



# ELECTRICAL SITE PLAN

#### **GENERAL NOTES:**

- 1. COORDINATE WITH MANITOBA HYDRO TO ARRANGE FOR A 4160V SERVICE REPLACEMENT. CONFIRM LOCATION OF UTILITY POLE AND ROUTING OF CONDUITS AND CABLING TO THE SERVICE EQUIPMENT.
- 2. THE EXISTING SERVICE TRANSFORMER AND 600V DISTRIBUTION IS CURRENTLY FED FROM THE HYDRO POLE AT THE NORTH WEST OF THE STATION. MANITOBA HYDRO MAY RE-UTILIZE OR REPLACE THIS POLE.
- 3. NO TEMPORARY POWER FROM MANITOBA HYDRO WILL BE PROVIDED FOR THE FLOOD PUMPS WHILE DEMOLITION/CONSTRUCTION IS UNDERWAY. A TEMPORARY GENERATOR WILL NEED TO BE PROVIDED FOR LOADS ASSOCIATED WITH HEATING, LIGHTING, ETC DURING DEMOLITION AND NEW CONSTRUCTION. THE STATION CONTAINS DOMESTIC WATER PIPING AND ASSOCIATED HEAT TRACING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE DOMESTIC WATER PIPING DOES NOT FREEZE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES RESULTING FROM DOMESTIC WATER PIPING FREEZING.
- 4. ALL SEWER AND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO LOCATE SERVICES AND PROVIDE REDLINE MARKUPS FOR ANY DEVIATIONS FROM THAT SHOWN ON THIS
- 5. ALL EQUIPMENT AND DEVICES SHOWN ON THIS DRAWING ARE NEW, AND TO BE PROVIDED BY THE CONTRACTOR UNLESS INDICATED OTHERWISE AS "EXISTING". DEVICES AND EQUIPMENT IS SHOWN AT ITS APPROXIMATE LOCATION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE EXACT LOCATION ON SITE.

REFERENCE DRAWINGS

-0128F-E0001-001 | COLONY FLOOD PUMPING STATION SINGLE LINE DIAGRAM

## CONSTRUCTION NOTES:

PROVIDE NEW 5kV PAD-MOUNT SWITCHGEAR, SGR-F70. SWITCHGEAR SHALL HAVE SEPARATE COMPARTMENTS FOR FUSIBLE DISCONNECT SWITCH, 5kV UTILITY METERING AND 5kV LOAD

SCALE: 1 : 100

- PROVIDE NEW PILES AND CONCRETE PAD, COMPLETE WITH CABLE SLEEVES. REFER TO STRUCTURAL DRAWINGS FOR PAD DETAIL. MAINTAIN A MINIMUM OF 1700mm CLEARANCE FROM PAD PERIMETER TO STATION BUILDING WALL.
- 3) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXCAVATE TRENCH AREA AND PROVIDE CONDUIT SLEEVE FOR MANITOBA HYDRO TO INSTALL DIRECT BURIED UTILITY CABLING C-UTIL. ONCE CABLING HAS BEEN INSTALLED IN THE TRENCH, THE CONTRACTOR TO BACK FILL TRENCH.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS-BUILT MARKUPS SHOWING THE LOCATIONS OF ALL NEW CABLES, CONDUIT AND EQUIPMENT.
- PROVIDE 152mm DEEP CRUSHED ROCK WITHIN THE AREA BOUND BY THE PERIMETER GROUND CABLING. CRUSHED ROCK SHALL EXTEND A MINIMUM OF 1000mm BEYOND THE PERIMETER GROUND CABLING. EXCAVATE AREA PRIOR TO INSTALLATION OF CRUSHED ROCK SUCH THAT THE CRUSHED ROCK IS TOP-FLUSH WITH SURROUNDING GRADE. MATERIAL SHALL BE 38MM, CLEAN, CRUSHED, FREE DRAINING GRANULAR MATERIAL (FREE FROM SILT, ORGANICS).
- PROVIDE RIGID PVC CONDUITS FOR ALL GROUNDING CABLES, CONTROL/INSTRUMENT CABLES

  AND 120 VAC POWER CABLES EMBEDDED AND OR DIRECT BURIED BELOW SERVICE FOLLIPMENT AND 120 VAC POWER CABLES EMBEDDED AND/OR DIRECT BURIED BELOW SERVICE EQUIPMENT
- 7) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING DIRECT BURIED  $\overset{\smile}{\smile}$  utility cable from the hydro pole to the transformer, contractor to coordinate WITH MB HYDRO FOR THE REMOVAL AND DISPOSAL OF THE EXISTING UTILITY CABLE. ONCE THE CABLE TRENCH IS EXCAVATED AND CABLE IS REMOVED, CONTRACTOR TO BACKFILL THE

### MANITOBA HYDRO SCOPE OF WORK:

NO. REVISIONS

- 1. SUPPLY NEW UTILITY CABLE (C-UTIL) FROM NEW HYDRO POLE TO 5kV SWITCHGEAR SGR-F70 FUSED DISCONNECT COMPARTMENT. SOFT DIG EXCAVATION AND TRENCHING TO THE POLE SHALL BE DONE BY THE CONTRACTOR.
- 2. SUPPLY NEW METER IN 5kV SWITCHGEAR SGR-F70 METERING COMPARTMENT.

### LEGEND: ---- WORK, HIDDEN/BURIED — – – GROUNDING - - - EXISTING WASTEWATER/SEWER

**METRIC** ENGINEERS GEOSCIENTISTS WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES MANITOBA Certificate of Authorization 0.0 1.0 2.0 4.0 6.0m AtkinsRéalis Canada Inc. No. 4489 1:100

ENGINEER'S SEAL **G** AtkinsRéalis 148 Nature Park Way, Winnipeg, Manitoba Canada R3P 0X7 204-786-8080 DESIGNED BY: P. GILL V. ELIMBAN RAWN BY: APPROVED BY: K. MOHAMMED D. BECKER ISSUED FOR CONSTRUCTION BY: B. SOLOWAY DATE: 2024/09/09 DATE: 2024/12/20 00 ISSUED FOR TENDER AND CONSTRUCTION | 2024/12/20 | PG | VE CONSULTANT NO.:

DATE DESIGN CHECK

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

COLONY FLOOD PUMPING STATION 2025 TRANSFORMER REMEDIATION UPGRADES SITE PLAN - ELECTRICAL

CITY DRAWING NUMBER SHEET | REV. | SIZE 001 | 00 | A1

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DRAWING NUMBER