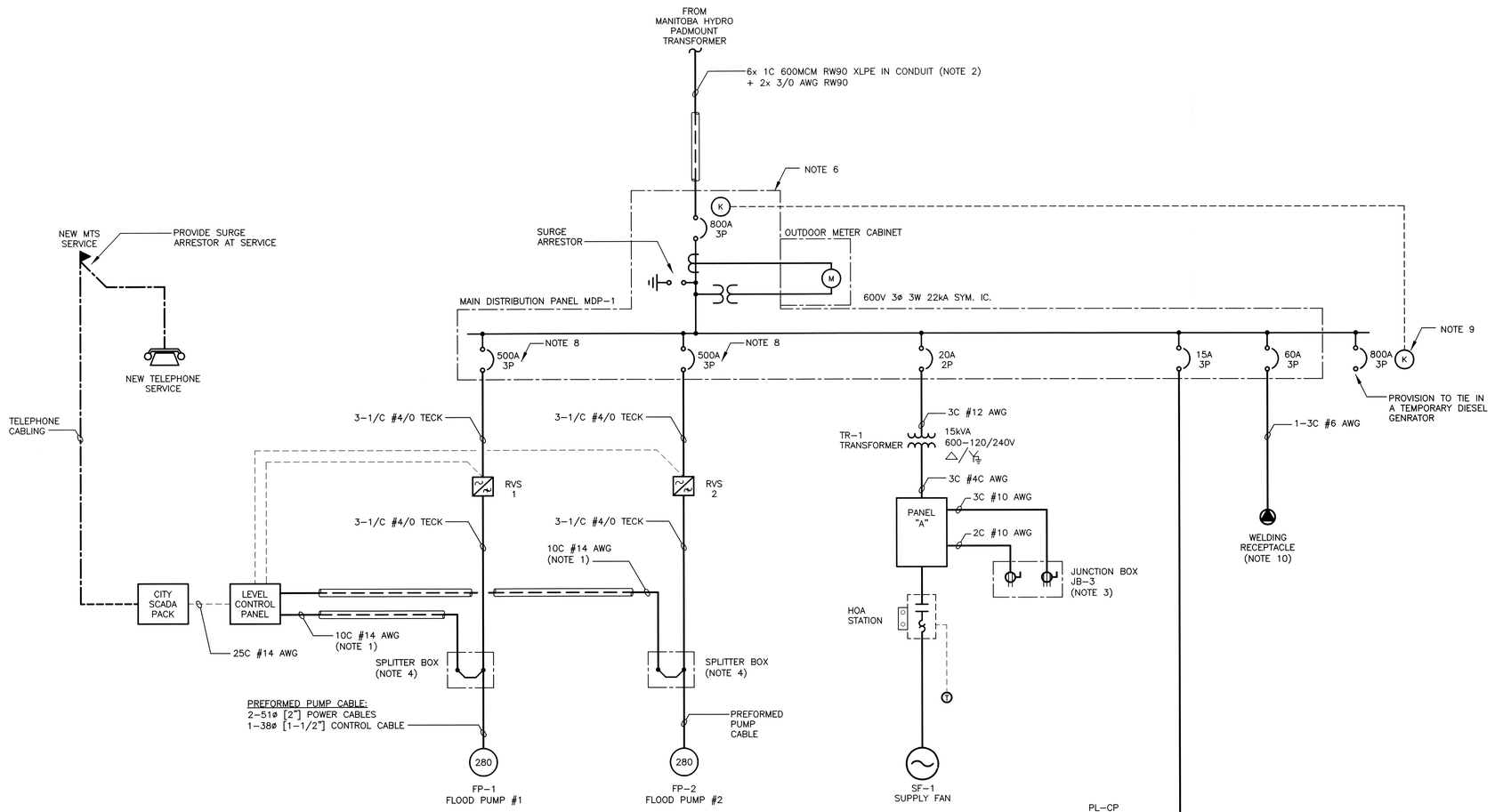
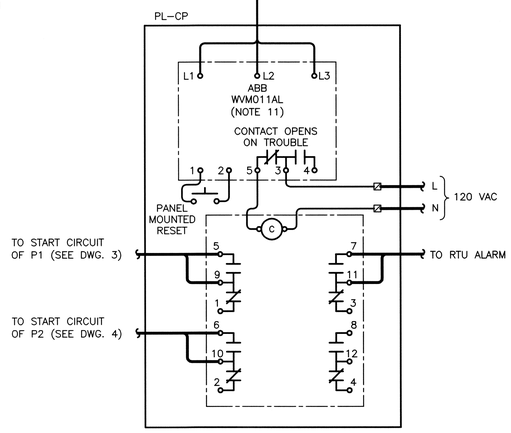


1 SINGLE LINE / INTERCONNECTION DIAGRAM

SCALE: N.T.S



LEGEND:

- REDUCED VOLTAGE STARTER
- BREAKER
- METER
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- DISTRIBUTION TRANSFORMER
- 110 MOTOR LOAD

NOTES:

1. CONTROL CABLING SHALL BE RUN IN SEPARATE 38ø [1-1/2"] CONDUIT.
2. FEEDER SHALL BE IN ACCORDANCE WITH CEC DIAGRAM B-44 DETAIL 2.
3. PROVIDE AN ELECTRICAL ENCLOSURE (JB-3) WITH 30A/120V/1P TWISTLOCK RECEPTACLE AND A 30A/240V/1P TWISTLOCK RECEPTACLE. ENCLOSURE SHALL HAVE AN INTERNAL PANEL WITH THE RECEPTACLES AND AN EXTERNAL DEAD-FRONT PANEL WHICH IS HINGED AND LOCKABLE. ENCLOSURE SHALL BE NEMA 4 RATED. RECEPTACLES ARE FOR THE HOOK-UP OF FUTURE PORTABLE EQUIPMENT SUCH AS SUMP PUMPS. INSTALL A BARRIER IN THE CONNECTION AREA BETWEEN THE 240V AND 120V WIRING.
4. SPLITTER BOXES FOR THE CONNECTION TO THE PUMP POWER CABLES SHALL HAVE PROVISION FOR ROUTING CONTROL CABLES THROUGH THE SPLITTER. PROVIDE SUITABLE BARRIER.
5. PROVIDE LOSS OF POWER ON ANY ONE PHASE AS SHOWN ON PANEL PL-CP.
6. MAIN GROUND SHALL BE PROVIDED VIA GROUND RODS AND A CLAMP ON THE INCOMING WATER SUPPLY IF AVAILABLE. GROUND CONDUCTOR SHALL BE MINIMUM 3/0 AWG.
7. ALTERNATELY, PVC CONDUIT MAY BE RUN UNDERGROUND AND CLIPPED TO STRUCTURE EVERY 18".
8. CONFIRM BREAKER SIZE WITH REDUCED VOLTAGE STARTER (RVS) VENDOR.
9. PROVIDE A NON-AUTOMATIC 800A BREAKER c/w KIRK KEY INTERLOCK WITH MAIN BREAKER FOR TIE-IN OF TEMPORARY DIESEL GENERATOR. KEY MUST BE REMOVED FROM MAIN BREAKER (ONLY WHEN MAIN BREAKER IS OPEN) AND PLACED IN DIESEL BREAKER BEFORE THIS BREAKER CAN BE CLOSED.
10. CROUSE-HINDS 'AR 642' 60A, 3P, 4W WELDING RECEPTACLE - NO SUBSTITUTES.
11. POWER MONITOR SETPOINTS AS FOLLOWS:
    UNBALANCE: 9%
    LINE VOLTAGE: 600V
    TRIP DELAY: 2 SEC
    RESTART DELAY: 10 SEC
    SELECTOR: AUTO RESTART WITH DELAY

NO.	DATE	REVISIONS	BY	CKD.	APP.
00	05/04/07	Issued for Tender and Construction By City of Winnipeg	GCN	DDW	REW
0C	05/04/07	Issued for Review to City of Winnipeg	GCN	DDW	REW
0B	04/07/06	Issued with Contract C5 as Reference Only	GCN	AP	REW
0A	09/06/06	ISSUED FOR REVIEW, 90% COMPLETE	GCN	AP	REW

KGS GROUP

SUBCONSULTANT DWG NO.:

C of A

APEGM Certificate of Authorization KGS Group No. 245 Expiry: April 30, 2008

ENG. STAMP

DESIGNED BY: AP	DRAWN BY: GCN	SCALE: AS NOTED	
CHECKED BY: REW	APPROVED BY: REW	DATE: MAY, 2006	

KGS GROUP SUBMITTED BY: RICK CARSON

OWNER

MANITOBA FLOODWAY AUTHORITY

PROJECT:

RED RIVER FLOODWAY EXPANSION

PHASE:

MAIN CHANNEL CONTRACT No C5

TITLE: KILDARE LAND DRAINAGE FLOOD PUMPING STATION ELECTRICAL WORKS

SINGLE LINE DIAGRAM

PROVINCE OF MANITOBA — WILLMS — REGISTERED PROFESSIONAL ENGINEER

Canada Manitoba

CITY OF WINNIPEG IS RESPONSIBLE FOR MECHANICAL AND ELECTRICAL WORK

MFA acceptance is limited to the Red River Floodway Expansion project only, and specifically excludes acceptance of any mechanical and electrical works indicated on this drawing, which are incorporated for the purpose of City of Winnipeg Bid Opportunity 238-2007

Winnipeg **THE CITY OF WINNIPEG** WATER & WASTE DEPARTMENT

CAD FILE DRAWING NUMBER	CITY DRAWING NUMBER
CC5-48aE-002c-01-00.dwg	—

MFA acceptance:

DOUG McNEIL
VICE PRESIDENT OF ENGINEERING AND CONSTRUCTION

OWNER DWG NO.:	SHT.	REV.
CC5-48aE-002c	01	00

24"x36" [609x914]
P:\Projects\2005\05-0107-17\Elect\Dwgs\CC5-48aE-002c-01-00.dwg - Tab: E-002 - Jun 01, 2007 - 4:57pm - UserName: GNelson