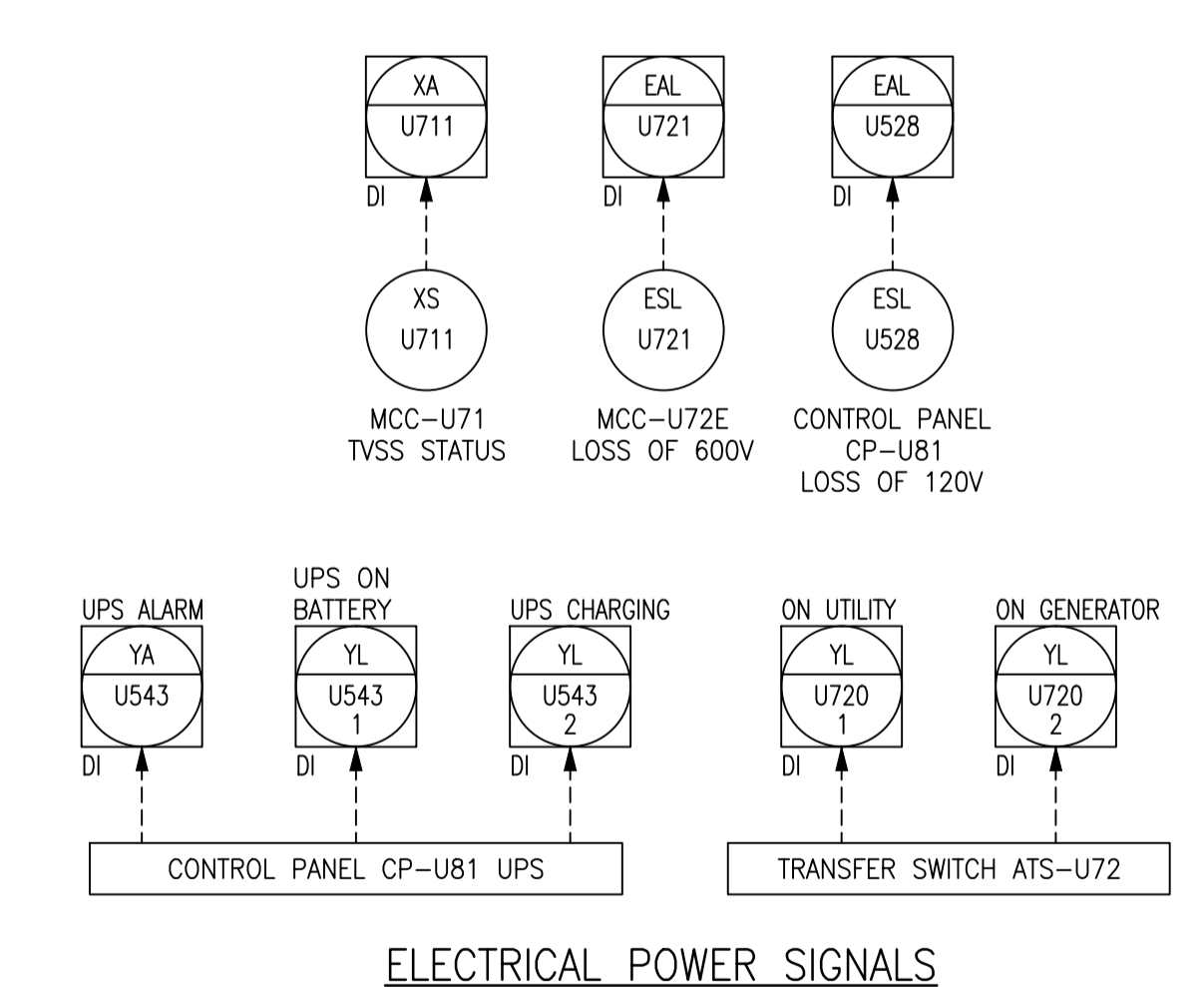


**LEGEND:**

- DEVICE DESCRIPTORS:**
- A AMBER
  - AI ANALOG INPUT
  - AO ANALOG OUTPUT
  - DI DISCRETE INPUT
  - DO DISCRETE OUTPUT
  - G GREEN
  - R RED
  - S/S START/STOP
  - HOA HAND/OFF/AUTO
- FUNCTIONAL IDENTIFIERS:**
- ES ELECTRIC SUPPLY
  - FV FLOW VALVE OR DAMPER
  - HS HAND SWITCH
  - IA CURRENT ALARM
  - PDSSH PRESSURE DIFFERENTIAL SWITCH HIGH
  - TE TEMPERATURE ELEMENT
  - TIC TEMPERATURE INDICATING CONTROLLER
  - TSH TEMPERATURE SWITCH HIGH
  - TT TEMPERATURE TRANSMITTER
  - TV TEMPERATURE VALVE
  - UIC MULTI VARIABLE CONTROLLER
  - XV ON/OFF VALVE OR DAMPER
  - YL STATUS LIGHT
  - ZSO POSITION SWITCH OPEN
  - ZSC POSITION SWITCH CLOSE
  - I INTERLOCK



**NOTES:**

1. ALL INSTRUMENT IDENTIFIERS HAVE AN OPTIONAL FACILITY PREFIX OF "???"-".  
 EXAMPLE: ???-LHS-L600.
2. SEE ELECTRICAL AND AUTOMATION DRAWING FOR PILOT LIGHTS AND ANNUNCIATOR PANEL LIGHTS.



NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR TENDER, BID OPP. 475-2018	2018/05/09	HO	SN

SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	
DESIGNED BY: H. OJO	CHECKED BY: S. NORSWORTHY
DRAWN BY: H. OJO	APPROVED BY: B. CLEVEN
SCALE: NTS	ISSUED FOR CONSTRUCTION BY:
DATE: 2017/08/22	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

**PRELIMINARY**  
 NOT TO BE  
 USED FOR  
 CONSTRUCTION

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

METRO ROUTE 20 UNDERPASS PUMPING STATION  
 2018 UPGRADES  
 PROCESS & INSTRUMENTATION DIAGRAM  
 HVAC AND MISCELLANEOUS

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0309U-P0002	001	00	A1

DRAWING NUMBER	REFERENCE DRAWINGS
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