AGREEMENT FOR THE SUPPLY OF ELECTRICAL EQUIPMENT FOR THE TERTIARY FILTRATION PROJECT – ELECTRICAL PACKAGE 2 – MCC's. PLC's, & COMM PANELS

PROJECT# 11281.L.

THIS AGREEMENT FOR EQUIPMENT PROCUREMENT is made this 1st day of October, 2024, and entered into by and between the City of Meridian, a municipal corporation organized under the laws of the State of Idaho, hereinafter referred to as "CITY", 33 East Broadway Avenue, Meridian, Idaho 83642, and Advanced Electrical Technologies, hereinafter referred to as "SUPPLIER", whose business address is 720 S. Kit, Caldwell, ID 83605.

INTRODUCTION

Whereas, the City has a need for 1 MCC, 2 PLC's and 2 Comm Panels as specified in the contract documents; and

WHEREAS, the Supplier is specially trained, experienced and competent to provide and has agreed to provide such equipment;

NOW, THEREFORE, in consideration of the mutual promises, covenants, terms and conditions hereinafter contained, the parties agree as follows:

TERMS AND CONDITIONS

1. **Services, Supplies, Equipment Specifications & Requirements:**

1.1 Supplier shall supply the Switchboards to the City upon execution of this Agreement and receipt of the City's written notice to proceed, all items, and comply in all respects, as specified in the Invitation for Bids titled "TERTIARY FILTRATION PROJECT – ELECTRICAL PACKAGE 2" and Suppliers bid dated by which by this reference are incorporated herein, together with all addendums issued.

1.2 The Supplier shall provide all equipment and services under this Agreement consistent with the requirements and standards established by applicable federal, state and City laws, ordinances, regulations and resolutions and the UCC. The Supplier represents and warrants that it will perform its work in accordance with generally accepted industry standards and practices for the profession or professions that are used in performance of this Agreement and that are in effect at the time of performance of this Agreement.

2. Consideration

2.1 The Supplier shall be compensated on a Fixed Price basis as provided in Attachment B "Payment Schedule" attached hereto and by reference made a part hereof, for the Not-To-Exceed amount of **$340,000.00**.

2.2 The Supplier shall provide the City with a detailed invoice upon delivery of all services, supplies, equipment or chemicals, which the City will pay within 30 days of receipt of a correct invoice and approval by the City Project Manager. The City will not withhold any Federal or State income taxes or Social Security Tax from any payment made by City to Supplier under the terms and conditions of this Agreement. Payment of all taxes and other assessments on such sums is the sole responsibility of Supplier.

2.3 Except as expressly provided in this Agreement, Supplier shall not be entitled to receive from the City any additional consideration, compensation, salary, wages, or other type of remuneration for services rendered under this Agreement including, but not limited to, meals, lodging, transportation, drawings, renderings or mockups. Specifically, Supplier shall not be entitled by virtue of this Agreement to consideration in the form of overtime, health insurance benefits, retirement benefits, paid holidays or other paid leaves of absence of any type or kind whatsoever.

3. Invoices

Invoices shall be rendered in duplicate and shall include: (1) Purchase Order number; (2) pricing; (3) quantity; (4) description; (5) any sales taxes or use taxes as separate items, giving permit number authorizing collection of use taxes; (6) point of shipment; (7) method and class of shipment; (8) complete routing of shipment; and (9) whether transportation expense has been prepaid. Seller/Contractor/Contractor agrees to make a separate invoice for each order and shipment. Unless otherwise expressly provided in the Purchase Order, all taxes, duties, tolls, fees, import charges, or other governmental exactions shall be deemed included in the purchase price of the supplies and services and the City shall have no liability to pay Seller/Contractor/Contractor or any third party any amount in excess of the specified purchase price. City of Meridian, a local governmental entity of the State of Idaho, is exempt from any Federal Manufacturer's Excise Tax under the provision of Section 4221(a)(4) of the Internal Revenue Code. All invoices shall exclude such excise tax. All invoices shall be sent to the following address:

City of Meridian, Accounts Payable, 33. East Broadway Ave., Meridian, Idaho 83642.

4. **Term:**

4.1 This agreement shall become effective upon execution by both parties, and shall expire upon on successful startup and commissioning or unless sooner terminated as provided below.

4.2 The City reserves the right to extend the agreement for up to four (4) additional one-year periods if mutually agreeable to both parties. Any and all extensions must be documented in writing and be executed by both parties. Any continuation of this agreement beyond September 30 of any fiscal year is subject to City Council approval.

4.3 Should Supplier default in the performance of this Agreement or materially breach any of its provisions, City, at City's option, may terminate this Agreement by giving written notification to Supplier.

4.4 Should City fail to pay Supplier all or any part of the compensation set forth in Attachment B of this Agreement on the date due, Supplier, at the Supplier's option, may terminate this Agreement if the failure is not remedied by the City within thirty (30) days from the date payment is due.

5. **Termination:**

If, through any cause, Supplier, its officers, employees, or agents fails to fulfill in a timely and proper manner its obligations under this Agreement, violates any of the covenants, agreements, or stipulations of this Agreement, falsifies any record or document required to be prepared under this agreement, engages in fraud, dishonesty, or any other act of misconduct in the performance of this contract, the City shall thereupon have the right to terminate this Agreement by giving written notice to Supplier of such termination and specifying the effective date thereof at least fifteen (15) days before the effective date of such termination.

Notwithstanding the above, Supplier shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Agreement by Supplier, and the City may withhold any payments to Supplier for the purposes of set-off until such time as the exact amount of damages due the City from Supplier is determined. This provision shall survive the termination of this agreement and shall not relieve Supplier of its liability to the City for damages.

6. **Independent Supplier:**

6.1 In all matters pertaining to this agreement, Supplier shall be acting as an independent Supplier, and neither Supplier nor any officer, employee or agent of Supplier will be deemed an employee of City. Except as expressly provided in Attachment A, Supplier has no authority or responsibility to exercise any rights or power vested in the City and therefore has no authority to bind or incur any obligation on behalf of the City. The selection and

designation of the personnel of the City in the performance of this agreement shall be made by the City.

6.2 Supplier, its agents, officers, and employees are and at all times during the term of this Agreement shall represent and conduct themselves as independent Suppliers and not as employees of the City.

6.3 Supplier shall determine the method, details and means of performing the work and services to be provided by Supplier under this Agreement. Supplier shall be responsible to City only for the requirements and results specified in this Agreement and, except as expressly provided in this Agreement, shall not be subjected to City's control with respect to the physical action or activities of Supplier in fulfillment of this Agreement. If in the performance of this Agreement any third persons are employed by Supplier, such persons shall be entirely and exclusively under the direction and supervision and control of the Supplier.

7. **Indemnification and Insurance:**

a. Supplier shall indemnify and save and hold harmless City from and for any and all losses, claims, actions, judgments for damages, or injury to persons or property and losses and expenses and other costs including litigation costs and attorney's fees, arising out of, or resulting from, the performance of this Agreement by the Supplier, its servants, agents, officers, employees, guests, and business invitees, to the extent caused by the negligence or willful misconduct of Supplier, and not caused by or arising out of the tortuous conduct of City or its employees. Supplier shall maintain, and specifically agrees that it will maintain, throughout the term of this Agreement, liability insurance, in which the City shall be named an additional insured, except Workers Compensation Insurance, in the minimum amounts as follow: General Liability One Million Dollars ($1,000,000) per incident or occurrence, Automobile Liability Insurance One Million Dollars ($1,000,000) per incident or occurrence and Workers' Compensation Insurance, in the statutory limits as required by law. The limits of insurance shall not be deemed a limitation of the covenants to indemnify and save and hold harmless City; and if City becomes liable for an amount in excess of the insurance limits, herein provided, Supplier covenants and agrees to indemnify and save and hold harmless City from and for all such losses, claims, actions, or judgments for damages or injury to persons or property and other costs, including litigation costs and attorneys' fees, arising out of, resulting from , or in connection with the performance of this Agreement by the Supplier or Supplier's officers, employs, agents, representatives or sub-suppliers and resulting in or attributable to personal injury, death, or damage or destruction to tangible or intangible property, including use of. Supplier shall provide City with a Certificate of Insurance, or other proof of insurance evidencing Supplier's compliance with the requirements of this paragraph and file such proof of insurance with the City at least ten (10) days prior to the date Supplier begins performance of its obligations under this Agreement. In the event the insurance minimums are changed, Supplier

shall immediately submit proof of compliance with the changed limits. Evidence of all insurance shall be submitted to the City Purchasing Agent with a copy to Meridian City Accounting, 33 East Broadway Avenue, Meridian, Idaho 83642.

7.2 Any deductibles, self-insured retention, or named insureds must be declared in writing to the City.

7.3 To the extent of the indemnity in this contract, Supplier's Insurance coverage shall be primary insurance regarding the City's elected officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City or the City's elected officers, officials, employees and volunteers shall be excess of the Supplier's insurance and shall not contribute with Supplier's insurance except as to the extent of City's negligence.

b. The Supplier's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

7.4 All insurance coverages for Suppliers subs shall be subject to all of the insurance and indemnity requirements stated herein.

7.5 The limits of insurance described herein shall not limit the liability of the Supplier and Supplier's agents, representatives, employees or subcontractors.

7.6 The limits of insurance described herein shall not limit the liability of the Contractor and Contractor's agents, representatives, employees or subcontractors.

8. **Warranty:** In addition to any warranty required in the specifications, all equipment, coatings, valves, controls, and other components provided under this agreement shall be guaranteed for one (1) year against defects in workmanship and materials from the notice of acceptance.

9. **Notices:** Any and all notices required to be given by either of the parties hereto, unless otherwise stated in this agreement, shall be in writing and be deemed communicated when mailed in the United States mail, certified, return receipt requested, addressed as follows:

City of Meridian
Procurement Manager
33 E. Broadway Avenue
Meridian, Idaho 83642
Ph. (208) 489-0417
Email: kwatts@meridianCity.org

Either party may change their address for the purpose of this paragraph by giving written notice of such change to the other in the manner herein provided.

10. **Attorney Fees:** Should any litigation be commenced between the parties hereto concerning this Agreement, the prevailing party shall be entitled, in addition to any other relief as may be granted, to court costs and reasonable attorneys' fees as determined by a Court of competent jurisdiction. This provision shall be deemed to be a separate contract between the parties and shall survive any default, termination or forfeiture of this Agreement.

11. **Time is of the Essence:** The parties hereto acknowledge and agree that time is strictly of the essence with respect to each and every term, condition and provision hereof, and that the failure to timely perform any of the obligations hereunder shall constitute a breach of, and a default under, this Agreement by the party so failing to perform.

12. **Assignment:** It is expressly agreed and understood by the parties hereto, that Supplier shall not have the right to assign, transfer, hypothecate or sell any of its rights under this Agreement except upon the prior express written consent of City.

13. **Discrimination Prohibited:** In performing the Work required herein, Supplier shall not unlawfully discriminate in violation of any federal, state or local law, rule or regulation against any person on the basis of race, color, religion, sex, national origin or ancestry, age or disability.

14. **Reports and Information:**

14.1 At such times and in such forms as the City may require, there shall be furnished to the City such statements, records, reports, data and information as the City may request pertaining to matters covered by this Agreement.

14.2 Supplier shall maintain all writings, documents and records prepared or compiled in connection with the performance of this Agreement for a minimum of four (4) years from the termination or completion of this or Agreement. This includes any handwriting, typewriting, printing, photo static, photographic and every other means of recording upon any tangible thing, any form of communication or representation including letters, words, pictures, sounds or symbols or any combination thereof.

15. **Audits and Inspections:** Subject to applicable laws respecting the protection of privacy and the City's requirement to comply with the Idaho Public Records Act, at any time during normal business hours and as often as the City may deem necessary, there shall be made available to the City for examination all of Supplier's records with respect to all matters covered by this Agreement. Supplier shall permit the City to audit, examine, and make excerpts or transcripts from such records, and to make audits of all contracts, invoices, materials, payrolls, records of personnel, conditions of

employment and other data relating to all matters covered by this Agreement.

16. **Publication, Reproduction and Use of Material:** No material produced in whole or in part under this Agreement shall be subject to copyright in the United States or in any other country. The City shall have unrestricted authority to publish, disclose and otherwise use, in whole or in part, any reports, data or other materials prepared under this Agreement.

17. **Compliance with Laws:** In performing the scope of work required hereunder, Supplier shall comply with all applicable laws, ordinances, and codes of Federal, State, and local governments.

This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Idaho, and the ordinances of the City of Meridian.

Certifications.

Pursuant to Idaho Code §§ 67-2359 and 67-2346, Contractor hereby certifies:

A. That Contractor is not currently owned or operated by the government of China and will not, for the duration of this Contract, be owned or operated by the government of China.

B. That Contractor is not currently engaged in, and will not for the duration of the Contract engage in, a boycott of goods or services from Israel or territories under its control.

C. Consultant certifies that: (i) as of the Effective Date, it is not engaged in a "Boycott," as defined in Idaho Code §67-2347A, of any individual or company because that individual or company engages in or supports (a) the exploration, production, utilization, transportation, sale, or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear energy, or agriculture, or (b) the manufacture, distribution, sale, or use of any "Firearm," as defined in Idaho Code §18-3302(2)(d); and (ii) it will not engage in any such boycott during the Term.

18. **Changes:** The City may, from time to time, request changes in the Scope of Work to be performed hereunder. Such changes, including any increase or decrease in the amount of Supplier's compensation, which are mutually agreed upon by and between the City and Supplier, shall be incorporated in

written amendments which shall be executed with the same formalities as this Agreement.

19. **Construction and Severability:** If any part of this Agreement is held to be invalid or unenforceable, such holding will not affect the validity or enforceability of any other part of this Agreement so long as the remainder of the Agreement is reasonably capable of completion.

20. **Waiver of Default:** Waiver of default by either party to this Agreement shall not be deemed to be waiver of any subsequent default. Waiver or breach of any provision of this Agreement shall not be deemed to be a waiver of any other or subsequent breach, and shall not be construed to be a modification of the terms of this Agreement unless this Agreement is modified as provided above.

21. **Advice of Attorney**: Each party warrants and represents that in executing this Agreement. It has received independent legal advice from its attorney's or the opportunity to seek such advice.

22. **Entire Agreement:** This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral of written, whether previous to the execution hereof or contemporaneous herewith.

24. **Order of Precedence:** The order or precedence shall be this contract agreement, the Invitation for Bid document, then the winning bidders submitted bid document.

23. **Applicable Law:** This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Idaho, and the ordinances of the City of Meridian.

24. **Approval Required:** This Agreement shall not become effective or binding until approved by the City of Meridian.

25. **Consequential Damages:** In no event will either party be liable to the other for consequential damages, except to the extent of gross negligence or willful misconduct.

CITY OF MERIDIAN:

By: _____
Keith Watts, Procurement Manager

Dated: _____

ADVANCED ELECTRICAL TECHNOLOGIES:

By: Signed by: Seth Krause DC4F1FE4C3F14E7...

Dated: 10/30/2024 | 11:07 AM PDT

CITY PM: David Briggs

Approved by Council:

ATTACHMENT A

SPECIFICATIONS & REQUIREMENTS

REFER TO INVITATION TO BID PW-2426-11281.L

ALL ADDENDUMS, ATTACHMENTS, AND EXHIBITS included in the Invitation to Bid Package, are by this reference made a part hereof.

SPECIFICATIONS / SCOPE OF WORK

Documents from the Invitation to Bid:

- VOLUME 1: TECHNICAL SPECIFICATIONS – WRRF TERTIARY FILTRATION FACILITIES PRE-PROCUREMENT PACKAGE 2 by Stantec Consulting Services, Inc. (100 pages)
- DRAWINGS – WRRF TERTIARY FILTRATION FACILITIES PRE-PROCUREMENT PACKAGE 2 by Stantec Consulting Services, Inc. (21 pages)

See attached updated documents:

- Rockwell Automation Document # STFB3MCC0001
- Updated Drawings: MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES (19 pages)

ATTACHMENT B

MILESTONE / PAYMENT SCHEDULE

A. Total and complete compensation for this Agreement shall not exceed $340,000.00.

MILESTONE DATES/PRICING SCHEDULE						
ITEM	DESCRIPTION	EQUIPMENT SPECIFICATION	SUPPLEMENTARY REFERENCE SPECIFICATIONS	REFERENCE DRAWINGS	QTY	TOTAL
1	MCC's	26 24 19		500-E-202 500-E-604 500-E-607		$70,000.00
2	Chem Building 3 PLC	40 95 10	10 63 13 40 91 00 40 95 13 40 95 20	000-I-603 000-I-604 500-I-501 500-I-502 500-I-503 530-I-I501 530-I-502 530-I-503		$145,000.00
3	TF Building PLC	40 95 10	10 63 13 40 91 00 40 95 13 40 95 20	000-I-603 000-I-604 500-I-501 500-I-502 500-I-503 530-I-I501 530-I-502 530-I-503		$95,000.00
4	Chem Building 3 Comms Panel	40 95 10	10 63 13 40 91 00 40 95 13 40 95 20	000-I-603 000-I-604 500-I-504 500-I-505 530-I-504 530-I-505		$15,000.00
5	TF Building Comms Panel	40 95 10	10 63 13 40 91 00 40 95 13 40 95 20	000-I-603 000-I-604 500-I-504 500-I-505 530-I-504 530-I-505		$15,000.00

Contract includes furnishing all labor, materials, equipment, and incidentals as required for the Tertiary Filtration Electrical Package 2 - Pre-Procurement per ITB #PW-2426-11281.L. All equipment shall be delivered (**FOB Destination**) to the City, 3401 N. Ten Mile Road, Meridian, ID 83646.

The manufacturer will submit at time of delivery; complete operation and maintenance manuals covering the equipment as delivered.

CONTRACT TOTAL…….. $340,000.00

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

Rockwell Automation

Centerline 2100 Motor Control Center

Basic Structure Information

Project Name: City of Meridian WRRF TF
Project Item: STFB3MCC0001
Project ID #: 5334856/1

Motor Control Center Details

This MCC(s) was developed using an available fault current of 50,001 to 65,000 A.
MCC configuration & pricing subject to change, if actual Available Fault Current differs.

Motor Control Center Details

Power System Type: Wye, 3-phase, 3-wire with solidly grounded neutral
Voltage: 480 Volts / 60 Hertz
Available Fault Current: 50,001 to 65,000 A
Master Nameplate: 1 Line(s)
Unit Nameplate Type: Acrylic - Black letters on white
Wiring Type: B-T Control and Power Terminal Blocks
Wiring Diagram Location: Within each unit
Arc Resistant MCC: No
IntelliCENTER Network: Ethernet
IMC Device Firmware: Upgraded to latest available version (saves up to 1 hour of customer configuration time per section)

Incoming Line Details

MCC Connection Type: Main Circuit Breaker
Incoming Line Cable Entry: Bottom Mounted

Bus Details

Main Bus Rating: 600A
Main Bus Material: Copper / Tin Plated
Main Bus Bracing: 65kA (rms symmetrical)
Insulated Bus: None Selected

Horizontal Ground Bus Size: 1/4" X 2"
Horizontal Ground Bus Plating: Unplated Copper
Horizontal Ground Bus Location: Bottom
Vertical Ground Bus Type: Unit Load Copper and Plug-in Copper
Incoming Ground Lug Size: #6 AWG - 250 kcmil (2 Supplied as Standard)
Incoming Ground Cable Size: None Selected

Enclosure Details

Enclosure Type: 1G - with Gasketed Doors
NEMA 3R/4 Lifting Angle: No
Section Depth: Front Mounted, 15" Deep
Section Height: 90" High
Stab Opening Protection: Automatic Shutters
Isolation Barriers: Yes
Wireway Tie Bar: Yes

Total Shipping Block(s): 1
Total Section(s): 3
Total Unit(s): 16

Ethernet Network Information

Full Ethernet Network Information can be found on the One-Line Diagram associated with this project item. This drawing can be obtained by requesting Pre-order drawings through PowerControl Builder.

Section Modifications (Qty/Mods)

Section Number	Section Width (inches)	Options/Modifications
1	20"	N/A
2	20"	N/A
3	20"	N/A

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Rockwell Automation

Centerline 2100 Motor Control Center

Unit Description

Project Name: City of Meridian WRRF TF
Project Item: STFB3MCC0001
Project ID #: 5334856/1

General Information

Line Voltage / Frequency: 480 Volts / 60 Hertz
Power System Configuration: Wye, 3-phase, 3-wire with solidly grounded neutral
Class I Wiring Type: B-T Control and Power Terminal Blocks
NEMA Enclosure Type: 1G - with Gasketed Doors
Available Fault Current: 50,001 to 65,000 A
Unit Nameplate Type: Acrylic - Black letters on white
Delivery Program: ENG

Unit Information

Description	Unit Features
Unit Loc: 01A **Del Prog: PEII** **Unit ID: 2** ENSW - Stratix 5200 20-Port 1783-CMS20DN **Wiring Diagram** 10007662157 **Name Plate Information** ETHERNET SWITCH **Ethernet Information** Device Type: 2100-ESW IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0 No Cable Length Ethernet Switch Firmware Version: LATEST	**Catalog Number: 2100-ESW5220K-T10GRP-751S** Total Space Factor = 1 Full Stratix 5200 Firmware DLR (Device Level Ring) Power Adapters (w/Unit Mtg) **Features Included** Sleeve Type Markers (-751S)
Unit Loc: 01C **Del Prog: SCII** **Unit ID: 1** ENPS - Ethernet Power Supply Unit **Rating** 125A **Wiring Diagram** 10004071286 **Name Plate Information** ETHERNET POWER SUPPLY	**Catalog Number: 2100-EPS8KBH-30TGM-751S** Total Space Factor = 1 Circuit Breaker: Thermal Magnetic, 65kA at 480V (G6C Frame) (15A Trip) Disconnect Type = Circuit Breaker Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, V/60Hz Control Wiring: #16 AWG MTW(TEW) Cu **Features Included** Sleeve Type Markers (-751S)

Unit Loc: 01E **Del Prog: ENG** **Unit ID: 5** FCBX - Empty Unit Insert **Wiring Diagram** 10005455227 **Name Plate Information** SPD	**Catalog Number: 2100M-CKC-36TGM-79L-79U** Total Space Factor = 1.5 Circuit Breaker: Thermal Magnetic, 65kA at 480V (G6C Frame) (60A Trip) Disconnect Type Circuit Breaker **Features Included** Unit Ground Load Connector Unplated Cu (-79L) Unit Grd Stab Unplated Cu (-79U) **Engineered Spec(s)/Modification(s)** (1) ASCO SPD - 300 ka/phase (At 480V Delta or Wye - At 600V Wye only) - UL Rated,450****P30ACCN20 (1) Engineered Modification and/or Custom Diagram
Unit Loc: 01H **Del Prog: FT1** **Unit ID: 9** MCB - Main Circuit Breaker **Rating** 300A **Wiring Diagram** 10004074268 **Name Plate Information** MAIN INCOMING BREAKER 300 AMP	**Catalog Number: 2193MB-DKC-48TKM-80A500** Total Space Factor = 2.5 Circuit Breaker: Electronic (LSI), 65kA at 480V (300) with Frame Rating of 400A (-NONE- Frame), Bottom Mounted, 300A Trip Lugs Supplied: Screw type mech.,CU/AL wire, 350 kcmil Size Wire, 1 Cables per Phase **Engineered Spec(s)/Modification(s)** (1) 140G Ground Fault, Electronic LSIG, Frame Sizes H, J, K (UL Rated), ARMS Option (1) Engineered Modification and/or Custom Diagram (1) 140G Maintenance Mode - Switch Mode Selector Switch, Blue Indicator Light, & Control components for K & M Frame. - Separate Source (no CPT) For R and N Frame breakers, use option -760A (1) 0.5 Space Factor Adder (1) 80VA Control Transformer-Fusing/Fuse Block Included,1497-B-BASX-3-N
Unit Loc: 02A **Del Prog: SCII** **Unit ID: 7** FCB - Feeder Circuit Breaker **Rating** 125A **Wiring Diagram** 10004849880 **Name Plate Information** STFB3AHU0001 HEAT PUMP **Overload Relay(s)** Motor Full Load Current (FLC) = Not Available	**Catalog Number: 2193F-CKC-41TJM-79L-79U** Total Space Factor = 1.5 Circuit Breaker: Thermal Magnetic, 65kA at 480V (125) with Frame Rating of 250A (J6 Frame), Plug-In Unit, 125A Trip Lugs Supplied: Std Mech/Lug Pads, 250 kcmil Size Wire, 1 Cables per Phase **Features Included** Unit Ground Load Connector Unplated Cu (-79L) Unit Grd Stab Unplated Cu (-79U)

Unit Loc: 02D **Del Prog: FT1**
Unit ID: 3
FVNR - Full Voltage Non-Reversing Starter w/CB

Rating
5 HP

Wiring Diagram
10008111980

Name Plate Information
STFB3EXH0001
EXHAUST FAN NO 1

Overload Relay(s)
E300 Comm Based Overload (7FE3)
E300 Communication Option = EtherNet/IP
E300 Voltage Code = 120V AC
E300 Control Module = Control Only
E300 Sensing Module = 0.5-30A Curr/Grnd Fault/Volt
E300 Operator Station = Electronic Reset
E300 Expansion Module = Not Available
Motor RPM = 1800
Motor Full Load Current (FLC) = 6.88
Motor Service Factor = 1.15

Ethernet Information

Device Type	IP Address	Subnet Mask
2113	192.168.1.2	255.255.255.0

Cable Length: 2.3 m

E300 Overload Firmware Version: LATEST

Catalog Number: 2113B-BAB-3-5LGA-6P-7FE3EDCN3VR-39TGA-79L-79U-85T-90-91-750-751S
Size: NEMA Size 1
Total Space Factor = 1
Wiring: NEMA Type B wiring
Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (15A Trip)
Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz
Control Wiring: #14 AWG MTW (TEW) Cu (Tinned)

Features Included
Selector Switch: HAND-OFF-AUTO (-3)
Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA)
Std Capacity Control Power Transformer W/Primary Fuses (-6P)
Unit Ground Load Connector Unplated Cu (-79L)
Unit Grd Stab Unplated Cu (-79U)
Elapsed Time Meter (-85T)
1 NO on Starter (-90)
1 NC on Starter (-91)
#14 AWG MTW (TEW) Cu (Tinned) (-750)
Sleeve Type Markers (-751S)

Engineered Spec(s)/Modification(s)
(1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163
(1) Engineered Modification and/or Custom Diagram
(1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX????
(1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32?
Note - TD4, TD5

Unit Loc: 02F **Del Prog: FT1**
Unit ID: 3
FVNR - Full Voltage Non-Reversing Starter w/CB

Rating
5 HP

Wiring Diagram
10008111980

Name Plate Information
STFB3EXH0002
EXHAUST FAN NO 2

Overload Relay(s)
E300 Comm Based Overload (7FE3)
E300 Communication Option = EtherNet/IP
E300 Voltage Code = 120V AC
E300 Control Module = Control Only
E300 Sensing Module = 0.5-30A Curr/Grnd Fault/Volt
E300 Operator Station = Electronic Reset
E300 Expansion Module = Not Available
Motor RPM = 1800
Motor Full Load Current (FLC) = 6.88
Motor Service Factor = 1.15

Ethernet Information

Device Type	IP Address	Subnet Mask
2113	192.168.1.3	255.255.255.0

Cable Length: 2.63 m

E300 Overload Firmware Version: LATEST

Catalog Number: 2113B-BAB-3-5LGA-6P-7FE3EDCN3VR-39TGA-79L-79U-85T-90-91-750-751S
Size: NEMA Size 1
Total Space Factor = 1
Wiring: NEMA Type B wiring
Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (15A Trip)
Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz
Control Wiring: #14 AWG MTW (TEW) Cu (Tinned)

Features Included
Selector Switch: HAND-OFF-AUTO (-3)
Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA)
Std Capacity Control Power Transformer W/Primary Fuses (-6P)
Unit Ground Load Connector Unplated Cu (-79L)
Unit Grd Stab Unplated Cu (-79U)
Elapsed Time Meter (-85T)
1 NO on Starter (-90)
1 NC on Starter (-91)
#14 AWG MTW (TEW) Cu (Tinned) (-750)
Sleeve Type Markers (-751S)

Engineered Spec(s)/Modification(s)
(1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163
(1) Engineered Modification and/or Custom Diagram
(1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX????
(1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32?
Note - TD4, TD5

Unit Loc: 02H **Del Prog: FT1** **Unit ID: 4** FVNR - Full Voltage Non-Reversing Starter w/CB **Rating** 10 HP **Wiring Diagram** 10008111982 **Name Plate Information** SPARE **Overload Relay(s)** E300 Comm Based Overload (7FE3) E300 Communication Option = EtherNet/IP E300 Voltage Code = 120V AC E300 Control Module = Control Only E300 Sensing Module = 0.5-30A Curr/Grnd Fault/Volt E300 Operator Station = Electronic Reset E300 Expansion Module = Not Available Motor RPM = 1800 Motor Full Load Current (FLC) = 13.65 Motor Service Factor = 1.15 **Ethernet Information** Device Type: 2113 IP Address: 192.168.1.4 Subnet Mask: 255.255.255.0 Cable Length: 2.96 m E300 Overload Firmware Version: LATEST	**Catalog Number: 2113B-BAB-3-5LGA-6P-7FE3EDCN3VR-41TGA-79L-79U-85T-90-91-750-751S** Size: NEMA Size 1 Total Space Factor = 1 Wiring: NEMA Type B wiring Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (30A Trip) Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz Control Wiring: #14 AWG MTW (TEW) Cu (Tinned) **Features Included** Selector Switch: HAND-OFF-AUTO (-3) Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA) Std Capacity Control Power Transformer W/Primary Fuses (-6P) Unit Ground Load Connector Unplated Cu (-79L) Unit Grd Stab Unplated Cu (-79U) Elapsed Time Meter (-85T) 1 NO on Starter (-90) 1 NC on Starter (-91) #14 AWG MTW (TEW) Cu (Tinned) (-750) Sleeve Type Markers (-751S) **Engineered Spec(s)/Modification(s)** (1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163 (1) Engineered Modification and/or Custom Diagram (1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX???? (1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32? Note - TD4, TD5
Unit Loc: 02K **Del Prog: SCII** **Unit ID: 10** DOOR - Blank Unit Door	**Catalog Number: 2100-BK05** Total Space Factor = 0.5
Unit Loc: 02L **Del Prog: SCII** **Unit ID: 11** DOOR - Blank Unit Door	**Catalog Number: 2100-BK10** Total Space Factor = 1
Unit Loc: 03A **Del Prog: SCII** **Unit ID: 6** FCB - Feeder Circuit Breaker **Rating** 40A **Wiring Diagram** 10004266840 **Name Plate Information** STFB3MKU0001 MAKE UP AIR UNIT **Overload Relay(s)** Motor Full Load Current (FLC) = Not Available	**Catalog Number: 2193F-AKB-34TGM-79L-79U** Total Space Factor = 1 Circuit Breaker: Thermal Magnetic, 65kA at 480V (40) with Frame Rating of 125A (G6C Frame), Plug-In Unit, 40A Trip Lugs Supplied: Std Mech/Lug Pads, 1/0 AWG Size Wire, 1 Cables per Phase **Features Included** Unit Ground Load Connector Unplated Cu (-79L) Unit Grd Stab Unplated Cu (-79U)

Unit Loc: 03C **Del Prog: FT1**
Unit ID: 4
FVNR - Full Voltage Non-Reversing Starter w/CB

Rating
10 HP

Wiring Diagram
10008111982

Name Plate Information
STFB3EXH0003
EXHAUST FAN NO 3

Overload Relay(s)
E300 Comm Based Overload (7FE3)
E300 Communication Option = EtherNet/IP
E300 Voltage Code = 120V AC
E300 Control Module = Control Only
E300 Sensing Module = 0.5-30A Curr/Grnd Fault/Volt
E300 Operator Station = Electronic Reset
E300 Expansion Module = Not Available
Motor RPM = 1800
Motor Full Load Current (FLC) = 13.65
Motor Service Factor = 1.15

Ethernet Information

Device Type	IP Address	Subnet Mask
2113	192.168.1.5	255.255.255.0

Cable Length: 2.64 m

E300 Overload Firmware Version: LATEST

Catalog Number: 2113B-BAB-3-5LGA-6P-7FE3EDCN3VR-41TGA-79L-79U-85T-90-91-750-751S
Size: NEMA Size 1
Total Space Factor = 1
Wiring: NEMA Type B wiring
Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (30A Trip)
Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz
Control Wiring: #14 AWG MTW (TEW) Cu (Tinned)

Features Included
Selector Switch: HAND-OFF-AUTO (-3)
Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA)
Std Capacity Control Power Transformer W/Primary Fuses (-6P)
Unit Ground Load Connector Unplated Cu (-79L)
Unit Grd Stab Unplated Cu (-79U)
Elapsed Time Meter (-85T)
1 NO on Starter (-90)
1 NC on Starter (-91)
#14 AWG MTW (TEW) Cu (Tinned) (-750)
Sleeve Type Markers (-751S)

Engineered Spec(s)/Modification(s)
(1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163
(1) Engineered Modification and/or Custom Diagram
(1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX????
(1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32?
Note - TD4, TD5

Unit Loc: 03E **Del Prog: FT1**
Unit ID: 8
FVNR - Full Voltage Non-Reversing Starter w/CB

Rating
25 HP

Wiring Diagram
10008111984

Name Plate Information
SPARE

Overload Relay(s)
E300 Comm Based Overload (7FE3)
E300 Communication Option = EtherNet/IP
E300 Voltage Code = 120V AC
E300 Control Module = Control Only
E300 Sensing Module = 6-60A Curr/Grnd Fault/Volt
E300 Operator Station = Electronic Reset
E300 Expansion Module = Not Available
Motor RPM = 1800
Motor Full Load Current (FLC) = 32.34
Motor Service Factor = 1.15

Ethernet Information

Device Type	IP Address	Subnet Mask
2113	192.168.1.6	255.255.255.0

Cable Length: 2.97 m

E300 Overload Firmware Version: LATEST

Catalog Number: 2113B-CAB-3-5LGA-6P-7FE3EDCN6VR-44TGA-79L-79U-85T-90-91-750-751S
Size: NEMA Size 2
Total Space Factor = 1
Wiring: NEMA Type B wiring
Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (50A Trip)
Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz
Control Wiring: #14 AWG MTW (TEW) Cu (Tinned)

Features Included
Selector Switch: HAND-OFF-AUTO (-3)
Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA)
Std Capacity Control Power Transformer W/Primary Fuses (-6P)
Unit Ground Load Connector Unplated Cu (-79L)
Unit Grd Stab Unplated Cu (-79U)
Elapsed Time Meter (-85T)
1 NO on Starter (-90)
1 NC on Starter (-91)
#14 AWG MTW (TEW) Cu (Tinned) (-750)
Sleeve Type Markers (-751S)

Engineered Spec(s)/Modification(s)
(1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163
(1) Engineered Modification and/or Custom Diagram
(1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX????
(1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32?
Note - TD4, TD5

Unit Loc: 03G **Del Prog: FT1** **Unit ID: 4** FVNR - Full Voltage Non-Reversing Starter w/CB **Rating** 10 HP **Wiring Diagram** 10008111982 **Name Plate Information** SPARE **Overload Relay(s)** E300 Comm Based Overload (7FE3) E300 Communication Option = EtherNet/IP E300 Voltage Code = 120V AC E300 Control Module = Control Only E300 Sensing Module = 0.5-30A Curr/Grnd Fault/Volt E300 Operator Station = Electronic Reset E300 Expansion Module = Not Available Motor RPM = 1800 Motor Full Load Current (FLC) = 13.65 Motor Service Factor = 1.15 **Ethernet Information** Device Type: 2113 IP Address: 192.168.1.7 Subnet Mask: 255.255.255.0 Cable Length: 3.3 m E300 Overload Firmware Version: LATEST	**Catalog Number: 2113B-BAB-3-5LGA-6P-7FE3EDCN3VR-41TGA-79L-79U-85T-90-91-750-751S** Size: NEMA Size 1 Total Space Factor = 1 Wiring: NEMA Type B wiring Circuit Breaker: Instantaneous MCP, 100kA at 480V (G8P Frame) (30A Trip) Control: Transformer with Secondary Fuse, Standard Capacity, Primary Fusing, 120V/60Hz Control Wiring: #14 AWG MTW (TEW) Cu (Tinned) **Features Included** Selector Switch: HAND-OFF-AUTO (-3) Pilot Light(s): ON-OFF Type: LED Push To Test, Color(s): Green, Amber (-5LGA) Std Capacity Control Power Transformer W/Primary Fuses (-6P) Unit Ground Load Connector Unplated Cu (-79L) Unit Grd Stab Unplated Cu (-79U) Elapsed Time Meter (-85T) 1 NO on Starter (-90) 1 NC on Starter (-91) #14 AWG MTW (TEW) Cu (Tinned) (-750) Sleeve Type Markers (-751S) **Engineered Spec(s)/Modification(s)** (1) Bulletin 800T/H, Selector Switch, Padlocking Cover, Part number 800T-N163 (Padlock not included),800T-N163 (1) Engineered Modification and/or Custom Diagram (1) Bulletin 800H, Push Button, Push-Pull or Push-Pull/Twist, Maintained Contact, Non-Illuminated,800H-FRX???? (1) Rockwell Automation Bulletin 700-HK Slim Line Relay, DPDT, 2-pole, 2 Form C, AgNi Contacts,700-HK32? Note - TD4, TD5
Unit Loc: 03J **Del Prog: SCII** **Unit ID: 11** DOOR - Blank Unit Door	**Catalog Number: 2100-BK10** Total Space Factor = 1
Unit Loc: 03L **Del Prog: SCII** **Unit ID: 11** DOOR - Blank Unit Door	**Catalog Number: 2100-BK10** Total Space Factor = 1

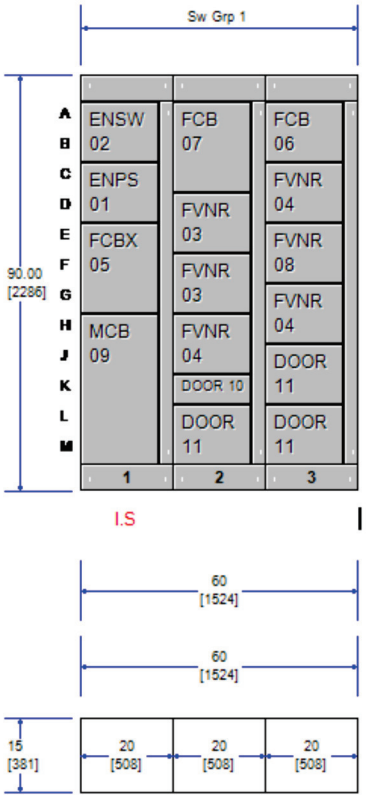
Rockwell Automation

Centerline 2100 Motor Control Center

Front Elevation

Project Name: City of Meridian WRRF TF
Project Item: STFB3MCC0001
Project ID #: 5334856/1

Rockwell Automation/Allen-Bradley
PowerControl Builder Lineup



NOTE: Dimensions are subject to change after design review.
ENCLOSURE: NEMA Type 1G (General Purpose with Gasketed Doors)

Estimated Heat Loss: 697 watts.
BTU/hr. Required: 2377
Air Conditioning Tons: 0.20
Estimated Weight: 1500 lbs. (680 kg)
Heat loss values are for estimating purposes only.

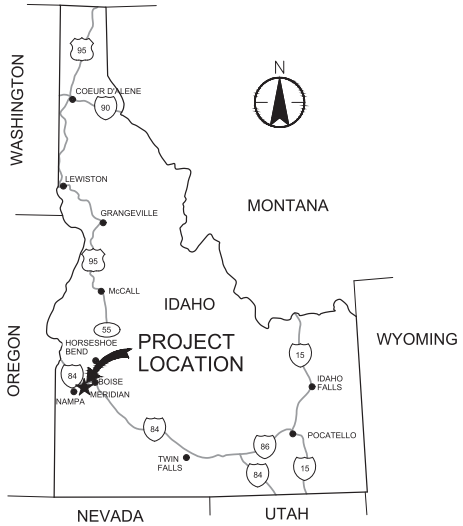
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

Stantec

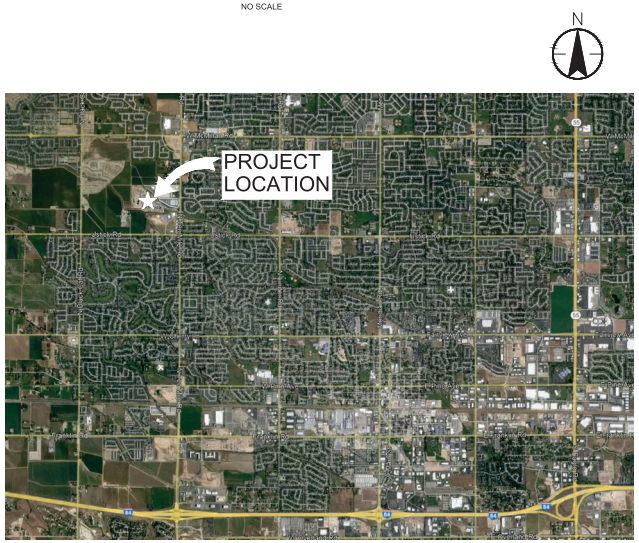
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES

PRE-PROCUREMENT PACKAGE 2
2024.07.01
PROJECT NUMBER: 2002003136



LOCATION MAP
NO SCALE



VICINITY MAP
NO SCALE

LIST OF DRAWINGS

GENERAL

000-G-001 COVER SHEET, LOCATION AND VICINITY MAPS, AND LIST OF DRAWINGS

INSTRUMENTATION

000-I-603 CONTROL NETWORK ARCHITECTURE - I
000-I-604 CONTROL NETWORK ARCHITECTURE - II
500-I-501 MEMBRANE BUILDING - PLC CONTROL PANEL ARRANGEMENT DETAILS
500-I-502 MEMBRANE BUILDING - PLC BILL OF MATERIAL
500-I-503 MEMBRANE BUILDING - PLC PANEL WIRING DIAGRAM
500-I-504 MEMBRANE BUILDING - COMMUNICATIONS PANEL LAYOUT AND BOM
500-I-505 MEMBRANE BUILDING - COMMUNICATIONS PANEL WIRING DIAGRAM
530-I-501 CHEMICAL BUILDING 3 - PLC CONTROL PANEL DETAILS
530-I-502 CHEMICAL BUILDING 3 - PLC BILL OF MATERIAL
530-I-503 CHEMICAL BUILDING 3 - PLC WIRING DIAGRAM
530-I-504 CHEMICAL BUILDING 3 - COMM PANEL LAYOUT AND BOM
530-I-505 CHEMICAL BUILDING 3 - COMM PANEL WIRING DIAGRAM

ELECTRICAL

500-E-201 MEMBRANE BUILDING - EQUIPMENT ELEVATION - I
500-E-202 MEMBRANE BUILDING - EQUIPMENT ELEVATION - II
500-E-602 MEMBRANE BUILDING - SINGLE-LINE DIAGRAM - II
500-E-603 MEMBRANE BUILDING - SINGLE-LINE DIAGRAM - III
500-E-604 MEMBRANE BUILDING - SINGLE-LINE DIAGRAM - IV
500-E-607 MEMBRANE BUILDING - TYPICAL 480V 3PH FVNR SCHEMATIC

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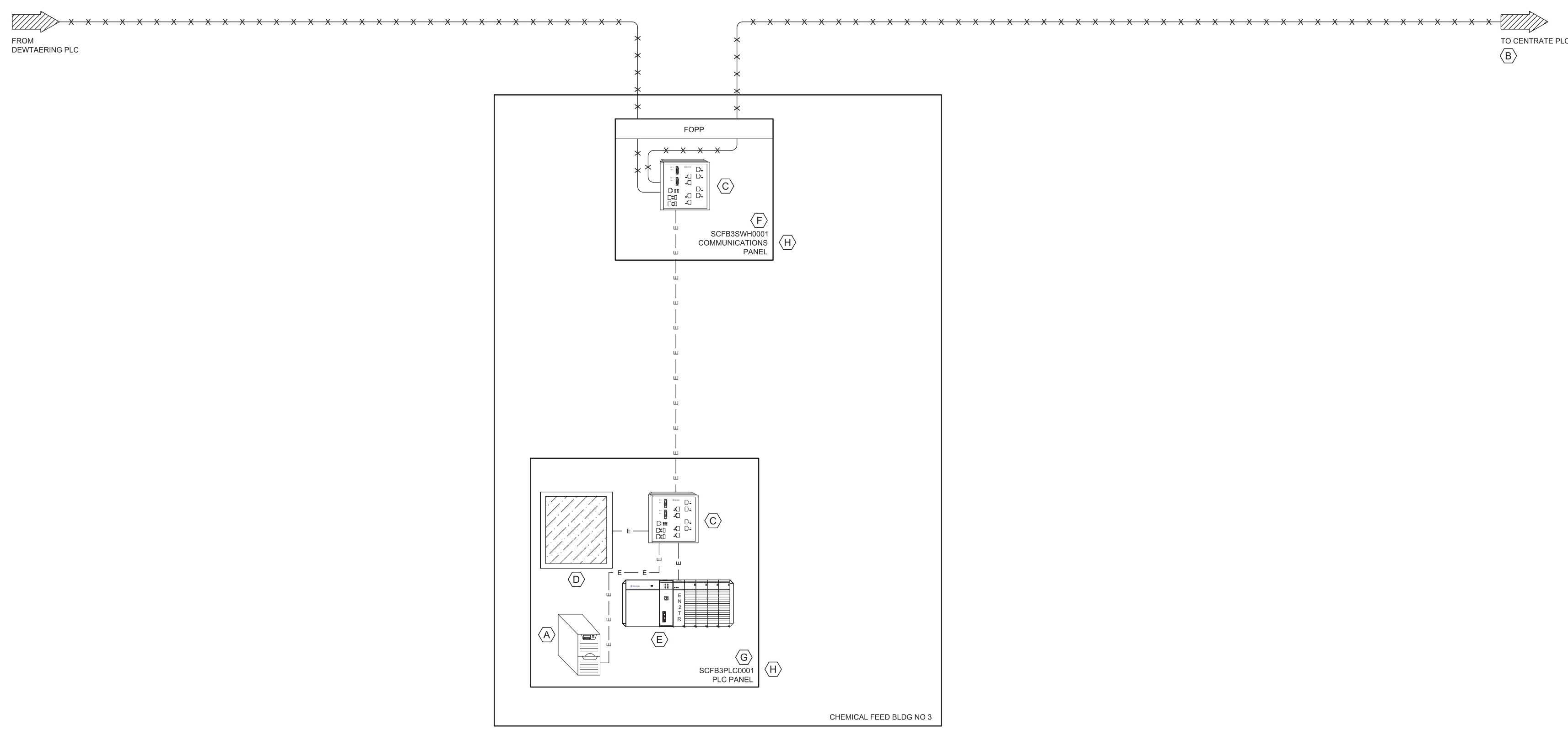
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

SHEET KEYNOTES

A. UPS.
B. THE INTEGRATION OF SCFB3PLC0001 ONTO THE SCADA RING WILL OCCUR IN THE FOPP AT THE DEWATERING PLC.
C. ETHERNET SWITCH - STRATIX 5200 1783-CMS10P.
D. OIT - HOPE INDUSTRIAL HIS-ML 19.5-FGVB WITH THICK CLIENT.
E. PLC - CONTROLLOGIX 1756-L7X.
F. REFER TO DRAWING 500-I-504 FOR STANDARD LAYOUT OF PANEL.
G. REFER TO DRAWING 500-I-501 FOR STANDARD LAYOUT OF PANEL.
H. COMMUNICATIONS AND PLC PANELS ARE PROCURED IN PRE-PURCHASE PACKAGE 2. COORDINATE INSTALLATION WITH OWNER.

LEGENDS

- - - - - -	ELECTRICAL SIGNAL
— E — E — E —	ETHERNET CABLE
—X—X—X—	FIBER CABLE (MULTI-MODE)



Stantec
727 E. Riverpark Lane #150
Boise, Idaho 83706
Tel: +1.208.345.5865
www.stantec.com

Consultant

	Issued	By	Appd	YY.MM.DD
E	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.28
D	90% REVIEW	JPM	MWS	2024.06.21
C	60% REVIEW	JPM	MWS	2023.12.20
B	REVISED PRELIM DESIGN	JPM	MWS	2023.05.30
A	FOR PRELIMINARY DESIGN	JPM	MWS	2022.09.08

Permit/Seal

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031360004-603
Scale: NO SCALE

KRY	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
CONTROL NETWORK ARCHITECTURE - I

Revision:
Drawing No.
000-I-603

ORIGINAL SHEET - ANSI D

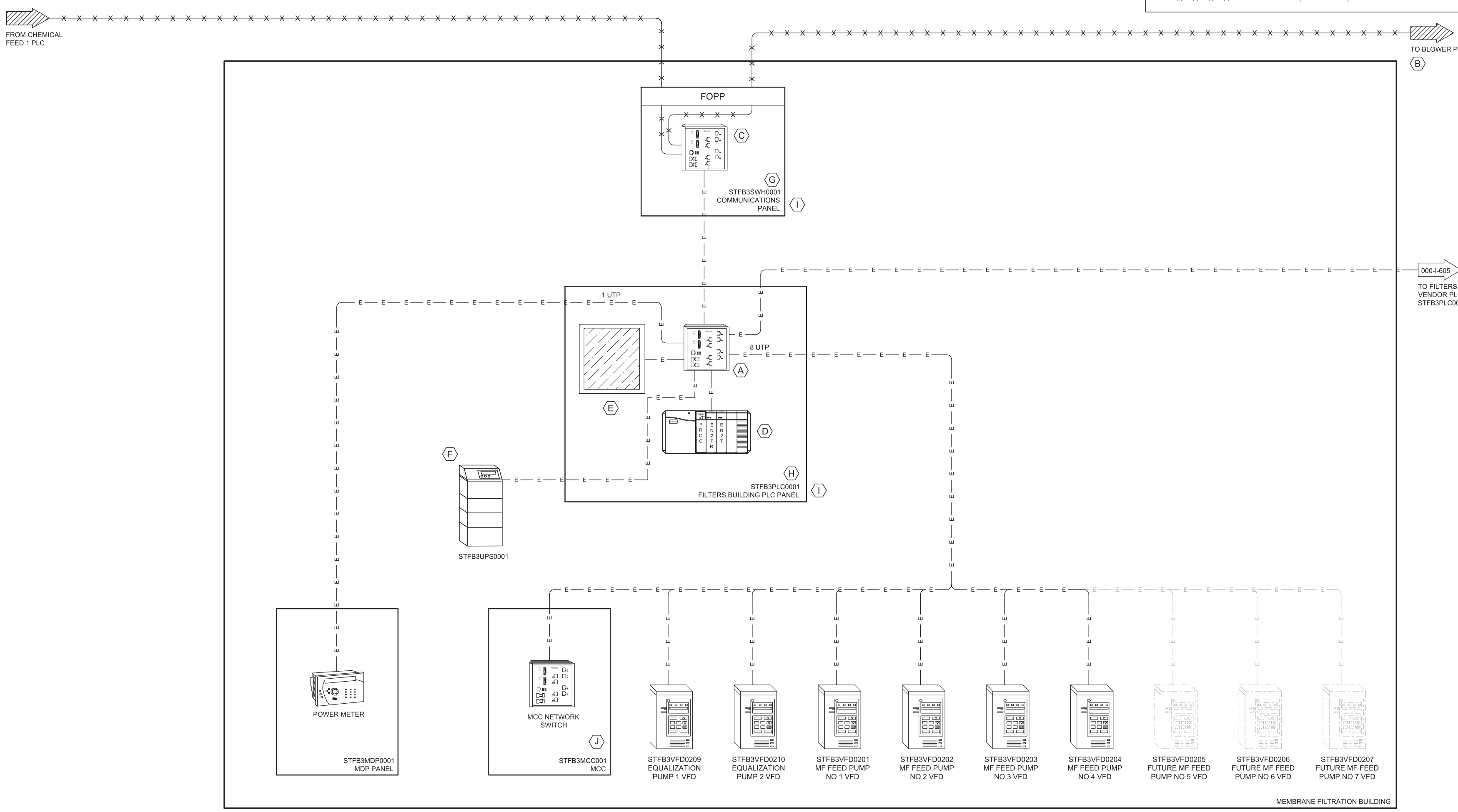
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

SHEET KEYNOTES

A. STRATIX 5200 1783-CMS20DP.
B. THE INTEGRATION OF STFB3PLC0001 ONTO THE SCADA RING WILL OCCUR IN THE FOPP AT THE CHEM FEED 1 PLC.
C. STRATIX 5200 1783-CMS10P.
D. PLC - CONTROLLOGIX 1756-L7X.
E. OIT - HOPE INDUSTRIAL HIS-ML 19.5-FGVB WITH THICK CLIENT.
F. UPS.
G. REFER TO DRAWING 500-I-504 FOR STANDARD LAYOUT OF PANEL.
H. REFER TO DRAWING 500-I-501 FOR STANDARD LAYOUT OF PANEL.
I. COMMUNICATIONS AND PLC PANELS ARE PROCURED IN PRE-PURCHASE PACKAGE 2. COORDINATE INSTALLATION WITH OWNER.
J. STRATIX 5200 1783-CMS20DN

LEGENDS

- - - - - - ELECTRICAL SIGNAL
— E — E — E — ETHERNET CABLE
—X—X—X— FIBER CABLE (MULTI-MODE)



Stantec
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Tel: +1.208.345.5865
www.stantec.com

Consultant

Issued		By	Appd	YY.MM.DD
E	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.28
D	90% REVIEW	JPM	MWS	2024.06.21
C	60% REVIEW	JPM	MWS	2023.12.20
B	REVISED PRELIM DESIGN	JPM	MWS	2023.05.30
A	FOR PRELIMINARY DESIGN	JPM	MWS	[illegible]

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031360004-604
Scale: NO SCALE

KRY	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
CONTROL NETWORK ARCHITECTURE - II

Revision:
Drawing No.
000-I-604

ORIGINAL SHEET - ANSI D

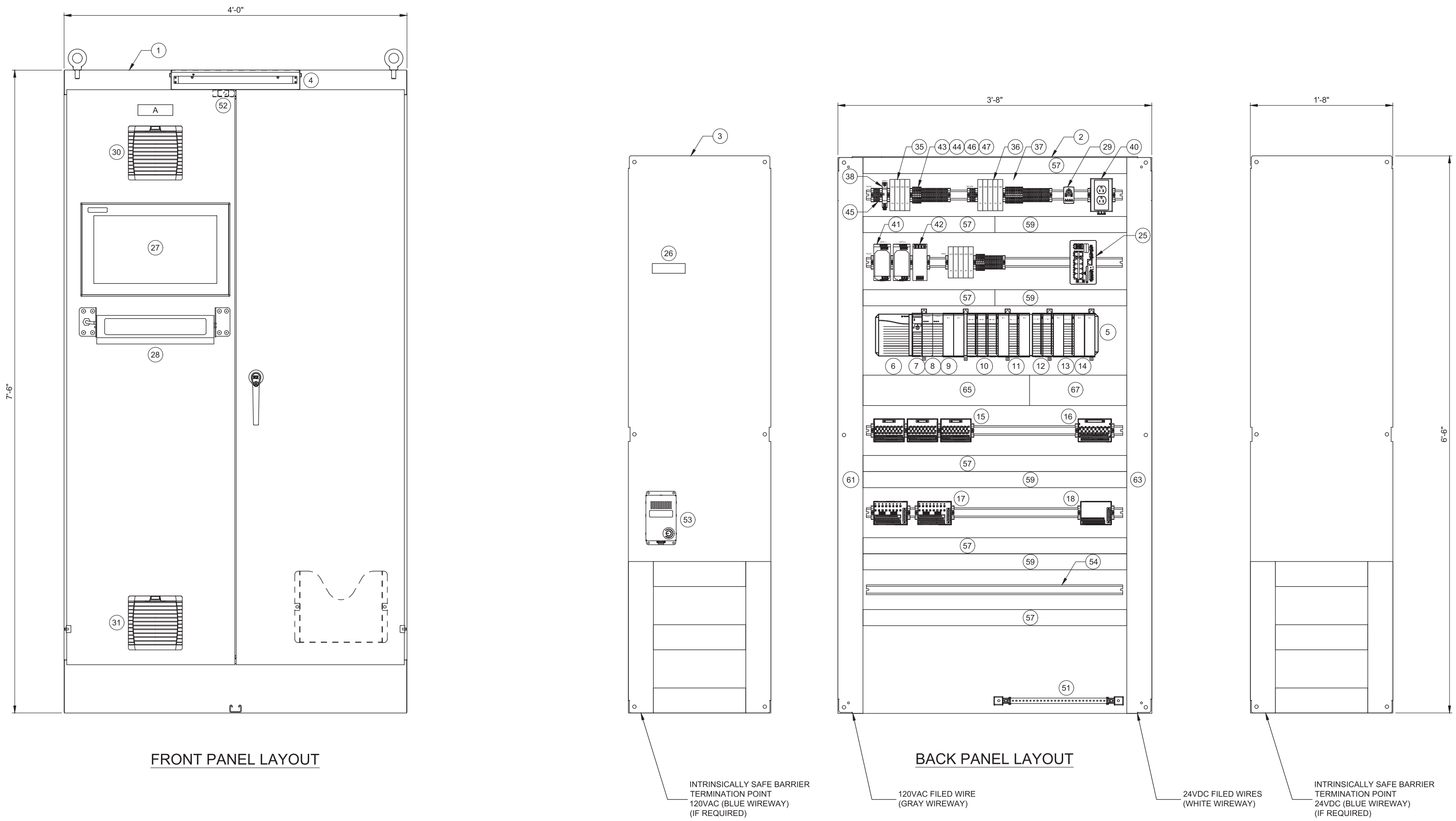
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

GENERAL SHEET NOTES

1. DO NOT REMOVE OR CUTOUT PANDUIT FINGERS FROM ADJACENT WIREWAY.
2. MAXIMUM EQUIPMENT MOUNTED DEPTH 3".
3. MAXIMUM EQUIPMENT MOUNTED HEIGHT 6".
4. U.L. LABLE LOCATED ON INSIDE THE PANEL DOOR.

PANEL LABEL

LABEL	PANEL TAG	DESCRIPTION
A	STFB3PLC0001	TERTIARY FILTERS PLC CONTROL PANEL



STFB3PLC0001
FILTERS BUILDING PLC CONTROL PANEL

Stantec
727 E. Riverpark Lane #150
Boise, Idaho 83706
Tel: +1.208.345.5865
www.stantec.com

Consultant

	Issued	By	Appd	YY.MM.DD
E	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.28
D	90% REVIEW	JPM	MWS	2024.06.21

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

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Client/Project
CITY OF MERIDIAN
MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136S004-501
Scale: NO SCALE

VBK	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING
PLC CONTROL PANEL
ARRANGEMENT DETAILS

Revision:
Drawing No.
500-I-501

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

BILL OF MATERIAL

ITEM NO	QTY	MANUFACTURER	MODEL NUMBER	DESCRIPTION
1	1	SAGINAW	SCE-904824FSD	ENCLOSURE hoff A904820fsd
2	1	SAGINAW	SCE-90P48F1	BACK PANEL hoff a90p48f1
3	2	SAGINAW	SCE-90SMP20	SIDE PANEL hoff a90smp20
4	1	SAGINAW	SCE-LF18NO	ENCLOSURE LIGHT hoff cel550 + celc3001pbil
5	1	ALLEN BRADLEY	1756-A17	PLC RACK, 17 SLOT
6	1	ALLEN BRADLEY	1756-PA75	PLC POWER SUPPLY
7	1	ALLEN BRADLEY	1756-L73	PLC PROCESSOR
8	1	ALLEN BRADLEY	1756-EN2T	PLC ETHERNET MODULE
9	1	ALLEN BRADLEY	1756-EN2TR	PLC ETHERNET REDUNDANCY MODULE
10	3	ALLEN BRADLEY	1756-IA16	PLC DISCRETE INPUT MODULE
11	1	ALLEN BRADLEY	1756-OW16I	PLC DISCRETE OUTPUT MODULE
12	2	ALLEN BRADLEY	1756-IF8H	PLC ANALOG INPUT MODULE
13	1	ALLEN BRADLEY	1756-OF8H	PLC ANALOG OUTPUT MODULE
14	7	ALLEN BRADLEY	1756-N2	PLC FILL MODULE
15	3	ALLEN BRADLEY	1492-RIFM 20F-F120A-2	IFM MODULE, DISCRETE INPUT
16	1	ALLEN BRADLEY	1492-RIFM 40F-F120-2	IFM MODULE, DISCRETE OUTPUT
17	2	ALLEN BRADLEY	1492-AIFM 8-F-5	IFM MODULE, ANALOG INPUT
18	1	ALLEN BRADLEY	1492-RAIFM8-3	IFM MODULE, ANALOG OUTPUT
19	3	ALLEN BRADLEY	1492-CABLE---X	IFM CABLE, DISCRETE INPUT
20	1	ALLEN BRADLEY	1492-CABLE---Y	IFM CABLE, DISCRETE OUTPUT
21	2	ALLEN BRADLEY	1492-ACABLE---UD	IFM CABLE, ANALOG INPUT
22	1	ALLEN BRADLEY	1492-ACABLE---WB	IFM CABLE, ANALOG OUTPUT
23	5	ALLEN BRADLEY	1492-RTB-20-N	IFM REMOVABLE TERMINAL BLOCK (RTB), 20 POLE
24	3	ALLEN BRADLEY	1492-RTB-16-N	IFM REMOVABLE TERMINAL BLOCK (RTB), 16 POLE
25	1	ALLEN BRADLEY	1783-CMS20DP	ETHERNET SWITCH, STRATIX 5200 CMS20DP
26	1	DELL	OPTIPLEX 3080	DESKTOP WORKSTATION
27	1	HOPE	HIS-ML19.5-FGVB	19.5" WIDESCREEN PANEL MOUNT MONITOR AND INDUSTRIAL TOUCH SCREEN, NON-TOUCH HMI
28	1	HOPE	KB-R3-WMT-BLK-4-USB	KEYBOARD
29	1	PFANNENBERG	17121000010	THERMOSTAT hoff atemnof
30	2	PFANNENBERG	11632154055	COOLING FAN KIT, 8" hoff hf0916414
31	2	PFANNENBERG	11730004055	FILLER KIT hoff 89134425r
32	1	NOT USED	NOT USED	NOT USED
33	1	NOT USED	NOT USED	NOT USED
34	1	NOT USED	NOT USED	NOT USED
35	1	EATON	FAZ-C10-1-NA-SP	CIRCUIT BREAKER, 10A ab 1489-m1c100
36	7	EATON	FAZ-C5-1-NA-SP	CIRCUIT BREAKER, 5A ab 1489-m1c050
37	6	EATON	FAZ-C3-1-NA-SP	CIRCUIT BREAKER, 3A ab 1489-m1c030
38	1	TRANSTECTOR	1104-15-000	SURGE SUPPRESSOR, I2R IEP-120-10
39	-	NOT USED	NOT USED	NOT USED
40	1	PHOENIX CONTACT	5600461	CONVENIENCE OUTLET, DUPLEX ab 1492-rec15
41	2	PHOENIX CONTACT	2866763	24VDC POWER SUPPLY, QUINT 10A ab 1606-xle240e
42	1	PHOENIX CONTACT	2320157	24VDC REDUNDANCY MDOULE , QUINT-DIODE/12-24VDC ab 1606-xlered20
43	20	PHOENIX CONTACT	3046032	FUSED TERMINAL BLOCK, UT 4-HESI ab 1492-j6fb1120
44	45	PHOENIX CONTACT	3044102	TERMINAL BLOCK, GREY, UT-4 ab 1492-j4
45	5	PHOENIX CONTACT	3044128	GROUNDING TERMINAL BLOCK. UT 4-PE ab 1492-jg4
46	10	PHOENIX CONTACT	3047028	END COVER, GREY, D-UT 2.5/10. 22MM ab 1492-ebjd3
47	32	PHOENIX CONTACT	0800886	END ANCHOR. E/NS 35N ab 1492-eaj35
48	20	PHOENIX CONTACT	3032224	PLUG-IN BRIDGE, RED (50), FBS 50-6 ab 1492-cjp4-50
49	1	PHOENIX CONTACT	3032211	PLUG-IN BRIDGE, BLUE (50), FBS 50-6 BU ab 1492-cjlj5-50-b
50	1	PHOENIX CONTACT	0800307	TERMINAL STRIP MARKER CARRIER, UBE/D ab 1492-gm35
51	12	HOFFMAN	P-GS4K	GROUND BAR
52	1	HOFFMAN	ALFSWD	DOOR SWITCH (FOR LIGHT)
53	1	HOFFMAN	DAH-8001	PANEL HEATER
54	AR	ALLEN BRADLEY	DR-199	DIN RAIL
55	-	NOT USED	NOT USED	NOT USED
56	-	NOT USED	NOT USED	NOT USED
57	AR	PANDUIT	F2X4LG6	2" X 4" WIRING DUCT, GRAY, NARROW SLOT, TYPE F
58	AR	PANDUIT	C2LG6	2" WIRING DUCT COVER, GRAY
59	AR	PANDUIT	F2X4LWH6	2" X 4" WIRING DUCT, WHITE, NARROW SLOT, TYPE F
60	AR	PANDUIT	C2LWH6	2" WIRING DUCT COVER, WHITE
61	AR	PANDUIT	F3X4LG6	3" X 4" WIRING DUCT, GRAY, NARROW SLOT, TYPE F
62	AR	PANDUIT	C3LG6	3" WIRING DUCT COVER, GRAY
63	AR	PANDUIT	F3X4LWH6	3" X 4" WIRING DUCT, WITE, NARROW SLOT, TYPE F
64	AR	PANDUIT	C3LWH6	3" WIRING DUCT COVER, WHITE
65	AR	PANDUIT	F4X4LG6	4" X 4" WIRING DUCT, GRAY, NARROW SLOT, TYPE F
66	AR	PANDUIT	C4LG6	4" WIRING DUCT COVER, GRAY
67	AR	PANDUIT	F4X4WH6	4" X 4" WIRING DUCT, WHITE, NARROW SLOT, TYPE F
68	AR	PANDUIT	C4LWH6	4" WIRING DUCT COVER, WHITE
69	AR	PANDUIT	F2X4BU6	2" X 4" WIRING DUCT, BLUE, NARROW SLOT, TYPE F
70	AR	PANDUIT	C2LBU6	2" WIRING DUCT COVER, BLUE

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E	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.28
D	90% REVIEW	JPM	MWS	2024.06.21

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365004-502

Scale: NO SCALE

VBK	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

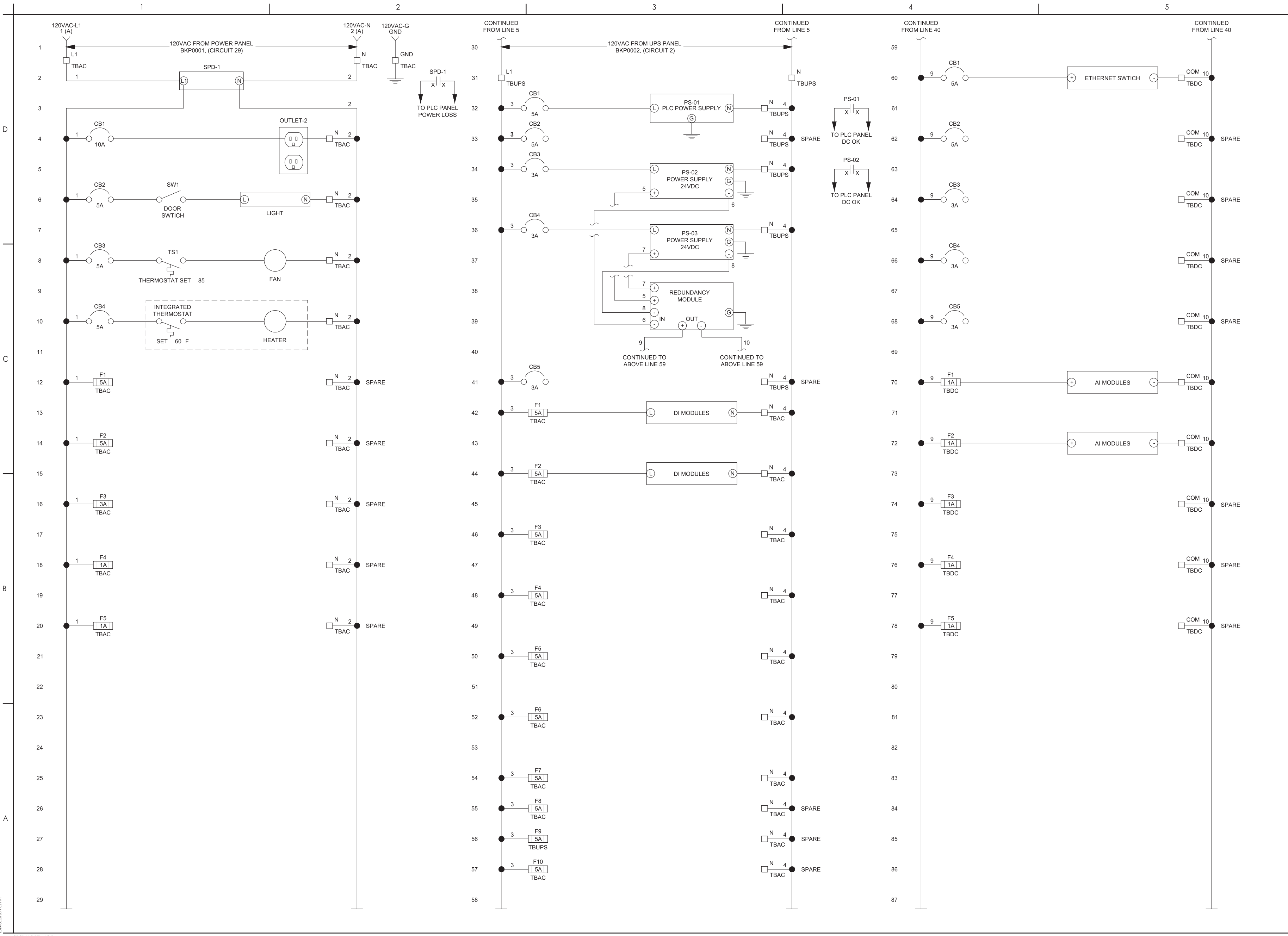
Title
MEMBRANE BUILDING
PLC BILL OF MATERIAL

Revision:

Drawing No.
500-I-502

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43



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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365004-503

Scale: NO SCALE

VBK	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

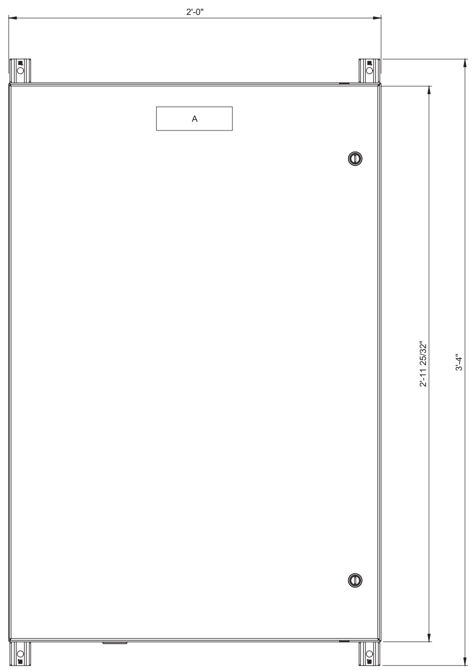
Title
MEMBRANE BUILDING
PLC PANEL WIRING DIAGRAM

Revision:
Drawing No.
500-I-503

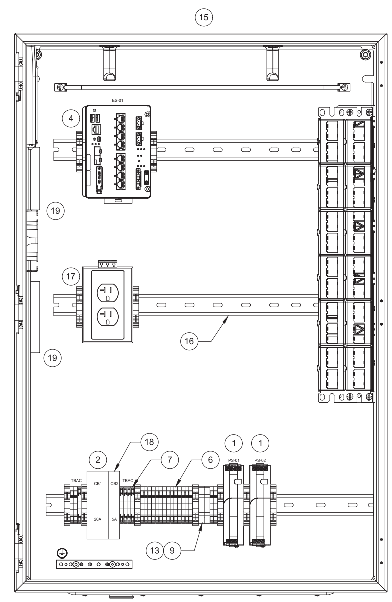
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

BILL OF MATERIAL

ITEM NO	QTY	MANUFACTURER	MODEL NUMBER	DESCRIPTION
1	2	ALLEN BRADLEY	1606-XLE120E	ESSENTIAL POWER SUPPLY, 24-28V DC, 120W, 120/24V AC INPUT VOLTAGE
2	1	ALLEN BRADLEY	1489-M2C200	BULLETIN 1489-M THERMAL-MAGNETIC CIRCUIT BREAKERS, STANDARD CONFIGURATION, AC 2 POLE CONFIGURATION, TRIP CURVE C UL/CSA MAZ , VOLTAGE 480V/277V AC, 96V DC, IECJEN MAX VOLTAGE 400V, AC 20A
3	-	NOT USED	NOT USED	NOT USED
4	1	ALLEN BRADLEY	1783-CMS10P	STRATIX 5200 SWITCH MODULAR BASE, 8 POE 100 / 1000 PORTS, 2 SFP 100 / 1000 SLOTS, LAYER 2 FW, ADVANCED FEATURES
5	2	ALLEN BRADLEY	1783-SFP100LX	STRATIX FIBER SFP, 100 MBIT CONNECTIVITY OVER SINGLE MODE FIBER DUAL LC
6	14	ALLEN BRADLEY	1492-J4	1492-J IEC TERMINAL BLOCK, ONE CIRCUIT FEED THROUGH BLOCK, 600VAC, 35A 4MM (22 AWG-10 AWG) STANDARD FEED THROUGH GRAY (STANDARD)
7	5	ALLEN BRADLEY	1492-JG4	1492-J IEC TERMINAL BLOCK, ONE CIRCUIT FEED THROUGH GROUND BLOCK, 4MM (22 AWG-10 AWG) STANDARD FEED THROUGH GREEN/YELLOW STRIPE (STANDARD)
8	AR	ALLEN BRADLEY	1492-EAJ35	1492 TERMINAL BLOCK ACCESSORIES AND ANCHOR, END ANCHOR
9	2	ALLEN BRADLEY	1492-WFB4250	1492-WIEC TERMINAL BLOCK, ONE-CIRCUIT FUSE BLOCK (5 X 20 MM FUSES, TYPE W) 2.5MM (#22 AWG - # 12 AWG) NEON INDICATOR, BLACK (STANDARD)
10	AR	ALLEN BRADLEY	1492-SJFB8-10	SIDE JUMPER, INSULATED, 8MM 10 POLE GRAY, PKG, QTY OF 10 JFB8-10
11	AR	ALLEN BRADLEY	1492-CJJ6-2	CENTER JUMPER SCREW TYPE 6MM CENTER TO CENTER, 2 POLE, GRAY, PKG, QTY OF 20 FOR USE WITH 1492-J4, J4M
12	AR	ALLEN BRADLEY	1492-CJJ6-3	CENTER JUMPER SCREW TYPE 6MM CENTER TO CENTER, 3 POLE, GRAY, PKG, QTY OF 50 FOR USE WITH 1492-J4, J4M
13	2	MERSEN	GSC10	MINIATURE FUSE GSC - TIME-DELAY, 125 V AC, 10A, 5 X 20 MM FERRULE, GLASS/CERAMIC
14	6	PANDUIT	CMDSLCZBU	MINI-COM ADAPTER MODULE, SINGLE MODE FIBER, DUPLEX, BLUE/BLUE
15	1	PANDUIT	Z23C-S	PRE-CONFIGURED NETWORK ZONE SYSTEM FIBER CABINET
16	AR	ALLEN BRADLEY	DR-199	DIN RAIL
17	1	PHOENIX CONTACT	5600461	CONVENIENCE OUTLET, DUPLEX ab 1492-rec15
18	1	ALLEN BRADLEY	1489-M1C050	BULLETIN 1489-M THERMAL-MAGNETIC CIRCUIT BREAKERS, STANDARD CONFIGURATION, AC 1 POLE CONFIGURATION, TRIP CURVE C UL/CSA MAZ , VOLTAGE 480V/277V AC, 96V DC, IECJEN MAX VOLTAGE 400V, AC 5A
19	2	PANDUIT	FAP6WAQDLCZ	FOPP, LC DUPLEX ADAPTER, OM3/OM4, 6 DUPLEX



FRONT PANEL LAYOUT



BACK PANEL LAYOUT

STFB3WH0001
FILTERS BUILDING COMMUNICATIONS PANEL

PANEL LABEL

LABEL	PANEL TAG	DESCRIPTION
A	STFB3WH0001	COMMUNICATIONS PANEL

ORIGINAL SHEET - ANSI D

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

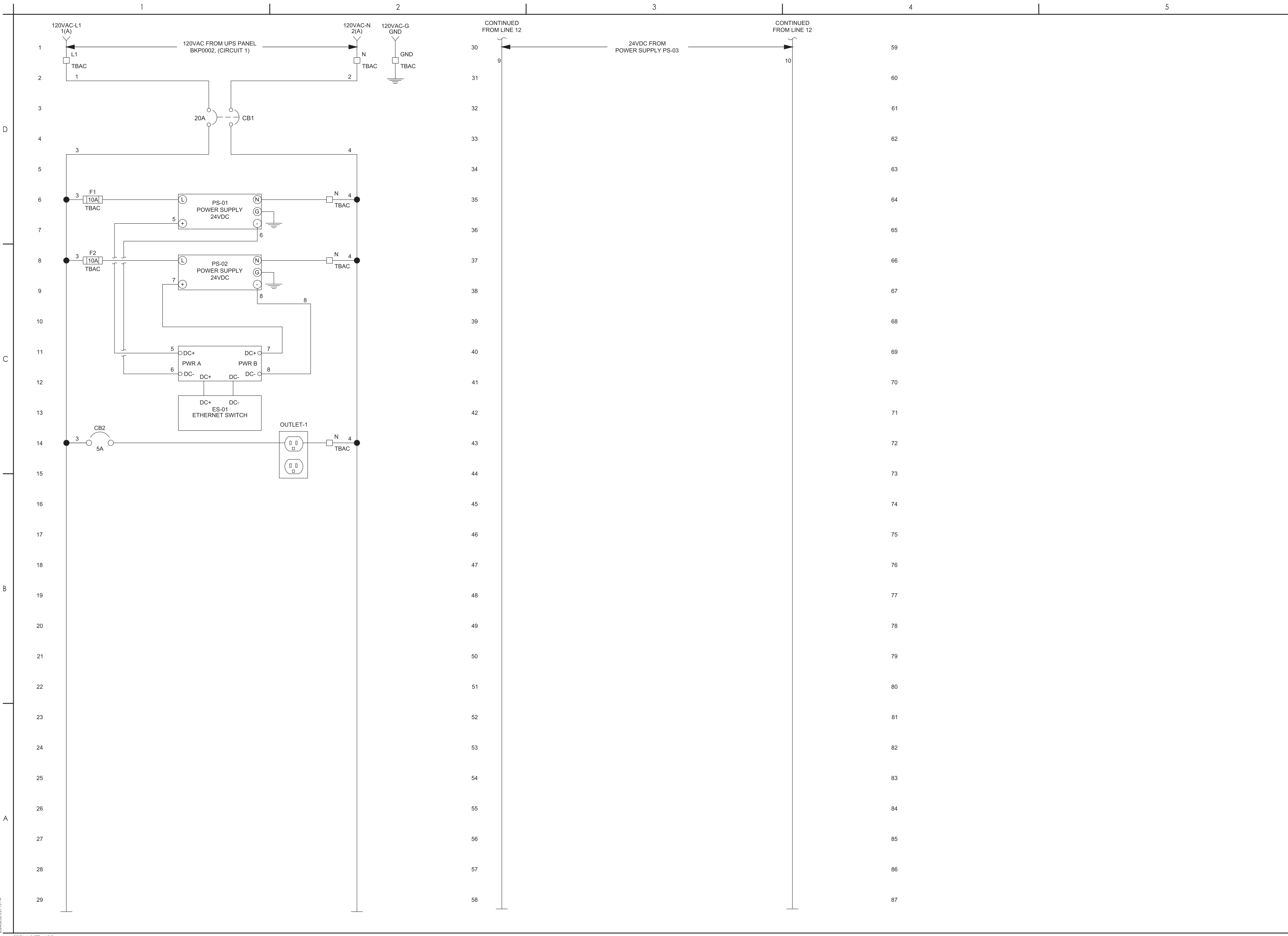
Project No.: 2002003136
File Name: 031365004-504
Scale: 3" = 1'-0"

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JPM		2024.06.21

Title
MEMBRANE BUILDING COMMUNICATIONS PANEL LAYOUT AND BOM

Revision:
Drawing No.
500-I-504

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43



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D 90% REVIEW	JPM	MWS	2024.06.21

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MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365004-505
Scale: NO SCALE

KRY	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING COMMUNICATIONS PANEL WIRING DIAGRAM

Revision:
Drawing No.
500-I-505

ORIGINAL SHEET - ANSI D

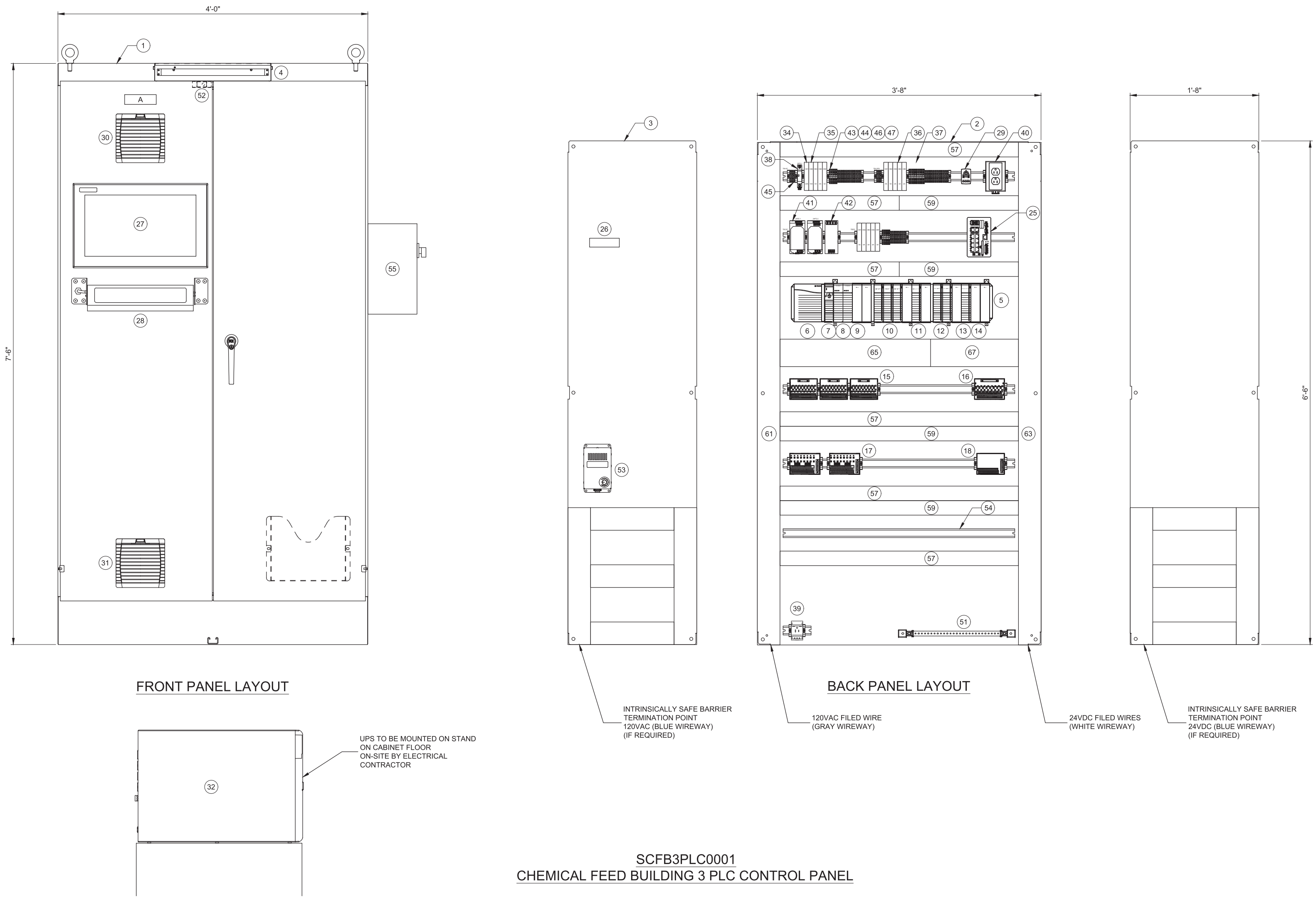
Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

GENERAL SHEET NOTES

1. DO NOT REMOVE OR CUTOUT PANDUIT FINGERS FROM ADJACENT WIREWAY.
2. MAXIMUM EQUIPMENT MOUNTED DEPTH 3".
3. MAXIMUM EQUIPMENT MOUNTED HEIGHT 6".
4. U.L. LABLE LOCATED ON INSIDE THE PANEL DOOR.

PANEL LABEL

LABEL	PANEL TAG	DESCRIPTION
A	STFB3PLC0001	CHEMICAL FEED BLDG 3 PLC CONTROL PANEL



SCFB3PLC0001
CHEMICAL FEED BUILDING 3 PLC CONTROL PANEL

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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365304-501

Scale: 1:1

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VBK	JPM		2024.06.21

Title

CHEMICAL BUILDING 3 PLC CONTROL PANEL DETAILS

Revision:

Drawing No.
530-I-501

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

BILL OF MATERIAL

ITEM NO	QTY	MANUFACTURER	MODEL NUMBER	DESCRIPTION
1	1	SAGINAW	SCE-904824FSD	ENCLOSURE hoff a904820fsd
2	1	SAGINAW	SCE-90P48F1	BACK PANEL hoff a90p48f1
3	2	SAGINAW	SCE-90SMP20	SIDE PANEL hoff a90smp20
4	1	SAGINAW	SCE-LF18NO	ENCLOSURE LIGHT hoff cel550 + celc3001pbul
5	1	ALLEN BRADLEY	1756-A17	PLC RACK, 17 SLOT
6	1	ALLEN BRADLEY	1756-PA75	PLC POWER SUPPLY
7	1	ALLEN BRADLEY	1756-L73	PLC PROCESSOR
8	1	ALLEN BRADLEY	1756-EN2T	PLC ETHERNET MODULE
9	1	ALLEN BRADLEY	1756-EN2TR	PLC ETHERNET REDUNDANCY MODULE
10	3	ALLEN BRADLEY	1756-IA16	PLC DISCRETE INPUT MODULE
11	1	ALLEN BRADLEY	1756-OW16I	PLC DISCRETE OUTPUT MODULE
12	2	ALLEN BRADLEY	1756-IF8H	PLC ANALOG INPUT MODULE
13	1	ALLEN BRADLEY	1756-OF8H	PLC ANALOG OUTPUT MODULE
14	7	ALLEN BRADLEY	1756-N2	PLC FILL MODULE
15	3	ALLEN BRADLEY	1492-RIFM 20F-F120A-2	IFM MODULE, DISCRETE INPUT
16	1	ALLEN BRADLEY	1492-RIFM 40F-F120-2	IFM MODULE, DISCRETE OUTPUT
17	2	ALLEN BRADLEY	1492-AIFM 8-F-5	IFM MODULE, ANALOG INPUT
18	1	ALLEN BRADLEY	1492-RAIFM8-3	IFM MODULE, ANALOG OUTPUT
19	3	ALLEN BRADLEY	1492-CABLE---X	IFM CABLE, DISCRETE INPUT
20	1	ALLEN BRADLEY	1492-CABLE---Y	IFM CABLE, DISCRETE OUTPUT
21	2	ALLEN BRADLEY	1492-ACABLE---UD	IFM CABLE, ANALOG INPUT
22	1	ALLEN BRADLEY	1492-ACABLE---WB	IFM CABLE, ANALOG OUTPUT
23	5	ALLEN BRADLEY	1492-RTB-20-N	IFM REMOVABLE TERMINAL BLOCK (RTB), 20 POLE
24	3	ALLEN BRADLEY	1492-RTB-16-N	IFM REMOVABLE TERMINAL BLOCK (RTB), 16 POLE
25	1	ALLEN BRADLEY	1783-CMS10P	ETHERNET SWITCH, STRATIX 5200
26	1	DELL	OPTIPLEX 3080	DESKTOP WORKSTATION
27	1	HOPE	HIS-ML19.5-FGVB	19.5" WIDESCREEN PANEL MOUNT MONITOR AND INDUSTRIAL TOUCH SCREEN, NON-TOUCH HMI
28	1	HOPE	KB-R3-WMT-BLK-4-USB	KEYBOARD
29	1	PFANNENBERG	17121000010	THERMOSTAT hoff atemnof
30	2	PFANNENBERG	11632154055	COOLING FAN KIT, 8" hoff hf0916414
31	2	PFANNENBERG	11730004055	FILLER KIT hoff 89134425r
32	1	EATON	5P3000	5P UPS, TOWER, 3000VA, 2700W, TRUE SINE WAVE, WITH NETWORK CARD
33	1	EATON	EBP-1003	5P/5PX REPLACEMENT BATTERY PACK USED WITH 5P3000
34	1	EATON	FAZ-C20-1-NA-SP	CIRCUIT BREAKER, 20A ab 1489-m1c200
35	1	EATON	FAZ-C10-1-NA-SP	CIRCUIT BREAKER, 10A ab 1489-m1c100
36	7	EATON	FAZ-C5-1-NA-SP	CIRCUIT BREAKER, 5A ab 1489-m1c050
37	6	EATON	FAZ-C3-1-NA-SP	CIRCUIT BREAKER, 3A ab 1489-m1c030
38	1	TRANSTECTOR	1104-15-000	SURGE SUPPRESSOR, I2R IEP-120-10
39	1	PHOENIX CONTACT	2963860	CONVENIENCE OUTLET, SIMPLEX ab 1492-rec15
40	1	PHOENIX CONTACT	5600461	CONVENIENCE OUTLET, DUPLEX ab 1492-rec15
41	2	PHOENIX CONTACT	2866763	24VDC POWER SUPPLY, QUINT 10A ab 1606-xle240e
42	1	PHOENIX CONTACT	2320157	24VDC REDUNDANCY MODULE , QUINT-DIODE/12-24VDC ab 1606xlered20
43	20	PHOENIX CONTACT	3046032	FUSED TERMINAL BLOCK, UT 4-HESI ab 1492-j6fb1120
44	45	PHOENIX CONTACT	3044102	TERMINAL BLOCK, GREY, UT-4 ab 1492-j4
45	5	PHOENIX CONTACT	3044128	GROUNDING TERMINAL BLOCK, UT 4-PE ab 1492-jg4
46	10	PHOENIX CONTACT	3047028	END COVER, GREY, D-UT 2.5/10. 22MM ab 1492-ebjd3
47	32	PHOENIX CONTACT	0800886	END ANCHOR. E/NS 35N ab 1492-eaj35
48	20	PHOENIX CONTACT	3032224	PLUG-IN BRIDGE, RED (50), FBS 50-6 ab 1492-cjp4-50
49	1	PHOENIX CONTACT	3032211	PLUG-IN BRIDGE, BLUE (50), FBS 50-6 BU ab 1492-cjlj5-50-b
50	1	PHOENIX CONTACT	0800307	TERMINAL STRIP MARKER CARRIER, UBE/D ab 1492-gm35
51	12	HOFFMAN	P-GS4K	GROUND BAR
52	1	HOFFMAN	ALFSWD	DOOR SWITCH (FOR LIGHT)
53	1	HOFFMAN	DAH-8001	PANEL HEATER
54	AR	ALLEN BRADLEY	DR-199	DIN RAIL
55	AR	C&C POWERS	93802-40	BYPASS SWITCH, UPS
56	1	NOT USED	NOT USED	NOT USED
57	AR	PANDUIT	F2X4LG6	2" X 4" WIRING DUCT, GRAY, NARROW SLOT, TYPE F
58	AR	PANDUIT	C2LG6	2" WIRING DUCT COVER, GRAY
59	AR	PANDUIT	F2X4LWH6	2" X 4" WIRING DUCT, WHITE, NARROW SLOT, TYPE F
60	AR	PANDUIT	C2LWH6	2" WIRING DUCT COVER, WHITE
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67	AR	PANDUIT	F4X4WH6	4" X 4" WIRING DUCT, WHITE, NARROW SLOT, TYPE F
68	AR	PANDUIT	C4LWH6	4" WIRING DUCT COVER, WHITE
69	AR	PANDUIT	F2X4BU6	2" X 4" WIRING DUCT, BLUE, NARROW SLOT, TYPE F
70	AR	PANDUIT	C2LBU6	2" WIRING DUCT COVER, BLUE

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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365304-502
Scale: NO SCALE

VBK	JPM		2024.06.21
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Title
CHEMICAL BUILDING 3 PLC
BILL OF MATERIAL

Revision:
Drawing No.
530-I-502

ORIGINAL SHEET - ANSI D

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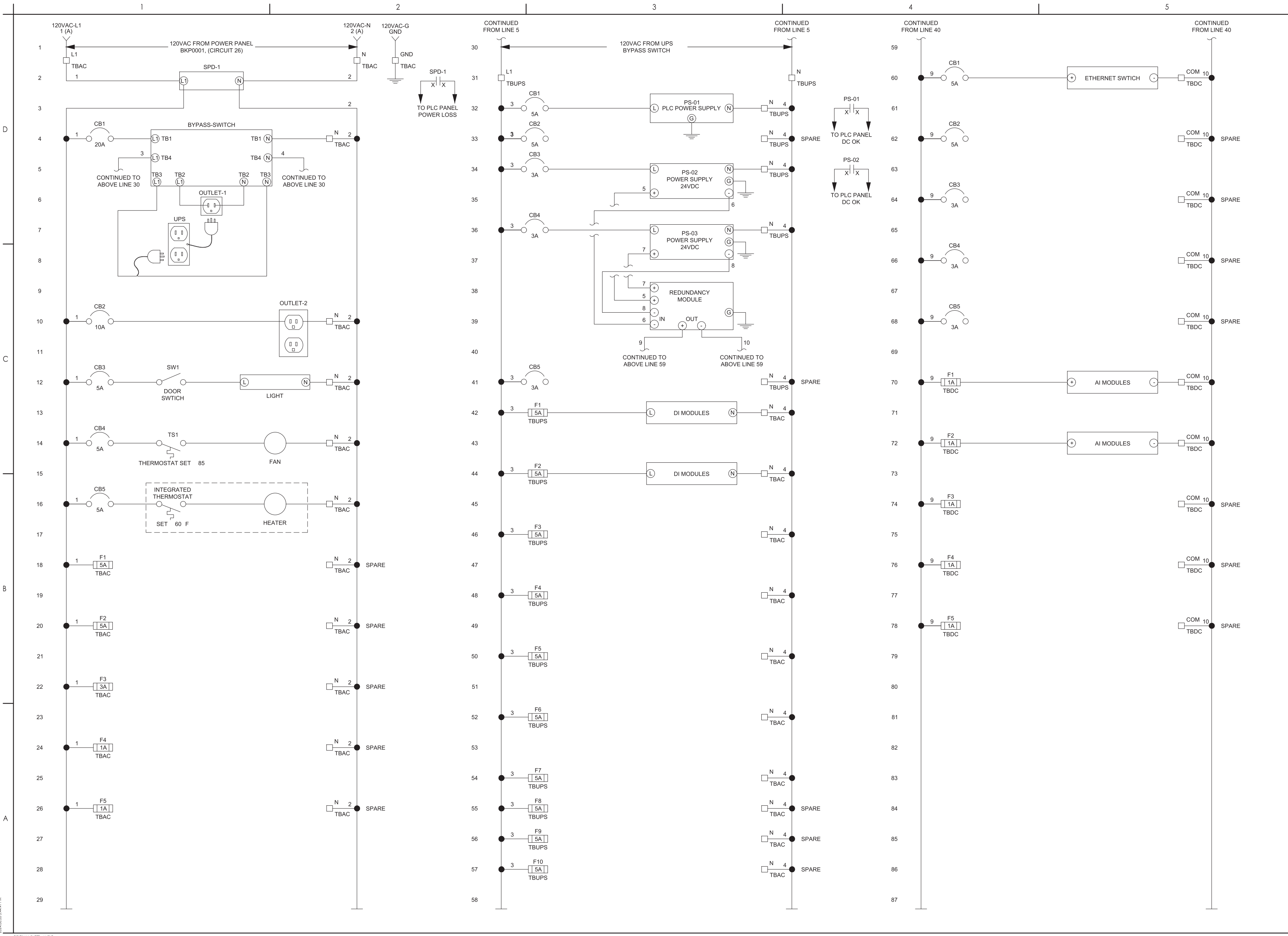

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MERIDIAN, IDAHO

Project No.: 2002003136
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VBK	JPM		2024.06.21
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Title
CHEMICAL BUILDING 3
PLC WIRING DIAGRAM

Revision:
Drawing No.
530-I-503

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

BILL OF MATERIAL

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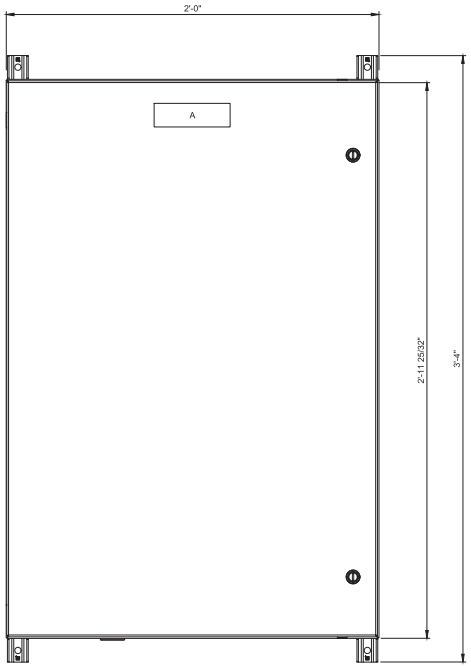
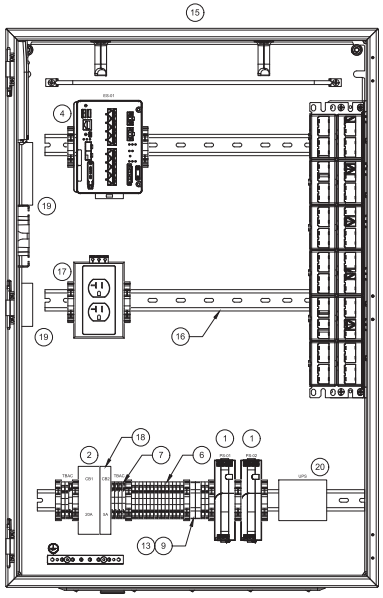
2	1	ALLEN BRADLEY	1489-M2C200	BULLETIN 1489-M THERMAL-MAGNETIC CIRCUIT BREAKERS, STANDARD CONFIGURATION, AC 2 POLE CONFIGURATION, TRIP CURVE C UL/CSA MAZ , VOLTAGE 480V/277V AC, 96V DC, IECJEN MAX VOLTAGE 400V, AC 20A
3	-	NOT USED	NOT USED	NOT USED
4	1	ALLEN BRADLEY	1783-CMS10P	STRATIX 5200 SWITCH MODULAR BASE, 8 POE 100 / 1000 PORTS, 2 SFP 100 / 1000 SLOTS, LAYER 2 FW, ADVANCED FEATURES
5	2	ALLEN BRADLEY	1783-SFP100LX	STRATIX FIBER SFP, 100 MBIT CONNECTIVITY OVER SINGLE MODE FIBER DUAL LC
6	14	ALLEN BRADLEY	1492-J4	1492-J IEC TERMINAL BLOCK, ONE CIRCUIT FEED THROUGH BLOCK, 600VAC, 35A 4MM (22 AWG-10 AWG) STANDARD FEED THROUGH GRAY (STANDARD)
7	5	ALLEN BRADLEY	1492-JG4	1492-J IEC TERMINAL BLOCK, ONE CIRCUIT FEED THROUGH GROUND BLOCK, 4MM (22 AWG-10 AWG) STANDARD FEED THROUGH GREEN/YELLOW STRIPE (STANDARD)
8	AR	ALLEN BRADLEY	1492-EAJ35	1492 TERMINAL BLOCK ACCESSORIES AND ANCHOR, END ANCHOR
9	2	ALLEN BRADLEY	1492-WFB4250	1492-WIEC TERMINAL BLOCK, ONE-CIRCUIT FUSE BLOCK (5 X 20 MM FUSES, TYPE W) 2.5MM (#22 AWG - # 12 AWG) NEON INDICATOR, BLACK (STANDARD)
10	AR	ALLEN BRADLEY	1492-SJFB8-10	SIDE JUMPER, INSULATED, 8MM 10 POLE GRAY, PKG, QTY OF 10 JFB8-10
11	AR	ALLEN BRADLEY	1492-CJJ6-2	CENTER JUMPER SCREW TYPE 6MM CENTER TO CENTER, 2 POLE, GRAY, PKG, QTY OF 20 FOR USE WITH 1492-J4, J4M
12	AR	ALLEN BRADLEY	1492-CJJ6-3	CENTER JUMPER SCREW TYPE 6MM CENTER TO CENTER, 3 POLE, GRAY, PKG, QTY OF 50 FOR USE WITH 1492-J4, J4M
13	2	MERSEN	GSC10	MINIATURE FUSE GSC - TIME-DELAY, 125 V AC, 10A, 5 X 20 MM FERRULE, GLASS/CERAMIC
14	6	PANDUIT	CMDSLCZBU	MINI-COM ADAPTER MODULE, SINGLE MODE FIBER, DUPLEX, BLUE/BLUE
15	1	PANDUIT	Z23C-S	PRE-CONFIGURED NETWORK ZONE SYSTEM FIBER CABINET
16	AR	ALLEN BRADLEY	DR-199	DIN RAIL
17	1	PHOENIX CONTACT	5600461	CONVENIENCE OUTLET, DUPLEX
18	1	ALLEN BRADLEY	1489-M1C050	BULLETIN 1489-M THERMAL-MAGNETIC CIRCUIT BREAKERS, STANDARD CONFIGURATION, AC 1 POLE CONFIGURATION, TRIP CURVE C UL/CSA MAZ , VOLTAGE 480V/277V AC, 96V DC, IECJEN MAX VOLTAGE 400V, AC 5A
19	2	PANDUIT	FAP6WAQDLCZ	FOPP, LC DUPLEX ADAPTER, OM3/OM4, 6 DUPLEX
20	1	ALLEN BRADLEY	1606-XLS240-UPSC	PERFORMANCE PS W/UPS, 22.25 VDC, 240 / 350 W, 24VDC INPUT



FRONT PANEL LAYOUT



BACK PANEL LAYOUT

SCFB3WH0001
CHEMICAL FEED BUILDING 3 COMMUNICATIONS PANEL

PANEL LABEL

LABEL	PANEL TAG	DESCRIPTION
A	STFB3WH0001	COMMUNICATIONS PANEL

ORIGINAL SHEET - ANSI D

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No.	Issued	By	Appd.	YY.MM.DD
1	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.21
0	ISSUED FOR REVIEW	JPM	MWS	2024.04.11

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Client/Project
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MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 20020003136

File Name: 031365304-004

Scale: 3" = 1'-0"

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JPM		2024.06.21

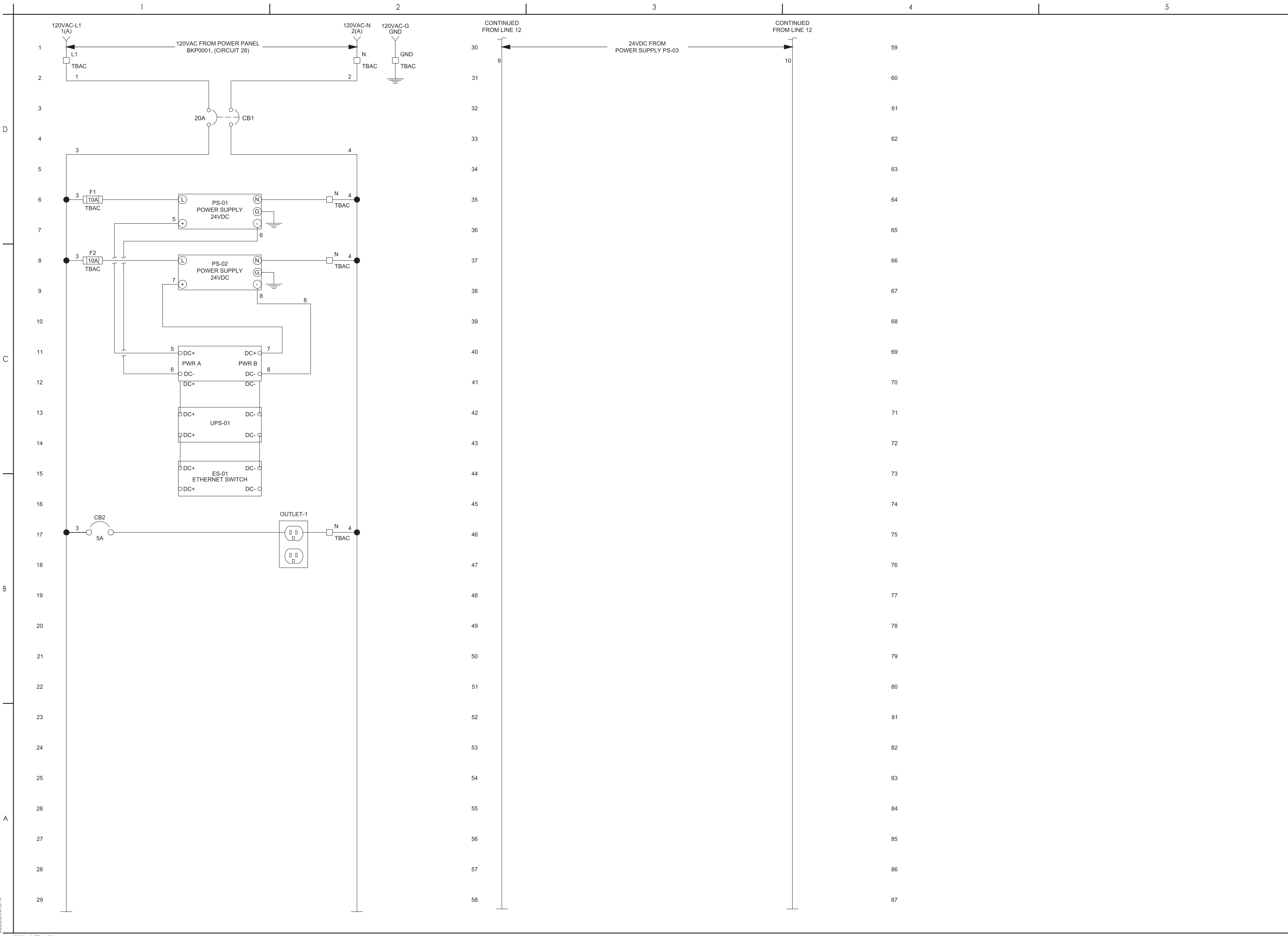
Title

CHEMICAL BUILDING 3 COMM. PANEL LAYOUT AND BOM

Revision:

Drawing No.
530-I-504

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43



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E	PROCUREMENT PACKAGE 2	JPM	MWS	2024.06.28
D	90% REVIEW	JPM	MWS	2024.06.21
Issued		By	Appd	YY.

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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365304-505
Scale: NO SCALE

KRY	JPM		2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title

CHEMICAL BUILDING 3 COMM. PANEL WIRING DIAGRAM

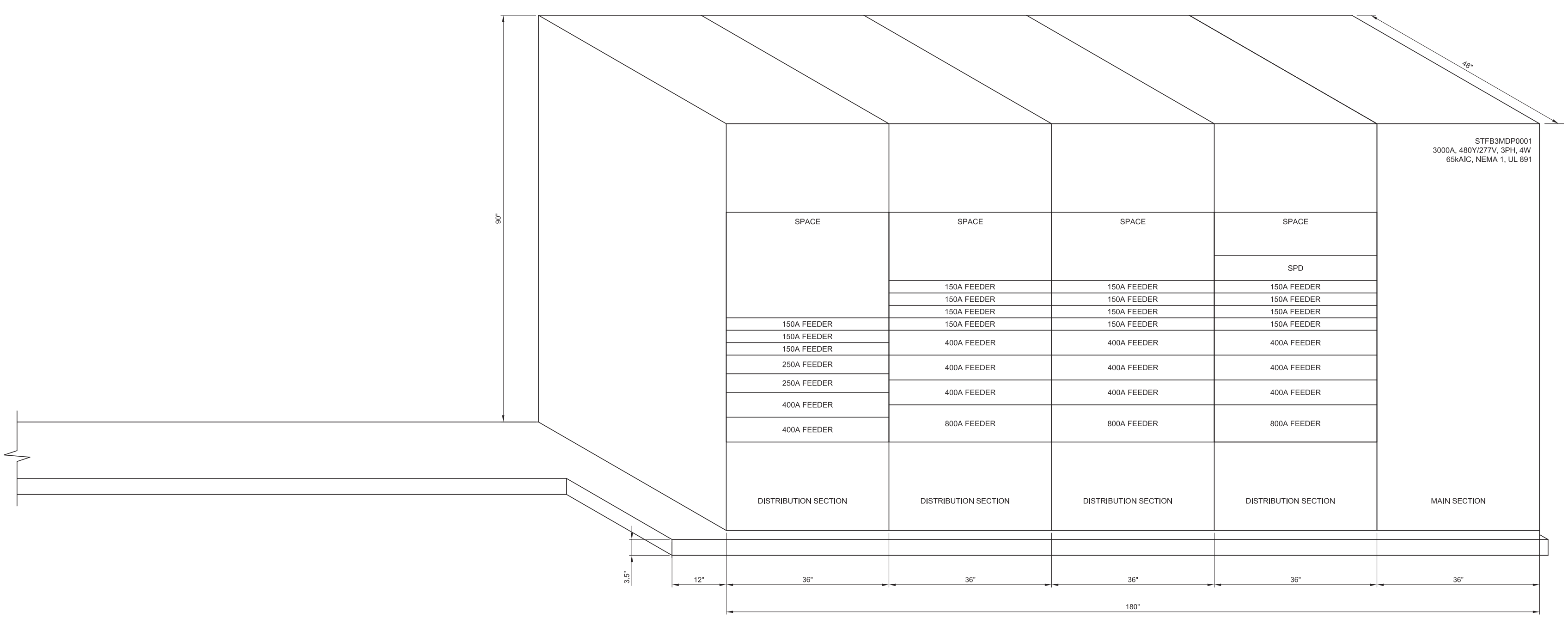
Revision:
Drawing No.
530-I-505

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. FURNISH AND INSTALL HOUSEKEEPING PAD.



ELEVATION - MAIN DISTRIBUTION PANEL STFB3MDP0001
NO SCALE

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E PROCUREMENT PACKAGE 2	SL	MWS	2024.06.28
D 90% REVIEW	SL	MWS	2024.06.21
C 60% REVIEW	SL	MWS	2023.12.20
B REVISED PRELIM DESIGN	MSA	MWS	2023.05.30
A FOR PRELIMINARY DESIGN	MSA	MWS	2022.09.08

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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 031365000E-201
Scale: NO SCALE

JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING EQUIPMENT ELEVATION - I

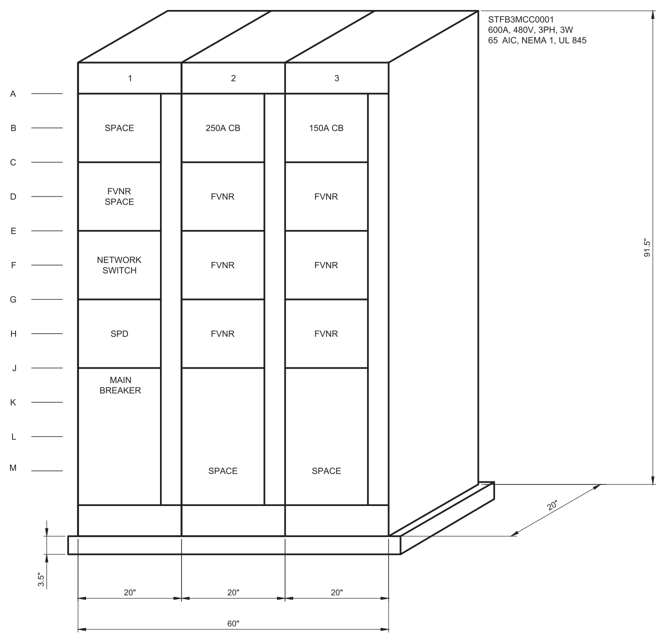
Revision:
Drawing No.
500-E-201

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. FURNISH AND INSTALL HOUSEKEEPING PAD.
3. CONFIGURE THE HORIZONTAL BUS SO IT CAN CONNECT TO FUTURE MCC SECTIONS.



ELEVATION - MOTOR CONTROL CENTER STFB3MCC0001

NO SCALE

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E	PROCUREMENT PACKAGE 2	SL	MWS	2024.06.28
D	90% REVIEW	SL	MWS	2024.06.21
C	60% REVIEW	SL	MWS	2023.12.20
B	REVISED PRELIM DESIGN	MSA	MWS	2023.05.30
A	FOR PRELIMINARY DESIGN	MSA	MWS	2022.09.08

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MERIDIAN WATER RESOURCE RECOVERY FACILITY
TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136500E-202

Scale: NO SCALE

JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

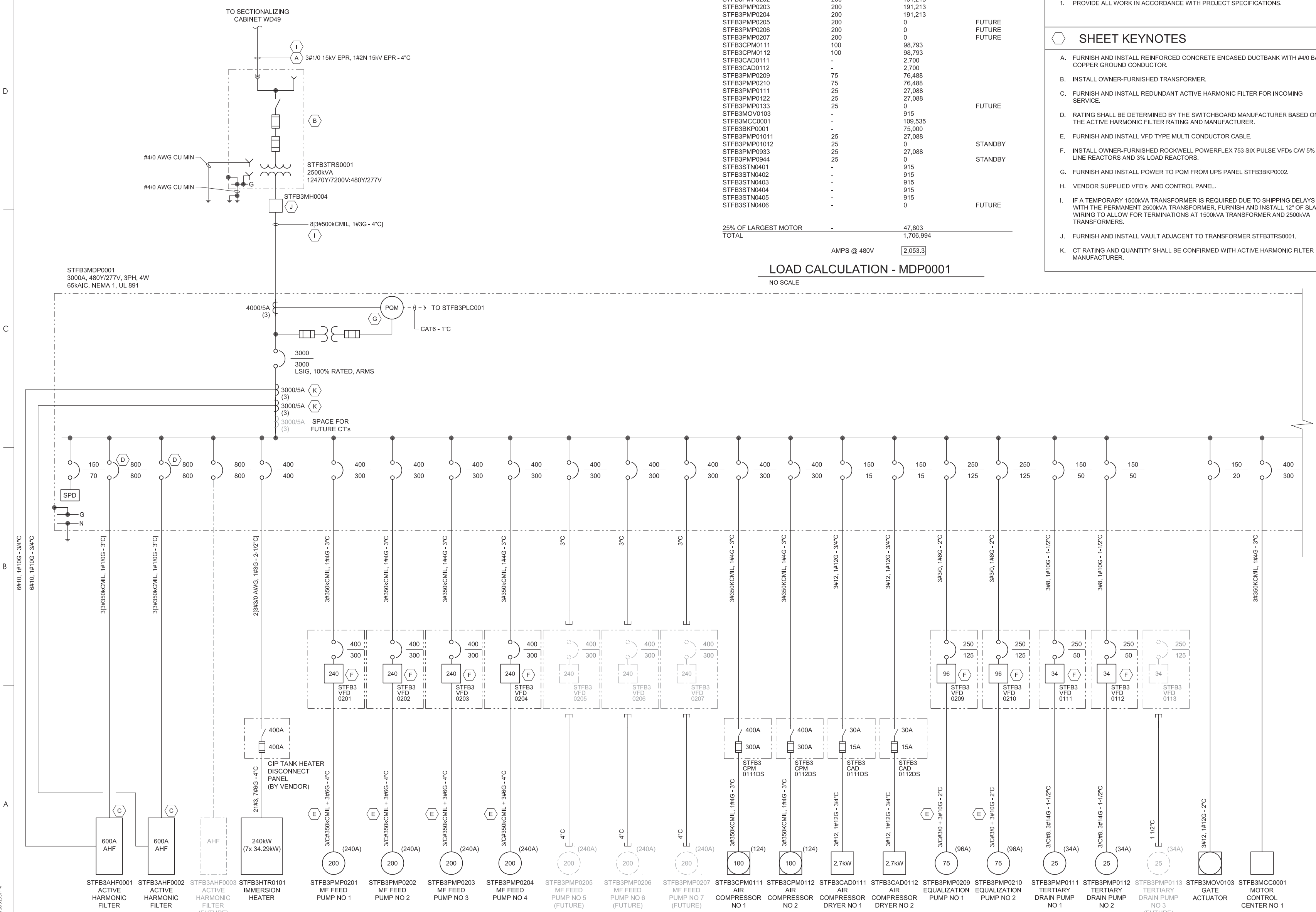
Title
MEMBRANE BUILDING
EQUIPMENT ELEVATION - II

Revision:

Drawing No.
500-E-202

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43



TAG	HP	VA	NOTES
STFB3HTR0101	-	240,000	
STFB3PMP0201	200	191,213	
STFB3PMP0202	200	191,213	
STFB3PMP0203	200	191,213	
STFB3PMP0204	200	191,213	
STFB3PMP0205	200	0	FUTURE
STFB3PMP0206	200	0	FUTURE
STFB3PMP0207	200	0	FUTURE
STFB3CPM0111	100	98,793	
STFB3CPM0112	100	98,793	
STFB3CAD0111	-	2,700	
STFB3CAD0112	-	2,700	
STFB3PMP0209	75	76,488	
STFB3PMP0210	75	76,488	
STFB3PMP0111	25	27,088	
STFB3PMP0122	25	27,088	
STFB3PMP0133	25	0	FUTURE
STFB3MOV0103	-	915	
STFB3MCC0001	-	109,535	
STFB3BKP0001	-	75,000	
STFB3PMP01011	25	27,088	
STFB3PMP01012	25	0	STANDBY
STFB3PMP0933	25	27,088	
STFB3PMP0944	25	0	STANDBY
STFB3STN0401	-	915	
STFB3STN0402	-	915	
STFB3STN0403	-	915	
STFB3STN0404	-	915	
STFB3STN0405	-	915	
STFB3STN0406	-	0	FUTURE
25% OF LARGEST MOTOR	-	47,803	
TOTAL		1,706,994	
	AMPS @ 480V	2,053.3	

LOAD CALCULATION - MDP0001

NO SCALE

GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

SHEET KEYNOTES

A. FURNISH AND INSTALL REINFORCED CONCRETE ENCASED DUCTBANK WITH #4/0 BARE COPPER GROUND CONDUCTOR.

B. INSTALL OWNER-FURNISHED TRANSFORMER.

C. FURNISH AND INSTALL REDUNDANT ACTIVE HARMONIC FILTER FOR INCOMING SERVICE.

D. RATING SHALL BE DETERMINED BY THE SWITCHBOARD MANUFACTURER BASED ON THE ACTIVE HARMONIC FILTER RATING AND MANUFACTURER.

E. FURNISH AND INSTALL VFD TYPE MULTI CONDUCTOR CABLE.

F. INSTALL OWNER-FURNISHED ROCKWELL POWERFLEX 753 SIX PULSE VFDs C/W 5% LINE REACTORS AND 3% LOAD REACTORS.

G. FURNISH AND INSTALL POWER TO PQM FROM UPS PANEL STFB3BKP0002.

H. VENDOR SUPPLIED VFD's AND CONTROL PANEL.

I. IF A TEMPORARY 1500kVA TRANSFORMER IS REQUIRED DUE TO SHIPPING DELAYS WITH THE PERMANENT 2500kVA TRANSFORMER, FURNISH AND INSTALL 12" OF SLACK WIRING TO ALLOW FOR TERMINATIONS AT 1500kVA TRANSFORMER AND 2500kVA TRANSFORMERS.

J. FURNISH AND INSTALL VAULT ADJACENT TO TRANSFORMER STFB3TRS0001.

K. CT RATING AND QUANTITY SHALL BE CONFIRMED WITH ACTIVE HARMONIC FILTER MANUFACTURER.

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Revision	By	Appd	YYYY.MM.DD

Issued	By	Appd	YYYY.MM.DD
E PROCUREMENT PACKAGE 2	SL	MWS	2024.06.28
D 90% REVIEW	SL	MWS	2024.06.21
C 60% REVIEW	SL	MWS	2023.12.20
B REVISED PRELIM DESIGN	MSA	MWS	2023.05.30
A FOR PRELIMINARY DESIGN	MSA	MWS	2022.09.08

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136500E-602
Scale: NO SCALE

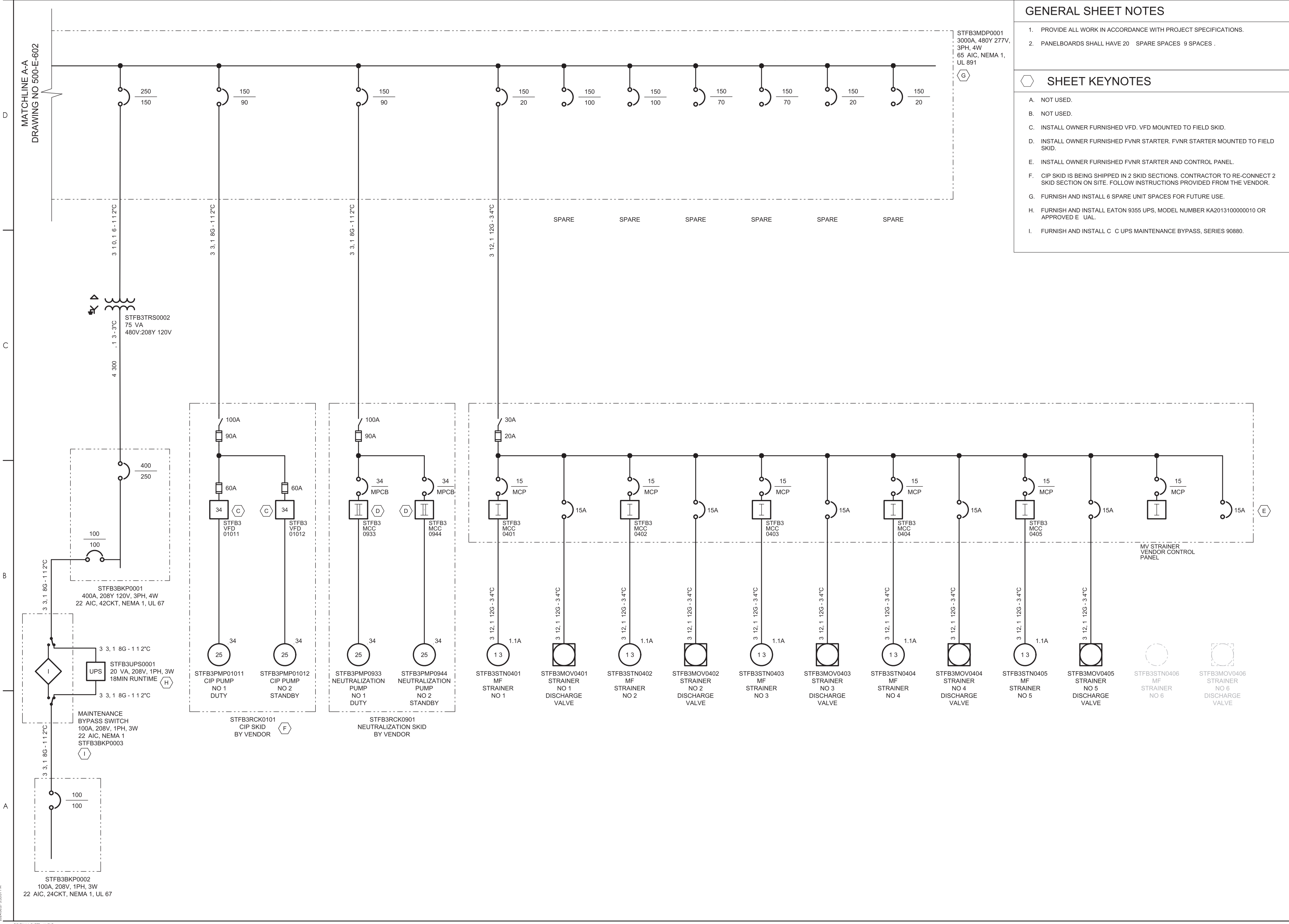
JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING SINGLE-LINE DIAGRAM - II

Revision:
Drawing No.
500-E-602

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43



GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. PANELBOARDS SHALL HAVE 20 SPARE SPACES 9 SPACES .

SHEET KEYNOTES

A. NOT USED.
B. NOT USED.
C. INSTALL OWNER FURNISHED VFD. VFD MOUNTED TO FIELD SKID.
D. INSTALL OWNER FURNISHED FVNR STARTER. FVNR STARTER MOUNTED TO FIELD SKID.
E. INSTALL OWNER FURNISHED FVNR STARTER AND CONTROL PANEL.
F. CIP SKID IS BEING SHIPPED IN 2 SKID SECTIONS. CONTRACTOR TO RE-CONNECT 2 SKID SECTION ON SITE. FOLLOW INSTRUCTIONS PROVIDED FROM THE VENDOR.
G. FURNISH AND INSTALL 6 SPARE UNIT SPACES FOR FUTURE USE.
H. FURNISH AND INSTALL EATON 9355 UPS, MODEL NUMBER KA2013100000010 OR APPROVED E UAL.
I. FURNISH AND INSTALL C C UPS MAINTENANCE BYPASS, SERIES 90880.

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Issued		By	Appd	YY.MM.DD
E	PROCUREMENT PACKAGE 2	SL	MWS	2024.06.28
D	90% REVIEW	SL	MWS	2024.06.21
C	60% REVIEW	SL	MWS	2023.12.20
B	REVISED PRELIM DESIGN	MSA	MWS	2023.05.30
A	FOR PRELIMINARY DESIGN	MSA	MWS	20[illegible]

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Client/Project
CITY OF MERIDIAN

MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136500E-603
Scale: NO SCALE

JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING SINGLE-LINE DIAGRAM - III

Revision:
Drawing No.
500-E-603

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43

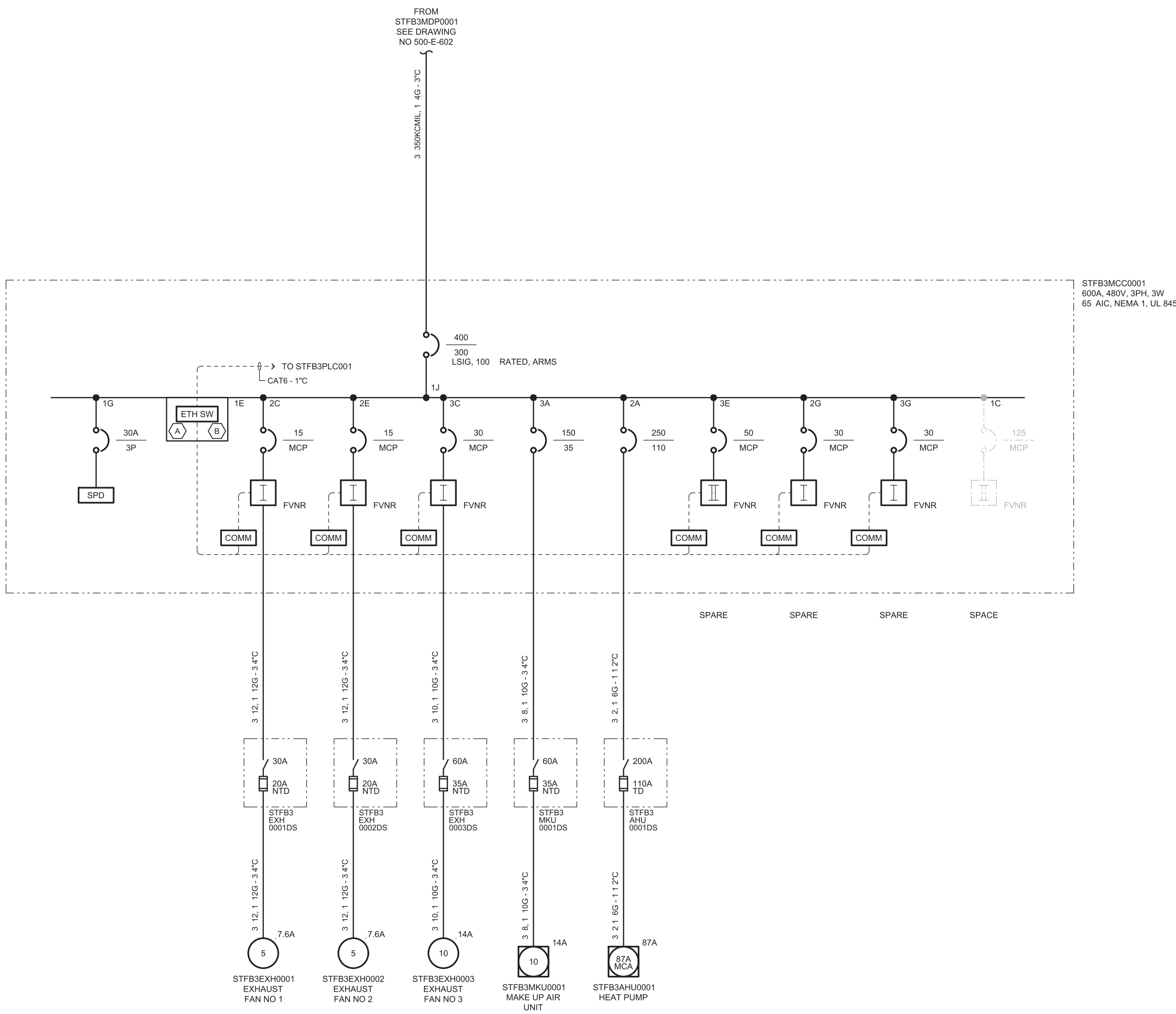
GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

SHEET KEYNOTES

A. MCC TO BE PROVIDED WITH STRATIX 1783-CMS20DN NETWORK SWITCH OR APPROVED E UAL.

B. FURNISH AND INSTALL POWER TO ETHERNET SWITCH FROM UPS PANEL STFB3BKP0002.



TAG	HP	VA
STFB3MUA0001	10	11,154
STFB3HP0001	-	72,328
STFB3EXF0001	5	6,055
STFB3EXF0002	5	6,055
STFB3EXF0003	10	11,154
25 OF LARGEST MOTOR	-	2,789
TOTAL		109,535

AMPS 480V 131.7

LOAD CALCULATION - MCC0001

NO SCALE

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E	PROCUREMENT PACKAGE 2	SL	MWS	2024.06.28
D	90% REVIEW	SL	MWS	2024.06.21
C	60% REVIEW	SL	MWS	2023.12.20
B	REVISED PRELIM DESIGN	MSA	MWS	2023.03.30
A	FOR PRELIMINARY DESIGN	MSA	MWS	2022.09.08

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MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136500E-604
Scale: NO SCALE

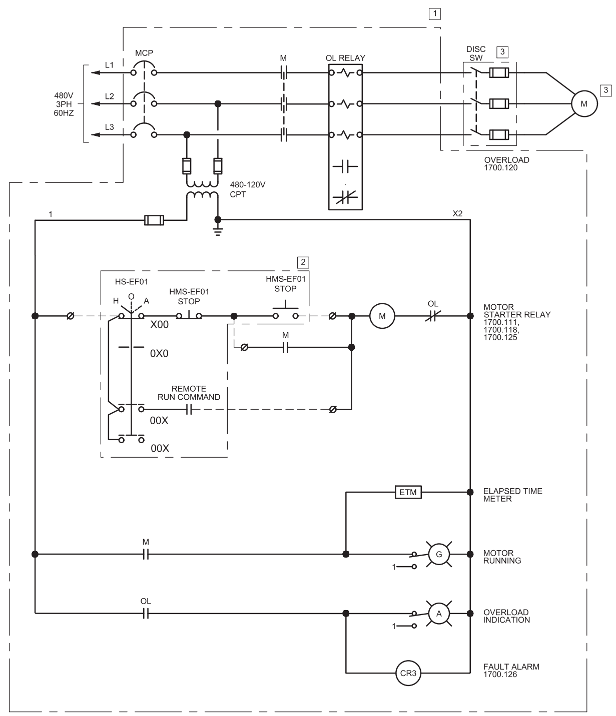
JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

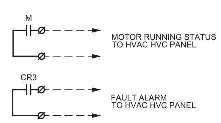
Title
MEMBRANE BUILDING
SINGLE-LINE DIAGRAM - IV

Revision:
Drawing No.
500-E-604

ORIGINAL SHEET - ANSI D

Docusign Envelope ID: 87FAEBA3-3F38-4BDA-8749-39938CE87B43





TAGGING FOR REFERENCE FANS

FAN
STFB3EXH0001
STFB3EXH0002
STFB3EXH0003

TYPICAL FVNR FAN CONTROL SCHEMATIC

FOR PUMP STFB3EXH0001
DESIGN ALSO FOR:

STFB3EXH0002	EXHAUST FAN 2
STFB3EXH0003	EXHAUST FAN 3

LOCATION LEGEND

1 MCC STARTER
2 HVAC HVC PANEL
3 FIELD

GENERAL SHEET NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

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B	REVISED PRELIM DESIGN	MSA	MWS	2023.05.30
A	FOR PRELIMINARY DESIGN	MSA	MWS	[illegible]

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MERIDIAN WATER RESOURCE RECOVERY FACILITY TERTIARY FILTRATION FACILITIES
MERIDIAN, IDAHO

Project No.: 2002003136
File Name: 03136500E-607

Scale: NO SCALE

JAC	MSA	DAR	2024.06.21
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
MEMBRANE BUILDING
TYPICAL 480V 3PH
FVNR SCHEMATIC

Revision:
Drawing No.
500-E-607

ORIGINAL SHEET - ANSI D