



# City of Richmond

May 27, 2011  
File: 02-0775-50-4272/Vol 01

**Business and Financial Services Department**  
Finance Division  
Telephone: 604-276-4218  
Fax: 604-276-4162

**Attention: To All Proponents**

Dear Madame/Sir:

**Re: Request for Proposal 4272P – Williams Road West Drainage Pump Station Upgrade – Addendum Three**

This Addendum includes items of clarification, forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. Please review and consider the following information in the preparation of your Proposals:

**I. Questions and Answers**

- Q.1 Does the Drainage Pump Station have to be constructed to post disaster building standards according to BCBC (BC Building Code 2006)?
- A.1 Any new structures are to be designed to post disaster standards. Any structures that can be reused will not have to meet the post disaster standard.
- Q.2 The drawings made available for the Francis Road station do not contain electrical schematics, control panel layout, PLC I/O, MCC installation, BC Hydro entry section. This would normally require a number of drawings. Were these drawings prepared for the pre purchase tender and if so are they available. This would be consistent with RFP item 10.3.
- A.2 Please see the MCC shop drawings for Francis pump station, included with this Addendum.
- Q.3 There is no standby generator shown on the Francis drawings. Is the generator a portable unit such that only a generator plug is actually required or is a permanent genset to be installed.
- A.3 The generator for Williams pump station would be a portable unit, therefore, only a generator connection point would be required.
- Q.4 The structural notes on the Francis drawings indicate it was designed to Building code basic requirements for seismic loads and not to post disaster status. The seismic status is determined by the City. Is the new station to be designed to basic code requirements for seismic loads.
- A.4 Please refer to A.1 in this Addendum.

- Q.5 Have the existing dykes been constructed to withstand seismic forces?  
A.5 The City has not completed a detailed seismic assessment of the dike at this location.

Yours truly,

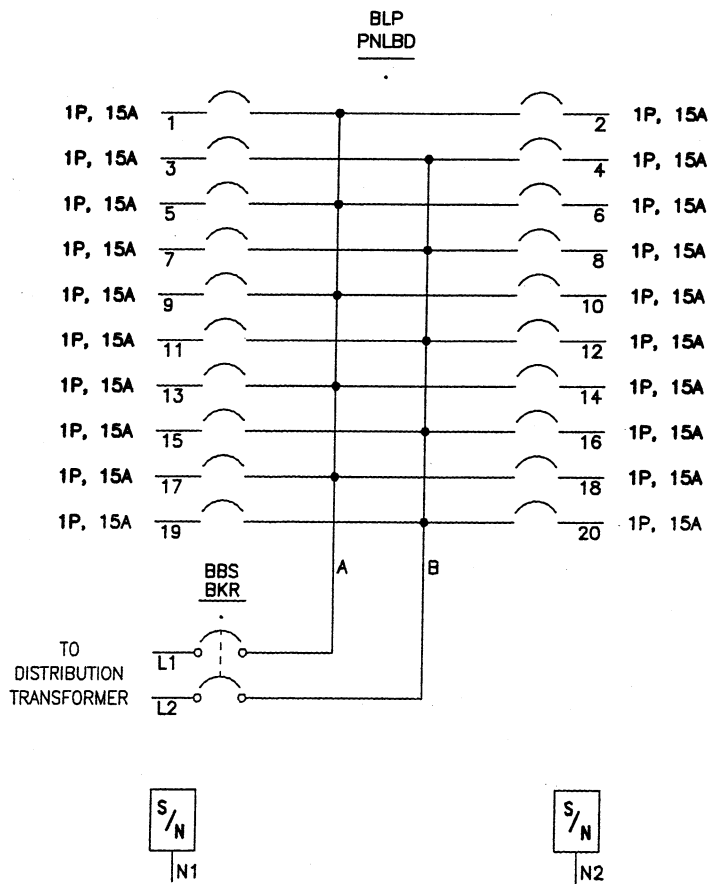
A handwritten signature in black ink, appearing to be 'Kerry Lynne Gillis', written in a cursive style.


Kerry Lynne Gillis  
*Buyer 2*

KG:kg

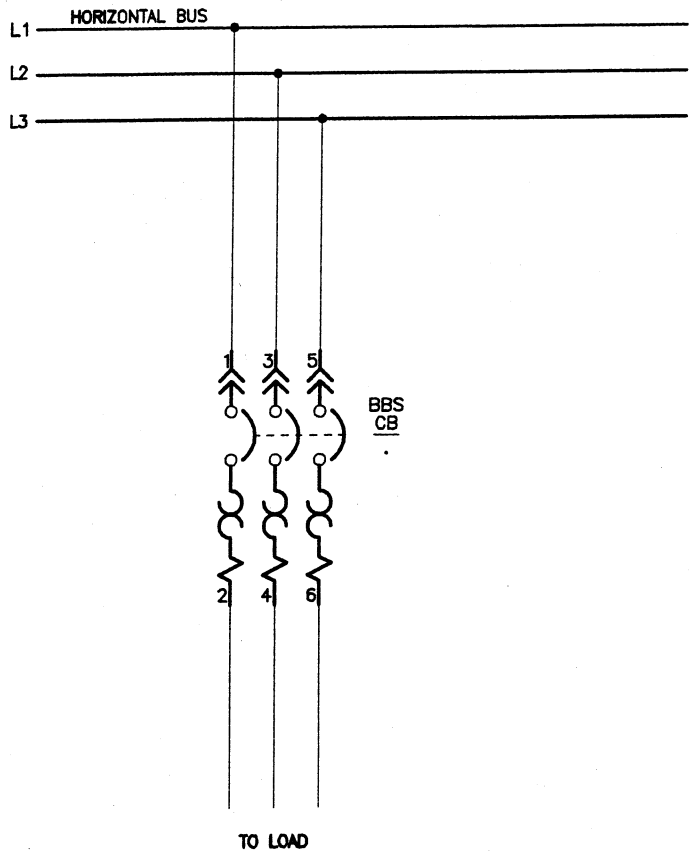
pc: Mile Racic, Project Engineering (TFT)


DESCRIPTION	BY	DATE	-	----	---	---/---/---
APPROVED.	MB	10/15/04	-	----	---	---/---/---



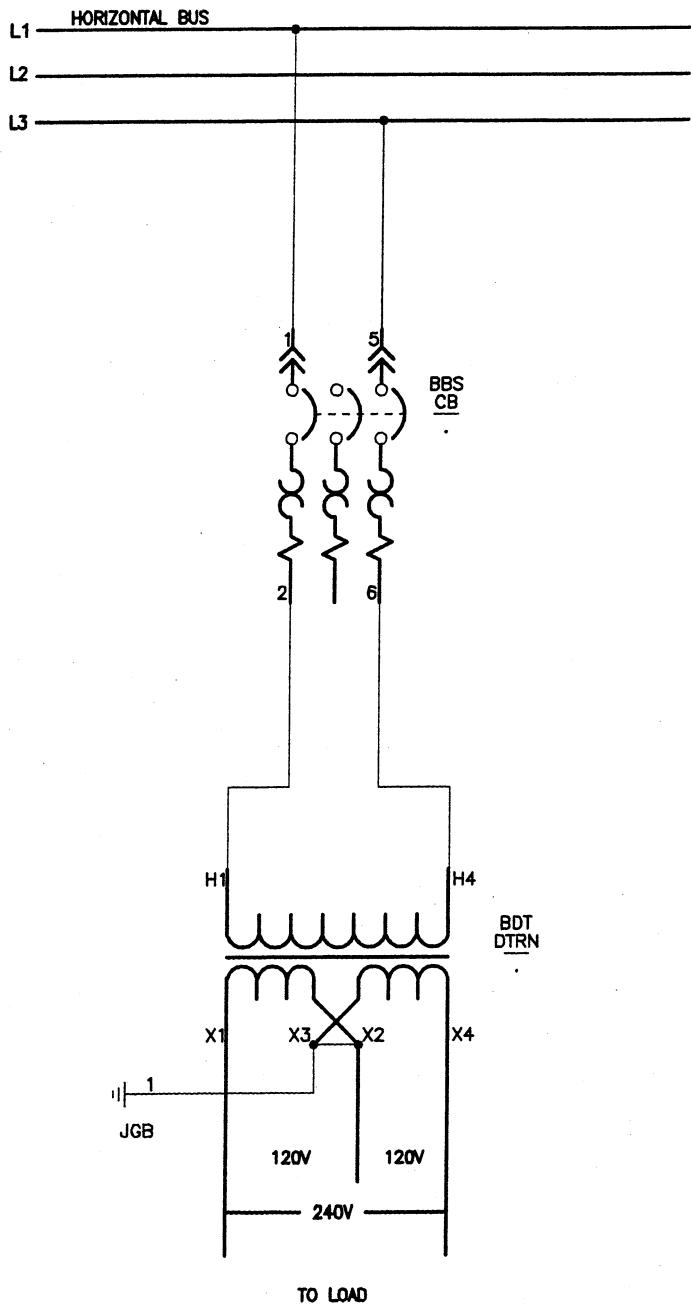
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JOB LOCATION:	RICHMOND BC	EQUIPMENT TYPE:	MODEL 6 MOTOR CONTROL CENTER
DRAWN BY:	MB	DRAWING TYPE:	ELEMENTARY DIAGRAM
ENGR:	MB		
DATE:	OCTOBER 01, 2004		
DRAWING STATUS:	RECORD	DWG# E19651395-001-01	PG 1 OF 1 REV A


REV	DESCRIPTION	BY	DATE				
A	APPROVED.	MB	10/15/04	-	----	---	---/---/---



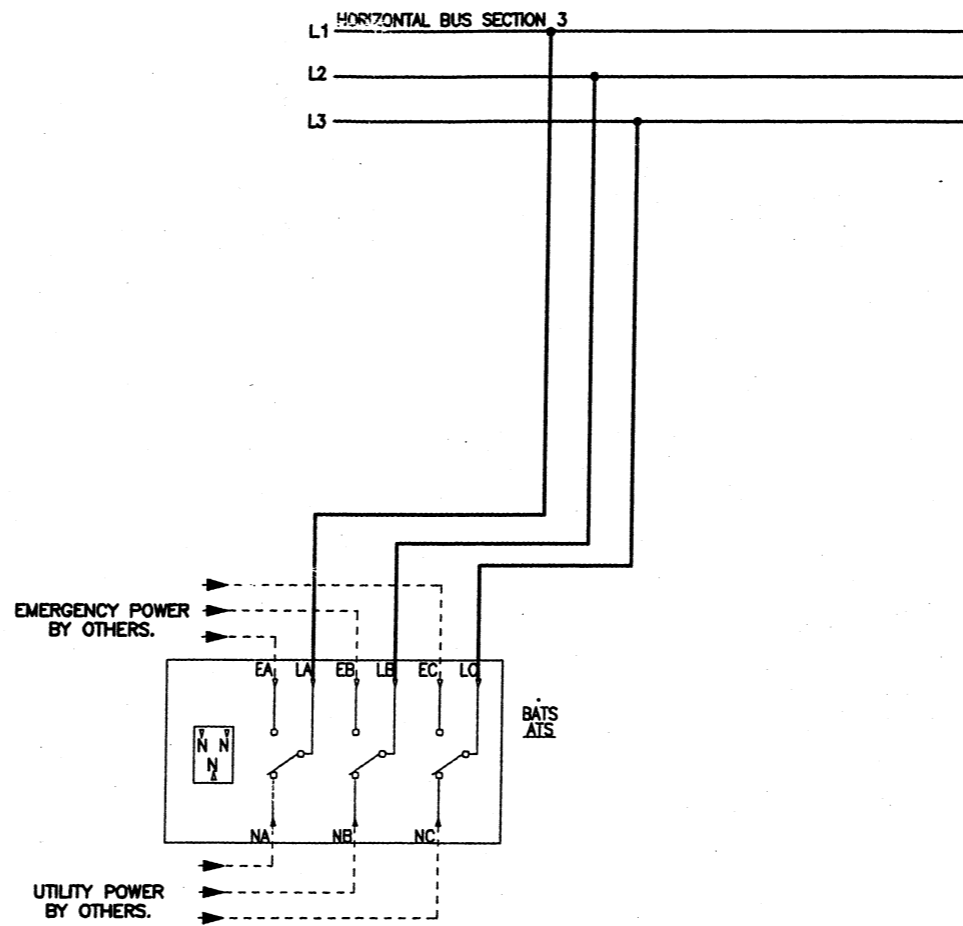
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JOB LOCATION:	RICHMOND BC	EQUIPMENT TYPE:	MODEL 6 MOTOR CONTROL CENTER
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		PG 1	OF 1
		REV A	

REV	DESCRIPTION	BY	DATE	--	----	--	----
A	APPROVED.	MB	10/15/04	--	----	--	----




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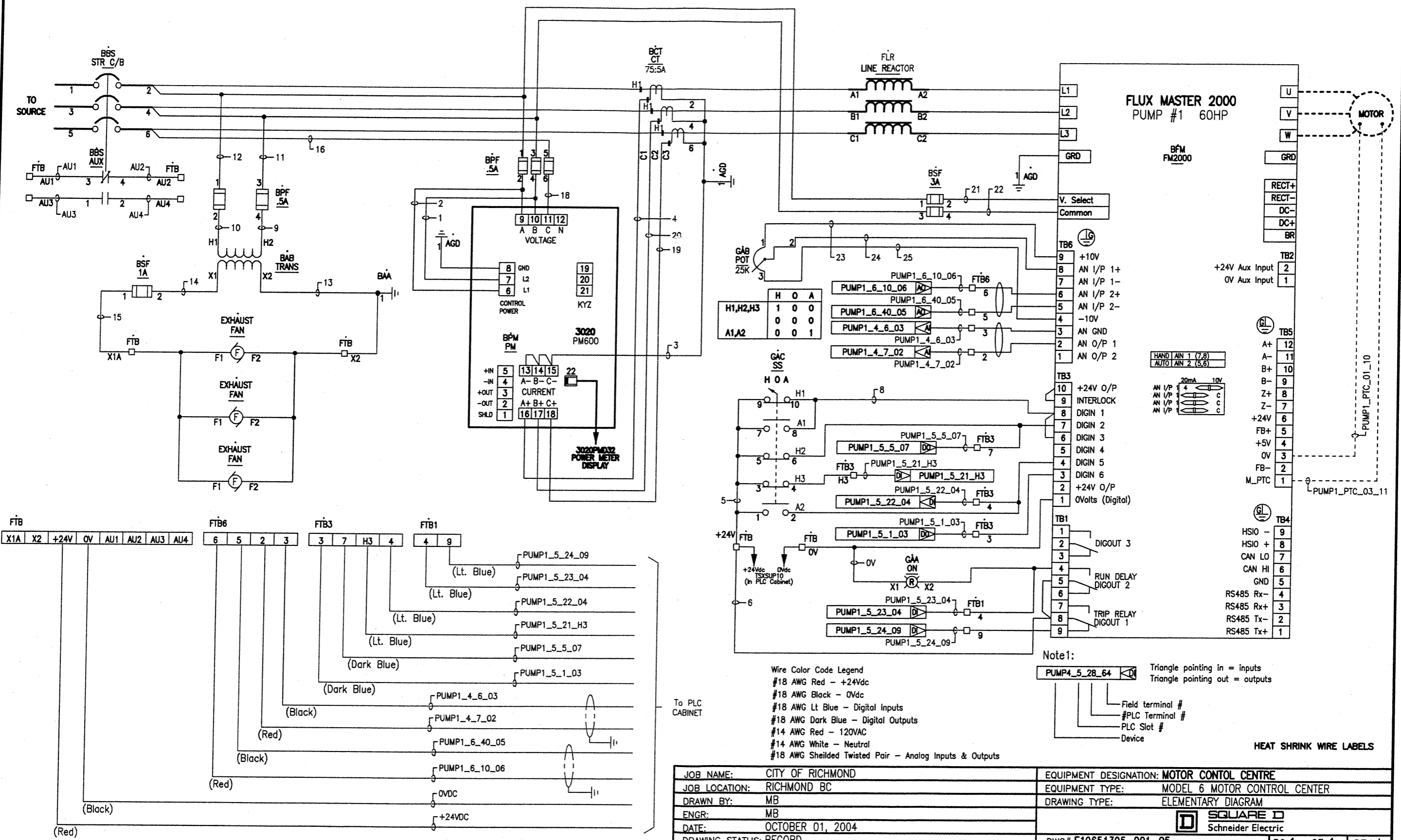
REV	DESCRIPTION	BY	DATE						
A	APPROVED.	MB	10/15/04	-	----				



- THOMSON TECHNOLOGY AUTOMATIC TRANSFER SWITCH.  
 TS 853 MS5-250A-600V 3 PHASE 3 WIRE ATS  
 TCS 800 LEVEL 1 MICRO-PROCESSOR BASED TRANSFER SWITCH CONTROLLER  
 C/W ACCESSORIES:
- FRONT MOUNTED KEYPAD CONTROLS C/W DIGITAL DISPLAY
  - ON/LOAD/OFF LOAD EXERCISE TIMER 24HOUR/7DAY
  - 3-PHASE VOLTAGE AND FREQUENCY METERING OF UTILITY AND EMERGENCY
  - 3-PHASE UNDERVOLTAGE SENSING OF UTILITY & GENERATOR
  - GENERATOR UNDER/OVER FREQUENCY SENSING
  - PROGRAMMABLE TIME DELAYS C/W COUNTDOWN DISPLAYS:
    - ENGINE START DELAY (0-60 sec)
    - WARM-UP TIMER (0-1800 sec)
    - UTILITY RETURN TIMER (0-30 min)
    - ENGINE COOLDOWN (0-30 min)
    - NEUTRAL DELAY TIMER (0-60 sec)
    - LOAD ON UTILITY AND LOAD ON GENERATOR STATUS LIGHTS
    - DIAGNOSTIC LEADS
  - PROGRAMMABLE OUTPUT CONTACT (AUX-G)
  - 4-FUNCTION TEST SWITCH (FTS-4)
  - AUXILIARY CONTACT - GENERATOR SIDE (AUX-G)
  - AUXILIARY CONTACT - UTILITY SIDE (AUX-U)
  - WITHSTAND RATING: 25KA @ 600V

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DRAWN BY:	MB	DRAWING TYPE:	ELEMENTARY DIAGRAM
ENGR:	MB	 <b>SQUARE D</b> Schneider Electric	
DATE:	OCTOBER 01, 2004		
DRAWING STATUS:	RECORD	DWG# E19651395-001-04	PG 1 OF 1 REV A

REV	DESCRIPTION	BY	DATE						
A	APPROVED.	MB	10/15/04						



	H	O	A
H1, H2, H3	1	0	0
A1, A2	0	0	1

	H	O	A
H1, H2, H3	1	0	0
A1, A2	0	0	1

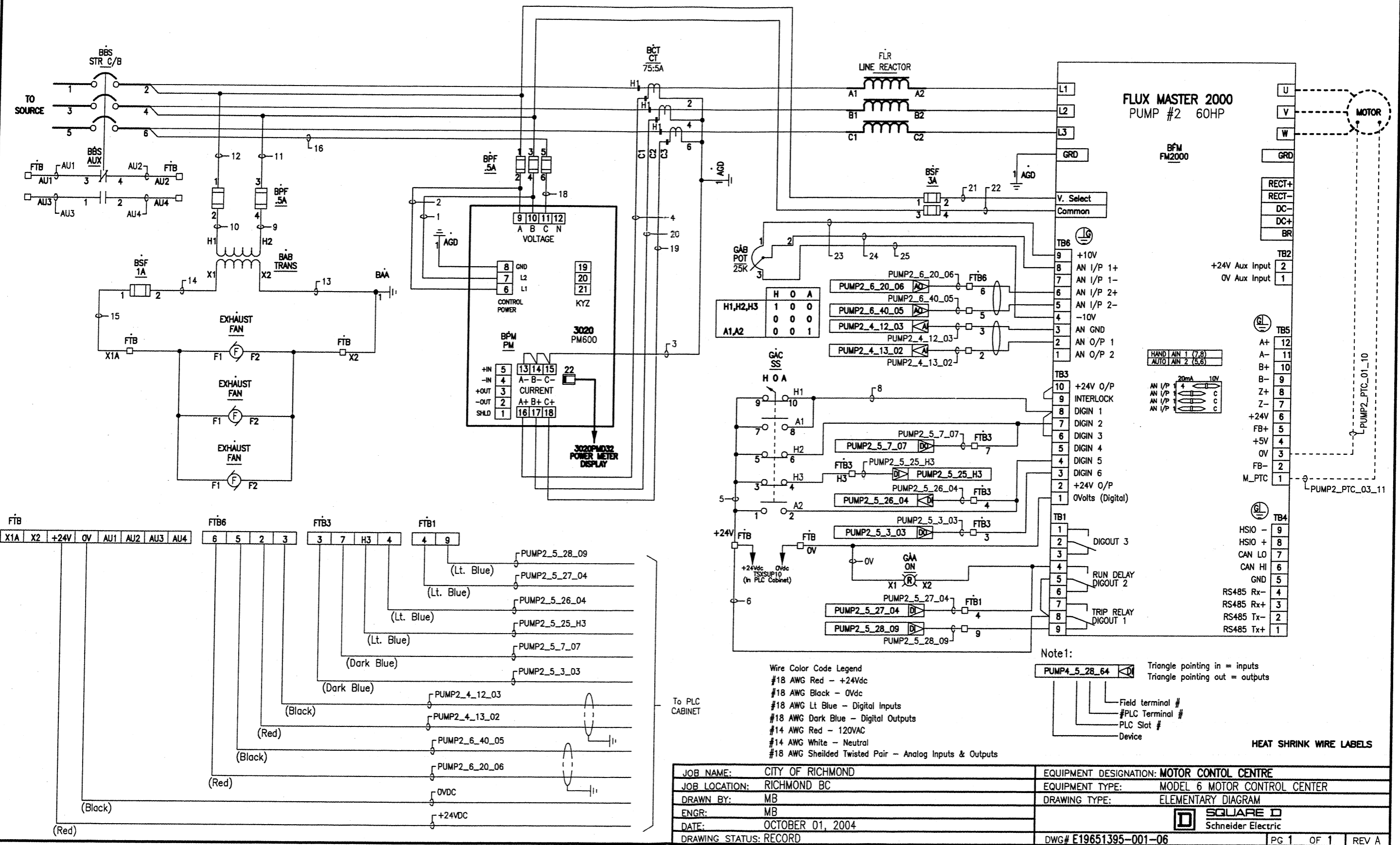
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 #18 AWG Red - +24Vdc  
 #18 AWG Black - 0Vdc  
 #18 AWG Lt Blue - Digital Inputs  
 #18 AWG Dark Blue - Digital Outputs  
 #14 AWG Red - 120VAC  
 #14 AWG White - Neutral  
 #18 AWG Shielded Twisted Pair - Analog Inputs & Outputs

Note1:  
 Triangle pointing in = inputs  
 Triangle pointing out = outputs  
 Field terminal #  
 PLC Terminal #  
 PLC Slot #  
 Device

HEAT SHRINK WIRE LABELS

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DRAWN BY:	MB	DRAWING TYPE:	ELEMENTARY DIAGRAM
ENGR:	MB		
DATE:	OCTOBER 01, 2004		
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		PG 1	OF 1
		REV A	

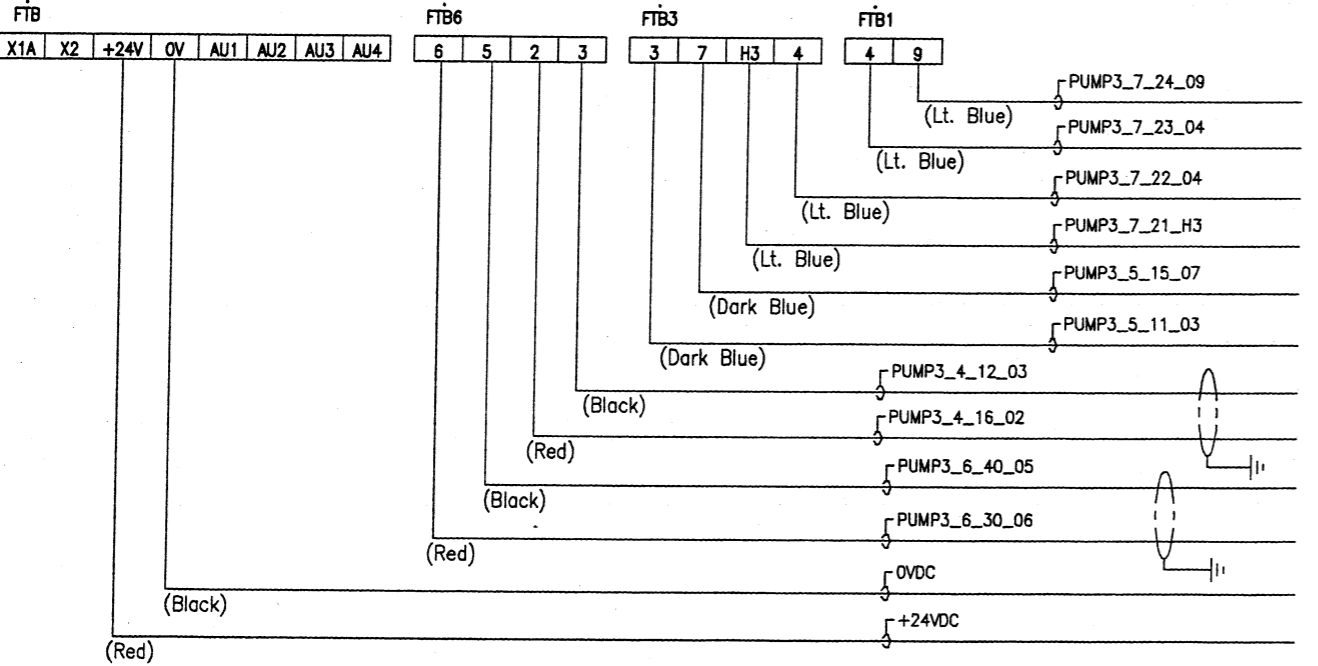
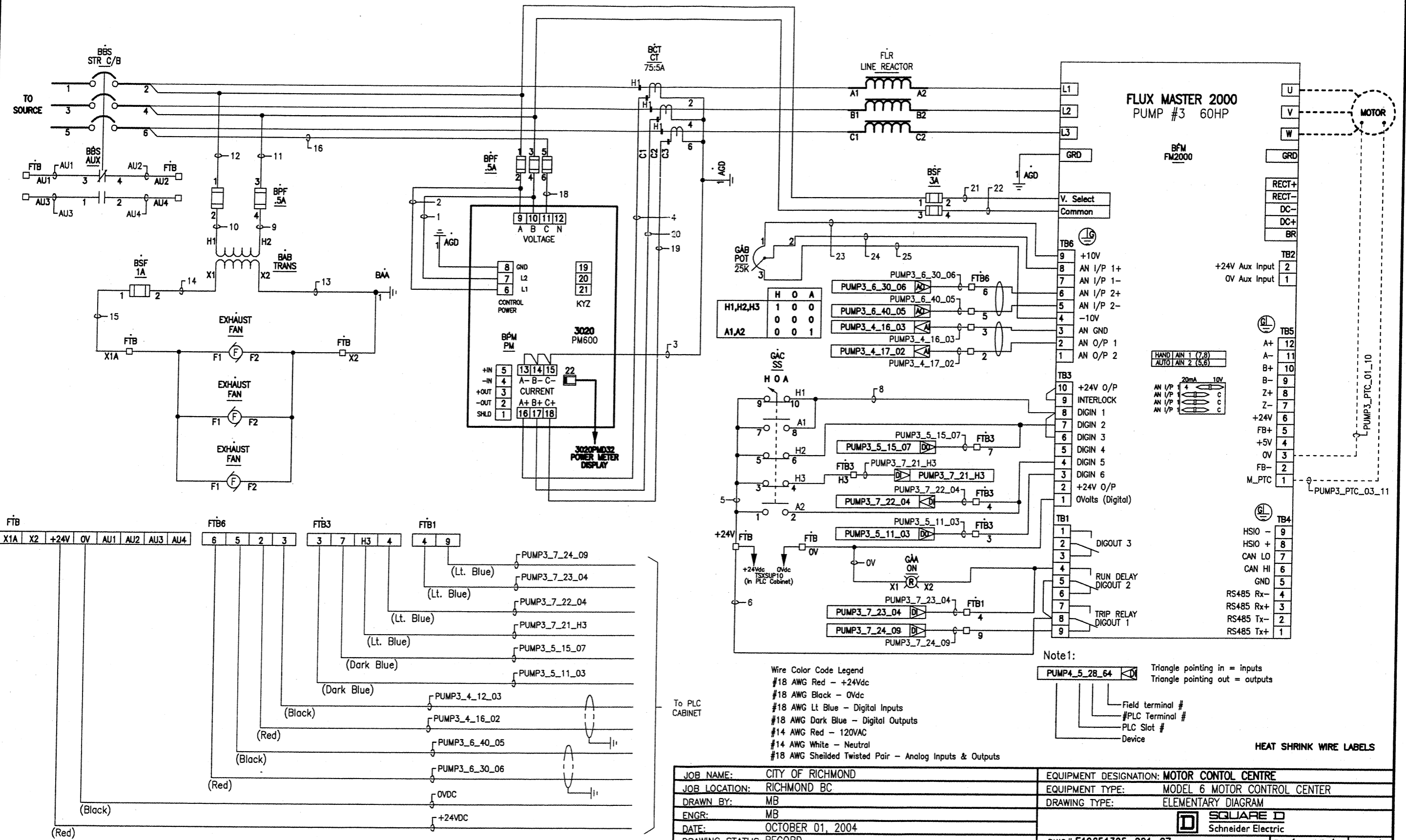
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ENGR:	MB		
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DRAWING STATUS:	RECORD	DWG#	E19651395-001-06



REV	DESCRIPTION	BY	DATE						
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**Wire Color Code Legend**

- #18 AWG Red - +24Vdc
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- #14 AWG Red - 120VAC
- #14 AWG White - Neutral
- #18 AWG Shielded Twisted Pair - Analog Inputs & Outputs

**Note 1:**

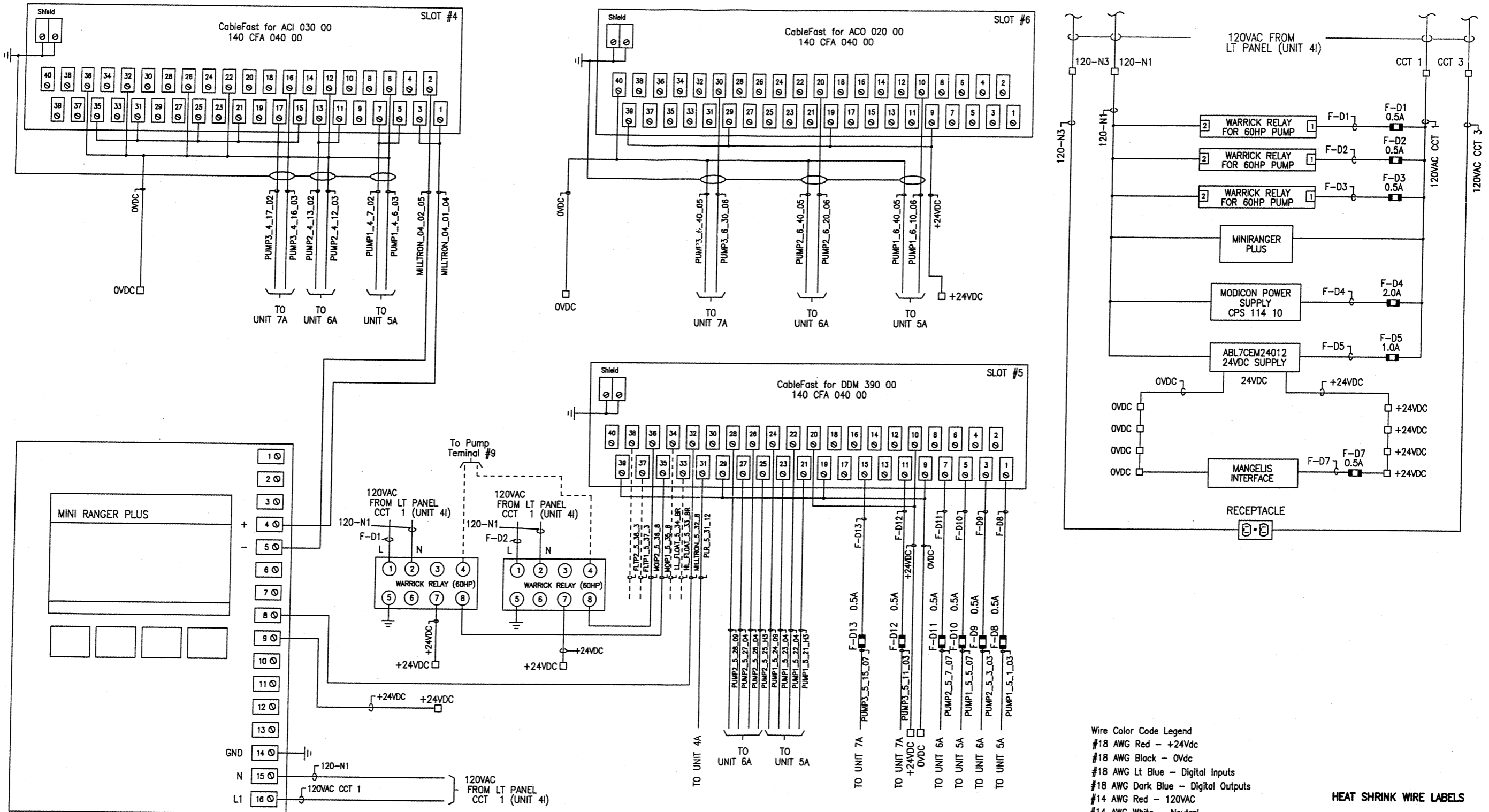
Triangle pointing in = inputs  
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Field terminal #  
#PLC Terminal #  
PLC Slot #  
Device

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DRAWN BY:	MB	DRAWING TYPE:	ELEMENTARY DIAGRAM
ENGR:	MB		
DATE:	OCTOBER 01, 2004		
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REV	DESCRIPTION	BY	DATE						
A	APPROVED.	MB	10/15/04						



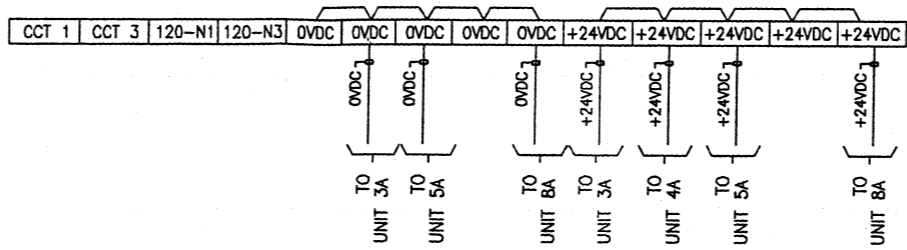
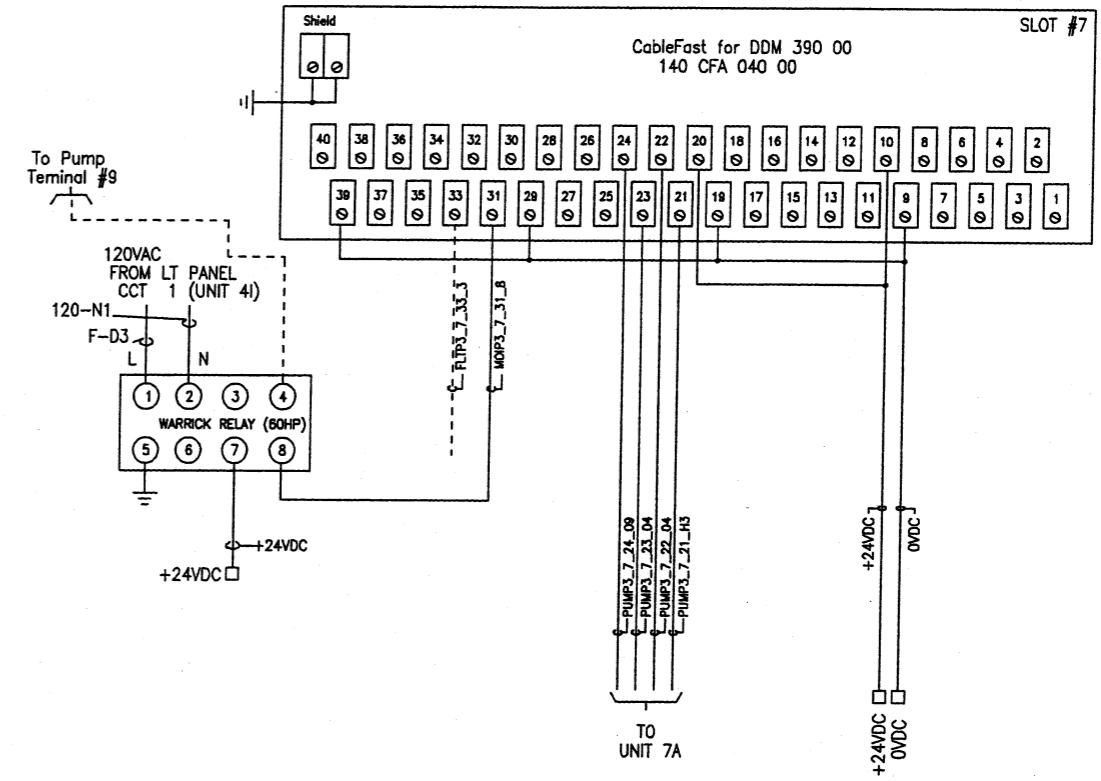
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DRAWN BY:	MB	DRAWING TYPE:	ELEMENTARY DIAGRAM
ENGR:	MB		
DATE:	OCTOBER 01, 2004		
DRAWING STATUS:	RECORD		

DWG# E19651395-001-08 PG 1 OF 2 REV A

REV	DESCRIPTION	BY	DATE						
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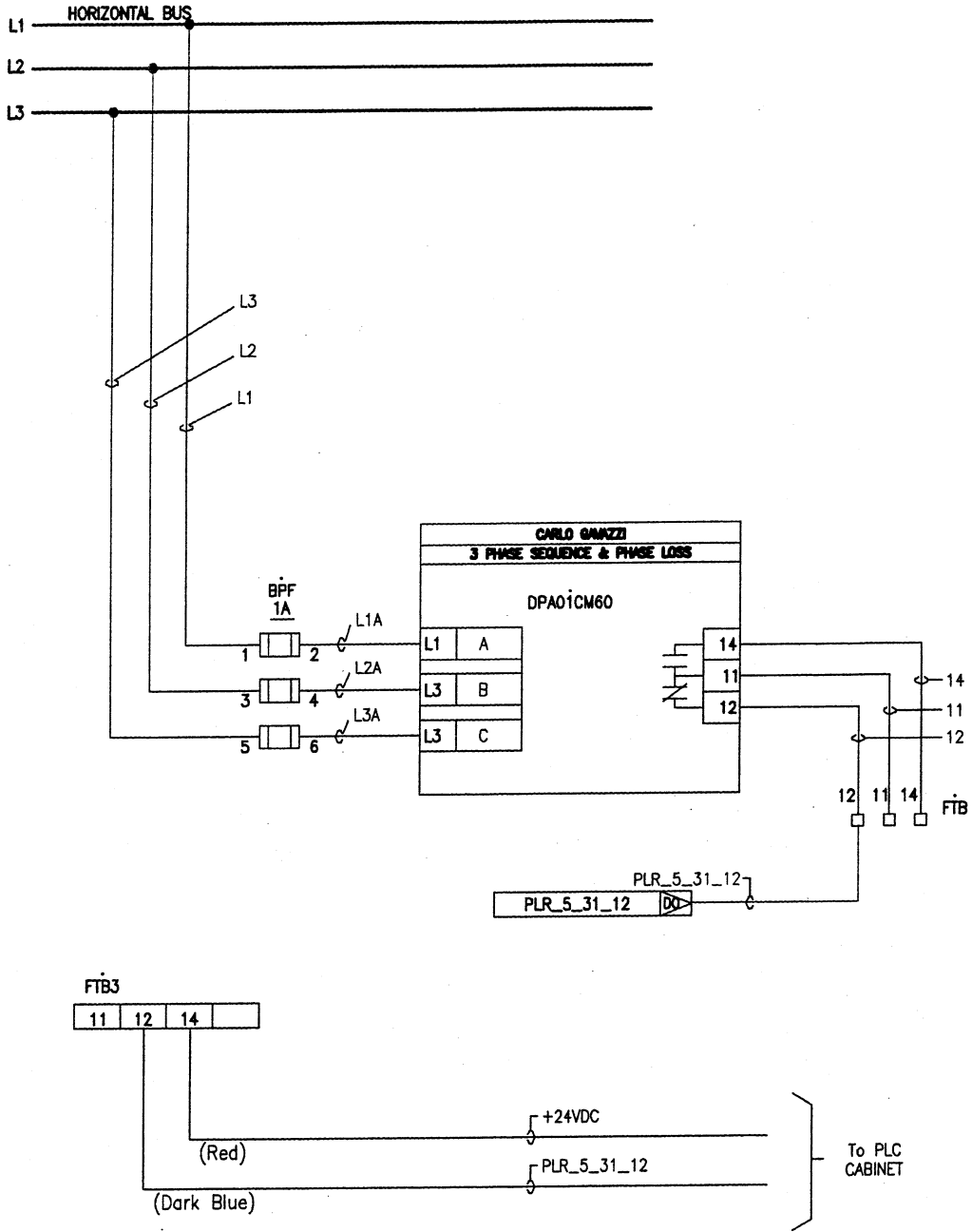


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DRAWN BY: MB	DRAWING TYPE: ELEMENTARY DIAGRAM
ENGR: MB	SQUARE D Schneider Electric
DATE: OCTOBER 01, 2004	
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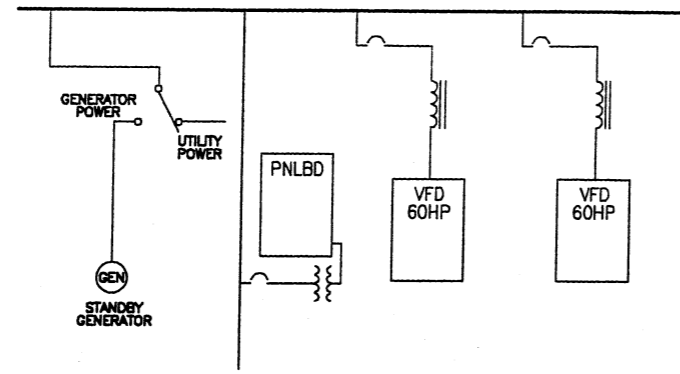


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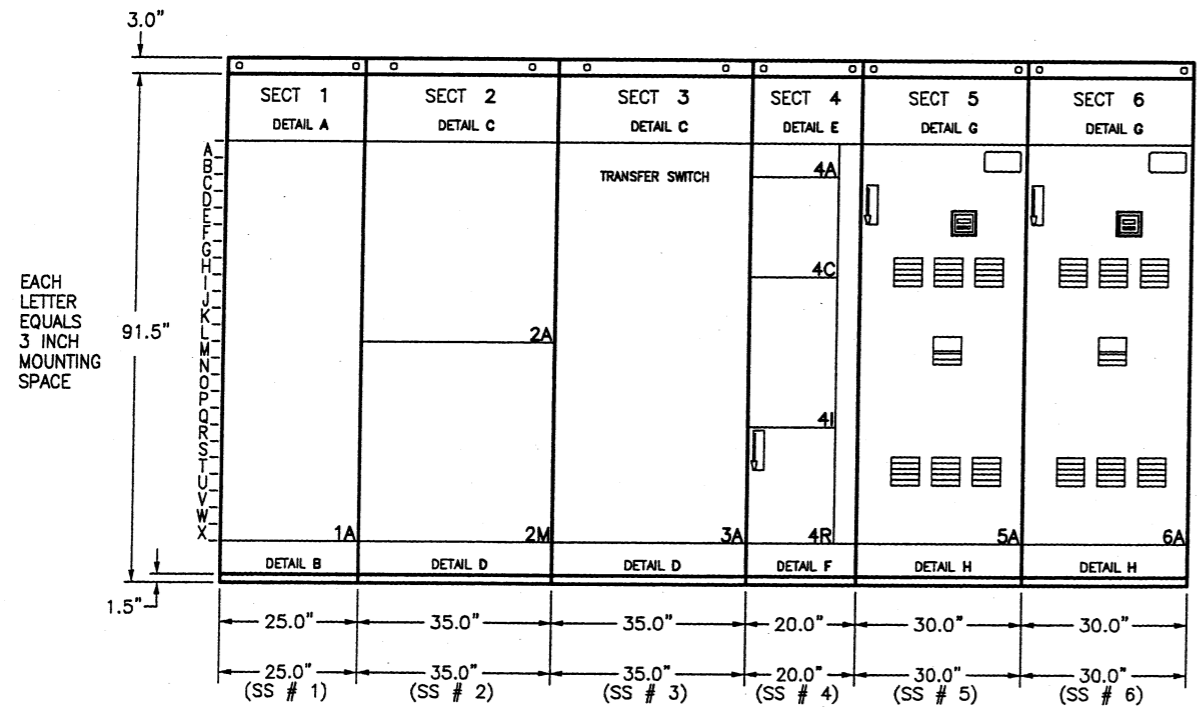
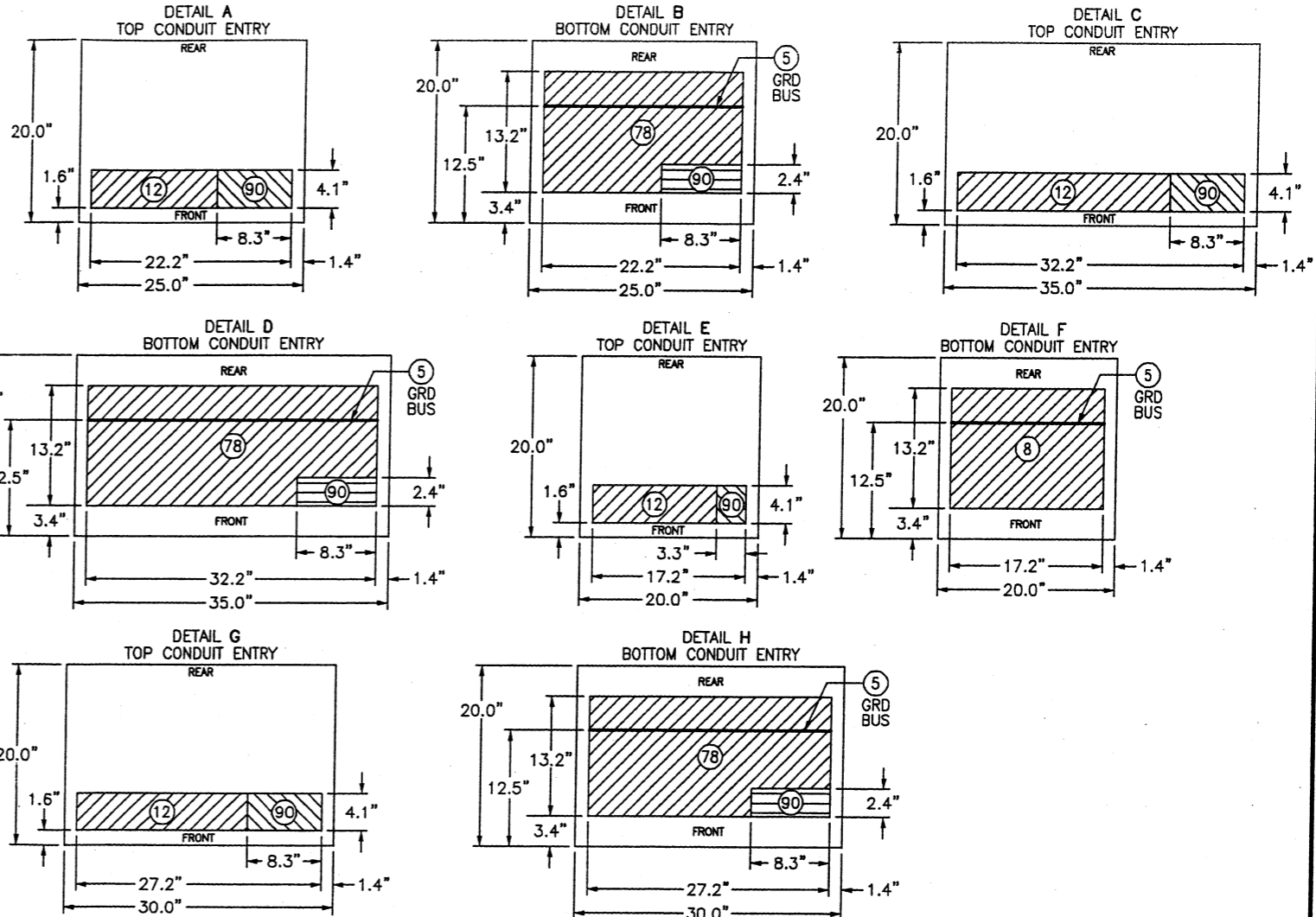
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ENGR:	MB		
DATE:	OCTOBER 01, 2004	DWG#	E19651395-001-09
DRAWING STATUS:	RECORD	PG 1	OF 1 REV A

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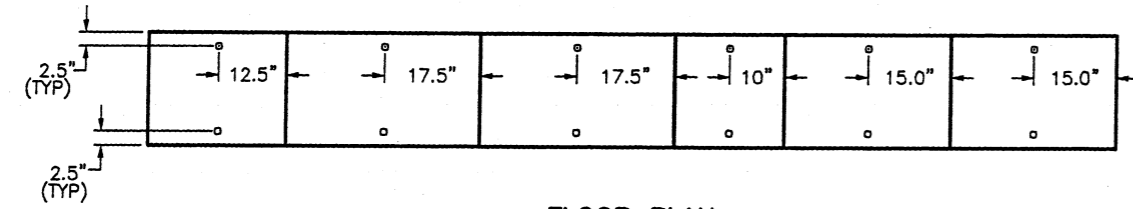
**MODEL 6  
MOTOR CONTROL CENTER  
INDUSTRIAL PACKAGE**



CROSSHATCHED AREA REPRESENTS CONDUIT ENTRY AREA.  
NUMBERS IN CIRCLES INDICATE VERTICAL CLEARANCE IN INCHES  
TO NEAREST OBSTRUCTION. ALL DETAILS ARE TOP VIEW.



**FRONT ELEVATION**



**FLOOR PLAN**

**GENERAL NOTES**

NEMA CLASS 1 TYPE B WIRING  
**POWER SYSTEM DATA:**  
 600 VOLTS 3 PHASE 3 WIRE 60 HZ  
 18,000 AMPS SHORT CIRCUIT RATING  
 FED BY  
**INCOMING CABLE DATA:**  
 POWER CABLE: QUANTITY ( ) MCM PER PHASE  
 GROUND CABLE: QUANTITY ( 1 ) 250 MCM  
**BUS SYSTEM DATA:**  
 MAIN HORIZONTAL BUS: 0600 AMP TIN PLATED COPPER  
 VERTICAL BUS: 0300 AMP TIN PLATED COPPER  
 HORIZONTAL GROUND BUS: .25x1.0 COPPER  
 UNITS SECURELY GROUNDED TO STRUCTURE

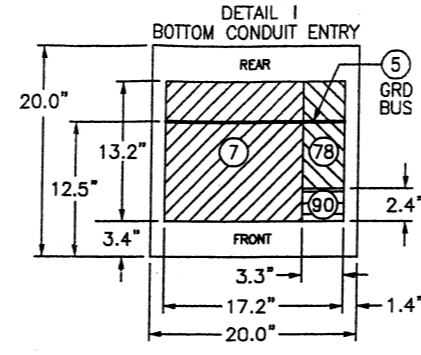
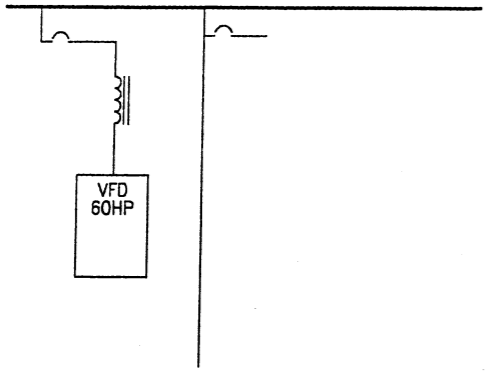
**ENCLOSURE DATA:**  
 ELECTRODEPOSITION FINISH #49 MEDIUM LIGHT GREY  
 PER ANSI -Z55.1-1967  
 20" DEEP NEMA TYPE 1 GENERAL DUTY ENCLOSURE  
**APPROX. SHIPPING WEIGHTS**  
 SHIPPING SPLIT # 1: 750lbs.  
 SHIPPING SPLIT # 2: 750lbs.  
 SHIPPING SPLIT # 3: 750lbs.  
 SHIPPING SPLIT # 4: 750lbs.  
 SHIPPING SPLIT # 5: 750lbs.  
 SHIPPING SPLIT # 6: 750lbs.  
 SHIPPING SPLIT # 7: 750lbs.  
 SHIPPING SPLIT # 8: 750lbs.  
 SHIPPING SPLIT # 9: 750lbs. TOTAL: 6750lbs.  
**STRUCTURE FEATURES:**  
 CU VERT GRD BUS 3,4,5,6,7,8,9  
 FISHTAPE BARR. 3,4,5,6,7,8,9  
 42KA BUS BRACING 3,4,5,6,7,8,9  
 MAN BUS SHUTTER 4,8  
 18" FOLD DOWN SHELF 8

JOB NAME: CITY OF RICHMOND	EQUIPMENT DESIGNATION: MOTOR CONTROL CENTRE
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DRAWN BY: MB	DRAWING TYPE: ELEVATION
ENGR: MB	<b>SQUARE D</b> Schneider Electric
DATE: OCTOBER 01, 2004	
DRAWING STATUS: RECORD	DWG# F19651395-001-01 PG 1 OF 2 REV A

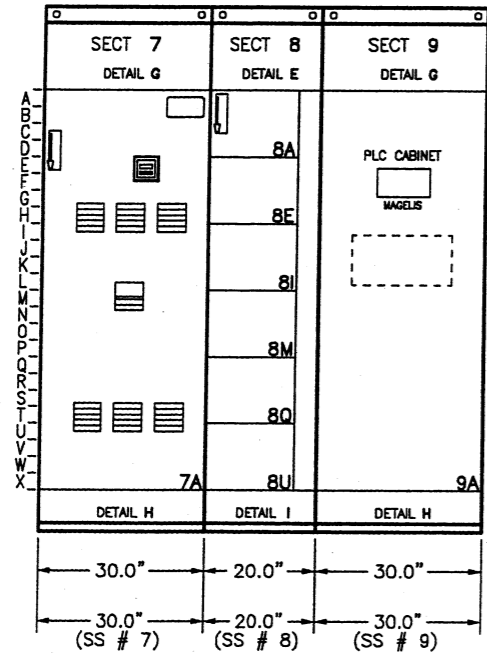
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A	APPROVED.	MB	10/15/04						

CROSSHATCHED AREA REPRESENTS CONDUIT ENTRY AREA.  
 NUMBERS IN CIRCLES INDICATE VERTICAL CLEARANCE IN INCHES  
 TO NEAREST OBSTRUCTION. ALL DETAILS ARE TOP VIEW.

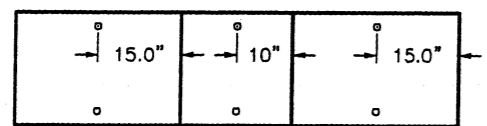
**MODEL 6  
 MOTOR CONTROL CENTER  
 INDUSTRIAL PACKAGE**



EACH  
 LETTER  
 EQUALS  
 3 INCH  
 MOUNTING  
 SPACE



**FRONT ELEVATION**



**FLOOR PLAN**

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**COMPONENT INFORMATION**

**MCC DESIGNATION**

MOTOR CONTROL CENTRE											CONTROL (or DISTRIBUTION) TRANSFORMER											
UNIT LOC	NAMEPLATE DESIGNATION	UNIT TYPE	SIZE	HP	DISC AMPS	VA	FUSE SIZE		UNIT FEATURES	DRAWING NUMBER	UNIT LOC	NAMEPLATE DESIGNATION	UNIT TYPE	SIZE	HP	DISC AMPS	VA	FUSE SIZE		UNIT FEATURES	DRAWING NUMBER	
							PRI	SEC										PRI	SEC			
1A	INCOMING SECTION	MT.UNIT							U672,L3													
2A	MAIN SWITCH & BCH XFMR COMPT	MT.UNIT							U672,L3													
2M	MAIN SWITCH & BCH XFMR COMPT	MT.UNIT							U672,L3													
3A	AUTOMATIC TRANSFER SWITCH	ATS							U213,U672,L3,NOTE1	E19651395-001-04-1												
4A	PHASE LOSS RELAY	MT.UNIT							U213,U672,U258,L3,NOTE4	E19651395-001-09-1												
4C	HOUSE METER	MT.UNIT							U672,L3													
4I	HOUSE PANEL	PANELBD			100				U372,U672,L3,BBI	E19651395-001-01-1												
4R	10 KVA TRANSFORMER	1PXFMR			20	10K			U213,U672,L3	E19651395-001-03-1												
5A	PUMP #1	VFD		60	110	100	.5	1	FT,U213,S4,M09,P1,U271,U258,G980,Y532,Y535,NOTE2	E19651395-001-05-1												
6A	PUMP #2	VFD		60	110	100	.5	1	FT,U213,S4,M09,P1,U271,U258,G980,Y532,Y535,NOTE2	E19651395-001-06-1												
7A	PUMP #3	VFD		60	110	100	.5	1	FT,U213,S4,M09,P1,U271,U258,G980,Y532,Y535,NOTE2	E19651395-001-07-1												
8A		BR.BKR			15				U213,U672,L3,Y532	E19651395-001-02-1												
8E		SPACE							U672													
8I		SPACE							U672													
8M		SPACE							U672													
8Q		SPACE							U672													
8U		SPACE							U672													
9A	PLC COMPARTMENT	MT.UNIT							U672,L3,NOTE3	E19651395-001-08-1 E19651395-001-08-2												

BBI BREAKER INCLUDED FT FUSED CTRL XFMR G980 PM600 DMS L3 WHITE INTERIORS  
 M09 H-O-S SS & SP POT S4 SPDT INTLK U213 600V LINE U258 WIRE LABELS  
 U271 TYPE K OPER. U372 FED FROM XFMR U672 UNIT NP WHITE Y532 HIGH IC BREAKER  
 Y535 THERM.MAG.BRKR  
 NOTE1: UNIT C/W THOMSON TECHNOLOGY 250A AUTOMATIC TRANSFER SWITCH #TS 853 MS5-250A-600V 3PH 3W.  
 NOTE2: UNIT C/W (3) 75:5A CT, (3) FAN & FILTER SET, INSTALL CUSTOMER SUPPLIED VFD & REACTOR,  
 INTER-WIRE CONTROL WIRING BETWEEN VFD & PLC.  
 NOTE3: UNIT C/W TBX SUP10 TELE 120VAC/24VDC PWR SUPPLY, (16) KDKS 1/EN FUSE TERMINAL BLOCK, (24) SAK 6EN  
 TERMINAL BLOCK. INSTALL CUSTOMER SUPPLIED PLC COMPONENTS.

NOTE4: UNIT C/W CUSTOMER SUPPLIED DPA01CM60, 3 PHASE SEQUENCE & PHASE LOSS RELAY.

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