

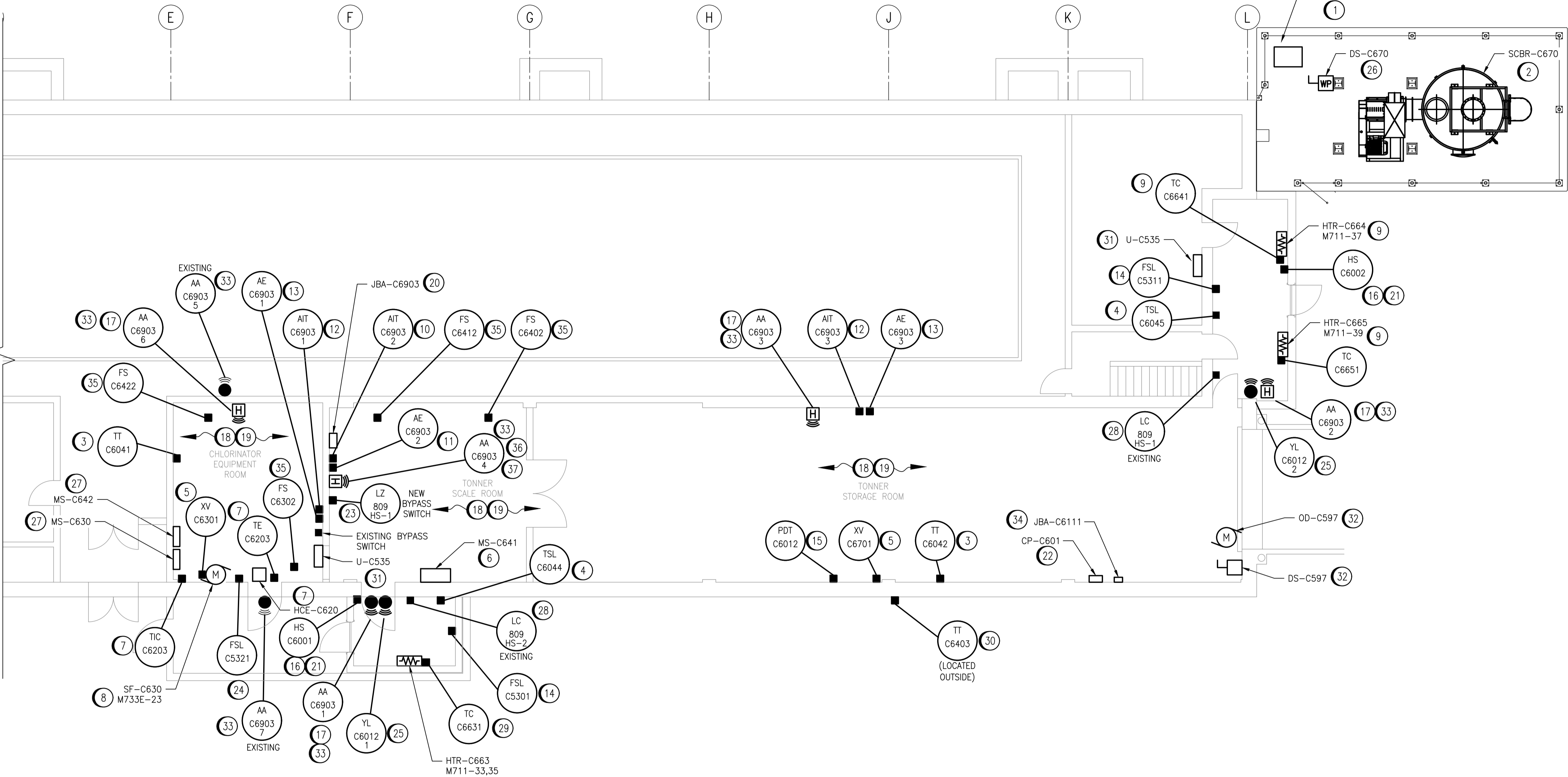
A1 SIZE - 594mm x 841mm

GENERAL NOTES:

1. ALL CONDUIT AND CABLING IS NEW AND TO BE PROVIDED BY THE CONTRACTOR.
2. ALL EQUIPMENT SHOWN ON THIS DRAWING IS NEW UNLESS OTHERWISE INDICATED AS EXISTING.
3. CONTRACTOR IS RESPONSIBLE TO CALIBRATE ALL NEW INSTRUMENTATION DEVICES. CONTRACTOR TO VERIFY WITH CONTRACT ADMINISTRATOR THE DEVICE RANGE.

SPECIFIC NOTES:

1. PROVIDE NEW 75KVA OUTDOOR AUTOTRANSFORMER XFMR-C670 TO SERVICE CHLORINE SCRUBBER SCBR-C670. AUTOTRANSFORMER ENCLOSURE SHALL BE NEMA 3R RATED AND PROVIDED BY ELECTRICAL CONTRACTOR.
2. PROVIDE NEW CHLORINE GAS SCRUBBER TO BE LOCATED OUTSIDE. CONTRACTOR TO PROVIDE ALL CONDUIT AND CABLING REQUIRED FOR COMPLETE INSTALLATION OF ALL POWER AND CONTROLS. SCRUBBER PROVIDED BY MECHANICAL CONTRACTOR.
3. PROVIDE NEW TEMPERATURE TRANSMITTERS AS SHOWN ON DRAWING. PROVIDE NEW CABLING AND CONDUIT.
4. PROVIDE NEW TEMPERATURE SWITCHES AS SHOWN ON DRAWING. PROVIDE NEW CABLING AND CONDUIT.
5. PROVIDE NEW DAMPER ACTUATORS AS SHOWN INCLUDING ALL ASSOCIATED CONDUIT AND CABLING REQUIRED FOR THE COMPLETE INSTALLATION OF ALL POWER AND CONTROLS. PROVIDE ALL MOUNTING ACCESSORIES REQUIRED TO INSTALL DAMPERS ACTUATORS. CONTRACTOR IS RESPONSIBLE TO PROVIDE A MOUNTING SCHEME.
6. PROVIDE 120V MOTOR STARTER PANEL FOR EXHAUST FAN EF-C641 C/W WITH VFD. ENCLOSURE IS TO BE NEMA 4X RATED. REFER TO MOTOR SCHEMATICS DRAWINGS FOR DETAILS. CONTRACTOR TO DESIGN PANEL AS PER SCHEMATIC. PANEL SHALL BE DESIGNED TO FIT IN THE DESIGNATED LOCATION.
7. PROVIDE NEW 600V DUCT HEATER HCE-C620 AND ALL CONDUIT AND CABLING REQUIRED FOR THE COMPLETE INSTALLATION OF POWER AND CONTROLS. DUCT HEATER TO INCLUDE CONTROL PANEL, THERMOSTAT AND SENSOR.
8. PROVIDE 120V SUPPLY FAN SF-C630 AND ALL ASSOCIATED CONDUIT AND CABLING REQUIRED FOR POWER AND CONTROL.
9. PROVIDE 120V HEATER WITH BUILT IN THERMOSTAT COMPLETE WITH ALL ASSOCIATED CONDUIT AND CABLING REQUIRED FOR COMPLETE INSTALLATION OF POWER AND CONTROLS.
10. RETAIN EXISTING ATI D12 CHLORINE GAS DETECTOR CONTROLLER AND RENAME AIT-C6903-2. RELOCATE CONTROLLER TO TONNER SCALE ROOM AND PROVIDE ALL ADDITIONAL WIRING AND CONDUIT REQUIRED. PROVIDE PULL BOX AT EXISTING LOCATION TO EXTEND EXISTING ANALOG SIGNAL CABLING AND CONDUIT.
11. RETAIN EXISTING CHLORINE GAS SENSOR. EXISTING LOCATION TO BE RETAINED. PROVIDE NEW GAS GENERATOR MODULE ASSOCIATED WITH CONTROLLER AND SENSOR. CONNECT NEW WIRING TO EXISTING CONTROLLER AS PER DRAWING 1-0630M-A0066. REFER TO MANUFACTURER INFORMATION FOR INSTALLATION.
12. PROVIDE NEW GAS DETECTION CONTROLLER/TRANSMITTERS, AIT-C6903-1, AND AIT-C6903-3 FOR CHLORINE DETECTION. PROVIDE NEW CABLING, CONDUIT, AND ALL NECESSARY MOUNTING ACCESSORIES. REFER TO DWG. 1-0630M-A0065 AND 1-0630M-A0067. CONTRACTOR TO LOCATE CONTROLLER TO ENSURE EXISTING CONTROLLER CAN REMAIN OPERATIONAL PRIOR TO SWITCHOVER.
13. PROVIDE NEW GAS DETECTOR SENSORS AE-C6903-1 AND, AE-C6903-3. SENSORS ARE LOCATED ON WALL BELOW GAS DETECTION HEADS. PROVIDE NEW CABLING, CONDUIT AND ALL NECESSARY MOUNTING HARDWARE. MOUNT SENSOR NEAR GROUND LEVEL. REFER TO DRAWING 1-0630M-A0065 AND 1-0630M-A0067 FOR WIRING DETAILS.
14. PROVIDE NEW EMERGENCY SHOWER FLOW SWITCH AS PART OF VENDOR SUPPLIED PACKAGE. PROVIDE NEW CABLING AND CONDUIT FOR PLC MONITORING AND 120V FED FROM PNL-M733E, CT 26 TO POWER FLOW SWITCH RELAY.
15. PROVIDE NEW PRESSURE DIFFERENTIAL TRANSMITTER PDT-M6012. PROVIDE NEW CABLING AND CONDUIT. TRANSMITTER TO MEASURE BETWEEN TONNER AND OUTSIDE. PROVIDE ALL NECESSARY EQUIPMENT TO FACILITATE INSTALLATION.
16. PROVIDE NEW SWITCH FOR TONNER ROOM OCCUPANCY STATUS. PROVIDE ALL NEW CABLING AND CONDUIT.
17. PROVIDE NEW NEMA 4X CHLORINE GAS DETECTION HORN AND STROBE DUAL UNIT. REFER TO DRAWING 1-0630M-A0067 FOR WIRING DETAILS. CONTRACTOR TO CONFIRM EXISTING CIRCUIT ON SITE AND TIE IN NEW DEVICES TO EXISTING. PROVIDE WARNING SIGNAGE (RED WITH WHITE LETTERS) THAT READ "CHLORINE ALARM".
18. REPLACE ALL EXISTING RECEPTACLE COVER PLATES WITHIN THE CHLORINE BUILDING SPACE WITH WEATHERPROOF COVERS SUITABLE FOR USE IN CATEGORY 2 LOCATIONS AS PER SECTION 22 OF THE CEC.
19. ALL EXISTING EMT CONDUIT SYSTEMS INCLUDING ALL PULL BOXES OR JUNCTION BOXES THAT ARE NOT NEMA 4X RATED ARE TO BE PAINTED WITH A NON CORROSIVE PAINT TO COMPLY WITH CEC CATEGORY 2 REQUIREMENTS.
20. PROVIDE NEW JUNCTION BOX, JBA-C6903, FOR CHLORINE DETECTION SYSTEM TO FACILITATE CONNECTION TO EXISTING HVAC PLC AND CHLORINE NOTIFICATION EQUIPMENT. REFER TO JUNCTION BOX LAYOUT DRAWING 1-0630M-A0070 AND CHLORINE DETECTION LOOP DRAWINGS FOR DETAIL.
21. EXHAUST FAN TO BE CONTROLLED BY THE TONNER STORAGE ROOM OCCUPANCY STATUS SWITCHES HS-C6001 AND HS-C6002. FAN IS TO BE RUNNING WHEN STORAGE ROOM IS OCCUPIED.
22. PROVIDE NEW VENTILATION CONTROL PANEL CP-C601 FOR THE MAKE UP AIR UNIT AHU-C601. ENCLOSURE TO BE NEMA 4X RATED AND SUITABLE FOR CEC CATEGORY 2 LOCATIONS. REFER TO DRAWING 1-0630M-E0071 FOR DETAILS.
23. PROVIDE NEW KEYED BYPASS SWITCH COMPLETE WITH INDICATING PILOT HOUSED IN A NEMA 4X ENCLOSURE FOR THE CHLORINE DETECTION SYSTEM LOCATED IN THE TONNER SCALE ROOM. REFER TO DRAWING 1-0630M-A0026 AND 1-0630M-A0073. PROVIDE NEW CABLING/CONDUIT TO FACILITATE EQUIPMENT IN EXISTING SYSTEM.



24. PROVIDE NEW FLOW SWITCH ON EXISTING SAFETY SHOWER IN CHLORINATOR EQUIPMENT ROOM. EXISTING SAFETY SHOWER IS FROM MANUFACTURER ENCON. PROVIDE FLOW SWITCH ALARM KIT PART #0210000. CONTRACTOR TO VERIFY WITH VENDOR THIS IS THE CORRECT PRODUCT TO USE FOR THE EXISTING SAFETY SHOWER. PROVIDE ALL ADDITIONAL PARTS REQUIRED TO INCORPORATE SWITCH IN EXISTING EQUIPMENT
25. PROVIDE NEW TONNER STORAGE ROOM OCCUPANCY LIGHT AS SHOWN. OCCUPANCY LIGHT TO BE GREEN AND ACTIVE WHEN AHU-C601 IS RUNNING. CONTRACTOR TO PROVIDE ALL NECESSARY MOUNTING ACCESSORIES AND SIGNAGE THAT READS "SUPPLY AIR ON". COORDINATE WITH CONTRACT ADMINISTRATOR SIZE AND DESCRIPTION PRIOR TO PRODUCTION
26. PROVIDE 60A RATED, NON-FUSIBLE, WEATHERPROOF DISCONNECT SWITCH DS-C670.
27. PROVIDE 120V MOTOR STARTER PANEL FOR SUPPLY SF-C630 AND EXHAUST FAN EF-C642. PANELS ARE LOCATED IN CHLORINE EQUIPMENT ROOM. ENCLOSURES ARE TO BE NEMA 4X RATED. REFER TO MOTOR SCHEMATICS DRAWINGS FOR DETAILS. CONTRACTOR TO DESIGN PANEL AS PER SCHEMATIC. PANEL SHALL BE SIZED TO FIT IN THE DESIGNATED LOCATION.
28. EXISTING E-STOP SWITCHES FOR CHLORINE GAS DETECTION ISOLATION TO BE RETAINED AND CONNECTED TO MODIFIED CHLORINE EMERG. ISOLATION SYSTEM. REFER TO DRAWING 1-0630M-A0026.
29. PROVIDE 208V HEATER WITH BUILT IN THERMOSTAT COMPLETE WITH ALL ASSOCIATED CONDUIT AND CABLING REQUIRED FOR COMPLETE INSTALLATION OF POWER AND CONTROLS.
30. PROVIDE NEW OUTDOOR TEMPERATURE TRANSMITTER. PROVIDE NEW CABLING AND CONDUIT.
31. PROVIDE 600V POWER TO NEW TANKLESS WATER HEATER FOR THE EMERGENCY SAFETY SHOWERS. PROVIDE NEW CABLING AND CONDUIT FROM SOURCE TO HEATER. TANKLESS WATER HEATER TO BE PROVIDED BY MECHANICAL CONTRACTOR.
32. PROVIDE NEW OVERHEAD DOOR COMPLETE WITH CONTROLS. WIRE AND CONNECT POWER AND CONTROLS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE NEW DISCONNECT SWITCH. EXISTING CABLING/CONDUIT FROM SOURCE PANEL TO BE REUSED AND EXTENDED TO FACILITATE CONNECTION TO NEW OVERHEAD DOOR. PROVIDE ALL NECESSARY EQUIPMENT REQUIRED FOR CABLE MODIFICATION. PROVIDE NEW CABLING/CONDUIT FROM DISCONNECT SWITCH AND CONTROLLER TO MOTOR UNIT
33. TIE EXISTING CHLORINE ALARM HORN/STROBES AND NEW CHLORINE ALARM HORN/STROBES TO NEW CHLORINE DETECTION SYSTEM. PROVIDE AND MODIFY CABLING AND CONDUIT ACCORDINGLY.
34. PROVIDE JUNCTION BOX, JBA-C6111, FOR EMERGENCY OUTDOOR AIR DAMPER ACTUATOR XV-C6111. JUNCTION BOX SHALL BE MOUNTED AT HEIGHT SUITABLE FOR MAINTENANCE AS THE JUNCTION IS EQUIPPED WITH INTERPOSING RELAYS. CONTRACTOR TO UTILIZE ADDITIONAL JUNCTION BOX TO FACILITATE INTERCONNECTION IF ACTUATOR INTEGRAL CABLE IS NOT LONG ENOUGH TO TERMINATE TO JBA-C6111.
35. CONTRACTOR TO PROVIDE AIR FLOW SWITCH TO PROVE ASSOCIATED HVAC EQUIPMENT IS RUNNING. LOCATION OF FLOW SWITCH ON DRAWING IS APPROXIMATE. CONFIRM ON SITE OPTIMAL LOCATION OF FLOW SWITCH IN DUCT FOR EACH HVAC UNIT. FINAL LOCATION TO BE DETERMINED AFTER COMMISSIONING BASED ON PERFORMANCE. REFER TO MECHANICAL AND P&ID DRAWINGS FOR FURTHER DETAILS.
36. CONTRACTOR TO REPLACE EXISTING INTERIOR DUAL HORN AND STROBE WITH NEW NEMA 4X DUAL UNIT TO MATCH THE MAKE AND MODEL OF NEW GAS DETECTION HORN/STROBE DEVICES BEING ADDED. CONTRACTOR TO PROVIDE AND MODIFY CABLING/CONDUIT ACCORDING TO FACILITATE CONNECTION.
37. CONTRACTOR TO RECONNECT EXISTING HORN/STROBE SILENCE TIMER TO NEW GAS DETECTION CIRCUITS AS REQUIRED.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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1:75

**ENGINEERS
GEOSCIENTISTS
MANITOBA**
Certificate of Authorization
AtkinsRéalis Canada Inc.

No. 4489

1-0630M-E0077-83
1-0630M-A0061-69
1-0630M-E0023-25

DRAWING NUMBER
REFERENCE DRAWINGS

AtkinsRéalis

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SCALE:
1:75

ISSUED FOR CONSTRUCTION
BY:
M. SKINNER

DATE:
2023/05/23

DATE:
2025/04/30

CONSULTANT NO.:

00 ISSUED FOR TENDER AND CONSTRUCTION 2025/04/30 VE VE

NO. REVISIONS DATE DESIGN CHECK

ENGINEER'S SEAL



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

MACLEAN PUMPING STATION
CHLORINE SYSTEM UPGRADES
ELECTRICAL EQUIPMENT PLAN
CHLORINE BUILDING
MAIN FLOOR

CITY DRAWING NUMBER
1-0630M-E0073

SHEET
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REV.
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SIZE
A1