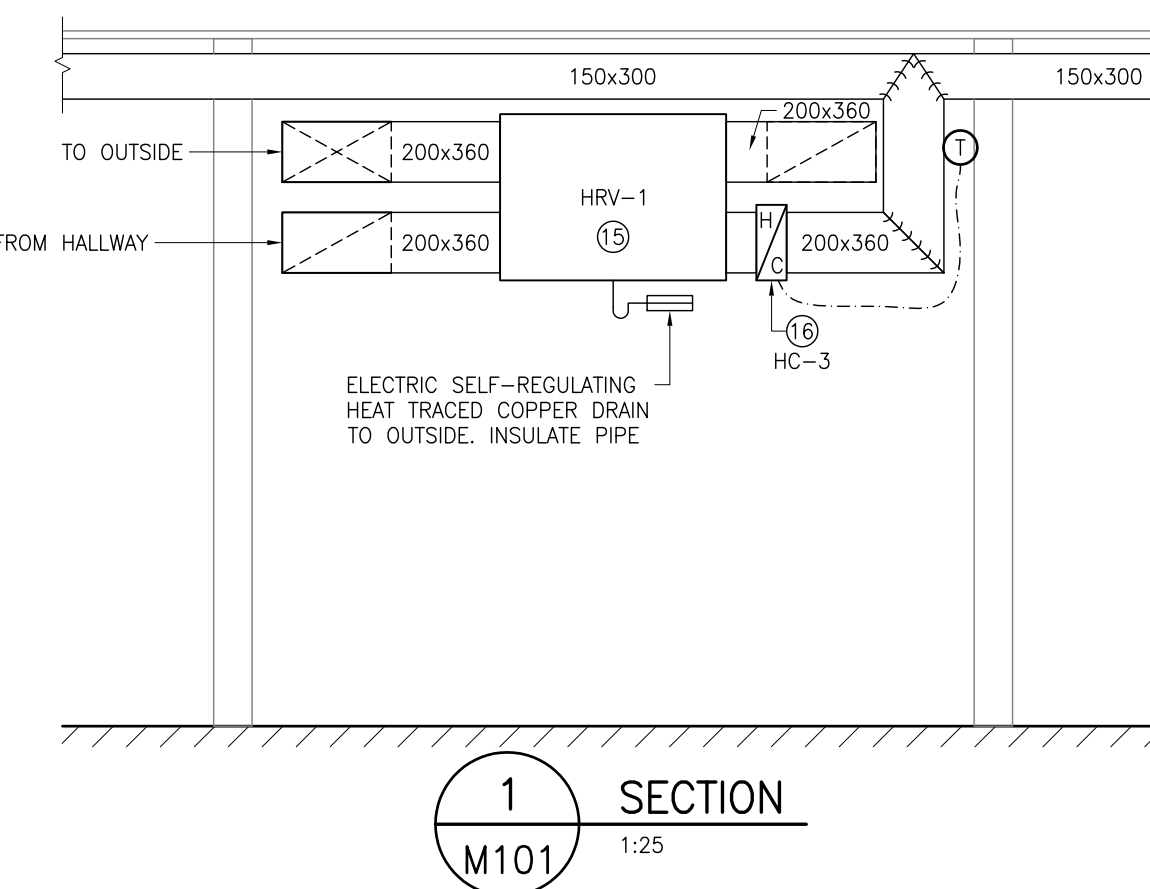
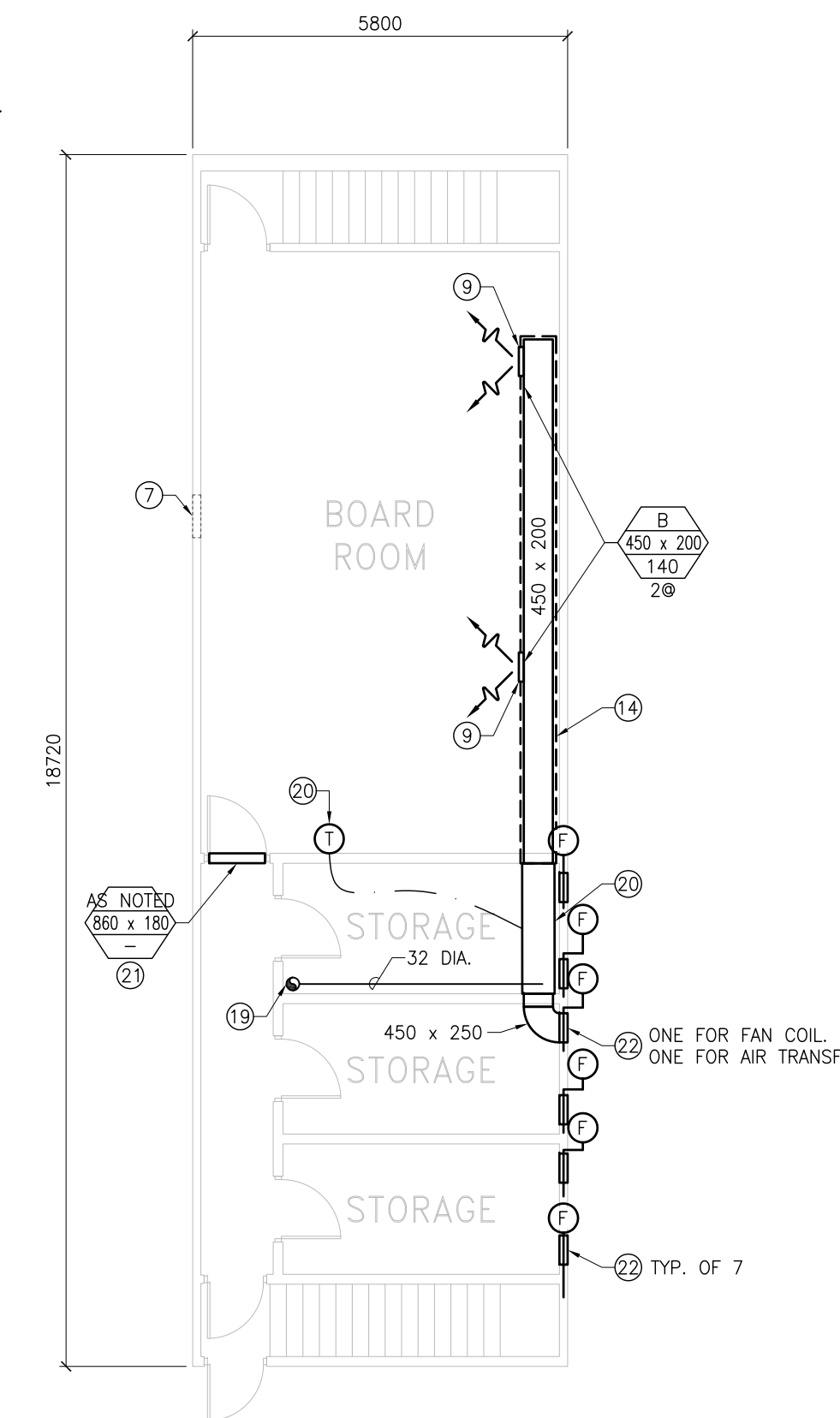


**CONSTRUCTION NOTES:**

- PROVIDE MIN 100 DEEP WATER TIGHT DRIP PAN BELOW RETURN AIR TO ROOF TOP UNIT. APPROX. SIZE MIN. 1300 x 475. FABRICATE MIN. 100 LARGER ON ALL SIDES, COMPARED TO R/A OPENING. HANG FROM CHAINS 600± BELOW U/S OF ROOF.
- S/A RISER, SIZE TO EXPAND FROM THE OPENING ON ROOF TOP UNIT. APPROX. SIZE 1300 x 475. EXTEND DOWN MIN. 760 BELOW U/S OF ROOF.
- PRICE SUPPLY AIR DIFFUSER. USE 600 ROUND MODEL RCD 400 NECK C/W BALANCING DAMPER AND WIRE GUARD. PROVIDE SECURITY CHAIN TO FASTEN TO BUILDING STRUCTURE. 8 REQUIRED. AIRFLOW TO EACH GRILLE: 412 1/3 (875cfm).
- BALANCING DAMPER TYPICAL.
- PROVIDE SPACE CO<sub>2</sub> SENSOR AT HEIGHT RECOMMENDED BY MANUFACTURER. MOUNT IN VANDAL RESISTANT LOCKABLE ENCLOSURE.
- PROVIDE 7 DAY PROGRAMMABLE ELECTRONIC THERMOSTAT AT 1500 AFT IN VANDAL RESISTANT LOCKABLE CONTROL ENCLOSURE. PROVIDE FOR FULLY PROGRAMMABLE CONTROL OF THESE VARIABLES BASED ON TIME OF DAY:
  - TEMPERATURE
  - FAN ON/OFF/AUTO
  - OCCUPIED/UNOCCUPIED. IN UNOCCUPIED MODE, NO FRESH AIR, FAN OPERATES ON CALL FOR HEAT OR COOLING. NO CO<sub>2</sub> CONTROL AND NO F/A. IN OCCUPIED MODE, PROVIDE DEMAND CONTROL VENTILATION BASED ON SPACE CO<sub>2</sub> LEVELS. MAX. OUTDOOR AIR IS 1800 CFM.
  - SYSTEM HEAT/COOL/AUTO SETTING.
- PATCH HOLES IN WALLS (5) AND ROOF (1) TO MATCH EXISTING CONSTRUCTION. PAINT TO MATCH. REMOVE EXISTING EQUIPMENT CURRENTLY INSTALLED.
- FIRE DAMPER.
- GRILLE TYPE B, SIZE AS NOTED (SECOND LINE), AIRFLOW AS NOTED (THIRD LINE). USE PRICE TYPE 5200 C/W INTERNAL BALANCING DAMPER.
- PROVIDE ONE 1.8 kW ELECTRIC HEAT COIL ON SUPPLY AIR SIDE. MODULATE COIL CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE AT 22°C. INTERLOCK COIL WITH HRV FAN OPERATION. COIL SIZE: TO BE DETERMINED BY VENDOR, MAX. ΔP= 12Pa AT 185 1/3, 208/3/60 C/W SCR CONTROL.
- USE LIFEBREATH 350 DCS HEAT RECOVERY VENTILATOR. UNIT TO OPERATE DURING OCCUPIED TIMES. PROVIDE 7 DAY PROGRAMMABLE TIME CLOCK FOR CONTROL. DESIGN CAPACITY 185 1/3, MIN. 95% EFFECTIVE. RUN 3/8 DIA. COPPER DRAIN LINE OUT EAST WALL, ELECTRIC SELF REGULATING HEAT TRACE AND INSULATE PIPING. 115/1/60, 610W TOTAL POWER.
- USE 360x360 GALVANIZED STEEL HOOD. REFER TO C/M102.
- 360 x 200 RETURN AIR FROM THE STORAGE ROOM TO HRV-2. PROVIDE EXPANDED METAL AT STORAGE ROOM. PROVIDE TWO AIR TRANSFER GRILLES 360 x 200, C/W EXPANDED METAL EACH SIDE OF EACH OPENING (4) AT COMMON WALLS.
- INSULATE DUCTWORK FROM FAN COIL. USE 50 THICK FIBERGLASS CANADA TYPE 705 BOARD C/W FSK FACING.
- USE LIFEBREATH 700FD HRV HEAT RECOVERY VENTILATOR. UNIT TO OPERATE DURING OCCUPIED TIMES. PROVIDE 7 DAY PROGRAMMABLE TIME CLOCK FOR CONTROL. DESIGN CAPACITY 235 1/3, MIN. 62% EFFECTIVE. 115/1/60, 1080W TOTAL POWER.
- PROVIDE ONE 7.0 kW ELECTRIC HEAT COIL ON SUPPLY AIR SIDE. MODULATE COIL CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE AT 22°C. INTERLOCK COIL WITH HRV FAN OPERATION. COIL SIZE: TO BE DETERMINED BY VENDOR, MAX. ΔP= 12Pa AT 235 1/3, 208/3/60 C/W SCR CONTROL.
- INSULATE DUCT FROM OUTSIDE WALL TO HRV. USE 50 THICK FIBERGLASS CANADA TYPE 705 BOARD C/W FSK FACING.
- GRILLE TYPE B, USE PRICE 5200/F/L/ SIZE AND AIRFLOW AS NOTED.
- FIELD ROUTE NEW 3/2 DIA. COPPER DRAIN LINE FROM FAN COIL TO GARAGE FLOOR. COORDINATE PIPE ROUTE WITH COMMUNITY CENTRE STAFF. USE TYPE DWV COPPER PIPE C/W SOLDERED JOINTS. PROVIDE FIRE STOPPING AT FLOOR PENETRATION AND GARAGE WALL.
- USE NOMINAL 1 1/2 TON COOLING ONLY FAN COIL. MOUNT CONDENSING UNIT ON THE ROOF: USE 50 THICK HI-40 RIGID INSULATION C/W 600 x 600 x 38 CONCRETE BLOCK TO SUPPORT CONDENSING UNIT. PROVIDE 7 DAY FULLY PROGRAMMABLE THERMOSTAT IN ROOM TO CONTROL FAN COIL AND EXISTING ELECTRIC BASEBOARD HEATERS. FAN CAPACITY, MIN. 280 1/3 AT 63 Pa EXTERNAL STATIC. COMPLETE WITH FIBERGLASS DISCHARGE SILENCER. MAX DISCHARGE NC LEVEL 25. SUSPEND UNIT FROM CEILING IN STORAGE ROOM. CONFIRM UNIT SIZE WILL FIT WITHIN THE STORAGE ROOM BEFORE ORDERING. FAN COIL 600W MAX POWER, CONDENSING UNIT 1200W MAX POWER.
- PROVIDE TRANSFER GRILLE ABOVE DOOR, ONE GRILLE EACH SIDE OF THE WALL. USE PRICE MODEL 530/F/L/A/B12. CONFIRM SIZE ON SITE PRIOR TO ORDERING.
- USE PRICE MODEL 95/L/D/A/B12. GRILLE SIZE 450 x 250. SEVEN REQUIRED. PROVIDE EXPANDED METAL MESH ON STORAGE ROOM SIDE OF GRILLE FOR SIX LOCATIONS C/W FIRE DAMPER.
- USE NOMINAL 1 TON HEAT/COOL AIR SOURCE HEAT PUMP FAN COIL. MOUNT CONDENSING UNIT ON THE ROOF: USE 50 THICK HI-40 RIGID INSULATION C/W 600 x 600 x 38 CONCRETE BLOCK TO SUPPORT CONDENSING UNIT. PROVIDE 7 DAY FULLY PROGRAMMABLE THERMOSTAT IN ROOM TO CONTROL FAN COIL AND EXISTING ELECTRIC BASEBOARD HEATERS. FAN CAPACITY, MIN. 190 1/3 AT 63 Pa EXTERNAL STATIC. SUSPEND UNIT ABOVE CEILING SPACE IN OFFICE. UNIT IS COMPLETE WITH FIBERGLASS INLET AND DISCHARGE SILENCER. MAX DISCHARGE NC LEVEL 25. FAN COIL 600W MAX POWER, CONDENSING UNIT 1200W MAX POWER.
- USE PRICE MODEL 95/L/D/A/B12. SIZE 300 x 300.
- BALANCE S/A TO WASHROOMS TO MAINTAIN EXHAUST TWO TIMES MORE THAN SUPPLY.
- PROVIDE 3/2 DIA. DWV TO INDIRECT DRAIN. CONNECT TO NEAREST DRAIN.
- RETURN AIR WITHIN SOFFIT SPACE TO RTU-2.
- EXISTING FURNACE AIR DUCTWORK IS EXPOSED AT THE CEILING LEVEL. DUCTWORK TO REMAIN.
- RETURN AIR DUCT TO RUN BELOW THE EXISTING FURNACE AIR DUCT.
- NEW EXHAUST FANS (EF-1, EF-2) MOUNTED IN CEILING SPACE. TIE INTO EXISTING EXHAUST DUCT WORK. USE GREENHECK SP-A410, AIRFLOW: 120 L/S ESP=100Pa 115/1/60, TIE INTO LIGHT SWITCH FOR FAN CONTROL.
- NEW EXHAUST FAN EF-3 MOUNTED IN CEILING SPACE. TIE INTO EXISTING EXHAUST DUCT WORK. USE GREENHECK SP-B200, AIRFLOW: 90 L/S ESP=100Pa 115/1/60, TIE INTO LIGHT SWITCH FOR FAN CONTROL.
- NEW EXHAUST FANS (EF-4, EF-7, EF-8) MOUNTED IN CEILING SPACE. TIE INTO EXISTING EXHAUST DUCT WORK. USE GREENHECK SP-B150, AIRFLOW: 60 L/S, ESP=100Pa 115/1/60, TIE INTO LIGHT SWITCH FOR FAN CONTROL.
- NEW EXHAUST FANS (EF-5, EF-6) MOUNTED IN CEILING SPACE. TIE INTO EXISTING EXHAUST DUCT WORK. USE GREENHECK SP-B150, AIRFLOW: 60 L/S, ESP=100Pa 115/1/60, CONNECT TO A NEW ROOM SWITCH.
- PATCH CEILING TO MATCH EXISTING DRYWALL CEILING.
- USE 400x275 GALVANIZED STEEL HOOD. REFER TO C/M102
- PROVIDE MIN 100 DEEP WATER TIGHT DRIP PAN BELOW NEW RELIEF AIR DAMPER.
- INCLUDE BALANCING DAMPERS FOR BRANCHES ON ALL SUPPLY AND RETURN AIR DUCTWORK.



| REV | DESCRIPTION       | DWN | APP | REV DATE    |
|-----|-------------------|-----|-----|-------------|
| 0   | ISSUED FOR TENDER |     |     | SEP 15 2016 |

**Accutech Engineering Inc.**  
Tomorrow's Technology Today

1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3  
phone 204.944.1555 fax 204.944.1444  
www.accutecheng.ca

PROVINCE OF MANITOBA  
SEP 15 2016  
B.K. WALL  
REGISTERED ENGINEER

PERMIT TO PRACTICE  
APEGM  
Certificate of Authorization  
Accutech Engineering Inc.  
No. 1660 Date: SEP 15 2016

CLIENT  
**THE CITY OF WINNIPEG  
GRENDPELL PARK C.C.**

PROJECT  
**HVAC ELECTRICAL UPGRADES**

SHEET TITLE  
**MAIN FLOOR VENTILATION PLAN  
MEZZANINE VENTILATION PLAN**

| DRAWN BY    | CHECKED BY | SCALE       | SHEET NO    |
|-------------|------------|-------------|-------------|
| KAC         | BKW        | AS NOTED    | <b>M101</b> |
| DESIGNED BY | JOB NUMBER | DATE        | REVISION NO |
| LCS         | 18558      | SEP 15 2016 | 0           |