

| AIR DEVICE SCHEDULE |       |       |          |       |                         |                 |         |         |          |             |  |
|---------------------|-------|-------|----------|-------|-------------------------|-----------------|---------|---------|----------|-------------|--|
| MARK                | MFR.  | MODEL | FUNCTION | THROW | NECK SIZE (DIA. OR WXH) | FACE SIZE (WXH) | MAX CFM | NC (DB) | MATERIAL | ACCESSORIES |  |
| B-1                 | TITUS | OMNI  | SUPPLY   | 4 WAY | 6"Ø                     | 12 X 12         | 100     | 25      | ALUMINUM | [1][2][3]   |  |
| S-2                 | TITUS | OMNI  | SUPPLY   | 4 WAY | 8"Ø                     | 24 X 24         | 225     | 25      | ALUMINUM | [1][2][3]   |  |
| S-3                 | TITUS | OMNI  | SUPPLY   | 4 WAY | 10"Ø                    | 24 X 24         | 375     | 25      | ALUMINUM | [1][2][3]   |  |
| S-4                 | TITUS | OMNI  | SUPPLY   | 4 WAY | 12"Ø                    | 24 X 24         | 500     | 25      | ALUMINUM | [1][2][3]   |  |
| R-1                 | TITUS | PAR   | RETURN   | -     | 6"Ø                     | 24 X 24         | 225     | 25      | ALUMINUM | [1][2]      |  |
| R-2                 | TITUS | PAR   | RETURN   | -     | 10"Ø                    | 24 X 24         | 375     | 25      | ALUMINUM | [1][2]      |  |
| R-3                 | TITUS | PAR   | RETURN   | -     | 12"Ø                    | 24 X 24         | 500     | 25      | ALUMINUM | [1][2]      |  |
| R-4                 | TITUS | PAR   | RETURN   | -     | 18 X 18                 | 24 X 24         | 1000    | 25      | ALUMINUM | [1][2]      |  |
| RG-1                | TITUS | 56FL  | TRANSFER | -     | 24 X 10                 | 26 X 12         | 400     | 25      | STEEL    | [1][2][3]   |  |

- COLOR WHITE
- FRAME STYLE TO MATCH SURFACE
- MANUFACTURER MOLDED INSULATED BACK
- OPPOSED BLADE DAMPER
- 3/4" SPACING BETWEEN BLADES, 0° DEFLECTION

| EXHAUST FAN SCHEDULE |        |         |              |       |        |         |        |     |               |                |              |
|----------------------|--------|---------|--------------|-------|--------|---------|--------|-----|---------------|----------------|--------------|
| MARK                 | MFR.   | MODEL   | TYPE         | CFM   | E.S.P. | FAN RPM | DRIVE  | HP  | VOLTS / PHASE | APPROX. WEIGHT | ACCESSORIES  |
| EF-1                 | BROAN  | QTXE080 | CEILING MNT. | 75    | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-2                 | BROAN  | QTXE080 | CEILING MNT. | 75    | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-3                 | BROAN  | QTXE080 | CEILING MNT. | 75    | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-4                 | BROAN  | QTXE150 | CEILING MNT. | 150   | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-5                 | BROAN  | QTXE150 | CEILING MNT. | 150   | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-6                 | BROAN  | QTXE150 | CEILING MNT. | 150   | .25    | 1300    | DIRECT | -   | 120 / 1       | -              | [1][2][3]    |
| EF-7                 | DAYTON | 1AHR8   | WALL MNT.    | 5,000 | .125   | 765     | BELT   | 1/2 | 120 / 1       | 300 LBS        | [1][2][3][4] |

- BACK DRAFT DAMPER
- MOUNTING BRACKET
- EXHAUST FAN SHALL ALSO BE ACTIVATED BY MEANS OF EITHER WALL SWITCH, CARBON MONOXIDE DETECTOR AND / OR NITROGEN DIOXIDE DETECTORS.
- COORDINATE MOUNTING HEIGHT WITH G.C. AND ARCHITECTURAL PLANS BEFORE INSTALLATION
- CABINET FAN WITH INTAKE GUARD
- FAN ACTIVATED WITH LIGHT SWITCH

| ELECTRIC UNIT HEATER SCHEDULE |        |           |                 |                |      |              |                       |
|-------------------------------|--------|-----------|-----------------|----------------|------|--------------|-----------------------|
| MARK                          | MFR.   | TYPE      | MODEL           | HEATING OUTPUT | CFM  | V / PH / HZ  | ACCESSORIES           |
| EUH-1                         | DAYTON | ELECTRIC  | 2YU75           | 51,200 BTU     | 1320 | 208 / 3 / 60 | [1][2]                |
| EUH-2                         | DAYTON | ELECTRIC  | 2YU75           | 51,200 BTU     | 1320 | 208 / 3 / 60 | [1][2]                |
| EUH-3                         | QMARK  | WALL MNT. | AWH 4000 SERIES |                | 1300 | 120 / 1      | [1][2][3][4][5][6][7] |

- CEILING MOUNT BRACKET - MOUNT AT 10'-0" A.F.F.
- PROVIDE WALL MOUNTED THERMOSTAT
- SEMI RECESSED WALL MOUNT HEATER
- MOUNT UNIT ON WALL APPROX. 18" AFF.
- COMMERCIAL GRADE
- INTEGRAL DISCONNECT SWITCH
- INTEGRAL TAMPER PROOF THERMOSTAT

| H.V.A.C. DUCTWORK SCHEDULE |                 |                |          |      |       |      |     |            |      |     |       |        |
|----------------------------|-----------------|----------------|----------|------|-------|------|-----|------------|------|-----|-------|--------|
| DUCT SYSTEM                | FUNCTION        | PRESSURE CLASS | MATERIAL | GAGE | LINER |      |     | INSULATION |      |     | NOTES |        |
|                            |                 |                |          |      | TH    | TYPE | D   | TH         | TYPE | D   |       | JACKET |
| INTERIOR                   | SUPPLY & RETURN | 2"             | GS       | *    | 1"    | MFF  | 1.5 | -          | -    | -   | 1,2   |        |
| INTERIOR                   | OUTSIDE AIR     | 2"             | AL       | *    | -     | -    | -   | 1"         | FGW  | 1.5 | FFJ   | 1,2    |
| INTERIOR                   | EXHAUST         | 1"             | GS       | *    | -     | -    | -   | -          | -    | -   | -     |        |

- ALL ROUND RIDGED SUPPLY AIR DUCTWORK SHALL BE SINGLE WALL DUCT. PROVIDE 1" THICK FIBERGLASS WRAP ON ALL ROUND RIDGED SUPPLY AIR DUCTWORK.
- DUCTS SHALL BE TAPPED AND SEALED WITH MASTIC.

LEGEND  
 GS GALVANIZED STEEL  
 ALUM ALUMINUM  
 FGW FIBERGLASS WRAP  
 D DENSITY  
 MFF MATT FACED FIBERGLASS  
 TH THICKNESS  
 FFJ FOIL FACED JACKET

\* PER SMACNA STANDARDS

| AIR HANDLER SCHEDULE |      |                |             |                 |                |                  |     |          |     |        |          |                    |  |
|----------------------|------|----------------|-------------|-----------------|----------------|------------------|-----|----------|-----|--------|----------|--------------------|--|
| MARK                 | MFR. | MODEL          | TYPE        | HEAT STRIPS     | HEATING OUTPUT | COOLING CAPACITY | EFF | NOM. CFM | ESP | FAN HP | O.A. CFM | ACCESSORIES        |  |
| F-1                  | RUUD | RH2T4821MEACJA | HORIZ. FLOW | WRX1002BX 10 KW | 48 MBH         | 48 MBH           | 96% | 1600     | .5  | 3/4    | 200      | [1][2][3][4][5][6] |  |
| F-2                  | RUUD | RH2T4821MEACJA | HORIZ. FLOW | WRX1002BX 10 KW | 48 MBH         | 48 MBH           | 96% | 1600     | .5  | 3/4    | 200      | [1][2][3][4][5][6] |  |
| F-3                  | RUUD | RH2T4821MEACJA | HORIZ. FLOW | WRX1002BX 10 KW | 48 MBH         | 48 MBH           | 96% | 1600     | .5  | 3/4    | 200      | [1][2][3][4][5][6] |  |
| F-4                  | RUUD | RH2T4821MEACJA | HORIZ. FLOW | WRX1002BX 10 KW | 48 MBH         | 48 MBH           | 96% | 1600     | .5  | 3/4    | 200      | [1][2][3][4][5][6] |  |
| F-5                  | RUUD | RH2T4821MEACJA | HORIZ. FLOW | WRX1002BX 10 KW | 48 MBH         | 48 MBH           | 96% | 1600     | .5  | 3/4    | 200      | [1][2][3][4][5][6] |  |

- TWO STAGE
- 208 VOLT, 1 PHASE
- ECONET THERMOSTAT REQUIRED #UJETST601SYS
- FILTER RACK WITH 1" THICK DISPOSABLE FILTER
- PROVIDE SAFETY PAN UNDER FURNACE WITH KILL SWITCH IN PAN-DIVERS/TECH CONDENSATE PUMP (120V/1PH)
- ROUTE FULL SIZE CONDENSATE DRAIN PIPE FROM FURNACE TO NEAREST DRAIN, INDIRECT CONNECTION

| HEAT PUMP CONDENSING UNIT SCHEDULE |      |             |              |      |           |     |      |         |              |  |
|------------------------------------|------|-------------|--------------|------|-----------|-----|------|---------|--------------|--|
| MARK                               | MFR. | MODEL       | NOM. TONNAGE | SEER | VOLT / PH | MCA | MOCP | SERVING | ACCESSORIES  |  |
| CU-1                               | RUUD | UA1748AJVCA | 4            | 17   | 230 / 1   | 28  | 40   | F-1     | [1][2][3][4] |  |
| CU-2                               | RUUD | UA1748AJVCA | 4            | 17   | 230 / 1   | 28  | 40   | F-2     | [1][2][3][4] |  |
| CU-3                               | RUUD | UA1748AJVCA | 4            | 17   | 230 / 1   | 28  | 40   | F-3     | [1][2][3][4] |  |
| CU-4                               | RUUD | UA1748AJVCA | 4            | 17   | 230 / 1   | 28  | 40   | F-4     | [1][2][3][4] |  |
| CU-5                               | RUUD | UA1748AJVCA | 4            | 17   | 230 / 1   | 28  | 40   | F-5     | [1][2][3][4] |  |

- FILTER DRIER
- FURNISH AND INSTALL CONCRETE HOUSEKEEPING PAD
- THREE STAGE INVERTER
- INSULATED LINE SET

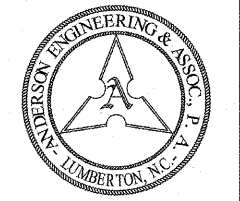
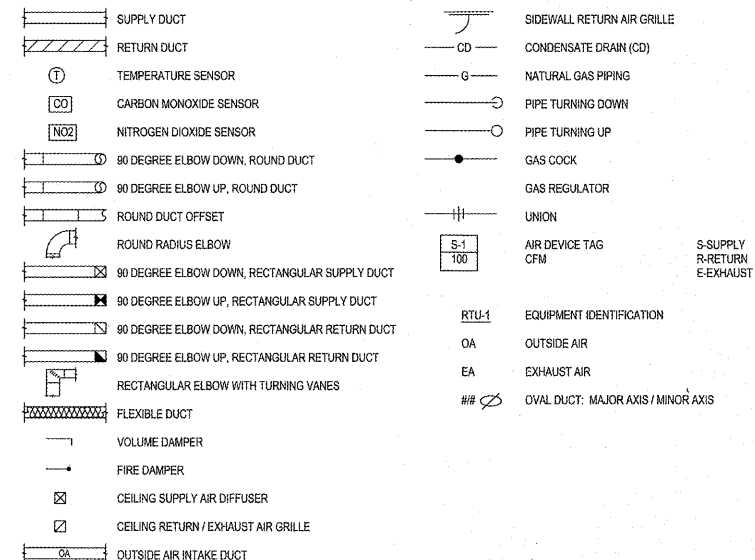
| LOUVER SCHEDULE |        |          |              |                     |          |               |              |
|-----------------|--------|----------|--------------|---------------------|----------|---------------|--------------|
| MARK            | MFR.   | MODEL    | SIZE (W X H) | FREE AREA (SQ. FT.) | MATERIAL | VOLTS / PHASE | ACCESSORIES  |
| L-1             | RUSKIN | ELF375DX | 24" X 12"    | 75                  | ALUMINUM | -             | [1][2][3]    |
| L-2             | RUSKIN | ELF375DX | 72" X 36"    | 75                  | ALUMINUM | 120 / 1       | [1][2][3][4] |

- LOUVER COLOR SELECTED BY ARCHITECT
- BIRD SCREEN
- COORDINATE MOUNTING HEIGHT WITH G.C. AND ARCHITECTURAL PLANS BEFORE INSTALLATION
- FIXED LOUVER WITH TRANSFORMER, LOW VOLTAGE ACTUATOR AND MOTORIZED DAMPER WITH SPRING RETURN DAMPERS. PROVIDE 120 / 1PH SERVICE TO TRANSFORMER. DAMPER INTERLOCKED WITH EXHAUST FAN EF-7

### MECHANICAL GENERAL NOTES

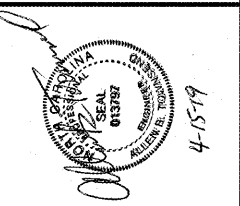
- PROVIDE ALL WORK AND MATERIALS AS REQUIRED HEREIN AND ON THE DRAWINGS IN FULL ACCORDANCE WITH NATIONAL, STATE, LOCAL CODES, ORDINANCES AND / OR REGULATIONS HAVING JURISDICTION OVER THIS WORK. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS UNLESS SPECIFICALLY DIMENSIONED. COORDINATE WITH THE OTHER TRADES TO AVOID INTERFERENCE. SHOULD MECHANICAL WORK BE INSTALLED WHICH INTERFERES WITH THE WORK OF OTHER CONTRACTORS, SUCH WORK SHALL BE CHANGED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ANY FRAMING REVISIONS, EQUIPMENT LOCATION, ADDITION OF CONTROLS, ELECTRICAL CIRCUITING REVISIONS, ETC. THAT ARE A RESULT OF USING EQUIPMENT OTHER THAN THOSE INDICATED ON THE DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ARCHITECT / ENGINEER WILL NOT WAIVE THE CONTRACTOR OF THIS RESPONSIBILITY.
- ALL EQUIPMENT, MATERIALS AND WORKMANSHIP TO BE WARRANTED FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL EQUIPMENT AS SHOWN ON PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY ADJUSTMENTS, CALIBRATION AND MATERIAL AS REQUIRED SO THAT THE SYSTEM IS FULLY OPERATIONAL.
- ALL MECHANICAL PENETRATIONS THROUGH THE ROOF SHALL BE MADE WATER TIGHT WITH THE ROOF BY PROPER FLASHING. ROOF FLASHING BY ROOF CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL ENGAGE A TESTING, ADJUSTING AND BALANCING AGENT CERTIFIED BY EITHER AABC OR NEBB, TO BALANCE AIR FLOWS AS INDICATED ON PLANS. BALANCING REPORT TO BE ISSUED TO ENGINEER.
- INSTALL THERMOSTATS 48 INCHES ABOVE FINISHED FLOOR, THERMOSTAT WIRING BY HVAC CONTRACTOR.
- THE MECHANICAL CONTRACTOR SHALL HAVE THE FINAL RESPONSIBILITY FOR SYSTEM STARTUP AND TURN OVER TO THE OWNER.
- WORK PLANS TO BE CONSIDERED AS DIAGRAMMATIC AND NOT TO EXCEED A MINIMUM ACCEPTABLE STANDARD. ALL WORK SHALL CONFORM TO THE LOCAL CODE.
- DESIGN AND OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION FOR SEISMIC RESTRAINT HANGERS AND SUPPORTS FOR PIPING AND EQUIPMENT.
- WHERE ANY BALANCING DAMPERS CANNOT BE ACCESSIBLE, PROVIDE RACK AND PINION DAMPER.
- PROVIDE FIRE DAMPERS IN ALL RATED WALLS / PARTITIONS DUCT PENETRATIONS.
- ALL DUCT RUNOUTS TO AIR DEVICES ABOVE CEILING SHALL HAVE A DAMPER WITH LOCKING QUADRANT.
- ALL DUCTWORK PENETRATING DRAFT STOP SHALL BE SEALED WITH CAULKING TO BE AIR TIGHT AT PENETRATION. NO DALLS REQUIRED. REFERENCE LIFE SAFETY PLAN ON ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
- REFER TO FIRE RATED PENETRATION DETAILS ON ARCHITECTURAL DRAWINGS.
- ALL RECTANGULAR ELBOWS AND TEE'S SHALL BE EQUIPPED WITH SINGLE THICKNESS TURNING VANES UNLESS OTHERWISE NOTED.
- REGISTER, GAGES AND DIFFUSERS SHALL BE THE SIZE, TYPE AND FINISH SHOWN ON THE EQUIPMENT SCHEDULE. LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY TO FIT ON STRUCTURE.
- ALL DUCTWORK SHALL BE SUPPORTED FROM ROOF OR FLOOR STRUCTURE ABOVE. DUCTWORK SHALL NOT LAY ON TOP OF CEILING OR LIGHT FIXTURES.
- FLEXIBLE DUCT RUNOUTS TO AIR DEVICES SHALL NOT EXCEED 6'-0" IN LENGTH.
- FLEXIBLE DUCTS SHALL BE INSTALLED TO PROVIDE SWEEPING CONFIGURATIONS WITH NOT LESS THAN MANUFACTURER'S RECOMMENDED BEND RADIUS. FLAT BANDING MATERIAL NOT LESS THAN 1-1/2" WIDE SHALL BE USED TO SUSPEND FLEXIBLE DUCTS. DUCTING FURNISHED WITH FACTORY INSTALLED GROMMETS SHALL BE SUSPENDED BY WIRE ATTACHED TO GROMMETS.
- FLEXIBLE DUCT IS ONLY PERMITTED IN CEILING SPACE BELOW TRUSSES AND ABOVE LAY-IN CEILINGS. ALL OTHER DUCT SHALL HAVE HARD CONNECTIONS.
- PROVIDE DUCT DROPS FROM ROOF TOP EQUIPMENT FULL SIZE OF UNIT CURB OPENINGS AND TRANSITION AS REQUIRED TO DUCT SIZES SHOWN ON PLAN. VERIFY EQUIPMENT CURB OPENING SIZES AND CONFIGURATION WITH MANUFACTURER.
- COORDINATION OF DUCT SYSTEM INSTALLATION WITH OTHER TRADES SHALL BE PERFORMED PRIOR TO FABRICATION OF DUCTWORK. VERIFY DUCT CLEARANCES PRIOR TO FABRICATION. NOTIFY THE ARCHITECT / ENGINEER OF THOSE THAT REQUIRE DIMENSIONAL CHANGES OR MAJOR RELOCATION OF DUCTWORK.
- TRANSITION DUCT WHERE REQUIRED TO NECK SIZE ON AIR DEVICE.
- ALL DUCTWORK TO BE LOCATED BELOW ATTIC IN RETURN OR AIR PLENUM.
- WHERE FIRE / RADIATION DAMPERS ARE INSTALLED, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EACH SPECIFIC TYPE SHALL BE INSTALLED AT THE FINAL ON-SITE INSPECTION. THIS INCLUDES RADIANT DAMPERS USED FOR THE PROTECTION OF ROOF / CEILING ASSEMBLY LOWER BARRIER PROTECTION.
- AIR CONDITIONING AND VENTILATION SYSTEMS SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 90A.
- ALL RECTANGULAR SUPPLY AND RETURN AIR DUCTWORK SHALL HAVE 1" THICK DUCT LINER.
- TAKE-OFFS SERVING AIR DEVICES SHALL BE SAME DIMENSION AS NECK SIZE ON AIR DEVICE IT'S SERVING UNLESS SHOWN OTHERWISE.
- DUCTWORK SHALL BE FABRICATED AND SUPPORTED PER SMACNA STANDARDS. TRANSITIONS SHALL BE MADE PER SMACNA STANDARDS.
- CONCRETE PADS FOR MECHANICAL EQUIPMENT SHALL BE MADE BY MECHANICAL CONTRACTOR.
- ACCESS PANELS REQUIRED TO SERVICE MECHANICAL EQUIPMENT SHALL BE BY GENERAL CONTRACTOR.
- REFRIGERANT PIPING AND SIZES SHALL BE SIZED BY EQUIPMENT MANUFACTURER AND INSTALLED BY CONTRACTOR.
- ALL DUCTWORK PENETRATING FIRE OR COMBINATION FIRE / SMOKE RATED WALLS OR CEILINGS SHALL HAVE FIRE OR COMBINATION FIRE / SMOKE DAMPERS.
- PROVIDE OWNER WITH A CERTIFIED LETTER THAT THE MECHANICAL SYSTEM HAS BEEN INSTALLED PER THE PLANS, SPECIFICATIONS AND CHANGE ORDER COMPLYING WITH ALL APPLICABLE CODES AND STANDARDS FOR THE CITY, COUNTY AND STATE HEALTH AND BUILDING CODES AND ORDINANCES.
- ALL ELBOWS, FITTINGS, ETC. IN PIPING AND DUCTWORK REQUIRED TO CLEAR ALL JOB OBSTRUCTIONS ARE NOT NECESSARILY INDICATED. ALL NECESSARY TRANSITIONS, FITTINGS AND OFFSETS ARE REQUIRED WHETHER SHOWN OR NOT.
- THE MECHANICAL DRAWINGS HAVE BEEN PREPARED UTILIZING EXISTING DRAWINGS AND BUILDING SURVEYS AND MAY NOT SHOW ALL CONDITIONS. CONTRACTOR SHALL VISIT THE BUILDING PRIOR TO SUBMISSION TO BECOME FAMILIAR WITH ALL CONDITIONS. CONTRACTOR WILL NOT BE ALLOWED ADDITIONAL FUNDS AND TIME DUE TO CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS.

### MECHANICAL SYMBOLS LEGEND



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BUILDING PLANS FOR  
**COPART**



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| MECHANICAL SCHEDULES  |           |  |
|-----------------------|-----------|--|
| PERMIT SET            |           |  |
| ISSUE DATE: 1-18-2019 |           |  |
| NO.                   | DATE      | REASON   |
| 1                     | 2-12-2019 | OWNER REVIEW   |
| 2                     | 4-10-2019 | REDUCE BUILDING SIZE SCOPE PER CONTRACT DOCS NO CHANGES THIS SHEET |

SCALE: 1/8"=1'  
 DRAWN BY: DJ  
 CHECKED BY: LWA  
 PROJECT NO.: 60-1636  
 DRAWING FILE: 1636  
 FILE NO.: 1636-BLDG-REV1  
 SHEET NO.

**M102**