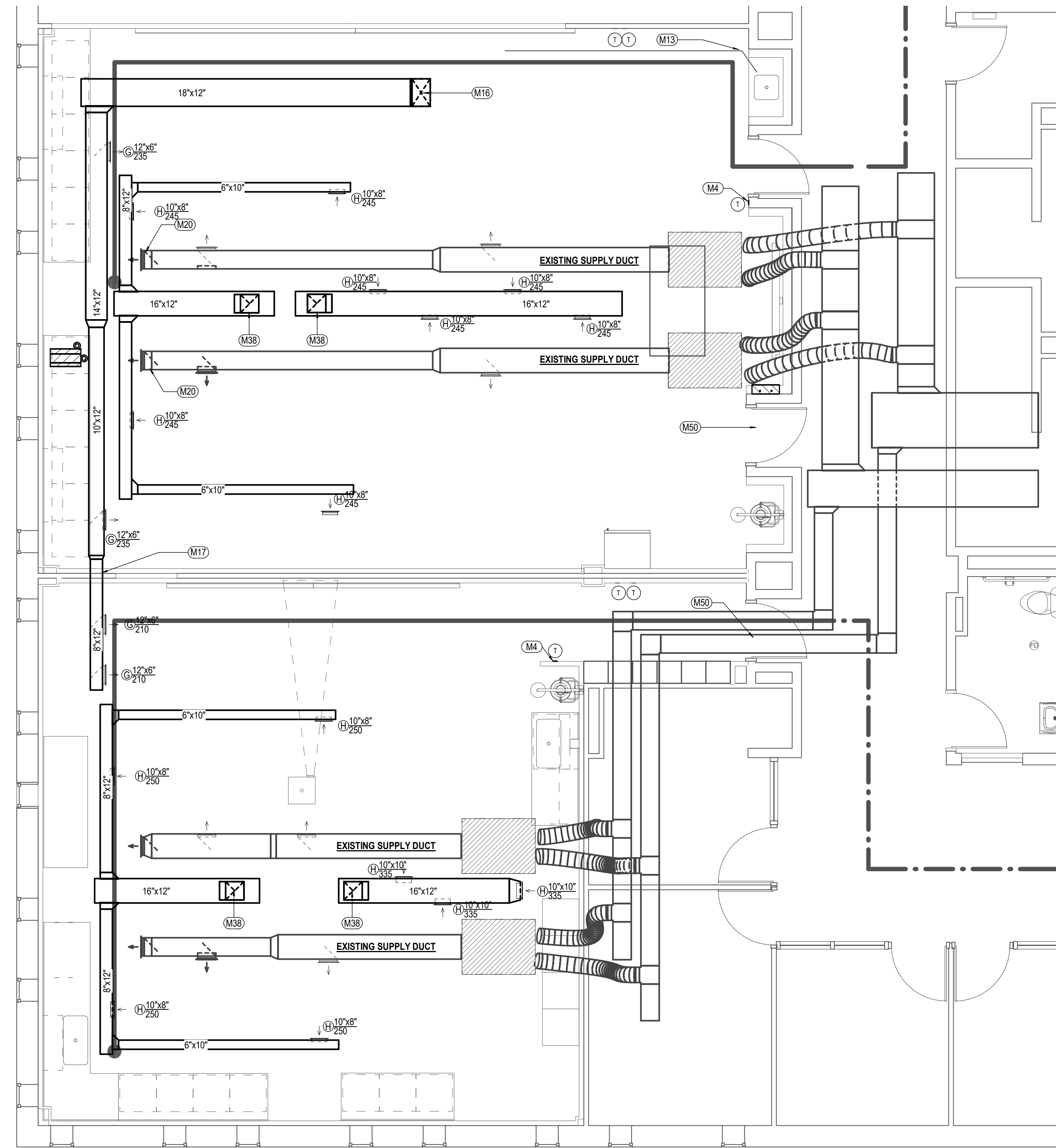
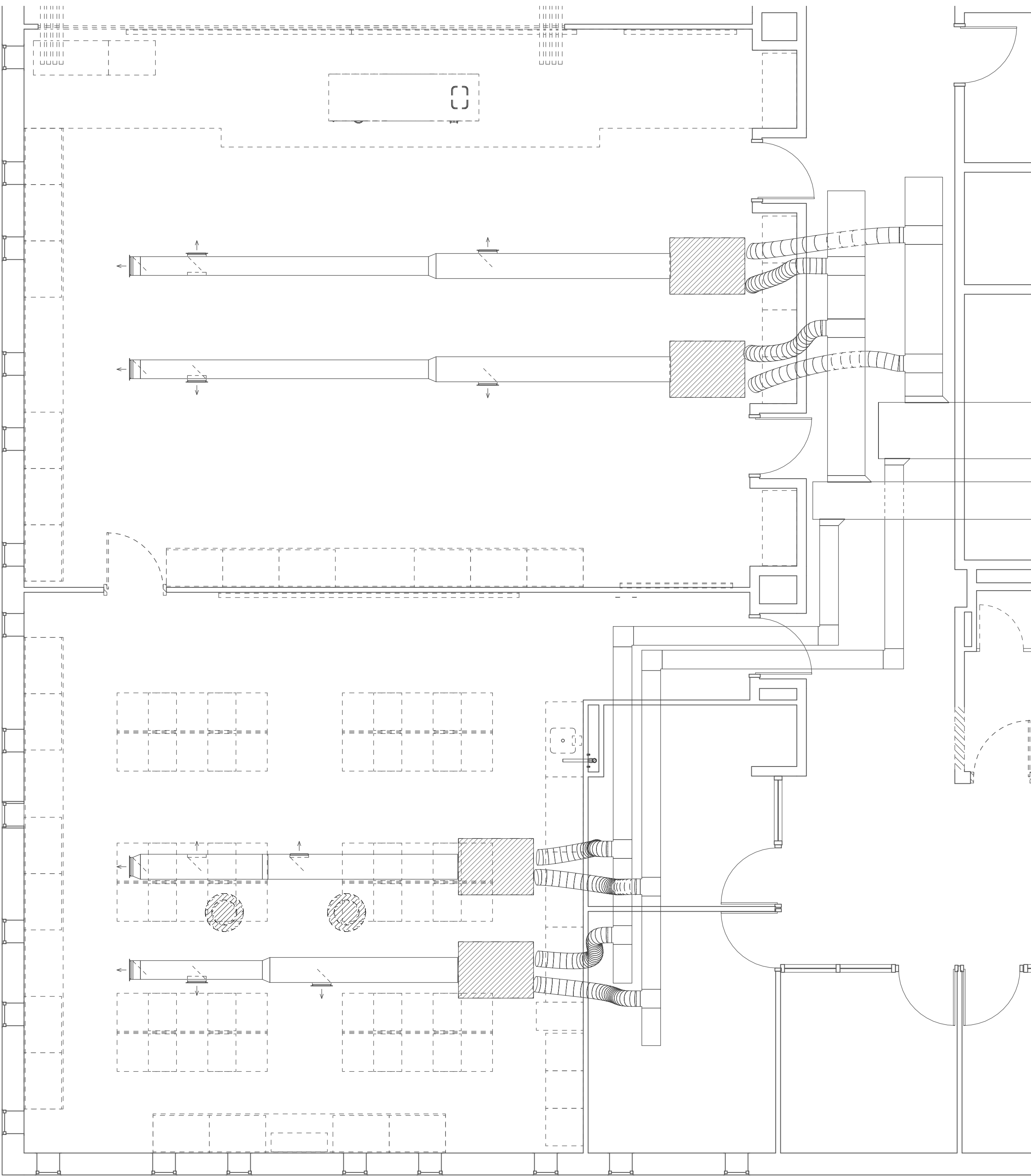


SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(CC)	CARBON DIOXIDE SENSOR		GATE VALVE
(SD)	SMOKE DAMPER		CHECK VALVE
(FS)	COMBINATION FIRE / SMOKE DAMPER		GLOBE VALVE
(FD)	FIRE DAMPER		PLUG VALVE
(F)	FIRESTAT		BUTTERFLY VALVE
(H)	HUMIDISTAT		STRAINER
(T)	THERMOSTAT		GATE VALVE WITH HOSE CONNECTION
(P)	FREEZESTAT		3-WAY CONTROL VALVE
(VD)	VOLUME DAMPER		STRAIGHT THROUGH CONTROL VALVE
(S)	SMOKE DETECTOR		BALL VALVE
(M)	MOTORIZED DAMPER		TEST PLUG
(OBD)	OPPOSED BLADE DAMPER		GAUGE STATION WITH COCK
(BD)	BACKDRAFT DAMPER		THERMOMETER
(BC)	BAROMETRIC DAMPER		THERMOMETER WELL
07M-3	INDICATES REFERENCE TO VIEW 07, SHEET M-3		PRESSURE RELIEF VALVE
	FILTER SECTION		PRESSURE REDUCING VALVE
	FLEXIBLE CONNECTION		FLOW SWITCH
	MECHANICAL EQUIPMENT		AIR VENT
	SUPPLY AIR TERMINAL		FLOW METER
	RETURN AIR TERMINAL		UNION
	NEW DUCTWORK		FLOW CONTROL VALVE
	EXISTING DUCTWORK TO REMAIN		CHILLED WATER SUPPLY
	EXISTING DUCTWORK TO BE REMOVED		CHILLED WATER RETURN
	INDICATES REFERENCE TO SECTION VIEW 01, SHEET M-3		HOT WATER SUPPLY
			HOT WATER RETURN
			CONDENSER WATER SUPPLY
			CONDENSER WATER RETURN
			CONDENSATE DRAIN
			REFRIGERANT SUCTION
			REFRIGERANT GAS
			REFRIGERANT LIQUID
			STEAM CONDENSATE RETURN
			HIGH PRESSURE STEAM
			LOW PRESSURE STEAM

A	AMPERES	DFA	DOWN FROM ABOVE	HOA	HAND OFF AUTOMATIC SWITCH	SPF	STAIRWELL PRESSURIZATION FAN
ACC	AIR COOLED CHILLER	DR	RETURN DUCT SMOKE DETECTOR	HP	HORSEPOWER	TEF	TOILET EXHAUST FAN
ACCU	AIR COOLED CONDENSING UNIT	DS	SUPPLY DUCT SMOKE DETECTOR	HWP	HEATING WATER PUMP	UG	UNDERGROUND
ACU	AIR CONDITIONING UNIT	DY	DRYER	IV	ISOLATION VALVE	UL	UNDERWRITERS LABORATORIES
AFF	ABOVE FINISHED FLOOR	E.C.	ELECTRICAL CONTRACTOR	KEF	KITCHEN EXHAUST FAN	U.N.O.	UNLESS NOTED OTHERWISE
AFR	ABOVE FINISHED ROOF	EDH	ELECTRIC DUCT HEATER	KSU	KITCHEN SUPPLY UNIT	VAV	VARIABLE AIR VOLUME
AHAP	AS HIGH AS POSSIBLE	EF	EXHAUST FAN	KW	KILOWATTS	WP	WEATHERPROOF
AHU	AIR HANDLING UNIT	EX	EXISTING	MCC	MOTOR CONTROL CENTER	XT	EXPANSION TANK
AP	ACCESS PANEL	FIXT	FIXTURE	MD	MANUAL BALANCING DAMPER		
AS	AIR SEPARATOR	FA	FIRE ALARM	MTD	MOUNTED		
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	FAAP	FIRE ALARM ANNUNCIATOR PANEL	NIC	NOT IN CONTRACT		
B	BOILER	FACP	FIRE ALARM CONTROL PANEL	OFOI	OWNER FURNISHED / OWNER INSTALLED		
BCP	BUILDING CONTROL POWER	FCU	FAN COIL UNIT	OA	OUTSIDE AIR		
BFF	BELOW FINISHED FLOOR	FD	FIRE DAMPER	PCHP	PRIMARY CHILLED WATER PUMP		
BFG	BELOW FINISHED GRADE	FPB	FAN POWERED TERMINAL BOX	PRV	PRESSURE REDUCING VALVE		
C	CHILLER	FSD	COMBINATION FIRE / SMOKE DAMPER	PVC	POLYVINYL CHLORIDE		
CHP	CHILLED WATER PUMP	G	PROTECTIVE GUARD	RA	RETURN AIR		
CP	CONDENSER WATER PUMP	GBD	GRAVITY BACKDRAFT DAMPER	RF	RELIEF FAN		
CT	COOLING TOWER	GC	GENERAL CONTRACTOR	SCHP	SECONDARY CHILLED WATER PUMP		
CU	CONDENSING UNIT	GHP	GEO THERMAL HEAT PUMP	SD	SMOKE DAMPER		
CV	CONTROL VALVE	GSHP	GROUND SOURCE HEAT PUMP	SEF	SMOKE EXHAUST FAN		
DEF	DISHWASHER EXHAUST FAN	GV	GRAVITY VENTILATOR	SPEC	SPECIFICATION		

No.	Description	Date



1 THIRD FLOOR - MECHANICAL DEMOLITION PLAN
 SCALE: 1/4" = 1'-0"

2 THIRD FLOOR - MECHANICAL PLAN
 SCALE: 1/4" = 1'-0"

GENERAL NOTES - MECHANICAL DEMOLITION PLAN

- DEMOLISHED ITEMS ARE PROPERTY OF THE OWNER. OWNER RETAINS SALVAGE RIGHTS TO DEMOLISHED ITEMS.

KEYED NOTES - MECHANICAL DEMOLITION PLAN

GENERAL NOTES - MECHANICAL PLAN

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- ALL NEW A/C EQUIPMENT SHALL BE CLEANED AFTER THE FINISHING OF DRYWALL AND PRIOR TO THE RELEASE OF BUILDING TO OWNER. MECHANICAL CONTRACTOR TO PROVIDE DOCUMENTATION WITH DATE AND TIME OF UNIT CLEANING.
- FLEX DUCT SHALL NOT EXCEED 6 FEET, NO EXCEPTIONS.
- ALL WALL MOUNTED TEMPERATURE AND HUMIDITY SENSORS SHALL BE MOUNTED 48 INCHES AFF.

ALTERNATE 2:

ROOM 308 TO HAVE A LAY-IN TYPE CEILING.

THE SYSTEM WILL REMAIN AS DESIGNED EXCEPT FOR THE FOLLOWING:

- EXISTING SUPPLY GRILLES WILL BE REMOVED, AND THE DUCT ADAPTED TO TYPE 'A' (10" NECK SIZE) SUPPLY AIR DEVICES MOUNTED IN LAY-IN CEILING.
- NEW EXHAUST SYSTEM WILL BE HARD DUCTED TO TYPE 'C' LAY-IN RETURN AIR DEVICES (10"x10" NECK SIZE), INSTEAD OF DUCT MOUNTED GRILLES.
- NEW OUTSIDE AIR SYSTEM WILL BE HARD DUCTED TO TYPE 'A' (10" NECK SIZE) SUPPLY AIR DEVICES MOUNTED IN LAY-IN CEILING.
- PROVIDE VOLUME DAMPERS AS NECESSARY.

KEYED NOTES - MECHANICAL PLAN

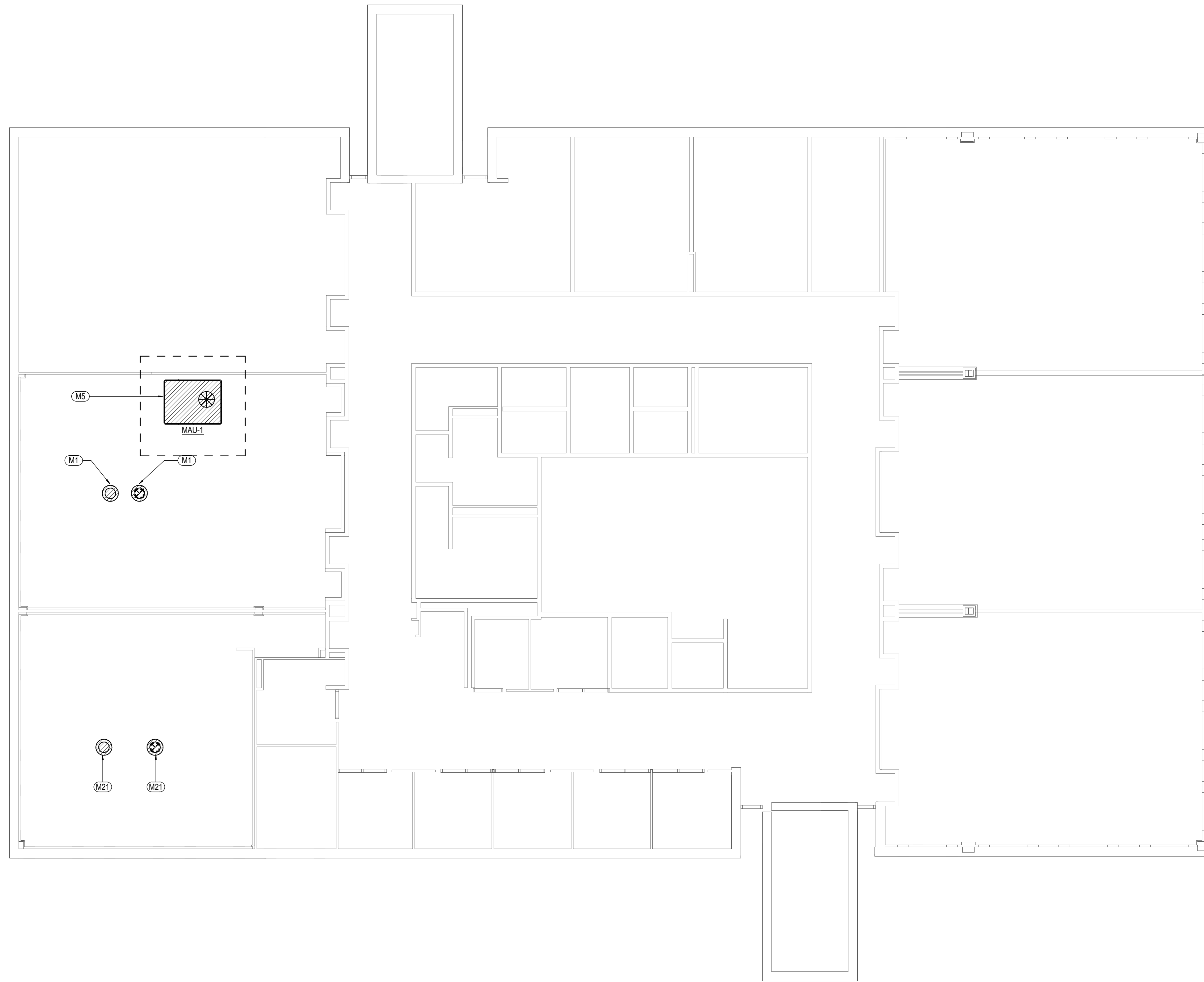
- M4 PROVIDE AVERAGING THERMOSTAT AND AVERAGING HUMIDISTAT FOR UNIT MAU-1.
- M13 ROUTE 3/4" COPPER CONDENSATE LINE TO NEARBY SINK AND CONNECT TO TAIL PIECE PRIOR TO TRAP.
- M16 ROUTE DUCTWORK UP THROUGH ROOF TO MUA-1 LOCATED ON ROOF.
- M17 ROUTE DUCT THROUGH WALL.
- M20 SHORTEN SUPPLY DUCT IF REQUIRED TO FIT NEW DUCTWORK.
- M38 ROUTE 14X14 DUCT UP THROUGH ROOF TO NEW ROOF MOUNTED EXHAUST FAN. TRANSITION AS NECESSARY.
- M50 EXISTING DOOR GRILLES TO REMAIN.

GENERAL NOTES - MECHANICAL PLAN

- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- ALL NEW A/C EQUIPMENT SHALL BE CLEANED AFTER THE FINISHING OF DRYWALL AND PRIOR TO THE RELEASE OF BUILDING TO OWNER. MECHANICAL CONTRACTOR TO PROVIDE DOCUMENTATION WITH DATE AND TIME OF UNIT CLEANING.
- FLEX DUCT SHALL NOT EXCEED 6 FEET, NO EXCEPTIONS.
- ALL WALL MOUNTED TEMPERATURE AND HUMIDITY SENSORS SHALL BE MOUNTED 48 INCHES AFF.

KEYED NOTES - MECHANICAL PLAN

- M1 INSTALL NEW ROOF EXHAUST FAN AND CURB.
- M5 PROVIDE ROOF TOP UNIT AS SCHEDULED. ORIENT SUCH THAT OUTSIDE AIR INTAKE IS DIRECTED AWAY FROM EXHAUST FANS, AND AT LEAST 10' AWAY FROM EXHAUST FANS.
- M21 INSTALL NEW EXHAUST FAN AND CURB. REUSE EXISTING ROOF PENETRATION IF POSSIBLE.



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CONSTRUCTION DRAWINGS



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LEAF ENGINEERS
F-18672

CLIENT
St Mary's University
PROJECT NUMBER
1817

DATE:

DRAWN BY: LARRY A. SCHAFFER
CHECKED BY: DON RICHARDS

REVISIONS

No.	Description	Date

CONSTRUCTION DRAWINGS
ELECTRICAL
SCHEDULES AND
DETAILS

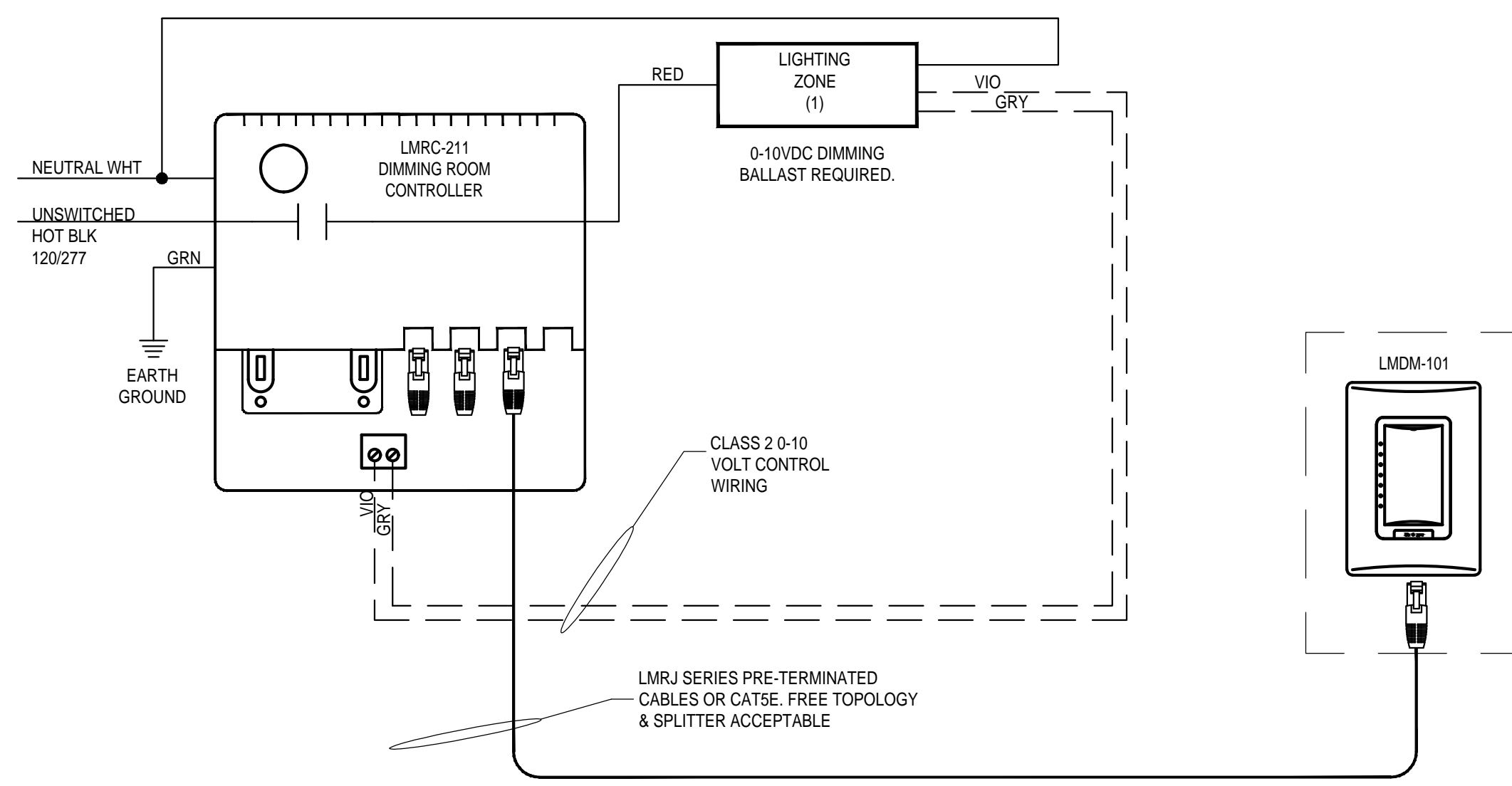
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LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER & MODEL NUMBER	LAMPS	VA	VOLTAGE	DESCRIPTION	NOTES
AL	METALUX #24GR-LD4-48-UNV-L840-CD1-U DAY-BRITE # 2TG45L840F502FUNVGM LITHONIA #2GT1.4G48LMVOLTZE1LP840	LED	4000K	120	2' X 4' LAY-IN RECESSED LED TROFFER WITH STANDARD DIMMING.	1
	COLUMBIA # LIT-24-40-ML-G-FSA12125-ED-U		47			
ALE	METALUX #24GR-LD4-48-UNV-L840-CD1-U DAY-BRITE # 2TG45L840F502FUNVGM LITHONIA #2GT1.4G48LMVOLTZE1LP840EL14L	LED	4000K	120	2' X 4' LAY-IN RECESSED LED TROFFER WITH STANDARD DIMMING, PROVIDE WITH EMERGENCY BATTERY PACK.	1
	COLUMBIA # LIT-24-40-ML-G-FSA12125-ED-U-ELL14		47			
F	METALUX #4SNLED-LD4-50SL-LWUNV-L840-CD1-U PHILIPS #LF4FR52H40UDZT LITHONIA #ZLN4850LMMDMOMVOLT40K80CRIWH	LED	4000K	120	4' LONG LED LENSED STRIP	
	COLUMBIA #LCL4-40ML-ED1U		70			
FE	METALUX #4SNLED-LD4-50SL-LWUNV-L840-CD1-U PHILIPS #LF4FR52H40UDZTEKLED LITHONIA #ZLN4850LMMDMOMVOLT40K80CRIWSL722WH	LED	4000K	120	4' LONG LED LENSED STRIP WITH EMERGENCY BATTERY PACK	
	COLUMBIA #LCS4-30LW-EDU		70			
P1	SPI #AP11883L157.7VMDMLPT021202774000KH05.7	LED	4000K	120/277	36" X 36" SQUARE LED PENDANT FIXTURE WITH CANOPY AND STANDARD DIMMING AND FIELD ADJUSTABLE AIRCRAFT CABLE.	
			158			
PWB	HAI-LED-325-HLO-40-XX-SC-MW-FC-FW-277-EB-CSS GAMMALUX #GR2D 1SOLE40UNV-DVR8SXASLMD-WH-XX-XX PEERLESS #RD4M40L8FT2960R693CPLP640F1**C310 LUMITEK #CX19616DWC06150U	LED	4000K	277	8' LONG LINEAR PENDANT LED DIRECT WALL WASH FOR WHITEBOARD WITH 90 DEGREE ROTATABLE STEEL BODY, ACRYLIC LENS AND METAL REFLECTOR. NOMINAL 8000 DELIVERED LUMENS PER 8FT SECTION.	
X1	SURE-LITES #LPX-70-RWH CHLORIDE #EWR1EM LITHONIA #LQMSWVG120277TELN EMERGI-LITE # ELX400DGN COMPASS #CEG	LED		120/277	UNIVERSAL EXIT LIGHT WITH BATTERY; NUMBER OF FACES AND DIRECTIONAL CHEVRONS AS INDICATED ON THE DRAWINGS	
			5			

NOTES
1. INVERT LENS SO SMOOTH SIDE IS DOWN FOR EASE OF CLEANING.

NOT ALL FIXTURES ON SCHEDULE APPLY TO THIS BUILDING
SEE PLANS FOR FIXTURE LOCATIONS



1 SCINCE LAB DIGITAL LIGHTING CONTROL DIAGRAM
SCALE: NONE

EXISTING PANELBOARD Z

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE LOCATION: ROOM 325
225 AMMN LUGS ONLY MOUNTING: SURFACE
BUSES: MAIN - 225 A NEUTRAL - 100% EQUIPMENT GROUND Isc = 10,000 ARMS SWM AVAILABLE

VAL	VAR	VAO	LOAD	BKR	CKT	CKT	BKR	LOAD	VAL	VAR	VAO	
0	0	600	E-CONTROLLER	201	1	A	2	201	RECEPTACLES RM 315	0	540	300
0	1080	LAB TABLES RM 317	201	3	B	4	201	RECEPTACLES RM 308	0	900		
0	1080	LAB TABLES RM 317	201	5	A	6	201	RECEPTACLES RM 308	0	360	600	
0	1080	LAB TABLES RM 317	201	7	A	8	201	ANATOMY TABLE	0	0	1800	
0	1080	LAB TABLES RM 315	201	9	B	10	201	RECEPTACLES RM 308	0	180		
0	1080	LAB TABLES RM 315	201	11	C	12	201	RECEPTACLES RM 308	0	180		
0	1080	LAB TABLES RM 315	201	13	A	14	201	RECEPTACLES RM 317	0	360		
0	360	RECEPTACLES RM 317	201	15	B	16	201	REFRIGERATOR	0	0	900	
0	1080	EXISTING LOADS	201	17	C	18	201	EXISTING LOADS	0	1080		
0	1080	EXISTING LOADS	201	19	A	20	201	EXISTING LOADS	0	900		
1200	0	EXISTING LOADS	201	21	B	22	201	EXISTING LOADS	0	540		
0	360	EXISTING LOADS	201	23	C	24	201	EXISTING LOADS	0	540		
0	900	EXISTING LOADS	201	25	A	26	201	EXISTING LOADS	0	540		
0	1080	EXISTING LOADS	201	27	B	28	201	EXISTING LOADS	0	1260		
0	720	EXISTING LOADS	201	29	C	30	201	EXISTING LOADS	0	1440		
0	900	EXISTING LOADS	201	31	A	32	201	EXISTING LOADS	0	1080		
0	1080	EXISTING LOADS	201	33	B	34	201	EXISTING LOADS	650	0		
0	1080	EXISTING LOADS	201	35	C	36	201	EXISTING LOADS	750	0		
0	180	RECEPTACLES RM 308	201	37	A	38	201	EXISTING LOADS	465	0		
0	180	RECEPTACLES RM 308	201	39	B	40	201	EXISTING LOADS	225	0		
0	600	E-CONTROLLER	201	41	C	42	201	LAB SAFETY SOLINOID PANEL	0	0	600	
0	360	RECEPTACLES RM 316	201	43	A	44	201	RECEPTACLES RM 309	0	360		
0	900	RECEPTACLES RM 309	201	45	B	46	201	VACUUM PUMP RM 315	0	0	600	
0	0	600	VACUUM PUMP RM 316	201	47	C	48	201	VACUUM PUMP RM 317	0	0	600
0	0	1920	EF-2	301	49	A	50	301	EF-1	0	0	2352
0	0	2352	EF-1	301	51	B	52	301	EF-1	0	0	2352
0	120	ROOF RECEPTACLES	201	53	C	54	201	RECEPTACLES RM 316/317	0	1080	600	
0	360	LAB TABLE RECEPT RM 309	201	55	A	56	201	LAB TABLE RECEPT RM 309	0	360		
0	360	LAB TABLE RECEPT RM 309	201	57	B	58	201	LAB TABLE RECEPT RM 309	0	360		
0	360	LAB TABLE RECEPT RM 309	201	59	C	60	201	ROOM 308 EXHAUST FAN	0	360		
0	360	LAB TABLE RECEPT RM 309	201	61	A	62	201	SPARE	0	0		
0	180	RECEPTACLES RM 309	201	63	B	64	201	SPARE	0	0		
0	180	RECEPTACLES RM 309	201	65	C	66	201	SPARE	0	0		
0	0	600	VACUUM PUMP RM 309	201	67	A	68	201	SPARE	0	0	
0	0	720	EXISTING LOADS	201	69	B	70	201	EXISTING LOADS	0	0	720
0	180	RECEPTACLES RM 309	201	71	C	72	201	RECEPTACLES RM 309	0	180		
0	0	900	REFRIGERATOR RM 309	201	73	A	74	201	DOOR LOCKS	0	0	600
0	180	RECEPTACLES RM 308	201	75	B	76	201	SPARE	0	0		
0	0	SPARE	201	77	C	78	201	SPARE	0	0		
0	0	SPARE	201	79	A	80	201	SPARE	0	0		
0	0	SPARE	201	81	B	82	201	SPARE	0	0		
0	0	SPARE	201	83	C	84	201	SPARE	0	0		

VAL (LIGHTING)	3290	CONNECTED VA	4113	DEMAND VA
VAR (RECEPTACLES)	32220	CONNECTED VA	21110	DEMAND VA
VAO (OTHER)	20316	CONNECTED VA	20316	DEMAND VA
VA TOTAL	55826	CONNECTED VA	45539	DEMAND VA
AMPS TOTAL	155	CONNECTED AMPS	126	DEMAND AMPS

L	R	O	TOTAL
465	10440	9072	VA CONNECTED TO A PHASE 19977 VA =
2075	9720	7644	VA CONNECTED TO B PHASE 19439 VA =
750	12060	3600	VA CONNECTED TO C PHASE 16110 VA =
3290	32220	20316	TOTAL 55826 VA

166	AMPS CONNECTED TO A PHASE @ 120 VOLTS
162	AMPS CONNECTED TO B PHASE @ 120 VOLTS
137	AMPS CONNECTED TO C PHASE @ 120 VOLTS



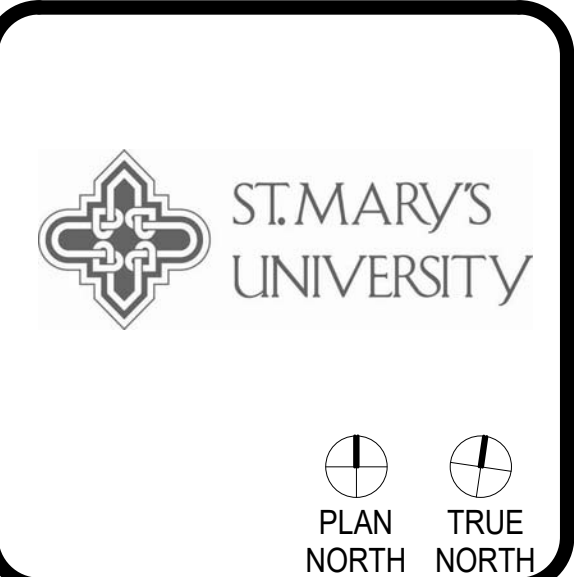
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CLIENT
 St Mary's University

PROJECT NUMBER
 1817

DATE: 04 / 10 /2018

DRAWN BY: RICHARD SKINNER

CHECKED BY: THOMAS OTTEN

REVISIONS

No.	Description	Date

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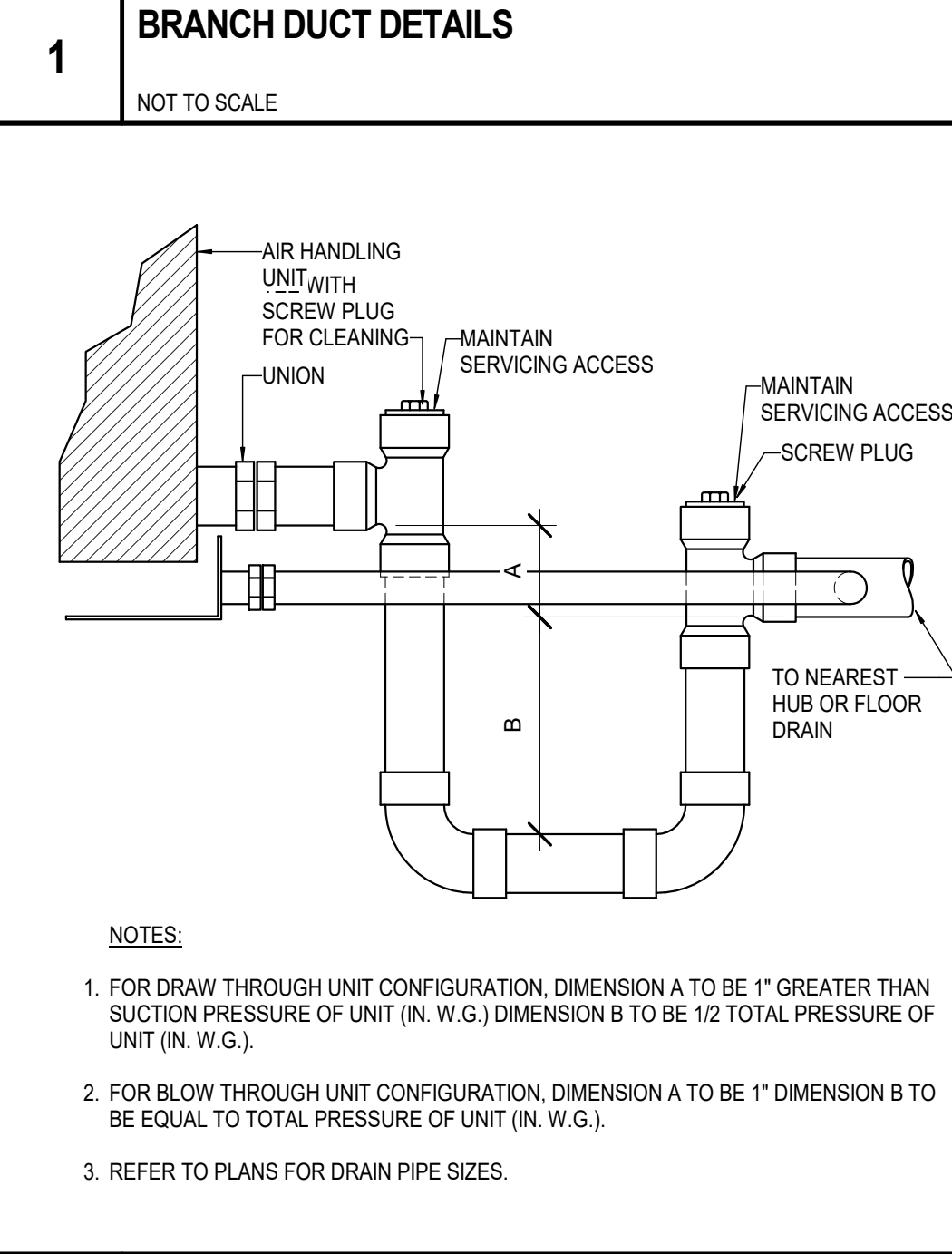
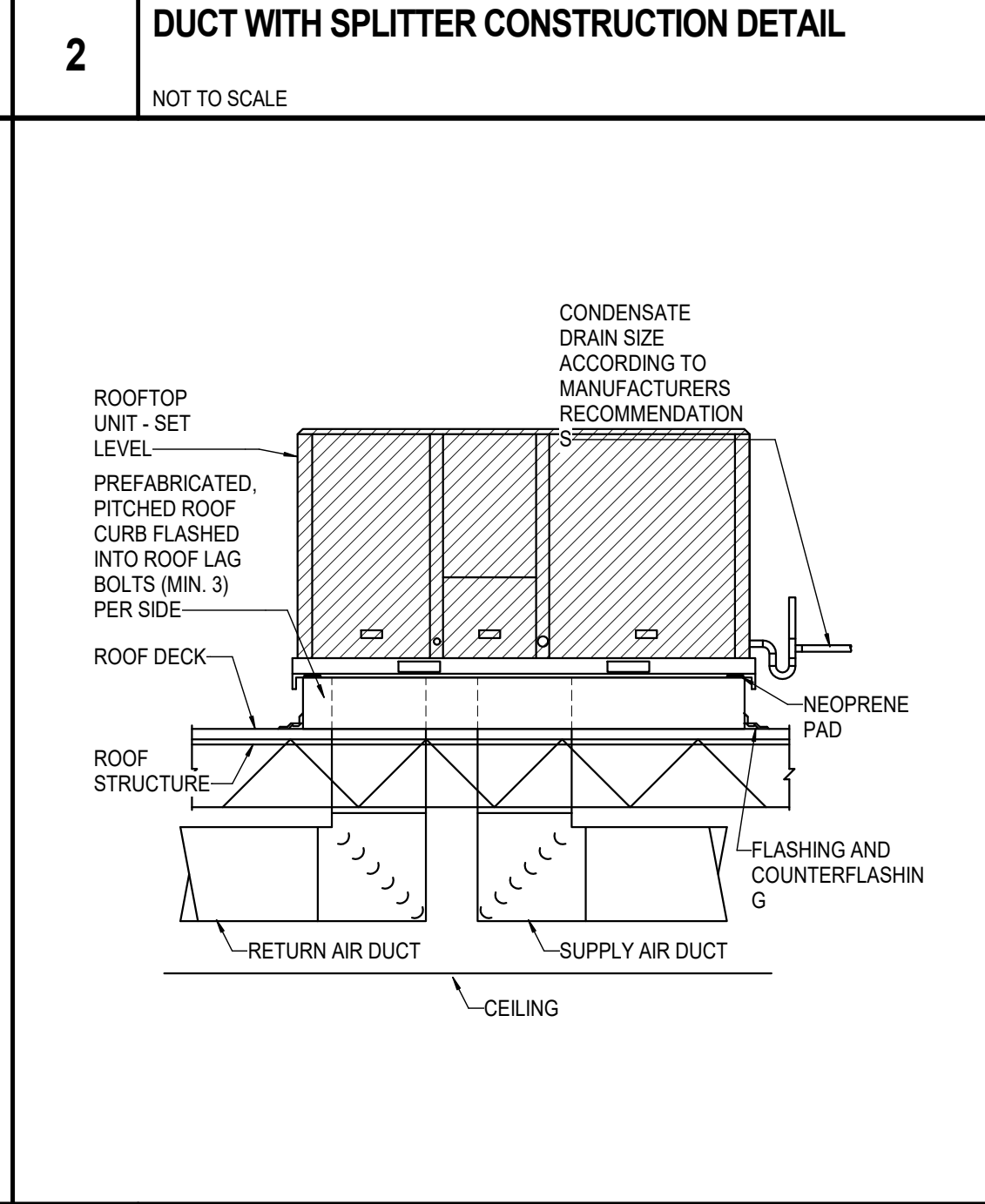
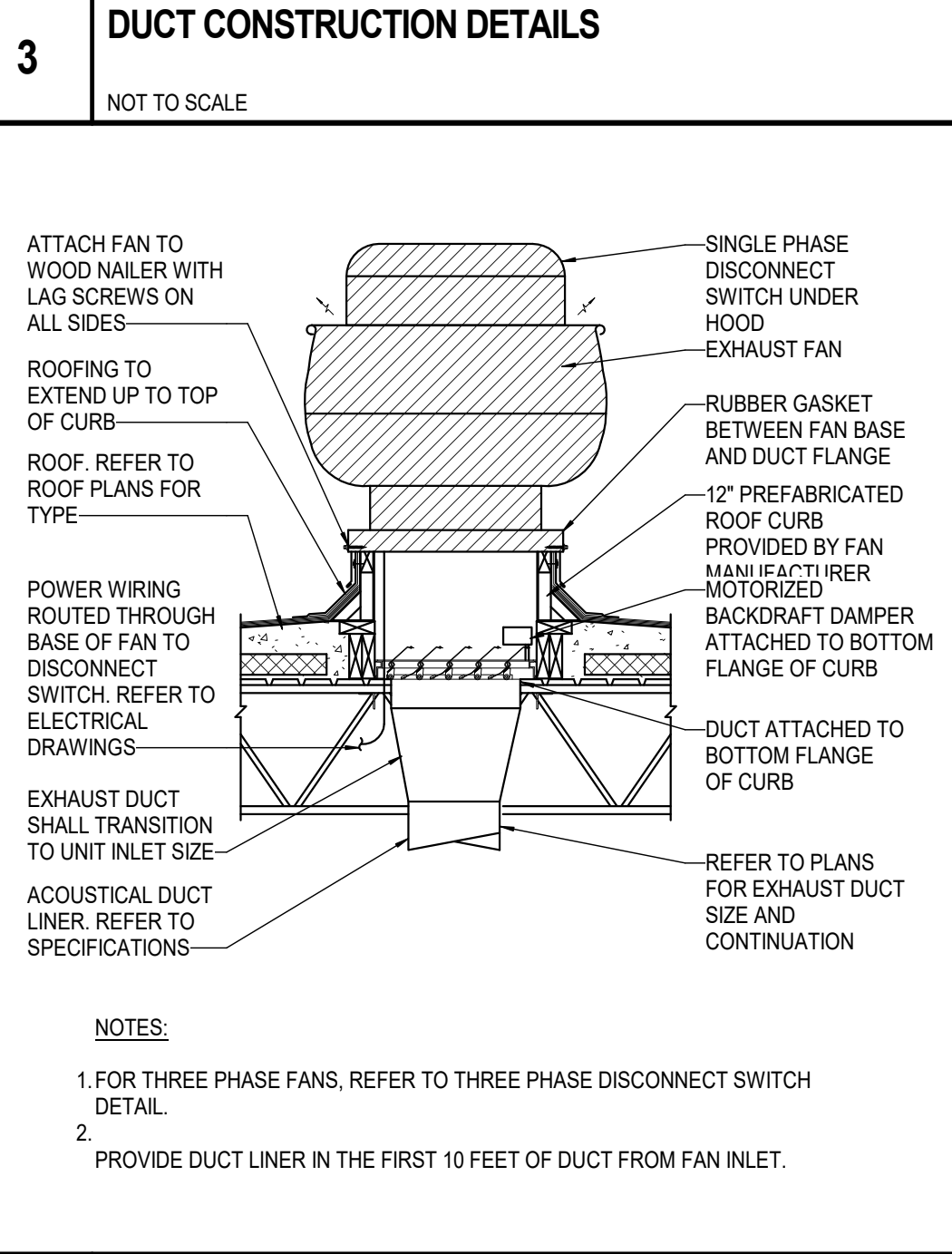
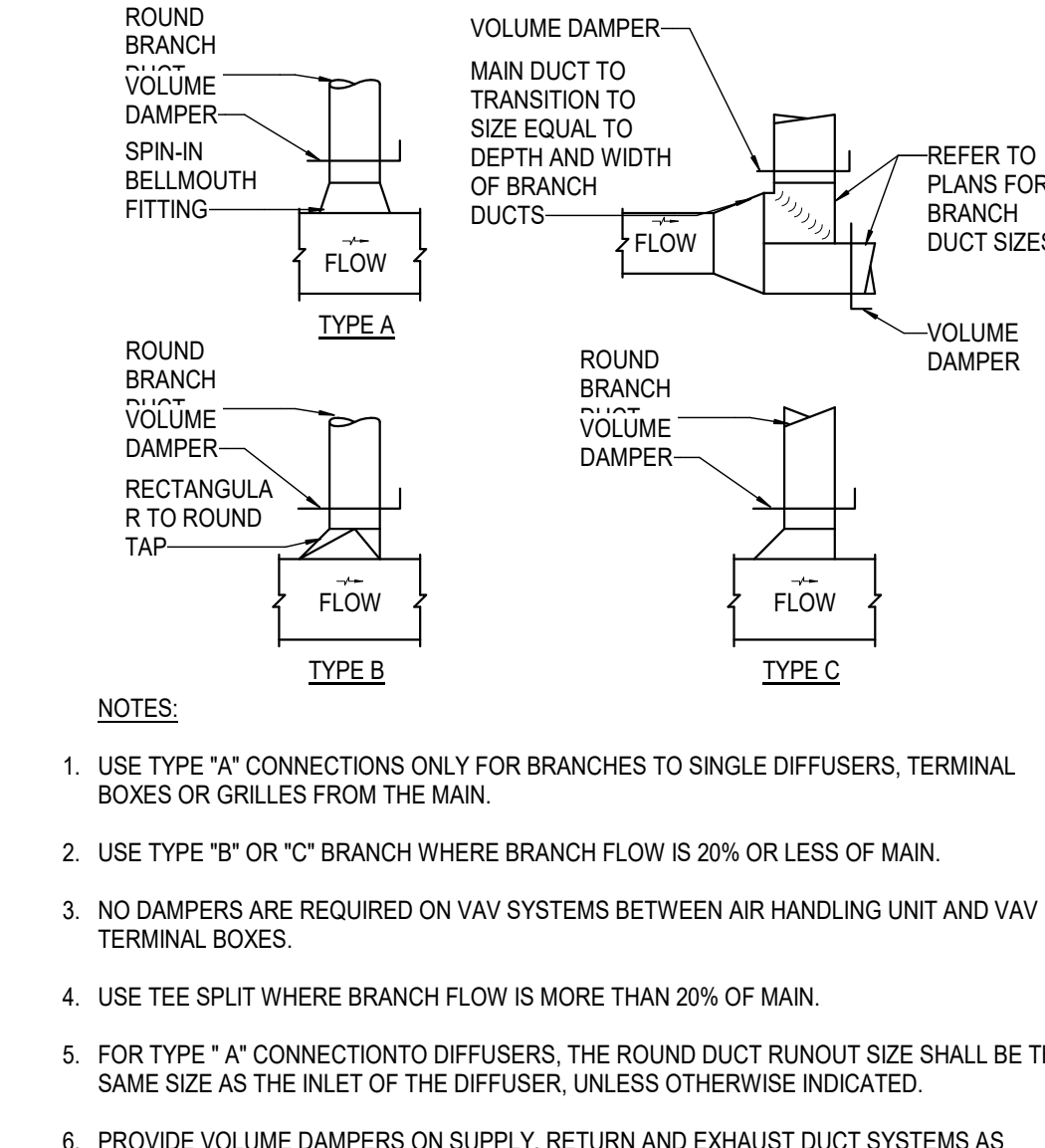
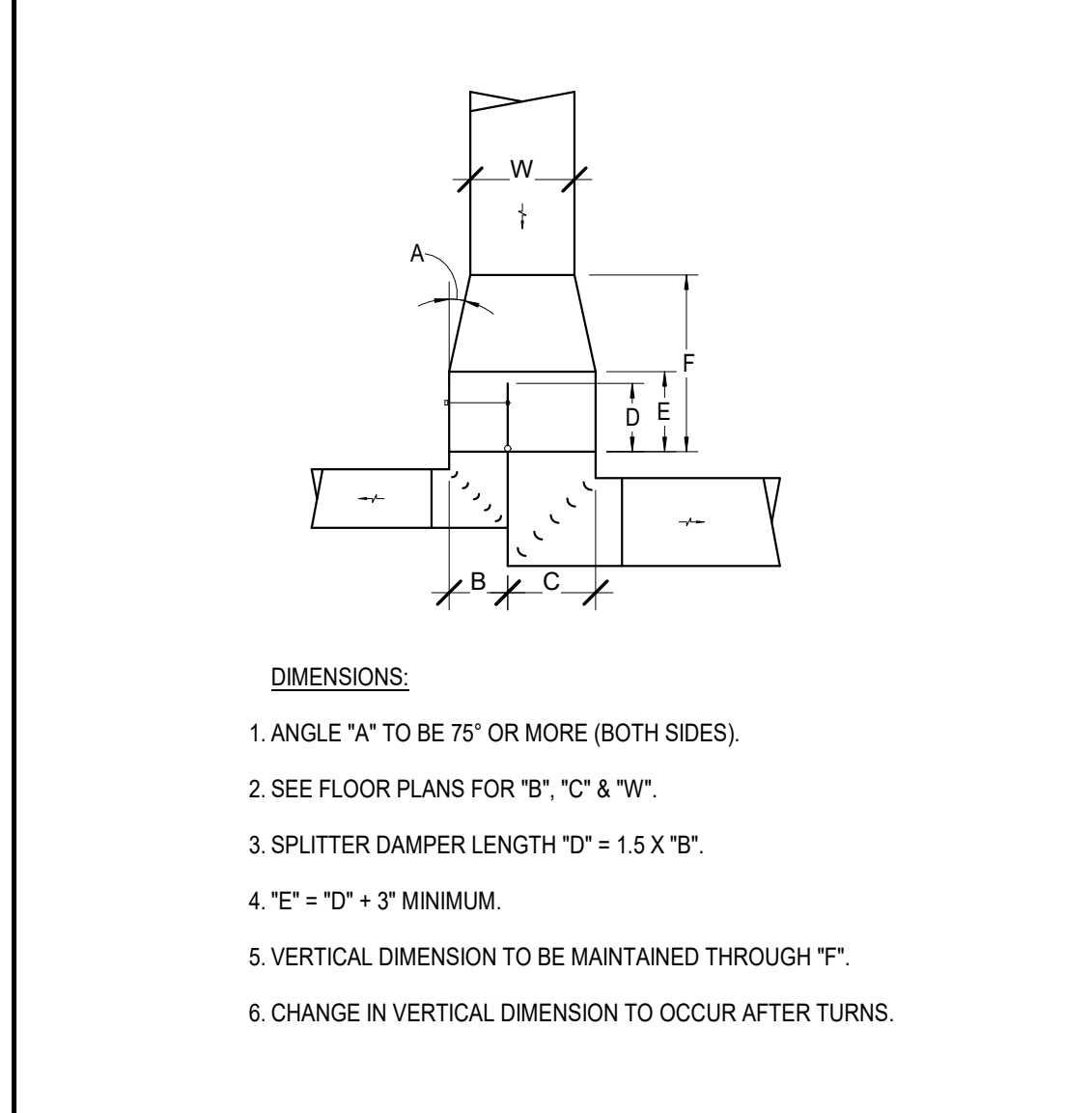
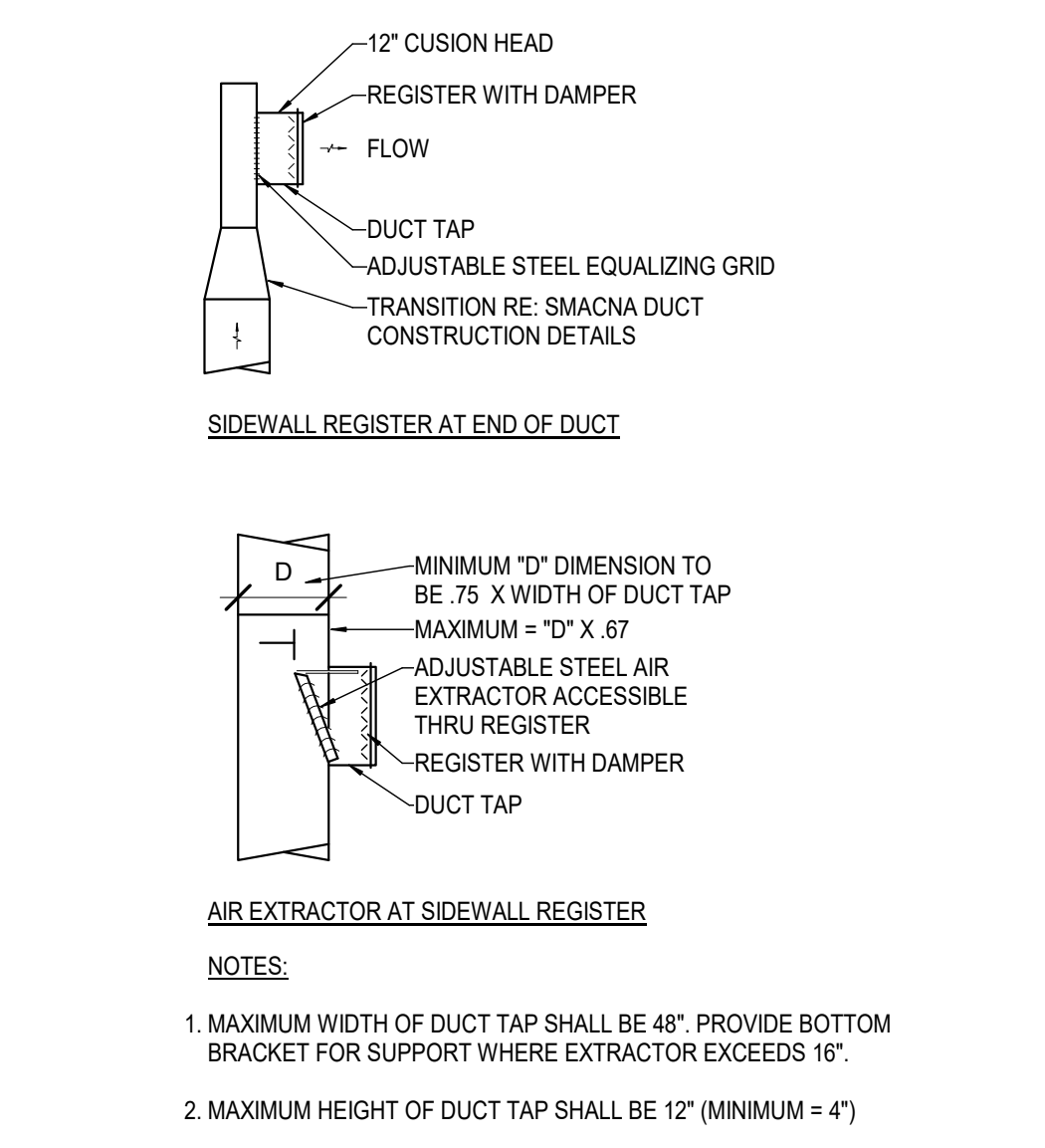
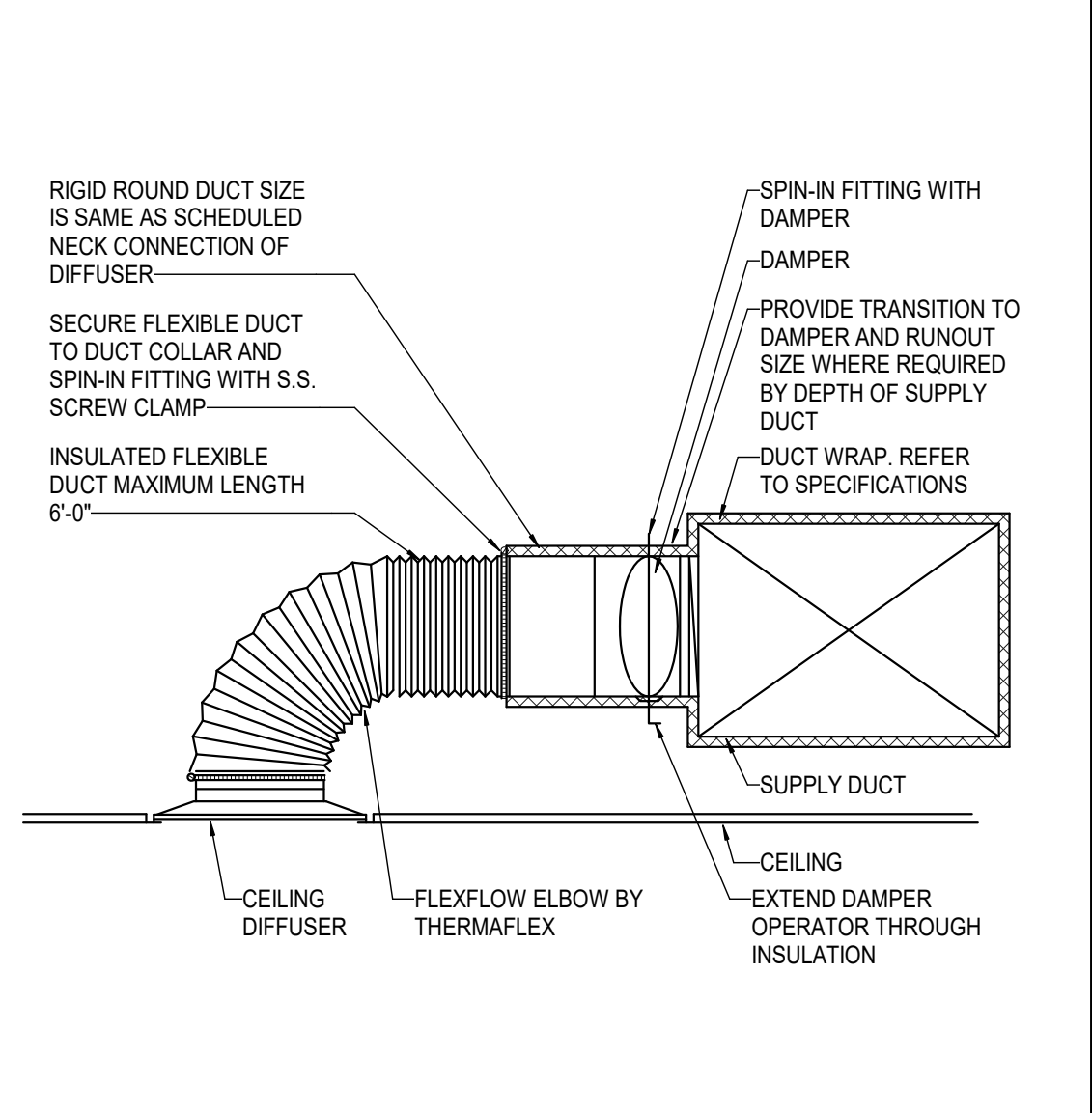
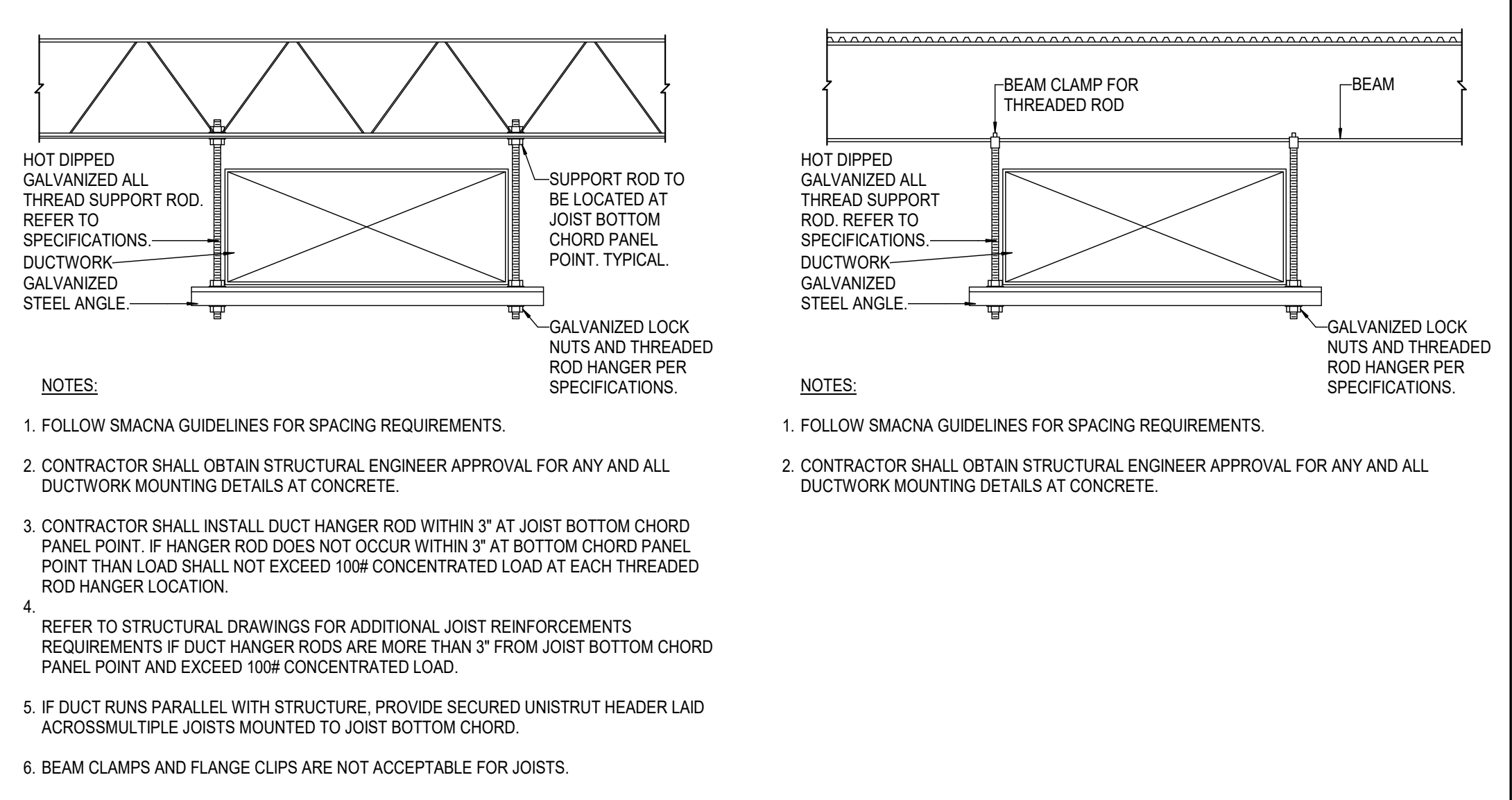
MECHANICAL SCHEDULES

M6.01



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St Mary's University		
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DATE:	04 / 10 / 2018	
DRAWN BY:	RICHARD SKINNER	
CHECKED BY:	THOMAS OTTEN	
REVISIONS		
No.	Description	Date



1 BRANCH DUCT DETAILS
 NOT TO SCALE

2 DUCT WITH SPLITTER CONSTRUCTION DETAIL
 NOT TO SCALE

3 DUCT CONSTRUCTION DETAILS
 NOT TO SCALE

4 CEILING DIFFUSER CONNECTION DETAIL
 NOT TO SCALE

5 DUCT HANGER TRAPEZE DETAIL
 NOT TO SCALE

6 CONDENSATE DRAIN WITH AUXILIARY PAN DETAIL
 NOT TO SCALE

7 ROOFTOP AIR CONDITIONING UNIT DETAIL
 NOT TO SCALE

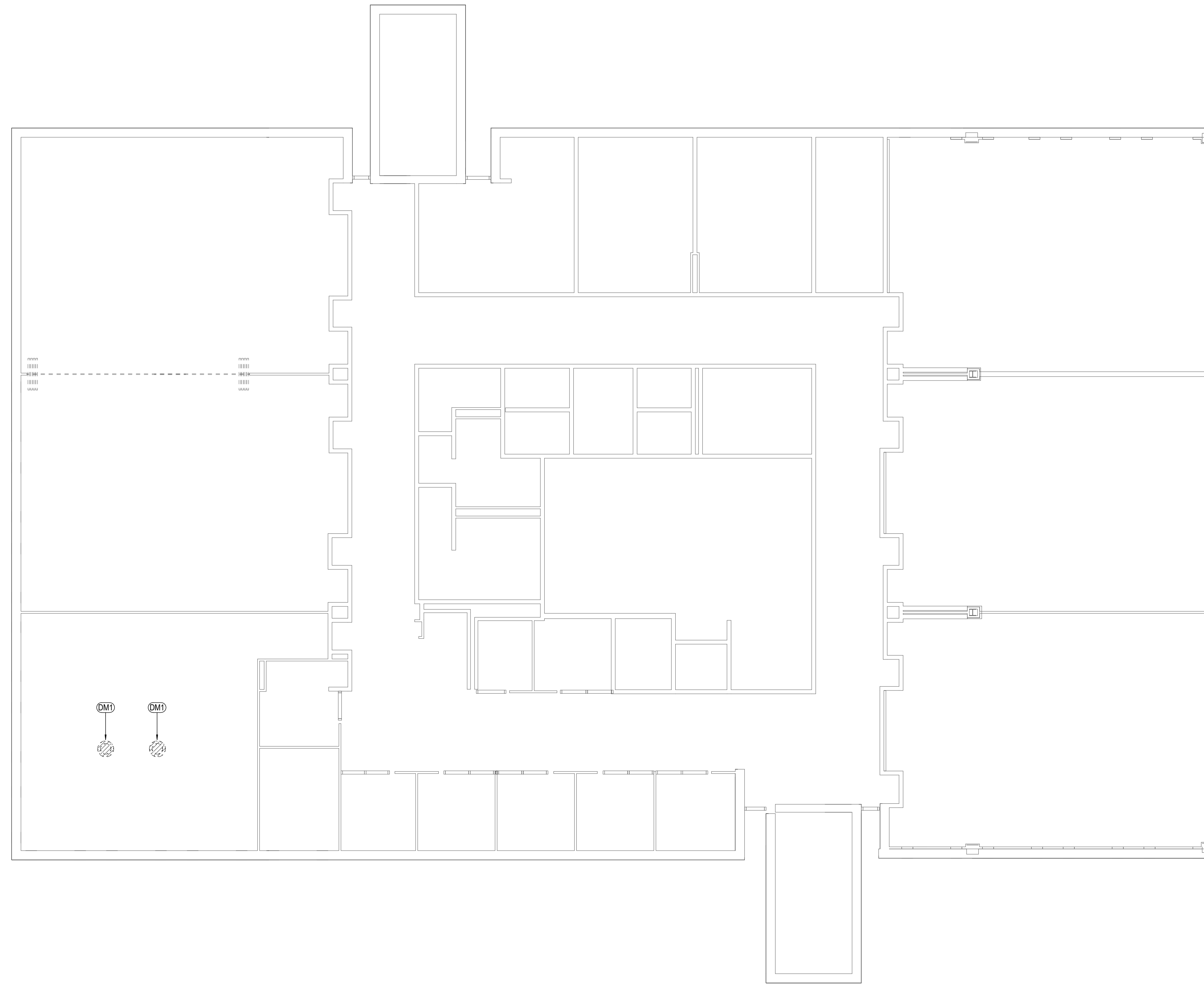
8 UPBLAST ROOF MOUNTED EXHAUST FAN DETAIL
 NOT TO SCALE

GENERAL NOTES - MECHANICAL DEMOLITION PLAN

- DEMOLISHED ITEMS ARE PROPERTY OF THE OWNER. OWNER RETAINS SALVAGE RIGHTS TO DEMOLISHED ITEMS.
- CONTRACTOR TO INSTALL ACCORDING TO REQUIREMENTS OF INTERNATIONAL MECHANICAL CODE, INTERNATIONAL PLUMBING CODE, AND LOCAL CODES. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS WITH LOCAL CODE OFFICIALS. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
- CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET.
- COORDINATE WITH THE WORK OF OTHER SECTIONS. EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE PIPE RISERS, DROPS, AND OFFSETS, AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY OWNER OR CONSTRUCTION DIRECTOR OF ANY DISCREPANCIES BEFORE STARTING WORK.
- DRAWINGS FOR MECHANICAL AND HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE PIPING, CONNECTIONS, FITTINGS, VALVES, OFFSETS, ETCETERA AND ALL MATERIALS NECESSARY FOR A COMPLETE SYSTEM. SUBMIT SHOP DRAWINGS PER THE SPECIFICATIONS.

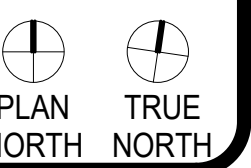
KEYED NOTES - MECHANICAL DEMOLITION PLAN

- DM1 REMOVE EXHAUST FAN AND CURB. RETAIN EXISTING OPENING IN ROOF FOR REUSE. DISCONNECT EXISTING POWER AND CONTROLS.



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CLIENT		
St Mary's University		
PROJECT NUMBER		
1817		
DATE: 04 / 10 / 2018		
DRAWN BY: RICHARD SKINNER		
CHECKED BY: THOMAS OTTEN		
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ROOF - MECHANICAL DEMOLITION PLAN

MD3.01



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CHECKED BY:	DON RICHARDS	
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ELECTRICAL SYMBOLS AND ABBREVIATIONS

E0.01

A	AMPERE	FCU	FAN COIL UNIT	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	GEN	GENERATOR	PNL	PANELBOARD
AFG	ABOVE FINISHED GRADE	GFI	GROUND FAULT INTERRUPTER	RECP	RECEPTACLE
AHU	AIR HANDLING UNIT	GND	GROUND	REQD	REQUIRED
ATS	AUTOMATIC TRANSFER SWITCH	GRS	GALVANIZED RIGID STEEL	RTU	ROOFTOP UNIT
C	CONDUIT	HID	HIGH INTENSITY DISCHARGE	TEL	TELEPHONE
CB	CIRCUIT BREAKER	HP	HORSEPOWER OR HEAT PUMP	TRT	TRIPL TUBE CF LAMP
CCTV	CLOSED CIRCUIT TELEVISION	HPS	HIGH PRESSURE SODIUM	TT	TWIN TUBE CF LAMP
CKT	CIRCUIT	IF	INSIDE FROSTED	TV	TELEVISION
CLK	CLOCK	KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	UH	UNIT HEATER
CTS	CIRCUIT TRANSFORMERS	KCML	THOUSAND CIRCULAR MILLIMETER	UCN	UNLESS OTHERWISE NOTED
CU	CONDENSING UNIT	KVA	THOUSAND VOLT AMPERE	V	VOLT
DS	DISCONNECT SWITCH	MCB	MAIN CIRCUIT BREAKER	VA	VOLT AMPERE
EDF	ELECTRIC DRINKING FOUNTAIN	MH	METAL HALIDE	WP	VOLT AMPERE
EF	EXHAUST FAN	MLO	MAIN LUGS ONLY	XFMR	TRANSFORMER
ELEC	ELECTRICAL	MCC	MOTOR CONTROL CENTER		
EPO	EMERGENCY POWER OFF	NC	NORMALLY CLOSED		
EQUIP	EQUIPMENT	NEC	NATIONAL ELECTRICAL CODE		
EPH	ELECTRIC WATER HEATER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASS'N		
EXIST	EXISTING	NIC	NOT IN CONTRACT		
FACP	FIRE ALARM CONTROL PANEL	NL	NIGHT LIGHT		
FANN	FIRE ALARM ANNUNCIATOR PANEL	NO	NUMBER OR NORMALLY OPEN		

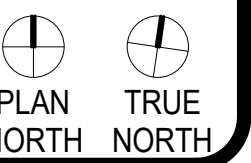
NOTES:

- EVERY SYMBOL SHOWN MAY NOT APPEAR ON DRAWINGS.
- DASHED ELECTRICAL EQUIPMENT GENERALLY INDICATES EXISTING EQUIPMENT.
- LONG-SHORT-SHORT-LONG DASHING GENERALLY INDICATES MATCHLINE OR DEFINES AREA FOR SPECIAL NOTE.

CIRCUIT RELATED:	POWER OUTLETS:
<p>↖ LIGHTING OR POWER CIRCUIT(S). ARROW INDICATES HOME RUN, LONGER TICK(S) INDICATE NEUTRAL WIRE(S), SHORTER STRAIGHT TICK(S) INDICATE PHASE WIRE(S), SLANTED SHORTER TICK(S) INDICATE SWITCH LEG(S), DOTS(S) INDICATE GROUNDING CONDUCTOR(S). DASHED WIRING (LONG-SHORT-LONG DASHES) INDICATES WIRING BELOW SLAB OR GRADE. DASHED WIRING (SERIES OF SHORT DASHES) INDICATES EXISTING WIRING. SLASH THROUGH ARROW INDICATES PARTIAL CIRCUIT. "T" ON HOMERS IN ARROW INDICATES DEDICATED CIRCUIT. PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR FOR ENTIRE LENGTH OF CIRCUIT FROM PANEL TO OUTLET. COUNT EACH NEUTRAL AS CURRENT-CARRYING AND GROUP A MAXIMUM OF SIX THIN/TWINS CONDUCTORS IN A SINGLE RACEWAY. GROUNDING CONDUCTOR IS NOT COUNTED. TELEPHONE CONDUIT SYSTEM. DASHED WIRING (LONG-SHORT-LONG DASHES) INDICATES WIRING IN OR BELOW SLAB OR GRADE. DASHED WIRING (SERIES OF SHORT DASHES) INDICATES EXISTING WIRING.</p> <p>⊙ JUNCTION BOX. "J" MAY BE OMITTED IF BOX IS WITHIN OR ATTACHED TO FLUORESCENT LIGHT FIXTURE SYMBOL ON PLANS.</p> <p>⊙ POINT OF BRANCH CIRCUIT TAP FOR SEPARATELY SWITCHED FIXTURE GROUP. REFERENCE CATEGORY "B" LIGHTING SYMBOLS FOR FURTHER INFORMATION. GROUNDING ELECTRODE</p>	<p>⊕ 15A-125V DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. "GF" INDICATES GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE.</p> <p>⊕ 15A-125V FOURPLEX RECEPTACLE. 20A WHEN INDICATED.</p> <p>⊕ SPECIAL PURPOSE SINGLE POWER RECEPTACLE. RATED AS INDICATED (IF NO RATING INDICATED, RECEPTACLE RATING SHALL MATCH BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE SIZE AND SHALL MEET REQUIREMENTS OF EQUIPMENT BEING CONNECTED). "C" INDICATES CLOCK OUTLET.</p> <p>⊕ 15A-125V FLUSH FLOOR DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. PROVIDE CARPET FLANGE WHERE APPROPRIATE.</p> <p>⊕ 15A-125V SURFACE FLOOR DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. "T" INDICATES TWO DUPLEX RECEPTACLES IN ONE BOX. PROVIDE CARPET FLANGE WHERE APPLICABLE.</p> <p>⊕ SAME AS DUPLEX RECEPTACLE EXCEPT ISOLATED GROUND TYPE RECEPTACLE.</p> <p>⊕ SAME AS FOURPLEX RECEPTACLE EXCEPT ISOLATED GROUND TYPE RECEPTACLE.</p> <p>AC INDICATES RECEPTACLE SHALL BE MOUNTED ABOVE COUNTER TOP. REFER TO ARCHITECT FOR EXACT HEIGHT ABOVE COUNTER.</p> <p>LC1-X CIRCUIT DESIGNATION NEXT TO RECEPTACLE DEVICES INDICATES BRANCH CIRCUIT NUMBER. RE: PANEL SCHEDULES FOR INFORMATION.</p> <p>WP "WP" INDICATES WEATHER PROOF DEVICE.</p>
LIGHTING:	TELEPHONE / DATA:
<p>□ FLUORESCENT LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, CROSS HATCHING INDICATES FIXTURE ON EMERGENCY SYSTEM. FOR SOLID CIRCLE WITHIN FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.</p> <p>▬ STRIP TYPE FLUORESCENT LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT. FOR SOLID CIRCLE ATTACHED TO FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.</p> <p>○ INCANDESCENT OR HID LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT. FOR SOLID CIRCLE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.</p> <p>⊕ DESIGNATES FIXTURE ON EMERGENCY POWER. RE: LIGHTING PLAN NOTES AND FIXTURE SCHEDULE NOTES FOR ADDITIONAL INFORMATION.</p> <p>⊕ WALL OR BRACKET MOUNTED FIXTURE OR DESIPE.</p> <p>⊕ EXIT LIGHT FIXTURE. LETTER INDICATES TYPE, NUMBER INDICATES CIRCUIT, NUMBER AND LOCATION OF SHADED TRIANGLE SECTIONS INDICATES NUMBER OF EXIT SIGN FACES AND DIRECTION OF EACH FACE. PROVIDE CHEVRON DIRECTIONAL INDICATORS AS SHOWN ON DRAWINGS.</p>	<p>▲ WALL TELEPHONE OUTLET. "P" INDICATES PAY TYPE, "W" INDICATES WALL MOUNTED PHONE. PROVIDE NEMA 5-15R OUTLET FOR EACH TTY, TDD OR OTHER SCREEN OR CARD-ACCESS TELEPHONE.</p> <p>⊕ FLUSH FLOOR TELEPHONE OUTLET WITH CARPET FLANGE WHERE APPLICABLE.</p> <p>⊕ SURFACE FLOOR TELEPHONE OUTLET. "T" INDICATES TWO OUTLETS IN ONE BOX. PROVIDE CARPET FLANGE WHERE APPLICABLE.</p> <p>▲ WALL COMMUNICATIONS OR DATA OUTLET. REFER TO TECHNOLOGY DRAWINGS FOR EXACT BOX/CONDUIT REQUIREMENTS.</p> <p>⊕ FLUSH FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO TECHNOLOGY DRAWINGS FOR EXACT BOX/CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE.</p> <p>⊕ SURFACE FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO TECHNOLOGY DRAWINGS FOR EXACT BOX/CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE.</p>
CONTROL:	EQUIPMENT:
<p>⊕ SWITCH. SMALL LETTER INDICATES FIXTURES CONTROLLED, "P" INDICATES PILOT LIGHT, "WP" INDICATES WEATHERPROOF, "K" INDICATES KEY OPERATED, "MOM" INDICATES SPDT MOMENTARY CONTACT, "Z" INDICATES SPDT, "3" INDICATES 3-WAY, "4" INDICATES 4-WAY, "M" INDICATES MANUAL MOTOR STARTER, CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES WALL BOX DIMMER SWITCH. "MARK" INDICATES WATTAGE IF OTHER THAN 600, "SD" INDICATES 3-WAY DIMMER.</p> <p>⊕ MULTI-LEVEL SWITCH. CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER.</p> <p>⊕ DIGITAL TIME SWITCH</p> <p>⊕ PHOTOELECTRIC CONTROL.</p> <p>⊕ EMERGENCY POWER OFF (EPO) PUSHBUTTON.</p> <p>⊕ PUSH BUTTON.</p> <p>⊕ WALL MOUNT OCCUPANCY SENSOR.</p> <p>⊕ DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR.</p> <p>⊕ CEILING MOUNTED RESTROOM OCCUPANCY SENSOR.</p> <p>⊕ CEILING MOUNTED CORRIDOR OCCUPANCY SENSOR.</p> <p>⊕ CEILING MOUNTED HIGH CEILING OCCUPANCY SENSOR.</p>	<p>+42" A NOTATION INDICATING THE MOUNTING HEIGHT OF A DEVICE AS MEASURED FROM FINISHED FLOOR OR GRADE TO CENTER LINE OF DEVICE.</p> <p>⊕ MOTOR.</p> <p>⊕ DISCONNECT SWITCH. FRAME SIZE/FUSE SIZE/POLES AS INDICATED. "NF" INDICATES NON-FUSIBLE. NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED. PROVIDE FUSED BUSWAY PLUG WHEN SWITCH IS INDICATED ON BUSWAY. ALL DISCONNECT SWITCHES SHALL BE 30NF/3 UNLESS OTHERWISE NOTED.</p> <p>⊕ SINGLE CIRCUIT BREAKER IN INDIVIDUAL ENCLOSURE.</p> <p>⊕ MAGNETIC MOTOR CONTROLLER. NUMBER INDICATES NEMA SIZE. STARTER NEMA SIZE SHALL BE "NEMA 1" UNLESS OTHERWISE NOTED.</p> <p>⊕ COMBINATION DISCONNECT SWITCH/MOTOR CONTROLLER.</p> <p>⊕ CONTACTOR</p> <p>⊕ PANELBOARD SWITCHBOARD/DP</p> <p>⊕ TRANSFORMER</p> <p>⊕ GROUNDING CONNECTION TO GROUNDING ELECTRODE AS DEFINED IN NEC ARTICLE 250.</p> <p>⊕ BELL. "WP" INDICATES OUTDOOR RATED.</p>

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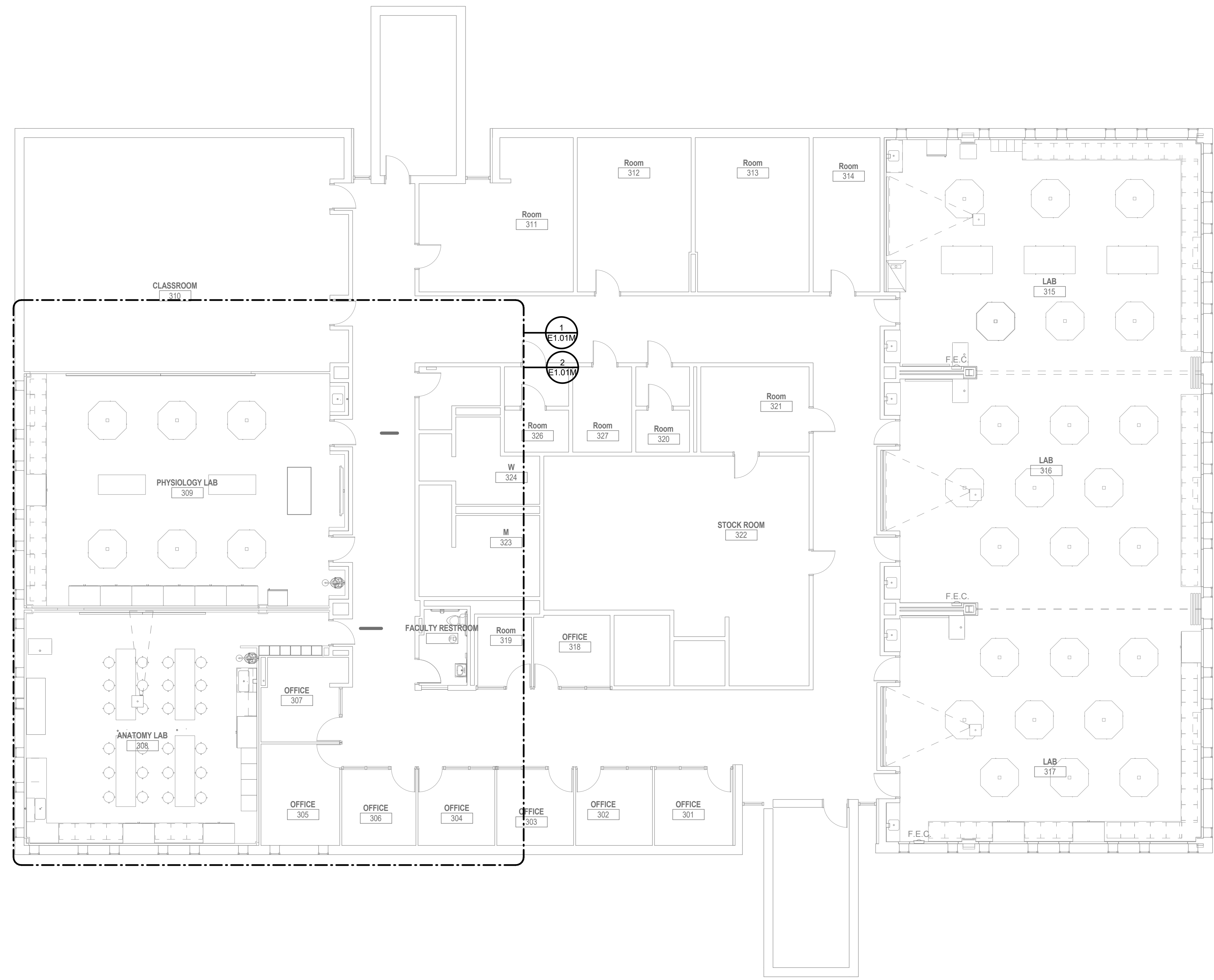
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 St Mary's University
 PROJECT NUMBER
 1817
 DATE: 04 / 10 / 2018
 DRAWN BY: LARRY A. SCHAFFER
 CHECKED BY: DON RICHARDS

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THIRD FLOOR - OVERALL PLAN

E1.00M



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GENERAL NOTES - POWER PLAN

- FOR EQUIPMENT OR DEVICES SHOWN ON THE ARCHITECTURAL DRAWINGS THAT REQUIRE POWER AND ARE NOT SHOWN ON THE ELECTRICAL PLANS, ASSUME AT A MINIMUM A DUPLEX RECEPTACLE. A DEDICATED CIRCUIT WITH 2P/2F/200, 34°C WITH HOMERUN TO NEAREST 120/200V PANEL. ITEM SUCH AS BUT NOT LIMITED TO ROLL UP DOORS, OVERHEAD GRILLES, DISPLAY CASES, HAND DRYERS, WATER COOLERS, ICE MACHINES, GARBAGE DISPOSALS, OSLATING FANS, LCD'S, PROJECTORS, DISHWASHERS, UNDER COUNTER REFRIGERATORS, MOTORIZED PROJECTOR SCREENS, ETC.
- REFER TO "T" AND "TS" SERIES DRAWINGS FOR ADDITIONAL ELECTRICAL REQUIREMENTS AND ROUGH-IN LOCATIONS TO BE INSTALLED BY DIV. 26 CONTRACTOR.
- COORDINATE EXACT ROUGH-IN REQUIREMENTS AND LOCATIONS FOR SECURITY SYSTEM DEVICES AND EQUIPMENT WITH TECHNOLOGY DRAWINGS AND OWNER PRIOR TO THE START OF CONSTRUCTION.
- INSTALL ALL RECEPTACLES 18" AFF. UOIN.
- COORDINATE ROUGH-IN LOCATION OF DEVICES WITH ARCHITECTURAL ELEVATIONS, DETAILS AND PLANS. INSTALL DEVICE BOXES FLUSH WITH FINISHED SURFACE.
- INSTALL A DEDICATED NEUTRAL FOR EACH 120V OR 277V BRANCH CIRCUIT.
- INSTALL ALL EXTERIOR RECEPTACLES WITH NON-ATTENDED "IN-USE" TYPE METAL COVERS. COORDINATE EXACT ROUGH-IN LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR TO PROVIDE CONNECTION FROM EXHAUST FANS TO ALL MOTORIZED BACKDRAFT DAMPERS AS REQUIRED. COORDINATE WITH MECHANICAL.

KEYED NOTES - POWER PLAN

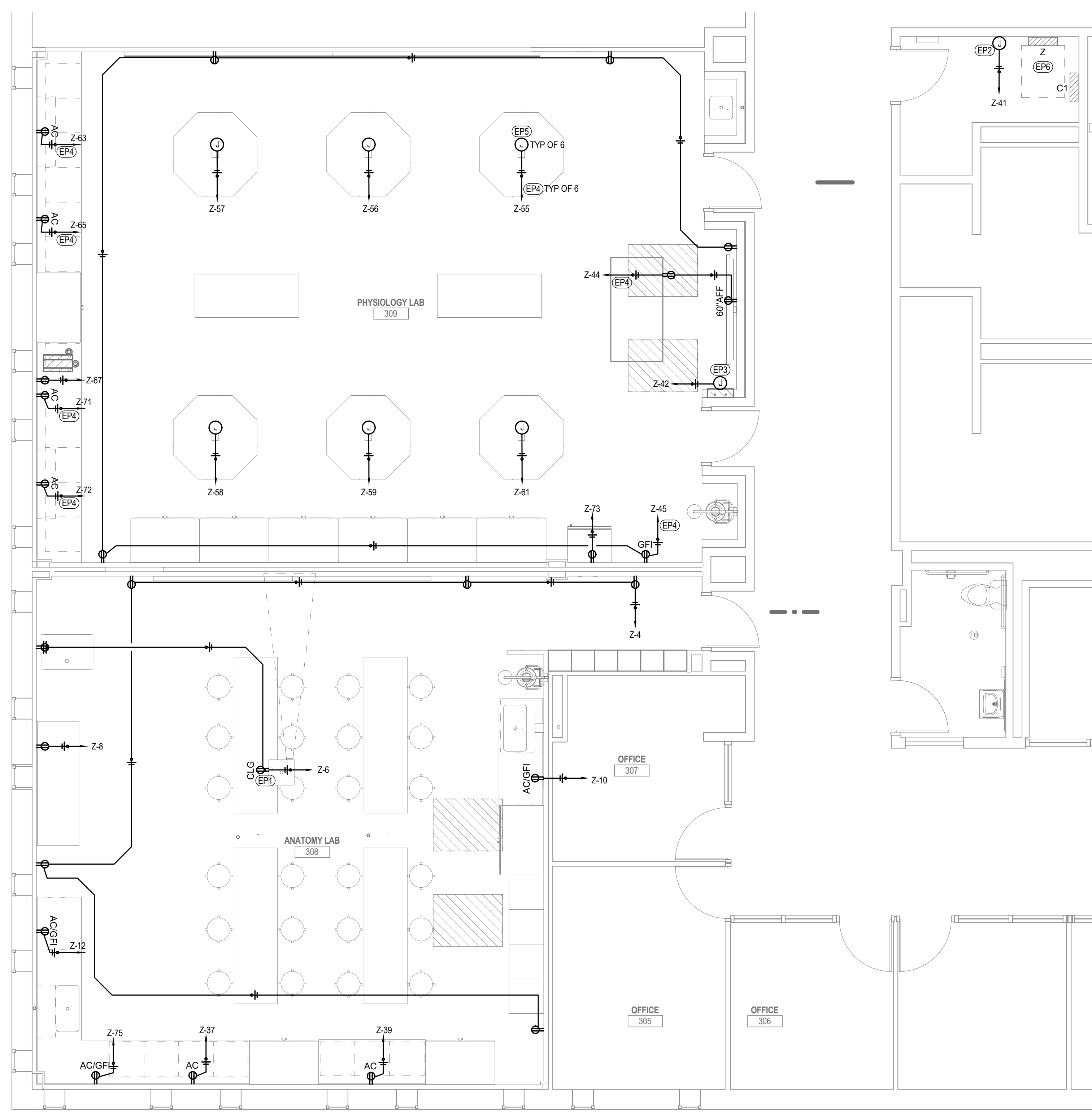
- EP1 INSTALL 30A DUPLEX RECEPTACLE IN CEILING MOUNTED PROJECTOR PLATE FOR PROJECTOR. COORDINATE EXACT LOCATION WITH TECHNOLOGY DRAWINGS PRIOR TO INSTALLATION.
- EP2 CONNECTION FOR LAB SAFETY SYSTEMS ELECTRICAL CONTROLLER ON WALL NEXT TO PANEL. COORDINATE EXACT ROUGH-IN LOCATION WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. CONTROLLER PROVIDED BY DIV. 22 CONTRACTOR AND INSTALLED BY DIV. 26 CONTRACTOR.
- EP3 CONNECTION FOR LAB SAFETY SYSTEMS SOLENOID VALVE/UTILITY CONTROLLER. COORDINATE EXACT ROUGH-IN LOCATION WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION.
- EP4 CIRCUIT SHALL BE ROUTED THROUGH LAB SAFETY SYSTEM E-CONTROLLER FOR SHUT DOWN DURING AN EMERGENCY.
- EP5 CONNECTION FOR LAB FURNITURE. INTERCEPT EXISTING CONDUIT UNDER FLOOR AND STUB UP AT LAB FURNITURE TO SERVE RECEPTACLES IN LAB TABLE. COORDINATE EXACT CONDUIT PATH WITH FINAL LOCATION OF CASEWORK PRIOR TO THE START OF CONSTRUCTION. REFER TO TECHNOLOGY DRAWINGS FOR ADDITIONAL ROUGH-IN REQUIREMENTS.
- EP6 EXISTING ELECTRICAL PANELS TO REMAIN.

GENERAL NOTES - LIGHTING PLAN

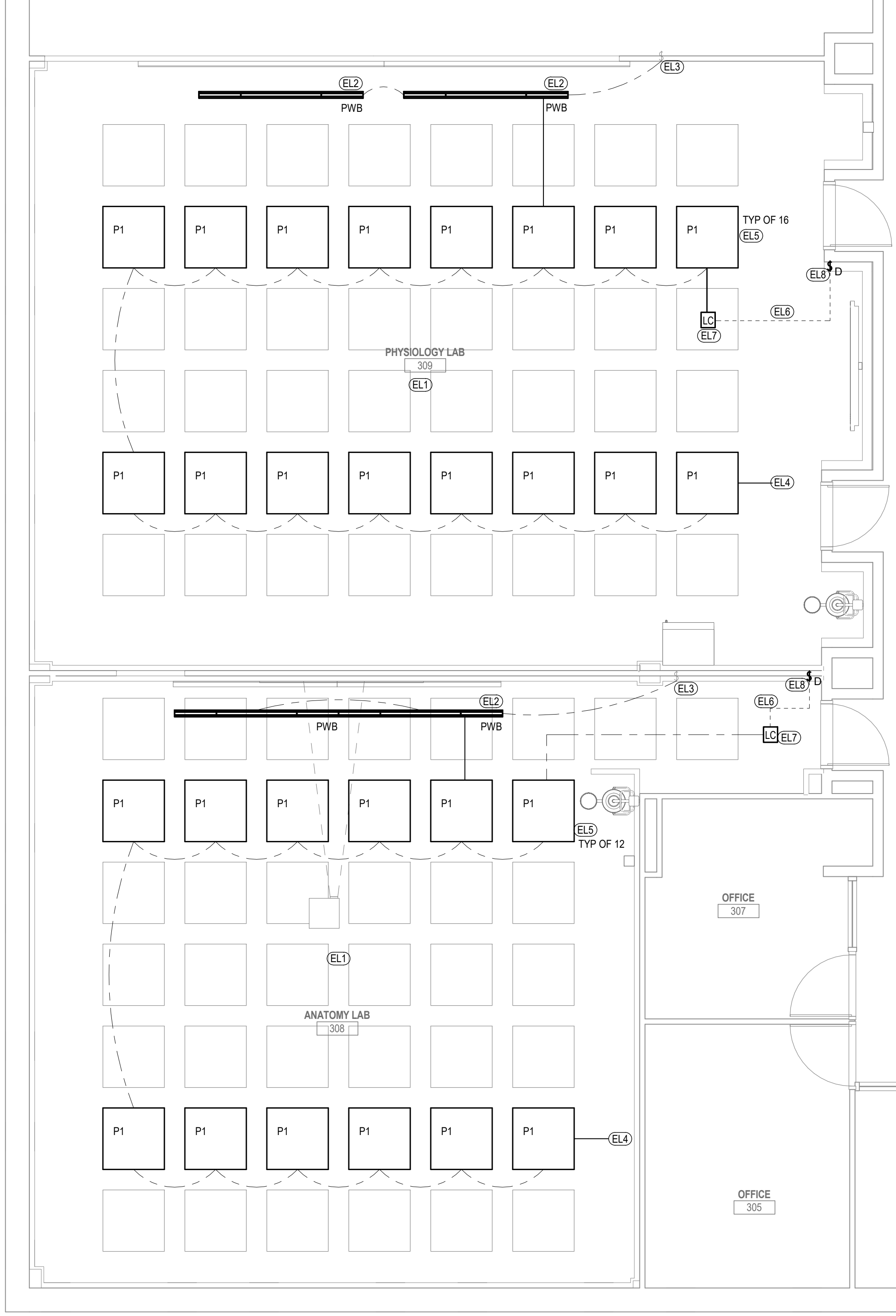
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN (RCP) FOR EXACT LOCATION OF LIGHT FIXTURES. WHERE DISCREPANCIES EXIST THE LIGHTING SHOWN ON THIS PLAN SHALL GOVERN. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED ON THE RCP.
- COORDINATE PLACEMENT OF FIXTURES WITH ACTUAL INSTALLATION OF MECHANICAL EQUIPMENT AND DUCTWORK.
- INSTALL A DEDICATED NEUTRAL FOR EACH 120V OR 277V BRANCH CIRCUIT.
- ALL EXIT LIGHTS SHALL BE CONNECTED TO THE UN-SWITCHED PHASE CONDUCTOR (CONSTANT HOT) OF THE CIRCUIT SERVING THE LIGHTING FIXTURES WITHIN THE SPACE. TAP UNSWITCHED HOT/LEG AHEAD OF LIGHTING CONTROL PANEL.
- CONNECT EMERGENCY BATTERY UNITS IN LIGHTING FIXTURES TO THE UN-SWITCHED PHASE CONDUCTOR (CONSTANT HOT) OF THE CIRCUIT SERVING THE FIXTURES. TAP UNSWITCHED HOT/LEG AHEAD OF LIGHTING CONTROL PANEL.
- WHERE TWO LIGHT SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THE SWITCH NEAREST THE DOOR CONTROLS THE OUTER LAMPS IN ALL THE FIXTURES IN THE SPACE AND THE OTHER SWITCH CONTROLS THE INNER LAMPS IN ALL THE FIXTURES IN THE SPACE.
- ALL LIGHT SWITCHES AND WALL SWITCH OCCUPANCY SENSORS SHALL BE INSTALLED ON THE STRIKE SIDE OF DOOR. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION AND FINAL DOOR LOCATIONS IN FIELD.
- CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, MOUNTING HEIGHTS OF THE EXIT SIGNS AND THE DIRECTIONAL CHEVRONS WITH THE ARCHITECT'S EGRESS PLAN PRIOR TO INSTALLATION.
- IN EXPOSED STRUCTURE AREAS, ROUTE FEEDER AND BRANCH CIRCUIT RACEWAYS PARALLEL AND PERPENDICULAR TO STRUCTURE.

KEYED NOTES - LIGHTING PLAN

- EL1 EXISTING LIGHTING AND CONTROLS SHALL REMAIN UNDER BASE BID.
- EL2 REPLACE EXISTING WHITEBOARD FIXTURE AT THIS APPROXIMATE LOCATION WITH NEW PENDANT MOUNTED FIXTURE. LOCATE NEW FIXTURE 24" FROM WHITEBOARD AT 8'-6" AFF TO BOTTOM OF FIXTURE. CONNECT TO EXISTING CIRCUIT SERVING EXISTING WHITEBOARD FIXTURE BEING REMOVED. SUPPORT FIXTURE FROM STRUCTURE WITH HGS STEEL 1" CHANNEL SUPPORT AND ALLTHREAD RODS. PAINT ALL SUPPORTS BLACK TO MATCH EXISTING CONDITIONS.
- EL3 EXISTING SWITCH TO BE RE-USED TO CONTROL NEW WHITEBOARD FIXTURE.
- EL4 SERVE NEW LIGHTING FROM SAME CIRCUIT SERVING EXISTING LIGHTING REMOVED DURING DEMOLITION.
- EL5 ALTERNATE NO. 1 - REPLACE EXISTING 3X3 FIXTURES WITH NEW P1 FIXTURES AT SAME LOCATION AND RECONNECT TO EXISTING LIGHTING CIRCUIT CURRENTLY SERVING LIGHTING IN SPACE.
- EL6 ALTERNATE NO. 1 - CLASS 2 CAT 5E CABLING FROM AREA LIGHTING CONTROLLER TO WALL CONTROLLER. SEE DETAILS AND SPECIFICATIONS 26-09-43.
- EL7 ALTERNATE NO. 1 - ROOM LIGHTING CONTROLLER MOUNTED ABOVE ACCESSIBLE CEILING. SEE ELECTRICAL DETAILS AND SPECIFICATION SECTION 26-09-43.
- EL8 ALTERNATE NO. 1 - REPLACE EXISTING LIGHT SWITCH WITH NEW LIGHTING CONTROLLER IN SAME LOCATION. INSTALL CLASS 2 WIRING FROM NEW SWITCH TO ROOM CONTROLLER. SEE DETAILS AND SPECIFICATIONS 26-09-43.



1 THIRD FLOOR - POWER PLAN
 SCALE: 1/4" = 1'-0"



2 THIRD FLOOR - LIGHTING PLAN
 SCALE: 1/4" = 1'-0"



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THIRD FLOOR - POWER & LIGHTING PLANS

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CONSTRUCTION DRAWINGS



PLAN NORTH
TRUE NORTH

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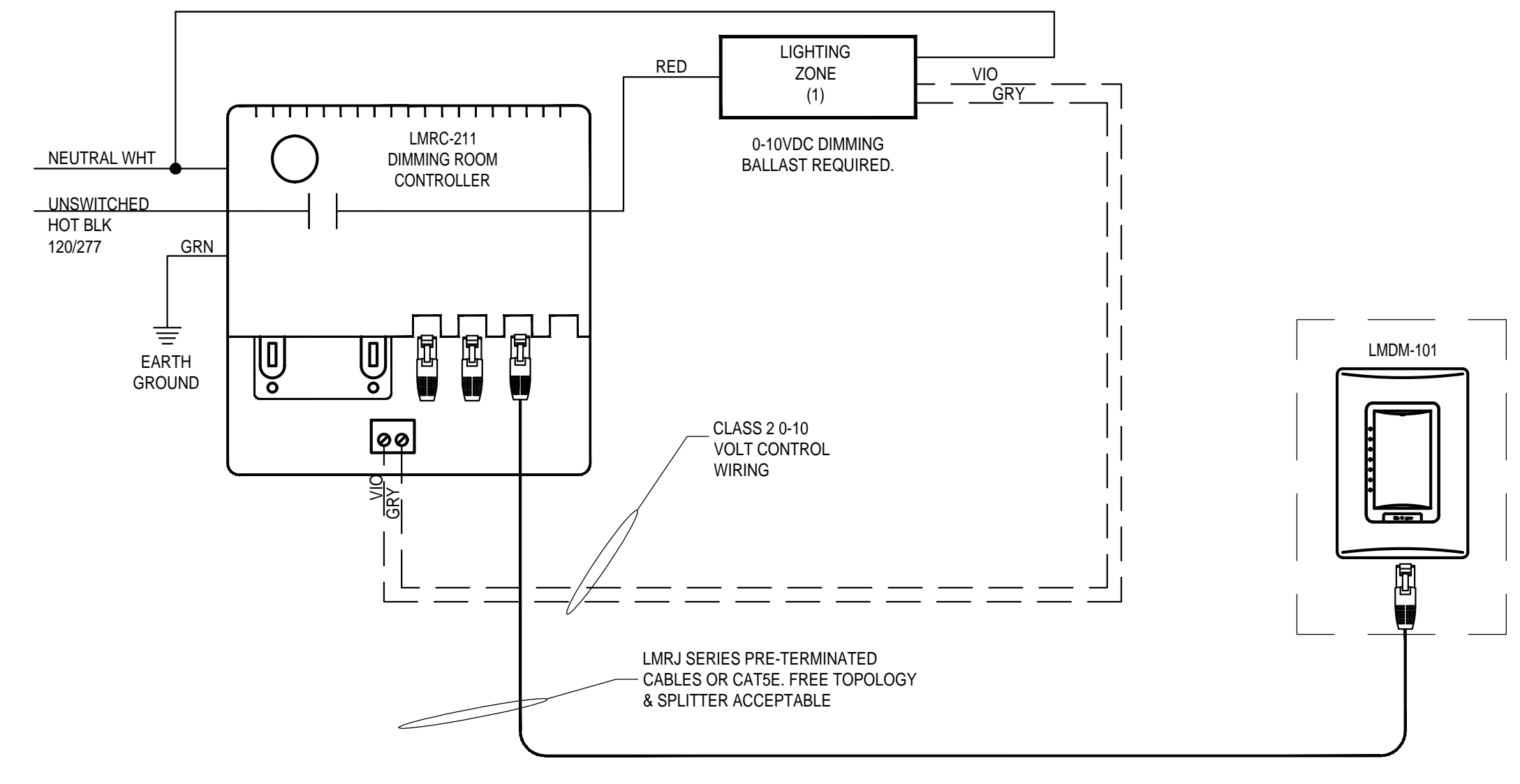
CONSTRUCTION DRAWINGS
ELECTRICAL
SCHEDULES AND
DETAILS

E6.01M

LIGHTING FIXTURE SCHEDULE							NOTES
TYPE	MANUFACTURER & MODEL NUMBER	LAMPS	VA	VOLTAGE	DESCRIPTION		
AL	METALUX#24GR-LD4-48-UNV-L840-CD1-U DAY-BRITE # 2TG45L840DFSO2FUNV0IM LITHONIA#2GT1.4G48LMVOLTZ1L9840EL14L	LED	4000K	120	2' X 4' LAY-IN RECESSED LED TROFFER WITH STANDARD DIMMING.		1
	COLUMBIA# LJT-24-40-ML-G-FSA12125-ED-U		47				
ALE	METALUX#24GR-LD4-48-UNV-L840-CD1-U DAY-BRITE # 2TG45L840DFSO2FUNV0IMLED LITHONIA#2GT1.4G48LMVOLTZ1L9840EL14L	LED	4000K	120	2' X 4' LAY-IN RECESSED LED TROFFER WITH STANDARD DIMMING. PROVIDE WITH EMERGENCY BATTERY PACK.		1
	COLUMBIA# LJT-24-40-ML-G-FSA12125-ED-U-ELL14		47				
F	METALUX#4SNLED-LD4-50SL-LWUNV-L840-CD1-U PHILIPS #LF4FR52H40UDZT LITHONIA#ZL2NL4850LMMDMOMVOLT40K80CRIWH	LED	4000K	120	4' LONG LED LENSED STRIP		
	COLUMBIA#LCL4-40ML-ED1U		70				
FE	METALUX#4SNLED-LD4-50SL-LWUNV-L840-CD1-U PHILIPS #LF4FR52H40UDZTELLED LITHONIA#ZL2NL4850LMMDMOMVOLT40K80CRIWSL722WH	LED	4000K	120	4' LONG LED LENSED STRIP WITH EMERGENCY BATTERY PACK		
	COLUMBIA#LCS4-30LW-EDU		70				
P1	SPI #AP11883L157.7WDMLEPT021202774000KH05.7	LED	4000K	120/277	36" X 36" SQUARE LED PENDANT FIXTURE WITH CANOPY AND STANDARD DIMMING AND FIELD ADJUSTABLE AIRCRAFT CABLE.		
			158				
PWB	HAI-LED-325-HLO-40-XX-SC-MW-FC-FW-277-EB-CSS GAMMALUX #GR2D 1SOLE40UNV-DVR8SXASLMD-WH-XX-XX PEERLESS #RDM40L0FT2960R0SCPLP640F1**C310 ILLUMITEK #CX19616DWC06150U	LED	4000K	277	8' LONG LINEAR PENDANT LED DIRECT WALL WASH FOR WHITEBOARD WITH 90 DEGREE ROTATABLE STEEL BODY, ACRYLIC LENS AND METAL REFLECTOR. NOMINAL 8000 DELIVERED LUMENS PER 8FT SECTION.		
X1	SURE-LITES #LPX-70-RWH CHLORIDE #FERWEM LITHONIA #LQMSWVG120277TELN EMERG-LITE # ELX400DGN COMPASS #CEG	LED		120/277	UNIVERSAL EXIT LIGHT WITH BATTERY, NUMBER OF FACES AND DIRECTIONAL CHEVRONS AS INDICATED ON THE DRAWINGS		
			5				

NOTES
1. INVERT LENS SO SMOOTH SIDE IS DOWN FOR EASE OF CLEANING.

NOT ALL FIXTURES ON SCHEDULE APPLY TO THIS BUILDING
SEE PLANS FOR FIXTURE LOCATIONS



1 SCINCE LAB DIGITAL LIGHTING CONTROL DIAGRAM
SCALE: NONE

EXISTING PANELBOARD Z													LOCATION: ROOM 325		
VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE													MOUNTING: SURFACE		
225 A MAIN LUGS ONLY													BUS: MAIN - 225 A NEUTRAL - 100% EQUIPMENT GROUND		
													Iscc = 10,000 ARMS SWM AVAILABLE		
VAL	VAR	VAO	LOAD	BKR	CKT	CKT	BKR	LOAD	VAL	VAR	VAO				
0	0	600	E-CONTROLLER	201	1	A	2	201	RECEPTACLES RM 315	0	540	300			
0	1080		LAB TABLES RM 317	201	3	B	4	201	RECEPTACLES RM 308	0	900				
0	1080		LAB TABLES RM 317	201	5	A	6	201	RECEPTACLES RM 308	0	360	600			
0	1080		LAB TABLES RM 317	201	7	A	8	201	ANATOMY TABLE	0	0	1800			
0	1080		LAB TABLES RM 315	201	9	B	10	201	RECEPTACLES RM 308	0	180				
0	1080		LAB TABLES RM 315	201	11	C	12	201	RECEPTACLES RM 308	0	180				
0	1080		LAB TABLES RM 315	201	13	A	14	201	RECEPTACLES RM 317	0	360				
0	360		RECEPTACLES RM 317	201	15	B	16	201	REFRIGERATOR	0	0	900			
0	1080		EXISTING LOADS	201	17	C	18	201	EXISTING LOADS	0	1080				
0	1080		EXISTING LOADS	201	19	A	20	201	EXISTING LOADS	0	900				
1200	0		EXISTING LOADS	201	21	B	22	201	EXISTING LOADS	0	540				
0	360		EXISTING LOADS	201	23	C	24	201	EXISTING LOADS	0	540				
0	900		EXISTING LOADS	201	25	A	26	201	EXISTING LOADS	0	540				
0	1080		EXISTING LOADS	201	27	B	28	201	EXISTING LOADS	0	1260				
0	720		EXISTING LOADS	201	29	C	30	201	EXISTING LOADS	0	1440				
0	900		EXISTING LOADS	201	31	A	32	201	EXISTING LOADS	0	1080				
0	1080		EXISTING LOADS	201	33	B	34	201	EXISTING LOADS	650	0				
0	1080		EXISTING LOADS	201	35	C	36	201	EXISTING LOADS	750	0				
0	180		RECEPTACLES RM 308	201	37	A	38	201	EXISTING LOADS	465	0				
0	180		RECEPTACLES RM 308	201	39	B	40	201	EXISTING LOADS	225	0				
0	0	600	E-CONTROLLER	201	41	C	42	201	LAB SAFETY SOLINOID PANEL	0	0	600			
0	360		RECEPTACLES RM 316	201	43	A	44	201	RECEPTACLES RM 309	0	360				
0	900		RECEPTACLES RM 309	201	45	B	46	201	VACUUM PUMP RM 315	0	0	600			
0	0	600	VACUUM PUMP RM 316	201	47	C	48	201	VACUUM PUMP RM 317	0	0	600			
0	0	1920	EF-2	301	49	A	50	301	EF-1	0	0	2352			
0	0	2352	EF-1	301	51	B	52	301	EF-1	0	0	2352			
0	120		ROOF RECEPTACLES	201	53	C	54	201	RECEPTACLES RM 316/317	0	1080	600			
0	360		LAB TABLE RECEPT RM 309	201	55	A	56	201	LAB TABLE RECEPT RM 309	0	360				
0	360		LAB TABLE RECEPT RM 309	201	57	B	58	201	LAB TABLE RECEPT RM 309	0	360				
0	360		LAB TABLE RECEPT RM 309	201	59	C	60	201	ROOM 309 EXHAUST FAN	0	360				
0	360		LAB TABLE RECEPT RM 309	201	61	A	62	201	SPARE	0	0				
0	180		RECEPTACLES RM 309	201	63	B	64	201	SPARE	0	0				
0	180		RECEPTACLES RM 309	201	65	C	66	201	SPARE	0	0				
0	0	600	VACUUM PUMP RM 309	201	67	A	68	201	SPARE	0	0				
0	0	720	EXISTING LOADS	201	69	B	70	201	EXISTING LOADS	0	0	720			
0	180		RECEPTACLES RM 309	201	71	C	72	201	RECEPTACLES RM 309	0	180				
0	0	900	REFRIGERATOR RM 309	201	73	A	74	201	DOOR LOCKS	0	0	600			
0	180		RECEPTACLES RM 308	201	75	B	76	201	SPARE	0	0				
0	0	180	SPARE	201	77	C	78	201	SPARE	0	0				
0	0	0	SPARE	201	79	A	80	201	SPARE	0	0				
0	0	0	SPARE	201	81	B	82	201	SPARE	0	0				
0	0	0	SPARE	201	83	C	84	201	SPARE	0	0				

VAL (LIGHTING)	3290	CONNECTED VA	4113	DEMAND VA
VAR (RECEPTACLES)	32220	CONNECTED VA	21110	DEMAND VA
VAO (OTHER)	20316	CONNECTED VA	20316	DEMAND VA
VA TOTAL	55826	CONNECTED VA	45539	DEMAND VA
AMPS TOTAL	155	CONNECTED AMPS	126	DEMAND AMPS

L	R	O	VA CONNECTED TO A PHASE	TOTAL	VA =	166	AMPS CONNECTED TO A PHASE @ 120 VOLTS
465	10440	9072	VA CONNECTED TO B PHASE	1977	VA =	162	AMPS CONNECTED TO B PHASE @ 120 VOLTS
2075	9720	7644	VA CONNECTED TO C PHASE	19439	VA =	137	AMPS CONNECTED TO C PHASE @ 120 VOLTS
750	12060	3600	TOTAL	16410	VA =		
3290	32220	20316		55826	VA		

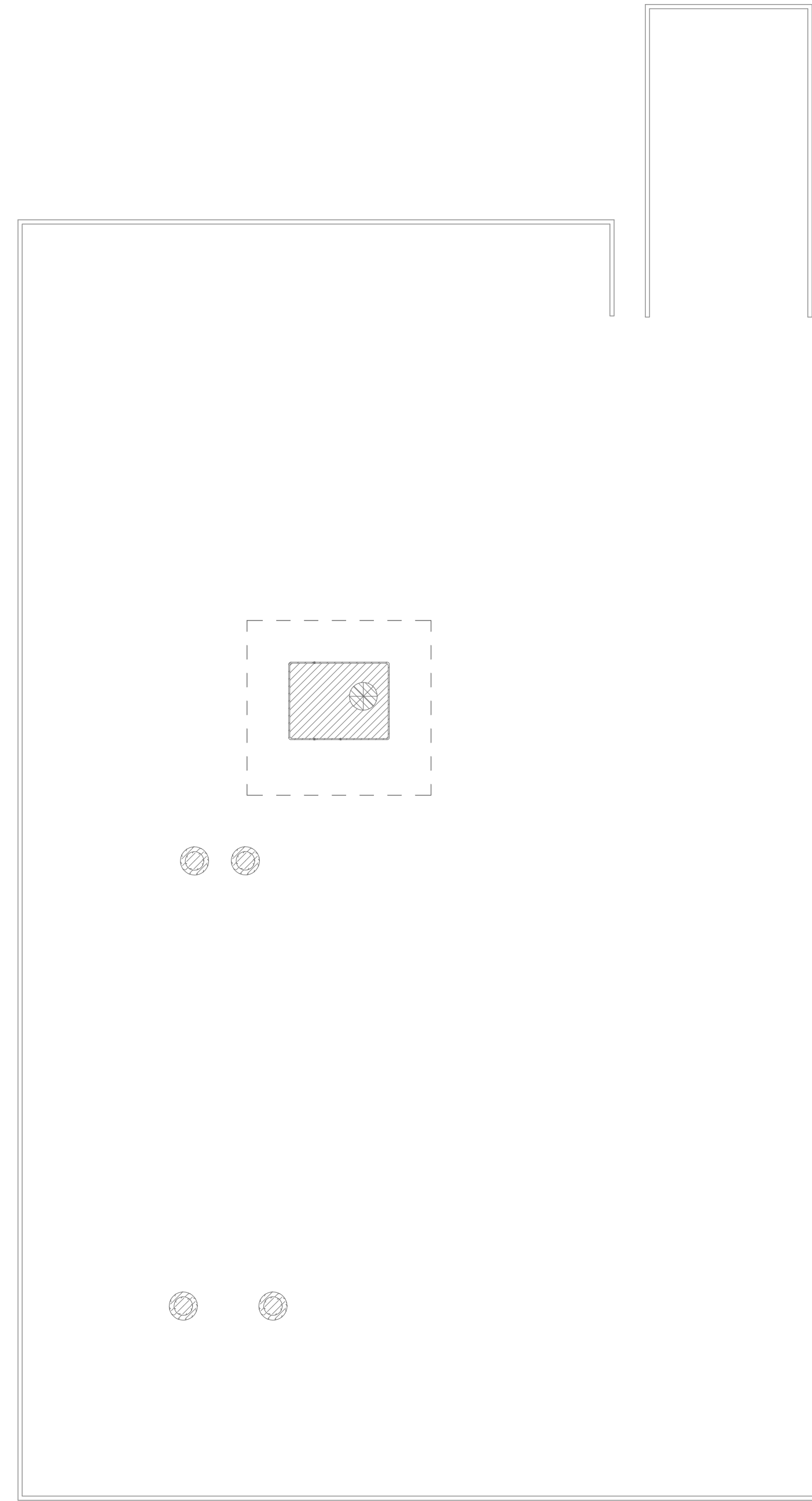


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GENERAL NOTES - POWER PLAN

1. FOR EQUIPMENT OR DEVICES SHOWN ON THE ARCHITECTURAL DRAWINGS THAT REQUIRE POWER AND ARE NOT SHOWN ON THE ELECTRICAL PLANS, ASSUME AT A MINIMUM A DUPLEX RECEPTACLE, A DEDICATED CIRCUITS WITH 2P12.1/2GND.3/4"C WITH HOMERUN TO NEAREST 120/208V PANEL ITEM SUCH AS BUT NOT LIMITED TO ROLL UP DOORS, OVERHEAD GRILLES, DISPLAY CASES, HAND DRYERS, WATER COOLERS, ICE MACHINES, GARBAGE DISPOSALS, OSLATING FANS, LCD'S, PROJECTORS, DISHWASHERS, UNDER COUNTER REFRIGERATORS, MOTORIZED PROJECTOR SCREENS, ETC.
2. REFER TO "T" AND "TS" SERIES DRAWINGS FOR ADDITIONAL ELECTRICAL REQUIREMENTS AND ROUGH-IN LOCATIONS TO BE INSTALLED BY DIV. 26 CONTRACTOR
3. COORDINATE EXACT ROUGH-IN REQUIREMENTS AND LOCATIONS FOR SECURITY SYSTEM DEVICES AND EQUIPMENT WITH TECHNOLOGY DRAWINGS AND OWNER PRIOR TO THE START OF CONSTRUCTION.
4. INSTALL ALL RECEPTACLES 18" AFF. UON.
5. COORDINATE EXACT ROUGH-IN LOCATION OF DEVICES WITH ARCHITECTURAL ELEVATIONS, DETAILS AND PLANS. INSTALL DEVICE BOXES FLUSH WITH FINISHED SURFACE.
6. INSTALL A DEDICATED NEUTRAL FOR EACH 120V OR 277V BRANCH CIRCUIT.
7. INSTALL ALL EXTERIOR RECEPTACLES WITH NON-ATTENDED "IN USE" TYPE METAL COVERS. COORDINATE EXACT ROUGH-IN LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
8. CONTRACTOR TO PROVIDE CONNECTION FROM EXHAUST FANS TO ALL MOTORIZED BACKDRAFT DAMPERS AS REQUIRED. COORDINATE WITH MECHANICAL.

KEYED NOTES - POWER PLAN



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

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CLIENT		
St Mary's University		
PROJECT NUMBER		
1817		
DATE:	04 / 10 / 2018	
DRAWN BY:	LARRY A. SCHAFFER	
CHECKED BY:	DON RICHARDS	
REVISIONS		
No.	Description	Date

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ELECTRICAL PLAN - ROOF LEVEL

E3.01M



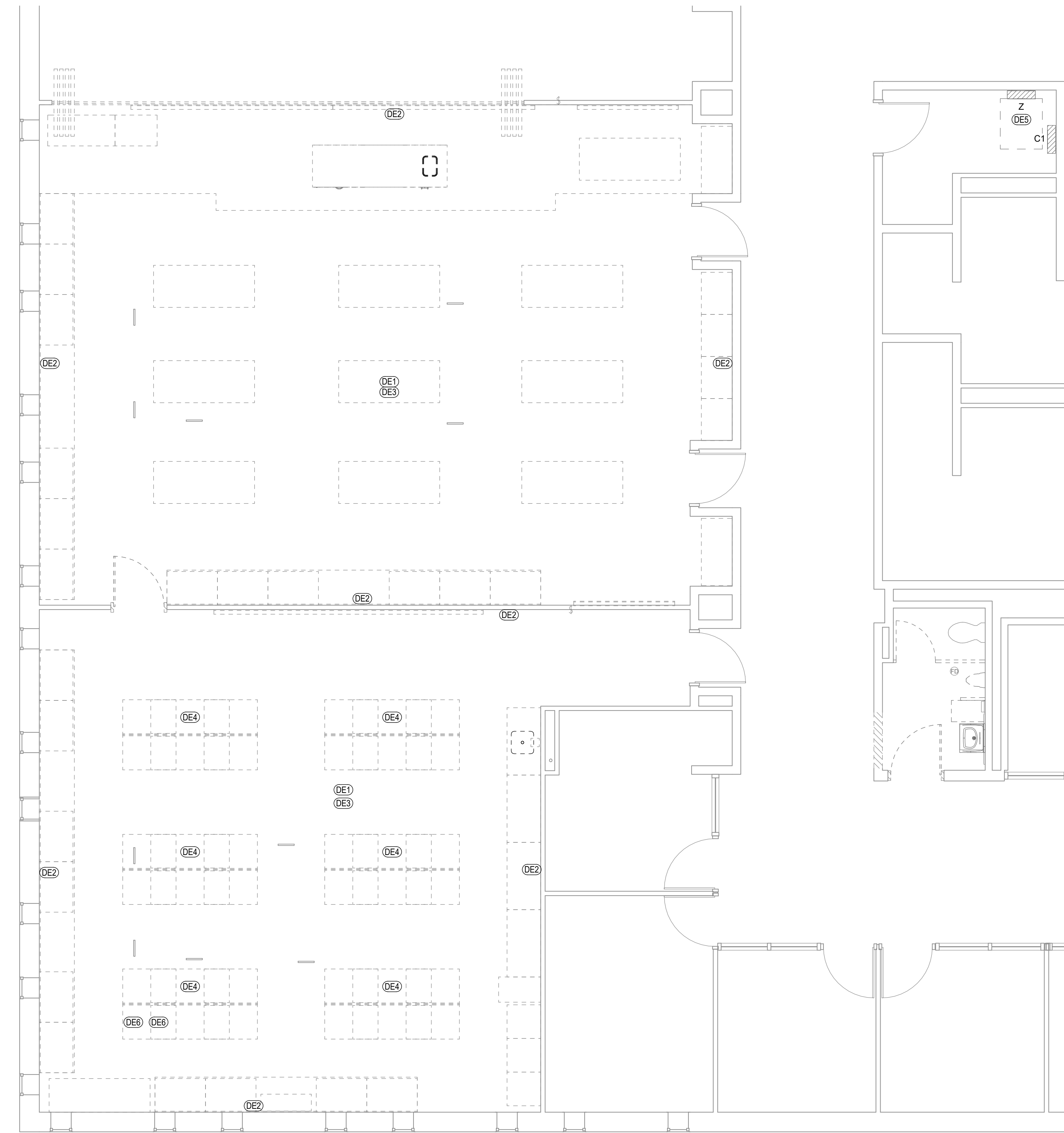
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210-638-7200
TX Firm: F-18872

GENERAL NOTES - ELECTRICAL DEMOLITION PLAN

1. DEMOLISHED ITEMS ARE PROPERTY OF THE OWNER. OWNER RETAINS SALVAGE RIGHTS TO DEMOLISHED ITEMS.

KEYED NOTES - ELECTRICAL DEMOLITION PLAN

- DE1 EXISTING LIGHTING AND CONTROLS SHALL REMAIN UNDER BASE BID.
- DE2 REMOVE ALL ELECTRICAL OUTLETS ON WALL IN THEIR ENTIRETY. REMOVE EXISTING CONDUIT BACK TO NEAREST POINT OF CONNECTION. REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING IN ITS ENTIRETY BACK TO SOURCE. CONTRACTOR SHALL IDENTIFY EXISTING CIRCUITS SERVING OUTLETS. CIRCUITS SHALL BE RE-USED TO NEW OUTLETS IN SPACE.
- DE3 UNDER ALTERNATE NO. 1 - REMOVE ALL EXISTING LIGHTING AND CONTROLS IN SPACE IN THEIR ENTIRETY. REMOVE CONDUIT BACK TO NEAREST POINT OF CONNECTION ABOVE CEILING. REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING IN ITS ENTIRETY BACK TO SOURCE. CONTRACTOR SHALL IDENTIFY EXISTING CIRCUIT SERVING LIGHTING. EXISTING CIRCUIT TO BE RE-USED TO SERVE NEW LIGHTING IN SPACE.
- DE4 REMOVE ALL ELECTRICAL DEVICES IN EXISTING LAB FURNITURE IN THEIR ENTIRETY. REMOVE CONDUIT BACK TO NEAREST POINT OF CONNECTION BELOW FLOOR. REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING IN ITS ENTIRETY BACK TO SOURCE. CONTRACTOR SHALL IDENTIFY EXISTING CIRCUIT SERVING. EXISTING CIRCUIT SHALL BE RE-USED TO SERVE NEW OUTLETS IN SPACE.
- DE5 EXISTING ELECTRICAL PANELS AND EQUIPMENT TO REMAIN.
- DE6 ROOF MOUNTED LAB EXHAUST FAN TO BE REMOVED. REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING IN ITS ENTIRETY BACK TO SOURCE. REMOVE CONDUIT BACK TO NEAREST POINT OF CONNECTION ABOVE CEILING. CONTRACTOR SHALL IDENTIFY EXISTING CIRCUIT PRIOR TO THE START OF CONSTRUCTION. EXISTING CIRCUIT SHALL BE RE-USED TO SERVE NEW EXHAUST FANS ON ROOF.



1 THIRD FLOOR - ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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PROJECT NUMBER		
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CHECKED BY:	DON RICHARDS	
REVISIONS		
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THIRD FLOOR - ELECTRICAL DEMOLITION PLAN

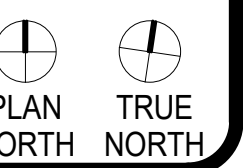
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DATE:
 DRAWN BY: MATTHEW TREVINO
 CHECKED BY: DON RICHARDS

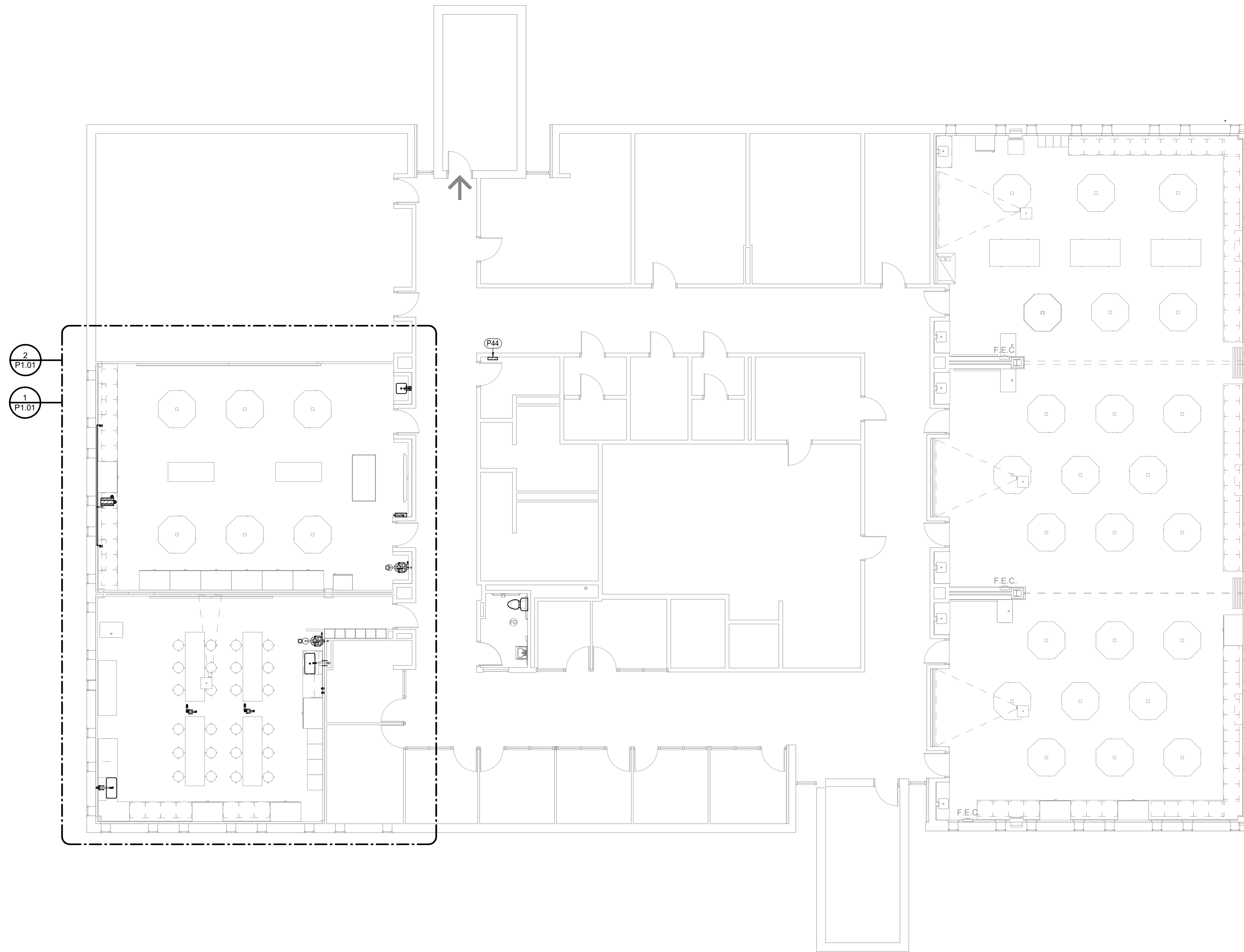
REVISIONS

No.	Description	Date

SCHEMATIC DESIGN

THIRD FLOOR - PLUMBING OVERALL PLAN

P1.00



GENERAL NOTES - PLUMBING PLAN

1. THE CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.
2. ALL FINAL CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE BY THE PLUMBING CONTRACTOR.
3. ALL PLUMBING PIPING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO ANY INSTALLATION OF ALL PLUMBING FIXTURES AND EQUIPMENT BY THE PLUMBING CONTRACTOR.
4. ALL FLOOR DRAINS AND FLOOR SINKS SHOWN ON THIS DRAWING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
5. REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. DO NOT SCALE FROM PLUMBING DRAWINGS.
6. ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
7. PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
8. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
9. FIXTURES DESIGNATED AS ADA ACCESSIBLE BY ARCHITECT SHALL BE INSTALLED AT ADA ACCESSIBLE HEIGHT PER ARCHITECTURAL DETAILS.
10. ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
11. FLOOR DRAINS AND FLOOR SINKS IN MECHANICAL ROOMS SHALL BE SET NOT LESS THAN 6" FROM HOUSEKEEPING PADS, RE: MECHANICAL DRAWINGS. DO NOT PLACE ON, OR IN, HOUSEKEEPING PAD, OR UNDERNEATH EQUIPMENT.
12. CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
13. CONTRACTOR SHALL PLACE A TRAP PRIMER, TP-1, AND A HOSE BIBB, HB-2, IN ALL MECHANICAL ROOMS.
14. PROVIDE A HOSE-BIBB WITH WHEEL HANDLE IN ALL MECHANICAL ROOMS, HB-2.
15. ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED AND HEAT TRACED TO PREVENT FREEZING.
16. ALL SANITARY 3" OR ABOVE SHALL BE INSPECTED BY A CAMERA PRIOR TO SUBSTANTIAL COMPLETION.

KEYED NOTES - PLUMBING PLAN

- P44 PROVIDE LAB AUTOMATION CONTROL SYSTEM ELECTRICAL CONTACTOR PANEL - ECP-16; PANEL TO BE LOCATED IN EXISTING ELECTRICAL ROOM.



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GENERAL NOTES - PLUMBING DEMOLITION PLAN

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KEYED NOTES - PLUMBING DEMOLITION PLAN

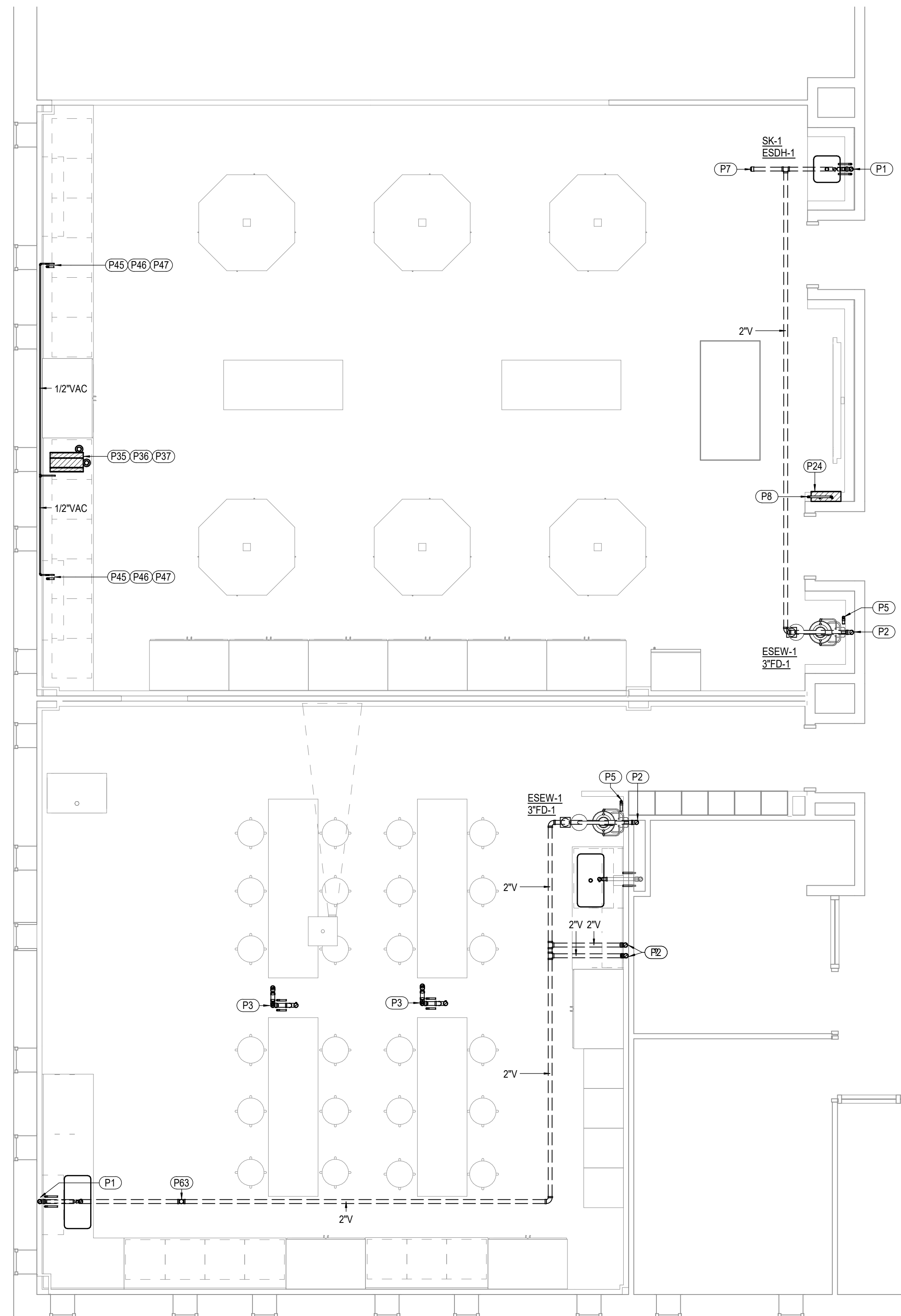
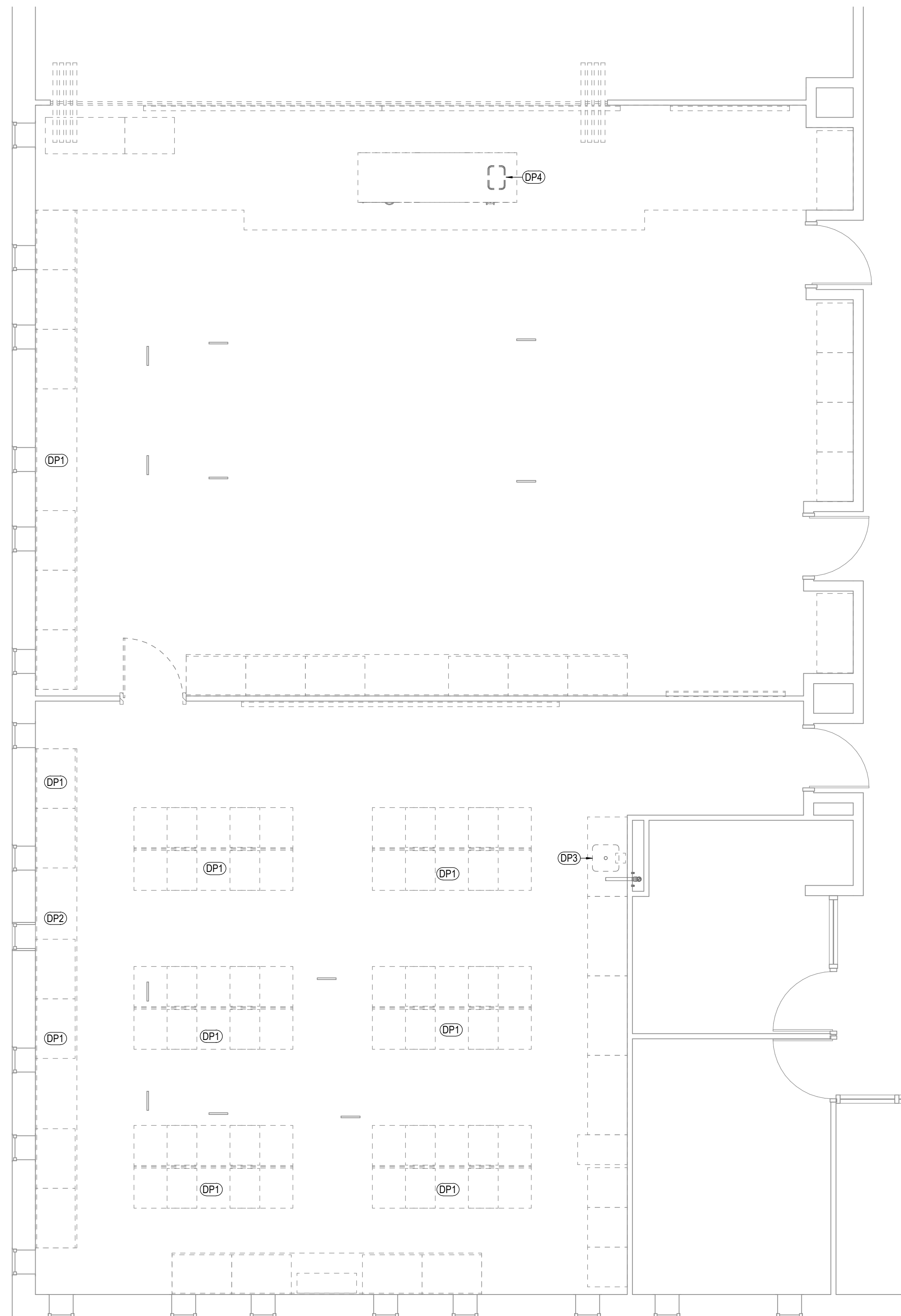
- DP1 REMOVE EXISTING GAS PIPING AND GAS TURRET AND CAP GAS PIPING BELOW FLOOR IN SECOND FLOOR CEILING SPACE.
- DP2 REMOVE EXISTING AIR PIPING AND AIR TURRET AND CAP AIR PIPING BELOW FLOOR IN SECOND FLOOR CEILING SPACE.
- DP3 REMOVE EXISTING SINK AND CAP WATER, AND WASTE AT WALL AND MAKE READY FOR NEW SINK.
- DP4 REMOVE EXISTING SINK AND CAP WASTE, WATER, AND VENT PIPING BELOW FLOOR IN SECOND FLOOR CEILING SPACE.

GENERAL NOTES - PLUMBING PLAN

- THE CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.
- ALL FINAL CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE BY THE PLUMBING CONTRACTOR.
- ALL PLUMBING PIPING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO ANY INSTALLATION OF ALL PLUMBING FIXTURES AND EQUIPMENT BY THE PLUMBING CONTRACTOR.
- ALL FLOOR DRAINS AND FLOOR SINKS SHOWN ON THIS DRAWING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
- REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. DO NOT SCALE FROM PLUMBING DRAWINGS.
- ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
- PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
- ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
- FIXTURES DESIGNATED AS ADA ACCESSIBLE BY ARCHITECT SHALL BE INSTALLED AT ADA ACCESSIBLE HEIGHT PER ARCHITECTURAL DETAILS.
- ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
- FLOOR DRAINS AND FLOOR SINKS IN MECHANICAL ROOMS SHALL BE SET NOT LESS THAN 6" FROM HOUSEKEEPING PADS. RE: MECHANICAL DRAWINGS. DO NOT PLACE ON, OR IN, HOUSEKEEPING PAD, OR UNDERNEATH EQUIPMENT.
- CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
- CONTRACTOR SHALL PLACE A TRAP PRIMER, TP-1, AND A HOSE BIBB, HB-2, IN ALL MECHANICAL ROOMS.
- PROVIDE A HOSE-BIBB WITH WHEEL HANDLE IN ALL MECHANICAL ROOMS, HB-2.
- ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED AND HEAT TRACED TO PREVENT FREEZING.
- ALL SANITARY 3" OR ABOVE SHALL BE INSPECTED BY A CAMERA PRIOR TO SUBSTANTIAL COMPLETION.

KEYED NOTES - PLUMBING PLAN

- P1 3/4" CW, 3/4" HW UP FROM BELOW FLOOR AND 2" VENT UP.
- P2 2" VENT UP FROM BELOW FLOOR.
- P3 3/4" CW, 3/4" HW UP FROM BELOW FLOOR. PROVIDE ISLAND VENTING. REFER TO PLUMBING DETAIL SHEET.
- P5 1-1/4" CW UP FROM BELOW FLOOR.
- P7 CONNECT NEW 2" VENT PIPING TO EXISTING VENT PIPING SERVING EXISTING SINK IN SPACE. CONTRACTOR TO FIELD VERIFY SIZE AND LOCATION OF EXISTING VENT PIPING PRIOR TO ANY CONSTRUCTION.
- P8 3/4" GAS PIPING DOWN TO BELOW FLOOR.
- P24 PROVIDE UTILITY CONTROLLER VALVE PANEL BY LAB AUTOMATION CONTROL SYSTEM MODEL LSCP-1-G-75-1-B-E-IS.
- P35 PROVIDE VACUUM PUMP MODEL PG 3012 NT VARIO MANUFACTURED BY VACUUBRAND. ROUTE EXHAUST TUBE FROM VACUUM PUMP UP THRU ROOF. REFER TO VACUUM MANUFACTURE INSTALLATION MANUAL.
- P36 VACUUM TUBING TO BE TUBING 108 MM PTFE MANUFACTURED BY VACUUBRAND.
- P37 VACUUM FITTINGS TO BE 108 MM PVDF MANUFACTURED BY VACUUBRAND.
- P45 3/4" GAS PIPING, 108 MM PTFE VACUUM TUBING UP.
- P46 PROVIDE DUAL GAS TURRET MODEL Z8200 AND LABORATORY VALVE Z801B MANUFACTURED BY ZURN.
- P47 PROVIDE VACUUM OUTLET MODEL VCL 02 A5/B1/C2/D1/V MANUFACTURED BY VACUUBRAND.
- P63 2" VTR.





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PROJECT NUMBER 1817		
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DRAWN BY: MATTHEW TREVINO		
CHECKED BY: DON RICHARDS		
REVISIONS		
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SCHEMATIC DESIGN
PLUMBING PLAN - SECOND FLOOR

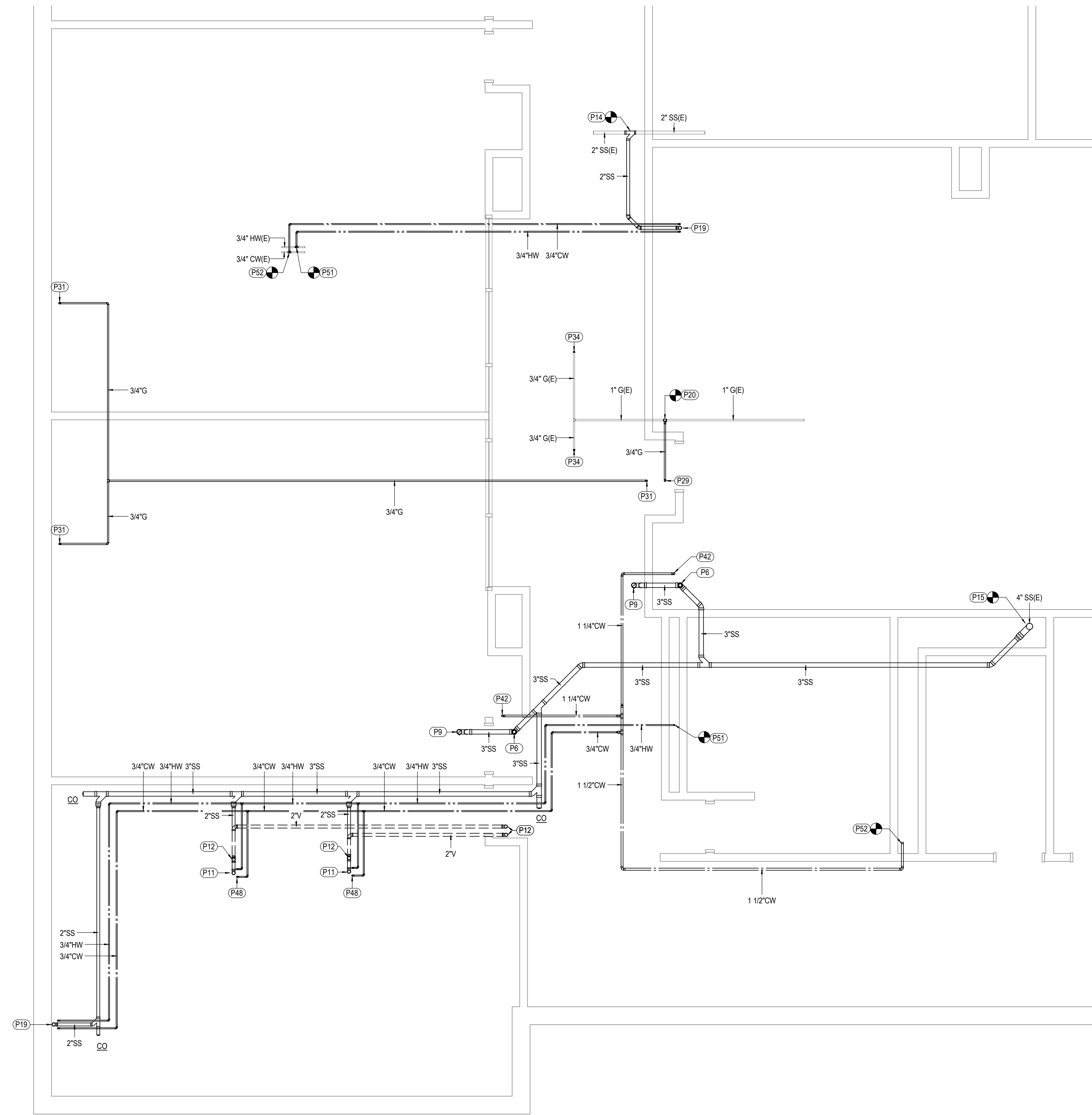
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GENERAL NOTES - PLUMBING PLAN

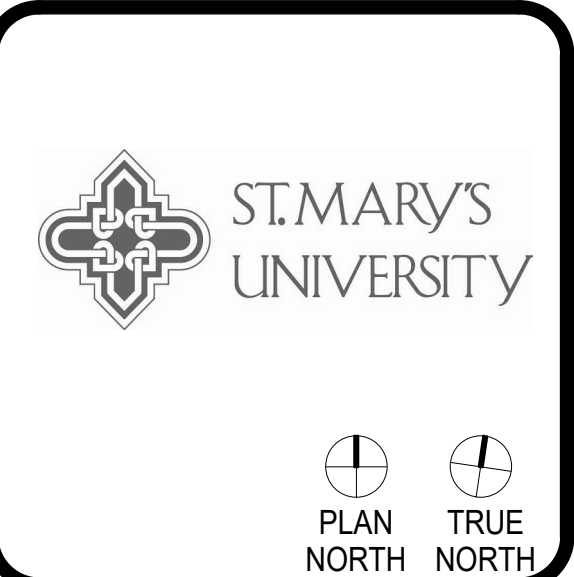
1. THE CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.
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3. ALL PLUMBING PIPING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO ANY INSTALLATION OF ALL PLUMBING FIXTURES AND EQUIPMENT BY THE PLUMBING CONTRACTOR.
4. ALL FLOOR DRAINS AND FLOOR SINKS SHOWN ON THIS DRAWING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
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6. ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
7. PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
8. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
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10. ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
11. FLOOR DRAINS AND FLOOR SINKS IN MECHANICAL ROOMS SHALL BE SET NOT LESS THAN 6" FROM HOUSEKEEPING PADS. RE: MECHANICAL DRAWINGS. DO NOT PLACE ON, OR IN, HOUSEKEEPING PAD, OR UNDERNEATH EQUIPMENT.
12. CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
13. CONTRACTOR SHALL PLACE A TRAP PRIMER, TP-1, AND A HOSE BIBB, HB-2, IN ALL MECHANICAL ROOMS.
14. PROVIDE A HOSE-BIBB WITH WHEEL HANDLE IN ALL MECHANICAL ROOMS, HB-2.
15. ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED AND HEAT TRACED TO PREVENT FREEZING.
16. ALL SANITARY 3" OR ABOVE SHALL BE INSPECTED BY A CAMERA PRIOR TO SUBSTANTIAL COMPLETION.

KEYED NOTES - PLUMBING PLAN

- P11 2" WASTE UP TO FLOOR ABOVE.
- P20 CONNECT NEW GAS PIPING TO EXISTING GAS PIPING IN THIS VICINITY. CONTRACTOR TO FIELD VERIFY EXISTING LOCATION OF GAS PIPING PRIOR TO ANY CONSTRUCTION.
- P29 3/4" GAS PIPING UP TO UTILITY CONTROLLER VALVE PANEL.
- P31 3/4" GAS PIPING UP TO FLOOR ABOVE.
- P34 CAP EXISTING GAS PIPING ABOVE CEILING.



1 SECOND FLOOR - PLUMBING PLAN
 SCALE: 1/4" = 1'-0"



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REVISIONS		
No.	Description	Date

SCHEMATIC DESIGN
PLUMBING PLAN - FIRST FLOOR

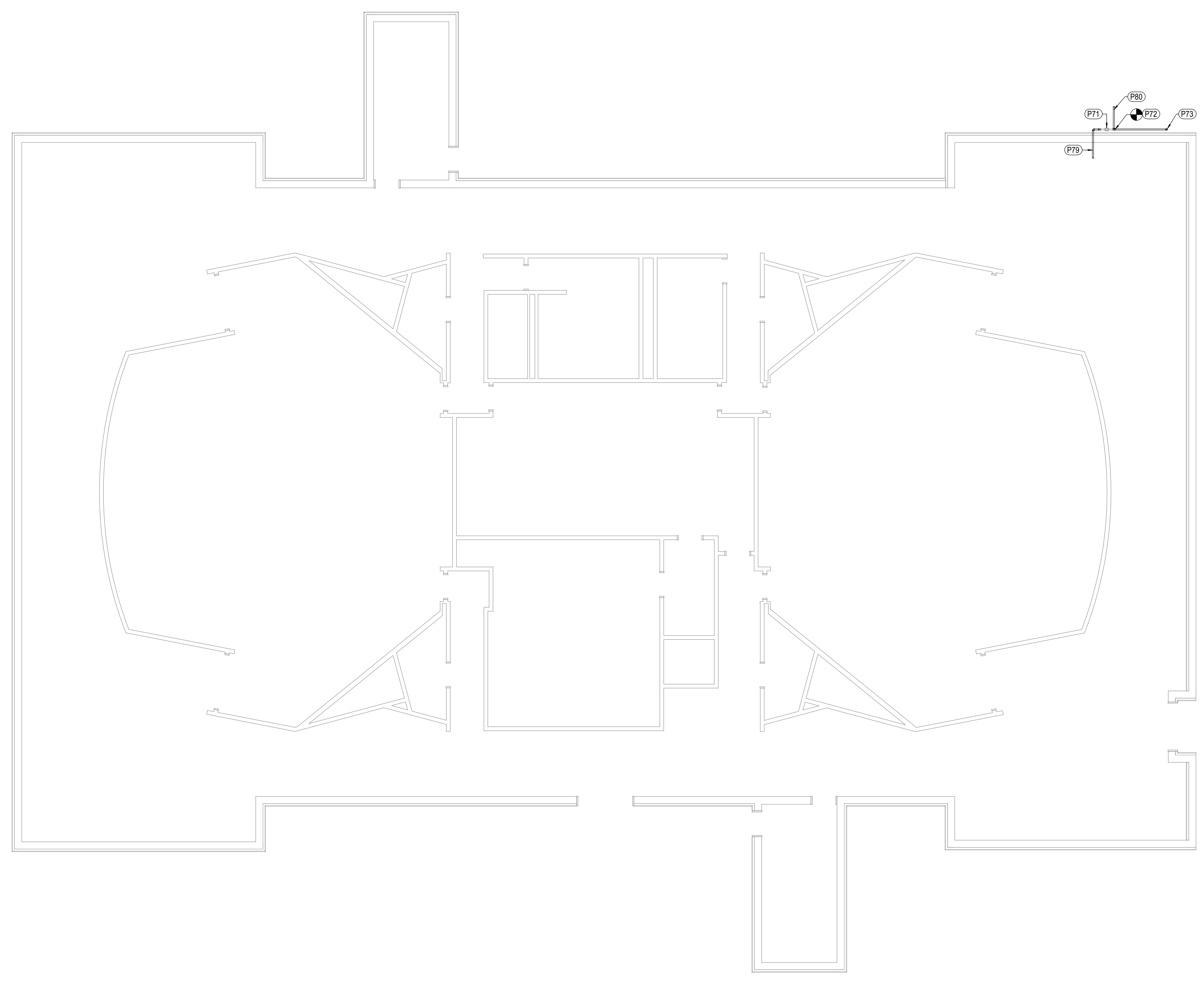
P1.03

GENERAL NOTES - PLUMBING PLAN

1. THE CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.
2. ALL FINAL CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE BY THE PLUMBING CONTRACTOR.
3. ALL PLUMBING PIPING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO ANY INSTALLATION OF ALL PLUMBING FIXTURES AND EQUIPMENT BY THE PLUMBING CONTRACTOR.
4. ALL FLOOR DRAINS AND FLOOR SINKS SHOWN ON THIS DRAWING SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
5. REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. DO NOT SCALE FROM PLUMBING DRAWINGS.
6. ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
7. PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
8. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
9. FIXTURES DESIGNATED AS ADA ACCESSIBLE BY ARCHITECT SHALL BE INSTALLED AT ADA ACCESSIBLE HEIGHT PER ARCHITECTURAL DETAILS.
10. ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
11. FLOOR DRAINS AND FLOOR SINKS IN MECHANICAL ROOMS SHALL BE SET NOT LESS THAN 6" FROM HOUSEKEEPING PADS. RE: MECHANICAL DRAWINGS. DO NOT PLACE ON, OR IN, HOUSEKEEPING PAD, OR UNDERNEATH EQUIPMENT.
12. CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
13. CONTRACTOR SHALL PLACE A TRAP PRIMER, TP-1, AND A HOSE BIBB, HB-2, IN ALL MECHANICAL ROOMS.
14. PROVIDE A HOSE-BIBB WITH WHEEL HANDLE IN ALL MECHANICAL ROOMS, HB-2.
15. ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED AND HEAT TRACED TO PREVENT FREEZING.
16. ALL SANITARY 3" OR ABOVE SHALL BE INSPECTED BY A CAMERA PRIOR TO SUBSTANTIAL COMPLETION.

KEYED NOTES - PLUMBING PLAN

- P71 EXISTING GAS REGULATOR TO BUILDING TO REMAIN.
- P72 CONNECT NEW GAS PIPING ON HIGH SIDE OF EXISTING GAS REGULATOR. SIZE AS NOTED.
- P73 ROUTE GAS PIPING UP VERTICALLY ON EXTERIOR WALL UP TO ROOF AND SUPPORT PIPING TO WALL IN ACCORDANCE WITH CODE AND SPECIFICATIONS.
- P79 EXISTING GAS PIPING TO BUILDING TO REMAIN.
- P80 EXISTING GAS PIPING UNDERGROUND TO GAS REGULATOR TO REMAIN.



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





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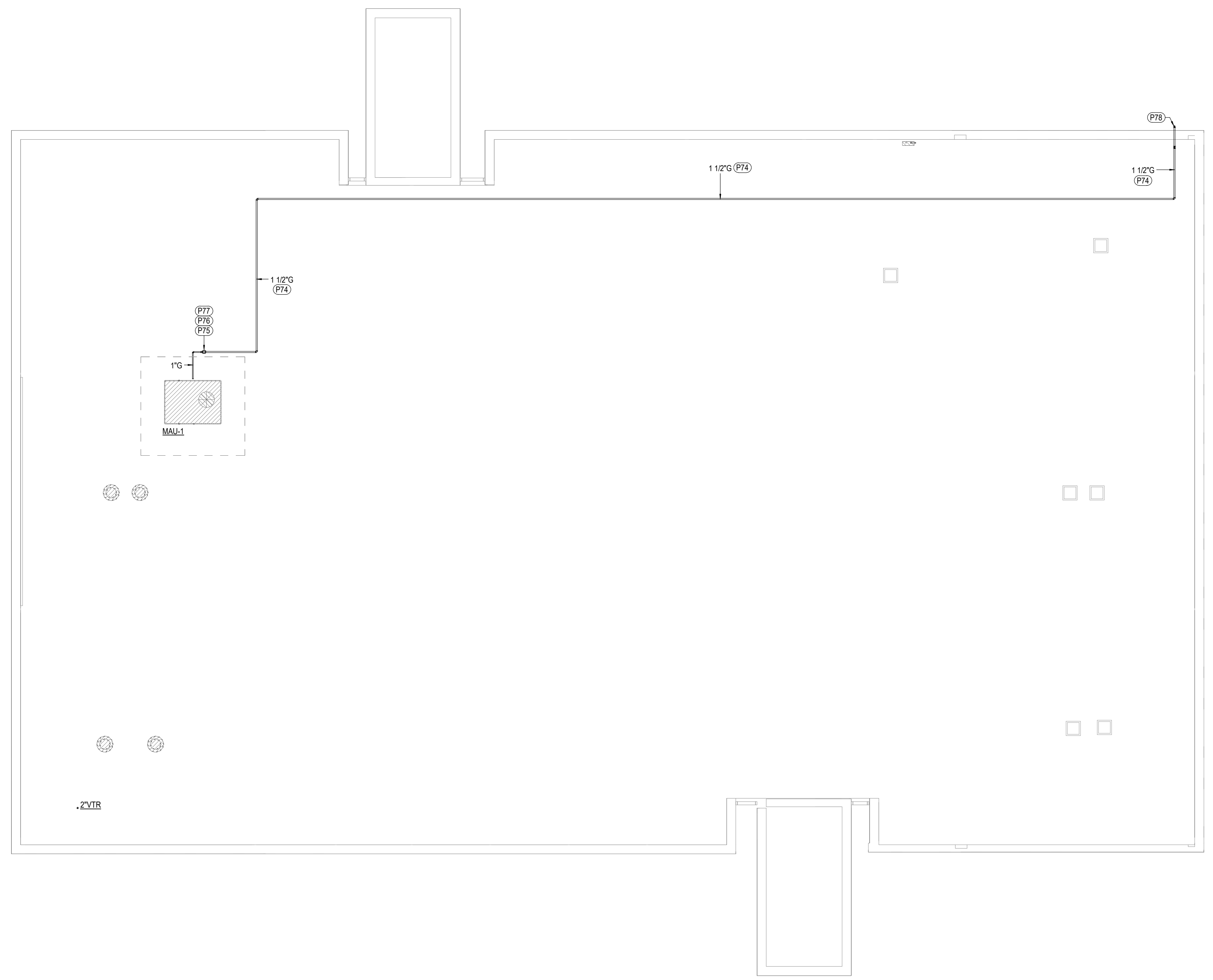
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St Mary's University		
PROJECT NUMBER		
1817		
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GENERAL NOTES - PLUMBING PLAN

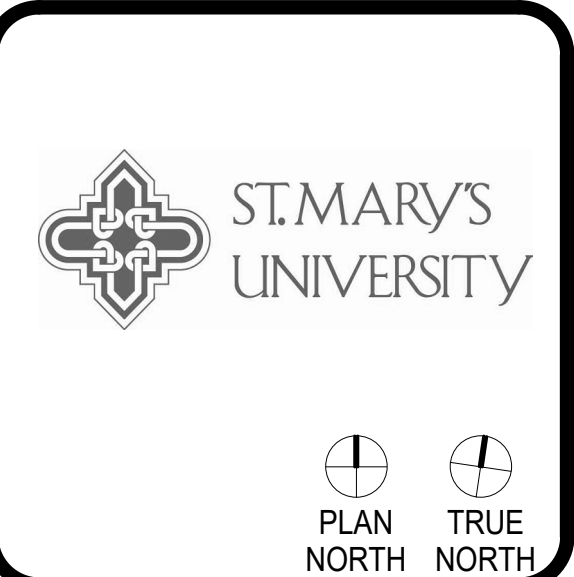
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KEYED NOTES - PLUMBING PLAN

- P74 ROUTE GAS PIPING ON ROOF AS INDICATED AND SUPPORT PER CODE AND SPECIFICATIONS.
- P75 PROVIDE GAS REGULATOR SIZED FOR SP51 INLET PRESSURE AND 7-14"WC OUTLET PRESSURE @ 120 CFH.
- P76 PROVIDE VENT PIPING FROM REGULATOR TO BE ROUTED A MINIMUM OF 18" FROM ANY OUTSIDE AIR INTAKE ON UNIT.
- P77 REFER TO GAS REGULATOR DETAIL.
- P78 GAS PIPING ROUTED DOWN EXTERIOR WALL OF BUILDING. SIZE AS NOTED.



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



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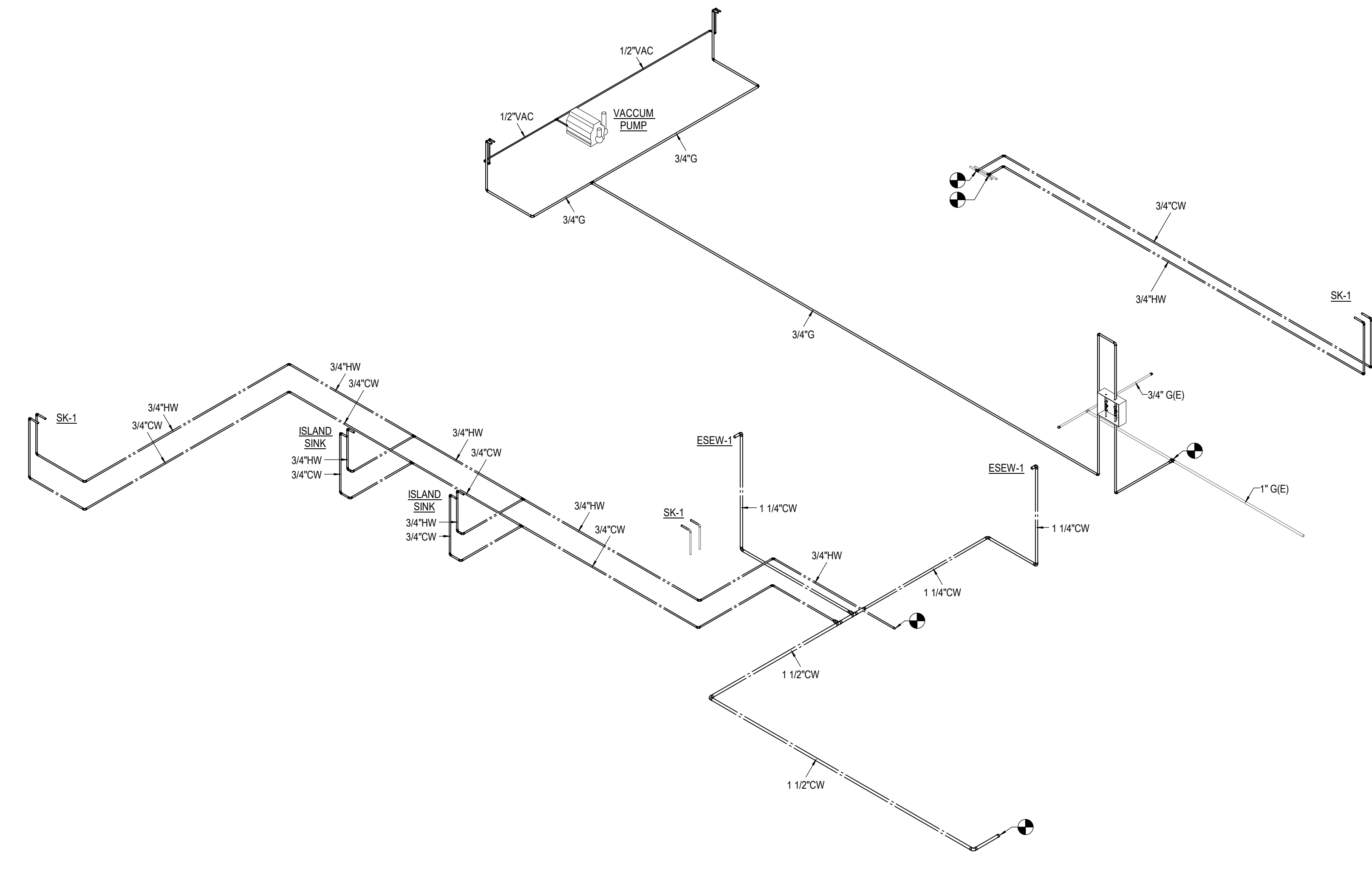
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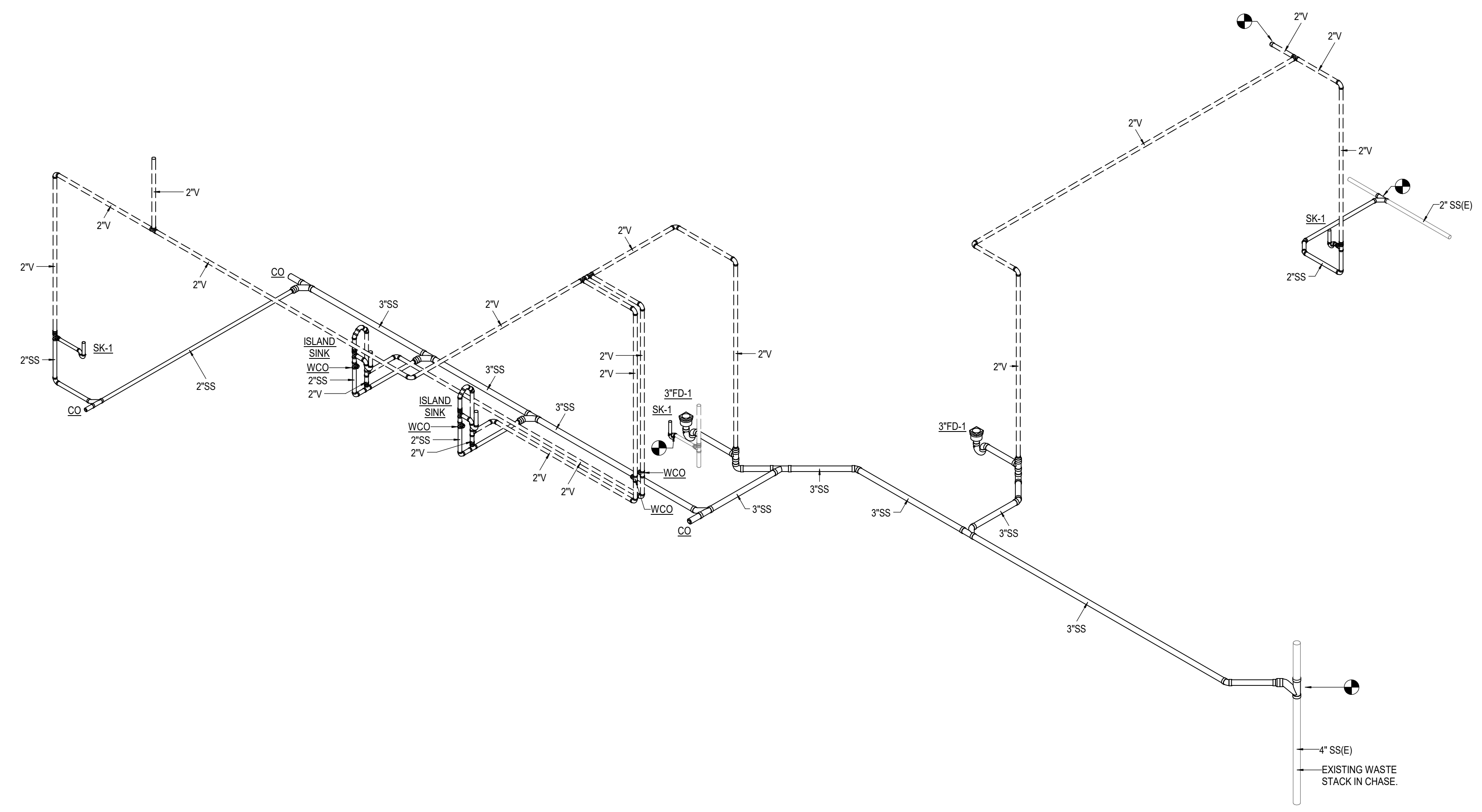
REVISIONS

No.	Description	Date

SCHEMATIC DESIGN
PLUMBING RISER DIAGRAMS



1 3D - PLUMBING RISER - DOMESTIC WATER AND GASES
 SCALE:



2 3D - PLUMBING RISER DIAGRAM - WASTE AND VENT
 SCALE:



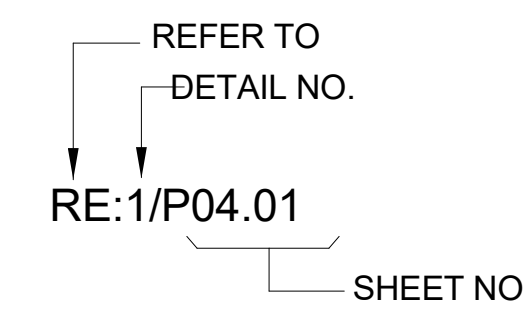
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 210-638-7200
 TX Firm: F-18872

PLUMBING PIPING MATERIAL SCHEDULE		
SYSTEM	BELOW GRADE	ABOVE GRADE
SANITARY WATER PIPING	-	CAST IRON
DOMESTIC WATER PIPING	-	TYPE L COPPER
NATURAL GAS PIPING	-	SCH 40 BLACK STEEL

PLUMBING ABBREVIATION SCHEDULE	
NOTES: 1. ALL ABBREVIATIONS MAY NOT BE USED ON THESE DRAWINGS.	
AAP	AREA ALARM PANEL
AAV	AUTOMATIC AIR VENT
A.F.F.	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
B.F.F.	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BOB	BOTTOM OF BEAM
BOP	BOTTOM OF PIPE
BTUH	BRITISH THERMAL UNITS PER HOUR
C/C	CUT AND CAP
CFH	CUBIC FEET PER HOUR
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CLG	CEILING
CO	CLEANOUT
CONN	CONNECTION
CONT.	CONTINUATION
DF	DRINKING FOUNTAIN
DPV	DRY PIPE VALVE
DWG.	DRAWING
EA	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
F.F.	FINISHED FLOOR
FHC	FIRE HOSE CABINET
F.L.	FLOW LINE
FS	FLOOR SINK
FT	FEET
FU	FIXTURE UNITS
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSEPOWER
I.E.	INVERT ELEVATION
KW	KILOWATTS
LAV	LAVATORY
MAP	MASTER ALARM PANEL
MECH	MECHANICAL
MH	MANHOLE
MS	MOP SINK
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
O.F./C.I.	OWNER FURNISHED/CONTRACTOR INSTALLED
O.F./O.I.	OWNER FURNISHED/OWNER INSTALLED
OFD	OVERFLOW DRAIN
PH	PHASE
P.V.	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
RD	ROOF DRAIN
RE:	REFER TO
R.I.C.	ROUGH-IN AND CONNECT
RO	REVERSE OSMOSIS
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
RVB	REFRIGERATOR VALVE BOX
SD	STORM DRAIN
S.F.	SQUARE FEET
SIA	SIAMESE
SK	SINK
T.O.P.	TOP OF PIPE
TP	TRAP PRIMER
TYP	TYPICAL
U	URINAL
UF	UNDERFLOOR
US	UNDERSLAB
VAC. BRKR.	VACUUM BREAKER
VCT	VITRIFIED CLAY TILE
VTR	VENT THRU ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WMB	WASHING MACHINE BOX
YH	YARD HYDRANT
ZV	ZONE VALVE
(A)	ITEM NOTED TO BE ABANDONED
(D)	ITEM NOTED TO BE DEMOLISHED
(E)	EXISTING ITEM
(N)	NEW ITEM
(R)	ITEM NOTED TO BE RELOCATED

PLUMBING SYMBOLS LEGEND		
NOTES: 1. ALL SYMBOLS MAY NOT BE USED ON THESE DRAWINGS.		
SYMBOL	ABV.	DESCRIPTION
AW	AW	ACID WASTE
AV	AV	ACID VENT
B		BUTANE
CDWR		CHILLED DRINKING WATER RETURN
CDWS		CHILLED DRINKING WATER SUPPLY
D		DRAIN PIPING
DSP		DRY SPRINKLER PIPE
F	F	FIRE LINE
FOR		FUEL OIL RETURN
FOS	FOS	FUEL OIL SUPPLY
FOV	FOV	FUEL OIL VENT
G	G	NATURAL GAS PIPING
GW	GW	GREASE WASTE ABOVE SLAB
GW	GW	GREASE WASTE BELOW SLAB
OSD	OSD	STORM OVER FLOW DRAIN
P	P	PROPANE GAS PIPING
PSS	PSS	PUMPED SANITARY SEWER
PSD	PSD	PUMPED STORM SEWER
SD	SD	STORM DRAIN ABOVE SLAB
SD	SD	STORM DRAIN BELOW SLAB
SP	SP	SPRINKLER LINE
SS	SS	SANITARY SEWER ABOVE SLAB
SS	SS	SANITARY SEWER BELOW SLAB
SV	SV	SANITARY VENT
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
		DIRECTION OF FLOW
		DIRECTION OF SLOPE DOWN
		DROP IN PIPE
		RISE IN PIPE
		GATE VALVE
		BALL VALVE
		CHECK VALVE
		SUPERVISED VALVE WITH FLOW SWITCH
		SUPERVISED VALVE IN VERTICAL
		PLUG VALVE / GAS COCK
		BUTTERFLY VALVE
		BALANCING VALVE
		PIPE UNION
		PRESSURE CONTROL VALVE
		3-WAY VALVE
		SOLENOID VALVE
		FLOW SWITCH
		PRESSURE GAUGE WITH GAUGE COCK
		THERMOMETER
		ROOF DRAIN / OVERFLOW DRAIN
		FLOOR DRAIN
		FLOOR SINK
		T & P RELIEF VALVE
		STRAINER
CO	CO	END OF LINE CLEANOUT
FCO	FCO	FLOOR CLEANOUT
WCO	WCO	WALL CLEANOUT
		CAP
		FLEXIBLE CONNECTION
(E)		NEW CONNECTION TO EXISTING
		EXISTING RISER

DRAWING REFERENCE KEY



PLUMBING FIXTURE SCHEDULE						
SYMBOL	DESCRIPTION	CONNECTION SIZE				REMARKS
		WASTE	VENT	C.W.	H.W.	
SK-1	SIMMONS SGL10 SINGLE BOWL, TYPE EPOXY RESIN SINK WITH ZURN FAUCET Z825B1-XL W/ LEVER HANDLE AND 0.5 GPM. ZURN Z-8746-CP OFFSET GRID DRAIN, ZURN Z-8802LR-CP ANGLE STOPS WITH 3/8" OD TUBING, DEARBORN 701-1 17 GA. PROTRAP AND TRUBRO 105W OFFSET INSULATION KIT. INSULATION KIT NOT REQUIRED IF CABINET APRON IS INSTALLED, ADA, LEAD-FREE.	2	2	3/4"	-	
SK-2	SIMMONS SVL15 SINGLE BOWL, TYPE EPOXY RESIN SINK WITH ZURN FAUCET Z825B1-XL W/ LEVER HANDLE AND 0.5 GPM. ZURN Z-8746-CP OFFSET GRID DRAIN, ZURN Z-8802LR-CP ANGLE STOPS WITH 3/8" OD TUBING, DEARBORN 701-1 17 GA. PROTRAP AND TRUBRO 105W OFFSET INSULATION KIT. INSULATION KIT NOT REQUIRED IF CABINET APRON IS INSTALLED, ADA, LEAD-FREE.	2	2	3/4"	-	
SK-3	SIMMONS SGL10 SINGLE BOWL, TYPE EPOXY RESIN SINK WITH ZURN FAUCET Z825V2-6M W/ CROSS HANDLES AND 0.5 GPM AERATOR, ZURN Z-8802LR-CP ANGLE STOPS WITH 3/8" OD TUBING, LEAD-FREE.	2	2	3/4"	-	
FD-1	J.R. SMITH FIG 2010C-NB-U-P050, 6" DIAMETER NICKEL BRONZE STRAINER, VANDAL PROOF SCREWS, TRAP PRIMER CONNECTION WITH CAST IRON BODY FLOOR DRAIN. PUSH ON GASKET OUTLET OR NO HUB OUTLET.	SEE PLANS				PROVIDE TRAP PRIMER TP-1 (AS INDICATED)
FD-2	J.R. SMITH FIG 2010C-NB-U-P050, WITH FUNNEL STRAINER, VANDAL PROOF SCREWS, TRAP PRIMER CONNECTION WITH CAST IRON BODY FLOOR DRAIN. PUSH ON GASKET OUTLET OR NO HUB OUTLET.	SEE PLANS				PROVIDE TRAP PRIMER TP-1 (AS INDICATED)
ESEW-1	GUARDIAN GBF1909 BARRIER-FREE STATION WITH WIDE AREA EYE/FACE WASH, PLASTIC SHOWER HEAD, 10" DIA SHOWER HEAD 1" CHROME PLATED BRASS STAY-PUT BALL VALVE, FOUR GS-FLUS SPRAY HEADS, FLIP TOP DUST COVER, INTERNAL FLOW CONTROL, 11-1/2" STAINLESS STEEL EYE/FACE BOWL.	1-1/4"	-	1-1/2"	-	
ESDH-1	GUARDIAN G5022BP DUAL PURPOSE EYEWASH / DRENCH HOSE FOR DECK MOUNTING. UNIT TO MEET ANSI Z358.1-2014 WITH 8" REINFORCED PVC HOSE, 300 PSI MAXIMUM WORK PRESSURE. IN-LINE DUAL CHECK BACKFLOW PREVENTER 3/8" NPT MALE SWIVEL TYPE INLET.	-	-	1/2"	-	

NOTES:

- ROUGH-IN SUPPLY WASTE AND VENT PIPE SIZES INDICATED ARE MINIMUM SIZES SHOWN FOR ROUGH-IN ONLY.
- COORDINATE WITH PLUMBING FIXTURE MANUFACTURER'S INSTALLATION DRAWINGS FOR PROPER INSTALLATION OF ALL FIXTURES.
- ALL PLUMBING FIXTURES SHALL BE COMPLETELY ROUGH IN BY THE PLUMBING CONTRACTOR AND SHALL MEET ALL CODES HAVING JURISDICTION.
- ALL FIXTURES TO BE COMMERCIAL GRADE UNLESS OTHERWISE NOTED.
- PROVIDE A WATER HAMMER ARRESTOR IN PIPING TO ALL FIXTURES AND/OR FIXTURE BANKS.

ARCHITECTURE
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 601 NW Loop 410, Suite 400
 San Antonio, TX 78216
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 210-828-0578 F
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 210-828-0129 P
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 TX Firm: F-18872

MOODY SET LABORATORY REPAIR
 One Camino Santa Maria, San Antonio, Texas 78228

SCHEMATIC DESIGN

ST. MARY'S UNIVERSITY

PLAN NORTH
 TRUE NORTH

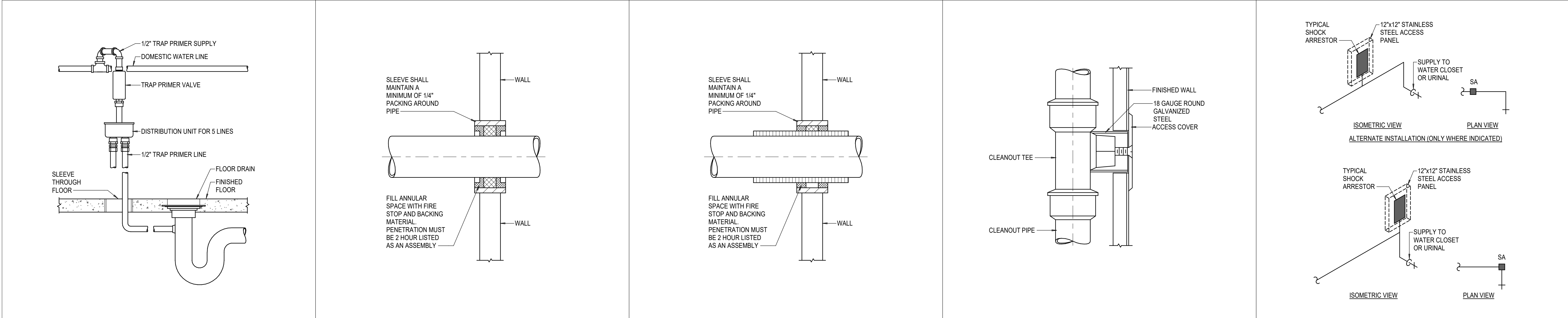
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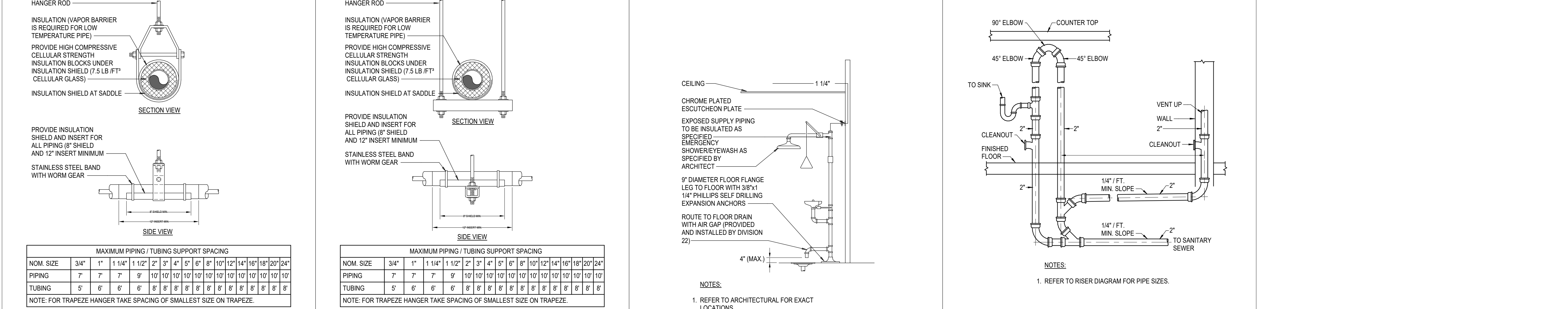
SCHEMATIC DESIGN

PLUMBING SCHEDULES

P6.01



TRAP PRIMER DETAIL	N.T.S.	01	UNINSULATED PIPE PENETRATION THROUGH WALL DETAIL	N.T.S.	02	INSULATED PIPE PENETRATION THROUGH WALL DETAIL	N.T.S.	03	WALL CLEANOUT DETAIL	N.T.S.	04	SHOCK ARRESTOR DETAIL	N.T.S.	05
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ADJUSTABLE CLEVIS PIPE HANGER DETAIL	N.T.S.	06	TRAPEZE PIPE HANGER DETAIL	N.T.S.	07	EMERGENCY SHOWER/EYEWASH DETAIL	N.T.S.	08	ISLAND VENTING DETAIL	N.T.S.	09
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GAS PRESSURE REGULATOR DETAIL	N.T.S.	10
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