

**MECHANICAL EQUIPMENT TAG NOTES:**

- A MECHANICAL CONTRACTOR SHALL INSTALL NEW LENNOX ROOFTOP UNIT AND ROOF CURB. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ROOF CURB FOR NEW ROOFTOP UNIT. PROVIDE NEW ROOF OPENINGS AS NECESSARY TO ACCOMMODATE NEW ROOFTOP UNIT. REFER TO ROOFTOP UNIT SCHEDULE ON DWG. M1.1 FOR ADDITIONAL INFORMATION. THE WEIGHT OF THE NEW ROOFTOP UNIT IS 1500 LBS.
- B MECHANICAL CONTRACTOR SHALL INSTALL NEW LENNOX ROOFTOP UNIT AND ROOF CURB. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ROOF CURB FOR NEW ROOFTOP UNIT. PROVIDE NEW ROOF OPENINGS AS NECESSARY TO ACCOMMODATE NEW ROOFTOP UNIT. REFER TO ROOFTOP UNIT SCHEDULE ON DWG. M1.1 FOR ADDITIONAL INFORMATION. THE WEIGHT OF THE NEW ROOFTOP UNIT IS 1400 LBS.
- C EXISTING EMPTY ABANDONED DUNNAGE TO REMAIN.
- D EXISTING ROOFTOP UNIT TO REMAIN SERVING HARBOR FREIGHT TOOLS' ADJACENT LEASE SPACE TO THE WEST.

NOTE:  
GENERAL CONTRACTOR SHALL ENGAGE LANDLORD'S ROOFING CONTRACTOR FOR ANY ROOFING WORK.

NOTE:  
MECHANICAL CONTRACTOR SHALL PERFORM AN HVAC SYSTEM CHECK PRIOR TO AND AFTER COMPLETION OF SIEMENS' SCOPE OF WORK INCLUDING THE SMOKE DETECTOR TEST/RESET BUTTON.

NOTE:  
MECHANICAL CONTRACTOR SHALL ENSURE ALL NEW EXPOSED DUCTWORK IS SEALED CLEANLY IN THE EVENT IT DOES NOT RECEIVE A FINAL PAINTED FINISH. COORDINATE WORK WITH GENERAL CONTRACTOR AND HARBOR FREIGHT TOOLS' PROJECT MANAGER.

NOTE:  
MECHANICAL CONTRACTOR SHALL REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR COMPLETE INTERFACE REQUIREMENTS.

NOTE:  
MECHANICAL CONTRACTOR SHALL LEAVE ROOFTOP UNITS IN WIRED THERMOSTAT MODE UNTIL COMMISSIONING.

NOTE:  
MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING UNUSED MECHANICAL EQUIPMENT, UNIT HEATERS, EXHAUST FAN(S), DUCTWORK, DIFFUSER(S), ETC., COMPLETELY UNLESS OTHERWISE NOTED TO REMAIN. GENERAL CONTRACTOR SHALL ENGAGE LANDLORD'S ROOFING CONTRACTOR FOR ALL ROOFING WORK. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR TO DISCONNECT ELECTRICAL SERVICE FROM EQUIPMENT BEING REMOVED AND COORDINATE WITH PLUMBING CONTRACTOR FOR DISCONNECTING GAS FROM EQUIPMENT BEING REMOVED.

NOTE:  
MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL BURGLAR BARS IN THE DUCT DROPS OF THE NEW ROOFTOP UNITS.

NOTE:  
MECHANICAL CONTRACTOR SHALL REFER TO DRAWING M1.1 FOR LABELING OF EQUIPMENT PROCEDURE.

**MECHANICAL GENERAL NOTES:**

1. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, THE MECHANICAL CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, TRANSITIONS, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
2. PERFORM ALL WORK IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE APPROPRIATE STATE AND LOCAL BUILDING CODES AND SUBTITLES.
3. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDED OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
4. IF CONFLICTS EXIST, PRIORITY OF LOCATION IN REFLECTED CEILING GRID SHALL BE AS FOLLOWS FROM HIGH TO LOW: SPRINKLER, MECHANICAL, LIGHTS, AND FIRE ALARM DEVICES (AS APPLICABLE).
5. SENSORS AS MANUFACTURED BY SIEMENS. MECHANICAL CONTRACTOR SHALL LABEL EACH SENSOR APPROPRIATELY TO THE CORRESPONDING ROOFTOP UNIT IT SERVES. TOUCHPAD SHALL BE LOCATED IN THE MANAGER'S OFFICE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR.

**MECHANICAL GENERAL NOTES (CONTINUED):**

6. MECHANICAL CONTRACTOR SHALL PROVIDE AN AIR BALANCE REPORT TO VERIFY THAT THE HVAC EQUIPMENT IS FULLY OPERATIONAL. AIR BALANCE REPORT SHALL BE PREPARED BY A THIRD PARTY HIRED BY THE GENERAL CONTRACTOR. PAYMENT OF ALL COSTS FOR TESTING SHALL BE MADE BY THE MECHANICAL CONTRACTOR. TURN OVER AIR BALANCE REPORT TO HARBOR FREIGHT TOOLS' GENERAL CONTRACTOR FOR DISTRIBUTION. REFER TO MECHANICAL SPECIFICATIONS ON DWG. M1.3 FOR ADDITIONAL INFORMATION REGARDING TESTING AND BALANCING.
7. MECHANICAL CONTRACTOR ENSURE THERE ARE FILTERS IN ALL ROOFTOP UNITS DURING CONSTRUCTION AND SHALL INSTALL NEW FILTERS DURING CONSTRUCTION AND REPLACE ALL FILTERS PRIOR TO TURNOVER AND DATE ALL FILTERS WITH INSTALL DATE.
8. MECHANICAL CONTRACTOR SHALL RUN ALL DUCTWORK AS HIGH AS POSSIBLE; MINIMUM OF 12'-6" A.F.F.
9. MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF SPACE TEMPERATURE SENSORS, RELATIVE HUMIDITY SENSOR AND CARBON DIOXIDE SENSORS WITH SALES FLOOR FIXTURES AND GENERAL CONTRACTOR PRIOR TO INSTALLING SENSORS.
10. THE MECHANICAL CONTRACTOR SHALL BE ON SITE AS THE EMS COMMISSIONING IS BEING PERFORMED TO ENSURE ALL THE REQUIREMENTS ARE RESPONDED TO IF NOT PERFORMING CORRECTLY.
11. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ROOF CURBS COMPLETE WITH BURGLAR BARS FOR ROOFTOP UNITS. MECHANICAL CONTRACTOR SHALL CONFIRM ROOF CURB HEIGHT, ROOF SLOPE, ETC. TO ORDER PROPER ROOF CURB.

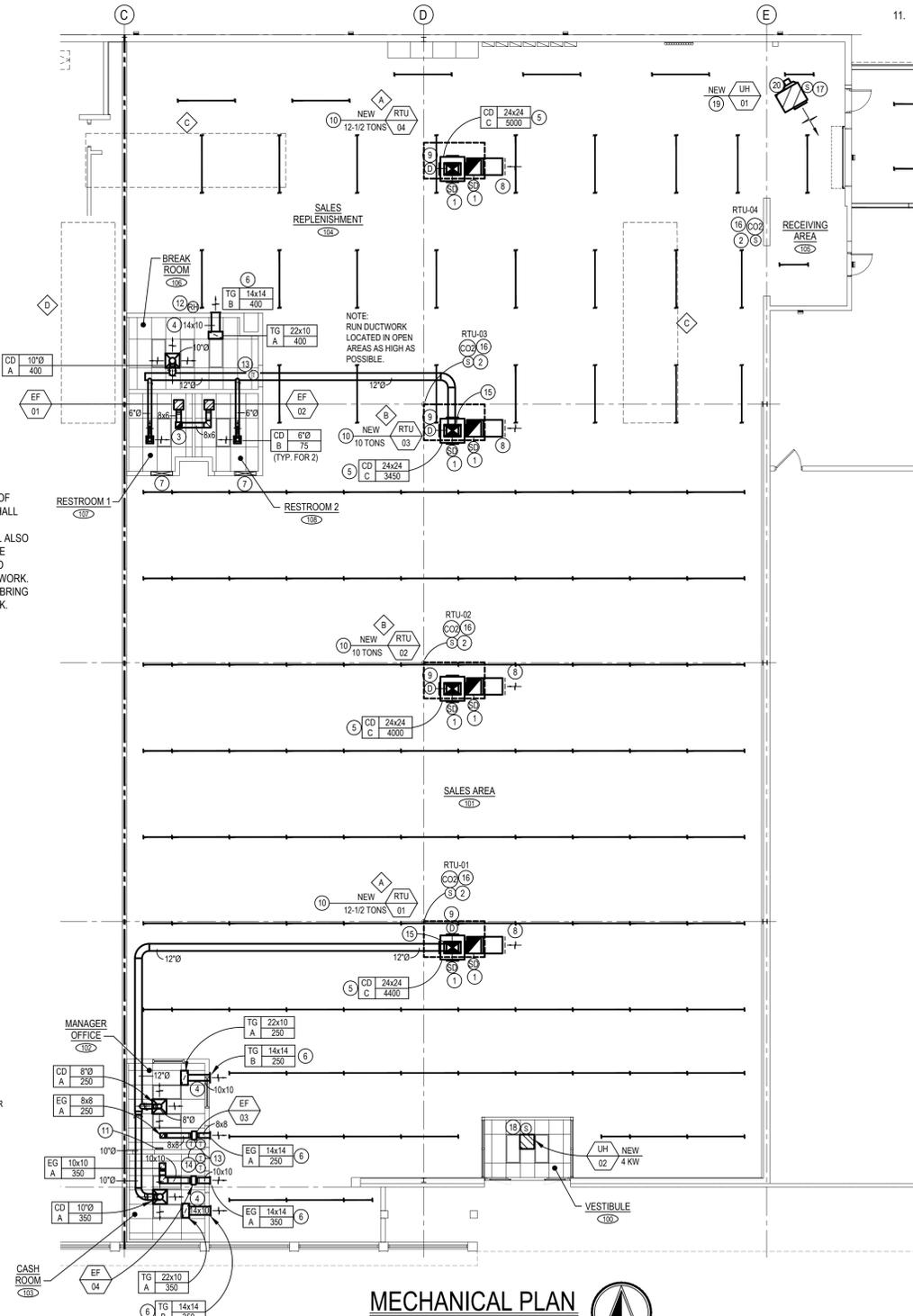
| MECHANICAL LEGEND |                                      |
|-------------------|--------------------------------------|
| SYMBOL            | DESCRIPTION                          |
| SA                | SUPPLY AIR                           |
| EA                | EXHAUST AIR                          |
| EF                | EXHAUST FAN                          |
| EG                | EXHAUST GRILLE                       |
| CD                | CEILING DIFFUSER                     |
| OA                | OUTSIDE AIR                          |
| RA                | RETURN AIR                           |
| TG                | TRANSFER GRILLE                      |
| RTU               | ROOFTOP UNIT                         |
| AFF               | ABOVE FINISH FLOOR                   |
| MC                | MECHANICAL CONTRACTOR                |
| PC                | PLUMBING CONTRACTOR                  |
| EC                | ELECTRICAL CONTRACTOR                |
| GC                | GENERAL CONTRACTOR                   |
| LL                | LANDLORD                             |
| Ⓜ                 | DUCT TEMPERATURE SENSOR              |
| Ⓧ                 | THERMOSTAT (MTD. 4'-0" AFF)          |
| Ⓢ                 | SPACE TEMPERATURE SENSOR (AS NOTED)  |
| Ⓜ                 | SMOKE DETECTOR                       |
| Ⓜ                 | RELATIVE HUMIDITY                    |
| —                 | FLEXIBLE DUCT (8'-0" MAX. LENGTH)    |
| —                 | FLEXIBLE DUCT CONNECTOR              |
| —                 | MANUAL VOLUME DAMPER                 |
| —                 | ELBOW W/ DBL THICKNESS TURNING VANES |
| —                 | FRESH RETURN EXHAUST AIR DUCT        |
| —                 | SUPPLY AIR DUCT                      |
| E.S.P.            | EXTERNAL STATIC PRESSURE             |

NOTE:  
THERE IS (1) EXISTING ROOFTOP UNIT RESIDING OVER THE ADJACENT LEASE SPACE TO THE WEST OF HARBOR FREIGHT TOOLS THAT IS TO REMAIN AND BE OPERATIONAL. MECHANICAL CONTRACTOR SHALL ENSURE THIS EXISTING ROOFTOP UNIT IS IN PROPER WORKING CONDITION AND PROVIDE (1) YEAR WARRANTY FOR EXISTING UNIT FROM DATE OF STORE OPENING. MECHANICAL CONTRACTOR SHALL ALSO ENSURE THAT THE EXISTING THERMOSTATS SERVING THIS EXISTING UNIT ARE LOCATED WITHIN THE ADJACENT LEASE SPACE TO THE WEST. RELOCATE THERMOSTATS SERVING THIS ROOFTOP UNIT TO ADJACENT LEASE SPACE IF NECESSARY. FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK. CONTACT ARCHITECT AND/OR ENGINEER OF RECORD IF PROBLEMS ARISE INCLUDING INABILITY TO BRING EXISTING UNITS TO REMAIN OPERATIONAL OR ANY EXCESSIVE COSTS ASSOCIATED WITH THIS WORK.

NOTE:  
MECHANICAL CONTRACTOR SHALL CUT AND CAP ANY EXISTING DUCTWORK WHICH MAY ENTER INTO HARBOR FREIGHT TOOLS' LEASE SPACE FROM EXISTING ROOFTOP UNIT LOCATED TO THE WEST OF THE HARBOR FREIGHT TOOLS' LEASE SPACE. DUCTS SHALL BE CAPPED TO THE WEST OF THE NEW DEMISING WALL. FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK.

NOTE:  
MECHANICAL CONTRACTOR SHALL MOUNT EXHAUST FANS (EF-03 AND EF-04) 8 TO 10 FEET ABOVE FINISHED FLOOR WITH ALL THREADED RODS AND VIBRATION ISOLATORS LOCATED ABOVE OFFICE CEILING. PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET OF THE EXHAUST FAN. TRANSITION INLET AND OUTLET OF EXHAUST FAN CONNECTIONS TO RECTANGULAR DUCT AS INDICATED ON THE MECHANICAL PLAN. PROVIDE A MINIMUM OF 18" OF EXHAUST DUCTWORK AT THE INLET AND OUTLET OF THE EXHAUST FAN. EXHAUST AIR DUCT TO TERMINATE AT FACE OF OFFICE WALL WITH NEW EXHAUST GRILLE 'A' FLUSH TO WALL. GRILLE TO BE LOCATED 2 FEET BELOW STRUCTURE. THERMOSTATS CONTROLLING THE EXHAUST FANS SHALL BE LOCATED BEHIND THE DOORS AND THE POWER AND SPEED CONTROL SWITCH ASSOCIATED WITH THE FAN SHALL BE LOCATED ABOVE THE CEILING APPROXIMATELY 10' AWAY FROM THE INSIDE WALL. THE EXHAUST FANS SHALL BE LOCATED 1 FOOT ABOVE THE CEILING OVER THE ENTRY DOOR INTO THE ROOM FOR EASE OF MAINTENANCE. NOTE: GRILLES TO BE CENTERED OVER THE DOORS WHEN POSSIBLE. ALL GRILLES TO BE AT THE SAME ELEVATION.

NOTE:  
EMS TOUCHPAD LOCATED IN MANAGER'S OFFICE. REFER TO MECHANICAL GENERAL NOTE #5 ON THIS DWG. FOR ADDITIONAL INFORMATION.



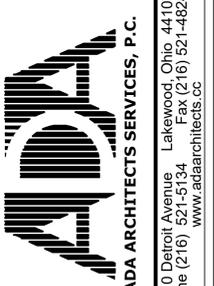
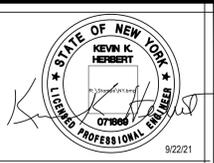
**MECHANICAL PLAN**  
SCALE: 3/32" = 1'-0"

**MECHANICAL PLAN TAG NOTES:**

1. LENNOX SHALL FURNISH AND INSTALL SMOKE DETECTORS IN THE SUPPLY AND RETURN AIR DUCTS. MECHANICAL CONTRACTOR SHALL FURNISH, INSTALL AND WIRE REMOTE TEST STATION WITH AUDIO VISUAL ALARM SYSTEM SENSOR MODEL RTS-2A1S NEXT TO THE PHONE BOARD OR AT A LOCATION APPROVED BY THE AUTHORITY HAVING JURISDICTION. MECHANICAL CONTRACTOR SHALL PROVIDE CONTROL WIRING TO RTU AND INTERLOCKING WIRING TO OTHER DUCT DETECTORS AS REQUIRED FOR GLOBAL SHUT-DOWN. MECHANICAL CONTRACTOR SHALL WIRE DETECTORS TO FIRE ALARM SYSTEM (IF REQUIRED). SEE DUCT DETECTOR DETAIL ON DRAWING M1.2 FOR WIRING.
2. SPACE TEMPERATURE SENSOR MOUNTED ON COLUMN AT 7'-0" A.F.F.
3. 8x8 EXHAUST AIR DUCT RISER THRU ROOF IN PRE-FAB INSULATED ROOF CURB TO GOOSENECK WITH BIRDSCREEN. COORDINATE ROOF OPENING AND ROOFING REPAIR WITH LANDLORD AND LANDLORD'S ROOFING CONTRACTOR.
4. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL TRANSFER AIR DUCT WITH 1" THICK ACOUSTIC LINING.
5. MECHANICAL CONTRACTOR SHALL TRANSITION SUPPLY AIR DUCT IN DROP AND CONNECT TO DROP DIFFUSER SYSTEM. MOUNT DROP DIFFUSER SYSTEM AS HIGH AS POSSIBLE. REFER TO RTU DROP BOX DIFFUSER DETAIL ON DWG. M1.2 FOR ADDITIONAL INFORMATION. OFFSET DROP DIFFUSER SYSTEM AS NECESSARY TO AVOID LIGHTS.
6. MOUNT TRANSFER AIR AND/OR EXHAUST AIR GRILLE ON WALL AS HIGH AS POSSIBLE. APPROXIMATELY 2 FEET BELOW STRUCTURE. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL 14"x14" PLENUM BOX BEHIND GRILLE. MECHANICAL CONTRACTOR SHALL EXTEND AND CONNECT TRANSFER OR EXHAUST AIR DUCT INTO BACK OF PLENUM BOX.
7. 1" TOTAL FREE AREA BETWEEN FLOORING AND BOTTOM OF DOOR. UNDERCUT DOOR BY GENERAL CONTRACTOR.
8. EXTEND RETURN AIR DUCT, FULL SIZE, WITH ELBOW AS HIGH AS POSSIBLE. REFER TO RTU DROP BOX DIFFUSER DETAIL ON DWG. M1.2. COVER RETURN AIR DUCT OPENING WITH 1"x1" WIRE MESH SCREEN. FURNISH AND INSTALL RETURN AIR DUCT WITH 1" THICK ACOUSTIC LINING.
9. DUCT TEMPERATURE SENSOR, MOUNTED IN BOTTOM OF MAIN SUPPLY AIR DUCT. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR MORE INFORMATION.
10. ROOFTOP UNIT DIGITAL ZONE CONTROLLER. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR MORE INFORMATION.
11. EMS TOUCHPAD. COORDINATE WITH ELECTRICAL CONTRACTOR AND EMS DRAWINGS FOR MORE INFORMATION.
12. RELATIVE HUMIDITY SENSOR MOUNTED ON COLUMN AT 4'-0" A.F.F. NOTE: REFER TO SIEMENS EMS DRAWINGS SET FOR ADDITIONAL INFORMATION.
13. THERMOSTAT MOUNTED ON WALL AT 4'-0" A.F.F. TO CONTROL DIFFUSER.
14. THERMOSTAT MOUNTED ON WALL AT 4'-0" A.F.F. TO EXHAUST FAN.
15. EXTEND AND CONNECT NEW SUPPLY AIR BRANCH DUCT. SIZE AS INDICATED ON PLAN. INTO SUPPLY AIR DUCT MAIN PRIOR TO CONCENTRIC DIFFUSER. INSTALL OPPOSED BLADE DAMPER BETWEEN BRANCH SUPPLY AIR DUCT TAKE-OFF AND DROP BOX DIFFUSER.
16. CARBON DIOXIDE SENSOR MOUNTED ON COLUMN AT 7'-0" A.F.F. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR MORE INFORMATION.
17. UH-01 SENSOR. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR MORE INFORMATION.
18. UH-02 SENSOR. REFER TO THE SIEMENS EMS DRAWING SET (EMS-1 THRU EMS-3) FOR MORE INFORMATION.
19. NEW GAS-FIRED UNIT HEATER. SUSPEND GAS UNIT HEATER WITH ALL THREADED RODS AND NEOPRENE VIBRATION ISOLATORS FROM STRUCTURE FRAMING AS HIGH AS POSSIBLE. COORDINATE IN FIELD. MOUNT AT 14'-0" A.F.F. MINIMUM.
20. MECHANICAL CONTRACTOR SHALL EXTEND CONCENTRIC INTAKE/EXHAUST FLUE THRU ROOF IN PRE-FAB INSULATED ROOF CURB. REFER TO GAS-FIRED UNIT HEATER DETAIL ON DWG. M1.2. MECHANICAL CONTRACTOR SHALL COORDINATE ALL ROOFING WORK WITH LANDLORD AND LANDLORD'S APPROVED ROOFING CONTRACTOR.

**TONNAGE BREAKDOWN**

|                      |        |
|----------------------|--------|
| TOTAL TONNAGE        | 45     |
| TOTAL SQUARE FOOTAGE | 15,172 |
| SQUARE FOOT/TON      | 337    |



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**REVISIONS**

| # | DATE | TYPE |
|---|------|------|
| 1 |      |      |
| 2 |      |      |
| 3 |      |      |
| 4 |      |      |
| 5 |      |      |
| 6 |      |      |
| 7 |      |      |
| 8 |      |      |
| 9 |      |      |

**MECHANICAL PLAN**

DATE 9/22/21  
JOB NO. 20420

**M1.0**  
SHEET NO.