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2022-03-21

**REQUEST FOR QUOTATION  
SUPPLY AND DELIVERY - S&C VISTA SWITCHGEAR  
RFQ 21 (2022-03)**

The Toronto Zoo invites you to submit a quotation for the supply and delivery of two (2) S&C Manufactured Vista Switchgear units. All work is to be completed in accordance with the specifications in the Request for Quotation (RFQ).

The work shall commence as soon as possible once the project is awarded and a Purchase Order has been issued. All work is to be completed and received no later than 2022-12-31.

The Quotation package includes Instructions, Terms & Conditions, Requirements, and Forms. Quoted prices shall remain in effect for a period of ninety (90) days from the Quotation due date.

Site Meeting: Upon request.

Due Date: **Wednesday, 2022-04-06, 1200 hours (noon, local time)**

The Board of Management of the Toronto Zoo reserves the right to reject any or all quotes or to accept any quote, should it deem such an action to be in its interests.

If you have any queries regarding this request for quote, please contact Peter Vasilopoulos, Supervisor of Purchasing & Supply, (416) 392-5916. If you have any technical queries regarding this request for quote, please contact Kyle Rekker, Electrical, Plumbing & Utilities Supervisor (416) 392-5989 or [krekker@torontozoo.ca](mailto:krekker@torontozoo.ca).

Yours truly,

Alia Lee  
Director, Financial Services

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## 1.0 INSTRUCTIONS

- 1.1 Ensure that you have received all sixteen (16) pages, two (2) attachments and two (2) specifications of the RFQ package.
- 1.2 A site meeting can be available upon request.
- 1.3 Submission – Temporary process - In view of the current situation with COVID 19 and to limit personal interaction, on a temporary basis, submissions for this Request for Quotation can be submitted electronically by email in a PDF file, prior to the submission deadline to the following email address

[bids@torontozoo.ca](mailto:bids@torontozoo.ca)

and note the following:

- a. Subject of the file to be: RFQ# - Title of RFQ – Vendor name.
- b. Amendments to a RFQ may be submitted via the same methods, at any time prior to the Closing Time.
- c. It is the Supplier's sole responsibility to ensure its Bid is received by the Submission Deadline in accordance with the requirements of this RFP. The receipt of Bids can be delayed due to a number of factors including "internet traffic", file transfer size and transmission speed. The Supplier should allow sufficient time to download, complete and upload, as applicable, the submission forms comprising its Bid and any attachments.

A Bid will only be considered to be submitted once it has been received by the Toronto Zoo. The time of such receipt is reflected by the time received stamped by the Toronto Zoo's email application

- 1.4 Show itemized cost of HST if applicable.
- 1.5 Toronto Zoo reserves the right to award in whole or in part based on the bids received, Lump Sum Price or Breakdown Price.
- 1.6 Quotations will be evaluated to determine which are likely to offer the overall best value to the Toronto Zoo. The Toronto Zoo expects to place the greatest emphasis on performance and price; however, the Toronto Zoo may consider other factors affecting value, including those concerning quality, service or sustainability, and other considerations including, but not limited to the Toronto Zoo's assessment of:
  - (a) Vendor's ability to meet the specifications and requirements stated in the RFQ, including but not limited to the requirements indicated in Appendix 1;
  - (b) Product quality and satisfaction of current industry standards;
  - (c) Vendor's historic performance in delivering the defined services and honoring the defined terms and conditions of prior executed Agreement(s) with the Toronto Zoo;
  - (d) Overall cost, including as appropriate: purchase price, order pick up and transport costs, installation costs and maintenance costs;
  - (e) Proposed lead-times and strategic delivery capabilities;
  - (f) Availability of products and service;
  - (g) Sustainability and

(h) Any other criteria the Toronto Zoo deems, in its sole and absolute discretion, necessary to evaluate a vendor's offer.

Therefore, the Toronto Zoo may accept a quotation other than the lowest quotation

- 1.7 All Prices submitted shall be quoted in Canadian currency.
- 1.8 Use the attached submission label, when you submit your response in a sealed envelope or package and deliver to the Toronto Zoo. **(Not applicable, see 1.3)**
- 1.9 Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.
- 1.10 Include product information, samples, and pictures, as necessary.
- 1.11 Provide references of at least three (3) clients for whom your company has performed similar work. References must include photos of three (3) different installations, client company name, contact name, address, and e-mail address.
- 1.12 It is the responsibility of the Bidder to understand all aspects of the RFQ and to obtain clarification, if necessary, before submitting their quotation.
- 1.13 If it becomes necessary to revise any part of this RFQ, the revisions will be by Addendum posted electronically in Adobe PDF format on the Toronto Zoo's website, <https://www.torontozoo.ca/business>. Bidders and prospective bidders should check the site frequently for any updated information and addenda issued before the closing date and time.
- 1.14 No Guarantee of Volume of Work or Exclusivity of Contract – Toronto Zoo makes no guarantee of the value or volume of work to be assigned to the successful proponent. The Contract will not be an exclusive contract for the provision of the described Deliverables. The Toronto Zoo may contract with others for goods and services the same as, or similar to, the Deliverables or may obtain such goods and services internally.
- 1.15 For any questions concerning this RFQ, please contact:

Peter Vasilopoulos, Supervisor,  
Purchasing & Supply, Tel: 416-392-5916, Fax: 416-392-6711,  
E-mail: [pvasilopoulos@torontozoo.ca](mailto:pvasilopoulos@torontozoo.ca)

Any questions regarding the work in this RFQ must be forwarded by the end of the day Monday, 2022-04-04 to:

## 2.0 TERMS AND CONDITIONS

2.1 Definitions: Wherever used in the Request for Quotation the word **“Board”** means the Board of Management of the Toronto Zoo;

**“Addendum” and “Addenda”** mean additional information or amendments to this RFQ, issued by the Toronto Zoo;

**“Closing Date and Time”** means the date and time that Quotations to this RFQ must be received;

**“Project Requirements”** means the goods and/or services that the District seeks to be provided by the Supplier, as further defined in Section 3;

**“Quotation”** means a response submitted to this RFQ.

**“Request for Quotations” or “RFQ”** means this Request for Quotations and includes the documents listed in the index and any modifications thereof or additions thereto incorporated by addendum before the Closing Date and Time;

**“Respondent”** means a person or entity that submits a Quotation to this RFQ. **“Section”** means the numbered section of the referenced part of this RF; and

**“Vendor” “Contractor” or “Supplier ”** means the successful Respondent; the individual, firm, co-partnership, or corporation retained by the Toronto Zoo and to whom the purchase order or agreement to perform the Project Requirements.

2.2 Vendor Assurance: Unless otherwise stated, the goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be delivered or completely performed, as the case may be, by the Vendor as soon as possible and in any event within the period set out herein as the guaranteed period of delivery or completion.

2.3 Country of Origin: Wherever possible, the goods, services, materials, articles or equipment, specified or called for in or under this Quotation, shall be of Canadian origin and manufacture.

2.4 Delivery: The prices stated in this Quotation cover the services, material, articles or equipment referred to herein, being delivered F.O.B. destination, freight, express, duty and all other charges prepaid, unless otherwise indicated herein. A detailed delivery ticket or piece tally, showing the exact quantity of goods, material, articles or equipment shall accompany each delivery. A receiver's receipt shall not bind the Board to accept the goods, material, articles or equipment covered thereby, or the particulars of the delivery ticket or piece tally therefore. The Vendor shall not be entitled to any interest upon any bill due to delay in its approval by the CEO of the Toronto Zoo or his designate.

2.5 Invoicing: Unless otherwise indicated herein, the prices stated are payable in Canadian Funds at the head office of the Board. Any Harmonized Sales Tax (HST) applicable shall be shown as a separate item. The Vendor's HST/Business registration number must be indicated on the invoice.

The Vendor shall clearly show any special charges such as packaging and freight, where applicable, as separate items on the invoice.

Payments to non-resident Vendors may be subject to withholding taxes under the Income Tax Act (Canada). Unless a non-resident Vendor provides the Board with a letter from Revenue Canada, Taxation waiving the withholding requirements, the Board will withhold the taxes it determines are required under the Income Tax Act (Canada).

- 2.6 Notice of Delivery: The Vendor shall notify the Purchasing Agent of the Board at the address given for the mailing of invoices, in writing as soon as possible of the details of the shipment of the goods, materials, articles or equipment.
- 2.7 Right to Cancel: The Board shall have the right to cancel at any time this Quotation or any contract or any part of any contract resulting from this Quotation in respect of the goods, material, articles, equipment, work or services set out in this Quotation or any such contract or part of such contract, not delivered or performed at the time of such cancellation, and the Board will not be responsible to make any payments in respect of any such goods, materials, articles, equipment, work or services and shall not incur any liability whatsoever in respect thereto.

In the event that the Vendor fails or neglects by any act or omission to comply with any of the conditions set out herein, this Quotation or any contract resulting from this Quotation may be unconditionally cancelled by the Board without notice to the Vendor.

- 2.8 Official Agreement: No verbal arrangement or agreement, relating to the goods, material, articles, equipment, work or services, specified or called for under this Quotation, will be considered binding, and every notice advice or other communication pertaining thereto, must be in writing and signed by a duly authorized person.
- 2.9 Worker's Rights: The Vendor shall comply with the conditions of the Board relating to Worker's Rights, a copy of which is available on application to the Manager, Fair Wage and Labour Trades Office, City of Toronto, 18<sup>th</sup> Floor, West Tower, City Hall, Toronto, Ontario, M5H 2N2 or by phone at 416-392-7300.
- 2.10 Indemnity: The Vendor shall at all times well and truly save, defend, keep harmless and fully indemnify the Board, the City of Toronto, Toronto Region and Conservation Authority and their servants, employees, officers or agents, hereinafter called the "Indemnities", from and against all actions, suits, claims, demands, losses, costs, charges, damages, and expenses, brought or made against or incurred by the Indemnities, its or their servants, officers, employees, agents or invitees in any way relating, directly or indirectly, to goods, material, articles or equipment supplied or to be supplied, or to the supplying of goods or services, pursuant to this Quotation, or any other claim, action, suit, demand, loss, cost, charge, damage or expense relating to copyright, trademark or patent with regard directly or indirectly with any such goods, services, material, articles or equipment or the supply or performance thereof.
- 2.11 Liability for Acts of Vendor Employees, Contractors or Agents: The Vendor acknowledges responsibility and accepts liability for the acts of any of its employees, contractors and agents while on Toronto Zoo property. The Toronto Zoo reserves the right to request background checks for any individual providing the services requested on behalf of the Vendor.
- 2.12 Guaranty of Quotation: All goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be supplied or performed at the price or process and on the basis set forth or referred to in and in accordance with the Offer and this Quotation. The basis on which this Quotation is given shall include any

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- specifications, plans, price schedules, samples, addenda or other details pertaining thereto, or provided in connection therewith.
- 2.13 **Right of Notice:** Any notice that the Board may be required or desire to give to the Vendor shall for all purposes to be deemed to have been sufficiently and properly given and afforded by registered mail addressed to the Vendor at the address shown for the Vendor on this form and shall therefore be presumed to have been received by the Vendor on the third day following such registration.
- 2.14 **Formal Contract:** The Vendor may be required and shall, if requested by the solicitor for the Board so to do, to execute and enter into a formal contract that is satisfactory to the solicitor for the Board, in order to document the contract resulting from this Quotation and to embody indemnity and related provisions that in the opinion of such solicitor are required to protect the Board.
- 2.15 **Charity Status:** The Toronto Zoo is a registered charitable organization (registration #BN 119216398RR0001) and accordingly may be eligible for preferred pricing which should be reflected in the Quotation as submitted.
- 2.16 **Performance Evaluation:** The Contractor's performance will be evaluated by the Chief Executive Officer and/or Chief Executive Officer's Representative during the Contract and at the end of the Contract. In the event that the Contractor's performance is considered unsatisfactory by the Chief Executive Officer and/or Chief Executive Officer's Representative, the Contractor and/or its affiliates may become ineligible from bidding on future contracts issued by the Board.

### **3.0 PROJECT REQUIREMENTS AND SPECIFICATIONS**

The scope of work includes the supply and delivery of two (2) S&C Manufactured Vista Switchgear units. All work is to be completed in accordance with specifications in the Request for Quotation (RFQ). The contractor is responsible for all pricing and all other arrangements with all subcontractors as required.

The work shall commence once the project has been awarded and a Purchase Order issued.

#### **3.1 PRODUCT SPECIFICATION**

3.1.1 Units must be S&C Manufactured.

3.1.2 Provide cost for supply & delivery of one (1) unit, as per Attachment & Specification #1.

3.1.3 Provide cost for supply & delivery of one (1) unit, as per Attachment & Specification #2.

3.2 Without limitation to any additional warranties provided by the Vendor, the Vendor warrants that:

- (a) all equipment delivered, shall be new and of merchantable quality and free from defects in workmanship and materials;
- (b) all equipment shall strictly conform to applicable samples, specifications and drawings;
- (c) all equipment shall be fit for the purpose intended for the Toronto Zoo;
- (d) all equipment shall be free and clear of all liens, charges and encumbrances; and
- (e) the shipping and handling of any hazardous material will be made in accordance with all applicable laws and regulations.

3.3 Unless a longer warranty period is specified on the face of the purchase order, or is otherwise provided, the foregoing warranty shall be valid for a minimum of two (2) years from the date of acceptance of the Deliverables by the Toronto Zoo. If at any time prior to the expiration of any applicable warranty period, any weakness, deficiency, failure, breakdown or deterioration in material is discovered in the Deliverables provided by the vendor, or if the work does not confirm to the terms and conditions of this Agreement, the Toronto Zoo may at its option:

- (a) Require the Vendor to promptly replace, redesign or correct the defective or non-confirming equipment at no expense to the Toronto Zoo, or
- (b) The Toronto Zoo may replace the equipment and charge the Vendor with the expenses incurred by the Toronto Zoo.

### **3.4 CONTRACTOR/VENDOR RESPONSIBILITIES**

1. Regular meetings/communication with the Toronto Zoo Project Team to review project status and to discuss issues that may arise during the project.
2. Provide samples, mock ups, etc. as required to the Project Team.
3. Provide product information, SDS sheets and colour samples to the Project Team prior to start of the work where applicable.
4. Provide the Zoo with a minimum two (2) year warranty upon receipt of equipment.
5. Protect adjacent areas not included in the project. Any damage caused will be the responsibility of the contractor to rectify at no additional cost to the Zoo.
6. Clean-up the work area daily and make good any damage caused as a result of the work.
7. Secure the work site and provide construction signs and barriers to prevent injury to Zoo personnel and the public who will require access to the space during the work.
8. Upon award of contract, Contractor is to finish all work, including clean up and demobilization by the completion date specified.
9. Submit all shop drawings for review and approval prior to start of fabrication. Review of shop drawings shall not mean that the Toronto Zoo approves detail design inherent in shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or of his responsibility for meeting all requirements of the subcontract documents.
10. Submit close out documents as requested. Include warranties and “As built” drawings.

### **3.5 SAFETY SPECIFICATIONS**

1. It is the responsibility of the Contractor to protect the site as required during construction.
2. Ensure that awareness of public safety is considered and protect visitors in the vicinity during the construction period.
3. All necessary personal protective equipment must be worn at all times and MSDS sheets must be available on site as required.
4. The contractor is to abide by applicable Toronto Zoo Health & Safety Policies
  - i. SAFE-002 Health & Safety Hazard Reporting
  - ii. SAFE-017 Contractors Safety
  - iii. SAFE-018 Vehicles on Site
  - iv. SAFE-007 Working in Confined Space
  - v. SAFE-025 Hot Work

## vi. SAFE-013 Equipment Lockout/Tagout

5. The Ontario Health and Safety Acts, the Ontario Building Code and all other applicable codes including the Fire Codes.

Toronto Zoo's Commitment to the City of Toronto's Corporate Smog Alert Response Plan

6. It is the responsibility of the Contractor to ensure that the work site is properly protected at all times. All work sites must be marked and barriered adequately with construction signs posted to secure and isolate the work site from the public or other personnel that have access to the area.

**3.6 OTHER INFORMATION**

The successful bidder must demonstrate the ability to complete the work to standards acceptable to the Zoo and prove past performance in the completion of similar types of work for other clients by providing relevant examples of work and references. The successful bidder must also demonstrate and guarantee that they can produce the work in the allotted time.

**4.0 SUBMISSION FORMS:**

- a. I/We, hereby, submit the Quotation and will comply with all terms, conditions, specifications and drawings (when provided) as set out within the Board's Quotation.
- b. I/We, hereby, have received, allowed for and included as part of our submission all issued Addendum numbered \_\_\_\_\_.
- c. This form must be completed, properly signed and received on or before the date and time specified or your Quotation will not be considered. Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.
- d. The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any Quotation, should it deem such action to be in its interests.
- e. By signing and submitting this FORM, you are agreeing to the release of your quotation information, as deemed necessary by the Board, in order to conduct business associated with this quotation or project.

<b>COMPANY INFORMATION</b>	
Company Name:	
Name of authorized Signing Officer	Title:
Signature of authorized Signing Officer:	Date:
Contact Name:	Title:
Address:	
Telephone #:	Fax #:
Email:	Web Site:
HST #:	

**4.1 UNIT PRICING**

Prices shall be all-inclusive and include for all labour, materials, supplies, site visits, travel, shipping costs, duty, insurance, expenses, disbursements, and all other costs and fees necessary to complete the Deliverables.

Prices are in Canadian funds, are inclusive of all applicable duties and taxes, except applicable HST, which shall be itemized separately where indicated.

Description	Price each, excluding HST
Supply and delivery of one (1) S&C Manufactured Vista Switchgear, as per section 3.2 of this RFQ.	\$ /unit
Supply and delivery of one (1) S&C Manufactured Vista Switchgear, as per section 3.3 of this RFQ.	\$ /unit
<b>HST</b>	\$
<b>Total</b>	\$

COMMITMENT TO DELIVER	YES / NO
Please confirm that you are able to supply & deliver by <b>2022-12-31</b> If NO, please state alternate date.	

WARRANTY	Specify
Please confirm minimum two (2) year warranty upon receipt.	

DISCOUNT	Discount	Days
Discount allowed for prompt payment and period within which invoice must be paid to qualify.	%	
	Discount/Donation	
<b>Charity Status:</b> The Toronto Zoo is a registered charitable organization (registration #BN 119216398RR0001) and accordingly may be eligible for preferred pricing <b>which should be reflected in the Quotation as submitted.</b>		

<b>Name of Firm:</b>	
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**SUBMISSION LABEL****INTENTIONALLY LEFT BLANK**

**NOTICE OF NO BID**

**INSTRUCTIONS:**

It is important to the Toronto Zoo to receive a reply from all invited bidders. If you are unable, or do not wish to submit a bid, please complete the following portions of this form. State your reason for not bidding by checking the applicable box(es) or by explaining briefly in the space provided. It is not necessary to return any other Request for Proposal/Quotation/Tender documents or forms. Please just return this completed form by fax 416b392-6711 or by email [bids@torontozoo.ca](mailto:bids@torontozoo.ca) prior to the official closing date.

<b>A Proposal/Quotation/Tender is not submitted for the following reason(s):</b>	
<input type="checkbox"/> Project/quantity too large.	<input type="checkbox"/> Project/quantity too small.
<input type="checkbox"/> We do not offer services or commodities to these requirements	<input type="checkbox"/> Cannot meet delivery or completion requirement
<input type="checkbox"/> We do not offer this service or commodity.	<input type="checkbox"/> Agreements with other company do not permit us to sell directly.
<input type="checkbox"/> Cannot handle due to present commitments.	<input type="checkbox"/> Licensing restrictions
<input type="checkbox"/> Unable to bid competitively.	<input type="checkbox"/> We do not wish to bid on this service or commodity in the future.
<input type="checkbox"/> Insufficient information to prepare quote/proposal/tender	<input type="checkbox"/> Specifications are not sufficiently defined
<input type="checkbox"/> We are unable to meet bonding or insurance requirements.	

Other reasons or additional comments (please explain):

Company Name:	
Address	
Contact Person:	
Signature of Company Representative:	
Date:	
Phone Number:	
Email address	
Fax Number:	

**APPENDIX A – LIST OF SUB-CONTRACTOR**

The Bidder proposes to sublet the following portions of the Work to the persons firms or corporations indicated. The Bidder (Contractor) is responsible for all pricing with all subcontractors.

The Bidder submits that in proposing the under mentioned subcontractors, the Bidder has consulted each and have ascertained to our completed satisfaction that those names are fully acquainted with the extent and nature of the work and that they will execute their work with the requirements of the contract documents.

<b>Work or services to be provided</b>	<b>Name and address of sub-contractor or person</b>	<b>Telephone</b>

<b>Name of Bidder:</b>	
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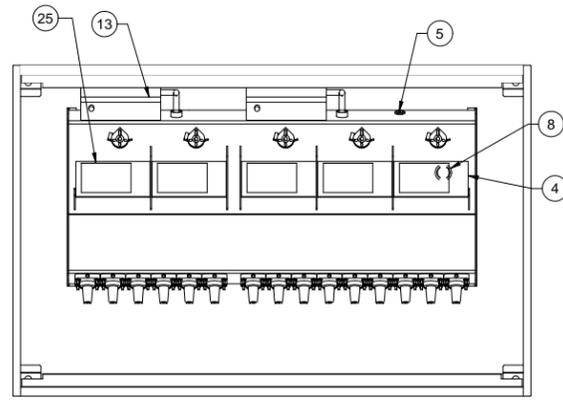
**APPENDIX C – ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)**

The Toronto Zoo supports the goals of the Accessibility for Ontarians with Disabilities Act (AODA), 2005 and is committed to providing equal treatment and equitable benefits of Toronto Zoo services, programs and facilities in a manner that respects the dignity and independence of people with disabilities.

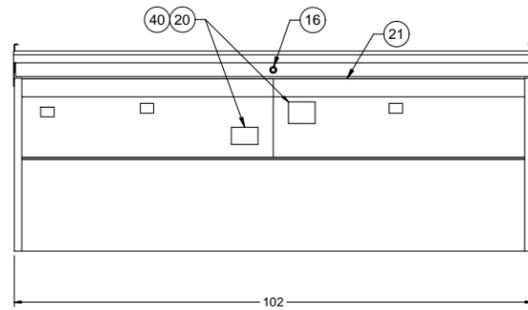
Accessibility for Ontarians with Disabilities Act (AODA) Requirements: "Pursuant to Section 6 of Ontario Regulation 429/07 ("Regulation"), Accessibility Standards for Customer Service made under the Accessibility for Ontarians with Disabilities Act, 2005, the contractor, i.e. successful bidder/proponent, shall ensure that all of its employees, agents, volunteers, or others for whom it is at law responsible, receive training about the provision of the goods and services contemplated herein to persons with disabilities. Such training shall be provided in accordance with Section 6 of the Regulation and shall include, without limitation, a review of the purposes of the Act and the requirements of the Regulation, as well as instruction regarding all matters set out in Section 6 of the Regulation. This training will take approximately twenty minutes and is available on-line at <http://www.mcass.gov.on.ca/mcass/serve-ability/splash.html>

The contractor, i.e. successful bidder/ proponent where requested by the Toronto Zoo shall provide written proof that all employees, agents, volunteers, or others for whom it is at law responsible have been trained as required under the act as well as any documentation regarding training policies, practices and procedures."

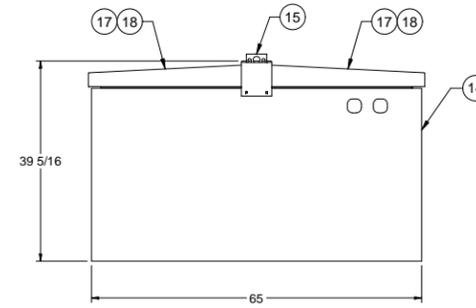
THIS VISTA UDS IS EQUIPPED WITH FAULT-INTERRUPTERS THAT ARE THREE-POLE GROUP OPERATED FOR MANUAL SWITCHING.



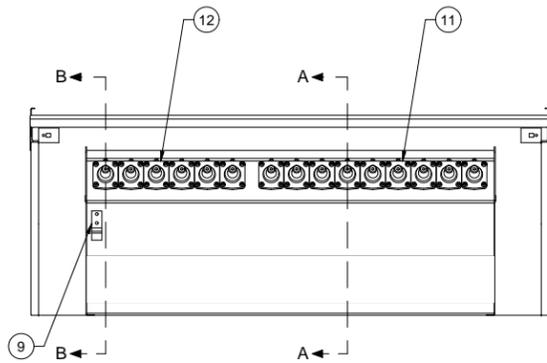
OPEN TOP VIEW



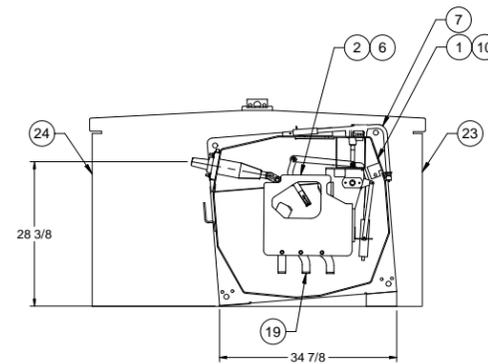
ENCLOSURE FRONT TERMINATION VIEW



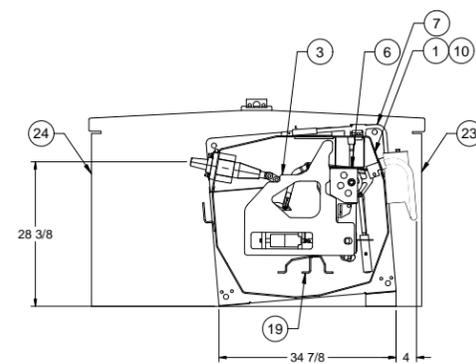
ENCLOSURE LEFTHAND VIEW



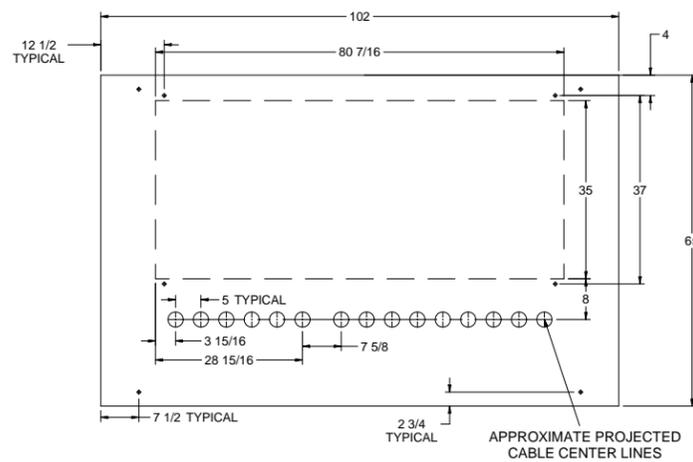
OPEN FRONT TERMINATION VIEW



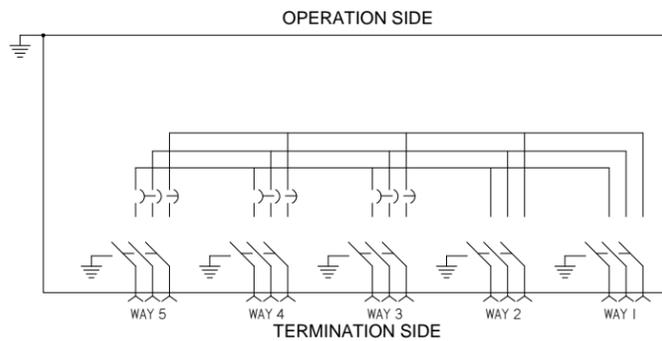
SECTION A-A: LOAD SWITCH



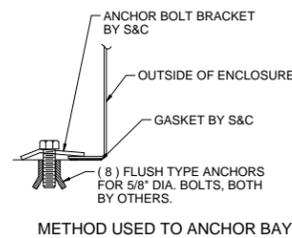
SECTION B-B: FAULT-INTERRUPTER



ANCHOR BOLT PLAN



CONNECTION DIAGRAM



METHOD USED TO ANCHOR BAY

FEATURES IN THIS ASSEMBLY

1. NAMEPLATE
2. 600-AMPERE THREE-POLE LOAD-INTERRUPTER SWITCH WITH GROUND POSITION
3. 600-AMPERE THREE-POLE MANUAL FAULT-INTERRUPTER WITH THREE-POSITION(CLOSED-OPEN-GROUND) DISCONNECT WINDOW FOR VIEWING OPEN GAP AND GROUNDED POSITION OF LOAD-INTERRUPTER SWITCH OR FAULT INTERRUPTER GAS FILL PORT
4. OPERATING MECHANISM
5. MANUAL OPERATING HANDLE
6. PRESSURE GAUGE
7. TWO-HOLE GROUND PAD
8. SUBMERSIBLE SF6-INSULATED TANK
9. 600-AMPERE BUSHINGS FOR LOAD-INTERRUPTER SWITCH
10. 600-AMPERE BUSHINGS FOR FAULT-INTERRUPTER
11. OVERCURRENT CONTROL
12. 14-GAUGE PAD-MOUNTED ENCLOSURE
13. RETRACTABLE LIFTING TAB
14. PENTAHEAD BOLT LOCKING MECHANISM ACCOMMODATES PADLOCK WITH .375" DIAMETER SHACKLE
15. HINGED LIFT-UP ROOF
16. ROOF RETAINER TO HOLD ROOF IN POSITION
17. 600-AMPERE ALUMINUM BUS
18. CUSTOMER SPECIFIC WARNING SIGN
19. REMOVABLE PANEL
20. OPERATION COMPARTMENT LABEL
21. TERMINATION COMPARTMENT LABEL
22. VOLTAGE INDICATION WITH TEST FEATURE

OPTIONAL FEATURES IN THIS ASSEMBLY

- F2 MOUNTING PROVISIONS FOR A FAULT INDICATOR FOR EACH LOAD-INTERRUPTER SWITCH, WITH VIEWING WINDOW
- L2 POTENTIAL INDICATION WITH TEST FEATURE, WITH PROVISIONS FOR LOW-VOLTAGE PHASING
- M3 600-AMPERE BUSHINGS WITH STUDS IN LIEU OF 200-AMPERE BUSHING WELLS AT FAULT-INTERRUPTER AND BUS TERMINALS
- P6 PAD-MOUNTED STYLE, FIVE OR SIX-WAY UNIT, MILD-STEEL OUTER ENCLOSURE, OLIVE GREEN FINISH
- T3 THREE-POLE MANUAL FAULT-INTERRUPTERS: QTY. (3)

SPECIAL FEATURES

- 40. CUSTOMER SPECIFIC WARNING LABELS (IN LIEU OF S&C WARNING LABELS) APPLIED TO THE OPERATION AND TERMINATION SIDES OF THE HIGH VOLTAGE ENCLOSURE

RATING			
STANDARD		IEC	ANSI
HERTZ		50/60	50/60
KV, MAX DESGN		29	29
KV, BIL		125	125
A M P E R E S	MAIN BUS	CONTINUOUS	630
	LOAD-INTERRUPTER SWITCHES	CONTINUOUS	630
		LOAD DROPPING	630
R M S	FAULT INTERRUPTER	FAULT CLOSING DUTY-CYCLE TEN-TIME SYMMETRICAL	12,500
		CONTINUOUS	630
		LOAD DROPPING	630
		FAULT CLOSING DUTY-CYCLE TEN-TIME SYMMETRICAL	12,500
SHORT-CIRCUIT		INTERRUPTING SYMMETRICAL	12,500
		SYMMETRICAL	12,500

NOTE THE FOLLOWING DEVICES WIRED PER:  
 CDR-6403 SINGLE C. T. WIRING DIAGRAM  
 CDR-6404 DUAL C. T. WIRING DIAGRAM

CATALOG NO.: 935233-F2L2M3P6T3-S367

REVISIONS				
NO.	NOTICE NO.	DATE	REV BY	DESCRIPTION
000	SC590308	1/17/2017	EE	ADD CUSTOMER SPECIFIC WARNING LABELS IN LIEU OF S&C WARNING LABELS

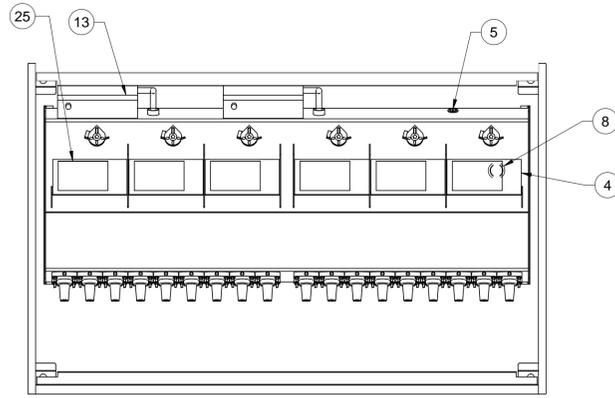
DRAWING SIZE		DRAWN BY	
D	ENRIQUE ESPINOSA		
SCALE		ORIGINATION DATE	
None		1/17/2017	
PRODUCTION		UNITS	
None		INCHES	
NEXT ASSEMBLY		PRODUCT DESCRIPTION	
VISTA MANUAL-2319736		VISTA	

**S&C ELECTRIC COMPANY**  
Excellence Through Innovation

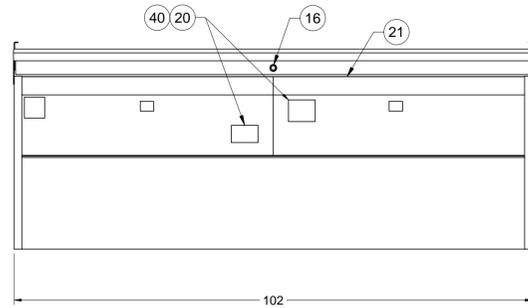
S&C MANUAL VISTA  
UNDERGROUND DISTRIBUTION SWITCHGEAR  
MODEL 523

SHEET 1 OF 1  
DIMENSIONAL DRAWING  
DRAWING NO. 935233-S367-DIM

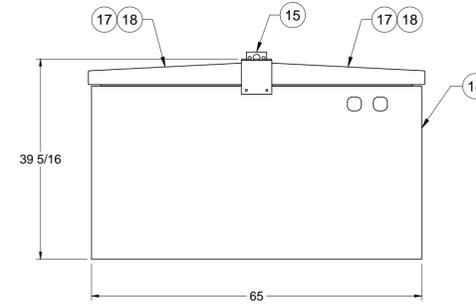
THIS VISTA UDS IS EQUIPPED WITH FAULT-INTERRUPTERS THAT ARE THREE-POLE GROUP OPERATED FOR MANUAL SWITCHING.



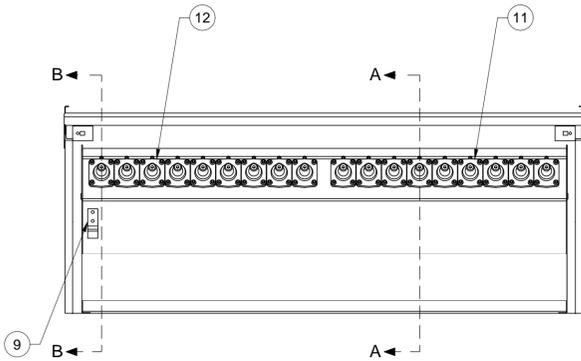
OPEN TOP VIEW



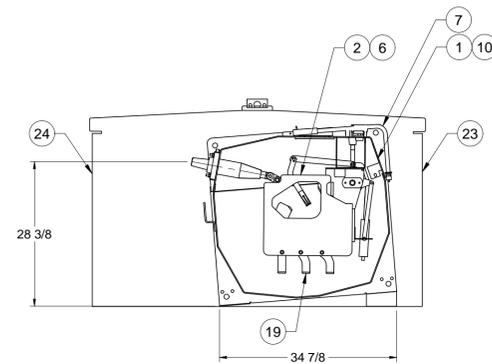
ENCLOSURE FRONT TERMINATION VIEW



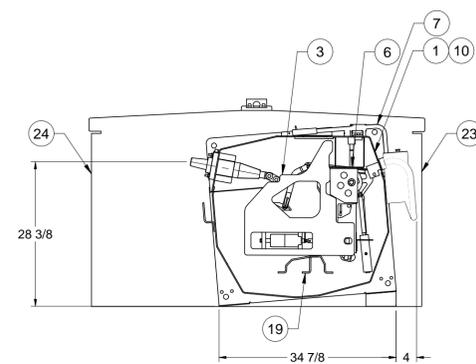
ENCLOSURE LEFTHAND VIEW



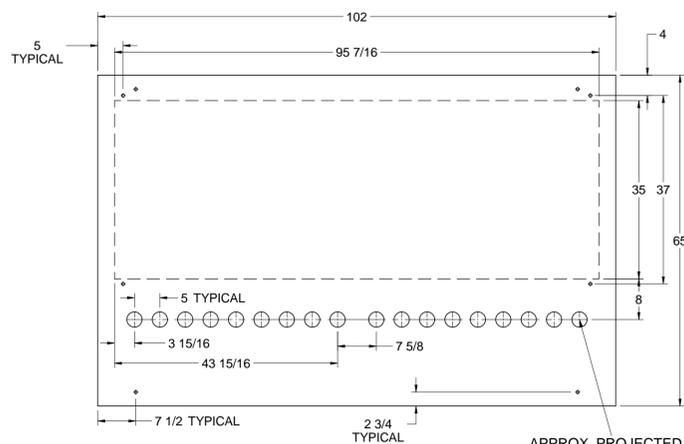
OPEN FRONT TERMINATION VIEW



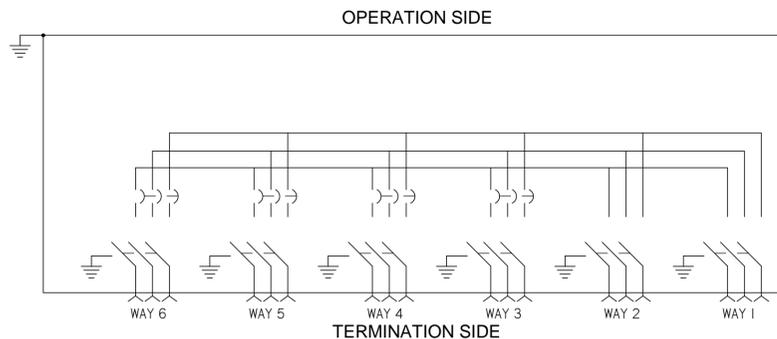
SECTION A-A: LOAD SWITCH



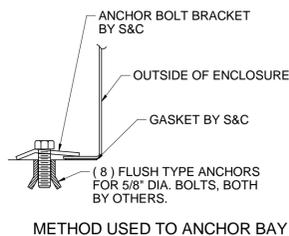
SECTION B-B: FAULT-INTERRUPTER



ANCHOR BOLT PLAN



CONNECTION DIAGRAM



METHOD USED TO ANCHOR BAY

FEATURES IN THIS ASSEMBLY

1. NAMEPLATE
2. 600-AMPERE THREE-POLE LOAD-INTERRUPTER SWITCH WITH GROUND POSITION
3. 600-AMPERE THREE-POLE MANUAL FAULT-INTERRUPTER WITH THREE-POSITION(CLOSED-OPEN-GROUND) DISCONNECT WINDOW FOR VIEWING OPEN GAP AND GROUNDED POSITION OF LOAD-INTERRUPTER SWITCH OR FAULT INTERRUPTER
4. GAS FILL PORT
5. OPERATING MECHANISM
6. MANUAL OPERATING HANDLE
7. PRESSURE GAUGE
8. TWO-HOLE GROUND PAD
9. SUBMERSIBLE SF6-INSULATED TANK
10. 600-AMPERE BUSHINGS FOR LOAD-INTERRUPTER SWITCH
11. 600-AMPERE BUSHINGS FOR FAULT-INTERRUPTER
12. OVERCURRENT CONTROL
13. 14-GAUGE PAD-MOUNTED ENCLOSURE
14. RETRACTABLE LIFTING TAB
15. PENTAHEAD BOLT LOCKING MECHANISM ACCOMMODATES PADLOCK WITH .375" DIAMETER SHACKLE
16. HINGED LIFT-UP ROOF
17. ROOF RETAINER TO HOLD ROOF IN POSITION
18. 600-AMPERE ALUMINUM BUS
19. CUSTOMER SPECIFIC WARNING SIGN
20. REMOVABLE PANEL
21. OPERATION COMPARTMENT LABEL
22. TERMINATION COMPARTMENT LABEL
23. VOLTAGE INDICATION WITH TEST FEATURE

OPTIONAL FEATURES IN THIS ASSEMBLY

- F2 MOUNTING PROVISIONS FOR A FAULT INDICATOR FOR EACH LOAD-INTERRUPTER SWITCH, WITH VIEWING WINDOW
- L2 POTENTIAL INDICATION WITH TEST FEATURE, WITH PROVISIONS FOR LOW-VOLTAGE PHASING
- M3 600-AMPERE BUSHINGS WITH STUDS IN LIEU OF 200-AMPERE BUSHING WELLS AT FAULT-INTERRUPTER AND BUS TERMINALS
- P6 PAD-MOUNTED STYLE, FIVE OR SIX-WAY UNIT, MILD-STEEL OUTER ENCLOSURE, OLIVE GREEN FINISH
- T4 THREE-POLE MANUAL FAULT-INTERRUPTERS: QTY. (4)

SPECIAL FEATURES

- 40. CUSTOMER SPECIFIC WARNING LABELS (IN LIEU OF S&C WARNING LABELS) APPLIED TO THE FRONT AND REAR EXTERIOR OF THE HIGH VOLTAGE ENCLOSURE

NOTE THE FOLLOWING DEVICES WIRED PER: CDR-6404 DUAL C. T. WIRING DIAGRAM

RATING				
STANDARD		IEC	ANSI	
HERTZ		50/60	50/60	
KV, MAX DESIGN		29	29	
KV, BIL		125	125	
A M P E R E S	MAIN BUS	CONTINUOUS	630	
		CONTINUOUS	630	
		LOAD DROPPING	630	
	LOAD-INTERRUPTER SWITCHES	FAULT CLOSING DUTY-CYCLE TEN-TIME SYMMETRICAL	12,500	12,500
		CONTINUOUS	630	600
		LOAD DROPPING	630	600
R M S	FAULT INTERRUPTER	FAULT CLOSING DUTY-CYCLE TEN-TIME SYMMETRICAL	12,500	12,500
		INTERRUPTING SYMMETRICAL	12,500	12,500
		SYMMETRICAL	12,500	12,500
SHORT-CIRCUIT		12,500	12,500	

CATALOG NO.: 936243-F2L2M3P6T4-S367

REVISIONS				
NO.	NOTICE NO.	DATE	REV BY	DESCRIPTION
000	SC589949	12/21/2016	LAS	

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DRAWING SIZE	D	DRAWN BY	LARRY STUIBER
SCALE	None	ORIGINATION DATE	12/21/2016
PROJECTION	None	UNITS	INCHES
NEXT ASSEMBLY		PRODUCT DESCRIPTION	VISTA

**S&C ELECTRIC COMPANY**  
 Excellence Through Innovation

S&C MANUAL VISTA  
 UNDERGROUND DISTRIBUTION SWITCHGEAR  
 MODEL 624

SHEET 1 OF 1  
 DIMENSIONAL DRAWING  
 DRAWING NO. 936243-S367

## 523 Vista Switchgear Specifications

### 27.6kV Vista Switchgear

#### 1.0 Switchgear Ratings - The assembly rating shall be as follows:

Voltage - Maximum .....	29.3 kv
- Nominal.....	27,600 kv
B.I.L. ....	125 kv
Short Circuit Ratings .....	800 mva
Corona Extinction Voltage to Ground .....	19 kv rms
High Potential Test (one minute at 60 Hz).....	50 kv
Main Bus (copper or aluminum) .....	600 amperes

#### 2.0 Enclosures and Tank

The padmounted enclosure construction shall be welded 14-gauge steel. The finish shall consist of Equipment Green, EEMAC Y1-2.

A three line mimic bus and identification nameplate may also be included to ensure all internal components are identified in their proper relationship.

The enclosure shall be outdoor weatherproof & tamperproof construction provided with removable front and back panels and hinged lift-up roof sections.

The switchgears shall consist of gas-tight stainless steel tank containing the insulating gas and resettable vacuum interrupters. Minimum 6" x 12" viewing window for verification of switch status will be supplied. Roof sections shall be provided with undercoating "no drip" insulating material.

The tank shall be 7 gauge type 305 stainless steel and must be shipped with a complete fill of the insulating gas ready for immediate use. The tank shall be designed to be submersible in up to 10 feet of water.

A gas fill port valve shall be provided along with a temperature compensated pressure gauge c/w contacts for remote indication of low gas pressure with wires routed on tank for future customer connections.

External copper ground bus with two-hole NEMA pattern and provisions for three cable connections shall be provided for each way.

#### 3.0 Sf-6 Switchgears - The Fault interrupters & switches shall be as follows; -

The interrupters & switches shall be factory aligned and tested before being installed in the switchgear. The switchgear shall be sealed with Sf-6 insulation, with elbow power connections. All switches shall have 3 position operation (Close / Open / Grounded) and a large 8" X 10" viewing window for verification or status. All interruptors shall have self powered micro-processor based over-current control. The over-current relay shall be housed in a submersible Polycarbonate box with USB port for programming and testing.

Relay set-up shall be via laptop so that tampering with settings is not possible. All switchgear must meet ESA standards.

#### **4.0 Elbows**

All elbows shall be 600 amp bolted type with universal bushing interfaces to IEEE386.

#### **5.0 Sf-6 Gas provisions**

The Sf-6 gas shall conform to ASTM D2472. The switchgear shall be factory filled & sealed with Sf-6 to a pressure of 7 PSIG at 68 degrees C. The switchgear shall withstand system voltage at atmospheric pressure. A Gas fill valve shall be provided. A temperature compensated Gas Density monitor shall be provided in a visible location for verification of gas pressure prior to switching. A remote low-pressure alarm shall also be included as provision for future remote operation.

#### **6.0 Local Potential Indication**

Each cable termination elbow will have capacitively coupled voltage detectors, wired to an electronic display panel over the viewing window. From the display panel it shall be possible to determine if any cable is energized, open or grounded. Phasing pin taps from the capacitive couplers are to be used to verify correct ABC phasing prior to energizing.

#### **6.0 Remote Low-Pressure**

Each cable termination elbow will have capacitively coupled voltage detectors, wired to an electronic display panel over the viewing window. From the display panel it shall be possible to determine if any cable is energized, open or grounded. Phasing pin taps from the capacitive couplers are to be used to verify correct ABC phasing prior to energizing.

## 624 Vista Switchgear Specifications

### 27.6kV Vista Switchgear

#### 1.0 Switchgear Ratings - The assembly rating shall be as follows:

Voltage - Maximum.....	29.3 kv
- Nominal .....	27,600 kv
B.I.L. ....	125 kv
Short Circuit Ratings .....	800 mva
Corona Extinction Voltage to Ground .....	19 kv rms
High Potential Test (one minute at 60 Hz) .....	50 kv
Main Bus (copper or aluminum).....	600 amperes

#### 2.0 Enclosures and Tank

The padmounted enclosure construction shall be welded 14-gauge steel. The finish shall consist of ANSI #70 light grey.

A three line mimic bus and identification nameplate may also be included to ensure all internal components are identified in their proper relationship.

The enclosure shall be outdoor weatherproof & tamperproof construction provided with removable front and back panels and hinged lift-up roof sections.

The switchgears shall consist of gas-tight stainless steel tank containing the insulating gas and resettable vacuum interrupters. Minimum 6" x 12" viewing window for verification of switch status will be supplied. Roof sections shall be provided with undercoating "no drip" insulating material.

The tank shall be 7 gauge type 305 stainless steel and must be shipped with a complete fill of the insulating gas ready for immediate use. The tank shall be designed to be submersible in up to 10 feet of water.

A gas fill port valve shall be provided along with a temperature compensated pressure gauge c/w contacts for remote indication of low gas pressure with wires routed on tank for future customer connections.

External copper ground bus with two-hole NEMA pattern and provisions for three cable connections shall be provided for each way.

#### 3.0 Sf-6 Switchgears - The Fault interrupters & switches shall be as follows; -

The interrupters & switches shall be factory aligned and tested before being installed in the switchgear. The switchgear shall be sealed with Sf-6 insulation, with elbow power connections. All switches shall have 3 position operation (Close / Open / Grounded) and a large 8" X 10" viewing window for verification or status. All interrupters shall have self powered micro-processor based over-current control. The over-current relay shall be housed in a submersible Polycarbonate box

with USB port for programming and testing. Relay set-up shall be via laptop so that tampering with settings is not possible. All switchgear must meet ESA standards.

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