



- NOTES:**
1. GREY ITEMS DENOTES EXISTING EQUIPMENT, BOLD ITEMS DENOTES NEW EQUIPMENT.
  2. RELOCATE THE EXISTING LIGHT SWITCH FROM INSIDE THE CHLORINE ROOM TO THE NEW LOCATION AS SHOWN. THE RELOCATED LIGHT SWITCH SHALL CONTROL LIGHTING IN BOTH THE CHLORINE STORAGE AND CHLORINE ROOMS. RE-ROUTE CONDUIT AND CABLE AS REQUIRED.
  3. TEMPORARILY REMOVE RECEPTACLE AND REINSTALL AFTER THE HANDRAIL REPLACEMENT.
  4. POWER THE NEW FAN CONTROL PANEL CP-C800 FROM EXISTING PANEL PNL-E UTILIZING THE EXISTING 120VAC FEED USED TO POWER THE EXISTING CHLORINE ROOM EXHAUST FAN-FAN-1. SUPPLY AND INSTALL NEW CABLE FROM THE NEW FAN CONTROL PANEL CP-C800 TO THE NEW ROOFTOP DISCONNECT SWITCH DS-FAN-1. SUPPLY AND INSTALL NEW CABLE FROM THE NEW ROOFTOP DISCONNECT SWITCH DS-FAN-1 TO THE EXISTING CHLORINE ROOM EXHAUST FAN-FAN-1. SUPPLY AND INSTALL NEW CONDUIT AS REQUIRED.
  5. SUPPLY AND INSTALL TWO NEW CHLORINE HORNS AND STROBES AA-C801 AND AA-C802 AND WIRE THEM TO THE NEW FAN CONTROL PANEL CP-C800. REFER TO DRAWING 1-0650C-E0003-001.
  6. INSTALL NEW SUMP PUMP P-M500 AND NEW SUMP PUMP CONTROL PANEL CP-M500. FEED THE NEW SUMP PUMP CONTROL PANEL CP-M500 FROM TWO SEPARATE 120 VAC SPARE CIRCUITS IN PANEL A, ONE 20 A CIRCUIT FOR POWER AND ONE 15 A CIRCUIT FOR CONTROL. SUPPLY AND INSTALL BREAKERS AS REQUIRED. SUPPLY AND INSTALL REQUIRED CABLING BETWEEN NEW SUMP PUMP CONTROL PANEL CP-M500 AND NEW SUMP PUMP P-M500 AND FLOAT SWITCHES. REFER TO MANUFACTURERS WIRING DIAGRAM FOR POWER, CONTROL AND FLOAT SWITCH TERMINATION DETAILS.
  7. SUPPLY AND INSTALL A NEW VERACITY VOR-ORL ETHERNET EXTENDER IN A NEW APPROPRIATELY SIZED PVC JUNCTION BOX JB-Y800 FOR TERMINATION OF THE NEW BURIED CAT6 COMMUNICATION CABLE CN-Y800-1 FROM JB-Y800, LOCATED IN THE MAIN PUMPING STATION, TO THE NEW RTU CONTROL PANEL CP-Y800, LOCATED IN THE DRAINAGE LIFT STATION. UTILIZE THE EXISTING ENTRY LOCATION FOR THE DRAINAGE LIFT STATION POWER FEED (SEE NOTE 8). SUPPLY AND INSTALL NEW CAT6 CABLE (CN-Y800-2) BETWEEN JUNCTION BOX JB-Y800 AND THE MAIN CONTROL PANEL LOCATED IN THE OFFICE AREA. REFER TO DRAWING 1-0650A-E0002-001 AND 1-0650A-E0003-001.
  8. REPLACE THE EXISTING POWER FEED TO THE DRAINAGE LIFT STATION. PROVIDE NEW TECK90 CABLE C-SPL-Y1 FROM THE EXISTING JUNCTION BOX JB-BB LOCATED IN THE MAIN PUMPING STATION TO THE NEW SPLITTER SPL-Y1 LOCATED IN THE DRAINAGE LIFT STATION. ROUTE CABLE C-SPL-Y1 FROM JUNCTION BOX JB-BB TO THE EXISTING ENTRY LOCATION FOR THE DRAINAGE LIFT STATION POWER FEED UTILIZING THE EXISTING CABLE TRAY WITHIN THE MAIN PUMPING STATION. REFER TO DRAWING 1-0650A-E0003-001 FOR OUTSIDE ALIGNMENT.
  9. SUPPLY AND INSTALL A NEW LIGHT SWITCH AND MODIFY WIRING TO CONTROL LIGHTING IN BOTH THE CHLORINE STORAGE AND CHLORINE ROOMS. EXISTING LIGHTING CIRCUITS ARE FED FROM PANEL E, CONTRACTOR TO CONFIRM.
  10. REMOVE EXISTING FAN SWITCH FOR EXISTING CHLORINE ROOM EXHAUST FAN-FAN-1. SUPPLY AND INSTALL TWO NEW THREE-WAY SWITCHES SW-C700 AND SW-C701 AT SHOWN LOCATIONS TO CONTROL BOTH FAN-1 AND EEF-1. WIRE NEW SWITCHES SW-C700 AND SW-C701 TO NEW FAN CONTROL PANEL CP-C800 AS INDICATED ON DRAWING 1-0650C-E0003-001.
  11. REMOVE LOCAL DISCONNECT, MOTOR OVERLOAD, AND CONTROL TRANSFORMER FOR EXISTING CHLORINE ROOM EXHAUST FAN EEF-1 AND SUPPLY AND INSTALL A NEW STARTER MS-EEF-1 IN THE SAME LOCATION AS THE REMOVED OVERLOAD. FEED THE NEW STARTER MS-EEF-1 FROM THE EXISTING 600V CIRCUIT COMING FROM EXISTING PANEL PNL-EE. CONNECT NEW STARTER MS-EEF-1 TO THE NEW FAN CONTROL PANEL CP-C800 AS INDICATED ON DRAWING 1-0650C-E0003-001 AND 1-0650C-E0004-001. CONNECT NEW STARTER MS-EEF-1 TO THE EXISTING EXHAUST FAN DAMPER XY-EEF-1 AS INDICATED ON DRAWING 1-0650C-E0004-001. SUPPLY AND INSTALL NEW DISCONNECT DS-EEF-1 ON THE ROOF. REFER TO DRAWING 1-0650M-E0024-001.
  12. SUPPLY AND INSTALL A NEW 20A LOCKABLE TOGGLE DISCONNECT SWITCH DS-FAN-1 FOR EXISTING CHLORINE ROOM EXHAUST FAN-FAN-1 AND MOUNT IT AT A CONVENIENT LOCATION ON THE ROOF. SUPPLY AND INSTALL NEW CABLE FROM CONTROL PANEL CP-C800 TO THE NEW DISCONNECT SWITCH DS-FAN-1 AND FROM THE DISCONNECT SWITCH DS-FAN-1 TO THE EXISTING ROOF FAN-FAN-1. REFER TO DRAWING 1-0650C-E0003-001 FOR WIRING DETAILS.
  13. WIRE EXISTING CHLORINE DETECTION ALARM PANEL HZ-920-A1Y TO NEW FAN CONTROL PANEL CP-C800 AS INDICATED ON DRAWING 1-0650C-E0003-001. COORDINATE TERMINATION POINTS WITH THE CITY.
  14. THE CHLORINE STORAGE, CHLORINE AND CHLORINATOR ROOMS ARE CLASSIFIED AS CATEGORY 2 AREAS. ALL NEW EQUIPMENT SHALL BE NEMA 4X RATED. ALL NEW AND MODIFIED CONDUIT AND WIRING SYSTEMS SHALL BE SUITABLE FOR CATEGORY 2 ENVIRONMENT.
  15. SUPPLY AND INSTALL DOOR MONITORING CONTACTS WIRED TO THE ALARM PANEL. COORDINATE FINAL TERMINATION LOCATION WITH THE CONTRACT ADMINISTRATOR. MAKE AND MODEL OF DOOR MONITORING CONTACTS SHALL MATCH EXISTING DOOR MONITORING CONTACTS INSTALLED AT OTHER LOCATIONS. CONTRACTOR SHALL SUBMIT MAKE AND MODEL TO THE CONTRACT ADMINISTRATOR FOR APPROVAL PRIOR TO PURCHASING.



**1** PUMP LEVEL - POWER PLAN  
1-0650A-E0003 SCALE: 1:100



**2** MAIN LEVEL - POWER PLAN  
SCALE: 1:100

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10	-	-
9	-	-
8	-	-
7	1-0650Y-E0003-001	ELECTRICAL - DRAINAGE LIFT STATION - POWER & INSTRUMENT PLAN AND DETAILS
6	1-0650M-E0024-001	ELECTRICAL - PUMP STATION ROOF - POWER PLAN
5	1-0650C-E0004-001	ELECTRICAL - PUMP STATION - MS-EEF-1 SCHEMATIC AND CONNECTION DIAGRAM
4	1-0650C-E0003-001	ELECTRICAL - PUMP STATION - CP-C800 SCHEMATIC AND CONNECTION DIAGRAM
3	1-0650A-E0003-001	ELECTRICAL - PARTIAL SITE PLAN
2	1-0650A-E0002-001	AUTOMATION - NETWORK DIAGRAM
1	1-0650A-D0001-001	COVER SHEET

REFERENCE DRAWINGS



B.M.	-
ELEV.	-
DESIGNED BY:	T. BECK
CHECKED BY:	J. BOUCHARD
DRAWN BY:	J. deLEON
APPROVED BY:	J. BOUCHARD
SCALE:	AS NOTED
ISSUED FOR CONSTRUCTION	DATE: 2020-06-18
CONSULTANT NO.:	19-0107-005_E04

**KGS GROUP**

ENGINEER'S SEAL

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

HURST PUMPING STATION  
STRUCTURAL REPAIRS AND DRAINAGE BUILDING UPGRADES  
ELECTRICAL  
PUMP STATION MAIN AND PUMP LEVEL  
POWER PLAN

CITY DRAWING NUMBER: 1-0650M-E0023  
SHEET: 001  
REV: 0  
SIZE: A1