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Seattle Washington 98104-1878
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MECHANICAL DRAWINGS

CENTERS
VOLTAGE PARK UPS
1019 39th AVENUE SE
PUYALLUP, WA 98374



2024-06-24

Revision No.	Description	Date
1	SM UPS BATTERY ROOM PERMIT R1	6/18/2024
	SM UPS BATTERY ROOM PERMIT	5/10/2024

Drawn By: JLV
Checked By: BO

MECHANICAL
GENERAL NOTES

Sheet

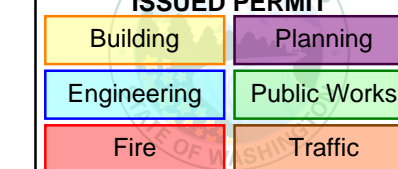
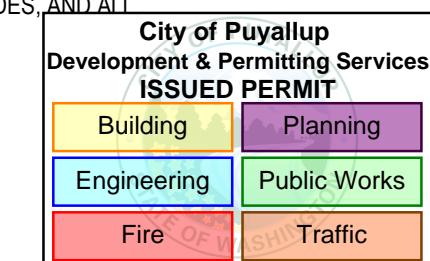
M.SM.002

DEMO NOTES

- NOT ALL EXISTING CONDITIONS HAVE BEEN SHOWN. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMO.
- CONTRACTOR SHALL PROTECT ALL WORK AND EXISTING CONDITIONS ASSOCIATED WITH THIS CONTRACT FROM DAMAGE. COVER ENDS OF PIPING AND DUCTWORK NOT ACTIVELY BEING WORKED ON. IT IS THE CONTRACTOR RESPONSIBILITY TO REPAIR OR REPLACE ANY DAMAGED ITEMS THAT OCCURS DURING THIS CONSTRUCTION PROJECT AT NO COST TO THE OWNER.
- DEMOLISH ALL REQUIRED EQUIPMENT, DUCTWORK, PIPING, HANGERS, CONTROLS AND ALL ASSOCIATED EXISTING SYSTEMS AS REQUIRED. TO REPLACE EACH SYSTEM, CONTRACTOR SHALL COORDINATE DEMOLITION WITH EXISTING SYSTEMS AND COMPONENTS TO REMAIN PRIOR TO WORK COMMENCING.
- IT IS THE CONTRACTOR RESPONSIBILITY TO CLEAN UP ALL DEBRIS FROM SITE AT THE END OF EACH WORK DAY AND DISPOSE OFF EITHER IN LAY DOWN RECYCLE BINS PROVIDED BY THE CONTRACTOR OR OFFSITE ALL TOGETHER.
- ALL DEMOLISHED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER UNLESS DIRECTED OTHERWISE. IF NOT REQUIRED BY OWNER, DISPOSE AS REQUIRED.

GENERAL NOTES

- THE MECHANICAL PLANS ARE DIAGRAMMATIC IN NATURE AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL OF THE DETAILS FOR THE EQUIPMENT. THE MECHANICAL CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT AND ENSURE THAT IT WILL FIT IN THE AVAILABLE SPACE.
- MECHANICAL CONTRACTOR RESPONSIBLE FOR INSTALLATION OF COMPLETED AND OPERATIONAL SYSTEMS WITH DUE RESPECT TO ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION.
- IT IS THE CONTRACTOR RESPONSIBILITY TO FIELD VERIFY ALL CONNECTION POINTS PRIOR TO INSTALL. NOT ALL CONNECTION SIZES ARE SHOWN, BUT THOSE THAT ARE APPROXIMATE AND TAKEN FROM EXISTING AS-BUILTS AND FIELD OBSERVATIONS.
- COORDINATE PIPE ROUTING WITH DUCTWORK, SPRINKLER PIPING AND ELECTRICAL, POWER/LIGHTING CIRCUITING AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
- CONTRACTORS TO VERIFY ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH WORK. NOTIFY PRIME CONSULTANT OF ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL CONDITIONS BEFORE INSTALLATION.
- EQUIPMENT AND SYSTEMS SHALL COMPLY WITH 2021 WASHINGTON STATE ENERGY AND MECHANICAL CODES.
- COORDINATE INSTALLATION OF PIPING AND DUCTWORK WITH ELECTRICAL CONTRACTOR AND OTHER TRADES.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS NEEDED TO CONSTRUCT WORK SHOULD IN THE CONSTRUCTION DOCUMENTS AND ACCOMPANYING SPECIFICATIONS.
- IF THERE IS A CONFLICT BETWEEN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, THE MOST STRINGENT WILL APPLY.
- ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURERS. CONTRACTOR TO PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES, AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
- SYSTEMS ADHERE TO 2021 WSEC SECTION C403.2.4 VARIABLE FLOW CAPACITY: FOR FAN AND PUMP MOTORS 5 HP AND GREATER, INCLUDING MOTORS IN OR SERVING CUSTOM AND PACKAGED AIR HANDLERS SERVING VARIABLE AIR VOLUME SYSTEMS, CONSTANT VOLUME FANS, HEATING AND COOLING HYDRONIC PUMPING SYSTEMS, AND OTHER PUMP OR FAN MOTORS WHERE VARIABLE FLOWS ARE REQUIRED SHALL BE EQUIPPED WITH VARIABLE SPEED DRIVES.
- SYSTEMS ADHERE TO SECTION C403.3.2 HVAC EQUIPMENT PERFORMANCE REQUIREMENTS: EQUIPMENT SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLES C403.3.2(1) THROUGH C403.3.2(16) WHEN TESTED AND RATED IN ACCORDANCE WITH THE APPLICABLE TRADE CODES.
- SYSTEMS ADHERE TO C405.6 ELECTRIC MOTOR EFFICIENCY.
 - ALL ELECTRIC MOTORS, FRACTIONAL OR OTHERWISE, SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLES C405.6(1) THROUGH C405.6(4) WHEN TESTED IN ACCORDANCE WITH DOE 10 CFR UNLESS OTHER EXCEPTIONS ARE QUALIFIED AND MET BY THIS SECTION.
 - FRACTIONAL HP FAN MOTORS THAT ARE 1/2 HP OR GREATER AND LESS THAN 1 HP (BASED ON THE OUTPUT POWER) WHICH ARE NOT COVERED IN TABLES C405.6(3) AND C405.6(4) SHALL BE ELECTRONICALLY COMMUTATED MOTORS OR SHALL HAVE A MINIMUM MOTOR EFFICIENCY OF 70 PERCENT WHEN RATED IN ACCORDANCE WITH DOE 10 CFR 431.
- PENETRATIONS OF DUCTS, PIPES, CONDUITS, ETC IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. FIRE STOP MATERIAL SHALL BE A UL/ULC-LISTED ASSEMBLY APPROPRIATE FOR FIRE OR SMOKE PENETRATIONS AS APPLICABLE AND AS APPROVED BY THE FIRE MARSHAL.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL FIRE, SMOKE, OR COMBINATION SMOKE/FIRE DAMPERS AND ACCESS PANELS COMMENSURATE WITH THE RATINGS OF THE WALL IN ALL DUCTWORK THAT PENETRATES FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITION IN ALL DUCTWORK THAT PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL BRANCH DUCTS SHALL HAVE VOLUME DAMPERS.
- WHERE FLOW EXCEEDS 150 CFM, THE CONTRACTOR SHALL USE SMOOTH RADIUS ELBOWS OR TURNING VANES.
- ALL DUCT JOINTS SHALL BE SEALED IN ACCORDANCE WITH SMACNA STANDARDS.
- ALL DUCT DIMENSIONS ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED PROVIDED THAT THE NET FREE AREA IS MAINTAINED.
- ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.
- ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND TESTED IN ACCORDANCE WITH THE LOCAL REGULATIONS AND PROCEDURES DETAILED IN THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, (SMACNA).
- ALL DUCTWORK SHALL BE CONSTRUCTED AND SEALED PER IMC.
- DUCTWORK SHALL MEET THE AIR LEAKAGE REQUIREMENTS OF 2021 WSEC C402.5 AND VAPOR RETARDER REQUIREMENTS PER THE IBC.
- ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE OR METAL STRAPS TO SUPPORT PIPES WILL NOT BE PERMITTED. REFER TO SPECIFICATIONS FOR MINIMUM SPACING OF PIPE SUPPORTS.
- ALL EQUIPMENT TO BE INSTALLED ON MIN 6" THICK CONCRETE HOUSEKEEPING PADS.
- ALL EQUIPMENT, DUCTS PIPING, AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHERPROOFED.
- MECHANICAL EQUIPMENT, DUCTS AND PIPING ARE TO BE COORDINATED WITH STRUCTURAL JOISTS AND CROSS BRACING.
- ALL EXPOSED PIPING IN OCCUPIED SPACES SUBJECT TO ARCHITECTURAL APPROVAL PRIOR TO INSTALLATION.
- ALL DUCTWORK SHALL BE CONSTRUCTED AND SEALED PER IMC.
- THE HVAC SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER PRIOR TO COMMISSIONING. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER.
- A BUILDING COMMISSIONING PROCESS AND FUNCTIONAL TESTING OF MECHANICAL SYSTEMS SHALL BE CARRIED OUT BY A CERTIFIED COMMISSIONING PROFESSIONAL IN ACCORDANCE WITH 2021 WSEC SECTION C408. THE MECHANICAL, ELECTRICAL, PLUMBING, AND CONTROL CONTRACTORS ARE REQUIRED TO PERFORM FUNCTIONAL PERFORMANCE TESTING OF ALL EQUIPMENT PRIOR TO TESTING BY THE COMMISSIONING AGENT. CONTRACTORS SHALL PROVIDE THE NECESSARY ASSISTANCE TO THE COMMISSIONING AGENT TO PERFORM COMMISSIONING DUTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING CORRECTIVE ACTION IF ANY DEFICIENCIES ARE FOUND DURING COMMISSIONING.
- SYSTEMS ADHERE TO 2021 WSEC SECTION C408 SYSTEM COMMISSIONING.
 - A CERTIFIED COMMISSIONING PROFESSIONAL (CCP) SHALL LEAD THE COMMISSIONING PROCESS. A CCP IS AN INDIVIDUAL WHO IS CERTIFIED BY AN ANH/ISSO/IEIG/IT024/2012 ACCREDITED ORGANIZATION TO LEAD, PLAN, COORDINATE, AND MANAGE COMMISSIONING TEAMS AND IMPLEMENT THE COMMISSIONING PROCESS.
 - A CERTIFIED COMMISSIONING PROFESSIONAL SHALL PERFORM THE FOLLOWING:
 - DEVELOP A COMMISSIONING PLAN.
 - REVIEW BUILDING DOCUMENTATION AND CLOSE-OUT SUBMITTALS.
 - PROVIDE A COMMISSIONING REPORT.
 - LIST SPECIFIC EQUIPMENT, APPLIANCES AND SYSTEMS COMMISSIONED.
 - FUNCTIONAL TESTING SHALL BE COMPLETED FOR THE FOLLOWING SYSTEMS AND THEIR ASSOCIATED CONTROL SYSTEMS:
 - MECHANICAL SYSTEMS
 - SERVICE WATER HEATING SYSTEMS
 - CONTROLLED RECEPTACLE AND LIGHTING SYSTEMS
 - EQUIPMENT APPLIANCE AND SYSTEMS
 - ENERGY METERING
 - REFRIGERATION SYSTEMS
 - A COMMISSIONING REPORT SHALL BE DELIVERED TO THE BUILDING OWNER AND INCLUDE:
 - RESULTS OF THE FUNCTIONAL PERFORMANCE TESTS
 - LIST OF DEFICIENCIES AND CORRECTIVE MEASURES IMPLEMENTED OR PROPOSED.
 - FUNCTIONAL PERFORMANCE TEST PROCEDURES.
 - COMMISSIONING PLAN.
 - TAB REPORT.
- TESTING AND BALANCING: ALL HVAC SYSTEMS SHALL BE BALANCED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH ACCEPTED ENGINEERING STANDARDS AND SPECIFICATIONS PRIOR TO COMMISSIONING.
- OWNER TRAINING BY CONTRACTORS FOR EACH PIECE OF EQUIPMENT OR SYSTEM SHALL INCLUDE: SYSTEM EQUIPMENT OVERVIEW (WHAT IT IS, WHAT IT DOES, AND WHICH OTHER SYSTEMS OR EQUIPMENT DOES IT INTERFACE WITH), REVIEW OF THE AVAILABLE O&M MATERIALS, REVIEW OF THE RECORD DRAWINGS ON THE SUBJECT SYSTEM/EQUIPMENT, HANDS-ON DEMONSTRATION OF ALL NORMAL MAINTENANCE PROCEDURES, NORMAL OPERATING MODES, AND ALL EMERGENCY SHUTDOWN AND START-UP PROCEDURES.





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MECHANICAL DRAWINGS

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PUYALLUP, WA 98374

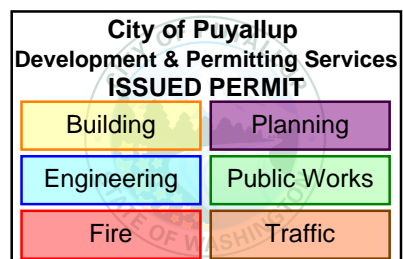
Mech_Energy25% Calculation table with columns: IT Load, Ambient Temperature, ASHRAE TMY Hours, Chiller Capacity, Chiller Energy, Chiller Usage, Total Air Handler Fan Airflow, Per Air Handler Fan Airflow, Per Air Handler Fan Brake Power, No. of Air Handlers, Air Handler Fan Energy, Air Handler Fan Energy (kW), Total Heat Rejection Airflow, Heat Rejection Fan Airflow, Heat Rejection Fan Energy, No. Fans Operating, Heat Rejection Fan Energy (kW), Primary Pump Flow, Pump Brake Power, Pump Motor Efficiency, No. of Pumps, Pump Energy, Pump Energy (kWh), MLC.

Mech_Energy50% Calculation table with columns: IT Load, Ambient Temperature, ASHRAE TMY Hours, Chiller Capacity, Chiller Energy, Chiller Usage, Total Air Handler Fan Airflow, Per Air Handler Fan Airflow, Per Air Handler Fan Brake Power, No. of Air Handlers, Air Handler Fan Energy, Air Handler Fan Energy (kW), Total Heat Rejection Airflow, Heat Rejection Fan Airflow, Heat Rejection Fan Energy, No. Fans Operating, Heat Rejection Fan Energy (kW), Pump Flow, Pump Brake Power, Pump Motor Efficiency, No. of Pumps, Pump Energy, Pump Energy (kWh), MLC.

Mech_Energy Summary table with columns: Cooling Energy (kWh), Air-Handler Fan Energy (kWh), Heat Rejection Fan Energy (kWh), Pump Energy (kWh), Total (kWh).

MLC Check 100% = Full Capacity table with columns: IT capacity/kW, Project Annualized MLC, Max Allowable Annualized MLC.

MLC Load Summary table with columns: Total IT Load, Total RAU for Total Load, % Total IT Load for new RAU, Total IT Load for new RAU (MW).



Revision No. Description Date
JLV Checked By: BO

MECHANICAL CALCULATIONS

M.SM.011

Sheet

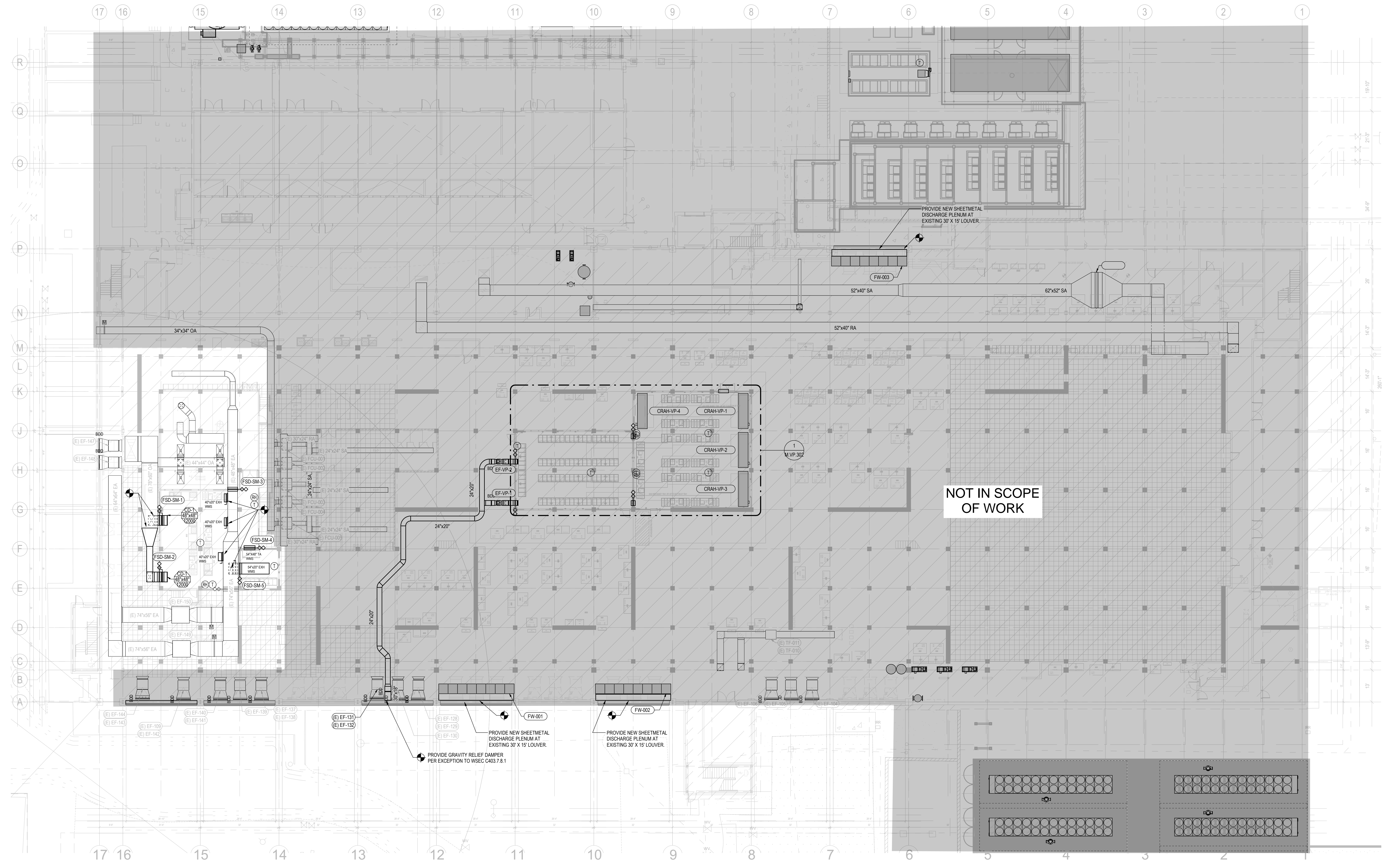
MECHANICAL DRAWINGS

CENTERIS
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 PUYALLUP, WA 98374



Revision No.	Description	Date
PERMIT SET	SM UPS BATTERY ROOM PERMIT	2/2/2024
		5/10/2024

KEY NOTES



1 LEVEL 1 MECHANICAL PLAN
 M.SM.102 1/16" = 1'-0"

City of Puyallup
 Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

Drawn By: JLV Checked By: BO

MECHANICAL LEVEL 1 PLAN

Sheet **M.SM.102**

**MECHANICAL
DRAWINGS**

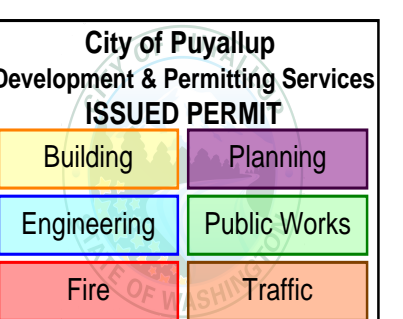
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VOLTAGE PARK UPS
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PUYALLUP, WA 98374**



2024-06-24

Revision No. Description Date

PERMIT SET 2/2/2024
SM UPS BATTERY ROOM PERMIT 5/10/2024



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**MECHANICAL
SEQUENCE OF
OPERATIONS**

Title

DESCRIPTION OF OPERATIONS

- 1.0 CONTROLS GENERAL
THIS SEQUENCE OF OPERATION IS WRITTEN FOR CONTROLLING THE CENTERS SCALE MATRIX HEATING VENTILATING AND AIR CONDITIONING (HVAC) SYSTEMS ON THE BUILDING EXTERIOR AT 1019 39th AVE, PUYALLUP, WA. INCLUDE A SHOP DRAWING SUBMITTAL FOR THE SYSTEM.
 - A. THE EXISTING ALERTON BUILDING AUTOMATION SYSTEM (BAS) AS PROVIDED BY ATS SHALL BE EXPANDED UPON FOR THE EXTERIOR FUTURE TENANT HVAC SYSTEMS. THE CONTROL SYSTEM IS PROGRAMMED TO SEQUENCE THE OPERATION DESCRIBED WITHIN THE CONTRACT DOCUMENTS. ATS SHALL PROVIDE AND INSTALL ALL NECESSARY COMPONENTS AND ACCESSORIES FOR A COMPLETE AND OPERATIONAL SYSTEM INCLUDING, BUT NOT LIMITED TO SENSORS, RELAYS, GATEWAYS, COMMUNICATION WIRING AND CONDUIT, AND ALL NECESSARY ELECTRICAL DEVICES, WIRING, AND CONDUIT.
 - B. ALL POINTS IDENTIFIED IN THE CONSTRUCTION DOCUMENTS WILL BE DISPLAYED ON THE USER'S GRAPHIC INTERFACE. ALARMS AND OTHER SYSTEM NOTIFICATIONS REPORT TO SYSTEM USERS.
 - C. THE ARCHITECTURE OF THE BAS SHALL BE SO THAT COMMUNICATION FAILURE WITH AN INDIVIDUAL EQUIPMENT CONTROLLER SHALL NOT DISABLE EQUIPMENT FROM BEING ABLE TO OPERATE ON THE LOCAL CONTROLLER SETPOINTS FOR STANALONE OPERATION SHALL BE ESTABLISHED WITH ETH OWNER.
 - D. SYSTEMS CONTROLLED
 - a. THE CONTROL SYSTEM SHALL EXECUTE CONTROL FUNCTIONS OVER THE FOLLOWING NEW SYSTEMS:
 - i. NONE
 - b. THE CONTROL SYSTEM SHALL EXECUTE EXISTING CONTROL FUNCTIONS OVER THE FOLLOWING EXISTING SYSTEMS
 - i. (E) RAU-01 & RAU-02
 - ii. (E) EF-149 & EF-150
 - iii. NEW POINTS MONITORED
 - i. BATTERY ROOM TEMPERATURE.
- 2.0 RECIRCULATING AIR UNIT (RAU-01 & RAU-02)
 - A. GENERAL
 - a. THE TWO (2) RAU'S SERVE THE UPS SPACE FOR SCALE MATRIX. UNITS ARE SIZED FOR N+1 CAPACITY. THE RAU'S DRAW 100% OF THE AIR FROM LEVEL THREE, AND THEREFORE PROVIDE AIR BETWEEN 68°F AND 75°F WITH OCCASIONAL DRAWS CAUSING THE LEVEL 3 TO GET UP TO 89°F (OR AMBIENT PLUS FAN HEAT). THIS SYSTEM SHALL BE PERMITTED TO OPERATE AT LOWER TEMP AND HIGHER HUMIDITY.
 - B. THE BASE DISCHARGE AIR TEMPERATURE (DAT) SETPOINT COMES FROM ONE SPOT IN THE GLOBAL BCM CONTROLLER, AND IS ADJUSTABLE BY THE OPERATOR. THE DAT GLOBAL SETPOINT IS CURRENTLY LIMITED TO BETWEEN 71°F (ADJ) AND 79°F (ADJ).
 - C. EACH OF THE TWO RAU'S HAVE AN INTEGRATOR SEQUENCE TO OFFSET THE DAT SETPOINT, EITHER COLDER BASED ON THE HIGHEST DEVIATION FROM SETPOINT OF ALL SPACE TEMP SENSORS, OR WARMER BASED ON THE HIGH LIMIT DAH DEVIATION FROM SETPOINT. THE INDIVIDUAL RAU SETPOINT IS DETERMINED BY THE FOLLOWING:

UPS ROOM SETPOINT + DAH OFFSET – SPACE TEMP OFFSET.

THIS IS CALCULATED LOCALLY TO THE RAU SO EACH UNIT WILL SETTLE ON ITS OWN OFFSET, AND CONTROL TO IT, BUT THE BAS SHALL CONTROL THESE TWO RAU'S SEPARATELY FROM THE GLOBAL REQUESTS, AND BASE THEIR CONTROL ON THE HIGHEST MEASURED TEMPERATURE DEVIATION FROM SETPOINT. THE DAT UPS ROOM SETPOINT IS CURRENTLY LIMITED TO BETWEEN 71°F (ADJ) AND 79°F (ADJ). INDIVIDUAL RAU'S HAVE A DAH OFFSET AND A SPACE TEMP OFFSET (PER THE FORMULA ABOVE), DAH OFFSET AND SPACE TEMP OFFSET ARE EACH LIMITED BETWEEN 0 AND 9°F (ADJ), THEREFORE THE FINAL DAT SETPOINT MAY VARY BETWEEN 80°F AND 66°F.
 - D. THE DAH PORTION OF THE OFFSET CALCULATION VARIES BETWEEN 0°F AND 9°F HIGHER BASED ON A 75% SETPOINT (ADJ) RH SETPOINT. CURRENTLY THE MAXIMUM RH SETPOINT IS MANUALLY ENTERED AS DAH MAX FOR EACH RAU (AS 65% RH) FOR THE DATA HALL UNITS. THESE UNITS SHALL BE CONTROLLED DIFFERENTLY TO ALLOW FOR HIGHER HUMIDITY AND LOWER TEMPERATURE, WHICH IS REQUIRED WHERE THERE IS NO COLD AISLE HOT AISLE SEPARATION.
 - E. SPACE TEMP OFFSET IS BASED ON THE MEASURED SPACE TEMPERATURE AND INCREASED TO MAINTAIN A 2°F (ADJ) LESS OFFSET FROM HIGHEST SPACE TEMP MEASURED IN ALL SPACES. IT IS BEING INTEGRATED TO REDUCE THE DAT SETPOINT FROM 0 AND 5°F LESS THAN THE UPS ROOM SETPOINT. GENERATE AN ALARM IF SPACE TEMPERATURE IS ABOVE SETPOINT BY 5°F (ADJ).
 - F. DAH OFFSET IS BASED ON THE MEASURED DAH AND THE OFFSET FROM MAXIMUM. IF IN EVAPORATIVE COOLING MODE, THEN THE OFFSET FROM MAXIMUM IS 5°F BELOW SETPOINT FOR THE RAU, AND THE DAH CAN BE FROM 0 TO 9°F HIGHER.
 - G. CLOSE THE EVAP COOLING VALVE AND GENERATE A HIGH HUMIDITY ALARM IF CAH IS ABOVE 95% (ADJ).
 - H. ONE (1) RAU OPERATES CONTINUOUSLY, AND THE OTHER SHALL BE CYCLED ON AS BACKUP USING THE EXISTING LEAD/LAG SEQUENCE, AND THE NEW TEMPERATURE SENSOR IN THE BATTERY ROOM SHALL BE ADDED SIMILAR TO THE EXISTING SPACE TEMP SENSORS.
 - I. THE UPS ROOM SETPOINT IS 75°F (OR AS INDIVIDUALLY SET AT THE BAS, ADJ) AND 82°F (ADJ) IN THE BATTERY ROOM.
 - a. EACH OF THE 3 TEMPERATURE SENSORS SHALL BE PROVIDED WITH AN INDIVIDUALLY ADJUSTABLE SETPOINT AT THE BAS. SENSORS THAT HAVE FAILED OR ARE 15°F (ADJ) ABOVE OR BELOW THE AVERAGE IN THE UPS ROOM WILL NOT BE USED FOR CONTROL AND SHALL GENERATE AN ALARM.
 - J. NEW SYSTEM ALARM LIST
 - a. HIGH BATTERY ROOM TEMPERATURE ALARM, ABOVE 87°F (ADJ).
 - b. TEMPERATURE SENSOR FAILURE.
- 3.0 SCALE MATRIX UPS AND BATTERY ROOM EXHAUST FAN (EF-149 & 150)
 - A. GENERAL
 - B. TWO (2) EXHAUST FANS SERVE THE BATTERY ROOM SPACE FOR SCALE MATRIX. FANS ARE SIZED FOR N+1 CAPACITY. FANS ARE IN LINE BELT DRIVEN AXIAL FANS WITH VFD'S FOR SPEED CONTROL. THE BAS SHALL USE EXISTING SEQUENCE TO CONTROL THE EXHAUST FANS FOR THE SCALE MATRIX EXHAUST SYSTEMS THAT INCLUDE TRANSFER AIR TO THE BATTERY ROOM THROUGH THE UPS SPACE. AS-BUILT EXISTING SEQUENCE CONFIRMING IF BOTH OPERATE AT 50% AND ONE RAMPING UP IF THE OTHER FAILS, OR IF ONE OPERATES AT 100% AND THE OTHER STARTS UPON FAILURE. CONFIRM IF THERE IS ROOM PRESSURE MONITORING.