

MECHANICAL SPECIFICATION

1.0 GENERAL

- .1 CONTRACTOR TO VISIT JOBSITE DURING BID OPPORTUNITY. DRAWINGS INDICATE APPROXIMATE LOCATION OF EXISTING MECHANICAL EQUIPMENT AND SERVICES. VERIFY EXACT LOCATIONS OF EXISTING MECHANICAL EQUIPMENT AND SERVICES AND ALLOW FOR NECESSARY RELOCATING OF NOTED SERVICES (OR RECONNECTION TO EXISTING SERVICES) TO SUIT NEW CONSTRUCTION.
- .2 ALL WORK SHALL CONFORM TO MANITOBA BUILDING CODE AND LOCAL AUTHORITIES. APPLY FOR, OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
- .3 INSTALLATION OF WORK SHALL BE COORDINATED AND SHALL BE SCHEDULED SO AS NOT TO DISRUPT OR DISTURB THE USERS OF THE BUILDING. SHUTDOWN OF EXISTING BUILDING SYSTEMS SHALL BE COORDINATED WITH THE CITY'S REPRESENTATIVE.
- .4 MECHANICAL CONTRACTOR SHALL PERFORM COORDINATION OF MECHANICAL DIVISION INSTALLATION WITH ALL RELATED CONTRACTORS. VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING EQUIPMENT AND SERVICES PRIOR TO PROCEEDING WITH WORK.
- .5 REFER TO BUILDING STANDARDS MANUAL AND INSTRUCTIONS TO BIDDERS FOR REQUIREMENTS REGARDING BUILDING STANDARD WORKMANSHIP, PROJECT PHASING, WORKING HOURS, SHUTDOWN PROCEDURES, ACCESS, ETC.
- .6 SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT TO CONTRACT ADMINISTRATOR. FOR SHOP DRAWINGS SUBMITTED ELECTRONICALLY, INCLUDE PROJECT NAME AND NUMBER IN SUBJECT LINE OF E-MAIL TO CONTRACTADMIN@SMSENG.COM.
- .7 REQUEST FOR INTERPRETATION (RFI):
 - .1 FOR RFIS SUBMITTED ELECTRONICALLY, INCLUDE PROJECT NAME AND NUMBER IN THE SUBJECT LINE OF E-MAIL TO CONTRACTADMIN@SMSENG.COM.
 - .2 CONTENT OF THE RFI: INCLUDE A DETAILED DESCRIPTION OF THE ITEM NEEDING INTERPRETATION AND PROPOSED SOLUTION. UNLESS NOTED OTHERWISE PROVIDE ONE YEAR GUARANTEE (FROM PROJECT SUBSTANTIAL COMPLETION) FOR ALL EQUIPMENT AND WORKMANSHIP.
- .8 ALL CONNECTIONS TO EXISTING BUILDING MECHANICAL SERVICES SHALL BE COORDINATED WITH THE CITY'S REPRESENTATIVE.
- .9 ALL NECESSARY CUTTING AND PATCHING SHALL BE PERFORMED BY COMPETENT TRADES EMPLOYED BY MECHANICAL CONTRACTOR TO SATISFACTION OF THE CITY'S REPRESENTATIVE.
- .10 ALL DUCTWORK TO BE INSTALLED STRAIGHT, PARALLEL TO THE BUILDING WALLS.
- .11 PROVIDE ACJOUR OR MIFAB ACCESS DOORS IN DRYWALL CEILINGS AND WALLS FOR ACCESS TO MECHANICAL EQUIPMENT. MINIMUM SIZE 24" X 18".
- .12 FURNISH TO THE CITY, THREE (3) COMPLETE SETS OF MANUFACTURERS' OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT REQUIRING MAINTENANCE. REVIEW INSTRUCTIONS WITH THE CITY'S REPRESENTATIVE TO ENSURE A THOROUGH UNDERSTANDING OF THE EQUIPMENT AND ITS OPERATION.
- .13 PROVIDE A MARK-UP OF THE CONTRACT DRAWINGS FOR RECORD "RECORD DRAWINGS", REVISED AS REQUIRED TO SHOW ANY CHANGES FROM THAT ORIGINALLY SHOWN. RECORD DRAWINGS TO BE KEPT ON SITE AND UPDATED WEEKLY. CONTRACT ADMINISTRATOR WILL REVIEW PROGRESS DURING SITE OBSERVATIONS.
- .14 UPON COMPLETION OF PROJECT PROVIDE RECORD DRAWINGS IN AUTOCAD 2013 FORMAT, COMPLETE WITH DISK PAID FOR BY MECHANICAL CONTRACTOR.
- .15 ALL EXCESSIVE MATERIAL IN CEILING SPACE UNRELATED TO NEW AND REVISED WORK SHOWN, INCLUDING PIPING, CONTROL TUBING, DUCTWORK, ETC. SHALL BE REMOVED.
- .16 ALL WIRING FOR EQUIPMENT SPECIFIED HEREIN SHALL BE BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- .17 MECHANICAL CONTRACTOR SHALL REVIEW ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTION WITH ELECTRICAL CONTRACTOR AND DIVISION 26 DRAWINGS PRIOR TO ORDERING EQUIPMENT. ENSURE PROPER ELECTRICAL CHARACTERISTICS ARE DETERMINED FOR ALL AFFECTED AND RELATED WORK.
- .18 WHERE MECHANICAL SERVICES ARE CONCEALED WITHIN WALLS, FLOORS OR CEILINGS AND CANNOT BE VISUALLY IDENTIFIED, PROVIDE ELECTRONIC SCANNING DEVICES OR OTHER APPROVED MEANS TO LOCATE AND IDENTIFY CONCEALED SERVICES PRIOR TO WORK START. MAKE GOOD ANY DAMAGE TO EXISTING MECHANICAL SERVICES AT NO COST TO THE CONTRACT.

2.0 INSULATION

- .1 ALL DUCTWORK INSULATION SHALL BE COMPLETE WITH VAPOUR BARRIER.
- .2 EXTERIOR DUCTWORK TO HAVE 2" FIBERGLAS RFRFK REINFORCED FOIL FACE VAPOUR SEAL DUCT INSULATION F3385, 3/4 LB/CUFT. DENSITY. PROVIDE FASTENERS TO BOTTOM SURFACE OF DUCT BY IMPALING ON WELDED RINGS ON 12" CENTRES. SPOT ADHESIVE ON 12" CENTRES ON ALL SIDES OF DUCTWORK. APPLY INSULATION WITH EDGES TIGHTLY BUTTED TOGETHER AND SECURED WITH 100% COVERAGE OF 3M NO. 17. DUCTWORK LOCATED ON THE ROOF, PROVIDE OVERWRAP OF 4" MIL THICK, REINFORCED "FIRESTONE ULTRAPLY 78" OR EQUAL. SEAL ALL SEAMS AS RECOMMENDED BY MATERIAL MANUFACTURERS. PRIOR TO MATERIAL INSTALLATION, PINN. METAL FASTENERS AND OTHER SHARP EDGES OR POINTS SHALL BE BENT AWAY FROM OVERWRAP OR CUT OR GROUND OFF. TO ENSURE THAT OVERWRAP WILL NOT BE PUNCTURED. PROVIDE SLOTTED FEAH ALONG TOP CENTRE LINE SO MOISTURE WILL RUN OFF. COVER DUCTWORK WITH ALUMINIUM JACKET CSA HA SERIES M1980. EMBOSSED ALLOY JACKETING 0.4MM THICK WITH LONGITUDINAL SLIP JOINTS AND SOME ENDS LAPS WITH FACTORY ATTACHED PROTECTIVE STRAPS WITH MECHANICAL FASTENERS.
- .3 INSULATE INDOOR CONDITIONED AIR DUCTWORK WITH 1" FIBERGLAS RFRFK FLEXIBLE DUCT INSULATION INSTALLED IN ACCORDANCE WITH MANUFACTURERS' PRINTED RECOMMENDATIONS.

3.0 VENTILATION

- .1 DUCTWORK
 - .1 DUCTWORK SHALL BE CONSTRUCTED AS RECOMMENDED IN SMACNA GUIDE (LATEST REVISION).
- .2 GALVANIZED IRON SCHEDULE:

| MAXIMUM GAUGE (USSD) | BENDING NONE |
|----------------------|---|
| UP TO 24" | 24 |
| 25 TO 30" | 24 1" X 1" X 1/8" ANGLE, 4" FROM JOINT. |
| 31 TO 40" | 22 1" X 1" X 1/8" ANGLE, 4" FROM JOINT. |
| ROUND DUCT UP TO 19" | 26 NONE |
- .3 WHERE DUCT WIDTH EXCEEDS 18" IN LARGEST DIMENSION, STIFFEN BY BREAKING SHEETS DIAGONALLY.
- .4 DUCT SIZES SHOWN ARE INSIDE DIMENSIONS. IF DUCTS ARE ACOUSTICALLY LINED, OUTSIDE DUCT SIZE TO BE INCREASED TO SUIT.
- .5 SIZE ROUND DUCTS, INSTALLED IN PLACE OF RECTANGULAR DUCTS, FROM ASHRAE'S TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS.
- .6 SEAL ALL JOINTS (ALL NEW DUCTWORK AND EXISTING DUCTWORK AS NOTED) AIRTIGHT WITH DURO-DYNE HIGH-PRESSURE, WATER BASED DUCT SEALER OR EQUAL, IN ACCORDANCE WITH R6, IN STRICT ACCORDANCE WITH MANUFACTURERS' PRINTED RECOMMENDATIONS. PRIOR TO APPLICATION, DUCTWORK TO BE DRY AND FREE OF GREASE, ETC. USE 1/4" BEAD OF MATERIAL ALONG JOINTS. MATERIAL, WHEN DRY, TO HAVE 1/8" DEPTH EXTENDING 1" ON EACH SIDE OF JOINT OR SEAM.
- .7 EXTERIOR DUCTWORK:
 - .1 ALL EXTERIOR DUCTWORK TO BE TWO GAUGES HEAVIER THAN INDICATED IN SCHEDULE NOTED ABOVE. CONSTRUCT DUCT SO THAT TOP OF DUCT SLOPES 1:24 MINIMUM TO ENSURE THAT WATER DOES NOT COLLECT ON TOP.
 - .2 ALL EXTERIOR DUCTWORK SHALL HAVE SEAMS AND JOINTS SEALED WITH GREY TREND 555 ACQUIL SEALANT APPLIED WITH GUN AND LEVELLED WITH PUTTY KNIFE. USE MATERIAL IN ACCORDANCE WITH MANUFACTURERS' PRINTED RECOMMENDATIONS.
- .8 PRIOR TO FABRICATION OF DUCTWORK, CHECK ALL CEILING SPACES AND HEIGHTS FOR CONFLICTION WITH OTHER TRADES.

2. DUCT AND EQUIPMENT SUPPORTS, HANGERS AND INSERTS:

- .1 SUPPORT HORIZONTAL DUCTS ON MAXIMUM 8'-0" CENTRES BY

NON-PERFORATED GALVANIZED STEEL RIVETED STRAP FOR DUCTWORK 36" (ANY DIMENSION) OR LESS, AND MINIMUM 1" X 1" X 1/8" GALVANIZED ANGLE IRON PASSING UNDER DUCTS 36" OR OVER (ANY DIMENSION) WITH 3/8" DIAMETER THREADED RODS SUSPENDING ANGLE IRON FROM STRUCTURE.

- .2 FOR INSERTS IN EXISTING CONCRETE STRUCTURE, USE HILTI H.K.O. STEEL ANCHORS.
- .3 MANUAL VOLUME DAMPERS TO BE #16 GA. GALV. STEEL, STIFFENED. DAMPERS HARDWARE TO BE DURO-DYNE K5-16, K5-385 OR K5-12 AS RECOMMENDED BY MANUFACTURER. ALL DAMPERS TO BE FURNISHED WITH NEOPRENE GASKETS.
- .4 EQUIPMENT
 - .1 ROOF MOUNTED AIR HANDLING UNIT SHALL BE AN ENGINEERED AIR OUTDOOR PACKAGED GAS FIRED HEAT/COOL UNIT WITH DOWN DISCHARGE, END RETURN, FORWARD CURVED SUPPLY AND RETURN BLOWERS WITH FLOW BLOCK BEARINGS, INTERNAL ISOLATION, HINGED ACCESS DOOR WHIRLDOES, 2" MERV 8 PRE FILTERS, 12" MERV 13 FINAL FILTERS AND MIXED AIR DAMPER SECTION WITH ACTUATOR. UNIT SHALL BE 18 GA. CONSTRUCTION, 1" 1-1/2" LB/FT INSULATION THROUGHOUT, DX COOLING COIL, W/STAINLESS STEEL DRAIN PAN, GREY ENAMEL FINISH COAT. UNIT TO BE BUILT TO FIT ON EXISTING SLEEPERS AS NOTED IN KEY NOTE 5 ON DRAWING 2/M 1.2.
 - .2 WHERE APPLICABLE, UNIT MUST CONFORM TO REGULATIONS SET OUT IN THE CANADIAN ENERGY EFFICIENCY ACT FOR LARGE AIR CONDITIONERS (CONDENSING UNITS). PACKAGED UNITS SHALL BE TESTED TO CSA STANDARD CM6-08 AND MUST BEAR AN IEV (ENERGY EFFICIENT VERIFICATION) LABEL PROVIDED BY CSA.
 - .3 ALL UNITS MUST EXCEED THE ASHRAE 90.1 REQUIREMENT OF STEADY STATE EFFICIENCY AT LOW FIRE. HEAT EXCHANGERS SHALL BE A PRIMARY DRUM AND MULTI-TUBE SECONDARY ASSEMBLY CONSTRUCTED OF STAINLESS STEEL WITH MULTI-PLANE METAL TURBULATORS AND SHALL BE OF A FLOATING STRESS RELIEVED DESIGN. HEAT EXCHANGER SHALL BE PROVIDED WITH CONDENSATE DRAIN CONNECTION. THE HEAT EXCHANGER/BURNER ASSEMBLY SHALL INCLUDE IS-1 TURNOVER. THE HIGH TURNDOWN HEAT EXCHANGER/BURNER ASSEMBLY MINIMUM INPUT SHALL BE CAPABLE OF CONTROLLING 6.7% OF ITS RATED INPUT, EXCLUDING THE PILOT ASSEMBLY. WITHOUT ON/OFF CYCLING AND INCLUDE BUILT IN ELECTRONIC LINEARIZATION OF FUEL AND COMBUSTION AIR. EFFICIENCY SHALL INCREASE FROM HIGH TO LOW FIRE.
 - .4 VENTING FOR OUTDOOR UNITS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER AND SHALL BE SUITABLE FOR -40°F (-40°C) APPLICATIONS.
 - .5 PACKAGED DX COOLING WITH SLOPED CONDENSING COIL TO PROVIDE EVEN AIR DISTRIBUTION ACROSS COIL FACE AND WEATHER PROTECTION. DX COIL SHALL BE C/W ALTERNATE ROW CIRCUITING. PROVIDE A MINIMUM OF 2 INDIVIDUALLY CIRCUITED COMPRESSORS FOR REDUNDANCY AND CAPACITY CONTROL. COMPRESSORS SHALL BE MOUNTED IN A COMPARTMENT ADJACENT TO THE ELECTRICAL CONTROL CABINET FOR EASE OF SERVICE.
 - .6 THE PACKAGED HEAT/COOL UNITS AND MAJOR COMPONENTS SHALL BE PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH EQUIPMENT AND WITH MINIMUM OF FIFTEEN CONTINUOUS YEARS OF PROVEN PRODUCTION EXPERIENCE.
 - .7 SUBSTITUTION OF ANY PRODUCT OTHER THAN THAT SPECIFIED, MUST ENSURE NO DEVIATION BELOW THE STATED CAPACITIES, AIR FLOW RATE, HEAT TRANSFER RATE, FILTRATION EFFICIENCY AND AIR MIXING QUALITY. POWER REQUIREMENTS MUST NOT BE EXCEEDED, AND WHERE SPECIFICALLY DEFINED, SOUND POWER LEVELS MUST NOT BE EXCEEDED.
 - .8 UNLESS STATED OTHERWISE, THE PACKAGED UNITS ARE TO BE SHIPPED TO THE JOB IN ONE PIECE, FACTORY ASSEMBLED, MODULAR UNITS ASSEMBLED TO ACHIEVE A CLOSE PROXIMATION TO THE INTENT OF THIS SPECIFICATION WILL NOT BE CONSIDERED EQUAL. ALL PACKAGED EQUIPMENT TO BE BUILT BY THE SUPPLYING MANUFACTURER SHALL, WHERE SPECIFIED AND APPLICABLE, BE PRE-WIRED, AND FACTORY CERTIFIED BY AN APPROVED TESTING AGENCY SUCH AS CETL, ETUUS, UL, CSA PRIOR TO SHIPMENT.
 - .9 PRE-WIRED PACKAGED UNITS SHALL BEAR AN APPROVED LABEL WITH ALL THE NECESSARY IDENTIFICATION MARKS AND ELECTRICAL DATA.
 - .1 UNIT MUST CONFORM TO REGULATIONS SET OUT IN THE CANADIAN ENERGY EFFICIENCY ACT FOR LARGE AIR CONDITIONERS (CONDENSING UNITS).
 - .1 PACKAGED UNITS SHALL BE TESTED TO CSA STANDARD CM6-08 AND MUST BEAR AN IEV (ENERGY EFFICIENCY VERIFICATION) LABEL PROVIDED BY CSA. WHERE SPECIFIED AS FACTORY PACKAGED AIR CONDITIONING UNIT, FACTORY ASSEMBLED SPLIT SYSTEMS DOES NOT CONFORM TO THE CANADIAN ENERGY EFFICIENCY ACT AND WILL NOT BE CONSIDERED.
 - .10 PROVIDE REMOTE PANEL WITH ON/OFF SWITCH/LIGHT, AS WELL AS A HEAT LIGHT & COOL LIGHT AND PROGRAMMABLE ROOM RESET THERMOSTAT.
 - .11 REFER TO RTU SCHEDULE.

4.0 TESTING AND BALANCING

- .1 AIR SYSTEMS SHALL BE BALANCED AND TESTED BY AN INDEPENDENT AIR BALANCE AGENCY (AABC) TO PROVIDE AIR QUANTITIES AS SHOWN. PROVIDE AIR BALANCE REPORT FOR REVIEW BY THE CONTRACT ADMINISTRATOR. SUBMIT TWO COPIES FOR REVIEW UPON COMPLETION. PROVIDE DAMPER STICKER UPON FINAL BALANCING COMPLETION.
- .2 INCORPORATE COMMENTS OR CHANGES REQUESTED BY CONTRACT ADMINISTRATOR AND PROVIDE SUFFICIENT NUMBER OF COPIES OF FINAL REPORT TO MECHANICAL CONTRACTOR FOR INCLUSION IN OPERATING & MAINTENANCE MANUALS.


5.0 CONTROLS

- .1 PROVIDE ONE (1) JOF SOFT COPY AND THREE HARD COVER COPIES OF INFORMATION PERTAINING TO TEMPERATURE CONTROL SYSTEM FOR THE CITY'S PERMANENT RECORD. INCLUDE SCHEMATIC DRAWINGS AND CONTROL SEQUENCE WRITE-UPS OF ALL CONTROL SYSTEMS TO MECHANICAL CONTRACTOR FOR INCLUSION IN OPERATIONS AND MAINTENANCE MANUAL.
- .2 PROVIDE ALL LABOUR, MATERIAL, PLANT, TOOLS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY INCIDENTAL TO COMPLETION OF TEMPERATURE CONTROLS SYSTEMS AS NOTED HEREIN AND/OR SHOWN ON DRAWINGS.
- .3 ALL NEW WORK RELATED TO NEW AND EXISTING CONTROLS SHALL BE PERFORMED BY A QUALIFIED CONTROLS CONTRACTOR.
- .4 WHERE SHOWN, PROVIDE NEW THERMOSTAT TO MATCH EXISTING BUILDING STANDARD.
- .5 PROVIDE COMPLETE SYSTEM OF AUTOMATIC CONTROLS FOR SYSTEMS INDICATED.
- .6 PROVIDE ALL NECESSARY DAMPERS, DAMPER OPERATORS, THERMOSTATS, VALVES, VALVE OPERATORS, CONTROLLERS, INDICATION, RELAYS, CONTROLLERS, POSITIONERS, PNEUMATIC ELECTRIC SWITCHES, SOLENOID VALVES, SWITCHES, CLOCKS, TRANSFORMERS, ETC., TO MAKE COMPLETE AND OPERABLE SYSTEM.
- .7 ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL ALL CONDUIT, WIRE AND CONNECTIONS FROM DISTRIBUTION PANELS TO LINE SIDE OF MAGNETIC STARTERS AND THERMAL OVERLOAD SWITCHES, AND FROM LOAD SIDE OF STARTERS AND SWITCHES TO MOTORS.
- .8 CONTROL CONTRACTOR SHALL SUPPLY AND INSTALL ALL CONDUIT, WIRE, ELECTRIC RELAYS, CONNECTIONS AND OTHER DEVICES REQUIRED FOR CONTROL. CIRCUIT WIRING FOR SYSTEMS AS SPECIFIED HEREIN WHETHER LINE OR LOW VOLTAGE. ELECTRICAL WIRING SHALL BE INSTALLED IN CONFORMANCE WITH CSA, UL, MANITOBA BUILDING CODE AND DIVISION 26 ELECTRICAL REQUIREMENTS AND SPECIFICATIONS INCLUDED WITHIN THIS PROJECT.
- .9 SEQUENCES OF OPERATION:
 - .1 PACKAGED AIR CONDITIONING UNIT CONTROL
 - .1 INSTALL, WIRE AND CONNECT REMOTE PANEL AND PROGRAMMABLE ROOM RESET THERMOSTAT. RTU SHALL OPERATE VIA DISCHARGE AIR CONTROL TO MAINTAIN ROOM SETPOINTS.

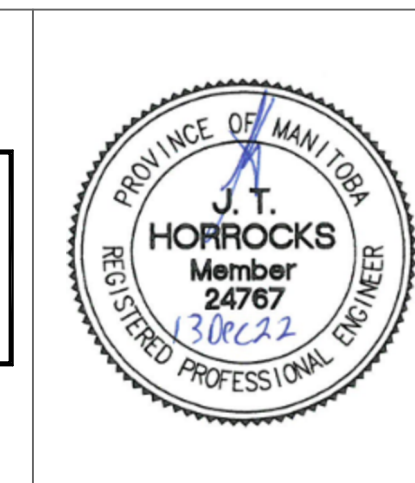
Roof Top Unit Schedule

| UNIT NO. | RTU-1 | | RTU-2 | |
|------------------------------------|--|--|---|--|
| | MPR, PRESCHOOL STORAGE AND KITCHENETTE | | MEETING ROOM, MENS WASHROOM AND WOMENS WASHROOM | |
| SERVICE | EngAir FWE52/DJE20O | | EngAir FWE32/DJE20O | |
| MODEL | EngAir FWE52/DJE20O | | EngAir FWE32/DJE20O | |
| SUPPLY FAN - SIZE/TYPE | 9/9 FC DIDW | | 9/7 FC DIDW | |
| AIRFLOW RATE (cfm) | 2000 | | 1200 | |
| EXTERNAL STATIC REQUIRED (in W.G.) | 1 | | 1 | |
| MOTOR (hp) | 3 | | 1.5 | |
| RETURN FAN - SIZE/TYPE | 9/9 FC DIDW | | 9/7 FC DIDW | |
| AIRFLOW RATE (cfm) | 1700 | | 900 | |
| EXTERNAL STATIC REQUIRED (in W.G.) | 1 | | 1 | |
| MOTOR (hp) | 1.5 | | 1 | |
| PRE-FILTER | MERV-8 | | MERV-8 | |
| FINAL FILTER | MERV-13 | | MERV-13 | |
| GAS HEATING INPUT (mbh) | 125 | | 100 | |
| GAS HEATING OUTPUT (mbh) | 100 | | 80 | |
| ENTERING AIR TEMP (db/wb °F) | 53.4 | | 46.5 | |
| LEAVING AIR TEMP (db/wb °F) | 99.4 | | 107.5 | |
| TEMPERATURE RISE (db °F) | 46.0 | | 61.0 | |
| DX TOTAL COOLING (mbh) | 59.8 | | 36.3 | |
| DX SENSIBLE COOLING (mbh) | 49.8 | | 31.0 | |
| ENTERING AIR TEMP (db/wb °F) | 77.7 / 64.1 | | 78.5 / 64.2 | |
| LEAVING AIR TEMP (db/wb °F) | 55 / 54 | | 55 / 54 | |
| ELECTRICAL (V/P) | 575 / 3 | | 575 / 3 | |
| APPROX. WEIGHT (LB) | 2900 | | 2900 | |
| REMARKS | 380 CFM Outside Air | | 300 CFM Outside Air | |

| | | | |
|------------------|-------------------------|----|----------|
| 0 | ISSUED FOR CONSTRUCTION | JH | 13/12/22 |
| LETTER OR NUMBER | DESCRIPTION | BY | DDMMYY |



**ENGINEERS
GEO-SCIENTISTS
MANITOBA**
Certificate of Authorization
SMS Engineering Ltd.
No. 166



PROVINCE OF MANITOBA
J. T. HORROCKS
Member
24767
3/10/22
REGISTERED PROFESSIONAL ENGINEER



SMS Engineering™
770 Bradford Street Winnipeg, Canada (204) 775-0291
smseng.com

Project Title
**SOUTHDALE CC
RTU REPLACEMENT
BID OPP. 648-2022**

WINNIPEG MANITOBA

Drawing Title
MECHANICAL SPECIFICATION AND SCHEDULE

Drawing By
IE
Checked By
DW
Approved By
JH
Scale
AS NOTED
Date
AUG. 2022
Project No.
22-179-01

Revision Number
0
Drawing Number
M2.1
Sheet Order
4 OF 4