



## **REQUEST FOR TENDERS No. 23-026**

### **Nanoose Bay Pump Station #6 Kiosk Replacement**

**ISSUED: March 31, 2023**

#### **CLOSING DATE AND TIME:**

Tenders must be received on or before :  
**3:00 PM (15:00 hrs) Pacific Time on April 20, 2023**

#### **Submissions and Questions are to be directed to:**

Chris Mathie  
250-758-1157  
cmathie@rdn.bc.ca

Deadline for questions is five (5) business days before the closing date.



## **Instructions to Tenderers**

### **Article 1. Closing Date/Time/Location**

Tenderers must submit their Tender on or before 3:00 PM (15:00 hrs), Pacific Time, **April 20, 2023**

Submission Method:

By Email: In PDF format with “**23-026 – NBPS6 Kiosk Supply**” as the subject line at this electronic address:

**[cmathie@rdn.bc.ca](mailto:cmathie@rdn.bc.ca)**

The RDN will not be held responsible for any technological delays. Tenders received by any other manner will not be accepted. Tenders will not be opened in public.

### **ARTICLE 2. Scope of Work**

Tenders are invited from qualified and experienced firms to supply and deliver one (1) new Lift Station Electrical Kiosk for the Nanoose Bay Pump Station #6 Upgrade project located at 3260 Schooner Cove Dr, Nanoose Bay, BC V9P 9H6.

The Delivery Point for all equipment shall be:

Regional District of Nanaimo  
Greater Nanaimo Pollution Control Centre  
4600 Hammond Bay Road  
Nanaimo, B.C V9T 5A8

Attn: Jeremy Kaye/Chris Mathie

### **ARTICLE 3. Examine Documents**

The Tender Documents referred to in this tender package include the following:

- (1) Request for Tenders, including the Supply Contractor’s “Tender Form”;
- (2) Standard Form Supply Contract Supply Agreement;
- (3) Standard Form Supply Contract General Conditions\*

\* Includes the specifications, the drawings, and the standards.

The Tenderer must carefully examine the Contract Documents. Should a Tenderer find discrepancies in, or omissions from the drawings or other documents, or should he be in doubt as to their meaning, he should, prior to submitting his tender, notify the REGIONAL DISTRICT in writing. The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents.

No verbal agreement or conversation made or had at any time with any officer, agency or employee of the Owner shall affect or modify any of the terms or obligations herein stated or deemed to be any representation of warranty.

**Article 4. Addenda**

If the REGIONAL DISTRICT determines that an amendment is required to this TENDER, the REGIONAL DISTRICT will post an addendum on the RDN website (<https://www.rdn.bc.ca/current-bid-opportunities>) and BC Bid websites (<https://new.bcbid.gov.bc.ca/>). Each addendum will be incorporated into and become part of the TENDER. No amendment of any kind to the TENDER is effective unless it is contained in a written addendum issued by the REGIONAL DISTRICT. It is the sole responsibility of the Tenderer to check and ensure all addendums are included prior to submitting their final Tender submission.

**ARTICLE 5. Tender Price**

All pricing is to be in Canadian Dollars and is to include all transportation costs to site. Prices should be completed as indicated on the Tender Form. In the event of a price extension discrepancy when calculating the total contract value, the REGIONAL DISTRICT reserves the right to correct the totals.

**ARTICLE 6. Federal and Provincial Sales Taxes**

GST and PST shall be shown separately on the Tender Form based on the total contract value.

**ARTICLE 7. Tender Signing**

The tender must be executed by an authorized signatory in a position to legally bind their Company to the information contained in the Tender Form.

**ARTICLE 8. Revisions to Tenders**

Any revision to the tender by the Tenderer must be in writing properly executed and received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

**ARTICLE 9. Tender Withdrawal**

A Tenderer may, without prejudice to himself, withdraw his tender on written request received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

**ARTICLE 10. Tender Rejection**

- .1 The REGIONAL DISTRICT reserves the right to reject any or all tenders or accept other than the lowest tender and to accept the tender which it deems most advantageous.
- .2 The REGIONAL DISTRICT may reject a tender if:
  - a) After investigation and consideration, the REGIONAL DISTRICT concludes that the Tenderer is not qualified to perform the Contract in a manner satisfactory to the REGIONAL DISTRICT.
  - b) A tender contains qualifying conditions or otherwise fails to conform to these Instructions to Tenderers.
  - c) A tender is incomplete, is considered incomplete in the Instructions to Tenderers, is obscure or irregular, which has erasures or corrections in the Tender Form.

- d) The REGIONAL DISTRICT may, in its absolute discretion, reject a Tender submitted by Tenderer if the Tenderer, or any officer or director of the Tenderer is or has been engaged either directly or indirectly through another corporation in a legal action against the REGIONAL DISTRICT, its elected or appointed officers and employees in relation to:
- any other contract for works or services; or
  - any matter arising from the REGIONAL DISTRICT's exercise of its powers, duties, or functions under the Local Government Act or another enactment within five years of the date of this Call for Tenders.

In determining whether to reject a tender under this clause, the REGIONAL DISTRICT will consider whether the litigation is likely to affect the Tenderer's ability to work with the REGIONAL DISTRICT and whether the REGIONAL DISTRICT's experience with the Tenderer indicates that the REGIONAL DISTRICT is likely to incur increased staff and legal costs in the administration of this contract if it is awarded to the Tenderer.

- .3 The REGIONAL DISTRICT may reject all tenders if for any reason the REGIONAL DISTRICT considers to be in its best interest to do so, including without limitation for any of the following reasons;
- a) the lowest tender that the REGIONAL DISTRICT considers otherwise acceptable is higher than the funds budgeted or otherwise available for the project;
  - b) the REGIONAL DISTRICT decides not to proceed with the project or to defer the project;
  - c) the REGIONAL DISTRICT is delayed in obtaining, or is unable to obtain, all approvals or consents it considers necessary, whether required by law or otherwise.
- .4 The REGIONAL DISTRICT reserves the right to consider and to reject any tender or all tenders without notice to a Tenderer or Tenderers and without permitting a Tenderer to provide additional information.
- .5 In no event will the REGIONAL DISTRICT be responsible for a Tenderer's costs of preparing or submitting a tender.

#### **ARTICLE 11. Award**

Awards shall be made on tenders that will give the greatest value to the RDN based on price, quality, warranty, and delivery time. The RDN shall be free to assess these criteria based solely on the information provided with tenders. The lowest, or any tender may not necessarily be accepted. The RDN will, following receipt of an acceptable tender, issue in writing a Notice of Intent Award to the successful Tenderer. Award is anticipated to be made within 30 days of tender closing.

#### **ARTICLE 12. Form of Agreement**

The Agreement and General Conditions of the contract are enclosed at the end of this document. Tenderers should carefully review this form of Contract. Tenderers may (but are not required to) request that RDN consider revisions to the form of Contract. Tenderers should submit such requests to the RDN well before the Closing Date and Time. If the RDN agrees to a request received prior to the closing date and time, then RDN will issue an Addendum to modify the Contract. Failure to do so means acceptance of the agreement as presented.



**ARTICLE 13. No Claim for Compensation**

Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, because of participating in the tender, and by submitting a bid each Tenderer shall be deemed to have agreed that it has no claim.

**ARTICLE 14. Solicitation of Board Members**

“If a member of the Board, or a person who was a member of the Board in the previous six months has a direct or indirect interest in the contract, then the Tenderer shall report this to the REGIONAL DISTRICT in accordance with Section 107 of the *Community Charter* upon being notified of the award of the contract.

The Tenderer warrants and represents that it has not received any information or a record from any Board member or former Board member contrary to Section 108 of the *Community Charter*.” The successful Tenderer will be required to direct all communications related to their contract through the staff members responsible for the project.

**ARTICLE 15. Freedom of Information and Protection of Privacy Act**

All documents submitted to the REGIONAL DISTRICT will be held in confidence by the REGIONAL DISTRICT, subject to the provisions of the Province of British Columbia’s *Freedom of Information and Protection of Privacy Act*. All tenders become the property of the RDN. The successful tenderer and value of the award is routinely released.

**ARTICLE 16. Conflict of Interest**

The Tenderer declares that it has no financial interest, directly or indirectly in the business of any third party that would be or be seen to be a conflict of interest in carrying out the services. It warrants that neither it nor any of its officers or directors, or any employee with authority to bind the Tenderer, has any financial or personal relationship or affiliation with any elected official or employee of the REGIONAL DISTRICT or their immediate families which might in any way be seen to create a conflict.

**ARTICLE 17. Collusion**

The Tenderer shall not engage in collusion of any sort and shall ensure that no person or other legal entity, other than the Tenderer has an interest in the Tenderer’s submission and prepare the submission without any knowledge of, comparison of figures with, or arrangement with any other person or firm preparing a Submission for the same work.



**TENDER FORM**  
**23-026 NBPS6 Kiosk Supply**  
**Page 1 of 2**

Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

To: Regional District of Nanaimo  
C/O Chris Mathie  
cmathie@rdn.bc.ca

Having examined the tender documents including any addenda, we hereby offer to supply and deliver set forth in the aforesaid documents for the Stipulated Contract Price below. Prices include the Contractor's labour, material, equipment, material costs, transportation costs, overhead and profit and shall represent the cost to the Owner of such charges excluding taxes which shall be shown separately.

Lump Sum Total \$ \_\_\_\_\_

PST (7%) \$ \_\_\_\_\_

GST (5%) \$ \_\_\_\_\_

Total Stipulated Contract Price \$ \_\_\_\_\_

**WARRANTY DESCRIPTION**

\_\_\_\_\_

**DELIVERY (DDP Delivery Point) from receipt of order**

\_\_\_\_\_



**TENDER FORM**  
**23-026 NBPS6 Kiosk Supply**  
**Page 2 of 2**

**ACCEPTANCE**

- .1 The tender is open to acceptance for a period of sixty (60) calendar days from the date of bid closing.
- .2 We understand that the lowest or any Bid will not necessarily be accepted. The Owner may also elect not to proceed with the Project.
- .3 The Owner reserves the right to waive minor defects or irregularities in the bid.
- .4 Shipping is per Incoterms 2020 Delivered Duty Paid (DPP) GNPCC.

Company: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Authorized Officer)

Printed: \_\_\_\_\_  
(Authorized Officer)

## 1. GENERAL

### 1.1. Summary

- 1.1.1. This specification covers the supply of the electrical Kiosk for the Nanoose Bay Pump Station #6 Upgrade project.
- 1.1.2. The Supplier shall supply (1) fully assembled and wired electrical kiosk in accordance with the project drawings and this specification.
- 1.1.3. The Kiosk will be mounted and installed in the field by Others.
- 1.1.4. The Genset will be supplied and installed by Others.

### 1.2. Drawings

- 1.2.1. The following Project Drawings shall be considered part of this specification:

Drawing No.	Rev.	Description
2231-E-00	-	Title Page
2231-E-01	-	Legend and General Notes
2231-E-02	-	Kiosk (1 of 3)
2231-E-03	-	Kiosk (2 of 3)
2231-E-04	-	Kiosk (3 of 3)
2231-E-05	-	Power Distribution – Single Line Diagram
2231-E-06	-	Communication and Instrumentation Block Diagram
2231-E-07	-	Controls (1 of 7)
2231-E-08	-	Controls (2 of 7)
2231-E-09	-	Controls (3 of 7)
2231-E-10	-	Controls (4 of 7)
2231-E-11	-	Controls (5 of 7)
2231-E-12	-	Controls (6 of 7)
2231-E-13	-	Controls (7 of 7)
2231-E-14	-	RTU IO
2231-E-15	-	Typical PLC-RTU Cabinet Wiring Terminations (1 of 2)
2231-E-16	-	Typical PLC-RTU Cabinet Wiring Terminations (2 of 2)

### 1.3. References

- 1.3.1. CSA C22.1-2021 “Canadian Electrical Code, Part I” and all applicable British Columbia amendments.
- 1.3.2. CSA C22.2 No. 286-2017 “Industrial Control Panels and Assemblies”

### 1.4. Submittals

- 1.4.1. On completion of the work, Supplier shall provide a copy of their completed QA/QC documents for the Purchaser’s records.

### 1.5. Quality Assurance

- 1.5.1. Supplier shall have been manufacturing industrial control panels for at least five years. On request, the supplier shall provide a list of installations involving equipment of similar size and application.
- 1.5.2. Supplier shall make their facilities available for the Purchaser to perform a pre-shipment quality inspection of the panels prior to shipment. Alternately, the Supplier shall provide detailed photographs of the panels to the Purchaser for review prior to shipment. The Supplier shall provide the Purchaser at least 1 week notice prior to



readiness to ship to coordinate the inspection.

## **2. PRODUCTS**

- 2.1. Provide all equipment and components shown in the project drawings with the exception of items marked EXISTING or OWNER SUPPLIED.
- 2.2. Completed assemblies and all equipment in enclosures shall bear a CSA or similar marking or label, that is acceptable to Technical Safety BC.
- 2.3. Manufacturers and products shall be as specified on the Legend and General Notes drawing and elsewhere in the project drawings. Alternate products can be substituted only with the prior approval of the owner.

## **3. EXECUTION**

### **3.1. Panel Wiring**

- 3.1.1. Control and power distribution wiring shall be type TEW (105°C), 600V. Wire sizes shall be as shown on the project drawings.
- 3.1.2. Analog panel wiring shall be stranded, twisted shielded pair or triad, with shields connected (or isolated) as shown on the project drawings. Wire sizes shall be as shown on the project drawings.
- 3.1.3. Wire colours shall be as shown on the project drawings.
- 3.1.4. Mark each wire at both ends with a machine printed heat shrink sleeve, with the wire tag shown on the project drawings.
- 3.1.5. Wires shall be terminated using crimp-on wire ferrules.
- 3.1.6. Wiring shall be segregated by voltage in colour-coded wire duct accordance with the project drawings (white for 24 Vdc, gray for 120 Vac).

### **3.2. Network Cabling**

- 3.2.1. All in-panel Ethernet cables shall be factory-made and installed in accordance with the project drawings.

### **3.3. Nameplates**

- 3.3.1. Provide nameplates for panels, control devices and other items as detailed on the project drawings.

### **3.4. Panel Grounding**

- 3.4.1. Provide supplementary bonding conductors for backpanels and doors.
- 3.4.2. Provide electrical and isolated instrument ground bars and systems as shown on the project drawings.

### **3.5. Purchaser-Supplied Materials**

- 3.5.1. All materials marked in the Bill of Materials as OWNER SUPPLIED shall be free-issued by the Purchaser to the Supplier for assembly and installation in the Panels.

# REGIONAL DISTRICT OF NANAIMO

# NANOOSE BAY SANITARY

# PUMP STATION NO. 6

## ISSUED FOR TENDER

## KIOSK PRE-PURCHASE

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION
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ISSUED FOR TENDER

-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE
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ISS	DATE	BY	ENG	DESCRIPTION
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RECORD OF ISSUE

SEAL

PROJECT NO. 220363

DRAWN PBX

DESIGNED MS

CHECKED AT

APPROVED AT

DATE MARCH 2023

SCALE AS SHOWN

CLIENT



PROJECT

NANOOSE BAY  
SANITARY  
PUMPSTATION  
NO. 6

TITLE

TITLE PAGE

Pump Station No. 6

DRAWING No.	REV.	SHEET
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2231-E-00	-	1/17
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### DRAWING INDEX

DRAWING No.	REV	DESCRIPTION
2231-E-00	-	TITLE PAGE
2231-E-01	-	LEGEND AND GENERAL NOTES
2231-E-02	-	KIOSK (1 OF 3)
2231-E-03	-	KIOSK (2 OF 3)
2231-E-04	-	KIOSK (3 OF 3)
2231-E-05	-	POWER DISTRIBUTION - SINGLE LINE DIAGRAM
2231-E-06	-	COMMUNICATION AND INSTRUMENTATION BLOCK DIAGRAM
2231-E-07	-	CONTROLS (1 OF 7)
2231-E-08	-	CONTROLS (2 OF 7)
2231-E-09	-	CONTROLS (3 OF 7)
2231-E-10	-	CONTROLS (4 OF 7)
2231-E-11	-	CONTROLS (5 OF 7)
2231-E-12	-	CONTROLS (6 OF 7)
2231-E-13	-	CONTROLS (7 OF 7)
2231-E-14	-	RTU IO
2231-E-15	-	TYPICAL PLC-RTU CABINET WIRING TERMINATIONS (1 OF 2)
2231-E-16	-	TYPICAL PLC-RTU CABINET WIRING TERMINATIONS (2 OF 2)

ISSUED FOR TENDER  
NOT FOR CONSTRUCTION

GENERAL NOTES:

- 1. RESTORE ALL SURFACES TO MATCH EXISTING.
2. MMCD STANDARDS APPLY TO ALL ASPECTS OF THE WORK.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL CONCRETE BASES AND JB SYMBOLS ARE NOT TO SCALE.
...
32. ALL THE UNDERGROUND BOXES SHALL BE EQUIPPED WITH GALVANIZED STEEL COVERS. THE COVERS SHALL BE BONDED TO GROUND, AND SHALL BE LABELLED "ELEC" OR "COMM" AS SHOWN IN THE DRAWINGS.

NOMENCLATURE:

- A - AMBER
AS - AUTOSTART
BCH - BC HYDRO
C - COIL
C/W - COMPLETE WITH
CBX - CIRCUIT BREAKER ("X" DENOTES NUMBER)
CCT - CIRCUIT
CEC - CANADIAN ELECTRICAL CODE, PART 1, LATEST EDITION
CMD - COMMAND
COMM - COMMUNICATION
CT - CURRENT TRANSFORMER
CTRL - CONTROL
DDC - DIRECT DIGITAL CONTROL
DPDT - DOUBLE POLE DOUBLE THROW
DS - KIOSK DOOR SWITCH
EMR - EMERGENCY RUN
ERR - EMERGENCY RUN RELAY
ETM - ELAPSED TIME METER
F - FUSE
FLS - FLYGT LEAKAGE SENSOR
FRUN - FAN RUN
FS - FLOAT SWITCH
G - GREEN
GEN - GENERATOR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
GFLT - GROUND FAULT RELAY
GND - GROUND
HLOA - HIGH-LOW-OFF-AUTO
HMI - HUMAN MACHINE INTERFACE
HOA - HAND-OFF-AUTO CONTROL
HP - HORSE POWER
HSW - HATCH SWITCH
HTR - HEATER
IS - IN SERVICE
LTG - LIGHTING
LVL - LEVEL
MGB - MASTER GROUND BUS
MSM - MULTISMART
MM - MILLIMETER
N - NEUTRAL
NC - NORMALLY CLOSED
NO - NORMALLY OPEN
OL - OVERLOAD
OT - OVERTEMPERATURE
PEC - PHOTOELECTRIC CELL
PFC - POWER FACTOR CORRECTION
PLC - PROGRAMMABLE LOGIC CONTROLLER
PMR - PHASE LOSS MONITOR RELAY
POTS - PLAIN OLD TELEPHONE SERVICE
PWR - POWER
Px - PUMP ("x" DENOTES NUMBER)
R - RED
RLY - RELAY
RPVC - RIGID POLYVINYL CHLORIDE
RR - REMOTE RUN
RS - REMOTE START
RTU - REMOTE TELEMETRY UNIT
SLF - SECONDARY LOW FLOAT
SPD - SURGE PROTECTION DEVICE
SPDT - SINGLE POLE DOUBLE THROW
SS - SOFT STARTER
SST - ELECTRONIC SOLID STATE TRIP DEVICE
TD - TIME DELAY
TEMP - TEMPERATURE
TRSW - TRANSFER SWITCH
UPS - UNINTERRUPTIBLE POWER SUPPLY
US - ULTRASONIC SENSOR
UTS - UP TO SPEED
UV - ULTRAVIOLET
VFD - VARIABLE FREQUENCY DRIVE
VFR - VENTILATION FAN RELAY
XFMR - TRANSFORMER
W - WHITE
ZS - POSITION SWITCH

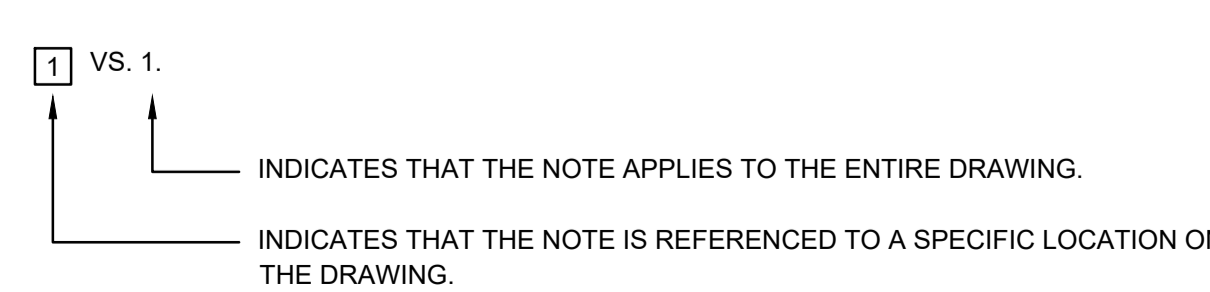
GENERAL NOTES:

- 32. THE CONTRACTOR SHALL NOT DISTURB OR DESTROY EXISTING PLANTS, BUSHES, TREES, OR ROOTS WHILE INSTALLING THE EQUIPMENT. MANUALLY DIG THROUGH HEDGES.
33. THE CONTRACTOR SHALL DISPOSE OF ALL THE REMOVED CONCRETE AND EXCESS NATIVE FILL.
34. ON-SITE DOCUMENTS SHALL BE STORED IN A SECURE LOCATION AND SHALL NOT BE LEFT IN VEHICLES OVERNIGHT.
35. THERE SHALL BE NO ENERGIZED EXPOSED PARTS INSIDE KIOSKS, CABINETS, CHAMBERS OR EQUIPMENT BOXES.
36. CABLE INSTALLATION INCLUDES CABLE TERMINATION, LABELLING, TESTING AND COMMISSIONING. ALL TESTING REPORTS SHALL BE SENT TO THE ENGINEER FOR REVIEW AND APPROVAL.
37. ALL THE POWER CABLES INSIDE OF CHAMBERS SHALL BE WITHIN RPVC CONDUIT AND ALL THE CONNECTORS SHALL BE WATER TIGHT.
38. WORK SHALL CONFORM TO ALL APPLICABLE REGULATIONS OF WORKSAFE BC.
39. IDENTIFY ELECTRICAL EQUIPMENT WITH LABELS. FOR EACH DEVICE, INSTALL LABEL ON EQUIPMENT, PANEL, AND BACKSIDE OF PANEL, WHERE APPLICABLE.

LABELLING CONVENTION NOTES:

- 1. ALL CABLES AND CONDUCTORS SHALL BE LABELLED AS SHOWN ON THESE DRAWINGS. CONDUCTORS SHALL BE LABELLED IN ALL JUNCTION BOXES, HANDHOLES, VAULTS, CONTROL CABINETS AND ALL OTHER ACCESSIBLE POINTS.
2. "LOCAL" SPECIFIES THE TERMINATION INSIDE THE CONTROL CABINET AND "REMOTE" INDICATES TERMINATION OUTSIDE.
3. IF THERE IS MORE THAN ONE CONDUCTOR OF THE SAME TYPE WITHIN A BUNDLE OR CABLE, THE CONDUCTORS SHALL BE LABELLED SEQUENTIALLY STARTING FROM ONE.
4. HOT AND NEUTRAL CIRCUITS ARE LABELLED HX OR NX, WHERE X IS THE CIRCUIT NUMBER IN THE PANEL.
5. ALL CONDUCTORS SHALL BE IDENTIFIED IN ALL JUNCTION BOXES, CABINETS OR OTHER ACCESS POINTS. IDENTIFY WIRING WITH PERMANENT INDELEBIL IDENTIFYING MARKINGS, EITHER NUMBERED AND/OR COLOUR CODED PLASTIC TAPE ON BOTH ENDS OF PHASE CONDUCTORS OF FEEDERS AND BRANCH CIRCUIT WIRING, PRINTED USING A THERMAL HEAT TRANSFER SYSTEM.
6. IDENTIFY GROUPS OF CONDUCTORS OR CABLES IN ENCLOSURES AND PANELS USING BRADY #B-342 (HEAT SHRINK SLEEVES) OR APPROVED ALTERNATE. IDENTIFY CABLES OR GROUPS OF CONDUCTORS IN JUNCTION BOXES USING BRADY #B-109 (TY-WRAP STYLE MULTIPURPOSE IDENTIFICATION TAG) OR APPROVED ALTERNATE.

NOTES LEGEND:

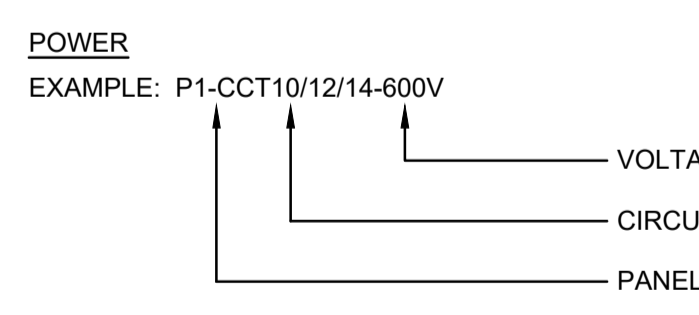


PBX ENGINEERING LTD. PERMIT TO PRACTICE NUMBER: 1000208

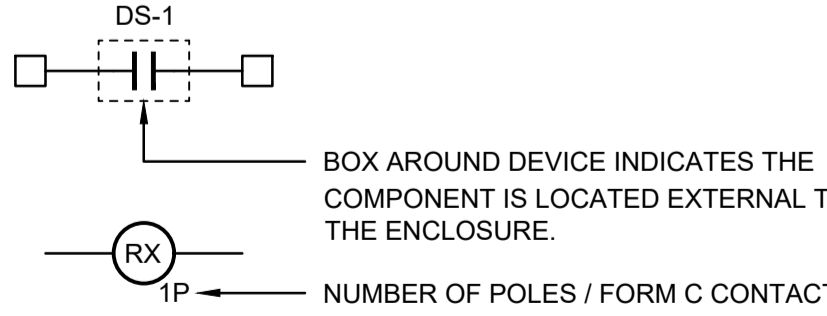
LEGEND

Legend table with 2 columns: Symbol and Description. Includes symbols for LUMINAIRE, ANTENNA, UTILITY POLE, CIRCUIT BREAKER, FUSE, TRANSFORMER, POWER FACTOR CORRECTION CIRCUIT, BC HYDRO METER, CURRENT TRANSFORMER, PUMP MOTOR, GENERATOR, THERMOSTAT, LIGHT SWITCH, EXPLOSION PROOF FITTING, GROUND ELECTRODE/ROD, TERMINAL BLOCKS, INTRINSICALLY SAFE RELAY, INTRINSICALLY SAFE BARRIER, and QUADRUPLE RECEPTACLE.

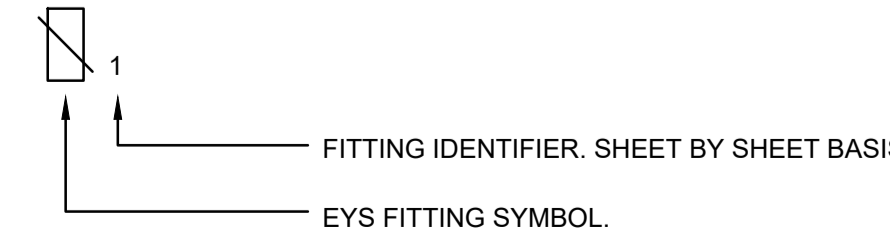
CABLE LABELLING NOMENCLATURE:



RELAY SYMBOLOGY:



EYS FITTING SYMBOLOGY:



LINE TYPE LEGEND

Table with 2 columns: LINE and DESCRIPTION. Lists line types for 120/240V CONDUIT/CABLE, COMMUNICATIONS OR LOW VOLTAGE CONDUIT/CABLE, 347/600V CONDUIT/CABLE, GROUNDING, and CAPPED CONDUIT.

ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE

ISSUED FOR TENDER NOT FOR CONSTRUCTION

KOERS & ASSOCIATES ENGINEERING LTD. Consulting Engineers
P.O. Box 790, 194 Memorial Ave. Parksville, BC V9P 2G8
Ph: 250-248-3151 Fax: 250-248-5362
www.koers-eng.com

PBX ENGINEERING LTD.
Suite 201 - 2812 Bridge St. Victoria BC, V8T 4S9
Tel 250.388.7222 www.pbxeng.com

RECORD OF REVISIONS table with columns: REV, DATE, BY, ENG, DESCRIPTION. Below it, RECORD OF ISSUE table with columns: ISS, DATE, BY, ENG, DESCRIPTION.

PROFESSIONAL SEAL OF ANGELO J. JACOBINO, P. ENG. 54622, 2023-03-08

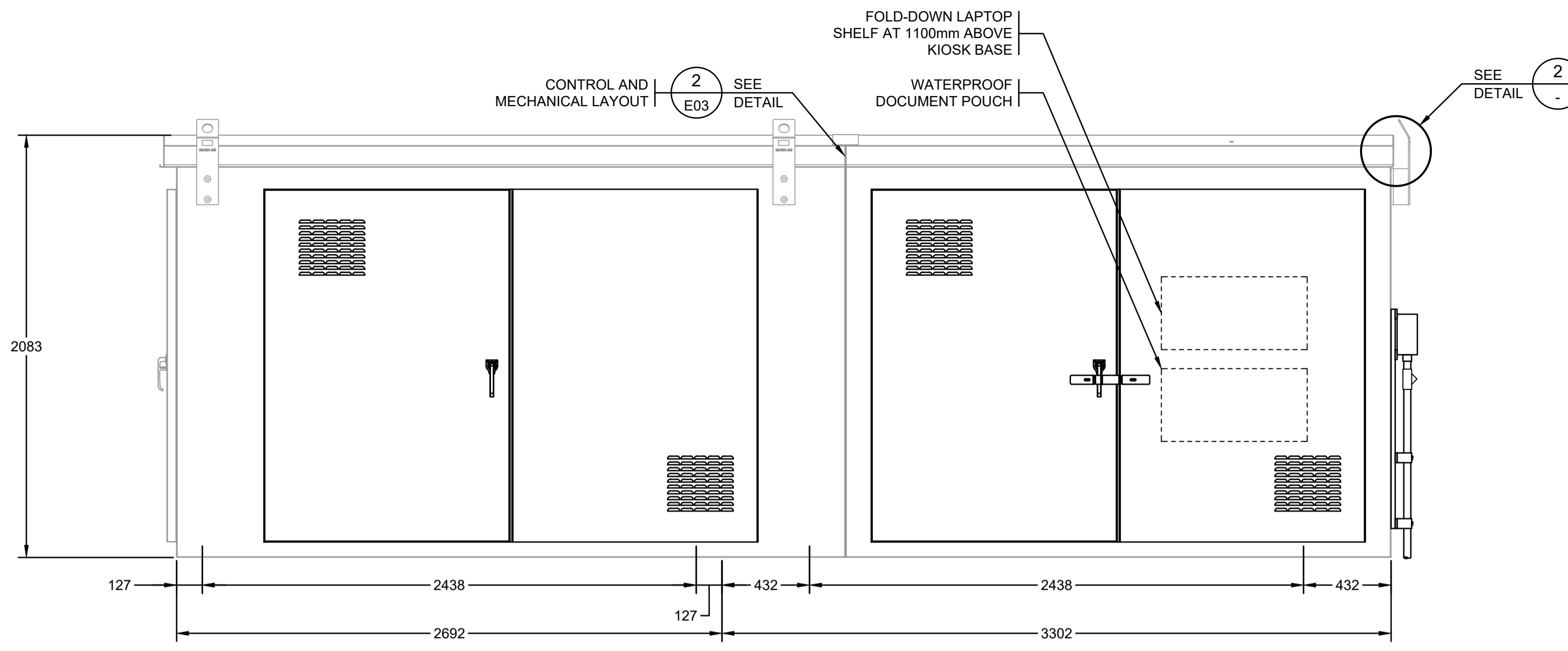
PROJECT INFORMATION table with fields: PROJECT NO. 220363, DRAWN PBX, DESIGNED MS, CHECKED AT, APPROVED AT, DATE MARCH 2023, SCALE AS SHOWN.

CLIENT: REGIONAL DISTRICT OF NANAIMO
PROJECT: NANOOSE BAY SANITARY PUMPSTATION NO. 6

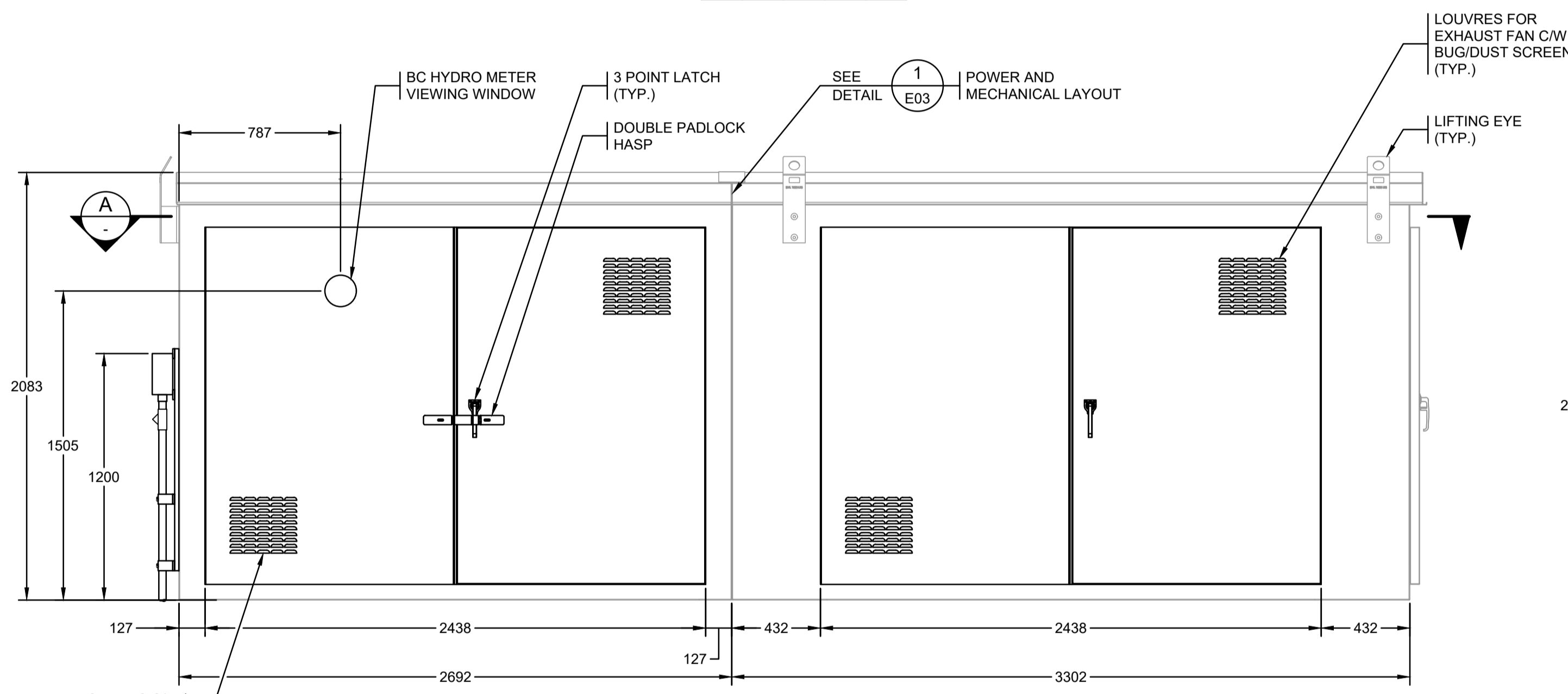
TITLE: LEGEND AND GENERAL NOTES
Pump Station No. 6
DRAWING No. 2231-E-01 REV. SHEET 1/17

**NOTES:**

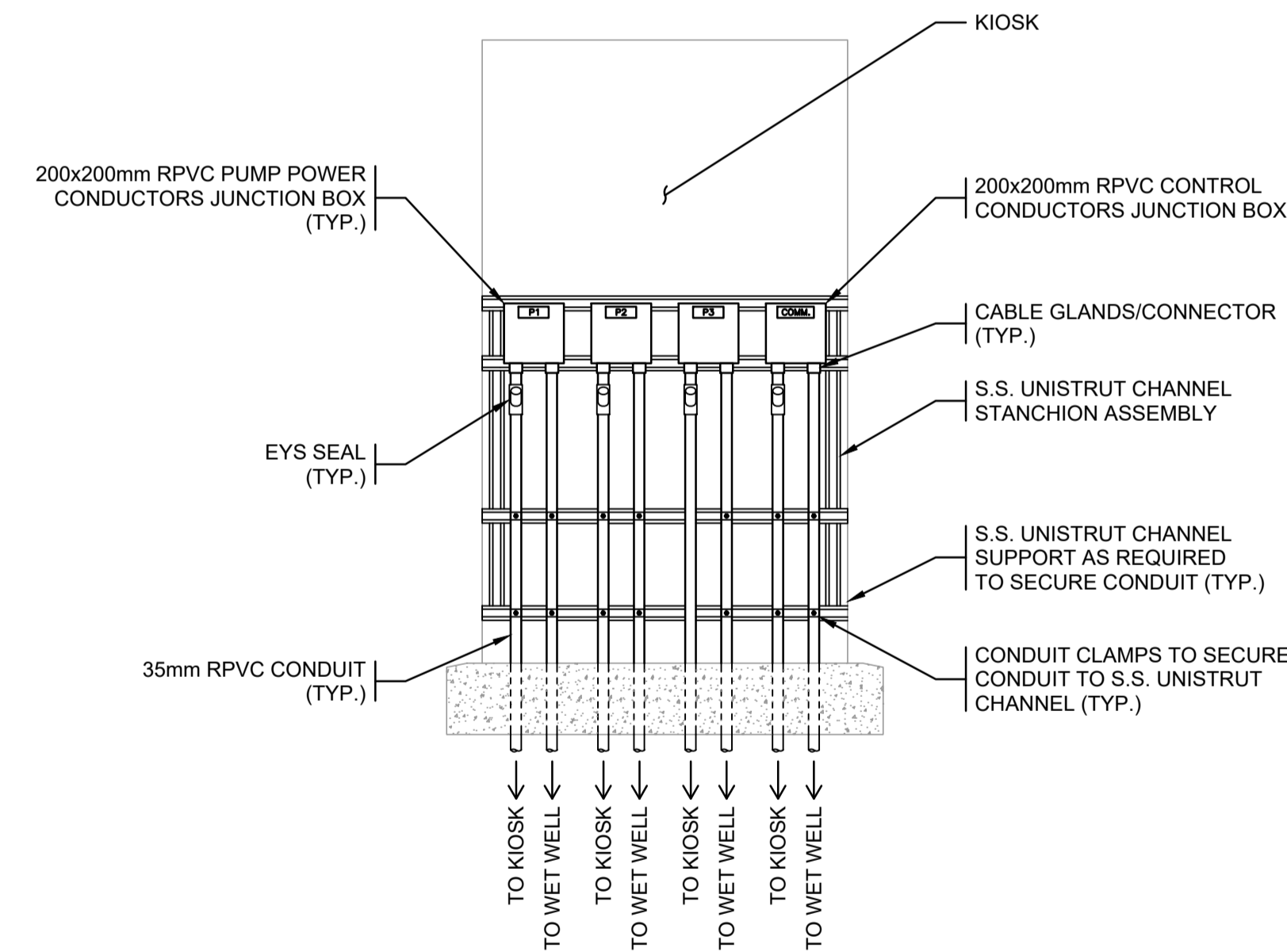
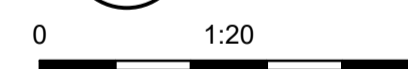
- KIOSK SHALL BE CSA TYPE 3R RATED. OUTER SHELL SHALL BE MARINE GRADE ALUMINIUM AND SHALL BE WELDED TO ROOF ASSEMBLY. EQUIPMENT MOUNTING PANEL MOUNTS AND BASE PLATES. KIOSK SHALL INCLUDE STRUCTURAL BRACING TO ACCOMMODATE TRANSPORTATION, WIND, SNOW AND ICE LOADING. KIOSK MANUFACTURER SHALL BE RESPONSIBLE FOR OBTAINING CERTIFICATION FROM APEGBC REGISTERED PROFESSIONAL ENGINEER. KIOSK MANUFACTURER SHALL INCLUDE ANCHOR REQUIREMENTS CONSIDERING WIND LOADING, SEISMIC LOADING, DEAD LOADS, AND SNOW LOADING.
- KIOSK DIMENSIONS ARE APPROXIMATE ONLY. KIOSK MANUFACTURER SHALL PRODUCE DETAILED SHOP DRAWINGS WHICH SHALL INCLUDE INTERNAL EQUIPMENT LAYOUTS FOR REVIEW BY ENGINEER PRIOR TO PRODUCTION. THE MANUFACTURER SHALL ENSURE THE KIOSK IS SIZED APPROPRIATELY TO HOUSE THE INTENDED EQUIPMENT.
- ALL LOUVERS SHALL HAVE BUG SCREENS. UPPER LOUVERS WITH FILTER AND 6" FAN MOUNTS. LOWER LOUVERS WITH FILTER AND VENT PLATE.
- KIOSK DOORS SHALL INCLUDE A GAS SPRING. ALL LATCHES SHALL BE 3-POINT LATCHING SYSTEM WITH PAD LOCKABLE HANDLES. DOOR HANDLES ARE STAINLESS STEEL AND PADLOCK-ABLE. DOUBLE PADLOCK HASP ON ELECTRICAL SIDE ONLY.
- KIOSK TO BE POWDER COATED. COLOUR CODE: MOSS GREEN PC114.
- ALL COMPARTMENTS SHALL HAVE REMOVABLE MOUNTING PANELS. ALL INTERIOR PANELS SHALL BE 10 GA. GALVANIZED POWDER COATED WHITE.
- ALL COUPLINGS BETWEEN THE COMPARTMENTS SHALL BE PLACED AND WELDED AT THE ENCLOSURE FABRICATION SHOP.
- KIOSK SUPPLIER TO PROVIDE CONDUIT STUB-UP TEMPLATE FOR USE BY INSTALLATION CONTRACTOR.
- PROVIDE 12mm THICK NEOPRENE CLOSED CELL GASKET BETWEEN KIOSK BASE AND CONCRETE PAD.
- 10 WET WELL CONFIGURATION TO BE CONFIRMED. CONDUIT MAY PASS DIRECTLY THROUGH WALL OF KIOSK TO ELECTRICAL SIDE WITHOUT GOING IN GROUND IF POSSIBLE.



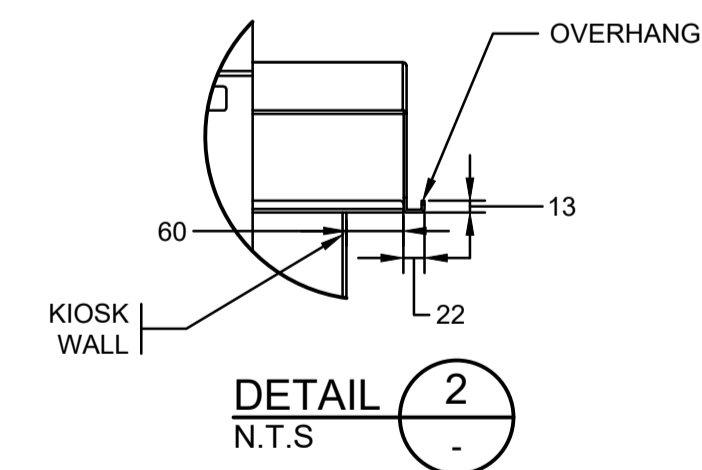
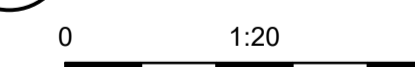
**ELEVATION A KIOSK - REAR VIEW**  
1:20



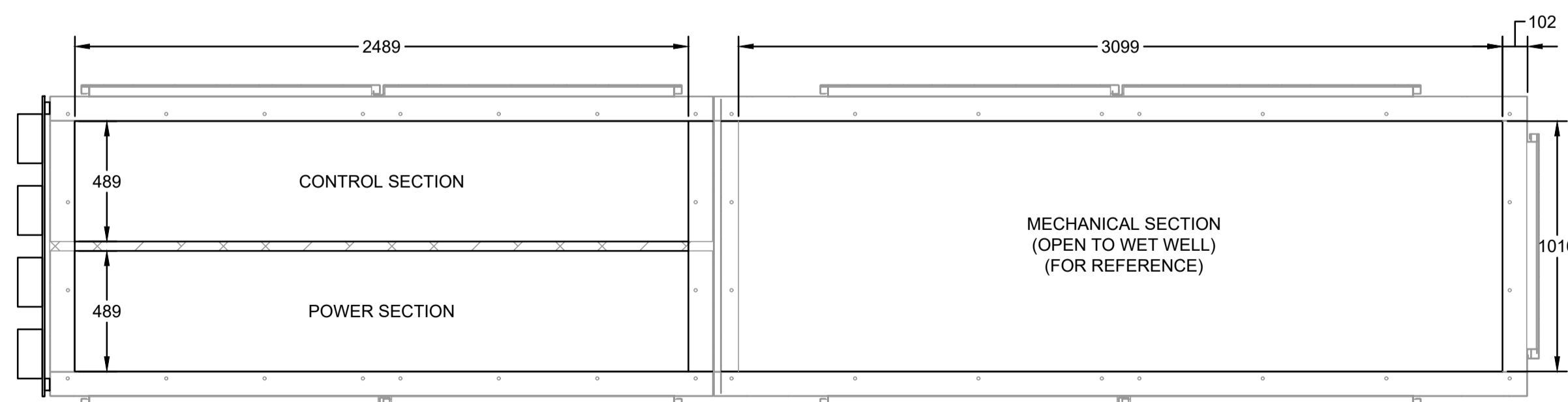
**ELEVATION B KIOSK - FRONT VIEW**  
1:20



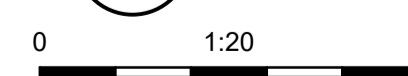
**ELEVATION C KIOSK EXTERIOR CONDUIT ENTRY**  
1:20



**DETAIL 2**  
N.T.S.



**SECTION A KIOSK - TOP VIEW**  
1:20



RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

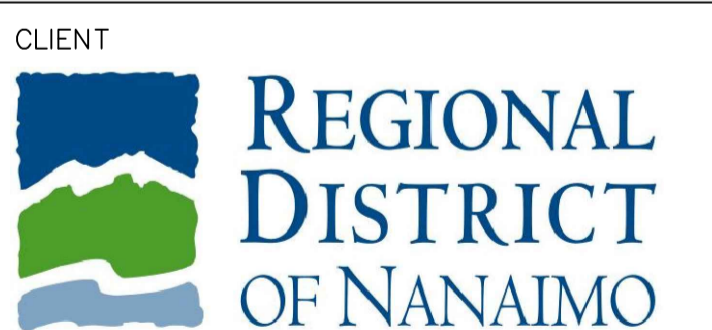
**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

RECORD OF ISSUE



PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**KIOSK (1 OF 3)**

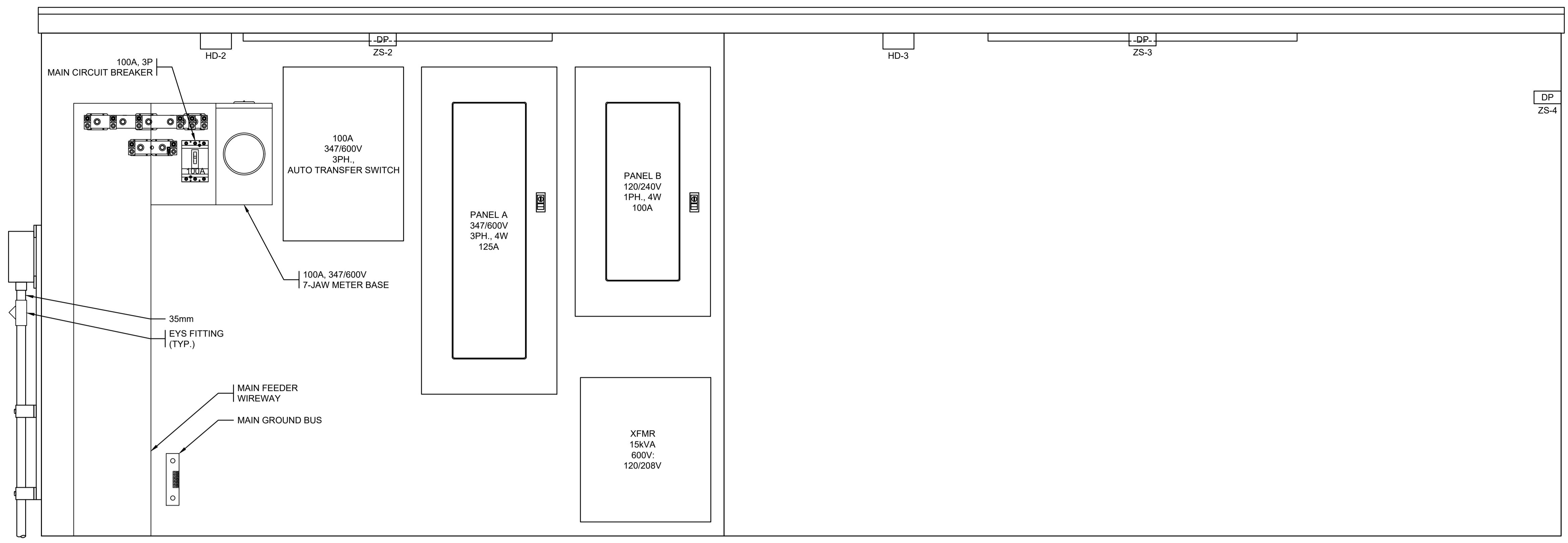
**Pump Station No. 6**

DRAWING No.	REV.	SHEET
2231-E-02	-	3/17

**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

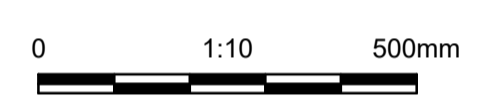
**ISSUED FOR TENDER NOT FOR CONSTRUCTION**



POWER SECTION

MECHANICAL SECTION

DETAIL 1 POWER & MECHANICAL LAYOUT  
1:10



RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

RECORD OF ISSUE



PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN

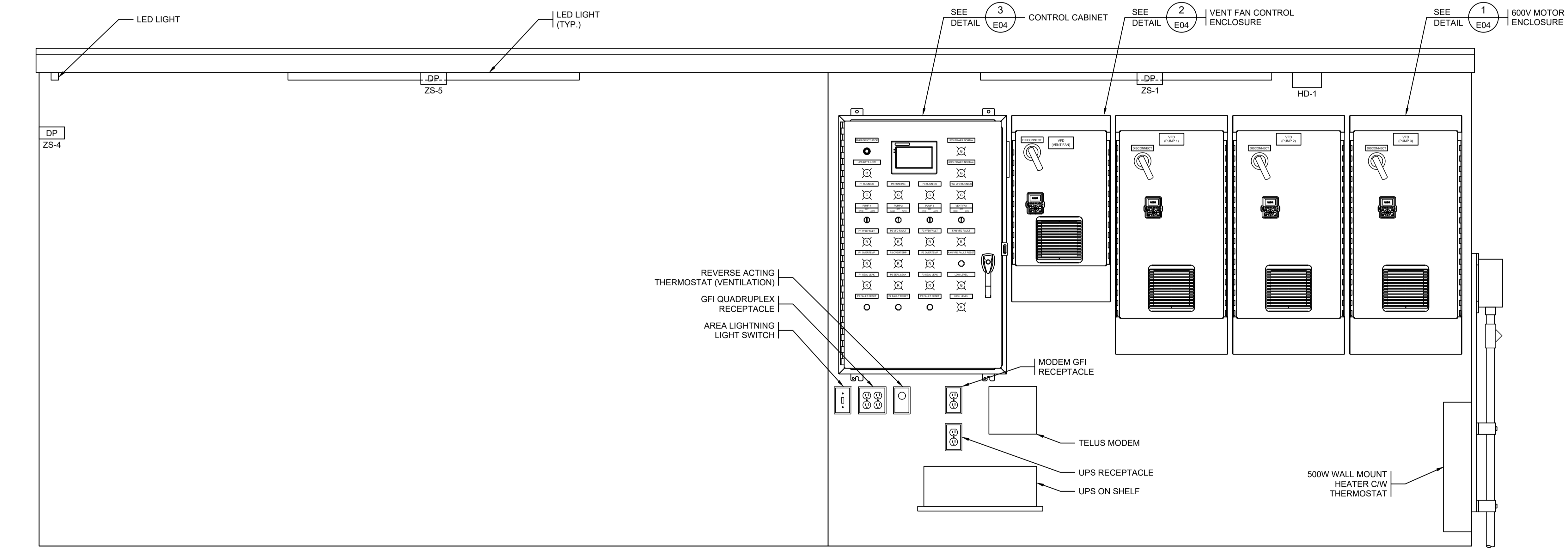


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**KIOSK (2 OF 3)**

Pump Station No. 6

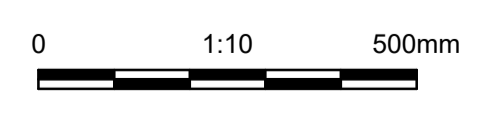
DRAWING No.	REV.	SHEET
2231-E-03	-	4/17



MECHANICAL SECTION

CONTROLS SECTION

DETAIL 2 CONTROL & MECHANICAL LAYOUT  
1:10



**NOTES:**

- CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. INTERIOR AND EXTERIOR PANEL LAYOUTS AND WIRING DIAGRAMS TO BE PROVIDED AS PART OF THE SUBMISSION. REFER TO SPECIFICATIONS FOR SPECIFIC LAYOUT DETAILS AND EQUIPMENT REQUIREMENTS.

**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

SEAL

RECORD OF ISSUE

PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN

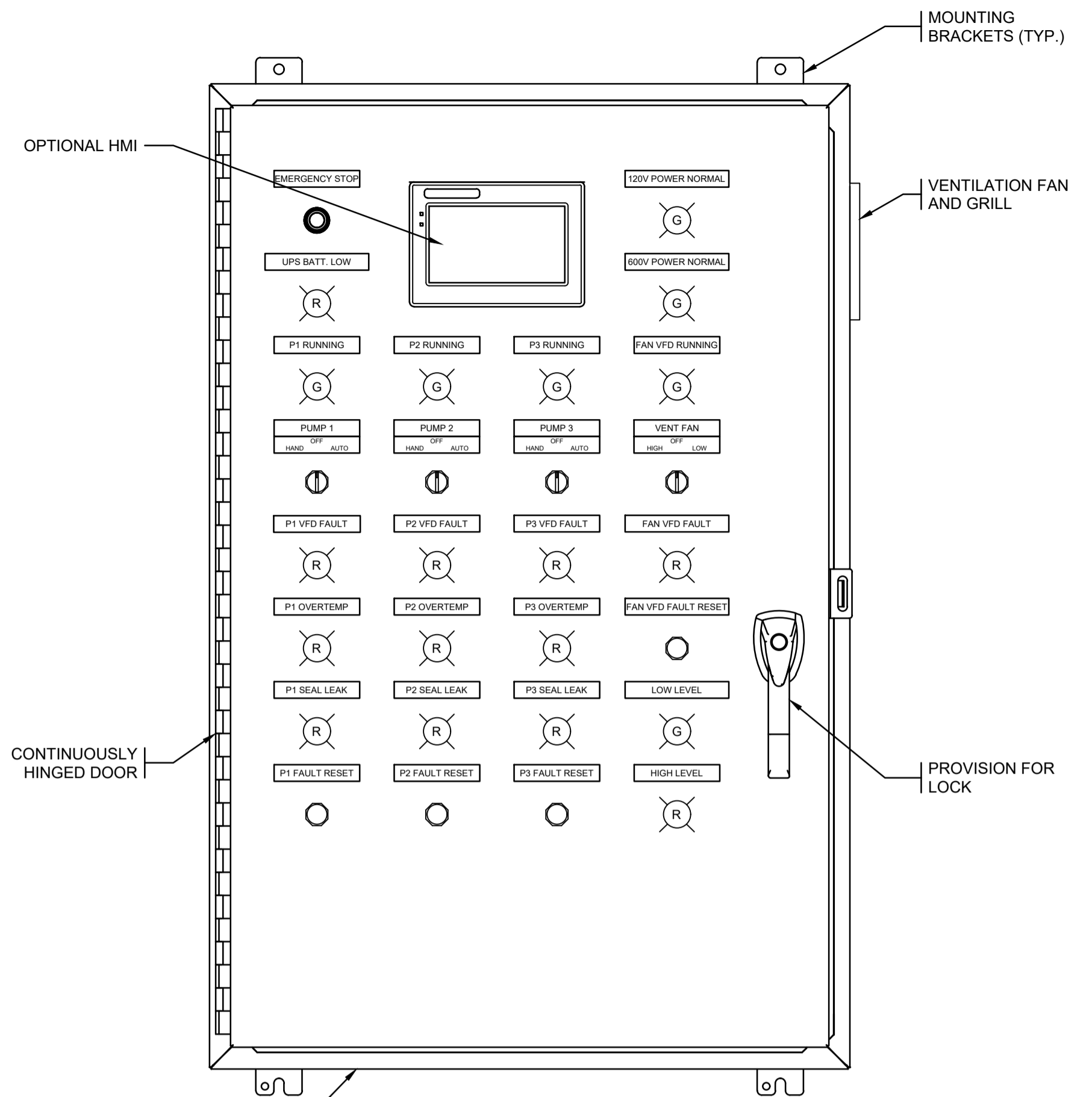


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**KIOSK (3 OF 3)**

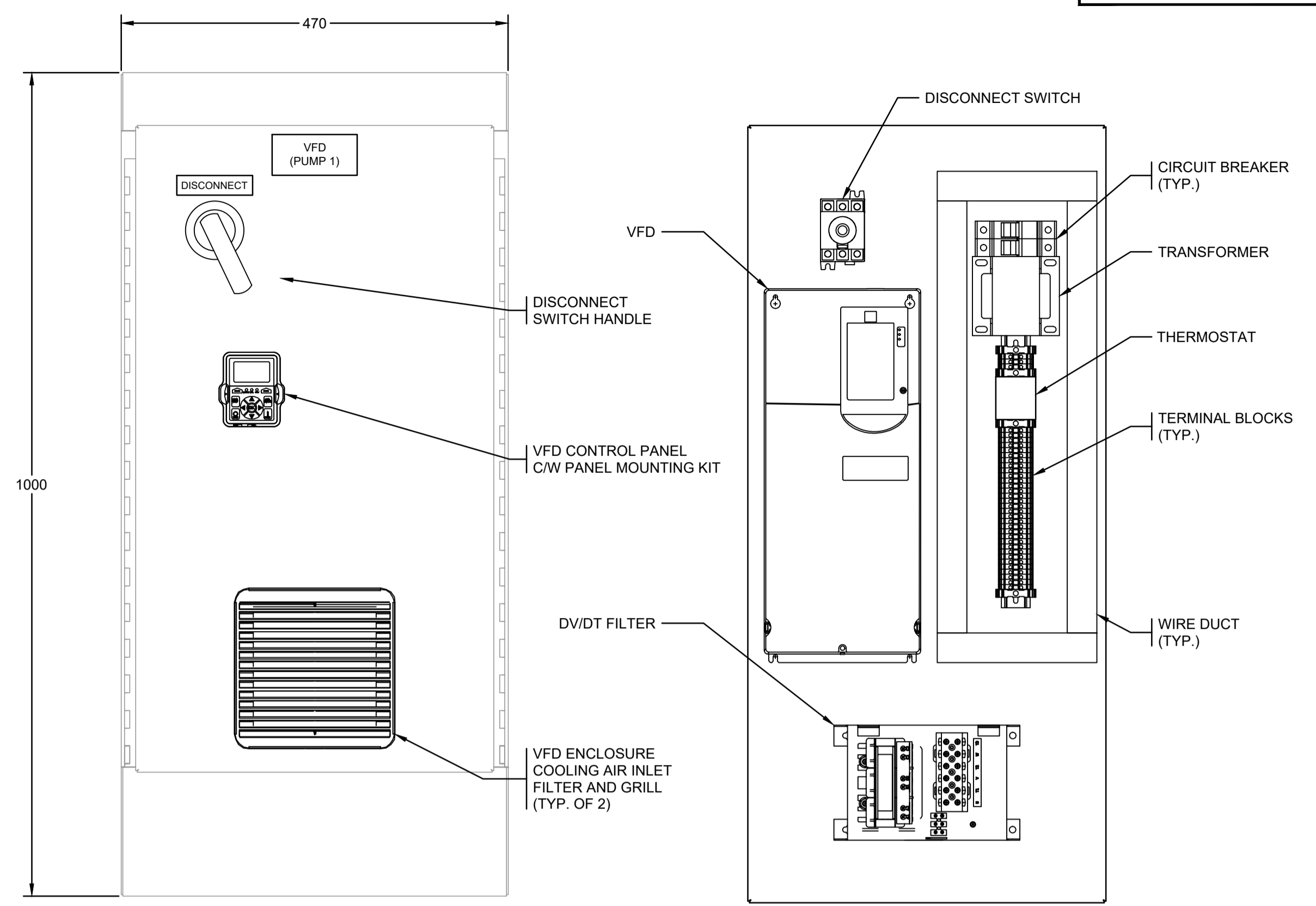
**Pump Station No. 6**

DRAWING No.	2231-E-04	REV.	-	SHEET	5/17
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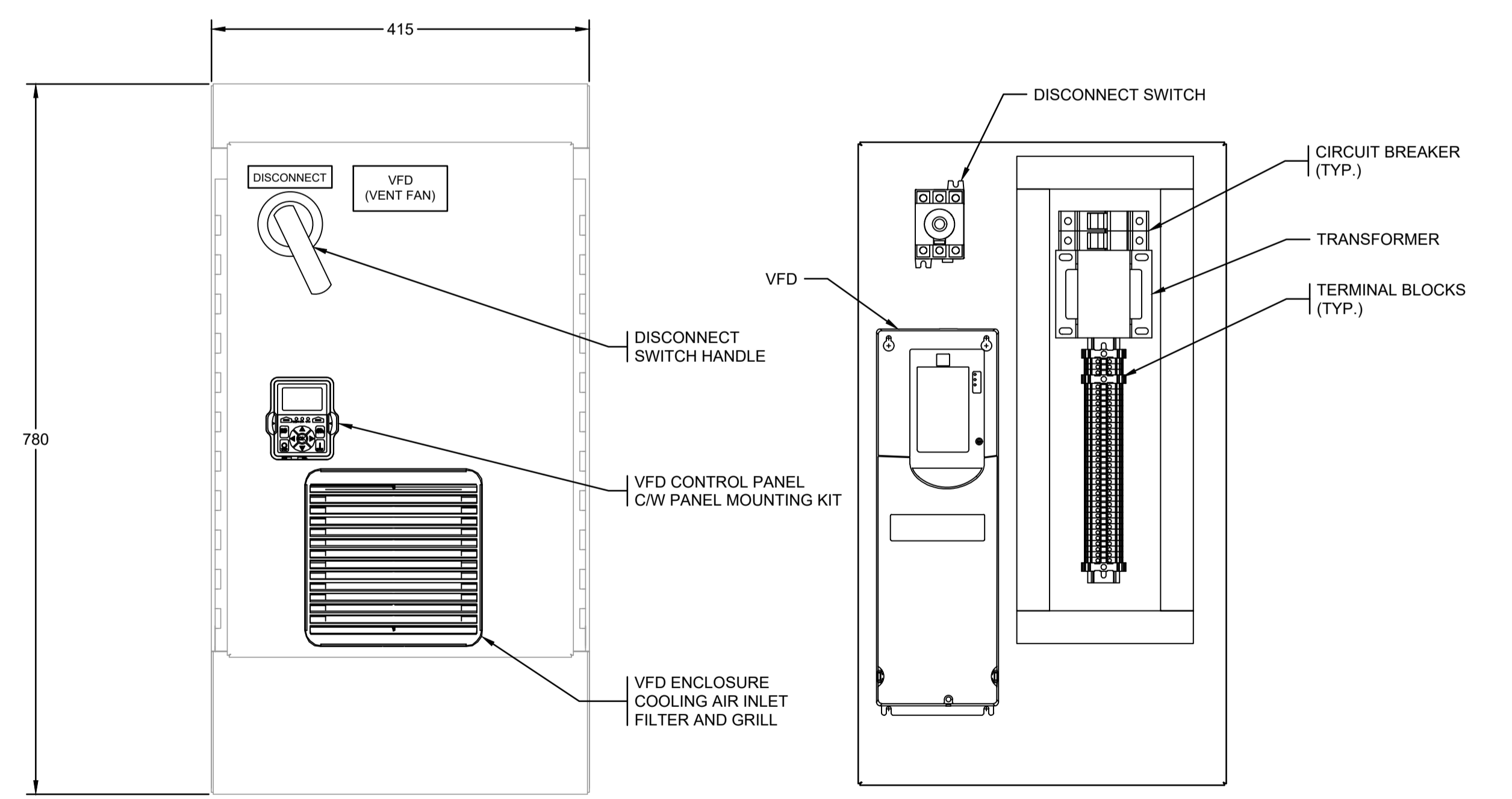
NEMA TYPE 12 RATED ENCLOSURE  
POWDER COATED (ANSI 61) GREY.  
BACK PANEL SHALL BE 12GA.  
GALVANIZED, POWDER COATED WHITE.  
(SEE NOTE 1)

**DETAIL 3 CONTROLS CABINET - FRONT PANEL**  
1:5



**FRONT LAYOUT INSIDE LAYOUT**

**DETAIL 1 600V MOTOR CONTROL ENCLOSURE**  
1:5



**FRONT LAYOUT INSIDE LAYOUT**

**DETAIL 2 VENT. FAN CONTROL ENCLOSURE**  
1:5

**NOTES:**

- CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. INTERIOR AND EXTERIOR PANEL LAYOUTS AND WIRING DIAGRAMS TO BE PROVIDED AS PART OF THE SUBMISSION. REFER TO SPECIFICATIONS FOR SPECIFIC LAYOUT DETAILS AND EQUIPMENT REQUIREMENTS.

**FUNCTIONAL DESIGN ONLY**  
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ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED  
UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER  
NOT FOR CONSTRUCTION**

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION
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-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE
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ISS	DATE	BY	ENG	DESCRIPTION
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RECORD OF ISSUE

SEAL  
PROFESSIONAL ENGINEER  
2023-03-08

PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN

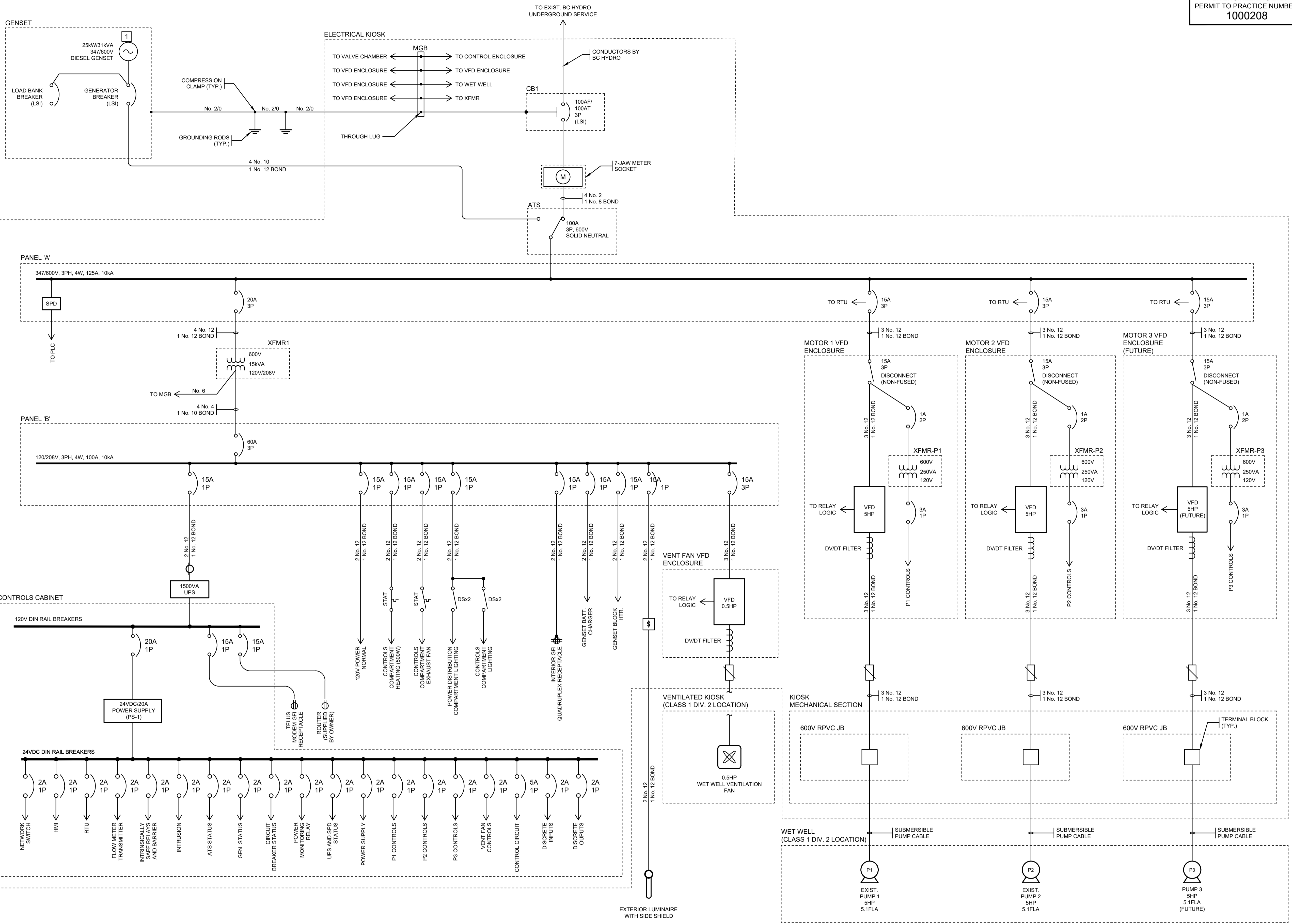


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**POWER DISTRIBUTION – SINGLE LINE DIAGRAM**

Pump Station No. 6

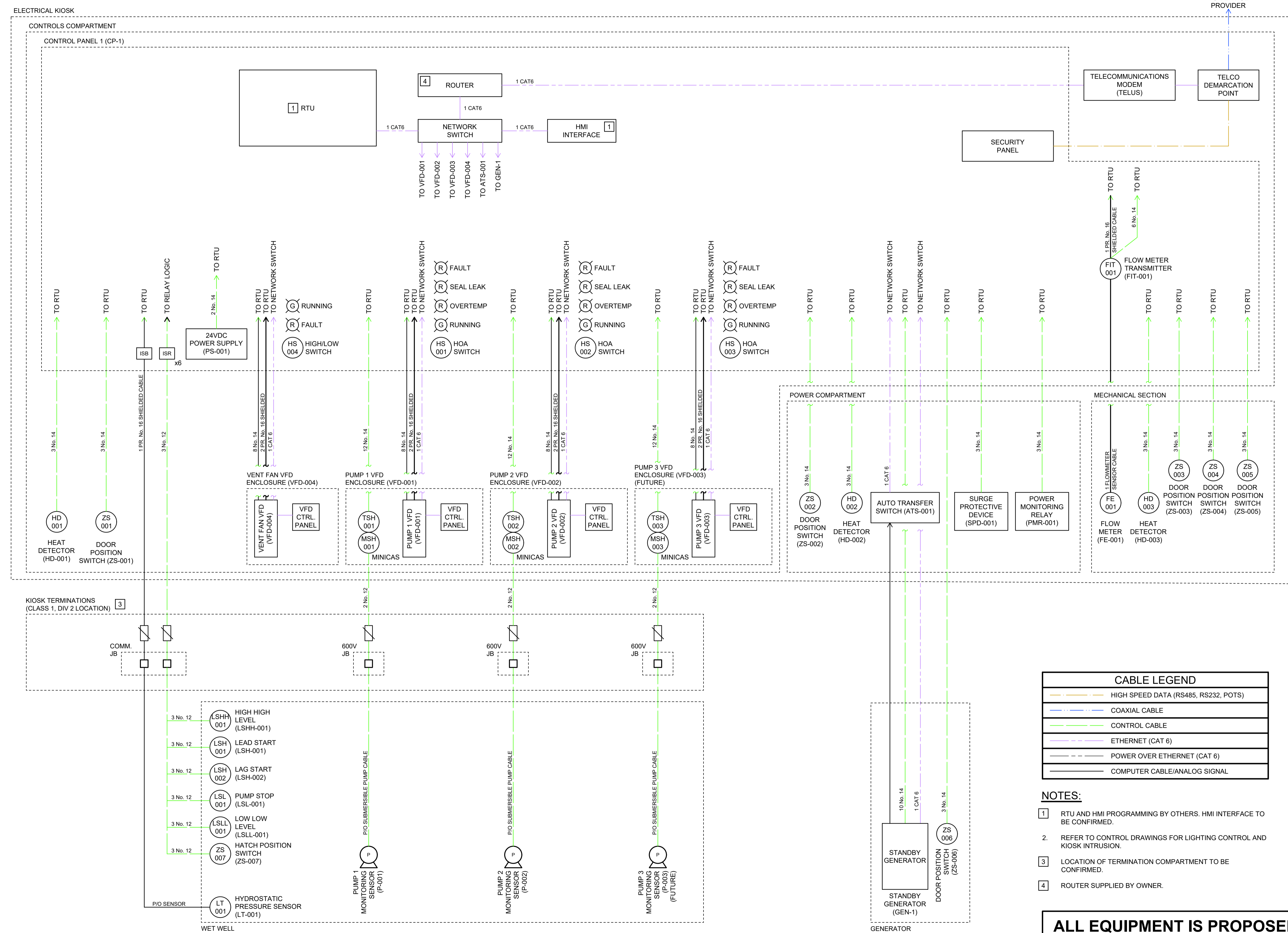
DRAWING No.	2231-E-05	REV.	-	SHEET	6/17
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**NOTES:**  
[ 1 ] EXISTING GENERATOR TO BE RE-USED THROUGHOUT CONSTRUCTION AND UNTIL NEW GENERATOR HAS BEEN DELIVERED TO SITE.

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**



RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISSUE RECORD

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE



PROJECT INFORMATION

PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**COMMUNICATION AND INSTRUMENTATION BLOCK DIAGRAM**  
Pump Station No. 6

DRAWING No.	2231-E-06	REV.	-	SHEET	7/17
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**CABLE LEGEND**

	HIGH SPEED DATA (RS485, RS232, POTS)
	COAXIAL CABLE
	CONTROL CABLE
	ETHERNET (CAT 6)
	POWER OVER ETHERNET (CAT 6)
	COMPUTER CABLE/ANALOG SIGNAL

- NOTES:**
- RTU AND HMI PROGRAMMING BY OTHERS. HMI INTERFACE TO BE CONFIRMED.
  - REFER TO CONTROL DRAWINGS FOR LIGHTING CONTROL AND KIOSK INTRUSION.
  - LOCATION OF TERMINATION COMPARTMENT TO BE CONFIRMED.
  - ROUTER SUPPLIED BY OWNER.

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**

File: 2231-E-06 COMMUNICATION AND INSTRUMENTATION BLOCK DIAGRAM.dwg Plot Time: Mar 08, 2023 - 12:05pm User: logan.mahard



RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION
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REV	DATE	BY	ENG	DESCRIPTION
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**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
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RECORD OF ISSUE



PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN

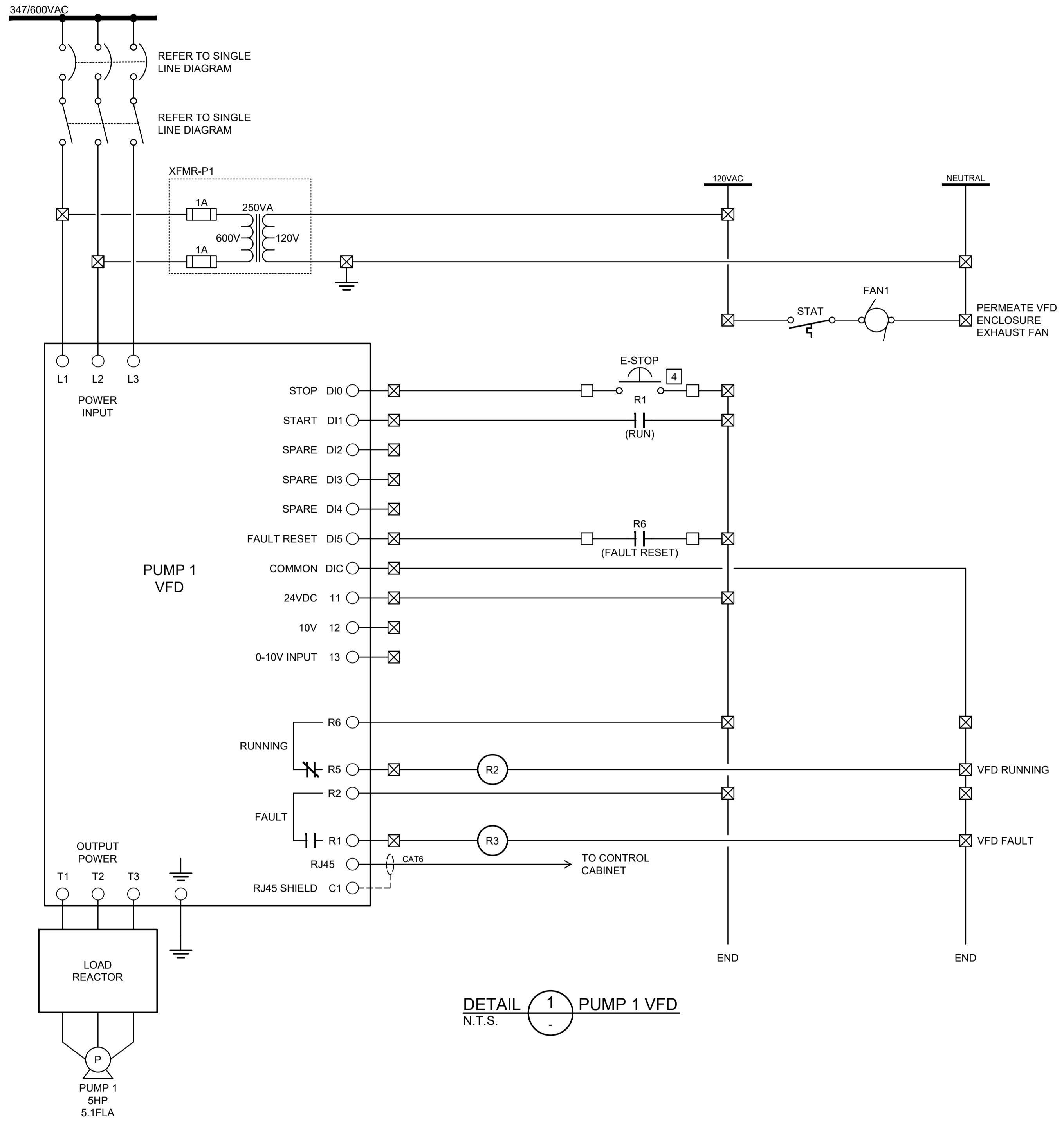


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**CONTROLS (1 OF 7)**

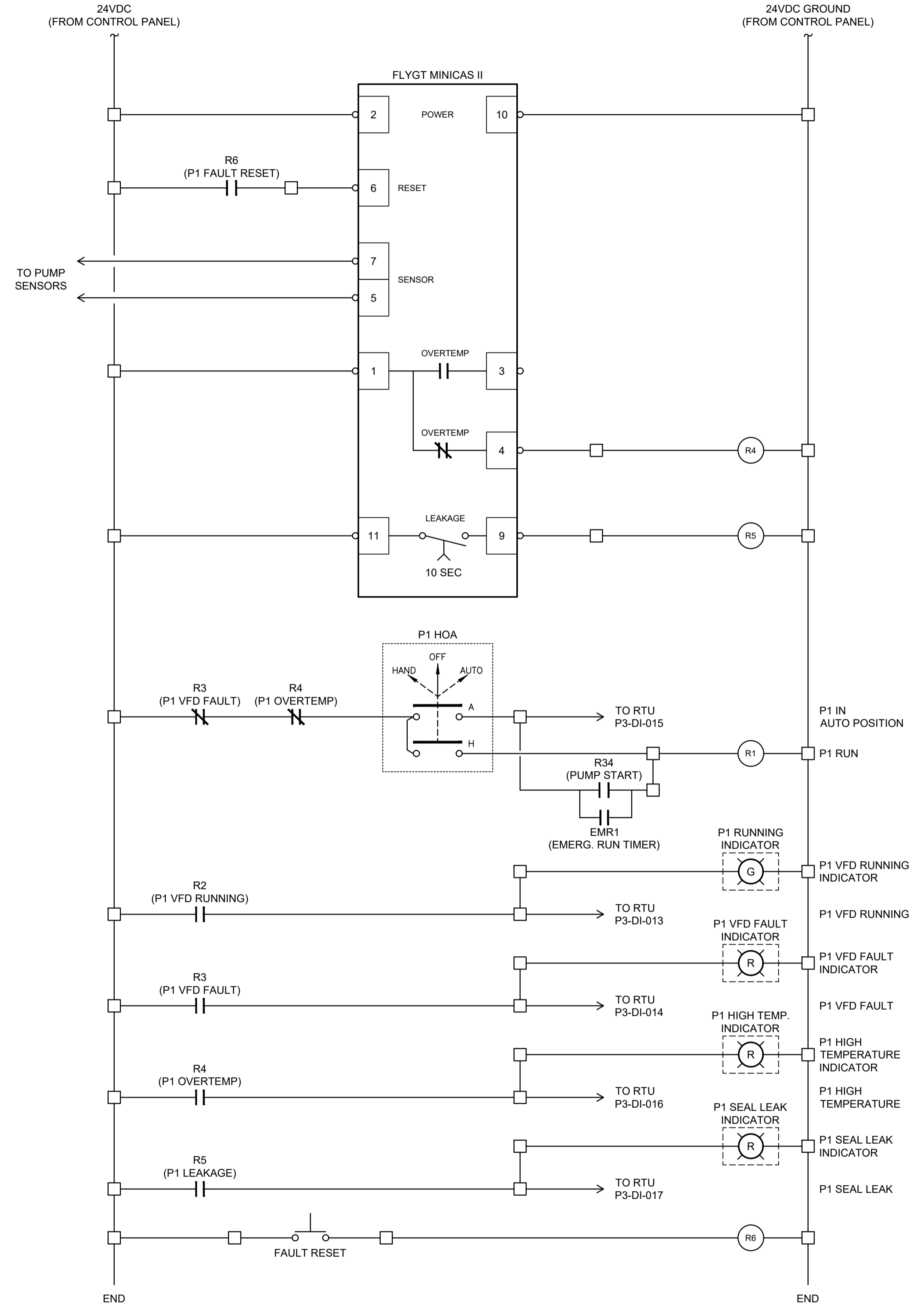
**Pump Station No. 6**

DRAWING No.	REV.	SHEET
2231-E-07	-	8/17



**DETAIL 1 PUMP 1 VFD**  
N.T.S.

- NOTES:**
- INTERNAL CABINET WIRING SHALL BE TEW (TINNED), No. 14 FOR 120VAC CIRCUITS, AND No. 18 FOR 24VDC CIRCUITS. UNLESS NOTED OTHERWISE.
  - CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. INTERIOR AND EXTERIOR PANEL LAYOUTS AND WIRING DIAGRAMS TO BE PROVIDED AS PART OF THE SUBMISSION. REFER TO SPECIFICATIONS FOR SPECIFIC LAYOUT DETAILS AND EQUIPMENT REQUIREMENTS.
  - FERRULES SHALL BE USED ON CONTROL CABLING TERMINATIONS.
  - E-STOP IS PART OF 3-POLE SWITCH LOCATED ON CONTROL PANEL.
  - INCLUDE ALLEN BRADLEY POWERFLEX MODEL 20-750-2262C-2R (24 VOLT DC) I/O MODULE.



**TERMINAL BLOCK LEGEND**

■	INTRINSICALLY SAFE BARRIER ENCLOSURE
□	CONTROL CABINET
⊕	JUNCTION BOX
⊗	VFD ENCLOSURE

**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

RECORD OF ISSUE

SEAL

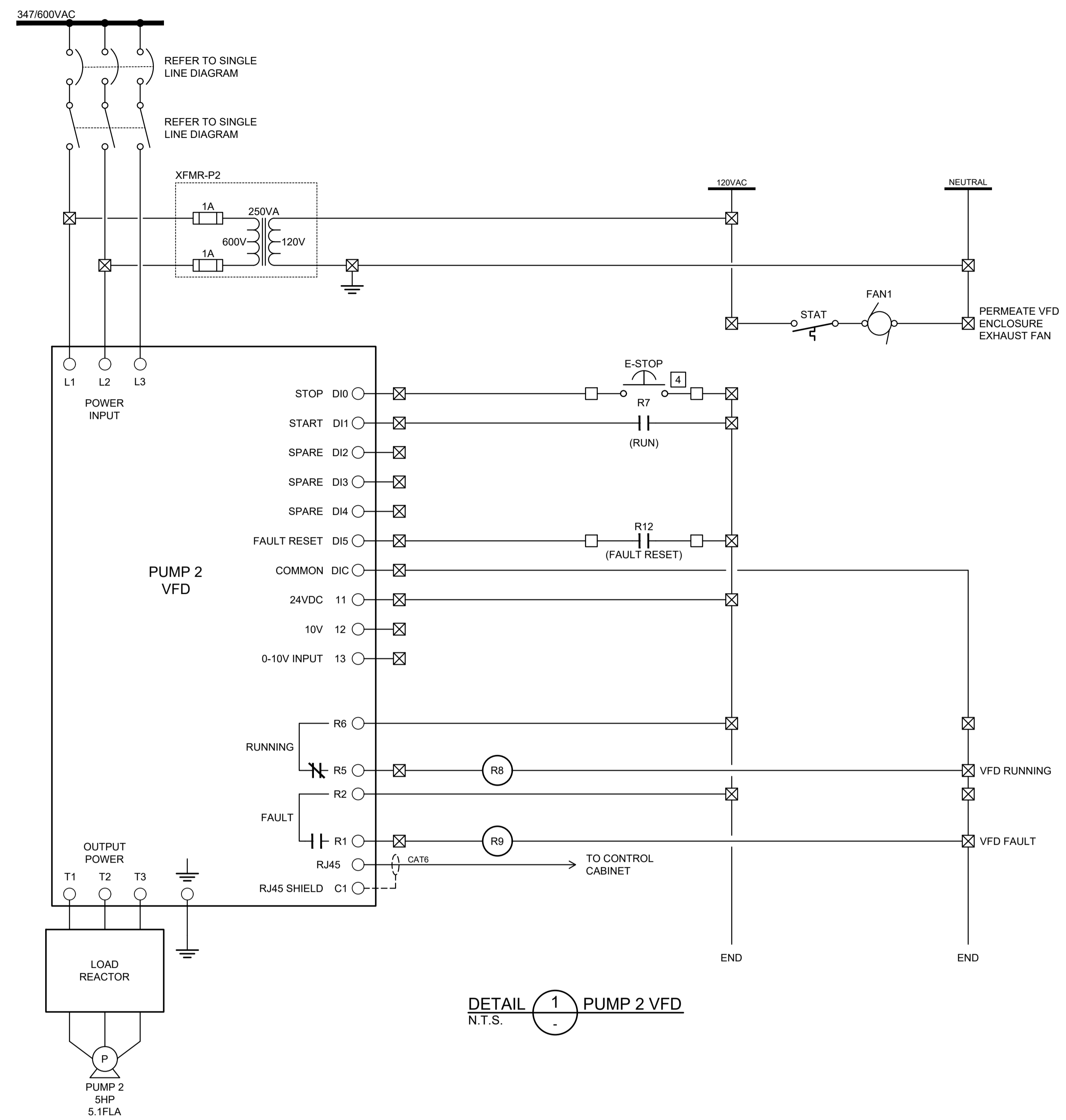
PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



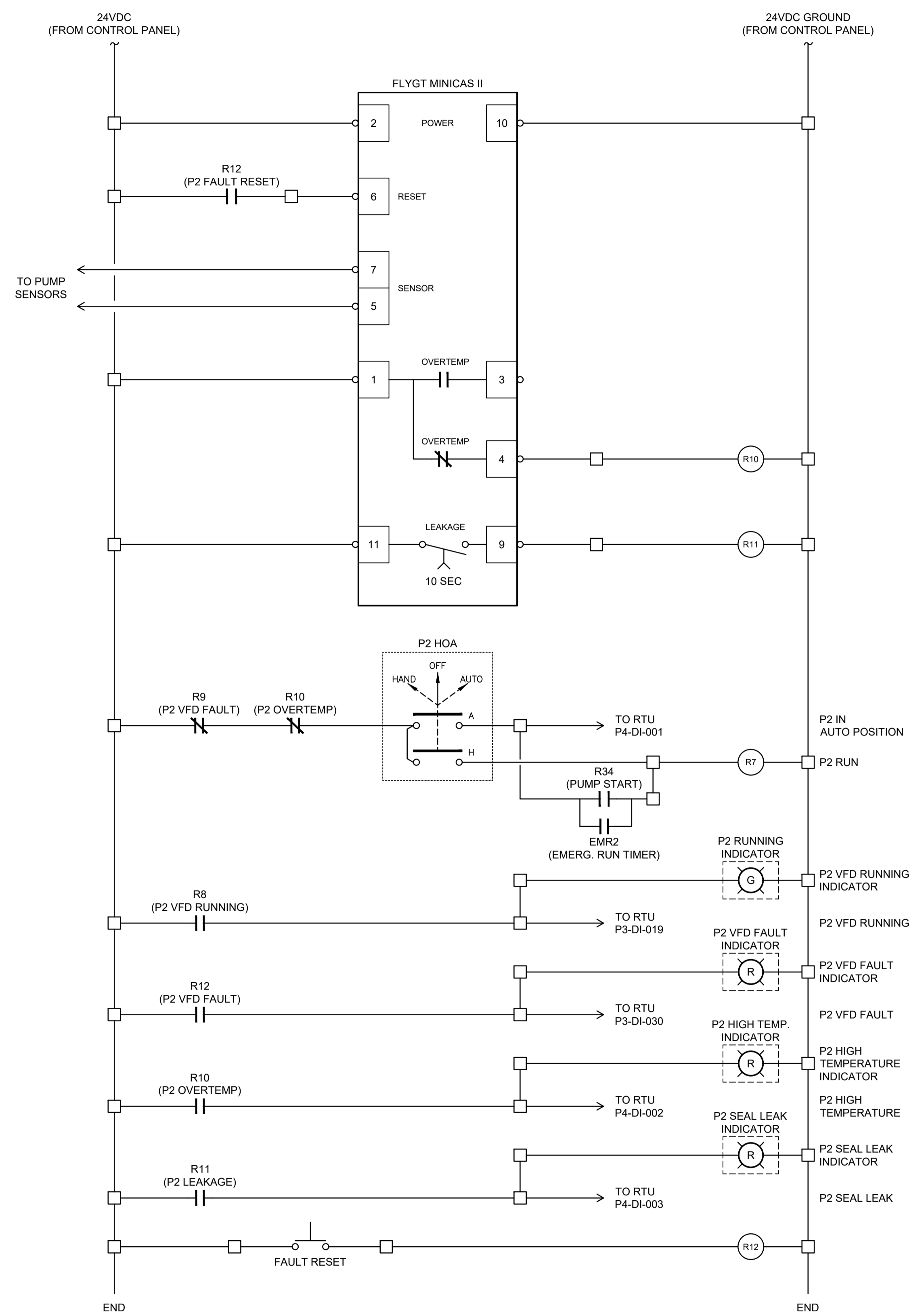
PROJECT

**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE	CONTROLS (2 OF 7)	
TITLE	Pump Station No. 6	
DRAWING No.	REV.	SHEET
2231-E-08	-	9/17



DETAIL 1 PUMP 2 VFD  
N.T.S.



- NOTES:**
- INTERNAL CABINET WIRING SHALL BE TEW (TINNED), No. 14 FOR 120VAC CIRCUITS, AND No. 18 FOR 24VDC CIRCUITS. UNLESS NOTED OTHERWISE.
  - CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. INTERIOR AND EXTERIOR PANEL LAYOUTS AND WIRING DIAGRAMS TO BE PROVIDED AS PART OF THE SUBMISSION. REFER TO SPECIFICATIONS FOR SPECIFIC LAYOUT DETAILS AND EQUIPMENT REQUIREMENTS.
  - FERRULES SHALL BE USED ON CONTROL CABLING TERMINATIONS.
  - E-STOP IS PART OF 3-POLE SWITCH LOCATED ON CONTROL PANEL.
  - INCLUDE ALLEN BRADLEY POWERFLEX MODEL 20-750-2262C-2R (24 VOLT DC) I/O MODULE.

**TERMINAL BLOCK LEGEND**

■	INTRINSICALLY SAFE BARRIER ENCLOSURE
□	CONTROL CABINET
⊕	JUNCTION BOX
⊗	VFD ENCLOSURE

**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**

RECORD OF REVISIONS				
REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

SEAL

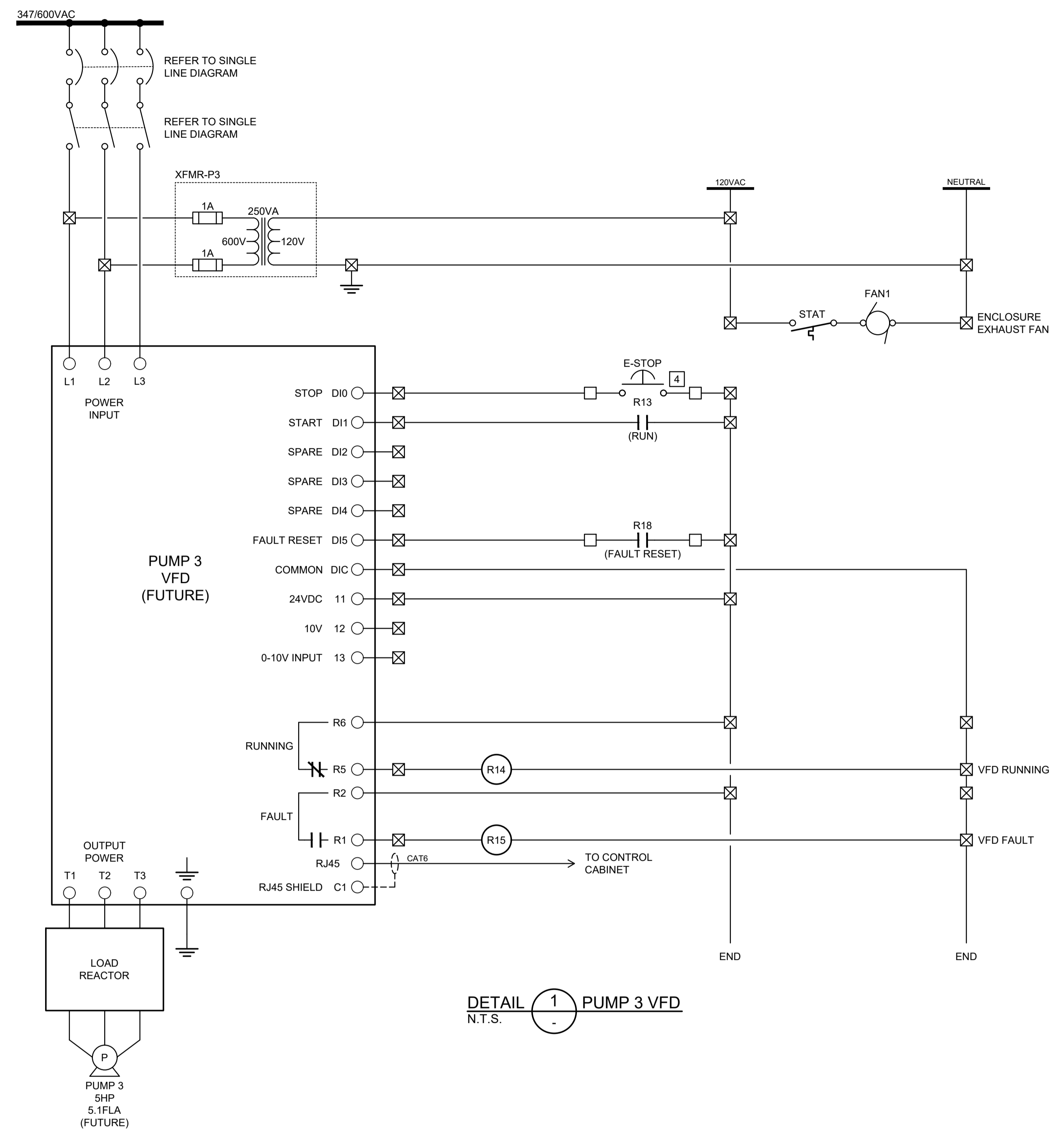
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DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

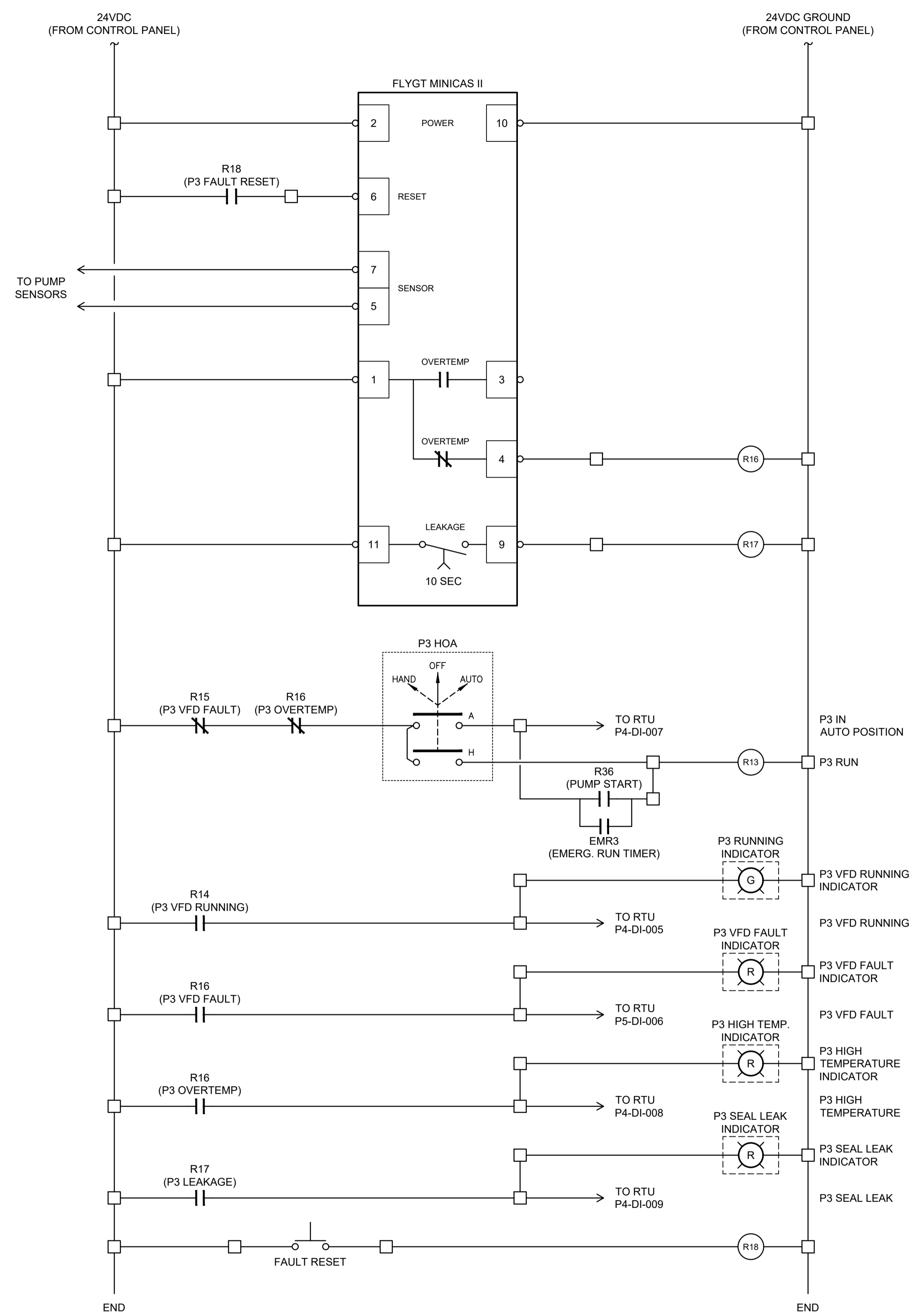
TITLE  
**CONTROLS (3 OF 7)**  
Pump Station No. 6

DRAWING No.	2231-E-09	REV.	-	SHEET	10/17
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**DETAIL 1 PUMP 3 VFD**  
N.T.S.

- NOTES:**
- INTERNAL CABINET WIRING SHALL BE TEW (TINNED), No. 14 FOR 120VAC CIRCUITS, AND No. 18 FOR 24VDC CIRCUITS. UNLESS NOTED OTHERWISE.
  - CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. INTERIOR AND EXTERIOR PANEL LAYOUTS AND WIRING DIAGRAMS TO BE PROVIDED AS PART OF THE SUBMISSION. REFER TO SPECIFICATIONS FOR SPECIFIC LAYOUT DETAILS AND EQUIPMENT REQUIREMENTS.
  - FERRULES SHALL BE USED ON CONTROL CABLING TERMINATIONS.
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  - INCLUDE ALLEN BRADLEY POWERFLEX MODEL 20-750-2262C-2R (24 VOLT DC) I/O MODULE.



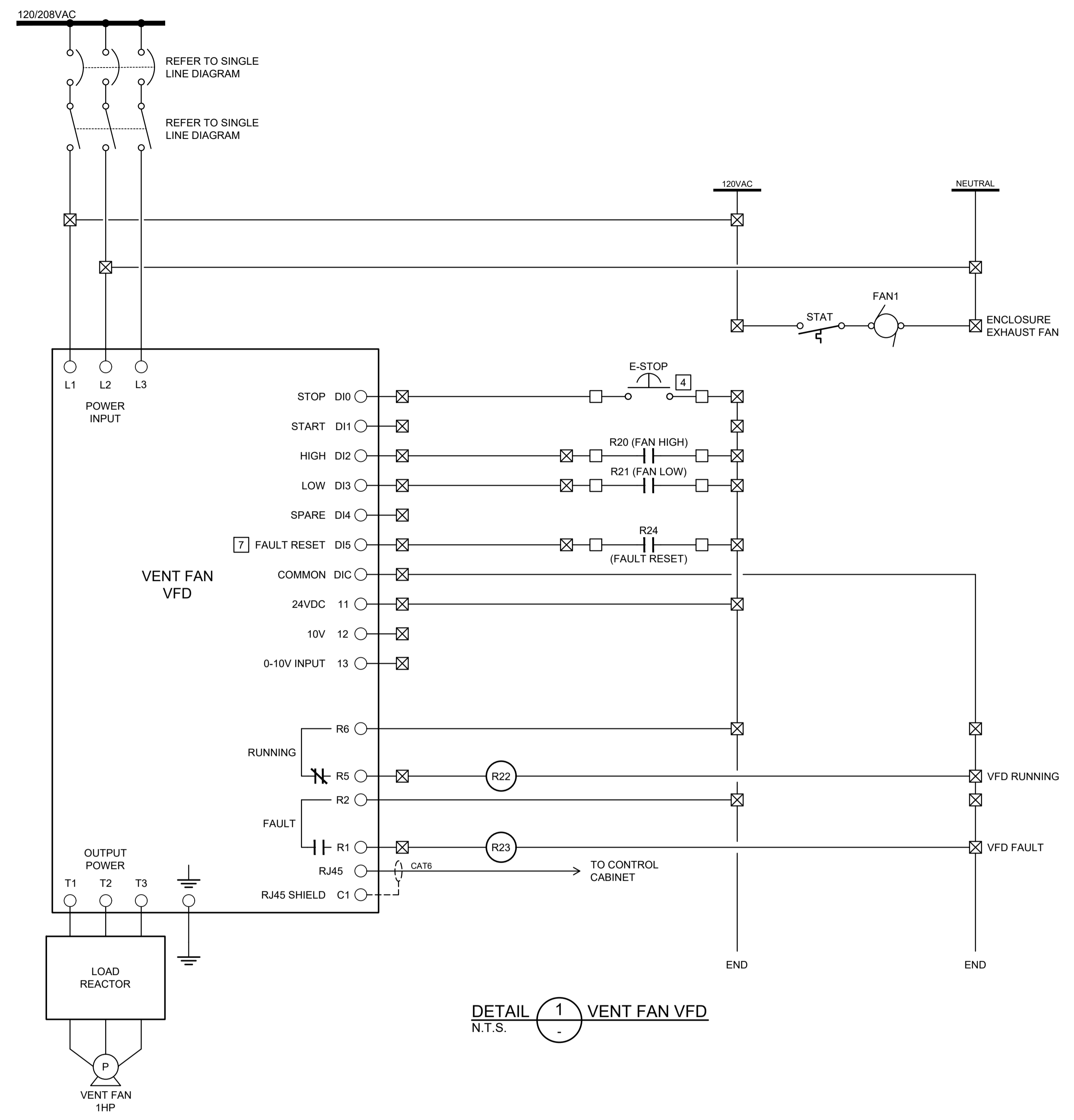
**TERMINAL BLOCK LEGEND**

■	INTRINSICALLY SAFE BARRIER ENCLOSURE
□	CONTROL CABINET
⊕	JUNCTION BOX
⊗	VFD ENCLOSURE

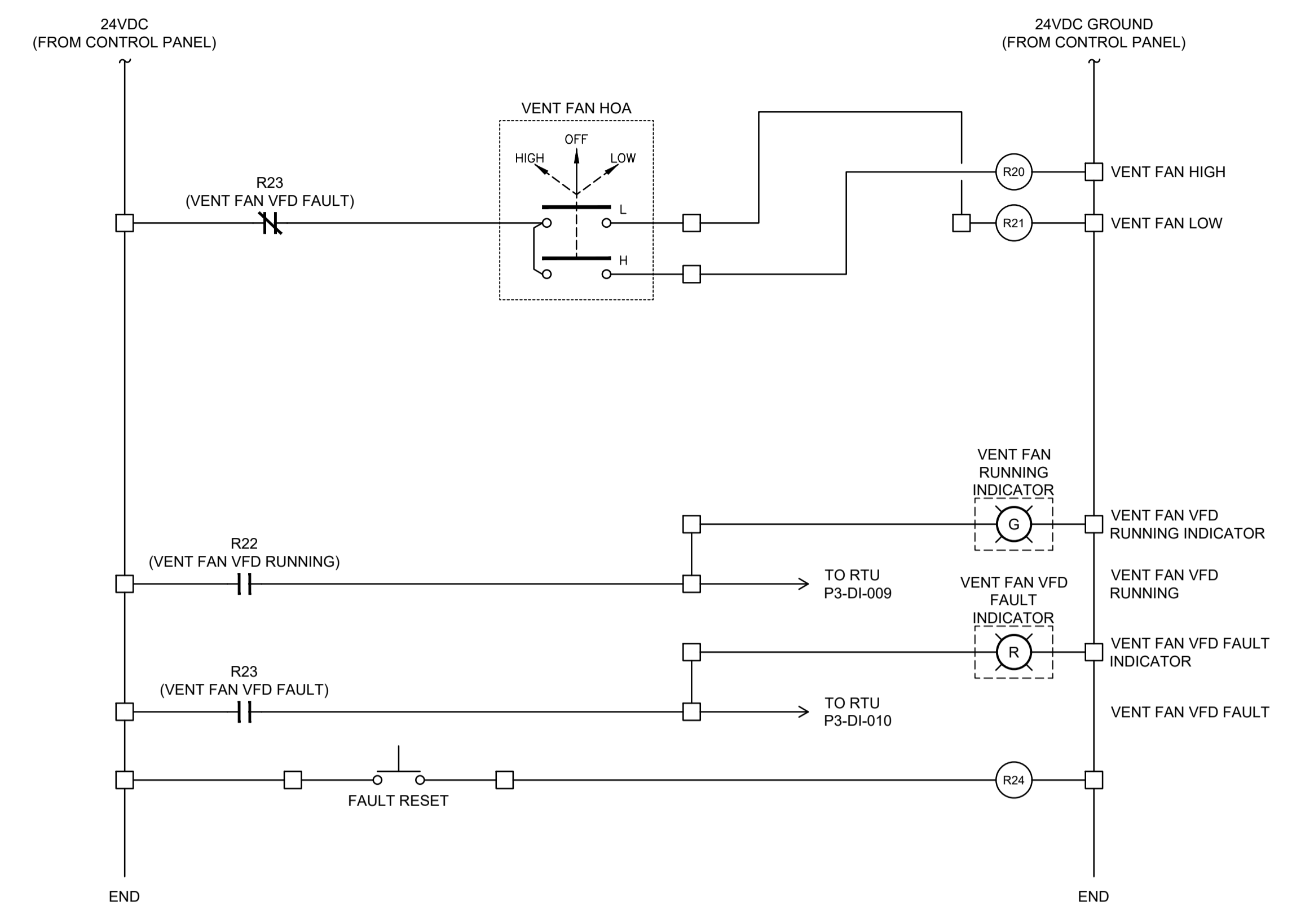
**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**



DETAIL 1 VENT FAN VFD  
N.T.S.



- NOTES:**
- INTERNAL CABINET WIRING SHALL BE TEW (TINNED), No. 14 FOR 120VAC CIRCUITS, AND No. 18 FOR 24VDC CIRCUITS. UNLESS NOTED OTHERWISE.
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  - FERRULES SHALL BE USED ON CONTROL CABLING TERMINATIONS.
  - E-STOP IS PART OF 3-POLE SWITCH LOCATED ON CONTROL PANEL.
  - INCLUDE ALLEN BRADLEY POWERFLEX MODEL 20-750-2262C-2R (24 VOLT DC) I/O MODULE.

**TERMINAL BLOCK LEGEND**

	INTRINSICALLY SAFE BARRIER ENCLOSURE
	CONTROL CABINET
	JUNCTION BOX
	VFD ENCLOSURE

**FUNCTIONAL DESIGN ONLY**  
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RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

RECORD OF ISSUE

SEAL  
PROFESSIONAL ENGINEER  
M. J. [Signature]  
54822  
2023-03-08

PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN

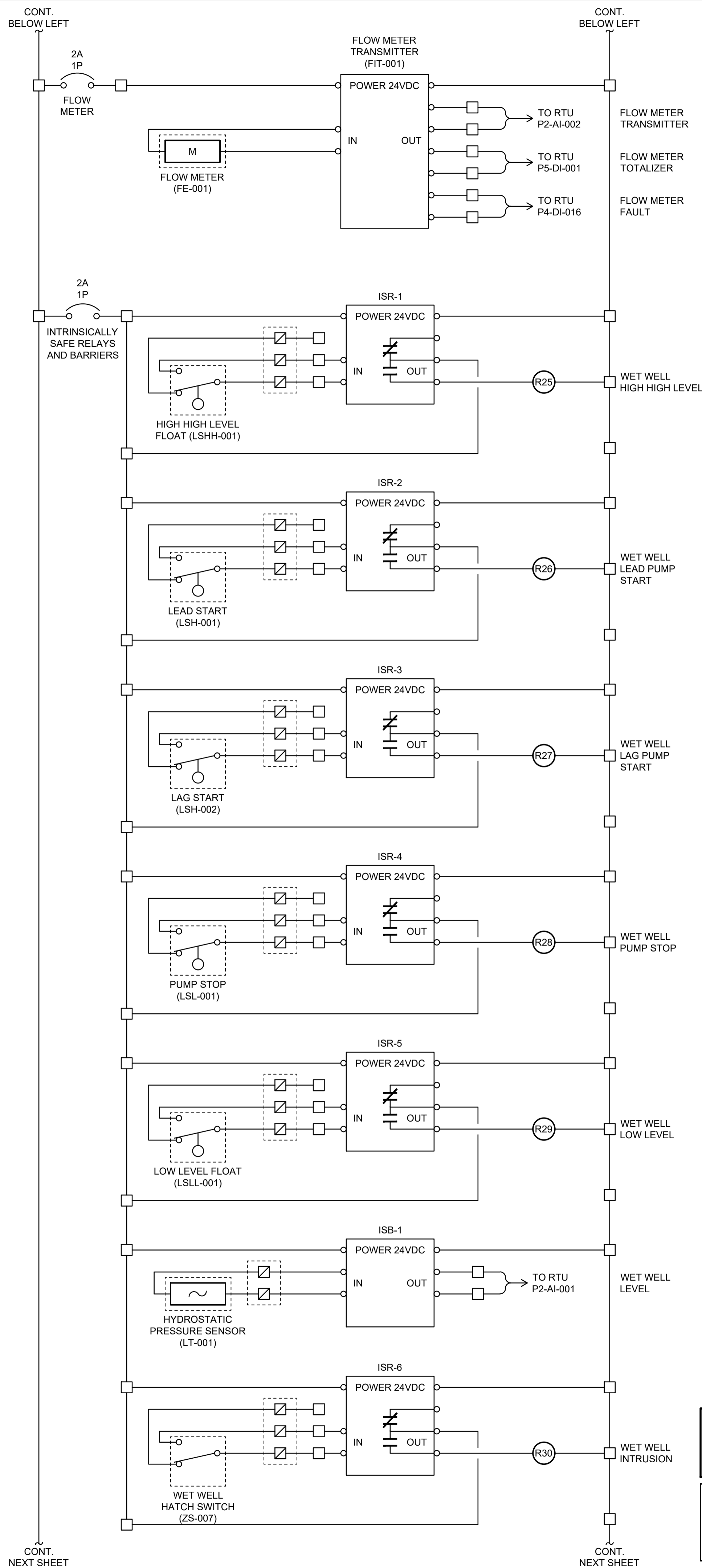
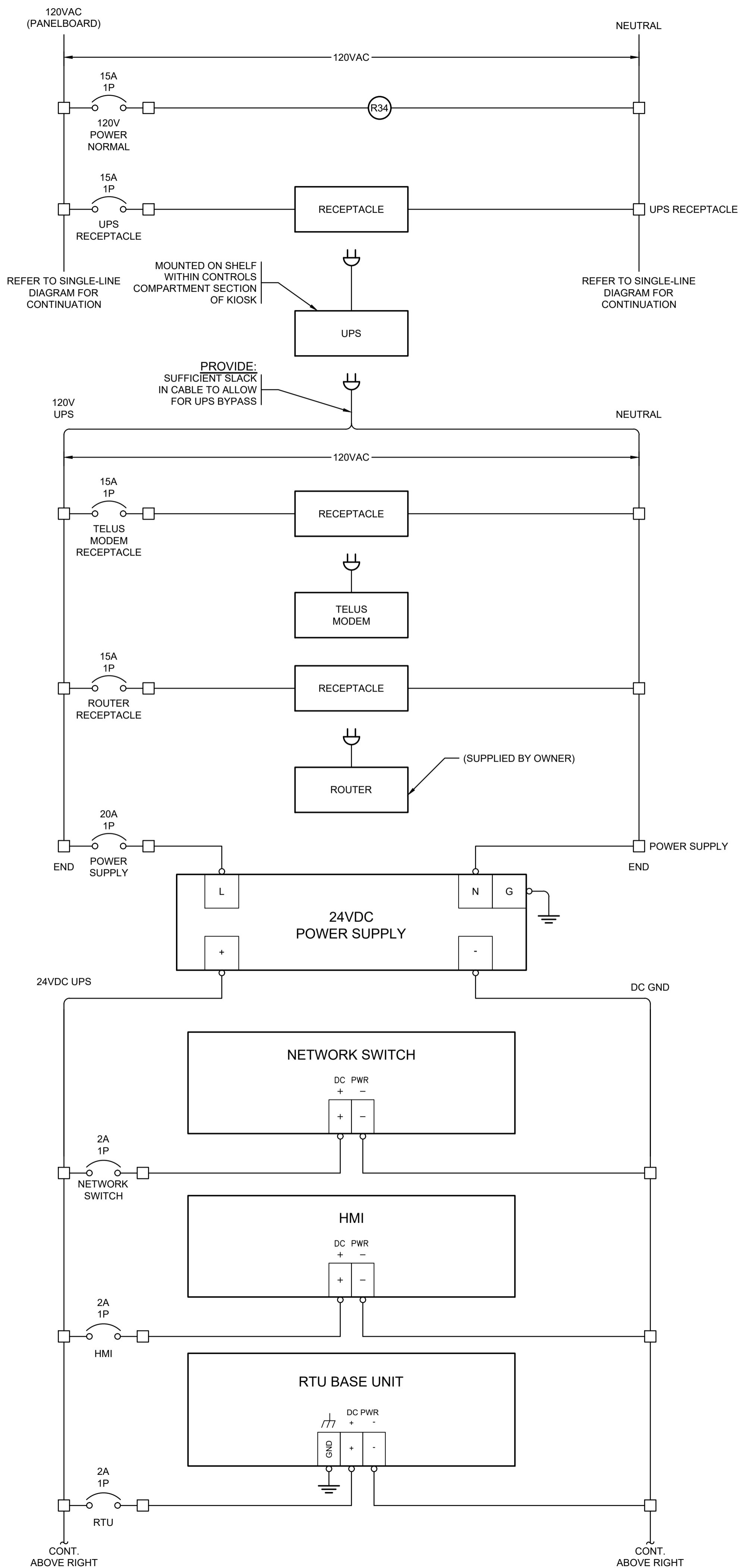


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**CONTROLS (4 OF 7)**

**Pump Station No. 6**

DRAWING No.	2231-E-10	REV.	-	SHEET	11/17
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PBX ENGINEERING LTD.  
PERMIT TO PRACTICE NUMBER:  
1000208

**KOERS & ASSOCIATES ENGINEERING LTD.**  
Consulting Engineers  
P.O. Box 790, 194 Memorial Ave.  
Parksville, BC V9P 2G8  
Ph: 250-248-3151  
Fax: 250-248-5362  
www.koers-eng.com

**PBX ENGINEERING**  
PBX ENGINEERING Ltd.  
Suite 201 - 2812 Bridge St.  
Victoria BC, V8T 4S9  
Tel 250.388.7222  
www.pbxeng.com

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION
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**ISSUED FOR TENDER**

-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE
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RECORD OF ISSUE



PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**CONTROLS (5 OF 7)**  
Pump Station No. 6

DRAWING No.	2231-E-11	REV.	-	SHEET	12/17
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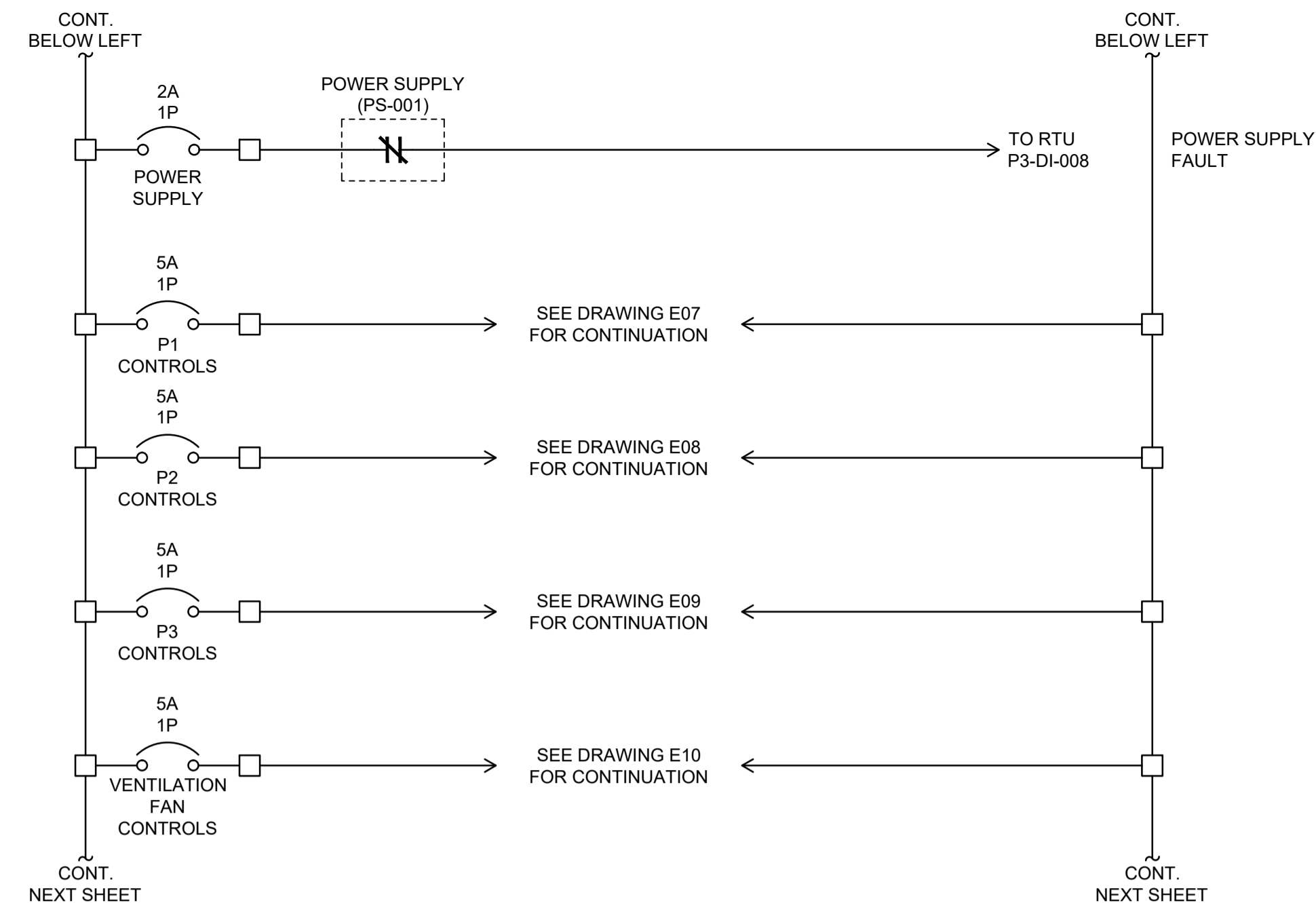
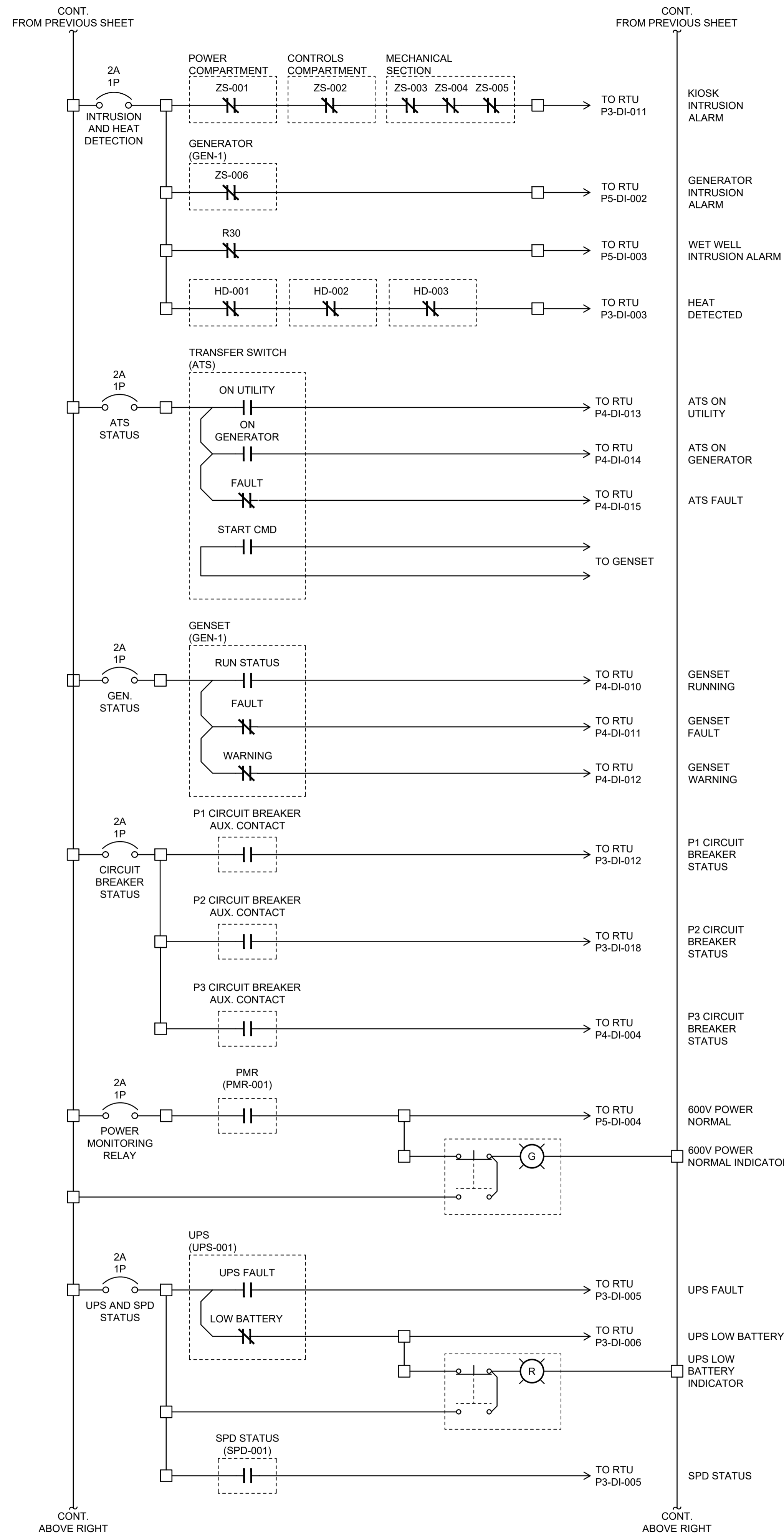
FUNCTIONAL DESIGN ONLY  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR  
ENGINEER'S APPROVAL PRIOR TO FABRICATION

**ALL EQUIPMENT IS PROPOSED  
UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER  
NOT FOR CONSTRUCTION**

File: 2231-E-11 CONTROLS (5 OF 7).dwg Plot Time: Mar 08, 2023 12:02pm User: loganminard

File: 2231-E-12 CONTROLS (6 OF 7).dwg Plot Time: Mar 08, 2023 - 12:02pm User: logan.minard



PBX ENGINEERING LTD.  
PERMIT TO PRACTICE NUMBER:  
1000208

**KOERS & ASSOCIATES ENGINEERING LTD.**  
*Consulting Engineers*  
P.O. Box 790, 194 Memorial Ave. Parksville, BC V9P 2G8  
Ph: 250-248-3151 Fax: 250-248-5362

**PBX ENGINEERING**  
PBX ENGINEERING Ltd.  
Suite 201 - 2812 Bridge St. Victoria BC, V8T 4S9  
Tel 250.388.7222 www.pbxeng.com

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

SEAL

PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



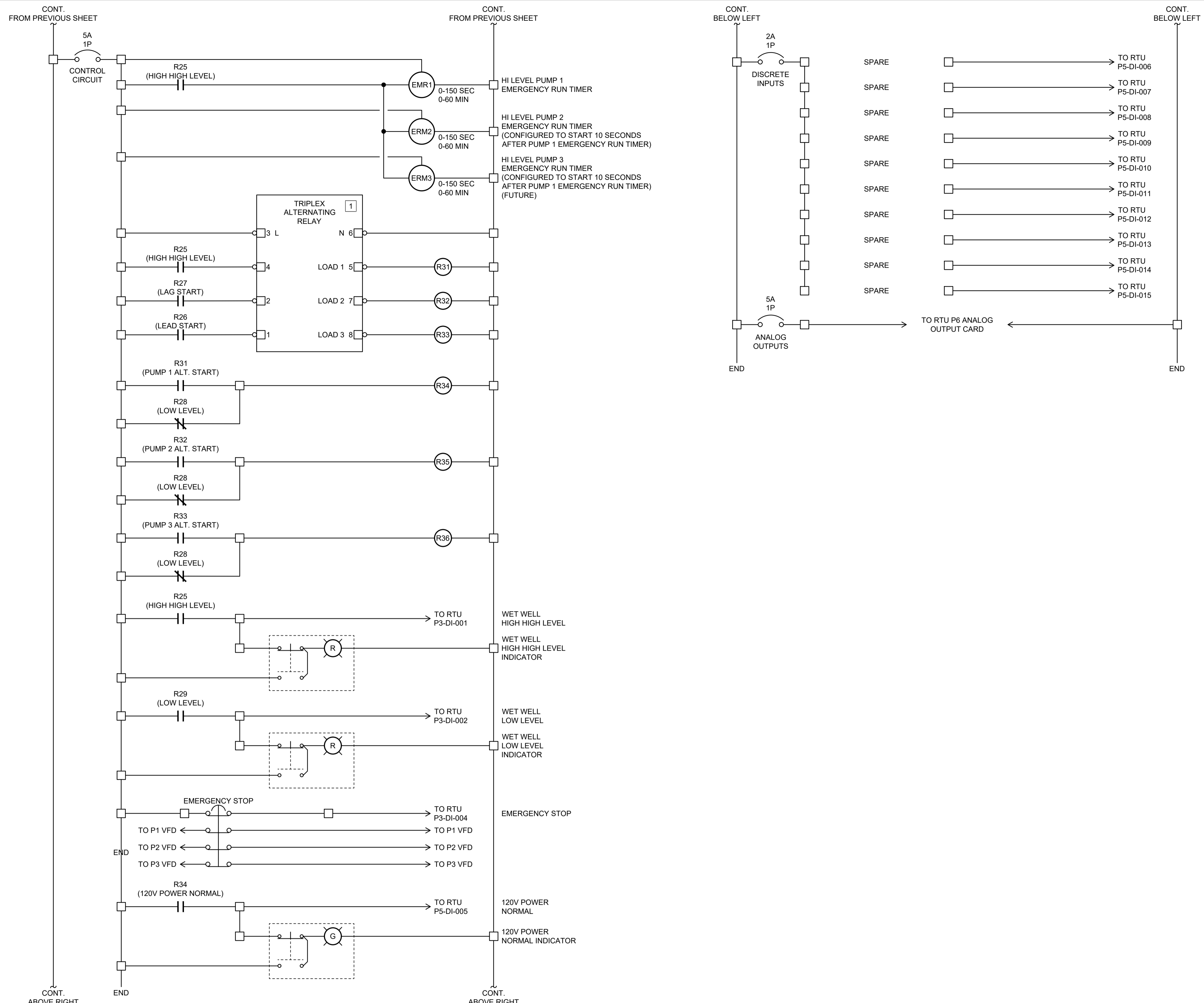
PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**CONTROLS (6 OF 7)**  
Pump Station No. 6

**ALL EQUIPMENT IS PROPOSED UNLESS NOTED OTHERWISE**

**ISSUED FOR TENDER NOT FOR CONSTRUCTION**

DRAWING No.	2231-E-12	REV.	-	SHEET	13/17
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PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**CONTROLS (7 OF 7)**  
**Pump Station No. 6**

DRAWING No.	REV.	SHEET
2231-E-13	-	14/17

FUNCTIONAL DESIGN ONLY  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION

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**NOTES:**  
1 TRIPLEX ALTERNATING RELAY BASIS OF DESIGN: MACROMATIC ATP SERIES TRIPLEX (ATP024A1R) WITH OPTIONAL SWITCH TO OPERATE AS DUPLEXOR.

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

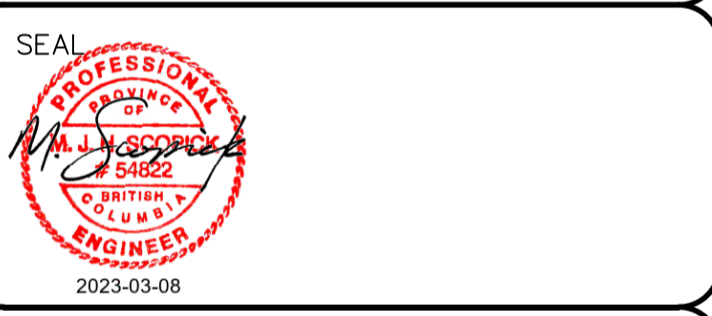
REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE
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ISS	DATE	BY	ENG	DESCRIPTION
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RECORD OF ISSUE



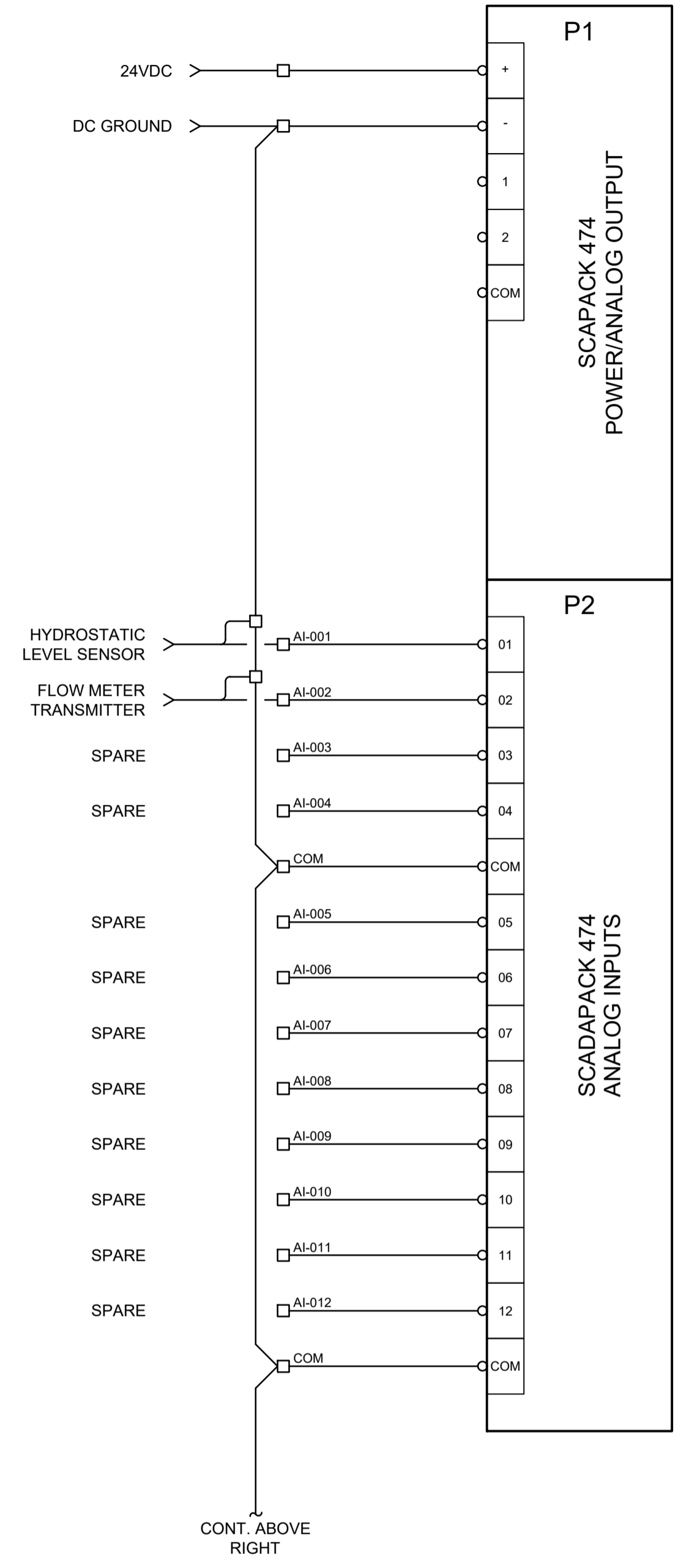
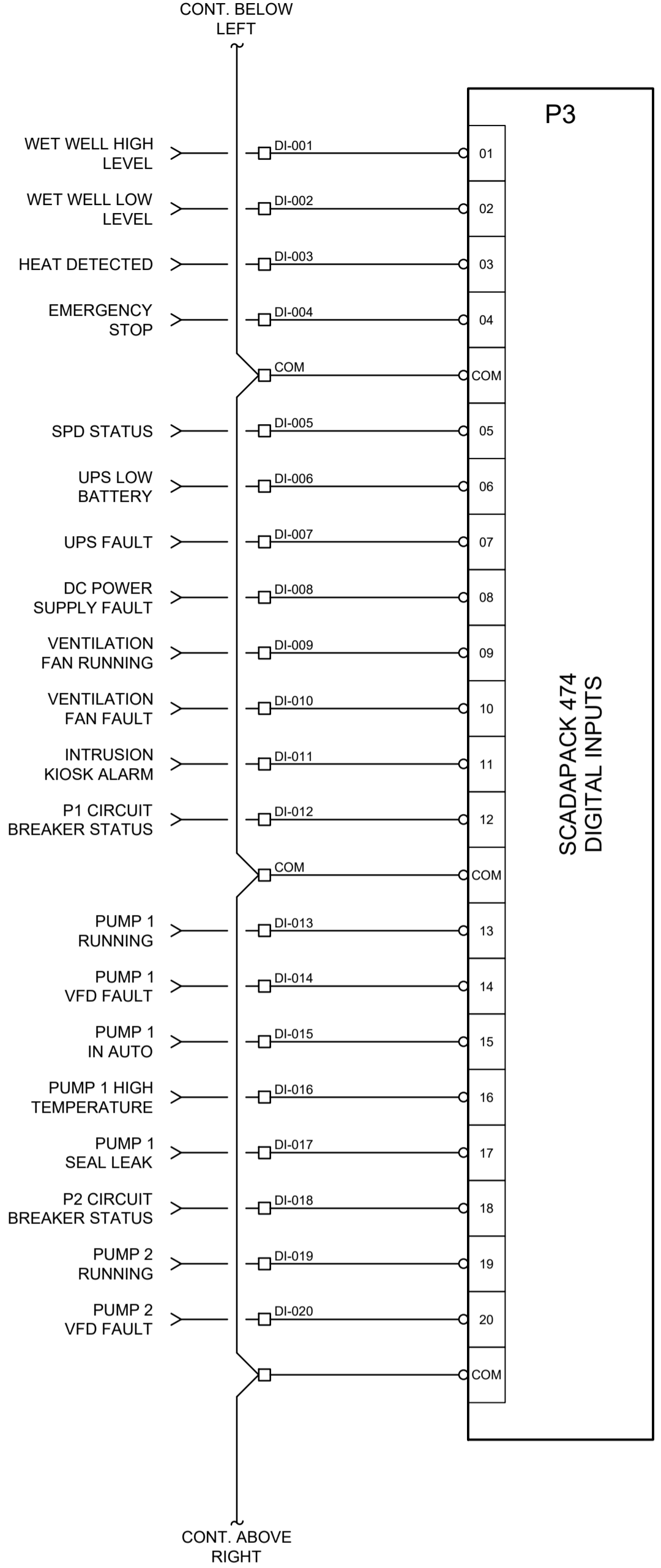
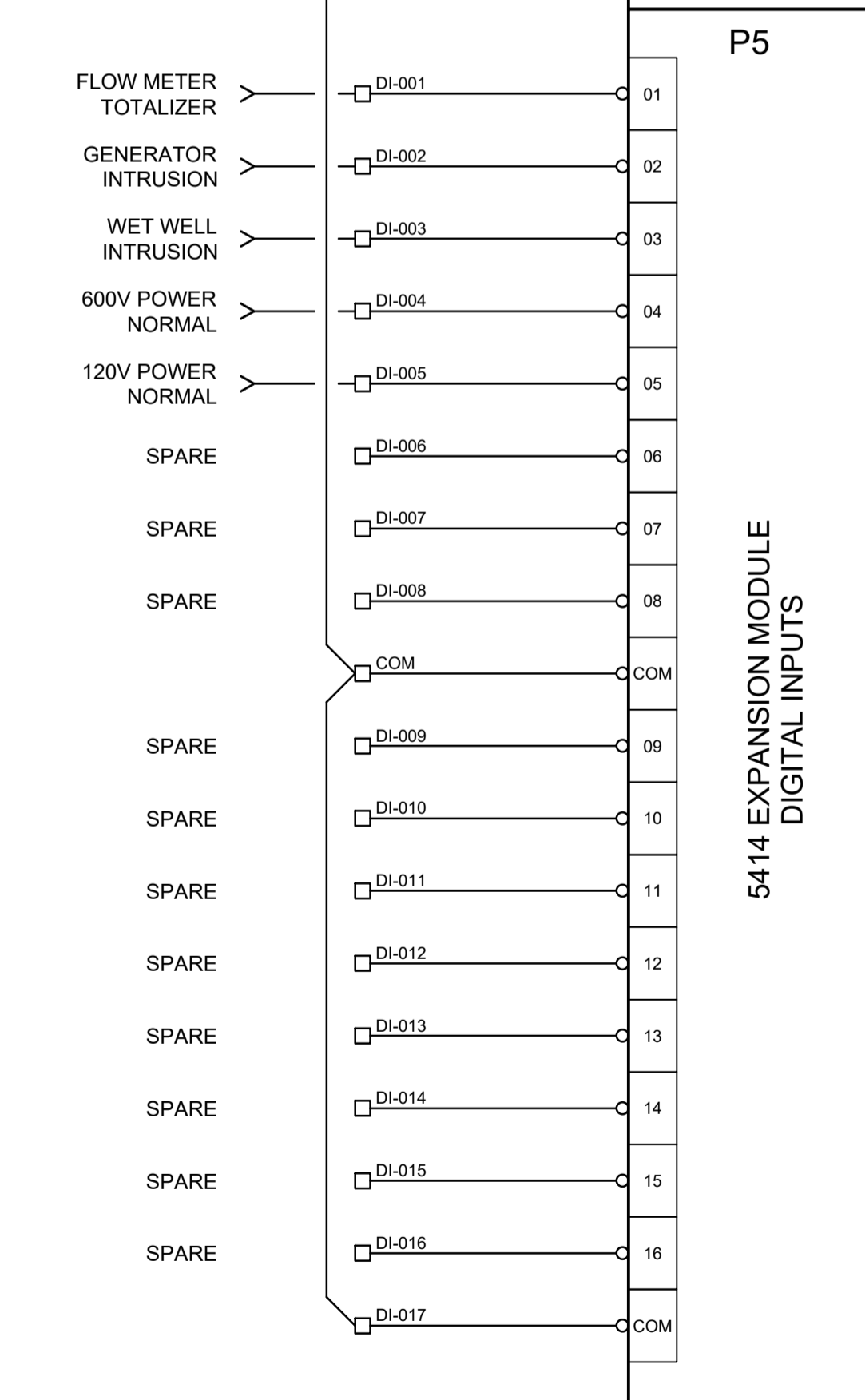
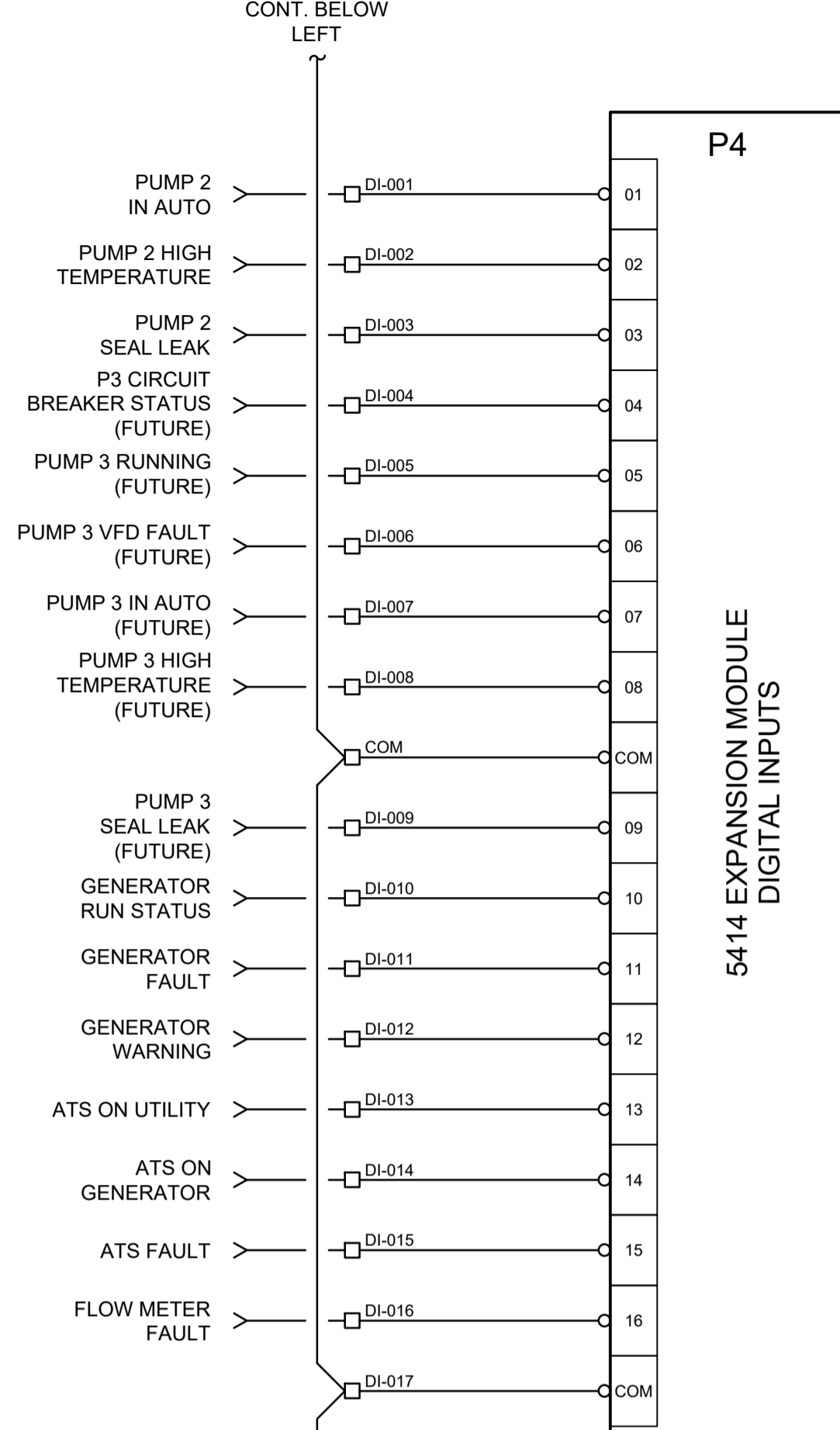
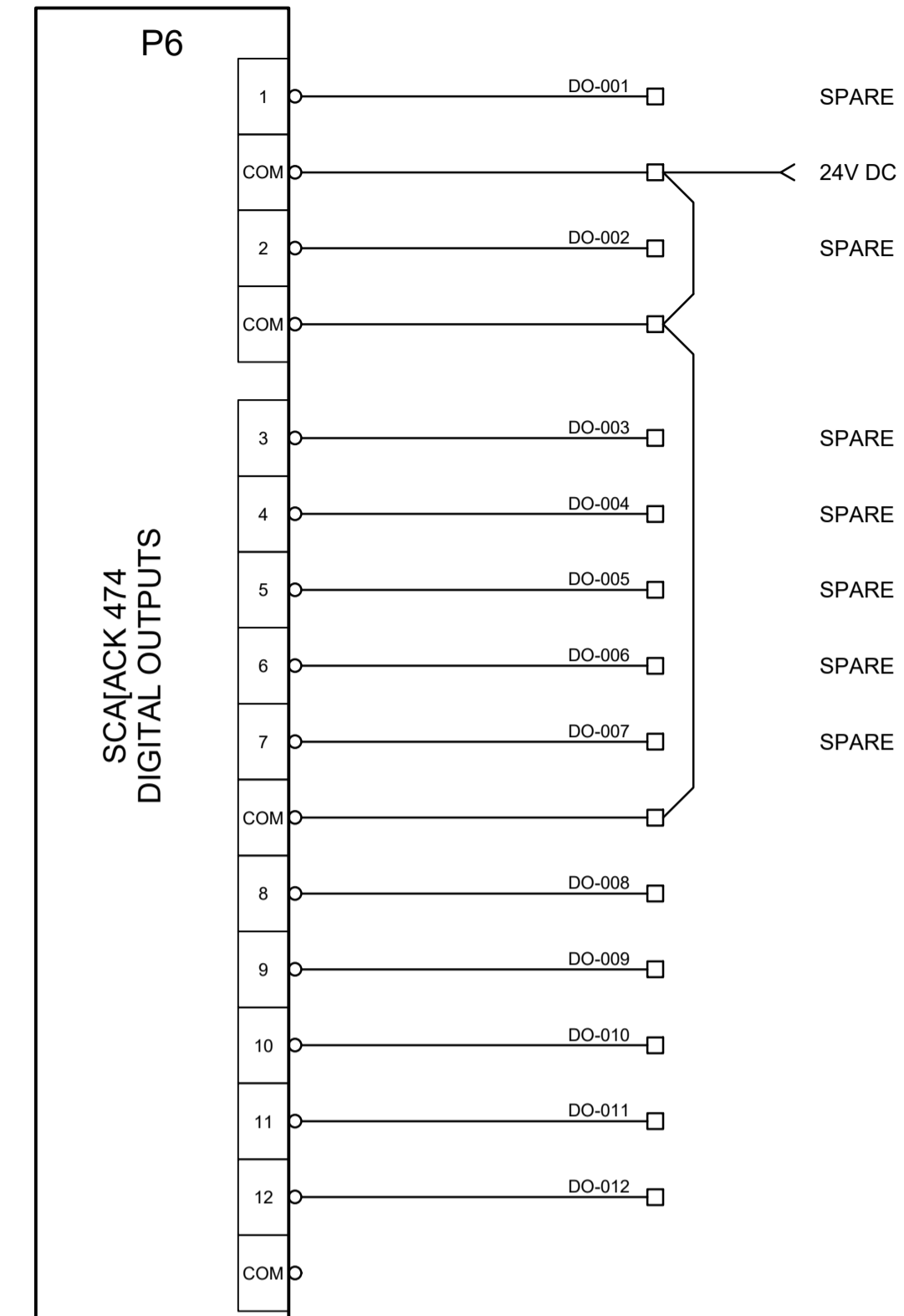
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DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

TITLE  
**RTU IO**  
**Pump Station No. 6**

DRAWING No.	REV.	SHEET
2231-E-14	-	15/17



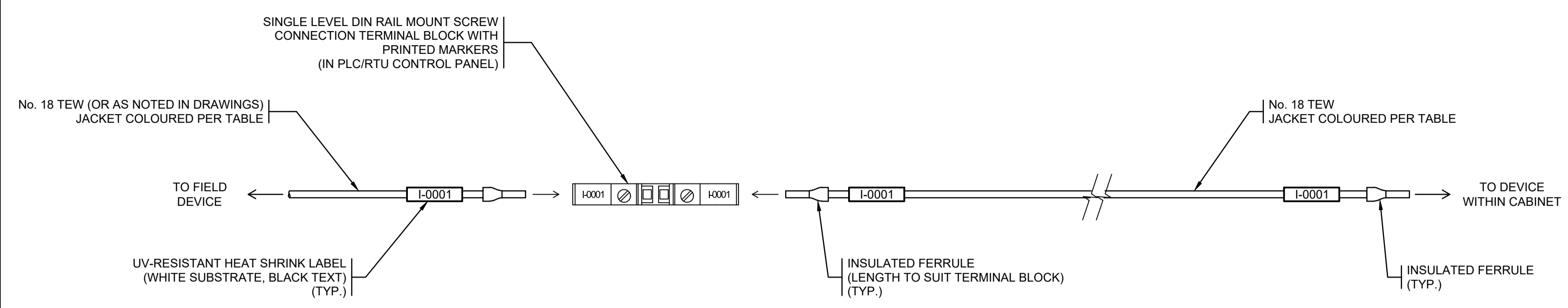
**FUNCTIONAL DESIGN ONLY**  
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR  
ENGINEER'S APPROVAL PRIOR TO FABRICATION

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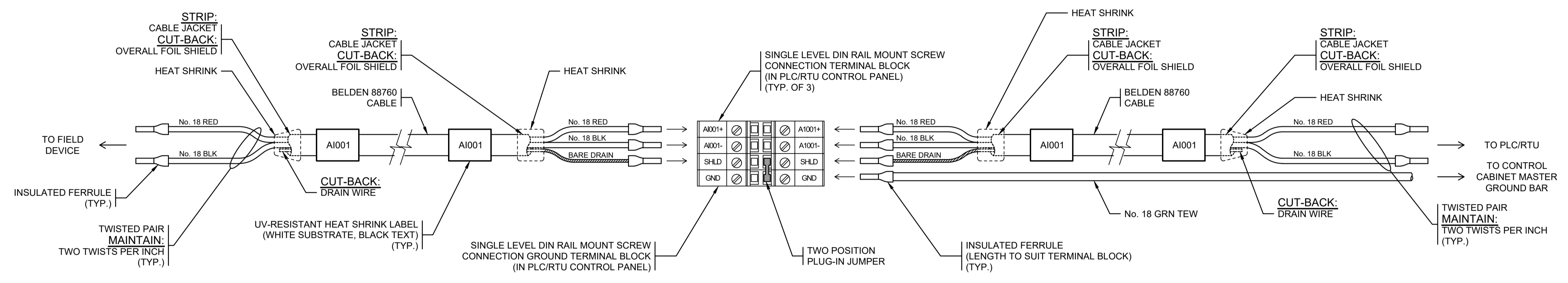
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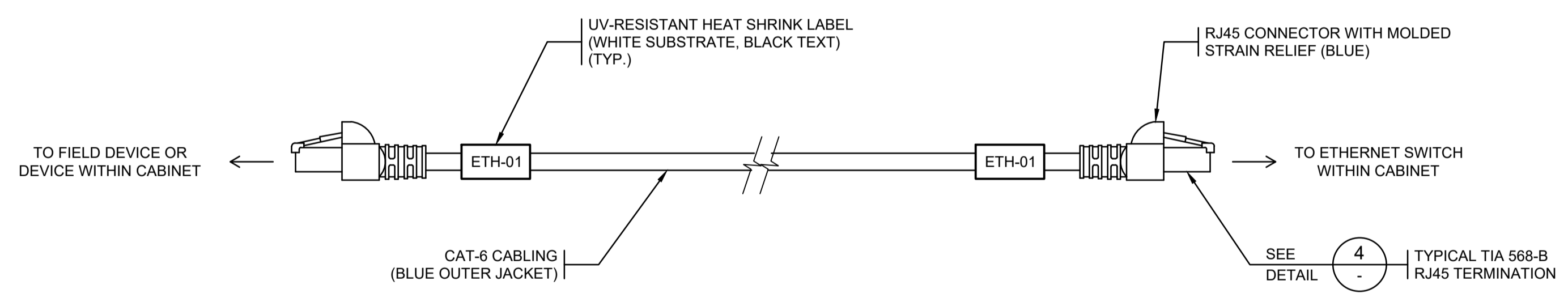


DETAIL 1 TYPICAL DISCRETE CONTROL FIELD WIRING TERMINATION METHOD  
N.T.S.

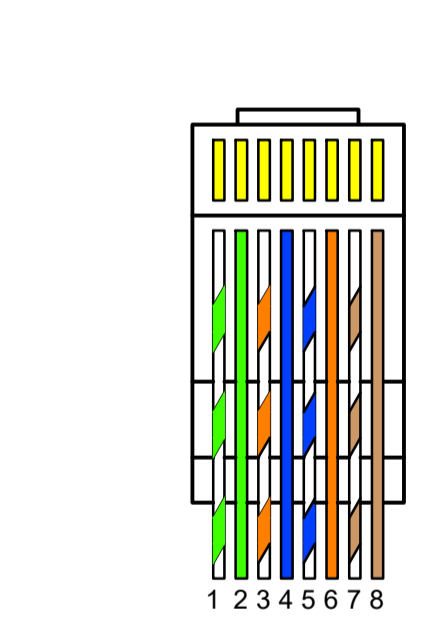
INSTRUMENTATION FIELD WIRING COLOUR CODE	
FUNCTION	COLOUR
AC HOT	BLACK
AC NEUTRAL	WHITE
DC POSITIVE	RED
DC NEGATIVE	BROWN
GROUND	GREEN



DETAIL 2 TYPICAL ANALOG CONTROL FIELD WIRING TERMINATION METHOD  
N.T.S.

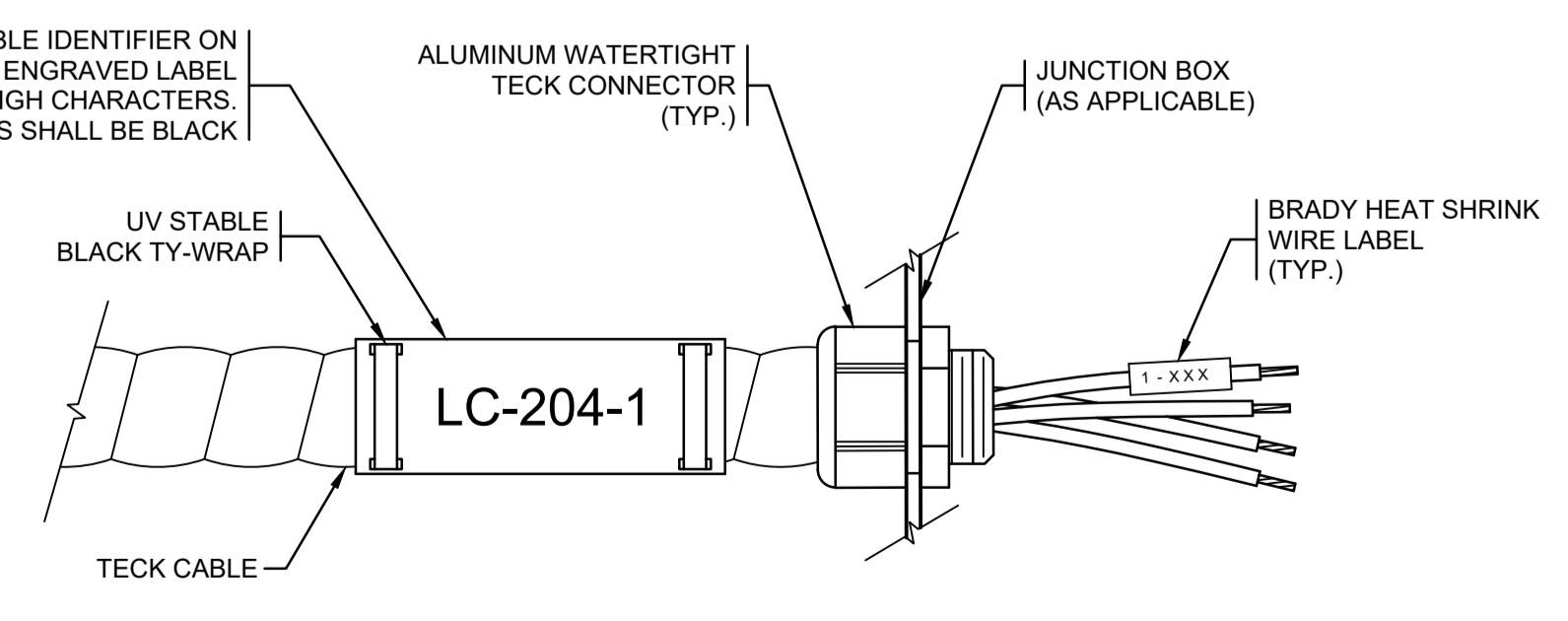


DETAIL 3 TYPICAL ETHERNET CABLING TERMINATION METHOD  
N.T.S.



DETAIL 4 TYPICAL TIA 568-A RJ45 TERMINATION (CLIP FACING AWAY)  
N.T.S.

PIN	COLOUR
1	WHT/ORG
2	GRN
3	WHT/GRN
4	BLU
5	WHT/BLU
6	ORG
7	WHT/BRN
8	BRN



DETAIL 5 TECK CABLE TERMINATION  
N.T.S.

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REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE



RECORD OF ISSUE	
PROJECT NO.	220363
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DATE	MARCH 2023
SCALE	AS SHOWN

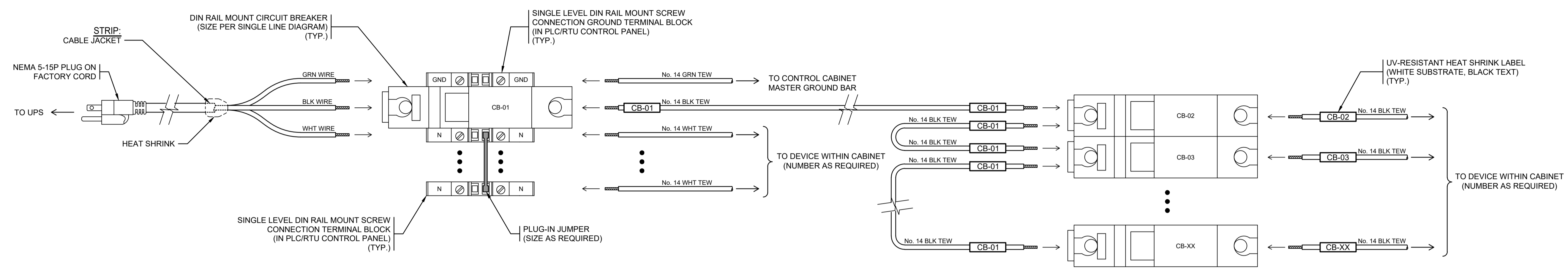


PROJECT  
**NANOOSE BAY SANITARY PUMPSTATION NO. 6**

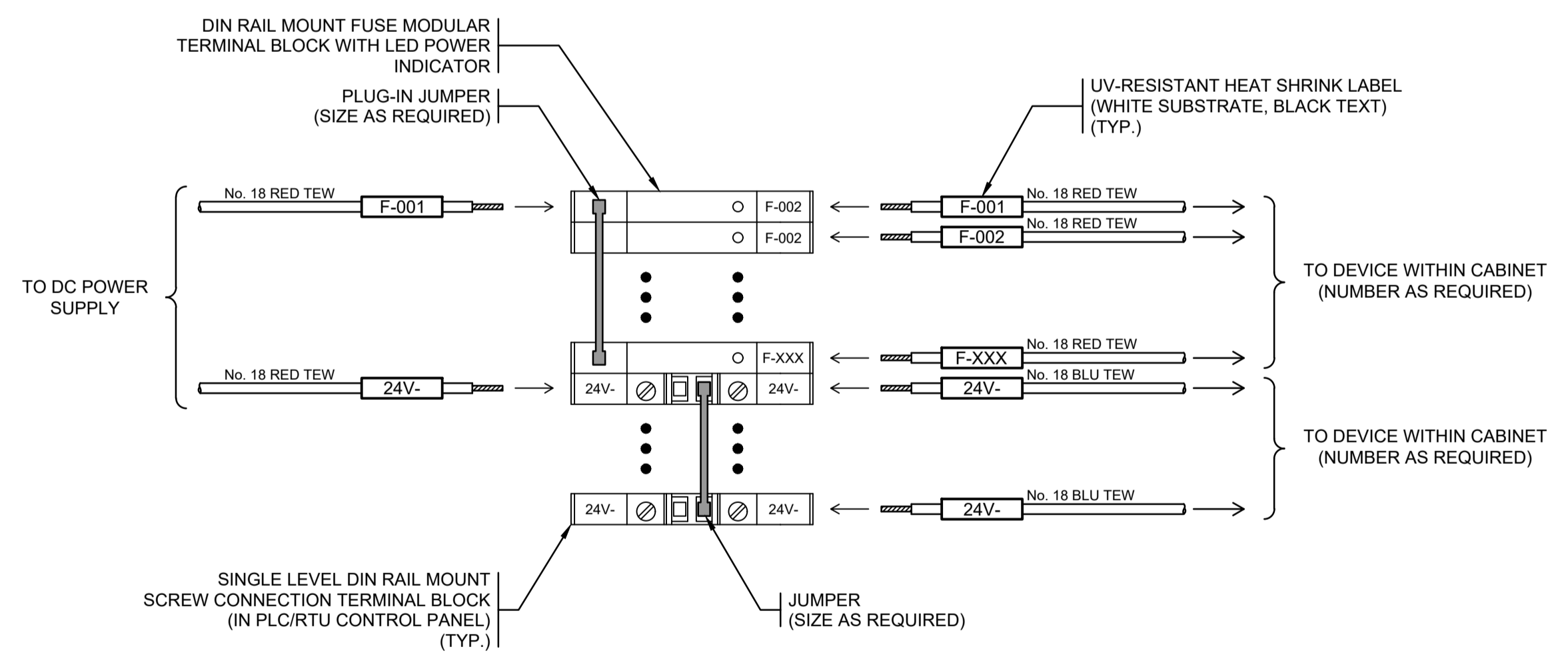
TITLE  
**TYPICAL PLC-RTU CABINET WIRING TERMINATIONS (1 OF 2)**

Pump Station No. 6

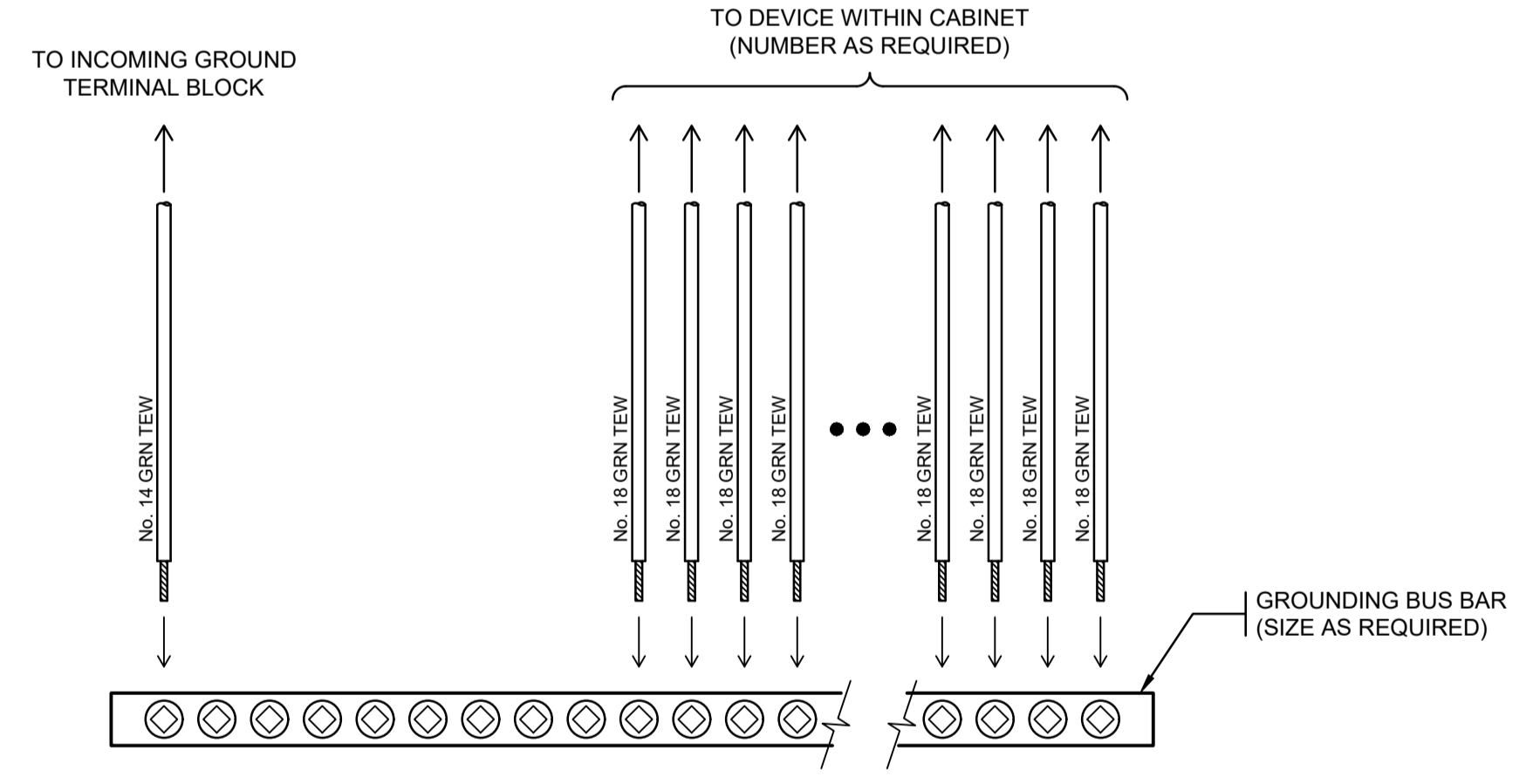
DRAWING No.	REV.	SHEET
2231-E-15	-	16/17



DETAIL 1 TYPICAL 120V AC DISTRIBUTION  
WIRING TERMINATION METHOD  
N.T.S.



DETAIL 2 TYPICAL DC DISTRIBUTION  
WIRING TERMINATION METHOD  
N.T.S.



DETAIL 3 TYPICAL MASTER GROUND BUS  
TERMINATION METHOD  
N.T.S.

RECORD OF REVISIONS

REV	DATE	BY	ENG	DESCRIPTION

**ISSUED FOR TENDER**

ISS	DATE	BY	ENG	DESCRIPTION
-	08MAR23	PBX	MS	IFT KIOSK PRE-PURCHASE

RECORD OF ISSUE



PROJECT NO.	220363
DRAWN	PBX
DESIGNED	MS
CHECKED	AT
APPROVED	AT
DATE	MARCH 2023
SCALE	AS SHOWN



PROJECT  
**NANOOSE BAY  
SANITARY  
PUMPSTATION  
NO. 6**

TITLE  
**TYPICAL PLC-RTU  
CABINET WIRING  
TERMINATIONS (2 OF 2)**

DRAWING No.	2231-E-16	REV.	-	SHEET	17/17
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NOT FOR CONSTRUCTION**

File: 2231-E-16 TYPICAL PLC-RTU CABINET WIRING TERMINATIONS (2 OF 2).dwg Plot Time: Mar 08, 2023 - 12:04pm User: logan.mihard

BETWEEN: \_\_\_\_\_ (the "Supply Contractor")

AND: Regional District of Nanaimo (the "Corporation")

THIS AGREEMENT WITNESSES that the Supply Contractor and the Corporation agree as follows:

1. The Supply Contractor shall provide all labour, Supply Contractor's Plant and Equipment and materials required to supply the Goods within the required time, as required by the Contract Documents.
2. The Corporation shall pay the Supply Contractor the Contract Price, as required by the Contract Documents.
3. The Contract Price shall be the sum in Canadian Dollars of the following:
  - (a) \$ \_\_\_\_\_, and
  - (b) any payments made on account of changes, as may be required by the Contract Documents.

The Contract Price shall be the entire compensation owing to the Supply Contractor by the Corporation for the Goods and shall cover and include necessary costs including but not limited to all supervision, labour, materials, Supply Contractor's Plant and Equipment, overhead, profit, financing costs, duty, shipping charges, fabrication and finishing, conveyance and delivery, packing, crating, freight, cartage, off-loading, drafting charges, tariffs, warranty and all other costs and expenses whatsoever incurred in performing the Contract. Delivery location is the **<Enter location and street address>** as per Incoterms 2020 Delivery Duty Paid (DDP) with title transferring at the named place.

Except for the amounts which the RDN in good faith is disputing and except for any set off which the RDN may claim and except for invoices (or portions of invoices) in respect of which the RDN has requested and not received supporting evidence, the RDN shall pay invoices submitted to it for the Services within 30 days' receipt thereof.

4. The Supply Contractor shall supply all Goods to the Delivery Point no later than **<XX weeks from receipt of order>**.
5. The Contract Documents shall form a part of this Agreement as though recited in full.

6. The Contract supersedes all prior negotiations, representations, or agreements, whether written or oral and is the entire agreement between the Corporation and the Supply Contractor with respect to the subject matter of this Agreement.
7. The Supply Contractor shall not assign the Contract, or any portion of the Contract, or any payments due or to become due under the Contract, without the express written consent of the Corporation.
8. No action or failure to act by the Corporation or an authorized representative of the Corporation shall constitute a waiver of any right or duty afforded any of them under the Contract or constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing.
9. This Agreement shall enure to the benefit of and be binding upon the Corporation and the Supply Contractor and their respective heirs, executors, legal representatives, successors and permitted assigns. In the event of more than one person being the Supply Contractor, the grants, covenants, provisos and claims, rights, powers, privileges, and liabilities shall be construed and held to be several as well as joint.
10. Time shall be of the essence of this Agreement.
11. This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.
12. The Goods are subject to inspection and acceptance by the RDN within a reasonable time after receipt. The RDN will notify the Supply Contractor in writing of the rejection of any of the Goods which are not in accordance with the Contract Documents, and the Goods will be held subject to disposition by the Supply Contractor at the Supply Contractor's risk and subject to all charges accruing because of such rejection.  
  
Notwithstanding any prior payment therefor, all Goods are subject to inspection and testing by the Corporation at the Delivery Point.
13. If upon inspection, testing or otherwise the Goods or any portion thereof are found to be non-conforming, unsatisfactory, defective, or inferior quality, or fail to meet any guarantees, then the Corporation may return the Goods or any part thereof to the Supply Contractor at the Supply Contractor's sole cost and all amounts theretofore paid by the Corporation to the Supply Contractor on account of the Contract Price of such returned Goods, shall be repaid to the Corporation by the Supply Contractor. Neither the inspection nor failure to make inspection, nor acceptance of Goods shall release the

Supply Contractor from any warranties or other provisions of this Contract nor impair the Corporation's right to reject non-conforming Goods. The Corporation reserves the right even after it has paid for and accepted Goods to make a claim against the Supply Contractor on account of any Goods which do not prove to be satisfactory or are defective irrespective of the Corporation's failure to notify the Supply Contractor of a rejection of non-conforming Goods or revocation of acceptance thereof, or to specify with particularity any defect in non-conforming Goods after rejection or acceptance thereof.

14. The Regional District is not subject to any fuel surcharges.
15. The Supply Contractor shall bear all risks and shall assume all responsibility for the Goods, including, without limitation, any loss or damage to the Goods from any cause whatsoever, up to and including the delivery and off-loading of the Goods at the Delivery Point.
16. The Supply Contractor shall release and discharge the Corporation and its directors, officers, servants, employees and agents (the "Released Parties") from and against all actions, claims, demands, proceedings, suits, losses, damages, costs and expenses of whatsoever kind or nature (including but not limiting the generality of the foregoing, in respect of death, injury, loss or damage to any person or property) which the Supply Contractor or its servants or employees might have in any manner arising in any way out of or connected with the Goods or the supply, off-loading or delivery of the Goods by the Supply Contractor under this agreement except to the proportionate extent that such actions, claims, demands, proceedings, suits, losses, damages, costs and expenses were caused by the Released Parties or any of them.
17. The Supply Contractor and subcontractors shall provide at their own cost any insurance which they are required by law to provide or which they consider necessary to protect their own interests.
18. The Corporation may terminate the Contract if the Supply Contractor at any time becomes bankrupt, makes an assignment of his property for the benefit of his creditors, or if a receiver or liquidator should be appointed. Such termination shall be effective immediately upon the Corporation giving notice thereof.

The Corporation may terminate the Contract if at any time the Corporation forms the opinion that the Supply Contractor is in default under this Contract because the Supply Contractor:

- (1) has breached a fundamental term of the Contract or is in substantial breach of the terms of the Contract;

- (2) has failed to supply the Goods, within the time specified in the Contract Documents or extensions mutually agreed between the parties in writing;
- (3) is in material non-compliance with or has been convicted of a material offence or violation of, health, safety, labour, or environmental laws.
- (4) has become in any way unable to supply the Goods or any part thereof;

Except as herein before provided, the Supply Contractor shall have no claim against the Corporation for any reason whatsoever by reason of the termination of the Contract.

SAMPLE

IN WITNESS WHEREOF the parties hereto have executed this Agreement as follows:

REGIONAL DISTRICT OF NANAIMO

by its authorized signatory on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ (the date of Agreement):

SIGNED on behalf of the Corporation by:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[SUPPLY CONTRACTOR'S NAME]

by its authorized signatory on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ :

SIGNED on behalf of the Supply Contractor by:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**END OF SECTION**