GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE, THE INTERNATIONAL MECHANICAL CODE, THE UNIFORM PLUMBING CODE, THE INTERNATIONAL FUEL GAS CODE, AND THE OREGON STATE ENERGY CODE - COMMERCIAL, AS ADOPTED BY THE STATE OF OREGON.
2. COORDINATE PLUMBING AND MECHANICAL PIPING WITH THE CIVIL DRAWINGS AND SITE UTILITY CONTRACTOR FOR ELEVATION AND LOCATIONS.
3. ALL PLUMBING IS DIAGRAMMATIC AND MAY NOT DETAIL ALL REQUIRED OFFSETS.
4. INSTALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTION. PROVIDE ACCESSORIES AND INCIDENTAL ITEMS NECESSARY FOR COMPLETE INSTALLATION.
5. DOMESTIC HOT AND COLD WATER PIPING: ASTM F876 PEX TUBE, ASTM F877 FITTINGS, CERTIFIED TO NSF 14 AND NSF 61, WITH BRASS INSERT FITTINGS & COPPER CRIMP RINGS. FABRICATE, INSTALL, SUPPORT, & TEST IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE. USE NON-COMBUSTIBLE, SELF-GRIPPING GALVANIZED STEEL CHANNEL SUPPORTS FOR ALL HORIZONTAL RUNS OF PEX PIPING.
6. DOMESTIC HOT AND COLD WATER PIPING: COPPER TUBE ASTM B88, TYPE M FOR ABOVE GROUND PIPING AND TYPE L FOR BELOW GROUND PIPING, AND CERTIFIED TO NSF 14 AND NSF 61. WROUGHT COPPER SOLDER JOINT FITTINGS ASME B16.22.
7. DOMESTIC HOT AND COLD WATER PIPING, UNDERGROUND: PRESSURE RATED POLYPROPYLENE PIPE, ASTM F2389 AND NSF 14, 150 PSIG MINIMUM INTERNAL RATED WORKING PRESSURE, HEAT FUSION WELDED, AQUATHERM GREEN OR EQUAL.
8. DOMESTIC HOT AND COLD WATER PIPING, UNDERGROUND: PVC PIPE, SCHEDULE 40, ASTM D1785. FITTINGS SHALL BE SOLVENT CEMENT JOINTS, PVC ASTM D2466.
9. SANITARY WASTE AND VENT: ABS PIPE, SCHEDULE 40, ASTM F628. FITTINGS SHALL BE SOLVENT CEMENT JOINTS, ABS ASTM D2661 MADE TO ASTM D3311 DWV PATTERNS.
10. SANITARY WASTE AND VENT: PVC PIPE, SCHEDULE 40, ASTM D2665. FITTINGS SHALL BE SOLVENT CEMENT JOINTS, PVC ASTM D2665 MADE TO ASTM D3311 DWV PATTERNS.
11. PIPING INSULATION: PREFORMED GLASS FIBER INSULATION WITH FSK FACING OR FLEXIBLE ELASTOMERIC FOR SHORT RUNS LESS THAN 8 FEET WHERE PREFORMED GLASS FIBER IS NOT PRACTICAL. INSULATION NOT REQUIRED FOR FINAL CONNECTIONS TO FIXTURES, AT PENETRATIONS THROUGH FRAMING MEMBERS, VERTICAL SUPPORT LOCATIONS, AND PIPING SURROUNDED BY BUILDING INSULATION. INSULATION THICKNESS SHALL BE AS FOLLOWS:.

PIPE SIZE	LESS THAN 1-1/2"	1-1/2" OR GREATER
HOT WATER	1"	1-1/2"
COLD WATER	1/2"	1"

12. FABRICATE, INSTALL, SUPPORT, AND TEST SUPPLY AND DRAINAGE PIPING IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
13. PROVIDE PIPE SUPPORTS FOR WATER SUPPLY AND SANITARY DRAINAGE PIPING IN ACCORDANCE WITH THE UPC AND AT INTERVALS NOT TO EXCEED THOSE REQUIRED BY TABLE 313.3.
14. SANITARY DRAINAGE PIPING SHALL BE SLOPED AT LEAST 1/4" PER FOOT UNLESS OTHERWISE NOTED.
15. COORDINATE VENTS SO THAT NONE ARE CLOSER THAN 10 FEET TO HVAC OUTSIDE AIR INTAKES. COMBINE FIXTURE VENTS TO REDUCE QUANTITY OF ROOF PENETRATIONS. SIZE VENTS PER THE LATEST UNIFORM PLUMBING CODE.
16. PLUMBING VENTS SHALL TERMINATE NOT LESS THAN 6" ABOVE THE ROOF SURFACE AND NOT LESS THAN 12" FROM A VERTICAL SURFACE.
17. PROVIDE STOP VALVES AT CONNECTION POINT TO ALL FIXTURES.
18. PROVIDE WATER HAMMER ARRESTERS IN ALL HOT AND COLD WATER BRANCH LINES. SIZE IN ACCORDANCE WITH PDI-WH 201.
19. PROVIDE CODE COMPLIANT AIR GAP FOR ALL INDIRECT DRAINS. THE MINIMUM VERTICAL DISTANCE FOR THE AIR GAP SHALL BE 1" OR TWICE THE INTERNAL DIAMETER OF THE DRAIN PIPE, WHICHEVER IS GREATER, AS MEASURED FROM THE LOWEST POINT OF THE DRAIN PIPE OR FIXTURE OUTLET TO THE FLOOD LEVEL RIM OF THE FLOOR SINK OR OTHER RECEPTOR.

DRAINAGE BASIS OF DESIGN

AREA	DFU	DRAIN, MINIMUM	DRAIN, PROVIDED
1ST FLOOR	35	4"	4"

SUPPLY BASIS OF DESIGN

AREA	WSFU	MAIN SUPPLY	METER
1ST FLOOR	79.5	1 1/2"	2"

DRAWING LIST

P-001	PLUMBING NOTES AND LEGEND
P-101	PLUMBING DRAINAGE PLAN
P-102	PLUMBING SUPPLY PLAN
P-103	PLUMBING SUPPLY PLAN
P-501	PLUMBING DETAILS
P-601	PLUMBING FIXTURE SCHEDULE

ABBREVIATIONS

COIW	CLEAN OUT IN WALL
COND	CONDENSATE
COTF	CLEAN OUT TO FLOOR
COTG	CLEAN OUT TO GRADE
CW	COLD WATER
(E)	EXISTING
FD	FLOOR DRAIN
G	NATURAL GAS PIPING
HW	HOT WATER
HWR	HOT WATER RETICULATION
LV	LAVATORY
NG	NATURAL GAS
PW	PROCESS WASTE DRAIN
OFD	OVERFLOW DRAIN
ODL	OVERFLOW DRAIN LEADER
RWL	ROOF DRAIN LEADER
RTU	ROOF TOP UNIT
SW	SANITARY WASTE DRAIN
TP	TRAP PRIMER FEED LINE
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET

LEGEND

—CW—CW—	COLD WATER PIPING
—G—G—	GAS PIPING
—HW—HW—	HOT WATER PIPING
—HWR—HWR—	HOT WATER RECIRCULATION PIPING
—SW—SW—	SANITARY SEWER PIPING
—PW—PW—	PROCESS WASTE PIPING
—V—V—	VENT PIPING
—RDL—RDL—	ROOF DRAIN PIPING
—ODL—ODL—	OVERFLOW DRAIN PIPING
—TP—TP—	TRAP PRIMER FEED

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509-627-4800

REGISTERED PROFESSIONAL ENGINEER
102279PE
DIGITALLY SIGNED
OREGON
MARCH 14, 2023
DOUGLAS JAMES RIMES
EXPIRES: 06/30/25

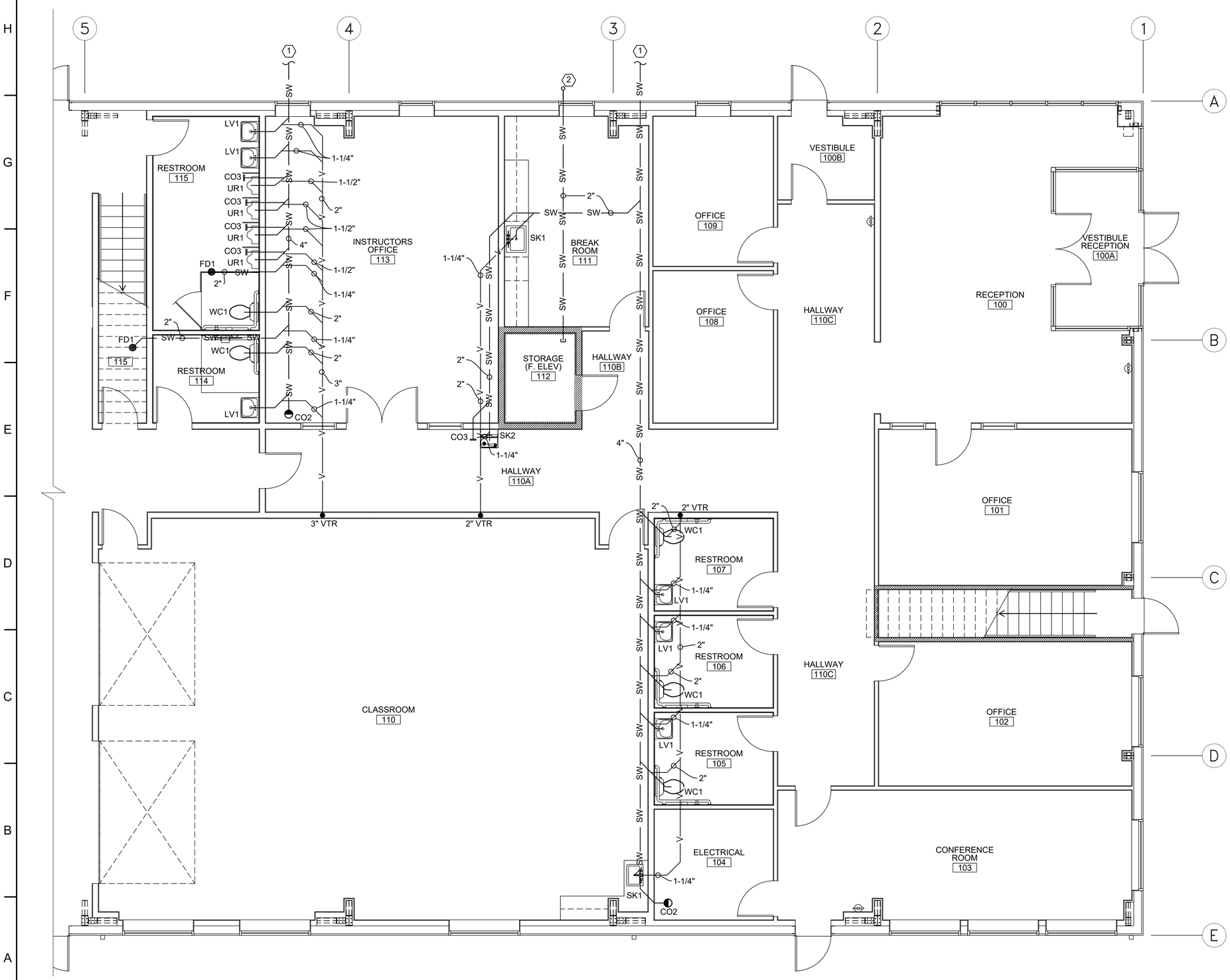
APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

PLUMBING NOTES AND LEGEND

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	BW

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	P-001



PLUMBING DRAINAGE PLAN

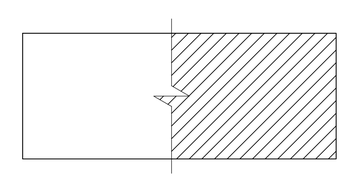
SCALE: 1/4" = 1'-0"

NOTES

1. SEE SHEET P-001 FOR GENERAL NOTES AND LEGEND.

KEY NOTES

1. CONNECT TO SEWER. COORDINATE WITH CIVIL.
2. FUTURE ELEVATOR SUMP PUMP DISCHARGE LINE, INSTALL 24" BELOW GRADE STUB UP TO GRADE OUTSIDE BUILDING AND CAP BOTH ENDS, SLOPE BACK TO ELEVATOR PIT AT 1% SLOPE.



KEY PLAN

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PLUMBING
DRAINAGE PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	BW

PRELIMINARY
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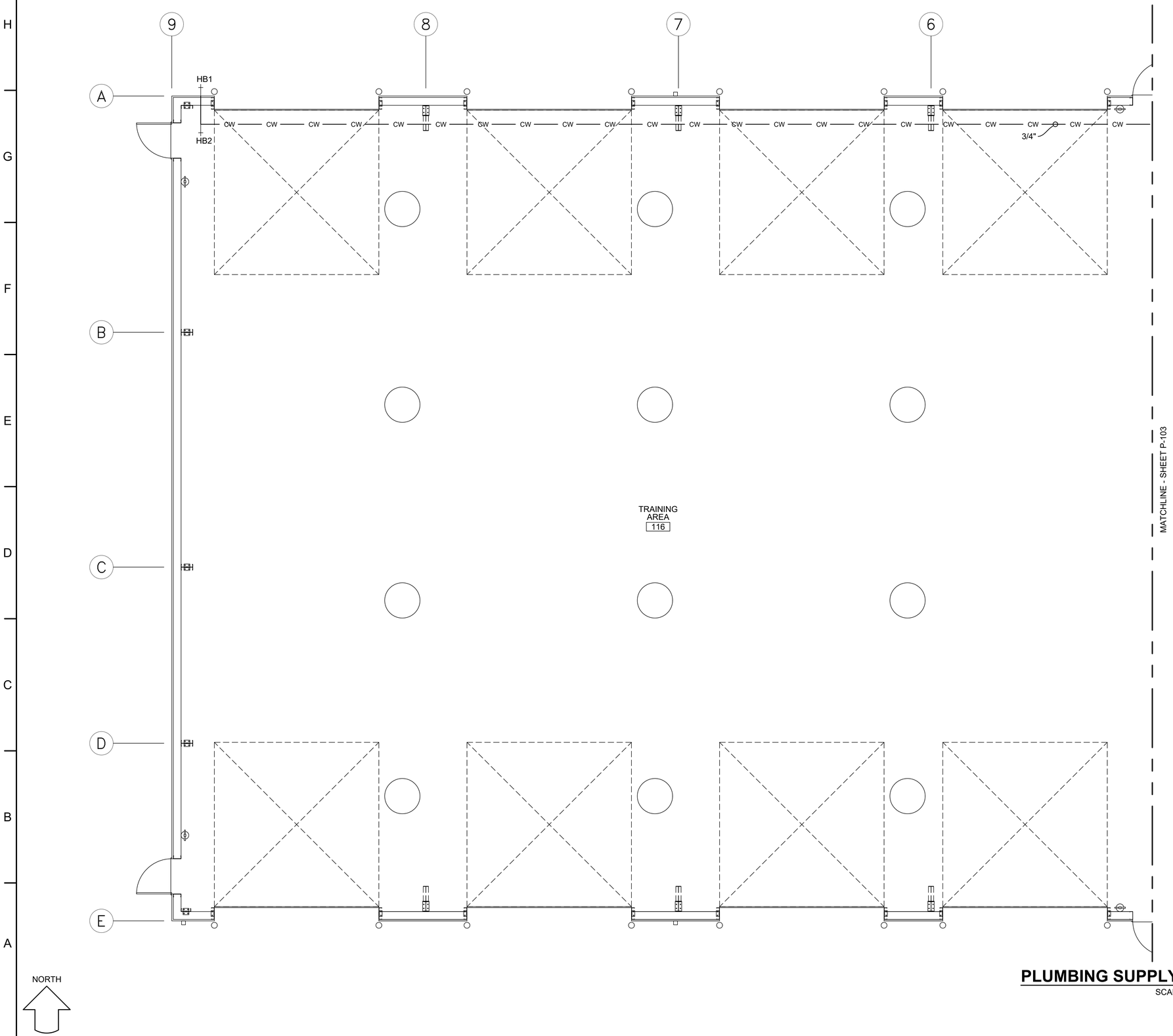
DRAWN BY	IB
CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	P-101

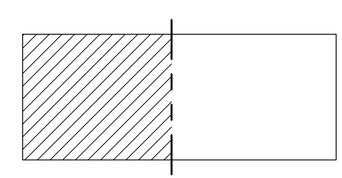
NOTES

1. SEE SHEET P-001 FOR GENERAL NOTES AND LEGEND.



PLUMBING SUPPLY PLAN

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



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PLUMBING
SUPPLY PLAN

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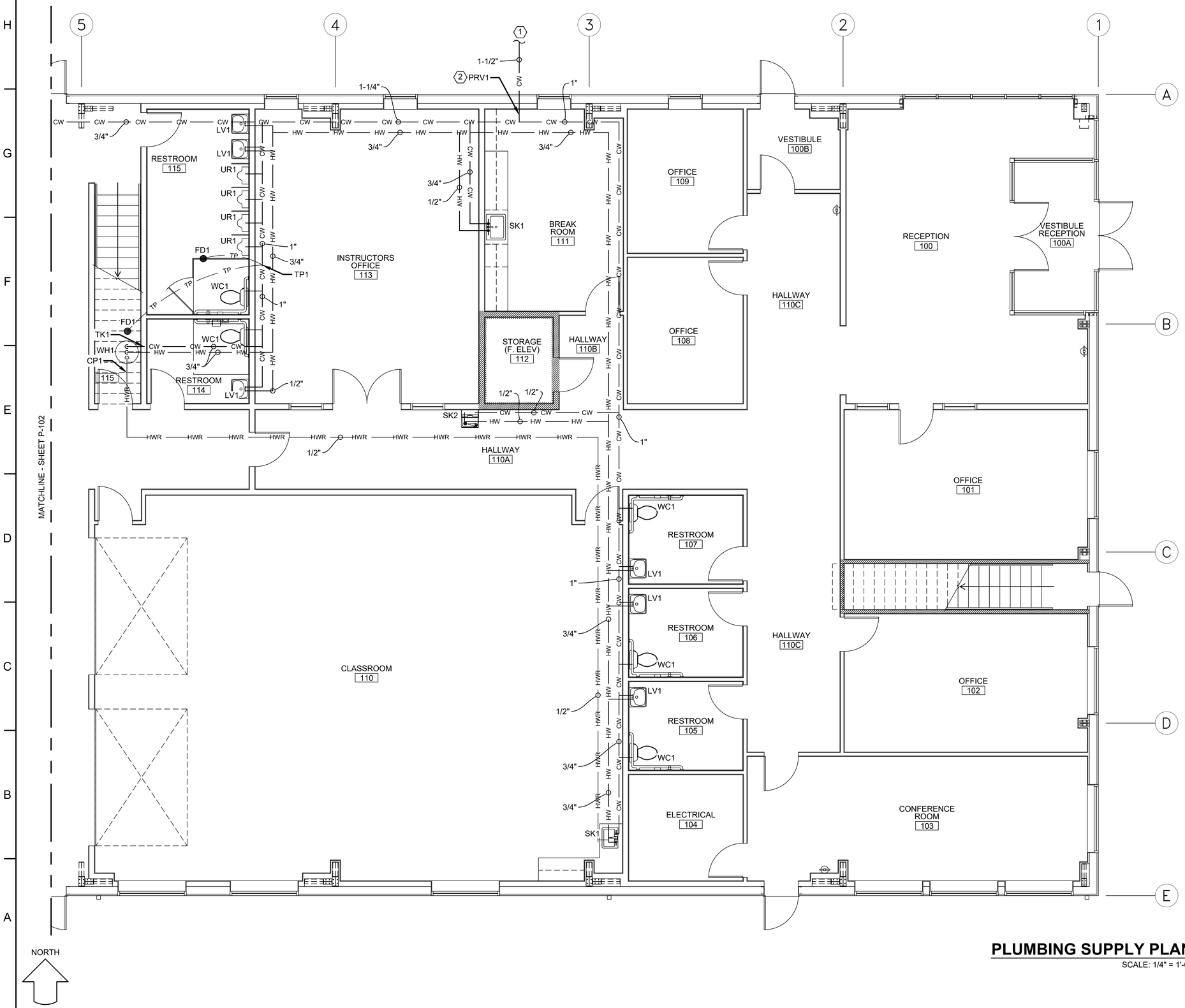
DRAWN BY	IB
CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	P-102



PLUMBING SUPPLY PLAN

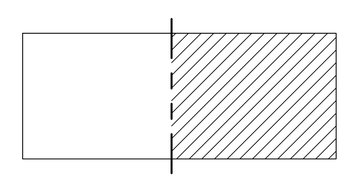
SCALE: 1/4" = 1'-0"

NOTES

1. SEE SHEET P-001 FOR GENERAL NOTES AND LEGEND.

KEY NOTES

1. CONNECT TO BUILDING SUPPLY. COORDINATE WITH CIVIL.
2. INSTALL PRV IN FURRED OUT STUD WALL. PROVIDE ACCESS PANEL FOR TESTING AND MAINTENANCE.



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PLUMBING SUPPLY PLAN

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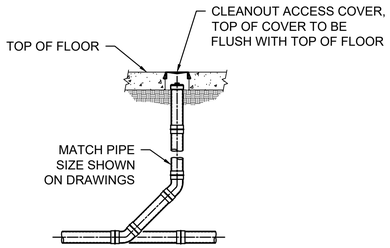
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	P-103

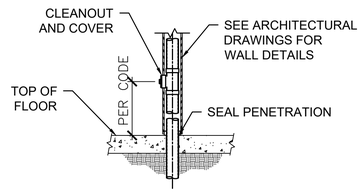
NOTES

1. SEE SHEET P-001 FOR GENERAL NOTES AND LEGEND



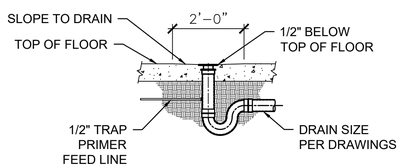
1 FLOOR CLEANOUT DETAIL

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



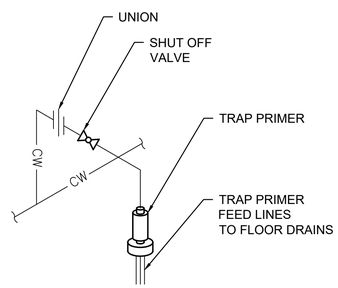
2 WALL CLEANOUT DETAIL

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



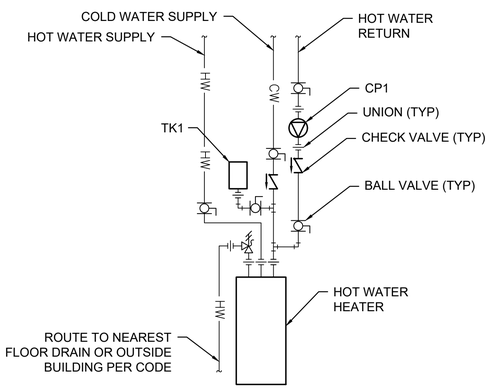
3 FLOOR DRAIN DETAIL

SCALE 1/2"=1'-0"



4 TRAP PRIMER DETAIL

NOT TO SCALE



5 WATER HEATER PIPING DETAIL

NOT TO SCALE

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PLUMBING DETAILS

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A	05/27/25	FOR REVIEW	IB	BW

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ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	P-501

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	MODEL	TYPE	COLOR	MOUNTING	CW	HW	W	V	ACCESSORIES/REMARKS
CO2	SIOUX CHIEF	834	FLOOR CLEANOUT	-	FLOOR	-	-	-	-	ADJUSTABLE FLOOR CLEANOUT, 6 1/2"Ø TOP, ABS BODY, NICKEL BRONZE OR STAINLESS STEEL COVER. SIZE AS SHOWN ON PLANS.
CO3	SIOUX CHIEF	873	WALL CLEANOUT	-	WALL	-	-	-	-	CLEANOUT PLUG WITH STAINLESS STEEL COVER. SIZE AS SHOWN ON PLANS
CP1	TACO	006E3	HOT WATER CIRCULATOR	-	-	-	-	-	-	115V/1Ø, 1" UNION CONNECTIONS, SMARTPLUG HOT WATER CONTROL. PROVIDE PUMP CONTROLS IN ACCORDANCE WITH OEESC 7.4.4.4
FD1	SIOUX CHIEF	842	FLOOR DRAIN	NICKEL BRONZE	FLOOR	-	-	-	-	5 1/2" ROUND STRAINER, TRAP PRIMER CONNECTION. SIZE AS SHOWN ON PLANS.
HB1	WOODFORD	B65	FREEZE PROOF HOSE BIB	-	WALL	3/4"	-	-	-	FREEZE PROOF, RECESSED LOCKABLE WALL BOX, VACUUME BREAKER
HB2	WOODFORD	24	HOSE BIB	-	WALL	3/4"	-	-	-	ANTI-SIPHON, VACUUM BREAKER
LV1	KOHLER	K-2861	LAVATORY	WHITE	WALL	3/8"	3/8"	1 1/4"	1 1/4"	4" CENTERS FAUCET HOLES FAUCET: KOHLER K-15583 WITH 0.5 GPM VANDAL RESISTANT AERATOR, POP-UP DRAIN, MOUNTING BRACKET AND INTEGRAL CHECK VALVES, 3/8" INLETS. THERMOSTATIC MIXING VALVE: KOHLER K-99799
PRV1	WATTS	LFN55B 1/4IN	PRESSURE REDUCING VALVE	BRASS	IN-LINE	1 1/2"	-	--	-	PRESSURE REDUCING VALVE, BRONZE CAGE WITH INTEGRAL STAINLESS STEEL STRAINER, SET TO REDUCE SUPPLY PRESSURE TO 75 PSIG OR LESS, LEAD FREE, ASSE 1003
SK1	KOHLER	K-3369-4-NA	DOUBLE COMPARTMENT SINK	STAINLESS STEEL	TOP MOUNT	1/2"	1/2"	2"	1-1/2"	KITCHEN SINK, (3) HOLE LAYOUT, FAUCET: KOHLER 596-CP DECK MOUNTED FAUCET WITH PULL DOWN SPRAY, 3/8" INLETS. DRAIN: KOHLER K-8799-CP SINK DRAIN AND STRAINER.
SK2	ADVANCE TABCO	7-PS-54	ONE COMPARTMENT SINK	STAINLESS STEEL	WALL MOUNT	1/2"	1/2"	2"	1-1/2"	14" WIDE X 10" FRONT-TO-BACK X 5" DEEP BOWL, 20 GAUGE 304 STAINLESS STEEL, WITH SPLASH MOUNTED GOOSENECK FAUCET, PTRAP, WALL BRACKET, NSF, cCSAus
TK1	AMTROL	ST-12	EXPANSION TANK	-	-	1 1/4"	-	-	-	THERMXTROL, DIAPHRAGM EXPANSION TANK, 4.4 GAL, 150 PSI MAX WORKING PRESSURE, NSF 61
TP1	MIFAB	M2-500-NPB	TRAP PRIMER	-	INLINE	1/2	-	-	-	SERVES UP TO THREE DRAIN TRAPS, WITH ADJUSTABLE DISTRIBUTION UNIT AND AIR GAP FITTING,
UR1	KOHLER	K-5016-ET	URINAL	WHITE	WALL	3/4"	-	2"	1 1/2"	MOUNT URINAL AT ADA HEIGHT, WALL HANGER. FLUSH VALVE: KOHLER K-7537-CP, 0.5 GPF, TOUCHLESS.
WC1	KOHLER	K-3999-0	ADA WATER CLOSET	WHITE	FLOOR	3/8"	-	3"	2"	TWO PIECE, 1.28 GPF, FLUSH TANK WATER CLOSET. SEAT: KOHLER K-4008-0
WC2	KOHLER	K-3998-0	WATER CLOSET	WHITE	FLOOR	3/8"	-	3"	2"	TWO PIECE, 1.28 GPF, FLUSH TANK WATER CLOSET, SEAT: KOHLER K-4008-0
WH1	RHEEM	XE50T06CG45UO	ELECTRIC TANK	-	FLOOR	3/4"	3/4"	-	-	50 GAL TANK, 240/1, (2) 4500 WATT ELEMENTS NON-SIMULTANEOUS WIRED, 21 GPH @ 90·F RISE, BRASS DRAIN VALVE, T&P RELIEF VALVE, FACTORY INSTALLED DIELECTRIC FITTINGS, DEMAND RESPONSE READY. INSTALL ON INCOMPRESSIBLE INSULATED SURFACE, MINIMUM R-10.

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PLUMBING FIXTURE SCHEDULE

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A	05/27/25	FOR REVIEW	IB	BW

PRELIMINARY
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CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D

SHEET
P-601

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE, THE INTERNATIONAL MECHANICAL CODE, THE UNIFORM PLUMBING CODE, AND THE OREGON ENERGY EFFICIENCY SPECIALTY CODE, AS ADOPTED BY THE STATE OF OREGON.
2. COORDINATE ALL ASPECTS OF THE WORK WITH OTHER TRADES AND CONTRACTORS. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, AND ACCESSORIES, WHETHER SHOWN OR NOT, REQUIRED OR NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM COMPLYING WITH ALL REQUIRED CODES AND STANDARDS.
3. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH THESE SPECIFICATIONS, DRAWINGS AND THE HVAC EQUIPMENT SCHEDULE. PROVIDE SUBMITTALS FOR APPROVAL FOR ALL EQUIPMENT ON THE EQUIPMENT SCHEDULE PRIOR TO PROCUREMENT AND INFORMATIONAL SUBMITTALS FOR ALL OTHER MATERIALS. CONTRACTOR MAY PROPOSE SUBSTITUTIONS AND PROVIDE SUBMITTALS FOR APPROVAL.
4. PROVIDE OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT SHOWN ON THE MECHANICAL EQUIPMENT SCHEDULE.
5. MATERIAL AND EQUIPMENT SHALL BE THE CURRENT PRODUCT OR MODEL LINE OF THE MANUFACTURER AND, UNLESS OTHERWISE INDICATED, NEW AND UNUSED AT THE TIME OF INSTALLATION. PROVIDE MATERIALS AND EQUIPMENT COMPLETE WITH ALL ACCESSORIES, TRIM, FINISH, SAFETY GUARDS AND OTHER DEVICES AND DETAILS NEEDED FOR A COMPLETE INSTALLATION AND FOR THE INTENDED USE AND EFFECT. WHERE MULTIPLE QUANTITIES OF A SINGLE PRODUCT, OR QUANTITIES OF SIMILAR OR RELATED PRODUCTS ARE REQUIRED, SUCH PRODUCTS SHALL BE OF A SINGLE MANUFACTURER TO THE EXTENT POSSIBLE.
6. COORDINATE MECHANICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. WHERE DIMENSIONAL DISCREPANCIES EXIST, ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER MECHANICAL DRAWINGS. CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS FOLLOWING AS CLOSELY AS BUILDING CONSTRUCTION WILL PERMIT.
7. THE MECHANICAL DRAWINGS DO NOT INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES THAT MAY BE REQUIRED. ARRANGE WORK ACCORDINGLY AND PROVIDE OFFSETS, FITTINGS AND ACCESSORIES REQUIRED. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, UNLESS OTHERWISE INDICATED.
8. PROVIDE TESTING, ADJUSTING AND BALANCING (TAB) IN ACCORDANCE WITH ASSOCIATED AIR BALANCE COUNCIL (AABC), NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR OTHER APPROVED METHOD FOR ALL HVAC EQUIPMENT AND SYSTEMS. PERFORM BALANCING TO REDUCE FAN SPEEDS AND MINIMIZE THROTTLING LOSSES.
9. MAINTAIN A MINIMUM DISTANCE OF 10'-0" BETWEEN ALL HVAC FRESH AIR INTAKES AND EXHAUST FANS, COMBUSTION VENTS, AND PLUMBING VENTS.
10. CONDENSATE DRAIN LINES FOR INDOOR FAN COIL UNITS SHALL BE ROUTED TO AND CONNECTED DIRECTLY TO NEAREST LAVATORY TAIL PIECE OR BATHTUB OVERFLOW INLET. CONNECTION SHALL BE WYE-TYPE AND ACCESSIBLE. THE CONNECTION SHALL BE LOCATED IN THE AREA CONTROLLED BY THE SAME PERSON CONTROLLING THE FAN COIL UNIT. IF NOT POSSIBLE TO CONNECT TO A LAVATORY TAIL PIECE OR BATHTUB OVERFLOW, ROUTE OUTSIDE THROUGH A WEATHER TIGHT PENETRATION TO DISCHARGE IN AN APPROVED LOCATION WHICH IS NOT OVER A PUBLIC TRAVEL PATH.
11. CONDENSATE DRAIN LINES SHALL BE MADE OF CORROSION RESISTANT MATERIAL AND SHALL BE NO SMALLER THAN THE OUTLET SIZE OF THE FAN COIL UNIT, COOLING COIL, OR APPLIANCE. MINIMUM SLOPE OF CONDENSATE DRAIN LINES SHALL BE 1/8" PER FOOT.

HVAC DESIGN CRITERIA

1. HEATING - ASHRAE 99.6%
   -0.4°F DRY BULB
2. COOLING - ASHRAE 1%
   89.8°F DRY BULB
   62.3°F WET BULB
3. HEATING - EXTREME, 10-YEAR RETURN
   -17.3°F DRY BULB
4. SITE ELEVATION
   3,450 FT

SEQUENCE OF OPERATIONS

1. PROVIDE 7-DAY PROGRAMMABLE THERMOSTATS FOR EACH SYSTEM CAPABLE OF CONTROLLING SYSTEM OPERATION PER THIS SEQUENCE OF OPERATION. PROGRAM OCCUPIED/UNOCCUPIED MODE PER OWNERS INSTRUCTIONS. THERMOSTATS SHALL HAVE AUXILIARY OUTPUT FOR ACTUATION OF OUTDOOR AIR DAMPERS BASED ON OCCUPANCY MODE.
2. SPLIT SYSTEM AIR HANDLING UNITS AND HEAT PUMPS

   OCCUPIED MODE: SUPPLY FAN OPERATES CONTINUOUSLY. HEAT PUMPS OPERATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE AT HEATING AND COOLING SET POINT TEMPERATURES. OUTSIDE AIR DAMPER IS OPEN.

   UNOCCUPIED MODE: SUPPLY FAN CYCLES WITH THE LOAD. HEATING PUMPS OPERATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE AT HEATING AND COOLING SETBACK TEMPERATURES. OUTSIDE AIR DAMPER IS CLOSED.
3. DUCTLESS MINI-SPLIT SYSTEM

   OCCUPIED MODE: SUPPLY FAN CYCLES WITH THE LOAD. CONDENSING UNIT OPERATES AS REQUIRED TO MAINTAIN SPACE TEMPERATURE AT HEATING AND COOLING SET POINT TEMPERATURES.

   UNOCCUPIED MODE: SUPPLY FAN CYCLES WITH THE LOAD. CONDENSING UNIT OPERATES AS REQUIRED TO MAINTAIN SPACE TEMPERATURE AT HEATING AND COOLING SETBACK TEMPERATURES.
4. UNIT HEATERS

   CYCLE ON AND OFF TO MAINTAIN SET POINT OF INTERNAL THERMOSTAT. SET AT 50°F.
5. RESTROOM EXHAUST FANS, EF-1 AND EF-2

   TIMER CONTROLS SHALL BE COORDINATED WITH AIR HANDLING UNIT OCCUPIED AND UNOCCUPIED MODE PERIODS. EXHAUST FANS OPERATE CONTINUOUSLY DURING OCCUPIED MODE AND SHUTDOWN DURING UNOCCUPIED MODE.
6. TRAINING AREA EXHAUST FAN, EF-3, AND LOUVERS, L-1 AND L-2

   OPERATED ON DEMAND BY WALL MOUNTED HAND SWITCH. LOUVERS SHALL BE OPEN WHEN FAN IS COMMANDED TO RUN AND SHALL BE CLOSED WHEN FAN IS COMMANDED TO STOP.

DUCTWORK

1. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE.
2. DUCTWORK: GALVANIZED SHEET METAL DUCTWORK FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA +2/-2 INCH PRESSURE CLASS. SEAL ALL DUCTWORK TO SMACNA SEAL CLASS B. GALVANIZED SPIRAL WOUND AND SHEET STEEL IN ACCORDANCE WITH ASTM A653 AND COATING WEIGHT OF G60.
3. FLEXIBLE DUCT: INSULATED, MINIMUM R VALUE OF R-6, UL181, CLASS 1.
4. FLEXIBLE CONNECTORS: PROVIDE FLEXIBLE CONNECTOR WHERE CONNECTING DUCT TO EQUIPMENT. FLEXIBLE CONNECTORS SHALL BE FLAME RETARDANT OR NON-COMBUSTIBLE FABRICS IN COMPLIANCE WITH UL 181, CLASS 1. GLASS FABRIC DOUBLE COATED SYNTHETIC RUBBER RESISTANT TO UV RAYS AND OUTDOOR WEATHER.
5. DUCT INSULATION: MINERAL-FIBER BLANKET INSULATION: MINERAL OR GLASS FIBERS BONDED WITH A THERMOSETTING RESIN WITH FACTORY OR FIELD INSTALLED ALUMINUM JACKET. COMPLY WITH ASTM C553, TYPE II AND ASTM C1290. PROVIDE VAPOR RETARDER WITH MAXIMUM PERMEANCE OF 0.05 PERM ON INSULATED SUPPLY DUCTS THAT PROVIDE COOLING AND OUTDOOR AIR DUCTS.

   ALL DUCT SHALL BE INSULATED TO THE FOLLOWING MINIMUM R-VALUE:

INDOOR EXPOSED SUPPLY AND RETURN DUCTS	NONE
INDOOR CONCEALED SUPPLY AND RETURN DUCTS	R-6
OUTSIDE AIR DUCTS	R-7

6. MANUAL BALANCING DAMPERS: PROVIDE DAMPERS OF SINGLE BLADE TYPE OR MULTI-BLADE TYPE, CONSTRUCTED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, AT ALL BRANCH CONNECTIONS TO TERMINAL LOCATIONS. PROVIDE WITH LOCKING FEATURE, EXTERNALLY LOCATED AND EASILY ACCESSIBLE FOR ADJUSTMENT.
7. TURNING VANES: PROVIDE TURNING VANES IN RECTANGULAR MITER ELBOWS. SINGLE WALL CURVED BLADES OF GALVANIZED SHEET STEEL IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
8. DUCT SUPPORTS: DUCT SUPPORTS SHALL BE METAL STRAPS, THREADED ROD OR TRAPEZE HANGERS IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
9. SOUND LINER: FIBROUS GLASS ACOUSTIC DUCT LINER IN ACCORDANCE WITH ASTM 1071 AND NFPA 90A, MINIMUM 1-INCH THICK. MAXIMUM FLAME SPREAD INDEX OF 25 AND MAXIMUM SMOKE DEVELOPED INDEX OF 50. ANTIMICROBIAL EROSION-RESISTANT COATING.
10. WALL PENETRATIONS: PROVIDE WEATHER TIGHT SEALS ON ALL EXTERIOR PENETRATIONS.
11. INSTALL DUCT, DUCT SUPPORTS, AND ACCESSORIES IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. INSTALL SUCH THAT CONTACT WITH MOVING EQUIPMENT, STRUCTURAL SUPPORTS, CONDUITS, OR PIPING IS PREVENTED.
12. INTERIOR EXPOSED DUCTWORK SHALL BE ROUND SPIRAL WOUND, UNLESS NOTED OTHERWISE. USE ROUND OR RECTANGULAR IN ALL OTHER AREAS.
13. INSTALL FLEXIBLE DUCT WITH MINIMUM BEND RADIUS OF 1 1/2 TIMES THE DUCT DIAMETER. FLEXIBLE DUCT SHALL BE NO MORE THAN 5'-0" IN LENGTH.
14. ALL DUCT SIZES INDICATE TOTAL FREE AREA REQUIRED. ADJUST DUCT SIZE, IF REQUIRED, TO ACCOUNT FOR REDUCED INTERIOR DIMENSIONS DUE TO LINER.
15. APPLY FLAT BLACK PAINT TO THE INSIDE OF DUCTWORK THAT IS VISIBLE THROUGH AIR OUTLETS.

DRAWING LIST

M-001	HVAC NOTES AND LEGEND
M-101	HVAC PLAN
M-102	HVAC PLAN
M-103	HVAC PLAN
M-301	HVAC SECTION VIEW
M-401	HVAC ENLARGED PLAN
M-601	HVAC EQUIPMENT SCHEDULE

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
COND	CONDENSER
DB	DRY BULB
DH	DUCT HEATER
DOAS	DEDICATED OUTDOOR AIR SYSTEM
(E)	EXISTING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
ERV	ENERGY RECOVERY VENTILATOR
EVAP	EVAPORATOR
EXH	EXHAUST
EXT	EXTERNAL
FC	FAN COIL
HSPF	HEATING SEASONAL PERFORMANCE FACTOR
IEER	INTEGRATED ENERGY EFFICIENCY RATIO
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOCP	MINIMUM OVER CURRENT PROTECTION
OA	OUTSIDE AIR
OEESC	OREGON ENERGY EFFICIENCY SPECIALTY CODE
PH	PHASE
RA	RETURN AIR
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SEER	SEASONAL ENERGY EFFICIENCY RATIO
STPR	STATIC PRESSURE
UH	UNIT HEATER
WB	WET BULB
WPD	WATER PRESSURE DROP

LEGEND

	SUPPLY AIR REGISTER/DIFFUSER
	RETURN AIR REGISTER/GRILLE
	EXHAUST AIR REGISTER/GRILLE
XXX Y ZZ"	REGISTER, GRILLE, OR DIFFUSER CALLOUT XXX FLOW RATE (CFM) Y TAG, SEE EQUIPMENT SCHEDULE ZZ NECK SIZE
28"x18"	RECTANGULAR DUCT SIZE (SHOWN SIDE x OTHER SIDE)
28":18"	FLAT OVAL DUCT SIZE (MAJOR AXIS:MINOR AXIS)
T	THERMOSTAT
	MANUAL VOLUME DAMPER
	FLEXIBLE DUCT
	EXHAUST FAN

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102279PE
DIGITALLY SIGNED
OREGON
MARCH 14, 2023
DOUGLAS JAMES HAMES
EXPIRES: 06/30/25

APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

HVAC
NOTES AND LEGEND

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	BW

PRELIMINARY
NOT FOR CONSTRUCTION

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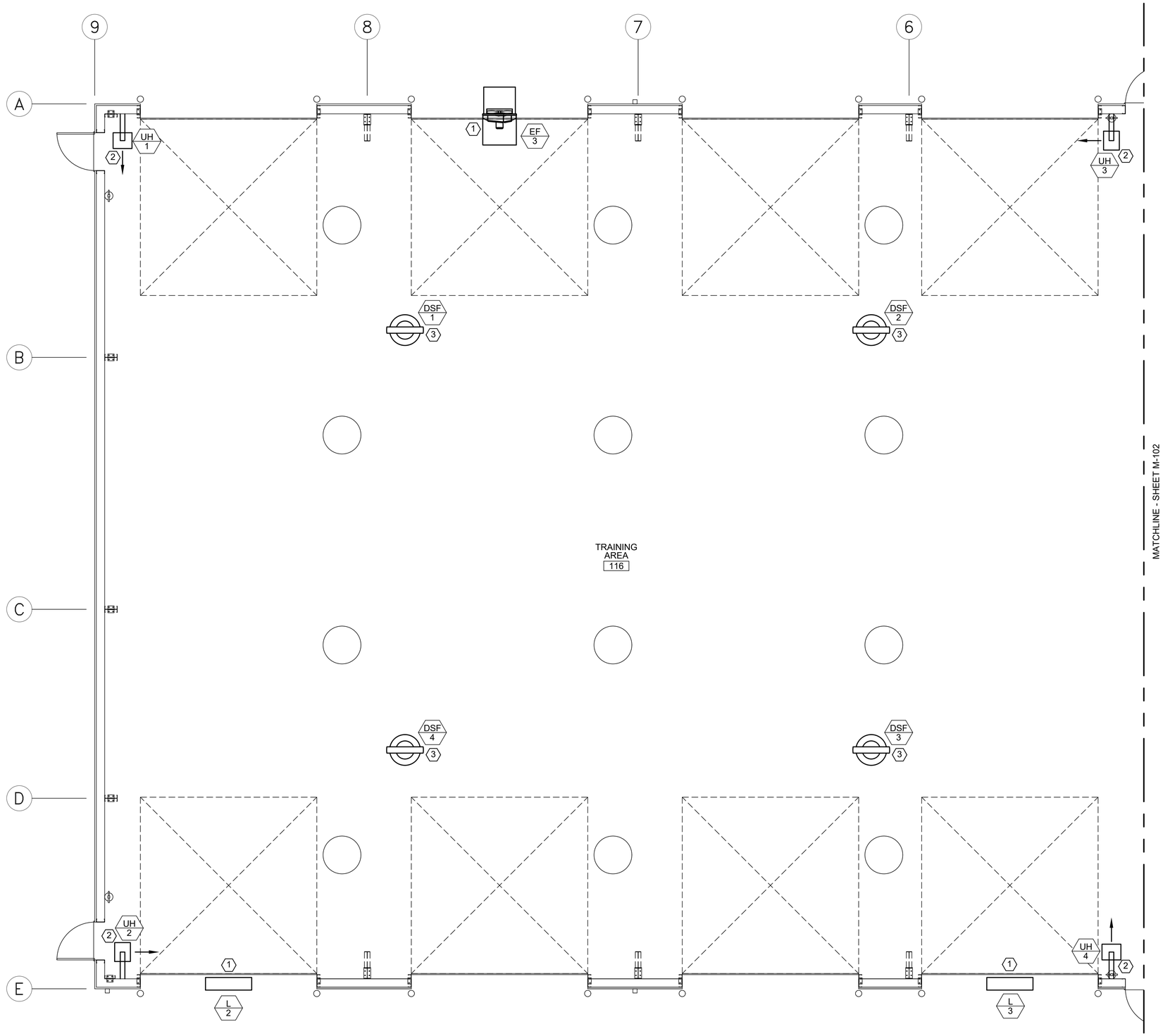
CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-001



1ST FLOOR HVAC PLAN

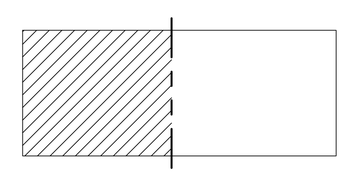
SCALE: 1/4" = 1'-0"

NOTES

1. SEE SHEET M-001 FOR GENERAL NOTES AND LEGEND

KEY NOTES

1. INSTALL EXHAUST FAN AND LOUVERS HIGH ON EXTERIOR WALL CENTERED ABOVE ROLL UP DOOR, MINIMUM 21'-0" AFF.
2. MOUNT UNIT HEATER WITH MANUFACTURER'S STANDARD MOUNTING BRACKET AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE A MINIMUM CLEARANCE OF 6" ON ALL SIDES AND INSTALL AT A HEIGHT OF 8' AFF. ALIGN HEATER TO DIRECT AIRFLOW AS INDICATED.
3. MOUNT DESTRATIFICATION FANS TO ROOF STRUCTURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AT A HEIGHT SLIGHTLY BELOW BOTTOM OF MAIN METAL BUILDING TRUSS. WIRE ALL FANS TO SINGLE WALL MOUNTED MANUAL SPEED CONTROLLER, SEE M-102 FOR LOCATION.



KEY PLAN

NTS

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1ST FLOOR HVAC PLAN

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ENGINEER	MH
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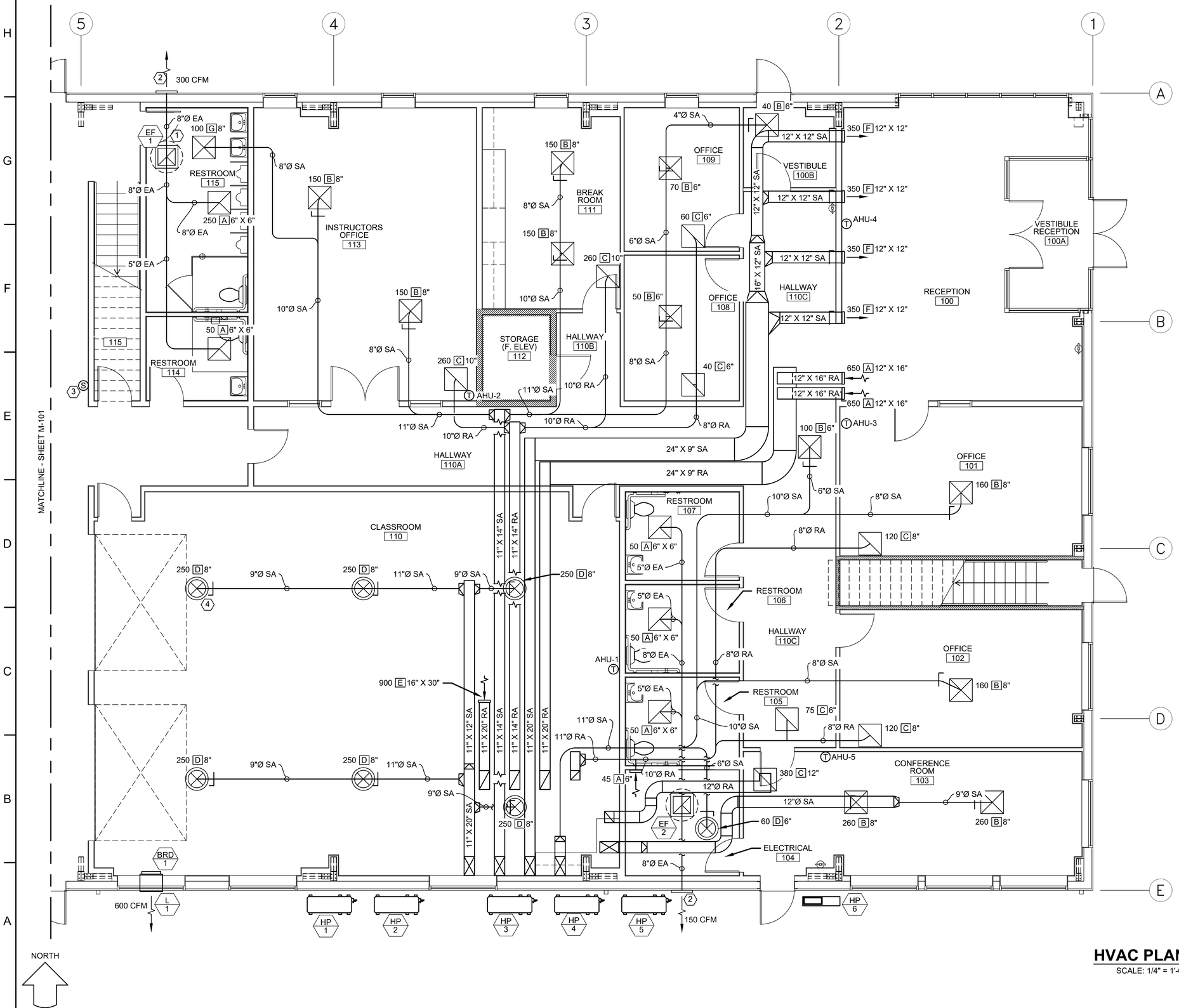
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-101



HVAC PLAN

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

NOTES

1. SEE SHEET M-001 FOR GENERAL NOTES AND LEGEND
2. DUCT LARGER THAN 11" DIAMETER TO BE RUN PARALLEL TO AND BETWEEN CEILING TRUSSES OR IN CEILING PLENUM WHERE SPACE ALLOWS. DUCT 11" DIAMETER AND SMALLER CAN BE RUN PERPENDICULAR TO AND THROUGH THE WEBS OF THE CEILING TRUSSES.

KEY NOTES

1. INSTALL EF-1 ABOVE RESTROOM GWB CEILING AND PROVIDE ACCESS PANEL FOR MAINTENANCE.
2. PROVIDE GALVANIZED HOODED WALL VENT WITH EXHAUST FAN.
3. DESTRATIFICATION FAN SPEED CONTROL.
4. MOUNT SUPPLY DIFFUSERS IN CLASSROOM NO MORE THAN 6" BELOW BOTTOM OF CEILING TRUSSES.

KEY PLAN

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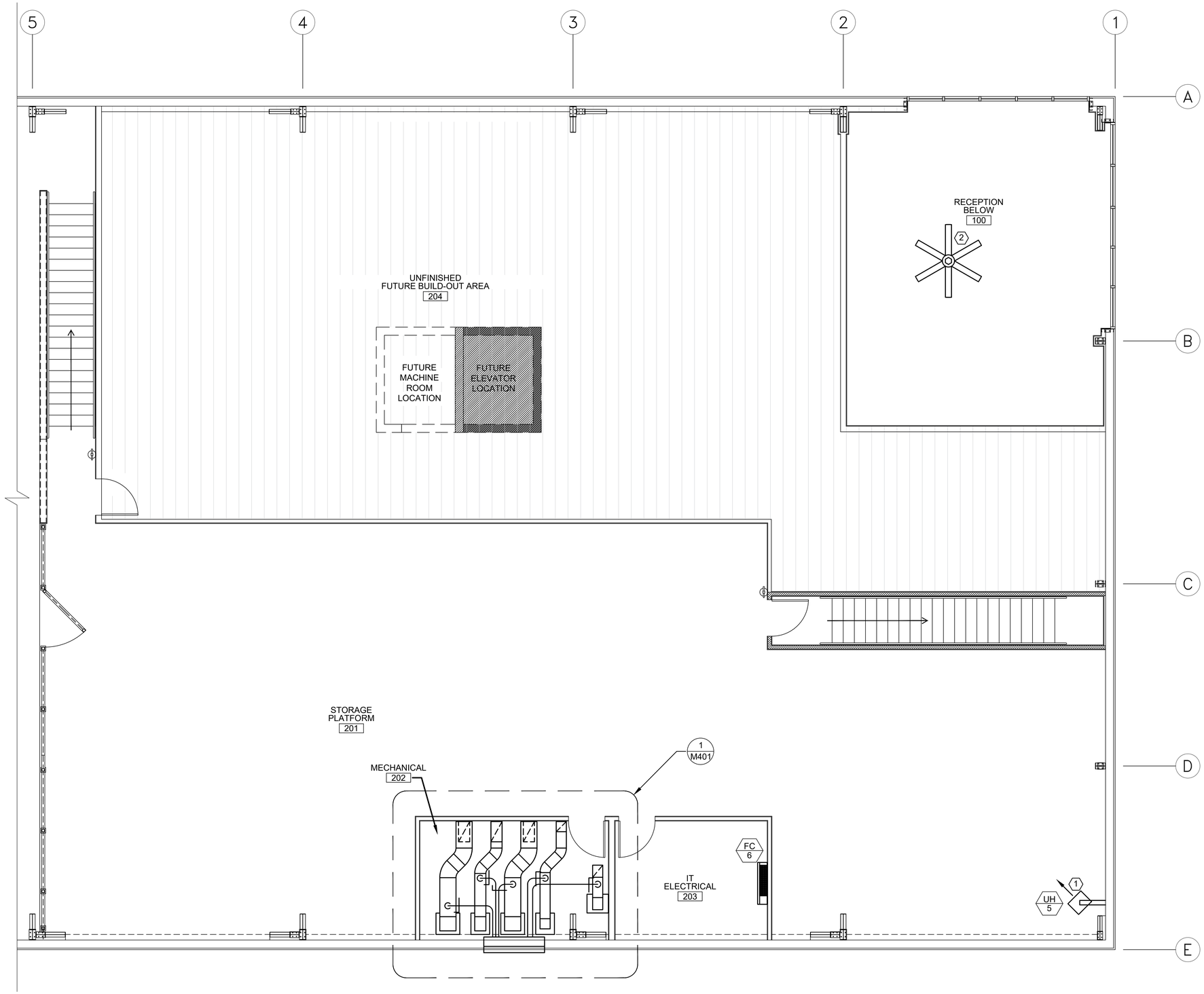
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-102



NOTES

1. SEE SHEET M001 FOR GENERAL NOTES AND LEGEND
2. PROVIDE CONDENSATE DRAIN LINES FOR ALL INDOOR AIR HANDLING UNITS. ROUTE CONDENSATE LINES TO NEAREST SINK TAIL PIECE AND CONNECT WITH WYE-TYPE FITTING. IF NOT POSSIBLE TO CONNECT TO SINK, ROUTE OUTSIDE OF BUILDING THROUGH FULLY SEALED WEATHER TIGHT PENETRATION TO AN APPROVED LOCATION WHICH IS NOT OVER A PUBLIC TRAVEL PATH.

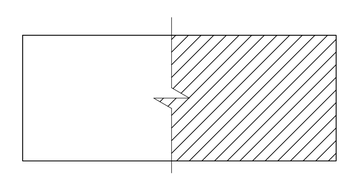
KEY NOTES

1. MOUNT UNIT HEATER WITH MANUFACTURER'S STANDARD MOUNTING BRACKET AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE A MINIMUM CLEARANCE OF 6"ON ALL SIDES AND INSTALL AT A HEIGHT OF 8' AFF. ALIGN HEATER TO DIRECT AIRFLOW AS INDICATED.
2. PROVIDE THREE SPEED CEILING FAN WITH WALL MOUNT MANUAL CONTROL LOCATED BEHIND RECEPTION DESKS.

NORTH

2ND FLOOR HVAC PLAN

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



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2ND FLOOR HVAC PLAN

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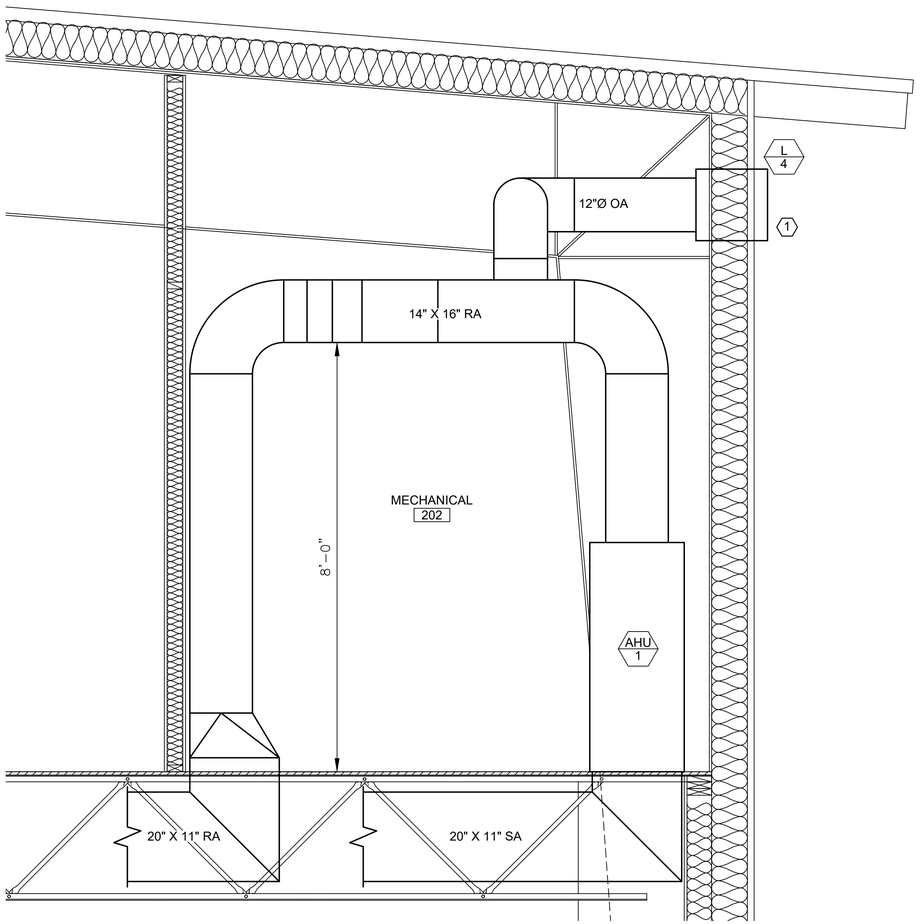
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-103



A **HVAC SECTION**

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

NOTES

1. SEE SHEET M001 FOR GENERAL NOTES AND LEGEND
2. PROVIDE CONDENSATE DRAIN LINES FOR ALL INDOOR AIR HANDLING UNITS. ROUTE CONDENSATE LINES TO NEAREST SINK TAIL PIECE AND CONNECT WITH WYE-TYPE FITTING. IF NOT POSSIBLE TO CONNECT TO SINK, ROUTE OUTSIDE OF BUILDING THROUGH FULLY SEALED WEATHER TIGHT PENETRATION TO AN APPROVED LOCATION WHICH IS NOT OVER A PUBLIC TRAVEL PATH.
3. COORDINATE WITH LIGHTING CONTRACTOR.

KEY NOTES

1. PROVIDE OUTDOOR AIR PLENUM AT LOUVER. ROUTE OUTDOOR AIR DUCTS WITH MANUAL BALANCING DAMPERS FROM PLENUM TO EACH AHU RETURN. OPERABLE LOUVER IS CONTROLLED TO BE OPEN IN OCCUPIED MODE AND CLOSED IN UNOCCUPIED MODE.

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HVAC SECTION VIEW

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A	05/27/25	FOR REVIEW	IB	DB

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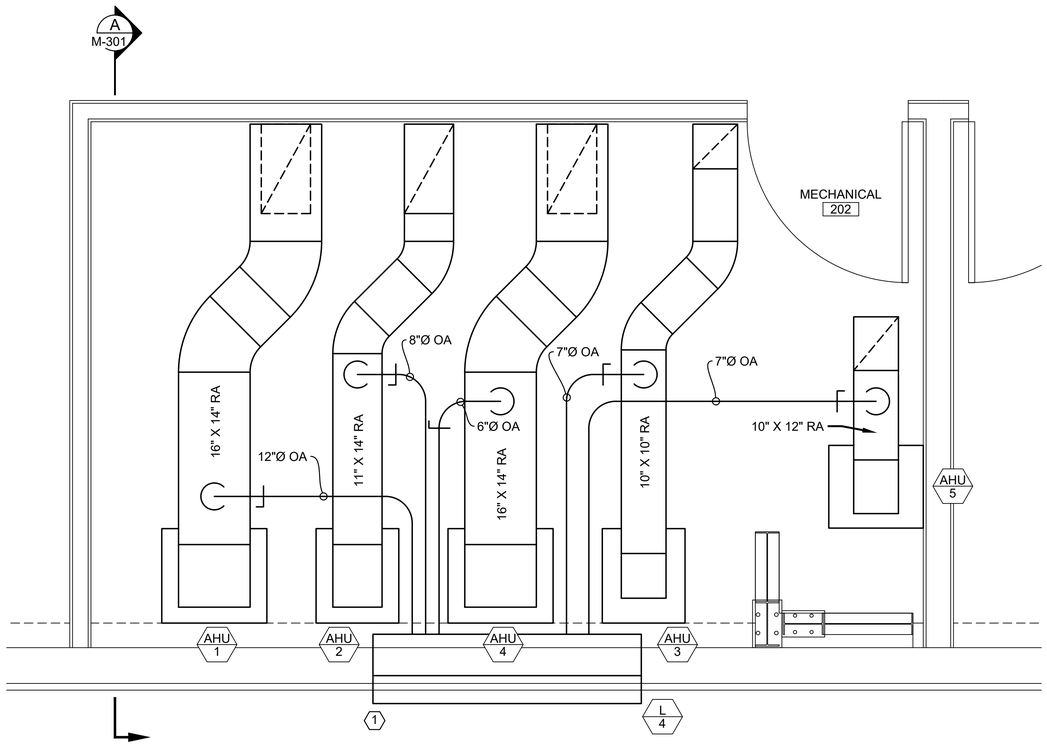
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D

SHEET
M-301



MECHANICAL ROOM ENLARGED PLAN

SCALE: 3/4" = 1'-0"

NOTES

1. SEE SHEET M001 FOR GENERAL NOTES AND LEGEND
2. PROVIDE CONDENSATE DRAIN LINES FOR ALL INDOOR AIR HANDLING UNITS. ROUTE CONDENSATE LINES TO NEAREST SINK TAIL PIECE AND CONNECT WITH WYE-TYPE FITTING. IF NOT POSSIBLE TO CONNECT TO SINK, ROUTE OUTSIDE OF BUILDING THROUGH FULLY SEALED WEATHER TIGHT PENETRATION TO AN APPROVED LOCATION WHICH IS NOT OVER A PUBLIC TRAVEL PATH.
3. COORDINATE WITH LIGHTING CONTRACTOR.

KEY NOTES

1. PROVIDE OUTDOOR AIR PLENUM AT LOUVER. ROUTE OUTDOOR AIR DUCTS WITH MANUAL BALANCING DAMPERS FROM PLENUM TO EACH AHU RETURN. OPERABLE LOUVER IS CONTROLLED TO BE OPEN IN OCCUPIED MODE AND CLOSED IN UNOCCUPIED MODE.

NORTH

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HVAC ENLARGED PLAN

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A	05/27/25	FOR REVIEW	IB	DB

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CHECKED	DB
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-401

AIR HANDLING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	SUPPLY AIRFLOW (CFM)	MIN OUTDOOR AIRFLOW (CFM)	EXT STPR (INWC)	FAN POWER (HP)	COOLING					HEATING				MCA	MOCP	V/PH	NOTES
								TYPE	COOLING CAPACITY (MBH)	EAT DB (°F)	EAT WB (°F)	LAT (°F)	TYPE	BACKUP CAPACITY (KW)	EAT (°F)	LAT (°F)				
AHU-1	TRANE	TEM4A0C48S41SC	MULTI POSITION	1500	600	0.7	3/4	DX	39.4	83	62	54	HP/ELECTRIC	19.2	45	95	108	110	230/1	1
AHU-2	TRANE	TEM4A0B30S31SC	MULTI POSITION	860	180	0.6	1/3	DX	17.4	80	60	54	HP/ELECTRIC	7.68	52	95	43	45	230/1	1
AHU-3	TRANE	TEM4A0B18S21SC	MULTI POSITION	480	120	0.7	1/5	DX	12.7	80	60	54	HP/ELECTRIC	7.68	54	95	42	45	230/1	1
AHU-4	TRANE	TEM4A0C37S31SC	MULTI POSITION	1400	100	0.5	1/3	DX	37.2	75	58	54	HP/ELECTRIC	14.4	67	95	46	50	230/1	1
AHU-5	TRANE	TEM4A0B18S21SC	MULTI POSITION	520	140	0.7	1/5	DX	14.1	80	60	54	HP/ELECTRIC	7.68	52	95	42	45	230/1	1

NOTE:
1. SPLIT SYSTEM AHU'S TO BE FURNISHED WITH BACKUP ELECTRIC HEAT, FILTERS, FILTER RACK, 7-DAY PROGRAMMABLE THERMOSTAT, AND CONDENSATE P-TRAP. REFRIGERATION PIPING SHALL BE SIZED PER MANUFACTURERS SPECIFICATIONS.

HEAT PUMP SCHEDULE

TAG	MANUFACTURER	MODEL	NOMINAL TONS	COOLING				HEATING				MCA	MOCP	V/PH	NOTES
				COOLING CAPACITY (MBH)	EAT (°F)	SEER	OEESC MIN SEER	HEATING CAPACITY (MBH)	ENTERING AIR TEMP (°F)	HSPF	OEESC MIN HSPF2				
HP-1	TRANE	4TWL5048N1000A	4	48.0	90	15	14	48.0	0	7.5	7.5	24	40	230/1	1
HP-2	TRANE	4TWL5024N1000A	2	24.0	90	15	14	24.0	0	7.5	7.5	15	25	230/1	1
HP-3	TRANE	4TWL5024N1000A	2	24.0	90	15	14	24.0	0	7.5	7.5	15	25	230/1	1
HP-4	TRANE	4TWL5030N1000A	2 1/2	30.0	90	15	14	30.0	0	7.5	7.5	15	25	230/1	1
HP-5	TRANE	4TWL5024N1000A	2	24.0	90	15	14	24.0	0	7.5	7.5	15	25	230/1	1

NOTE:
1. SNOW STAND, OUTDOOR THERMOSTAT. CONTROLS SHALL USE COMPRESSION AS FIRST STAGE OF HEAT AND PREVENT SUPPLEMENTAL ELECTRIC RESISTANCE HEAT FROM OPERATING AT OUTSIDE TEMPERATURE ABOVE 40F. UNITS SPECIFIED USE R-410A, IF UNAVAILABLE, REPLACE WITH EQUIVALENT R-454B HEAT PUMPS.

RELIEF DAMPER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	TYPE	WIDTH (IN)	HEIGHT (IN)	CFM	NOTES
BRD-1	GREENHECK	BD-30	RELIEF	GRAVITY	20	20	600	1

NOTE:
1. GALVANIZED STEEL BAROMETRIC RELIEF DAMPER, 0.05 INWC START TO OPEN PRESSURE, BLADE SEALS, ADJUSTABLE COUNTERBALANCE.

REGISTER, GRILL, DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	TYPE	PANEL SIZE	MATERIAL	FINISH	MOUNTING	DAMPER	NOTES
A	KRUEGER	S80P	EXHAUST	PERFORATED	PER DWG	ALUMINUM	WHITE	SURFACE	YES	1
B	KRUEGER	1400	SUPPLY	4-WAY	24" X 24"	STEEL	WHITE	T-BAR	NO	1
C	KRUEGER	6690	RETURN	PERFORATED	24" X 24"	STEEL	WHITE	T-BAR	NO	1
D	KRUEGER	RM1	SUPPLY	4-WAY	N/A	STEEL	WHITE	DUCT	NO	1,2
E	KRUEGER	REGC5RD	RETURN	EGG CRATE	N/A	ALUMINUM	STANDARD	DUCT	NO	-
F	KRUEGER	880	SUPPLY	DOUBLE DEFLECTION	PER DWG	STEEL	WHITE	SURFACE	NO	-
G	KRUEGER	1400	SUPPLY	4-WAY	12" X 12"	STEEL	WHITE	SURFACE	YES	1

NOTE:
1. PROVIDE ROUND COLLAR TO MATCH NECK SIZE SHOWN ON DRAWINGS.
2. SET DIFFUSER IN POSITION TWO TO MAXIMIZE ROOM AIR INDUCTION AND THROW.

DUCTLESS SPLIT SYSTEM AIR CONDITIONER SCHEDULE

TAG	MANUF	MODEL	NOM TONS	INDOOR UNITS	COOLING			MCA	MOCP	V/PH	NOTES
					COOLING CAPACITY (MBH)	SEER	OSSEC MIN SEER				
HP-6	DAIKIN	RZR18TBVJUA	1 1/2	FC-6: FAQ18TAVJU	18	16.9	13	16.5/0.5	20/15	208-230/1	1,2,3

NOTES:
1. PROVIDE WITH SNOW STAND, OUTDOOR THERMOSTAT, EXTENDED OPERATION COOLING RANGE FOR LOW AMBIENT CONDITIONS.
2. WALL MOUNT SPLIT SYSTEM INDOOR FAN COILS TO BE FURNISHED WITH FILTERS, 7-DAY PROGRAMMABLE THERMOSTAT, AND CONDENSATE P-TRAP. REFRIGERATION PIPING SHALL BE SIZED PER MANUFACTURERS SPECIFICATIONS.
3. MCA AND MOCP IS FOR OUTDOOR/INDOOR UNIT RESPECTIVELY. POWERED SEPARATELY.

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	TYPE	AIRFLOW (CFM)	EXT STPR (INWC)	FAN (RPM)	DRIVE	SONES	MOTOR HP	MOTOR BHP	V/PH	WEIGHT (LBS)	NOTES
EF-1	GREENHECK	SQ-90	RESTROOM	INLINE	300	0.25	1300	DIRECT	4.6	1/25	0.04	115/1	35	1
EF-2	GREENHECK	SQ-70	RESTROOM	INLINE	150	0.25	1550	DIRECT	3.8	1/30	0.03	115/1	28	1
EF-3	GREENHECK	AER-24-03-0309	TRAINING AREA	WALL MOUNT	4500	0.25	1750	DIRECT	27	1/2	0.46	240/1	80	2

NOTE:
1. SIDEWALL HOODED WALL CAP WITH BIRD SCREEN AND VIBRATION ISOLATOR KIT. PROVIDE WITH 24/7 PROGRAMMABLE ELECTRIC TIMER WITH MANUAL OVERRIDE AND PROGRAM PER OWNER'S OCCUPANCY SCHEDULE.
2. PROVIDE WITH GALVANIZED STEEL 45° WEATHER HOOD WITH BIRD SCREEN, WALL COLLAR, AND GRAVITY BACK DRAFT DAMPER (WD-300 OR EQUIVALENT).

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	TYPE	WIDTH (IN)	HEIGHT (IN)	FREE AREA (SQ FT)	CFM	NOTES
L-1	GREENHECK	EDJ-401	RELIEF	STATIONARY	24	24	1.7	600	1
L-2	GREENHECK	EAC-401	INTAKE	OPERABLE	44	28	3.2	2,250	1,2
L-3	GREENHECK	EAC-401	INTAKE	OPERABLE	44	28	3.2	2,250	1,2
L-4	GREENHECK	EAC-401	INTAKE	OPERABLE	60	16	1.7	1,140	1,2

NOTE:
1. DRAINABLE BLADES, BIRD SCREEN
2. 120V ACTUATOR

DESTRATIFICATION FAN SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	AIRFLOW (CFM)	FAN (RPM)	DRIVE	MOTOR POWER	AMPS	V/PH	WEIGHT (LBS)	NOTES
DSF-1	ZOO FANS	H25EC	DESTRATIFICATION	658	2160	DIRECT, EC MOTOR	57W	1.2	115/1	20	1
DSF-2	ZOO FANS	H25EC	DESTRATIFICATION	658	2160	DIRECT, EC MOTOR	57W	1.2	115/1	20	1
DSF-3	ZOO FANS	H25EC	DESTRATIFICATION	658	2160	DIRECT, EC MOTOR	57W	1.2	115/1	20	1
DSF-4	ZOO FANS	H25EC	DESTRATIFICATION	658	2160	DIRECT, EC MOTOR	57W	1.2	115/1	20	1

NOTE:
1. EC MOTOR DIRECT DRIVE DESTRATIFICATION FAN WITH THERMAL OVERLOAD PROTECTION. PROVIDE WITH MANUFACTURER'S SUPPORT HARDWARE AND MANUAL VARIABLE SPEED CONTROLS FOR CONTROL OF ALL FANS FROM A SINGLE CONTROLLER.

UNIT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	FUEL	CAPACITY (KW)	AIRFLOW (CFM)	EAT (°F)	LAT (°F)	V/PH	NOTES
UH-1	KING	KB2407-1-T-B2	ELECTRIC	7.5	690	50	89	240/1	1
UH-2	KING	KB2407-1-T-B2	ELECTRIC	7.5	690	50	89	240/1	1
UH-3	KING	KB2407-1-T-B2	ELECTRIC	7.5	690	50	89	240/1	1
UH-4	KING	KB2407-1-T-B2	ELECTRIC	7.5	690	50	89	240/1	1
UH-5	KING	KB2407-1-T-B2	ELECTRIC	7.5	690	50	89	240/1	1

NOTE:
1. PROVIDE WITH MOUNTING BRACKET, OVER TEMPERATURE PROTECTION, AIRFLOW SENSOR, INTEGRAL THERMOSTAT SET AT 50°F.

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REGISTERED PROFESSIONAL ENGINEER
102279PE
DIGITALLY SIGNED
OREGON
MARCH 14, 2023
DOUGLAS JAMES RAMES
EXPIRES: 06/30/25

APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

HVAC
EQUIPMENT SCHEDULE

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	BW

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	BW
ENGINEER	MH
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	M-601

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE 2018 INTERNATIONAL BUILDING CODE, THE 2023 NATIONAL ELECTRICAL CODE NFPA 70 THE 2021 OREGON ENERGY EFFICIENCY SPECIALITY CODE AND THE OREGON DEPARTMENT OF CONSUMER AND BUSINESS SERVICES, BUILDING CODES DIVISION CHAPTER 918.
2. COORDINATE ALL ASPECTS OF THE WORK WITH OTHER TRADES AND CONTRACTORS. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, AND ACCESSORIES, WHETHER SHOWN OR NOT, REQUIRED OR NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM COMPLYING WITH ALL REQUIRED CODES AND STANDARDS.
3. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH THESE SPECIFICATIONS, AND DRAWINGS. PROVIDE SUBMITTALS FOR APPROVAL FOR ALL EQUIPMENT ON THE EQUIPMENT SCHEDULE PRIOR TO PROCUREMENT AND INFORMATIONAL SUBMITTALS FOR ALL OTHER MATERIALS. CONTRACTOR MAY PROPOSE SUBSTITUTIONS AND PROVIDE SUBMITTALS FOR APPROVAL.
4. MATERIAL AND EQUIPMENT SHALL BE THE CURRENT PRODUCT OR MODEL LINE OF THE MANUFACTURER AND, UNLESS OTHERWISE INDICATED, NEW AND UNUSED AT THE TIME OF INSTALLATION. PROVIDE MATERIALS AND EQUIPMENT COMPLETE WITH ALL ACCESSORIES, TRIM, FINISH, SAFETY GUARDS AND OTHER DEVICES AND DETAILS NEEDED FOR A COMPLETE INSTALLATION AND FOR THE INTENDED USE AND EFFECT. WHERE MULTIPLE QUANTITIES OF A SINGLE PRODUCT, OR QUANTITIES OF SIMILAR OR RELATED PRODUCTS ARE REQUIRED, SUCH PRODUCTS SHALL BE OF A SINGLE MANUFACTURER TO THE EXTENT POSSIBLE.
5. COORDINATE ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. WHERE DIMENSIONAL DISCREPANCIES EXIST, ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER ELECTRICAL DRAWINGS. CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS FOLLOWING AS CLOSELY AS BUILDING CONSTRUCTION WILL PERMIT.
6. THE ELECTRICAL DRAWINGS DO NOT INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES THAT MAY BE REQUIRED. ARRANGE WORK ACCORDINGLY AND PROVIDE OFFSETS, FITTINGS AND ACCESSORIES REQUIRED. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, UNLESS OTHERWISE INDICATED.
7. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE STATE OF OREGON, CITY OF BAKER OREGON, AND ALL OTHER CODES AND STANDARDS AS LOCALLY ADOPTED AND AMENDED.
8. ELECTRICAL EQUIPMENT SHALL HAVE TERMINALS RATED AT 60 DEG/75 DEG C.
9. ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY, NRTL LISTED, FOR THE INTENDED PURPOSE, WITH LABEL ATTACHED, WHERE REQUIRED.
10. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE LICENSED BY THE STATE OF OREGON AND BONDED TO DO WORK IN THE PUBLIC RIGHT-OF-WAY AND SHALL HAVE A CURRENT STATE ISSUED BUSINESS LICENSE.
11. THE CONTRACTOR SHALL PROVIDE QUALIFIED PERSONNEL THROUGHOUT THE WORK. ALL PERSONS WORKING AS AN ELECTRICIAN OR TRAINEE SHALL BE CERTIFIED PER OREGON DEPARTMENT OF CONSUMER AND BUSINESS SERVICES, BUILDING CODE DIVISION 282 "ELECTRICAL AND ELEVATOR LICENSING" AND DIVISION 283 ELECTRICAL TRAINING PROGRAM REQUIREMENTS: "IN-PLANT TRAINING PROGRAMS FOR LIMITED JOURNEYMAN FOR THE TASK IN WHICH THE PERSON IS WORKING".
12. THE CONTRACTOR SHALL CONSULT, PRIOR TO THE START OF CONSTRUCTION, REPRESENTATIVES OF CITY AND GAS, ELECTRIC, WATER, TELEPHONE, AND CABLE COMPANIES CONCERNING UTILITIES AVAILABILITY AND HOOK-UP, AS WELL AS OREGON UTILITY NOTIFICATION CENTER (OUNC), CALL 811 A MINIMUM OF TWO BUSINESS DAYS PRIOR TO DETERMINATION OF FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CONSTRUCTION WORK DEFICIENCIES FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE CITY OF BAKER.
14. ANY CHANGES OR MODIFICATIONS TO THE PROJECT PLANS SHALL FIRST BE APPROVED BY THE LICENSED ENGINEER IN RESPONSIBLE CHARGE, THE CITY ENGINEER AND\OR REPRESENTATIVE.
15. ALL MANUFACTURED MATERIALS, COMPONENTS, FASTENERS, ASSEMBLIES, ETC. SHALL BE HANDLED AND INSTALLED WITH ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND PROVISIONS.
16. UNDER NO CIRCUMSTANCE SHALL ANY SHEETS (DRAWINGS, PRINTS, PLANS, ETC.) MARKED "PRELIMINARY", "BID SET" OR "PROGRESS PRINTS" BE USED FOR ACTUAL CONSTRUCTION. GENERAL CONTRACTOR SHALL PROVIDE SUBCONTRACTORS WITH MARKED LATEST EDITION OF PRINTS.
17. THE CONTRACTOR SHALL REPORT TO THE ARCHITECT/ENGINEER IN CHARGE, IN WRITING ANY DISCREPANCIES BETWEEN ON-SITE CONDITIONS AND THE CONSTRUCTION DOCUMENTS PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
18. ARCHITECT/ENGINEER STAMPED DOCUMENTS (CONSTRUCTION DRAWINGS, SPECIFICATIONS, CALCULATION, ETC.) SHALL NOT BE MODIFIED IN ANY WAY, EXCEPT BY THE ORIGINATING ARCHITECT/ENGINEER. CONSTRUCTION DOCUMENTS REVISED/MODIFIED BY OTHERS ARE NOT ACCEPTED.
19. ELECTRICAL CONTRACTOR TO PROVIDE A GROUNDING ELECTRODE SYSTEM AT SERVICE IN ACCORDANCE WITH THE NEC ARTICLE 250. GROUNDING CONNECTION OR INTERFACE WITH THE SERVING UTILITY SHALL ALSO BE IN ACCORDANCE WITH OREGON TRAIL ELECTRIC COOPERATIVE 2024 ELECTRICAL SERVICE REQUIREMENTS.

OEESEC NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH ALL WORK SHALL BE IN ACCORDANCE WITH THE VERSION OF THE OREGON ENERGY EFFICIENCY SPECIALITY CODE, CHAPTER 13 AND ASHRAE 90.1, POWER AND LIGHTING SECTIONS.
2. PROVIDE OCCUPANT SENSOR CONTROLS FOR RESTROOM LIGHTS, CONFIGURED TO TURN LIGHTS ONE HUNDRED PERCENT OFF WHEN SPACE IS UNOCCUPIED.
3. PROVIDE PHOTOCELL CONTROLS TO AUTOMATICALLY TURN OFF EXTERIOR BUILDING LIGHTS IN ACCORDANCE WITH ASHRAE 90.1. CHAPTER 9, PART 9.4.1.4.
4. LIGHTING SYSTEM COMMISSIONING IS TO BE PREFORMED IN ACCORDANCE WITH ASHRAE 90.1. CHAPTER 9, PART 9.9.
5. PROVIDE PROJECT CLOSE-OUT DOCUMENTATION IN ACCORDANCE WITH ASHRAE 90.1 PART 4.2.5.

LEGEND

S_{3a}	SINGLE POLE TOGGLE SWITCH, 3=3-WAY, 4=4-WAY, LOWER CASE ALPHA = FIXTURES SWITCHED, 15/20A, 120V
	RECEPTACLE, DUPLEX
	RECEPTACLE, QUADRAPLEX
	RECEPTACLE, 240V
	DISCONNECT SWITCH
M	MOTOR OR FAN
J	JUNCTION BOX
	PANELBOARD, 120/240V, SEE PANEL SCHEDULE FOR SIZE
MCB XXXAT XXXAF	PANELBOARD WITH MAIN CIRCUIT BREAKER, 240/120V
KWH	METER, 240V
#	CAN LIGHT FIXTURE
#	LIGHT FIXTURE WALL
#	1X4 LIGHT FIXTURE (SEE SCHEDULE)
#	1X4 LIGHT FIXTURE WALL (SEE SCHEDULE)
#	1X8 LIGHT FIXTURE (SEE SCHEDULE)
X	EXIT SIGN (SEE SCHEDULE)
OS	OCCUPANCY SENSOR

DRAWING LIST

E-001	ELECTRICAL NOTES AND LEGEND
E-101	ELECTRICAL SITE POWER PLAN
E-102	ELECTRICAL 1ST FLOOR POWER PLAN
E-103	ELECTRICAL 1ST FLOOR POWER PLAN
E-104	ELECTRICAL 2ND FLOOR POWER PLAN
E-105	ELECTRICAL 1ST FLOOR LIGHTING PLAN
E-106	ELECTRICAL 2ND FLOOR LIGHTING PLAN
E-107	ELECTRICAL 2ND FLOOR LIGHTING PLAN
E-601	ELECTRICAL ONE-LINE DIAGRAM
E-602	ELECTRICAL AND LIGHTING PANEL SCHEDULES
E-603	ELECTRICAL PANEL SCHEDULE
E-604	ELECTRICAL PANEL SCHEDULE
E-605	ELECTRICAL PANEL SCHEDULE

ABBREVIATIONS

AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AT	AMPERE TRIP
DM	DIMMER SWITCH
EF	EXHAUST FAN
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
KWH	KILOWATT HOUR
PP#	POWER PANEL BOARD
LP#	LIGHTING PANEL BOARD
MCB	MAIN CIRCUIT BREAKER
MTR	METER
TYP	TYPICAL
XFMR	TRANSFORMER

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APEX ELITE
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3765 23rd STREET
BAKER CITY, OR 97814

ELECTRICAL NOTES AND LEGEND

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

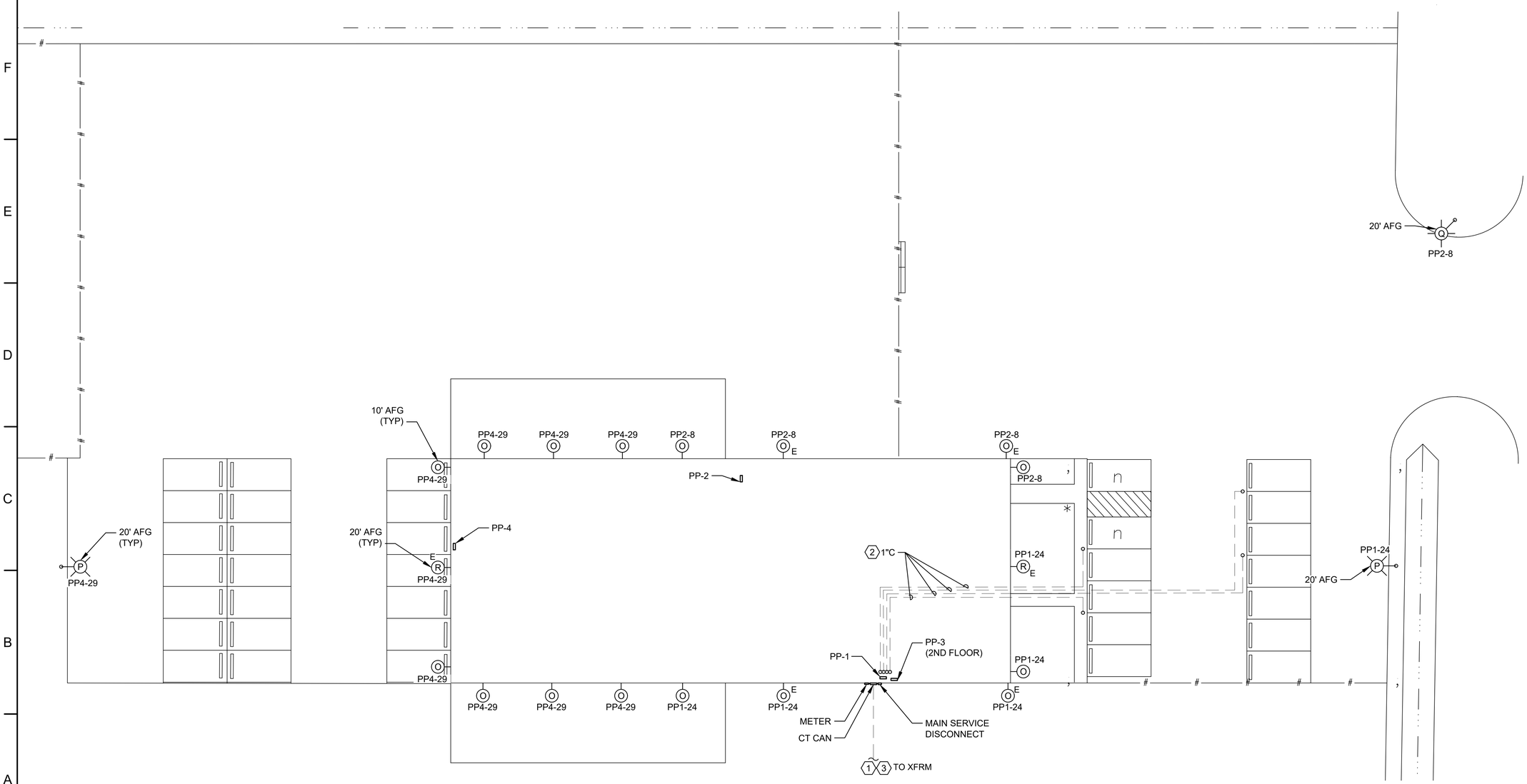
DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-001

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. SEE CIVIL DRAWING 4 OF 6 FOR UTILITY INFORMATION INCLUDING ELECTRICAL.
3. CONTRACTOR TO PROVIDE PARKING LOT LIGHT POLE FIXTURES AND COORDINATE PLACEMENT OF LIGHT POLES AND UNDERGROUND CONDUIT SERVING LIGHT POLES WITH OTHER UTILITIES IN AREA.
4. CONTRACTOR TO INSTALL EXTERIOR LIGHTING IN ACCORDANCE WITH ASHRAE 90.1.9, 4.1.4 EXTERIOR LIGHTING CONTROL.

KEY NOTES

1. COORDINATE SIZING OF TRANSFORMER LOCATION, AND TIE-IN OF SERVICE TO UTILITY TRANSFORMER WITH THE OREGON TRAIL ELECTRIC CO-OP. SEE CIVIL UTILITY PLAN DRAWING 4 OF 6 FOR ELECTRICAL UTILITY SERVICE TO TRANSFORMER.
2. CONTRACTOR TO PROVIDE EV CHARGING INFRASTRUCTURE IN ACCORDANCE WITH OREGON STATE ADMINISTRATIVE RULES 918-460-0200 ELECTRIC VEHICLE CHARGING STATION INFRASTRUCTURE REQUIREMENTS. STUB UP CONDUIT AS SHOWN ON SITE PLAN AND LABEL PER REQUIREMENTS SHOWN IN OSAR 918-460-0200.
3. ROUTE 4 SETS OF 3" CONDUIT BETWEEN TRANSFORMER SECONDARY AND SERVICE DISCONNECT SWITCH. MINIMUM BURIAL DEPTH OF 24".



NORTH

ELECTRICAL SITE POWER PLAN

SCALE: 1/16" = 1'-0"

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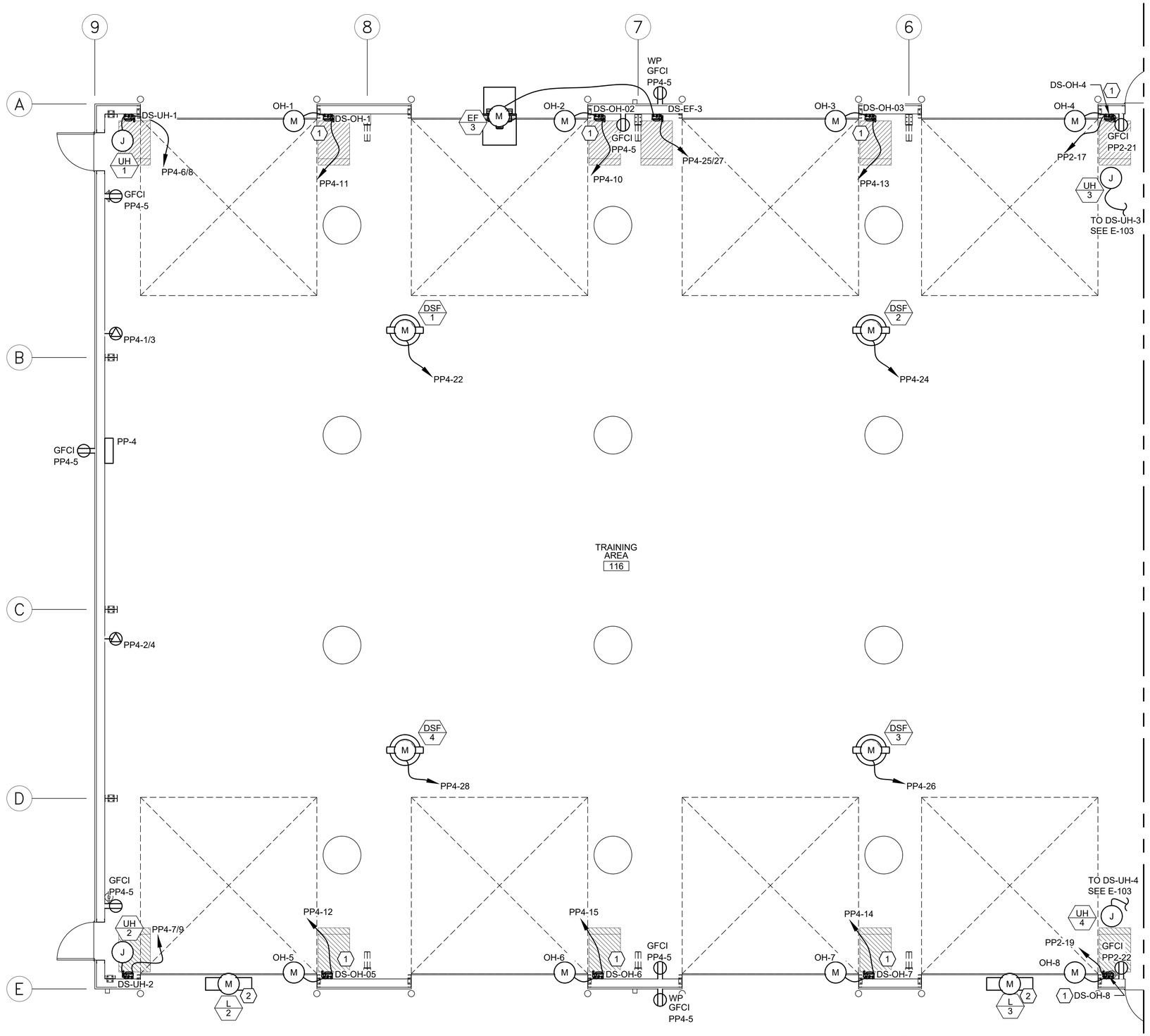
ELECTRICAL
SITE POWER PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-101



ELECTRICAL 1ST FLOOR POWER PLAN

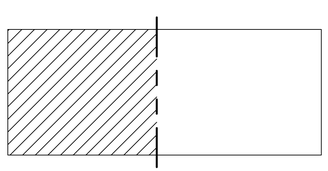
SCALE:1/4"=1'-0"

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. CONTRACTOR TO INSTALL MEDIUM DUTY DOOR OPERATOR MOTORS IN ACCORDANCE WITH VENDOR INSTRUCTIONS AND NEC 70 ARTICLE 430.
3. CONTRACTOR TO ENSURE NEC WORKING CLEARANCES MAINTAINED FOR ALL ELECTRICAL EQUIPMENT.
4. CONTRACTOR TO WIRE LOUVER ACTUATORS IN ACCORDANCE TO MANUFACTURER'S INSTRUCTION AND WIRING SPECIFICATIONS.

KEY NOTES

1. CONTRACTOR TO INSTALL HP RATED DISCONNECT SWITCH IN ACCORDANCE WITH NEC 70 ARTICLE 430. LOCATE SWITCH 5'-0" A.F.F. LOCATE MANUAL DISCONNECT SWITCH ON THE SAME SIDE THAT ROLL UP DOOR MOTOR IS MOUNTED.
2. ACTUATOR L2 AND L3 TO BE COORDINATED WITH EF-3. POWER FROM SAME CIRCUIT AS EF-3.



KEY PLAN

NTS

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OREGON
MARCH 15, 2023
DANIEL MENDOZA

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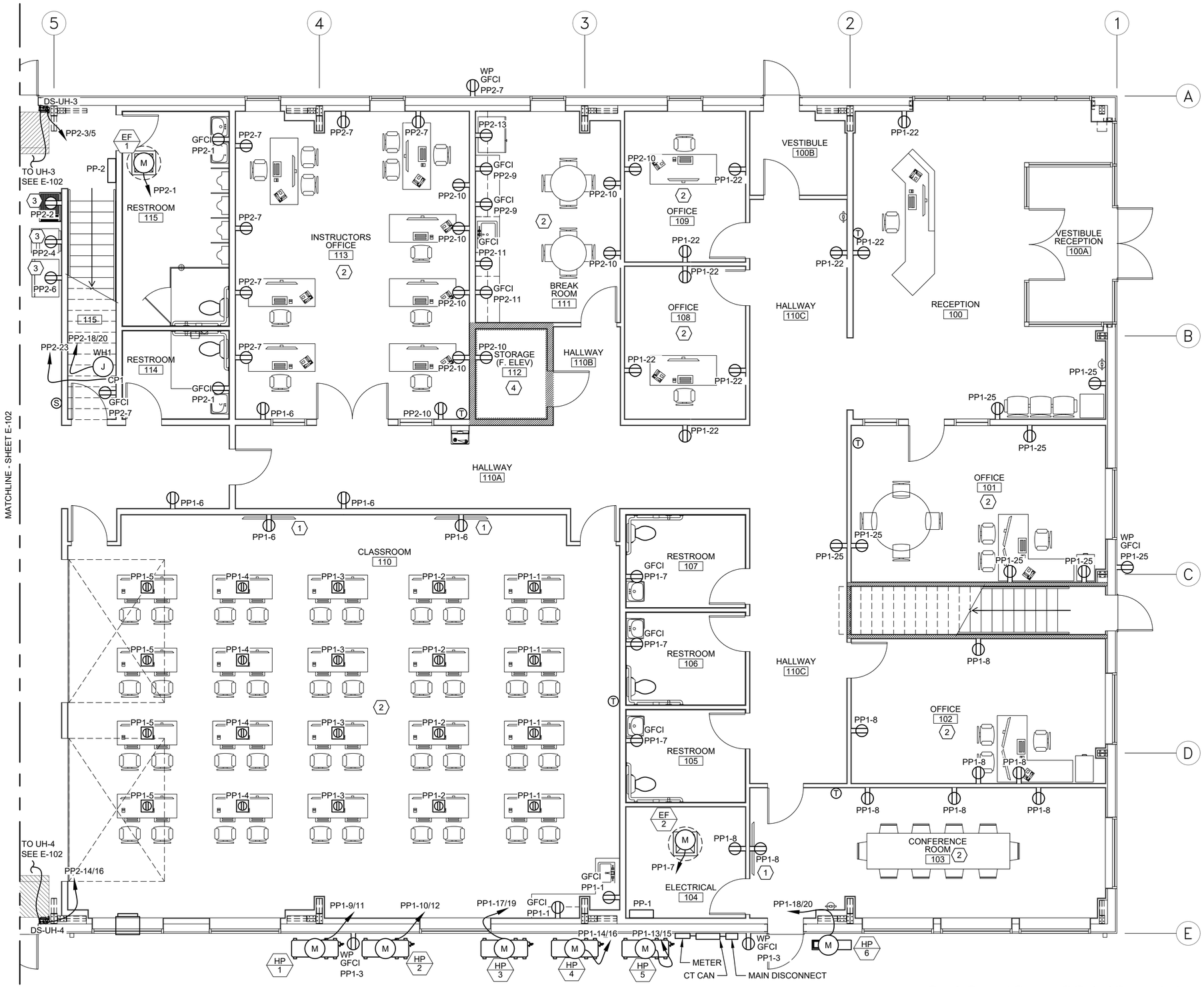
ELECTRICAL 1ST FLOOR POWER PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-102



ELECTRICAL 1ST FLOOR POWER PLAN

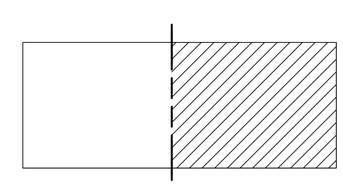
SCALE:1/4"=1'-0"

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECT ON LOCATIONS OF WORKSPACE FLOOR RECEPTACLES.
3. CONTRACTOR TO INSTALL NON-FUSIBLE DISCONNECT SWITCHES LOCAL TO OUTDOOR UNIT HEAT PUMPS IN ACCORDANCE TO MANUFACTURES INSTRUCTION AND NEC 70 ARTICLE 440.14.

KEY NOTES

1. CONTRACTOR TO COORDINATE WITH CLIENT ON HEIGHT OF RECEPTACLE.
2. CONTRACTOR TO PROVIDE CONTROLLED RECEPTACLES IN INDICATED AREAS IN ACCORDANCE WITH ASHRAE 90.1 AUTOMATIC RECEPTACLE CONTROL.
3. CONTRACTOR TO PROTECT CIRCUIT WITH GFCI RATED BREAKER.
4. FUTURE ELEVATOR.



KEY PLAN

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REGISTERED PROFESSIONAL ENGINEER 102259PE OREGON MARCH 15, 2023 DANIEL MENDOZA

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ELECTRICAL 1ST FLOOR POWER PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

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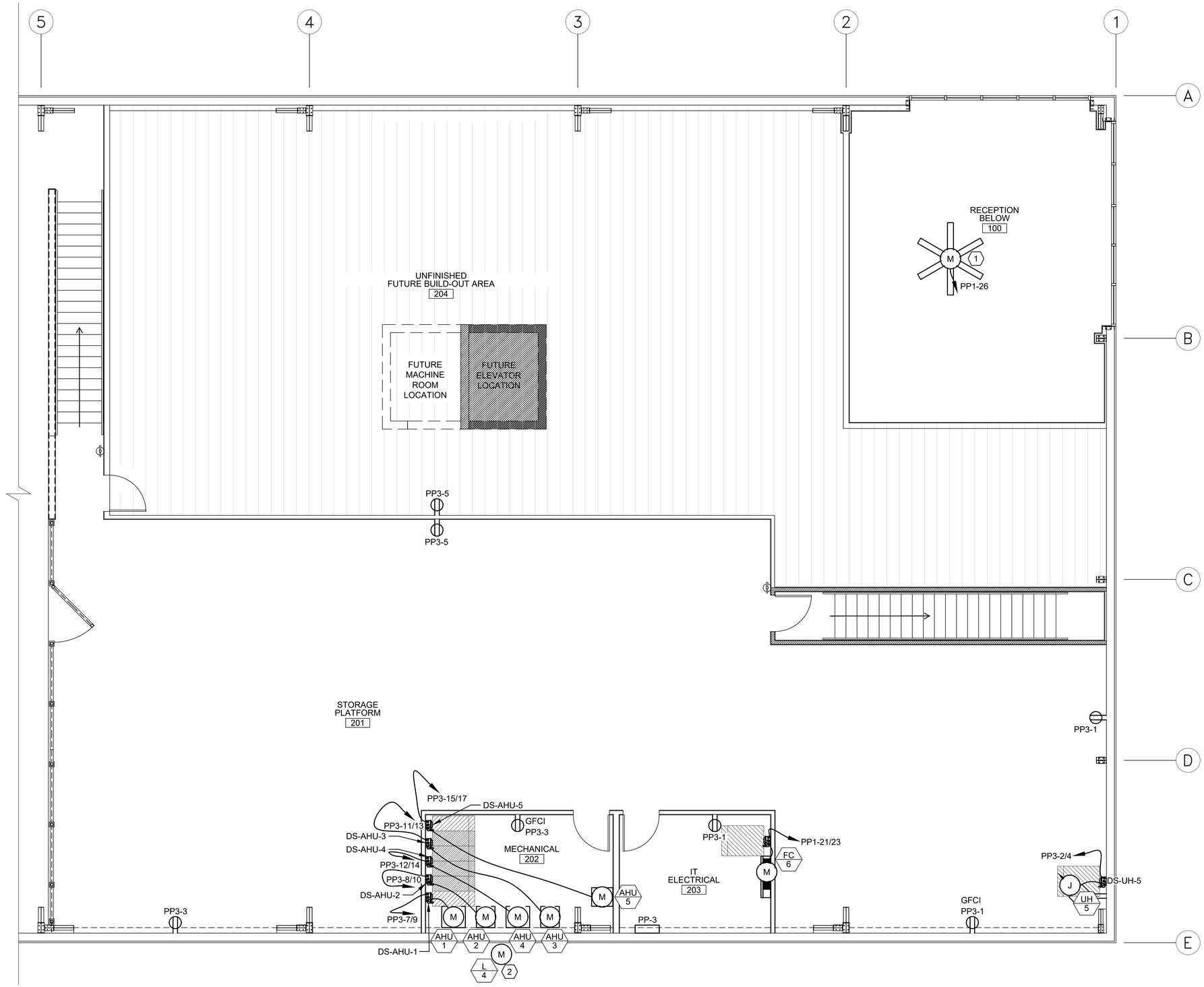
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-103



ELECTRICAL 2ND FLOOR POWER PLAN

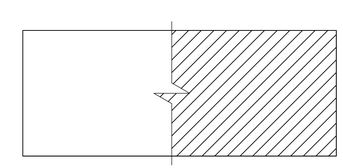
SCALE:1/4"=1'-0"

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. CONTRACTOR TO ENSURE NEC WORKING CLEARANCES MAINTAINED FOR ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR TO INSTALL DISCONNECT SWITCH IN ACCORDANCE WITH NEC 70 ARTICLE 430.
4. CONTRACTOR TO WIRE LOUVER ACTUATORS IN ACCORDANCE TO MANUFACTURER'S INSTRUCTION AND WIRING SPECIFICATIONS.

KEY NOTES

1. CONTRACTOR TO REFERENCE SHEET M-103 FOR FAN TYPE AND INSTALLATION.
2. L4 ACTUATOR TO BE COORDINATED WITH AHU-1. POWER FROM SAME CIRCUIT AS AHU-1.



KEY PLAN

NTS

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REGISTERED PROFESSIONAL ENGINEER
102259PE
OREGON
MARCH 15, 2023
DANIEL MENDOZA

APEX ELITE

LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

ELECTRICAL 2ND FLOOR POWER PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
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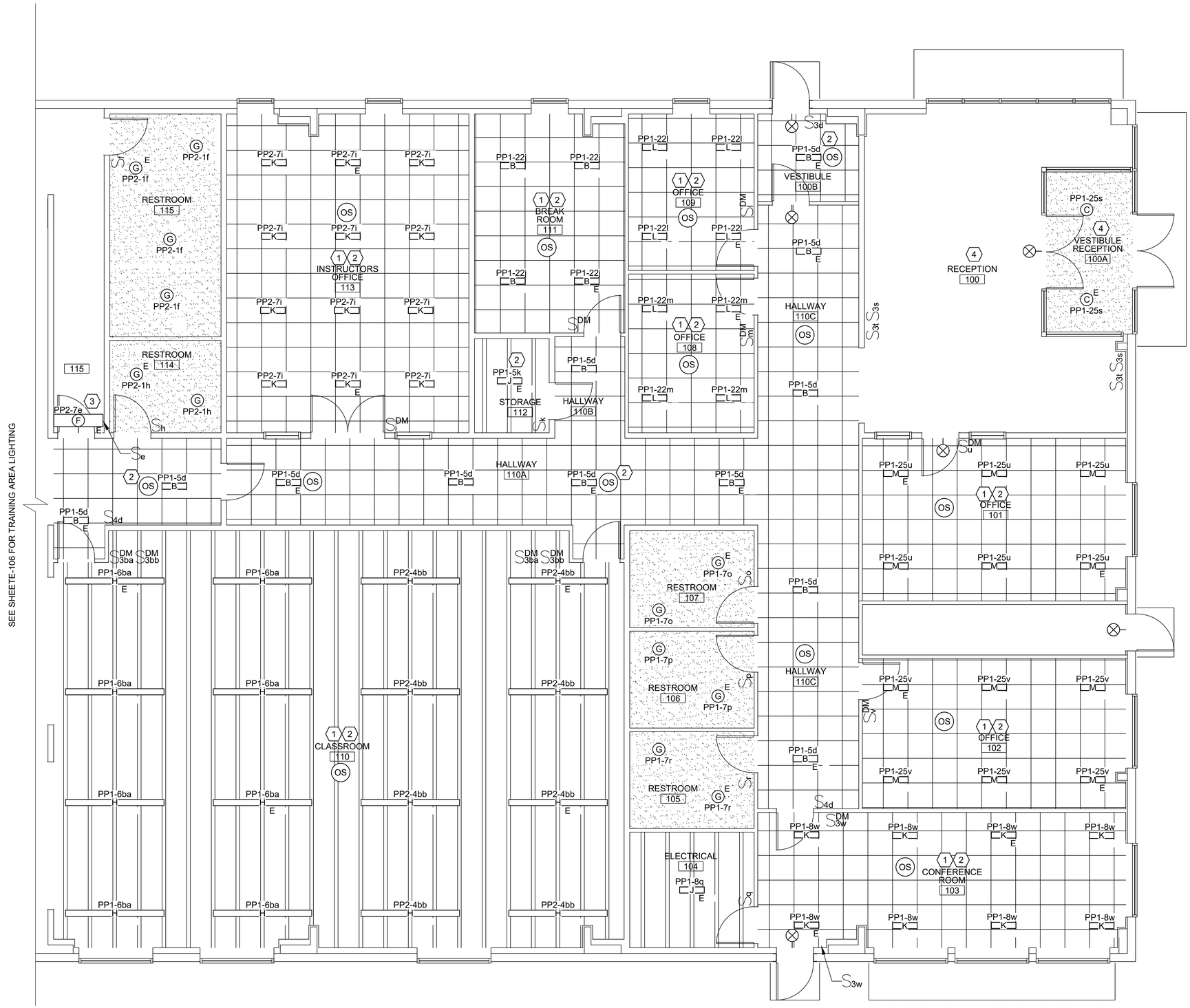
DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-104



ELECTRICAL 1ST FLOOR LIGHTING PLAN

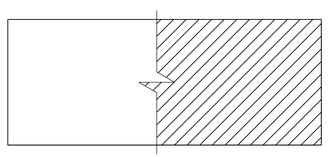
SCALE:1/8"=1'-0"

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. EXACT LOCATIONS OF ELECTRICAL COMPONENTS SUCH AS SWITCHES AND LIGHTS MAY VARY BASED ON EXISTING FIELD CONDITIONS AND AS INSTALLED IN FIELD BY CONTRACTOR.
3. FOR EXTERIOR LIGHTING REFER TO SITE PLAN SHEET E-101.
4. RESTROOM WALL AND STORAGE ROOM SWITCHES TO BE CONFIGURED WITH OCCUPANCY SENSOR IN ACCORDANCE WITH ASHRAE 90.1, 2022 TABLE 9.3.1-3 AND MANUAL ON/OFF CAPABILITY.
5. CONTRACTOR TO PROVIDE SELF POWERED EXIT SIGNS AND INSTALL EMERGENCY EXIT SIGNS IN ACCORDANCE WITH EGRESS PLANS INDICATED ON ARCHITECTURAL PLANS.

KEY NOTES

1. DIMMER SWITCH TO BE CONFIGURED TO ENABLE THE REDUCTION OF LIGHTING POWER BY A MINIMUM OF 50% AND TO TURN LIGHTING 100% OFF IN ACCORDANCE WITH ASHRAE 90.1, 2022 TABLE 9.3.1-3.
2. OCCUPANCY SENSORS TO BE CONFIGURED TO AUTOMATICALLY TURN OFF LIGHTS WHEN SPACE IS UNOCCUPIED IN ACCORDANCE WITH ASHRAE 90.1, 2022 TABLE 9.3.1-3.
3. FIXTURE TO BE WALL MOUNTED ABOVE DOOR.
4. CONTRACTOR TO PROVIDE AUTOMATIC DAYLIGHT RESPONSE CONTROLS FOR SIDE LIGHTING IN ACCORDANCE WITH ASHRAE 9.4.1.1.E.



KEY PLAN

NTS

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SUITE 204
RICHLAND, WA 99354
509-627-4800

REGISTERED PROFESSIONAL ENGINEER 102259PE OREGON MARCH 15, 2023 DANIEL MENDOZA

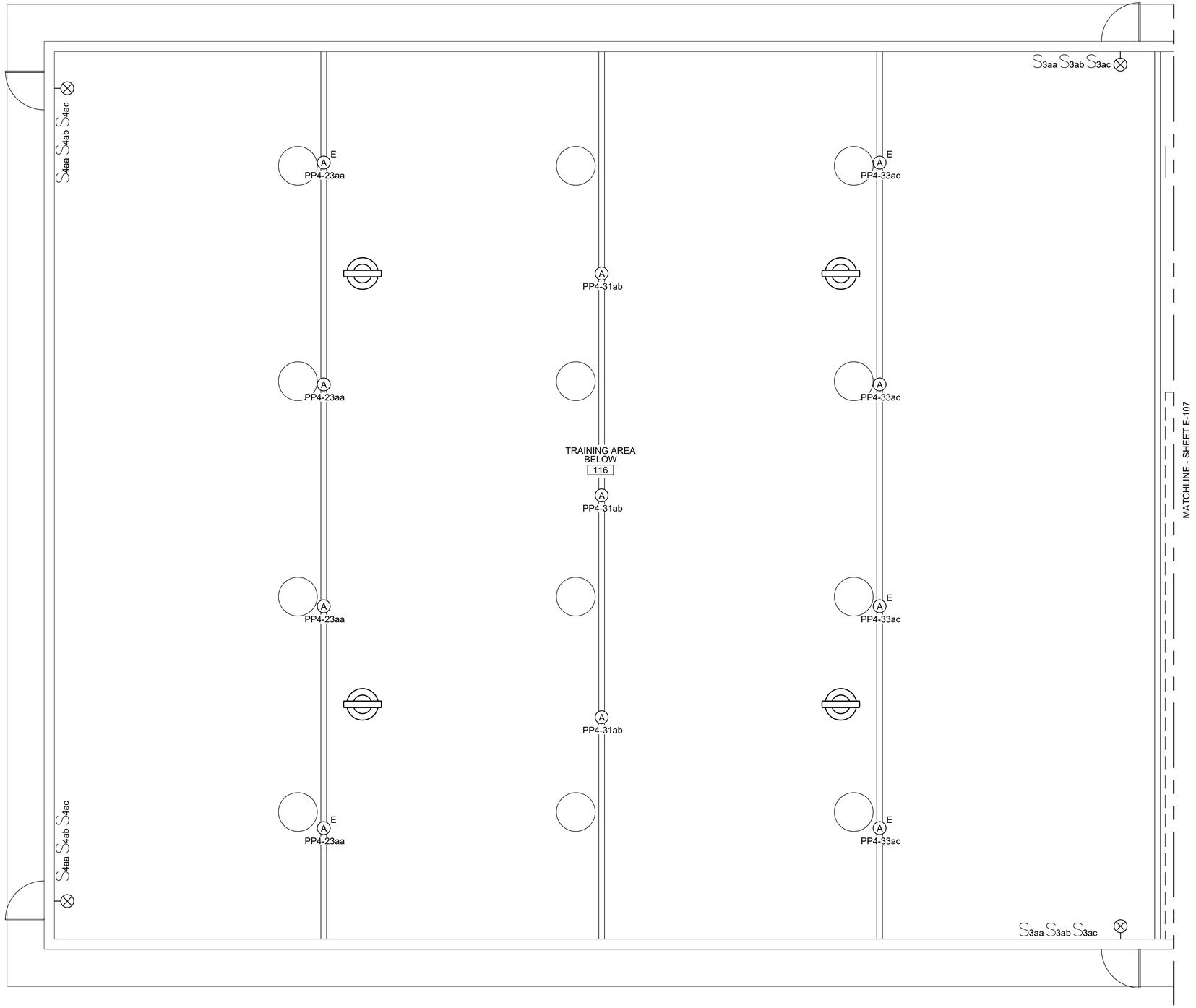
APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

ELECTRICAL 1ST FLOOR LIGHTING PLAN

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-105



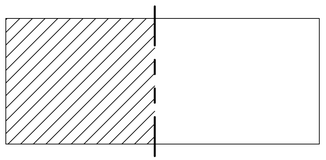
ELECTRICAL 2ND FLOOR LIGHTING PLAN

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

NORTH

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. EXACT LOCATIONS OF ELECTRICAL COMPONENTS SUCH AS SWITCHES AND LIGHTS MAY VARY BASED ON EXISTING FIELD CONDITIONS AND AS INSTALLED IN FIELD BY CONTRACTOR.
3. FOR EXTERIOR LIGHTING REFER TO SITE PLAN SHEET E-101.
4. CONTRACTOR TO MOUNT TYPE A LIGHT FIXTURES TO SUPPORT BEAMS
5. CONTRACTOR TO PROVIDE SELF POWERED EXIT SIGNS AND INSTALL EMERGENCY EXIT SIGNS IN ACCORDANCE WITH EGRESS PLANS INDICATED ON ARCHITECTURAL PLANS.



KEY PLAN

NTS

Excelsior DESIGN
2920 GEORGE WASHINGTON WAY
SUITE 204
RICHLAND, WA 99354
509-627-4800

REGISTERED PROFESSIONAL ENGINEER
102259PE
OREGON
MARCH 15, 2023
DANIEL MENDOZA

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ELECTRICAL 2ND FLOOR LIGHTING PLAN

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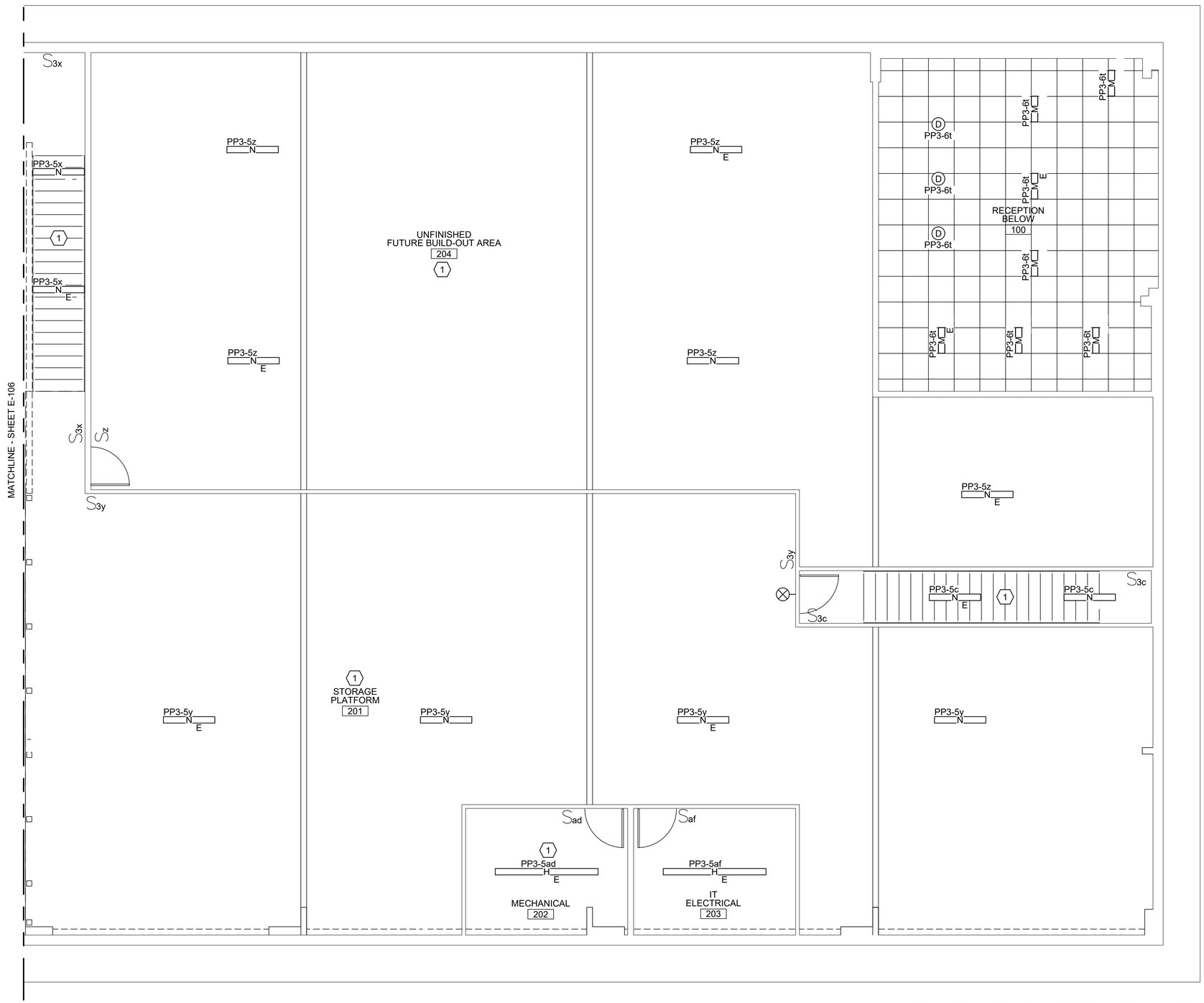
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-106



ELECTRICAL 2ND FLOOR LIGHTING PLAN

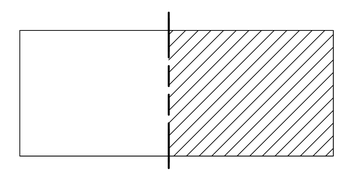
SCALE:1/8"=1'-0"

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. EXACT LOCATIONS OF ELECTRICAL COMPONENTS SUCH AS SWITCHES AND LIGHTS MAY VARY BASED ON EXISTING FIELD CONDITIONS AND AS INSTALLED IN FIELD BY CONTRACTOR.
3. FOR EXTERIOR LIGHTING REFER TO SITE PLAN SHEET E-101.
4. CONTRACTOR TO PROVIDE SELF POWERED EXIT SIGNS AND INSTALL EMERGENCY EXIT SIGNS IN ACCORDANCE WITH EGRESS PLANS INDICATED ON ARCHITECTURAL PLANS.

KEY NOTES

1. OCCUPANCY SENSORS TO BE CONFIGURED TO AUTOMATICALLY REDUCE LIGHTING POWER BY 50% WHEN NO ACTIVITY IS DETECTED FOR NO LONGER THAN 15 MINUTES AND TURN OFF LIGHTS WHEN BUILDING IS UNOCCUPIED IN ACCORDANCE WITH ASHRAE 90.1, 2022 TABLE 9.3.1-2.
2. CONTRACTOR TO MOUNT FIXTURE AT 7'-6".



KEY PLAN

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ELECTRICAL 2ND FLOOR LIGHTING PLAN

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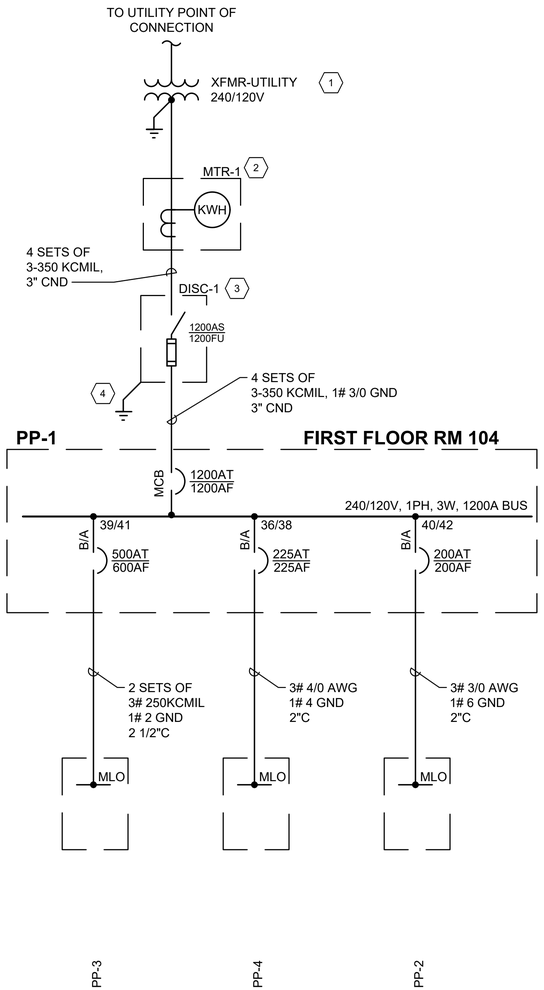
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-107



ONE-LINE DIAGRAM

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ELECTRICAL CONTRACTOR TO ROUTE SERVICE CONDUCTORS FROM TRANSFORMER AND SERVICE METER TO SERVICE ENTRANCE PANELS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OREGON TRAIL ELECTRIC CO-OP FOR ALL TIE-IN, METERING AND INSTALLATION REQUIREMENTS.
3. SEE PANEL SCHEDULES FOR 1-PHASE, 240/120V LOADS ON PANELBOARDS.

KEY NOTES

1. CONTRACTOR TO COORDINATE WITH THE SERVING UTILITY, OREGON TRAIL ELECTRIC CO-OP, ON TRANSFORMER SIZE AND LOCATION.
2. CONTRACTOR TO PROVIDE METERING IN ACCORDANCE WITH OREGON TRAIL ELECTRIC CO-OP INSTALLATION REQUIREMENTS AND EQUIPMENT SPECIFICATIONS.
3. PROVIDE SERVICE ENTRANCE RATED DISCONNECT SWITCH WITH OVERCURRENT PROTECTION.
4. ELECTRICAL CONTRACTOR TO PROVIDE A GROUNDING ELECTRODE SYSTEM AT THE SERVICE IN ACCORDANCE WITH NEC ARTICLE 250.

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ELECTRICAL
ONE-LINE DIAGRAM

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APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-601

JOB:	PANEL NAME:	1200 AMP PANEL	1200 AMP MAIN 3 WIRE
APEX ELITE LINE ACADEMY	PP-1	VOLTAGE: 240/120	PANEL LOCATION: ROOM 104 ELECTRICAL
	FED FROM: OREGON TRAIL ELECTRIC CO-OP		LOCATION: RM 104 ELECTRICAL

DESCRIPTION	VOLT-AMPS A	VOLT-AMPS B	BRKR A/P	LOAD TYPE		A	B		LOAD TYPE	BRKR A/P	VOLT-AMPS A	VOLT-AMPS B	DESCRIPTION	
RM 110 CLASSROOM (6 DUPLEX) -GENERAL REC.	1080		15/1	R	1	*		2	R	15/1	720		RM 110 CLASSROOM (4 DUPLEX) -GENERAL REC.	
RM 110 CLASSROOM (5 DUPLEX), EXTERIOR(1) -GENERAL REC.		1080	15/1	R	3		*	4	LR	15/1		1016	RM 110 CLASSROOM (8H) -LIGHTING. RM 110 CLASSROOM (4 DUPLEX) -GENERAL REC.	
HALLWAY 110A/ 110B/ 110C (11B), VESTIBULE 100B (1B), RM 112 STORAGE (1J) -LIGHTING. RM 110 CLASSROOM (4 DUPLEX) -GENERAL REC.	840		15/1	L R	5	*		6	L R	15/1	1196		RM 110 CLASSROOM (8H) -LIGHTING. RM 113 INSTRUCTORS OFFICE (1), 110A HALLWAY (2), 110 CLASSROOM (2) -GENERAL REC.	2
RM 105 (2G), 106 (2G), 107 (2G) RESTROOM -LIGHTING. RM 105, 106, 107 RESTROOM (3) -GENERAL REC. EF-2 -LARGEST MOTOR.		600	20/1	L R LM	7		*	8	L R	20/1		1774	RM 104 ELECTRICAL (1J), 103 CONFERENCE ROOM (8K) -LIGHTING. RM 103 CONFERENCE (4), 104 ELECTRICAL (1), 102 OFFICE (4) -GENERAL REC.	2
HP-1 -HVAC.	2880		40/2	H	9	*		10	H	25/2	1800		HP-2 -HVAC.	1
		2880			11		*	12				1800		
HP-5 -HVAC.	1800		25/2	H	13	*		14	H	25/2	1800		HP-4 -HVAC.	1
		1800			15		*	16				1800		
HP-3 -HVAC.	1800		25/2	H	17	*		18	H	20/2	1980		HP-6 -HVAC.	1
		1800			19		*	20				1980		
FC-6 -HVAC.	60		15/2	H	21	*		22	L R	20/1	1825		RM 108 OFFICE (4L), 109 OFFICE (4L), 111 BREAK RM (4B) -LIGHTING. RM 100 RECEPTION (2), 110C HALLWAY (2), 108 OFFICE (3), 109 OFFICE (2) -GENERAL REC.	2
		60			23		*	24	L	20/1		331	EXTERIOR (6O, 1R, 1P) -LIGHTING.	2
RM 102 OFFICE (6M), 101 OFFICE (6M), 100A (2C) -LIGHTING. RM 101 OFFICE (5), 100 RECEPTION (2), 110C HALLWAY (1) -GENERAL REC.	1776		20/1	L R	25	*		26	C	15/1	180		RM 100 RECEPTION FAN -CONTINUOUS.	
		0			27		*	28	C	50/2		4800	FUTURE EV CHARGER -CONTINUOUS.	
	0				29	*		30			4800			
FUTURE EV CHARGER -CONTINUOUS.		4800	50/2	C	31		*	32	C	50/2		4800	FUTURE EV CHARGER -CONTINUOUS.	
	4800				33	*		34			4800			
FUTURE EV CHARGER -CONTINUOUS.		4800	50/2	C	35		*	36	NC	225/2		18083	PP-4 -NON CONTINUOUS.	
	4800				37	*		38			18083			
PP-3 -NON CONTINUOUS.		51760	450/2	NC	39		*	40	NC	200/2		17666	PP-2 -NON CONTINUOUS.	
	51760				41	*		42			17666			
TOTAL VA LEFT	71596	69580	TOTAL CONNECTED LOAD:								REMARKS:			
TOTAL VA RIGHT	54850	54051	250076	VA	1042	AMPS								
TOTAL VA	126446	123630	TOTAL FEEDER DEMAND LOAD:											
TOTAL AMPS	1054	1030	259951	VA	1083	AMPS								

L = LIGHTING LOADS
R = GENERAL USE RECEPTACLES
H = HVAC
LM = LARGEST SINGLE MOTOR LOAD

M = MOTOR LOADS
DR = DEDICATED/SPECIFIC USE
C = CONTINUOUS LOAD
NC = NON CONTINUOUS LOAD

FEEDER DEMAND LOAD CALC.		
LIGHTING VA	x 125% =	2217
GEN RECEPTACLE VA	* First 10,000 VA + 50% OF REMAINDER =	10220
DEDICATED REC VA	x 100% =	0
HVAC	x 100% =	24240
MOTOR VA	x 100% + (LM x 125%) =	31
CONTINUOUS VA	x 125% =	48225
NON CONTINUOUS VA	x 100% =	175018
TOTAL=	259951	

LIGHTING SCHEDULE

LABEL	MANUFACTURER	CATALOG NUMBER	# OF LAMPS PER FIXTURE	TYPE	Lamp Lumens	WATTS	QTY
A	LITHONIA LIGHTING	JCBL 24000LM ACFR 40K 80CRI ACRFGL	1	LED	22235.7	160.0	11
B	LITHONIA LIGHTING	LSIX 2FT 1000LM 80CRI 40K MVOLT	1	LED	1103.1	8.4	16
C	LITHONIA LIGHTING	LDN6 30/07 LO6WR	1	LED	685.2	8.9	2
D	LITHONIA LIGHTING	LDN6CYL 40/15 LO6AR LSS	1	LED	1516.4	17.5	3
F	LITHONIA LIGHTING	WL4 20L LP840	1	LED	2254.6	18.7	1
G	LITHONIA LIGHTING	LDN6 30/05 LO6WR	1	LED	477.1	5.8	12
H	LITHONIA LIGHTING	CLX L96 6000LM SEF WDL MVOLT 40K 80CRI	1	LED	6122.4	37.0	18
J	LITHONIA LIGHTING	CLX L24 2500LM SEF WDL MVOLT GZ10 40K 80CRI	1	LED	2540.7	18.4	2
K	LITHONIA LIGHTING	LSIX 2FT 2000LM 80CRI 40K MVOLT	1	LED	2125.0	17.0	20
L	LITHONIA LIGHTING	LSIX 2FT 2500LM 80CRI 40K MVOLT	1	LED	2684.9	21.4	8
M	LITHONIA LIGHTING	LSIX 2FT 3000LM 80CRI 40K MVOLT	1	LED	3232.2	26.5	19
N	LITHONIA LIGHTING	CLX L48 4000LM SEF WDL MVOLT 40K 80CRI	1	LED	4055.7	25.5	13
O	LITHONIA LIGHTING	MRW LED P1 40K SR4 MVOLT	1	LED	2189.5	19.6	15
P	LITHONIA LIGHTING	DSX1 LED P6 40K 80CRI BLC4 EGS-F	1	LED	7269.5	165.3	2
Q	LITHONIA LIGHTING	DSX1 LED P3 40K 80CRI RCCO EGS	1	LED	9189.7	102.2	1
R	LITHONIA LIGHTING	DSXW1 P6 40K 80CRI TFTM HS	1	LED	5711.7	48.3	2

DAYLIGHT ZONE FIXTURES

Label	Catalog Number	# OF FIXTURES IN DAYLIGHT ZONE
D	LDN6CYL 40/15 LO6AR LSS	3
L	LSIX 2FT 2500LM 80CRI 40K MVOLT	7

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ALL CIRCUIT BREAKERS SHALL BE LOCKABLE IN THE OPEN POSITION.

KEY NOTES

1. CONTRACTOR TO INSTALL HACR RATED BREAKER.
2. PROVIDE CIRCUIT BREAKER RATED FOR HIGH IN RUSH CURRENT FOR USE WITH LED LIGHT FIXTURES.

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REGISTERED PROFESSIONAL ENGINEER 102259PE OREGON MARCH 15, 2023 DANIEL MENDOZA

APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

ELECTRICAL
PANEL AND LIGHTING SCHEDULES

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-602

JOB:	PANEL NAME:	200 AMP PANEL	MAIN LUGS ONLY, 3 WIRE
APEX ELITE LINE ACADEMY	PP-2	VOLTAGE: 240/120	PANEL LOCATION: ROOM 115 BELOW STAIRS
	FED FROM: PP-1 CKT 40/42		LOCATION: RM 115

	DESCRIPTION	VOLT-AMPS A	VOLT-AMPS B	BRKR A/P	LOAD TYPE		A	B		LOAD TYPE	BRKR A/P	VOLT-AMPS A	VOLT-AMPS B	DESCRIPTION	
3	RM 115 RESTROOM (3G), 114 RESTROOM (3G) -LIGHTING. RM 115 RESTROOM(1), 114 RESTROOM (1) -GENERAL REC. EF-1 -MOTOR.	425		20/1	L R M	1	*		2	DR	20/1	1200		RM 116 TRAINING ROOM VENDING MACHINE -DEDICATED REC.	1
2	UH-3 -HVAC.		3758	40/2	H	3		*	4	DR	20/1		1200	RM 116 TRAINING ROOM VENDING MACHINE -DEDICATED REC.	1
		3758				5	*		6	DR	20/1	600		RM 116 TRAINING ROOM FRIDGE -DEDICATED REC.	1
	RM 113 INSTRUCTORS OFFICE (12K), 115 STORAGE (1F) -LIGHTING. RM 113 INSTRUCTORS OFFICE (6), 115 STORAGE (1), EXTERIOR (1) -GENERAL REC.		1662	20/1	L R	7		*	8	L	20/1		181	EXTERIOR (4O, 1Q) -LIGHTING.	3
	RM 111 BREAK ROOM(2) -GENERAL REC.	360		20/1	R	9	*		10	R	20/1	1620		RM 113 INSTRUCTORS OFFICE(5), 111 BREAK ROOM (2), 109 OFFICE (1), 112 STORAGE (1) -GENERAL REC.	
	RM 111 BREAK ROOM(2) -GENERAL REC.		360	15/1	R	11		*	12		0		0		
1	RM 111 BREAK ROOM FRIDGE -DEDICATED REC.	600		15/1	DR	13	*		14	H	40/2	3758		UH-4 -HVAC.	2
			0			15		*	16				3758		
	OH-04 -LARGEST MOTOR.	1344		15/1	LM	17	*		18	DR	50/2	4500		WH1 -DEDICATED REC.	
	OH-08 -MOTOR.		1344	15/1	M	19		*	20				4500		
	RM 116 TRAINING AREA NE(1) -GENERAL REC.	180		20/1	R	21	*		22	R	20/1	180		116 TRAINING AREA SE(1) -GENERAL REC.	
1	HOT WATER CIRCULATION PMP -CONTINUOUS.		44	15/1	C	23		*	24				0		
	GATE OPENER RESERVED CKT -NON CONTINUOUS.	0				25	*		26			0			
			0			27		*	28				0		
		0				29	*		30			0			
			0			31		*	32				0		
		0				33	*		34			0			
			0			35		*	36				0		
		0				37	*		38			0			
			0			39		*	40				0		
		0				41	*		42			0			

TOTAL VA LEFT	6667	7168	TOTAL CONNECTED LOAD:			REMARKS:
TOTAL VA RIGHT	11858	9639	35331	VA	147	AMPS
TOTAL VA	18525	16807	TOTAL FEEDER DEMAND LOAD:			
TOTAL AMPS	154	140	35788	VA	149	AMPS

L = LIGHTING LOADS
R = GENERAL USE RECEPTACLES
H = HVAC
LM = LARGEST SINGLE MOTOR LOAD

M = MOTOR LOADS
DR = DEDICATED/SPECIFIC USE
C = CONTINUOUS LOAD
NC = NON CONTINUOUS LOAD

FEEDER DEMAND LOAD CALC.		
LIGHTING VA	x 125% =	547
GEN RECEPTACLE VA	* First 10,000 VA + 50% OF REMAINDER =	4500
DEDICATED REC VA	x 100% =	12600
HVAC	x 100% =	15032
MOTOR VA	x 100% + (LM x 125%) =	3054
CONTINUOUS VA	x 125% =	55
NON CONTINUOUS VA	x 100% =	0
TOTAL=	35788	

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ALL CIRCUIT BREAKERS SHALL BE LOCKABLE IN THE OPEN POSITION.

KEY NOTES

1. CONTRACTOR TO PROVIDE GFCI CIRCUIT BREAKERS WHERE APPLICABLE IN ACCORDANCE WITH NEC 210.8 (B).
2. CONTRACTOR TO INSTALL HACR RATED BREAKER.
3. PROVIDE CIRCUIT BREAKER RATED FOR HIGH IN RUSH CURRENT FOR USE WITH LED LIGHT FIXTURES.

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PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-603

JOB:	PANEL NAME:	600 AMP PANEL	MAIN LUGS ONLY 3 WIRE
APEX ELITE LINE ACADEMY	PP-3	VOLTAGE: 240/120	PANEL LOCATION: ROOM 203 IT ELECTRICAL
	FED FROM: PP-1 CKT 39/41		LOCATION: RM 203 IT ELECTRICAL

	DESCRIPTION	VOLT-AMPS A	VOLT-AMPS B	BRKR A/P	LOAD TYPE		A	B		LOAD TYPE	BRKR A/P	VOLT-AMPS A	VOLT-AMPS B	DESCRIPTION	
	RM 201 STORAGE (2), 203 IT ELECTRICAL (1) -GENERAL REC.	540		20/1	R	1	*		2	H	40/2	3758		UH-5 -HVAC.	1
	RM 201 STORAGE (1), 202 MECHANICAL (1) -GENERAL REC.		360	20/1	R	3		*	4				3758		
2	RM 201 STORAGE PLATFORM, 204 UNFINISHED BUILD-OUT AREA (13N), 202 & 203 (2H) -LIGHTING. 201 STORAGE PLATFORM (2) -GENERAL REC.	766		15/1	L R	5	*		6	L	15/1	238		RM 100 RECEPTION BELOW (7M, 3D) -LIGHTING.	2
1	AHU-1 -HVAC.		12960	110/2	H	7		*	8	H	45/2		5160	AHU-2 -HVAC.	1
		12960				9	*		10			5160			
1	AHU-3 -HVAC.		5040	45/2	H	11		*	12	H	50/2		5520	AHU-4 -HVAC.	1
		5040				13	*		14			5520			
1	AHU-5 -HVAC.		5040	45/2	H	15		*	16				0		
		5040				17	*		18			0			
	FUTURE ELEVATOR MOTOR -LARGEST MOTOR.		13080	150/2	LM	19		*	20				0		
		13080				21	*		22			0			
2	FUTURE ELEVATOR LIGHTING -LIGHTING.		500	15/1	L	23		*	24				0		
		0				25	*		26			0			
			0			27		*	28				0		
		0				29	*		30			0			
			0			31		*	32				0		
		0				33	*		34			0			
			0			35		*	36				0		
		0				37	*		38			0			
			0			39		*	40				0		
		0				41	*		42			0			
	TOTAL VA LEFT	37426	36980	TOTAL CONNECTED LOAD:								REMARKS:			
	TOTAL VA RIGHT	14676	14438	103519	VA		431	AMPS							
	TOTAL VA	52102	51418	TOTAL FEEDER DEMAND LOAD:											
	TOTAL AMPS	434	428	110345	VA		460	AMPS							

L = LIGHTING LOADS
R = GENERAL USE RECEPTACLES
H = HVAC
LM = LARGEST SINGLE MOTOR LOAD

M = MOTOR LOADS
DR = DEDICATED/SPECIFIC USE
C = CONTINUOUS LOAD
NC = NON CONTINUOUS LOAD

FEEDER DEMAND LOAD CALC.		
LIGHTING VA	x 125% =	1430
GEN RECEPTACLE VA	* First 10,000 VA + 50% OF REMAINDER =	1260
DEDICATED REC VA	x 100% =	0
HVAC	x 100% =	74956
MOTOR VA	x 100% + (LM x 125%) =	32700
CONTINUOUS VA	x 125% =	0
NON CONTINUOUS VA	x 100% =	0
TOTAL=	110345	

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ALL CIRCUIT BREAKERS SHALL BE LOCKABLE IN THE OPEN POSITION.

KEY NOTES

1. CONTRACTOR TO INSTALL HACR RATED BREAKER.
2. PROVIDE CIRCUIT BREAKER RATED FOR HIGH IN RUSH CURRENT FOR USE WITH LED LIGHT FIXTURES.

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ELECTRICAL PANEL SCHEDULE

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ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-604

JOB:	PANEL NAME:	225 AMP PANEL	MAIN LUGS ONLY 3 WIRE
APEX ELITE LINE ACADEMY	PP-4	VOLTAGE: 240/120	PANEL LOCATION: ROOM 116 WEST WALL
FED FROM: PP-1 CKT 36/38			LOCATION: RM 116 TRAINING AREA W. WALL

	DESCRIPTION	VOLT-AMPS A	VOLT-AMPS B	BRKR A/P	LOAD TYPE		A	B		LOAD TYPE	BRKR A/P	VOLT-AMPS A	VOLT-AMPS B	DESCRIPTION	
1	RM 116 TRAINING AREA N 240V REC - DEDICATED REC.	1920		20/2	DR	1	*		2	DR	20/2	1920		RM 116 TRAINING AREA N 240V REC -DEDICATED REC.	1
			1920			3		*	4				1920		
	RM 116 TRAINING AREA (4), EXTERIOR (3) GENERAL REC.	1260		20/1	R	5	*		6	H	40/2	3758		UH-1 -HVAC.	2
2	UH-2 -HVAC.		3758	40/2	H	7		*	8				3758		
		3758				9	*		10	M	15/1	1344		OH-02 -MOTOR.	
	OH-01 -LARGEST MOTOR.		1344	15/1	LM	11		*	12	M	15/1		1344	OH-05 -MOTOR.	
	OH-03 -MOTOR.	1344		15/1	M	13	*		14	M	15/1	1344		OH-07 -MOTOR.	
	OH-06 -MOTOR.		1344	15/1	M	15		*	16				0		
		0				17	*		18			0			
			0			19		*	20				0		
		0				21	*		22	M	15/1	144		DSF-1 -MOTOR.	
3	RM 116 TRAINING AREA (4A) -LIGHTING.		640	15/1	L	23		*	24	M	15/1		144	DSF-2 -MOTOR.	
2	EF-3 -HVAC.	732		15/2	H	25	*		26	M	15/1	144		DSF-4 -MOTOR.	
			732			27		*	28	M	15/1		144	DSF-3 -MOTOR.	
3	EXTERIOR (6O, 1 R, 1P) -LIGHTING.	331		20/1	L	29	*		30			0			
	RM 116 TRAINING AREA (3A) -LIGHTING.		480	15/1	L	31		*	32				0		
	RM 116 TRAINING AREA (4A) -LIGHTING.	640		15/1	L	33	*		34			0			
			0			35		*	36				0		
		0				37	*		38			0			
			0			39		*	40				0		
		0				41	*		42			0			
	TOTAL VA LEFT	9985	10218	TOTAL CONNECTED LOAD:								REMARKS:			
	TOTAL VA RIGHT	8654	7310	36167	VA				151	AMPS					
	TOTAL VA	18639	17528	TOTAL FEEDER DEMAND LOAD:											
	TOTAL AMPS	155	146	37026	VA				154	AMPS					

L = LIGHTING LOADS
R = GENERAL USE RECEPTACLES
H = HVAC
LM = LARGEST SINGLE MOTOR LOAD

M = MOTOR LOADS
DR = DEDICATED/SPECIFIC USE
C = CONTINUOUS LOAD
NC = NON CONTINUOUS LOAD

FEEDER DEMAND LOAD CALC.		
LIGHTING VA	x 125% =	2614
GEN RECEPTACLE VA	* First 10,000 VA + 50% OF REMAINDER =	1260
DEDICATED REC VA	x 100% =	7680
HVAC	x 100% =	16496
MOTOR VA	x 100% + (LM x 125%) =	8976
CONTINUOUS VA	x 125% =	0
NON CONTINUOUS VA	x 100% =	0
TOTAL=	37026	

NOTES

1. SEE SHEET E-001 FOR GENERAL NOTES AND LEGEND.
2. ALL CIRCUIT BREAKERS SHALL BE LOCKABLE IN THE OPEN POSITION.

KEY NOTES

1. CONTRACTOR TO PROVIDE GFCI CIRCUIT BREAKERS WHERE APPLICABLE IN ACCORDANCE WITH NEC 210.8 (B).
2. CONTRACTOR TO INSTALL HACR RATED BREAKER.
3. PROVIDE CIRCUIT BREAKER RATED FOR HIGH IN RUSH CURRENT FOR USE WITH LED LIGHT FIXTURES.

Excelsior DESIGN
2920 GEORGE WASHINGTON WAY
SUITE 204
RICHLAND, WA 99354
509-627-4800

REGISTERED PROFESSIONAL ENGINEER 102259PE OREGON MARCH 15, 2023 DANIEL MENDOZA

APEX ELITE
LINE ACADEMY
3765 23rd STREET
BAKER CITY, OR 97814

ELECTRICAL
PANEL SCHEDULE

REV	DATE	DESCRIPTION	DRW	CHK
A	05/27/25	FOR REVIEW	IB	PS

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN BY	IB
CHECKED	PS
ENGINEER	DM
APPROVED	
PROJECT	550-1189
SHEET SIZE	ARCH D
SHEET	E-605