City of Tacoma
Tacoma Power Transmission & Distribution

REQUEST FOR PROPOSALS  PT23-0100F
Outdoor Walk-In Metal-Clad Switchgear

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, August 15, 2023
Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time.

For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, sendbid@cityoftacoma.org, as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals. Late submittals will be returned unopened and rejected as non-responsive.

Submittal Delivery: Sealed submittals will be received as follows:

By Email:
sendbid@cityoftacoma.org
Maximum file size: 35 MB. Multiple emails may be sent for each submittal

Bid Opening: Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time. Sealed submittals in response to a RFB will be opened Tuesday’s at 11:15 a.m. by a purchasing representative and read aloud during a public bid opening held at the Tacoma Public Utilities Administrative Building North, 3628 S. 35th Street, Tacoma, WA 98409, conference room M-1, located on the main floor. They will also be held virtually Tuesday’s at 11:15 a.m. Attend via this link or call 1 (253) 215 8782. Submittals in response to an RFP, RFQ or RFI will be recorded as received. As soon as possible, after 1:00 PM, on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

Solicitation Documents: An electronic copy of the complete solicitation documents may be viewed and obtained by accessing the City of Tacoma Purchasing website at www.TacomaPurchasing.org.

- Register for the Bid Holders List to receive notices of addenda, questions and answers and related updates.
- Click here to see a list of vendors registered for this solicitation.

Pre-Proposal Meeting: A pre-proposal meeting will be held at:

Topic: PT23-0100F Pre-Proposal Meeting
Time: Aug 1, 2023 10:00 AM Pacific Time (US and Canada)
Join Zoom Meeting
https://us02web.zoom.us/j/89343562989?pwd=UUhYM3NmSzRCbXZWN3B1alpSRXhOdz09
Meeting ID: 893 4356 2989
Passcode: 775010

Project Scope: Tacoma Power is soliciting bids to establish one or more contracts with qualified vendors to fulfill the City’s needs for outdoor walk-in metal-clad switchgear 15 kV on an as-needed basis for up to five years.

Estimate: $4,250,000

Paid Sick Leave: The City of Tacoma requires all employers to provide paid sick leave as set forth in Title 18 of the Tacoma Municipal Code and in accordance with State of Washington law.

Americans with Disabilities Act (ADA Information): The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing the contact listed below in the Additional Information section.
**Title VI Information:** “The City of Tacoma” in accordance with provisions of Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. sections 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration of award.

**Additional Information:** Requests for information regarding the specifications may be obtained by contacting Sara Bird, Senior Buyer by email to sbird@cityoftacoma.org.

**Protest Policy:** City of Tacoma protest policy, located at [www.tacomapurchasing.org](http://www.tacomapurchasing.org), specifies procedures for protests submitted prior to and after submittal deadline.

Meeting sites are accessible to persons with disabilities. Reasonable accommodations for persons with disabilities can be arranged with 48 hours advance notice by calling 253-502-8468.
# Table of Contents

SUBMITTAL CHECK LIST ......................................................................................................... 5

1. BACKGROUND .................................................................................................................. 6

2. MINIMUM REQUIREMENTS .............................................................................................. 6

3. SCOPE OF SERVICES AND DELIVERABLES .................................................................. 6

4. CONTRACT TERM ............................................................................................................. 7

5. CALENDAR OF EVENTS ................................................................................................... 7

6. INQUIRIES ......................................................................................................................... 7

7. PRE-PROPOSAL MEETING............................................................................................... 8

8. DISCLAIMER ....................................................................................................................... 8

9. EVALUATION CRITERIA .................................................................................................... 8

10. CONTENT TO BE SUBMITTED – This section represents 100% of the possible scoring criteria ........................................................................................................ 8

11. PRICE ADJUSTMENT ...................................................................................................11

12. INTERVIEWS / ORAL PRESENTATIONS ......................................................................11

13. RESPONSIVENESS ......................................................................................................11

14. ACCEPTANCE / REJECTION OF SUBMITTALS ..........................................................12

15. ACCEPTANCE OF SUBMITTAL CONTENTS ................................................................12

16. CONTRACT OBLIGATION .............................................................................................12

17. STANDARD TERMS AND CONDITIONS / GENERAL PROVISIONS ............................12

18. INSURANCE REQUIREMENTS .....................................................................................12

19. PAID LEAVE ..................................................................................................................12

20. PARTNERSHIPS ...........................................................................................................13

21. AWARD ..........................................................................................................................13

22. ENVIRONMENTALLY PREFERABLE PROCUREMENT ................................................13

23. PROPRIETARY OR CONFIDENTIAL INFORMATION ...................................................14

24. ADDENDUMS ................................................................................................................14

APPENDIX A ............................................................................................................................15

APPENDIX B ............................................................................................................................16

APPENDIX C ............................................................................................................................17

APPENDIX D ............................................................................................................................18
SUBMITTAL CHECK LIST

This checklist identifies items to be included with your submittal. Any submittal received without these required items may be deemed non-responsive and not be considered for award.

Submittals must be received by the City of Tacoma Purchasing Division by the date and time specified in the Request for Proposal page.

<table>
<thead>
<tr>
<th>The following items make up your submittal package:</th>
</tr>
</thead>
<tbody>
<tr>
<td>One electronic copy of your complete submittal package emailed to <a href="mailto:sendbid@cityoftacoma.org">sendbid@cityoftacoma.org</a></td>
</tr>
<tr>
<td>Information in Content to be Submitted Section</td>
</tr>
<tr>
<td>Signature Page (Appendix B)</td>
</tr>
<tr>
<td>Price Proposal Form (Appendix B)</td>
</tr>
<tr>
<td>Record of Prior Contracts (Appendix B)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After award, the following documents will be executed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material (or Supply) Contract</td>
</tr>
<tr>
<td>Certificate of Insurance and related endorsements</td>
</tr>
</tbody>
</table>
1. BACKGROUND

The City of Tacoma (City) / Tacoma Public Utilities (TPU), Tacoma Power is soliciting bids to establish one or more contracts with qualified vendors to fulfill the City’s needs for outdoor walk-in metal-clad switchgear 15 kV on an as-needed basis for up to five years. This specification establishes a supply contract, with the option for renewal, for power switchgear and associated spare parts, F.O.B. destination, freight prepaid and allowed, unloaded on an owner-prepared switchgear foundation within the Tacoma Power service area. Technical supervision by Vendor of final assembly of the switchgear by City personnel shall be included in the bid prices. Tacoma Power will accept fixed price bids for switchgear with price adjustment according to the conditions specified in Section 11.

To learn more about the City of Tacoma, visit www.cityoftacoma.org.

The City anticipates awarding a single contract. However, the City reserves the right to split the award if it is in the City’s best interest. Tacoma Power also accepts that not all bidders will be capable of bidding every item. Bidders will NOT be automatically disqualified for failure to bid all switchgear construction alternatives and pricing methods. Contract duration is intended to be for three years, with the option to renew for two additional one-year periods upon mutual agreement. The five-year estimated value of the contract is $5,000,000.

2. MINIMUM REQUIREMENTS

The Bidder shall be experienced in the design, manufacture, direct sale, warranty service and support of this type of material or equipment (power switchgear 2000 A and above, 15 kV min) to electrical power utilities in the United States. The Bidder shall have a record of successful delivery and performance over a period of five (5) years or more in the United States. The City shall be the sole judge of the bidder’s ability to meet the requirements of this paragraph.

3. SCOPE OF SERVICES AND DELIVERABLES

The switchgear shall be designed, manufactured, and tested in compliance with the latest revision of applicable ANSI, NEMA, and IEEE standards, unless otherwise specified. If a conflict between standards exists, the more stringent shall be applied. The switchgear must meet the minimum requirements as to quality, function and capacity as outlined in this specification.

Switchgear purchased under this contract, including transformer throat (bus duct) or underground cable enclosure, shall be unloaded on the foundation in a substation. Technical supervision by Vendor of final assembly of the switchgear by City personnel shall be included in the bid prices.
4. CONTRACT TERM

The contract will be for a three-year period with the option to renew the contract for two additional one-year terms. The City reserves the right to cancel the contract for any reason, by written notice, as stipulated in the contract.

5. CALENDAR OF EVENTS

This is a tentative schedule only and may be altered at the sole discretion of the City.

Contract may be issued after Public Utility Board approval.

The anticipated schedule of events concerning this RFP is as follows:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publish and issue RFP:</td>
<td>7/21/2023</td>
</tr>
<tr>
<td>Pre-Proposal Meeting</td>
<td>8/1/2023</td>
</tr>
<tr>
<td>Pre-Submittal Questions:</td>
<td>8/4/2023</td>
</tr>
<tr>
<td>Response to Questions:</td>
<td>8/9/2023</td>
</tr>
<tr>
<td>Submittal Due Date:</td>
<td>8/15/2023</td>
</tr>
<tr>
<td>Submittal Evaluated:</td>
<td>August/September 2023</td>
</tr>
<tr>
<td>Award Recommendation:</td>
<td>September 2023</td>
</tr>
<tr>
<td>Public Utility Board Approval:</td>
<td>September 2023</td>
</tr>
</tbody>
</table>

6. INQUIRIES

6.1 Questions should be submitted to Sara Bird via email to sbird@cityoftacoma.org. Subject line to read:

PT23-0100F – Outdoor Walk-In Metal-Clad Switchgear – VENDOR NAME

6.1 Questions are due by 3 pm on the date included in the Calendar of Events section.

6.2 Questions marked confidential will not be answered or included.

6.3 The City reserves the discretion to group similar questions to provide a single answer or not to respond when the requested information is confidential.

6.4 The answers are not typically considered an addendum.

6.5 The City will not be responsible for unsuccessful submittal of questions.

6.6 Written answers to questions will be posted alongside the specifications at www.tacomapurchasing.org
7. PRE-PROPOSAL MEETING

7.1 A pre-proposal meeting will be held (via Zoom) at the date and time specified in the Calendar of Events (section 5). Respondents are not required to attend a pre-proposal meeting, but it is highly recommended to attend. The pre-proposal meeting will be recorded and posted on the Purchasing website. The Zoom meeting details are below:

Topic: PT23-0100F Pre-Proposal Meeting
Time: Aug 1, 2023, 10:00 AM Pacific Time (US and Canada)

Join Zoom Meeting
https://us02web.zoom.us/j/89343562989?pwd=UUhYM3NmSzRCbXZWN3B1alpSRXhOdz09

Meeting ID: 893 4356 2989
Passcode: 775010

8. DISCLAIMER

The City is not liable for any costs incurred by the Respondent for the preparation of materials, or a submittal submitted in response to this RFP, for conducting any presentations to the City, or any other activities related to responding to this RFP, or to any subsequent requirements of the contract negotiation process.

9. EVALUATION CRITERIA

A Selection Advisory Committee (SAC) will review and evaluate submittals. After the evaluation, the SAC may conduct interviews of the most qualified Respondents before final selection.

9.1 The SAC may select one or more Respondents to provide the services required.

9.2 The City reserves the right to visit facilities of selected Respondents for the purpose of evaluating production capabilities and/or quality management practices.

9.3 The SAC may use references to clarify information in the submittals and interviews, if conducted, which may affect the rating. The City reserves the right to contact references other than those included in the submittal.

9.4 A significant deficiency in any one criteria is grounds for rejection of the submittal as a whole.

10. CONTENT TO BE SUBMITTED – This section represents 100% of the possible scoring criteria.

Information that is confidential must be clearly marked and provide an index identifying the affected page number(s) and locations(s) of such identified materials. See Section 1 of the Standard Terms and Conditions – Solicitation 1.06 for Public Disclosure: Proprietary or Confidential Information.
Submittals should present information in a straightforward and concise manner, while ensuring complete and detailed descriptions of the respondent’s/team’s abilities to meet the requirement of this RFP. Emphasis will be on completeness of content.

The City reserves the right to request clarification of any aspect of a firm’s submittal or request additional information that might be required to properly evaluate the submittal. A firm’s failure to respond to such a request may result in rejection of the firm’s submittal. Firms are required to provide responses to any request clarification within five (5) business days.

Requests for clarification or additional information shall be made at the sole discretion of the City. The City’s retention of this right shall in no way diminish a Proposer’s responsibility to submit a submittal that is current, clear, complete, and accurate.

The relative weight of each scoring criteria is indicated in the table below.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifications/Experience of Firm</td>
<td>10</td>
</tr>
<tr>
<td>Estimated Delivery Time ARO</td>
<td>20</td>
</tr>
<tr>
<td>Proposal Total Price</td>
<td>55</td>
</tr>
<tr>
<td>Equity in Contracting</td>
<td>5</td>
</tr>
<tr>
<td>Sustainability</td>
<td>5</td>
</tr>
<tr>
<td>Duration of Warranty Coverage</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

10.1 Qualifications/Experience of Firm – 10 points
Describe your company's ability and experience in the design, construction, and testing of 15 kV class outdoor walk-in metal-clad switchgear.

10.2 Estimated Delivery Time ARO – 20 points
Provide an estimate of the total time for design, fabrication, testing, and delivery to Pierce County, Washington of a complete outdoor walk-in switchgear lineup. Time estimate should be for the duration from vendor’s receipt of City purchase order to final delivery of all components to a City-prepared foundation.

10.3 Proposal Total Price – 55 points
Provide the total price of bid submittal on the City Price Proposal Form.

10.4 Equity in Contracting – 5 points
Is your firm, or the firm you are partnering with, certified with Washington State for any of the below categories. Confirmation of any of the below certifications will result in all points for this category.

☐ Combination Business Enterprise (CBE)
☐ Disadvantaged Business Enterprise (DBE)

☐ Minority Business Enterprise (MBE)

☐ Minority/Women Business Enterprise (MWBE)

☐ Small Business Enterprise (SBE)

☐ Socially and Economically Disadvantaged Business Enterprise (SEDBE)

☐ Women Business Enterprise (WBE)

10.5 Sustainability – 5 points

Provide information on your company’s commitment to the environment. Include your sustainability statement and current practices. For more information, see our Respondents Guide.

10.5.1 Does the Respondent have an organizational sustainability plan and/or policy?

[ ] Yes [ ] No

Provide additional information if checked “Yes,” including whether it is made publicly available (provide link) and how it is communicated to employees.

10.5.2 Does the Respondent have:

A. Greenhouse gas emission reduction targets? [ ] Yes [ ] No
B. Energy and water conservation targets? [ ] Yes [ ] No
C. Waste reduction targets? [ ] Yes [ ] No
D. Toxics use reduction targets? [ ] Yes [ ] No
E. Pollution reduction targets? [ ] Yes [ ] No
F. Measure progress regularly and publicly? [ ] Yes [ ] No

10.5.3 How will the Respondent, through service delivery and/or their own operations during the contract period:

A. Minimize greenhouse gas emissions?
B. Minimize polluted stormwater runoff in Tacoma?
C. Minimize waste generation?
D. Minimize toxic use and/or generation?
E. Minimize air pollution in Tacoma?
F. Minimize resource extraction?

10.5.4 Demonstrate industry leadership across these areas? Is the Respondent an EnviroStars recognized business? Provide any relevant certifications and/or verified results.
10.6 Duration of Warranty Coverage – 5 points
Points will be awarded for warranty coverage exceeding 18 months from date of delivery or 12 months from date of energization (whichever is longer).

11. PRICE ADJUSTMENT

Tacoma Power understands that various cost components, including raw materials, externally procured devices, and shipping costs are subject to change.

Respondents shall include with their submittal, the basis for any price adjustment to be used during the duration of any contract as a result of these Specifications. The City will consider price increases/decreases under the following conditions:

a. Price increases will be allowed on a per item basis. Any proposed increase/decrease in price to contract items must be beyond the control of the Supplier and supported by written documentation from the manufacturer and/or wholesale distributor, indicating the new higher/lower pricing in effect and/or for raw materials used in the manufacturing of the equipment/material.

b. Bid submittal prices will establish a base price against which contractors may request price adjustments. Adjustments may be made at the end of each six (6) month period during the life of the contract. Prices shall remain firm during each six (6) month period. Supplier shall honor the price in effect at the time each purchase order is issued; invoices shall match the prices listed on the purchase order.

c. Supplier will be required to submit written proposed price increases/decreases for review. Prices will be adjusted only to the amount of cost increase/decrease to Supplier. No adjustment will be made for Supplier profit margin.

d. The review shall be based on publicly available price data which will allow for independent confirmation. This price adjustment provision will be part of the contract upon award.

e. At the end of three (3) years of contract price adjustments, the total maximum adjusted price shall not exceed 160 percent of the original bid price.

12. INTERVIEWS / ORAL PRESENTATIONS

An invitation to interview may be extended to Respondents based on SAC review of the written submittals. The SAC reserves the right to adjust scoring based on additional information and/or clarifications provided during interviews. The SAC may determine additional scoring criteria for the interviews following evaluation of written submittals.

The City reserves all rights to begin contract negotiations without conducting interviews.

Respondents must be available to interview within three business days notice.

13. RESPONSIVENESS

Respondents agree their submittal is valid until a contract(s) has been executed.
All submittals will be reviewed by the City to determine compliance with the requirements and instructions specified in this RFP. The Respondent is specifically notified that failure to comply with any part of this RFP may result in rejection of the submittal as non-responsive. The City reserves the right, in its sole discretion, to waive irregularities deemed immaterial.

The final selection, if any, will be that submittal which, after review of submissions and potential interviews, in the sole judgement of the City, best meets the requirements set forth in this RFP.

14. ACCEPTANCE / REJECTION OF SUBMITTALS

Respondents are advised that the City reserves the right to cancel award of this Contract at any time before execution of the Contract by both parties if cancellation is deemed to be in the City’s best interest. In submitting a Submittal, Respondents agree that the City is not liable for any costs or damages for the cancellation of an award.

The City reserves the right and holds at its discretion the following rights and options:

- To waive any or all informalities
- To award one or more contracts
- To not award a contract
- To issue subsequent solicitation

15. ACCEPTANCE OF SUBMITTAL CONTENTS

The Submittal contents of the successful Respondent will become contractual obligations if a contract ensues.

16. CONTRACT OBLIGATION

The selected Respondent(s) will be expected to execute a contract with the City. As part of the negotiation process, Respondents may propose amendments to the contract, but the City, at its sole option, will decide whether to open discussion on each proposed amendment and determine the final contract to be used. At a minimum, any contract will incorporate the terms and conditions contained herein.

17. STANDARD TERMS AND CONDITIONS / GENERAL PROVISIONS

City of Tacoma Standard Terms and Conditions apply.

18. INSURANCE REQUIREMENTS

Successful proposer will provide proof of and maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements contained in this solicitation. Please see Appendix D.

19. PAID LEAVE
Effective February 1, 2016, the City of Tacoma requires all employers to provide Paid Leave and Minimum Wage, as set forth in Title 18 of the Tacoma Municipal Code. For more information visit http://www.cityoftacoma.org/employmentstandards.

20. PARTNERSHIPS

The City will allow firms to partner in order to respond to this RFP. Respondents may team under a Prime Respondent’s submittal in order to provide responses to all sections in a single submission; however, each Respondent’s participation must be clearly delineated by section. The Prime Respondent will be considered the responding vendor and the responsible party at contract award. All contract negotiations will be conducted only with the Prime Respondent. All contract payments will be made only to the Prime Respondent. Any agreements between the Prime Respondent and other companies will not be a part of the agreement between the City and the Prime Respondent. The City reserves the right to select more than one Prime Respondent.

21. AWARD

After the Respondent(s) is selected by the SAC and prior to award, all other Respondents will be notified via email by the Purchasing Division.

Once a finalist (or finalists) has been selected by the Selection Advisory Committee, contract negotiations with that finalist will begin, and if a contract is successfully negotiated, it will, if required, be submitted for final approval by the Public Utility Board.

22. ENVIRONMENTALLY PREFERABLE PROCUREMENT

In accordance with the City’s Sustainable Procurement Policy and Climate Action Plan, it is the policy of the City of Tacoma to encourage the use of products or services that help to minimize the environmental and human health impacts of City Operations. Respondents are encouraged to incorporate environmentally preferable products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, products, manufacturing, packaging, distribution reuse, operation, maintenance or disposal of the product or service.

The City of Tacoma encourages the use of sustainability practices and desires any awarded contractor(s) to assist in efforts to address such factors when feasible for:

- Durability, reusability, or refillable;
- Pollutant releases, especially persistent bioaccumulative toxins (PBTs), low volatile organic compounds (VOCs), and air quality and stormwater impacts;
- Toxicity of products used;
- Greenhouse gas emissions, including transportation of products and services, and embodied carbon
- Recycled content;
• Energy and water resource efficiency;

23. PROPRIETARY OR CONFIDENTIAL INFORMATION

The Washington State Public Disclosure Act (RCW 42.56 et seq.) requires public agencies in Washington make public records available for inspection and copying unless they fall within the specified exemptions contained in the Act, or are otherwise privileged. Documents submitted under this RFP shall be considered public records and, with limited exceptions, will be made available for inspection and copying by the public.

Information that is confidential or proprietary must be clearly marked. Further, an index must be provided indicating the affected page number(s) and location(s) of all such identified material. Information not included in said index will not be reviewed for confidentiality or as proprietary before release.

24. ADDENDUMS

In the event it becomes necessary to revise any part of this RFP, an addendum will be posted alongside specifications at www.tacomapurchasing.org. Failure to acknowledge addendum(s) on the required Signature Page may result in a submittal being deemed non-responsive by the City.
APPENDIX A

Technical Specifications

Drawings or Plans (if applicable)
1.01 - GENERAL

These specifications cover the furnishing of 15kV power switchgear, switchgear breakers, accessories, and spares.

The sample switchgear is described on the following drawings:

- 2101.01 Sheet 1 General Layout
- 2101.01 Sheet 2 One-line
- 2101.01 Sheet 3 Panel Elevations
- 2101.01 Sheet 4 Three-wire*
- 2101.01 Sheet 5 Schematic*

*Note: The sample drawings and other attached reference drawings (including but not limited to single-ended switchgear, double-ended switchgear, and bus duct) are provided for bid purpose only.

All equipment, components (including, but not limited to, all threaded fasteners) and materials provided under this specification shall conform to the applicable standards of ANSI, ASME, ASTM, IEEE, and NEMA. All materials and devices shall be in accordance with the applicable requirements of the Federal Occupational Safety and Health Standards.

The switchgear shall be designed, fabricated and tested in accordance with the current revision of the following standards and these specifications:

- **Washington Administrative Code (WAC) 296-150F**
- National Electrical Manufacturers Association (NEMA) SG-2 Standards for High-Voltage Fuses
- NEMA SG-4 Standards for Power Circuit Breakers
- National Electrical Code (NEC)
Each switchgear shall be designed and constructed for operation under usual service conditions on a 15kV three-phase, 60 hertz, effectively grounded system with neutral, at a maximum ambient temperature of +104°F (40°C) to a minimum ambient temperature of -4°F (-20°C) and an altitude below 3,300 feet (1000 meters) and a medium pollution level.

1.02 - VOLTAGE RATINGS

The 15kV rated switchgear will be connected to a 13.8kV or 12.47kV nominal voltage system, as specified on the purchase order. Switchgear shall have a fully insulated neutral.

1.03 - CURRENT RATINGS

The switchgear bus, and main & tie breakers shall have ratings as follows:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Rated continuous current</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 2 &amp; 3</td>
<td>2000A</td>
</tr>
</tbody>
</table>

All feeders shall be rated 1200A continuous, except for the 5th feeder of Item #2. The 5th feeder breaker of Item #2 shall be rated 2000A continuous. A fully insulated neutral and ground bus shall be provided the full length of the switchgear. Neutral bus rating shall be 1000A minimum. Ground bus rating shall be 600A minimum.

1.04 - INSULATING LEVEL

All switchgears shall be insulated for 13.8kV nominal voltage, a 60Hz 1 minute withstand of 36kV and a BIL of 95kV.
1.05 - ENCLOSURE

The base shall be designed to be flexible to the City’s site requirements. The equipment shall have provisions to anchor to the foundation by welding to steel beams embedded in the foundation and by anchor bolts. City will weld or epoxy anchor switchgear in place. Only one method will be required to be performed by the City during the installation. There shall be sufficient clearance above the anchors to allow installation of the anchor bolts after the switchgear has been placed on the foundation. Manufacturer mounting pads shall accommodate the drilling of holes for anchor bolts into the foundation with the equipment in place.

The enclosure shall meet the Washington Administrative Code (WAC) 296-150F requirements. The switchgear shall be enclosed in a rigid, self-supporting, outdoor, weatherproof, dust tight, metal structure that shall include the following features:

a) Sheltered aisle for operation and maintenance of switchgear.
b) Aisle floor and door thresholds to be 8 inches from slab.
c) Minimum 11-gauge steel shall be used for exterior walls and roof. Minimum 14-gauge steel interior panels. The roof shall be designed with proper slope for drainage.
d) Enclosure shall meet the rain test performance requirements of IEEE C37.20.2. Manufacturer shall be able to furnish documentation showing the design meets this requirement.
e) HVAC Units
   o Heating sized to maintain an internal temperature of 70°F @ 25°F outdoor ambient, to be installed on wall opposite the breakers in the aisle, wired to station service supply and complete with built-in thermostat.
   o An air conditioning system sized to maintain an inside temperature of 70°F given an outdoor ambient temperature of 110°F, considering the dimensions and heat retention of the enclosure and the heat dissipated by the electrical equipment within the enclosure.
   o The air conditioning unit shall be wall mounted on the aisle wall of the enclosure complete with a thermostat.
   o Any forced air ducts provided shall not interfere with or reduce a minimum of 8 feet of head room within the switchgear aisle.
   o Exhaust fan for battery compartment.
   o The switchgear walls, roof, bottom, and doors shall be insulated with fiberglass insulation to R-11 minimum.
   o The Washington State Energy Code shall be incorporated in the design and fabrication.
f) Door
   o Access door at each end of enclosure.
   o Each access door to be equipped with panic bar to permit opening door from interior even though locked from exterior.
   o Doors to have exterior locking provision, with hardware consisting of BEST No. 1E62 x 612 cylinder (no substitute) to accept a Tacoma Power furnished BEST core. Doors to have exterior hardware for latching when unlocked.
   o Cable entrance compartments shall have hinged doors with single latch handle with provision for padlocking.
g) Building design and installation shall be in accordance with applicable IBC regulations.
   o Design members to withstand dead load and design loads with all bays open due to pressure and suction of wind calculated in accordance with International Building Code (IBC), latest edition.
   o Design members to withstand the following minimum loads:
     - Dead Load: Actual plus ceiling hung lights and racks (15 psf and/or 200# concentrated)
     - Snow Load: 35 psf
     - Wind Load: Basic Wind Speed =80 MPH, Exposure "C", Importance Factor 1.0
     - The structural base shall be designed to withstand all loads, including shipping, erection and in service live and dead loads.
     - Enclosure foundation design shall accommodate a strip footing slab design and provide that the conduit entrance sections of the cable entrance compartments shall be in cantilever, extending beyond the City’s concrete support slab, thus giving unobstructed conduit entrance access to the substation yard rock below.

h) Miscellaneous Electrical
   o LED lights shall be installed to illuminate the aisle and behind the control and relay racks.
   o Outdoor Convenience outlets: Two (2) Hubbell receptacles, Catalog No. HBL20403, 30 amp, 600 volt AC or approved equal, installed near each door.
   o Outdoor Convenience GFCI outlets: Two (2) 20 amp, 120 volt AC or approved equal, installed near each door.
   o Indoor Convenience GFCI outlets: Three (3) 20 amp, 120 volt AC or approved equal, installed near each door and the center of the enclosure.
   o A manual transfer switch for station service power shall be provided and installed for each set of control power transformers and AC panels. The preferred mounting location is on the outside of the aisle wall. The preferred source shall be from the station service transformer provided with the switchgear. A mechanical interlock should be provided so that the station service transformer high-side fuse cannot be removed when the switch is in preferred position. Tacoma Power will provide the alternate source. The manual transfer switch shall be Square D DTU224NRB.
   o Signs on each high-voltage compartment that read:
     DANGER
     HIGH VOLTAGE
     KEEP OUT
   o Two (2) 150-watt LED equivalent exterior weatherproof floodlights over each door on top of the switchgear. Install weatherproof switches at each door for these lights. A motion detector on each end of the switchgear that switches the floodlight over each door on top of the switchgear. Units to turn “on” at night with motion detected. An indoor bypass switch to be installed to force lights “on”.
   o Two (2) Emergency lights, one (1) over each door on top of the switchgear.
   o Control cable risers, enclosures and cable tray shall be provided.
   o Folding drawing table to accommodate 24” x 36” drawings.
   o One (1) Remote Racking Tool for pushing/pulling 15kV breakers in/out. It shall be provided by the vendor for each switchgear order.
1.06 - METAL-CLAD CONSTRUCTION

Circuit breakers shall be one high only; breakers stacked two high will not be acceptable.

Panels, doors and compartment barriers shall be 11 gauge cold-rolled steel or suitable equivalent stretcher-leveled hot-rolled steel. The minimum thickness of floor metal shall be 3/16 inches.

Each cubicle shall be completely and individually enclosed, resulting in two thicknesses of painted steel between cubicles.

The interior and exterior surfaces of the instrument panels and the removable circuit breaker units shall be furnished in accordance with the latest applicable NEMA standards.

Outgoing feeder circuits shall leave the rear of the cubicles to underground conduits. Openings for power circuit shall be large enough to accommodate two 6-inch steel conduits in each feeder cubicle and four or six 6-inch conduits in each main cubicle. See Section 1.24.

ITEM 1:
The single-ended switchgear shall consist of seven (7) cubicle sections as follows. See drawing 2101.01, Sheet 1 as reference.

- One (1)-Auxiliary section
- One (1)-Main breaker section
- Four (4)-Feeder breaker sections
- One (1)-Tie breaker section
- Accessories per Section 1.18

ITEM 2:
The single-ended switchgear shall consist of seven (7) cubicle sections as follows. See drawing 2101.01, Sheet 1 as reference.

- One (1)-Auxiliary section
- One (1)-Main breaker section
- Four (4)-Feeder breaker sections
- The 5th Feeder Breaker Section shall be designed with 2000A continuous rated feeders. This section shall be designed with the capability to convert from feeder breaker section to a bus tie breaker section. All feeder breaker relaying shall be provided in the section relay panel. All bus tie differential relaying shall be provided in a separate rack or panel.
- Accessories per Section 1.18

ITEM 3:
The double-ended switchgear shall consist of thirteen (13) cubicle sections as follows. See drawing 2101.01, Sheet 1 as reference. In addition to shipping purposes, physical separation at the tie breaker shall accommodate City's desire for flexibility in the future.

- Two (2)-Auxiliary sections
- Two (2)-Main breaker sections
- Eight (8)-Feeder breaker sections
- One (1)-Tie breaker section in the middle of the eight (8) feeder breaker sections.
- Accessories per Section 1.18
1.07 - MAIN BREAKER SECTION & TIE BREAKER

See drawing 2101.01, Sheet 3 for bill of materials and layout. These preliminary drawings are representative of City’s needs as to the type and quantity of equipment required, no substitute. Each section shall be equipped with the following:

- One (1)-Hinged, approximately 90 inch high steel panel, mounting control and relay components, and providing access to the main circuit breaker. Sufficient clearance shall be provided between the back of this panel and the front of the circuit breaker to allow complete freedom in locating relays, instruments and control components at convenient and accessible levels.

- Door shall be able to be secured with breaker in the test/disconnected position. It must be able to close securely with one handle. The door should be closed and secured.

- One (1)-Vacuum circuit breaker, rated per Section 1.11

- Six (6)-Current transformers (CT) per section 1.13. All leads from a CT shall be wired to a current-shorting terminal block in the control panel side of cubicle (not the cable compartment).

- Three (3)-Potential transformers per main breaker, 8400/120V or 7200/120V, 60 hertz, metering accuracy class 0.3 for W, X, Y, Z burdens, 110kV BIL, thermal rating 1500 VA at 30°C ambient, draw-out type, connected GROUNDED wye-wye with bus-side current limiting fuses and secondary fused disconnect.

- One (1)-Space heater, minimum 250 watts total, with thermostat, in the control/BREAKER compartment sufficient to prevent condensation. The space heater shall be installed in a proper location to prevent overheating and arc flash hazard.

- One (1)-Space heater, minimum 250 watts total, in the cable compartment sufficient to prevent condensation. The space heater shall be installed in a proper location to prevent overheating and arc flash hazard.

- One (1)-Terminal block available for City connection to SCADA RTU control and status inputs. Terminal block to be wired by manufacturer with connection to: breaker control switch relay trip command, close command, and common; and one 52a contact from vacuum circuit breaker.

- Five (5)-Auxiliary breaker “a” contacts, wired to a terminal block in the control panel side of the cubicle.

- Five (5)-Auxiliary breaker “b” contacts, wired to a terminal block in the control panel side of the cubicle.

- Two (2)-Terminal blocks, with a minimum of twelve (12) spare positions.

- Energy Reduction Maintenance (ERM) switches shall be provided on the main breaker section panel.

- Condition monitoring sensory devices (Humidity, temperature, and Partial Discharge) shall be installed in proper locations with the capability to be integrated into SCADA/RTU alarming system.
**1.08 - FEEDER BREAKER SECTIONS**

See drawing 2101.01, Sheet 3 for bill of materials and layout. These preliminary drawings are representative of City’s needs as to the type and quantity of equipment required, **no substitute**. Each feeder section shall be equipped with the following:

- One (1)-Hinged, approximately 90 inch high steel panel, mounting control and relay components, and providing access to the feeder circuit breaker. Sufficient clearance shall be provided between the back of this panel and the front of the circuit breaker to allow complete freedom in locating relays, instruments and control components at convenient and accessible levels.
- Door shall be able to be secured with breaker in the test/disconnected position. It must be able to close securely with one handle. The door should be closed and secured.
- One (1)-Vacuum circuit breaker, 1200 ampere, see Paragraph 1.11.
- Six (6)-Current transformers (CT) per Section 1.13. Leads from each CT shall be wired to a current-shorting terminal block located in the control panel side of cubicle (not cable compartment).
- One (1)-Space heater, minimum 250 watts total, with thermostat, in the control/breaker compartment sufficient to prevent condensation. The space heater shall be installed in a proper location to prevent overheating and arc flash hazard.
- One (1)-Space heater, minimum 250 watts total, in the cable compartment sufficient to prevent condensation. The space heater shall be installed in a proper location to prevent overheating and arc flash hazard.
- One (1)-Terminal block available for City connection to SCADA RTU control and status inputs. Terminal block to be wired by manufacturer with connection to: breaker control switch relay trip command, close command, and common; and one 52a contact from vacuum circuit breaker.
- Five (5)-Auxiliary breaker “a” contacts, wired to a terminal block in the control panel side of the cubicle.
- Five (5)-Auxiliary breaker “b” contacts, wired to a terminal block in the control panel side of the cubicle.
- Two (2)-Terminal blocks, with a minimum of twelve (12) spare positions.
- Condition monitoring sensory devices (Humidity, temperature, and Partial Discharge) shall be installed on proper locations with the capability to be integrated into SCADA/RTU alarming system.
1.09 - AUXILIARY SECTIONS

See Drawing No. 2101.01, Sheet 3 for required bill of materials and layout. Auxiliary sections shall be equipped with the following:

- One (1)-Hinged, approximately 90 inch high steel panel, mounting control and relay components. Sufficient clearance shall be provided to allow complete freedom in locating relays, instruments and control components at convenient and accessible levels. It must be able to close securely with one handle.
- One (1)-Station Service transformer, per Paragraph 1.14 STATION SERVICE TRANSFORMER, with low-side, two-pole, circuit breaker, mechanically interlocked with the primary draw out-type current limiting fuse.
- One (1)-Space heater(s), minimum 250 watts total, with thermostat, in the control compartment sufficient to prevent condensation. The space heater shall be installed in a proper location to prevent overheating and arc flash hazard.
- One (1)-Terminal block, with a minimum of twelve (12) spare positions.
- Condition monitoring sensory devices (Humidity, temperature, and Partial Discharge) shall be installed on proper locations with the capability to be integrated into SCADA/RTU alarming system.

1.10 – CONTROL, PROTECTION, AND COMMUNICATION RACKS

See Drawing No. 2101.01, Sheet 3 for required bill of material, quantities and layout. Vendor to furnish and install 23-inch-wide empty racks for City use for protective relays, SCADA, and communications equipment.

1.11 - VACUUM CIRCUIT BREAKERS

Only vacuum type draw-out circuit breakers shall be furnished, Powell/General Electric PowerVac, or Hitachi/ABB AMVAC type, or other substitutes to be evaluated/determined by the City. The vacuum circuit breakers shall be of the following rating and shall include the following features:

Note: Vendor shall provide the peak short-circuit current to the City for evaluation.

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Breakers to be used throughout Tacoma Power’s metal-clad switchgear to provide: Bus, Transformer &amp; Feeder Switching &amp; Protection</td>
</tr>
<tr>
<td>General Application</td>
<td>Indoor metal-clad</td>
</tr>
<tr>
<td>Minimum Requirements</td>
<td>Preferred Ratings: C37.06 &quot;General Purpose&quot;</td>
</tr>
<tr>
<td>Rated maximum voltage</td>
<td>15kV rms</td>
</tr>
<tr>
<td>Rated full-wave withstand voltage</td>
<td>95kV peak</td>
</tr>
<tr>
<td>Rated continuous current</td>
<td>1200, 2000, amps rms</td>
</tr>
<tr>
<td>Rated short-circuit current</td>
<td>31.5kA rms</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>O-0.3s-CO-15s-CO</td>
</tr>
<tr>
<td>Rated interrupting time</td>
<td>5 cycles</td>
</tr>
<tr>
<td>Rated reclosing time</td>
<td>20 cycles</td>
</tr>
<tr>
<td>Circuit X/R &gt; 17</td>
<td>Applicable. Tacoma’s 3LG fault &lt; 80% &amp; 1LG &lt; 70% for 31.5kA applications OR Tacoma will follow Breaker Selection per IEEE C37.010</td>
</tr>
</tbody>
</table>
a) The breaker shall be closed by a charged spring or magnetic actuator operated from 120 volts AC. A 125-volt DC or 48-volt DC coil operated from the battery circuit shall trip the breaker. No rectifier will be allowed anywhere in the trip or closing circuits. A rectifier-solenoid operator will not be acceptable. ABB AMVAC controls are acceptable. The City will notify the awarded vendor which DC system shall be applied on the purchase order.

b) The breakers shall be horizontal draw-out type (roll-out design) and shall be equipped with positive acting interlocks to prevent removal or replacement when the breaker is in the closed position.

c) The breaker, switchgear and enclosure shall be designed so the circuit breakers can be inserted and removed from the cubicles from the aisle floor without a lifting device. If a ramp is required, one designed for use with each ITEM in bid shall be provided with each item purchased along with storage provisions inside the switchgear.

d) Devices must be supplied on the circuit breakers in order to prevent insertion of an improperly rated breaker.

e) The breakers shall be provided with a test position and shall be plainly marked. The test position shall be so designed that the breaker can be operated electrically by all devices as in the connected position.

f) The breaker and switchgear shall be designed so the breaker can be operated, opened and closed, in the connected and test positions, with the cubicle door in the closed position.

g) The breaker position shall be indicated and visible with the door closed.

h) The breaker shall be capable of racking in or out of position with the door closed.

i) Automatically operated shutters shall be provided to prevent accidental entry into the live stationary bus contacts when breaker is withdrawn.

j) The breaker cubicle shall comply with the following Washington Administrative Code requirement to Tacoma Power's interpretation:

   WAC 296-45-335 De-energizing lines and equipment for employee protection.
   “Metal-clad, draw-out switchgear of over 600 volts in which the physical separation of the disconnecting parts is not visible may be used to clear a line or equipment, provided the switchgear is equipped with:
   • A positive positioning means to ensure that the disconnecting contacts are separated;
   • An isolating shutter which moves into place between the separated contact for circuit isolation; and
   • A mechanically-connected indicating means to show that the shutter is in place.”

k) The manufacturer shall describe the means for manual charging and operation of the breaker and shall state (in the space provided on the SWITCHGEAR DATA SHEET) whether manual operation is restricted to test only.

l) All springs shall automatically be discharged when breaker is removed from or inserted into cell.

m) Breaker shall be mechanically and electrically trip-free during levering breaker into or out of the cell.

n) Motor cut-off switch or other City approved means shall be installed so that motor circuit shall automatically be disconnected when racking breaker into cell.

o) Interlocks shall comply with IEEE C37.20.2, minimum.

p) Breaker shall have lifting eyes or points.
**1.12 – RELAY EQUIPMENT PART NUMBERS**

The City will notify the awarded vendor which DC system shall be applied on the purchase order. Drawing No. 2101.01, Sheet 3 shows the required bill of materials for a 125V DC system. Part numbers for SEL equipment will differ if a 48V DC system is installed. The following table shows the required SEL equipment part numbers for 48V or 125V system.

<table>
<thead>
<tr>
<th>Location</th>
<th>Model</th>
<th>Part Number</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN/TIE</td>
<td>SEL-9510</td>
<td>125VDC: 951031B2 48VDC: 951021B2</td>
<td>Control Switch Module</td>
</tr>
<tr>
<td>MAIN</td>
<td>SEL-735</td>
<td>125VDC: 0735VX00944CXXCXXX16101XX 48VDC: 0735VX00922CXXCXXX16101XX</td>
<td>Meter</td>
</tr>
<tr>
<td>TIE</td>
<td>SEL-487B</td>
<td>125VDC: 0487B1X4X52XB4XE38EEXXX 48VDC: 0487B1X4X52XB4XC38CCXXX</td>
<td>Relay</td>
</tr>
</tbody>
</table>

**1.13 - BUSHING CURRENT TRANSFORMERS**

The following CT’s shall be provided on each switchgear:

<table>
<thead>
<tr>
<th>Location</th>
<th>Qty per breaker</th>
<th>Ratio</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEEDER</td>
<td>3</td>
<td>1200:5 multi ratio Installed at 800:5 tap</td>
<td>C400</td>
</tr>
<tr>
<td>FEEDER</td>
<td>3</td>
<td>2000:5 multi ratio</td>
<td>C400</td>
</tr>
<tr>
<td>MAIN</td>
<td>6</td>
<td>2000:5 multi ratio</td>
<td>C400</td>
</tr>
<tr>
<td>TIE</td>
<td>6</td>
<td>2000:5 multi ratio</td>
<td>C400</td>
</tr>
</tbody>
</table>

Multi ratio transformer size shall match the switchgear rating size per Section 1.03. Thermal rating of at least 2.0 @ 30°C. Vendor shall provide excitation and overcurrent ratio curves with instruction books for each CT provided, indexed by serial number.

**1.14 - AC STATION SERVICE**

Provide a dry-type, self-cooled transformer, rated 25 kVA minimum, 120/240 volts secondary single phase, suitable for nominal phase-ground primary voltage for 13.8kV or 12.47kV three-phase system. It shall be sized to meet the loads. Transformer shall include high voltage 2.5 percent taps (two above nominal and two below). A transfer switch and an AC circuit breaker panel shall be supplied for each control power transformer supplied.

Vendor shall provide a 225 amp, minimum, AC circuit breaker panel board with appropriately sized main breaker and shall be sized to meet all the switchgear loads. The panel shall be located in the aisle at a convenient and accessible location, containing molded case branch circuit breakers (thermal magnetic trip, minimum duty 18,000 amps interrupting current) for the following loads:
<table>
<thead>
<tr>
<th>Material</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 kV breaker control power (one circuit per MV BREAKER) as required</td>
<td>Vendor shall provide the required rating and size of circuit breakers for each material</td>
</tr>
<tr>
<td>Cubicle heaters</td>
<td></td>
</tr>
<tr>
<td>HVAC Units</td>
<td></td>
</tr>
<tr>
<td>Aisle lights</td>
<td></td>
</tr>
<tr>
<td>Receptacles</td>
<td></td>
</tr>
<tr>
<td>Exhaust fan</td>
<td></td>
</tr>
<tr>
<td>RTU control power</td>
<td>1 pole, 20 amp</td>
</tr>
<tr>
<td>SCADA rack</td>
<td>1 pole, 20 amp</td>
</tr>
<tr>
<td>Transformer cooling and controls</td>
<td>2 pole, 30 amp (City to wire from breaker)</td>
</tr>
<tr>
<td>Two (2) 240V Outdoor receptacles</td>
<td>2 pole, 30 amp</td>
</tr>
<tr>
<td>Two (2) 120V Outdoor GFCI receptacles</td>
<td>1 pole, 20 amp</td>
</tr>
<tr>
<td>Battery charger</td>
<td>2 pole, 30 amp</td>
</tr>
<tr>
<td>Three (3) 115 kV breaker control power</td>
<td>1 pole, 30 amp (City to wire from breaker)</td>
</tr>
<tr>
<td>Communications rack</td>
<td>1 pole, 20 amp</td>
</tr>
<tr>
<td>Yard lights</td>
<td>1 pole, 20 amp (City to wire from breaker)</td>
</tr>
<tr>
<td>Spare (minimum of 1)</td>
<td>2 pole, 30 amp</td>
</tr>
<tr>
<td>Spare (minimum of 1)</td>
<td>1 pole, 30 amp</td>
</tr>
<tr>
<td>Spares (minimum of 2)</td>
<td>1-pole, 20 amp</td>
</tr>
<tr>
<td>Blank Spaces</td>
<td>4 minimum</td>
</tr>
</tbody>
</table>
1.15 - DC STATION SERVICE

The City will notify the awarded vendor which DC system shall be applied on the purchase order.

The following equipment shall be supplied and wired with the switchgear, batteries shipped palletized and to be installed after the switchgear is installed:

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery, 200AH, 125V(60 cell)</td>
<td>Enersys 3CC-9M <em>No Substitutions</em></td>
<td>Include battery lifting device</td>
</tr>
<tr>
<td>Seismic Rack, 2 tier/2 step, 125V(60 cell)</td>
<td>Per IEEE 693 &quot;moderate&quot;: IBC minimum rated S_DS 1.2</td>
<td>Provide a copy of assembly drawing &amp; verification of Seismic Rating.</td>
</tr>
<tr>
<td>Spill Containment</td>
<td></td>
<td>Must be able to contain and neutralize the electrolyte from the batteries.</td>
</tr>
<tr>
<td>Charger, 130VDC, 24A, 125V(60 cell) 60 Hz 1 phase, 120/208/240VAC</td>
<td>Eagle Eye BC-2500 Battery Charger</td>
<td>Order code: BC-2500-13024-08112121</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery, 200AH, 48V(24 cell)</td>
<td>Enersys 3CC-9M <em>No Substitutions</em></td>
<td>Include battery lifting device</td>
</tr>
<tr>
<td>Seismic Rack, 2 tier/2 step, 48V(24 cell)</td>
<td>Per IEEE 693 &quot;moderate&quot;: IBC minimum rated S_DS 1.2</td>
<td>Provide a copy of assembly drawing &amp; verification of Seismic Rating.</td>
</tr>
<tr>
<td>Charger, 48VDC, 30A, 60 Hz 1 phase, 120/208/240VAC</td>
<td>Eagle Eye BC-2500 Battery Charger</td>
<td>Order code: BC-2500-04830-08112121</td>
</tr>
</tbody>
</table>

The battery room shall have an exhaust fan installed with an Intermatic GM40 24-hour timer with a 3-Way OFF/AUTO/ON manual override switch (no substitute), as well as a combination hydrogen gas and smoke detector. If a 125VDC system is ordered Wilmore DC-DC converters (1605-130-48-16-M3) will need to be installed and the 130VDC wired. The wiring to the Communication rack (48VDC) will be wired by the City.

A DC power terminal block shall be provided near the battery to isolate the battery bank for routine testing. Vendor shall provide a 225 amp, minimum, DC circuit breaker panel board with appropriately sized main breaker and shall be sized to meet all the switchgear loads. The DC panel shall be rated for the operating voltage. The panel shall be located in the aisle at a convenient and accessible location, containing molded case branch circuit breakers (thermal magnetic trip, minimum duty based on battery short circuit capability per manufacturer) for the following loads:
<table>
<thead>
<tr>
<th>Material</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>15kV breaker trip circuit (one circuit each)</td>
<td>Provide required rating and size of circuit breakers for each material</td>
</tr>
<tr>
<td>Six 115kV breaker trip circuit</td>
<td>2-pole, 30 amp (City to wire from breaker)</td>
</tr>
<tr>
<td>Battery</td>
<td>2-pole, 225 amp</td>
</tr>
<tr>
<td>Battery charger</td>
<td>2-pole, 30 amp</td>
</tr>
<tr>
<td>Spare battery Connection</td>
<td>2-pole, 50 amp</td>
</tr>
<tr>
<td>DC to DC Converter</td>
<td>2-pole, 20 amp (if necessary)</td>
</tr>
<tr>
<td>Test breaker</td>
<td>2-pole, 60 amp</td>
</tr>
<tr>
<td>Spare (minimum of two)</td>
<td>2-pole, 20 amp</td>
</tr>
<tr>
<td>Spare (minimum of two)</td>
<td>2-pole, 30 amp</td>
</tr>
<tr>
<td>Control and Protection Rack Power Supply (total of six)</td>
<td>2-pole, 20 amp</td>
</tr>
<tr>
<td>SCADA Rack Power Supply</td>
<td>2-pole, 10 amp</td>
</tr>
<tr>
<td>Communications Rack Power Supply</td>
<td>2-pole, 10 amp</td>
</tr>
<tr>
<td>Blank Spaces</td>
<td>4 minimum</td>
</tr>
</tbody>
</table>

**1.16 - BUS**

The 15kV switchgear bus shall be rated at 2000 amperes per order based on Section 1.03, shall be constructed from electrical grade copper and shall be mounted in a removable, grounded, metal, non-segregated-phase enclosure. The bus conductors shall be covered with a homogeneous, void-free, flame-retardant epoxy resin insulation. Insulation shall be applied using the fluidized-bed process. All bus conductors shall be supported with high strength porcelain post supports or flame retardant, track resistant cycloaliphatic epoxy. All bus joints shall be covered. All bus joint covers shall be easily removable without damage to covers or bus insulation. Bus joint surfaces shall be silver plated.
1.17 - WIRING AND MISCELLANEOUS EQUIPMENT


Wiring shall be neatly arranged in tied wire bundles or run in wire duct. Wire terminals shall be full eye ring-type copper with insulated sleeves overlapping wire insulation. Pre-insulated ring type terminal connectors shall be used on all terminal blocks and throughout the current circuits. Spade-type connectors are not acceptable. Adhesive type wire bundle hold-down clamps shall not be used. All hold-downs shall be bolted or welded. Wiring and cables entering/exiting enclosures or raceway shall be protected from damage.

Splices shall not be used.

Wire labels shall be provided and installed at both ends of all internal wires. Wire labels shall be machine embossed black lettering on white plastic heat shrink sleeves.

Inter-section wire openings shall be 3-inches by 12-inches (3"x12") or larger and shall be filled less than 50 percent (50%). All inter-section wiring shall terminate on terminal blocks on both ends. In addition, a dedicated space for communication cable with appropriate barriers shall be provided.

Outdoor, weatherproof, dust-resistant equipment enclosures with hinged doors shall be provided and mounted on the equipment frame. Enclosure door handles shall include provisions for padlocking. These enclosures shall provide a connecting means between the internal wiring for the equipment and the City’s equipment. Customer connection to the equipment enclosures shall be via removable aluminum plates which are accessed from the inside of the enclosure.

Auxiliary equipment such as terminal blocks, auxiliary relays, or contactors shall be readily accessible. Auxiliary equipment shall be located in compartments, enclosures or junction boxes in such arrangement that a wire electrician will have direct access to all equipment without removal of barriers, cover plates or other wiring. Auxiliary Relays shall be standard 8-pin octal plug-in relays, unless otherwise specified.

Terminal blocks for external connections shall be grouped in this enclosure for easy accessibility unrestricted by interference from structural members and instruments. Sufficient space shall be provided on each side of each terminal block to allow an orderly arrangement of all leads to be terminated on the block. Arrangement of circuits on terminal blocks shall be such that all connections for one circuit, plus any spare conductors, shall be on adjacent terminals. Raceway covers shall not be blocked by any other equipment and shall allow access after full assembly.

All control switches, push buttons, fuses, shorting-type terminal blocks and other devices requiring City interface shall be mounted at a height and location as to be easily accessible. All strip heaters shall be rated 240VAC, wired to a 120VAC source and sized to prevent condensation. The heaters shall be installed on a proper location to prevent overheating and arc flash hazard. Heaters shall be Chromalox Model OT or approved equal. Wire loops for clamp- on ammeter shall be provided for each heater at terminal blocks.

Terminal blocks shall be furnished with white labeling strips and, where permitted by safety codes and standards, shall be without covers. The terminal block numbers shall be marked by the manufacturer one (1) through twelve (12) and shall correspond to the terminal numbers. Spare, unused terminals shall be furnished on each terminal block for circuit modifications and
for termination of all conductors in a multi-conductor control cable. Not less than two (2) spare, unused terminals shall be furnished for every ten (10) terminals used.

Fuses shall not be mounted on terminal blocks unless fused switch is provided – Phoenix UK10, 3HESI, 3048386, **no substitute**. Step-type terminal blocks and angle mounting of terminal blocks are not acceptable.

All terminal blocks shall be rated 600 volts minimum and shall have strap screw terminals. Terminal blocks for 10 AWG and smaller 600 volt insulated conductors shall be Marathon 1512STD, **no substitute**. Terminal blocks shall be appropriately sized for larger wire size or higher voltage, insulated, incoming conductors as necessary.

A shorting-type terminal block shall be installed at an accessible location for each set of current transformers, supplied with the equipment furnished under these specifications. The terminal block nearest to the current transformers shall be a shorting terminal block. Shorting screws are not to be used for normal grounding of CT circuit.

All current transformer terminal blocks shall have shorting provisions of the positive contact type. Short circuiting the terminals of any one current transformer shall not short circuit the terminals of any other current transformer, unless specified on the drawings. A six-position Marathon 1506SC shall be provided, **no substitute**.

All control/indication lights shall be LED, GE ET-16.

It shall not be necessary to reach beyond any exposed, energized terminals to plug into receptacle for GFCI receptacles that are accessible from inside a cabinet.
1.18 - ACCESSORIES AND SPARES

The Vendor shall provide the following set of accessories included with each switchgear order with a dedicated space for storage:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1)</td>
<td>Emergency hand closing lever or closing spring crank for circuit breakers</td>
</tr>
<tr>
<td>One (1)</td>
<td>Removable hand crank for circuit breaker racking</td>
</tr>
<tr>
<td>One (1)</td>
<td>Breaker test jumper, complete with necessary plug &amp; receptacle, to allow operation of breaker when removed from cubicle</td>
</tr>
<tr>
<td>One (1)</td>
<td>Fuse for station service transformer</td>
</tr>
<tr>
<td>One (1)</td>
<td>Set of primary and secondary Fuses for potential transformer</td>
</tr>
<tr>
<td>One (1)</td>
<td>Closed door remote racking tool shall be provided which shall include a motor operator, push button control, and enough cable to activate the breakers from outside the switchgear. The remote racking tool shall be provided by the vendor for each switchgear order. The device will be stored for dedicated use in that switchgear. All breakers in the switchgear will be operated by this device.</td>
</tr>
<tr>
<td>Three (3) for Each Feeder</td>
<td>For throat (bus duct) option only- refer to 1.24.2.1. The bus bar covers shall be provided to cover the end of bus and the cable terminations. The quantity of covers shall be calculated by the vendor for each switchgear order.</td>
</tr>
<tr>
<td>Six (6)</td>
<td>For underground cable termination enclosure option only- refer to 1.24.2.2. The covers shall be provided in the main breaker compartment section.</td>
</tr>
</tbody>
</table>
The Vendor shall provide the following set of spares to be purchased (as needed basis) as listed as individual line item over the life of the contract.

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two (2)</td>
<td>MV Fuses for station service transformer</td>
</tr>
<tr>
<td>Three (3)</td>
<td>MV Fuses for potential transformer</td>
</tr>
<tr>
<td>Three (3)</td>
<td>LV Fuses for potential transformer</td>
</tr>
<tr>
<td>Two (2)</td>
<td>Breaker trip coils or equal</td>
</tr>
<tr>
<td>Two (2)</td>
<td>Breaker close coils or equal</td>
</tr>
<tr>
<td>Two (2)</td>
<td>Complete breaker secondary disconnect connector (both the breaker and stationary portions)</td>
</tr>
<tr>
<td>One (1)</td>
<td>SHOP TEST EQUIPMENT - In order to service breakers in the shop, auxiliary electrical equipment is required to electrically close and trip breaker. Normally, this equipment consists of control power fuses or circuit breaker, auxiliary control relays, trip and close buttons and suitable multi-conductor test cable to connect breaker to test components. The necessary components shall be mounted and wired in a steel cabinet with hinged door suitable for wall mounting, City connection for supply voltage, and a receptacle for connecting to test cable.</td>
</tr>
<tr>
<td>One (1)</td>
<td>Station service transformer for the first switchgear order</td>
</tr>
</tbody>
</table>

1.19 - TESTING

The Vendor shall perform all routine tests and accompanying notes that are standard for a power switchgear with the ratings of this specification and in accordance with methods and procedures set forth in ANSI C37.20.2. In addition to the routine tests, the following tests shall also be performed in accordance with methods and procedures set forth in this specification.

If the testing shows the equipment has failed to meet any requirements of these specifications, shipment shall be deferred until modifications to the equipment have been made to conform to the requirements of this specification and the City has reviewed retest results and approved.

The manufacturer shall verify, at the factory, the correctness of the control wiring of the completely assembled switchgear by actual electrical operation of the component control devices. Each feeder section with breaker installed shall be tested to establish it is in functioning order. The operation of the control devices, relays and breaker shall be initiated by primary injection of the outgoing feeder.

If the Vendor cannot inject up to 1200 amp test current, indicate on the SWITCHGEAR DATA SHEET and provide in writing how equivalent functionality and type of test results will be provided. Depending upon the testing method specified as a bid submittal, the Bidder may not qualify as a responsive bidder.
Testing shall include, but not be limited to, the following procedure:

**a) FEEDER SECTION**

1) Connect the load test set on one phase of the feeder and the main bus to produce current flow in bus under test. Input current at a test value of 1200 amps. To verify the current transformer circuitry to the relay, measure current at each secondary device. To verify the ammeter/voltmeter circuit, record displayed readings at each test position. Test reports shall show input current/voltage value, ammeter/voltmeter reading and current/voltage measured at each device for each phase of each feeder.

2) Control circuitry test shall include tripping and closing every vacuum circuit breaker by all devices on the control schematic, including control switches/buttons, relays, and reclosing devices.

3) Verify block operation by functional tests.

**b) MAIN BUS, MAIN BREAKER AND TIE BREAKER**

1) Connect a load test set to produce current flow in main breaker, main bus, and tie breaker. Input current at three test values: 400 amps, 800 amps and 1200 amps. Measure current at every test switch and take ammeter readings. Test report shall show recordings for each phase of main bus.

2) Control circuitry test shall include tripping and closing every vacuum circuit breaker by all devices on the control schematic, including control switches/buttons, relays, and reclosing devices.

3) Verify block operation by functional tests.

1.20 - SHORT-CIRCUIT CAPABILITY

The switchgear furnished under this specification shall be designed and constructed according to the requirements of the breaker fault capability.

Conformance to short-circuit mechanical requirements shall be proven by submission of certified test reports containing data from short-circuit tests performed on prototype or production units of similar design.

Where the Bidder is unable to furnish certified test reports and data obtained from prototype or production units, the Bidder shall submit the method and steps now being taken to eliminate mechanical switchgear failure due to short circuit, as required in the preceding paragraph.

The City may reject any bid, when in the judgment of the City’s Engineer, the Bidder has not taken sufficient steps to meet the mechanical short-circuit requirements as listed in the paragraph above.

1.21 - REPRESENTATIVE

The City Engineer(s) shall be permitted to have authorized representative(s) present to witness factory testing of the completely assembled switchgear per Section 1.19.

The City Engineer(s) shall be permitted to have authorized representative(s) present to on-site design review meetings and on-site inspections.

The City Engineer(s) or representative(s) should also be allowed to inspect the switchgear at multiple stages throughout assembly.

No cost adder shall be applied to on-site design review meetings, on-site inspections and on-site factory acceptance tests (FAT).

The English language shall be used in all subsequent correspondence and submittals. The factory shall provide personnel that speak technical and conversational English.
1.22 - NAMEPLATE

A stainless steel nameplate shall be furnished which shall include the information listed in C37.20.2 Section 7.4.1 and the City’s purchase order number.

1.23 - PAINTING OF ENCLOSURE

All surfaces shall be cleaned and rinsed prior to painting. Surfaces shall be rust free prior to painting.

Exterior surfaces shall be painted ANSI No. 70 Light Gray. The interior surfaces of the enclosure and switchgear control and relay cabinet, excluding the panel door interior surface, shall be painted white. Panels shall be painted light gray.

The final coating average thickness shall be between 1.5 and 2.0 mils. The finish shall pass the ASTM B117 salt spray test for a minimum of 200 hours. Coating test reports shall be available upon request by the City.

The base and the lowest six (6) inches of the enclosure exterior shall be coated with an epoxy coating (Dupont 25-P high solid epoxy mastic LFL 3225 or approved equal) to protect against rust and moisture.

All metal surfaces shall be shot blasted and thoroughly cleaned before the primer is applied.

1.23.1 – Exterior Initial Coat
The initial coat of paint shall be a rust-inhibiting primer which does not contain lead-based material. It can be either red zinc or preferably a red epoxy coat.

1.23.2 – Exterior Finish Coat
The exterior finish coat of paint shall be ANSI No. 70 Light Gray, low-gloss, alkyd resin enamel.

The bottom and the lowest six (6) inches up the sides shall be painted with a rust-preventive material.

1.23.3 – Interior Finish Coat
The interior of all control cabinets shall have a white finish coat.

1.23.4 – Touch-up Paint
One pint of matching spray exterior finish paint shall be supplied to the City for touch-up after installation. Paint shall be shipped with a material safety data sheet (MSDS) and with instructions (in the English language) for use.
1.24 - SWITCHGEAR 15kV EXTERNAL CONNECTIONS

1.24.1 - Feeder cubicles
Shall have three (3) terminal pads and necessary supports for air termination of six (two per phase) 750 MCM copper, single conductor, 15 kV rubber or polyethylene insulated, shielded power cables entering from below. Terminal height shall be a minimum of 48" from the conduit access plate. Provide pads with 9/16” diameter holes on 1-3/4" x 1-3/4" NEMA spacing for cable connection.

The City will provide connector lugs. Ground studs and covers shall be installed on each phase and ground bus, freely accessible by hotstick from outside the back of the cubicle with cables in place for grounding. The studs shall be Chance #C6002102, no substitute and the covers shall be Chance #C4060416, no substitute.

Cable to bus insulated covers shall be provided. Insulboot PDM 8107 or approved equal.

1.24.2 - Main cubicle to Transformer Connections
Tacoma Power's transformers (15/20/25 and 24/32/40 MVA) will be connected to the switchgear by throat (bus duct) or 15kV underground cable termination enclosure provided by the switchgear manufacturer. The throats shall enter the side of the switchgear.

The transformer and switchgear configuration drawings provided in this specification are for bid purpose only. The switchgear manufacturer shall incorporate a bus transition to accommodate the different phasing on either end of the bus.

The buses shall meet all applicable electrical ratings of the switchgear. The buses will be sized to carry the rated current continuously without exceeding a temperature rise of 65°C above an ambient temperature of 40°C. The bus shall include all three (3) phases plus a neutral. The bus shall be full round edge copper and silver-plated at connection points. The bus shall be insulated with fluidized bed epoxy. Bus joints shall be insulated with removable boots. All bus conductors shall be supported with high strength porcelain post supports or flame retardant, track resistant cycloaliphatic epoxy.

All connection hardware from transformer secondary bushing terminals to outdoor metal-clad switchgear via a throat or underground power cable termination enclosure shall be provided by the vendor, including braided conductors. Ampacity of throat and cable termination enclosure conductor shall be no less than the continuous current rating of the low voltage bushings. All current carrying conductors shall be copper material and shall be epoxy insulated bus.

Enclosures shall be weatherproof, dust-resistant and painted per Section 1.23.

Heaters with thermostats shall be installed sufficient to prevent condensation. The heaters shall be installed on a proper location to prevent overheating and arc flash hazard. Vendor is invited to examine an existing installation of switchgear prior to design. Such pre-design inspection shall be coordinated through the City's Engineer.

All connections to power cables shall accommodate 15kV rubber or polyethylene insulated, 750 MCM copper shielded power cables entering from below. For 2000A applications, terminal pads and necessary supports for power cable air terminations shall accommodate twelve (four per phase) cables. Terminal height shall be a minimum of 48” from the conduit access plate. Provide pads with 9/16” diameter holes on 1-3/4" x 1-3/4" NEMA spacing for cable connection.

The City will provide connector lugs. Ground studs and covers shall be installed on each phase and ground bus, freely accessible by hotstick from outside the back of the cubicle.
with cables in place for grounding. The studs shall be Chance #C6002102, no substitute and the covers shall be Chance #C4060416, no substitute.

Cable to bus insulated covers shall be provided. Insulboot PDM 8107 or approved equal.

1.24.2.1 – Throat (Bus Duct)
The transformer may connect to 15kV switchgear via throat (bus duct). Vendor shall provide all bus duct material, outdoor enclosure and structural support necessary to mate transformer to 15kV switchgear. The per unit cost shall be determined by using the average length of throat to be 10 linear feet and often includes two (2) 90-degree transitions to accommodate different elevations at the switchgear and transformer connections.

Transformer manufacturer drawings will be provided to the awarded vendor for bus duct design.

The throat enclosure shall be constructed with 11 gauge steel, shall be weatherproof and dust proof, and shall include bolt-on removable covers. The throat shall be designed to be supported from below by structural supports. The Vendor shall design and provide appropriate structural supports and supply anchoring and foundation requirements to the City.

A termination box at the transformer shall be furnished, providing bottom access to the flexible connectors between the transformer terminals and the throat. The throat shall include flexible silver-plated copper braid connectors from the phase and neutral buses to the transformer secondary bushings and all connecting hardware necessary for the connection to the transformer bushings.

1.24.2.2 – 15kV Underground Cable Termination Enclosure
The transformer may connect to switchgear via 15kV underground power cable. Vendor shall provide all bus, outdoor enclosure and structural support necessary to terminate four 750kcmil copper 15kV power cables for each phase at the transformer.

A ground bus for shall be provided by the Vendor.

A termination box at the transformer shall be furnished, providing bottom access to the flexible connectors between the transformer terminals and the throat. The throat shall include flexible silver-plated copper braid connectors from the phase and neutral buses to the transformer secondary bushings and all connecting hardware necessary for the connection to the transformer bushings.
1.25 - EARTHQUAKE STRENGTH REQUIREMENTS

The completely assembled switchgear shall meet the **High** Seismic Qualification Level, as defined in IEEE Standard 693-2018. All applicable seismic identification plates, drawings, calculations and required test reports shall be provided as specified in the latest IEEE Standard 693.

1.26 - ACCESSORY DEVICES

1.26.1 – Ground Pads
   a) The switchgear shall be provided with two (2) copper faced NEMA 2-hole ground pads at opposite corners of the switchgear.
   b) The ground bus shall be provided with two (2) copper faced NEMA 2-hole ground pads at opposite ends of the switchgear.

1.26.2 – Terminal Pads
   NEMA hole pads shall be provided at each feeder, main, or throat termination. Pads shall be compatible for connection to either copper or aluminum. NEMA 2 hole pads shall be provided on the neutral bus for neutral connections from distribution system.

1.27 - THREADED FASTENERS

Screw threads for screws, bolts, nuts and other threaded parts shall conform to the applicable American National Standards Institute Standards for unified threads.

The manufacturer standard threads and construction may be used on small parts which, in the opinion of the City’s Engineer, are integrally replaceable, except that the threads for external connections to these parts shall meet the requirements outlined above.
TACOMA POWER DRAWING STANDARDS

GENERAL
City shall expect that all drawings will be in computer files that conform to the standards set forth in this section. Drawings shall be prepared electronically on IBM PC using Autodesk AutoCAD Version 2022 for Windows or greater, saved in a .DWG or .DXF file format, and submitted per Tacoma Power Approval Process.

CAD STANDARDS
All drawings must be created using City title borders/blocks. The reference drawings will be provided to the vendor after award of contract.

ENTITY PROPERTY ASSIGNMENT STANDARD
All entity colors and line types shall be BY LAYER.
All text should be on text layers and all lines should be on line layers.

Entity Property to Ink Jet Plotter-Pen Assignment Standard
Entity colors and line types shall be assigned to pens 1 through 8 PLOT setup menu as follows:

<table>
<thead>
<tr>
<th>ENTITY COLOR</th>
<th>PEN NO.</th>
<th>PEN ASSIGNMENT WIDTH (MM)</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (RED)</td>
<td>1</td>
<td>0.012</td>
<td>RED</td>
</tr>
<tr>
<td>2 (YELLOW)</td>
<td>7</td>
<td>0.010</td>
<td>BLACK</td>
</tr>
<tr>
<td>3 (GREEN)</td>
<td>3</td>
<td>0.012</td>
<td>GREEN</td>
</tr>
<tr>
<td>4 (CYAN)</td>
<td>7</td>
<td>0.013</td>
<td>BLACK</td>
</tr>
<tr>
<td>5 (BLUE)</td>
<td>5</td>
<td>0.012</td>
<td>BLUE</td>
</tr>
<tr>
<td>6 (MAGENTA)</td>
<td>7</td>
<td>0.015</td>
<td>BLACK</td>
</tr>
<tr>
<td>7 (WHITE)</td>
<td>7</td>
<td>0.020</td>
<td>BLACK</td>
</tr>
<tr>
<td>8 (GRAY)</td>
<td>8</td>
<td>0.012</td>
<td>BLACK</td>
</tr>
</tbody>
</table>

LAYER NAMING STANDARD
The layer name convention shall be a four-part hyphenated name.
Examples of standard layer names:
<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Color (#)</th>
<th>Linetype</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE</td>
<td>DRWG-LINE-000-LIGHT</td>
<td>YELLOW (2)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-THN-LIGHT</td>
<td>CYAN (4)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-MED-LIGHT</td>
<td>MAGENTA (6)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-HVY-LIGHT</td>
<td>WHITE (7)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-CTR-LIGHT</td>
<td>YELLOW or CYAN (2,4)</td>
<td>CENTER or CENTER2</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-DSH-LIGHT</td>
<td>CYAN or MAGENTA (4,6)</td>
<td>DASHED or DASHED2</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-HDN-LIGHT</td>
<td>YELLOW or CYAN (2,4)</td>
<td>HIDDEN or HIDDEN2</td>
</tr>
<tr>
<td></td>
<td>DRWG-LINE-PHTM-LIGHT</td>
<td>CYAN or MAGENTA (4,6)</td>
<td>PHANTOM or PHANTOM2</td>
</tr>
<tr>
<td>TEXT</td>
<td>DRWG-TEXT-000-LIGHT</td>
<td>YELLOW (2)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-TEXT-THN-LIGHT</td>
<td>CYAN (4)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-TEXT-MED-LIGHT</td>
<td>MAGENTA (6)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-TEXT-HVY-LIGHT</td>
<td>WHITE (7)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td>MISC</td>
<td>DRWG-BRDR-LIN-LIGHT</td>
<td>WHITE (7)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-BRDR-TEX-LIGHT</td>
<td>WHITE (7)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>DRWG-CLUD-RED-LIGHT</td>
<td>RED (1)</td>
<td>CONTINUOUS</td>
</tr>
<tr>
<td></td>
<td>REMOVE</td>
<td>GREEN (3)</td>
<td>CONTINUOUS</td>
</tr>
</tbody>
</table>
As many layers as needed may be defined as long as layer convention format is followed.

**LINE TYPES**

<table>
<thead>
<tr>
<th>BASIC</th>
<th>DESCRIPTION</th>
<th>LAYER COLOR</th>
<th>PEN WIDTH (IN MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVY</td>
<td>BROAD LINE</td>
<td>WHITE</td>
<td>(*.025)</td>
</tr>
<tr>
<td>MED</td>
<td>MEDIUM LINE</td>
<td>MAGENTA</td>
<td>(*.020)</td>
</tr>
<tr>
<td>THN</td>
<td>THIN LINE</td>
<td>CYAN</td>
<td>(*.014)</td>
</tr>
<tr>
<td>000</td>
<td>NARROW LINE</td>
<td>YELLOW</td>
<td>(*.010)</td>
</tr>
<tr>
<td>DSH</td>
<td>NARROW LINE</td>
<td>YELLOW</td>
<td>(*.010)</td>
</tr>
</tbody>
</table>

*DENOTES INK JET PLOTTER PEN SETTINGS

**SIGNATURES**

Each drawing submitted shall be identified by a drawing number and be dated.

**DIMENSIONS AND UNITS**

Dimensions and tolerances shall conform to ANSI Y14.5. Dimensions shall be complete and in U.S. customary units. If the manufacturer fabricates in the SI unit system (metric system), both units shall be shown on the drawings. Conversion tolerance shall be within a maximum of 1/32 inch (0.79 mm).

**SCHEMATIC AND WIRING DIAGRAMS**

Schematic and wiring diagrams furnished by the Vendor shall be on a per-circuit-breaker basis. All graphic symbols for electrical diagrams shall be represented as shown in IEEE 375, with the exclusion of IEC symbols. Device connection shall have near each termination the conductor identification consisting of the opposite end destination. Function information and wire run codes are not required. The wiring diagrams shall be drawn with all devices indicated in their relative physical locations and shall represent the equipment and terminals arranged as they would appear to a person wiring the equipment.

Where interconnecting wiring from different items of equipment or sectional wiring diagrams of the same item of equipment appear on different wiring diagram sheets, all interconnections shall be clearly identified. Where sectional wiring diagrams are required for a single item of equipment, such as a relay panel or control panel, that section of the panel that is represented by each individual wiring diagram sheet shall be keyed on that sheet in a manner acceptable to the City.

Information indicated on the Vendor's drawings shall include wiring of the individual panel items as they will actually appear in the panel, contact arrangements of switches, and internal wiring of relays and instruments.

Schematic diagrams shall be cross-referenced to terminal markings on the wiring diagrams, but need not indicate complete terminal to terminal details of circuits. Each item of panel-mounted equipment indicated on the diagrams shall be identified by item number and/or name.
Sufficient space shall be left on the City's side of outgoing terminal blocks for adding cable color codes and circuit numbers.

**COMPLIANCE WITH THIS STANDARD**

Contact the Project Engineer and the Lead Engineering Technician for questions concerning drafting conventions. A preliminary electronic copy of drawings shall be sent to the Project Engineer and the Lead Engineering Technician for review prior to approval. (See Tacoma Power Approval Process)

The following are samples of drawing content, drawings examples, labeling and abbreviations standards that represent compliance with this standard:

- Tacoma Power Drawing Standardization Matrix
- Tacoma Power Drawing Standardization One-line
- Tacoma Power Drawing Standardization Three-Wire 1
- Tacoma Power Drawing Standardization Three-Wire 2
- Tacoma Power Drawing Standardization DC Schematic
- Tacoma Power Drawing Standardization Wiring 1
- Tacoma Power Drawing Standardization Wiring 2
- A-SS-0020 Relay & Control Panels
- A-SS-0025 Substation Labeling
- A-SS-0030 Abbreviations
- A-SS-0040 Relay & Control Wiring Design
- A-SS-0100 Communication Drawings Guideline

*Note: Electronic versions of the attachment drawings will be available to the Vendor after award of contract.*
TACOMA POWER APPROVAL PROCESS

All new drawings created by the Vendor or by manufacturers shall be electronically created using AutoCAD Version 2022 or greater. Drawings shall utilize Tacoma Power Drawing Standards.

GENERAL CONSIDERATIONS

Only certified drawings shall be submitted. Certified drawings shall mean drawings fully completed and certified by the Vendor as to the compliance of the information contained thereon with the requirements of this specification and documents. Certified drawings will be reviewed by City and processed as specified in this Section. Each drawing submitted, regardless of origin, shall be stamped with the approval of the Vendor and clearly marked with the name of the project, the specification title, the specification number, and the Vendor’s name.

The Vendor’s stamp of approval will be representation to the City that the Vendor has assumed full responsibility for determining and verifying all applicable information (i.e. quantities, dimensions, field construction criteria, materials, catalog numbers) and/or similar data, and that the Vendor has reviewed or coordinated each submittal with the requirements of the work and the contract.

If drawings submitted by the Vendor show variations from the contract requirements, the Vendor shall describe such variations in writing, separate from the drawings, at the time of submission.

DRAWING SUBMITTAL

Three (3) hardcopy prints of each drawing and one (1) electronic copy on CD shall be submitted for review purposes. Prints shall be black line on white background. Print size shall not exceed 30 inches by 42 inches. Drawings shall be folded to 8-1/2 inches by 11 inches.

All drawings shall be clearly legible, even when reduced to 11 inches by 17 inches in size.

One (1) electronic copy (including both PDF and CAD versions) shall be submitted to the Project Engineer and the Lead Engineering Technician for review purposes.

DRAWING PROCESSING

A copy of each drawing reviewed will be returned to the Vendor as stipulated in this Section. Copies of drawings returned to the Vendor will be in the form of a print with City’s marking.

When a drawing is revised and resubmitted, the Vendor shall include an issue number and revision description in the drawing revision block. All revisions pertaining to that particular drawing issue shall be back-circled or otherwise clearly noted on the drawing.

Any work performed before City has approved the drawings shall be at the Vendor’s own risk and responsibility. Work may proceed when the drawings have been returned marked ACCEPTANCE, provided the work is performed in accordance with City’s notations.

If changes are made at the project site, revised drawings indicating the changes made shall be prepared by the Vendor and submitted to City.
REVIEWS AND SUBMITTALS

The Vendor shall provide required project documents for review consistent with the submittal dates per this Section or mutual agreement of the City and Vendor. The City will provide timely review and comment on all required submittals in order not to delay the progress of the work. Unless otherwise specified herein or waived by the City during the course of the project, the City will review all submittals and return consolidated comments to the Vendor within fifteen (15) working days of receiving the submittal.

DRAWING/DESIGN REVIEWS

The City will review design documents for consistency with City requirements and CAD standards. All submittals shall require City approval. Acceptance of a specific item shall not include acceptance of an assembly or more general part of the work of which the item is a component. The City will respond to all elements of review as itemized below within fifteen (15) working days of receipt of the complete information from the Vendor. The City's response may include ACCEPTANCE, REQUEST FOR RESUBMISSION WITH CHANGE, or REJECTION.

“ACCEPTANCE” shall constitute acceptance of the specific items reviewed with or without comment. It shall not imply acceptance of any items or matters inferred or extrapolated from the accepted elements, nor relieve the Vendor from the requirement to provide designs that comply with this specification.

A “REQUEST FOR RESUBMISSION WITH CHANGE” shall be provided with a description of the reason for lack of acceptance. The description shall serve the purpose of assisting the Vendor in understanding the reason for change and resubmission requirement. A “REQUEST FOR RESUBMISSION WITH CHANGE” shall be issued when the submitted elements are reasonably close to acceptable but require modification and are not worthy of complete rejection.

A “REJECTION” response shall occur when the submitted design is not in compliance with the specifications. A written description of the noncompliance will be provided.

Notes:

Once the request for resubmission with change has been received by the vendor, the turn-around time for resubmission from the vendor shall be within 5 working days.

Once the drawings have been approved by the City, electronic copies (including both PDF and CAD versions) shall be submitted from the vendor to the City within 5 working days.

Once the as-built drawings have been produced by the vendor, three (3) hardcopy prints of each drawing and one (1) electronic copy on CD shall be submitted to the City prior to switchgear delivery.
Sample Drawings and Reference Drawings

2101.01 Sheet 1 General Layout-Model
2101.01 Sheet 2 One-line-Model
2101.01 Sheet 3 Panel Elevations-Model
2101.01 Sheet 4 Three-wire*-Model
2101.01 Sheet 5 Schematic*-Model

BUS THROAT (ELEVATION)-Layout1
BUS THROAT (GENERAL NOTES)-Layout1
BUS THROAT (TOP VIEW)-Layout1

DOUBLE END SWGR AISLE LAYOUT WIRING-Model
DOUBLE END SWGR FEEDER (CELL AND WALL) WIRING-Model
DOUBLE END SWGR FEEDER DOOR WIRING-Model
DOUBLE END SWGR FEEDER SCHEMATIC-Model

SINGLE END SWGR AISLE LAYOUT WIRING-Model
SINGLE END SWGR FEEDER (CELL AND WALL) WIRING-Model
SINGLE END SWGR FEEDER DOOR WIRING-Model
SINGLE END SWGR FEEDER SCHEMATIC-Model
APPENDIX B

Signature Page

Price Proposal Form

Record of Prior Contracts
SIGNATURE PAGE

CITY OF TACOMA
TACOMA POWER / TRANSMISSION & DISTRIBUTION

All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the Request for Proposal near the beginning of the specification. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

REQUEST FOR PROPOSAL SPECIFICATION NO. PT23-0100F
OUTDOOR WALK-IN METAL-CLAD SWITCHGEAR

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

Non-Collusion Declaration

The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).

Bidder/Proposer’s Registered Name

Signature of Person Authorized to Enter into Contracts for Bidder/Proposer

Date

Printed Name and Title

Address

(Area Code) Telephone Number / Fax Number

City, State, Zip

State Business License Number
in WA, also known as UBI (Unified Business Identifier) Number

Authorized Signatory E-Mail Address

State Contractor’s License Number
(See Ch. 18.27, R.C.W.)


E-Mail Address for Communications

Addendum acknowledgement #1_____ #2_____ #3_____ #4_____ #5_____

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.

Form No. SPEC-080A
Revised: 06/01/2021
**CITY OF TACOMA**  
*PRICE PROPOSAL FORM*  
Request for Proposals PT23-0100F  
OUTDOOR WALK-IN METAL-CLAD SWITCHGEAR 15KV

Bidder Name_________________________________

Bidder shall submit one original bid and one copy. If Bidder wishes to submit alternate bids, copy the appropriate bid pages and submit alternate bids.

All prices are to be in U.S. dollars and include all associated fees. The City will not pay any additional fees, tariffs, add-ons or surcharges.

We agree to furnish the following items F.O.B. Destination, freight prepaid and allowed (included in unit price).

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>EXTENDED PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Single-ended Walk-in Metal-Clad Switchgear, 2000A, without breakers</td>
<td>1</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>2.</td>
<td>Single-ended Metal-Clad Switchgear, 2000A, without breakers</td>
<td>1</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>3.</td>
<td>Double-ended Metal-Clad Switchgear, 2000A, without breakers</td>
<td>1</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>4.</td>
<td>15 kV Transformer Throat (Bus Duct), for use with Item Nos. 1, 2 &amp; 3</td>
<td>20</td>
<td>FT</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>5.</td>
<td>15 kV Transformer Cable enclosure, for use with Item Nos. 1, 2 &amp; 3</td>
<td>2</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>6.</td>
<td>Feeder Breaker 1200A, for use with Item Nos. 1, 2 &amp; 3</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>a) ABB AMVAC</td>
<td>24</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td>b) Powell PowerVAC</td>
<td>24</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td>c) Other Substitutes</td>
<td>24</td>
<td>EA</td>
<td>$________</td>
<td>$________</td>
</tr>
</tbody>
</table>
Main OR Tie Breaker 2000A, for use with Item Nos.1, 2 & 3

7.  
   a) ABB AMVAC  
      10  EA  $________  $________
   b) Powell PowerVAC  
      10  EA  $________  $________
   c) Other Substitutes  
      10  EA  $________  $________

8.  Set of Spares  
   (Per T&D Material 2101.01 Section 1.18)  
      1  EA  $________  $________

SubTotal:

Sales Tax (10.3%):  $________

TOTAL:  $________

PROPOSAL ITEMS – UNIT PRICE ADDERS

The following unit price adders are being requested for possible addition to the items purchased per this contract. These items and the percent price adder will not be included in the evaluation for award.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>Per unit Price Adder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arc-Resistant Switchgear, IEEE C37.20.7, Type 2BC, for Item Nos. 1, 2 &amp; 3</td>
<td>%</td>
</tr>
</tbody>
</table>

Note: The unit price and extended price are to be shown in the spaces provided. Extended price shall be determined by multiplying the unit price by the quantity.

Prompt Payment Discount _____% _____ days, net 30.

Payment discount periods of 20 calendar days or more will be considered in determining lowest responsive bid.

If a volume discount is offered, provide the quantities at which the price break will be given and the corresponding percentage:

Quantity ____________ Discount ____________%
Quantity ____________  Discount ____________ %

**Bidder’s Statement of Delivery Time** (provide your proposed delivery time following receipt of purchase order and all subsequent purchase orders during the term of the Contract).

________________________________________________________________________________________________________________________________________

**Bidder’s Statement of Warranty Terms.** Provide details of warranty coverage, including whether provided by manufacturer or Bidder. Provide additional pages if needed.

________________________________________________________________________________________________________________________________________

**Manufacturer’s/Bidder’s Guarantees and/or Warranties of Products.** Indicate whether proposed guarantees and/or warranties “equal or exceed” those specified in Standard Terms and Conditions – Supplies 2.13 & Section 4.13. Provide additional pages if needed.

________________________________________________________________________________________________________________________________________

**State Whether Exception “IS” or “IS NOT” Taken to This Specification**. A statement here that exception “IS NOT” taken will create a conclusive presumption that you accept and will comply with all Specification requirements. Provide additional pages if needed.

________________________________________________________________________________________________________________________________________

*NOTE: The City cannot legally accept a substantial deviation from the Specification. Bids/Proposals containing any substantial deviation will be rejected as non-responsive. If you state exception “IS NOT” taken to this Specification, but include statements or attach materials deviating from the standards established by this Specification, it is agreed that you will perform according to the highest standard indicated in this Specification.*

Has your firm incorporated sustainability measures into its everyday business practices?  
___Y___N  Please describe:

________________________________________________________________________________________________________________________________________

Has your firm taken measures to minimize impacts to the environment in the delivery of supplies and services?  ___Y___N  Please describe:

________________________________________________________________________________________________________________________________________
## RECORD OF PRIOR CONTRACTS

**NAME** _________________________________  **ADDRESS** ________________________________________________  

Type of Work _______________________________  Specification No. ___________________________________  

<table>
<thead>
<tr>
<th>Beginning Date</th>
<th>Completion Date</th>
<th>Contract With</th>
<th>Contact Person Phone #</th>
<th>Amount of Contract</th>
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**Remarks:**  

_____________________________________________________________________________________________________________________________________  
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_____________________________________________________________________________________________________________________________________  
_____________________________________________________________________________________________________________________________________  
_____________________________________________________________________________________________________________________________________  
_____________________________________________________________________________________________________________________________________

Form No. SPEC-160A  
Revised: 01/2006
APPENDIX C

Sample Contract
THIS CONTRACT, made and entered into effective as of the ____ day of _________, 20__ (EFFECTIVE DATE) by and between the CITY OF TACOMA, a municipal corporation of the State of Washington (hereinafter referred to as the “CITY”), and [INSERT legal name of Supplier exactly as it appears in Ariba], (hereinafter referred to as “CONTRACTOR”);

In consideration of the mutual promises and obligations hereinafter set forth, the Parties hereto agree as follows:

1. **Scope of Services/Work**

   The CONTRACTOR agrees to diligently and completely perform the services and/or deliverables consisting of [INSERT A BRIEF DESCRIPTION OF THE WORK TO BE PERFORMED] as is described in Exhibit XXXXX [A, B, ETC., if needed] attached hereto and incorporated herein.

2. **Order of Precedence**

   To the extent there is any discrepancy or conflict between and/or amongst the terms of this Contract and Exhibit(s) __________, the controlling terms for this Contract will be interpreted in the following order of precedence, with the first listed being the most controlling, and the last listed being the least controlling: Contract, Exhibit ____, Exhibit _____. [INSERT EXHIBIT REFERENCES IN ORDER OF WHICH IS MOST CONTROLLING]

3. **Changes to Scope of Work**

   The CITY shall have the right to make changes within the general scope of services and/or deliverables upon execution in writing of a change order or amendment hereto. If the changes will result in additional work effort by CONTRACTOR, the CITY will agree to reasonably compensate the CONTRACTOR for such additional effort up to the maximum amount specified herein or as otherwise provided by City Code.

4. **On Call Contracts**

   If the services and deliverables performed under this Contract are on an on call or as assigned basis, service and deliverables may be assigned by Task Authorization or Statements of Work, are subject to Section 9, and cannot augment any other work that the CONTRACTOR is doing for the CITY on another Contract. Actual compensation will depend upon the actual purchases made by the City during the life of this Contract and will be paid at the rates set in Exhibit A

5. **Term**
All services shall be satisfactorily completed on or before [INSERT CONTRACT TERMINATION DATE] and this Contract shall expire on said date unless mutually extended by a written and executed Amendment to this Contract.

6. Renewals

At CITY’s sole option, the Term of this Contract may be renewed for additional [INSERT THE RENEWAL PERIOD - 1 YEAR, ETC] periods, not to exceed [INSERT THE MAXIMUM NUMBER OF RENEWAL PERIODS]. CITY will provide written notice of its intent to exercise any renewal options at least 30 days prior to the then existing Term and a written Amendment to this Contract will be mutually executed.

7. Delay

Neither party shall be considered to be in default in the performance of this Contract to the extent such performance is prevented or delayed by any cause which is beyond the reasonable control of the affected party and, in such event, the time for performance shall be extended for a period equal to any time lost as a result thereof. In the event CONTRACTOR is unable to proceed due to a delay solely attributable to CITY, CONTRACTOR shall advise CITY of such delay in writing as soon as is practicable.

8. Compensation

The CITY shall compensate the CONTRACTOR for the services and deliverables performed under this Contract [in accordance with OR on the basis of] [INSERT DESCRIPTION OF COMPENSATION ARRANGEMENTS – REFERENCE EXHIBIT, TIME AND MATERIALS, LUMP SUM ETC.]

9. Not to Exceed Amount

The total price to be paid by CITY for CONTRACTOR’S full and complete performance of the Scope of Work hereunder shall not exceed $ [INSERT TOTAL AMOUNT OF CONTRACT] plus applicable taxes without a written and executed Amendment to this Contract. Said price shall be the total compensation for CONTRACTOR’S performance hereunder including, but not limited to, all work, deliverables, materials, supplies, equipment, subcontractor’s fees, and all reimbursable travel and miscellaneous or incidental expenses to be incurred by CONTRACTOR.

In the event the CONTRACTOR incurs cost in excess of the sum authorized for service under this Contract, the CONTRACTOR shall pay such excess from its own funds, and the CITY shall not be required to pay any part of such excess, and the CONTRACTOR shall have no claim against the CITY on account thereof.

10. Payment

CONTRACTOR shall submit XXXXXXXXX (monthly, weekly, annual, Contract milestone, etc.) invoices for services completed and/or deliverables furnished during the invoice period. Upon CITY’S request, CONTRACTOR shall submit necessary and appropriate documentation, as determined by the CITY, for all invoiced services and deliverables.
Payment shall be made through the CITY’S ordinary payment process, and shall be considered timely if made within 30 days of receipt of a properly completed invoice. All payments shall be subject to adjustment for any amounts, upon audit or otherwise, determined to have been improperly invoiced. The CITY may withhold payment to the CONTRACTOR for any services or deliverables not performed as required hereunder until such time as the CONTRACTOR modifies such services or deliverables to the satisfaction of the CITY.

11. Payment Method

The City’s preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City’s ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

12. Independent Contractor Status

The services and deliverables shall be furnished by the CONTRACTOR as an independent Contractor, and nothing herein contained shall be construed to create an employer and employee relationship. The CONTRACTOR shall provide at its sole expense all materials, office space, and other necessities to perform its duties under this Contract, unless stated otherwise in this Contract. No payroll or employment taxes of any kind shall be withheld or paid by the CITY with respect to payments to CONTRACTOR. The payroll or employment taxes that are the subject of this paragraph include, but are not limited to, FICA, FUTA, federal income tax, state personal income tax, state disability insurance tax and state unemployment insurance tax. By reason of CONTRACTOR’s status as an independent Contractor hereunder, no workers’ compensation insurance has been or will be obtained by the CITY on account of CONTRACTOR. CONTRACTOR may be required to provide the CITY proof of payment of these said taxes and benefits. If the CITY is assessed or deemed liable in any manner for those charges or taxes, the CONTRACTOR agrees to hold the CITY harmless from those costs, including attorney’s fees.

13. Services Warranty

The CONTRACTOR warrants that all services performed pursuant to this Contract shall be generally suitable for the use to which CITY intends to use said services and deliverables as expressed in the Scope of Work. In the performance of services under this Contract, the CONTRACTOR and its employees further agree to exercise the degree of skill and care required by customarily accepted good practices and procedures followed by professionals or service providers rendering the same or similar type of service. All obligations and services of the CONTRACTOR hereunder shall be performed diligently and completely according to such professional standards.

Unless a higher standard or longer periods of warranty coverage for product deliverables provided under this Contract is provided herein, CONTRACTOR agrees to correct any defect or failure of deliverables supplied under this Contract which occurs
within one year from ________ [FILL IN APPROPRIATE TIME FRAME, E.G. GO LIVE, FIRST USE, ETC]. During said warranty period, all of the costs (including shipping, dismantling and reinstallation) of repairs or corrections is the responsibility of the CONTRACTOR. If CONTRACTOR is not the manufacturer of the item of equipment, CONTRACTOR agrees to be responsible for this warranty and shall not be relieved by a lesser manufacturer’s guarantee. This Contract warranty period shall be suspended from the time a significant defect is first documented by the CITY until repair or replacement by CONTRACTOR and acceptance by the CITY. In the event less than ninety (90) days remain on the warranty period (after recalculating), the warranty period shall be extended to allow for at least ninety (90) days from the date of repair or replacement and acceptance by the CITY.

14. Reliance on CITY Provided Data or Information

If the CONTRACTOR intends to rely on information or data supplied by the CITY, other CITY contractors or other generally reputable sources without independent verification, such intent shall be brought to the attention of the CITY.

15. Contract Administration

[INSERT NAME TITLE AND DEPARTMENT OF CONTRACT ADMINISTRATOR] for the CITY shall have primary responsibility for contract administration and approval of services to be performed by the CONTRACTOR, and shall coordinate all communications between the CONTRACTOR and the CITY.

16. Specific Personnel

If before, during, or after the execution of this Contract, CONTRACTOR represents to the CITY that certain personnel would or will be responsible for performing services and deliverables under this Contract, then the CONTRACTOR is obligated to ensure that said personnel perform said Contract services to the maximum extent permitted by law. This Contract provision shall only be waived by written authorization by the CITY, and on a case-by-case basis.

17. Right to Audit

During the Term of this Contract, and for six (6) years thereafter, the CITY shall have the right to inspect and audit during normal business hours all pertinent books and records of the CONTRACTOR and/or any sub-contractor or agent of CONTRACTOR that performed services or furnished deliverables in connection with or related to the Scope of Work hereunder as reasonably needed by CITY to assess performance, compliance and quality assurance under this Contract or in satisfaction of City's public disclosure obligations, as applicable.

CONTRACTOR shall, upon three (3) business days of receipt of written request for such inspection and audit from CITY, provide the CITY with, or permit CITY to make, a copy of any work-related books, accounts, records and documents, in whole or in part, as specified in such request. Said inspection and audit shall occur in Pierce County, Washington or such other reasonable location as the CITY selects. The CITY shall bear the cost of any inspection audit requested hereunder, provided, that if an inspection...
audit in accordance with the foregoing provisions discloses overpricing or overcharges (of any nature) by the CONTRACTOR to the CITY in excess of one percent (1%) of the total contract billings, in addition to making adjustments for the overcharges, the reasonable actual cost of the CITY’s audit shall be reimbursed to CITY by CONTRACTOR. Any adjustments or payments that must be made as a result of any audit and inspection hereunder shall be made no later than 90 days from presentation of CITY’s findings to CONTRACTOR.

CONTRACTOR shall ensure that the foregoing inspection, audit and copying rights of the CITY are a condition of any subcontract, agreement or other arrangement under which any other person or entity is permitted to perform the Scope of Work under this Contract.

18. Records Retention

The CONTRACTOR shall establish and maintain records in accordance with requirements prescribed by the CITY, with respect to all matters related to the performance of this Contract. Except as otherwise authorized by the CITY, the CONTRACTOR shall retain such records for a period of [INSERT THE TIME THE RECORDS SHOULD BE KEPT. MOST COMMON IS 6 YEARS] years after receipt of the final payment under this Contract or termination of this Contract.

If CONTRACTOR retains any City records or data hosted in a Cloud Service, CITY shall have the ability to access its records hosted in a Cloud Service at any time during the Term of this Contract. CITY may export and retrieve its records during the Term of the Contract and, no later than 30 days from the termination of this Contract, CONTRACTOR shall export CITY records to City’s custody and control.

19. Notices

Except for routine operational communications, which may be delivered personally or transmitted by electronic mail all notices required hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or mailed first-class mail, postage prepaid, to the parties at the following addresses:

<table>
<thead>
<tr>
<th>CITY:</th>
<th>CONTRACTOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Name:</td>
</tr>
<tr>
<td>Title:</td>
<td>Title:</td>
</tr>
<tr>
<td>Address:</td>
<td>Address:</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>Telephone No.:</td>
</tr>
<tr>
<td>E-mail:</td>
<td>E-mail:</td>
</tr>
</tbody>
</table>

20. Termination

Except as otherwise provided herein, the CITY may terminate this Contract at any time, with or without cause, by giving ten (10) business days written notice to CONTRACTOR.
In the event of termination, all finished and unfinished work prepared by the CONTRACTOR pursuant to this Contract shall be provided to the CITY. In the event CITY terminates this Contract due to the CITY’s own reasons and without cause due to the CONTRACTOR’s actions or omissions, the CITY shall pay the CONTRACTOR the amount due for actual work and services necessarily performed under this Contract up to the effective date of termination, not to exceed the total compensation set forth herein. Termination of this Contract by CITY shall not constitute a waiver of any claims or remaining rights the CITY may have against CONTRACTOR relative to performance hereunder.

21. Suspension

The CITY may suspend this Contract, at its sole discretion, upon seven (7) business days’ written notice to the CONTRACTOR. Such notice shall indicate the anticipated period of suspension. Any reimbursement for expenses incurred due to the suspension shall be limited to the CONTRACTOR’S reasonable expenses and shall be subject to verification. The CONTRACTOR shall resume performance of services under this Contract without delay when the suspension period ends. Suspension of this Contract by CITY shall not constitute a waiver of any claims or remaining rights the CITY may have against CONTRACTOR relative to performance hereunder.

22. Taxes

Unless stated otherwise in Exhibit A, CONTRACTOR is responsible for the payment of all charges and taxes applicable to the services performed under this Contract, and CONTRACTOR agrees to comply with all applicable laws regarding the reporting of income, maintenance of records, and all other requirements and obligations imposed pursuant to applicable law. If the CITY is assessed, made liable, or responsible in any manner for such charges or taxes, the CONTRACTOR holds CITY harmless from such costs, including attorney’s fees.

If CONTRACTOR fails to pay any taxes, assessments, penalties, or fees imposed by any governmental body, including by Tacoma City ordinance, and including by a court of law, CITY will deduct and withhold or pay over to the appropriate governmental body those unpaid amounts upon demand by the governmental body. Any such payments shall be deducted from the CONTRACTOR’s total compensation.

23. Licenses and Permits

The CONTRACTOR, at its expense, shall obtain and keep in force any and all necessary licenses and permits. The CONTRACTOR shall obtain a business license as required by Tacoma Municipal Code Subtitle 6B.20 and shall pay business and occupation taxes as required by Tacoma Municipal Code Subtitle 6A.30. If applicable, CONTRACTOR must have a Washington state business license.

24. Indemnification

CONTRACTOR shall indemnify, defend, and hold harmless the CITY, its officials, officers, agents, employees, and volunteers, from any and all claims, demands, damages, lawsuits, liabilities, losses, liens, expenses and costs arising out of the subject
matter of this Contract; provided that this provision shall not apply to the extent that damage or injury results from the sole negligence of the CITY, or its officers, agents, or employees. This indemnification shall extend to and include attorneys' fees and the cost of establishing the right of indemnification hereunder in favor of the CITY. This indemnification shall survive the termination of this Contract.

It is expressly agreed that with respect to design professional services performed by CONTRACTOR herein, CONTRACTOR's duty of indemnification, including the duty and cost to defend, against liability for damages arising out of such services or out of bodily injury to persons or damage to property shall, as provided in RCW 4.24.115 apply only to the extent of CONTRACTOR's negligence.

CONTRACTOR hereby warrants and represents CONTRACTOR is owner of any products, solutions or deliverables provided and licensed under this Contract or otherwise has the right to grant to CITY the licensed rights under this Contract, without violating the rights of any third party worldwide. CONTRACTOR shall, at its expense, defend, indemnify and hold harmless CITY and its employees, officers, directors, contractors, agents and volunteers from any claim or action against CITY which is based on a claim against CITY for infringement of a patent, copyright, trademark, or other propriety right or appropriation of a trade secret.

25. Title 51 Waiver

CONTRACTOR specifically assumes potential liability for actions brought by the CONTRACTOR'S own employees against the CITY and, solely for the purpose of this indemnification and defense, the CONTRACTOR specifically waives any immunity under the state industrial insurance law, Title 51 RCW. THE CONTRACTOR RECOGNIZES THAT THIS WAIVER WAS THE SUBJECT OF MUTUAL NEGOTIATION.

26. Insurance

During the course and performance of the services herein specified, CONTRACTOR will maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements as is applicable to the services and deliverables provided under this Contract. The City of Tacoma Insurance Requirements documents are fully incorporated herein by reference.

Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

27. Nondiscrimination

The CONTRACTOR agrees to take all steps necessary to comply with all federal, state, and City laws and policies regarding non-discrimination and equal employment opportunities. The CONTRACTOR shall not discriminate in any employment action because of race, religion, creed, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, veteran or military status, the
presence of any sensory, mental or physical disability or the use of a trained dog guide or service animal by a disabled person. In the event of non-compliance by the CONTRACTOR with any of the non-discrimination provisions of this Contract, the CITY shall be deemed to have cause to terminate this Contract, in whole or in part.

28. Conflict of Interest

No officer, employee, or agent of the CITY, nor any member of the immediate family of any such officer, employee, or agent as defined by City ordinance, shall have any personal financial interest, direct or indirect, in this Contract, either in fact or in appearance. The CONTRACTOR shall comply with all federal, state, and City conflict of interest laws, statutes, and regulations. The CONTRACTOR represents that the CONTRACTOR presently has no interest and shall not acquire any interest, direct or indirect, in the program to which this Contract pertains which would conflict in any manner or degree with the performance of the CONTRACTOR’S services and obligations hereunder. The CONTRACTOR further covenants that, in performance of this Contract, no person having any such interest shall be employed. The CONTRACTOR also agrees that its violation of the CITY’S Code of Ethics contained in Chapter 1.46 of the Tacoma Municipal Code shall constitute a breach of this Contract subjecting the Contract to termination.

29. City ownership of Work/Rights in Data and Publications

To the extent CONTRACTOR creates any Work subject to the protections of the Copyright Act (Title 17 U.S.C) in its performance of this Contract, CONTRACTOR agrees to the following: The Work has been specially ordered and commissioned by CITY. CONTRACTOR agrees that the Work is a "work made for hire" for copyright purposes, with all copyrights in the Work owned by CITY. To the extent that the Work does not qualify as a work made for hire under applicable law, and to the extent that the Work includes material subject to copyright, CONTRACTOR hereby assigns to CITY, its successors and assigns, all right, title and interest in and to the Work, including but not limited to, all patent, trade secret, and other proprietary rights and all rights, title and interest in and to any inventions and designs embodied in the Work or developed during the course of CONTRACTOR'S creation of the Work. CONTRACTOR shall execute and deliver such instruments and take such other action as may be required and requested by CITY to carry out the assignment made pursuant to this section. Any documents, magnetically or optically encoded media, or other materials created by CONTRACTOR pursuant to this Contract shall be owned by CITY and subject to the terms of this subsection. To the maximum extent permitted by law, CONTRACTOR waives all moral rights in the Work. The rights granted hereby to CITY shall survive the expiration or termination of this Contract. CONTRACTOR shall be solely responsible for obtaining releases for the performance, display, recreation, or use of copyrighted materials.

30. Public Disclosure

This Contract and documents provided to the CITY by CONTRACTOR hereunder are deemed public records subject to disclosure under the Washington State Public Records Act, Chapter 42.56 RCW (Public Records Act). Thus, the CITY may be required, upon request, to disclose this Contract and documents related to it unless an exemption under the Public Records Act or other laws applies. In the event CITY receives a request for
such disclosure, determines in its legal judgment that no applicable exemption to disclosure applies, and CONTRACTOR has complied with the requirements herein to mark all content considered to be confidential or proprietary, CITY agrees to provide CONTRACTOR ten (10) days written notice of impending release. Should legal action thereafter be initiated by CONTRACTOR to enjoin or otherwise prevent such release, all expense of any such litigation shall be borne by CONTRACTOR, including any damages, attorneys fees or costs awarded by reason of having opposed disclosure. CITY shall not be liable for any release where notice was provided and CONTRACTOR took no action to oppose the release of information. Notice of any proposed release of information pursuant to Chapter 42.56 RCW, shall be provided to CONTRACTOR according to the “Notices” provision herein.

31. Confidential or Proprietary Records Must be Marked

If CONTRACTOR provides the CITY with records that CONTRACTOR considers confidential or proprietary, CONTRACTOR must mark all applicable pages of said record(s) as “Confidential” or “Proprietary.” If CONTRACTOR fails to so mark record(s), then (1) the CITY, upon request, may release said record(s) without the need to satisfy the notice requirements above; and (2) the CONTRACTOR expressly waives its right to allege any kind of civil action or claim against the CITY pertaining to the release of said record(s).

32. Duty of Confidentiality

CONTRACTOR acknowledges that unauthorized disclosure of information or documentation concerning the Scope of Work hereunder may cause substantial economic loss or harm to the CITY.

Except for disclosure of information and documents to CONTRACTOR's employees, agents, or subcontractors who have a substantial need to know such information in connection with CONTRACTOR's performance of obligations under this Contract, the CONTRACTOR shall not without prior written authorization by the CITY allow the release, dissemination, distribution, sharing, or other publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to this Contract.

CONTRACTOR shall inform its employees, agents, and subcontractors of the confidentiality obligations under this Contract and instruct them so as to ensure such obligations are met. If so requested by the CITY, the CONTRACTOR further agrees to require all such individuals and entities performing services pursuant to this Contract to execute a Confidentiality and Non-Disclosure Agreement in a form acceptable to CITY.

This Section shall survive for six (6) years after the termination or expiration of this Contract.

CITY is required to provide notice of the Red Flags Rules published by the Federal Trade Commission in Title 16 Code of Federal Regulations, Part 681 (“Rules”) to all entities that receive confidential or otherwise protected personal information of CITY's customers. Terms in quotations in this Section refer to defined terms contained in the "Rules." CONTRACTOR is, as to "Covered Accounts" of CITY for which CONTRACTOR
performs activities under the Contract, a "Service Provider." "Service Provider" will perform in accordance with its reasonable policies and procedures designed to detect, prevent, and mitigate the risk of identity theft and will promptly report to CITY any specific "Red Flag" incidents detected as to "Covered Accounts" of CITY and upon request by CITY will respond to or reasonably assist CITY in responding reported "Red Flags." This Section shall survive for six (6) years after the termination or expiration of this Contract.

33. Approval for Release of Information Related to Contract

If requested by CITY, CONTRACTOR shall not release any information or documentation concerning the work under this Contract or any part thereof for marketing, advertising, or other commercial activities or publication including, but not limited to, news releases or professional articles without CITY’s prior written approval. CONTRACTOR may submit at any time for review and approval a generic abstract describing the component parts of the completed Scope of Services (“Project Abstract”). After receiving written approval of the Project Abstract from the CITY, the CONTRACTOR may make minor insignificant changes to the Project Abstract and use all or parts of the Project Abstract in proposals.

This Section shall survive for six (6) years after the termination or expiration of this Contract.

34. Dispute Resolution

In the event of a dispute pertaining to this Contract, the parties agree to attempt to negotiate in good faith an acceptable resolution. If a resolution cannot be negotiated, then the parties agree to submit the dispute to voluntary non-binding mediation before pursuing other remedies. This provision does not limit the CITY’S right to terminate authorized by this Contract.

35. Miscellaneous Provisions

Governing Law and Venue
Washington law shall govern the interpretation of this Contract. Pierce County shall be the venue of any mediation, arbitration, or litigation arising out of this Contract.

Assignment
The CONTRACTOR shall not assign, subcontract, delegate, or transfer any obligation, interest or claim to or under this Contract or for any of the compensation due hereunder without the prior written consent of the CITY.

No Third Party Beneficiaries
This Contract shall be for the sole benefit of the parties hereto, and nothing contained herein shall create a contractual relationship with, or create a cause of action in favor of, a third party against either party hereto.
Waiver
A waiver or failure by either party to enforce any provision of this Contract shall not be construed as a continuing waiver of such provisions, nor shall the same constitute a waiver of any other provision of this Contract.

Severability and Survival
If any term, condition or provision of this Contract is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of this Contract, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of this Contract, shall survive termination of this Contract.

Entire Agreement
This Contract and the attached Exhibits, as modified herein, contain the entire agreement between the parties as to the services to be rendered hereunder. All previous and contemporaneous agreements, representations or promises and conditions relating to the subject matter of this Contract are superseded hereby. The Parties hereto mutually acknowledge, understand and agree that the terms and conditions set forth herein shall control and prevail over any conflicting terms and conditions stated in any attachments hereto.

Modification
No modification or amendment of this Agreement shall be effective unless set forth in a written and executed Amendment to this Contract.

Direct Solicitation and Negotiation
For service contracts valued $25,000 or less the City signature authorizes waiver of competitive solicitation by “Direct Solicitation and Negotiation” of professional and personal services in accordance with Tacoma Municipal Code 1.06.256 and the Purchasing Policy Manual.
IN WITNESS WHEREOF, the Parties hereto have accepted and executed this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable. The undersigned Contractor representative, by signature below, represents and warrants they are duly authorized to execute this legally binding Contract for and on behalf of Contractor.

CITY OF TACOMA: By:

CONTRACTOR: By:

(City of Tacoma use only - blank lines are intentional)

Director of Finance: __________________________________________________________

City Attorney (approved as to form): __________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________

Approved By: __________________________________________________________________
APPENDIX D

City of Tacoma Insurance Requirements
This Insurance Requirements shall serve as an attachment and/or exhibit form to the Contract. The Agency entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise referred to as “Contractor”.

1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements:

1.1. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the City of Tacoma.

1.2. Contractor shall keep in force during the entire term of the Contract, at no expense to the City of Tacoma, the insurance coverage and limits of liability listed below and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.

1.3. Liability insurance policies, except for Professional Liability and Workers’ Compensation, shall:
   1.3.1. Name the City of Tacoma and its officers, elected officials, employees, and agents as additional insured
   1.3.2. Be considered primary and non-contributory for all claims with any insurance or self-insurance or limits of liability maintained by the City of Tacoma
   1.3.3. Contain a “Waiver of Subrogation” clause in favor of City of Tacoma
   1.3.4. Include a “Separation of Insureds” clause that applies coverage separately to each insured and additional insured
   1.3.5. Name the “City of Tacoma” on certificates of insurance and endorsements and not a specific person or department
   1.3.6. Be for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20 37 04 13 or the equivalent
   1.3.7. Be satisfied by a single primary limit or by a combination of a primary policy and a separate excess umbrella

1.4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements below. Verification of coverage shall include:
   1.4.1. An ACORD certificate or equivalent
   1.4.2. Copies of requested endorsements

1.5. Contractor shall provide to City of Tacoma Procurement & Payable Division, prior to the execution of the Contract, Certificate(s) of Insurance and endorsements from the insurer certifying the coverage of all insurance required herein. Contract or Permit number and the City of Tacoma Department must be shown on the Certificate of Insurance.

1.6. A renewal Certificate of Insurance shall be provided electronically prior to coverage
1.7. Contractor shall send a notice of cancellation or non-renewal of this required insurance within Thirty (30) calendar days to coi@cityoftacoma.org.

1.8. “Claims-Made” coverages, except for pollution coverage, shall be maintained for a minimum of three years following the expiration or earlier termination of the Contract. Pollution coverage shall be maintained for six years following the expiration of the Contract. The retroactive date shall be prior to or coincident with the effective date of the Contract.

1.9. Each insurance policy must be written by companies licensed or authorized (or issued as surplus line by Washington surplus line broker) in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best key rating guide.

1.10. Contractor shall not allow any insurance to be cancelled, voided, suspended, or reduced in coverage/limits, or lapse during any term of this Contract. Otherwise, it shall constitute a material breach of the Contract.

1.11. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars ($25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.

1.12. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services changes.

1.13. All costs for insurance are included in the initial Contract and no additional payment will be made by City of Tacoma to Contractor.

1.14. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).

1.15. Failure by City of Tacoma to identify a deficiency in the insurance documentation or to verify coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

1.16. If Contractor is a government agency or self-insured for any of the above insurance requirements, Contractor shall be liable for any self-insured retention or deductible portion of any claim for which insurance is required. A certification of self-insurance shall be attached and incorporated by reference and shall constitute compliance with this Section.

2. SUBCONTRACTORS

Insurance Requirements
Template Revised 04/17/2023
It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage that applies to the service provided. Contractor shall provide evidence of such insurance upon City of Tacoma's request. Failure of any subcontractor to comply with insurance requirements does not limit Contractor’s liability or responsibility.

3. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

3.1 Commercial General Liability Insurance
Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) annual aggregate. This policy shall be written on ISO form CG 00 01 04 13 or its equivalent and shall include product liability especially when a Contract is solely for purchasing supplies. It includes Products and Completed Operations for three years following the completion of work related to performing construction services. It shall be endorsed to include: A per project aggregate policy limit (using ISO form CG 25 03 05 09 or equivalent endorsement)

3.2 Commercial (Business) Automobile Liability Insurance
Contractor shall maintain Commercial Automobile Liability policy with limits not less than One Million Dollars ($1,000,000) each accident for bodily injury and property damage and bodily injury and property damage coverage for owned (if any), non-owned, hired, or leased vehicles. Commercial Automobile Liability Insurance shall be written using ISO form CA 00 01 or equivalent. Contractor must also maintain MCS 90 and CA 99 48 endorsements or equivalent if “Pollutants” are to be transported unless in-transit Pollution coverage is covered under required Contractor’s Pollution Liability Insurance.

3.3 Workers’ Compensation
Contractor shall comply with Workers’ Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

3.4 Employers’ Liability Insurance
Contractor shall maintain Employers’ Liability coverage with limits not less than One Million Dollars ($1,000,000) each employee, One Million Dollars ($1,000,000) each accident, and One Million Dollars ($1,000,000) policy limit.

3.5 Excess or Umbrella Liability Insurance
Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Five Million Dollars ($5,000,000) per occurrence and in the aggregate. This coverage shall apply, at a minimum, in excess of primary underlying Commercial General Liability, Employer’s Liability, Pollution Liability, Marine General Liability, Protection and Indemnity, and Automobile Liability if required herein.

3.6 Other Insurance
Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.