

SITE PLAN - PLUMBING
SCALE: 1" = 20'-0"



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4525A

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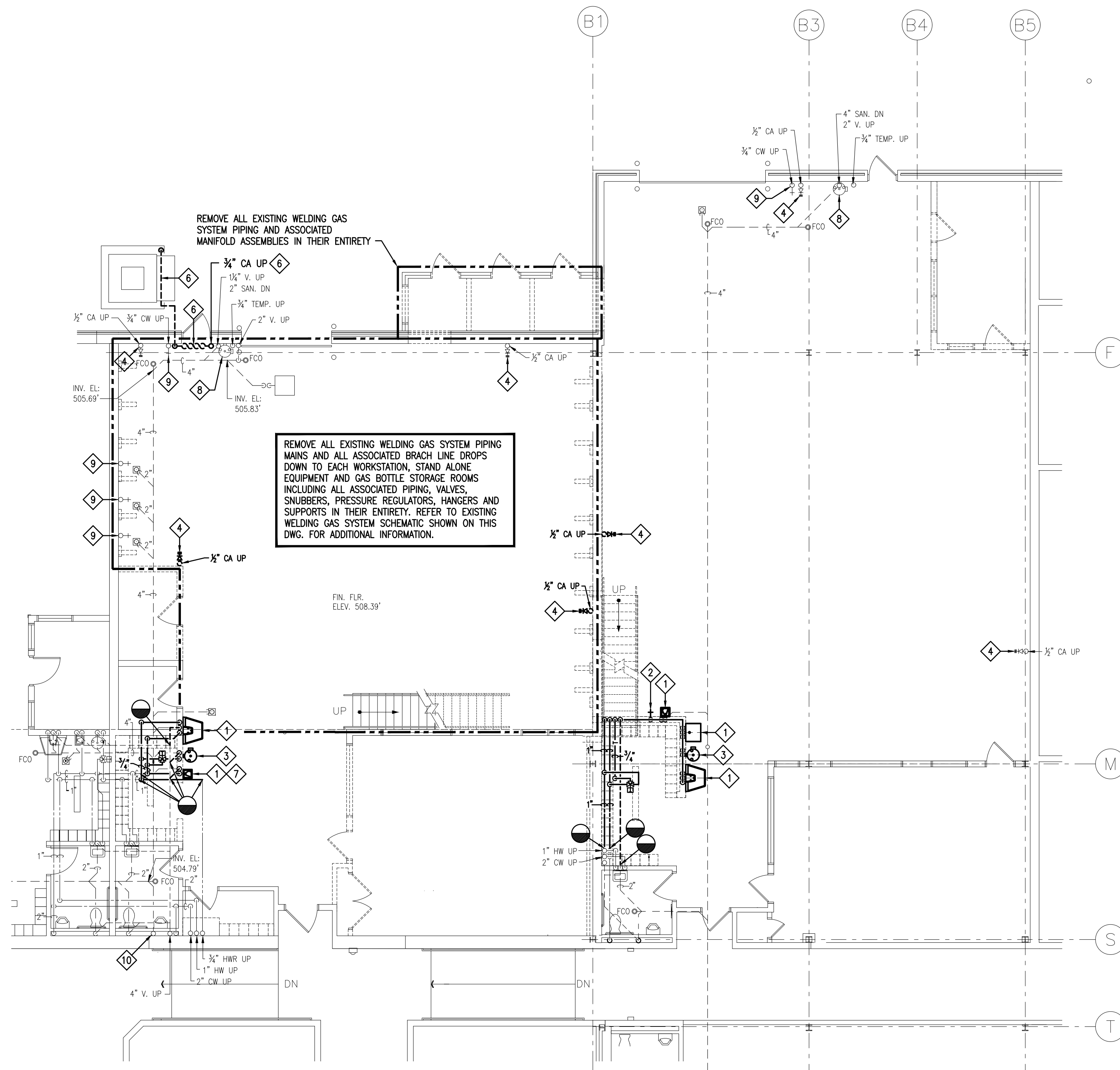
CONSTRUCTION		
DATE: 07/08/2022		
REV. NO.	DESCRIPTION	DATE

PROJ. MGR.: Adam Moser
P.M. e-MAIL: AdamM@cemec.com
DRAWN BY: RLC
CLIENT PROJ #: -
VERIFY SCALE 1
0 1
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWINGS

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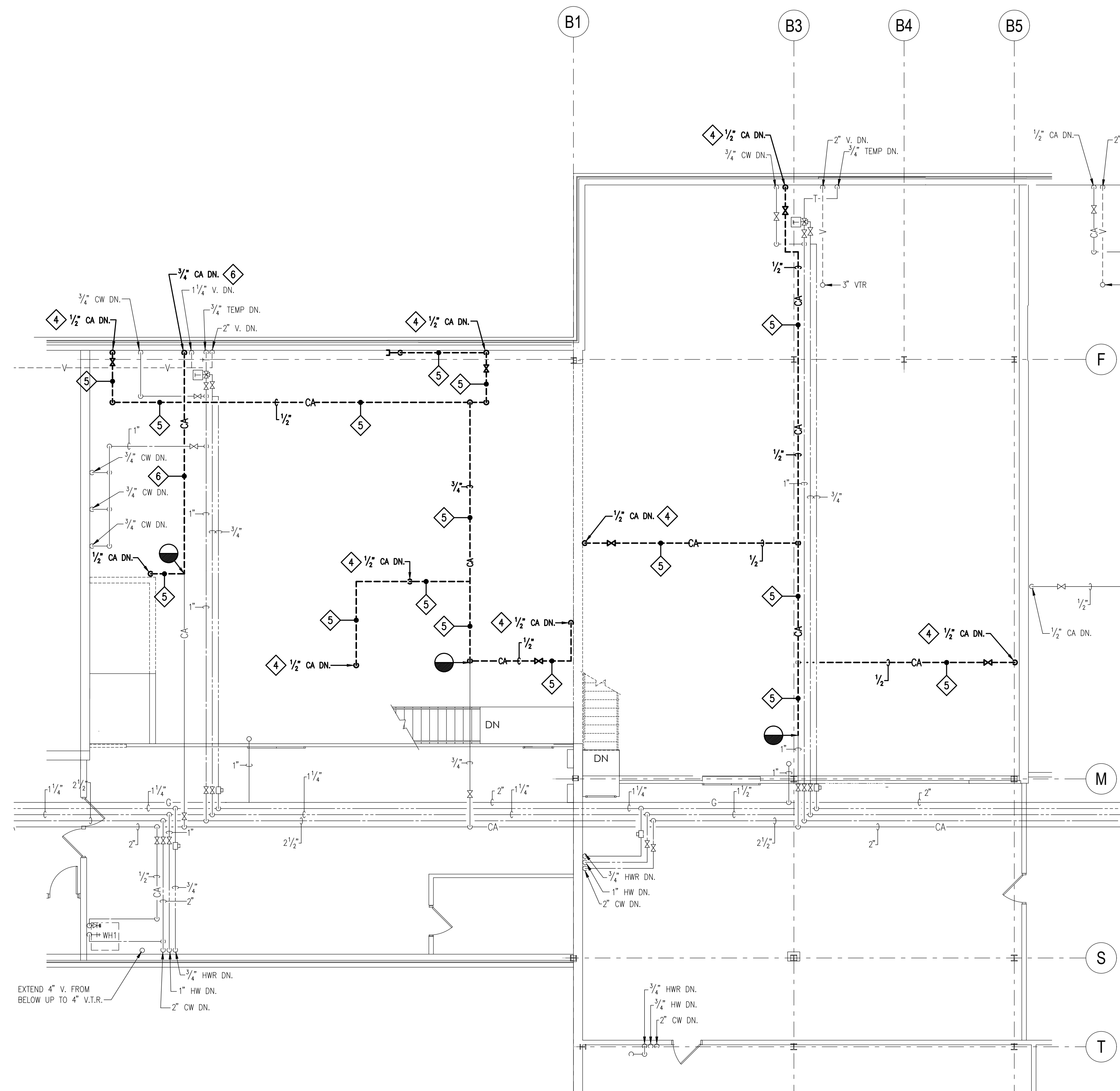
WELDING BUILDING
SHEET TITLE:
SITE PLAN PLUMBING

P-100



FLOOR PLAN - PLUMBING DEMOLITION

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

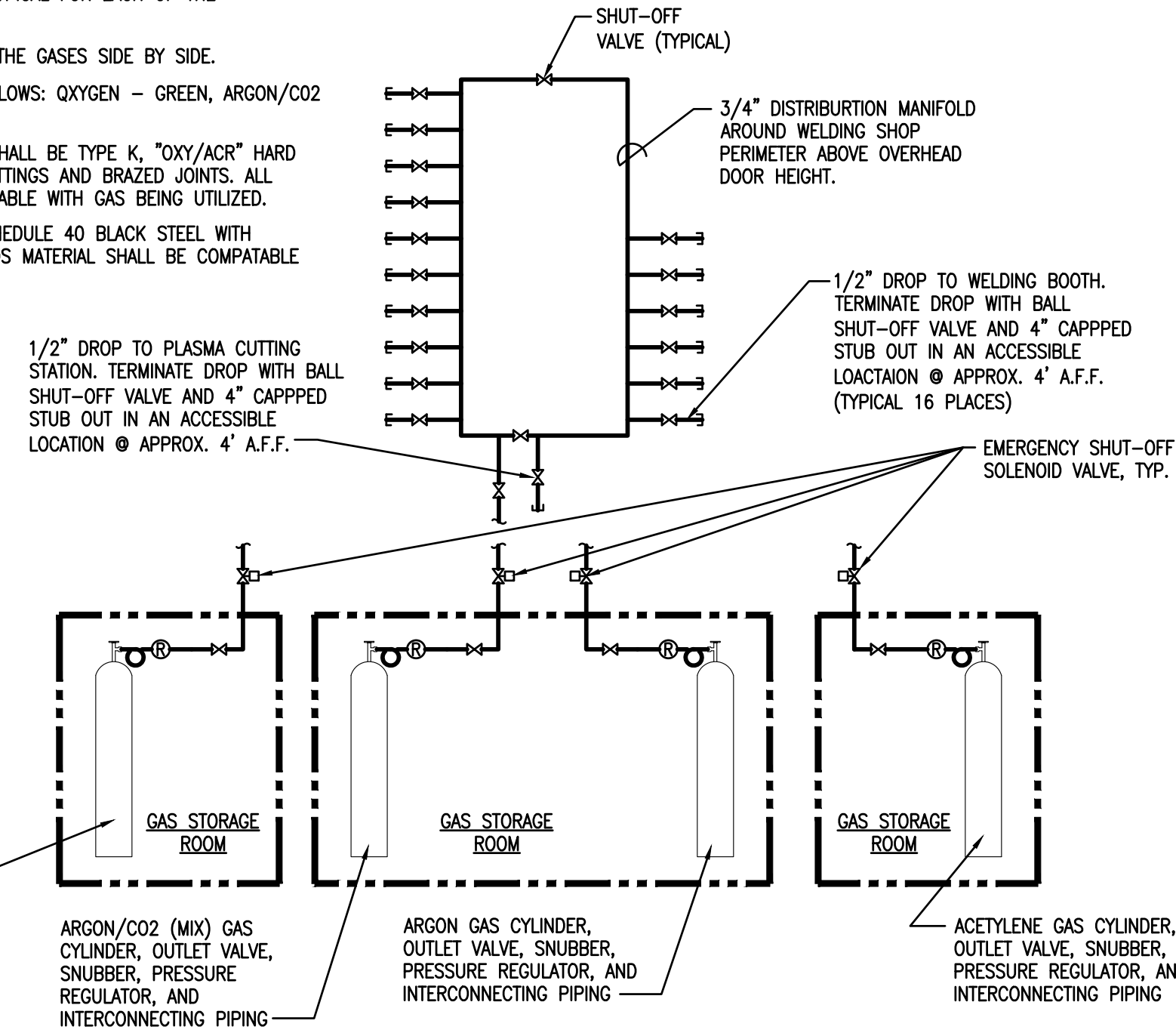


MEZZANINE PLAN - PLUMBING DEMOLITION

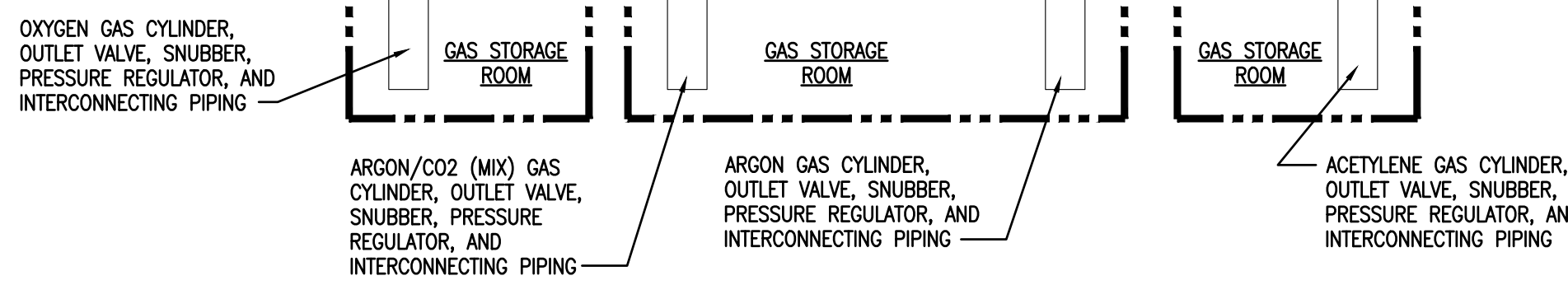
SCALE: 1/8" = 1'-0"

NOTES:

1. DISTRIBUTION MANIFOLD SHOWN IS TYPICAL FOR EACH OF THE THREE WELDING GASES PROVIDED.
2. LOCATE DROP VALVES FOR EACH OF THE GASES SIDE BY SIDE.
3. COLOR CODE VALVE HANDLES AS FOLLOWS: OXYGEN - GREEN, ARGON/CO2 - CYAN, AND ACETYLENE - ORANGE.
4. ALL OXYGEN & ARGON/CO2 PIPING SHALL BE TYPE K, "OXY/ARG" HARD COPY TUBING WITH WROUGHT COPPER FITTINGS AND BRASZED JOINTS. ALL JOINT FILLER MATERIAL SHALL BE COMPATIBLE WITH GAS BEING UTILIZED.
5. ALL ACETYLENE PIPING SHALL BE SCHEDULE 40 BLACK STEEL, WITH THREADED FITTINGS. ALL JOINT COMPOUNDS MATERIAL SHALL BE COMPATIBLE WITH GAS BEING UTILIZED.



REMOVE ALL EXISTING WELDING GAS SYSTEM PIPING MAINS AND ASSOCIATED BRANCH LINE DROPS DOWN TO EACH WORKSTATION, STAND ALONE EQUIPMENT AND GAS BOTTLE STORAGE ROOMS INCLUDING ALL ASSOCIATED PIPING, VALVES, SNUBBERS, PRESSURE REGULATORS, HANGERS AND SUPPORTS IN THEIR ENTIRETY.



KEYED DRAWING NOTES:

1. REMOVE EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED ACCESSIBLE DOMESTIC WATER, VENT AND SANITARY PIPING, INSULATION, VALVES, HANGERS AND SUPPORTS IN THEIR ENTIRETY BACK TO POINTS INDICATED AND CAP. CAP ALL INACCESSIBLE DOMESTIC WATER AND SANITARY PIPING CONCEALED WITHIN WALL OR BELOW FINISHED FLOOR.
2. REMOVE EXISTING HOSE BIB AND ALL ASSOCIATED DOMESTIC WATER PIPING, INSULATION, VALVES, HANGERS AND SUPPORTS. REMOVE DOMESTIC WATER PIPING BACK TO MAIN OR NEXT ACTIVE BRANCH LINE AND CAP.
3. REMOVE EXISTING EMERGENCY EYE WASH STATION AND ALL ASSOCIATED ACCESSIBLE DOMESTIC WATER, VENT AND SANITARY PIPING, INSULATION, VALVES, THERMOSTATIC MIXING VALVE, HANGERS AND SUPPORTS IN THEIR ENTIRETY. CAP ALL INACCESSIBLE DOMESTIC WATER AND SANITARY PIPING CONCEALED WITHIN WALL OR BELOW FINISHED FLOOR.
4. REMOVE EXISTING COMPRESSED AIR DROP AND ALL ASSOCIATED COMPRESSED AIR PIPING, COULERS, VALVES, HANGERS AND SUPPORTS IN THEIR ENTIRE BACK TO POINT INDICATED.
5. REMOVE EXISTING COMPRESSED AIR PIPING AND ALL ASSOCIATED VALVES, HANGERS AND SUPPORTS IN THEIR ENTIRETY BACK TO POINT INDICATED AND CAP.
6. REMOVED EXISTING COMPRESSED AIR PIPING FROM EXISTING WELDING SMOKE COLLECTOR AND ALL ASSOCIATED MOISTURE TRAPS, FILTERS, AIR PRESSURE REGULATORS, VALVES, HANGERS AND SUPPORTS IN THEIR ENTIRETY BACK TO POINT INDICATED AND CAP.
7. SALVAGE EXISTING WATER COOLER WITH BOTTLE FILLER FOR REUSE.
8. EXISTING EMERGENCY EYE WASH AND ALL ASSOCIATED PIPING TO REMAIN.
9. EXISTING HOSE BIB AND ALL ASSOCIATED PIPING TO REMAIN.
10. REMOVE EXISTING INDIRECT WASTE RECEPTOR, TRAP PRIMER AND ALL ASSOCIATED PIPING, INSULATION, HANGERS AND SUPPORTS IN THEIR ENTIRETY, CAP BOTH AT MAIN.

GENERAL DEMOLITION NOTES:

1. REFER TO DRAWING P-201 FOR PLUMBING GENERAL PROJECT NOTES.
2. THE PLUMBING CONTRACTOR SHALL COORDINATE THE SALVAGE AND DISPOSAL OF ALL EQUIPMENT AND MATERIAL WITH THE OWNER. THE PLUMBING CONTRACTOR SHALL RETURN TO THE OWNER ANY ITEMS NOTED OR NOT NOTED, ON THE DRAWINGS, AT THE OWNER'S REQUEST. ALL REMAINING EQUIPMENT AND MATERIAL SHALL BE DISPOSED OF BY THE PLUMBING CONTRACTOR.
3. THE PLUMBING CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AS REQUIRED TO ACCOMMODATE PROJECT PHASING.
4. REFER TO PROJECT PHASING DRAWING(S) AND SCHEDULE. PROVIDE ALL LABOR AND MATERIAL NECESSARY TO ACCOMMODATE PROJECT PHASING.
5. ALL PATCHING & REPAIRING OF SURFACES AND HOLES LEFT OPEN DUE TO DEMOLITION OR REMOVAL OF EXISTING PIPING & EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. PATCH EXISTING CONSTRUCTION AS REQUIRED TO MATCH ADJACENT SURFACES OR TO RECEIVE NEW FINISHES AS SCHEDULED UNLESS OTHERWISE INDICATED ON THE ARCHITECTURAL DRAWING.
6. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, EXCAVATION AND BACKFILLING REQUIRED TO COMPLETE ALL IDENTIFIED WORK.
7. ALL EXISTING PIPING AND EQUIPMENT SHOWN MUST BE VERIFIED IN THE FIELD. ANY PLUMBING EQUIPMENT NOT SHOWN SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO REMOVAL.
8. ALL SALVAGED EQUIPMENT MUST BE STORED BY THE CONTRACTOR IN A WEATHER TIGHT AND HEATED ENCLOSURE. CAP ALL FITTINGS AND/OR EQUIPMENT OPENINGS TO PREVENT DEBRIS FROM ENTERING THE DEVICE WHILE IN STORAGE.
9. PLUMBING CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ALL EXISTING CEILING SYSTEMS THAT ARE NOT NOTED TO BE REMOVED BY THE G.C. ON THE ARCHITECTURAL DRAWINGS, IN ALL AREAS WHERE REQUIRED PLUMBING WORK IS INDICATED.
10. PLUMBING CONTRACTOR SHALL PROVIDE GROUND PENETRATING RADAR TO LOCATE EXISTING UNDER-SLAB UTILITIES PRIOR TO SAW CUTTING AND EXCAVATION FOR NEW UNDER FLOOR UTILITIES. PLUMBING CONTRACTOR WILL BE FINANCIALLY RESPONSIBLE TO REPAIR OR REPLACE ANY UTILITY LINES INADVERTENTLY DAMAGED DUE TO IMPROPER IDENTIFICATION.

THE DEMOLITION WORK INDICATED IS INTENDED TO ASSIST THE CONTRACTOR AND GIVE GENERAL INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO VISIT THE PROJECT SITE PRIOR TO BIDDING TO FULLY ACQUAINT HIMSELF WITH THE EXTENT OF ALL DEMOLITION WORK WHICH IS NECESSARY TO COMPLETE THE ALTERATIONS AND NEW CONSTRUCTION AS DESCRIBED IN THE CONTRACT DOCUMENTS. ALL DEMOLITION WORK REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE WHETHER INDICATED ON THE DRAWING OR NOT. THE CONTRACTOR WILL NOT BE ENTITLED TO ANY CLAIMS FOR ADDITIONAL COMPENSATION RELATED TO REQUIRED DEMOLITION.

DRAWING NOTES:

1. REFER TO DRAWING P-201 FOR PLUMBING GENERAL PROJECT NOTES.
2. PROVIDE REQUIRED SERVICE CLEARANCE FOR ALL PLUMBING UNITS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF PLUMBING CEILING OUTLETS AND OTHER CEILING MOUNTED DEVICES. ANY CEILING REMOVAL REQUIRED FOR WORK TO BE COMPLETED UNDER THIS CONTRACT, THAT IS NOT INDICATED ON THE ARCHITECTURAL PLANS, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. CEILINGS REMOVED BY THIS CONTRACTOR SHALL BE REPLACE AND/OR REPAIRED BY HIM, AS PER SPECIFICATIONS.



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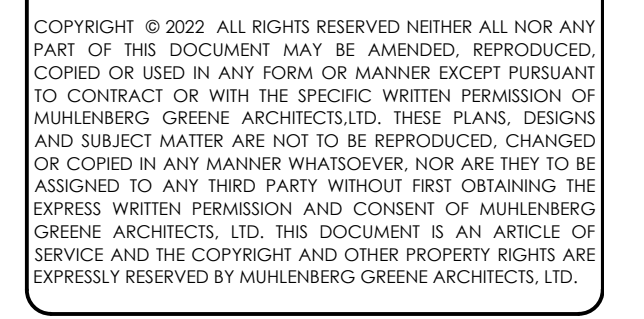
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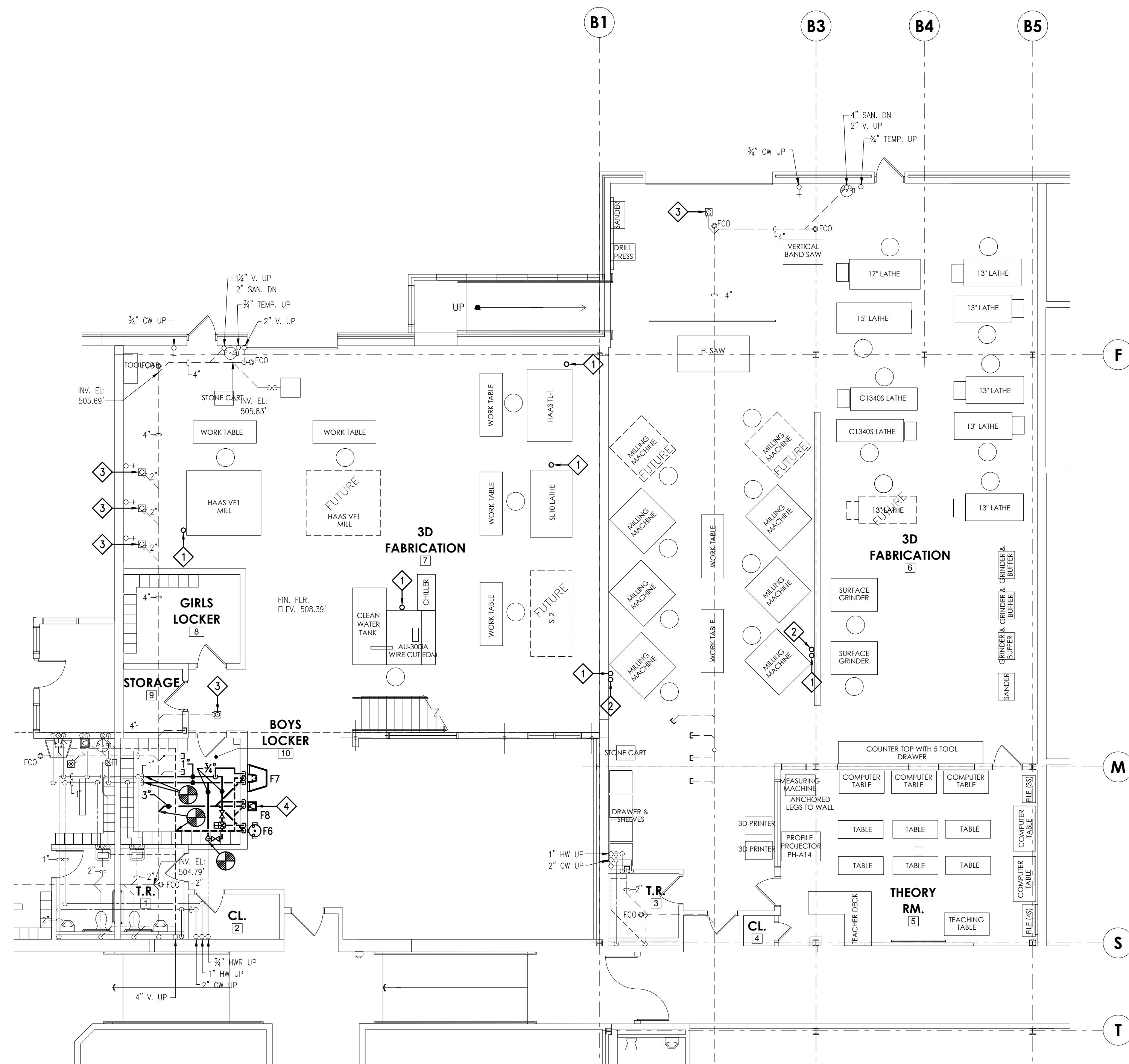


3D FABRICATION
SHEET TITLE:

FLOOR AND MEZZANINE PLANS
PLUMBING DEMO

P-102

EXISTING WELDING GAS DISTRIBUTION SYSTEM SCHEMATIC
NO SCALE



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

THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ELECTRICAL PANEL LOCATIONS (INSIDE ELECTRICAL AND OUTSIDE ELECTRICAL ROOMS) WITH PIPING LAYOUTS PRIOR TO PIPING INSTALLATION. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL N.E.C. (NATIONAL ELECTRIC CODE) CLEARANCES BEFORE INSTALLING ANY PIPING. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS RESULTING IN REWORKING (REMOVING AND REINSTALLING) PIPING INSTALLED IN CONFLICT WITH ELECTRICAL PANELS/EQUIPMENT CLEARANCES.

DRAWING NOTES:

- REFER TO DRAWING P-201 FOR PLUMBING GENERAL PROJECT NOTES.
- PROVIDE REQUIRED SERVICE CLEARANCE FOR ALL PLUMBING UNITS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, EXCAVATION, BACKFILLING AND COMPACTION REQUIRED TO COMPLETE ALL INDICATED WORK.
- ALL EXISTING PIPING AND EQUIPMENT SHOWN MUST BE VERIFIED IN THE FIELD.
- THE PLUMBING CONTRACTOR SHALL PROVIDE GROUND PENETRATING RADAR TO LOCATE EXISTING UNDER-SLAB UTILITIES PRIOR TO SAW CUTTING AND EXCAVATION FOR NEW UNDER FLOOR UTILITIES. THE PLUMBING CONTRACTOR WILL BE FINANCIALLY RESPONSIBLE TO REPAIR OR REPLACE ANY UTILITY LINES INADVERTENTLY DAMAGED DUE TO IMPROPER IDENTIFICATION.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL 18" x 18" ACCESS PANELS WITH PLASTER FRAME IN ALL GYPSUM BOARD CEILINGS AT ALL NEW AND EXISTING ISOLATION VALVE LOCATIONS.

KEYED DRAWING NOTES:

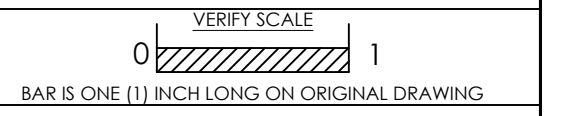
- ◇ EXTEND 3/8" FLEXIBLE EPDM RUBBER COMPRESSED AIR HOSE DOWN TO SHOP EQUIPMENT AND MAKE FINAL EQUIPMENT CONNECTION.
- ◇ EXTEND 1/2" COMPRESSED AIR LINE DOWN TO LOW WALL AND TERMINATE QUICK DISCONNECT COUPLER, 4" BELOW TO TOP OF WALL.
- ◇ PROVIDE PRO-SET TRAP SEAL IN EXISTING DRAIN INLET.
- ◇ REINSTALL SALVAGED WATER COOLER WITH BOTTLER FILLER IN THIS LOCATION. PROVIDE A CHROME PLATED BRASS TAIL PIECE, TRAP ASSEMBLY AND ANGLE STOP VALVE WITH SUPPLY LINE.

CONSTRUCTION

DATE: 07/08/2022

REV. ID.	DESCRIPTION	DATE

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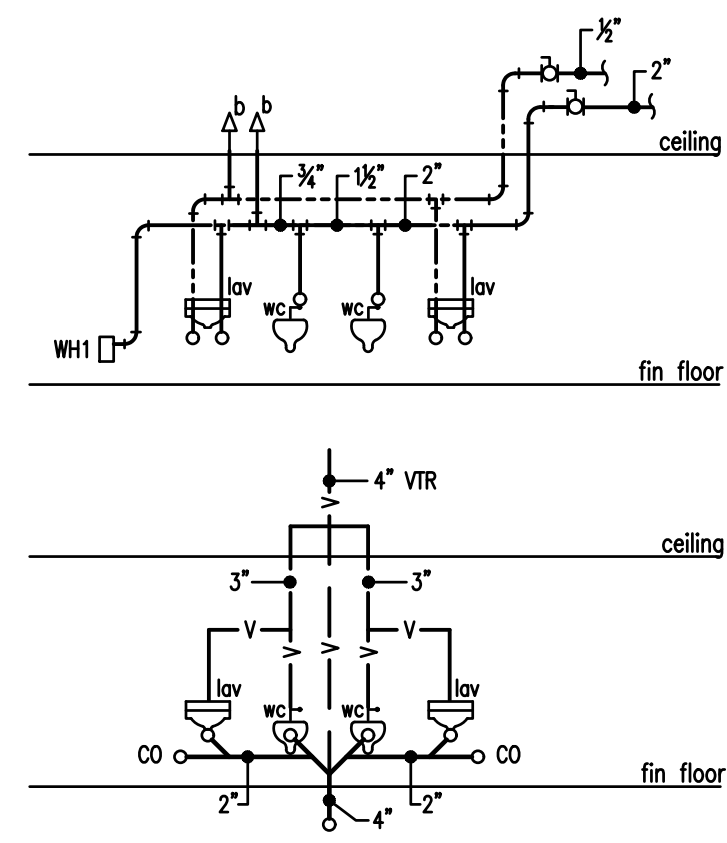


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3D FABRICATION
SHEET TITLE:

FLOOR PLAN
PLUMBING

P-103



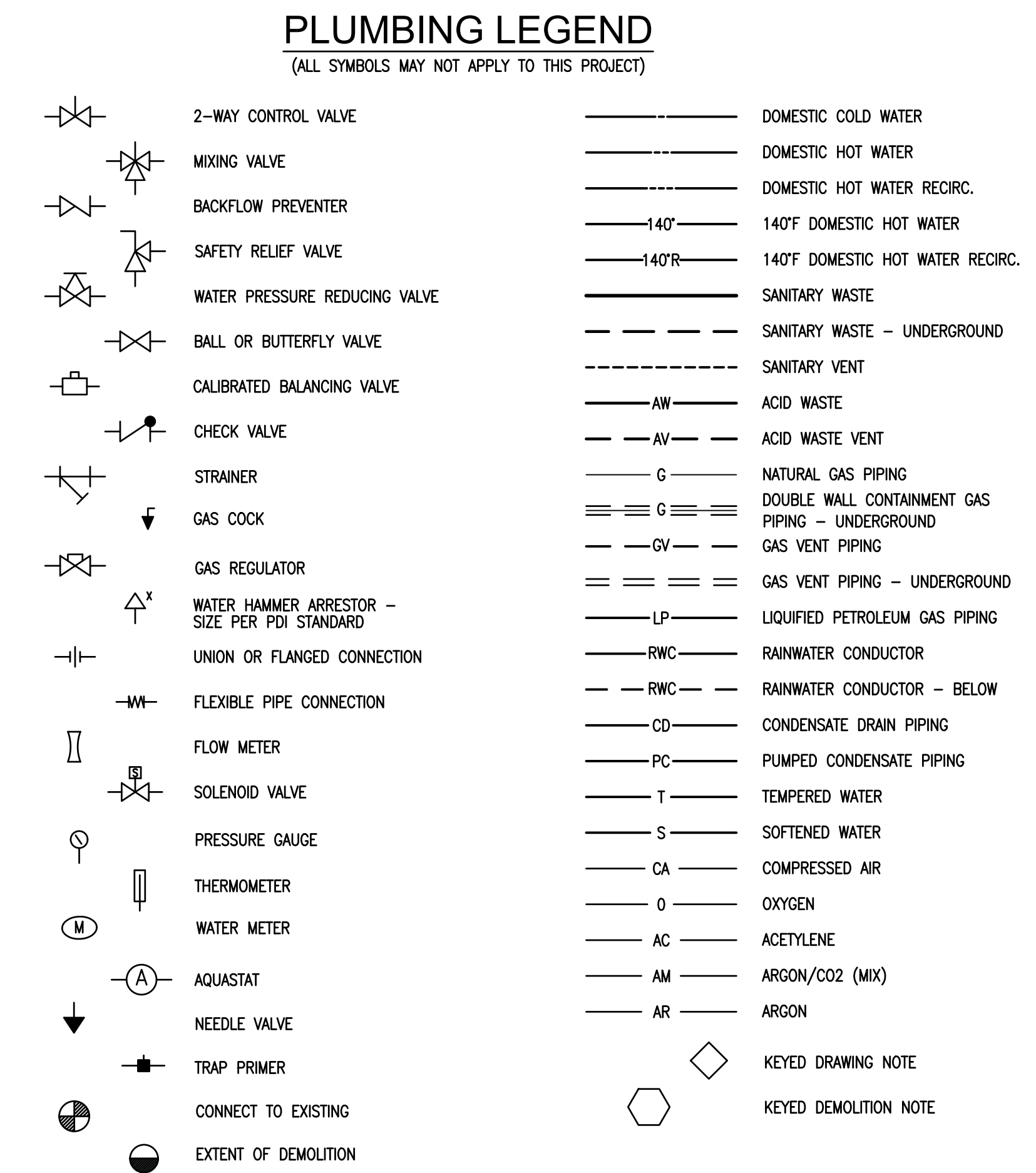
SCHEMATIC DIAGRAMS 1
NO SCALE

PLUMBING FIXTURE SCHEDULE										
SYMBOL	FIXTURE	C.W.	H.W.	TEMPERED	SAN.	VENT	TRAP	MOUNTING	RIM HEIGHT	REMARKS
F1	WATER CLOSET - (ADA)	1"	-	-	4"	2"	-	WALL	17"	-
F2	LAVATORY - (ADA)	1/2"	1/2"	-	1-1/2"	1-1/4"	1-1/4" x 1-1/2"	WALL	34"	-
F3	WATER COOLER - SPLIT LEVEL	1/2"	-	-	1-1/2"	1-1/4"	1-1/4" x 1-1/2"	WALL	32/ 34"	-
F4	MOP RECEPTOR	3/4"	3/4"	-	3"	2"	3"	FLOOR	12"	-
F5	SERVICE SINK	3/4"	3/4"	-	3"	2"	3"	WALL	26"	-
F6	EMERGENCY EYEWASH STATION	1/2"	1/2"	1/2"	1-1/2"	1-1/4"	1-1/4" x 1-1/2"	WALL	42"	-
F7	WASHFOUNTAIN	1/2"	1/2"	-	1-1/2"	1-1/4"	1-1/4" x 1-1/2"	WALL	34"	-
F8	(EXISTING) WATER COOLER	1/2"	-	-	1-1/2"	1-1/4"	1-1/4" x 1-1/2"	WALL	34"	-
HB1	HOSE BIB	1/2"	-	-	-	-	-	WALL	30"	-
WH1	NON-FREEZE WALL HYDRANT	1/2"	-	-	-	-	-	WALL	16"	INSTALL BOTTOM OF WALL HYDRANT ON TOP OF BLOCK COURSE

NOTE: ALL SANITARY PIPING LOCATED BELOW GRADE SHALL BE MINIMUM 2" DIAMETER

DOMESTIC WATER HEATER SCHEDULE												
SYMBOL	TANK VOLUME GALLONS	RECOVERY CAPACITY		ELECTRICAL			MODEL NO.	DIMENSIONS			REMARKS	
		GPH	TEMP. RISE	NO. OF ELEMENTS	WATTS PER ELEMENT	SIMULTANEOUS ELEMENT OPERATION		VOLTAGE	HGT (IN)	L (IN)		W (IN)
DWH-1	40	23	80°	2	4500	YES	460/3/60	40	59	23	21	

PUMP SCHEDULE									
SYMBOL	G.P.M.	HEAD	PUMP MOTOR			TYPE	MODEL	MANUF.	REMARKS
			H.P.	R.P.M.	ELECTRIC				
CP-1	3	18'	1/8	3300	120-1-60	IN-LINE	PL-36	BELL & GOSSETT	PROVIDE PUMP IN LEAD FREE BRONZE



ABBREVIATIONS

ABV APPROX	ABOVE APPROXIMATELY ARCHITECTURAL	FCO FLOOR CLEAN OUT
AVTR ACID VENT THRU ROOF	ACID VENT THRU ROOF	FD FLOOR DRAIN
BLW BELOW	BELOW	FLR FLOOR
BLDG BUILDING	BUILDING	GC GENERAL CONTRACTOR
CD CONDENSATE DRAIN	CONDENSATE DRAIN	HW HOT WATER
CLG CLEAN OUT	CLEAN OUT	HC HEATING CONTRACTOR
CO CLEAN OUT	CLEAN OUT	INV INVERT
COND CONDENSATE	CONDENSATE	LAV LAVATORY
CONN CONNECT	CONNECT	MH MAN HOLE
CW COLD WATER	COLD WATER	PC PLUMBING CONTRACTOR
DN DOWN	DOWN	REQD REQUIRED
DWG DRAWING	DRAWING	RWC RAIN WATER CONDUCTOR
EC ELECTRICAL CONTRACTOR	ELECTRICAL CONTRACTOR	SH SANITARY SHOWER
EL ELEVATION	ELEVATION	SH SANITARY SHOWER
EQUIP EQUIPMENT	EQUIPMENT	TYP TYPICAL
EXIST EXISTING	EXISTING	URN URINAL
EXP EXPANSION	EXPANSION	V VENT
		VTR VENT THRU ROOF
		WC WATER CLOSET
		WCO WALL CLEAN OUT

GENERAL PROJECT NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING SECTIONS. USE INFORMATION RELATING TO CEILING HEIGHTS, FLOOR TO FLOOR ELEVATIONS, ETC. TO DETERMINE PIPE RISER QUANTITIES AND TO VERIFY ROOMING OF SAME.
- PLUMBING CONTRACTOR IS REQUIRED TO COORDINATE ALL PLUMBING WORK WITH THE WORK OF ALL OTHER TRADES TO ENSURE CORRECT AND QUALITY INSTALLATIONS.
- THE PLUMBING CONTRACTOR SHALL COORDINATE ALL WORK ABOVE THE CEILING WITH THE ELECTRICAL, HVAC, AND GENERAL CONTRACTORS TO INSURE THE SCHEDULED CEILING HEIGHTS CAN BE MAINTAINED.
- ALL LOW VOLTAGE WIRING (UNDER 120V) REQUIRED FOR PLUMBING EQUIPMENT SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS UNLESS OTHERWISE NOTED.

FLOOR DRAINS:

FLOOR DRAIN TYPE DESIGNATIONS AND SIZES ARE INDICATED ON DRAWINGS.

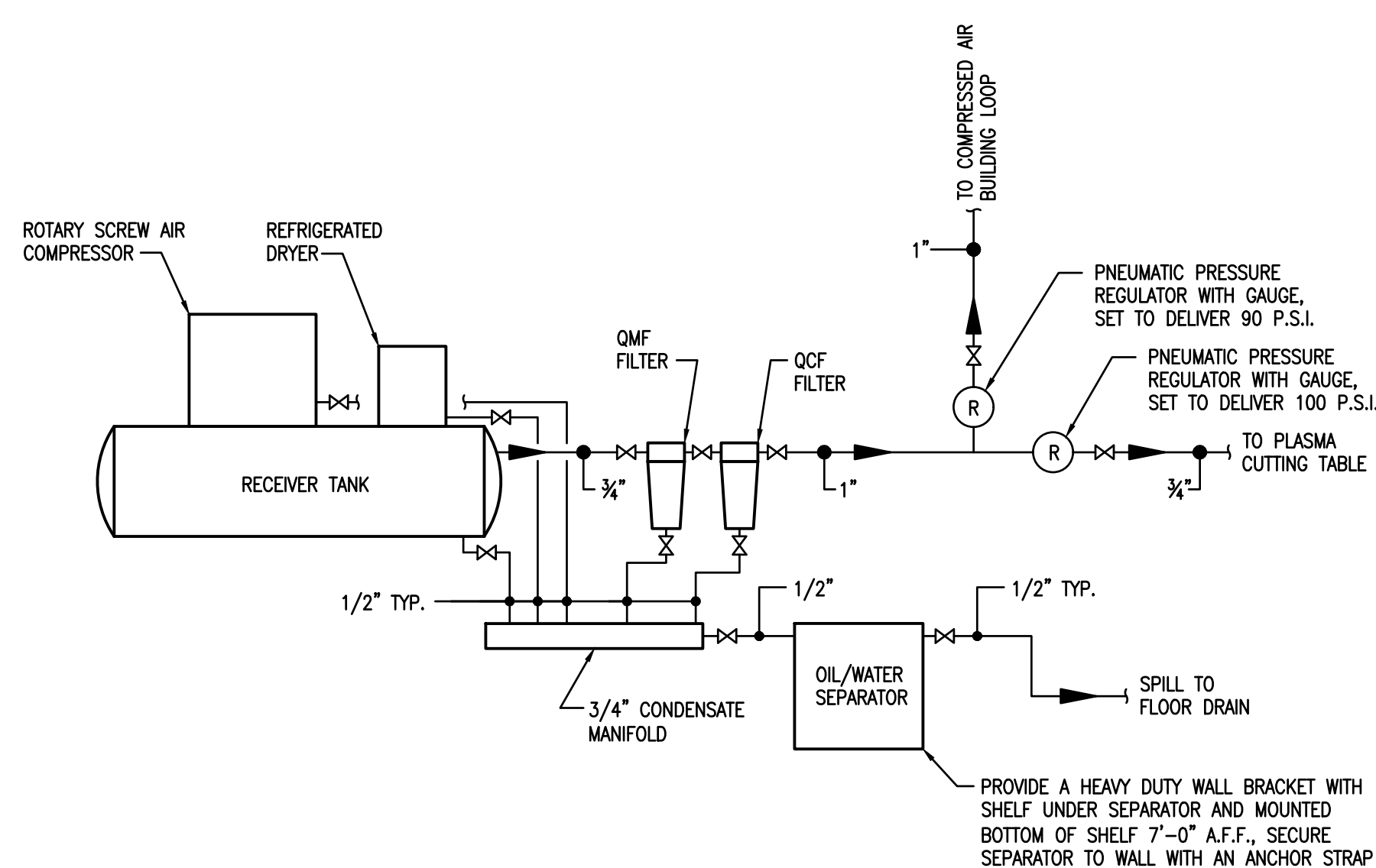
- FD1: CAST-IRON BODY, FLASHING COLLAR, NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED GRATE AND BOTTOM OUTLET. J.R. SMITH MODEL 2005-A OR 2005-B. VERIFY GRATE TYPE WITH FLOOR TYPES FOR EACH LOCATION. USE TYPE A FOR SEAMLESS AREAS AND TYPE B FOR TILED AREAS. PROVIDE PRO-SET TRAP SEAL IN DRAIN INLET.
- FD2: CAST-IRON BODY AND FLASHING COLLAR WITH ADJUSTABLE TOP AND TRACTOR GRATE, SEDIMENT BUCKET AND BOTTOM OUTLET. J.R. SMITH MODEL 2230. PROVIDE PRO-SET TRAP SEAL IN DRAIN INLET.

ROOF DRAINS:

ROOF DRAINS ARE PROVIDED BY OTHERS. P.C. IS RESPONSIBLE TO CONNECT TO DRAIN OUTLET(S) AND PROVIDE ALL INDICATED RAIN WATER CONDUCTOR PIPING.

EQUIPMENT LIST:

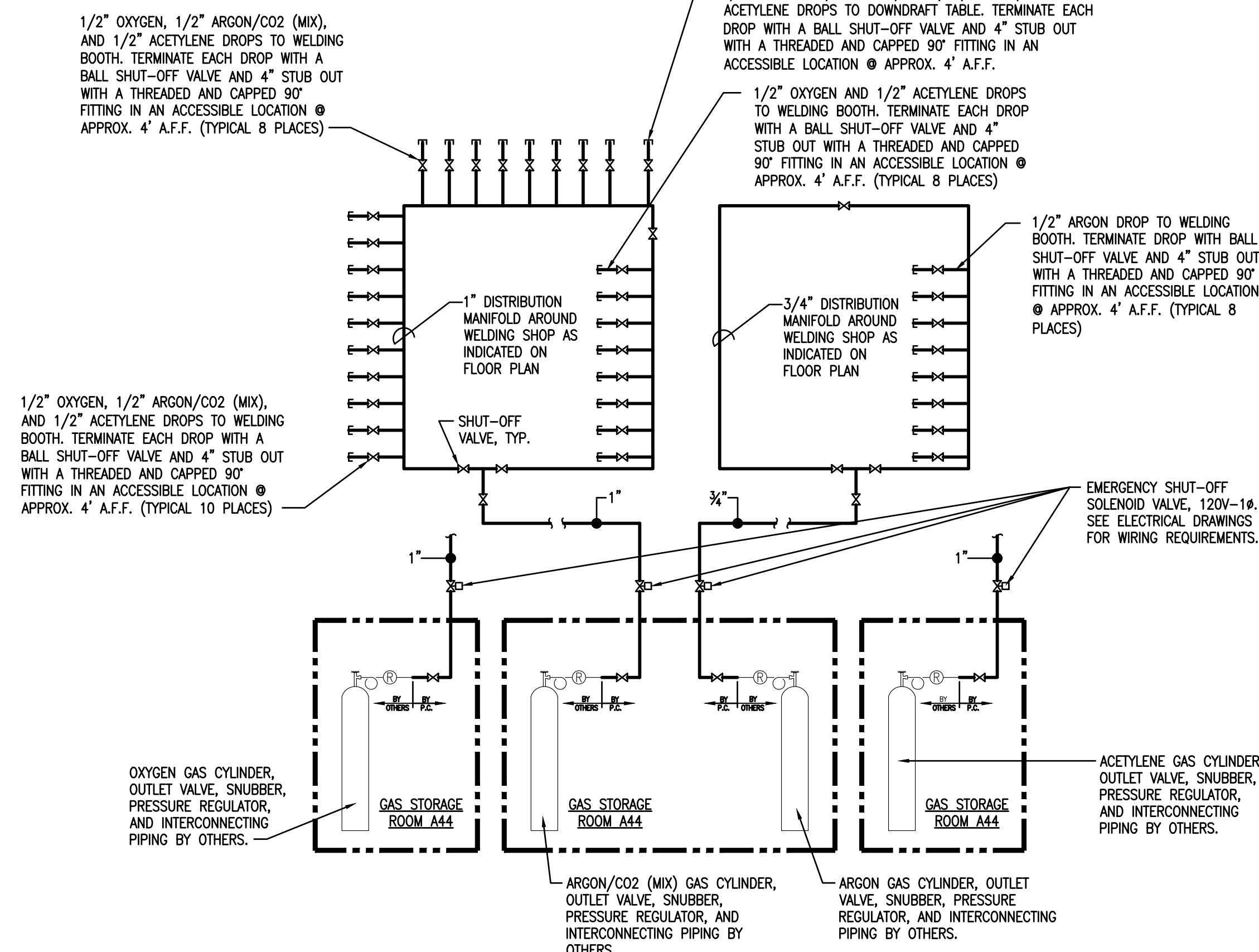
- AIR COMPRESSOR - ROTARY SCREW, 15 HP, FLA 20 AMPS, 460-3-60, CAPABLE OF DELIVERING 55.9 CFM @ 125 PSIG, COMPRESSED AIR OUTLET SIZE 3/4" (BW), 1/2" (TM) INCH FNPT, CONDENSATE DRAIN OUTLET SIZE (TM) 3/8" FNPT, 69 dB(A) SOUND LEVEL, FULL VOLTAGE MOTOR STARTING, TEFZ HIGH EFFICIENCY DRIVE MOTOR, 8,000-10,000 HOUR QUINSYN-PLUS FLUID, TRUE BLUE 5 YEAR WARRANTY, INFOLOGIC2 BASIC CONTROLLER, LOW SOUND ENCLOSURE (69 dbA), 120 GALLON RECEIVER TANK WITH INTEGRATED REFRIGERATED DRYER, FLA 5.9 AMPS, 120-1-60, "QUINCY" MODEL QGS-15.
- MIRCONIC COALESCE COMPRESSED AIR FILTER - RATED FOR 85 CFM @ 100 PSIG, MAX. PRESSURE 232 PSIG, 3/4" NPT IN/OUT CONNECTION, FLOAT STYLE AUTOMATIC DRAIN, POP-UP DIFFERENTIAL PRESSURE INDICATOR, DIE CAST ALUMINUM HOUSING, ISO QUALITY, FILTER RATING 1.0 MICRON, 0.3 PPM, 8000 HOURS. DOP RATED AT 99.999% EFFICIENT DOWN TO 1 MICRON, LOW 0.8 PSI PRESSURE LOSS, "QUINCY" MODEL QMF 85.
- POLISHING COALESCE COMPRESSED AIR FILTER - RATED FOR 85 CFM @ 100 PSIG, MAX. PRESSURE 232 PSIG, 3/4" NPT IN/OUT CONNECTION, FLOAT STYLE AUTOMATIC DRAIN, POP-UP DIFFERENTIAL PRESSURE INDICATOR, DIE CAST ALUMINUM HOUSING, ISO QUALITY, FILTER RATING 0.01 MICRON, 0.01 PPM, 8000 HOURS. DOP RATED AT 99.999% EFFICIENT DOWN TO 0.01 MICRON, LOW 1.2 PSI PRESSURE LOSS, "QUINCY" MODEL QCF 85.
- OIL WATER SEPARATOR - RATED FOR 106 CFM @ 100 PSIG WITH 232 PSI OF MAXIMUM PRESSURE. CONDENSATE INLET (2) @ 1/2" WATER OUTLET (1) @ 1/2" TO PPM OUTLET OIL CONTENT, 2 STAGE OIL SEPARATION, DUAL SERVICE INDICATORS, EASY CHANGE CARTRIDGES, "QUINCY" MODEL QOCS-106.



NOTE: CONDENSATE MANIFOLD BUILT BY PLUMBING CONTRACTOR. ALL CONDENSATE DRAIN LINES CONNECT TO THIS MANIFOLD

AIR COMPRESSOR SYSTEM SCHEMATIC

NO SCALE



- NOTES:
- DISTRIBUTION MANIFOLD SHOWN ON LEFT SIDE OF SCHEMATIC DIAGRAM IS TYPICAL FOR OXYGEN, ARGON/CO2 (MIX) AND ACETYLENE PIPING.
 - LOCATE PIPING DROPS AND ASSOCIATED VALVES FOR EACH OF THE GASES SIDE BY SIDE.
 - COLOR CODE VALVE HANDLES AS FOLLOWS: OXYGEN - GREEN, ARGON/CO2 (MIX) - CYAN, AND ACETYLENE - ORANGE.
 - ALL OXYGEN, ARGON AND ARGON/CO2 (MIX) PIPING SHALL BE TYPE K, HARD COPPER TUBING WITH WROUGHT COPPER FITTINGS AND BRAZED JOINTS. ALL JOINT FILLER MATERIAL SHALL BE COMPATIBLE WITH GAS BEING UTILIZED.
 - ALL ACETYLENE PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED FITTINGS. ALL JOINT COMPOUNDS MATERIAL SHALL BE COMPATIBLE WITH GAS BEING UTILIZED.

WELDING GAS DISTRIBUTION SYSTEM SCHEMATIC

NO SCALE



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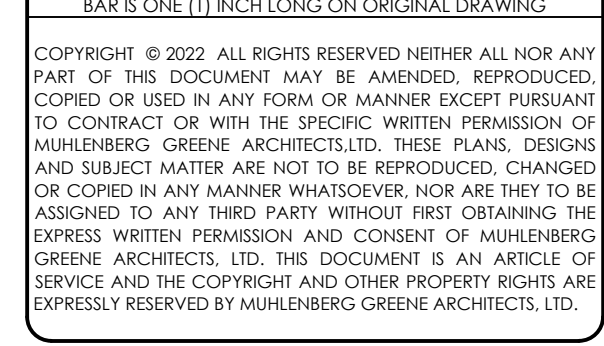
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CONSTRUCTION
DATE: 07/08/2022

REV	DESCRIPTION	DATE

PROJ. MGR.: Adam Moser
P.M. e-MAIL: AdamM@cemec.com
DRAWN BY: RLC
CLIENT PROJ #:



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SHEET TITLE:
PLUMBING LEGEND, SCHEDULES AND DETAILS - SHEET 1

CONSTRUCTION		
REV. ID.	DESCRIPTION	DATE
		DATE: 07/08/2022
1	ADDENDUM ITEMS	07/08/22

PROJ. MGR.:	Adam Moser
P.M. e-MAIL:	AdamM@cemec.com
DRAWN BY:	RLC
CLIENT PROJ #:	-

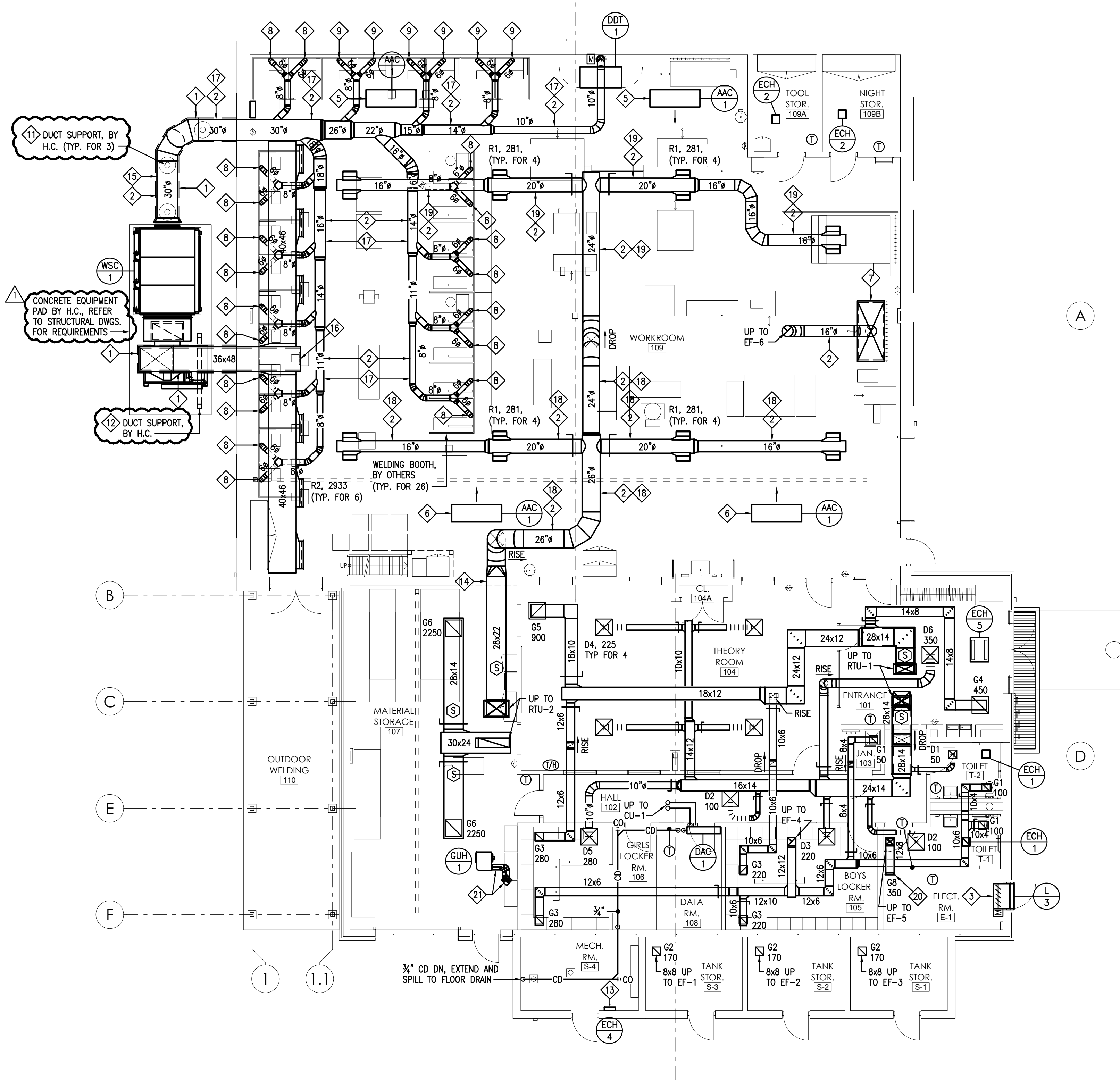
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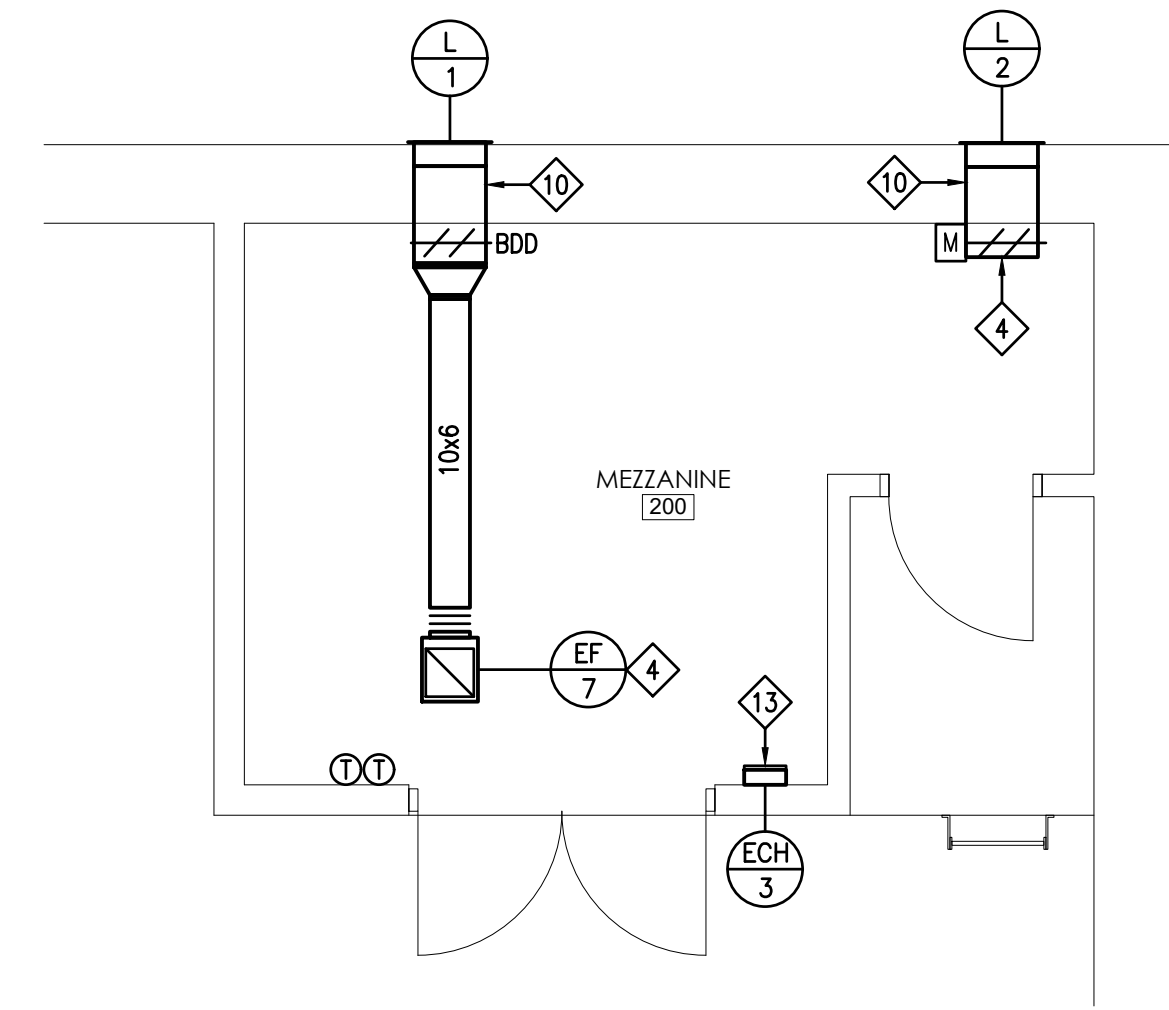
WELDING BUILDING

SHEET TITLE:
FLOOR AND MEZZANINE PLANS HVAC

H-101



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



MEZZANINE PLAN - HVAC
 SCALE: 1/4" = 1'-0"

EQUIPMENT SCHEDULES:

- MAC 1 AMBIENT AIR CLEANER, INDUSTRIAL MAID, MODEL T-3500, 3500 CFM @ 1" W.C., 2 HP, 460-3-60, 2.9 FLA., UNIT TO INCLUDE DELTA VFD WITH ON/OFF BUTTONS, VFD DRIVE TO BE SHIPPED LOOSE FOR FIELD AND MOUNTING AND WIRING BY E.C., PROVIDE WITH 2 COMPLETE SETS OF SPARE FILTERS. REFER TO SPECIFICATION SECTION 233950 FOR ADDITIONAL REQUIREMENTS.
- WSC 1 WELDING SMOKE COLLECTOR, AIREX, MODEL PS-30, 17,600 CFM @ 14" T.S.P., 60 HP BLOWER, 460-3-60, REFER TO SPECIFICATION SECTION 233920 FOR ADDITIONAL REQUIREMENTS.
- DDT 1 DOWNDRAFT TABLE, 60" WIDE x 30" DEEP WITH HINGED SIDE PANELS AND A 10" DIAMETER EXHAUST OUTLET CONNECTION WITH ELECTRO/PNEUMATIC DAMPER ASSEMBLY, REFER TO SPECIFICATION SECTION 233920 FOR ADDITIONAL REQUIREMENTS.

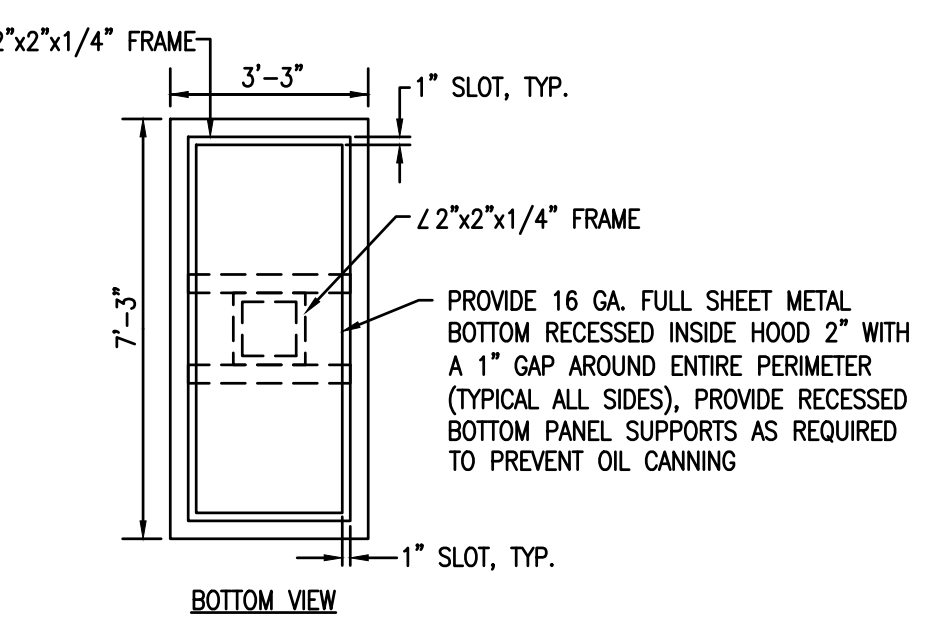
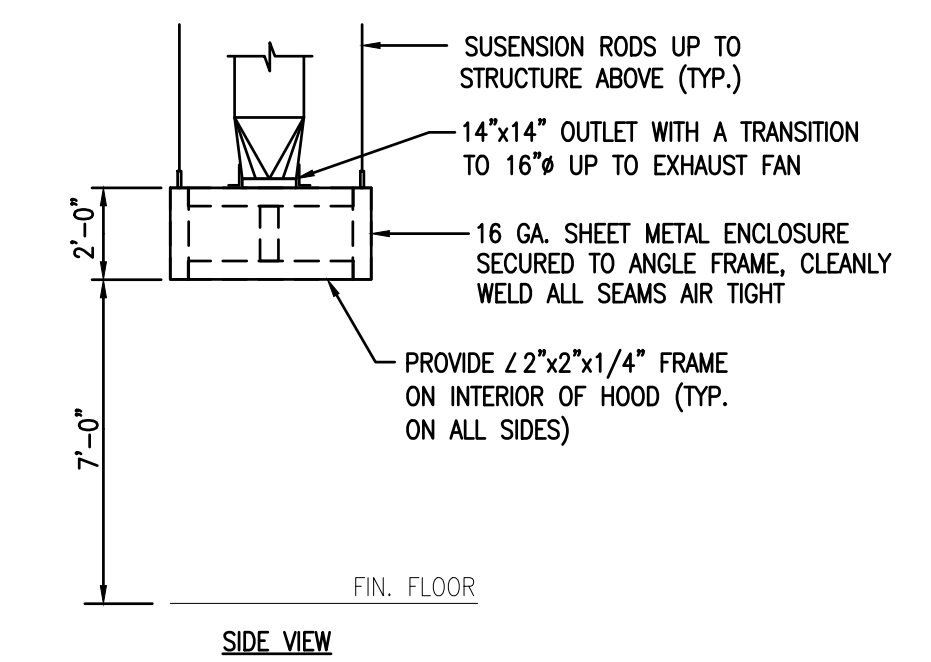
THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ELECTRICAL PANEL LOCATIONS (INSIDE ELECTRICAL AND OUTSIDE ELECTRICAL ROOMS) WITH PIPING AND DUCTWORK LAYOUTS PRIOR TO PIPING AND DUCTWORK INSTALLATION. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL N.E.C. (NATIONAL ELECTRIC CODE) CLEARANCES BEFORE INSTALLING ANY PIPING AND DUCTWORK. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS RESULTING TO REWORKING (REMOVING AND REINSTALLING) PIPING AND DUCTWORK INSTALLED IN CONFLICT WITH ELECTRICAL PANELS/EQUIPMENT CLEARANCES.

DRAWING NOTES:

1. REFER TO DRAWING H-501 FOR HVAC GENERAL PROJECT NOTES.
2. PROVIDE REQUIRED SERVICE CLEARANCE FOR ALL HVAC UNITS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF HVAC CEILING OUTLETS AND OTHER CEILING MOUNTED DEVICES. ANY CEILING REMOVAL REQUIRED FOR WORK TO BE COMPLETED UNDER THIS CONTRACT, THAT IS NOT INDICATED ON THE ARCHITECTURAL PLANS, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. CEILINGS REMOVED BY THIS CONTRACTOR SHALL BE REPLACE AND/OR REPAIRED BY HIM, AS PER SPECIFICATIONS.

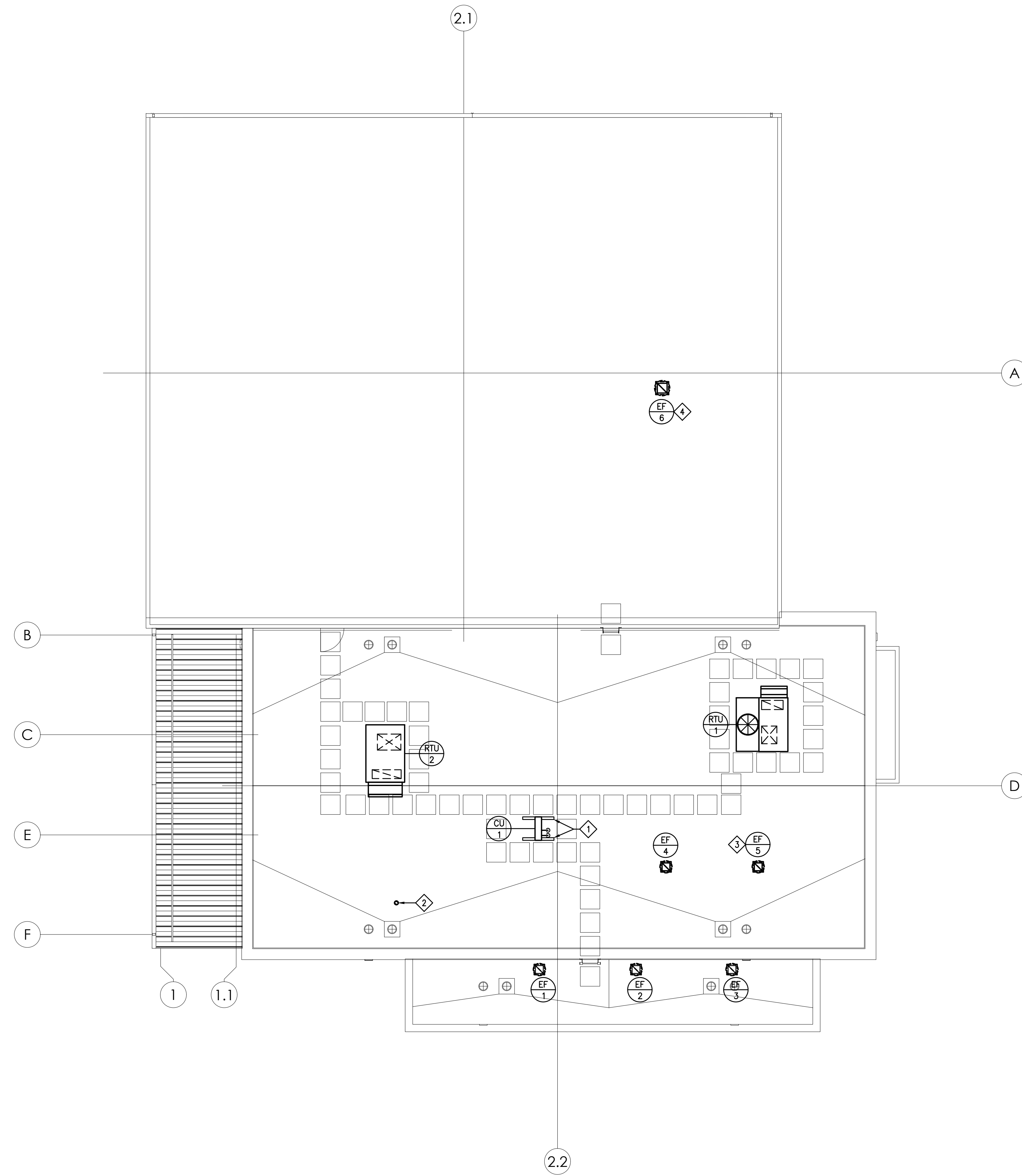
KEYED DRAWING NOTES:

- 1 PROVIDE EXTERIOR DUCT INSULATION SYSTEM AS SPECIFIED, REFER TO SPECIFICATION SECTION 230700 FOR REQUIREMENTS.
- 2 THIS DUCTWORK MAIN AND ASSOCIATED BRANCH DUCTWORK TO BE GALVANIZED STEEL SINGLE WALL SPIRAL.
- 3 PROVIDE FULL SIZE SHEET METAL WALL SLEEVE ON REAR OF LOUVER WITH MOD. INTERLOCK EF-5 TO OPEN MOTOR OPERATED DAMPER ON L-3 OUTSIDE AIR INTAKE LOUVER WHEN FAN ENERGIZES, DAMPER SHALL FULLY CLOSE WHEN FAN DE-ENERGIZES.
- 4 PROVIDE FULL SIZE SHEET METAL WALL SLEEVE ON REAR OF LOUVER WITH MOD. INTERLOCK EF-7 TO OPEN MOTOR OPERATED DAMPER ON L-2 OUTSIDE AIR INTAKE LOUVER WHEN FAN ENERGIZES, DAMPER SHALL FULLY CLOSE WHEN FAN DE-ENERGIZES.
- 5 PROVIDE ALL REQUIRES SUPPLEMENTAL STEEL AND SUPPORT RODS NEEDED TO HANG UNIT FROM OVERHEAD STRUCTURE, BOTTOM OF UNIT TO BE INSTALLED 12'-6" A.F.F..
- 6 PROVIDE ALL REQUIRES SUPPLEMENTAL STEEL AND SUPPORT RODS NEEDED TO HANG UNIT FROM OVERHEAD STRUCTURE, BOTTOM OF UNIT TO BE INSTALLED 14'-0" A.F.F..
- 7 PROVIDE EXHAUST HOOD, HOOD TO BE CONSTRUCTED AS INDICATED ON EXHAUST HOOD DETAIL SHOWN ON THIS SHEET. HOOD TO BE CENTERED OVERTOP TRACK FLAME CUTTING MACHINE. PROVIDE ALL REQUIRES SUPPLEMENTAL STEEL AND SUPPORT RODS NEEDED TO HANG HOOD FROM OVERHEAD STRUCTURE, BOTTOM OF HOOD TO BE INSTALLED 7'-0" A.F.F..
- 8 PROVIDE A 5 FOOT SOURCE CAPTURE FUME COLLECTION ARM WITH MOUNTING BRACKET, HENLX MODEL V6AS22NCCV10-WB, PROVIDE ALL REQUIRED SUPPLEMENTAL STEEL NEEDED TO MOUNT BOTTOM OF WALL BRACKET 7'-2" A.F.F., (TYP. FOR 20).
- 9 REINSTALL SALVAGED 5 FOOT SOURCE CAPTURE FUME COLLECTION ARM WITH MOUNTING BRACKET, PROVIDE ALL REQUIRED SUPPLEMENTAL STEEL NEEDED TO MOUNT BOTTOM OF WALL BRACKET 7'-2" A.F.F., (TYP. FOR 6).
- 10 INSTALL LOUVER AND ASSOCIATED DUCTWORK UP IN BETWEEN BAR JOIST AND TIGHT TO UNDERSIDE OF BOND BEAM.
- 11 CONCRETE PIER AND ASSOCIATED DUCT SUPPORT BY H.C. (REFER TO STRUCTURAL DWGS. FOR REQUIREMENTS), PROVIDE A FULL PERIMETER 10 GA. STAINLESS STEEL STRAP AROUND ROUND EXHAUST DUCTWORK AT EACH DUCT SUPPORT. PERIMETER STRAP MUST NOT PENETRATE INSULATION JACKET AND IT MUST BE PERMANENTLY SECURED TO MOUNTING POST.
- 12 DUCT SUPPORT BY H.C. (REFER TO STRUCTURAL DWGS. FOR REQUIREMENTS), PROVIDE A FULL PERIMETER UNISTRUT FRAME AROUND ALL SIDES OF RECTANGULAR DUCTWORK AT EACH DUCT SUPPORT. PERIMETER FRAME MUST NOT PENETRATE INSULATION JACKET AND IT MUST BE PERMANENTLY SECURED TO DUCT SUPPORT.
- 13 INSTALL BOTTOM OF ELECTRIC CABINET HEATER 8" A.F.F..
- 14 INSTALL TOP OF DUCT TIGHT TO UNDERSIDE OF BOND BEAM.
- 15 DROP DUCT ELEVATION AS REQUIRED TO ALIGN WITH WELDING SMOKE COLLECTOR INLET CONNECTION.
- 16 INSTALL BOTTOM OF SUPPLY DUCTWORK 12'-8" A.F.F..
- 17 INSTALL CENTERLINE OF EXHAUST DUCTWORK MAIN AND ASSOCIATED BRANCH DUCTWORK 11'-3" A.F.F., UNLESS OTHERWISE INDICATED.
- 18 INSTALL CENTERLINE OF SUPPLY DUCTWORK MAIN AND ASSOCIATED BRANCH DUCTWORK 17'-8" A.F.F..
- 19 INSTALL CENTERLINE OF SUPPLY DUCTWORK MAIN AND ASSOCIATED BRANCH DUCTWORK 14'-6" A.F.F..
- 20 INSTALL TOP OF EXHAUST GRILLE 8" BELOW ROOF DECK.
- 21 PROVIDE A CONCENTRIC VENT KIT WITH VERTICAL VENT TERMINAL/COMBUSTION AIR INLET ASSEMBLY, PROVIDE 4" COMBUSTION AIR INTAKE DUCT AND 4" EXHAUST VENT DUCT FROM UNIT HEATER TO CONCENTRIC ADAPTER BOX.



NOTE: H.C. TO DECREASE, PRIME AND PAINT WITH 2 COATED OF ENAMEL PAINT, ARCHITECT TO MAKE FINAL COLOR SELECTION.

EXHAUST HOOD DETAIL
 NO SCALE



ROOF PLAN - HVAC
SCALE: 1/8" = 1'-0"

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DRAWING NOTES:

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KEYED DRAWING NOTES:

- ◇ PROVIDE 4" WIDE X 4'-0" LONG X 18" HIGH EQUIPMENT RAILS, PATE MODEL ES-2, (TYP FOR 2).
- ◇ CONCENTRIC VENT KIT FROM GUH-1 BELOW, TERMINATE CONCENTRIC VENT SO BOTTOM OF COMBUSTION AIR INTAKE IS A MINIMUM OF 3'-0" ABOVE FINISHED ROOF.
- ◇ INTERLOCK EF-5 TO OPEN MOTOR OPERATED DAMPER ON L-3 OUTSIDE AIR INTAKE LOUVER WHEN FAN ENERGIZES, DAMPER SHALL FULLY CLOSE WHEN FAN DE-ENERGIZES.
- ◇ INTERLOCK EF-6 WITH TRACK FLAME CUTTING MACHINE. EXHAUST FAN SHALL ENERGIZE WHEN MACHINE IS TURNED ON, EXHAUST FAN SHALL BE DE-ENERGIZED WHEN MACHINE IS TURNED OFF.



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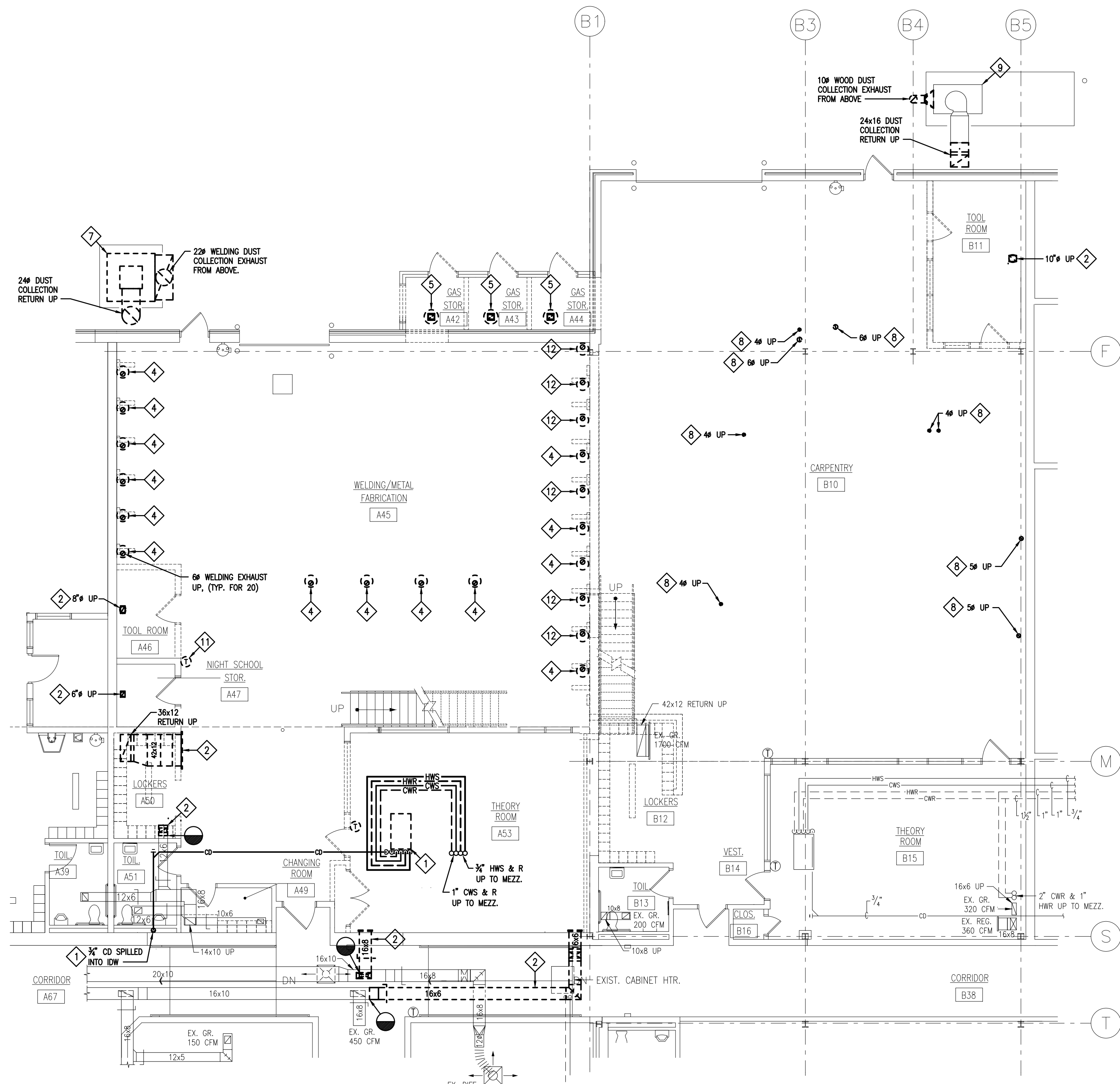
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P.M. e-MAIL: AdamM@cemec.com
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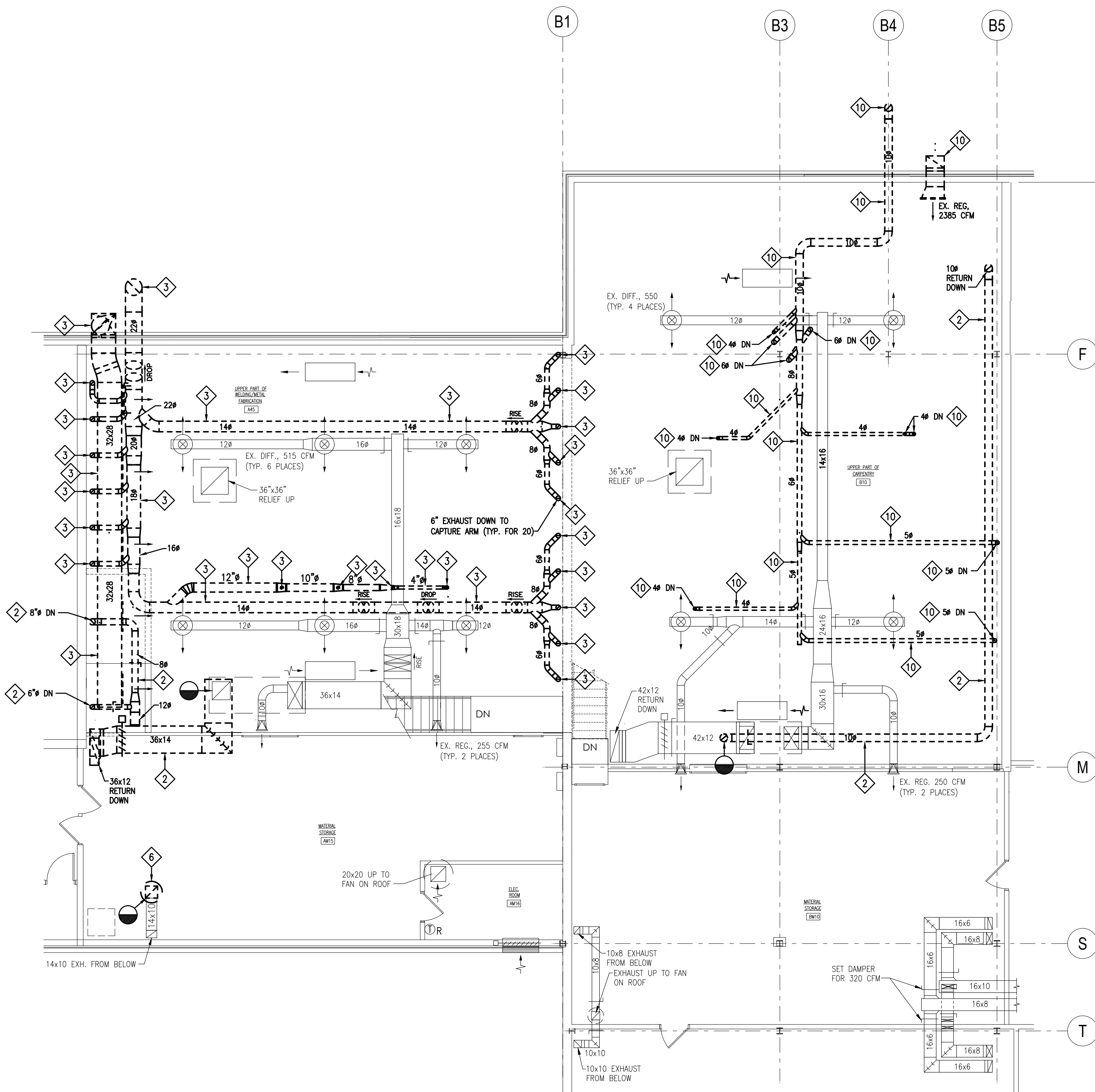
WELDING BUILDING
SHEET TITLE:

ROOF PLAN HVAC

H-102



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



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

DRAWING NOTES:

- REFER TO DRAWING H-501 FOR HVAC GENERAL PROJECT NOTES.
- PROVIDE REQUIRED SERVICE CLEARANCE FOR ALL HVAC UNITS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
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KEYED DRAWING NOTES:

- ◇ REMOVE EXISTING FAN COIL AND ALL ASSOCIATED DUCTWORK, PIPING, VALVES, INSULATION, HANGERS, SUPPORTS AND CONTROLS IN THEIR ENTIRETY. EXISTING CHILLED WATER AND HEATING SYSTEM PIPING TO BE REMOVED BACK TO MAINS LOCATED IN MEZZANINE AND CAPPED. REMOVE CONDENSATE DRAIN PIPING BACK TO INDIRECT WASTE RECEPTOR LOCATED IN TOILET ROOM A51 IN ITS ENTIRETY.
- ◇ REMOVE DUCTWORK AND ALL ASSOCIATED GRILLES, REGISTERS, DIFFUSERS, INSULATION, HANGERS AND SUPPORTS IN THEIR ENTIRETY, BACK TO POINT(S) INDICATED AND CAP.
- ◇ REMOVE EXISTING FUME EXHAUST DUCTWORK AND ALL ASSOCIATED INSULATION, HANGERS AND SUPPORTS IN THEIR ENTIRETY.
- ◇ REMOVE EXISTING WELDING SMOKE EXHAUST DUCTWORK AND ASSOCIATED SOURCE CAPTURE FUME COLLECTION ARM, HANGERS AND SUPPORTS IN THEIR ENTIRETY.
- ◇ REMOVE EXISTING ROOF TOP MOUNTED EXHAUST FAN. EXISTING ROOF CURB SHALL REMAIN. CAP REMAINING ROOF CURB WITH 2 LAYERS OF 3/4" EXTERIOR GRADE PLYWOOD, AND COVER WITH WATER TIGHT 18 GA. GALVANIZED SHEET METAL CAP THAT EXTENDS 4" OVER EXISTING ROOF CURB. TERMINATE SHEET METAL CAP WITH A 1/4" TURNED OUT DRIP EDGE ON ALL SIDES AND SECURE IN PLACE. PROVIDE 2" RIGID POLY-ISO RIGID INSULATION IN THROAT OF ROOF CURB.
- ◇ REMOVE EXISTING ROOF TOP MOUNTED EXHAUST FAN. EXISTING ROOF CURB SHALL REMAIN FOR REUSE.
- ◇ REMOVE EXISTING WELDING SMOKE EXHAUST COLLECTOR ASSEMBLY AND ALL ASSOCIATED DUCTWORK, HANGERS, SUPPORTS, CONTROLS IN THEIR ENTIRETY. EXISTING CONCRETE EQUIPMENT PAD TO BE REMOVED BY OTHERS.
- ◇ REMOVE EXISTING WOOD DUST EXHAUST DUCTWORK AND ALL ASSOCIATED BUST GATE, RIGID AND/OR FLEXIBLE DUCT EQUIPMENT CONNECTION, HANGERS AND SUPPORTS IN THEIR ENTIRETY.

- ⑨ EXISTING WOOD DUST COLLECTOR AND ASSOCIATED CONCRETE EQUIPMENT TO REMAIN. REMOVE ALL ASSOCIATED DUCTWORK, HANGERS, SUPPORTS, AND CONTROLS IN ITS ENTIRETY. FORWARD EXISTING CONTROL PANEL AND ALL ASSOCIATED CONTROL DEVICES BACK TO THE OWNER. CAP ALL REMAINING OPEN DUCT CONNECTIONS ON EXISTING DUST COLLECTOR WITH SHEET METAL CAPS AND SEAL WATER TIGHT.
- ⑩ REMOVE EXISTING WOOD DUST COLLECTOR DUCTWORK AND ALL ASSOCIATED, INSULATION, HANGERS AND SUPPORTS IN THEIR ENTIRETY.
- ⑪ TEMPORARILY REMOVE EXISTING THERMOSTAT AND STORE FOR REUSE.
- ⑫ REMOVE EXISTING WELDING SMOKE EXHAUST DUCTWORK AND ASSOCIATED HEXENX SOURCE CAPTURE FUME COLLECTION ARM, HANGERS AND SUPPORTS IN THEIR ENTIRETY. SALVAGE HEXENX ARTICULATED SOURCE CAPTURE ARM ASSEMBLY FOR REUSE, (TYP. FOR 6).

GENERAL DEMOLITION NOTES:

- THE HVAC CONTRACTOR SHALL COORDINATE THE SALVAGE AND DISPOSAL OF ALL EQUIPMENT AND MATERIAL WITH THE OWNER. THE HVAC CONTRACTOR SHALL RETURN TO THE OWNER ANY ITEMS NOTED OR NOT NOTED, ON THE DRAWINGS, AT THE OWNERS REQUEST. ALL REMAINING EQUIPMENT AND MATERIAL SHALL BE DISPOSED OF BY THE HVAC CONTRACTOR.
- THE HVAC CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AS REQUIRED TO ACCOMMODATE PROJECT PHASING.
- REFER TO PROJECT PHASING DRAWING(S) AND SCHEDULE. PROVIDE ALL LABOR AND MATERIAL NECESSARY TO ACCOMMODATE PROJECT PHASING.
- ALL PATCHING & REPAIRING OF SURFACES AND HOLES LEFT OPEN DUE TO DEMOLITION OR REMOVAL OF EXISTING PIPING & EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR. PATCH EXISTING CONSTRUCTION AS REQUIRED TO MATCH ADJACENT SURFACES OR TO RECEIVE NEW FINISHES AS SCHEDULED UNLESS OTHERWISE INDICATED ON THE ARCHITECTURAL DRAWING.
- THE HVAC CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, EXCAVATION AND BACKFILLING REQUIRED TO COMPLETE ALL INDICATED WORK.
- ALL EXISTING PIPING AND EQUIPMENT MUST BE VERIFIED IN THE FIELD. ANY HVAC EQUIPMENT NOT SHOWN SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO REMOVAL.
- ALL SALVAGED EQUIPMENT MUST BE STORED BY THE CONTRACTOR IN A WEATHER TIGHT AND HEATED ENCLOSURE. CAP ALL FITTINGS AND OR EQUIPMENT OPENINGS TO PREVENT DEBRIS FROM ENTERING THE DEVICE WHILE IN STORAGE.
- HVAC CONTRACTOR MUST COORDINATE ROOF MOUNTED EQUIPMENT REMOVAL WITH ROOFING CONTRACTOR. IF HVAC CONTRACTOR CHOOSES TO REMOVE ROOF MOUNTED EQUIPMENT PRIOR TO ROOFING CONTRACTOR BEING READY TO PATCH ROOF, HVAC CONTRACTOR MUST TEMPORARILY COVER REMAINING ROOF CURB WEATHER TIGHT.
- PRIOR TO REMOVAL OF ANY EXISTING HVAC EQUIPMENT THAT CONTAINS REFRIGERANT THE HVAC CONTRACTOR SHALL REMOVE AND RECOVER THE ENTIRE CONTENT OF THE REFRIGERANT AND ALL ASSOCIATED OIL IN THE EXISTING EQUIPMENT. ALL REFRIGERANT/OIL RECOVERY EQUIPMENT IS REQUIRED TO BE CERTIFIED BY AN EPA-APPROVED TESTING ORGANIZATION TO ASSURE THAT THE EQUIPMENT MEETS EPA STANDARDS BASED ON THE TESTING METHOD ESTABLISHED BY ARIH STANDARD 740. REMOVAL OF ALL CFC AND HCFC REFRIGERANTS MUST CONFORM TO THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY. ALL WORK IS TO BE PERFORMED BY AN EPA CERTIFIED TECHNICIAN.
- IN AREAS WHERE THE EXISTING HVAC SYSTEM WILL REMAIN AND THE SPACE IS SCHEDULED TO RECEIVE NEW ACOUSTICAL CEILINGS AS INDICATED ON THE ARCHITECTURAL DRAWINGS, THE HVAC CONTRACTOR WILL BE RESPONSIBLE TO TEMPORARILY REMOVE, THOROUGHLY CLEAN AND STORE ALL EXISTING CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS. ONCE THE CEILING REPLACEMENT IS COMPLETE, THE HVAC CONTRACTOR SHALL REINSTALL AND RECONNECT ALL EXISTING TEMPORARILY REMOVED HVAC CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS.
- HVAC CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ALL EXISTING CEILING SYSTEMS THAT ARE NOT NOTED TO BE REMOVED BY THE G.C. ON THE ARCHITECTURAL DRAWINGS, IN ALL AREAS WHERE REQUIRED HVAC WORK IS INDICATED.

THE DEMOLITION WORK INDICATED IS INTENDED TO ASSIST THE CONTRACTOR AND GIVE GENERAL INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO VISIT THE PROJECT SITE PRIOR TO BEGING TO FULLY ACQUANT HIMSELF WITH THE EXTENT OF ALL DEMOLITION WORK WHICH IS NECESSARY TO COMPLETE THE ALTERATIONS AND NEW CONSTRUCTION AS DESCRIBED IN THE CONTRACT DOCUMENTS. ALL DEMOLITION WORK REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE WHETHER INDICATED ON THE DRAWING OR NOT. THE CONTRACTOR WILL NOT BE ENTITLED TO ANY CLAIMS FOR ADDITIONAL COMPENSATION RELATED TO REQUIRED DEMOLITION.

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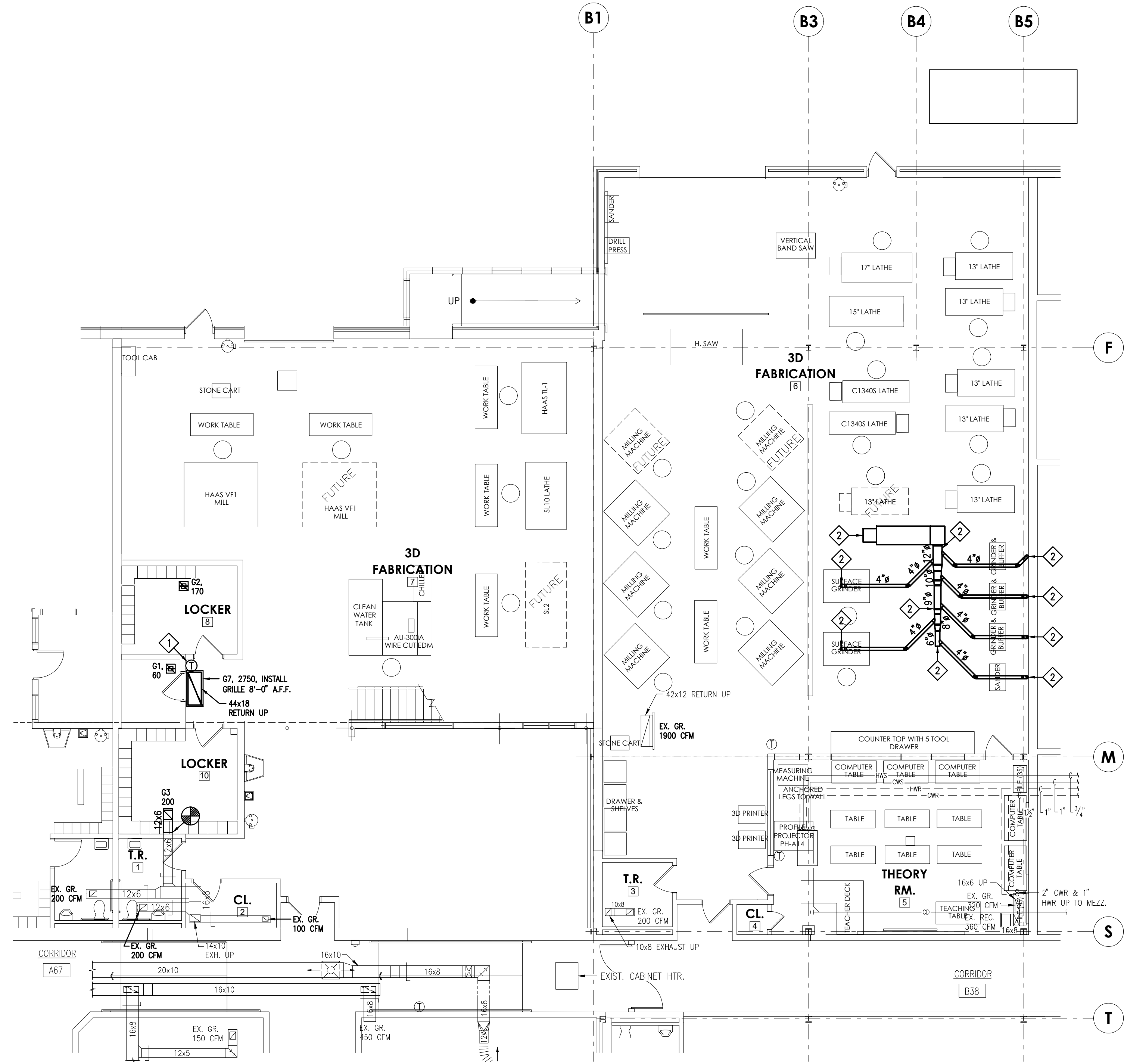
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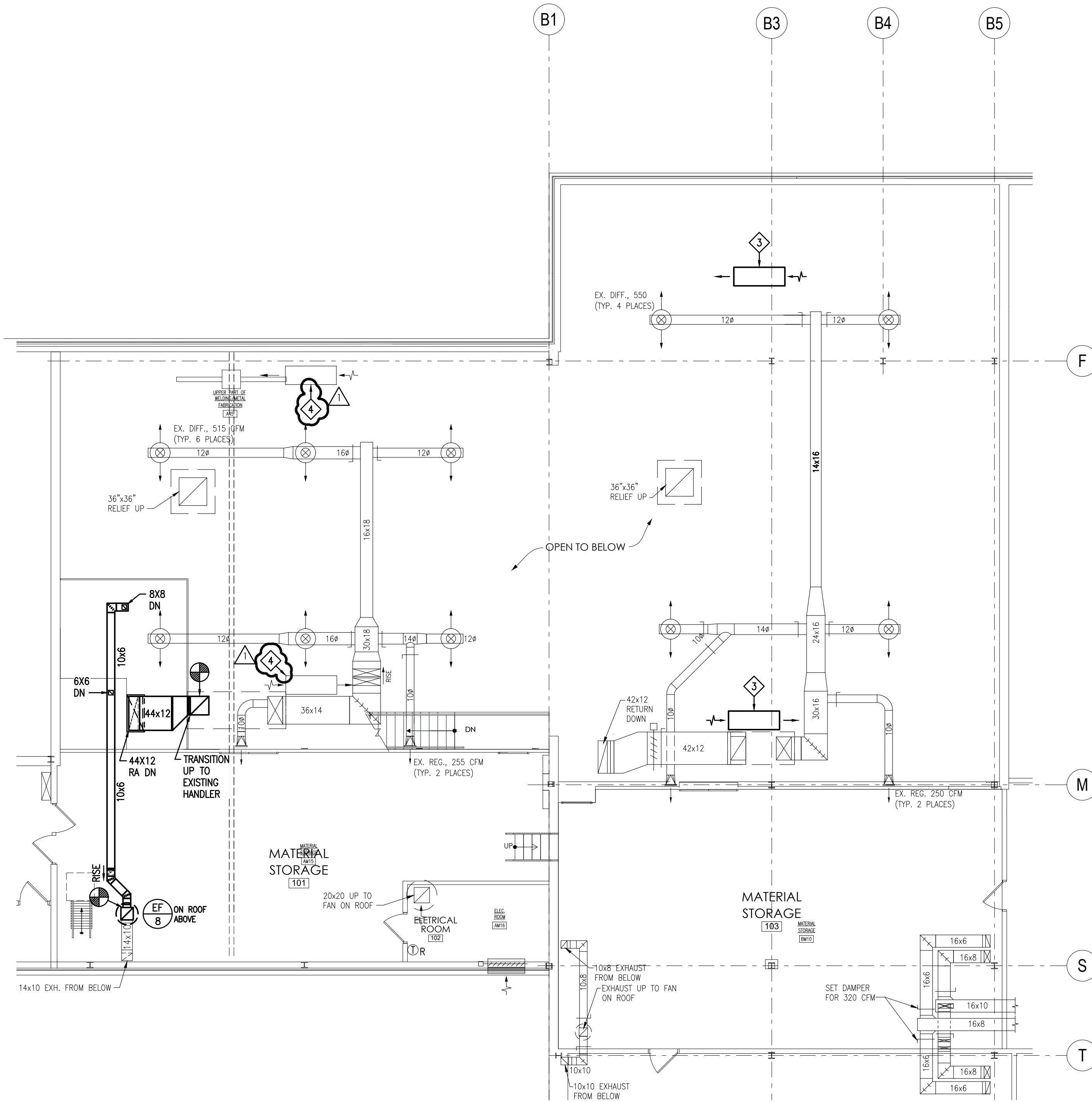
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3D FABRICATION
SHEET TITLE:
FLOOR AND MEZZANINE PLANS HVAC DEMOLITION

H-103



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



MEZZANINE PLAN - HVAC
SCALE: 1/8" = 1'-0"

THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ELECTRICAL PANEL LOCATIONS (INSIDE ELECTRICAL AND OUTSIDE ELECTRICAL ROOMS) WITH PIPING AND DUCTWORK LAYOUTS PRIOR TO PIPING AND DUCTWORK INSTALLATION. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL N.E.C. (NATIONAL ELECTRIC CODE) CLEARANCES BEFORE INSTALLING ANY PIPING AND DUCTWORK. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS RESULTING TO REWORKING (REMOVING AND REINSTALLING) PIPING AND DUCTWORK INSTALLED IN CONFLICT WITH ELECTRICAL PANELS/EQUIPMENT CLEARANCES.

DRAWING NOTES:

- REFER TO DRAWING H-501 FOR HVAC GENERAL PROJECT NOTES.
- PROVIDE REQUIRED SERVICE CLEARANCE FOR ALL HVAC UNITS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF HVAC CEILING OUTLETS AND OTHER CEILING MOUNTED DEVICES. ANY CEILING REMOVAL REQUIRED FOR WORK TO BE COMPLETED UNDER THIS CONTRACT, THAT IS NOT INDICATED ON THE ARCHITECTURAL PLANS, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. CEILINGS REMOVED BY THIS CONTRACTOR SHALL BE REPLACE AND/OR REPAIRED BY HIM, AS PER SPECIFICATIONS.

KEYED DRAWING NOTES:

- ◆ REINSTALL SALVAGED THERMOSTAT AND EXTEND EXISTING CONTROL WIRING AS REQUIRED TO RECONNECT.
- ◆ REINSTALL SALVAGED DUST COLLECTOR (AIR FLOW SYSTEMS F120), THOROUGHLY CLEAN INTERIOR OF ALL REUSED SALVAGED GALVANIZED STEEL DUCTWORK AND ASSOCIATED SYSTEM COMPONENTS FROM THE PREVIOUS INSTALLATION. PROVIDE NEW GALVANIZED STEEL DUCTWORK AS REQUIRED TO ACCOMMODATE NEW SYSTEM LAYOUT. REINSTALL ALL SALVAGED BLAST GATES, FITTINGS TRANSITIONS AND FLEXIBLE HOSES AS REQUIRED TO RECONNECT ALL BUFFERS/FORMERS AND SURFACE GRINDERS. PROVIDE (1) NEW ADDITIONAL 4"x4" YEE FITTING AND THE REQUIRED TRANSITIONS AND FLEXIBLE HOSES NEEDED TO CONNECT THE ADDED SANDER. FURNISH A NEW ALUMINUM MESH PRE-FILTER AND A NEW 95% MAIN FILTER AND INSTALL THEM INTO THE EXISTING UNIT. (FIELD VERIFY UNITS FILTER SIZE AND TYPE PRIOR TO ORDERING REPLACEMENTS).
- ◆ REMOVE EXISTING AMBIENT AIR CLEANER (AIR FLOW SYSTEMS F-70R), ROTATE UNIT 180° (TO PROVIDE A CIRCULAR AIR PATTERN BETWEEN BOTH ROOMS) AND REINSTALL UNIT IN SAME LOCATION AND AT SAME HEIGHT. FURNISH NEW UNIT FILTERS, STAGE 1 - 2"x10 SQ. FT. POLY PAD PRE-FILTER AND A STAGE 2 - 98% MULTI POCKET BAG FILTER WITH 66 SQ. FT. OF MEDIA AND INSTALL THEM INTO THE EXISTING UNIT. (FIELD VERIFY UNITS FILTER SIZES AND TYPES PRIOR TO ORDERING REPLACEMENTS).
- ◆ EXISTING AMBIENT AIR CLEANER (AIR KING MODEL M-25 WA) SHALL REMAIN. FURNISH NEW FILTERS FOR EACH UNIT, STAGE 1 - 2' X 10 SQ. FT. POLY PAD PRE-FILTER AND A STAGE 2 - 98% MULTI POCKET BAG FILTER WITH 110 SQ. FT. OF MEDIA AND INSTALL THEM INTO EACH EXISTING UNIT. (FIELD VERIFY UNITS FILTER SIZES AND TYPES PRIOR TO ORDERING REPLACEMENTS).

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CONSTRUCTION

DATE: 07/08/2022

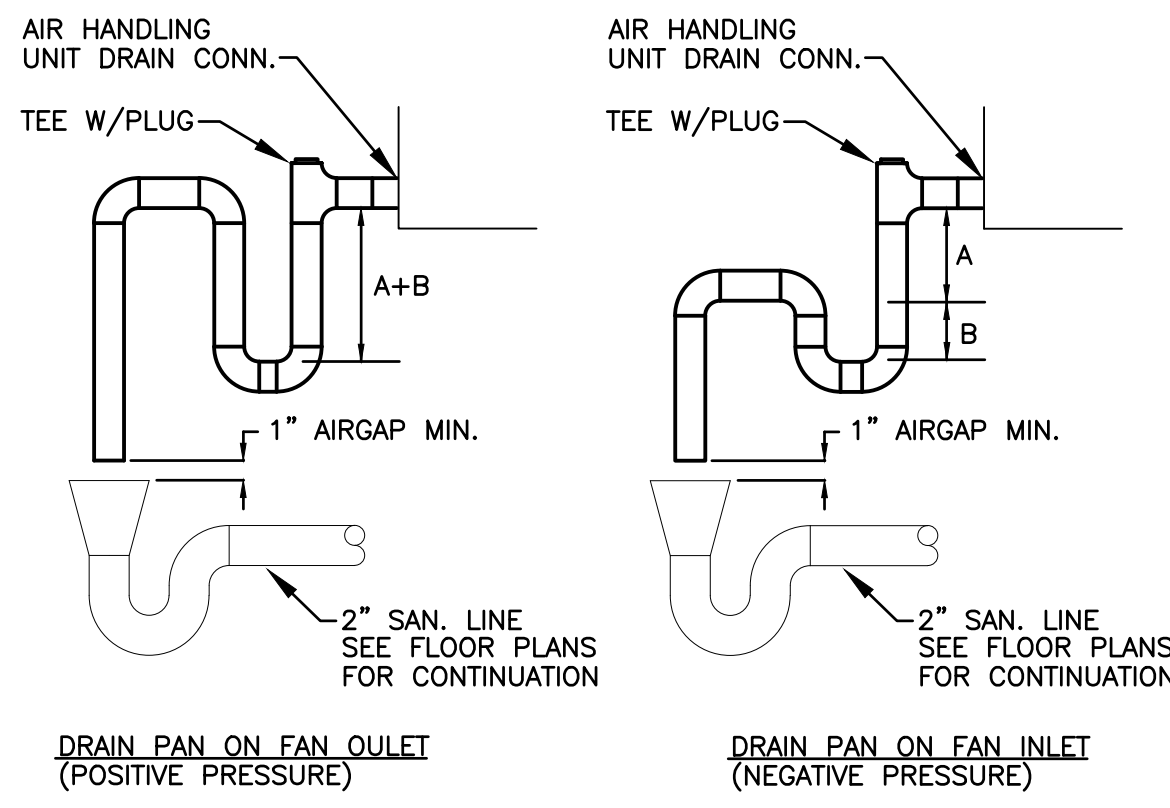
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1	ADDENDUM ITEMS	07/08/22

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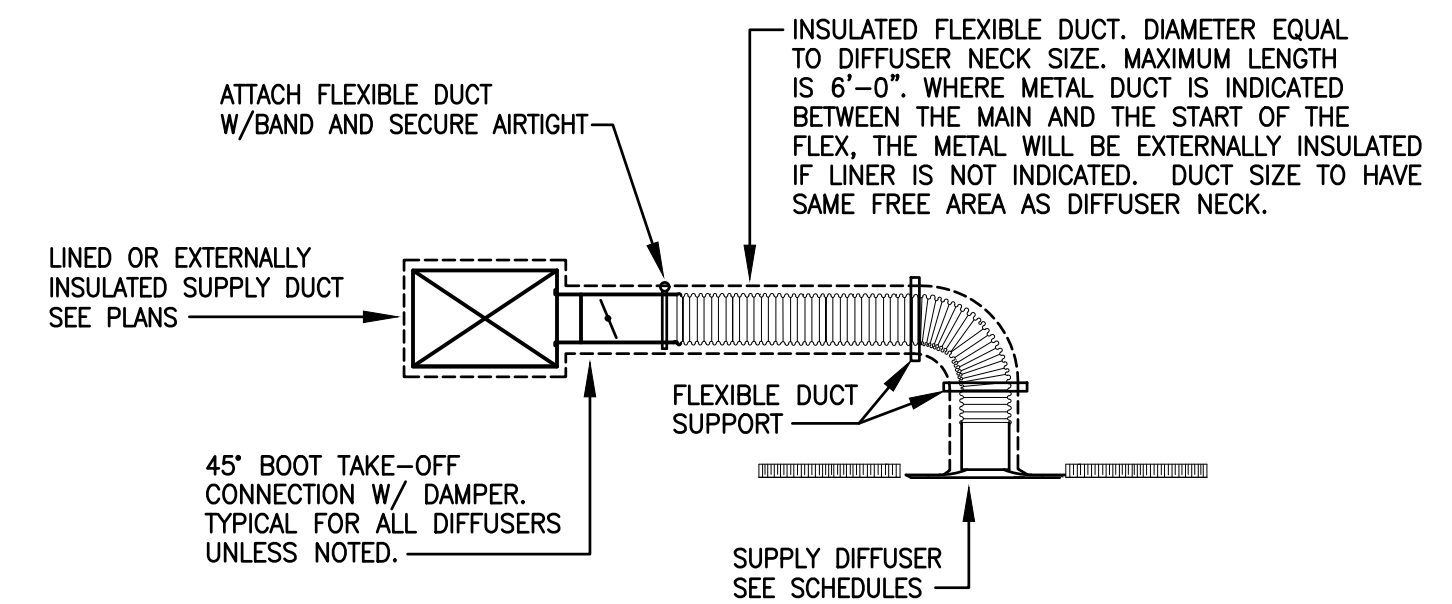
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3D FABRICATION
SHEET TITLE:
FLOOR AND MEZZANINE PLANS HVAC

H-105



NOTES:
 1. DRAIN CONN. TO BE FULL SIZE, BUT NOT LESS THAN 1".
 2. "A" = SYSTEM STATIC IN INCHES AT DRAIN POINT.
 "B" = 1/2 SYSTEM STATIC IN INCHES AT DRAIN POINT.



GENERAL PROJECT NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING SECTIONS. USE INFORMATION RELATING TO CEILING HEIGHTS, FLOOR TO FLOOR ELEVATIONS, ETC. TO DETERMINE PIPE AND DUCT RISER QUANTITIES AND TO VERIFY ROUTING OF SAME.
- REFRIGERANT PIPING RUNS BETWEEN DX EVAPORATOR COILS AND THEIR ASSOCIATED AIR-COOLED CONDENSING UNITS SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. RUN LENGTHS SHALL BE CALCULATED FROM PLANS, BUILDING SECTIONS AND FIELD CONDITIONS. ALL REFRIGERANT PIPING SHALL BE CONGEALED. PROVIDE ALL REQUIRED TRAPS IN VERTICAL REFRIGERANT RISERS AND ALL MISCELLANEOUS REFRIGERANT COMPONENTS THAT ARE INDICATED IN THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- HVAC CONTRACTOR IS REQUIRED TO COORDINATE ALL HVAC WORK WITH THE WORK OF ALL OTHER TRADES TO ENSURE CORRECT AND QUALITY INSTALLATIONS.
- DUCT FITTINGS THAT ARE BETWEEN STRAIGHT SECTIONS OF DUCT THAT IS SHOWN LINED SHALL ALSO BE LINED.
- DUCT DIMENSIONS GIVEN ARE METAL (OUTSIDE) DIMENSIONS UNLESS OTHERWISE NOTED.
- THE HVAC CONTRACTOR SHALL COORDINATE ALL WORK ABOVE THE CEILING WITH THE ELECTRICAL, PLUMBING, FIRE PROTECTION AND GENERAL CONTRACTORS TO INSURE THE SCHEDULED CEILING HEIGHTS CAN BE MAINTAINED.
- ALL LOW VOLTAGE WIRING (UNDER 120V) REQUIRED FOR HVAC EQUIPMENT SHALL BE PROVIDED BY THE HVAC CONTRACTOR PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS UNLESS OTHERWISE NOTED.
- IN AREAS WHERE THE EXISTING HVAC SYSTEM WILL REMAIN AND THE SPACE IS SCHEDULED TO RECEIVE NEW ACoustICAL CEILING AS INDICATED ON THE ARCHITECTURAL DRAWINGS, THE HVAC CONTRACTOR WILL BE RESPONSIBLE TO TEMPORARILY REMOVE, THOROUGHLY CLEAN AND STORE ALL EXISTING CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS. ONCE THE CEILING REPLACEMENT IS COMPLETE, THE HVAC CONTRACTOR SHALL REINSTALL AND RECONNECT ALL EXISTING TEMPORARILY REMOVED HVAC CEILING MOUNTED GRILLES, REGISTERS AND DIFFUSERS.
- HVAC CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ALL EXISTING CEILING SYSTEMS THAT ARE NOT NOTED TO BE REMOVED BY THE G.C. ON THE ARCHITECTURAL DRAWINGS, IN ALL AREAS WHERE REQUIRED HVAC WORK IS INDICATED.
- GENERAL CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE ALL REQUIRED WALL LINTELS.

HVAC LEGEND

(ALL SYMBOLS MAY NOT APPLY TO THIS PROJECT)

	2-WAY CONTROL VALVE		HWS	HEATING WATER SUPPLY
	3-WAY CONTROL VALVE		HWR	HEATING WATER RETURN
	BACKFLOW PREVENTER		DTS	DUAL TEMPERATURE WATER SUPPLY
	SAFETY RELIEF VALVE		DTR	DUAL TEMPERATURE WATER RETURN
	WATER PRESSURE REDUCING VALVE		CWS	CHILLED WATER SUPPLY
	BALL OR BUTTERFLY VALVE		CWR	CHILLED WATER RETURN
	CALIBRATED BALANCING VALVE		CS	CONDENSER WATER SUPPLY
	CHECK VALVE		CR	CONDENSER WATER RETURN
	STRAINER		HPWS	HEAT PUMP WATER SUPPLY
	TRIPLE DUTY VALVE		HPWR	HEAT PUMP WATER RETURN
	HIGH CAPACITY AUTOMATIC AIR VENT		PWS	POOL WATER SUPPLY
	MANUAL AIR VENT		PWR	POOL WATER RETURN
	UNION OR FLANGED CONNECTION		RL	REFRIGERANT LIQUID
	FLEXIBLE PIPE CONNECTION		RS	REFRIGERANT SUCTION
	FLOW METER		FOS	FUEL OIL SUPPLY
	ELECTROMAGNETIC FLOW METER		FOR	FUEL OIL RETURN
	SOLENOID VALVE		FOG	FUEL OIL GAGE
	TEMPERATURE SENSOR		FOV	FUEL OIL VENT
	HUMIDITY SENSOR		CD	CONDENSATE DRAIN
	CO2 SENSOR			VERTICAL FIRE DAMPER - 1 1/2 HR
	SENSOR			HORIZONTAL FIRE DAMPER - 1 1/2 HR
	ACCESS DOOR			VERTICAL FIRE DAMPER - 3 HR
	PRESSURE GAUGE			HORIZONTAL FIRE DAMPER - 3 HR
	THERMOMETER			VERTICAL SMOKE DAMPER
	P/T PLUG			HORIZONTAL SMOKE DAMPER
	ELECTRIC OPERATOR			VERTICAL COMBINATION SMOKE / FIRE DAMPER
	PNEUMATIC OPERATOR			HORIZONTAL COMBINATION SMOKE / FIRE DAMPER
	AQUASTAT			KEYED DRAWING NOTE
	SMOKE DETECTOR FURNISHED BY OTHERS INSTALLED BY HC			CONNECT TO EXISTING
	NEEDLE VALVE			EXTENT OF DEMOLITION
	MOTOR OPERATED DAMPER			INDICATES LINED DUCTWORK (SEE SPECS FOR MATERIAL)
	BOILER EMERGENCY SHUT-DOWN SWITCH			INDICATES MANUAL BALANCING DAMPER
	EXISTING CONDITIONS			
	NEW OR DEMOLITION WORK AS INDICATED			
	DEMOLITION			

ABBREVIATIONS

ABV	ABOVE
AL	ACoustically LINED
ALUM	ALUMINUM
BDD	BACKDRAFT DAMPER
BEL	BELOW
CLG	CEILING
DN	DOWN
EC	ELECTRICAL CONTRACTOR
EA	EACH
EX	EXISTING
EXH	EXHAUST
EXIST	EXISTING
FLR	FLOOR
GC	GENERAL CONTRACTOR
GTC	GENERAL TRADES CONTRACTOR
HC	HVAC CONTRACTOR
MOD	MOTOR OPERATED DAMPER
OA	OUTSIDE AIR
PC	PLUMBING CONTRACTOR
PTAC	PACKAGED TERMINAL AIR CONDITIONER
RA	RETURN AIR
RC	ROOFING CONTRACTOR
REQ'D	REQUIRED
SA	SUPPLY AIR
TYP	TYPICAL
UV	UNIT VENTILATOR
VD	VOLUME DAMPER - MANUAL
W/	WITH

1 AIR HANDLING UNIT DRAINS

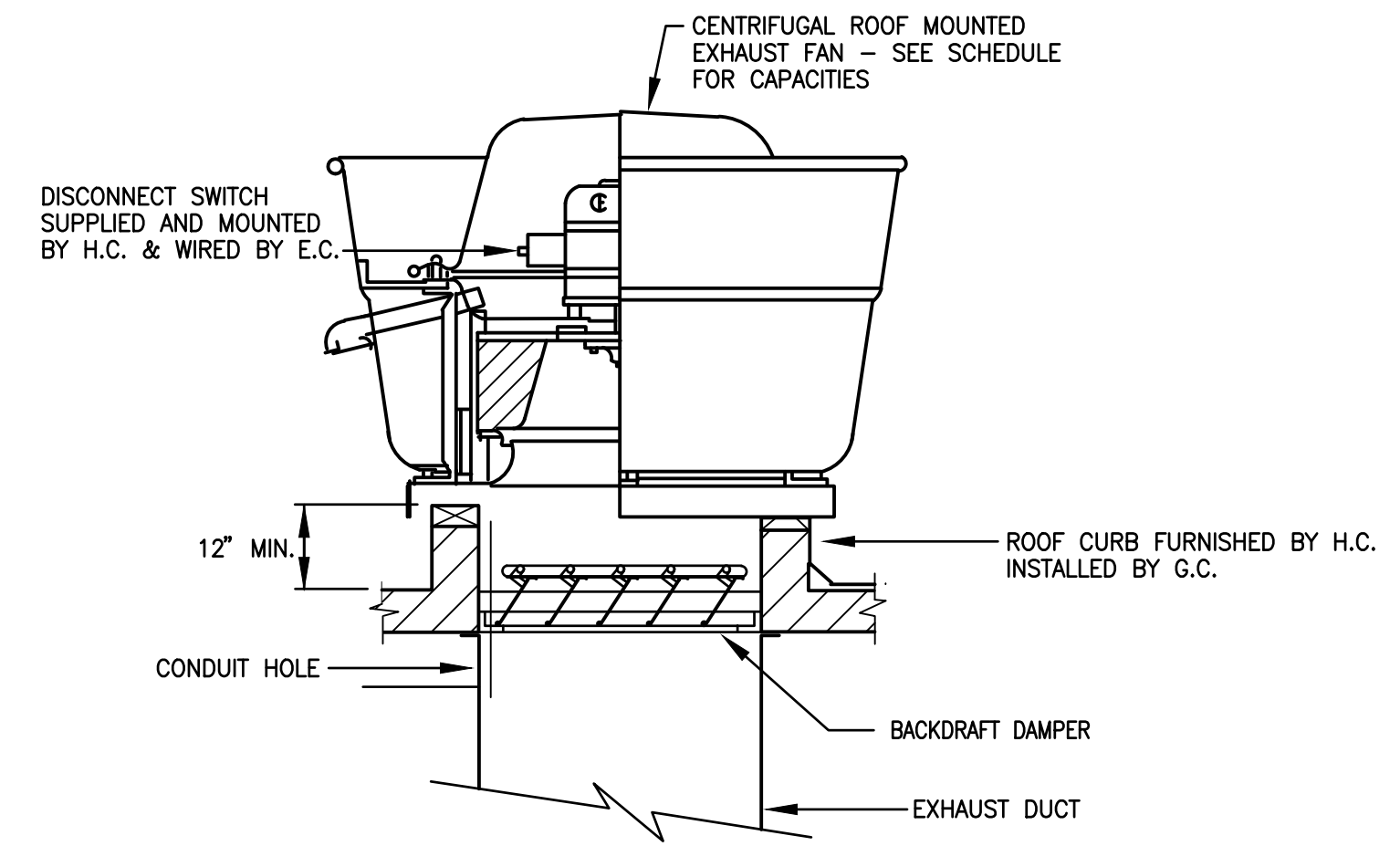
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2 TYPICAL DIFFUSER CONNECTION

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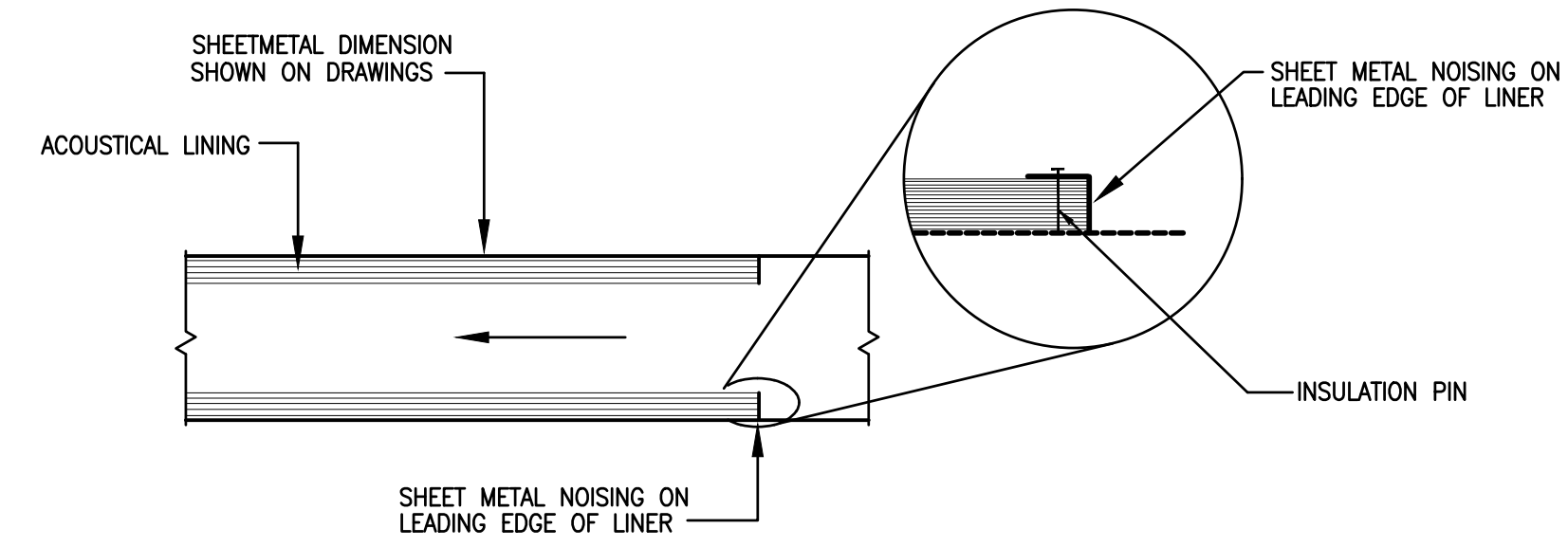
3 DIRECT DRIVE UP BLAST ROOF MOUNTED EXHAUST FAN DETAIL

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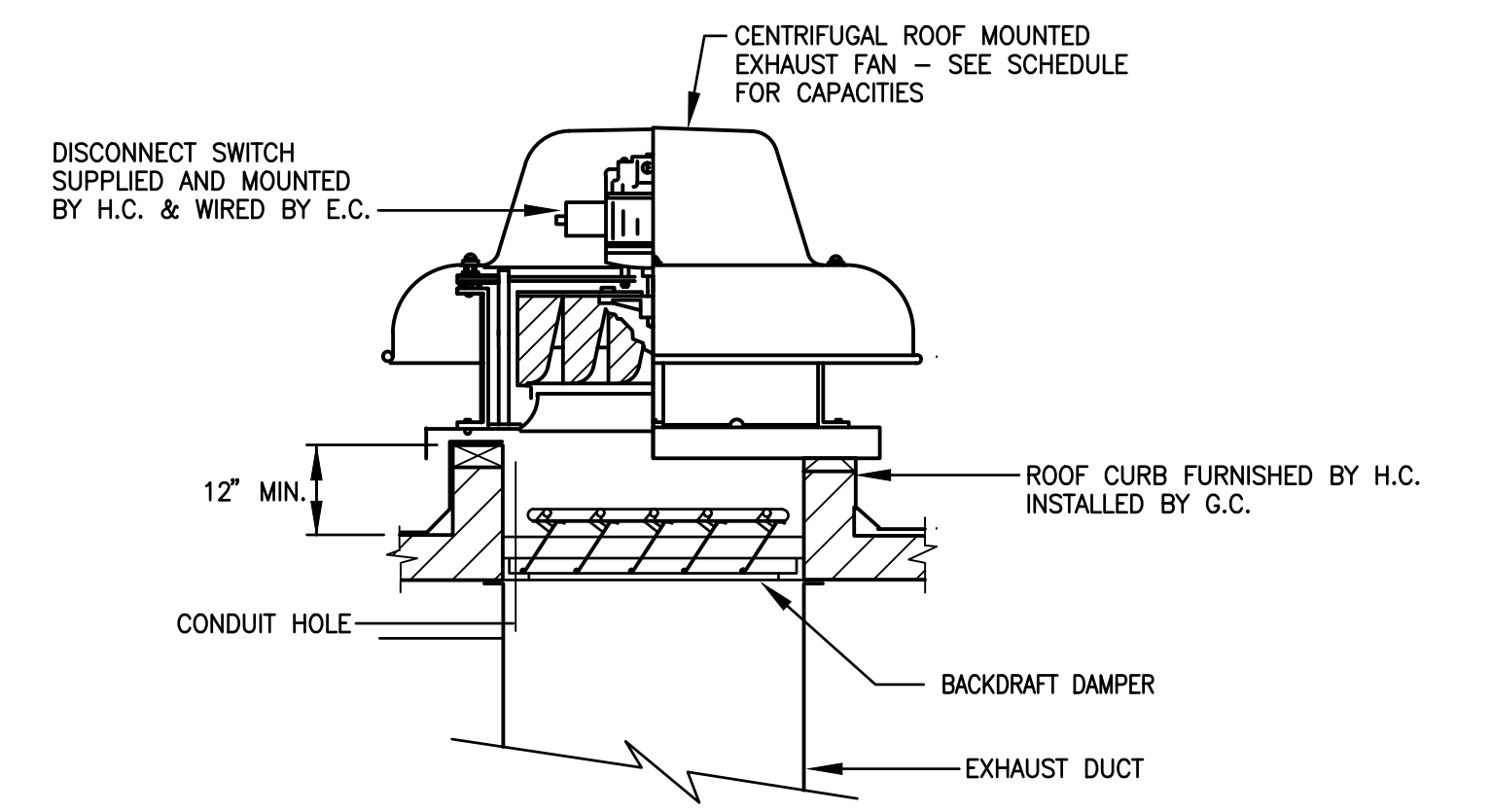
4 TYPICAL DUCT LINING DETAIL

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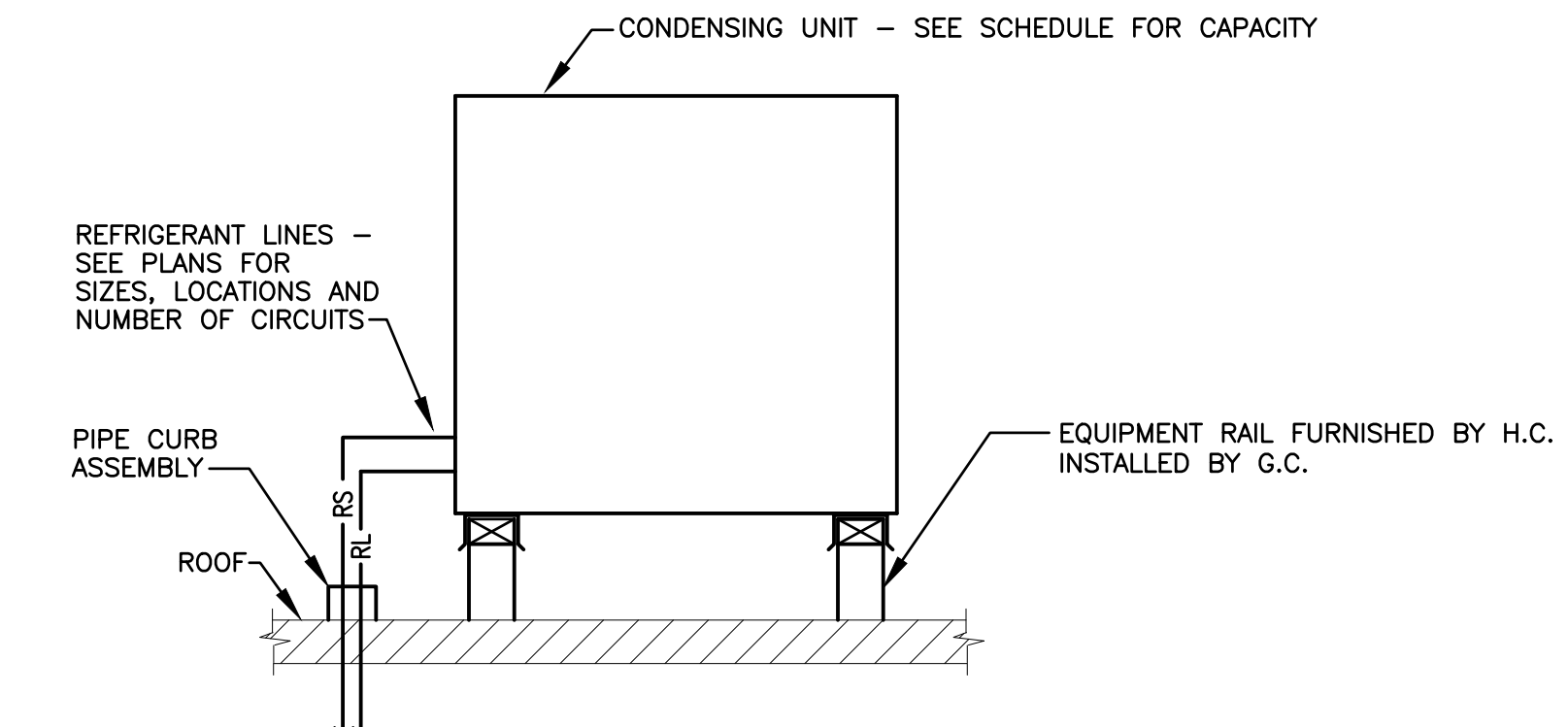
5 DIRECT DRIVE ROOF MOUNTED EXHAUST FAN DETAIL

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6 CONDENSING UNIT MOUNTING DETAIL

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SHEET TITLE:
HVAC DETAILS, LEGEND, AND NOTES

H-501

DIFFUSER SCHEDULE								
SYMBOL	NECK SIZE	FACE SIZE	BORDER TYPE	BLOW	MODEL	N. C.	MANUFACTURER	REMARKS
D2	6"φ	18x18	LAYIN	2 WAY	TDC	< 20	TITUS	PROVIDE W/ 24"x24" PANEL
D3	8"φ	18x18	LAYIN	2 WAY	TDC	< 20	TITUS	PROVIDE W/ 24"x24" PANEL
D4	8"φ	18x18	LAYIN	4 WAY	TDC	< 20	TITUS	PROVIDE W/ 24"x24" PANEL
D5	10"φ	18x18	LAYIN	2 WAY	TDC	< 20	TITUS	PROVIDE W/ 24"x24" PANEL
D6	12"φ	18x18	LAYIN	4 WAY	TDC	< 20	TITUS	PROVIDE W/ 24"x24" PANEL

GRILLE AND REGISTER SCHEDULE						
SYMBOL	SIZE	MODEL	N.C.	BORDER TYPE	MANUFACTURER	REMARKS
G2	8x8	350FL	<20	SURFACE	TITUS	
G3	10x10	350FL	<20	SURFACE	TITUS	
G4	12x12	350FL	<20	SURFACE	TITUS	
G5	18x18	350FL	<20	LAYIN	TITUS	PROVIDE W/ 24"x24" PANEL
G6	24x24	50F	<20	SURFACE	TITUS	
G7	44x18	350FL	<20	SURFACE	TITUS	
G8	12x8	350FL	<20	SURFACE	TITUS	
R1	16x6	272FL	<20	SURFACE	TITUS	
R2	40x36	112RL	<20	SURFACE	TITUS	

ROOFTOP AIR HANDLING UNIT SCHEDULE																				BASIS OF DESIGN: A AON						
SYMBOL	CFM		FAN DATA			UNIT WIRING DATA				COOLING					HOT GAS REHEAT			GAS HEATING			MAXIMUM OPERATING WEIGHT	NOMINAL DIMENSIONS L x W x H	REMARKS			
	TOTAL	DESIGN OA	E.S.P.	H.P.	RPM	MODEL	ELEC.	M.C.A.	MAX. FUSE OR CIRCUIT BKR.	EADB	EAWB	LABD	LABW	TOTAL M.B.H.	SENSIBLE M.B.H.	CAPACITY MBH	RH	LADB	LAWB	E.A.T.				NO. OF STAGES	INPUT M.B.H.	OUTPUT M.B.H.
RTU-1	2000	770	1.25"	2	1697	RN-008-3-0-EA09	460-3-60	23	35	81.3F	66.8F	52.6F	51.8F	89.7	60.6	42.0	48.0	72.0	59.5	46.2F	8:1	150.0	120.0	1450 LBS.	100" x 79" x 44"	
RTU-2	4500	1425	1.12"	5	1608	RN-009-3-0-0000	460-3-60	10	15	-	-	-	-	-	-	-	-	-	-	50.8F	10:1	292.5	234.0	1400 LBS.	111" x 60" x 51"	

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.
2. REFER TO PLANS FOR UNIT CONFIGURATIONS. UNITS WITH THE SAME SYMBOL NUMBER MAY HAVE LEFT OR RIGHT HAND CONNECTIONS AND/OR REQUIRE DIFFERENT CONFIGURATIONS.
3. FURNISH EACH UNIT WITH A FACTORY PRE-WIRED FOR A SINGLE POINT POWER CONNECTION WITH AN 120 VOLT CONVENIENCE OUTLET, STEP DOWN TRANSFORMER AND FACTORY PRE-WIRED NON-FUSED DISCONNECT SWITCH.
4. FURNISH EACH UNIT WITH A FULLY INSULATED, 20" HIGH ROOF CURB.
5. FURNISH EACH UNIT WITH AN OUTSIDE AIR INTAKE AIR FLOW MONITORING STATION.
6. FURNISH RTU-1 WITH SPRING ISOLATION RAILS WITH 2" STATIC DEFLECTION.
7. PROVIDE EACH UNIT WITH AN AIR PURIFICATION SYSTEM, PLASMA AIR 660 SERIES.

EXHAUST FAN SCHEDULE														BASIS OF DESIGN: LOREN COOK	
SYMBOL	CFM	SP	FAN DATA			DRIVE	BMS INTERLOCK	DAMPER	SONES	CONTROL	MOUNTING	MODEL	REMARKS		
			H.P.	RPM	ELECTRICAL										
EF-1	170	0.25"	1/3	1140	120V-1φ	DIRECT	NO	BDD	6.4	CONTINUOUS	ROOF	ACRU-D	PROVIDE W/ AMCA A SPARK RESISTANT AND EXPLOSION PROOF CONSTRUCTION, 18" HIGH ROOF CURB, BACKDRAFT DAMPER AND EXPLOSION PROOF NON-FUSED DISCONNECT SWITCH		
EF-2	170	0.25"	1/3	1140	120V-1φ	DIRECT	NO	BDD	6.4	CONTINUOUS	ROOF	ACRU-D	PROVIDE W/ AMCA A SPARK RESISTANT AND EXPLOSION PROOF CONSTRUCTION, 18" HIGH ROOF CURB, BACKDRAFT DAMPER AND EXPLOSION PROOF NON-FUSED DISCONNECT SWITCH		
EF-3	170	0.25"	1/3	1140	120V-1φ	DIRECT	NO	BDD	6.4	CONTINUOUS	ROOF	ACRU-D	PROVIDE W/ AMCA A SPARK RESISTANT AND EXPLOSION PROOF CONSTRUCTION, 18" HIGH ROOF CURB, BACKDRAFT DAMPER AND EXPLOSION PROOF NON-FUSED DISCONNECT SWITCH		
EF-4	770	0.62"	1/2	1072	120V-1φ	DIRECT	YES	BDD	7.3	TIME OF DAY SCHEDULE	ROOF	ACE-D	PROVIDE WITH 18" HIGH ROOF CURB, BACKDRAFT DAMPER, NON-FUSED DISCONNECT SWITCH AND SPEED CONTROLLER		
EF-5	350	0.38"	1/8	1345	120V-1φ	DIRECT	YES	BDD	6.8	REVERSE ACTING T-STAT	ROOF	ACE-D	PROVIDE WITH 18" HIGH ROOF CURB, BACKDRAFT DAMPER, NON-FUSED DISCONNECT SWITCH AND SPEED CONTROLLER		
EF-6	1350	0.75"	3/4	1099	120V-1φ	DIRECT	YES	BDD	9.6	INTERLOCK W/ TRACK CUTTER	ROOF	ACE-D	PROVIDE WITH 18" HIGH ROOF CURB, BACKDRAFT DAMPER, NON-FUSED DISCONNECT SWITCH AND SPEED CONTROLLER		
EF-7	250	0.44"	83 WATTS	1149	120V-1φ	DIRECT	NO	BDD	2.0	REVERSE ACTING T-STAT	INLINE	GN	PROVIDE WITH BACKDRAFT DAMPER, NON-FUSED DISCONNECT SWITCH AND SPEED CONTROLLER		
EF-8	930	0.69"	1/2	1140	120V-1φ	DIRECT	YES	BDD	8.3	TIME OF DAY SCHEDULE	ROOF	ACE-D	PROVIDE WITH ROOF CURB ADAPTER, BACKDRAFT DAMPER, NON-FUSED DISCONNECT SWITCH AND SPEED CONTROLLER		

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.

ELECTRIC CABINET HEATER SCHEDULE												BASIS OF DESIGN: Q MARK	
SYMBOL	FAN DATA			WATTS	MOUNTING	FRONT PANEL WIDTH x HEIGHT	WALL OPENING WIDTH x HEIGHT	RECESS DEPTH	CABINET FINISH	MODEL	REMARKS		
	CFM	ELECTRICAL	AMPS										
ECH-1	65	120-1-60	4.7	500	FULLY RECESSED CEILING	10-3/4" x 12-1/2"	9-3/4" x 11"	3.75"	STANDARD COLOR	QCH1101	PROVIDE WITH INTEGRAL DISCONNECT SWITCH, T-BAR FRAME KIT AND WALL MOUNTED THERMOSTAT		
ECH-2	65	120-1-60	4.7	500	SURFACE MOUNTED CEILING	10-3/4" x 12-1/2"	9-3/4" x 11"	3.75"	STANDARD COLOR	QCH1101	PROVIDE WITH INTEGRAL DISCONNECT SWITCH AND SURFACE MOUNTED FRAME AND WALL MOUNTED THERMOSTAT		
ECH-3	65	120-1-60	6.3	750	SURFACE MOUNTED WALL	10-3/4" x 12-1/2"	9-3/4" x 11"	3.75"	STANDARD COLOR	CWH1151DSAG	PROVIDE WITH INTEGRAL DISCONNECT SWITCH, INTEGRAL THERMOSTAT AND SURFACE MOUNTING FRAME		
ECH-4	65	277-1-60	7.3	2000	SURFACE MOUNTED WALL	10-1/2" x 12-1/2"	9-1/2" x 11-1/4"	3.75"	STANDARD COLOR	CWH1207DSAG	PROVIDE WITH INTEGRAL DISCONNECT SWITCH, INTEGRAL THERMOSTAT AND SURFACE MOUNTING FRAME		
ECH-5	250	460-3-60	6.0	4000	FULLY RECESSED CEILING	35" x 26-3/8"	35" x 26-3/8"	9.75"	STANDARD COLOR	CU935	PROVIDE WITH INTEGRAL DISCONNECT SWITCH, WALL MOUNTED THERMOSTAT FRONT ARCHITECTURAL EXTRUDED ALUM. INLET AND OUTLET GRILLES AND RECESSED TRIM KIT		

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.
2. DIMENSIONS ARE FOR REFERENCE ONLY. REFER TO VENDOR'S SHOP DRAWINGS FOR ACTUAL CONSTRUCTION DIMENSIONS.

AIR COOLED CONDENSING UNIT SCHEDULE												
SYMBOL	MBH	SUCTION TEMP.	AMBIENT TEMP.	COMPRESSOR STAGES	UNIT WIRING			WEIGHT	MODEL	MANUFACTURER	OPTIONS	REMARKS
					ELEC.	MCA	MOP					
CU-1	18.0	45F	95F	VARIABLE	208V-1φ	11	15	120 lbs.	PUY-A1BNKA7	mitsubishi	PROVIDE W/ WIND BAFFLES FOR COOLING OPERATION DOWN TO -40° F	SPLIT SYSTEM W/ DAC-1

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.

GAS-FIRED UNIT HEATER SCHEDULE											BASIS OF DESIGN: REZNOR	
SYMBOL	FAN DATA			ELECTRICAL			INPUT (MBH)	OUTPUT (MBH)	CFH NAT. GAS	MOUNTING	MODEL	REMARKS
	CFM	RPM	H.P.	VOLTAGE	FLA	MOP						
GUH-1	629	1550	.06	115V-1φ	3.4	15	45	37.4	45	HORIZONTAL	UDAS-45	

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.
2. PROVIDE EACH UNIT WITH A CEILING SUSPENSION KIT AND A VERTICAL COMBUSTION AIR/VENT KIT WITH CONCENTRIC ADAPTER.

DUCTLESS AIR CONDITIONER SCHEDULE									BASIS OF DESIGN: MITSUBISHI	
SYMBOL	DESCRIPTION	CFM	NOM. COOLING	TOT. AMPS	MAX. FUSE	ELEC.	MODEL	OPTIONS		
DAC-1	WALL EVAP.	375	18.0	1.0	N/A	208-1-60	PKA-A18LA	PROVIDE W/ INTEGRAL CONDENSATE PUMP AND WALL MOUNTED THERMOSTAT		

- NOTES: 1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.

LOUVER SCHEDULE							BASIS OF DESIGN: POTTORFF	
SYMBOL	FUNCTION	CFM	WIDTH x HEIGHT	MIN. FREE AREA (SQ. FT.)	STATIC PRESSURE	MODEL	REMARKS	
L-1	EXHAUST	240	18" x 12"	0.50	.04"	ECD-635		
L-2	INTAKE	240	18" x 12"	0.50	.05"	ECD-635		
L-3	INTAKE	350	36" x 12"	0.90	.04"	ECD-635		

- NOTE: PROVIDE EACH LOUVER IN A CUSTOM POWDER COATED FINISH, ARCHITECT TO SELECT COLOR.



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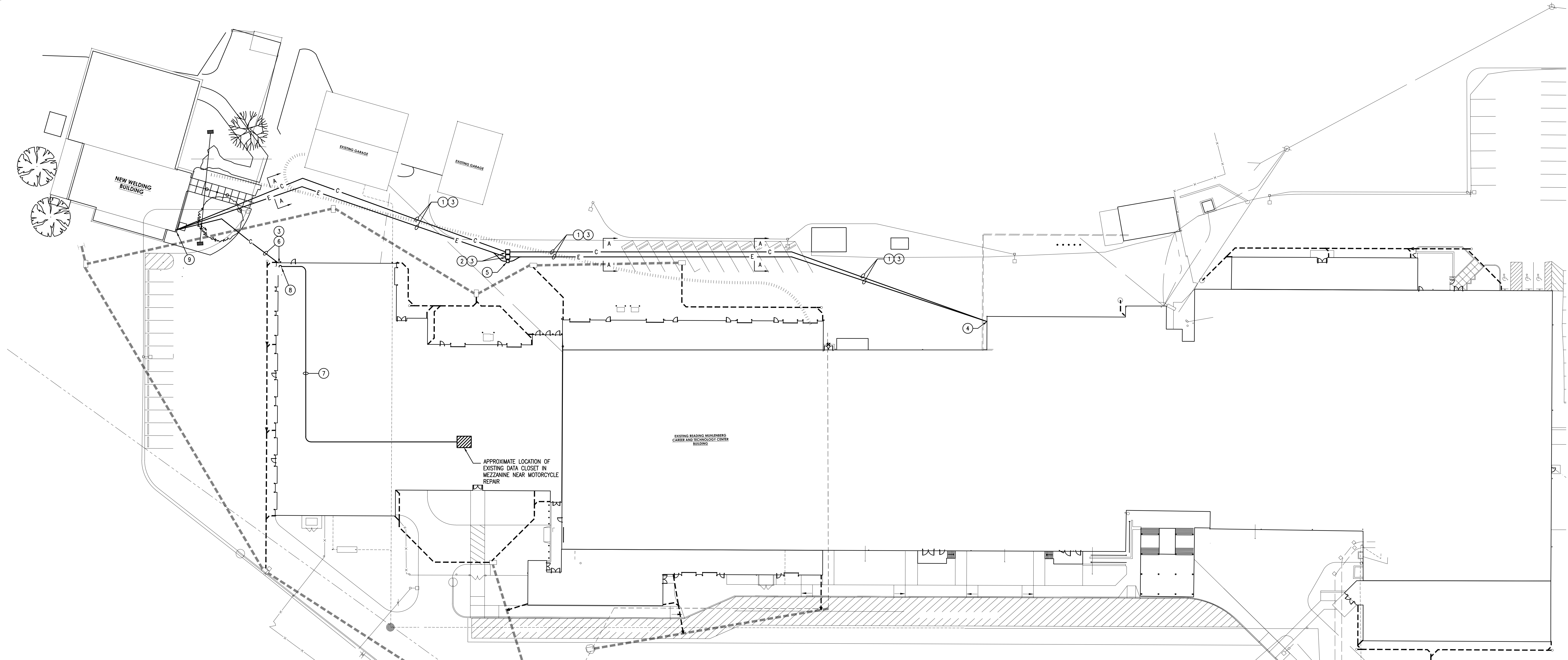
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SHEET TITLE:
HVAC EQUIPMENT SCHEDULES

H-601



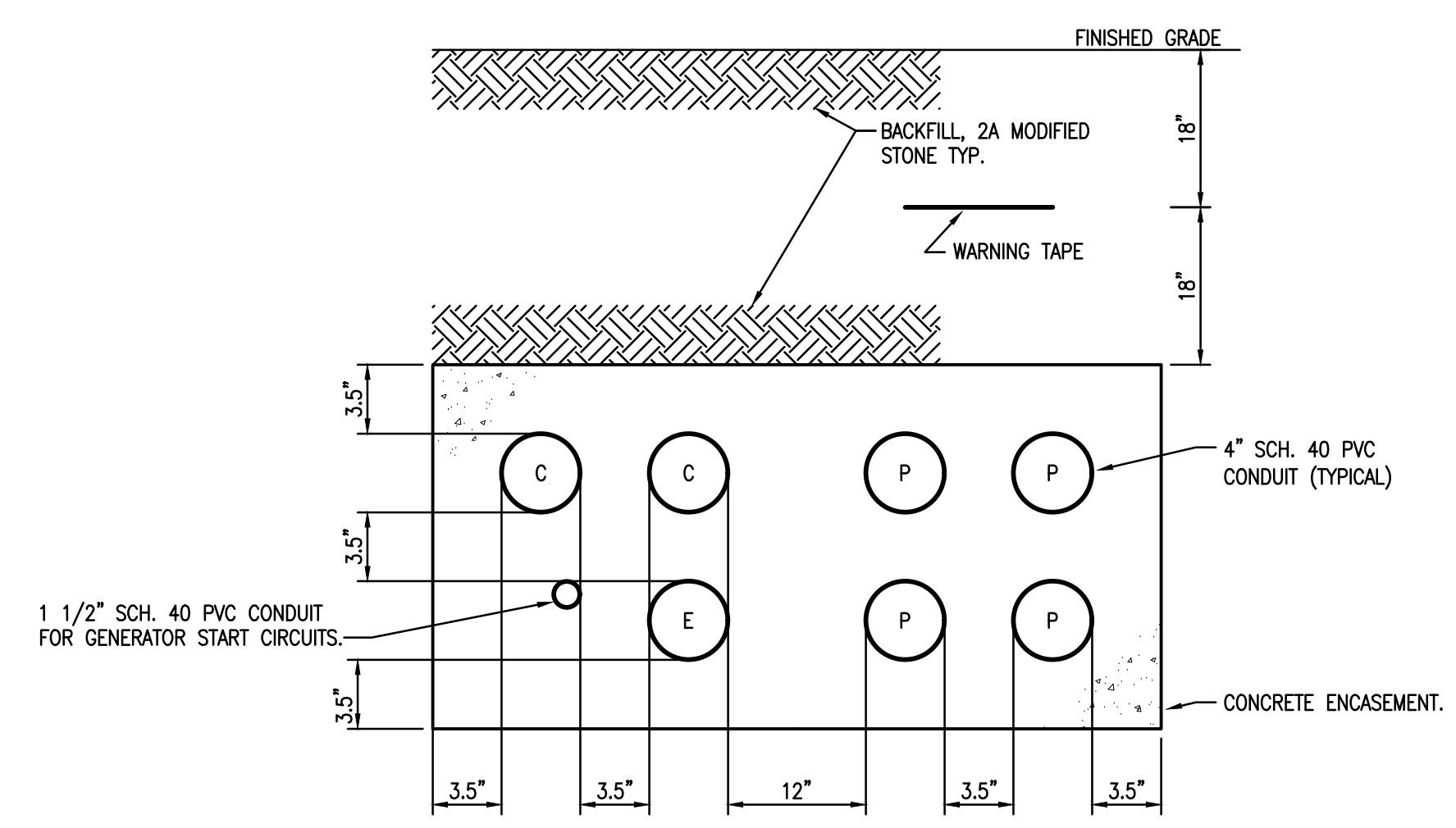
SITE PLAN - ELECTRICAL
SCALE: 1" = 30'-0"

DRAWING NOTES:

- COMMUNICATIONS/POWER UNDERGROUND DUCTBANK. PROVIDE (2) 4" COMMUNICATIONS (1) 4" NORMAL/EMERGENCY POWER AND (4) 4" POWER SCHEDULE 40 PVC CONDUITS.
- PROVIDE 36"x36"x36" FLUSH IN GROUND TIER 22 BOX. QUAZITE CAT NO. PG3636B230 GASKETED, OPEN BOTTOM BOX. PROVIDE GASKETED TIER 22 COVER. PROVIDE "COMMUNICATIONS" OR "ELECTRIC" LOGO ON BOX COVER.
- CUTTING, PATCHING AND EXCAVATION OF ASPHALT AREA(S) BY E.C. SHALL INSTALL CONDUIT, CONCRETE ENCASMENT AND STONE BACKFILL. ASPHALT BASE AND FINAL COAT BY G.C.
- REFER TO DWG. E-002 FOR CONTINUATION.
- PROVIDE 24"x24"x24" FLUSH IN GROUND TIER 22 BOX. QUAZITE CAT NO. PG2424B224 GASKETED, OPEN BOTTOM BOX. PROVIDE GASKETED TIER 22 COVER. PROVIDE "ELECTRIC" LOGO ON BOX COVER. PATCH WALL AT CONDUIT PENETRATION.
- (1) 4" SCHEDULE 40 PVC CONDUIT FOR COMMUNICATIONS. STUB UP OUTSIDE BUILDING LOW ON WALL. EXTEND CONDUIT INSIDE LOW ON WALL. PROVIDE CONCRETE ENCASMENT. PROVIDE (1) 6-STRAND SINGLEMODE AND (1) 6-STRAND MULTIMODE F.O. CABLE PER SPEC. FROM EXISTING DATA CLOSET TO NEW WELDING BUILDING DATA CLOSET.
- (1) 4" CONDUIT RUN AS HIGH AS POSSIBLE ABOVE GARAGE AREA AND ACROSS MEZZ. TO EXISTING DATA CLOSET. PROVIDE (1) 6-STRAND SINGLEMODE AND (1) 6-STRAND MULTIMODE F.O. CABLE PER SPEC. FROM EXISTING DATA CLOSET TO NEW WELDING BUILDING DATA CLOSET.
- DROP CONDUIT DOWN INSIDE WALL AS LOW AS POSSIBLE BEFORE EXITING BUILDING.
- REFER TO DWG. E-102 FOR CONTINUATION.

GENERAL SITE NOTES:

- ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC. ALL EXPOSED EXTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALL INTERIOR CONDUIT SHALL BE EMT. ALL UNDERGROUND ELBOWS SHALL BE LARGE SWEEP R.G.S. PVC ELBOWS ARE NOT PERMITTED.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES USING PA-ONE CALL. REVIEWING THE SITE SURVEY DRAWINGS AND REQUESTING ANY INFORMATION THE OWNER MAY BE ABLE TO PROVIDE ABOUT THE LOCATION OF TRENCHING AND EXCAVATING FOR ALL EXTERIOR CONDUITS, UNDERGROUND PULL BOXES, TRANSFORMER VAULTS, EQUIPMENT PADS, ETC.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL KNOWN AND UNKNOWN UNDERGROUND UTILITIES AND EQUIPMENT FOR BOTH EXTERIOR AND INTERIOR APPLICATIONS WITH THE USE OF GROUND PENETRATING RADAR (GPR) BEFORE TRENCHING, SAW CUTTING, AND EXCAVATING. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ANY BELOW GRADE UTILITIES THAT ARE DAMAGED DUE TO FAILURE TO VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES. SIGNED AND DATED DOCUMENTATION OF GPR SHALL BE AVAILABLE UPON REQUEST.



- NOTES:
- ALL BACKFILL SHALL BE 2A MODIFIED STONE.

DUCT BANK DETAIL SECTION 'A'-A'
NO SCALE

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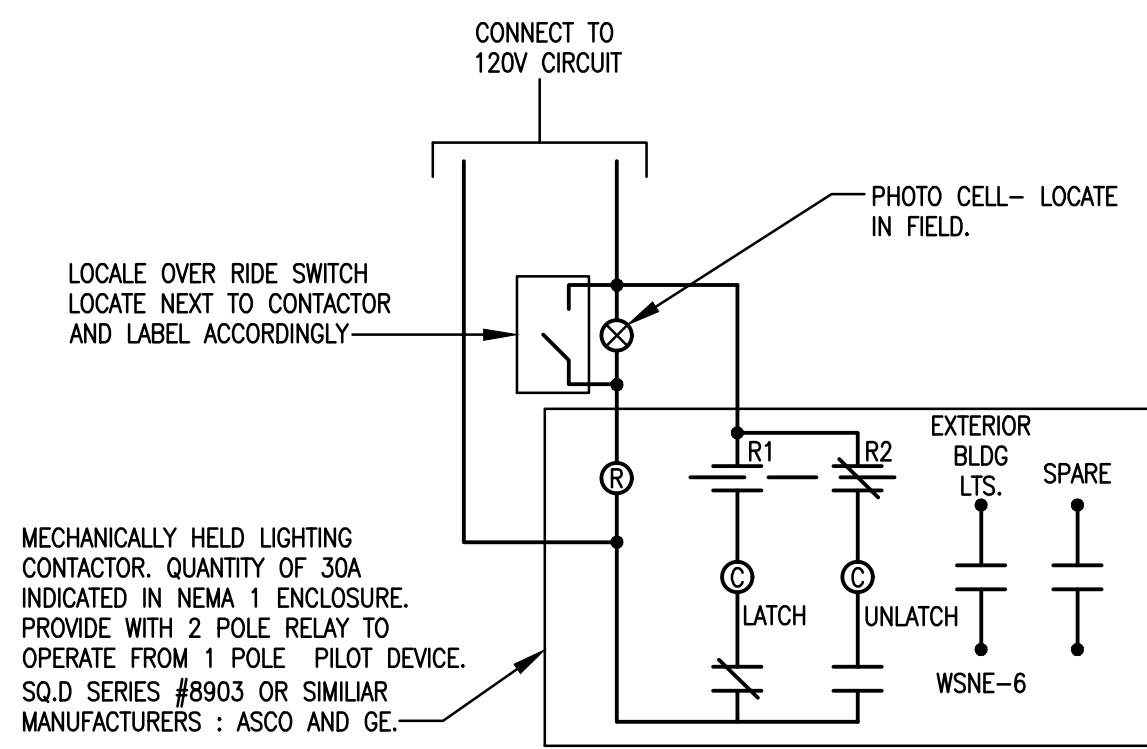
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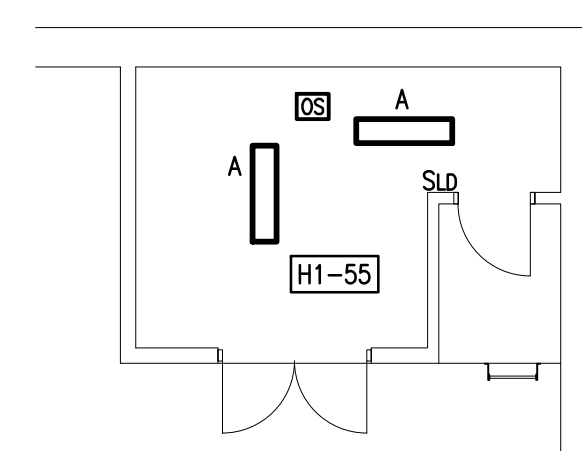
SHEET TITLE:
SITE PLAN - ELECTRICAL

E-001

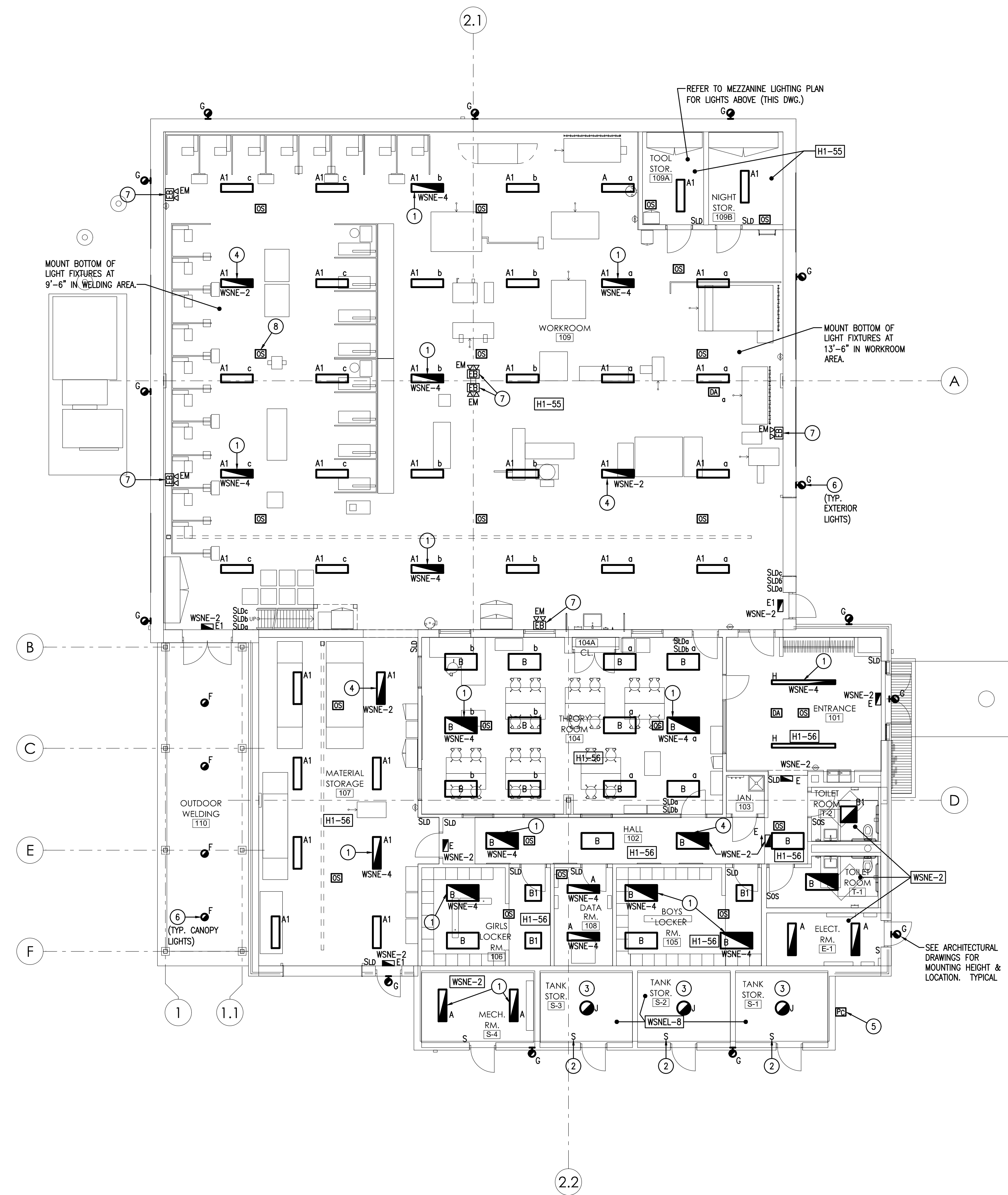
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EXTERIOR LIGHTING CONTACTOR DETAIL
NO SCALE



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



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

DRAWING NOTES:

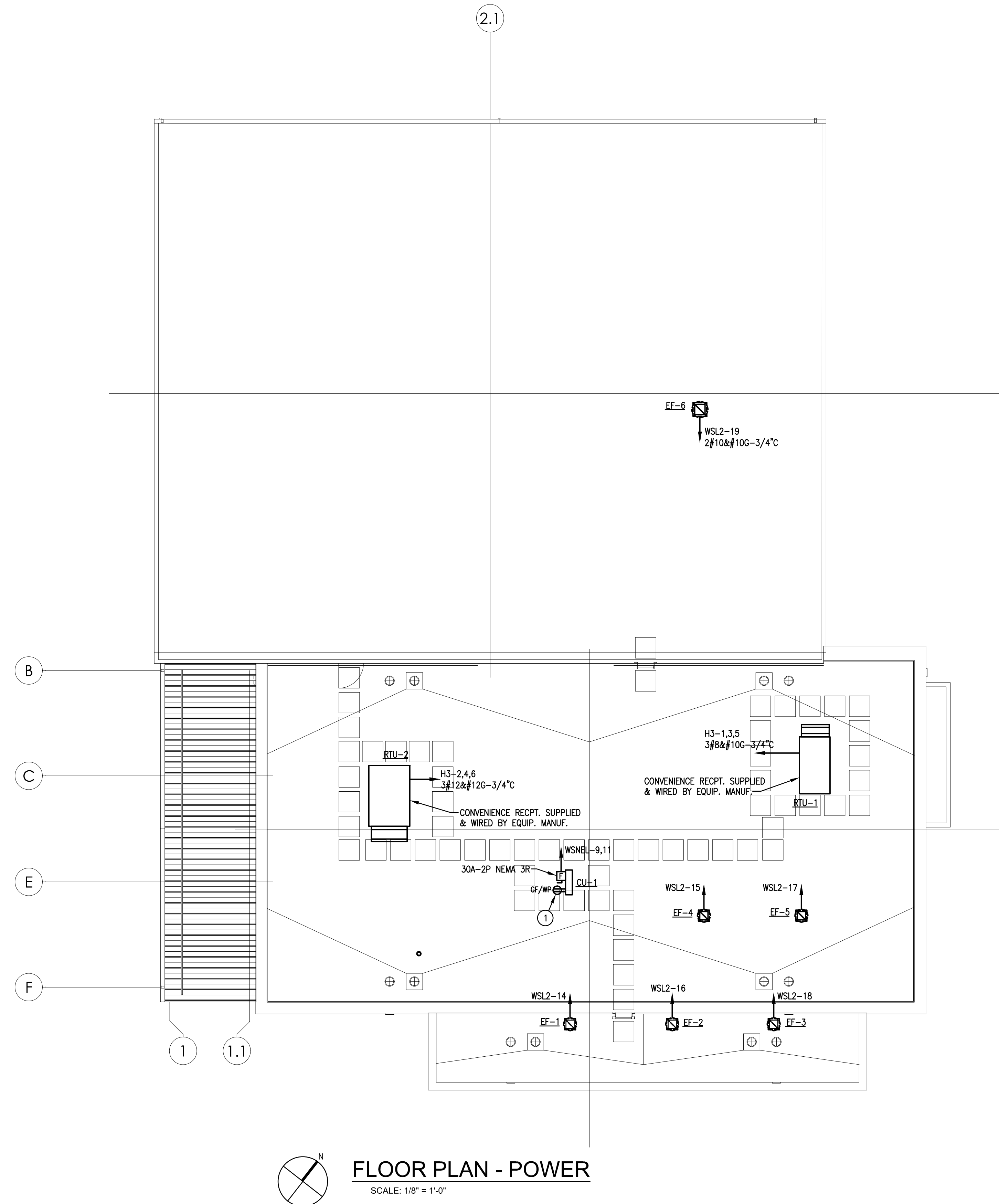
1. FIXTURE TO DIM WITH OTHER ROOM LTS.
2. PROVIDE EXPLOSION PROOF SEALED SWITCH (20 AMP, 120 VOLT)
3. ALL WIRING IN ROOM SHALL BE EXPLOSION PROOF TYPE.
4. FIXTURE WIRED TO 24/7 LIGHTING CIRCUIT.
5. MOUNT EXTERIOR LIGHTING PHOTOCELL AS HIGH AS POSSIBLE ON WALL.
6. CIRCUIT ALL EXTERIOR LIGHTS (TYPES 'G' & 'F') TOGETHER ON CIRCUIT WSNE-6. CIRCUIT SHALL BE RUN VIA EXTERIOR LIGHTING CONTACTOR.
7. CONNECT "EM" LIGHT FIXTURE TO UNSWITCHED "CONSTANT" SIDE OF GENERAL LIGHTING CIRCUIT.
8. PROVIDE HIGH BAY TYPE OCCUPANCY SENSOR (TYP. IN WORK ROOM 109).

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	WATTS	VOLTS	MOUNTING	APPROVED SUBSTITUTES	REMARKS
A	DAYBRITE	V3W45L8400MLPA	35	UNV.	SURFACE/PENDANT	COLUMBIA LITHONIA	NOTE 1
A1	DAYBRITE	V3W470L8400MLPA	50	UNV.	PENDANT	COLUMBIA LITHONIA	NOTE 1
B	DAYBRITE	2FXP43L4DSDDM	39	UNV.	RECESSED	COLUMBIA LITHONIA	
B1	DAYBRITE	2FXP38L2DSDDM	33	UNV.	RECESSED	COLUMBIA LITHONIA	
C	NOT USED						
D	NOT USED						
E	LITHONIA	TLE-NOTE 4-R	1	UNV.	UNIVERSAL	COLUMBIA DAYBRITE	NOTE 4
E1	LITHONIA	LVSAB-R-UM-DL	1	UNV.	UNIVERSAL	COLUMBIA DAYBRITE	NOTE 4
F	ALCON LIGHTING	12302-P-B-B-13/11-40K-A40	13 DOWN	UNV.	NOTE 5	GOTHM COLUMBIA	NOTE 5&6, UP/DOWN LIGHT
G	GARDCO	101L-32-700-NW-G1-4-DD-CC	70	UNV.	WALL	LITHONIA	NOTE 6 & 7
H	FOCAL POINT	F055-FL80-875F-40K-1C-UM-L11-G-CL24-CUSTOM COLOR-8'	30W / 4'	UNV.	PENDANT	LITHONIA COLUMBIA	DIRECT 20%, INDIRECT 80%, NOTE 6
J	SUPER BRIGHT LEDS.COM	EPLS-40-60-MG-P-U-G-N	60	120	SURFACE	CHROUSE WINDS CO.	PROVIDE MOUNTING BRACKET, EXPLOSION PROOF RATED
K	NOT USED						
EM	LITHONIA	ELMR-LTP-W0		120VOLT	SURFACE WALL	COLUMBIA DAYBRITE	EM BAT. PACK, WHITE

LIGHTING FIXTURE SCHEDULE NOTES:

1. PROVIDE STAINLESS STEEL MOUNTING HARDWARE AND STAINLESS STEEL CHAIN (LENGTH REQUIRED).
2. VERIFY GRID SIZE WITH ARCHITECTURAL PLANS.
3. PROVIDE MOUNTING HARDWARE AND CHAIN (LENGTH REQUIRED).
4. PROVIDE SINGLE/DOUBLE FACE AS DESIGNATED ON PLAN.
5. PROVIDE CUSTOM STEM/LENGTH.
6. PROVIDE CUSTOM COLOR.
7. REFER TO ARCHITECTURAL EXTERIOR ELEVATION DWG'S FOR LOCATION & MOUNTING HEIGHT.



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

- DRAWING NOTES:**
1. MOUNT ROOFTOP RECEPTACLE ON OR ADJACENT TO UNIT MINIMUM 18" ABOVE ROOF. CONNECT TO NEAREST UNSWITCHED CORRIDOR OR STORAGE ROOM 120V RECEPTACLE CIRCUIT VIA 2#12~-3/4"C.



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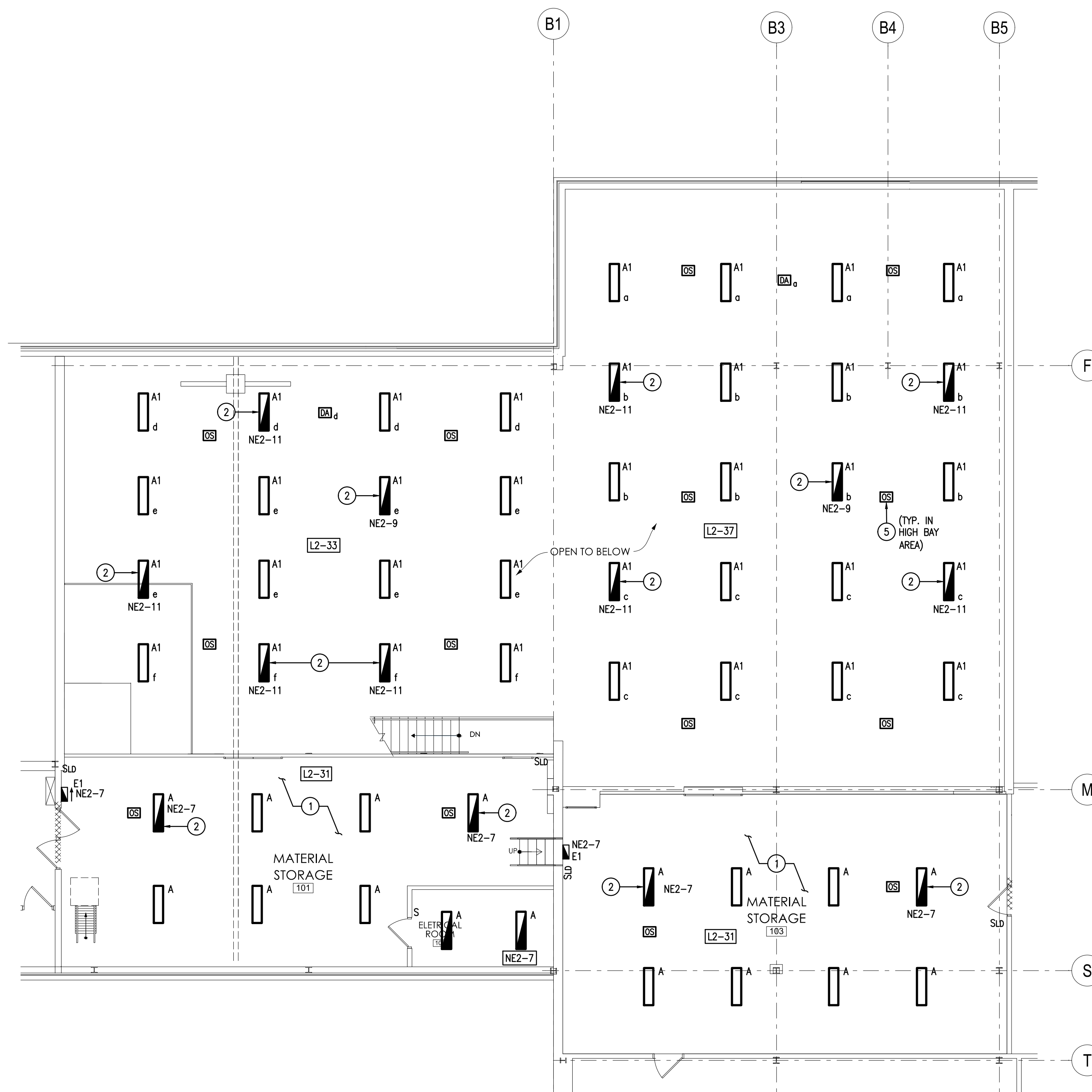
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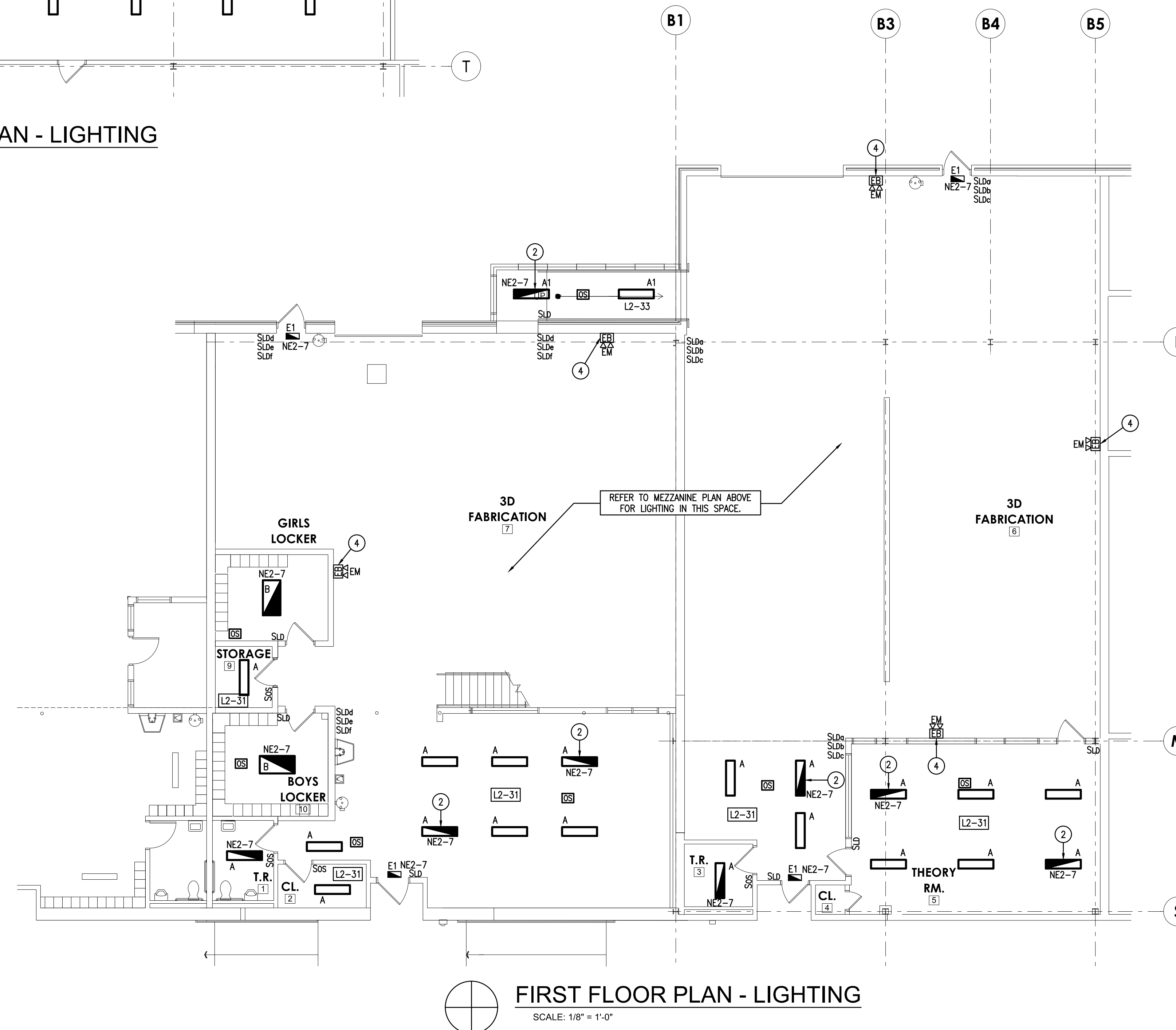
WELDING BUILDING
SHEET TITLE:

ROOF PLAN - POWER

E-103



MEZZANINE PLAN - LIGHTING
SCALE: 1/8" = 1'-0"



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

KEYED DRAWING NOTES

1. INSTALL LIGHT FIXTURES EVENLY THROUGHOUT SPACE. AROUND EXIST PIPING, CONDUIT, ETC.
2. FIXTURE TO DIM WITH OTHER ROOM LIGHT FIXTURES.
3. FIXTURE TO BE WIRED TO 24/7 NE CIRCUIT.
4. CONNECT EMERGENCY ONLY LIGHT FIXTURE TO ROOM LINE SIDE (CONSTANT) GENERAL LIGHTING CIRCUIT.
5. PROVIDE HIGH BAY OCCUPANCY SENSOR (TYP. IN HIGH OPEN AREA 3D MANUFACTURING SHOP AREA).



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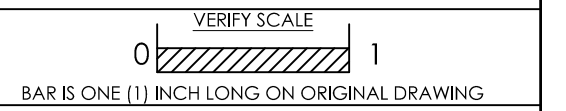
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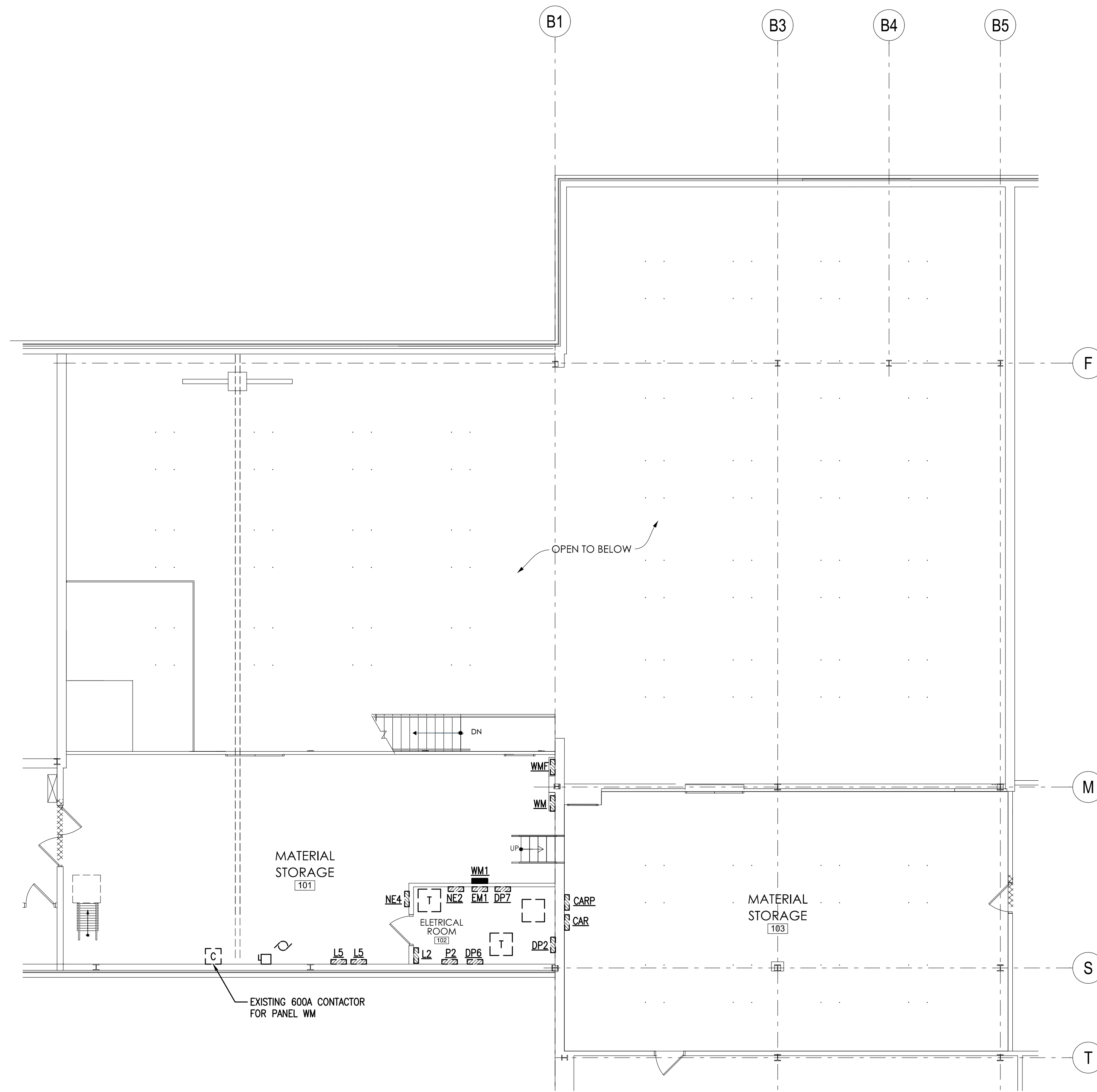


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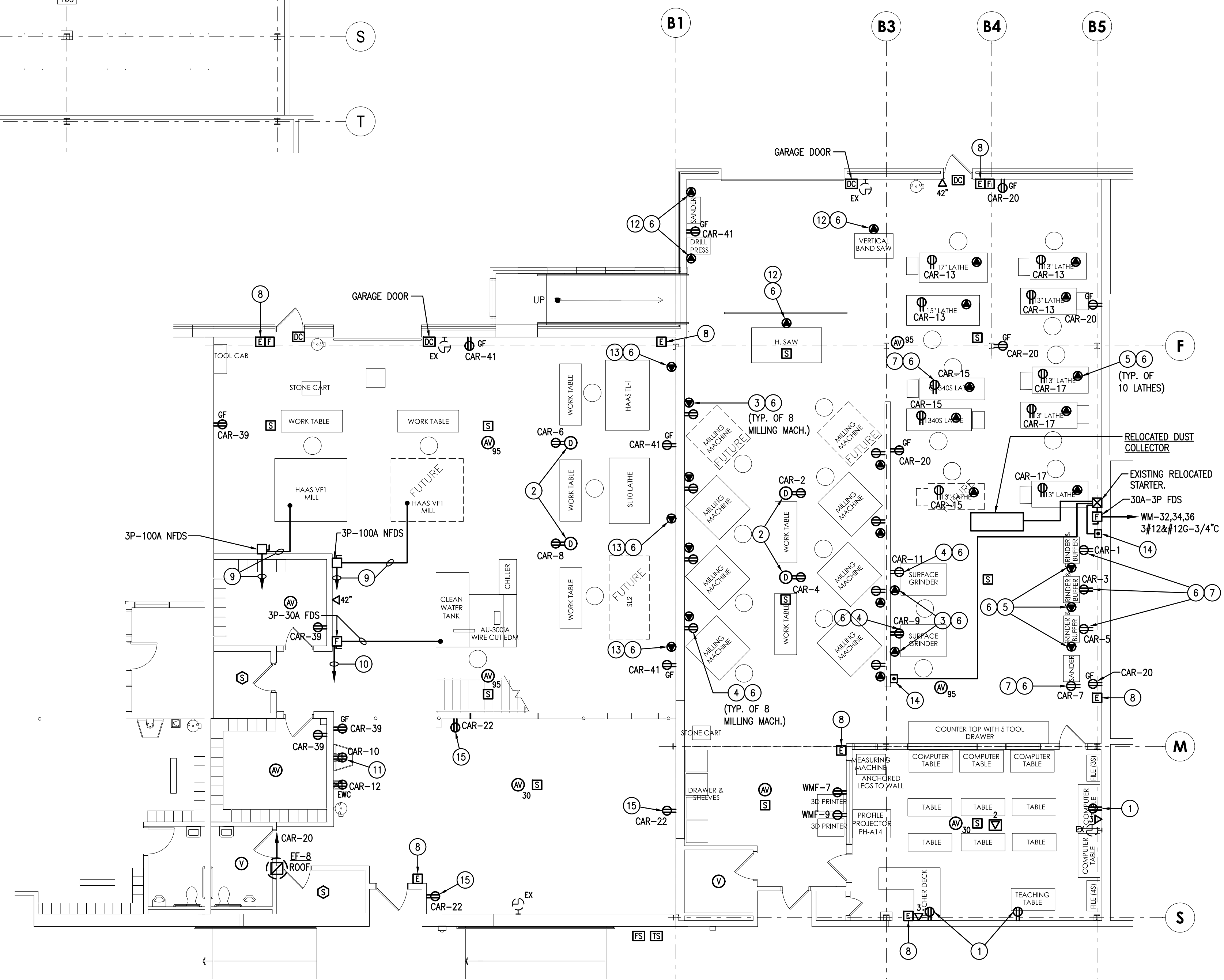
3D FABRICATION

SHEET TITLE:
FLOOR PLANS - LIGHTING

E-105



MEZZANINE PLAN - POWER
SCALE: 1/8" = 1'-0"



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

KEYED DRAWING NOTES:

1. ADD DUPLEX RECEPTACLE INTO EXISTING NON METALLIC RACEWAY. CONNECT RECEPTACLE TO EXISTING CIRCUIT IN RACEWAY.
2. CABLE DROP CORD. PROVIDE MISCELLANEOUS STEEL FOR MOUNTING. SEE LEGEND FOR CATALOG NUMBER.
3. PROVIDE 480V 3Ø 20 AMP TWIST LOCK RECEPT FOR MILLING MACHINE OR GRINDER (VERIFY HEIGHT W/INSTRUCTOR PRIOR TO INSTALLING). RUN 3Ø12W/Ø12GRD.-3/4" TO PANEL 'WM1'. CONNECT TO 3Ø-20A CIRCUIT BREAKER. RECEPT TO MATCH OWNER'S EQUIP PLUG. PROVIDE SJO CORD FROM JUNCTION BOX AT STEEL DOWN TO EQUIPMENT.
4. PROVIDE 120V 1Ø 20 AMP TWIST LOCK RECEPT (VERIFY HEIGHT W/INSTRUCTOR PRIOR TO INSTALLING). RUN 2Ø12W/Ø12GRD.-3/4" TO PANEL 'CAR'. CONNECT TO 1Ø-20A CIRCUIT BREAKER.
5. PROVIDE 480V 3Ø 20 AMP TWIST LOCK RECEPT FOR LATHE OR BUFFER. RUN 3Ø12W/Ø12GRD.-3/4" TO PANEL 'WM' OR 'WM1'. CONNECT TO 3Ø-20A CIRCUIT BREAKER. RECEPT TO MATCH OWNER'S EQUIP PLUG. PROVIDE SJO CORD FROM JUNCTION BOX AT STEEL DOWN TO EQUIPMENT.
6. COORDINATE EXACT LOCATION OF RECEPT. WITH OWNER PRIOR TO INSTALLING TO MAKE SURE LOCATION OF RECEPT. DOES NOT INTERFERE WITH OPERATION OF EQUIPMENT.
7. PROVIDE 120V 1Ø 20 AMP TWIST LOCK RECEPT. RUN 2Ø12W/Ø12GRD.-3/4" TO PANEL 'WMF'. CONNECT TO 1Ø-20A CIRCUIT BREAKER. PROVIDE SJO CORD FROM JUNCTION BOX AT STEEL DOWN TO RECEPT AT EQUIPMENT.
8. CONNECT EMERGENCY STOP TO PANEL CONTACTORS FOR PANELS 'WMF', 'WM', 'CAR', & 'CARP'.
9. RUN 3Ø3W/Ø8GRD.-1 1/4" TO PANEL 'WMF'. CONNECT TO 3Ø-80A C.B. RUN TO MILL OVERHEAD AND DROP DOWN FROM JUNCTION BOX ABOVE AT STEEL WITH SJO CABLE. MAKE HARD CONNECTION TO EQUIP.
10. RUN 3Ø1ØW/Ø1ØGRD.-3/4" TO PANEL 'WM'. CONNECT TO 3Ø-30A C.B. RUN TO WIRE CUT EDM OVERHEAD WITH SJO CORD FROM JUNCTION BOX TO EQUIP. PROVIDE HARD CONNECTION.
11. WASH FOUNTAIN, COORDINATE RECEPTACLE LOCATION WITH P.C.
12. PROVIDE 240V, 2ØA, 3Ø TWISTLOCK RECEPT. RUN 3Ø12W/Ø12GRD.-3/4" TO PANEL 'CARP'. CONNECT TO SPARE 3Ø-15A CIRCUIT BREAKER IN PANEL. RELABEL PANEL SCHEDULE CORRECTLY WITH EQUIPMENT NAME.
13. PROVIDE 240V, 4ØA, 3Ø TWIST LOCK RECEPT. RUN 3Ø8W/Ø1ØGRD.-3/4" TO EXISTING PANEL 'CARP'. REMOVE EXISTING CIRCUIT BREAKER AND REPLACE W/4ØA-3Ø CIRCUIT BREAKER & CONNECT RELABEL PANEL SCHEDULE CORRECTLY WITH EQUIPMENT NAME.
14. EXISTING RELOCATED START/STOP PUSH BUTTON CONTROL. PROVIDE ALL REQUIRED WIRING IN 3/4" CONDUIT AND CONNECT TO EXISTING RELOCATED STARTER AS REQUIRED.
15. COORDINATE EXACT LOCATION WITH STORAGE RACKING TO ENSURE RECEPTACLES ARE ACCESSIBLE.



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3D FABRICATION
SHEET TITLE:

FLOOR PLANS - POWER

E-106

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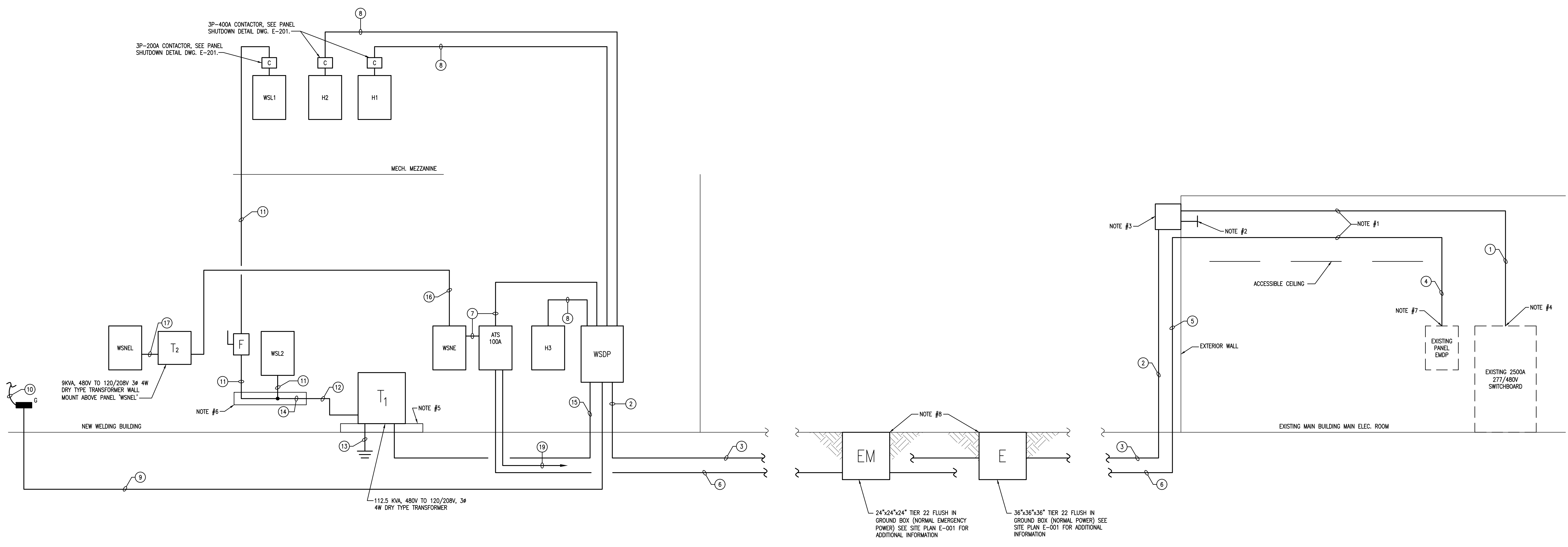
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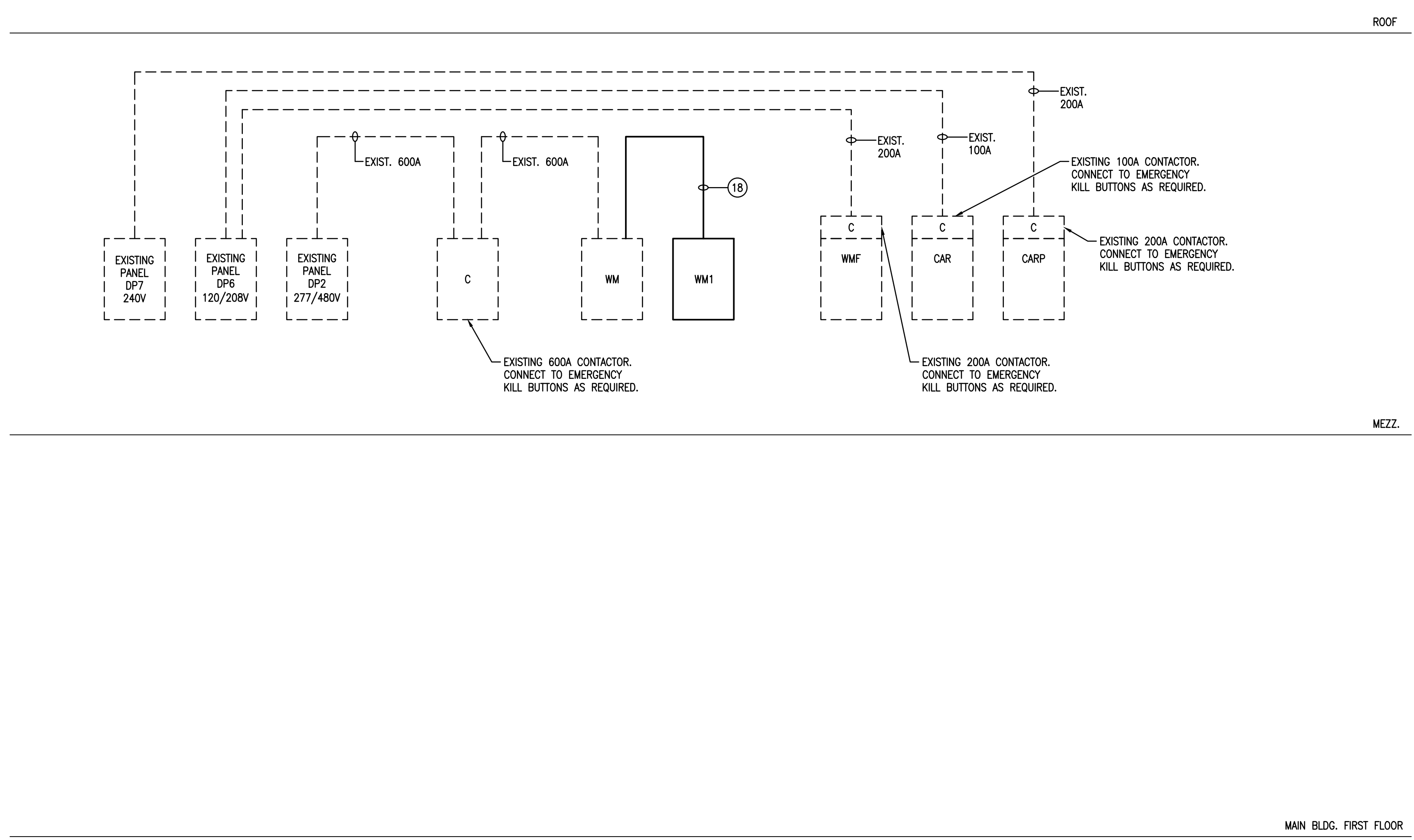
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SHEET TITLE:
POWER RISER DIAGRAM

E-301



PARTIAL POWER RISER DIAGRAM
 SCALE: NTS



PARTIAL POWER RISER DIAGRAM
 SCALE: NTS

POWER RISER NOTES:

1. RUN CONDUITS THRU EXPOSED AREAS AND ABOVE ACCESSIBLE CEILINGS AS HIGH AS POSSIBLE.
2. STUB SPARE 4" CONDUIT FROM BOX INTO ROOM
3. PROVIDE NEMA 3R PULL BOX HIGH ON WALL AS POSSIBLE. SIZE BOX AS REQUIRED.
4. PROVIDE NEW 3P-1000A, GF C.B. IN EXISTING 2500A 277/480V SWITCHBOARD. PROVIDE CONNECTIONS.
5. PROVIDE 3 1/2" HIGH CONCRETE HOUSE CLEANING PAD.
6. PROVIDE 12"x12" WIRE THROUGH.
7. PROVIDE NEW 3P-100A C.B. IN EXISTING PANEL. PROVIDE CONNECTIONS.
8. BOX TO BE USED AS PULL BOX. FEEDER TO RUN THRU BOX. NO SPLICES PERMITTED IN BOX.

FEEDER SCHEDULE (ALL FEEDERS COPPER):

1. (3) 4" "EMT" CONDUITS EACH WITH 4#600KCMIL#3/0GRD. RUN CONDUITS AS HIGH AS POSSIBLE THRU EXPOSED STRUCTURE AND ABOVE ACCESSIBLE CEILING AREAS.
2. (4) 4" "RIGID GALVANIZED STEEL" CONDUITS. (3) CONDUITS WITH 4#600KCMIL#3/0GRD. CONDUIT SECURED TO OUTSIDE OF WALL. (1) CONDUIT SPARE. PROVIDE PULL STRING IN SPARE CONDUIT.
3. (4) 4" "SCHEDULE 40 EXC" CONDUITS. (3) CONDUITS EACH WITH 4#600KCMIL#3/0GRD. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC WITH RIGID GALVANIZED STEEL LARGE SWEEP ELBOWS. PROVIDE CONCRETE ENCASUREMENT. (1) CONDUIT SPARE. PROVIDE PULL STRING IN SPARE CONDUIT.
4. 4#3/0#66RD-2 1/2" CONDUIT (EMT) VIA EXPOSED STRUCTURE AND ABOVE ACCESSIBLE CEILING.
5. 4#3/0#66RD-2 1/2" CONDUIT (RIGID GALVANIZED STEEL) ON EXTERIOR WALL
6. 4#3/0#66RD-4" CONDUIT (SCHEDULE 40 PVC) UNDERGROUND. ALL ELBOWS SHALL BE R.G.S.
7. 4#1#66RD-1 1/2" CONDUIT
8. 4#500KCMIL#2GRD.4" CONDUIT
9. 4/0 CU GRD.-1" CONDUIT. CONNECT TO DATA CLOSET GROUND BAR.
10. 4/0 CU GRD. CONNECT TO DATA RACK
11. 4#3/0#66RD-2" CONDUIT.
12. 4#500KCMIL#2GRD.-4" CONDUIT
13. 4/0 CU GRD.-1" CONDUIT TO BUILDING STEEL
14. 4#500KCMIL#2GRD
15. 3#2/0#66RD-2" CONDUIT
16. 3#12#12GRD.-3/4" CONDUIT
17. 4#8#10GRD.-3/4" CONDUIT
18. 3#4/0#4GRD.-2" CONDUIT
19. GENERATOR START CIRCUITS IN 1 1/2" CONDUIT TO MAIN BLDG. GENERATOR. PROVIDE ALL WIRING AND CONNECTIONS.

SQUARE 'D' NF (CONTROLLED BY 3P-400A CONTACTOR)										FED FROM: WSDP			
WITH GRD. BAR		MAINS: 400A MLO			AIC RATING: 18,000			PANEL: H1		WIRES: 4		POLES: 84	
VOLTS: 277/480		MOUNTING: SURFACE			LOCATION: MECH. MEZZANINE								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
OVERHEAD WELDER RECP. AT TABLE (NOTE 1)	60	1	2	3	4	5	6	3	60	OVERHEAD WELDER RECP. AT TABLE (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	7	8	9	10	11	12	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	13	14	15	16	17	18	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	19	20	21	22	23	24	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	25	26	27	28	29	30	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	31	32	33	34	35	36	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	37	38	39	40	41	42	3	60	WELDER BOOTH (NOTE 1)			
EXTERIOR WELDER OUTLET (NOTE 1)	60	43	44	45	46	47	48	3	60	EXTERIOR WELDER OUTLET			
OVERHEAD WELDER OUTLET AT WELDER TABLE (NOTE 1)	60	49	50	51	52	53	54	3	60	OVERHEAD WELDER OUTLET AT WELDER TABLE (NOTE 1)			
WELDING SHOP L.T.S.	1150	55	56	57	58	59	60	20	1150	STOR. THEORY, CORR. LOCKER L.T.S.			
PORTABLE WELDER	8000	61	62	63	64	65	66	20	8000	SPARE			
SPARE	20	67	68	69	70	71	72	20	20	SPARE			
FREE SPACE	20	73	74	75	76	77	78	20	20	FREE SPACE			
FREE SPACE	20	79	80	81	82	83	84	20	20	FREE SPACE			

NOTE 1 - E.C. SHALL LABEL CIRCUIT BREAKER WITH CORRECT WELDER BOOTH # ON SCHEDULES.

SQUARE 'D' NF (CONTROLLED BY 3P-400A CONTACTOR)										FED FROM: WSDP			
WITH GRD. BAR		MAINS: 400A MLO			AIC RATING: 18,000			PANEL: H2		WIRES: 4		POLES: 84	
VOLTS: 277/480		MOUNTING: SURFACE			LOCATION: MECH. MEZZANINE								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
WELDER BOOTH (NOTE 1)	60	1	2	3	4	5	6	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	7	8	9	10	11	12	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	13	14	15	16	17	18	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	19	20	21	22	23	24	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	25	26	27	28	29	30	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	31	32	33	34	35	36	3	60	WELDER BOOTH (NOTE 1)			
WELDER BOOTH (NOTE 1)	60	37	38	39	40	41	42	3	60	WELDER BOOTH (NOTE 1)			
AIR COMPRESSOR	20	43	44	45	46	47	48	20	20	DRILL PRESS			
SCOTCHMAN METAL BREAK	30	49	50	51	52	53	54	3	8000	PLASMA CUTTER			
DRILL PRESS	3000	55	56	57	58	59	60	15	3000	PEELLESS BAND SAW			
SPARE	20	61	62	63	64	65	66	20	20	SPARE			
FREE SPACE	20	67	68	69	70	71	72	20	20	FREE SPACE			
FREE SPACE	20	73	74	75	76	77	78	20	20	FREE SPACE			
FREE SPACE	20	79	80	81	82	83	84	20	20	FREE SPACE			

NOTE 1 - E.C. SHALL LABEL CIRCUIT BREAKER WITH CORRECT WELDER BOOTH # ON SCHEDULES.

SQUARE 'D' NQ (CONTROLLED BY 3P-200A CONTACTOR)										FED FROM: TRANSF.			
WITH GRD. BAR		MAINS: 225A MLO			AIC RATING: 10,000			PANEL: WSL2		WIRES: 4		POLES: 42	
VOLTS: 120/208		MOUNTING: SURFACE			LOCATION: ELEC. ROOM E-1								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
OVERHEAD DROP REEL	180	20	GF	1	2	3	4	20	20	OVERHEAD DROP REEL			
EXTERIOR WELDER STATION	180	20	5	6	7	8	20	180	180	EXTERIOR WELDER STATION			
RECP'T'S WELD SHOP	540	20	9	10	11	12	20	540	540	GRINDING TABLE RECP'T'S			
RECP'T'S WELD SHOP	540	20	13	14	15	16	20	540	540	120V PWR (VICTOR)			
CUT OFF MACHINE	180	20	17	18	19	20	180	180	120V PWR CUTTING MACH.				
SPARE	20	21	22	23	24	25	20	20	20	120V PWR WELDING POSITIONER			
SPARE	20	26	27	28	29	30	20	20	20	120V PWR BAND SAW (HORZ.)			
SPARE	20	31	32	33	34	35	20	20	20	120V PWR CHOP SAW			
SPARE	20	36	37	38	39	40	20	20	20	120V PWR WELD TABLE			
LATHE	3000	41	42	43	44	45	4000	4000	4000	HYDRAULIC PRESS			
BLANK SPACE	33	46	47	48	49	50	33	33	33	BLANK SPACE			
BLANK SPACE	35	51	52	53	54	55	35	35	35	BLANK SPACE			
BLANK SPACE	37	56	57	58	59	60	37	37	37	BLANK SPACE			
BLANK SPACE	39	61	62	63	64	65	39	39	39	BLANK SPACE			
BLANK SPACE	41	66	67	68	69	70	41	41	41	BLANK SPACE			

GF = GROUND FAULT PROTECTED BREAKER
ST = SHUNT TRIP BREAKER
HL = HANDLE LOCK ATTACHMENT
PL = HANDLE PADLOCK ATTACHMENT

SQUARE 'D' NQ										FED FROM: TRANSF.			
WITH GRD. BAR		MAINS: 200A MCB			AIC RATING: 10,000			PANEL: WSL2		WIRES: 4		POLES: 42	
VOLTS: 120/208		MOUNTING: SURFACE			LOCATION: ELEC. ROOM E-1								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
BWC'S	360	20	GF	1	2	3	4	20	180	ELECTRIC RM RECP'TS.			
CORRIDOR RECP'T'S	540	20	5	6	7	8	20	540	540	BOYS/GIRLS LOCKER RECP'T'S			
MATERIAL STOR. RECP'T'S	540	20	9	10	11	12	20	540	540	MECH. RM RECP'T.			
MATERIAL STOR. RECP'T'S	540	20	13	14	15	16	20	540	540	THEORY RM RECP'T'S			
LOBBY RECP'T'S	360	20	17	18	19	20	180	180	THEORY RM RECP'T'S				
RECP'T'S WELD SHOP	540	20	21	22	23	24	20	540	540	THEORY RM RECP'T'S			
MEZZ. B'Y RECP'T. & ECH	1020	20	25	26	27	28	20	864	864	BF-1 ROOF			
BF-4 ROOF	1200	20	29	30	31	32	20	864	864	BF-2 ROOF			
BF-5 ROOF	300	20	33	34	35	36	20	864	864	BF-3 ROOF			
BF-6 ROOF	1660	25	37	38	39	40	20	530	530	CIRCULATION PUMP			
GRH-1 MATERIAL STORAGE	408	20	41	42	43	44	20	300	300	AIR COMPRESSOR CONDENSATE			
(2) ECH-2'S TOILET ROOMS	1128	20	45	46	47	48	20	700	700	AIR COMPRESSOR DRYER			
(2) ECH-2'S TOOL & NIGHT STOR.	1128	20	49	50	51	52	20	180	180	MAT STORAGE HOIST			
EMERGENCY PANEL SHUTDOWN	300	20	53	54	55	56	20	300	300	SPARE			
SPARE	20	57	58	59	60	61	20	20	20	SPARE			
SPARE	20	62	63	64	65	66	20	20	20	SPARE			
SPARE	20	67	68	69	70	71	20	20	20	SPARE			
SPARE	20	72	73	74	75	76	20	20	20	SPARE			
SPARE	20	77	78	79	80	81	20	20	20	SPARE			
SPARE	20	81	82	83	84	85	20	20	20	SPARE			

GF = GROUND FAULT PROTECTED BREAKER
ST = SHUNT TRIP BREAKER
HL = HANDLE LOCK ATTACHMENT
PL = HANDLE PADLOCK ATTACHMENT

EXISTING PANEL SQUARE 'D' HCN I-LINE CONTROLLED BY 600A CONTACTOR										FED FROM: DP2			
WITH GRD. BAR		MAINS: 600A MLO			AIC RATING: 18,000			PANEL: WM		WIRES: 4		POLES: 42	
VOLTS: 480		MOUNTING: SURFACE			LOCATION: MEZZ								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
LATHE (NOTE 1&2)	20	1	2	3	4	5	6	3	20	LATHE (NOTE 1&2)			
LATHE (NOTE 1&2)	20	7	8	9	10	11	12	3	20	LATHE (NOTE 1&2)			
GRINDER (NOTE 1&2)	20	13	14	15	16	17	18	3	20	GRINDER (NOTE 1&2)			
BUFFER (NOTE 1&2)	20	19	20	21	22	23	24	3	20	BUFFER (NOTE 1&2)			
BUFFER (NOTE 1&2)	20	25	26	27	28	29	30	3	20	PANEL 'WM' 1 (NOTE 1)			
WIRE CUT EDM (NOTE 1)	30	31	32	33	34	35	36	3	4000	DUST COLLECTOR			
		37	38	39	40	41	42						

NOTE 1 - REMOVE EXIST. CIRCUIT BREAKER AND PROVIDE NEW SIZE TYPE INDICATED.
NOTE 2 - E.C. SHALL LABEL CIRCUIT BREAKER WITH CORRECT BUFFER, GRINDER, OR LATHE NUMBER ON SCHEDULE.
VERIFY NUMBERING WITH OWNER.

SQUARE 'D' NF CONTROLLED BY 600A CONTACTOR (VIA PANEL 'WM')										FED FROM: WM			
WITH GRD. BAR		MAINS: 225A MLO			AIC RATING: 18,000			PANEL: WM1		WIRES: 3		POLES: 42	
VOLTS: 480		MOUNTING: SURFACE			LOCATION: MEZZ								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
MILLING MACHINE (NOTE 1)	20	1	2	3	4	5	6	20	20	MILLING MACHINE (NOTE 1)			
MILLING MACHINE (NOTE 1)	20	7	8	9	10	11	12	3	20	MILLING MACHINE (NOTE 1)			
MILLING MACHINE (NOTE 1)	20	13	14	15	16	17	18	3	20	MILLING MACHINE (NOTE 1)			
MILLING MACHINE (NOTE 1)	20	19	20	21	22	23	24	3	20	MILLING MACHINE (NOTE 1)			
MILLING MACHINE (NOTE 1)	20	25	26	27	28	29	30	3	20	MILLING MACHINE (NOTE 1)			
LATHE (NOTE 1)	20	31	32	33	34	35	36	3	20	LATHE (NOTE 1)			
LATHE (NOTE 1)	20	37	38	39	40	41	42	3	20	LATHE (NOTE 1)			
LATHE (NOTE 1)	20	43	44	45	46	47	48	3	20	LATHE (NOTE 1)			

NOTE 1 - E.C. SHALL LABEL CIRCUIT BREAKER WITH CORRECT LATHE OR MILLING MACHINE NUMBER ON SCHEDULE.
VERIFY NUMBERING WITH OWNER.

SQUARE 'D' NQ										FED FROM: TRANSF.			
WITH GRD. BAR		MAINS: 35A MCB			AIC RATING: 10,000			PANEL: WSNEL		WIRES: 4		POLES: 24	
VOLTS: 120/208		MOUNTING: SURFACE			LOCATION: ELEC. ROOM E-1								
REMARKS & LOCATION	LOAD	BKR	CKT	A	B	C	CKT	BKR	LOAD	REMARKS & LOCATION			
DATA RACK	360	20	1	2	3	4	20	360	360	DATA RACK			
DATA CLOSET RECP'T'S	360	20	5	6	7	8	20	400	400	FIRE ALARM PANEL			
DATA CLOSET 30A, TL	1000	20	9	10	11	12	20	100	100	INTERCOM. LOCK CAB.			
FRONT DOOR PWR. SUPPLY													