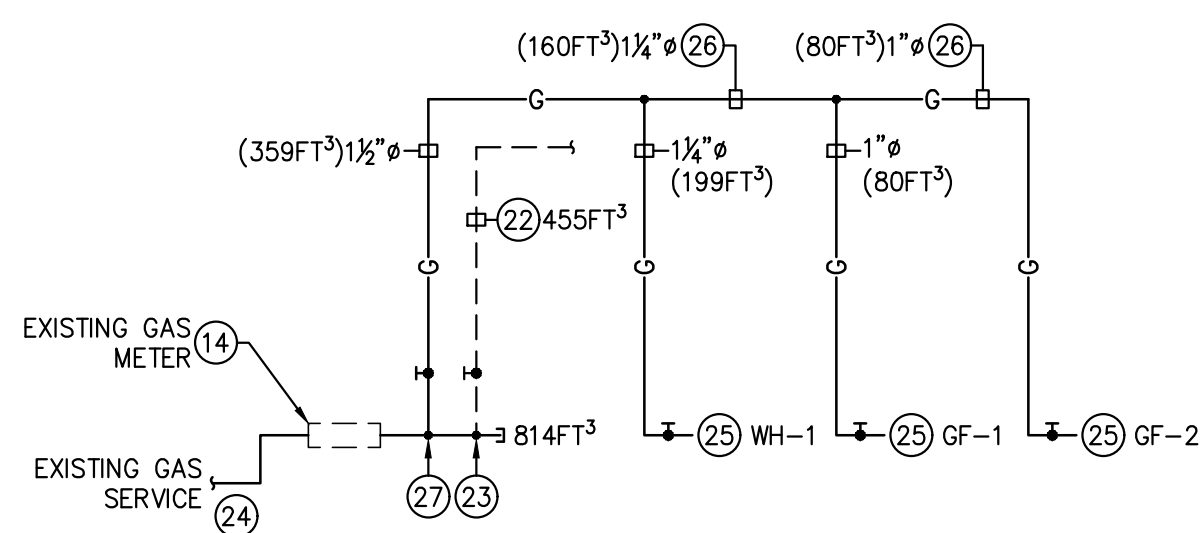


SANITARY RISER DIAGRAM
SCALE: NO SCALE



DOMESTIC WATER PIPING DETAIL
SCALE: NO SCALE

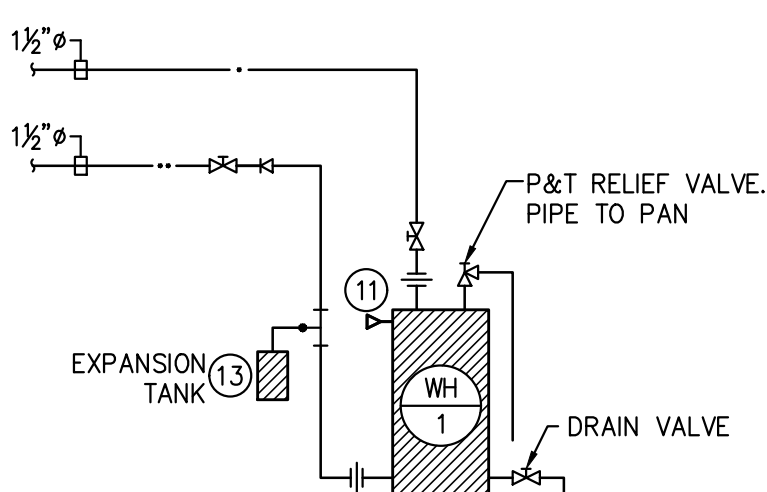
WH 1 GAS FIRED TANKLESS DOMESTIC WATER HEATER, 199,000 FT³ INPUT, BRADFORD WHITE MODEL RTG-199HE-N WITH P&T RELIEF VALVE VACUUM BREAKER.



GAS PIPING DETAIL
SCALE: NO SCALE

CONNECTED LOAD
EXISTING GAS LOAD
BOILER = 390 FT³
RANGE = 65 FT³
NEW GAS LOAD
GF-1 & 2 = 160 FT³
WH-1 = 199 FT³
TOTAL = 814 FT³

NOTE:
NEW GAS PIPE TO BE INSTALLED PER NATIONAL FUEL GAS CODE & GAS CO. REQUIREMENTS. GAS PIPE SIZE & HEADER (FOR NEW GAS TO FURNACES) BASED ON 200 FEET TOTAL DEVELOPED LENGTH, 0.50" WC PD & 6" WC GAS PRESSURE.



DOMESTIC HOT WATER HEATER PIPING DETAIL
SCALE: NO SCALE

PLUMBING LEGEND

JCS (3) COMPARTMENT SINK	—A— COMPRESSED AIR
ACD ACCESS DOOR	—C— COLD WATER
AD AREA DRAIN	—D— DOMESTIC HOT WATER
BT BATH TUB	—R— DOMESTIC HOT WATER RETURN
CO CLEANOUT	—S— SANITARY SEWER
DC DENTAL CHAIR	—V— STORM WATER
DN DOWN	—V— VENT PIPING
DF DRINKING FOUNTAIN	—F— FIRE PROTECTION PIPE
DSW DISHWASHER	—VAC— VACUUM PIPE
DSHWR DISHWASHER	—DCA— DENTAL COMPRESSED AIR
EWC ELECTRIC WATER COOLER	—AR— ACID RESISTANT PIPE
EH FUME HOOD	—ARV— ACID RESISTANT VENT
FPS FOOD PREP SINK	—S— SPRINKLER HEAD
FS FLOOR SINK	—C— CLEANOUT
GS GREASE INTERCEPTOR	—FD— FLOOR DRAIN
HCLS HANDICAPPED LAB STATION/SINK	—GV— GATE VALVE
HD HUB DRAIN	—CV— CHECK VALVE
HS HAND SINK	—RV— RELIEF VALVE
HTUB HYDRO THERAPY TUB	—AV— AUTOMATIC THREE-WAY VALVE
HWS HAIR WASH SINK	—GV— GLOBE VALVE
IS INSTRUCTORS TABLE/SINK	—PRV— PRESSURE REDUCING VALVE
LAV LAVATORY	—AV— AUTOMATIC TWO-WAY VALVE
LS LAB STATION/SINK	—GC— GAS COCK
MR MOP RECEPTOR	—S— STRAINER
MR MOP RECEPTACLE	—SC— SIAMESE CONNECTION
MH MANHOLE	—U— UNION
MV MIXING VALVE	—T— THERMOMETER
OI OIL INTERCEPTOR	—PGW— PRESSURE GAUGE W/GAUGE COCK
PEDSK PEDICURE SINK	—WH— WALL HYDRANT (HOSE BIBB)
PS PREP ROOM SINK	—N— NEW CONNECTION TO EXISTING
RWC RAINWATER CONDUCTOR	—P— POINT OF DEMOLITION
SHWR SHOWER	—SA— SHOCK ABSORBER
SI SAND INTERCEPTOR	—B— BALANCING VALVE
STK STACK	
SS SERVICE SINK	
UNO UNLESS NOTED OTHERWISE	
UR URINAL	
V VENT	
VTR VENT TO ROOF	
WC WATER CLOSET	
WS WASH STATION	

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE TYPE	ABBREV	FIXTURE UNIT VALUE	CONNECTION SIZES				REMARKS
			(TRAP) SAN	VENT	HW	CW	
WATER CLOSET	WC	6	4	2	—	1/2	FLUSH TANK
URINAL	UR	4	3	1 1/2	—	1	
LAVATORY	LAV	1	1 1/2	1 1/2	1/2	1/2	
MOP RECEPTOR	MR	3	3	3	3/4	3/4	
ELECTRIC WATER COOLER	EWC	1/2	1 1/2	1 1/2	—	1/2	
FLOOR DRAIN	FD	4	4	2	—	—	DEEP SEAL TRAP

PLUMBING NOTES

- EXISTING TO BE REMOVED. ITEM AS INDICATED. REMOVE ALL APPURTENANCES. CAP SERVICES BEHIND FINISHED SURFACES. VERIFY ALL CONDITIONS IN FIELD. EXISTING SERVICES TO REMAIN TO BE PROTECTED.
- EXISTING TO REMAIN, ALL APPURTENANCES TO REMAIN. PROTECT DURING CONSTRUCTION. VERIFY ALL CONDITIONS IN FIELD.
- CONNECT NEW DOMESTIC WATER PIPE TO EXISTING PIPE. REPAIR INSULATION AND PIPE. VERIFY EXISTING LOCATION AND CONDITION IN FIELD.
- EXISTING DOMESTIC WATER PIPE TO REMAIN. VERIFY EXACT LOCATION AND CONDITION IN FIELD.
- CONNECT NEW SANITARY TO EXISTING SANITARY PIPE BELOW EXISTING SLAB.
- EXISTING SANITARY PIPE BELOW FLOOR, VERIFY EXACT LOCATION IN FIELD.
- PROVIDE NEW VENT UP THRU ROOF.
- NEW PLUMBING FIXTURE.
- NEW SANITARY DOWN TO BELOW SLAB.
- NEW HOT WATER HEATER IN JANITORS CLOSET.
- VACUUM BREAKER.
- NOT USED.
- PROVIDE 1-GALLON EXPANSION TANK.
- EXISTING GAS METER TO REMAIN. CONTRACTOR TO VERIFY EXISTING METER SIZE AND CAPACITY WITH GAS COMPANY.
- 3" DIA. INTAKE AND EXHAUST VENT UP THRU ROOF FROM NEW HOT WATER HEATER. COORDINATE WITH MECHANICAL CONTRACTOR.
- NEW SANITARY LINE BELOW SLAB. VERIFY ROUTE AND LOCATION IN FIELD.
- NOT USED.
- NEW SHOCK ABSORBER, MOUNT IN CHASE ABOVE CEILING. PROVIDE ACCESS DOOR IN CHASE.
- EMERGENCY SHUTOFF.
- P&T RELIEF VALVE.
- NEW DOMESTIC WATER LINE, ROUTE ABOVE LAY-IN CEILING.
- EXISTING GAS LINE TO EXISTING EQUIPMENT TO REMAIN.
- DISCONNECT EXISTING GAS LINE FROM EXISTING HEADER. REMOVE EXISTING HEADER AND PROVIDE NEW HEADER. CONNECT TO METER. CONNECT EXISTING PIPE TO NEW HEADER WITH NEW GAS COCK. CONNECT NEW LINE WITH GAS COCK.
- EXISTING GAS SERVICE TO REMAIN. CONTRACTOR TO VERIFY WITH GAS COMPANY.
- CONNECT NEW GAS LINE TO NEW EQUIPMENT WITH 6" DIRT LEG AND GAS COCK.
- NEW GAS LINE ABOVE CEILING. NOTE - VERIFY EXISTING DUCT. PROVIDE OFFSETS AROUND DUCT. CEILING TO BE REMOVED AND REPLACED.
- CONNECT NEW GAS LINE TO NEW HEADER WITH SHUTOFF.
- CONNECT NEW 1/2" DIA. COLD WATER TYPE K COPPER IN SPLIT PVC PIPE AND 1/2" THICK ARMAFLEX INSULATION TO AUXILIARY INLET OF FLOOR DRAIN. PROVIDE HR SMITH 2699 TRAP PRIMER.
- NEW GAS LINE THRU WALL AND UP TO ABOVE CEILING.

MULHIERN
and ASSOCIATES, Incorporated
321 South York Road
Hatboro, Pennsylvania 19040
Phone: (215) 293-9900
Fax: (215) 293-9214

ALL NOTES ON PLANS MAY NOT BE ON THIS SHEET FOR ALL NOTES REFER TO NOTES ON P-

ALL WORK BY PLUMBING CONTRACTOR U.N.O.
ALL WORK NEW U.N.O.
ALL WORK BASE BID U.N.O.
FOR RISER DIAGRAMS SEE SHEET P2

**WINSLOW TOWNSHIP SENIOR CENTER
2020 ADDITIONS & RENOVATIONS**
33 COOPER FOLLY ROAD, ATCO, NEW JERSEY 08004

REVISIONS

a.	e.
b.	f.
c.	g.

Project No. 18-107
Date: 01/08/20
Scale: AS NOTED

**PLUMBING
LEGEND,
RISERS AND
NOTES**
P2

ISSUED FOR BID: 01-08-2020

GARIBOLDI ARCHITECTS
A Professional Corporation of Architects and Planners
713 CREEK ROAD, BELLMAWR, NEW JERSEY 08031 (856) 396-6200

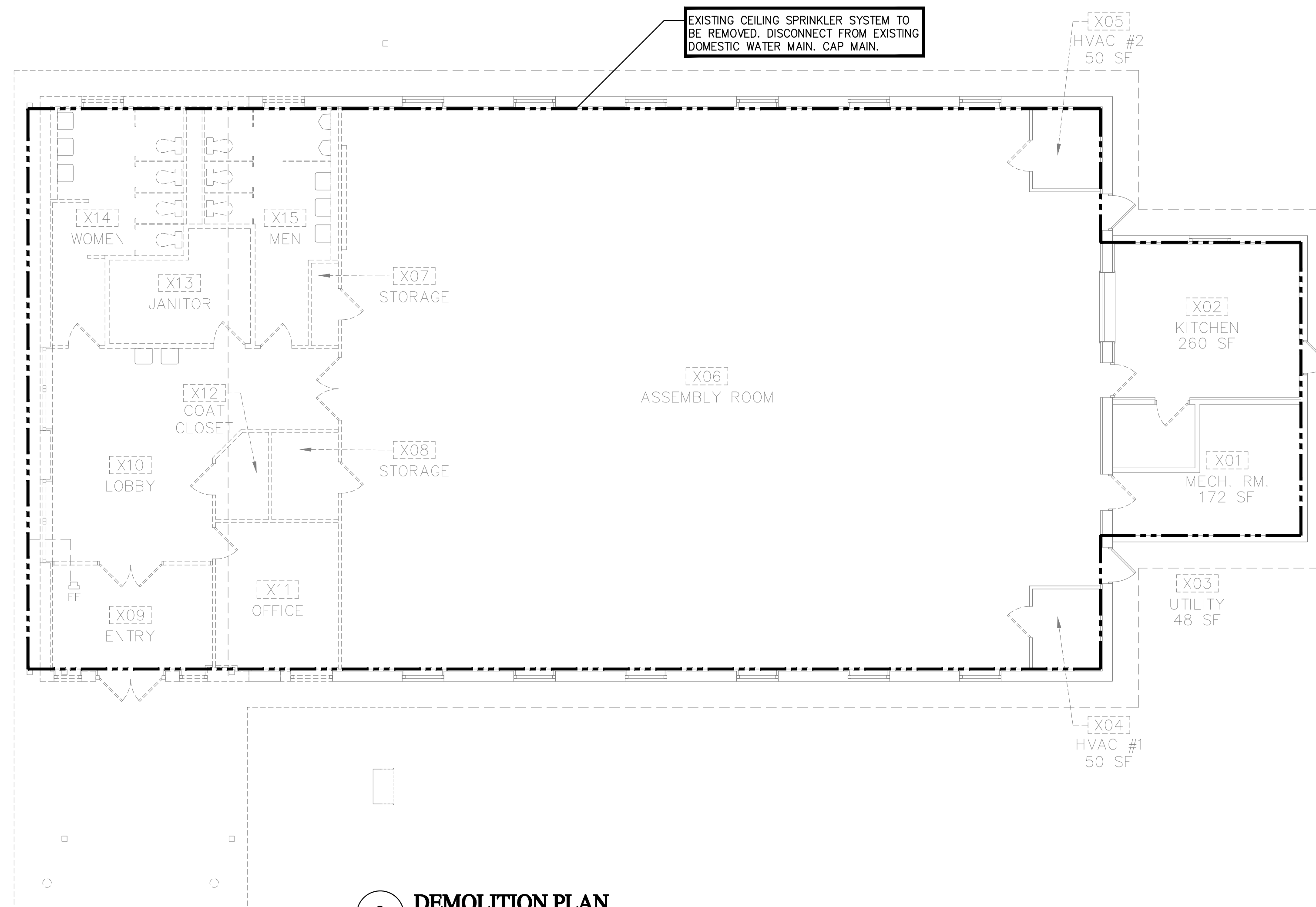
© JARVISON ARCHITECTS EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF JARVISON ARCHITECTS. WRITTEN AMENDMENTS OR THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB, AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

ALL NOTES ON PLANS MAY NOT BE ON THIS SHEET
FOR ALL NOTES REFER TO NOTES ON FP1

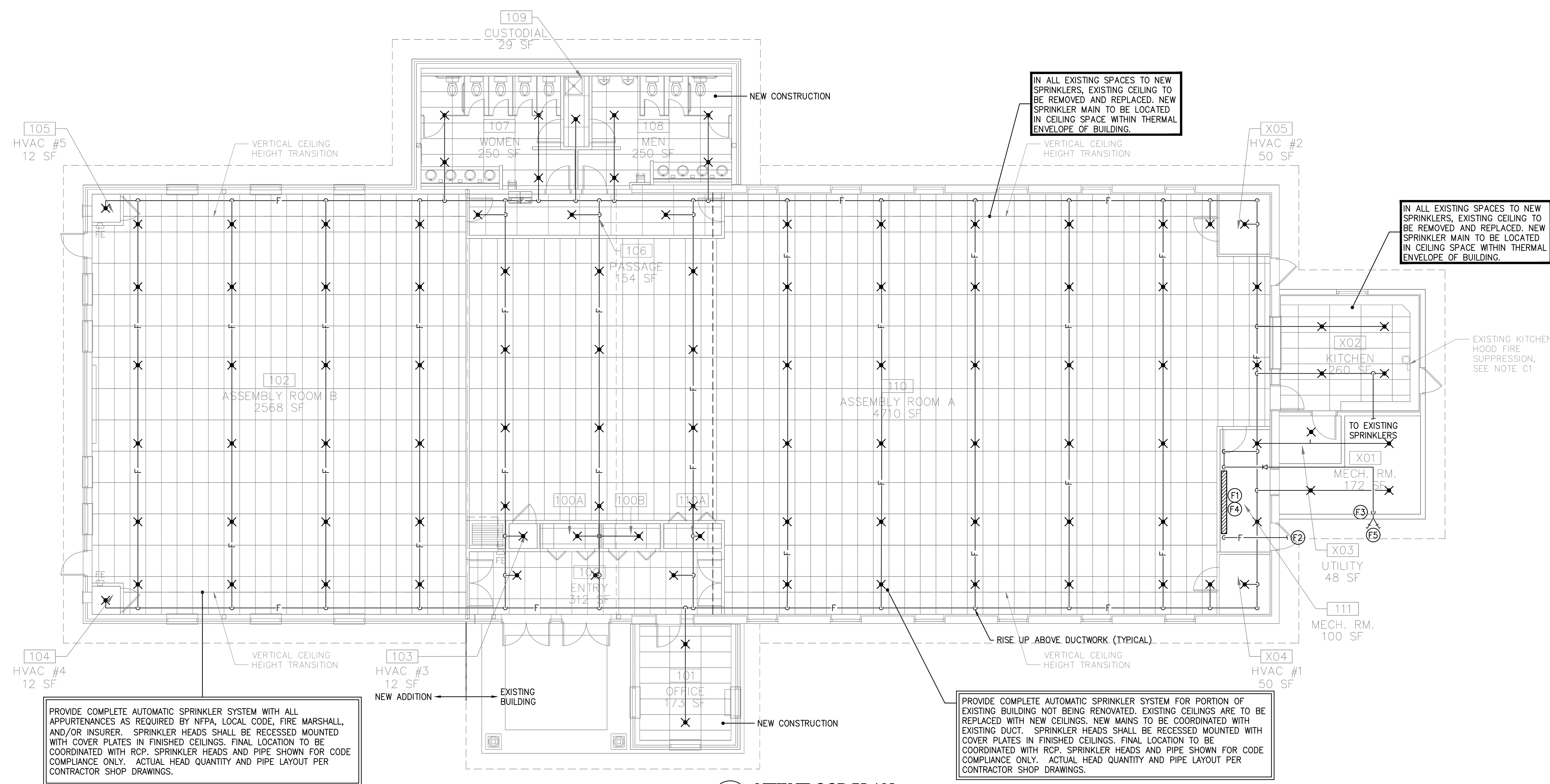
ALL WORK BY FIRE PROTECTION CONTRACTOR U.N.O.
ALL WORK NEW U.N.O.
ALL WORK BASE BID U.N.O.

FIRE PROTECTION NOTES

- F1 NEW FIRE SERVICE. SERVICE ENTRANCE UP FROM BELOW EXISTING SLAB. VERIFY EXACT LOCATION IN FIELD.
- F2 NEW FIRE SERVICE. SEE SITE PLAN FOR CONTINUATION. MIN. 3'-6" DEEP.
- F3 NEW 4" DIA. FIRE LINE DOWN TO SIAMESE CONNECTION WITH CHECK VALVE AND BALL DRIP.
- F4 NEW FIRE SERVICE BACKFLOW PREVENTOR.
- F5 NEW SIAMESE CONNECTION. FINAL LOCATION AND THREAD TYPE PER FIRE MARSHALL.



2 DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



1 NEW FLOOR PLAN
SCALE: 1/8" = 1'-0"

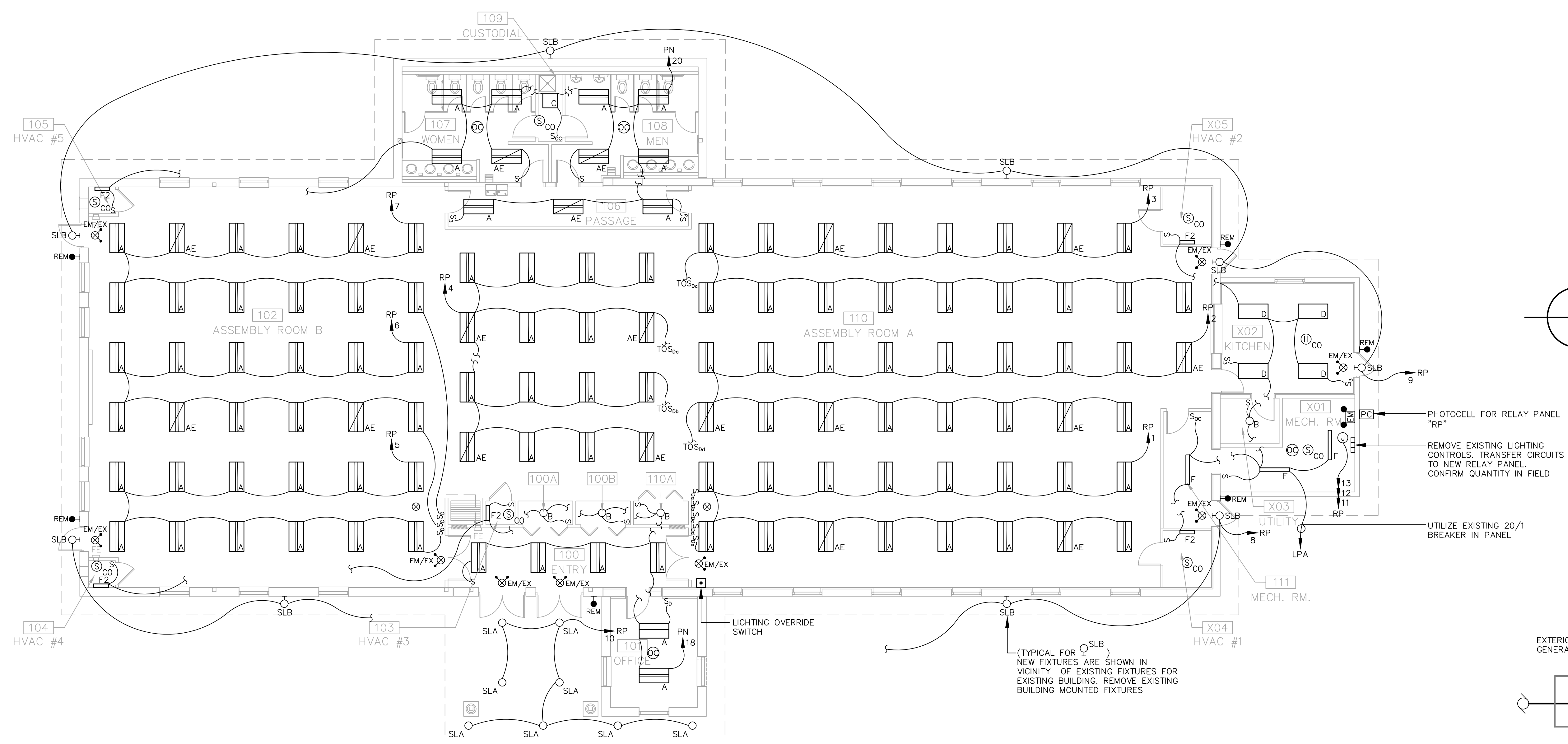
**WINSLOW TOWNSHIP SENIOR CENTER
2020 ADDITIONS & RENOVATIONS**
33 COOPER FOLLY ROAD, ATCO, NEW JERSEY 08004

REVISIONS

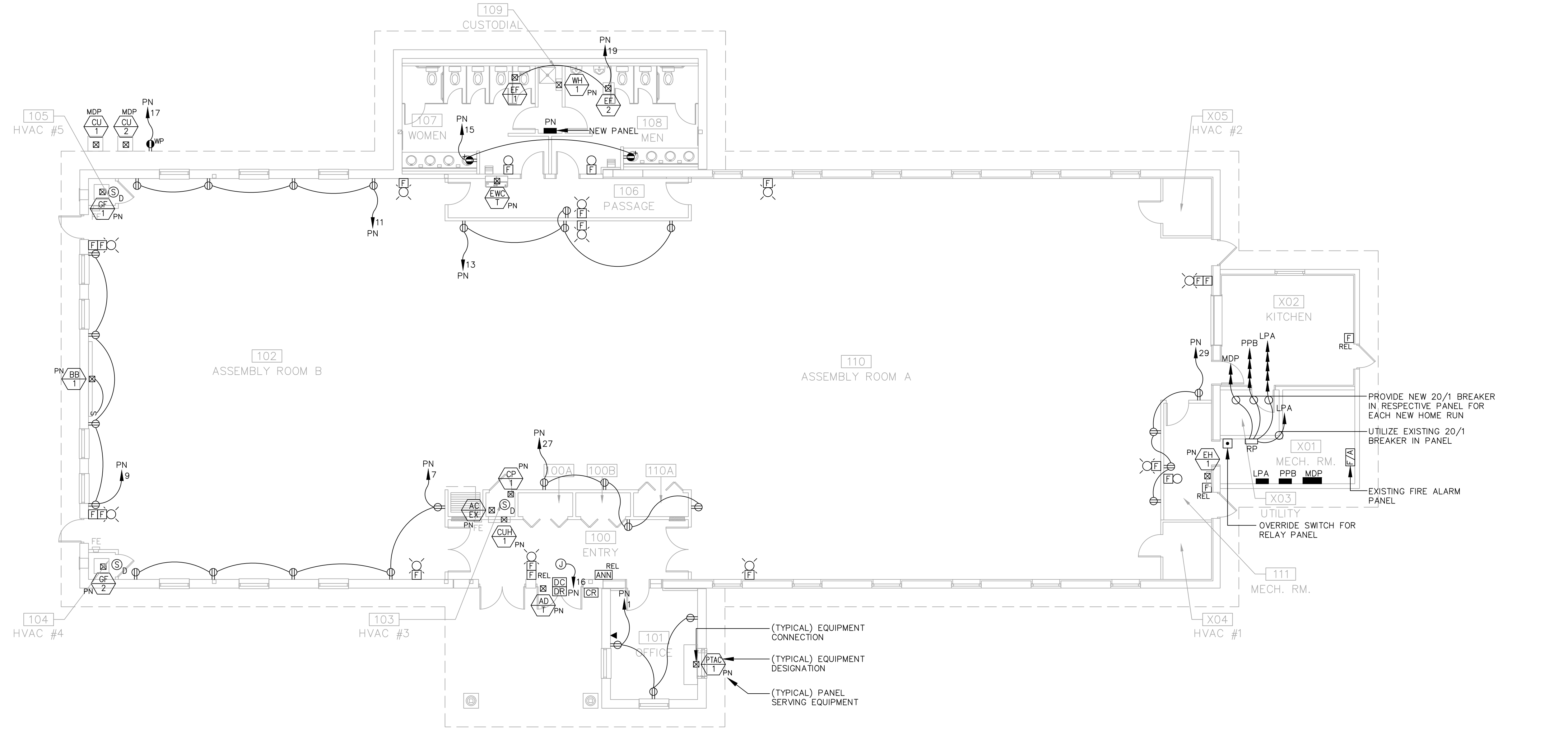
a.	e.
b.	f.
c.	g.

Project No. 18-107
Date: 01/08/20
Scale: AS NOTED

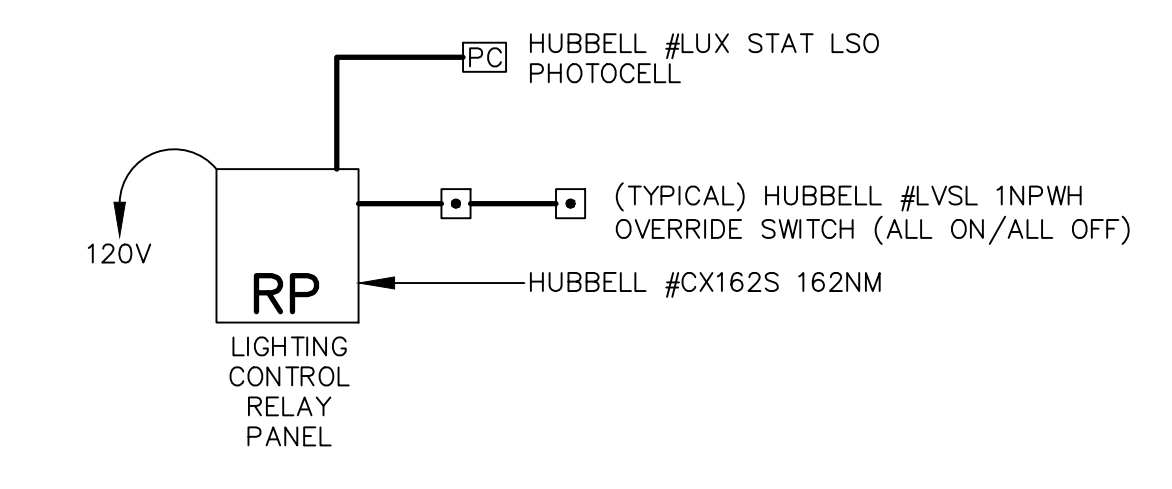
**FIRE PROTECTION FLOOR PLANS
FP1**



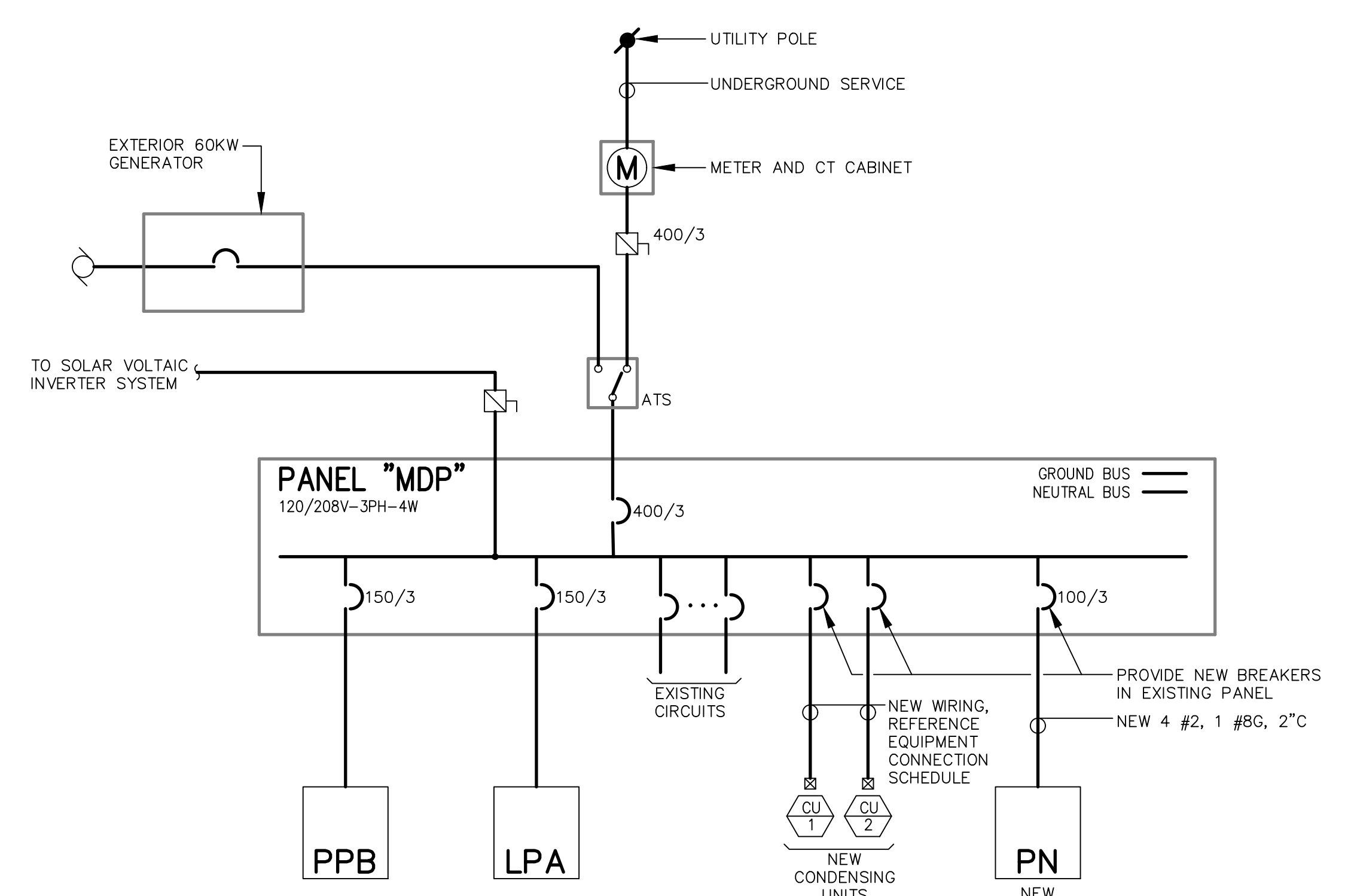
1 LIGHTING PLAN
 E1
 GRAPHIC SCALE (FEET)



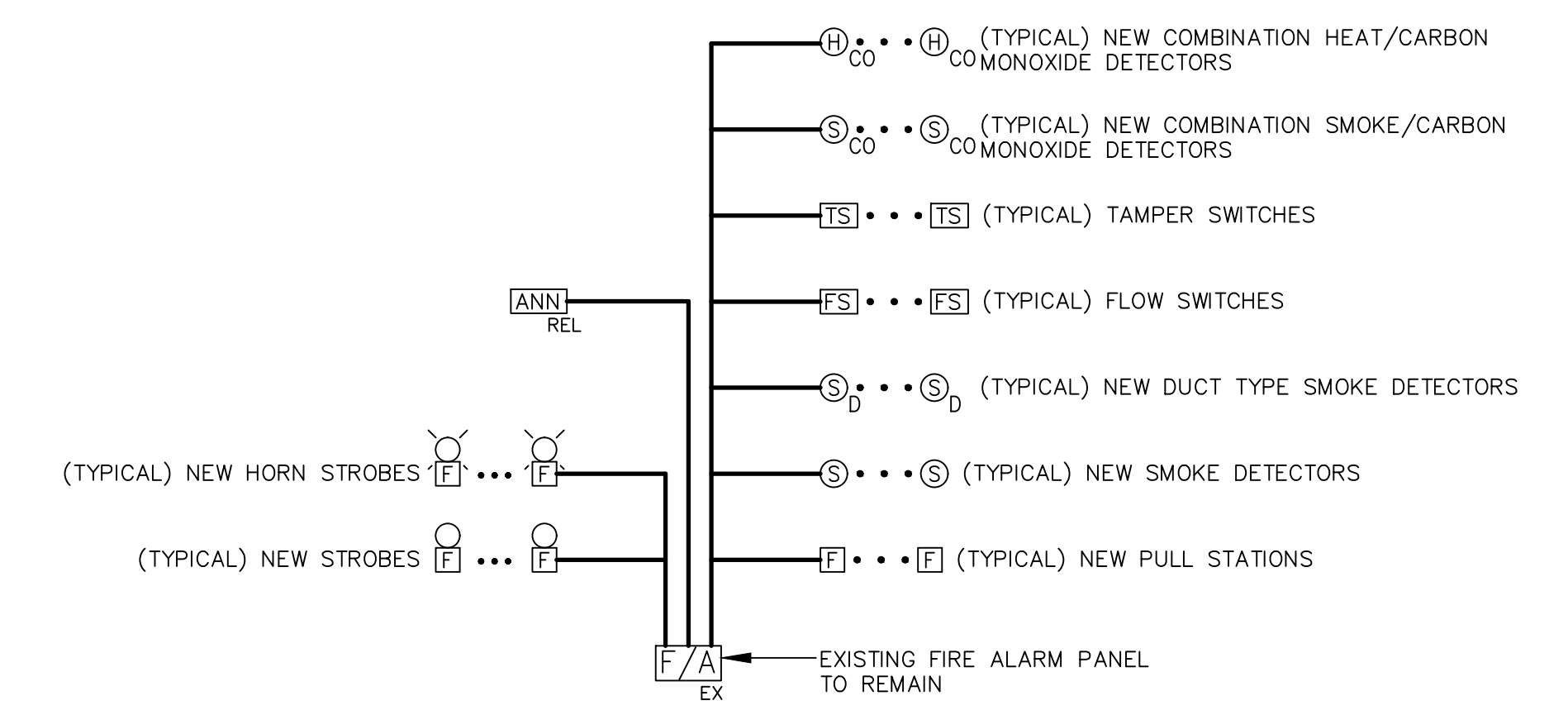
2 POWER PLAN
 E1
 GRAPHIC SCALE (FEET)



3 LIGHTING RELAY PANEL CONTROL DIAGRAM
 E1
 SCALE: N.T.S. INCLUDE COSTS FOR START UP/PROGRAMMING WITH OWNER ON ONE BUSINESS DAY



4 SINGLE LINE DIAGRAM
 E1
 SCALE: N.T.S.
 1. MAXIMUM DEMAND PER ATLANTIC CITY ELECTRIC: 27KW
 2. ALL PANELS, GENERATOR, ATC CABINET, AND ASSOCIATED WIRING ARE EXISTING, UNLESS NOTED OTHERWISE



5 FIRE ALARM RISER DIAGRAM
 E1
 SCALE: N.T.S.
 1. REFERENCE DRAWINGS FOR DEVICE QUANTITIES
 2. PROVIDE ALL MODIFICATIONS TO EXISTING FIRE ALARM PANEL AS REQUIRED TO ACCOMMODATE NEW DEVICES
 3. REFERENCE SPECIFICATIONS SECTION 16510 FOR ADDITIONAL FIRE ALARM REQUIREMENTS
 4. INCLUDE COSTS FOR INSTALLATION (DRAWINGS SIGNED AND SEALED BY NJ PROFESSIONAL ENGINEER. PROVIDE ALL REQUIRED BATTERY CALCULATIONS AND VOLTAGE DROP CALCULATIONS)
 5. PROVIDE AN ALLOWANCE FOR (6) FLOW SWITCHES AND (6) TAMPER SWITCHES
 6. REMOVE EXISTING FIRE ALARM DEVICES WHERE NEW DEVICES ARE INDICATED

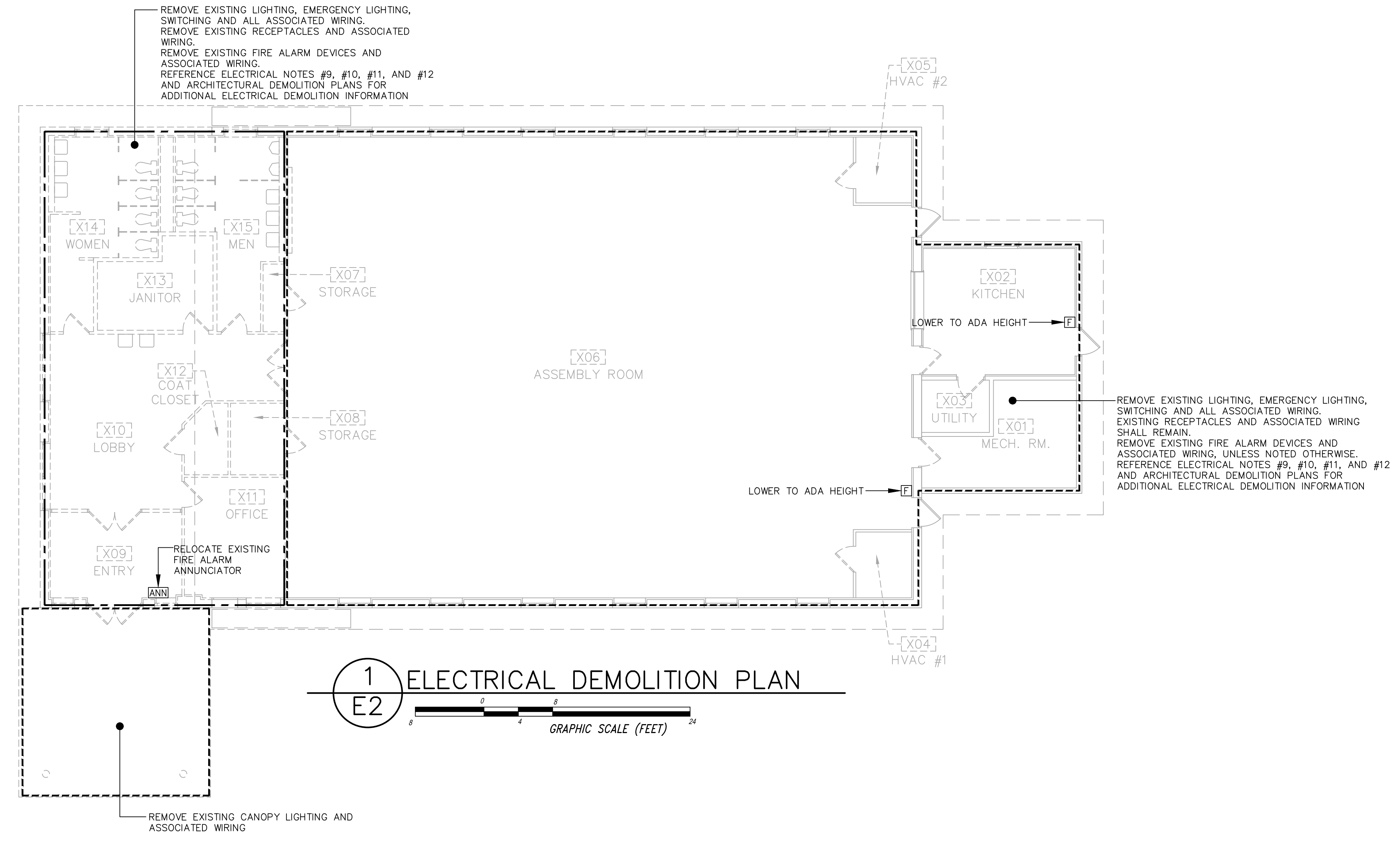
REVISIONS

a.	e.
b.	f.
c.	g.

Project No. 18-107
 Date: 01/08/20
 Scale: AS NOTED

LIGHTING & POWER PLAN

E1



1 ELECTRICAL DEMOLITION PLAN
 E2
 GRAPHIC SCALE (FEET)

EQUIPMENT CONNECTION SCHEDULE

EQUIP. NUMBER	DESCRIPTION	RATED VOLTAGE/ PHASE	LOAD (VA)	HORSE POWER/ KW	BREAKER AMPS/ POLES	PANEL	PLUG-IN RECEPTACLE NEMA CONFIG	DISCONNECT SWITCH AMPS/POLES	CIRCUIT	REMARKS
CU-1	CONDENSING UNIT	208V-3PH	7,709		35/3	MDP	N/A	60/3, WP	3 # 6, 1 # 10G, 3/4" C	PROVIDE NEW BREAKER IN MDP
CU-2	CONDENSING UNIT	208V-1PH	7,709		35/3	MDP	N/A	60/3, WP	3 # 6, 1 # 10G, 3/4" C	PROVIDE NEW BREAKER IN MDP
GF-1	GAS FIRED FURNACE	120V-1PH	1,500		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
GF-2	GAS FIRED FURNACE	120V-1PH	1,500		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
EF-1	EXHAUST FAN	120V-1PH	250		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
EF-2	EXHAUST FAN	120V-1PH	250		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
CUH-1	CABINET UNIT HEATER	120V-1PH	250		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
CP-1	CONDENSATE PUMP	120V-1PH	500		20/1	PN	5-20R	N/A	3 # 12, 3/4" C	
PTAC-1	PACKAGED THERMAL A/C UNIT	208V-1PH	1,100		20/2	PN	6-20R	N/A	3 # 10, 3/4" C	
EH-1	ELECTRIC HEATER	208V-1PH	3,000		20/2	PN	N/A	INTEGRAL	3 # 12, 3/4" C	
WH-1	GAS WATER HEATER	120V-1PH	100		20/1	PN	N/A	20 AMP SWITCH	3 # 12, 3/4" C	
EWC-1	ELECTRIC WATER COOLER	120V-1PH	500		20/1	PN	5-20R GFCI	N/A	3 # 12, 3/4" C	
AD-1	AUTOMATIC DOOR	120V-1PH	500		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	
BB-1	BINGO BOARD	120V-1PH	500		20/1	PN	5-20R	WALL SWITCH	3 # 12, 3/4" C	
AHU-EX	RELOCATED EXISTING AIR HANDLER	120V-1PH	500		20/1	PN	N/A	OIL SWITCH	3 # 12, 3/4" C	HOT WATER

NOTES:
 1) PRIOR TO ROUGH-IN OR PURCHASING ANY ELECTRICAL EQUIPMENT ASSOCIATED WITH ANY EQUIPMENT SHOWN ON THE SCHEDULE ABOVE, THE E.C. IS FULLY RESPONSIBLE FOR OBTAINING COPIES OF SHOP DRAWINGS FROM THE CONTRACTOR OR PARTY (INCLUDING OWNER, WHERE APPLICABLE) FURNISHING THE EQUIPMENT AND FOR COORDINATING EQUIPMENT ELECTRICAL CHARACTERISTICS WITH SHOP DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE E.C. IS SOLELY RESPONSIBLE FOR THIS COORDINATION AND IS RESPONSIBLE FOR ALL COSTS WHICH MAY RESULT FROM FAILING TO FULLY COORDINATE.

EQUIPMENT CONNECTION NOTES

- EXACT DETAILS OF EQUIPMENT CONNECTIONS ARE NOT INDICATED ON THE ELECTRICAL FLOOR PLAN DRAWINGS. EQUIPMENT CONNECTIONS DETAILS ARE INDICATED ON THE EQUIPMENT CONNECTION SCHEDULES ON THE ELECTRICAL DRAWINGS. APPROXIMATE EQUIPMENT LOCATIONS ONLY ARE INDICATED ON THE FLOOR PLAN DRAWINGS.
- THE EQUIPMENT SCHEDULES INDICATE THE EQUIPMENT NAMEPLATE ELECTRICAL CHARACTERISTICS (VOLTAGE, PHASE, AND LOAD AS WELL AS HORSEPOWER, WHERE APPLICABLE), PANEL CIRCUIT BREAKER AMPERES, LOCAL DISCONNECTING MEANS (CORD-AND-PLUG [INCLUDING NEMA CONFIGURATION] OR SWITCH), AND CIRCUIT WIRE AND CONDUIT.
- PRIOR TO ROUGH-IN, VERIFY EXACT POINT OF ELECTRICAL CONNECTION TO EACH PIECE OF EQUIPMENT IN THE FIELD TO AVOID PLACING SERVICE AT THE WRONG LOCATION.
- ELECTRICAL INFORMATION SHOWN IS BASED ON NAMEPLATE AND/OR CATALOG CUT INFORMATION, AND IS ACCURATE TO THE BEST OF THE KNOWLEDGE OF THE ENGINEER AND OWNER. HOWEVER, NO GUARANTEES ARE MADE TO ITS ACCURACY. VERIFY EXACT ELECTRICAL, OPERATING, AND CONNECTION CHARACTERISTICS AND REQUIREMENTS IN THE FIELD PRIOR TO PURCHASING ASSOCIATED ELECTRICAL EQUIPMENT (PANEL BRANCH CIRCUIT BREAKERS, RECEPTACLES, SWITCHES, ETC.) AND PRIOR TO PULLING WIRING IN CONDUITS AND/OR ROUGHING-IN CABLE WIRING METHODS (WHERE PERMITTED).
- PROVIDE CIRCUIT BREAKERS IN PANELS AS PER THE BREAKER AMPS ON THE EQUIPMENT SCHEDULES. FOR EXACT CIRCUITING AND CONNECTIONS AT PANELS, REFER TO THE APPROPRIATE PANEL SCHEDULES.
- PROVIDE ALL EQUIPMENT WITH A LOCAL DISCONNECTING MEANS, CONSISTING OF ONE OF THE FOLLOWING, AS INDICATED ON THE EQUIPMENT SCHEDULE (OR AS OTHERWISE VERIFIED IN THE FIELD).
 - CORD-AND-PLUG CONNECTED EQUIPMENT: PROVIDE RECEPTACLE OF NEMA CONFIGURATION OR SPECIFIC TYPE INDICATED ON THE EQUIPMENT SCHEDULE. PROVIDE SINGLE RECEPTACLES UNLESS INDICATED AS DUPLEX (DUP.), QUADRUPLX (QUAD.), OR OTHERWISE NOTED. PROVIDE RECEPTACLE TYPES COMPATIBLE WITH PLUG TYPES ON EQUIPMENT CORDS. VERIFY IN FIELD. LOCATE RECEPTACLE NEAR EQUIPMENT AS REQUIRED. WHERE EQUIPMENT CORD IS NOT LONG ENOUGH TO REACH RECEPTACLE (OR WHERE EQUIPMENT DOES NOT INCLUDE CORD), PROVIDE A NEW CORD AND PLUG (TO MATCH EXISTING) AS REQUIRED. PROVIDE MAXIMUM CORD LENGTH NOT EXCEEDING 1.8 m (6'0").
 - THERMAL OVERLOAD SWITCH (O/L SWITCH, MANUAL MOTOR STARTER): FOR ALL DIRECT CONNECTED (WITHOUT CORD AND PLUG) EQUIPMENT RATED 120 V OR 277 V AND 20 A OR LESS, PROVIDE A HORSEPOWER RATED THERMAL OVERLOAD SWITCH LOCATED AT OR ADJACENT TO THE EQUIPMENT. WHERE EQUIPMENT IS NOT POWERED OR IS POWER OPERATED BY SOURCES OTHER THAN ELECTRICITY (I.E. PNEUMATIC OPERATION, GAS FIRED, ETC.) AND WHERE ELECTRICITY IS REQUIRED ONLY FOR LOW VOLTAGE OR SOLID STATE CONTROLS, A SINGLE POLE 120/277 V SWITCH MAY BE UTILIZED.
 - DISCONNECT SWITCH: FOR ALL DIRECT CONNECTED EQUIPMENT OVER 120 V (EXCEPT 277 V SINGLE-PHASE EQUIPMENT) OR OVER 20 A, PROVIDE A SUITABLE HEAVY DUTY SAFETY SWITCH. PROVIDE AMPERE RATING AND POLES AS PER THE EQUIPMENT SCHEDULES. PROVIDE SWITCHES OF THE UN-FUSED TYPE, EXCEPT WHERE FUSE SIZES (AFU) ARE INDICATED ON THE SCHEDULE. PROVIDE FUSED DISCONNECT SWITCHES WITH FUSES WHERE INDICATED ON THE SCHEDULE. WHERE INDICATED AS (ECB), PROVIDE AN ENCLOSED CIRCUIT BREAKER WITH TRIP RATING AS SHOWN.
 - HARD WIRED DIRECT CONNECTION (J-BOX ONLY): FOR ALL DIRECT CONNECTED EQUIPMENT WHERE A DISCONNECTING MEANS IS NOT REQUIRED BY CODE AND NOT DESIRED BY THE OWNER FOR THE EQUIPMENT SERVED, PROVIDE A DIRECT HARD WIRED CONNECTION UTILIZING A SUITABLE JUNCTION OR OUTLET BOX. WHERE EQUIPMENT ENCLOSURE IS SUITABLE FOR USE AS A RACEWAY OR WIRE WAY, THE JUNCTION OR OUTLET BOX MAY BE OMITTED.
- PROVIDE CIRCUIT WIRING AND CONDUIT FROM THE APPROPRIATE PANEL (REFER TO PANEL SCHEDULES) TO THE EQUIPMENT (PASSING THROUGH ANY APPLICABLE CONTROLS AND LOCAL DISCONNECTING MEANS) AS PER THE EQUIPMENT SCHEDULES. PROVIDE INDIVIDUAL NEUTRAL (WHERE APPLICABLE) AND EQUIPMENT GROUNDING CONDUCTORS WITH EACH CIRCUIT.
- FEED FREE STANDING EQUIPMENT UNABLE TO BE SERVED BY WIRING RUN ON/ALONG WALLS OR COLUMNS WITH CONDUIT FROM THE CEILING OR UNDER THE FLOOR, SUITABLY SUPPORTED.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMPS	REMARKS
A	2' X 4' RECESSED LED	FINELITE	HPR-A-LED-2X4-DCO-B-8-35-120-SC-CEILING	35.2 WATTS, 4743 LUMENS, 3500 DEG K	CONFIRM GRID WIDTH PRIOR TO RELEASE
AE	2' X 4' RECESSED LED WITH EMERGENCY LED DRIVER CONNECT DRIVER AHEAD OF ALL LIGHTING RELAY CONTROLLED CIRCUITS	FINELITE	HPR-A-LED-2X4-DCO-B-8-35-120-SC-CEILING BODINE BSL722 1700 LUMEN BATTERY	35.2 WATTS, 4743 LUMENS, 3500 DEG K	CONFIRM GRID WIDTH PRIOR TO RELEASE
B	RECESSED LED DOWNLIGHT	PRESCOLITE	LBP6/6LBP15L3KKAZ	19.1W LED, 3500 DEG K 1500 LUMENS	CONFIRM AVAILABLE RECESSED DEPTHS PRIOR TO RELEASE
C	2' X 2' RECESSED LED FLAT PANEL	COLUMBIA	CFP22-4035	41W, 4302 LUMENS, 35 DEG K	
D	2' X 4' RECESSED LED FLAT PANEL	COLUMBIA	CFP-24-5535	49 W LED, 5447 LUMENS, 35 DEG K	
F	4 FOOT LED STRIPLIGHT	COLUMBIA	LPT-4-35K-ML-E-U	42 WATTS, 5359 LUMENS	
F2	2 FOOT LED STRIP LIGHT	HE WILLIAMS	17-2-L27/835-AF-DRV-UNV	24 WATTS, 2713 LUMENS	
SLA	RECESSED LED DOWNLIGHT, CONFIRM FINISH WITH ARCHITECT	USAI LIGHTING	3021 W B1-S-10-LRTD4-9024-C3-40KS 50-FT-NC-120	24 W LED	UL LISTED FOR WET LOCATION
SLB	WALL MOUNTED LED	HUBBELL	NRG-356L-4K-U	18.6W LED, 4000 DEG K	UL LISTED FOR WET LOCATION
EM	EMERGENCY BATTERY UNIT WITH NO REMOTE HEAD CAPABILITY	EMERGH-LITE	DLM-2	(2) 8V, 5.4W	CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHING
EM/EX	COMBINATION EXIT AND EMERGENCY LIGHT WITH REMOTE CAPABILITY, RED LETTERS	EMERGH-LITE	ELXN400R-2LED-R	(2) MR16 6V-5.4W LAMPS	CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHING AND LIGHTING CONTROL
EXIT	EXIT SIGN, RED LETTERS ON WHITE FACE AND HOUSING	EMERGH-LITE	W PREM SNX R	INTEGRAL DIFFUSED LED	INTEGRAL NiCd BATTERY BACKUP, THERMOPLASTIC HOUSING, CONNECT TO NEARBY LIGHTING CIRCUIT, UNIVERSAL MOUNTING (COORDINATE MOUNTING WITH ARCHITECT), QUANTITY OF FACES AS APPLICABLE, PROVIDE DIRECTIONAL ARROWS WHERE APPLICABLE
REM	REMOTE EMERGENCY BATTERY HEAD (2) HEADS WEATHERPROOF	EMERGH-LITE	PROVIDE WITH EM/EX		CONNECT TO NEAREST EX/EM

THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT THE WRITTEN PERMISSION AND CONSENT OF GARIBON ARCHITECTS. WRITTEN DIMENSIONS ON THESE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS SHOWN IN THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

ELECTRICAL NOTES

- PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), OSHA REQUIREMENTS, ALL FEDERAL, STATE, AND LOCAL CODES AND ALL OWNER REQUIREMENTS.
- INCLUDE ALL TEMPORARY POWER AND LIGHTING, PERMIT, LICENSE, AND INSPECTION COSTS IN BID.
- VERIFY EXACT LOCATIONS AND MOUNTING OF ALL LUMINAIRES, SWITCHES, RECEPTACLES, OUTLETS, FIRE ALARM, AND OTHER EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND IN THE FIELD PRIOR TO ROUGH IN.
- VERIFY ELECTRICAL RATINGS, CONNECTION REQUIREMENTS, AND EXACT LOCATIONS OF ALL MECHANICAL, KITCHEN, MANUFACTURING, AND OTHER UTILIZATION EQUIPMENT (WHERE APPLICABLE) IN FIELD PRIOR TO PURCHASING ASSOCIATED ELECTRICAL EQUIPMENT. PROVIDE A COMPLETE AND WORKING INSTALLATION.
- THE TERM "PROVIDE" MEANS, "FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR", AND THE TERMS "CONTRACTOR" AND "E.C." MEAN "ELECTRICAL CONTRACTOR", UNLESS INDICATED OTHERWISE. ALL WORK INDICATED ON THE ELECTRICAL DRAWINGS AND ELECTRICAL SPECIFICATIONS IS BY THE E.C. (UNLESS INDICATED OTHERWISE) AND IS NEW (UNLESS INDICATED OTHERWISE). WHERE THE PROJECT IS PERFORMED BY MULTIPLE PRIME CONTRACTORS UNDER "MULTIPLE PRIME BIDS" THIS DESIGNATES THE WORK BY THE ELECTRICAL PRIME CONTRACTOR. WHERE THE PROJECT IS PERFORMED BY A SINGLE OVERALL CONTRACTOR UNDER "LUMP SUM BIDS" THIS APPROXIMATELY DESIGNATES THE WORK BY THE ELECTRICAL TRADE SUBCONTRACTOR (EXACT DIVISION OF TRADE SUBCONTRACTOR WORK IS THE SOLE RESPONSIBILITY OF THE SINGLE OVERALL CONTRACTOR; TRADE SUBCONTRACTOR WORK DIVISION SHOWN ON THE DRAWINGS/SPECIFICATIONS IS FOR REFERENCE AND CONVENIENCE ONLY).
- COORDINATE ALL REQUIRED SHUTDOWNS WITH THE OWNER (AND UTILITY COMPANY WHERE APPLICABLE) A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE. INCLUDE OVERTIME COSTS IN BID TO PERFORM ALL SHUTDOWNS (INCLUDING SHUTDOWNS FOR AREAS WHICH MAY BE UNOCCUPIED DURING CONSTRUCTION) AFTER NORMAL WORKING HOURS AS COORDINATED WITH THE OWNER. NO EXTRA CLAIMS OR COMPENSATION WILL BE GRANTED FOR OVERTIME COSTS ASSOCIATED WITH PERFORMING SHUTDOWNS.
- PROVIDE MOUNTING HEIGHTS OF EQUIPMENT AS REQUIRED BY ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND STANDARDS, INCLUDING ALL APPLICABLE DISABLED (HANDICAPPED) ACCESS CODES AND THE AMERICANS WITH DISABILITIES ACT (ADA). CONTACT ANY AND ALL AUTHORITIES HAVING JURISDICTION TO VERIFY REQUIRED MOUNTING HEIGHTS.
- PERFORM ALL WORK IN PHASES AND SEQUENCES AS DIRECTED BY THE ARCHITECT. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. FULLY COORDINATE PHASES/SEQUENCES IN DETAIL WITH ALL CONTRACTORS/TRADES, THE ARCHITECT, AND THE OWNER PRIOR TO PERFORMING WORK AND INCLUDE ALL COSTS IN BID.
- COMPLETELY DISCONNECT AND REMOVE ALL EXISTING WIRING AND ELECTRICAL EQUIPMENT IN AREAS BEING RENOVATED, IN AREAS OF GENERAL DEMOLITION, INTERFERING WITH NEW CONSTRUCTION BY ANY CONTRACTOR OR TRADE (INCLUDING, BUT NOT LIMITED TO, GENERAL CONSTRUCTION, MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, ETC.), AND SERVING EQUIPMENT AND APPARATUS REMOVED AS PART OF THIS PROJECT (BY ANY CONTRACTOR OR TRADE), UNLESS INDICATED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF RENOVATIONS AND AREAS OF GENERAL DEMOLITION. REFER TO AND CAREFULLY EXAMINE DRAWINGS AND SPECIFICATIONS OF ALL TRADES TO IDENTIFY AREAS OF INTERFERENCE WITH NEW CONSTRUCTION AND EQUIPMENT/APPARATUS REMOVALS. BASE PRICING ON THE ASSUMPTION THAT ELECTRICAL REMOVALS ARE NECESSARY IN ALL AREAS OF DEMOLITION (GENERAL DEMOLITION AS WELL AS DEMOLITION OF ANY SYSTEMS IN THE BUILDING (SPECIFICALLY INCLUDING DUCTWORK, PIPING, AND WIRING SYSTEMS OF ANY KIND)) AND ALL AREAS OF PROPOSED NEW WORK (BY ANY TRADE), UNLESS ACTUALLY VERIFIED OTHERWISE BY THE ELECTRICAL CONTRACTOR. INCLUDE ALL COSTS IN BID.
- WHERE EXISTING WIRING TO BE REMOVED (AS INDICATED ABOVE) OR OTHERWISE AFFECTED BY CONSTRUCTION (BY ANY CONTRACTOR OR TRADE, INCLUDING GENERAL CONSTRUCTION, MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, ETC.) FEEDS LOADS WHICH REMAIN OR FEEDS LOADS IN ADJACENT OR OTHER AREAS NOT WITHIN THE SCOPE OF WORK, THE WIRING SHALL REMAIN. RELOCATE, EXTEND, AND/OR RE-FEED THE EXISTING WIRING AS REQUIRED TO MAINTAIN SERVICE, UNLESS INDICATED OTHERWISE. BASE PRICING ON THE ASSUMPTION THAT RELOCATING, EXTENDING OR RE-FEEDING IS NECESSARY IN ALL AREAS OF DEMOLITION AND ALL AREAS OF PROPOSED NEW WORK (BY ANY TRADE), UNLESS ACTUALLY VERIFIED OTHERWISE BY THE ELECTRICAL CONTRACTOR. INCLUDE ALL COSTS IN BID.
- WHERE RE-FEEDING EXISTING ELECTRICAL CIRCUITS AND LOADS, VERIFY ALL REQUIREMENTS IN THE FIELD AND INCLUDE ALL COSTS IN BID. VERIFY EXACT CONDUCTOR SIZES AND AMPACITY, EXISTING CIRCUIT BREAKER AND/OR FUSE AMPS, LOAD NAMEPLATE RATINGS, CONDUIT SIZES, ETC. FOR EQUIPMENT TO BE RE-FEED, PROVIDE ALL NEW WIRING DIRECTLY TO THE EQUIPMENT. DO NOT REUSE EXISTING WIRING TO RE-FEED EQUIPMENT, UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.
- INFORMATION REGARDING EXISTING CONDITIONS AND EQUIPMENT AND ALL INFORMATION REGARDING REMOVALS (INCLUDING INFORMATION REGARDING THE SCOPE OF REMOVALS ON ARCHITECTURAL DRAWINGS) INDICATES GENERAL CONDITIONS AND ARE A GUIDE TO PRICING ONLY. PRIOR TO SUBMITTING BID, VISIT THE PROJECT SITE AND VERIFY ALL EXISTING CONDITIONS AND EQUIPMENT, ALL REMOVALS AND REQUIREMENTS, AND ALL TIES-INS TO EXISTING EQUIPMENT AND WIRING IN DETAIL. INCLUDE ALL COSTS IN BID. NO EXTRA CLAIMS OR COMPENSATION WILL BE GRANTED FOR NOT FIRST VERIFYING ALL CONDITIONS.
- FOR ALL NEW CIRCUIT BREAKERS IN EXISTING BRANCH AND DISTRIBUTION PANELS, PROVIDE CIRCUIT BREAKERS MATCHING AND COMPATIBLE WITH EXISTING CIRCUIT BREAKERS. EXISTING WITH SHORT CIRCUIT INTERRUPTING RATINGS EQUAL TO OR EXCEEDING THE HIGHEST RATED EXISTING BRANCH CIRCUIT BREAKER IN THE PANEL. CIRCUIT BREAKER TYPES INDICATED ON THE DRAWINGS (WHERE APPLICABLE) ARE GUIDES TO PRICING ONLY. VERIFY EXACT TYPE AND ALL REQUIREMENTS IN FIELD PRIOR TO RELEASING EQUIPMENT.
- FOR ALL WIRING AND WORK INDICATED, INCLUDING ALL SYSTEMS (POWER, LIGHTING, FIRE ALARM, CONTROL, SIGNAL, SOUND, TELECOMMUNICATIONS, DATA, AND ALL OTHER SYSTEMS, WHERE APPLICABLE), PROVIDE ALL NEW CONDUITS, RACEWAYS, OUTLETS, AND CONDUCTORS, INCLUDING ALL COSTS IN BID WHERE EXISTING CONDUITS AND RACEWAYS ARE DETERMINED BY THE ENGINEER TO BE IN ADEQUATE CONDITION, AND WHERE SPECIFICALLY ACCEPTABLE TO THE OWNER, ARCHITECT, AND ENGINEER, EXISTING CONDUITS AND RACEWAYS MAY BE REUSED. PROVIDE A SEPARATE GROUNDING CONDUCTOR, IN ADDITION TO ALL OTHER GROUNDING CONDUCTORS SPECIFIED, AND BOXES, CONDUITS, BOXES, AND OUTLETS WHERE RACEWAYS ARE REUSED. DO NOT DEPEND ON EXISTING CONDUITS/RACEWAYS FOR GROUNDING PATHS. REUSE EXISTING CONDUCTORS ONLY WHERE SPECIFICALLY INDICATED ON THE DRAWINGS.
- PROVIDE ENGRAVED LAMINATED PLASTIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT (INCLUDING, BUT NOT LIMITED TO, SAFETY SWITCHES, ENCLOSED CIRCUIT BREAKERS, BRANCH PANELS, FUSED EQUIPMENT, THERMAL OVERLOAD SWITCHES, FIRE ALARM DEVICES, SAFETY SWITCHES, SWITCHES AND RECEPTACLES SERVING EQUIPMENT, ETC., WHERE APPLICABLE), REFER TO SPECIFICATIONS FOR INFORMATION. PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL CONVENIENCE RECEPTACLES.
- WHERE ADDING NEW FIRE ALARM SIGNALING OR INITIATING DEVICES TO AN EXISTING FIRE ALARM SYSTEM, COMPLETELY TEST AND CERTIFY THE ENTIRE FIRE ALARM SYSTEM THROUGHOUT THE ENTIRE BUILDING TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS (INCLUDING ALL CODE AND MUNICIPAL REQUIREMENTS). WHERE ANY DISCREPANCIES OR MALFUNCTIONS ARE FOUND WITH EXISTING SYSTEM PORTIONS WHICH ARE NOT MODIFIED OR ADDED TO AS PART OF THIS PROJECT, NOTIFY THE OWNER.
- PROVIDE ALL NEW FIRE ALARM VISUAL SIGNALING DEVICES (VISUAL ONLY STROBES AND STROBE PORTIONS OF COMBINATION HORN/STROBES) AS SYNCHRONIZED. PROVIDE ALL VISUAL SIGNALING DEVICES LOCATED IN THE SAME ROOM OR OTHERWISE WITHIN SIGHT SYNCHRONIZED TOGETHER (I.E. COMMON SYNCHRONIZING MODULE). PROVIDE ALL DEVICES OF TYPES UTILIZATING SYNCHRONIZED AND PROVIDE ALL SIGNALING CIRCUITS INCLUDING SYNCHRONIZING CONTROLLERS AS REQUIRED. EXISTING VISUAL SIGNALING DEVICES ARE NOT REQUIRED TO SYNCHRONIZE WITH NEW DEVICES (UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS).
- THE E.C. SHALL FURNISH AND INSTALL ALL ELECTRICAL DEVICES, EQUIPMENT, AND WIRING AT MILLWORK (CABINETS, DESKS, CREDENZAS, AND OTHER SIMILAR FURNITURE) AS REQUIRED. REFER TO ARCHITECTURAL, MILLWORK, AND FURNITURE DRAWINGS FOR ADDITIONAL INFORMATION (INCLUDING INFORMATION ON WIRING AND ELECTRICAL EQUIPMENT). PROVIDE EQUIPMENT AND WIRING AS REQUIRED, REGARDLESS OF WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- COMPLETELY SEAL AND FIRE STOP ALL PENETRATIONS OF ALL FIRE AND/OR SMOKE RATED WALLS, FLOORS, CEILING, AND ANY OTHER CONSTRUCTION (INCLUDING ALL WALLS REQUIRED TO BE RATED BY CODE) TO A RATING MATCHING OR EXCEEDING THE FIRE RATING OF THE CONSTRUCTION. COMPLETELY SEAL AND WEATHERPROOF ALL PENETRATIONS OF EXTERIOR, AT OR BELOW GRADE, AND WET LOCATION WALLS AND FLOORS AND ROOF PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR INFORMATION ON FIRE RATINGS OF BUILDING CONSTRUCTION AND INCLUDE ALL COSTS IN BID. COMPLY WITH AND INSTALL FIRE STOPPING IN ACCORDANCE WITH ALL APPLICABLE FIRE RATING CODES AND STANDARDS (INCLUDING THE NEC, NFPA, IBC, AND THE UL "FIRE RESISTANCE DIRECTORY").
- PROVIDE 120 V POWER TO ALL SECURITY AND DOOR HARDWARE AS REQUIRED. COORDINATE ALL REQUIREMENTS WITH ARCHITECTURAL DOCUMENTS, THE OWNER, AND SECURITY SUPPLIER. OBTAIN POWER FROM A SUITABLE NEARBY BRANCH CIRCUIT.
- WHERE EXISTING CEILING ARE REMOVED AND REINSTALLED (EITHER PARTLY OR ENTIRELY), THE E.C. SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT (INCLUDING LIGHTING FIXTURES, FIRE ALARM DEVICES INCLUDING, BUT NOT LIMITED TO, SMOKE AND HEAT DETECTORS, SIGNALING DEVICES, INDICATORS, ETC.), SECURITY CCTV CAMERAS, MOTION DETECTORS, SPEAKERS, AND ALL OTHER ELECTRICAL DEVICES, EQUIPMENT, AND APPARATUS) FROM THE CEILING GRID AND CEILING TILES. LEAVE IN PLACE AT THE CEILING AND SUPPORT (IN A CODE COMPLIANT MANNER ACCEPTABLE TO LOCAL CODE OFFICIAL) AS REQUIRED TO FACILITATE CEILING REMOVAL. ONCE CEILING IS REINSTALLED, THE E.C. SHALL PERMANENTLY REINSTALL ALL ELECTRICAL EQUIPMENT IN THE CEILING. WHERE NEW EQUIPMENT IS SHOWN ON THE DRAWINGS, THE E.C. SHALL COMPLETELY DISCONNECT AND REMOVE EXISTING EQUIPMENT (BEING REPLACED) AND ALL ASSOCIATED WIRING AND PROVIDE ALL NEW EQUIPMENT AND ASSOCIATED WIRING AS SHOWN ON THE DRAWINGS. CEILING MAY BE LEFT OPEN FOR A LONG PERIOD OF TIME (I.E. THERE MAY BE SEVERAL MONTHS OR MORE BETWEEN THE TIME OF REMOVAL AND THE TIME OF REINSTALLING CEILING). WHEN CEILING ARE NOT IN PLACE, MAINTAIN (AS OPERATIONAL) ALL FIRE ALARM DEVICES AND EQUIPMENT AND NORMAL AND EMERGENCY LIGHTING AS REQUIRED (TEMPORARILY INSTALL FIRE ALARM DEVICES, SUPPORTED FROM STRUCTURE AND PROVIDE TEMPORARY LIGHTING OR TEMPORARILY SUPPORT EXISTING LIGHTING FROM STRUCTURE AS REQUIRED). WHEN CEILING ARE NOT IN PLACE, SAFELY SECURE EVERYTHING WHICH IS EXPOSED BY THE ABSENCE OF CEILING (NEW AND EXISTING) AND KEEP ALL AREAS CLEAN WHEN OCCUPIED. THIS CEILING WORK IS NOT SHOWN ON ELECTRICAL PLANS (SEE ARCHITECTURAL DRAWINGS AND CEILING PLANS AND OTHER TRADES DRAWINGS FOR INFORMATION) THIS CEILING WORK APPLIES REGARDLESS OF THE PARTY REMOVING THE CEILING AND REGARDLESS OF WHETHER OR NOT CEILING REMOVAL IS SHOWN ON THE DRAWINGS. COORDINATE WITH ALL CONTRACTORS AND TRADES TO CONFIRM THE EXTENT OF CEILING WORK AND INCLUDE ALL COSTS IN BID. THIS CEILING WORK ALSO APPLIES WHERE ANY CONTRACTOR CHOOSES TO INSTALL NEW CEILING IN LIEU OF REINSTALLING THE EXISTING CEILING.
- WHERE EXISTING CEILING ARE REMOVED AND NEW CEILING ARE INSTALLED (EITHER PARTLY OR ENTIRELY), THE E.C. SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT (INCLUDING LIGHTING FIXTURES, FIRE ALARM DEVICES INCLUDING, BUT NOT LIMITED TO, SMOKE AND HEAT DETECTORS, SIGNALING DEVICES, INDICATORS, ETC.), SECURITY CCTV CAMERAS, MOTION DETECTORS, SPEAKERS, AND ALL OTHER ELECTRICAL DEVICES, EQUIPMENT, AND APPARATUS) FROM THE CEILING GRID AND CEILING TILES. LEAVE IN PLACE AT THE CEILING AND SUPPORT (IN A CODE COMPLIANT MANNER ACCEPTABLE TO LOCAL CODE OFFICIAL) AS REQUIRED TO FACILITATE CEILING REMOVAL. ONCE NEW CEILING IS INSTALLED, THE E.C. SHALL PERMANENTLY REINSTALL ALL ELECTRICAL EQUIPMENT IN THE CEILING. WHERE NEW EQUIPMENT IS SHOWN ON THE DRAWINGS, THE E.C. SHALL COMPLETELY DISCONNECT AND REMOVE EXISTING EQUIPMENT (BEING REPLACED) AND ALL ASSOCIATED WIRING AND PROVIDE ALL NEW EQUIPMENT AND ASSOCIATED WIRING AS SHOWN ON THE DRAWINGS. CEILING MAY BE LEFT OPEN FOR A LONG PERIOD OF TIME (I.E. THERE MAY BE SEVERAL MONTHS OR MORE BETWEEN THE TIME OF REMOVAL AND THE TIME OF INSTALLING NEW CEILING). WHEN CEILING ARE NOT IN PLACE, MAINTAIN (AS OPERATIONAL) ALL FIRE ALARM DEVICES AND EQUIPMENT AND NORMAL AND EMERGENCY LIGHTING AS REQUIRED (TEMPORARILY INSTALL FIRE ALARM DEVICES, SUPPORTED FROM STRUCTURE AND PROVIDE TEMPORARY LIGHTING OR TEMPORARILY SUPPORT EXISTING LIGHTING FROM STRUCTURE AS REQUIRED). WHEN CEILING ARE NOT IN PLACE, SAFELY SECURE EVERYTHING WHICH IS EXPOSED BY THE ABSENCE OF CEILING (NEW AND EXISTING) AND KEEP ALL AREAS CLEAN WHEN OCCUPIED. THIS CEILING WORK IS NOT SHOWN ON ELECTRICAL PLANS (SEE ARCHITECTURAL DRAWINGS AND CEILING PLANS FOR INFORMATION).
- WHERE ELECTRICAL WORK INVOLVES REMOVAL AND REINSTALLATION OF EXISTING CEILING, REMOVAL AND RELOCATION IS THE RESPONSIBILITY OF THE E.C. AS AN ALTERNATIVE (AT THE E.C.'S OPTION) TO REINSTALLING CEILING REMOVED TO FACILITATE ELECTRICAL WORK, THE E.C. MAY INSTALL A NEW CEILING OF A TYPE MATCHING THE EXISTING CEILING PROVIDED THERE IS NO COST CHANGE TO THE CONTRACT (WHEREVER NEW CEILING INVOLVES ADDITIONAL COST TO THE CONTRACT, NEW CEILING IS NOT ACCEPTABLE). REPLACE ANY CEILING TILES DAMAGED AS PART OF ELECTRICAL WORK.
- PROVIDE NEC AND OSHA COMPLIANT TEMPORARY LIGHTING AT ALL TEMPORARILY PROTECTED EGRESS COURSES (I.E. AT CERTAIN EXITS DURING CONSTRUCTION). PROVIDE TEMPORARY CODE COMPLIANT ILLUMINATED EXIT SIGNS AS REQUIRED TO IDENTIFY THE ENTIRE TEMPORARY EGRESS PATH. PROVIDE TEMPORARY EMERGENCY LIGHTING (UTILIZING BATTERY UNIT AND/OR REMOTE HEADS) AS REQUIRED TO SATISFY CODE REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND LOCATIONS.

ELECTRICAL SYMBOL LIST

- 5 S₃ 20 A, 277/120 V SWITCH, SINGLE POLE (S), THREE-WAY (S-3), AND FOUR-WAY (S-4), RESPECTIVELY, SPECIFICATION GRADE, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER OWNER
- S₃ 0-10 V, 30 Ma, 8 A, 120/277 V, LIGHT EMITTING DIODE (LED) DRIVER OR FLUORESCENT ELECTRONIC BALLAST DIMMER SWITCH (S-D), SINGLE POLE, SLIDE TYPE (WITHOUT ON/OFF TOGGLE OR ROCKER SWITCH), FULLY RATED, SPECIFICATION GRADE, FLUSH MOUNTED, LOW PROFILE, FINISH AND COVER PLATE AS PER ARCHITECT, OF A TYPE COMPATIBLE WITH THREE-WAY OPERATION VIA REMOTE STANDARD THREE-WAY SWITCHES; LUTRON #DV5V1--H (OR EQUIVALENT), UTILITY EXACT RESPECTIVE DIMMER SWITCH TYPE COORDINATED WITH DIMMABLE LED DRIVERS OR DIMMABLE FLUORESCENT BALLASTS IN CONTROLLED LIGHTING FIXTURE (FULLY COORDINATE IN DETAIL WITH LIGHTING FIXTURE AND DIMMER MANUFACTURER AND INCLUDE COSTS IN BID TO USE DIFFERENT TYPES OF DIMMER SWITCHES AS APPLICABLE FOR EACH DIFFERENT LIGHTING FIXTURE TYPE CONTROLLED); WHERE CIRCUIT LOAD EXCEEDS 8 A UTILIZE #PP-DV POWER PACK(S) AS REQUIRED TO FACILITATE LOAD
- S_{3C} OCCUPANCY/VACANCY SENSOR LIGHTING CONTROL WITH INTEGRAL MANUAL OVERRIDE TO "ON" PUSH BUTTON (S-0C), FLUSH MOUNTED ON WALL (ON FLUSH MOUNTED OUTLET BOX), SELF-CONTAINED "STAND-ALONE" TYPE (SINGLE SENSOR FOR LOCAL LIGHTING CONTROL OF A SPECIFICATIONS IS BY THE E.C. ONLY) (UNLESS INDICATED OTHERWISE) AND IS NEW (UNLESS INDICATED OTHERWISE). WHERE THE MINIMUM 800 W, 1,200 VA FOR 120 V OPERATION AND RATED MINIMUM 2,700 VA FOR 277 V OPERATION, SINGLE POLE, NOMINAL 93 m2 (1,000 SQ FT) COVERAGE, MEETING NEMA WD7 STANDARD, INTEGRAL SELECTABLE AMBIENT LIGHT LEVEL SENSOR, SELECTABLE AUTOMATIC (OCCUPANCY SENSOR) OR MANUAL (VACANCY SENSOR) MODES, SPECIFICATION GRADE, WHITE FINISH, EATON/COOPER #0NWD-1001-MV-* (OR EQUIVALENT)
- S_{3C} OCCUPANCY SENSOR LIGHTING CONTROL [OC] FLUSH MOUNTED IN CEILING, FOR COMMON CONTROL OF LIGHTING (MULTIPLE SENSORS FOR LIGHTING CONTROL IN CONJUNCTION WITH REMOTE LIGHTING CONTROL RELAY MODULE(S)), MULTI-TECHNOLOGY PASSIVE INFRARED (PIR) AND ULTRASONIC TYPE, 360 DEGREE NOMINAL 186 m2 (2,000 SQ FT) COVERAGE, MEETING NEMA WD7 STANDARD, INTEGRAL SELECTABLE AMBIENT LIGHT LEVEL SENSOR, SPECIFICATION GRADE, WHITE FINISH; PROVIDE LOW VOLTAGE CONTROL WIRING AS REQUIRED BETWEEN SENSOR AND CONTROL RELAY. PROVIDE POWER PACK PP.
- [PP] LIGHTING CONTROL RELAY MODULE [PP] INTERCONNECT (UTILIZING LOW VOLTAGE CONTROL WIRING AS REQUIRED) WITH OCCUPANCY SENSORS AS SHOWN ON THE DRAWINGS, RATED 1,800 VA FOR 120 V OPERATION AND RATED 4,800 VA FOR 277 V OPERATION, SINGLE POLE, SPECIFICATION GRADE; PROVIDE A MINIMUM OF ONE (1) RELAY PER CIRCUIT CONTROLLED (WHERE MULTIPLE RELAYS ARE SHOWN OR OTHERWISE RECOMMENDED, PROVIDE EXACT QUANTITY AS REQUIRED INCLUDING ADDITIONAL RELAYS OR MODULES IF NEEDED) TO SUPPORT THE SWITCHING CONTROL SHOWN ON DRAWINGS IN CONJUNCTION WITH THE QUANTITY OF CONTROLLING SENSORS INVOLVED, INTERCONNECT AUXILIARY CONTACTS AS REQUIRED FOR SIMULTANEOUS CONTROL); WHERE WALL SWITCHES (SINGLE POLE OR THREE-WAY) ARE INDICATED ALONG WITH OCCUPANCY SENSOR ON THE DRAWINGS, ARRANGE SWITCHES TO OPERATE AS MANUAL OVERRIDE TO "OFF" (AS RECOMMENDED BY OCCUPANCY SENSOR MANUFACTURER)
- LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- LINEAR LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- 2 X 4 LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- 2 X 2 LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- 2 X 4 LIGHTING FIXTURE WITH DECORATIVE DOOR, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- WALL MOUNTED LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- LINEAR/RECTANGULAR LIGHTING FIXTURE, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- ⊗ EXIT SIGN, TYPE ("EXIT" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- ⊗ COMBINATION EXIT/EMERGENCY UNIT, TYPE ("EX/EM" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE, WITH INTEGRAL BATTERY BACKUP
- ⊗ EMERGENCY LIGHTING BATTERY UNIT, TYPE ("EM" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- ⊗ REMOTE EMERGENCY LIGHTING HEAD, TYPE AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE
- ⊗ 20 A, 120 V DUPLEX RECEPTACLE (NEMA 5-20R), SPECIFICATION GRADE, TAMPER RESISTANT, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER OWNER. (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT, (*) INDICATES MOUNTED HIGH ON WALL AT DISPLAY/SCREEN OR ABOVE BOARD
- ⊗ 20 A, 120 V DUPLEX GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLE (NEMA 5-20R), SPECIFICATION GRADE, TAMPER RESISTANT, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER OWNER. (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT, (WP) INDICATES WEATHER-RESISTANT TYPE RECEPTACLE MOUNTED IN A WEATHERPROOF OUTLET BOX WITH SINGLE SPRUNG WEATHER-RESISTANT WEATHERPROOF-WHILE-IN-USE COVER. FEED THROUGH PROTECTION OF STANDARD TYPE RECEPTACLES FROM OTHER GFCI RECEPTACLES OR PROTECTION OF STANDARD TYPE RECEPTACLES FROM GFCI CIRCUIT BREAKERS ARE NOT ACCEPTABLE
- ⊗ QUADRUPLEX ("DOUBLE DUPLEX") RECEPTACLE, WITH RECEPTACLE TYPE AS INDICATED
- ⊗ EQUIPMENT CONNECTION, REFER TO THE EQUIPMENT SCHEDULE AND THE EQUIPMENT NOTES FOR INFORMATION
- ⊗ EQUIPMENT DESIGNATION, FOR REFERENCE TO THE EQUIPMENT SCHEDULE
- ⊗ FUSED DISCONNECT (SAFETY) SWITCH, HEAVY DUTY TYPE, WITH SIZE, POLES, AND FUSES AS INDICATED, IN NEMA-1 ENCLOSURE, (WP) INDICATES NEMA-3R ENCLOSURE
- ⊗ UN-FUSED DISCONNECT (SAFETY) SWITCH, HEAVY DUTY TYPE, WITH SIZE AND POLES AS INDICATED, IN NEMA-1 ENCLOSURE, (WP) INDICATES NEMA-3R ENCLOSURE
- ⊗ ELECTRICAL PANEL, REFER TO THE SINGLE LINE DIAGRAM AND RESPECTIVE PANEL SCHEDULE
- ⊗ ELECTRICAL JUNCTION BOX (J-BOX), AS INDICATED ON THE DRAWINGS, WHERE JUNCTION BOX SERVES EQUIPMENT, PROVIDE COMPLETE EQUIPMENT CONNECTIONS AS REQUIRED
- ⊗ PHOTOCCEL [PC], REFER TO RISER DIAGRAM, WALL MOUNTED
- INDICATES HOME RUN OF WIRING TO PANEL AND CIRCUIT INDICATED
- ⊗ TELEPHONE/DATA OUTLET, FLUSH MOUNTED, PROVIDE SUITABLE OUTLET BOX (OF TYPE ACCEPTABLE TO THE OWNER, INCLUDE COSTS IN BID FOR 2-GANG OUTLET) IN WALL AND 27 mm (1") CONDUIT (WITH PULL WIRE) RUN FROM OUTLET STUBBED AND CAPPED INTO NEARBY ACCESSIBLE CEILING SPACE, (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT OR WALL MOUNTED TELEPHONE MOUNTING HEIGHT (COORDINATE WITH ARCHITECT/OWNER DURING CONSTRUCTION), (*) INDICATES MOUNTED HIGH ON WALL AT DISPLAY/SCREEN OR ABOVE BOARD
- [F/A] FIRE ALARM CONTROL PANEL [F/A]
- [ANN] FIRE ALARM REMOTE ANNUNCIATOR PANEL [ANN], "REL" INDICATES RELOCATE. PROVIDE NEW WIRING BACK TO FIRE ALARM PANEL
- ⊗ FIRE ALARM AUDIO/VISUAL HORN/STROBE, ADA COMPLIANT TYPE PROVIDING ADA COMPLIANT COVERAGE, WITH SYNCHRONIZED TYPE STROBE, SEMI-FLUSH MOUNTED, MATCH EXISTING SYSTEM.
- [F] FIRE ALARM VISUAL ONLY STROBE, ADA COMPLIANT TYPE PROVIDING ADA COMPLIANT COVERAGE, SYNCHRONIZED TYPE, FLUSH MOUNTED, MATCH EXISTING SYSTEM.
- [F] FIRE ALARM MANUAL PULL STATION [F], METAL, NON-CODED, DOUBLE ACTION TYPE, FLUSH MOUNTED, ADDRESSABLE TYPE, MATCH EXISTING SYSTEM., "REL" INDICATES "RELOCATE, EXTEND ALL WIRING AS REQUIRED.
- ⊗ FIRE ALARM SMOKE DETECTOR (S), ADDRESSABLE ANALOG PHOTOELECTRIC TYPE, WITH SUITABLE BASE, MATCH EXISTING SYSTEM.
- ⊗ FIRE ALARM COMBINATION SMOKE AND CARBON MONOXIDE (CO) DETECTOR (S)CO, ADDRESSABLE ANALOG PHOTOELECTRIC TYPE, WITH SUITABLE BASE, MATCH EXISTING SYSTEM.
- ⊗ FIRE ALARM COMBINATION HEAT AND CARBON MONOXIDE (CO) DETECTOR (H)CO, ADDRESSABLE ANALOG WITH SUITABLE BASE, MATCH EXISTING SYSTEM.
- ⊗ FIRE ALARM DUCT TYPE SMOKE DETECTOR (ADDRESSABLE ANALOG PHOTOELECTRIC TYPE) AND HVAC EQUIPMENT SHUTDOWN INTERFACE (SD), IN DUCT HOUSING WITH SAMPLING TUBES TO SUIT DUCTWORK (COORDINATION REQUIREMENTS WITH HVAC CONTRACTOR REQUIRED). PROVIDE SHUTDOWN INTERFACE INCLUDING A SUITABLE ADDRESSABLE SUPERVISED OUTPUT RELAY MODULE EITHER INTEGRAL TO OR FIELD INSTALLED DIRECTLY ADJACENT TO DUCT HOUSING; PROVIDE A SUITABLE REMOTE TEST, RESET, AND ALARM INDICATING STATION WALL MOUNTED AT A LOCATION IN A CORRIDOR ACCEPTABLE TO OWNER OR COMMON USE SPACE NEAR THE DETECTOR. E.C. SHALL FURNISH COMPLETE DETECTOR AND WIRE TO FIRE ALARM SYSTEM, WHERE EITHER THE HVAC EQUIPMENT AND/OR ANY ASSOCIATED DUCTWORK ARE NEW OR MODIFIED, M.C. SHALL INSTALL DETECTOR ON DUCTWORK AND M.C./ATC CONTRACTOR SHALL PROVIDE ALL HVAC SHUTDOWN INTERFACE WIRING FROM RELAY TO HVAC EQUIPMENT; WHERE BOTH THE HVAC EQUIPMENT AND ALL ASSOCIATED DUCTWORK ARE EXISTING TO REMAIN, E.C. SHALL INSTALL DETECTOR ON DUCTWORK (AS DIRECTED BY AND UNDER THE SUPERVISION OF THE M.C. AND MECHANICAL ENGINEER) AND PROVIDE ALL HVAC SHUTDOWN INTERFACE WIRING FROM RELAY TO HVAC EQUIPMENT (MAKING FINAL CONNECTIONS AT HVAC EQUIPMENT AS DIRECTED BY AND UNDER THE SUPERVISION OF THE M.C./ATC CONTRACTOR AND MECHANICAL ENGINEER), MATCH EXISTING SYSTEM.
- [FS] SPRINKLER SYSTEM FLOW SWITCH CONNECTION [FS], FURNISHED AND INSTALLED ON PIPING BY SPRINKLER CONTRACTOR AND WIRED TO FIRE ALARM SYSTEM (VA LOCAL ADDRESSABLE IDENTIFICATION MODULE) BY E.C., MATCH EXISTING SYSTEM.
- [TS] SPRINKLER SYSTEM TAMPER SWITCH CONNECTION [TS], FURNISHED AND INSTALLED ON PIPING BY SPRINKLER CONTRACTOR AND WIRED TO FIRE ALARM SYSTEM (VA LOCAL ADDRESSABLE IDENTIFICATION MODULE) BY E.C., MATCH EXISTING SYSTEM.
- [CR] CARD READER OUTLET [CR], E.C. SHALL PROVIDE SUITABLE OUTLET BOX (OF A TYPE ACCEPTABLE TO THE OWNER) IN WALL AND 21 mm (3/4") CONDUIT (WITH PULL WIRE) RUN FROM OUTLET TO SECURITY ACCESS SYSTEM DOOR JUNCTION BOX (OR SECURITY CONTROL PANEL WHERE SECURITY ACCESS SYSTEM DOOR JUNCTION BOX IS NOT SHOWN AT THE DOOR); CARD READER, WIRING, AND ALL FINAL CONNECTIONS SHALL BE BY THE OWNER'S SECURITY VENDOR
- ⊗ SECURITY ACCESS SYSTEM DOOR JUNCTION BOX (J-S), LOCATE ON SECURE SIDE OF DOOR, E.C. SHALL PROVIDE SUITABLE OUTLET BOX (OF A TYPE ACCEPTABLE TO THE OWNER) AND 27 mm (1") CONDUIT RUN FROM JUNCTION BOX STUBBED AND CAPPED INTO ACCESSIBLE CEILING SPACE; ALL SECURITY SYSTEM AND LOW VOLTAGE POWER WIRING AND FINAL CONNECTIONS (INCLUDING LOW VOLTAGE POWER SUPPLY) SHALL BE BY THE OWNER'S SECURITY VENDOR; E.C. SHALL PROVIDE 120 V POWER (TO POWER SUPPLY PRIMARY) WIRING AS SHOWN ON THE DRAWINGS/SPECIFICATIONS
- [DC] DOOR MONITORING CONTACT CONNECTION [DC], E.C. SHALL PROVIDE 21 mm (3/4") CONDUIT (WITH PULL WIRE) RUN FROM LATCH TO SECURITY ACCESS SYSTEM DOOR JUNCTION BOX; DOOR CONTACT (CONCEALED IN DOOR FRAME), WIRING, AND ALL FINAL CONNECTIONS SHALL BE BY THE OWNER'S SECURITY VENDOR
- [DR] DOOR RELEASE LATCH (OR MAGNETIC LOCK) CONNECTION [DR], G.C. SHALL FURNISH AND INSTALL LATCH IN DOOR FRAME, E.C. SHALL PROVIDE 21 mm (3/4") CONDUIT (WITH PULL WIRE) RUN FROM LATCH TO SECURITY ACCESS SYSTEM DOOR JUNCTION BOX; WIRING AND ALL FINAL CONNECTIONS SHALL BE BY THE OWNER'S SECURITY VENDOR
- NATIONAL ELECTRICAL CODE (NEC), LATEST ADOPTED EDITION
- ELECTRICAL CONTRACTOR (EC)
- MECHANICAL CONTRACTOR (MC), INCLUDING ALL MECHANICAL TRADES IN GENERAL (MECHANICAL, HVAC, ATC, PLUMBING, FIRE PROTECTION, ETC.), REFER TO MECHANICAL DOCUMENTS FOR DISTINCTION BETWEEN CONTRACTORS/TRADES
- GENERAL CONTRACTOR (GC), INCLUDING ALL GENERAL CONSTRUCTION TRADES IN GENERAL (CARPENTRY, STEEL, CONCRETE, SITE, ETC.), REFER TO ARCHITECTURAL AND SITE DOCUMENTS FOR DISTINCTION BETWEEN CONTRACTORS/TRADES

DESCRIPTION	LTG VA	EQUP. VA	HVAC VA	BKR AMPS	BUS CONNECTION				BKR AMPS	HVAC VA	EQUP. VA	LTG VA	DESCRIPTION	
					20	1	A	1						2
OFFICE 101 RECEPTACLES		600			20	1	1	A	1	2	20	2		PTAC-1 OFFICE 101
GUH-1, CAB UNIT HEATER			250		20	1	3	B	1	4				
CP-1 CONDENSATE PUMP		100			20	1	5	C	1	6	20	1	100	WH-1, GAS WATER HEATER
ASSEMBLY 102 RECEPTACLES		1,000			20	1	7	A	1	8	20	1		SPARE
ASSEMBLY 102 RECEPTACLES		800			20	1	9	B	1	10	20	2	3,000	EH-1, ELECTRIC HEATER
ASSEMBLY 102 RECEPTACLES		800			20	1	11	C	1	12				AD-1 AUTOMATIC DOOR
BATHROOM GFCI RECEPTACLES		800			20	1	13	A	1	14	20	1		120V FOR SECURITY
WP GFCI RECEPTACLE		400			20	1	15	B	1	16	20	1		800 LIGHTING
WP GFCI RECEPTACLE		400			20	1	17	C	1	18	20	1		800 LIGHTING
EF-1, EF-2 EXHAUST FANS		400			20	1	19	A	1	20	20	1		
EW-1, ELECTRIC WATER COOLER		1,100			20	1	21	B	1	22	20	1		SPARE
GF-1, GAS FURNACE			1,500		20	1	23	C	1	24	20	1		SPARE
GF-2, GAS FURNACE			1,500		20	1	25	A	1	26	20	1		SPARE
ASSEMBLY 102 RECEPTACLES		1,000			20	1	27	B	1	28	20	1		SPARE
ASSEMBLY 110 RECEPTACLES		800			20	1	29	C	1	30	20	1		SPARE
AHUX-AIR HANDLER			1,500		20	1	31	A	1	32	20	1		SPARE
SPARE					20	1	33	B	1	34	20	1		SPARE
SPARE					20	1	35	C	1	36	20	1		SPARE
SPARE					20	1	37	A	1	38	20	1		SPARE
SPARE					20	1	39	B	1	40	20	1		SPARE
SPARE					20	1	41	C	1	42	20	1		SPARE
TOTALS		400	7,300	4,850						4,200	0	1,600		TOTALS
LOAD DESCRIPTION (CONNECT/DEMAND)		CONN	DMD											PHASE BALANCE VA
LOAD DESCRIPTION		VA	VA											A
LIGHTING		2,000	2,000											B
GENERAL POWER		7,300	3,650											C
HVAC EQUIPMENT		9,050	9,050											TOTAL
TOTAL		18,350	14,700											18,350
PERCENT LOADED		51%	41%											731

NOTES:
1) PROVIDE PANEL WITH DOOR-IN-DOOR COVER.

RELAY PANEL	RP		
FOR	-	LIGHTING	
LOCATION	-	REFERENCE PLANS	
RELAYS	16		ENCLOSURE- NEMA 1
RELAY NUMBER	DESCRIPTION	PANEL NAME	CIRCUIT NUMBER
1	ASSEMBLY ROOM A LIGHT		