

LEGEND:

- EXISTING
- NEW WORK
- FUTURE
- SS SOFT STARTER

CONSTRUCTION NOTES:

- 1 PROVIDE A SEPARATE 6 AWG RW90, GREEN INSULATED CONDUCTOR RUN IN CONDUIT FROM TRANSFORMER X0 TERMINAL TO THE EQUIPMENT GROUNDING SYSTEM CONDUCTOR. REFER TO DRAWING 1-0640M-E0044 FOR DETAILS.
- 2 REPLACE LP-B PANEL INTERIOR. PROVIDE NEW LAMACOID
- 3 PROVIDE NEW CABLING AND CONNECT NEW/EXISTING EQUIPMENT TO THE NEW MCC.
- 4 PROVIDE KIRK KEY INTERLOCK BETWEEN MCC-M730E MAIN SWITCH MCC-M730E.MCS-A AND BACK UP SWITCH MCC-M730E.MCS-B TO PREVENT THE SYSTEM FROM BEING FED FROM 2 SEPARATE SOURCES AT THE SAME TIME.
- 5 PROVIDE NEW POWER CABLING FOR NEW POWER METER FROM PNL-M22U, CCT.22. REFER TO PANEL SCHEDULE, 1-0640M-E0042-002.
- 6 PROVIDE TWO NEW 15KVA TRANSFORMERS XFMR-M732E AND XFMR-M731E. PROVIDE NEW 120/208V 3φ PANELBOARD.
- 7 PROVIDE NEW LOCAL DISCONNECT SWITCH.

GENERAL NOTES:

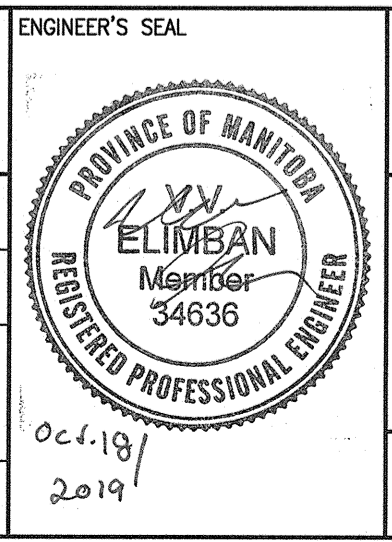
1. ALL EQUIPMENT AND CABLES SHOWN ARE NEW AND ARE TO BE PROVIDED BY THE CONTRACTOR UNLESS INDICATED AS EXISTING OR NOTED OTHERWISE.
2. NO DE-RATING HAS BEEN APPLIED. THE ELECTRICAL CONTRACTOR SHALL UPSIZE CABLES AND CONDUITS IN ACCORDANCE WITH CEC REQUIREMENTS.
3. ALL BREAKERS AND STARTERS TO HAVE AN INTERRUPTING RATING OF 25KAIC OR HIGHER (SERIES RATED EQUIPMENT IS NOT ACCEPTABLE).
4. THIS DRAWING SUPERSEDES PART OF DRAWING 1-0640M-E0004.
5. SET MOTOR CIRCUIT PROTECTORS ACCORDING TO THE CORRESPONDING FLA OF THE FEEDER LOAD.

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| 1-0640M-A0079 | LOOP DIAGRAM, MCC-M730E VOLTAGE PRESENT |
| 1-0640M-E0075-002 | CONNECTION DIAGRAM, FN2 SUPPLY FAN |
| 1-0640M-E0075-001 | MOTOR STARTER SCHEMATIC, FN2 SUPPLY FAN |
| 1-0640M-E0074-002 | CONNECTION DIAGRAM, FN1 SUPPLY FAN |
| 1-0640M-E0074-001 | MOTOR STARTER SCHEMATIC, FN1 SUPPLY FAN |
| 1-0640M-E0073 | MOTOR STARTER SCHEMATIC, AIR COMPRESSOR AC2 |
| 1-0640M-E0072 | MOTOR STARTER SCHEMATIC, AIR COMPRESSOR AC1 |
| 1-0640M-E0071 | MOTOR STARTER SCHEMATIC, SP2 SUMP PUMP |
| 1-0640M-E0070 | MOTOR STARTER SCHEMATIC, SP1 SUMP PUMP |
| 1-0640M-E0044 | ELECTRICAL GROUNDING, RISER DIAGRAM |
| 1-0640M-E0042 | PANELBOARD SCHEDULE |
| 1-0640M-E0039 | ELECTRICAL & CONTROL ROOMS - FINAL CONFIGURATION |
| 1-0640M-E0037 | MCC-M730E LAYOUT AND SCHEDULE |
| 1-0640M-E0034 | ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE MCC-M720 |
| 1-0640M-E0032 | ELECTRICAL SINGLE LINE DIAGRAM, PUMPHOUSE MCC-M710 |
| 1-0640M-E0011 | SINGLE LINE DIAGRAM & LAYOUT, REMOVALS & INSTALLATIONS |
| 1-0640C-E0003 | ELECTRICAL SINGLE LINE DIAGRAM, MCC-G710/MCC-C720E |
| 1-0640B-E0007 | SINGLE LINE DIAGRAM, 600V GENERATOR & SWITCHGEAR |
| 1-0640B-E0006 | MCC-G766 ELEVATION AND SINGLE LINE |
| DRAWING NUMBER | REFERENCE DRAWINGS |

| CIRCUIT BREAKER | MODEL | FRAME | SENSOR/TRIP UNIT | LTPU (lr) | LTD (tr) | STPU (lsd) | STD (tsd) | INST (lf) |
|-----------------|---|-------|------------------|-----------|----------|------------|-----------|------------|
| CB-C720 | SQUARE D POWERPACT H SERIES, 5.2A/E & 6.2A/E SERIES, LSI TYPE | 100 | 90 | 1 (90A) | 2 | 9.5 (855A) | 0.1 | 10 (1000A) |



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| DESIGNED BY: | S. BOGHOSIAN | CHECKED BY: | K. SAPIAK |
| DRAWN BY: | S. BOGHOSIAN | APPROVED BY: | D. BECKER |
| SCALE: | NTS | ISSUED FOR CONSTRUCTION BY: | A. WEISS |
| DATE: | 2018/12/21 | DATE: | 2019/10/18 |
| ISSUED FOR TENDER AND CONSTRUCTION | 2019/10/18 | SB | KS |
| No. REVISIONS | DATE | DESIGN | CHECK |



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

MCPHILLIPS PUMPING STATION
ELECTRICAL AND HVAC UPGRADES, MCC REPLACEMENT
ELECTRICAL SINGLE LINE DIAGRAM
PUMPHOUSE
MCC-M730E

CITY DRAWING NUMBER: 1-0640M-E0036
SHEET: 001
REV: 00
SIZE: A1