

Addendum #10

East Lake Community Center Renovations

CONTRACT NO. Y-17-005

Bid schedule per this Addendum

Pre-Bid Meeting January 9th, 2020 at 10:00am
Last Day for Questions January 17th, 2020
Bid Opening January 30th, 2020 at 2:00 pm

Attachments:

DRAWINGS

Mechanical

Sheet M4.1 MECHANICAL ROOF PLAN (Revision 1 dated January 24, 2020)

- Added note detailing unit flow configuration and curb minimum height.

Sheet M8.1 MECHANICAL SCHEDULES & NOTES (Revision 1 dated January 24, 2020)

- RTU-6a/b Fan E.S.P. increased to account for static drop in curb. Note added describing new roof curb height restrictions.

END OF ADDENDUM #10

**East Lake YFD Center
 Improvements**
 3610 Dodds Avenue, Chattanooga, TN 37402



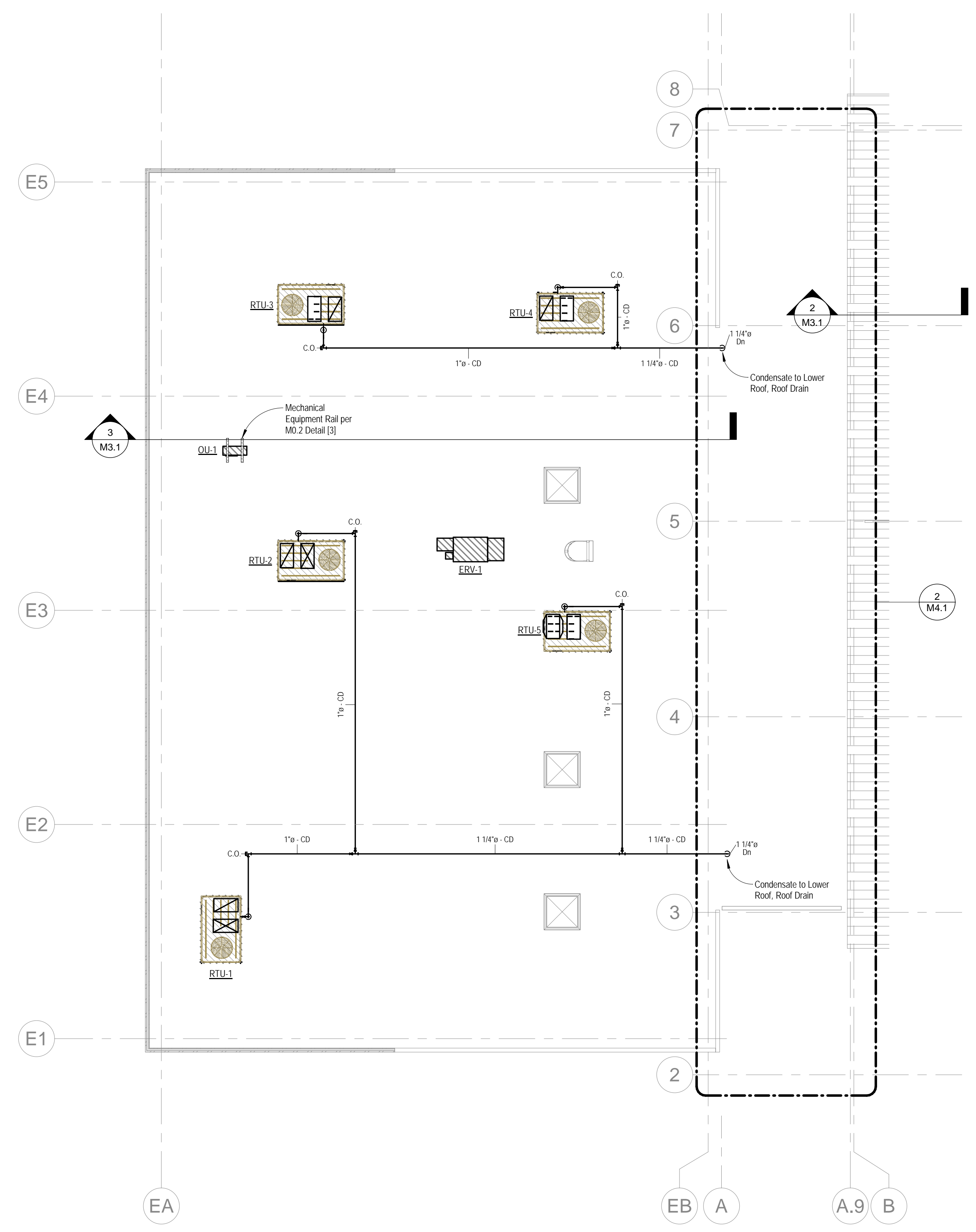
ISSUE DATES

INITIAL ISSUE	12/20/19
1 ADDENDUM 10	01/24/20

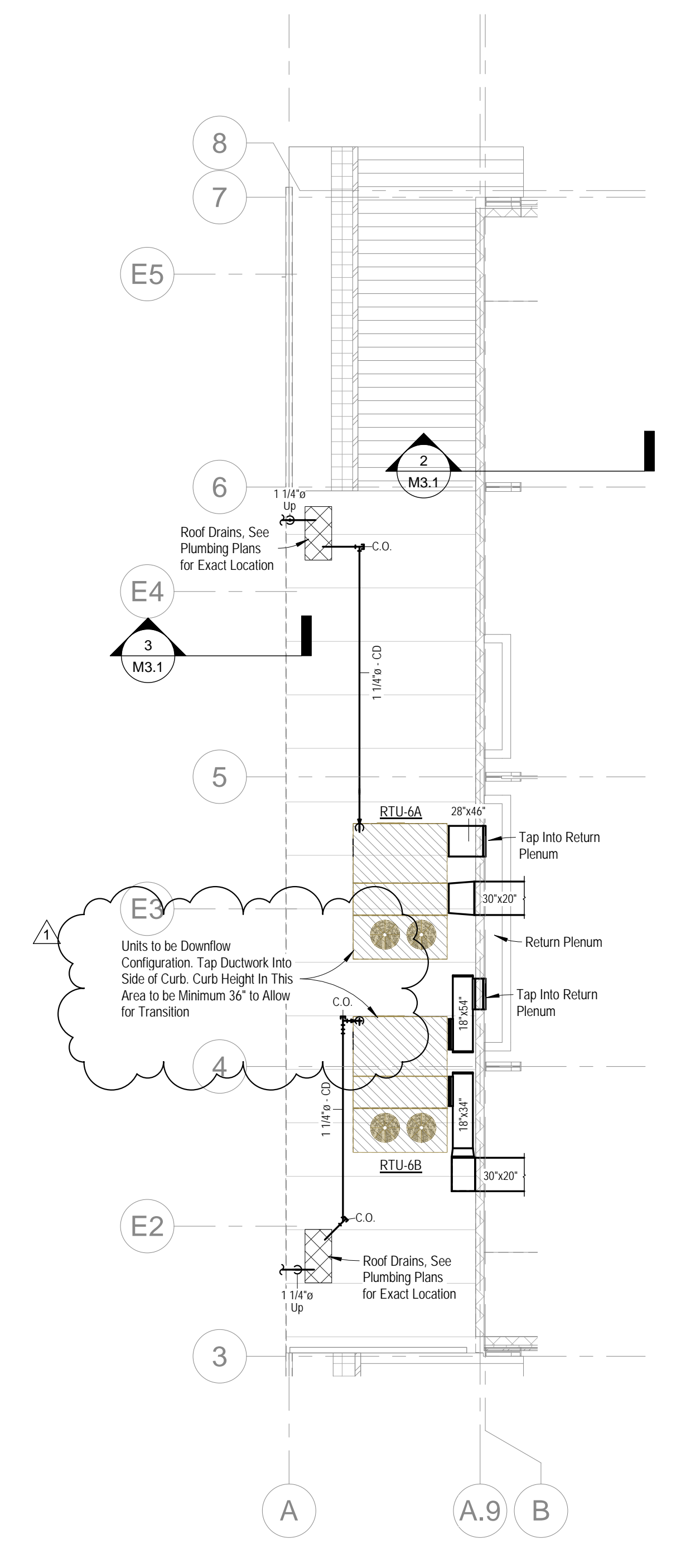
JOB NO. 18-072	D'WN BRF/HSW	CKD CJW
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M4.1
 MECHANICAL ROOF PLAN

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 Chattanooga, Tennessee 37404
 PH: (423)698-6675
 MAA #: 19211



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



2 LOWER ROOF PLAN - MECHANICAL
 SCALE: 1/8" = 1'-0"

M4.1
 MECHANICAL ROOF PLAN

Rooftop Unit Schedule - Gas Heat table with columns: Mark, Manufacturer, Model, Air Flow (Supply, Outdoor Air, Minimum, Maximum), External Static Pressure, Cooling (Nominal Capacity, Net Total, Net Sensible), Energy Efficiency Rating, Gas Heating (Input, Output, Filter), Electrical (Voltage, Number of Poles, MCA, MOCP), Operating Weight, Notes.

- Notes: 1. Condenser coil hall guard, 2. Manufacturer's 7-day programmable thermostat, 3. Enthaply controlled economizer w/Barometric Relief, 4. Unit mounted CO2 sensor, 5. Convenience outlet (powered), 6. Roof curb height TBD - Slope as required to insure level equipment installation, 7. Hot Gas Reheat, 8. VFD Fan Controls, 9. Unit mounted Humidity sensor, 10. Dual Compressors for Part Load Applications, 11. Roof curb height 36" Minimum Above Flashing on Supply/Return Side - Slope as Required to Insure Level Equipment Installation - Coordinate w/Rooftop Contractor.

Approved Alternates: Carrier, Dakin, Johnson Controls Any Alternate Must Be Able to Meet Clearance of Low Roof RTUs

Energy Recovery Ventilator (ERV) Schedule

ERV-1 table with columns: Mark, Manufacturer, Model, Supply Fan (CFM, ESP, HP), Exhaust Air (CFM, ESP, HP), Load Reduction (Cooling, Heating, Effectiveness), Electrical (Voltage, Phase, MCA, MOCP), Operating Weight, Notes.

- Notes: 1. Provide w/Frost Protection, 2. Provide w/Insulated Roof Curb Sloped to Meet Roof - Height TBD, 3. Provide w/MERV 8 Filters (Supply and Exhaust), 4. Must Be Able to Operate in Exhaust Only Application (Only During RTU-2 Economizer Cycle), 5. Provide w/Non-Fused Disconnect.

Approved Alternates: Ruskin, Greenheck, or Equivalent

Electric Wall Heater Schedule

EW-1 table with columns: Mark, Manufacturer, Model, Watts, Voltage, Number of Poles, Operating Weight, Location, Control, Notes.

- Notes: 1. Electric wall heater shall be provided with electrical disconnect, protective devices, sensors, and interlocks required for a complete, operable system, 2. Electric wall heater shall be hard wired, plugs are not acceptable.

Approved Alternates: QMark, Dayton

High-Wall Ductless Split System Schedule

OU-1 table with columns: Mark, Model, Manufacturer, Nominal Cooling Capacity, Outdoor Section (Cooling Coil, Ratings, SEER), Electrical (Voltage, Number of Poles, MCA, MOCP), Indoor Section (Operating Weight, Mark, Model, Air Flow, Operating Weight), Notes.

- Notes: 1. Provide w/Variable Speed Inverter Driven Compressor, 2. Provide w/7-Day Programmable Digital Thermostat, 3. Electrical Shall Provide Conduit Pull String for Low Power Wiring by Mechanical.

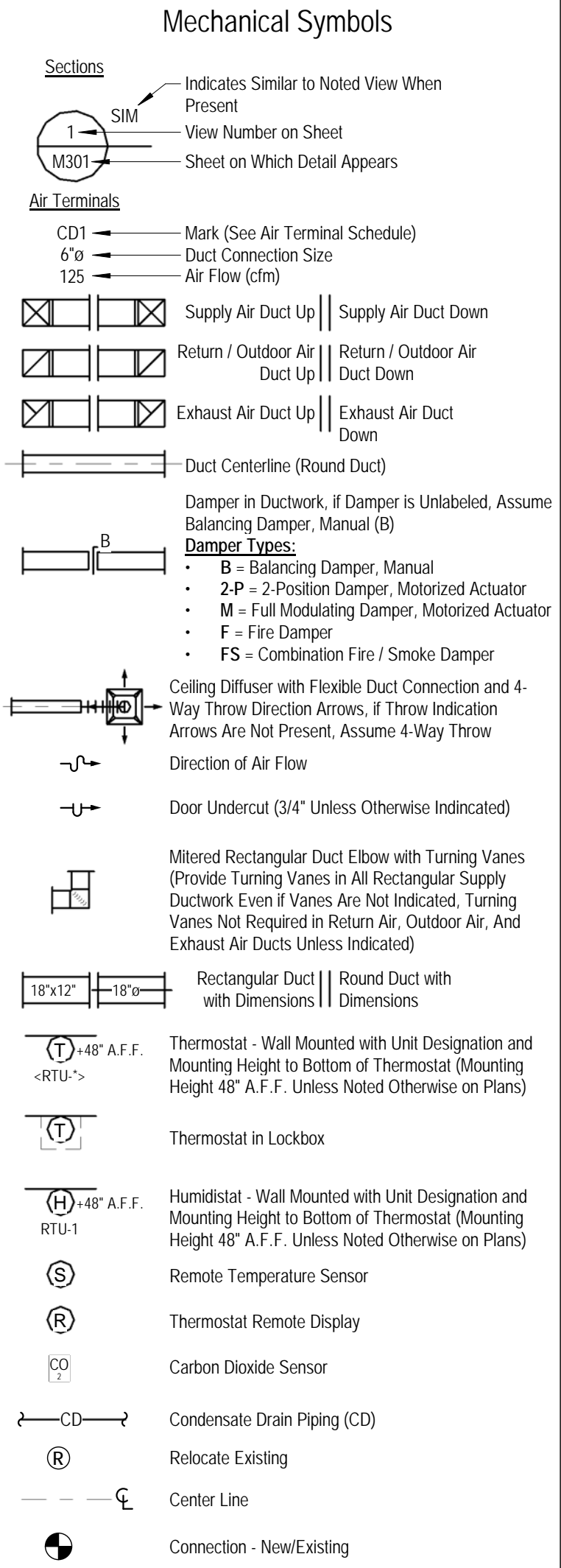
Approved Alternates: LG, Daikin, or Equivalent

Air Terminal Schedule

Table with columns: Mark, Manufacturer, Model, Description, Material, Size, Count.

- Notes: 1. Noise Criteria Shall Not Exceed 25, 2. Contractor Shall Coordinate Border with Ceiling Type (Lay-In Or Gyp), 3. Refer to Mechanical Floor Plans(S) For CFM, 4. Air Devices Are 4-Way Throw (Unless Noted Otherwise on Mechanical Floor Plans), 5. Supply Air Terminals Shall Be Supplied with Opposed Blade Damper, 6. Provide Manual Volume Damper at Main Trunk Take-Off For Balancing Supply and Return, 7. Air Terminal Finishes Shall Be Per Architect.

Approved Alternates: Metalaire, Tiltus



Mechanical Controls Notes

Controls for Gas RTUs: RTUs to Have Standard Thermostat Wiring Interface. Controls for Ductless Mini Splits: Units to be Provided with Compatible PAC-US44CN-1 Thermostat Interface.

Ductless Mini Splits Sequence of Operations: RTU-2 to Operate in Conjunction with ERV-1 at Design Outdoor Air Load During Occupied Hours.

Controls for Ductless Mini Splits (continued): Units will be Connected to Existing City of Chattanooga City Wide Building Automation System.

Ductless Mini Splits (continued): HP-1 in Conjunction with FC-1 to Maintain Space Setpoint Temperature.

Mechanical Project Notes

- 1. All mechanical work shall be done in accordance with all state and local laws and ordinances and in a manner satisfactory to the authority having jurisdiction. It shall be the responsibility of the Mechanical contractor to obtain all required permits, inspections and pay all applicable fees. 2. The mechanical contractor shall coordinate the routing of ductwork with other trades and ensure there is available space for all involved occupations before fabrication of ductwork begins. 3. The mechanical contractor shall not pass ductwork, piping, or place mechanical equipment directly over any electrical panels or electrical equipment. 4. Fire dampers are required where ductwork penetrates a one or more floor fire resistance rated assembly. 5. Fire dampers may be omitted in 1-hour rated fire partitions where the duct penetrating the wall is not larger than 100 in^2, the duct does not terminate at a wall register, steel duct material is at least 0.0217 in. thick, and the duct is located above a ceiling. 6. Fire dampers are also required where ducts pass through fire rated floor assemblies. 7. All mechanical equipment shall be provided complete with electrical start, protective devices, and interlocks required for complete operable system. 8. Mechanical equipment placement shall allow for full service/maintenance as recommended by the equipment manufacturer. 9. Color and finish of air terminals, louvers, and wall caps shall be coordinated with the architect. 10. The mechanical contractor is responsible for the testing, adjusting and balancing of all air systems. 11. All ductwork shall be connected to mechanical equipment with flexible U.L. listed connectors. 12. Outdoor air intakes shall not be located within 10'-0" of exhaust/relief louvers, wall caps, plumbing vents, or roof caps. 13. Units with air flows above 2,000 cfm must have a duct mounted smoke detector mounted in the supply duct downstream of all filters. 14. Smoke detectors are also required in the return air stream prior to any exhausting from the building or mixing with outdoor air unless all portions of the building served by the air distribution system are protected by area smoke detectors connected to a fire alarm system in accordance with the International fire code. 15. Insulating materials shall have a flame spread index not more than 25 and a smoke-developed index not exceeding 450 in accordance with ASTM E 84. 16. The mechanical contractor shall provide access panels in non-lay-in type ceiling (example gypsum ceilings) for all mechanical valves and dampers. 17. Where ductwork is visible through registers and grilles, the mechanical contractor shall prime and paint the interior of the ductwork black. 18. The mechanical contractor shall size refrigerant line sets in accordance with the equipment manufacturer's guidelines. 19. Furnish mechanical as-built drawings as well as Operations & Maintenance manuals for all mechanical systems to the owner within 90 days of system acceptance by the authority having jurisdiction.

HVAC Submittals

The mechanical contractor shall provide the HVAC equipment submittals with an electrical summary sheet for use by the electrical engineer. The sheet shall indicate voltage, phase, MCA, and MOCP for all HVAC equipment submitted.

Mechanical Sheet List

Table with columns: Sheet Number, Sheet Name, Current Revision Description.

Design Conditions

Table with columns: Design Data Location, Heating db (99.6%), Cooling db (0.4%), Mean Coincident wb (0.4%), Weather Station, Current Energy Code, Climate Zone, Indoor Heating db, Cooling db, Cooling Relative Humidity.

db: Dry Bulb °F, wb: Wet Bulb °F, Note: Outdoor conditions based upon ASHRAE Climatic Design Conditions 2017.

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ISSUE DATES INITIAL ISSUE 12/20/19 1 ADDENDUM 10 01/24/20

JOB NO: 18-072 D'WN BRF/HSW CKD CJW

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M8.1 MECHANICAL SCHEDULES & NOTES