

BLINN MECHANICAL PROJECTS - **BRENHAM - MELCHER + BCPA2**

902 COLLEGE AVE, BRENHAM, TX 77833

ISSUE FOR CONSTRUCTION
DECEMBER 13, 2024

BLINN COLLEGE
BRENHAM, TEXAS



BLINN COLLEGE DISTRICT
BLINN
MECHANICAL
PROJECTS -
BRENHAM -
MELCHER + BCPA2
 902 COLLEGE AVE,
 BRENHAM, TX 77833

PROJECT ISSUE
ISSUE FOR CONSTRUCTION

REVISIONS

No.	DATE	DESCRIPTION
1	12.13.2024	ISSUE FOR CONSTRUCTION

RSE PROJECT NO: 1540
 DRAWN BY: Author
 CHECKED BY: Checker

SHEET TITLE

GENERAL SHEET LIST AND LOCATION MAP

SHEET NUMBER

G001

APPLICABLE BUILDING CODES

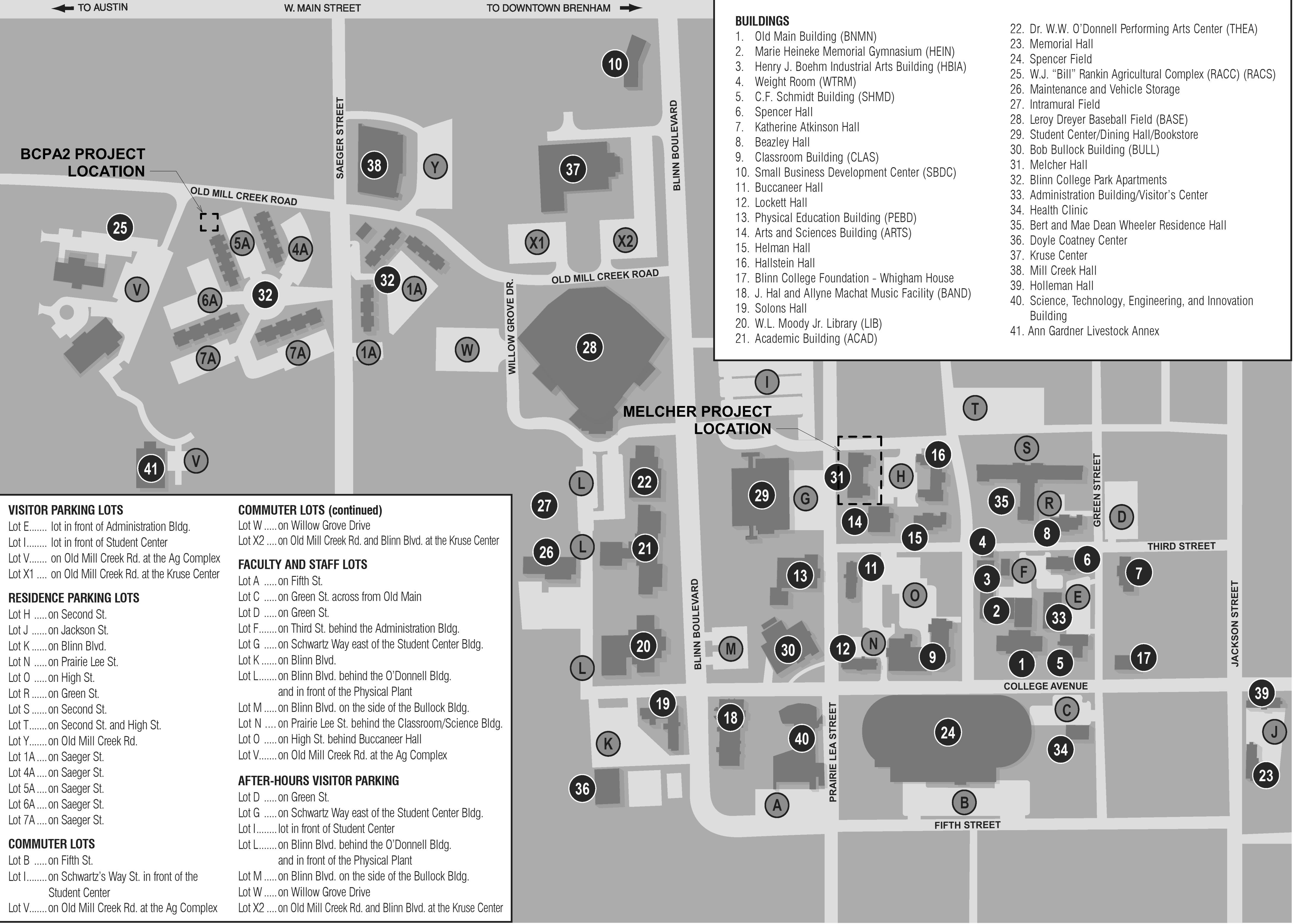
THE FOLLOWING CODES ARE ADOPTED AS AMENDED BY THE CITY OF BRENHAM.

- INTERNATIONAL BUILDING CODE (IBC 2018)
- INTERNATIONAL EXISTING BUILDING CODE (IEBC 2018)
- INTERNATIONAL PLUMBING CODE (IPC 2018)
- INTERNATIONAL ENERGY CONSERVATION CODE (IECC 2018)
- NATIONAL ELECTRICAL CODE (NEC 2023)

SHEET LIST

SHEET NUMBER	SHEET NAME
G001	GENERAL SHEET LIST AND LOCATION MAP
E001	ELECTRICAL GENERAL INFORMATION
E301	ELECTRICAL MELCHER FLOORPLAN
E302	ELECTRICAL BCPA2 FLOOR PLAN
E501	ELECTRICAL DETAILS
E601	ONE LINE DIAGRAMS AND SCHEDULES
P001	PLUMBING GENERAL INFORMATION
P201	PLUMBING MELCHER FLOOR PLAN
P202	PLUMBING BCPA2 FLOOR PLAN
P501	PLUMBING DETAILS

BLINN COLLEGE-BRENHAM CAMPUS



- BUILDINGS**
1. Old Main Building (BNMN)
 2. Marie Heineke Memorial Gymnasium (HEIN)
 3. Henry J. Boehm Industrial Arts Building (HBI)
 4. Weight Room (WTRM)
 5. C.F. Schmidt Building (SHMD)
 6. Spencer Hall
 7. Katherine Atkinson Hall
 8. Beazley Hall
 9. Classroom Building (CLAS)
 10. Small Business Development Center (SBDC)
 11. Buccaneer Hall
 12. Lockett Hall
 13. Physical Education Building (PEBD)
 14. Arts and Sciences Building (ARTS)
 15. Helman Hall
 16. Hallstein Hall
 17. Blinn College Foundation - Whigham House
 18. J. Hal and Allyne Machat Music Facility (BAND)
 19. Solons Hall
 20. W.L. Moody Jr. Library (LIB)
 21. Academic Building (ACAD)
 22. Dr. W.W. O'Donnell Performing Arts Center (THEA)
 23. Memorial Hall
 24. Spencer Field
 25. W.J. "Bill" Rankin Agricultural Complex (RACC) (RACS)
 26. Maintenance and Vehicle Storage
 27. Intramural Field
 28. Leroy Dreyer Baseball Field (BASE)
 29. Student Center/Dining Hall/Bookstore
 30. Bob Bullock Building (BULL)
 31. Melcher Hall
 32. Blinn College Park Apartments
 33. Administration Building/Visitor's Center
 34. Health Clinic
 35. Bert and Mae Dean Wheeler Residence Hall
 36. Doyle Coatney Center
 37. Kruse Center
 38. Mill Creek Hall
 39. Holleman Hall
 40. Science, Technology, Engineering, and Innovation Building
 41. Ann Gardner Livestock Annex

- VISITOR PARKING LOTS**
- Lot E..... lot in front of Administration Bldg.
 - Lot I..... lot in front of Student Center
 - Lot V..... on Old Mill Creek Rd. at the Ag Complex
 - Lot X1..... on Old Mill Creek Rd. at the Kruse Center
- RESIDENCE PARKING LOTS**
- Lot H.....on Second St.
 - Lot J.....on Jackson St.
 - Lot K.....on Blinn Blvd.
 - Lot N.....on Prairie Lee St.
 - Lot O.....on High St.
 - Lot R.....on Green St.
 - Lot S.....on Second St.
 - Lot T.....on Second St. and High St.
 - Lot Y.....on Old Mill Creek Rd.
 - Lot 1A.....on Saeger St.
 - Lot 4A.....on Saeger St.
 - Lot 5A.....on Saeger St.
 - Lot 6A.....on Saeger St.
 - Lot 7A.....on Saeger St.
- COMMUTER LOTS**
- Lot B.....on Fifth St.
 - Lot I.....on Schwartz's Way St. in front of the Student Center
 - Lot V.....on Old Mill Creek Rd. at the Ag Complex
- COMMUTER LOTS (continued)**
- Lot W.....on Willow Grove Drive
 - Lot X2.....on Old Mill Creek Rd. and Blinn Blvd. at the Kruse Center
- FACULTY AND STAFF LOTS**
- Lot A.....on Fifth St.
 - Lot C.....on Green St. across from Old Main
 - Lot D.....on Green St.
 - Lot F.....on Third St. behind the Administration Bldg.
 - Lot G.....on Schwartz Way east of the Student Center Bldg.
 - Lot K.....on Blinn Blvd.
 - Lot L.....on Blinn Blvd. behind the O'Donnell Bldg. and in front of the Physical Plant
 - Lot M.....on Blinn Blvd. on the side of the Bullock Bldg.
 - Lot N.....on Prairie Lee St. behind the Classroom/Science Bldg.
 - Lot O.....on High St. behind Buccaneer Hall
 - Lot V.....on Old Mill Creek Rd. at the Ag Complex
- AFTER-HOURS VISITOR PARKING**
- Lot D.....on Green St.
 - Lot G.....on Schwartz Way east of the Student Center Bldg.
 - Lot I.....lot in front of Student Center
 - Lot L.....on Blinn Blvd. behind the O'Donnell Bldg. and in front of the Physical Plant
 - Lot M.....on Blinn Blvd. on the side of the Bullock Bldg.
 - Lot W.....on Willow Grove Drive
 - Lot X2.....on Old Mill Creek Rd. and Blinn Blvd. at the Kruse Center

VICINITY MAP

Autodesk Docs://1540 - Blinn Mechanical Projects - Brenham - Melcher + Wheeler + BCPA2.rvt
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GENERAL NOTES

- A. REFER TO ELECTRICAL LEGEND AND PROJECT GENERAL NOTES ON SHEET E001.
- B. DRAWINGS ARE SCHEMATIC IN NATURE. VERIFY DIMENSIONS AND EQUIPMENT LOCATIONS IN THE FIELD. CONTRACTOR SHALL VERIFY EXACT LOCATION AND CONFIGURATION OF INSTALLATIONS TO REMAIN.

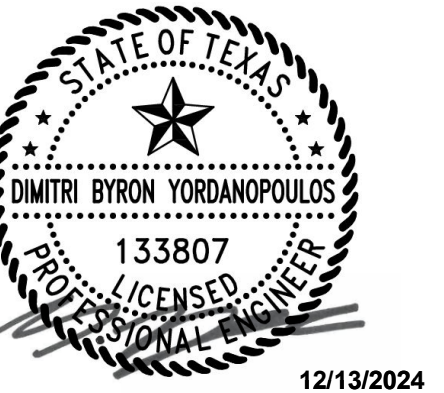
SHEET KEYED NOTES

Key Value	Keynote Text
1	EXISTING BOILERS TO BE DEMOLISHED. DEMO BRANCH CIRCUIT WIRING AND CONDUIT BACK TO SOURCE. TURN OFF BREAKER AND LABEL AS SPARE. APPROXIMATE LOCATION OF CEILING MOUNTED MOTOR RATED SWITCH SHOWN. FIELD VERIFY EXACT LOCATION.
2	EXISTING PUMP TO BE DEMOLISHED. DEMO BRANCH CIRCUIT WIRING AND CONDUIT BACK TO SOURCE. TURN OFF BREAKER AND LABEL AS SPARE. APPROXIMATE LOCATION OF CEILING MOUNTED MOTOR RATED SWITCH SHOWN. FIELD VERIFY EXACT LOCATION.
3	EQUIPMENT/FIXTURE IS EXISTING TO REMAIN. SHOWN FOR REFERENCE ONLY.
4	APPROXIMATE LOCATION OF PANEL 5L IN ELECTRICAL ROOM. ACCORDING TO EXISTING DRAWINGS PANEL 5L SUBFEEDS PANEL LM IN MECHANICAL YARD. CONTRACTOR TO FIELD VERIFY.
5	INSTALL POWER TO SERVE BOILER RACK SYSTEM. PROVIDE NEMA 3R MOTOR RATED SWITCH LOCATED ON UNISTRUT NEXT TO SKID FOR LOCAL DISCONNECTING MEANS.
6	INSTALL POWER TO SERVE CIRCULATION PUMP. PROVIDE NEMA 3R MOTOR RATED SWITCH LOCATED ON UNISTRUT NEXT TO SKID FOR LOCAL DISCONNECTING MEANS.
7	PROVIDE POWER TO SERVE HEAT TRACING CONTROL PANEL. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION. GROUND FAULT EQUIPMENT PROTECTION FOR CIRCUIT IS INTEGRAL TO THE CONTROL PANEL.

Ramirez - Simon
Engineering, LLC

Mechanical • Electrical • Plumbing
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9805 Whithorn Dr. | Houston, TX 77095
Office: 832.261.1420

PROFESSIONAL SEAL



12/13/2024

CONSULTANTS

PROJECT INFORMATION

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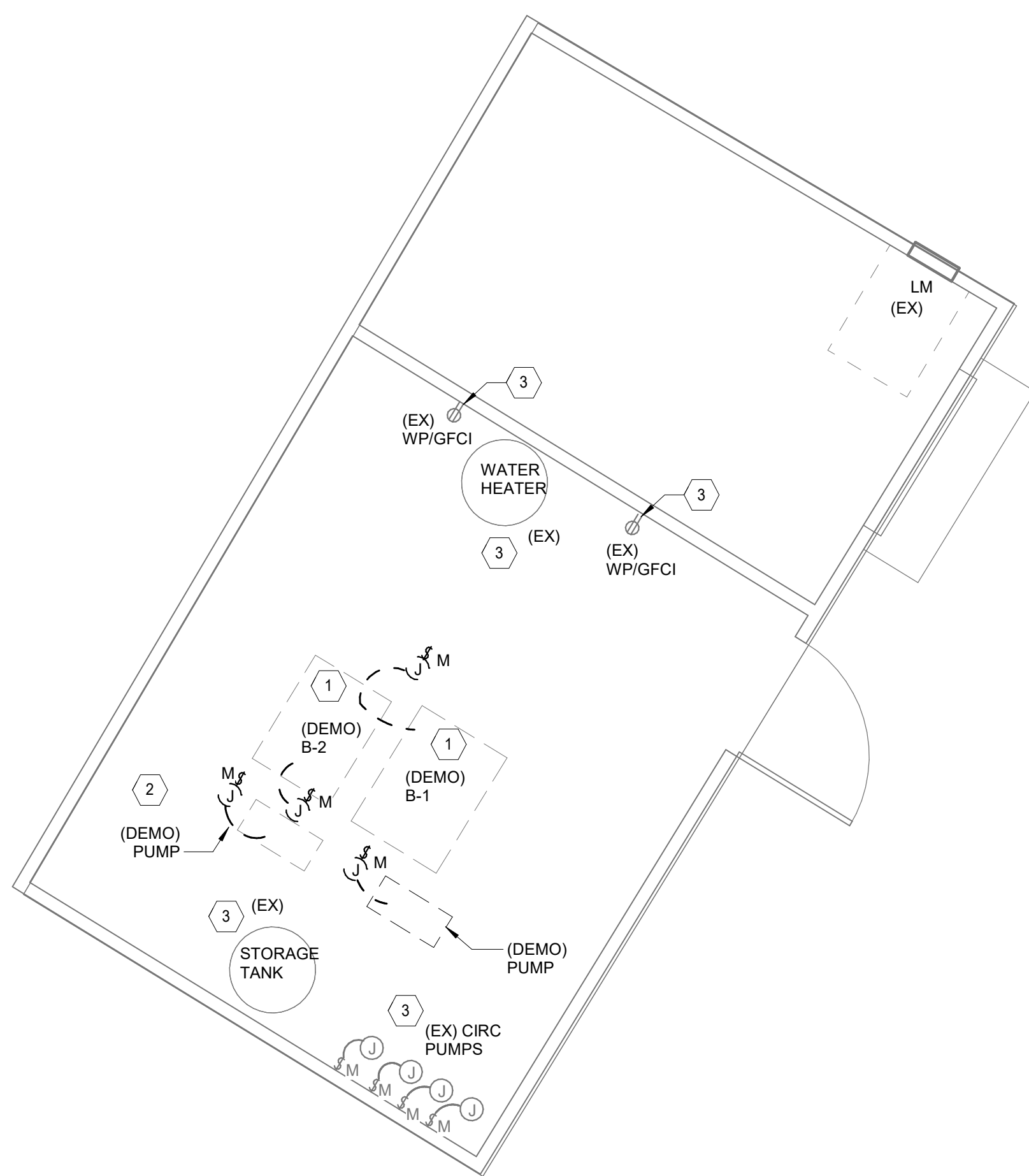
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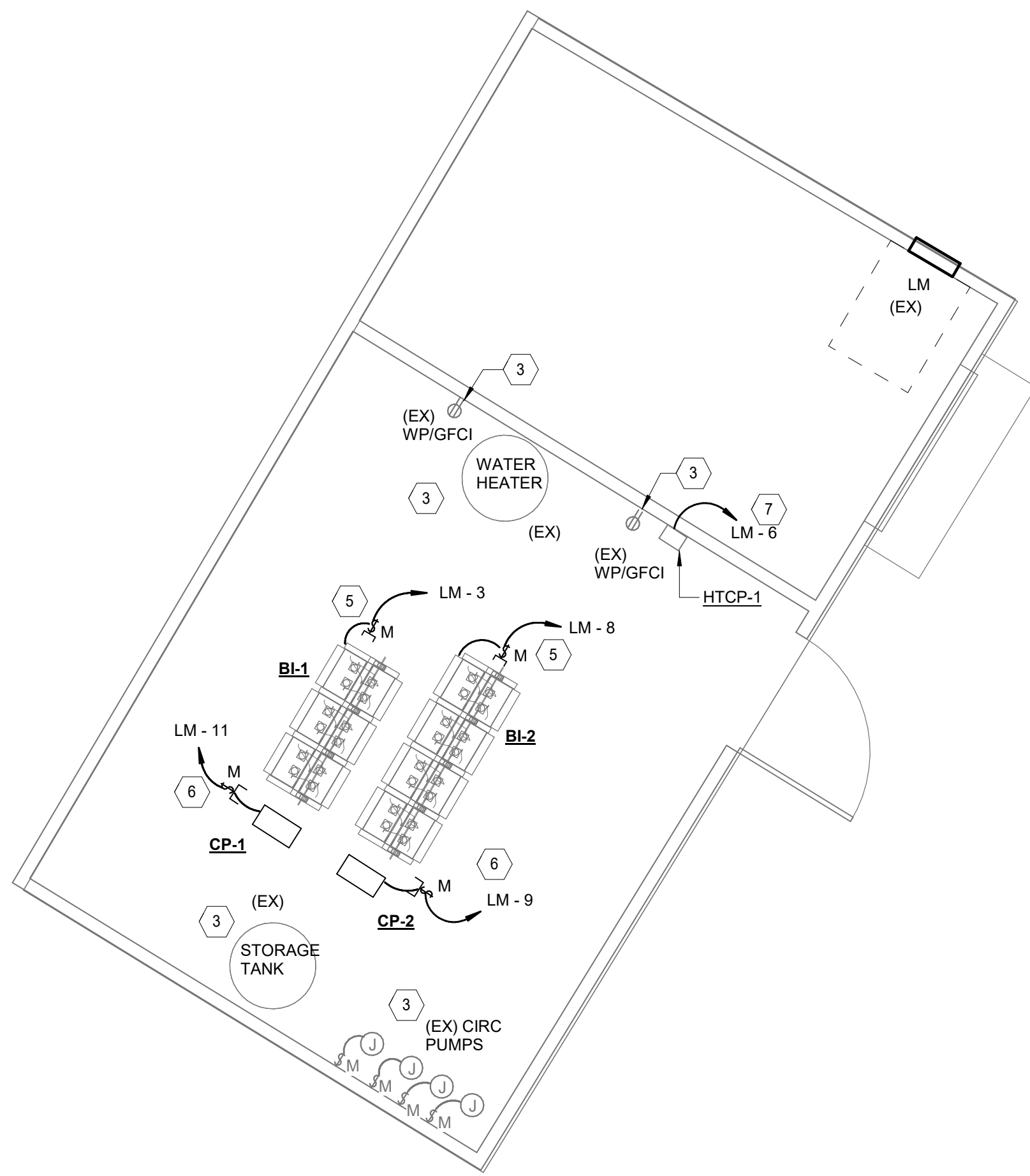
ELECTRICAL
BCPA2 FLOOR
PLAN

SHEET NUMBER

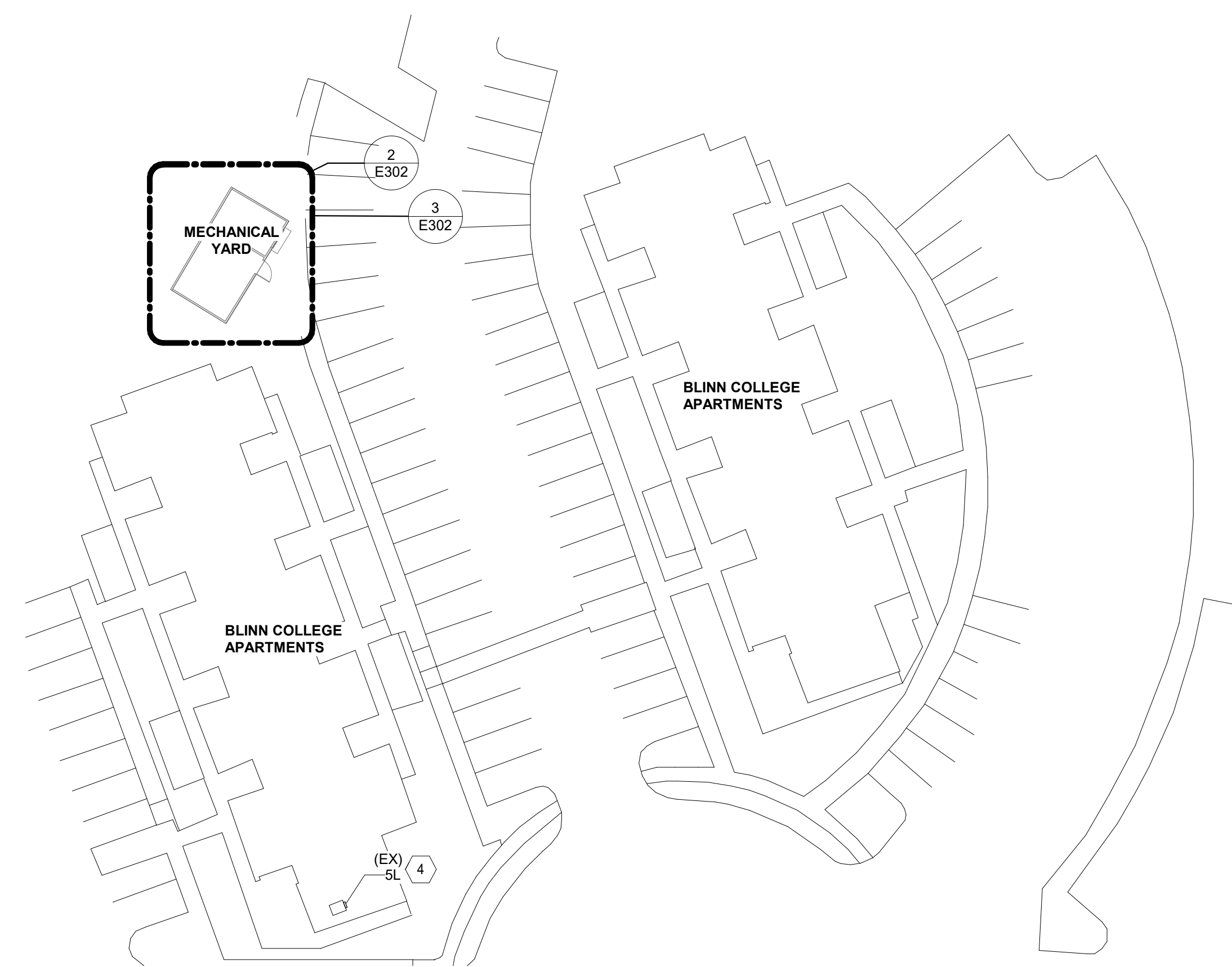
E302



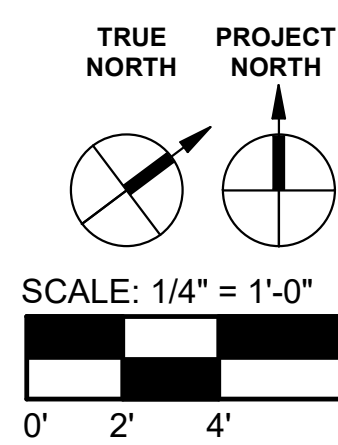
② ELECTRICAL BCPA2 ENLARGED DEMO FLOOR PLAN
1/4" = 1'-0"



③ ELECTRICAL BCPA2 ENLARGED FLOOR PLAN
1/4" = 1'-0"

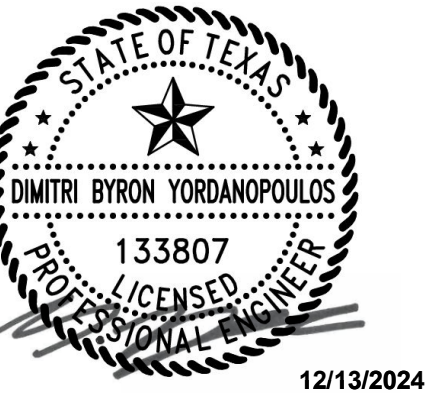


① ELECTRICAL BCPA2 OVERALL FLOOR PLAN
1" = 30'-0"



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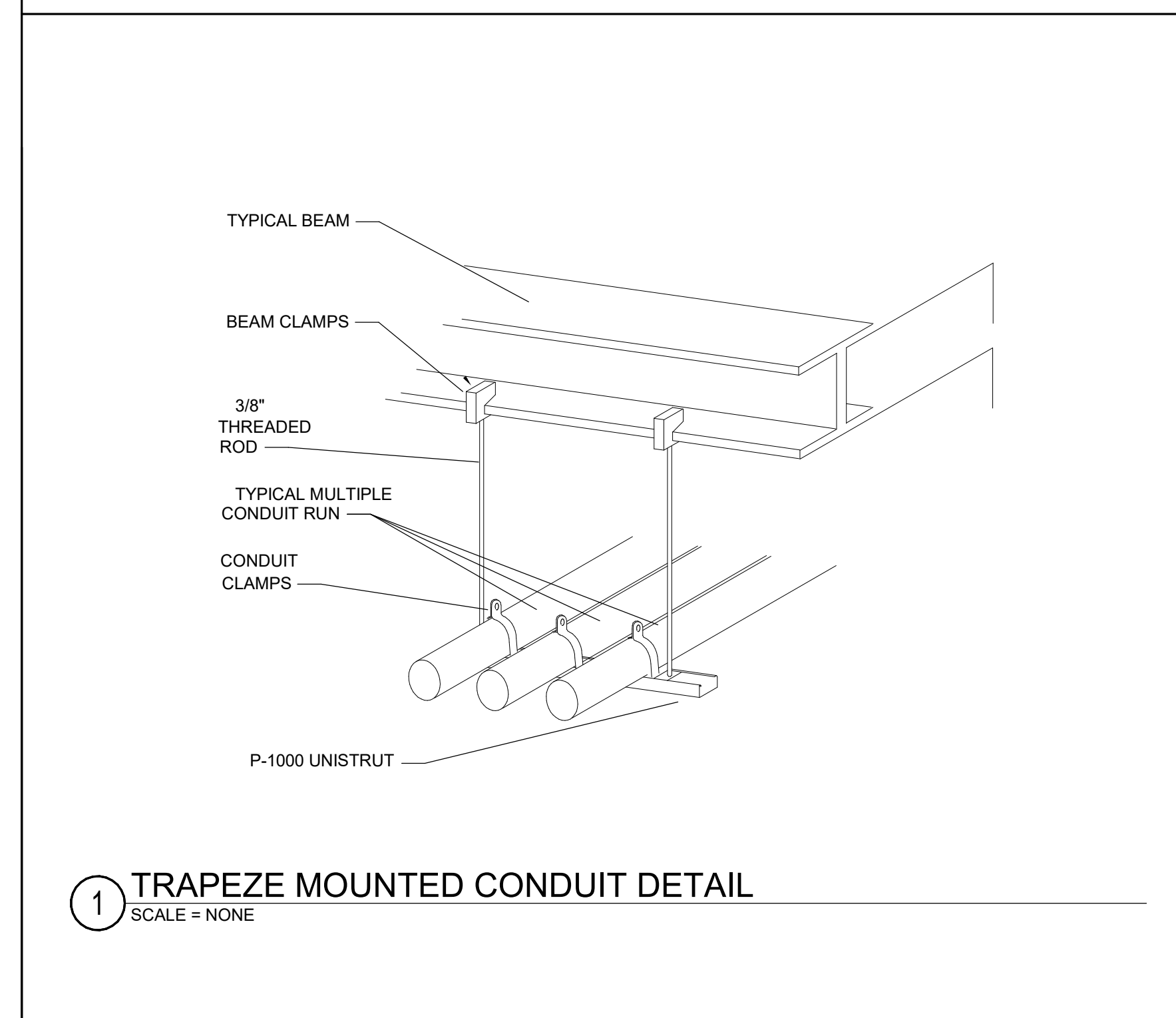
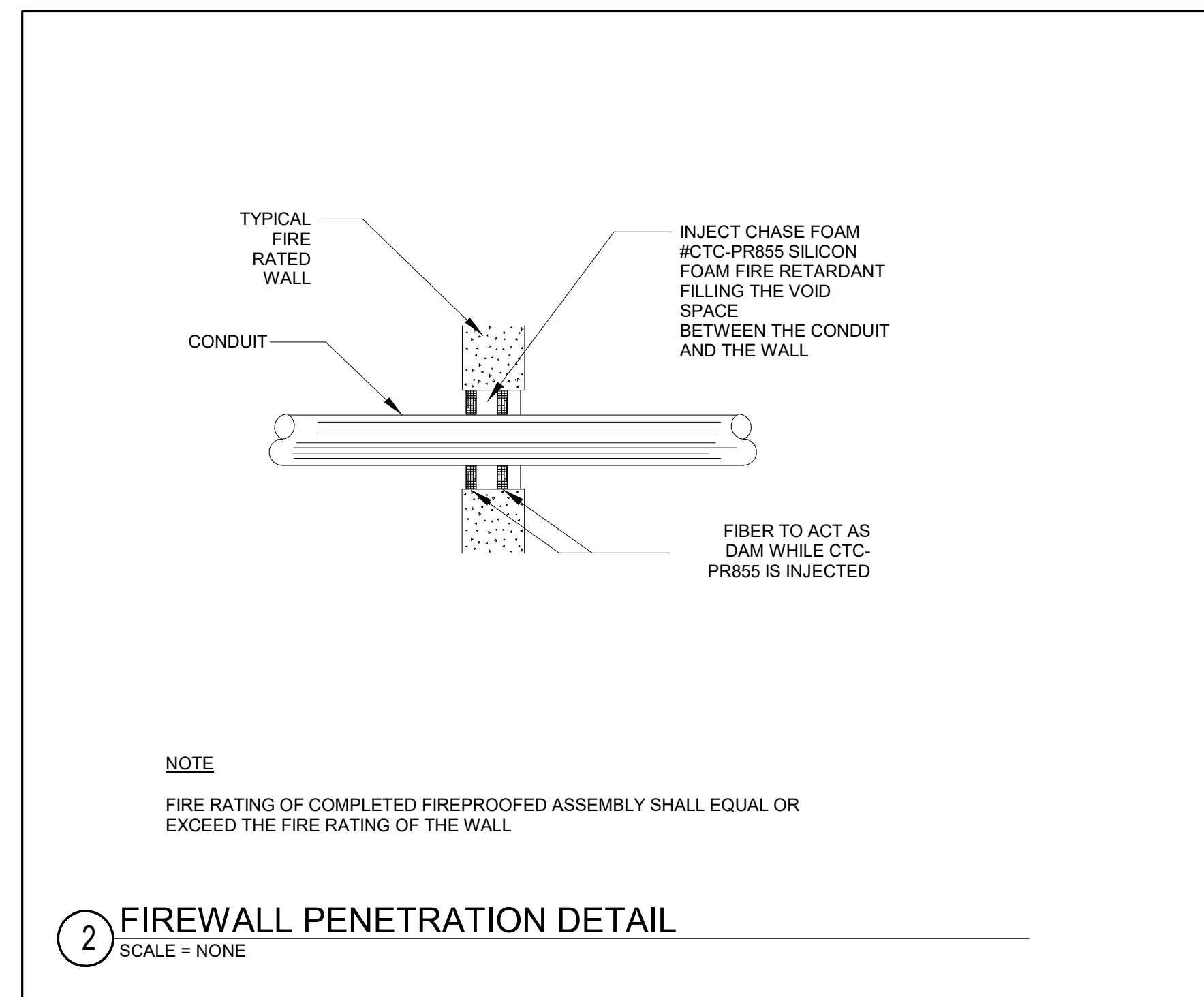
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SHEET TITLE

ELECTRICAL
DETAILS

SHEET NUMBER

E501



D

C

B

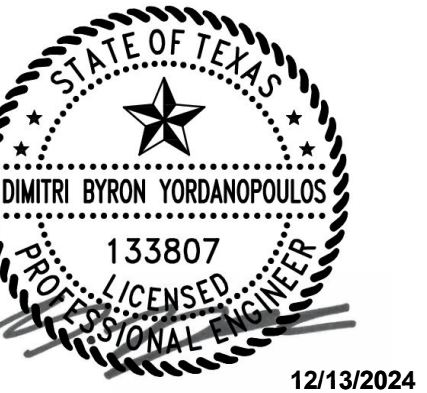
A

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GENERAL NOTES

A. REFER TO ELECTRICAL LEGEND AND GENERAL INFORMATION ON SHEET E001.

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12/13/2024

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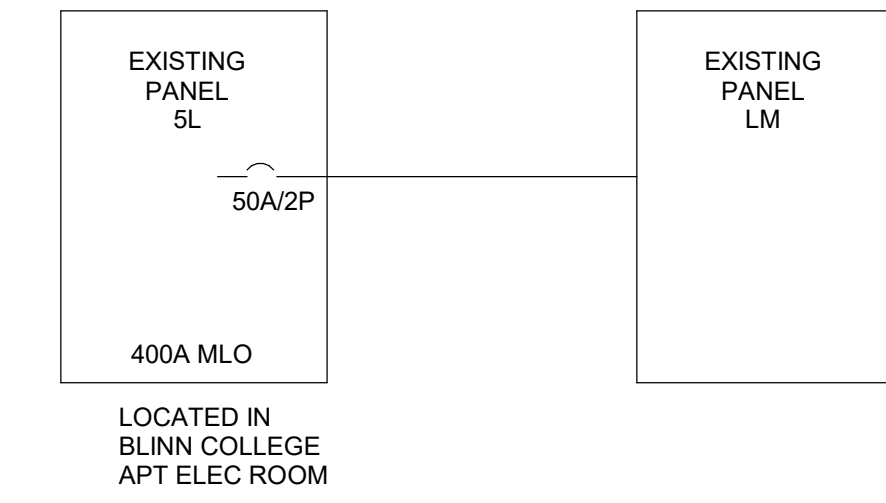
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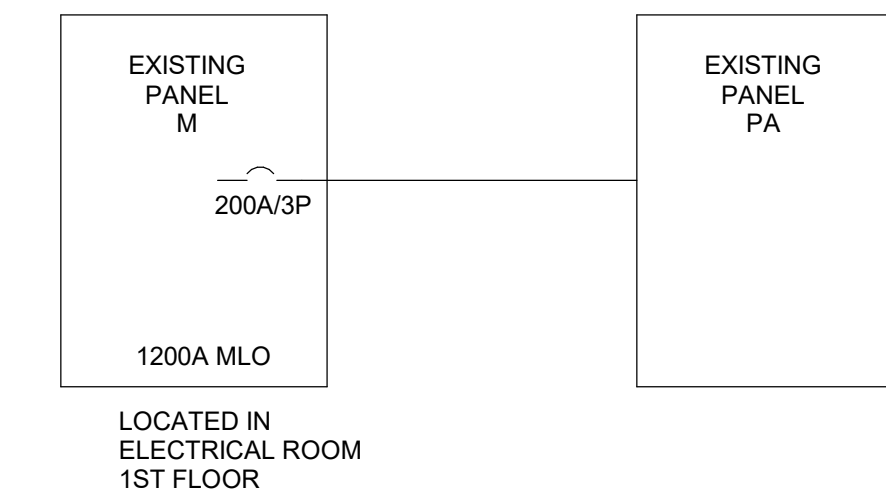
ONE LINE DIAGRAMS AND SCHEDULES

SHEET NUMBER

E601



BCPA2 ELECTRICAL ONE-LINE DIAGRAM NTS



MELCHER ELECTRICAL ONE-LINE DIAGRAM NTS

Branch Panel: LM

Location: Mechanical Yard Volts: 120/240 Single A.I.C. Rating: Existing
Supply From: SL Phases: 1 Mains Type: MLO
Mounting: Recessed Wires: 3 Mains Rating: 100 A
Enclosure: Type 1

Notes:

Table with columns: CKT, Circuit Description, Load Amps, Trip, Poles, A, B, C, Poles, Trip, Load Amps, Circuit Description, CKT. Includes rows for Existing Circulation Pumps, Existing Irrigation, Existing Receptacles, CP-2, CP-1, and Space.

Load Classification table with columns: Connected Load, Demand Factor, Estimated Demand, Panel Totals. Includes rows for Receptacle, Lighting, Motor, Miscellaneous, Continuous, Kitchen, Existing Load.

Branch Panel: PA

Location: Attic Volts: 120/208 Wye A.I.C. Rating: Existing
Supply From: M Phases: 3 Mains Type: MLO
Mounting: Surface Wires: 4 Mains Rating: 225 A
Enclosure: Type 1

Notes:

Table with columns: CKT, Circuit Description, Load Amps, Trip, Poles, A, B, C, Poles, Trip, Load Amps, Circuit Description, CKT. Includes rows for Existing Load, Existing HW Pump, Existing Load, Existing Load, Existing Load, B-3, Existing Load, Existing Elevator, and Space.

Load Classification table with columns: Connected Load, Demand Factor, Estimated Demand, Panel Totals. Includes rows for Receptacle, Lighting, Motor, Miscellaneous, Continuous, Kitchen, Existing Load.

D

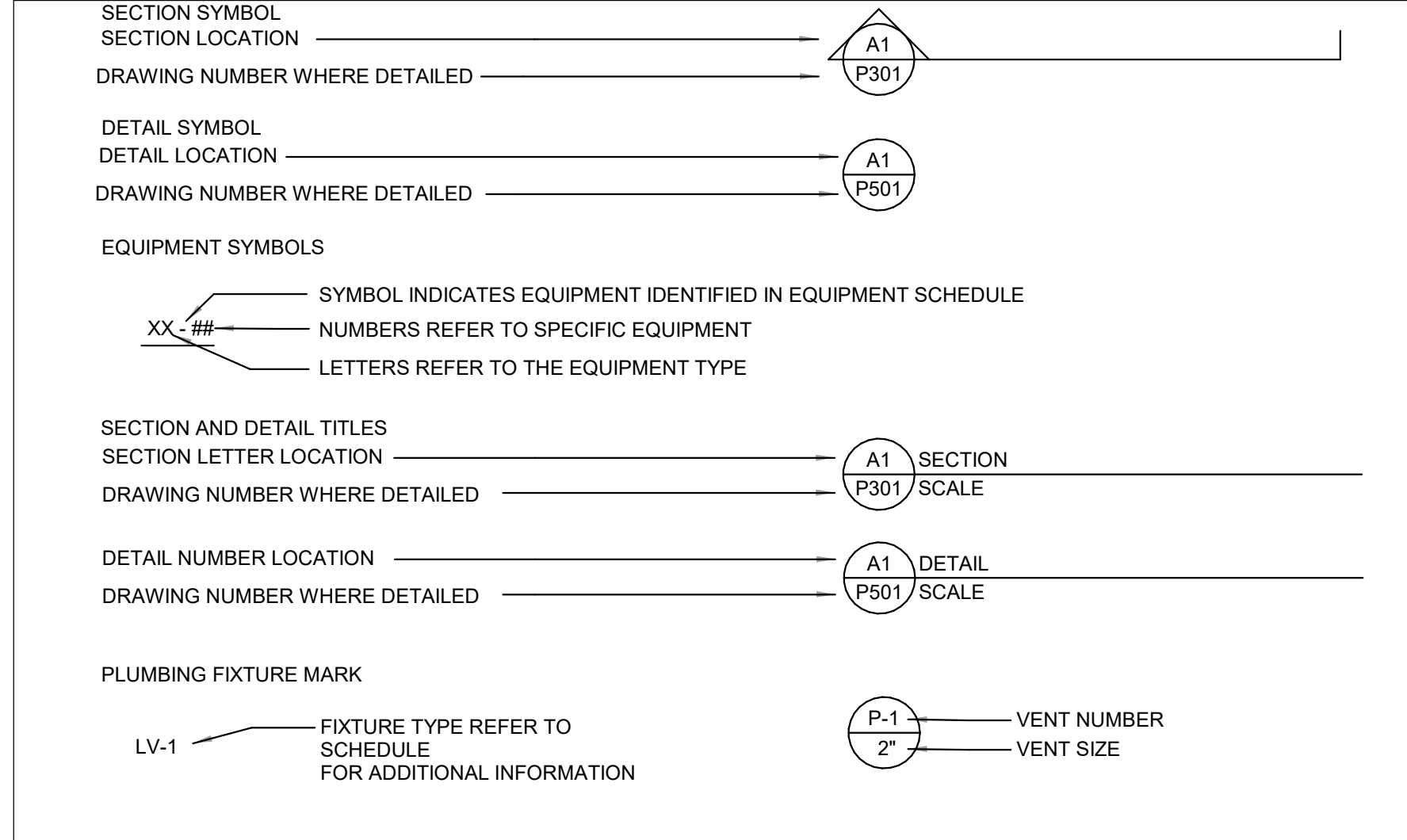
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GENERAL SYMBOLS



ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	HD	HEAD
AFG	ABOVE FINISHED GRADE	HE	HEAT EXCHANGER
ARV	AIR RELIEF VALVE	HP	HORSEPOWER
BOP	BOTTOM OF PIPE	IM	ICE MAKER
BS	BIRD SCREEN	IN	INCHES
BTU	BRITISH THERMAL UNIT	INV	INVERT
BTUH	BTU PER HOUR	JP	JOCKEY PUMP
CI	CAST IRON	KW	KITCHEN WASTE, or, KILOWATT
CO	CLEAN OUT	LV	LAVATORY
CP	CIRCULATION PUMP	MB	MOP BASIN
DCO	DOUBLE CLEANOUT	NA	NOT APPLICABLE
DCOTG	DOUBLE CLEANOUT TO GRADE	NC	NORMALLY CLOSED
DCW	DOMESTIC COLD WATER	NIC	NOT IN CONTRACT
DCSW	DOMESTIC COLD SOFTEN WATER	NO	NORMALLY OPEN
DHW	DOMESTIC HOT WATER	No. #	NUMBER
DHWR	DOMESTIC HOT WATER RETURN	OW	OIL WASTE
CWM	CLOTHES WASHING MACHINE	OWV	OIL WASTE VENT
DF	DRINKING FOUNTAIN	PC	PLUMBING CONTRACTOR
DN	DOWN	PRV	PRESSURE REDUCING VALVE
DS	DOWNSPOUT	PH	PHASE
DWBP	DOMESTIC WATER BOOSTER PUMP	PSAN	PUMPED SANITARY
ECO	EXTERIOR CLEANOUT	PSB	PLUMBING SERVICE BOX
EL	ELEVATION	PSIG	POUNDS PER SQ. INCH GAUGE
EPH	ELECTRIC WATER HEATER	PV	PRIMING VALVE
EW	ELECTRIC WATER COOLER	SE	SEWAGE EJECTOR
EEW	EMERGENCY EYEWASH	SH	SHOWER
EM	EMERGENCY	SK	SINK
EPP	ELEVATOR PIT PUMP	SP	SUMP PUMP
ES	EMERGENCY SHOWER	SV	SOLENOID VALVE
ESEW	EMERGENCY SHOWER EYE WASH	SS	SERVICE SINK, or, STAINLESS STEEL
EX	EXISTING	TD	TRENCH DRAIN
(E)	EXISTING	TMV	THERMOSTATIC MIXING VALVE
*F	DEGREES FAHRENHEIT	TP	TRAP PRIMER
FCO	FLOOR CLEANOUT	TYP	TYPICAL
FD	FLOOR DRAIN	UR	URINAL
FFE	FINISHED FLOOR ELEVATION	V	VENT
FP	FIRE PUMP	VTR	VENT THROUGH ROOF
FS	FLOOR SINK	VB	VACUUM BREAKER
FT	FEET	YB	YARD BOX
FV	FLUSH VALVE	YH	YARD HYDRANT
GC	GENERAL CONTRACTOR	W	WASTE
GI	GREASE INTERCEPTOR	WCO	WALL CLEANOUT
GPH	GALLONS PER HOUR	WC	WATER CLOSET
GPM	GALLONS PER MINUTE	WH	WALL HYDRANT
GWH	GAS WATER HEATER	WHA	WATER HAMMER ARRESTOR
GPR	GAS PRESSURE REDUCER		
HB	HOSE BIBB		

NOTE:
NOT ALL ABBREVIATIONS MAY BE USED ON THIS PROJECT.

PIPING SYMBOLS

SYMBOL AND ABBREVIATION	DESCRIPTION
---	CONDENSATE DRAIN
---	DOMESTIC COLD WATER
---	DOMESTIC HOT WATER
---	DOMESTIC HOT WATER RETURN
---	VENT
---	SANITARY SEWER
---	UNDERGROUND SANITARY SEWER
SD	STORM/ROOF DRAIN
OSD	OVERFLOW STORM DRAIN
NG	NATURAL GAS-LOW PRESSURE
---	DIRECTION OF FLOW
---	REDUCER OR INCREASER
---	ECCENTRIC REDUCER
---	RISE IN PIPE
---	UNION
---	WYE TYPE STRAINER
---	THERMOMETER
---	PRESSURE GAUGE AND GAUGE COCK
WHA	WATER HAMMER ARRESTOR
---	TOP CONNECTION, 45° OR 90°
---	BOTTOM CONNECTION, 45° OR 90°
---	SIDE CONNECTION
---	CAPPED OUTLET
---	DROP IN PIPE
---	FLEXIBLE CONNECTION
A	AUTOMATIC AIR VENT (AAV)
FD	FLOOR DRAIN
FS	FLOOR SINK
AD	AREA DRAIN
FCO	FLOOR CLEANOUT
ECO	EXTERIOR CLEAN OUT
---	TWO WAY OR DOUBLE CLEANOUT TO GRADE
RD	ROOF DRAIN
OD	OVERFLOW DRAIN
DD	DECK DRAIN
+	EXTEND NEW FROM THIS POINT
+	DEMO TO THIS POINT

VALVE SYMBOLS

SYMBOL	DESCRIPTION
---	GATE VALVE
---	CHECK VALVE
---	GLOBE VALVE
---	PLUG VALVE
---	WATER PRESSURE REDUCING VALVE
---	BALANCING VALVE/CIRCUIT SETTER MEASURING DEVICE
---	SOLENOID VALVE
---	BALL VALVE
---	DRAIN VALVE
---	OS&Y VALVE
---	BUTTERFLY VALVE
---	FUEL GAS PRESSURE REGULATOR
---	PRESSURE RELIEF VALVE
---	TEMPERATURE AND PRESSURE RELIEF VALVE
---	2-WAY CONTROL VALVE
---	3-WAY MODULATING CONTROL VALVE
---	FLOW SWITCH
---	DIAPHRAGM VALVE (PROCESS SYSTEMS)
---	AUTO BALL DRIP VALVE
---	VALVE IN VERTICAL
---	REDUCED PRESSURE BACKFLOW PREVENTER (RPBP)
---	DOUBLE CHECK BACKFLOW PREVENTER (DCBP)
---	DOUBLE DETECTOR CHECK ASSEMBLY (DDCA)
---	ATMOSPHERIC VACUUM BREAKER
---	PRESSURE STYLE VACUUM BREAKER

GENERAL NOTES

- OBTAIN ALL NECESSARY PERMITS, PAY LEGAL FEES AND COMPLY WITH ALL NATIONAL, STATE AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.
- IT IS THE INTENTION OF THESE DRAWINGS TO CALL FOR FINISHED WORK, I.E., FULLY ADJUSTED, TESTED, AND READY FOR OPERATION, WHEREVER THE WORK "PROVIDE" IS USED. IT SHALL MEAN, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
- PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.
- REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.
- ALL SYSTEMS SHALL BE COMPLETE AND WORKING AT COMPLETION OF CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE EQUIPMENT CONNECTIONS WITH EQUIPMENT DRAWINGS AND SUPPLIER. INSTALL EQUIPMENT AND MAKE FINAL CONNECTIONS, FURNISHING CUTOFF VALVES, P-TRAPS, P.R.V.'S, AND PIPING AS REQUIRED.
- ALL CONNECTIONS BETWEEN PIPES OF DISSIMILAR MATERIALS SHALL BE MADE WITH DIELECTRIC UNIONS. PROVIDE ACCESS PANELS WHERE REQUIRED.
- COORDINATE WATER, WASTE AND VENT PIPING WITH OTHER TRADES TO AVOID SPACING OR ROUTING PROBLEMS.
- CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY WITH NEW MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL.
- SUBMIT SHOP DRAWINGS OF PROPOSED NEW DEVICES PRIOR TO INSTALLATION.
- FURNISH OWNER WITH COMPLETE OPERATING MANUALS AND INSTRUCTIONS FOR ALL EQUIPMENT FURNISHED.
- FIXTURES, EQUIPMENT AND CONNECTIONS, AND PIPING SHALL BE FURNISHED AND INSTALLED TO MEET OR EXCEED STATE AND LOCAL CODES AND REQUIREMENTS.
- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL OFFSETS. INSTALL PIPING AS CLOSE AS POSSIBLE TO LOCATIONS SHOWN, WHERE INTERFERENCES WITH COMPONENTS OF OTHER TRADES' WORK (STRUCTURAL FOUNDATIONS OR OTHER BUILDING ELEMENTS) REQUIRE ROUTINGS AND LOCATIONS THAT VARY FROM THOSE SHOWN. THE CONTRACTOR SHALL OBTAIN PROJECT ENGINEER'S APPROVAL PRIOR TO INSTALLATION. NO ADDITIONAL COST SHALL BE GRANTED FOR THESE CHANGES.
- THE PLUMBING DRAWINGS DO NOT NECESSARILY SHOW EVERY COMPONENT AND/OR ACCESSORY REQUIRED FOR A COMPLETE INSTALLATION. THE CONTRACTOR SHALL INCLUDE SUCH ITEMS AS ARE REQUIRED TO ENSURE THAT THE ENTIRE SYSTEM IS FUNCTIONING IN COMPLIANCE WITH APPLICABLE CODES, ACCEPTED INDUSTRY STANDARDS, AND MANUFACTURER'S INSTALLATION REQUIREMENTS UPON COMPLETION OF THE WORK.
- FURNISH AND INSTALL WATER HAMMER ARRESTORS IN COLD WATER LINES AT CONNECTIONS TO FLUSH VALVES AND QUICK CLOSING VALVES AND AT ALL HOT AND COLD WATER CONNECTIONS TO FIXTURES.
- ROUGH-IN PLUMBING PIPING USING DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS. LOCATION OF ALL PIPING SHALL ALLOW INSTALLATION OF FIXTURES WITHOUT THE NEED TO FURR-OUT WALLS.
- PROVIDE CLEANOUTS IN EXCESS OF THOSE SHOWN WHICH ARE REQUIRED BY THE PLUMBING CODE.
- INDIVIDUAL FIXTURE SUPPLY AND DRAIN SERVICES ARE NOT SHOWN IN PLAN VIEW DUE TO DRAWING SPACE LIMITATIONS. THE CONTRACTOR SHALL PROVIDE ALL SERVICES FOR A COMPLETE FUNCTIONAL INSTALLATION.
- DO NOT INSTALL PIPING AT LOCATIONS THAT INTERFERE WITH SERVICE ACCESSIBILITY TO EQUIPMENT.
- A.D.A. ACCESSIBLE LAVATORIES AND SINKS: INSULATE ALL EXPOSED DRAIN PIPING AND WATER SUPPLY PIPING BENEATH A.D.A. COMPLIANT LAVATORIES & SINKS WITH FULLY MOLDED CLOSED CELL VINYL INSULATION KIT AS MANUFACTURED BY TRUEBRO, BROCAR OR MCGUIRE.
- ALL CONFLICTS, WHICH MAY PREVENT THE COMPLETION OF WORK AS INTENDED, SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION. THE CONTRACTOR SHALL PROCEED AT THEIR OWN RISK UNTIL ALL CONFLICTS ARE RESOLVED AND THE CLARIFYING INFORMATION IS ISSUED TO THE CONTRACTOR BY THE ARCHITECT.
- THE SUPPLY OF BOTH HOT AND COLD WATER TO EACH FIXTURE SHALL BE EQUIPPED WITH STOP VALVE. ALL EXPOSED VALVES AND COCKS SHALL BE CHROMIUM PLATED TO CORRESPOND TO PIPE FINISH.
- CONTRACTOR WILL BE RESPONSIBLE FOR RELOCATING DOMESTIC WATER LINES IN CONFLICT WITH OTHER TRADES SCOPE OF WORK INCLUDING MECHANICAL EQUIPMENT, PIPING, DUCTS, ELECTRICAL CONDUITS, ETC.



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1	12.13.2024	ISSUE FOR CONSTRUCTION

RSE PROJECT NO: 1540
DRAWN BY: Author
CHECKED BY: Checker

SHEET TITLE

**PLUMBING
MELCHER FLOOR
PLAN**

SHEET NUMBER

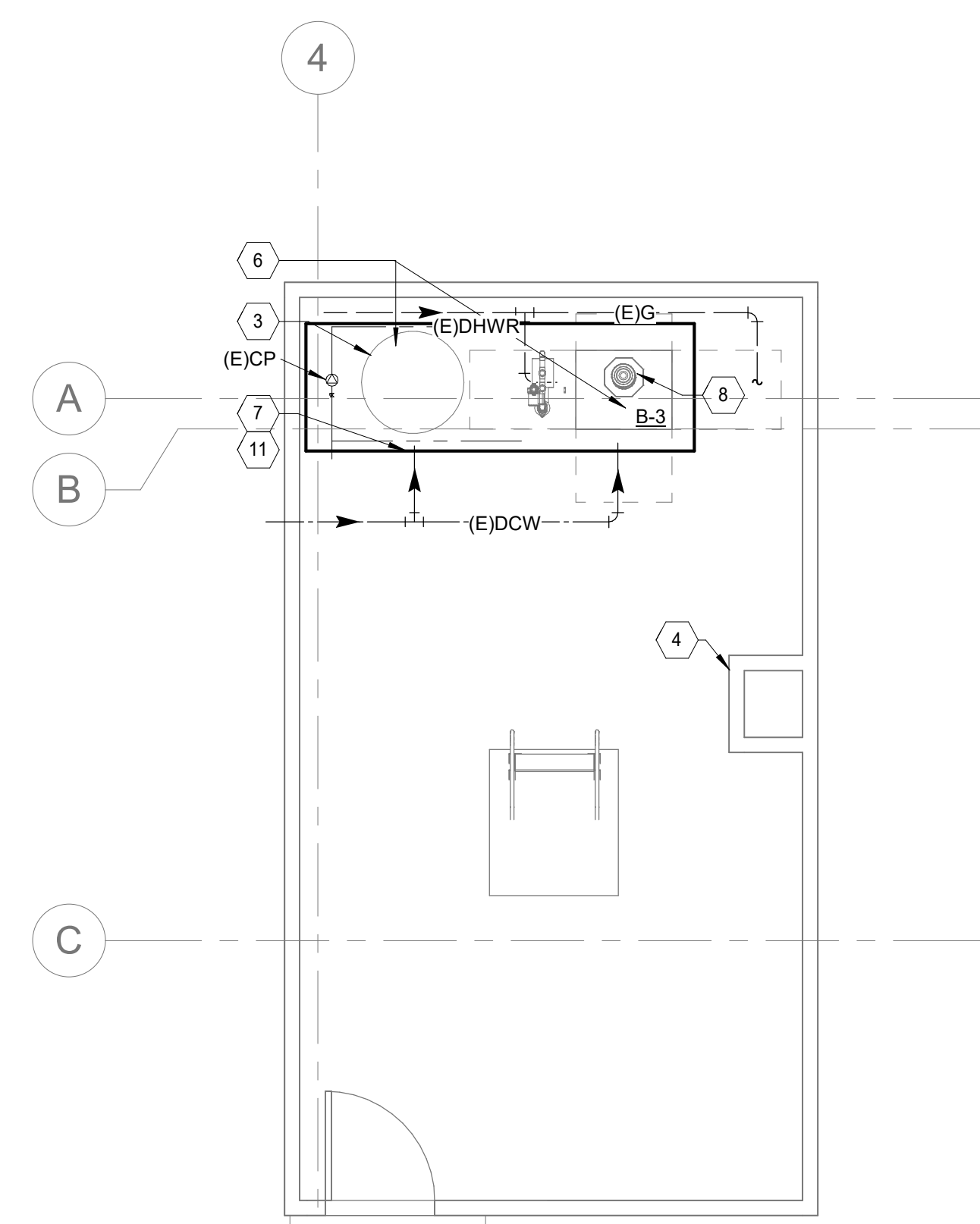
P201

GENERAL NOTES

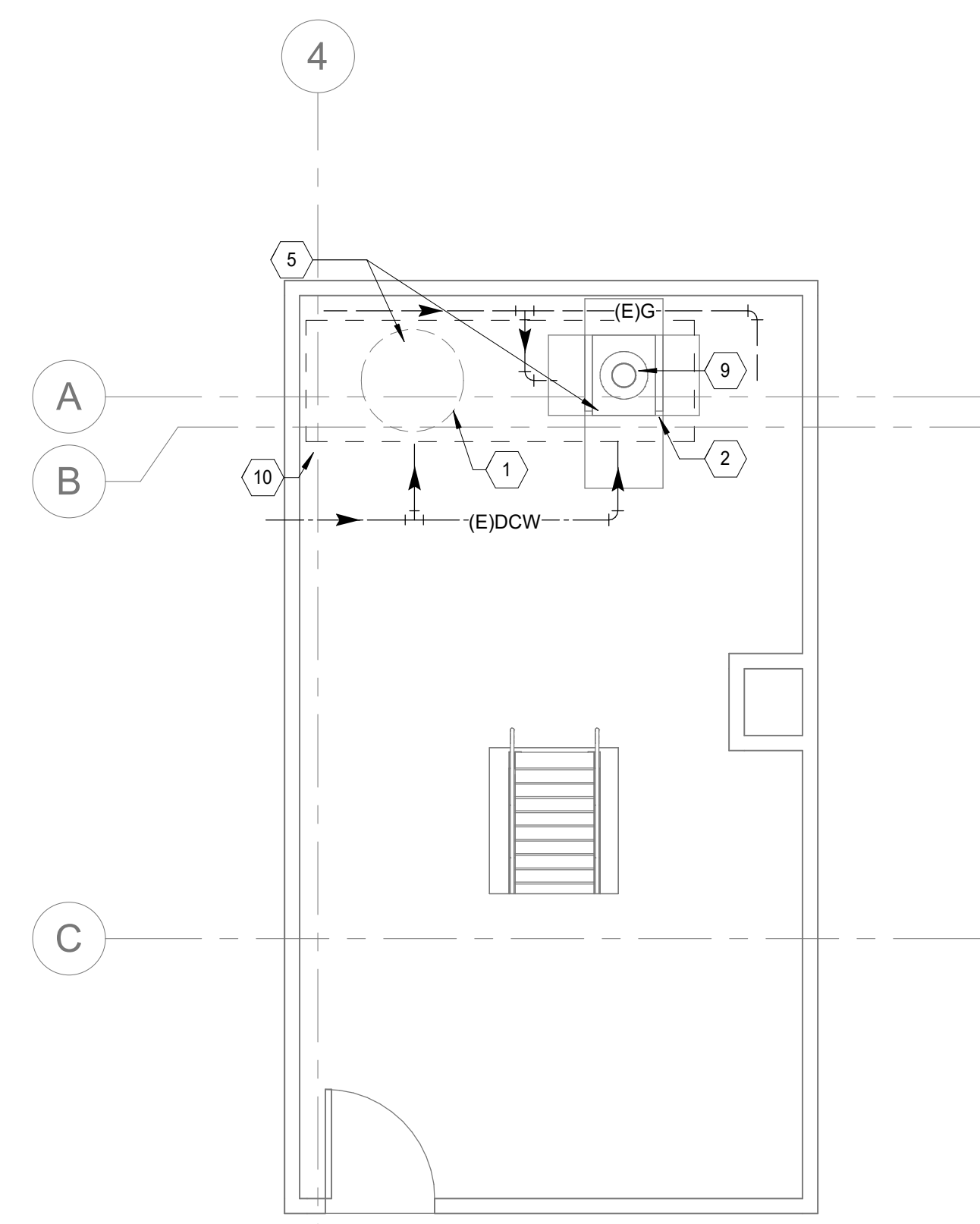
- A. REFER TO SHEET P001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- B. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH BECOME DAMAGED OR CONTAMINATED BY CONSTRUCTION ACTIVITY.

SHEET KEYED NOTES

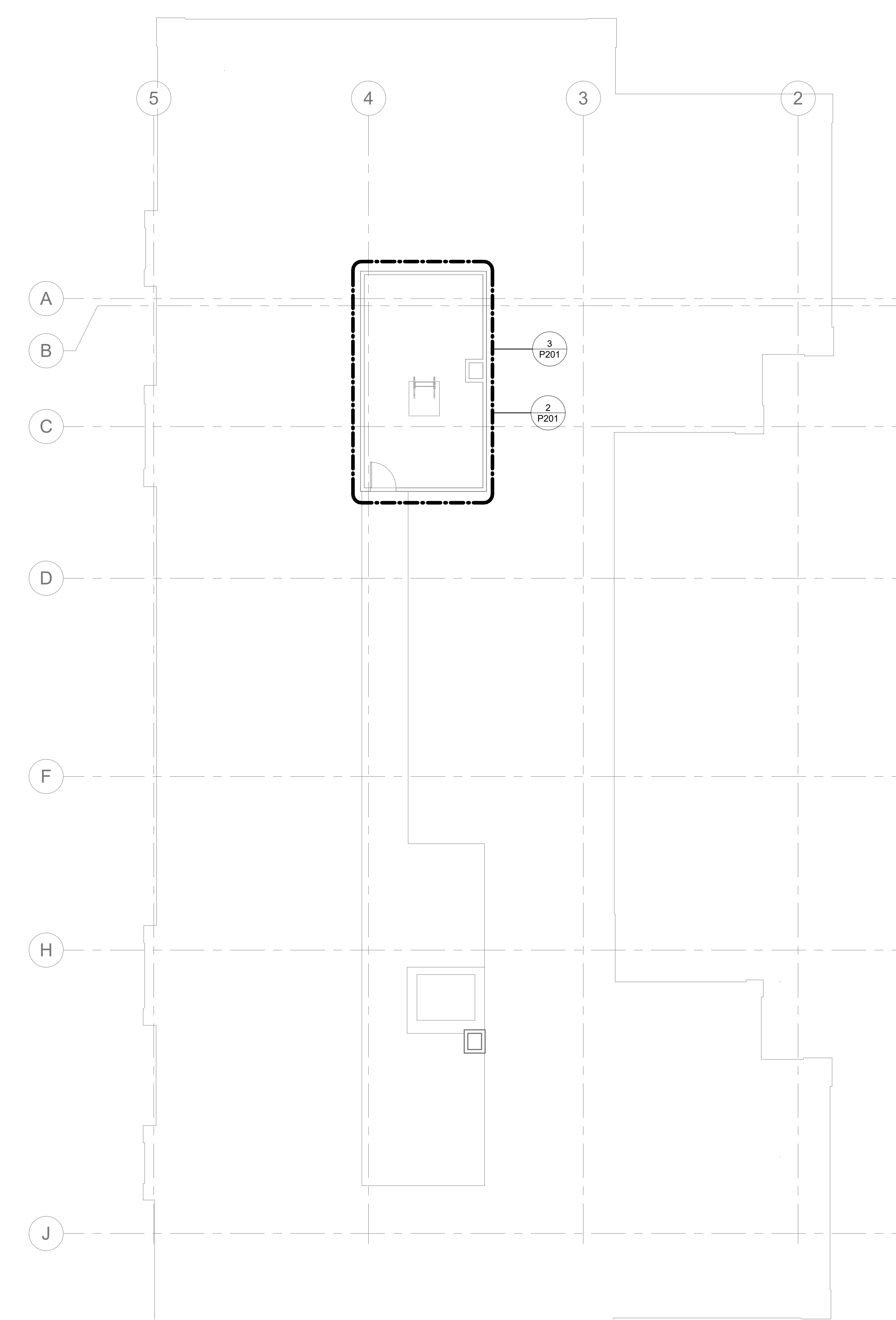
Key Value	Keynote Text
1	TANK TO BE REMOVED.
2	BOILER TO BE REMOVED.
3	OWNER FURNISHED 200 GALLON STORAGE TANK.
4	INSTALL CARBON MONOXIDE SENSOR AT 48" ABOVE FINISHED FLOOR. REFER TO WATER HEATER SCHEDULE FOR MAKE AND MODEL ON SHEET P001.
5	DEMO ALL EXISTING ISOLATION VALVES DCW, GAS, DHW, AND DHWR.
6	INSTALL ALL NEW ISOLATION VALVES DCW, GAS, DHW, AND DHWR.
7	PLUMBING CONTRACTOR SHALL INSTALL PAN UNDER NEW STORAGE TANK AND BOILER AND DRAIN LINE TO BE RAN TO NEAREST FLOOR SINK OR DRAIN.
8	RECONNECT NEW BOILER FLUE TO EXISTING FLUE PIPE THROUGH ROOF.
9	EXISTING FLUE THROUGH ROOF TO REMAIN.
10	DEMO EXISTING PAN.
11	FOR PAN REPLACEMENT PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF (E) CP AND SHALL RE-INSTALL (E) CP REPLACE ALL GASKETS AND BOLTS TO ENSURE NO LEAKS.



3 PLUMBING MELCHER ENLARGED PLAN - ATTIC
1/4" = 1'-0"



2 PLUMBING MELCHER ENLARGED DEMO PLAN - ATTIC
1/4" = 1'-0"



1 PLUMBING MELCHER PLUMBING PLAN - ATTIC
1/8" = 1'-0"

Autodesk Docs://1540 - Blinn Mechanical Projects - Brenham - Melcher + Wheeler - BCPA2/1540 - Blinn Mechanical Projects - Brenham - Melcher + Wheeler - BCPA2.rvt
12/13/2024 9:22:14 AM

PROFESSIONAL SEAL



CONSULTANTS

PROJECT INFORMATION

CLIENT NAME:



BLINN COLLEGE DISTRICT
BLINN
MECHANICAL
PROJECTS -
BRENHAM -
MELCHER + BCPA2
 902 COLLEGE AVE,
 BRENHAM, TX 77833

PROJECT ISSUE

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SHEET TITLE

PLUMBING BCPA2 FLOOR PLAN

SHEET NUMBER

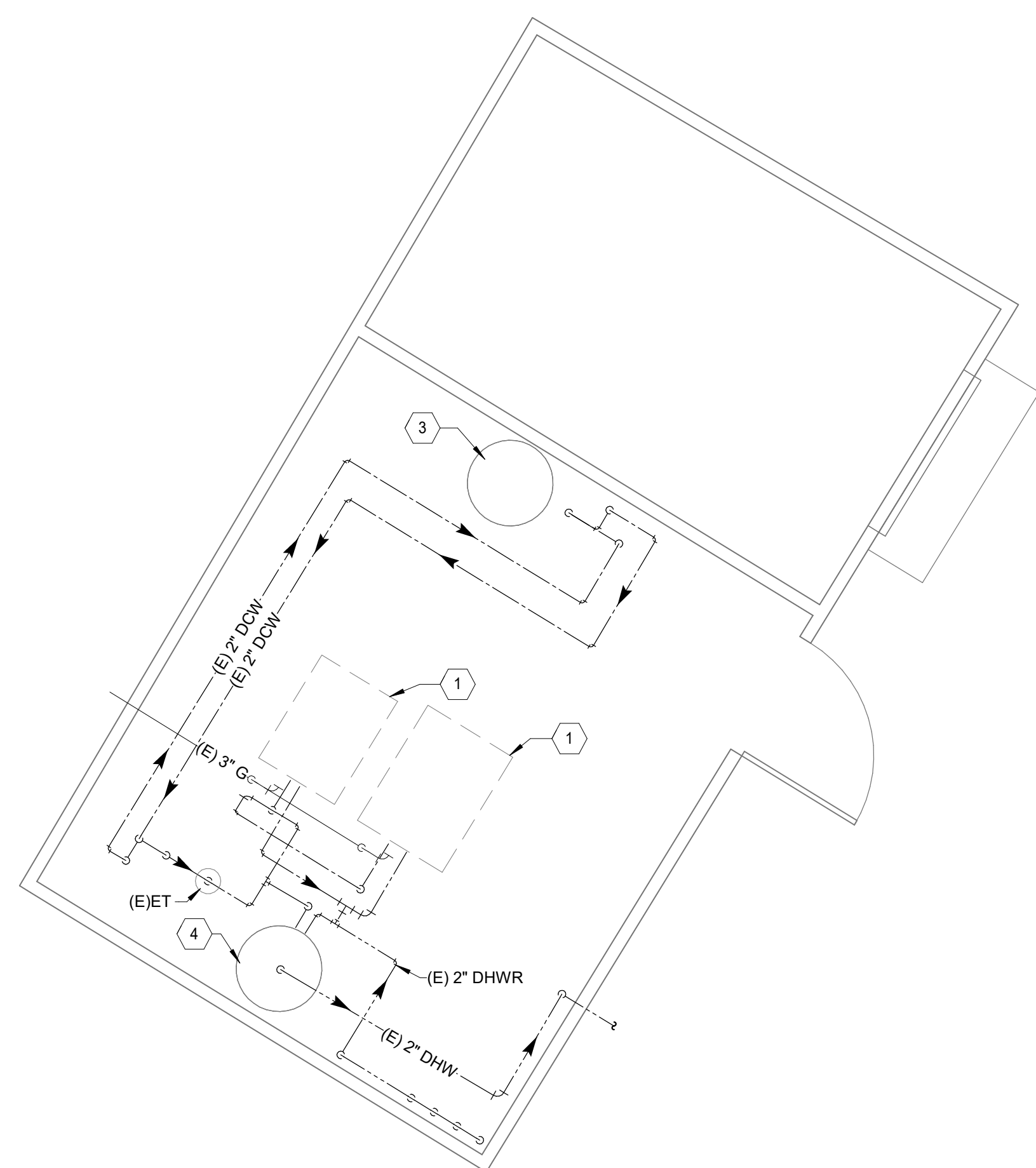
P202

GENERAL NOTES

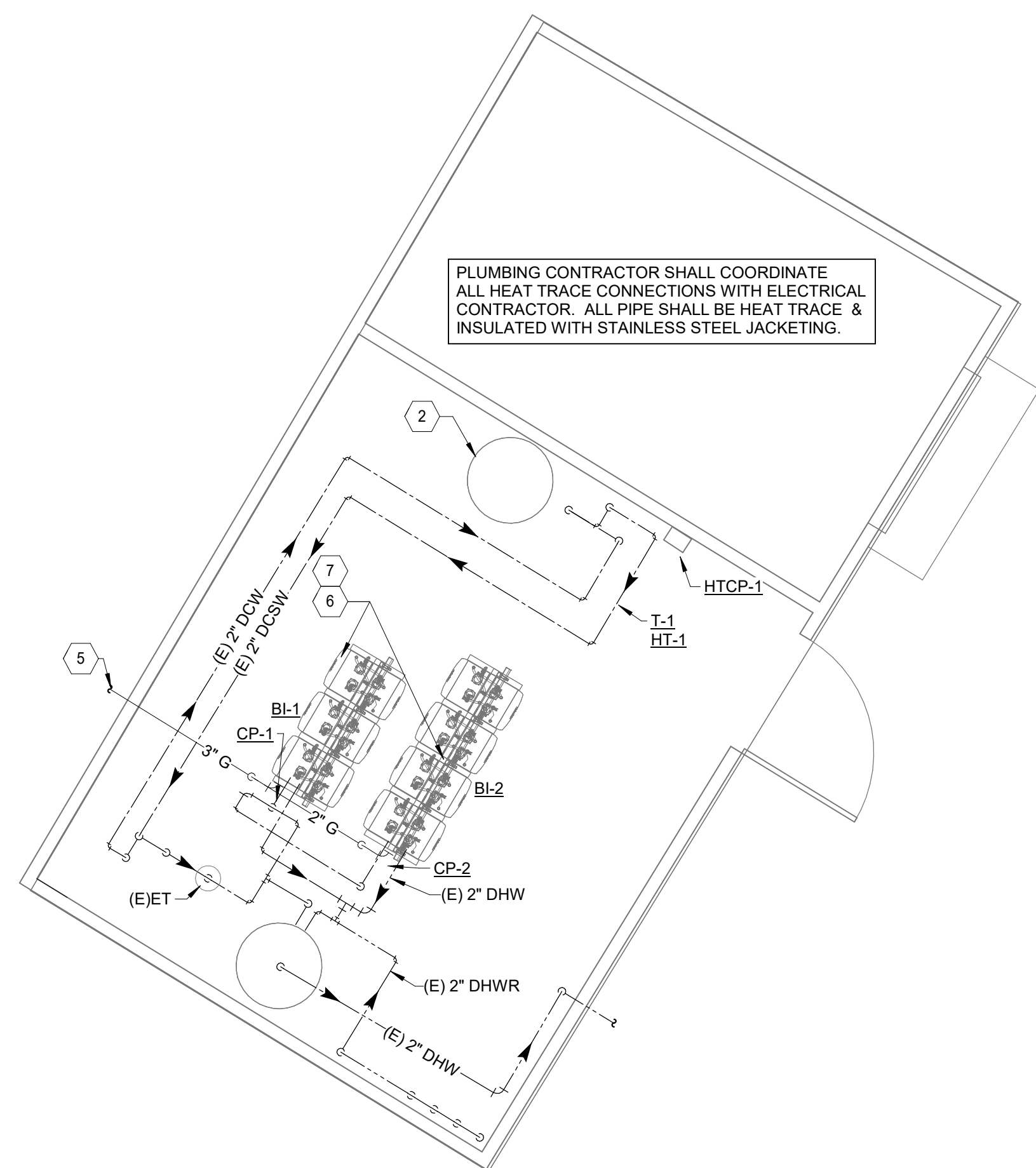
- A. REFER TO SHEET P001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- B. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH BECOME DAMAGED OR CONTAMINATED BY CONSTRUCTION ACTIVITY.

SHEET KEYED NOTES

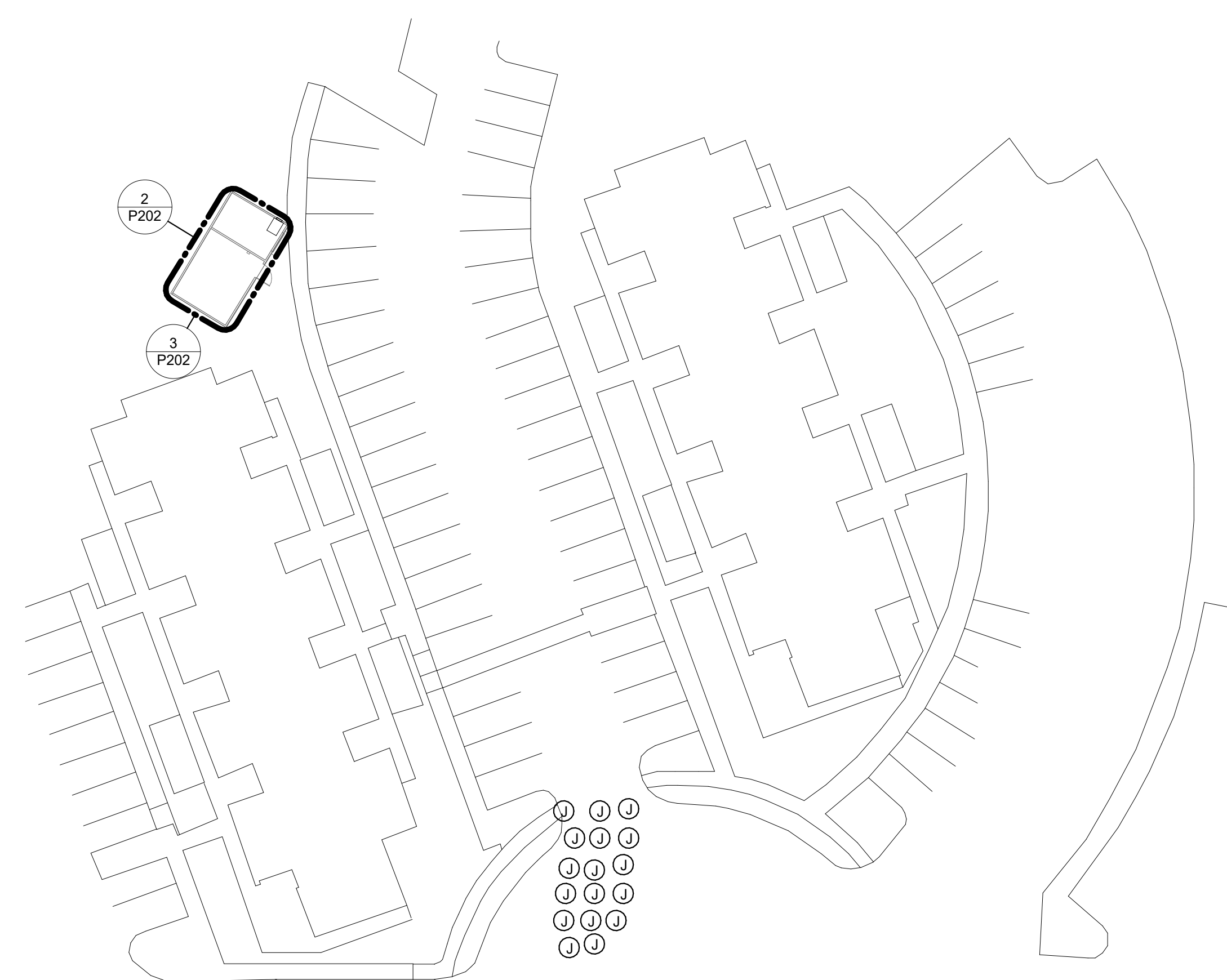
Key Value	Keynote Text
1	BOILER TO BE REMOVED.
2	WATER SOFTENER TO BE INSULATED PROPERLY.
3	EXISTING WATER SOFTENER TO REMAIN.
4	EXISTING 200 GALLON HOT WATER STORAGE TANK TO REMAIN.
5	NEW GAS PIPE FROM METER TO TANKLESS HEATER. TOTAL DEVELOPMENTAL LENGTH OF 50' @ LESS THEN 2PSI WITH A PRESSURE DROP OF .5 W.C. WITH A TOTAL LOAD OF 2,795 CFH.
6	PROVIDE 2" GAS HEADER TO FEED ALL TANKLESS WATER HEATERS.
7	PROVIDE ACID NEUTRALIZATION FOR CONDENSATE LINES FROM TANKLESS HEATER. ROUTE PIPE TO NEAREST DRAIN LINE OR DISCHARGE TO GRADE ON OUTSIDE.



③ PLUMBING BCPA2 ENLARGED DEMO FLOOR PLAN
 1/4" = 1'-0"



② PLUMBING BCPA2 ENLARGED FLOOR PLAN
 1/4" = 1'-0"



① PLUMBING BCPA2 FLOOR PLAN
 1" = 30'-0"

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PLUMBING FIXTURE SCHEDULE

ID	ID TYPE	MANUFACTURER	MODEL NUMBER	DESCRIPTION
HT-1	PIPE HEAT TAPE	RAYCHEM	# 5XL1-CR	5/8 WATTS PER FOOT WITH POLYOLEFIN OUTER JACKET. REFER TO SPECIFICATIONS FOR MORE INFORMATION. ELECTRICAL REQUIREMENTS: 782 WATT TOTAL CONNECTED LOAD AT 120V SINGLE PHASE.
T-1	THERMOSTAT	RAYCHEM	# AMC-F5	LINE TEMPERATURE SENSING THERMOSTAT AND NEMA 4X ENCLOSURE FOR ON-OFF CONTROL OF HEAT TAPE CIRCUIT. FACTORY SET TO TURN ON AT 40%DF. CAPILLARY AND SENSING BULB. MOUNT THERMOSTAT SENSING BULB UNDER THE PIPE INSULATION. POWER WIRING IS SPECIFIED BY ELECTRICAL.
HTCP-1	HEAT TAPE CONTROL PANEL	RAYCHEM	# 910*E1FWL*EMR2	'DIGITRACE' CONTROL PANEL FOR ON-OFF CONTROL OF HEAT TAPE CIRCUIT WITH NEMA 4X FRP ENCLOSURE. LED DISPLAY AND KEYPAD INTERFACE. GROUND FAULT CIRCUIT PROTECTION, CAPABLE OF CHECKING HEATING CABLE CIRCUIT FAULTS, ALARM LIGHTS FOR HIGH AND LOW TEMPERATURE, HIGH AN LOW CURRENT AND VOLTAGE. RS-485 INTERFACE WITH MODBUS PROTOCALL FOR STATUS AND ALARM CONDITIONS INTERFACE WITH THE BUILDING AUTOMATION SYSTEM. SET TO TURN ON AT 40%DF AND TURN OFF AT 45%DF. REMOTE TEMPERATURE DEVICE RTTDIAL AND STAINLESS STEEL CABLE RTTD-200. LENGTH AS REQUIRED. MOUNT REMOTE TEMPERATURE SENSING DEVICE ON PIPE UNDER THE INSULATION. POWER WIRING IS SPECIFIED BY ELECTRICAL.
FCV-1	FLOW CONTROL VALVE	BELL & GOSSETT	# LF-CB	'CIRCUIT SETTER PLUS'. LEAD FREE CAST BRONZE BODY. BRASS BALL, CALIBRATED BALANCE VALVE, DIFFERENTIAL PRESSURE READOUT PORTS, DRAIN PORT, MEMORY STOP. NAMEPLATE AND 1/2" VALVE BODY SIZE UNLESS SHOWN OTHERWISE ON PLANS. SET AND BALANCE TO 4 GPM FLOW RATE UNLESS SHOWN OTHERWISE ON PLANS AND PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

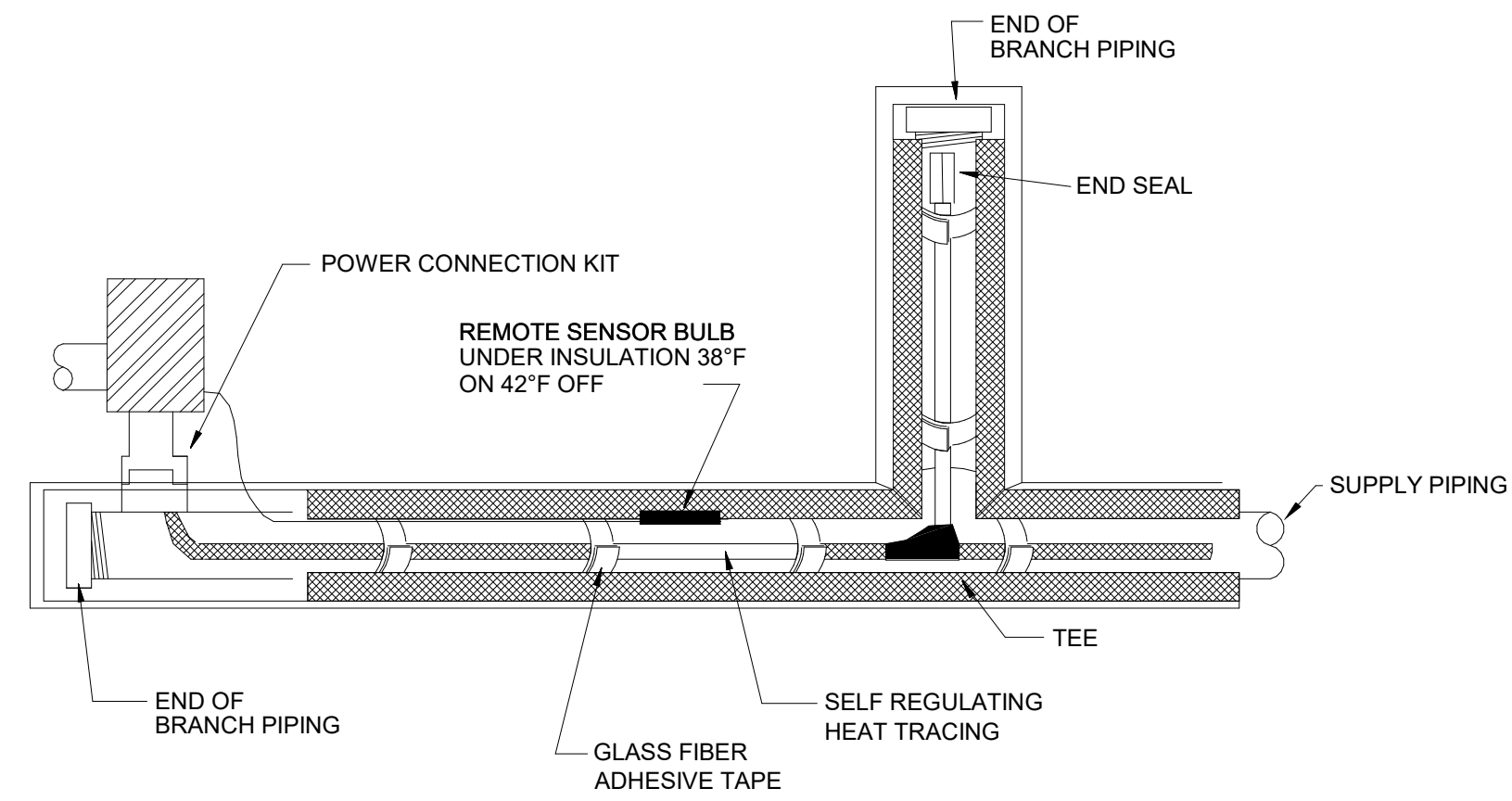
WATER HEATER SCHEDULE

TAG ID	LOCATION	MANUFACTURER	MODEL #	QUANTITY	CFH	RECOVERY	ELECTRICAL REQUIREMENTS			NOTES
							VOLTS	PH	HZ	
B-1	PHASE 2 MECHANCAL YARD	BRADFORD WHITE	RTGS199N1	8	199	32 GPM @ 21' OF HEAD	120	1	60	CONTRACTOR SHALL PROVIDE: 1 BASE RACK (ST1249), 3 EXTENSION RACKS (ST1250), 8 OUTDOOR VENT KITS (ST1238), 8 PIPE COVERS (ST1237)
B-2	PHASE 2 MECHANCAL YARD	BRADFORD WHITE	RTGS199N1	6	199	21 GPM @ 21' OF HEAD	120	1	60	CONTRACTOR SHALL PROVIDE: 1 BASE RACK (ST1249), 2 EXTENSION RACKS (ST1250), 6 OUTDOOR VENT KITS (ST1238), 6 PIPE COVERS (ST1237)
B-3	MELCHER ATTIC	RAYPAK	HD-301	1	299	426 GPM	120	1	60	CONTRACTOR SHALL PROVIDE: CARBON MONOXIDE SENSOR WITH SWITCH, INTERLOCKED WITH BOILER. OPERA MODEL # 6002

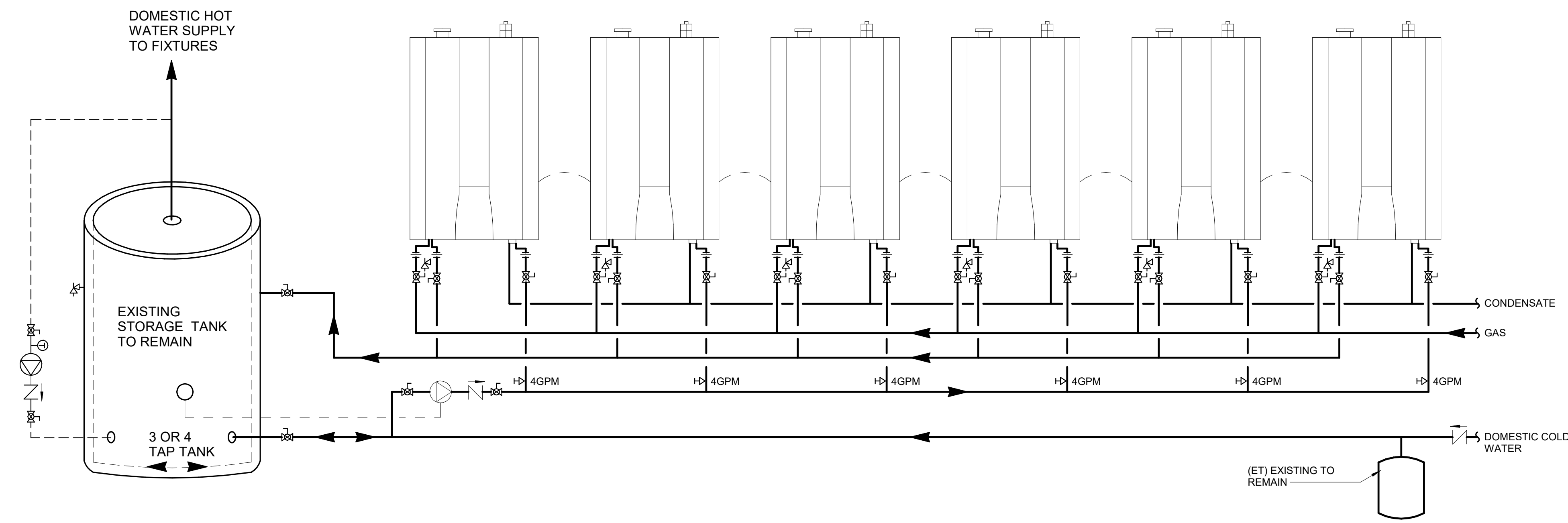
HOT WATER RETURN PUMP SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	TYPE	FLOW RATE (GPM)	HEAD (TOTAL FT)	MOTOR DATA				NOTES
							HP	V	PHASE	HZ	
CP-1	HOT WATER RETURN PUMP	GRUNDFOS	MAGNA3 40-80 FN	CANNED ROTOR TYPE	32	21	1/6	120	1	60	ALL
CP-2	HOT WATER RETURN PUMP	GRUNDFOS	MAGNA3 40-80 FN	CANNED ROTOR TYPE	21	21	1/6	120	1	60	ALL

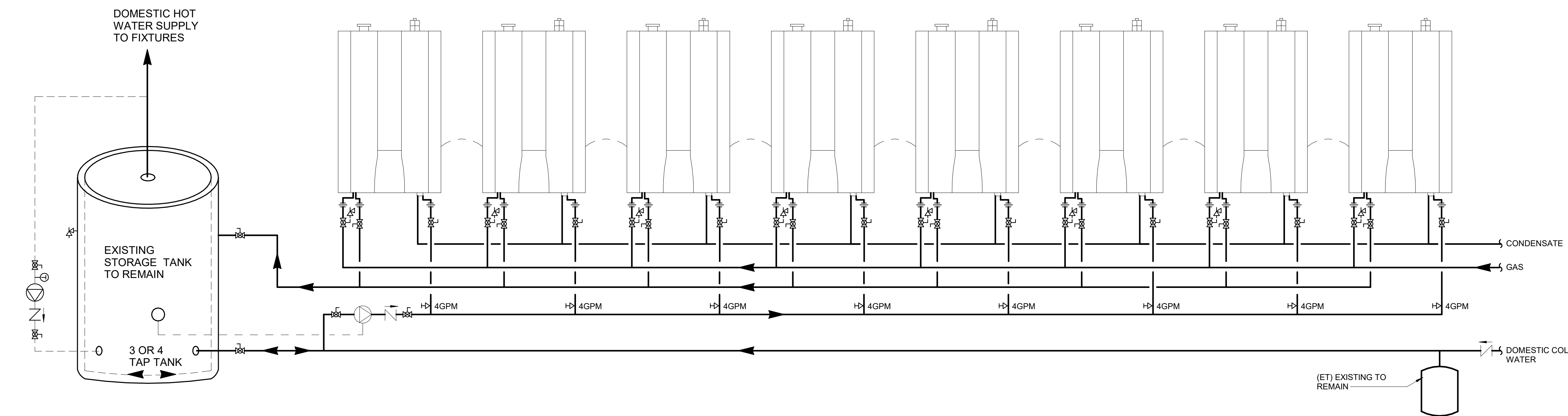
NOTES:
 1. ALL OF PUMPS WETTED PARTS TO BE OF STAINLESS STEEL CONSTRUCTION.
 2. PUMP TO HAVE INTEGRAL VARIABLE FREQUENCY DRIVE AND TEMPERATURE SENSOR.



3 HEAT TRACE FOR PIPE
12" = 1'-0"



2 TANKLESS WATER HEATER RACK (8)
NO SCALE



1 TANKLESS WATER HEATER RACK (8)
NO SCALE

PROFESSIONAL SEAL



CONSULTANTS

PROJECT INFORMATION

CLIENT NAME:



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BLINN MECHANICAL PROJECTS - BRENHAM - MELCHER + BCPA2
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PLUMBING DETAILS

SHEET NUMBER

P501