
COX

Research and Technology, Inc.

DUPLEX PUMP CONTROL PANEL ARROWWOOD

Cox Research and Technology, Inc.
14697 S. Harrells Ferry Road
Baton Rouge, LA. 70816
(225) 756-3271 Fax (225) 755-1030

| | | |
|----------------------------------|-----------------|--|
| VOLTAGE | 120/240 | (480V, 277/480V, 240V, 120/240V, 208V, 120/208V) |
| PHASE/HZ | 3/60 | |
| NO. MOTORS | 2 | |
| HP | 25 | |
| FLA | 68 | |
| TYPE OF PUMP | Self Priming | (Self-Priming, Submersible) |
| MANUFACTURER | Gorman Rupp | |
| CATALOG NUMBER | | |
| | | |
| CONTROL VOLTAGE | 120V | (120V, Other) |
| ENCLOSURE | NEMA 4X | (NEMA 1, NEMA 3R, NEMA 4, NEMA 4X) |
| ENCLOSURE MATERIAL | Stainless Steel | (Painted Steel, Stainless Steel, Fiberglass) |
| CONTROL SENSOR | Flowmeter | (Floats, Bubbler, Other) |
| CAPACITORS | No | (Yes, No) |
| CAPACITOR WIRING FIGURE | N/A | |
| THERM. & SEAL FAIL WIRING FIGURE | | |

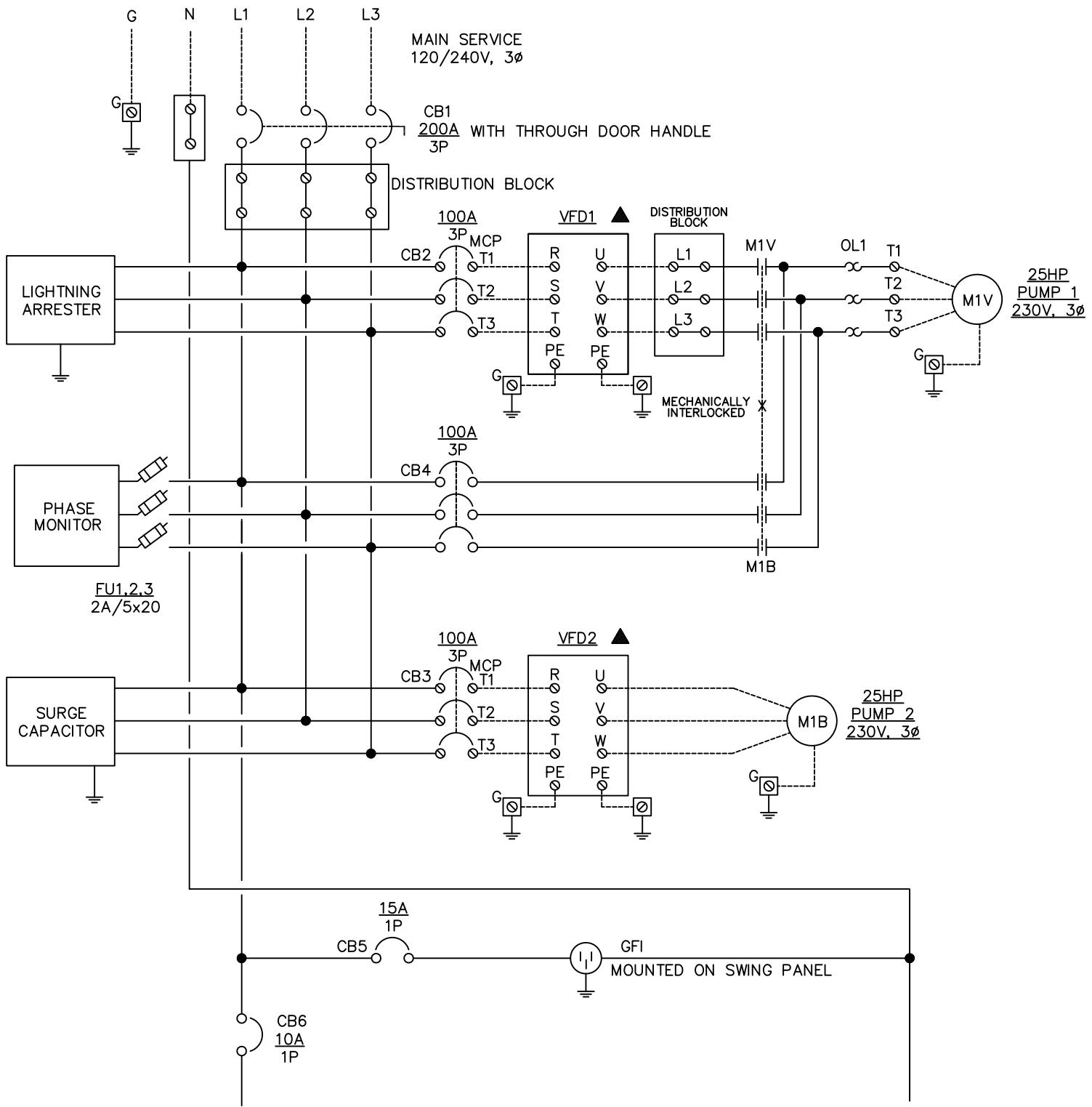
OPTIONS:

| | | |
|----------------------------------|---|----------------------------|
| SEAL FAIL LIGHTS | | (Submersible Only) |
| SEAL FAIL RELAYS | | (Submersible Only) |
| SEAL FAIL PUMP SHUTDOWN | | (Submersible Only) |
| HT PUMP SHUTDOWN | X | (Self-Primer, Submersible) |
| ALARM HORN | | |
| ALARM LIGHT | X | |
| LIGHT PANEL MTD | | |
| LIGHT REMOTE MTD | X | |
| LIGHT FLASHER | X | |
| LIGHTNING ARRESTER | X | |
| ELAPSED TIME METER | X | |
| PHASE MONITOR | X | |
| NEMA RATED STARTERS | X | |
| GROUND FAULT RECPT. | X | |
| GREEN RUN LIGHTS VS. RED | | |
| POLE, BOX, SEAL | | |
| INTRINSICALLY SAFE RELAYS | | |
| HIGH TEMP. LOCKOUT, MANUAL RESET | X | |
| ECONOMY VERSION | | |

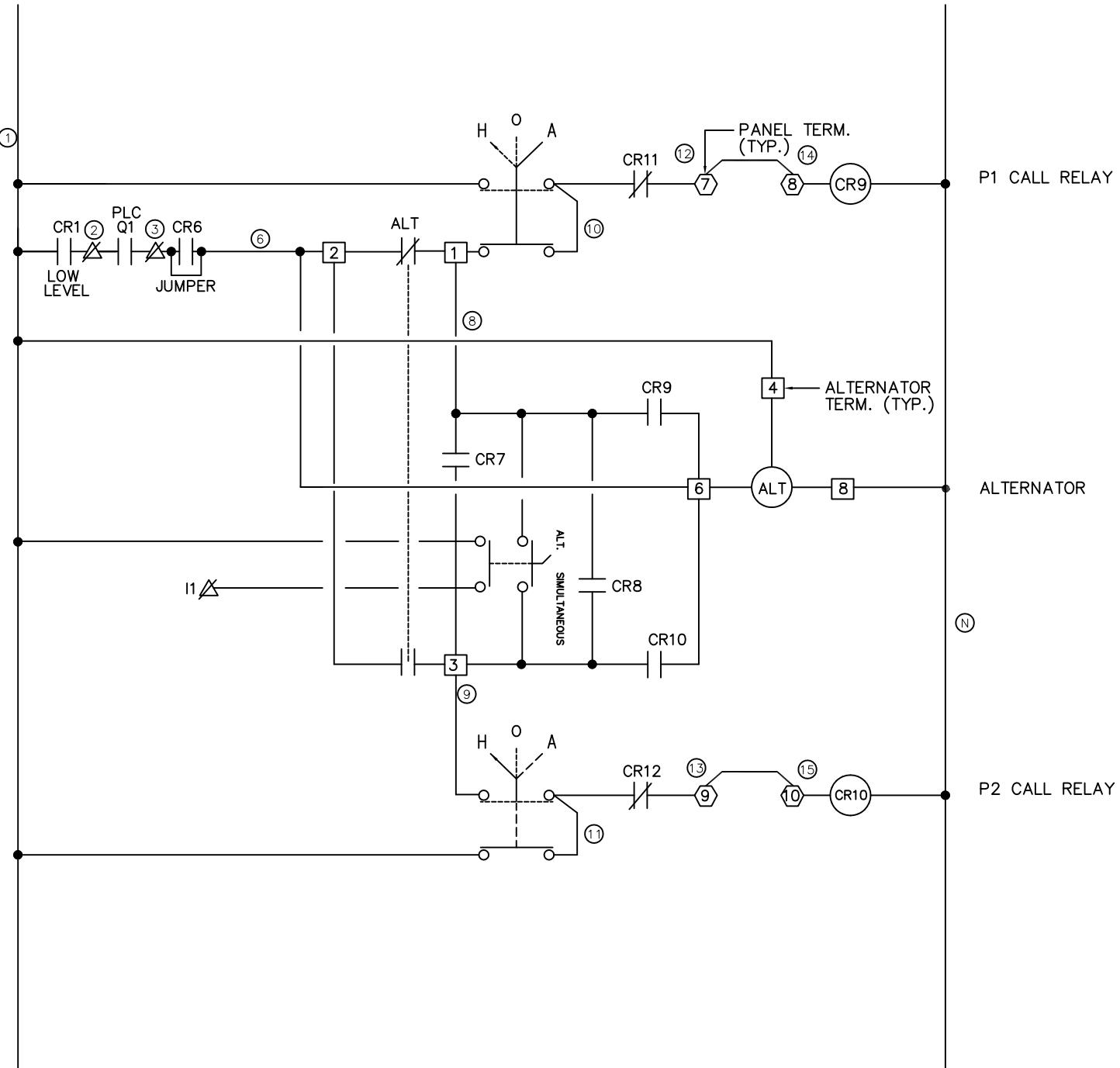
SOLD TO: Delta Process - New Orleans, LA
TAG : ARROWWOOD

SHIP TO: Delta Process - Ruston, LA

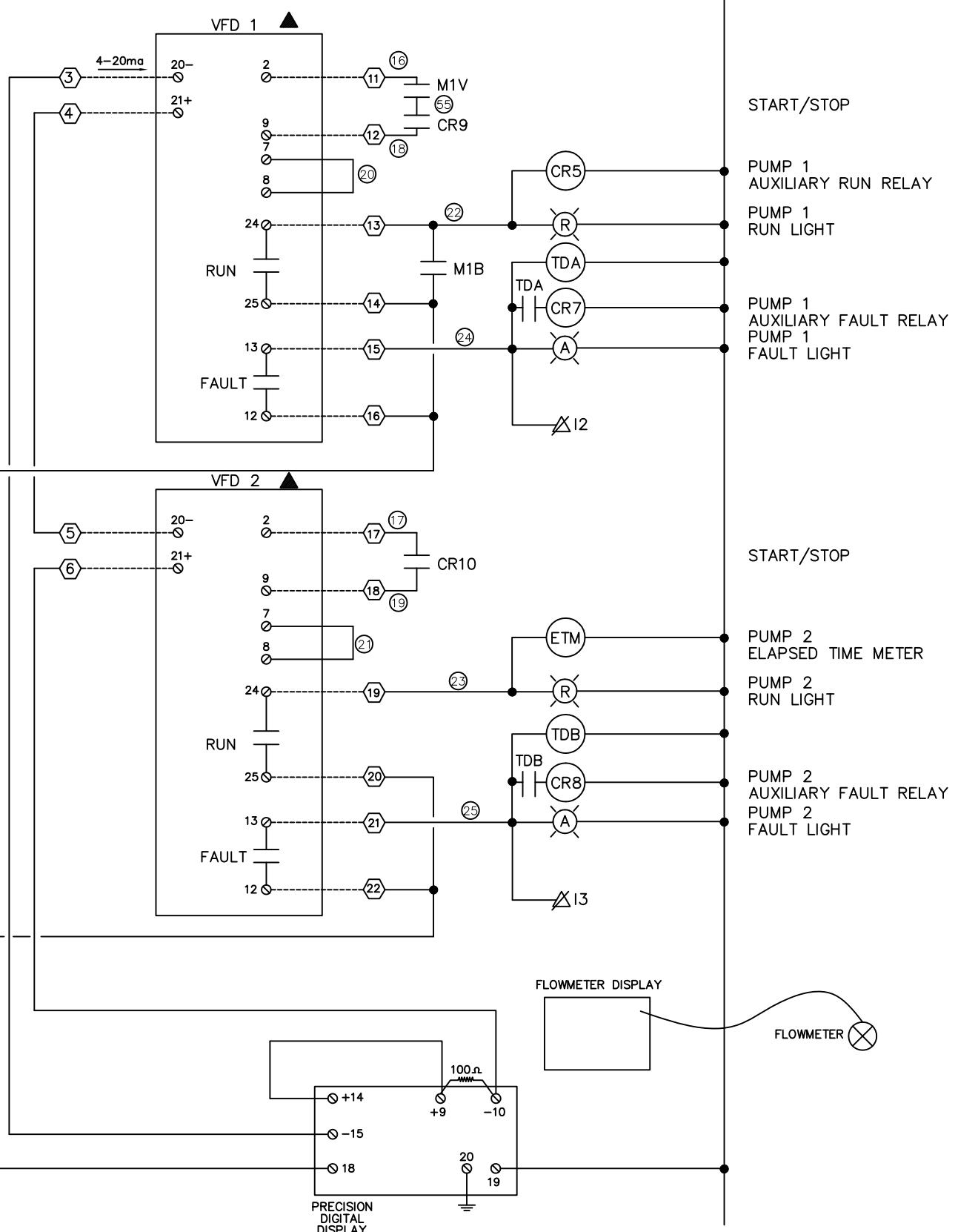
| Drawing Title | PANEL DESCRIPTION | R1 | ADD SIMPLEX/DUPLEX SWITCH | | 05/08/07 | HNB |
|------------------|------------------------------|---|---------------------------|----------------------|-----------------------|----------|
| | | R2 | PLC MONITORING | | | |
| | | R3 | TDS, OTHER CHANGES | | | 08/14/07 |
| | | REFERENCE DRAWING | NO. | REVISION-LOCATION | ECN | DATE BY |
| DATE 08/14/07 | | S/N | Sales Engineer | Application Engineer | DRAWN | APPROVED |
| | | | C.C. | R.C. | BY COREYC | BY DATE |
| | Project Title | <u>COX</u> Research and Technology, Inc. | | | PURCHASE ORDER NUMBER | |
| | DUPLEX PUMP CONTROL PANEL | | | | DRAWING NUMBER | |
| | | | | | CP-2341r3 | |
| | | | | | SHEET NUMBER | |
| | | | | | 1 | |



| | Drawing Title | | R1 | ADD SIMPLEX/DUPLEX SWITCH | | | 05/08/07 | HNB | | |
|------------------|------------------------------|----------------|-------------------------------|---------------------------|--|-----------------------------|----------|-----|--|--|
| | POWER DIAGRAM | | R2 | PLC MONITORING | | | 07/18/07 | HNB | | |
| | | | R3 | TDS, OTHER CHANGES | | | 08/14/07 | HNB | | |
| | REFERENCE DRAWING | | NO. | REVISION-LOCATION | | ECN | DATE | BY | | |
| | S/N | Sales Engineer | Application Engineer | DRAWN | | | APPROVED | | | |
| | | C.C. | R.C. | BY | COREYC | BY | DATE | | | |
| DATE 08/14/07 | Project Title | | COX | | P.O. Box 77808 Baton Rouge, LA 70809 | PURCHASE ORDER NUMBER | | | | |
| | DUPLEX PUMP CONTROL PANEL | | Research and Technology, Inc. | | Ph. (225)756-3271 Fax (225)755-1030 | DRAWING NUMBER CP-2341r3 | | | | |
| | | | | | | SHEET NUMBER 2 | | | | |

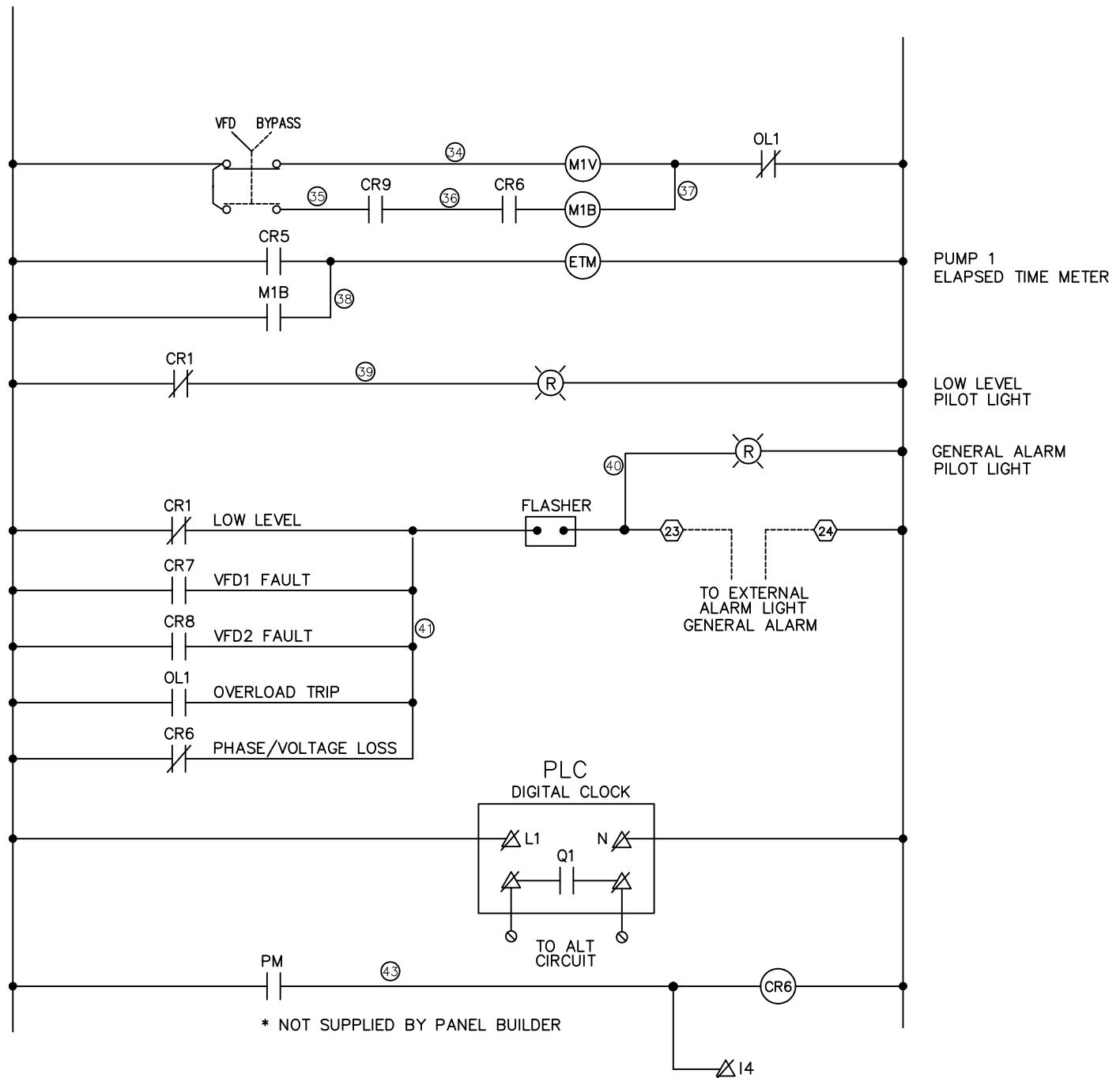


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|--|--|--|---------------------------|------------------------------|--|-----------------------------|-----|------|----|
| | Drawing Title CONTROL DIAGRAM DATE 08/14/07 | R1 | ADD SIMPLEX/DUPLEX SWITCH | | | 05/08/07 | HNB | | |
| | | R2 | PLC MONITORING | | | 07/18/07 | HNB | | |
| | | R3 | TDS, OTHER CHANGES | | | 08/14/07 | HNB | | |
| | | REFERENCE DRAWING | | NO. | REVISION-LOCATION | | ECN | DATE | BY |
| | | S/N | Sales Engineer C.C. | Application Engineer R.C. | DRAWN BY COREYC | APPROVED BY DATE | | | |
| | Project Title DUPLEX PUMP CONTROL PANEL |  Research and Technology, Inc. | | | P.O. Box 77808 Baton Rouge, LA 70809 | PURCHASE ORDER NUMBER | | | |
| | | | | | Ph. (225)756-3271 Fax (225)755-1030 | DRAWING NUMBER CP-2341r3 | | | |
| | | | | | | SHEET NUMBER 3 | | | |

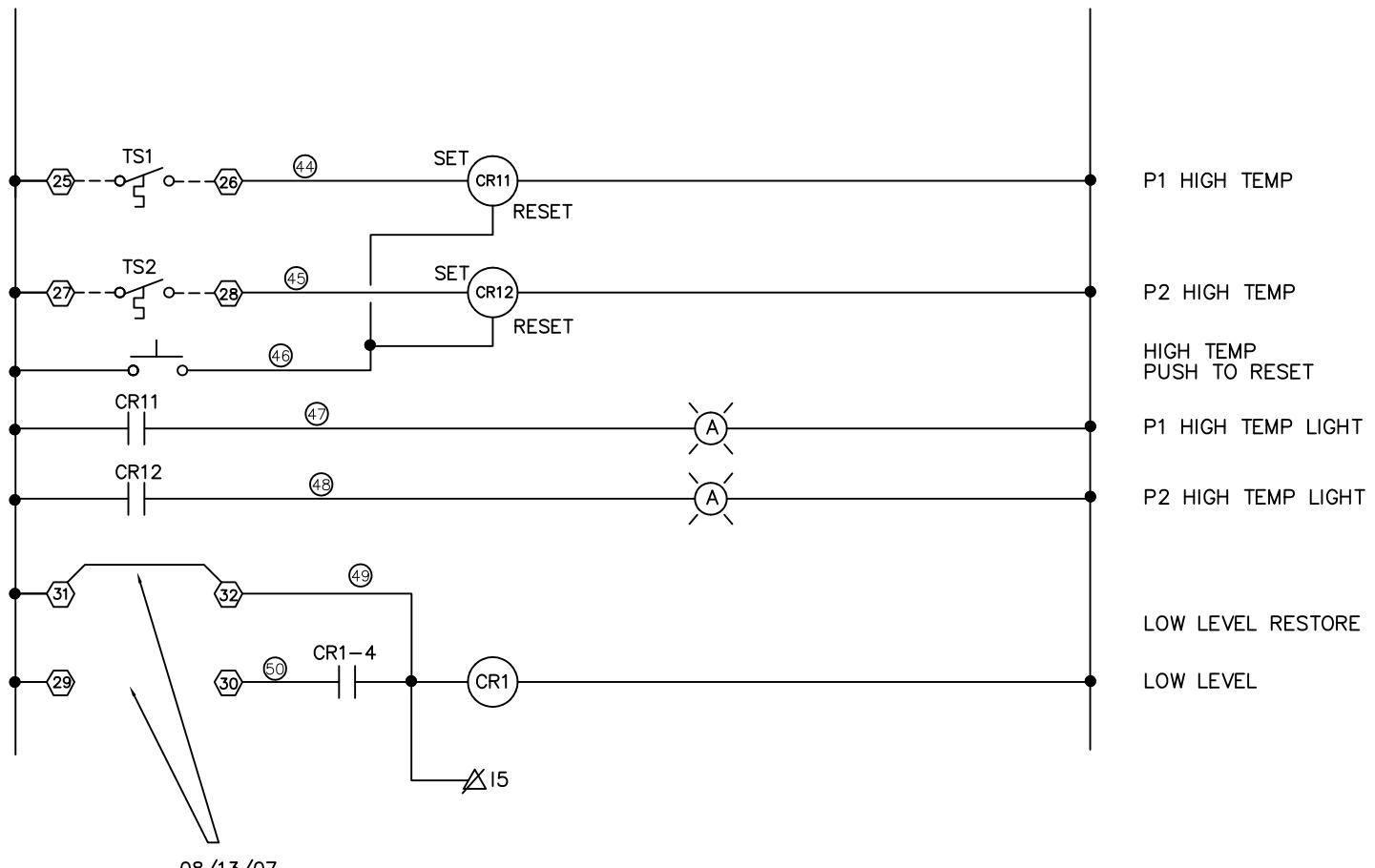


▲ LOCATED EXTERNALLY

| | | | | | | |
|------------------|---|---|--------------------------------------|-----|-----------------------|-----------|
| | Drawing Title CONTROL DIAGRAM | R1 | ADD SIMPLEX/DUPLEX SWITCH | | 05/08/07 | HNB |
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| DATE 08/14/07 | REFERENCE DRAWING S/N | NO. | REVISION-LOCATION DRAWN BY COREYC | ECN | DATE | BY |
| | Sales Engineer C.C. | Application Engineer R.C. | | | APPROVED BY | DATE |
| | Project Title DUPLEX PUMP CONTROL PANEL | COX Research and Technology, Inc. | | | PURCHASE ORDER NUMBER | |
| | | | | | DRAWING NUMBER | CP-2341r3 |
| | | | | | SHEET NUMBER | 4 |
| | | | | | | |

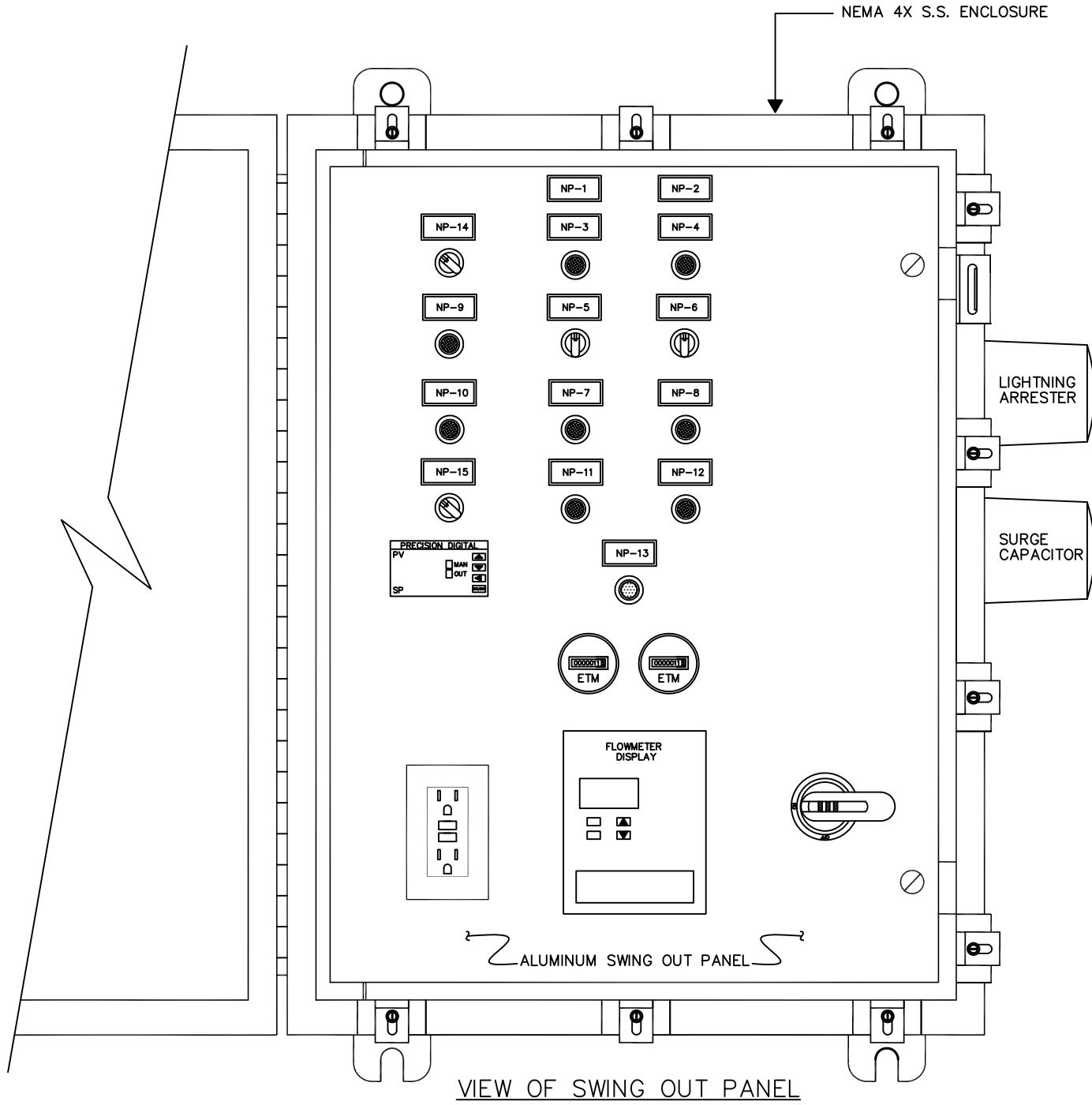


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| | | R3 | TDS, OTHER CHANGES | | 08/14/07 | HNB |
| DATE 08/14/07 | REFERENCE DRAWING S/N | NO. C.C. | REVISION-LOCATION DRAWN BY COREYC | ECN | DATE | BY |
| | | | | | | |
| | Project Title DUPLEX PUMP CONTROL PANEL | COX Research and Technology, Inc. | | | PURCHASE ORDER NUMBER | |
| | | | | | DRAWING NUMBER | CP-2341r3 |
| | | | | | SHEET NUMBER | 5 |



08/13/07
REMOVED FLOAT WIRES, INSTALLED JUMPER.

| | | | | | | | |
|------------------|-------------------|----------------|-------------------------------|---------------------------|-----------------------|-----------|-----|
| | Drawing Title | | R1 | ADD SIMPLEX/DUPLEX SWITCH | | 05/08/07 | HNB |
| | CONTROL DIAGRAM | | R2 | PLC MONITORING | | 07/18/07 | HNB |
| | | | R3 | TDS, OTHER CHANGES | | 08/14/07 | HNB |
| | REFERENCE DRAWING | NO. | REVISION-LOCATION | | ECN | DATE | BY |
| DATE 08/14/07 | S/N | Sales Engineer | Application Engineer | DRAWN | APPROVED | | |
| | C.C. | | R.C. | BY COREYC | BY DATE | | |
| | Project Title | | COX | | PURCHASE ORDER NUMBER | | |
| | DUPLEX PUMP | | Research and Technology, Inc. | | DRAWING NUMBER | CP-2341r3 | |
| | CONTROL PANEL | | | | SHEET NUMBER | | 6 |



VIEW OF SWING OUT PANEL

NAMEPLATE SCHEDULE

| | | | |
|------|-----------|-------|--------------------------|
| NP-1 | PUMP 1 | NP-9 | ALARM |
| NP-2 | PUMP 2 | NP-10 | LOW LEVEL |
| NP-3 | RUN | NP-11 | HIGH TEMP |
| NP-4 | RUN | NP-12 | HIGH TEMP |
| NP-5 | HOA | NP-13 | HIGH TEMP RESET |
| NP-6 | HOA | NP-14 | VFD BYPASS |
| NP-7 | VFD FAULT | NP-15 | ALTERNATE - SIMULTANEOUS |
| NP-8 | VFD FAULT | | |

▲ DISPLAY SUPPLIED BY DELTA PROCESS

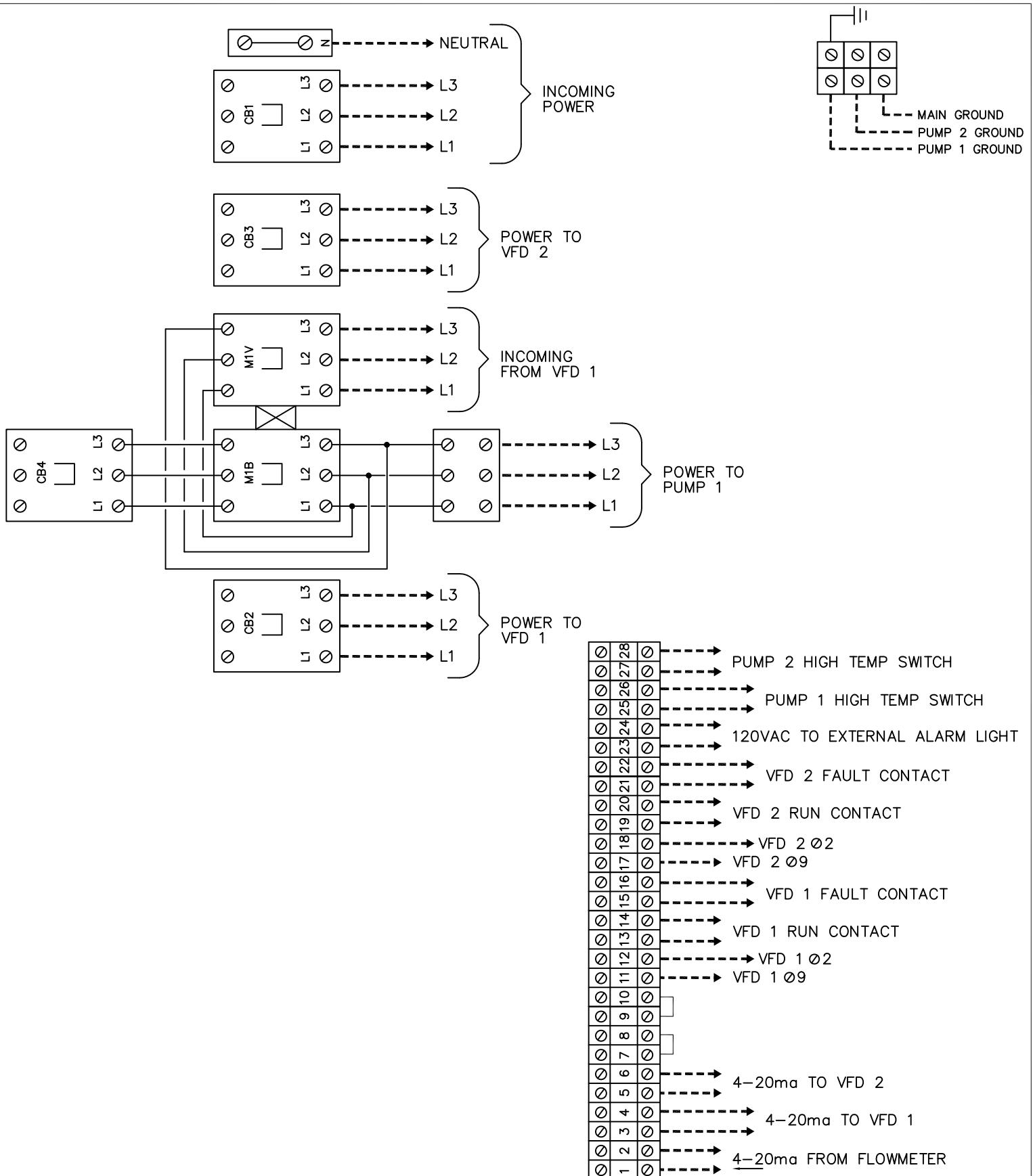
NOTE:
SEWER GASSES WILL DESTROY COMPONENTS IN PANEL.
PROPER SEALS MUST BE INSTALLED EXTERNAL TO THE
PANEL TO PREVENT ENTRY OF GASSES.

| | | | | | | | |
|------------------|---|---|-------------------------------|---|--------------------|-----------------------------|------------|
| | Drawing Title ENCLOSURE | | R1 | ADD SIMPLEX/DUPLEX SWITCH | | 05/08/07 | HNB |
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| | | REFERENCE DRAWING S/N | NO. Sales Engineer C.C. | REVISION-LOCATION Application Engineer R.C. | DRAWN BY COREYC | ECN BY | DATE BY |
| DATE 08/14/07 | Project Title DUPLEX PUMP CONTROL PANEL | | | P.O. Box 77808 Baton Rouge, LA 70809 | | PURCHASE ORDER NUMBER | |
| | | COX Research and Technology, Inc. | | Ph. (225)756-3271 Fax (225)755-1030 | | DRAWING NUMBER CP-2341r3 | |
| | | | | | | SHEET NUMBER 7 | |

BILL OF MATERIALS

| ITEM | QTY | MANUFACTURER | PART NO. | DESCRIPTION |
|------|-----|-------------------|------------------|-----------------------------|
| 1 | 1 | C & I | CI-363010N4X | ENCLOSURE |
| 1a | 1 | C & I | C-3630P | BACKPLATE |
| 1b | 1 | C & I | C-3630SPA | DEAD FRONT |
| 2 | 1 | ABB | S3N200TW | CB1 |
| 3 | 1 | ABB | K5VDM | MECHANISM |
| 4 | 1 | ABB | OXP10X225 | SHAFT |
| 5 | 1 | ABB | OHB65L10 | HANDLE |
| 6 | 1 | BUSSMAN | 16371-3 | DISTRIBUTION BLOCK |
| 7 | 1 | BUSSMAN | 16371-1 | NEUTRAL BLOCK |
| 8 | 2 | ABB | S3N100MW | CB2,3 |
| 9 | 1 | ABB | S3N100TW | CB4 |
| 10 | 1 | ABB | A75N3M-11-84 | MECH. INTERLOCKED CONTACTOR |
| 11 | 1 | ABB | TA75DU80 | OL (60-80A) |
| 12 | 1 | ABB | DB80 | OL SP. MT. KIT |
| 13 | 1 | DELTA | LA603 | LIGHTNING ARRESTOR |
| 14 | 1 | SSAC | PLMU-11 | PHASE MONITOR |
| 15 | 1 | DELTA | CA603 | SURGE ARRESTOR |
| 16 | 2 | A-B | 20AB070C3AYNANCO | 4XVFD |
| 17 | 1 | SQUARE D | QOU115 | CB5 |
| 18 | 1 | SQUARE D | QOU110 | CB6 |
| 19 | 1 | TIMEMARK | 261DT120 | ALTERNATOR |
| 20 | 7 | IDECK | RU4SA110 | RELAYS 110AC |
| 21 | 2 | A-B | 800H-JR2A | HOA |
| 22 | 4 | A-B | 800H-QR10R | RED PILOT LIGHT |
| 23 | 4 | A-B | 800H-QR10A | AMBER PILOT LIGHT |
| 24 | 1 | PRECISION DIGITAL | PD-542-6RB-00 | DISPLAY |
| 25 | 2 | ENM | 1672T84 | ELAPSED TIME METER |
| 26 | 2 | A-B | 800H-HR2A | 2 POSITION SWITCH |
| 27 | 1 | SSAC | FS126RC | FLASHER |
| 28 | 1 | SIEMENS | LOGO | PLC |
| 29 | 1 | STOCK | | GFI |
| 30 | 1 | IRL | | EXTERNAL ALARM LIGHT |
| 31 | 2 | MAGNECRAFT | W388AMLCPX-9 | LATCHING RELAYS |
| 32 | 1 | ABB | CAL-5 | AUXILIARY CONTACT |
| 33 | | | | |
| 34 | | | | |

| | | | | | | | |
|------------------|---|---|---------------------------|---|--|---|-----|
| DATE 08/14/07 | Drawing Title BILL OF MATERIALS | R1 | ADD SIMPLEX/DUPLEX SWITCH | | | 05/08/07 | HNB |
| | | R2 | PLC MONITORING | | | 07/18/07 | HNB |
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| | | | | | | | |
|------------------|---|--|--|---|-------------------|--|-------------------------|
| | Drawing Title EXTERNAL CONNECTIONS | R1 R2 R3 REFERENCE DRAWING S/N | ADD SIMPLEX/DUPLEX SWITCH PLC MONITORING TDS, OTHER CHANGES NO. | REVISION-LOCATION DRAWN BY COREYC | ECN DATE BY | 05/08/07 07/18/07 08/14/07 APPROVED DATE | HNB HNB HNB BY |
| DATE 08/14/07 | Project Title DUPLEX PUMP CONTROL PANEL | COX Research and Technology, Inc. | P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030 | PURCHASE ORDER NUMBER DRAWING NUMBER CP-2341r3 SHEET NUMBER 9 | | | |