

Light Division

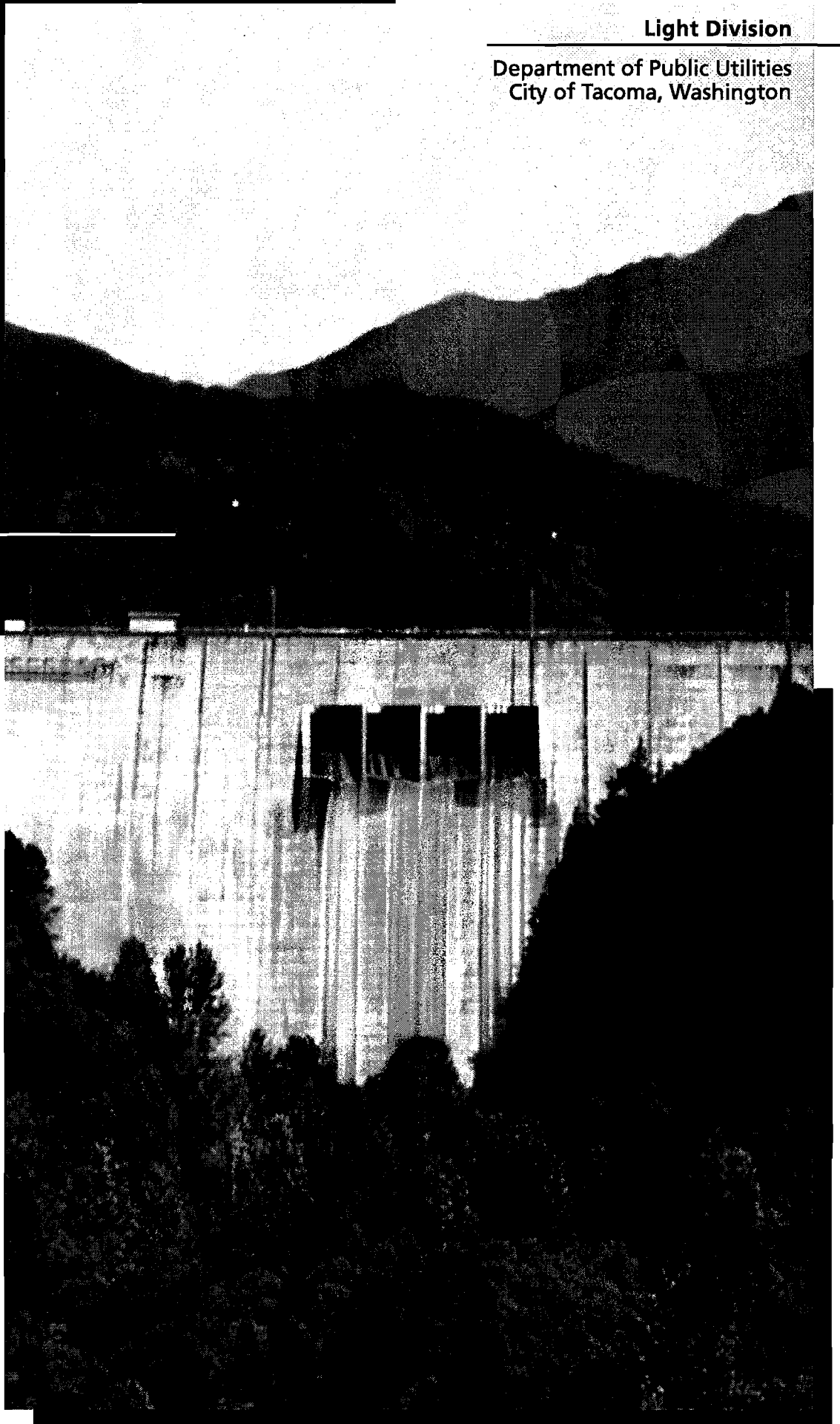
**Department of Public Utilities
City of Tacoma, Washington**

SPECIFICATION

No. PG16-0091F

Tacoma Power

Annual Re-Roofing
Contract



CITY OF TACOMA

SPECIFICATIONS

FOR

NO. PG16-0091F

TACOMA POWER

ANNUAL RE-ROOFING CONTRACT

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
TACOMA POWER

William A. Gaines, Director of Utilities/CEO

Chris Robinson, Power Superintendent/COO

Each bid to be enclosed in a sealed envelope bearing the superscription

“TACOMA POWER – ANNUAL RE-ROOFING CONTRACT”

SPECIFICATION CONTENTS

This Specification contains the following:

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City of Tacoma
Department of Public Utilities / Tacoma Power

REQUEST FOR BIDS
PG16-0091F
Annual Re-Roofing Contract

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, May 31, 2016

Submittal Delivery: Sealed submittals will be received and time stamped at this location only:

City of Tacoma Procurement and Payables Division
Tacoma Public Utilities - Administration Building North, Main Floor
3628 South 35th Street, Tacoma, WA 98409

Submittal Opening: Sealed submittals in response to a RFB will be opened by a Purchasing representative and read aloud during a public bid opening held in Conference Room M-1, located on the main floor in the same building. Submittals in response to an RFP or RFQ are recorded as received but are not typically opened and read aloud. After 1:00 p.m. the day of bid opening, the names of vendors submitting proposals are posted to the website for public viewing.

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 not be held.

Project Scope: On-call roofing repair and maintenance of Tacoma Power hydro plants and facilities.

Estimate: \$175,000 - \$199,000.

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

Additional Information: Requests for information regarding the specifications may be obtained by contacting Joe Parris, Senior Buyer by email to jparris@cityoftacoma.org.

Protest Policy: City of Tacoma protest policy, located at 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.

BIDDER'S CHECK LIST

The bidder's attention is especially called to the following forms which must be submitted with your bid:

- (a) Schedule of bid price.

The unit/lump sum prices bid must be shown in the space provided.

- (b) Signature page.

To be completed and signed by the bidder.

- (c) ~~Proposal data sheets (required when included in the proposal).~~

- (d) Contractor's Record of Prior Contracts **(required/not required)**.

- (e) List of Equipment **(required/not required)**.

- (f) State Responsibility and Reciprocal Bid Preference Form **(required/not required)**.

- (g) Bid bond or certified check (for construction contracts only).

Each bid must be accompanied by a certified or cashier's check for 5-percent of the total amount bid, or an approved bid bond by a surety company authorized to do business in the State of Washington. See General Provisions 1.04.

- (h) ~~Subcontractor List (applicable only for construction contracts of \$1,000,000 and over).~~

- (i) **CONSTRUCTION CONTRACTS:** Bid proposals for contractor labor must include fully completed SBE Utilization Form, Prime Contractors Pre-Work Form, and Subcontractor's Pre-Work Form.

~~**NON-CONSTRUCTION CONTRACTS:** Bid proposals for material and services must include fully completed "Personnel Inventory Form".~~

- (j) "Submittals Required with Bid" as are listed in the Special Provisions Section – Submittals and Shop Drawings (for construction contracts) or Submittals Section (for supply contracts).

The following forms are to be executed after the contract is awarded:

- (a) Contract

This agreement is to be executed by the successful bidder.

- (b) Performance Bond **(required/not required)**.

To be executed by the successful bidder and his surety company, and countersigned by a local resident agent of said surety company.

- (c) Contractor's Work Hazard Analysis Report (for construction contracts only)

- (d) General Release to the City of Tacoma (for construction contracts only).

To be executed by the successful bidder upon completion of work and prior to the receipt of the final payment.

LETTERS AND CALLS

All letters and calls requesting information prior to the bid opening are subject to the limitations in Paragraph 1.02 of the **General Provisions**.

Address all letters to the Department of Public Utilities, P. O. Box 11007, Tacoma, Washington 98411.

For letters and calls regarding General Provisions, direct attention to Joe Parris, Senior Buyer,
jparris@cityoftacoma.org.

For calls (only) regarding Special or Technical Provisions, direct attention to: Joe Parris, Senior Buyer,
jparris@cityoftacoma.org.

For letters (only) regarding Special or Technical Provisions, direct attention to: Joe Parris, Senior Buyer,
jparris@cityoftacoma.org.

For letters and calls regarding the SBE Program, direct attention to the SBE Program Coordinator at 253-591-5224 for calls, and to SBE/Community & Economic Development, Tacoma Municipal Building, 747 Market Street, Tacoma, Washington 98402, for letters.

For letters and calls regarding the LEAP Program, direct attention to the LEAP Coordinator at 253-594-7933 for calls, and to LEAP/ Community & Economic Development, Tacoma Municipal Building, 747 Market Street, Tacoma, Washington 98402, for letters.

All letters shall indicate the title and specification number (prior to award) or title and contract number (following award).

**CITY OF TACOMA
FINANCE/PURCHASING DIVISION
SPECIAL NOTICE TO BIDDERS**

Public works and improvement projects for the City of Tacoma are subject to Washington state law and Tacoma Municipal Code, including, but not limited to the following:

I. STATE OF WASHINGTON

A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON

In order to be considered a responsible bidder the bidder must meet the following mandatory state responsibility criteria contained in RCW 39.04.350:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect **at the time of bid submittal**;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable:
 - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
 - c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW and;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).

B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:

Effective March 30, 2012, RCW 39.04.380 imposes a reciprocal preference for resident contractors. Any bid received from a non-resident contractor from a state that provides an in-state percentage bidding preference is subject application of a comparable percentage disadvantage.

A non-resident contractor from a state that provides an in-state percentage bidding preference means a contractor that:

1. Is from a state that provides a percentage bid preference to its resident contractors bidding on public works projects, and
2. Does not have a physical office located in Washington at the time of bidding on the City of Tacoma public works project.

The state of residence for a non-resident contractor is the state in which the contractor was incorporated, or if not a corporation, the state in which the contractor's business entity was formed.

The City of Tacoma will evaluate all non-resident contractors for an out of state bidder preference. If the state of the non-resident contractor provides an in state contractor preference, a comparable percentage disadvantage will be applied to the non-resident

contractor's bid prior to contract award. The responsive and lowest and best responsible bidder after application of any non-resident disadvantage will be awarded the contract.

The reciprocal preference evaluation does not apply to public works procured pursuant to RCW 39.04.155, RCW 39.04.280, federally funded competitive solicitations where such agencies prohibit the application of bid preferences, or any other procurement exempt from competitive bidding.

Bidders must provide the City of Tacoma with their state of incorporation or the state in which the business entity was formed and include whether the bidder has a physical office located in Washington.

The bidder shall submit documentation demonstrating compliance with above criteria on the enclosed State Responsibility and Reciprocal Bidder Information form.

C. SUBCONTRACTOR RESPONSIBILITY

1. The Contractor shall include the language of this subcontractor responsibility section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. The requirements of this section apply to all subcontractors regardless of tier.
2. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
 - a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
 - b. Have a current Washington Unified Business Identifier (UBI) number;
 - c. If applicable, have:
 - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - b. A Washington Employment Security Department number, as required in Title 50 RCW;
 - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - d. An electrical contractor license, if required by Chapter 19.28 RCW;
 - e. An elevator contractor license, if required by Chapter 70.87 RCW and;
3. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).

II. CITY OF TACOMA

A. SUPPLEMENTAL RESPONSIBILITY CRITERIA – CITY OF TACOMA:

In order to be considered a responsible bidder, the prospective bidder shall have all of the following qualifications set forth in Tacoma Municipal Code 1.06.262:

1. Adequate financial resources or the ability to secure such resources;
2. The necessary experience, stability, organization and technical qualifications to perform the proposed contract;
3. The ability to comply with the required performance schedule, taking into consideration all existing business commitments;
4. A satisfactory record of performance, integrity, judgment and skills; and
5. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.
 - a. Bidder Responsibility. Bidders shall not be in violation of 39.04.350 RCW Bidder Responsibility Criteria - Supplemental Criteria.

In addition to the mandatory bidder responsibility criteria listed immediately above, the City may, in addition to price, consider any or all of the following criteria contained in Tacoma Municipal Code Chapter 1.06.262 in determining bidder responsibility:

1. The ability, capacity, experience, stability, technical qualifications and skill of the respondent to perform the contract;
2. Whether the respondent can perform the contract within the time specified, without delay or interference;
3. Integrity, reputation, character, judgment, experience, and efficiency of the respondents, including past compliance with the City's Ethics Code;
4. Quality of performance of previous contracts;
5. Previous and existing compliance with laws and ordinances relating to contracts or services;
6. Sufficiency of the respondent's financial resources;
7. Quality, availability, and adaptability of the supplies, purchased services or public works to the particular use required;
8. Ability of the respondent to provide future maintenance and service on a timely basis;
9. Payment terms and prompt pay discounts;
10. The number and scope of conditions attached to the submittal;
11. Compliance with all applicable City requirements, including but not limited to the City's Ethics Code and its Historically Underutilized Business and Local Employment and Apprenticeship programs;
12. Other qualification criteria set forth in the specification or advertisement that the appropriate department or division head determines to be in the best interests of the City.

The City may require bidders to furnish information, sworn or certified to be true, to demonstrate compliance with the City responsibility criteria set forth above. If the city manager or director of utilities is not satisfied with the sufficiency of the information provided, or if the prospective respondent does not substantially meet all responsibility requirements, any submittal from such respondent must be disregarded.

B. ADDITIONAL SUPPLEMENTAL CRITERIA – NOT APPLICABLE

In addition to the State and City bidder responsibility criteria above, the bidder must also comply with the supplemental criteria contained in Section 01010 Summary of Work and Section 01300 – Submittals and Shop Drawings of the special provisions.

C. MODIFICATIONS TO SUPPLEMENTAL CRITERIA

Potential bidders may request modifications to the City's **supplemental criteria** by submitting a written request to the Purchasing Division no later than 5:00 p.m. Pacific Time, three days prior to bid opening date. Please include the Specification No. and Title when submitting such requests. Requests must include justification for why certain criteria should be modified. Requests received after this date and time will not be considered.

Requests may be submitted via postal mail or delivered personally, or sent by e-mail or fax, within the above timeline to:

MAIL

City of Tacoma Purchasing Division
PO Box 11007
Tacoma, WA 98411-0007

Fax: 253-502-8372

E-mail: bids@cityoftacoma.org

DELIVERY

City of Tacoma Purchasing Division
Tacoma Public Utilities
Administration Building North – Main Floor
3628 South 35th Street
Tacoma, WA 98409-3115

The City will respond to a timely submitted request prior to the bid opening date. Changes to the supplemental criteria, if warranted, will be issued by addendum to the solicitation documents and posted to the City's website for the attention of all prospective bidders.

D. DETERMINATION OF BIDDER RESPONSIBILITY

If the City determines the bidder does not meet the criteria above and is therefore not a responsible bidder, the City shall notify the bidder in writing with the reasons for its determination. If the bidder disagrees, the bidder may appeal the determination in a manner consistent with the City's Protest Policy. Appeals are coordinated by the Purchasing Division heard by the Procurement and Payables Division manager for contracts less than or equal to \$200,000 and by Contracts and Awards Board for contracts greater than \$200,000.

SIGNATURE PAGE

CITY OF TACOMA - DEPARTMENT OF PUBLIC UTILITIES - TACOMA POWER

All submittals must be in ink or typewritten and must be executed by a duly authorized officer or representative of the bidding/proposing entity. 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.

Submittals will be received and time stamped only at the City of Tacoma Purchasing Division, located in the Tacoma Public Utilities Administration North Building, Main Floor, at 3628 South 35th Street, Tacoma, WA 98409. **See the Request for Bids page near the beginning of the specification for additional details.**

REQUEST FOR BIDS SPECIFICATION NO. PG16-0091F

Annual Re-Roofing Contract

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 Date
into Contracts for Bidder/Proposer

Address

Printed Name and Title

City, State, Zip

(Area Code) Telephone Number / Fax Number

E-Mail Address

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

E.I.No. / Federal Social Security Number Used on Quarterly
Federal Tax Return, U.S. Treasury Dept. Form 941

State Contractor's License Number (if applicable)
(See Ch. 18.27, R.C.W.)

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

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL

Name of Bidder

State Responsibility and Reciprocal Bid Preference Information

Certificate of registration as a contractor (must be in effect at the time of bid submittal):

Number: _____

Effective Date: _____

Expiration Date: _____

Current Washington Unified Business Identifier (UBI) number:

Number: _____

Do you have industrial insurance (workers' compensation) coverage for your employees working in Washington?:

☐ Yes ☐ No

☐ Not Applicable

Washington Employment Security Department number:

Number: _____

☐ Not Applicable

Washington Department of Revenue state excise tax registration number:

Number: _____

☐ Not Applicable

Have you been disqualified from bidding on any public works contracts under RCW 39.06.010 or 39.12.065(3)?

☐ Yes ☐ No If yes, provide an explanation of your disqualification on a separate page.

Do you have a physical office located in the State of Washington?

☐ Yes ☐ No

If incorporated, in what state were you incorporated?

State: _____

☐ Not Incorporated

If not incorporated, in what state was your business entity formed?

State: _____

 Name of Bidder
PROPOSAL ITEMS

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<u>ITEM 1</u> Miscellaneous Roof Repairs and demolition	150	MH	\$ _____	\$ _____
<u>ITEM 2</u> Install Malarkey Legacy Roofing System	120	SQ	\$ _____	\$ _____
<u>ITEM 3</u> Power washing of roofs prior to application of new coating systems	3,000	SF	\$ _____	\$ _____
<u>ITEM 4</u> Install 165 Fleece with type BR or V210 Resin including roof preparation	3,000	SF	\$ _____	\$ _____
<u>ITEM 5</u> Install D Primer (one coat) base coat	3,000	SF	\$ _____	\$ _____
<u>ITEM 6</u> Top coating with HSS WDG 535 Silicone roof coating system	20,000	SF	\$ _____	\$ _____
<u>ITEM 7</u> Install 165 Fleece with BR, V210, or 2K-PUR Resin as flashing	250	LF	\$ _____	\$ _____
<u>ITEM 8</u> Install Malarkey torchable roofing system				
a. 159 APP Torchable Base Sheet	60	SQ	\$ _____	\$ _____
b. Malarkey 162 Torchable Cap Sheet	60	SQ	\$ _____	\$ _____
<u>ITEM 9</u> Install a modified asphalt SEBS built-up roof	2,000	SF	\$ _____	\$ _____

					Name of Bidder	
<u>ITEM 10</u>						
Install hot asphalt built-up roof	2,000	SF	\$_____	\$_____		
<u>ITEM 11</u>						
Install residential grade continuous gutters and downspouts	1,500	LF	\$_____	\$_____		
<u>ITEM 12</u>						
Install 30# fiber base sheet SBS fiberglass	700	SF	\$_____	\$_____		
<u>ITEM 13</u>						
Replace rotten plywood roof decking	320	SF	\$_____	\$_____		
<u>ITEM 14</u>						
Install preformed metal roof systems	3,000	SF	\$_____	\$_____		
<u>ITEM 15</u>						
Install blanket insulation under new metal roof decking	2,400	SF	\$_____	\$_____		
<u>ITEM 16</u>						
Install roof insulation board 4-inches thick	2,000	SF	\$_____	\$_____		
<u>ITEM 17</u>						
Install additional tapered roof insulation board to achieve slope	2,000	SF	\$_____	\$_____		
<u>ITEM 18</u>						
Install self-adhering ice-water shield underlayment	2,000	SF	\$_____	\$_____		
<u>ITEM 19</u>						
Sika Sarnafil PVC membrane overlay roof system	3,000	SF	\$_____	\$_____		
<u>ITEM 20</u>						
Mobilization/Demobilization at the Cushman hydroelectric project	5	EA	\$_____	\$_____		

 Name of Bidder
ITEM 21Mobilization/Demobilization at
the Cowlitz hydroelectric project

5

EA

\$ _____ \$ _____

ITEM 22Mobilization/Demobilization at
the Nisqually hydroelectric
project

5

EA

\$ _____ \$ _____

ITEM 23Mobilization/Demobilization at
the Wynoochee hydroelectric
project

5

EA

\$ _____ \$ _____

ITEM 24

*Force Account

\$ 10,000**ITEM 25**

Cost Plus Items:

Roofing Supplies /Materials

\$ 10,000 X

%

\$ _____ \$ _____

Disposal Costs

\$ 5,000 X

%

\$ _____ \$ _____

Special Equipment Rental

\$2,000 X

%

\$ _____ \$ _____

*Bidders shall include the \$ 10,000 figure as part of their overall bid.**TOTAL ITEMS 1 – 25**

(Excluding Sales Tax)

\$ _____

**Sales Tax @ _____

\$ _____

(**Note Paragraph 1.13 of General Provisions)

TOTAL AMOUNT

(Including Sales Tax)

\$ _____

Name of Bidder

PROPOSAL

NOTE TO BIDDERS

No pre-bid meeting will be held for this project. It has been determined that this specification provides sufficient information to bidders so that they may accurately provide pricing on the requested proposal items.

If additional information is required for: Technical specifications, please or General Purchasing provisions, contact Mr. Joe Parris at jparris@cityoftacoma.org; Small Business Enterprise (SBE) requirements, contact the SBE Office at 253-591-5224 and/or the Local Employment and Apprenticeship Program (LEAP) requirements, contact the LEAP office at 253-594-7933.

CONTRACTOR'S RECORD OF PRIOR CONTRACTS

NAME _____ ADDRESS _____

[illegible]

REMARKS: _____

Following is a list to be filled in by the bidder, showing equipment definitely available for use on the proposed work as required. (Give quantity, description, size or capacity, condition and present location of each item of equipment.)

[illegible]

TACOMA POWER / GENERATION SUBSTITUTION REQUEST FORM

*****This request shall be submitted to engineer listed below per Specification Submittals and Shop Drawings Section (Construction) or Substitutions Section (Supply).
Substitution requests not received by the engineer will not be considered.*****

TO: Tacoma Power/Generation
3628 South 35th Street
Tacoma WA 98409
Fax: 253-502-8136

ATTN: Jayson Lelli

Date: _____

PROJECT: PG16-0091 Annual Re-Roofing Contract

Transmittal No. _____

(Specification/Name/Contract No., if applicable)

We hereby submit for consideration, the following product instead of the specified item for the above project:

Specification Section: _____

Specified Item: _____

Proposed Substitution: _____

NOTES: Attach complete technical data, including laboratory tests and samples as applicable.

Provide a detailed comparison of the significant qualities (size, weight, durability, performance and similar characteristics, and including visual effect, where applicable) for the proposed substitution in comparison with the original requirements.

List completely, installation changes and changes to drawings and specifications required by the proposal.

FILL IN BLANKS BELOW:

A. Does substitution require change in drawing dimensions? ☐ Yes ☐ No

If yes, provide detail: _____

B. Will undersigned pay for resulting building design changes including engineering/detailing costs? ☐ Yes ☐ No

C. What effect does substitution have on other trades?

D. Difference between proposed substitution and specified item?

E. Manufacturer's guarantees of proposed and specified items are? ☐ Same ☐ Different*

*Explain differences on attachment(s).

F. Are maintenance/service parts locally (within 50 miles) available for proposed substitution? ☐ Yes ☐ No

G. Will the proposed substitution have any effect on compliance with applicable codes? ☐ Yes ☐ No

If yes, explain: _____

H. Name and address and current phone number the Project Lead for three (3) similar projects where the proposed product was used, along with the Project name and date of installation:

1. _____

2. _____

3. _____

I. Contract completion date is? _____ ☐ Same ☐ Different*

*Explain differences on attachment(s).

TACOMA POWER / GENERATION SUBSTITUTION REQUEST FORM

*****This request shall be submitted to engineer listed below per Specification Submittals and Shop Drawings Section (Construction) or Substitutions Section (Supply).
Substitution requests not received by the engineer will not be considered.*****

Undersigned attests function and quality equivalent or superior to specified item and waives their rights to additional payment and time which may subsequently be necessitated by failure of the substitution to perform adequately, and for the required work to make corrections thereof.

SUBMITTED BY:

Name

Firm

Address

City, State, Zip

Phone No.

Signature

Date

FOR USE BY TACOMA POWER:

☐ Accepted

☐ Accepted as Noted

☐ Not Accepted

☐ Received Too Late

By: _____

(Project Lead/Manager)

Signature: _____

Date: _____

REMARKS:

Herewith find deposit in the form of a cashier's check in the amount of \$_____ which amount is not less than 5-percent of the total bid.

SIGN HERE _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the City of Tacoma, as Obligee, in the penal sum of _____ dollars, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for

according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _____ DAY OF _____, 20_____.

PRINCIPAL:

SURETY:

_____, 20_____

Received return of deposit in the sum of \$ _____

SBE SPECIAL REMINDER TO ALL BIDDERS

Equal Opportunity and Small Business Enterprise forms must be fully and accurately completed and returned with the submittal by the deadline posted in the specification documents. Failure to do so may result in the proposal being considered non-responsive. These forms are necessary to determine if the bidder complies with Chapter 1.07 of the City of Tacoma Municipal Code and state law.

The following steps shall be used to determine the level of SBE Usage:

- a. The low bidder who meets the City's participation goal for SBEs, shall be presumed to have met the requirement.
- b. Otherwise, the bidder who has the lowest evaluated bid based on the formula set forth below:

$$(\text{Base Bid}) - \left[\frac{\text{SBE Usage Percentage}}{\text{SBE Goal Percentage}} \times (.05 \times \text{Low Base Bid}) \right] = \text{Evaluated Bid}$$

shall be presumed to have met the requirement and may be recommended for award.

NOTE: The ratio of SBE usage to the SBE goal in this formula above shall not exceed 1.

For the purposes of determining the Evaluated Bid, all alternates, additives, and deductives selected by the City will be added to your base bid as indicated in the proposal.

Contractors are also subject to the City's ordinances and regulations pertaining to having an affirmative action program and prohibiting discrimination. If needed, please contact the SBE Office at 253-591-5224 or 253-573-2435 for assistance. The list of SBE subcontractors is available at <http://www.cityoftacoma.org/Page.aspx?nid=136>.

SBE GOAL UTILIZATION FORM

SMALL BUSINESS ENTERPRISE REQUIREMENTS & PROCEDURES:

All bidders must complete and submit with their bid the following solicitation forms contained in the bid submittal package:

City of Tacoma – Prime contractor pre-work form

IMPORTANT NOTE:

It is the bidder's responsibility to insure that the SBE subcontractor(s) listed on the SBE Utilization Form are currently certified by the City of Tacoma at the time of bid opening. This may be verified by contacting the SBE Program Office at (253) 591-5224 between 8 AM and 5 PM, Monday through Friday. This form must have clear expression of SBE participation your company will use on this project. Ordinance 27867, passed by the City Council on December 15, 2009, establishes the overall SBE goal of 22%, except where modified through appropriate procedures. Please refer to the City of Tacoma SBE Provisions included elsewhere in these Special Provisions.

SBE GOAL: The SBE office has determined a **zero (0) SBE goal** should apply to this project. No reasonable opportunity for subcontracting exists.

For any questions or concerns, please call the SBE Program Coordinator at (253) 591-5224.

MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE SBE UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 27867.

CCD/SBE/GOAL: PG16-0091F- On-Call Roofing Spec

Date of Record: 04/14/16



City of Tacoma
Community & Economic Development
Office of Small Business Enterprise
747 Market Street, Room 900
Tacoma, WA 98402
253-591-5224 or 253-573-2435

PRIME CONTRACTOR'S PRE-WORK FORM

Company Name

Telephone

Address/City/State/Zip Code

Specification Number

Specification Title

JOB CATEGORIES SPECIFY	TOTAL EMPLOYEES		TOTAL MINORITY EMPLOYEES		BLACK		ASIAN		AMERICAN INDIAN		HISPANIC	
	M	F	M	F	M	F	M	F	M	F	M	F
Officer / Managers												
Supervisors												
Project Managers												
Office / Clerical												
Apprentices												
Trainees												
TOTALS												

CONTRACTOR'S PROJECTED WORK FORCE - THIS PROJECT

Superintendent												
Foreman												
Operators												
Laborers												
Apprentice												
Trainee												
TOTALS												

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

INSTRUCTIONS FOR COMPLETING PRIME CONTRACTOR'S PRE-WORK FORM

This form only applies to employees who will be working on this specific project.

1. "Heading" the company name and address should reflect the subcontractor actually doing business with the City of Tacoma. If this address is different from that of the Equal Employment Opportunity Officer that administers the EEO programs of the company, the Equal Employment Opportunity Officer's address should be noted in the "Comments" section at the bottom of the form. "Telephone" should contain the area code, telephone number and extension (if any) for the Equal Employment Officer or the responsible official.
2. "Job Categories" at the extreme left hand column of the form specifying "Job Categories" lists "Officials & Managers." You are to list in addition to Officials & Managers any appropriate job titles such as Sales Workers, Office/Clerical, Professionals, Technical, etc., as they apply to your own company and only as pertains to this specific project.
3. The "M" and "F" headings at the top of each column refer to "Male" and "Female."
4. The "Total Employees" column should list the total number of male employees under "M" and the total female number of female employees under "F" for each job category listed. They should be listed in a similar manner in the "Total" category at the bottom of the form. The "Total Employees" column should include all those employees listed under "Non-Minority" and "Total Minorities." "Non-Minority" should include all employees not listed in the minority columns.
5. "Total Minorities" should include all employees listed under the "Black," "Asian," "American Indian," and "Hispanic" columns. These columns should include only employees who are members of that particular minority group. Designation and definitions of ethnic/national origin status follow the instructions and definitions of the Federal EEO-1 Form of the U. S. Equal Employment Opportunity Commission.
6. "Totals" this line should reflect the total of all lines in each of the above columns.
7. The signature of your company's designated responsible official or similar official responsible for equal employment opportunity must appear in the designated space at the bottom of the form. Please PRINT OR TYPE the person's name on the top line across from the signature. This is required since some signatures are difficult to read.
8. "Comments" this section is to be used as needed for explanations to under utilization rate or lack of turnover, proposed expansion or reduction of staff or any other pertinent information you believe will help clarify or explain the data presented on the form. If you need additional space, please explain on a separate sheet of paper.
9. If you need assistance or have questions regarding the completion of this form, please call the SBE Office at 253-591-5224 or 253-573-2435



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253-591-5224 or 253-573-2435

SUBCONTRACTOR'S PRE-WORK FORM

Company Name

Telephone

Address/City/State/Zip Code

Name of Prime Contractor

Specification Number

Type of work to be performed on this project

QUESTIONS 1 and 2 BELOW REFER TO ANY FURTHER SUBCONTRACTING OF YOUR FIRM'S PORTION OF THIS PROJECT

1. What is the total number of **ALL** subcontracts to be let on this project? _____
2. What specific efforts were made by your company to obtain or assure minority and women subcontractor participation on this project?

SUBCONTRACTOR'S PRESENT WORK FORCE

JOB CATEGORIES SPECIFY	TOTAL EMPLOYEES		TOTAL MINORITY EMPLOYEES		BLACK		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE		HISPANIC	
	M	F	M	F	M	F	M	F	M	F	M	F
Officers/Managers												
Foreman												
Apprentices												
Trainees												
TOTALS												

SUBCONTRACTOR'S PROJECTED WORK FORCE - THIS PROJECT

Superintendent												
Foreman												
Operators												
Laborers												
Apprentice												
Trainee												
TOTALS												

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

INSTRUCTIONS FOR COMPLETING SUBCONTRACTOR'S PRE-WORK FORM

This form only applies to employees who will be working on this specific project.

1. "Heading" the company name and address should reflect the subcontractor actually doing business with the City of Tacoma. If this address is different from that of the Equal Employment Opportunity Officer that administers the EEO programs of the company, the Equal Employment Opportunity Officer's address should be noted in the "Comments" section at the bottom of the form. "Telephone" should contain the area code, telephone number and extension (if any) for the Equal Employment Officer or the responsible official.
2. "Job Categories" at the extreme left hand column of the form specifying "Job Categories" lists "Officials & Managers." You are to list in addition to Officials & Managers any appropriate job titles such as Sales Workers, Office/Clerical, Professionals, Technical, etc., as they apply to your own company and only as pertains to this specific project.
3. The "M" and "F" headings at the top of each column refer to "Male" and "Female."
4. The "Total Employees" column should list the total number of male employees under "M" and the total female number of female employees under "F" for each job category listed. They should be listed in a similar manner in the "Total" category at the bottom of the form. The "Total Employees" column should include all those employees listed under "Non-Minority" and "Total Minorities." "Non-Minority" should include all employees not listed in the minority columns.
5. "Total Minorities" should include all employees listed under the "Black," "Asian or Pacific Islander" (A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.), "American Indian or Alaskan Native," and "Hispanic" columns. These columns should include only employees who are members of that particular minority group. Designation and definitions of ethnic/national origin status follow the instructions and definitions of the Federal EEO-1 Form of the U. S. Equal Employment Opportunity Commission.
6. "Totals" this line should reflect the total of all lines in each of the above columns.
7. The signature of your company's designated responsible official or similar official responsible for equal employment opportunity must appear in the designated space at the bottom of the form. Please PRINT OR TYPE the person's name on the top line across from the signature. This is required since some signatures are difficult to read.
8. "Comments" this section is to be used as needed for explanations to under utilization rate or lack of turnover, proposed expansion or reduction of staff or any other pertinent information you believe will help clarify or explain the data presented on the form. If you need additional space, please explain on a separate sheet of paper.
9. If you need assistance or have questions regarding the completion of this form, please call the SBE Office at 253-591-5224 or 253-573-2435.

Chapter 1.07

SMALL BUSINESS ENTERPRISE

Sections:

- 1.07.010 Policy and purpose.
- 1.07.020 Definitions.
- 1.07.030 Discrimination prohibited.
- 1.07.040 Program administration.
- 1.07.050 Certification.
- 1.07.060 Program requirements.
- 1.07.070 Evaluation of submittals.
- 1.07.080 Contract compliance.
- 1.07.090 Program monitoring.
- 1.07.100 Enforcement.
- 1.07.110 Remedies.
- 1.07.120 Unlawful acts.
- 1.07.130 Severability.
- 1.07.140 Sunset and review of program.

1.07.010 Policy and purpose.

It is the policy of the City of Tacoma that citizens be afforded an opportunity for full participation in our free enterprise system and that historically underutilized business enterprises shall have an equitable opportunity to participate in the performance of City contracts. The City finds that in its contracting for supplies, services and public works there has been historical underutilization of small businesses located in certain geographically and economically disfavored locations and that this underutilization has had a deleterious impact on the economic well-being of the City. The purpose of this chapter is to remedy the effects of such underutilization through use of reasonably achievable goals to increase opportunities for historically underutilized businesses to participate in City contracts. It is the goal of this chapter to facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City. It is not the purpose of this chapter to provide any person or entity with any right, privilege, or claim, not shared by the public, generally, and this chapter shall not be construed to do so. This chapter is adopted in accordance with Chapter 35.22 RCW and RCW 49.60.400.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.020 Definitions.

Terms used in this chapter shall have the following meanings unless defined elsewhere in the Tacoma Municipal Code ("TMC"), or unless the context in which they are used clearly indicates a different meaning.

A. "Affidavit of Small Business Enterprise Certification" means the fully completed, signed, and notarized affidavit that must be submitted with an application for SBE certification. Representations and certifications made by the applicant in this Affidavit are made under penalty of perjury and will be used and relied upon by City to verify SBE eligibility and compliance with SBE certification and documentation requirements.

B. "Base Bid" means a Bid for Public Works to be performed or Supplies or Services to be furnished under a City Contract, including additives, alternates, deductives, excluding force accounts, and taxes collected separately pursuant to Washington Administrative Code ("WAC") 458-20-171.

C. "Bid" means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

D. "Bidder" means an entity or individual who submits a Bid, Proposal or Quote. See also "Respondent."

E. "City" means all Departments, Divisions and agencies of the City of Tacoma.

F. "Contract" means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement of Public Works and Improvements and/or Non-Public Works and Improvements Supplies and Services.

Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City. A "Contract" as used in this chapter shall include an agreement between the City and a non-profit entity to perform construction-related services for Public Works. A "Contract" does not include: (1) awards made by the City with federal/state grant or City general funds monies to a non-profit entity where the City offers assistance, guidance, or supervision on a project or program, and the recipient of the grant awards uses the grant moneys to provide services to the

community; (2) sales transactions where the City sells its personal or real property; (3) a loan transaction where the City is acting as a debtor or a creditor; (4) lease, franchise; (5) agreements to use City real property (such as Licenses, Permits and Easements) and, (6) banking and other financial or investment services.

G. “Contractor” means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

H. “Evaluated Bid” means a Bid that factors each Respondent’s Base Bid including any alternates, deductive and additives selected by the City that will result in a weighed reduction based on that Respondent’s percentage of SBE participation, as defined by formula set forth in this chapter or in the SBE Regulations adopted pursuant to this chapter.

I. “Goals” means the annual level of participation by SBEs in City Contracts as established in this chapter, the SBE Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations. Goals for individual Contracts may be adjusted as provided for in this chapter and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

J. “SBE Certified Business” (or “SBEs”) means a business that meets the criteria set forth in Section 1.07.050 of this chapter and has been certified as meeting that criteria by the Community and Economic Development Department-SBE Program Coordinator.

K. “SBE Program Coordinator” means the individual appointed, from time to time, by the City’s Community and Economic Development Director to administer the SBE Regulations.

L. “SBE Regulations” shall mean the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

M. “Lowest and Best Responsible Bidder” means the Bidder submitting the lowest Bid received that is within the range of acceptable bids, that also has the ability to timely perform the Contract bid upon considering such factors as financial resources, skills, quality of materials, past work record, and ability to comply with state, federal, and local requirements, including those set forth in the SBE Regulations.

N. “Non-Public Works and Improvements” means all competitively solicited procurement of Supplies and/or Services by the City not solicited as Public Works.

O. “Person” means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

P. “Proposal” means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

Q. “Public Works (or “Public Works and Improvements”)” means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

R. “Quote” means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal. This term may be further defined in the Purchasing Policy Manual.

S. “Respondent” means any entity or Person, other than a City employee, that provides a Submittal in response to a request for Bids, Request for Proposals, Request for Qualifications, request for quotes or other request for information, as such terms are defined in Section 1.06.251 TMC. This term includes any such entity or Person whether designated as a supplier, seller, vendor, proposer, Bidder, Contractor, consultant, merchant, or service provider that; (1) assumes a contractual responsibility to the City for provision of Supplies, Services, and/or Public Works; (2) is recognized by its industry as a provider of such Supplies, Services, and/or Public works; (3) has facilities similar to those commonly used by Persons engaged in the same or similar business; and/or (4) distributes, delivers, sells, or services a product or performs a Commercially Useful Function.

T. “Services” means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City’s Purchasing Policy Manual.

U. “Submittal” means Bids, Proposals, Quotes, qualifications or other information submitted in response to requests for Bids, Requests for Proposals, Requests for Qualifications, requests for Quotations, or other City requests for information, as such terms are defined in Section 1.06.251 TMC.

V. “Supplies” means materials, Supplies, and other products that are procured by the City through a competitive process for either Public Works procurement or Non-Public Works and Improvements procurement unless an approved waiver has been granted by the appropriate authority.

(Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.030 Discrimination prohibited.

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental or physical disability in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

B. The violation of the terms of RCW 49.60 or Chapter 1.29 TMC by any person that is engaged in the construction of public works for the City, is engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services shall result in the rebuttable presumption that the terms of this chapter have also been violated. Such violation may result in termination of any City contract the violator may have with the City and/or the violator's ineligibility for further City Contracts.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.040 Program administration.

A. The Community and Economic Development Director, or his or her designated SBE Program Coordinator, shall be responsible for administering this chapter and obtaining compliance with respect to contracts entered into by the City and/or its contractors. It shall be the duty of the Director to pursue the objectives of this chapter by conference, conciliation, persuasion, investigation, or enforcement action, as may be necessary under the circumstances. The Director is authorized to implement an administrative and compliance program to meet these responsibilities and objectives.

B. The Director is hereby authorized to adopt and to amend administrative rules and regulations known as the SBE Regulations to properly implement and administer the provisions of this chapter. The SBE Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the SBE goals set forth herein. The SBE Regulations shall become effective following public notice and an opportunity to comment by the public.

C. The SBE Regulations adopted pursuant to this section are for the administrative and procedural guidance of the officers and employees of the City and are further expressions of the public policy of the City. The SBE Regulations, when adopted, shall not confer an independent cause of action or claim for relief cognizable in the courts of the state of Washington or the United States of America to any third parties, and such provisions shall not be used as the basis for a lawsuit in any court of competent jurisdiction challenging the award of any contract by the City.

(Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.050 Certification.

A. The SBE Program Coordinator shall approve a person as a SBE Certified Business if all of the following criteria are satisfied:

1. Each person with an ownership interest in the company has a personal net worth of less than \$1,320,000 excluding one personal residence and the net worth of the business;
2. The company's total gross receipts for any consecutive three year period within the last six years is not more than \$36,500,000 for public works companies and not more than \$15,000,000 for non-public works and improvements companies;
3. The owner(s) of the company executes an Affidavit of Small Business Enterprise Certification and files it with the City which states that all information submitted on the SBE application is accurate, that the business has sought or intends to do business with the City and/or within the Pierce County area and has experienced or expects to experience difficulty competing for such business due to financial limitations that impair its ability to compete against larger firms; and
4. The company can demonstrate that it also meets at least one of the following additional requirements:
 - a. The company's business offices, or the personal residence of the owner, is located within a City of Tacoma designated Renewal Community/Community Empowerment Zone, prior to designation as a SBE, or
 - b. The company's business offices, or the personal residence of the owner, is located within the City of Tacoma for at least six months prior to designation as a SBE; or

c. The company's business offices are located in a federally designated HUBZONE in Pierce County or any adjacent county for at least 12 months prior to designation as a SBE; or

d. The company's business offices are located in a federally designated HUBZONE in a County wherein the work will be performed, or an adjacent county, for at least 12 months prior to designation as a SBE.

B. Application Process. The SBE Program Coordinator shall make the initial determination regarding certification or recertification. Each SBE applicant shall provide the following documents; as such documents are more fully described in the SBE Regulations, to the SBE Program Coordinator:

1. A completed Statement of Personal Net Worth form;
2. A completed, signed, and notarized Affidavit of Small Business Enterprise Certification that affirms compliance with the certification and documentation requirements of this section;
3. List of equipment and vehicles used by the SBE;
4. Description of company structure and owners;
5. Such additional information as the SBE Program Coordinator or designee may require.

When another governmental entity has an equivalent SBE classification process the City may enter into an interlocal cooperative agreement for mutual recognition of certifications.

C. Recertification. A SBE qualified business shall demonstrate annually to the satisfaction of the SBE Program Coordinator that the following SBE qualifications are still in effect for such business:

1. That the company still meets all of the criteria set forth in subsection 1.07.050.A. TMC, and
2. That the company has maintained all applicable and necessary licenses in the intervening period, and
3. That the company demonstrates that the owner and/or designated employees have completed the minimum annual continuing business education training requirements set forth in the SBE Regulations.

D. Appeals. The applicant may appeal any certification determination by the SBE Program Coordinator under this chapter to the Director. The appeal must be made in writing and must set forth the specific reasons for the appeal. The Director shall make a decision on the appeal request within a reasonable time, which decision shall be final unless further appeal is made to the Hearing Examiner. In that event, the Hearing Examiner Rules of Procedure for Hearings, Chapter 1.23 TMC, shall be applicable to that appeal proceeding.

(Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28147 Ex. A; passed May 7, 2013: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.060 Program requirements.

A. Establishment of Annual SBE Goals. The SBE Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of SBEs in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of SBEs in City contracts shall be based on the number of qualified SBEs operating within Pierce County or in a county that is adjacent to Pierce County or in a HUBZone in a county where the supplies, services and/or public works will be delivered or performed. The dollar value of all contracts awarded by the City to SBEs in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable SBE goal. The initial cumulative annual SBE goal for all public works, non-public works and improvements supplies and services procured by the City of Tacoma is 22 percent.

B. Revision of Annual SBE Goals. SBE utilization goals for supplies, services, and public works shall be reviewed annually to determine the total level of SBE participation reasonably attainable. If no certified SBEs are available to provide supplies, services, and/or public works, the dollar value of such supplies, services, or public works shall be exempt from the calculation of the cumulative annual goals set forth in the SBE Regulations. Proposed reduction of the cumulative annual SBE goals shall be in accordance with the SBE Regulations.

C. Application of SBE Goals to Contracts. The SBE Program Coordinator shall consult with City departments/divisions to establish the SBE goal for competitively solicited contracts of \$25,000 and above, in accordance with this chapter and the SBE Regulations. No SBE goal will be established if no certified SBEs are available to provide supplies, services and/or public works.

D. Waivers. City departments/divisions or the SBE Program Coordinator may request to waive one or more of the requirements of this chapter as they apply to a particular contract or contracts. Waivers may be granted in any one or more of the following circumstances:

1. Emergency: The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency and waiver must be documented by the department/division awarding the contract.
2. Not Practicable: Compliance with the requirements of this chapter would impose an unwarranted economic burden or risk to the City after consideration of existing budgetary approvals.
3. Sole source: The supplies, services, and/or public works are available from only one source, and subcontracting possibilities do not reasonably exist as determined by the finance purchasing manager.
4. Government purchasing. The City is a party to or included in a federal, state or inter-local government purchasing agreement as approved by the finance purchasing manager.
5. Lack of SBEs: An insufficient number of qualified SBE contractors exist to create SBE utilization opportunities.
6. Best interests of the City: Waiver of SBE goals is in the best interests of the City due to unforeseen circumstances, provided that said circumstances are set forth in writing by the requestor.

E. Review of Waivers. A waiver determination by the finance purchasing manager may be reviewed by the Board of Contracts and Awards (C&A Board). The C&A Board may also review a request to reduce or waive the SBE utilization goals based on Not Practicable or Best Interests of the City circumstances. The C&A Board shall determine whether compliance with such goals would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance. If the determination of the C&A Board does not resolve the matter, a final determination shall be made by the City Council or Public Utility Board, as the case may be.

(Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.070 Evaluation of submittals.

A. All submittals for a supplies, services, or public works and improvements contract valued at \$25,000 or more shall be evaluated for attainment of the SBE goal established for that contract in accordance with this chapter and the SBE Regulations.

B. The determination of SBE usage and the calculation of SBE goal attainment per this section shall include the following considerations:

1. General. The dollar value of the contract awarded by the City to a SBE in the procurement of supplies, services, or public works shall be counted toward achievement of the SBE goal.
2. Supplies. A public works and improvements contractor may receive credit toward attainment of the SBE goal for expenditures for supplies obtained from a SBE; provided such SBE assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the SBE goal for the amount of the commission paid to a SBE resulting from a supplies contract with the City; provided the SBE performs a commercially useful function in the process.
3. Services and Public Works subcontracts. Any bid by a certified SBE or a bidder that utilizes a certified SBE shall receive credit toward SBE goal attainment based on the percentage of SBE usage demonstrated in the bid. A contractor that utilizes a SBE-certified subcontractor to provide services or public works shall receive a credit toward the contractor's attainment of the SBE goal based on the value of the subcontract with that SBE.
4. Brokers, Fronts, or Similar Pass-Through Arrangements. SBEs acting as brokers, fronts, or similar pass-through arrangements (as such terms are defined in the SBE Regulations) shall not count toward SBE goal attainment unless the activity reflects normal industry practices and the broker performs a commercially useful function.

C. Evaluation of competitively solicited submittals for public works and improvements and for services when a SBE utilization goal has been established for the contract to be awarded shall be as follows:

1. When contract award is based on price. The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the SBE goal. Such low bid shall be determined to meet the SBE goal if the bidder is a certified SBE.

a. If the low bidder meets the SBE goal, the bid shall be presumed the lowest and best responsible bid for contract award.

b. If the lowest priced bid does not meet the SBE goal, but the bid of any other responsive and responsible bidder does, and such other bid(s) is or are priced within five percent of the lowest bid, then the following formula shall be applied to each such other bid:

$$(\text{Base Bid}) \left[\frac{\text{SBE Usage Percentages}}{\text{SBE Goal Percentages}} \right] \times (.05 \times \text{Low Base Bid}) = \text{Evaluated Bid}$$

c. The lowest evaluated bid after applying said evaluation formula shall be presumed the lowest and best responsible bid for contract award.

d. In no event shall a bidder's evaluated bid price be adjusted more than 5 percent from its base bid price for purposes of contract award.

2. When contract award is based on qualifications or other performance criteria in addition to price. Solicitations shall utilize a scoring system that promotes participation by certified SBEs. Submittals by respondents determined to be qualified may be further evaluated based on price using the formula applicable to price based contract awards above. The SBE Regulations may establish further requirements and procedures for final selection and contract award, including:

- a. Evaluation of solicitations for Architectural and Engineering (A&E) services;
- b. Evaluation and selection of submittals in response to requests for proposals; and
- c. Selection of contractors from pre-qualified roster(s).

D. Evaluation of competitively solicited submittals for supplies when no SBE utilization goal has been established for the contract to be awarded shall encourage SBE participation as follows:

1. A submittal from a responsive certified SBE that is priced within five percent of the otherwise lowest responsive bid shall be recommended for award. Otherwise, the lowest responsive bidder shall be recommended for contract award.

E. The SBE Regulations may establish further SBE goal evaluation requirements and procedures for award of contracts between \$5,000 and \$25,000.00 and for non-competitively solicited contracts. City departments/divisions shall use due diligence to encourage and obtain SBE participation for supplies, services, and public works contracts under \$5,000.

(Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.080 Contract compliance.

A. The contractor awarded a contract based on SBE participation shall, during the term of the contract, comply with the SBE goal established in said contract. To ensure compliance with this requirement following contract award, the following provisions apply:

1. Any substitutions for or failure to utilize SBEs projected to be used must be approved in advance by the SBE Program Coordinator. Substitution of one SBE with another shall be allowed where there has been a refusal to execute necessary agreements by the original SBE, a default on agreements previously made or other reasonable excuse; provided that the substitution does not increase the dollar amount of the bid.
2. Where it is shown that no other SBE is available as a substitute and that failure to secure participation by the SBE identified in the solicitation is not the fault of the respondent, substitution with a non-SBE shall be allowed; provided, that, the substitution does not increase the dollar amount of the bid.
3. If the SBE Program Coordinator determines that the contractor has not reasonably and actively pursued the use of replacement SBE(s), such contractor shall be deemed to be in non-compliance.

B. Record Keeping. All contracts shall require contractors to maintain relevant records and information necessary to document compliance with this chapter and the contractor's utilization of SBEs, and shall include the right of the City to inspect such records.

(Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.090 Program monitoring.

A. The SBE Program Coordinator shall monitor compliance with all provisions of this chapter and the SBE Regulations. The SBE Program Coordinator shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to

eliminate the effects of under utilization in City contracting. The SBE Program Coordinator shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

B. The SBE Program Coordinator shall submit an annual report to the Community and Economic Development Director, Director of Utilities, and the City Manager detailing performance of the program. The report shall document SBE utilization levels, waivers, proposed modifications to the program, and such other matters as may be specified in the SBE Regulations.

(Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.100 Enforcement.

The Director, or his or her designee, may investigate the employment practices of contractors to determine whether or not the requirements of this chapter have been violated. Such investigation shall be conducted in accordance with the procedures established in the SBE Regulations.

(Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.110 Remedies.

A. Upon receipt of a determination of contractor violation by the SBE Program Coordinator, the City Manager or Director of Utilities, as appropriate, may take the following actions, singly or together, as appropriate:

1. Forfeit the contractor's bid bond and/or performance bond;
2. Publish notice of the contractor's noncompliance;
3. Cancel, terminate, or suspend the contractor's contract, or portion thereof;
4. Withhold funds due contractor until compliance is achieved; and/or
5. Recommend appropriate action including, but not limited to, disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC;

B. Prior to exercise of any of the foregoing remedies, the City shall provide written notice to the contractor specifying the violation and the City's intent to exercise such remedy or remedies. The notice shall provide that each specified remedy becomes effective within ten business days of receipt unless the contractor appeals said action to the Hearing Examiner pursuant to Chapter 1.23 TMC.

C. When non-compliance with this chapter or the SBE Regulations has occurred, the SBE Program Coordinator and the department/division responsible for enforcement of the contract may allow continuation of the contract upon the contractor's development of a plan for compliance acceptable to the Director.

(Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.120 Unlawful acts.

It shall be unlawful for any Person to willfully prevent or attempt to prevent, by intimidation, threats, coercion, or otherwise, any Person from complying with the provisions of this chapter.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.130 Severability.

If any section of this chapter or its application to any Person or circumstance is held invalid by a court of competent jurisdiction, then the remaining sections of this chapter, or the application of the provisions to other Persons or circumstances, shall not be affected.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.140 Sunset and review of program.

This chapter shall be in effect through and until December 31, 2019, unless the City Council shall determine at an earlier date that the requirements of this chapter are no longer necessary. If this chapter has not been repealed by July 1, 2019, the City Council shall determine by the end of that year whether substantial effects or lack of opportunity of SBEs remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

(Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)



City of Tacoma - Finance Department

RETURN CERTIFICATE TO:
Purchasing Division
P.O. Box 11007
Tacoma, WA 98411-0007
253-502-8468 / FAX 253-502-8372

INSURANCE CERTIFICATE REQUIREMENTS

Please furnish the Purchasing Division with a Certificate of Insurance with the following liability limits based on the contract amount:

CONTRACT AMOUNT

\$ 25,000 and Under

\$500,000 and Under

Over \$500,000

LIABILITY LIMITS

\$ 500,000 Combined Single Limit

\$1,000,000 Per Occurrence / \$2,000,000 Aggregate

\$5,000,000 Total Coverage

- A. Umbrella excess liability may be used to reach the limits stated above. Coverage must include:
1. Comprehensive General Liability
 2. Automobile Liability - Hired and Non-Owned
 3. Contractual Coverage
 4. Broad Form Property Damage
 5. Underground Explosion and Collapse Hazard (if necessary by the nature of the work)
 6. Any additional coverage specifically required by the City's specification
- B. The following general requirements apply:
1. Insurance carrier must be authorized to do business in the State of Washington.
 2. Coverage must include personal injury, protective and employer liability.
 3. Contractor must provide with the certificate (a) evidence of the amount of any deductible or self-insured retention under the policy, and (b) policy endorsement(s) that verify compliance with the additional insured and the primary/non-contributory requirements specified in Section C. 1 and C. 2. below.
 4. It is the contractor's responsibility to keep an up-to-date Certificate of Insurance on file with the City throughout the contract.
 5. Contractor's insurance must be primary and non-contributory over any insurance the City may maintain, that is, any such City insurance shall be excess to limits stated in the certificate.
- C. The following statements are required on the Certificate of Insurance:
1. *"The City of Tacoma is named as an additional insured" ("as respects a specific contract" or "for any and all work performed with the City" may be included in this statement).*
 2. *"This insurance is primary and non-contributory over any insurance or self-insurance the City may have" ("as respects a specific contract" or "for any and all work performed with the City" may be included in this statement).*
 3. *"Should any of the above described policies be canceled before the expiration date thereof, the issuing company will mail 30 days written notice to the Certificate Holder named." Language such as, "endeavor to" mail and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representative" is not acceptable and must be crossed out. See example below.*

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
The below listed certificated holder is added as an additional insured as respects any and all work performed with the City (or as respects project _____). This insurance is primary over any insurance or self-insurance the City may have for any and all work performed with the City (or as respects project _____).

CERTIFICATE HOLDER

ADDITIONAL INSURED; INSURER LETTER: _____

CANCELLATION

CITY OF TACOMA
PO BOX 11007
TACOMA WA 98411-0007

"Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice to the certificate holder named to the left, but failure to do so shall impose no obligation or liability of any kind upon the company, its agents or representatives."

TACOMA PUBLIC UTILITIES CONTRACTOR'S WORK HAZARD ANALYSIS REPORT

for

(Project Name)

The contractor and his/her subcontractors shall thoroughly review the scope of work described in the proposed project drawings and specifications. Following the review, the contractor will be responsible to indicate below any known or potential safety issues or phases of construction that may require specific safety procedures as identified by WISHA or OSHA regulations, and/or prudent construction practices; i.e., shoring, fall protection, scaffolding, hazardous materials, etc.

Failure to list and comply with safety requirements will be cause for disqualification from future Utilities contracts. A copy of this report shall be posted at the job site at all times.

If, during the course of construction, other safety requirements are identified, they will be added to this report as an addendum. The contractor will be required to adhere to the recommended actions and/or controls identified in the addendum.

SAFETY ISSUES/CONCERNS*	HAZARDS	RECOMMENDED ACTION AND/OR CONTROLS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*USE A SEPARATE SHEET IF MORE ROOM IS NEEDED

Contractor Name and Title

Date

Job Site Superintendent

Date

Company Officer Signature



PERFORMANCE BOND TO THE CITY OF TACOMA

Resolution No.
Bond No.

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, _____

as principal, and _____

a corporation organized and existing under the laws of the State of _____

as a surety corporation, and qualified under the laws of the State of Washington to become surety upon bonds of contractors with municipal corporations, as surety, are jointly and severally held and firmly bound to the CITY OF TACOMA in the penal sum of \$ _____, for the payment of

which sum on demand we bind ourselves and our successors, heirs, administrators or personal representatives, as the case may be.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

Dated at Tacoma, Washington, this _____ day of _____, 20_____.

Nevertheless, the conditions of the above obligation are such that:

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a certain contract, providing for

Specification No.: _____

Specification Title: _____

Contract No: _____

(which contract is referred to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, or is about to accept, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth;

NOW, THEREFORE, if the said _____ shall faithfully perform all of the provisions of said contract in the manner and within the time therein set forth, or within such extensions of time as may be granted under said contract, and shall pay all laborers, mechanics, subcontractors and materialmen; the claims of any person or persons arising under the contract to the extent such claims are provided for in RCW 39.08.010; the state with respect to taxes imposed pursuant to Titles 50, 51, and 82 RCW which may be due; and all persons who shall supply said principal or subcontractors with provisions and supplies for the carrying on of said work, and shall indemnify and hold the City of Tacoma harmless from any damage or expense by reason of failure of performance as specified in said contract or from defects appearing or developing in the material or workmanship provided or performed under said contract after its acceptance thereof by the City of Tacoma and all claims filed in compliance with Chapter 39.08, RCW are resolved, then and in that event this obligation shall be void; but otherwise it shall be and remain in full force and effect.

Approved as to form:

Principal:

City Attorney

By: _____

Surety:

By: _____

Agent's Name: _____

Agent's Address: _____

Resolution No.
Contract No.

THIS AGREEMENT made and entered into in triplicate by and between the City of Tacoma, a Municipal Corporation hereinafter called the "City", and

Enter vendor name _____ herein after called the "Contractor."

WITNESSETH:

That in consideration of the terms and conditions contained herein and attached and made a part of this Agreement, the Parties hereto covenant and agree as follows:

- I. The Contractor shall do all work and furnish all tools, materials, and equipment in accordance with and as described herein and in the attached plans, drawings, and the below referenced Specifications of the City of Tacoma included in the solicitation of Bids for this Agreement, which are by this reference incorporated herein and made a part hereof, and shall perform any alteration in or additions to the work provided under this Agreement and every part thereof.

Specification No. enter spec number

Project: enter spec name

Contract Total: \$, Select applicable tax information

The Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work provided for in this Agreement and every part thereof, except such as are mentioned in the Specifications to be furnished by the City of Tacoma.

- II. The Contractor acknowledges, and by signing this Agreement agrees, that the Indemnification provisions set forth in the Specifications, including the Industrial Insurance immunity waiver (if applicable), are totally and fully part of this Agreement and, within the context of the competitive bidding laws, have been mutually negotiated by the Parties hereto.
- III. The Contractor, for him/herself, and for his/her heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of the Contractor.
- IV. It is further provided that no liability shall attach to the City by reason of entering into this Agreement, except as expressly provided herein.
- V. The Contractor agrees to accept as full payment hereunder the amounts specified in the Submittal, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified in said Submittal and in the attached plans, drawings, and Specifications.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed, with an effective date for bonding purposes of Enter date day of Enter month, 20year.

CITY OF TACOMA:

PRINCIPAL: Enter vendor name

By: _____
Title of dept or div staff w/auth to sign for this \$ amt

By: _____
Signature

By: _____
Select one (for contract totals over \$50K or NA)

Printed Name _____

By: _____
Director of Finance

Title

APPROVED AS TO FORM:

By: _____
City Attorney

**TACOMA POWER, GENERATION SECTION
CONTRACTOR PERFORMANCE REVIEW
(FOR INTERNAL RECOMMENDATION PURPOSES)**

Project:		Spec. #
Location:	Contractor: (Use separate sheet for each sub-contractor)	
Engineer:	Inspector:	

EVALUATION

Rate Each Area:	EXCELLENT - 3	GOOD - 2	ACCEPTABLE - 1	INADEQUATE - 0
-----------------	---------------	----------	----------------	----------------

- | | |
|---|--|
| _____1. Safety | _____7. Quality of Supervisor |
| _____2. Quality of Work | _____8. Site Management |
| _____3. Overall Rating | _____9. Adequate Equipment |
| _____4. Communication/Coordination
on Site | _____10. Adequate Personnel |
| _____5. Communication/Coordination
with Office | _____11. Was Project Completed
on Time (Y/N) |
| _____6. Supervision on Site | _____12. Would You Recommend
this Contractor Work
for Us Again (Y/N) |

[illegible]

Input by _____ Review No. _____ Date _____

GENERAL RELEASE TO THE CITY OF TACOMA

The undersigned, named as the contractor in a certain agreement between (CONTRACTOR) and the City of Tacoma, dated _____ 20____, hereby releases the City of Tacoma, its departmental officers, employees, and agents from any and all claim or claims known or unknown, in any manner whatsoever, arising out of, or in connection with, or relating to said contract, excepting only the equity of the undersigned in the amount now retained by the City of Tacoma under said contract, to-wit: the sum of \$ _____

Signed at Tacoma, Washington this _____ day of _____, 20____.

Contractor

By _____
Title _____

**NOTE: ORIGINAL RELEASE WILL BE
MAILED TO THE CONTRACTOR
AT THE END OF THIS PROJECT**

LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP) INSTRUCTIONS AND GOAL FORM

**Exception effective on projects advertised after 07-10-09*

***Exceptions effective on projects advertised after 05-17-13*

LEAP REQUIREMENTS & PROCEDURES:

LEAP is a post-award mandatory requirement. Bidders do not have to submit any information in the bid submittal package to be in compliance with LEAP.

Post-award Submittals:

- ***Prime Contractor LEAP Utilization Plan.* This form is to be completed and presented at the Pre-Construction Meeting.**
- ***LEAP Employee Verification Form.* This form is to be completed for every qualifying LEAP employee.**

LEAP is a mandatory City of Tacoma Program that requires the Prime Contractor performing a qualifying public works project to ensure that 15 percent of the total labor hours worked on the project are performed by Pierce County apprentices approved by the Washington State Apprenticeship Council (SAC) and/or residents of Tacoma (see *Exceptions and **Exceptions). The 15% labor hour goal is described as the LEAP Utilization Goal (LUG). A mandatory sub goal requires the prime contractor to ensure that 25% of the LUG is performed by residents of the City of Tacoma's "Community Empowerment Zone". Compliance may be met through any combination of utilizing LEAP-Qualified residents of Tacoma or SAC apprentices, youth and/or veterans. The accompanying LEAP Regulations, forms, maps and street addresses are included in these specifications.

***Exceptions: If the project is located within the Tacoma Power Hydro Project Areas, then 25% of the LUG may be satisfied by a Resident of the Tacoma Power Hydro Project Area where the work is performed. If the project is located within the Tacoma Water Green River Headworks or Watershed Area, then 25% of the LUG may be satisfied by a Resident of the Duwamish and White River Community Empowerment Zone (CEZ) or by a King County Apprentice.**

****Exceptions: If the project is advertised after 05-17-13, the Target Areas have been excluded and local Youth and Veterans have been added – refer to LEAP Regulations.**

The Project Engineer, in consultation with the LEAP Coordinator, develops the required LUG to be performed for each qualifying contract. The LUG for this project is 15% of the total construction labor hours.

LEAP can assist contractors in the recruitment, screening and selection of qualified City of Tacoma residents interested in a career in the building and construction trades. Contractors may obtain further information by contacting the City's LEAP Office at (253) 594-7933 or (253) 591-5826. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, WA 98402. www.cityoftacoma.org/leap

CITY OF TACOMA

Local Employment and Apprenticeship Training Program (LEAP) Regulations For Public Works Contracts

I. PURPOSE

A. Objective. The Local Employment and Apprenticeship Training Program has been adopted to counteract economic and social ills which accompany high rates of unemployment within the City of Tacoma ("City"). The City Council established this Local Employment and Apprenticeship Training Program ("LEAP") for Public Works Contracts pursuant to Resolution No. 33649, adopted March 18, 1997. The primary goal of this Program is to provide an opportunity for City of Tacoma and Community Empowerment Zone residents to enter Apprenticeship Programs, acquire skills, and perform work that will provide living wages. The purpose of these rules is to establish policies governing the implementation of the LEAP Program.

B. Authority. These Regulations are adopted pursuant to Tacoma Municipal Code (TMC) Chapter 1.90, as amended, which authorizes the adoption of Rules and Regulations to implement the City of Tacoma's Local Employment and Apprenticeship Training Program.

C. Conflict. In the event of a conflict between these Regulations and TMC Chapter 1.90, as amended, then said chapter shall control.

II. DEFINITIONS

As used herein, the following terms shall have the following meanings:

A. "Apprentice" shall mean a person enrolled in a course of training specific to a particular construction trade or craft, which training shall be approved by the Washington State Apprenticeship and Training Council established pursuant to RCW 49.04.010.

B. "Building Projects" shall mean all Public Works or Improvements having an Estimated Cost greater than \$750,000, and for which a building permit must be issued pursuant to Chapter 1 of the current edition of the state building code (Uniform Building Code).

C. "City" shall mean all divisions and departments of the City of Tacoma, and all affiliated agencies, provided, however, that the Tacoma Community Redevelopment Authority shall not be included within this definition.

D. "Civil Projects" shall mean all Public Works or Improvements that are not defined as a "Building Project," provided that those projects having an Estimated Cost of less than \$250,000 shall not be included in this definition.

E. "Contractor or Service Provider" means a person, corporation, partnership, or joint venture entering into a contract with the City of Tacoma to construct a Public Work or Improvement.

F. "Director" shall mean the Director of Community and Economic Development or the Director's Designee.

G. "Electrical Utility" shall mean the Light Division of the Department of Public Utilities of the City of Tacoma, and shall include the electrical and telecommunications services of that Division.

H. "Estimated Cost" shall mean the anticipated cost of a Public Work or Improvement, as determined by the City, based upon the expected costs of materials, supplies, equipment, and labor, but excluding taxes and contingency funds.

I. "Estimated Labor Hours" shall mean the anticipated number of Labor Hours determined by the City to be necessary to construct a Public Work or Improvement and set forth in the specifications for the project, or as may be subsequently revised due to contract or project adjustment, or pursuant to an agreed upon change order.

J. "Existing Employee" shall mean an employee whom the Contractor or Service Provider can demonstrate was actively employed by the Contractor or Service Provider for at least 1000 hours in the calendar year prior to bid opening plus one month following bid opening, and who was performing work in the construction trades.

K. "Labor Hours" shall mean the actual number of hours worked by workers receiving an hourly wage who are employed on the site of a Public Work or Improvement, and who are subject to state or federal prevailing wage requirements. The term "Labor Hours" shall include hours performed by workers employed by the Contractor or Service Provider and all Subcontractors, and shall include additional hours worked as a result of a contract or project adjustment or pursuant to an agreed upon change order. The term "Labor Hours" shall not include hours worked by workers who are not subject to the prevailing wage requirements set forth in either RCW 39.12 or the Davis-Bacon Act - 40 U.S.C. 276 (a). **L.** "LEAP Program" or "Program" shall mean the City of Tacoma's Local Employment and Apprenticeship Training Program, as described herein.

M. "Pierce County Apprentice" shall mean any person, not defined as a Resident of the Community Empowerment Zone or Resident of Tacoma, who continues to occupy a dwelling within the boundaries of Pierce County, has a present intent to continue residency within the boundaries of Pierce County, who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature, and who is enrolled in a course of training specific to a particular construction trade or craft, which training shall be approved by the Washington State Apprenticeship and Training Council established pursuant to RCW 49.04.010.

N. "Project Engineer" shall mean the City employee who directly supervises the engineering or administration of a particular construction project subject to this chapter.

O. "Public Work or Improvement" shall have the same meaning as provided in Section 39.04.010 RCW, as that Section may now exist or hereafter be amended.

P. "Community Empowerment Zone" (CEZ) shall mean that portion of those census tracts which are situated within the City of Tacoma and designated by the State of Washington as entitled to receive tax incentives because of high levels of poverty and unemployment. (See Figure 1)

Q. "Resident of the Tacoma Power Hydro Project Areas" shall mean any person who continues to occupy a dwelling within the boundaries of the Cowlitz, Cushman, Wynoochee, and Nisqually Hydroelectric projects, as defined herein, which are located in Lewis, Mason, Grays Harbor, Pierce and Thurston counties, has a present intent to continue residency within the boundaries of the Tacoma Power Hydro Project Areas, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

R. "Resident of Community Empowerment Zone" (CEZ resident) shall mean any person who continues to occupy a dwelling within the boundaries of the Community Empowerment Zone, has a present intent to continue residency within the boundaries of the Community Empowerment Zone, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature; provided, however, that an individual initially certified as a CEZ resident and is no longer a CEZ resident, shall retain such certification status for a period of up to 2 years or 1000 Labor Hours worked from the date of initial certification, whichever is less, and such certification shall be recognized for any Civil Project, Building Project, or Service Contract covered by this chapter for said certification period. For example, if an individual initially certified as a CEZ resident on January 1 of calendar year 1 on project A works 900 hours in that calendar year on project A, and is thereafter hired to work 700 hours in year 2 on project B, the individual will retain his or her CEZ status for all hours worked on project B; provided, if the individual commences work on project C after he or she has worked 100 or more hours on project B in year 2, the Contractor for project C

will not be eligible to count the hours worked by said individual as hours worked by a CEZ resident.

S. "Resident of Tacoma" shall mean any person, not defined as a Resident of the Community Empowerment Zone, who continues to occupy a dwelling within the boundaries of the City of Tacoma, has a present intent to continue residency within the boundaries of the City, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

U. "Seattle's (City of) Duwamish and White Center Community Empowerment Zone" (CEZ) shall mean that portion of those census tracts which are situated within the City of Seattle and designated by the State of Washington as entitled to receive tax incentives because of the high levels of poverty and unemployment. (See Figure 2)

V. "Service Area - Electrical" or "Electrical Service Area" shall mean that area served with retail sales by the Electrical Utility of the City of Tacoma at the time a bid is published by the Electrical Utility for a Public Work or Improvement to be performed primarily for the Electrical Utility. (See Figure 3)

W. "Service Area - Water" or "Water Service Area" shall mean that area served with retail sales by the water utility of the City of Tacoma at the time a bid is published by the water utility for a Public Work or Improvement to be performed primarily for the water utility. (See Figure 4)

X. "Service Contract" shall mean all City contracts relating to a Public Work or Improvement which utilize labor at a City site and which are not within the exceptions to nor defined as "Building Projects" or "Civil Projects."

Y. "Subcontractor" means a person, corporation, partnership, or joint venture that has contracted with the Contractor or Service Provider to perform all or part of the work to construct a Public Work or Improvement by a Contractor.

Z. "Tacoma Apprentice" shall mean any person who continues to occupy a dwelling within the boundaries of the City of Tacoma, has a present intent to continue residency within the boundaries of the City of Tacoma, who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature, and who is enrolled in a course of training specific to a particular construction trade or craft, which training shall be approved by the Washington State Apprenticeship and Training Council established pursuant to RCW 49.04.010.

AA. "Tacoma Power Hydro Project Areas" shall mean those areas within the boundaries of the Cowlitz, Cushman, Wynoochee, and Nisqually Hydroelectric projects, which are located in Lewis, Mason, Grays Harbor, Pierce and Thurston counties.

BB. "Tacoma Water's Green River Headworks and Watershed Area" shall mean that area in King County that is served with retail sales by the water utility of the City of Tacoma at the time a bid is published by the water utility for a public work or improvement to be performed primarily for the water utility." (See Figure 5)

AAA. "Tacoma Youth Resident" shall mean any person, not defined as a Resident of the Community Empowerment Zone, between the ages of 18-24 who continues to occupy a dwelling within the boundaries of the City of Tacoma, has a present intent to continue residency within the boundaries of the City, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

BBB. "Pierce County Youth" shall mean any person, not defined as a Resident of the Community Empowerment Zone or Tacoma Youth between the ages of 18-24 who continues to occupy a dwelling within the boundaries of Pierce County, has a present intent to continue residency within the boundaries of Pierce County, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

CCC. "Tacoma Veteran" shall mean any person, not defined as a Resident of the Community Empowerment Zone or Tacoma Youth who served for any length of time in any military service branch and who continues to occupy a dwelling within the boundaries of City of Tacoma, has a present intent to continue residency within the boundaries of the City of Tacoma, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

DDD. "Pierce County Veteran" shall mean any person, not defined as a Resident of the Community Empowerment Zone, Tacoma Youth or Pierce County Youth, who served for any length of time in any military service branch and who continues to occupy a dwelling within the boundaries of Pierce County, has a present intent to continue residency within the boundaries of Pierce County, and who demonstrates the genuineness of that intent by producing evidence that the person's presence is more than merely transitory in nature.

III. LEAP goals

A. Utilization Goals.

1. All Contractors constructing Civil Projects or Building Projects, and all Service Providers involved with the construction of a Public Work or Improvement, shall ensure that the lesser of at least 15 percent of the total Labor Hours actually worked on the Project, or 15 percent of the Estimated Labor Hours, are performed by persons having their residence within the boundaries of the City of Tacoma, whether or not an Apprentice, or by Apprentices, who are residents of Pierce County, unless as adjusted

per subsection B below.

2. Twenty-five percent (25%) of the Labor Hours or Estimated Labor Hours identified as the LEAP Utilization Goal above shall have work performed by a CEZ Resident; provided, however, that the Utilization Goal Estimated Labor Hours are subject to adjustment as provided in subsection B below.

3. If the Project is located within the Tacoma Power Hydro Project Areas, then the additional 25% of the Labor Hours or Estimated Labor Hours identified as the LEAP Utilization Goal above in subsection A.2 may be work performed by a Resident of the Tacoma Power Hydro Project Areas in which the Building Project, Civil Project or Service Contract is located; provided however, that the Utilization Goal Estimated Labor Hours are subject to adjustment as provided in this section.

4. If the Project is within the Tacoma Water Green River Headworks and Watershed Area, then the additional 25% requirement of the Labor Hours or Estimated Labor Hours identified in subsection A.2 above as the LEAP Utilization Goal may be work performed by Apprentices who reside in King County, or by a Resident of the Duwamish and White Center CEZ or of Tacoma Water Green River Headworks and Watershed Area in which the Building Project, Civil Project or Service Contract is located; provided however, that the Utilization Goal Estimated Labor Hours are subject to adjustment as provided in this section.

5. All Contractors and Service Providers shall submit a LEAP Utilization Plan as provided for in the regulations adopted under this chapter, and shall meet with the LEAP Coordinator to review said Plan prior to being issued a Notice to Proceed. Failure to submit a LEAP Utilization Plan may be grounds for the City to withhold remittance of a progress payment until such Plan is received from the responsible Contractor or Provider. A meeting with the LEAP Coordinator prior to issuance of a Notice to Proceed shall be excused only when the LEAP Coordinator is unavailable to meet prior to the scheduled date for issuance of the Notice to Proceed and the Contractor and the LEAP Coordinator have otherwise scheduled a meeting for the coordinator to review the Contractor's or Provider's plan.

The Contractor or Service Provider shall be responsible for meeting the LEAP utilization goal requirements of the contract, including all amendments and change orders thereto, and shall be responsible for overall compliance for all hours worked by Subcontractors. To the extent possible, the Contractor or Service Provider shall recruit Apprentices from multiple trades or crafts.

B. Adjustments.

Contractors and Service Providers may achieve compliance with their LEAP Utilization Goal obligation through any combination of the following:

1. The number of hours worked by a Resident of the CEZ or Seattle's Duwamish and White Center CEZ shall be multiplied by two;

2. The number of hours worked by a Tacoma Youth, Tacoma Veteran, or Tacoma Apprentice shall be multiplied by 1.5;

3. The number of hours worked by a Resident of Tacoma or a King County Apprentice shall be multiplied by 1;

4. The number of hours worked by a Tacoma Power Hydro Project Areas Resident shall be multiplied by 1.

5. Should the Contractor or Service Provider be unable to satisfy the sub-utilization goal requirement that 25 percent of the utilization goal hours be worked by CEZ Residents, the Contractor or Service Provider shall cure such deficiency by achieving a 2 for 1 ratio of hours worked by a Pierce County Apprentice, Pierce County Youth, Pierce County Veteran, Tacoma Power Hydro Project Areas Resident, or Resident of Tacoma, for every unmet, CEZ labor hour until the CEZ deficiency is met. For example, if a Contractor has a total LEAP utilization goal of 20 hours, but is only able to achieve 4 of the 5 sub goal labor hours, then the Contractor must achieve a total of 17 non-CEZ Resident, labor hours to satisfy the deficiency (15 non-sub goal hours plus 2 labor hours for the 1 missed sub goal hour).

6. For projects in the Tacoma Water Green River Headworks and Watershed Area, should the Contractor or Service Provider be unable to satisfy the sub-utilization goal requirement that 25 percent of the utilization goal hours be worked by King County Apprentices or Duwamish and White Center CEZ residents, the Contractor or Service Provider shall cure such deficiency by achieving a 2 for 1 ratio of hours worked by a King County Apprentice, or Duwamish and White Center CEZ resident for every unmet, Duwamish and White Center CEZ resident or King County Apprentice labor hour until the deficiency is met.

C. Failure to Meet Utilization Goal.

1. Contracts for the construction of Building projects or Civil projects and Service Contracts shall provide that Contractors or Service Providers failing to meet the LEAP utilization goals shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the extent the Contractor or Service Provider met its goal. The amount per hour that shall be assessed shall be as follows:

Percent of Goal Met	Assessment per unmet hour
100%	\$ 0.00
90% - 99%	\$ 2.00
75% to 89%	\$ 3.50
50% to 74%	\$ 5.00
1% to 49%	\$ 7.50
0%	\$10.00

When determining the percent of goal that is met, all rounding shall be down to the nearest whole percent. No penalty shall be waived by the City unless it is determined by the Human Resources Director to be in the best interests of the City, which determination shall be made after consultation with the LEAP Coordinator.

Waiver requests shall be considered due to natural disasters, labor workforce shortages or any other reasonable consideration, on a case-by-case basis. Such request shall be made by the Contractor or Service Provider at the earliest point at which the Contractor or Service Provider knows that it will fail to meet the LEAP utilization goal and prior to the release of retainage.

2. Deposit of Assessments. All assessments imposed pursuant to this section shall be deposited into a separate account and utilized to support the City's pre-apprenticeship and training program.

D. LEAP Reports.

Notwithstanding the provisions of TMC 1.90.100, the Director shall, not less than annually, publish a LEAP report setting forth Contractor compliance with this chapter. Said report shall include information on all contracts and all Contractors to which this chapter applies, and shall detail the level and nature of LEAP participation by contract and by Contractor. The Director's LEAP report may include such other information as may be helpful to assuring fair and accurate representation of the contracts, Contractors or projects covered in the report. The Director's LEAP reports may be considered by the Board of Contracts and Awards in its determinations as to bidder responsibility.

E. LEAP Goal Adjustments.

1. LEAP utilization goals may be adjusted prior to bid opening and/or as a result of a contract amendment or change order on a Building Project, Civil Project, or Service Contract.

a. If LEAP utilization goals are adjusted prior to bid opening, they shall be set forth in the bid or Request For Proposal advertisement and specification documents or in an addendum timely provided to prospective bidders, provided that such adjustment shall be based upon a finding by the Project Engineer that the reasonable and necessary requirements of the contract render LEAP utilization unfeasible at the

required levels. The Director shall concur with the Project Engineer's finding, provided that should the Project Engineer and the Director fail to reach agreement on the Project Engineer's finding, then in that circumstance the matter shall be referred to the City Manager or the Director of Utilities, as appropriate, for ultimate resolution. Notwithstanding any other provision of this chapter to the contrary, the decision of the City Manager or the Director of Utilities with regard to LEAP goal adjustment may not be appealed.

b. If LEAP utilization goals are adjusted due to contract amendment or change order, the amount of adjustment shall be consistent with the utilization goals set forth in this chapter and shall be determined pursuant to regulations adopted pursuant to this chapter for administration of LEAP utilization goal adjustments.

2. The methodology of determining the appropriate adjustments to LEAP utilization goals shall be determined in consultation with the LEAP Advisory Committee, established pursuant to this ordinance for so long as the LEAP Advisory Committee remains in existence.

3. LEAP utilization goals shall not apply to those portions of a project that are funded by sources other than (a) City funds, or (b) funds which the City expends or administers in accordance with the terms of a grant to the City, provided that the Project Engineer shall notify the Director of such non-application prior to bid advertisement. For the purposes of this paragraph, credits extended by another entity for the purpose of providing project funding shall not be considered to be City funds.

F. Utilization

Electrical Projects Outside Electrical Service Area. Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City's Electrical Utility, which are wholly situated outside the Electrical Service Area, and for which the estimated cost is less than \$1,000,000.00, are exempt from the requirements of this chapter.

G. Utilization

Water Projects Outside Water Service Area. Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City's water utility, which are wholly situated outside the Water Service Area, and for which the estimated cost is less than \$1,000,000.00 are exempt from the requirements of this chapter.

H. Emergency

This chapter shall not apply in the event of an Emergency. For the purposes of this section, an "Emergency" means unforeseen circumstances beyond the control of the City that either: (a) present a real, immediate threat to the proper performance of essential functions; or (b) will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken.

I. Conflict With State or Federal Requirements

If any part of this chapter is found to be in conflict with federal or state requirements which are a prescribed condition to the allocation of federal or state funds to the City, then the conflicting part of this chapter is inoperative solely to the extent of the conflict and with respect to the City departments directly affected. This provision does not affect the operation of the remainder of this chapter. Administrative rules or regulations adopted under this chapter shall meet federal and state requirements which are a necessary condition to the receipt of federal or state funds by the City.

IV. MISCELLANEOUS PROVISIONS

A. Submittals. The Prime Contractor must submit the following reports to the LEAP office in accordance with the Document Submittal Schedule. All reports shall be submitted on the forms supplied and approved by the LEAP Office. The Prime Contractor is responsible for ensuring compliance by all Subcontractors working on the project. Failure to submit said forms may result in the withholding of a progress payment until received

B. Contract Compliance Review. The LEAP Coordinator shall review Prime Contractor and all Subcontractor employment practices during the duration of the contract for compliance with LEAP Program requirements. On-site visits may be conducted, as necessary, to verify compliance with the requirements of the LEAP Program. The Prime Contractor and/or Subcontractor(s) shall not deny to the City the right to interview its employees for the purpose of verifying compliance.

C. Review Process. Any action by the City, its officers and employees, under the provisions of these Rules and Regulations may be reviewed by the Board of Contracts and Awards, upon written application of the party so affected. Application shall be made within 20 days of the date of the action upon which the appeal is based, and provided to the City by certified mail, or by personal service. Any action taken by the Board of Contracts and Awards may be appealed to the Pierce County Superior Court, of the state of Washington, within 15 days of the Board of Contracts and Awards' decision.

D. OTHER CONDITIONS. The Prime Contractor and all Subcontractor(s) will comply with all relevant federal, state, and local laws, including the appropriate provisions of the State of Washington Labor Code regarding the required ratio of Apprentices to journey-worker(s) as defined therein on the job site.

THESE REGULATIONS SHALL BE EFFECTIVE the 17th day of May, 2013

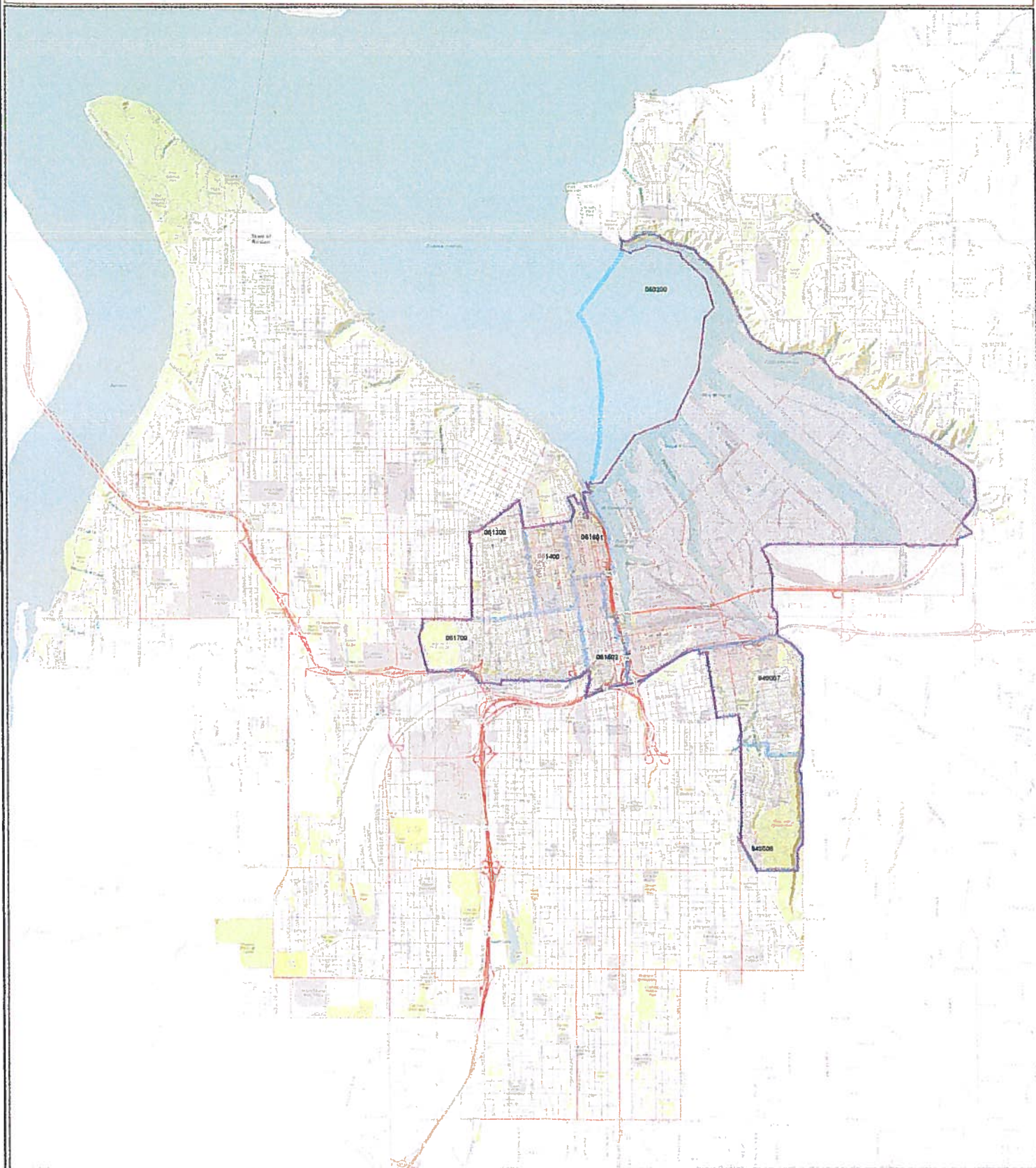
CITY OF TACOMA

By  5/29/2013
T.C. Broadnax, City Manager date

By  5/31/13
William A. Gaines, Director of Utilities/CEO date

Community Empowerment Zone

City of Tacoma



Legend

- Community Empowerment Zone
- 2010 Census Tracts

Map Location



City of Tacoma
Community & Economic Development Department
GIS Analysis & Data Services



3000 0 3000 6000 9000
Feet

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. It is to be used for reference purposes only.



Figure 1

TACOMA COMMUNITY EMPOWERMENT ZONE
ADDRESS INDEX
City of Tacoma

A Street	800-1499	616.01	Busti Street		602
	1500-2099	602			
	2100-2398 (even)	616.02	E C Street	2400-2999	602
	2101-2399 (odd)	602			
	2400-3099	617	S C Street	1900-3099	616.02
				9600-9999	617
S Ainsworth Street	500-1899	613			
	1900-2899	617	Canal Street		602
S Alaska Street	2000-2899	617	S Cedar Street	1900-2799 (odd)	617
Alexander Avenue		602	Center Street	601-2099 (odd)	617
Althiemer Street	1100-2799	614	Chandler Street	2800-2899	617
(formerly G Street)					
			City Waterway		602
S Anderson Street	1900-2799	617			
			Cleveland Way		602
E Arlington Drive		940006			
			Cliff Avenue		616.01
South Ash Street	1900-2899	617			
			E Columbia Avenue		940007
Ashton Way		602			
			S Commerce Street	700-1499	616.01
E B Street	2200-2399	602		1500-3099	616.02
	2400-3098 (even)	616.02			
	2401-3099 (odd)	602	Court A		616.01
S Baker Street	601-699 (odd)	616.01	Court C	400-1499	616.01
				1500-2299	616.02
Bay Street	1500-2599	602			
	2600-2898 (even)	940007	Court D	650-1499	616.01
	2601-2601 (odd)	602		1555-2499	616.02
Blair Waterway		602	Court E	700-1499	616.01
				1500-2499	616.02
Boundary Street	2800-2899	617			
			Court F		614
Broadway	400-1499	616.01			
	1500-1799	616.02	Court G	700-1399	614
				2100-2799	617
E Brotman Way		602			
			S Cushman Avenue	400-1889	613
Browning Street		940007		1900-2899	617

TACOMA COMMUNITY EMPOWERMENT ZONE
ADDRESS INDEX

City of Tacoma

E D Street	001-2999	602	E Grandview Avenue	3000-3799	940007
				3800-5599	940006
S D Street	2800-3099	616.02			
			S Grant Avenue	500-1899	613
S Delin Street	200-2999	616.02		1900-2899	617
	3001-3999 (odd)	616.02			
			E Gregory Street	1600-2499	940007
Division Avenue	1200-2198	613			
			Harper Street		940006
E Division Lane	1600-2499	940007			
			E Harrison Street	1300-2599	940007
Dock Street	400-1498	616.01			
	401-1499 (odd)	602	Holgate Street		616.02
	1500-2399	602			
			Homestead Avenue	3800-5599	940006
East E Street	200-2999	602			
			S Hood Street	200-599	616.02
East Side Road		602			
			S Hosmer Street	1400-1899	613
Everett Avenue		940006		1900-2899	617
E F Street	200-2999	602	Hylebos Creek Waterway		602
E Fairbanks Street	1301-1599 (odd)	940007			
	1600-2499	940007	E I Street	1100-2799	602
Faris Drive		940006	S I Street	700-1899	614
				1900-2899	617
Fawcett Avenue	700-1499	616.01			
	1500-3099	616.02	E J Street	1100-2799	602
S Ferry Street	600-2899	613	S J Street	700-1899	614
	1900-2899	617		1900-2899	617
S Fife Street	1900-2799	617	Jefferson Avenue		616.02
E G Street	1100-2949	602	S Junett Street	1900-2799	617
S G Street	700-1099	614	E K Street	1100-2799	602
	1100-1299	614			
(Now Althiemer Street)	1300-1899	614	S K Street	700-1899	614
	1900-2899	617	(Martin Luther King, Jr. Way)	1900-2899	617

TACOMA COMMUNITY EMPOWERMENT ZONE
ADDRESS INDEX
City of Tacoma

E George Street	1600-2499	940007			
			Kent Street		940006
E L Street	1100-2799	602	Olympic Street		602
S L Street	300-698 (even)	613	Pacific Avenue	400-1499	616.01
	700-1898 (even)	613		1500-1699	616.02
	701-1899 (odd)	614		1700-2098 (even)	616.02
	1900-2899	617		1702-2099 (odd)	602
				2100-3099	616.02
Lincoln Avenue		602			
			S Pine Street	1900-2799	617
E M Street	1100-2799	602			
	2801-3535 (odd)	940007	Pioneer Way		940007
S M Street	300-1899	613	Port Industrial		
	1290-2899	617	Water way (Blair)		602
Marc Avenue		602	Port of Tacoma Road		602
Marine View Drive	100-6198	602	Portland Avenue	2400-2749	602
				2750-3536	940007
Market Street	700-1499	616.01		3539-3799 (odd)	940007
	1500-3099	616.02		3801-3999 (odd)	940006
				4001-5199 (odd)	940006
Marshall Avenue		602			
			S Prospect Street	1900-2799	617
Maxwell Way		602			
			Puyallup Avenue	100-198 (even)	602
McKinley Avenue	1100-2899	602		101-199 (odd)	616.02
				200-1598	602
Middle Waterway		602			
			Puyallup Waterway		602
Milwaukee Way		602			
			E Q Street	1100-2749	602
Minneapolis Street		602		2750-3799	940007
				3800-5299	940006
E Morton Street	1300-2599	940007			
			E R Street	2800-3799	940007
E N Street	1100-2749	602		3800-5599	940006
	2750-3536	940007			
			Railroad Way		602
Normal Street		602			
			Reardon Drive		940006
O Street	1100-2749	602			

**TACOMA COMMUNITY EMPOWERMENT ZONE
ADDRESS INDEX**

City of Tacoma

	2705-3536	940007	S Ridgewood Avenue		613
S Oakes Street	1900-2799	617	Rimrock Drive		940006
River Road		940007	S Tacoma Avenue	1500-2999 (odd)	616.02
				1900-2798 (even)	617
River Street		602		3000-3199	616.02
E Roosevelt Avenue	3200-3799	940007	Tacoma Industrial		
	3800-5599	940006	Waterway		602
Ross Way		602	Taylor Way		602
Sheldon Street		940006	Thorne Road		602
S Sheridan Avenue	400-1899	613	Townsend Street		602
	1900-2999	617			
			S Trafton Street	1900-2799	617
E Sherman Street		940007			
			Wakefield Drive	200-599	616.02
E Side Road		602			
			Wiley Avenue		602
Sitcum Waterway		602			
			S Wilkeson Street	1900-2899	617
S Tacoma Avenue	700-1898 (even)	614			
			Williams Street		602
S Tacoma Way	200-599	616.02			
			E Wright Street	1300-2399	940007
S Sprague Avenue	600-1899	613			
	1900-2899	617	S Yakima Avenue	700-1899	614
				1900-2899	617
St. Helens Avenue	401-599 (odd)	616.01			
	600-999	616.01	Young Street		602
St. Paul Avenue		602			
S Stadium Way	400-699	616.01			
S State Street	601-1899 (odd)	613			
	1900-2899	617			
S Steele Street	1900-2899	617			
Stewart Street		602			

TACOMA COMMUNITY EMPOWERMENT ZONE

ADDRESS INDEX

City of Tacoma

E T Street	2800-3799	940007			
	3800-5599	940006			
S Tacoma Avenue	701-1499 (odd)	616.01			
E 3 rd Street		602	E 30 th Street	100-199	616.02
				200-599	602
E 7 th Street		602		1300-2199	940007
E 10 th Street		602	E 31 st Street	1300-2699	940007
E 11 th Street	100-149	616.01	E 32 nd Street	1300-2699	940007
	150-4225	602			
			E 34 th Street	1300-2699	940007
E 12 th Street		602			
			E 35 th Street	1300-2699	940007
E 14 th Street		602			
			E 36 th Street	1300-2699	940007
E 15 th Street	100-198 (even)	602			
	101-199 (odd)	616.02	E 37 th Street	1600-2699	940007
	200-4199	602			
			E 38 th Street	1600-2598 (even)	940006
E 17 th Street		602		1601-2599 (odd)	940007
E 18 th Street		602	E 39 th Street	1600-2599	940006
E 19 th Street		602	E 40 th Street	1600-2599	940006
E 21 st Street		602	E 41 st Street	1600-2599	940006
E 22 nd Street		602	E 42 nd Street		940006
E 23 rd Street		602	E 43 rd Street	1600-2599	940006
E 25 th Street	100-199	616.02	E 44 th Street	1600-2599	940006
	200-1599	602			
			E 45 th Street	1600-2599	940006
E 26 th Street	100-199	616.02			
	200-1740	602	E 46 th Street	1600-2599	940006
E 27 th Street	100-199	616.02	E 47 th Street	1600-2599	940006
	200-1849	602			
			E 48 th Street	1600-2599	940006
E 28 th Street	100-199	616.02			
	200-1099	602	E 49 th Street	1600-2599	940006
	1300-2000	940007			

TACOMA COMMUNITY EMPOWERMENT ZONE
ADDRESS INDEX

City of Tacoma

			E 50 th Street	1600-2599	940006
E 29 th Street	100-199	616.02			
	200-749	602	E 51 st Street	1600-2599	940006
	1300-2000	940007			
E 52 nd Street	1600-2599	940006	S 12 th Street	1200-2199	613
E 53 rd Street	1700-2599	940006	S 13 th Street	100-599	616.01
				600-1199	614
E 54 th Street	1700-2599	940006		1200-2199	613
E 55 th Street	1900-2599	940006	S 14 th Street	100-599	616.01
				600-1199	614
E 56 th Street	1900-2599 (odd)	940006		1200-2199	613
49 th Avenue N.E.	100-1699	602	S 15 th Street	100-598 (even)	616.02
				101-599 (odd)	616.01
S 4 th Street	100-398 (even)	616.01		600-1199	614
	1200-1399	613		1200-2199	613
S 5 th Street	100-399	616.01	S 16 th Street	100-599	616.02
	1220-1599	613		600-1199	614
				1200-2199	613
6 th Avenue	300-399	616.01			
	1200-1999	613	S 17 th Street	200-599	616.02
	2000-2199 (even)	613		600-1199	614
				1200-2199	613
S 7 th Street	100-499	616.01			
	500-598 (even)	616.01	S 18 th Street	200-599	616.02
	600-1198 (even)	614		600-1199	614
	1200-2199	613		1200-2199	613
S 8 th Street	100-599	616.01	S 19 th Street	200-599	616.02
	600-1199	614		600-1198 (even)	617
	1200-2199	613		601-1199 (odd)	614
				1200-2198 (even)	617
S 9 th Street	100-599	616.01		1201-2199 (odd)	613
	600-1199	614		2200-3098 (even)	617
	1200-2199	613			
			S 20 th Street	200-599	616.02
S 10 th Street	100-599	616.01		600-3099	617
	600-1199	614			
	1200-2199	613	S 21 st Street	100-198 (even)	616.02
				101-199 (odd)	602
S 11 th Street	100-599	616.01		200-599	616.02
	600-1199	614		600-3099	617

City of Tacoma

[illegible]

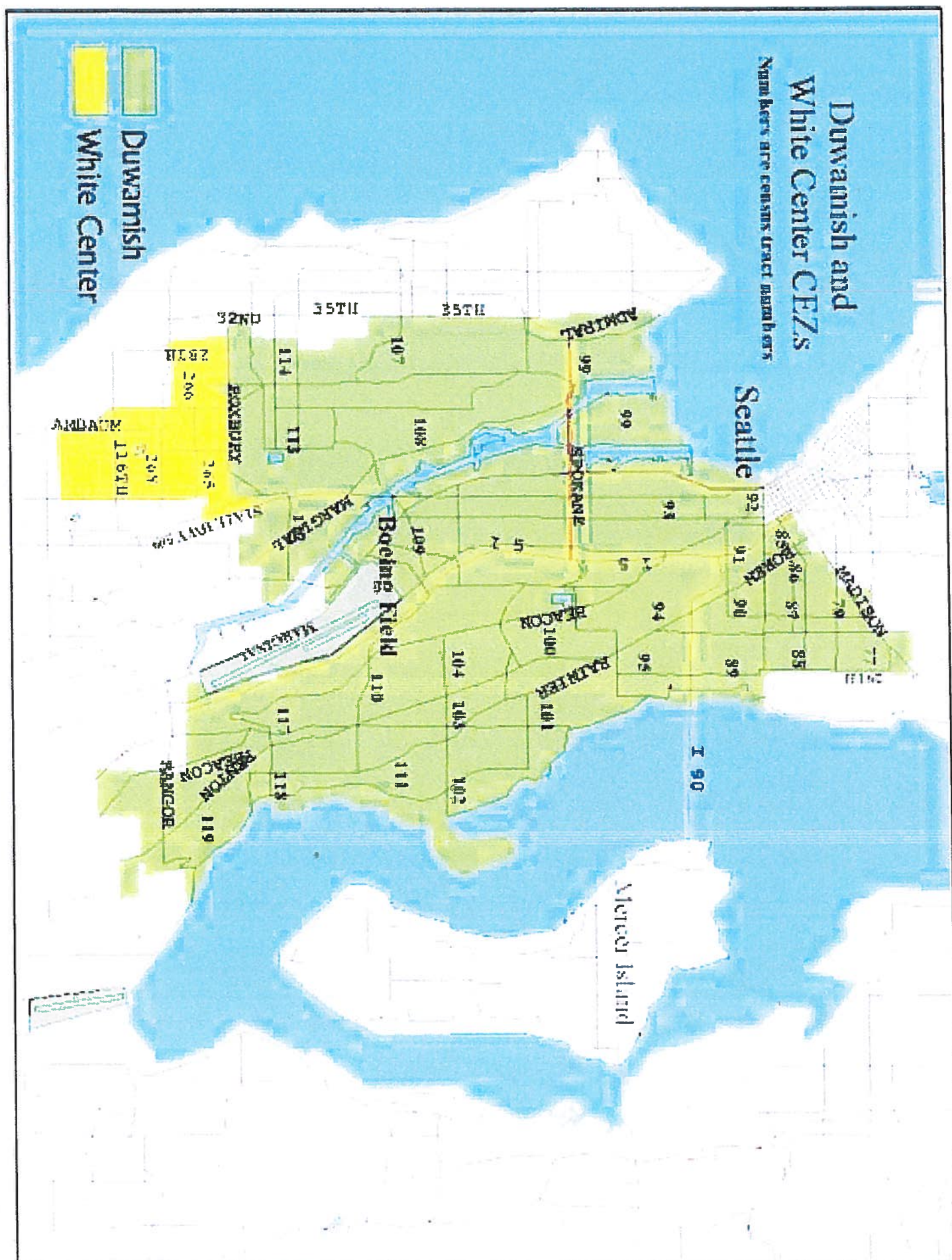


Figure 2

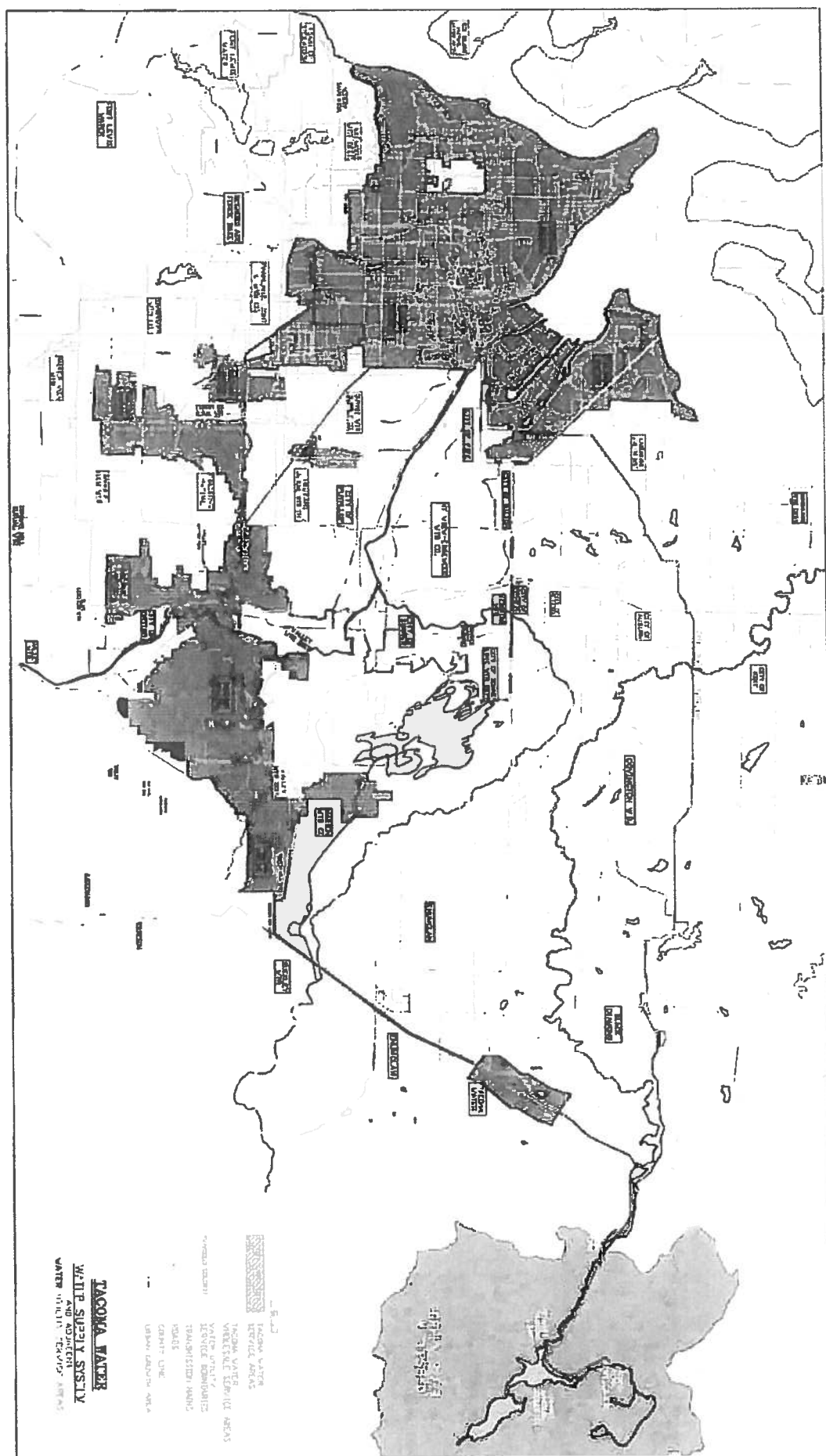


Figure 4



City of Tacoma LEAP Office
747 Market Street, Room 900
Tacoma, WA 98402
(253) 591-5826 fax (253) 591-5232
www.cityoftacoma.org/leap

LEAP EMPLOYEE VERIFICATION FORM

Contractor/Sub: _____ Specification Number: _____

Project Description: _____

Employee Name: _____ Craft: _____

Ethnic Group (*optional*): ☐ Asian/Pac Isl. ☐ Black ☐ Hispanic ☐ Native American ☐ White ☐ Other

Social Security Number: _____ Gender (*optional*): ☐ MALE ☐ FEMALE

Complete Physical Address (No PO Boxes): _____

City: _____ State: _____ Zip: _____ Telephone: _____ Date of Hire: _____

Apprenticeship County: _____ Apprentice Registration I.D. (*if applicable*): _____

Age: _____ Copy of DD-214: _____

*******Please fill out entire form for tracking LEAP performance*******

LEAP qualified employee categories: (check all that apply)

_____ a. Resident of the Tacoma Community Empowerment Zone

_____ b. Resident within the geographic boundaries of the City of Tacoma

_____ c. Pierce County Apprentice-WA State Approved Apprentice living in Pierce County

_____ d. Youth who is a Tacoma resident (18 to 24 years of age) ***Effective on projects advertised after 05-17-13.*

_____ e. Youth who is a Pierce County resident (18 to 24 years of age) ***Effective on projects advertised after 05-17-13.*

_____ f. Veteran who is a Tacoma resident. ***Effective on projects advertised after 05-17-13.*

_____ g. Veteran who is a Pierce County resident. ***Effective on projects advertised after 05-17-13.*

_____ h. Tacoma Power Hydro Projects only - Resident of Lewis, Mason, Grays Harbor, Pierce and Thurston Counties - (verified by proof of county residency) **Effective on projects advertised after 07-10-09*

_____ i. Tacoma Water Green River Headworks and Watershed Projects only - Resident of Seattle's Duwamish and White Center Community Empowerment Zone (CEZ) or King County Apprentice (verified by proof of CEZ residency) or (King County Apprentice status verified by the Labor & Industries website, www.lni.wa.gov/, directions to follow)

**Effective on projects advertised after 07-10-09*

Signature of Employee: _____ Date: _____

Contractor Representative: _____ Date: _____

LEAP EMPLOYEE VERIFICATION FORM

To be Completed by Contractor or Subcontractor

Please attach a legible copy of the following document(s) showing the address of residence as proof of local (Tacoma) and/or Pierce County residency and apprentice status, youth status, or veteran status.

.....

_____ For Youth - Copy of Birth Certificate or WA State ID or
WA Driver's License (projects advertised after 05-20-13)

_____ For Veterans – Copy of DD-214(Projects advertised after
05-20-13)

_____ Driver's License with current address

_____ Utility Bill/Phone Bill/Cell Bill/Cable Bill with current
address

_____ Copy of current tax form W-4

_____ Rental Agreement/Lease (residential)

_____ Computer Printout From Other Government Agencies

_____ Property Tax Records

_____ Apprentice Registration I.D.

_____ Food Stamp Award Letter

_____ Housing Authority Verification

_____ Insurance Policy (Residence/Auto)

*Any of the above must have a complete physical address verified by the www.govme.org website.

No PO Boxes

Contractor Representative:_____

Date:_____

Title:_____



City of Tacoma
LEAP Office
747 Market Street, Room 900
Tacoma WA 98402
Telephone (253) 591-5826
Fax (253) 591-5232

PRIME CONTRACTOR LEAP UTILIZATION PLAN

Failure to submit this plan at the Pre-Construction Meeting may result in Progress Payments being withheld.

Part A

Contractor:		Date:	
Specification Number: PG16-0091F	Contract/Work Order Number(s):	LEAP Utilization Goal: 15 % of total construction labor hours	
Project Description: Annual Re-Roofing Contract		Contract Dollar Amount:	

PART B		PLANNED LEAP HOURS*					
Trade or Craft	City of Tacoma Resident	Pierce County Apprentice, Youth, and/or Veteran	City of Tacoma Apprentice, Youth, and/or Veteran	Tacoma Community Empowerment Zone Resident	For Hydro Projects Hydro Project Area Resident (see *Counties)	For Watershed Projects Seattle Renewal Community/CEZ Resident and/or King County Appr.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	Date
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	Rejected
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	Date
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	
Totals							
					TOTAL hrs.		

Part C

Provide a description of how the Contractor plans to ensure that the LEAP Utilization Goals on the project will be met. (Use additional sheets if necessary)

NOTE: Hydro Project Area Residents, King County Apprentices and Seattle RC/CEZ residents qualify on those projects in those areas if advertised after 07-10-09.
NOTE: Tacoma Youth and Veterans and Pierce County Youth and Veterans qualify on projects advertised after 05-17-13.

General Instructions for completing Prime Contractor LEAP Utilization Plan

Part A

Contractor/Contract Information Section: The Prime Contractor is responsible for completing this section. Failure to submit this plan at the Pre-Construction Meeting may result in Progress Payments being withheld.

Part B

Planned LEAP Hours Section: This section should be completed by the Prime Contractor. The information required in Part B is described below.

Trade or Craft: Indicate the Trade or Craft being used.

LEAP Employee Categories: Indicate the number of hours that will be utilized by the Prime Contractor and all Sub Contractors for each craft and broken down by City of Tacoma Resident, City of Tacoma Apprentice, Youth, or Veteran, Pierce County Apprentice, Youth, or Veteran.

For Watershed Projects: King County Apprentice – Approved by Washington State and/or Seattle Renewal Community (CEZ) Resident.

For Hydro Projects: Area Residents (residing in either Pierce County or the County where the work is performed: Lewis, Mason, Grays Harbor or Thurston County), Tacoma Community Empowerment Zone Resident, City of Tacoma Residents.

Totals: Total the number of hours in each of the six (6) columns.

Total Planned LEAP Utilization Hours: This is the total number of hours planned on this project to satisfy the LEAP Utilization Goal.

Part C

Description of how the Contractor plans to ensure fulfillment of the LEAP Utilization Goal: This section is to be completed by the Prime Contractor. Please describe how you plan to satisfy the LEAP Utilization Goal on this project. Provide a summary of your outreach and recruitment procedures to hire LEAP Qualified Employees to work on this project.

GENERAL PROVISIONS

(Revised September 2014)

SECTION I - BIDDING REQUIREMENTS

SECTION I REQUIREMENTS ARE BINDING ON ALL RESPONDENTS.

1.01 USE AND COMPLETION OF CITY PROPOSAL SHEETS

A. Respondent's Proposal

Each Respondent must bid exactly as specified on the Proposal sheets. All proposals must remain open for acceptance by the City for a period of at least 60 calendar days from the date of opening of the bids.

B. Alterations of Proposals Not Allowed

Proposals that are incomplete or conditioned in any way, contain alternatives or items not called for in the General Provisions and Specifications, or not in conformity with law may be rejected as being nonresponsive. The City cannot legally accept any proposal containing a substantial deviation from these Specifications.

C. Filling Out City Proposal Sheets

All proposals must be completed using the proposal sheets and forms included with this specification, and the prices must be stated in figures either written in ink or typewritten. No proposal having erasures or interlineations will be accepted unless initialed by the Respondent in ink.

1.02 CLARIFICATION OF PROPOSAL FOR RESPONDENT

If a prospective Respondent has any questions concerning any part of the Proposal, he/she may submit a written request to the particular Division of the Department of Public Utilities of the City of Tacoma for answer of his/her questions. Any interpretation of the Proposal will be made by an Addendum duly issued and mailed or delivered to each prospective Respondent. Such addendum must be acknowledged in the proposal. The City of Tacoma will not be responsible for any other explanation or interpretation of the bid documents.

1.03 SMALL BUSINESS ENTERPRISE (SBE) PROGRAM AND EQUAL OPPORTUNITY EMPLOYMENT

It is the policy of the City of Tacoma that all citizens be afforded an equal opportunity for full participation in our free enterprise system. In order to implement this policy, the City of Tacoma is committed to ensuring equitable participation of small business enterprises by establishing goals for their utilization in the provision of construction services, and related goods and/or services, to the City.

A. Public Work or Improvement Type Projects and Contracts:

Respondents for public work or improvement type projects and contracts in excess of \$25,000 have an obligation to comply with the requirements set forth in the City's SBE Regulations adopted pursuant to Tacoma Municipal Code (TMC) Chapter 1.07. For further information, contact the City **SBE Office**, 747 Market Street, Room 900, Tacoma, WA 98402. Phone 253-573-2435. Email SBEOffice@cityoftacoma.org

Compliance with State Law RCW 35.22.650 is also required. All respondents for public work or improvement contracts (exceeding \$10,000, and \$15,000 for construction of water mains) are required to actively solicit minority and women business enterprise subcontractors. With respect to all such contracts, the Contractor agrees that he/she shall actively solicit the employment of minority group members. Contractor further agrees that he/she shall actively solicit bids for the subcontracting of goods or services from qualified minority businesses. Contractor shall furnish evidence of his/her compliance with these requirements of minority employment and solicitation. Contractor further agrees to consider the grant of subcontracts to said minority respondents on the basis of substantially equal proposals. The contractor shall be required to submit evidence of compliance with this section as part of the bid. **ALL RESPONDENTS FOR PUBLIC WORK AND IMPROVEMENTS CONTRACTS MUST COMPLETE AND SUBMIT WITH THEIR BID THE FOLLOWING SOLICITATION FORMS CONTAINED IN THE BID SUBMITTAL PACKAGE AND ATTACHED HERETO:**

- **SBE Utilization Form** for contracts of \$25,000 or more per TMC Chapter 1.07
- **Prime Contractor's Pre-Work Form** for contracts per RCW 35.22.650

B. ~~Purchase of Goods and/or Services Contracts:~~

~~Respondents for supply type contracts to which SBE Regulations do not apply have an obligation to demonstrate efforts to ensure equitable participation of minority and women's businesses. Such respondents shall not discriminate against any person on the basis of race, color, creed, sex, age or nationality in employment and are subject to the City's ordinances and regulations prohibiting discrimination. See TMC Chapter 1.50.~~

~~Service contracts involving a single trade are also subject to TMC Chapter 1.07, and respondents for such service contracts must submit applicable SBE program forms to be considered for contract award.~~

~~ALL RESPONDENTS FOR PURCHASE and/or SERVICES CONTRACTS MUST COMPLETE AND SUBMIT WITH THEIR BID THE FOLLOWING FORM CONTAINED IN THE BID SUBMITTAL PACKAGE AND ATTACHED HERETO:~~

➤ **~~Personnel Inventory Form~~**

~~Failure to fully complete and submit the required forms with the bid package may result in the bid being declared non-responsive and rejected.~~

1.04 RESPONDENT'S BOND OR CERTIFIED CHECK

Each bid for construction must be accompanied either by a certified or cashiers check for 5 percent of the total amount bid, including tax, payable to the City Treasurer, or an approved bid bond, by a surety company authorized to do business in the State of Washington, for 5 percent of the total amount bid. All bid bonds must be signed by the person legally authorized to sign the bid. The approved bid bond form attached to these Specifications should be used: no substantial variations from the language thereof will be accepted.

If a bid bond is used, the 5 percent may be shown either in dollars and cents, or the bid bond may be filled in as follows, "5 percent of the total amount of the accompanying proposal."

The check of the successful Respondent will be returned after award of the Contract, acceptance of the Performance Bond and City's receipt of the signed Contract. The checks of all other Respondents will be returned immediately upon the award of the Contract. Bid bonds will not be returned.

1.05 DELIVERY OF PROPOSALS TO THE CITY'S PURCHASING OFFICE

All bid proposals and documents must be returned to the City's Purchasing Division, Tacoma Public Utilities Administration Building, Main Floor, 3628 South 35th Street, Tacoma, WA 98409, in a sealed, properly addressed envelope with the name of the Respondent and Specification number and description of the project plainly written on the outside of the envelope, prior to the scheduled time and date stated in the Call for Bids. The City offices are not open for special mail or other delivery on weekends and City holidays.

Telecopy bid proposals will be accepted by the City provided that the original signed bid proposal is sealed and mailed (to the City's Purchasing Office) and postmarked prior to the time designated for the bid opening. Also, telecopy proposals shall not be sent to the City's telecopy machine but must be sent to the Respondent's agent and delivered sealed to the City's Purchasing Office before the time stated in the Call for Bids.

Bids received after the time stated in the Call for Bids will not be accepted and will be returned, unopened, to the Respondent.

For purposes of determining whether a bid proposal has been timely received, the City's Purchasing Office may rely on Universal Coordinated Time from the National Bureau of Standards as reported by radio broadcast station WWV.

1.06 CONTRACTOR'S STATE REGISTRATION NUMBER

Contractors for construction or public works construction are required to be licensed by the state. If the provisions of Chapter 18.27 of the Revised Code of Washington apply to the Respondent, then the Respondent's Washington State Contractor's Registration No. must accompany the bid.

1.07 BID IS NONCOLLUSIVE

The Respondent represents by the submission of the Proposal that the prices in this Bid are neither directly nor indirectly the result of any formal or informal agreement with another Respondent.

1.08 EVALUATION OF BID

A. Price, Experience, Delivery Time and Responsibility

In the evaluation of bids, the Respondent's experience, delivery time, quality of performance or product, conformance to the specifications and responsibility in performing other contracts (including satisfying all safety requirements) may be considered in addition to price. In addition, the bid evaluation factors set forth in City Code Section 1.06.262 may be considered by the City. Respondents who are inexperienced or who fail to properly perform other contracts may have their bids rejected for such cause.

B. ~~Prequalified Electrical Contractor~~

~~Certain types of electrical construction requires special expertise, experience and prequalification of the Contractor (or subcontractor) by the City. In such cases, the Respondent must be prequalified or the Respondent must subcontract with a City prequalified electrical contractor for the specialty work.~~

C. Insertions of Material Conflicting with Specifications

Only material inserted by the Respondent to meet requirements of the Specifications will be considered. Any other material inserted by the Respondent will be disregarded as being nonresponsive and may be grounds for rejection of the Respondent's Proposal.

D. Correction of Ambiguities and Obvious Errors

The City reserves the right to correct obvious errors in the Respondent's proposal. In this regard, if the unit price does not compute to the extended total price, the unit price shall govern.

1.09 WITHDRAWAL OF BID

A. Prior to Bid Opening

Any Respondent may withdraw his/her Proposal prior to the scheduled bid opening time by delivering a written notice to the City's Purchasing Office. The notice may be submitted in person or by mail; however, it must be received by the City's Purchasing Office prior to the time of bid opening.

B. After Bid Opening

No Respondent will be permitted to withdraw his/her Proposal after the time of bid opening, as set forth in the Call for Bids, and before the actual award of the Contract, unless the award of Contract is delayed more than sixty (60) calendar days after the date set for bid opening. If a delay of more than 60 calendar days does occur, then the Respondent must submit written notice withdrawing his/her Proposal to the Purchasing Manager.

1.10 OPENING OF BIDS

At the time and place set for the opening of bids, all Proposals, unless previously withdrawn, will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Proposal.

1.11 PUBLIC UTILITY BOARD FINAL DETERMINATION

The Public Utility Board of the City of Tacoma shall be the final judge as to which is the lowest and best bid in the interest of the City of Tacoma. The City reserves the right to reject any and all bids, waive minor deviations or informalities, and if necessary, call for new bids.

1.12 RESPONDENT'S REFUSAL TO ENTER INTO CONTRACT

Any Respondent who refuses to enter into a Contract after it has been awarded to the Respondent will be in breach of the agreement to enter the Contract and the Respondent's certified or cashier's check or bid bond shall be forfeited.

1.13 TAXES

A. Include In Proposal All Taxes

Respondent shall include in his/her Proposal all applicable local, city, state, and federal taxes. It is the Respondent's obligation to state on his/her Proposal sheet the correct percentage and total applicable Washington State and local sales tax. The total cost to the City including all applicable taxes may be the basis for determining the low Respondent.

B. Federal Excise Tax

The City of Tacoma is exempt from federal excise tax. Where applicable, the City shall furnish a Federal Excise Tax Exemption certificate.

C. City of Tacoma Business and Occupation Tax

Sub-Title 6A of the City of Tacoma Municipal Code (TMC) provides that transactions with the City of Tacoma, may be subject to the City of Tacoma's Business and Occupation Tax. It is the responsibility of the Respondent awarded the Contract to register with the City of Tacoma's Department of Tax and License, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, telephone 253-591-5252. The City's Business and Occupation Tax amount shall not be shown separately but shall be included in the unit and/or lump sum prices bid.

1.14 FIRM PRICES/ESCALATION

Except as specifically allowed by the Special Provisions, only firm prices will be accepted.

1.15 AWARD

A. Construction and/or Labor Contracts

Unless specifically noted in the Special Provisions or Proposal sheets, all construction and/or labor contracts will be awarded to only one Respondent.

B. Supply/Equipment Contracts

~~The City reserves the right to award an equipment or supply contract for any or all items to one or more Respondents as the interests of the City will be best satisfied.~~

1.16 INCREASE OR DECREASE IN QUANTITIES

The City of Tacoma reserves the right to increase or decrease the quantities of any items under this Contract and pay according to the unit prices quoted in the Proposal (with no adjustments for anticipated profit).

1.17 EXTENSION OF CONTRACT

Contracts resulting from this specification shall be subject to extension by mutual agreement per the same prices, terms and conditions.

1.18 PAYMENT TERMS

Prices will be considered as net 30 calendar days if no cash discount is shown. Payment discount periods of twenty (20) calendar days or more will be considered in determining the apparent lowest responsible bid. Invoices will not be processed for payment nor will the period of cash discount commence until receipt of a properly completed invoice and until all invoiced items are received and satisfactory performance of the Contractor has been attained. If an adjustment in payment is necessary due to damage or dispute, the cash discount period shall commence on the date final approval for payment is authorized.

1.19 COOPERATIVE PURCHASING

The Washington State Interlocal Cooperative Act RCW 39.34 provides that other governmental agencies may purchase goods and services on this solicitation or contract in accordance with the terms and prices indicated therein if all parties are agreeable.

1.20 PROPRIETARY OR CONFIDENTIAL TRADE SECRET INFORMATION

Washington State Public Disclosure Act (RCW 42.56 et seq.) requires public agencies in Washington to promptly make public records available for inspection and copying unless they fall within the specified exemptions contained in the Act. Documents submitted under this Specification are considered public records and, unless exempt from disclosure under the Act, will be made available for inspection and copying by the public in response to a public records request.

If the Respondent considers any submittal document to be exempt from disclosure under the law, the Respondent shall clearly mark on the specific page(s) affected such words as "CONFIDENTIAL," "PROPRIETARY" or "TRADE SECRET." The Respondent shall also submit an index with its submittal identifying the affected page number(s) and location(s) of all such identified material. **Failure to provide an index identifying the location of the material in the submittal that Respondent considers to be**

protected from disclosure will result in the records being released in response to a request for those records without further notice to Respondent. Marking the entire submittal as “confidential” or “proprietary” or “trade secret” is not acceptable and is grounds to reject such submittal.

If a public records request is made for disclosure of all or any part of Respondent's submittal and Respondent has (i) properly marked and (ii) indexed the material it asserts to be exempt from disclosure, the City will determine whether the material is exempt from public disclosure. If, in the City's opinion, the material is subject to a possible exemption to disclosure, the City will notify Respondent of the request and impending release and allow the Respondent ten (10) business days to take whatever action Respondent deems necessary to protect its interests. The City will reasonably cooperate with any legal action initiated by the Respondent to prevent release; provided that all expense of such action shall be borne solely by the Respondent, including any damages, penalties, attorney's fees or costs awarded by reason of having opposed disclosure and Respondent shall indemnify City against same. If the Respondent fails or neglects to take such action within said period, the City will release all materials deemed subject to disclosure. Submission of materials in response to this solicitation shall constitute assent by the Respondent to the foregoing procedure and the Respondent shall have no claim against the City on account of actions taken pursuant to such procedure.

SECTION II - CONTRACT REQUIREMENTS

2.01 CONTRACTOR'S RESPONSIBILITY

A. Contract Documents

The Respondent to whom the Contract is awarded, hereinafter called the Contractor, shall enter into a Contract with the City of Tacoma, Department of Public Utilities, within 10 days after receipt from the City of Tacoma of a properly prepared Contract. In addition, the Contractor will do all things required to promptly perform this Contract pursuant to the terms of this Contract. Certain contracts for supplies, goods or equipment may use the City Purchase Order in place of a formal contract document.

B. Surety Bond

Except as modified by the Special Provisions, the Respondent to whom the Contract is awarded shall provide a performance bond, including power of attorney, for 100 percent of the amount of his/her bid (including sales taxes), to insure complete performance of the Contract including the guarantee. The bond must be executed by a surety company licensed to do business in the State of Washington. For a supply-type contract, a cashiers check or cash may be substituted for the bond; however, this cash or cashiers check must remain with the City through the guarantee period and any interest on said amount shall accrue to the City.

C. Independent Contractor

Contractor is an independent contractor; no personnel furnished by the Contractor shall be deemed under any circumstances to be the agent or servant of the City. Contractor shall be fully responsible for all acts or omissions of Subcontractors and its and their suppliers, and of persons employed by them, and shall be specifically responsible for sufficient and competent supervision and inspection to assure compliance in every respect with the Contract. There shall be no contractual relationship between any Subcontractors or supplier and the City arising out of or by virtue of this agreement. No provision of the Contract is intended or is to be construed to be for the benefit of any third party.

2.02 CONFLICTS IN SPECIFICATIONS

Anything mentioned in the Specifications and not shown on the Drawings and anything on the Drawings and not mentioned in the Specifications shall be of like effect and shall be understood to be shown and/or mentioned in both. In case of differences between Drawings and Specifications, the Specifications shall govern. In addition, in the event of any conflict between these General Provisions, the Special Provisions, the Technical Provisions and/or the Proposal pages, the following order of precedence shall control:

- (a) Proposal pages prevail if they conflict with the General, Special or Technical Provisions.
- (b) Special Provisions prevail if they conflict with the General Provisions and/or Technical Provisions.
- (c) Technical Provisions prevail if they are in conflict with the General Provisions.

In case of discrepancy of figures between Drawings, Specifications or both, the matter shall immediately be submitted to the Engineer for determination. Failure to submit the discrepancy issue to the Engineer shall result in the Contractor's actions being at his/her own risk and expense. The Engineer shall furnish from time to time such detailed drawings and other information as he/she may consider necessary.

2.03 INSPECTION

A. Of the Work

All materials furnished and work done shall be subject to inspection.

The Inspector administering the Contract shall at all times have access to the work wherever it is in progress or being performed, and the Contractor shall provide proper facilities for such access and inspection. Such inspection shall not relieve the Contractor of the responsibility of performing the work correctly, utilizing the best labor and materials in strict accordance with the Specifications of this Contract. All material or work approved and later found to be defective shall be replaced without cost to the City of Tacoma.

B. Inspector's Authority

The inspector shall have power to reject materials or workmanship which do not fulfill the requirements of these Specifications, but in case of dispute the Contractor may appeal to the Superintendent, whose decision shall be final. The word "Superintendent" means the Superintendent of the City of Tacoma, Department of Public Utilities division which is administering the contract.

The Contract shall be carried out under the general control of the representative of the particular Division administering the Contract, who may exercise such control over the conduct of the work as may be necessary, in his or her opinion, to safeguard the interest of the City of Tacoma. The Contractor shall comply with any and all orders and instructions given by the representative of the particular Division administering the Contract in accordance with the terms of the Contract.

Provided, that for the purposes of construction contracts, such control shall only apply (a) to the extent necessary to ensure compliance with the provisions of this contract, and (b) to the extent necessary to fulfill any nondelegable duty of the City for the benefit of third parties not engaged in promoting the activity of this contract.

Nothing herein contained, however, shall be taken to relieve the Contractor of his/her obligations or responsibilities under the Contract.

2.04 FEDERAL, STATE AND MUNICIPAL REGULATIONS

All federal, state, municipal and/or local regulations shall be satisfied in the performance of all portions of this Contract. The Contractor shall be solely responsible for all violations of the law from any cause in connection with work performed under this Contract.

2.05 INDEMNIFICATION

A. Indemnification

Contractor acknowledges that pursuant to the terms of this agreement, Contractor is solely and totally responsible for the safety of all persons and property in the performance of this Contract. To the greatest extent allowed by law, Contractor assumes the risk of all damages, loss, cost, penalties and expense and agrees to indemnify, defend and hold harmless the City of Tacoma, from and against any and all liability which may accrue to or be sustained by the City of Tacoma on account of any claim, suit or legal action made or brought against the City of Tacoma for the death of or injury to persons (including Contractor's or subcontractor's employees) or damage to property involving Contractor, or subcontractor(s) and their employees or agents, arising out of and in connection with or incident to the performance of the Contract including if the City is found to have a nondelegable duty to see that work is performed with requisite care, except for injuries or damages caused by the sole negligence of the City. In this regard, Contractor recognizes that Contractor is waiving immunity under industrial Insurance Law, Title 51 RCW. This indemnification extends to the officials, officers and employees of the City and also includes attorney's fees and the cost of establishing the right to indemnification hereunder in favor of the City of Tacoma. In addition, within the context of competitive bidding laws, it is agreed that this indemnification has been mutually negotiated. Provided however, this provision is intended to be applicable to the parties to this agreement and it shall not be interpreted to allow a Contractor's employee to have a claim or cause of action against Contractor.

B. Limitation of Liability for Primarily Supply-Type Contracts

In all contracts where the total cost of the supply of materials and/or equipment constitute at least 70 percent of the total contract price (as determined by the City), the City agrees that it will not hold the contractor, supplier or manufacturer liable for consequential damages for that part of the contract related to the manufacture and/or design of the equipment, materials or supplies.

2.06 ASSIGNMENT AND SUBLETTING OF CONTRACT

A. Assignment

The Contract shall not be assigned except with the consent of the Superintendent or his/her designee.

Requests for assignment of this contract must be in writing with the written consent of the surety, and the request must show the proposed person or organization to which the contract is assigned is capable, experienced and equipped to perform such work. The proposed substitute person or organization may be required to submit to the City information as to his/her experience, financial ability and give statements covering tools, equipment, organization, plans and methods to fulfill any portion of the Contract prior to approval of assignment.

B. Subletting

The Contract shall not be sublet except with the written consent of the Superintendent or his/her designee. In the event that a prequalified electrical contractor is necessary to perform certain portions of the work, such work may be subcontracted with a City prequalified electrical contractor for the type of work involved.

Requests for subletting of this Contract must be in writing with the written consent of the Surety, and the request must show the proposed person or organization to which the Contract is sublet is capable, experienced and equipped to perform such work. The proposed substitute person or organization may be required to submit to the City information as to his experience, financial ability and give statements covering tools, equipment, organization, plans and methods to fulfill any portion of the Contract prior to approval of subletting.

The written consent approving the subletting of the Contract shall not be construed to relieve the Contractor of his/her responsibility for the fulfillment of the Contract. The Subcontractor shall be considered to be the agent of the Contractor and the Contractor agrees to be responsible for all the materials, work and indebtedness incurred by the agent.

A subcontractor shall not sublet any portion of a subcontract for work with the City without the written consent of the City.

2.07 DELAY

A. Extension of Time

With the written approval of the Superintendent or his/her designee, the Contractor may be granted additional time for completion of the work required under this Contract, if, in the Superintendent's opinion the additional time requested arises from unavoidable delay.

B. Unavoidable Delay

Unavoidable delays in the prosecution of the work shall include only delays from causes beyond the control of the Contractor and which he/she could not have avoided by the exercise of due care, prudence, foresight and diligence. Delay caused by persons other than the Contractor, Subcontractors or their employees will be considered unavoidable delays insofar as they necessarily interfere with the Contractor's completion of the work, and such delays are not part of this Contract.

Unavoidable delay will not include delays caused by weather conditions, surveys, measurements, inspections and submitting plans to the Engineer of the particular Division involved in administering this Contract.

2.08 GUARANTEE

A. Guarantee for Construction, Labor or Services Contract

Neither the final certificate of payment or any provision in the Contract Documents, nor partial or entire occupancy of the premises by the City, shall constitute an acceptance of work not done in accordance with

the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The City will give notice of observed defects with reasonable promptness.

If it has been discovered, before payment is required under the terms of the Contract, that there is a failure to comply with any of the terms and provisions of this Contract, the City has the right and may withhold payment.

In case of a failure of any part of the work, materials, labor and equipment furnished by the Contract or to fully meet all of the requirements of the Contract, the Contractor shall make such changes as may be necessary to fully meet all of the specifications and requirements of this Contract. Such changes shall be made at the Contractor's sole cost and expense without delay and with the least practicable inconvenience to the City of Tacoma. Rejected material and equipment shall be removed from the City's property by and at the expense of the Contractor.

B. Guarantee for Supply Contracts

~~Unless a longer period is specified, the supplier and/or manufacturer of the supplies, materials and/or equipment furnished pursuant to this Contract agrees to correct any defect or failure of the supplies, materials and/or equipment which occurs within one year from the date of: (1) test energization if electrical or mechanical equipment; (2) commencement of use if supplies or materials, provided, however, said guarantee period shall not extend beyond eighteen months after date of receipt by the City. All of the costs (including shipping, dismantling and reinstallation) of repairs and/or corrections of defective or failed equipment, supplies and/or material is the responsibility of the supplier and/or manufacturer.~~

~~When the supplier is not the manufacturer of the item of equipment, supplier agrees to be responsible for this guarantee and supplier is not relieved by a manufacturer's guarantee.~~

C. Guarantee Period Extension

The Contract guarantee period shall be suspended from the time a significant defect is first documented by the City until the work or equipment is repaired or replaced by Contractor and accepted by the City. In addition, in the event less than ninety (90) days remain on the guarantee period (after recalculating), the guarantee period shall be extended to allow for at least ninety (90) days from the date the work or equipment is repaired or replaced and accepted by the City.

2.09 DEDUCTIONS FOR UNCORRECTED WORK

If the City of Tacoma deems it expedient to correct work not done in accordance with the terms of this Contract, an equitable deduction from the Contract price shall be made.

2.10 CITY OF TACOMA'S RIGHT TO TERMINATE CONTRACT

If the Contractor should be adjudged as bankrupt, or makes a general assignment for the benefit of creditors, or a receiver should be appointed on account of his/her insolvency, or if he/she or any of his/her subcontractors should violate any of the provisions of the Contract, or if the work is not being properly and diligently performed, the City of Tacoma may serve written notice upon the Contractor and Surety, executing the Performance Bond, of its intention to terminate the Contract; such notice will contain the reasons for termination of the Contract, and unless within 10 days after the serving of such notice, such violation shall cease and an arrangement satisfactory to the City of Tacoma for correction thereof shall be made, the Contract shall, upon the expiration of said 10 days, cease and terminate and all rights of the Contractor hereunder shall be forfeited. In the event the Contract is terminated for cause, Contractor shall not be entitled to any lost profits resulting therefrom.

In the event of any such termination, the City of Tacoma shall immediately send (by regular mail or other method) written notice thereof to the Surety and the Contractor. Upon such termination the Surety shall have the right to take over and perform the Contract, provided however, the Surety must provide written notice to the City of its intent to complete the work within 15 calendar days of its receipt of the original written notice (from the City) of the intent to terminate. Upon termination and if the Surety does not perform the work, the City of Tacoma may take over the work and prosecute the same to completion by any method it may deem advisable, for the account of and at the expense of the Contractor, and the Contractor and the Surety shall be liable to the City of Tacoma for all cost occasioned to the City of Tacoma thereby. The City of Tacoma may without liability for doing so, take possession of and utilize in completing the work, such materials,

equipment, plant and other property belonging to the Contractor as may be on the site of the work and necessary therefore.

2.11 LIENS

In the event that there are any liens on file against the City of Tacoma, the City of Tacoma shall be entitled to withhold final or progress payments to the extent deemed necessary by the City of Tacoma to properly protect the outstanding lien claimants until proper releases have been filed with the City Clerk.

2.12 LEGAL DISPUTES

A. General

Contractor and Surety agree and stipulate that in the event any litigation should occur concerning or arising out of this Contract, or any bids submitted in response to a Call for Bids under the attached Specification, the sole venue of any such legal action shall be the Pierce County Superior Court of the State of Washington and the interpretation of the terms of the Contract shall be governed by the laws of the State of Washington.

B. Attorney Fees

For contracts up to \$250,000 which become the subject of litigation or arbitration, the substantially prevailing party may be entitled to reasonable attorney fees, as provided in RCW 39.04.240. Provided, however, the attorney fee hourly rate for the City of Tacoma's assistant city attorneys is agreed to be \$150 per hour or the same as the hourly rate for Contractor's legal counsel, whichever is greater.

2.13 DELIVERY

Prices must be quoted F.O.B. destination, freight prepaid and allowed with risk of loss during transit remaining with Contractor/Supplier (unless otherwise stated in these Specifications) to the designated address set forth in these Specifications.

Deliveries shall be between 9:00 a.m. and 3:30 p.m.; Monday through Friday only (except legal holidays of the City of Tacoma).

Legal holidays of the City of Tacoma are:

New Year's Day	January 1
Martin Luther King's Birthday	3rd Monday in January
Washington's Birthday	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Veteran's Day	November 11
Thanksgiving Day	4th Thursday of November
Day after Thanksgiving	4th Friday of November
Christmas Day	December 25

When any of these holidays occur on Saturday or Sunday, the preceding Friday or the following Monday, respectively, is a legal holiday for the City of Tacoma.

2.14 Shipping Notices and Invoices

Shipping notices shall furnish complete information of item, or items, contents of item if crated or cased, shipping point, carrier and Bill of Lading number, and City of Tacoma Purchase Order Number.

Unless otherwise directed in these specifications, shipping notices shall be mailed to:

Purchasing Division
City of Tacoma
P. O. Box 11007
Tacoma Washington 98411-2597

Invoices shall be sent in duplicate. Each invoice shall show City of Tacoma Purchase Order Number and Release Number if applicable and the Item Number, Quantity, Description, Unit Price and Total Price by line. Each line total shall be summed to give a grand total to which sales tax shall be added if applicable.

Invoices shall be mailed to:

Accounts Payable
City of Tacoma
P. O. Box 1717
Tacoma Washington 98401-1717

2.15 Approved Equals

A. Unless an item is indicated as "No substitute", special brands, when named, are intended to describe the standard of quality, performance or use desired. Equal items will be considered by the City, provided that the respondent specifies the brand and model, and provides all descriptive literature, independent test results, product samples, local servicing and parts availability to enable the City to evaluate the proposed "equal".

B. The decision of the City as to what items are equal shall be final and conclusive. If the City elects to purchase a brand represented by the respondent to be an "equal", the City's acceptance of the item is conditioned on the City's inspection and testing after receipt. If, in the sole judgment of the City, the item is determined not to be an equal, the item shall be returned at the respondent's expense.

C. When a brand name, or level of quality is not stated by the respondent, it is understood the offer is exactly as specified. If more than one brand name is specified, respondents must clearly indicate the brand and model/part number being bid.

2.16 Entire Agreement

This written contract represents the entire Agreement between the parties and supersedes any prior oral statements, discussions or understandings between the parties.

2.17 Code of Ethics

The City's Code of Ethics, Chapter 1.46, Tacoma Municipal Code, provides ethical standards for City personnel and also prohibits certain unethical conduct by others including respondents and contractors. Violation of the City's Code of Ethics will be grounds for termination of this contract.

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GENERAL PROVISIONS

SECTION III - CONSTRUCTION AND/OR LABOR CONTRACTS

SECTION III REQUIREMENTS APPLY ONLY TO CONSTRUCTION AND/OR LABOR CONTRACTS.

3.01 RESPONDENT'S DUTY TO EXAMINE

The Respondent agrees to be responsible for examining the site(s) and to have compared them with the Specifications and Contract Drawings, and to be satisfied as to the facilities and difficulties attending the execution of the proposed Contract (such as uncertainty of weather, floods, nature and condition of materials to be handled and all other conditions, obstacles and contingencies) before the delivery of his/her Proposal. No allowance will be subsequently made by the City on behalf of the Respondent by reason of any error or neglect on Respondent's part, for such uncertainties as aforesaid.

3.02 PERMITS

Except when modified by the Special Provisions, the Contractor shall procure and pay for all permits and licenses necessary for the completion of this Contract including those permits required by the City of Tacoma. The City will obtain county or state road crossing permits if required. In the event a necessary permit is not obtained, the Contractor will not be permitted to work on items subject to said permit and any delays caused thereby will not be subject to extra compensation or extensions.

3.03 NOTIFICATION OF OTHER GOVERNMENTAL AGENCIES AND UTILITIES WHEN UNDERGROUND WORK IS INVOLVED

The Contractor shall notify all other affected governmental agencies and utilities whenever underground work is done under the terms of this Contract. The Contractor is required to obtain permission of the appropriate public and private utilities and governmental agencies before performing underground work pursuant to the terms of this Contract. The Contractor is required to call "one call" at 1-800-424-5555 for all work involving excavation or digging more than 12 inches beneath ground or road surface.

The City may have indicated on the plans and specifications the existence of certain underground facilities that are known to the City division responsible for this Contract. It is the Contractor's responsibility to fully comply with the Underground Utility Locate Law, Chapter 19.122 RCW. If the site conditions are "changed or differing" as defined by RCW 19.122.040(I), the Contractor may pursue the party responsible for not properly marking or identifying the underground facility. The Contractor agrees not to file any claim or legal action against the City (division responsible for this Contract) for said "changed or differing" conditions unless said City division is solely responsible for the delay or damages that the Contractor may have incurred.

3.04 TRENCH EXCAVATION BID ITEM

In the event that "trench excavation" in excess of four feet requires a safety system pursuant to Washington State law and safety shoring, sloping, sheeting, or bracing is used, a separate bid item should be set forth in the Proposal for this work. If a separate bid item is not set forth in the Proposal pages, said installed safety system shall be paid at \$3.00 per lineal foot of trench, which unit price includes both sides of the trench.

3.05 CONTRACTOR'S INSURANCE

The Contractor shall not commence work under this Contract until all required insurance has been obtained and such insurance has been approved by the City of Tacoma, nor shall the Contractor allow any subcontractor to commence work on his/her subcontract until all insurance required herein has been obtained by Subcontractor. It is the Contractor's responsibility to ascertain that all Subcontractors have the insurance as required by this Contract at all times such Subcontractors are performing the work. The insurance coverages required herein shall be maintained and effective at all times any work including guarantee work is being performed by the Contractor or a Subcontractor.

A. Compensation Insurance

The Contractor shall, at all times during the existence of this Contract, fully comply with all of the terms and conditions of the laws of the State of Washington pertaining to Workers' Compensation together with any and all amendments and supplements thereto and any and all regulations promulgated thereunder.

In the event any of the work herein is sublet, the Contractor shall require such Subcontractor to fully comply with all of the terms and conditions of the laws of the State of Washington pertaining to Workers' Compensation. For persons engaged in employment who are not within the mandatory coverage of the state Workers' Compensation laws, the Contractor shall provide and shall cause each subcontractor to provide compensation insurance (including self-insurance if it otherwise meets all requirements of state Workers' Compensation laws), satisfactory to the City, at least equivalent to the benefits provided for covered employment under state Workers' Compensation laws.

B. Public Liability and Property Damage Insurance

The Contractor shall procure and maintain during the life of this Contract, a policy of comprehensive general liability insurance, with an insurance carrier authorized to do business in the State of Washington. The policy shall be approved as to form and content by the City Attorney and shall protect the City of Tacoma from liability imposed by law for damages suffered by any persons arising out of or resulting from acts or omissions in the performance of this contract: (1) for bodily injury or death resulting therefrom caused by accidents or occurrences resulting from any act or omission by the Contractor in the performance of the Contract, and (2) for injury to, or destruction of, any property, including property of the City of Tacoma, and including loss of use. The policy or policies shall include coverage for claims for damages because of bodily injury or death or property damage arising out of the ownership, maintenance or use of any motor vehicle, including hired or non-owned vehicles.

The City of Tacoma shall be designated in said policy as a primary additional named insured and shall be given 30 days written notice of cancellation, nonrenewal, or material change in the coverage provided. Said insurance shall be on a Comprehensive General Liability form with coverages to include Blanket Contractor, Broad Form Property Damage, Personal Injury, Protective Liability and Employers Liability. Limits shall be at \$1,000,000 per occurrence, \$2,000,000 aggregate and for contracts in excess of \$500,000 the minimum coverage limits include Umbrella Excess Liability of \$5,000,000. Further that the City's insurance is excess to any other collectible insurance.

The Contractor shall furnish evidence of the amount of any deductible or self-insured retention under the policy. This must also be approved by the City Attorney if the amount of the deductible or self-insured retention exceeds \$50,000. The City may require the Contractor to furnish evidence of its ability to pay the amount of any deductible or self-insured retention. If the policy provides for a deductible or self-insured retention, the Contractor shall be solely responsible for paying the amount of the deductible or self-insured retention toward the cost of any claim under the policy.

If the Contractor fails to maintain such insurance, the City of Tacoma, at its discretion, may immediately terminate the contract.

Nothing herein contained shall be in any manner construed as limiting the extent to which the Contractor or Subcontractor may be held liable or responsible for payment of damages resulting from their operations.

C. Builder's Risk

The Contractor shall be expected to protect and insure from loss for any tools and equipment owned or rented by the Contractor, Subcontractor of the employees of the Contractor and Subcontractor.

Until the work is completed and accepted by the City of Tacoma, the construction is at the risk of the Contractor and no partial payment shall constitute acceptance of the work or relieve the Contractor of responsibility to deliver to the City of Tacoma the completed project as required by this Contract.

D. Proof of Carriage of Insurance

The Contractor shall furnish and file with the City a certificate of insurance coverage. An up-to-date certificate of insurance must be on file with the City throughout the contract. The City may, at the time the contract is executed or at any other time, require the Contractor to furnish and file with the City a certified true copy of the insurance policy or policies, together with a letter from the insurance carrier verifying that the premium has been paid for the period indicated. The policy or policies shall be approved as to form and content by the City Attorney.

3.06 SAFETY

A. General

The Contractor shall, at all times, exercise adequate precautions for the safety of all persons, including its employees and the employees of a Subcontractor, in the performance of this Contract and shall comply with all applicable provisions of federal, state, county and municipal safety laws and regulations. It is the Contractor's responsibility to furnish safety equipment or to contractually require Subcontractors to furnish adequate safety equipment relevant to their responsibilities.

The Contractor shall obtain the necessary line clearance from the inspector before performing any work in, above, below or across energized Light Division circuits.

The Inspector and/or Engineer may advise the Contractor and the Safety Officer of any safety violations. It is the Contractor's responsibility to make the necessary corrections. Failure to correct safety violations is a breach of this Contract and, as such, shall be grounds for an order from the Safety Officer, Inspector or Engineer to cease further work and remove from the job site until the condition is corrected. Time and wages lost due to such safety shutdowns shall not relieve the Contractor of any provisions of Section 3.14 of this Specification and shall be at the sole cost of the Contractor. The purpose of this authority to stop work is to enforce the contract and not to assume control except to the extent necessary to ensure compliance with the provisions of this contract.

Any of the above actions by employees of the City of Tacoma shall in no way relieve the Contractor of his/her responsibility to provide for the safety of all persons, including his/her employees.

B. Work Hazard Analysis Report

The Contractor will be required to complete a work hazard analysis report. This report shall outline how the Contractor proposes to satisfy all safety laws and regulations involved in performing the work. This report shall be completed and submitted to the City Safety Officer before the pre-construction conference. A copy of the report shall be maintained at the work site (accessible to the supervisor).

3.07 PROTECTION OF WORKERS AND PROPERTY

The Contractor shall erect and maintain good and sufficient guards, barricades and signals at all unsafe places at or near the work and shall, in all cases, maintain safe passageways at all road crossings, and crosswalks, and shall do all other things necessary to prevent accident or loss of any kind.

The Contractor shall protect from damage all utilities, improvements, and all other property that is likely to become displaced or damaged by the execution of the work under this Contract.

The Contractor is responsible for all roads and property damaged by his/her operations as shall be determined by the Engineer administering this Contract. The Contractor shall be responsible for repairing all damage to roads caused by his/her operations to the satisfaction of the particular governmental body having jurisdiction over the road.

3.08 CONTRACTOR - SUPERVISION AND CHARACTER OF EMPLOYEES

A. Superintendent to Supervise Contractor's Employees

The Contractor shall keep on his/her work, during its progress, a competent superintendent and any necessary assistants, all of whom must be satisfactory to the City of Tacoma. The Contractor's superintendent shall not be changed except with the consent of the City of Tacoma, unless the Contractor's superintendent proves to be unsatisfactory to the Contractor and ceases to be in his/her employ. The Contractor's superintendent shall represent the Contractor in his/her absence and all directions given to him/her shall be binding as if given to the Contractor directly. The Contractor shall give efficient supervision to the work, using his/her best skill and attention.

B. Character of Contractor's Employees

The Contractor shall employ only competent, skillful, faithful and orderly persons to do the work, and whenever the Engineer administering the Contract shall notify the Contractor in writing that any person on the work is, in his or her opinion, incompetent, unfaithful, disorderly or otherwise unsatisfactory, the Contractor shall forthwith discharge such persons from the work and shall not again employ him or her on this Contract.

3.09 CONTRACTOR'S COMPLIANCE WITH THE LAW

A. Hours of Labor

The Contractor and Subcontractors shall be bound by the provisions of RCW Chapter 49.28 (as amended) relating to hours of labor. Except as set forth in the Special Provisions, eight (8) hours in any calendar day shall constitute a day's work on a job performed under this Contract.

In the event that the work is not performed in accordance with this provision and in accordance with the laws of the State of Washington, then this Contract may be terminated by the City of Tacoma for the reason that the same is not performed in accordance with the public policy of the State of Washington as defined in said statutes.

B. Prevailing Wages

The Contractor and any Subcontractors shall be bound by the provisions of Chapter 39.12 RCW, as amended, relating to prevailing wages and usual fringe benefits. No worker, laborer, or mechanic employed in the performance of any part of this Contract shall be paid less than the "prevailing rate of wage" as determined by the industrial Statistician of the Department of Labor and Industries. The schedule of the prevailing wage rates for the locality or localities where this Contract will be performed is by reference made a part of this Contract as though fully set forth herein. Current prevailing wage data will be furnished by the Industrial Statistician upon request. The Contractor shall immediately upon award of the Contract, contact the Department of Labor and Industries, ESAC Division, General Administration Building, Olympia, Washington 98504, to obtain full information, forms and procedures relating to these matters.

Before payment is made by or on behalf of the City, of any sum or sums due on account of a Public Works contract, it shall be the duty of the officer or person charged with the custody and disbursement of public funds to require the Contractor and each and every Subcontractor from the Contractor or a Subcontractor to submit to such officer a "Statement of Intent to Pay Prevailing Wages." Each statement of intent to pay prevailing wages must be approved by the industrial statistician of the Department of Labor and Industries before it is submitted to said officer. Unless otherwise authorized by the Department of Labor and Industries each voucher claim submitted by a Contractor for payment on a project estimate shall state that the prevailing wages have been paid in accordance with the prefiled statement or statements of intent to pay prevailing wages on file with the public agency. Following the final acceptance of a Public Works project, it shall be the duty of the officer charged with the disbursement of public funds to require the Contractor and each and every Subcontractor from the Contractor or a Subcontractor to submit to such officer an "Affidavit of Wages Paid" before the funds retained according to the provisions of RCW 60.28.010 are released to the Contractor. Each affidavit of wages paid must be certified by the industrial statistician of the Department of Labor and Industries before it is submitted to said officer.

In the event any dispute arises as to what are the prevailing rates of wages for work of a similar nature and such dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the State of Washington, Department of Labor and Industries whose decision shall be final, conclusive and binding on all parties involved in the dispute.

3.10 CHANGES

A. In Plans or Quantities

The City of Tacoma, without invalidating this Contract, or any part of this Contract, may order extra work or make reasonable changes by altering, adding to or deducting from the materials, work and labor and the Contract sum will be adjusted accordingly. All such work and labor shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change. When work or bid items are deducted, reduced or eliminated, it is agreed that no payment will be made to Contractor for anticipated profit.

B. Extra Work

Any claim or order for extra materials, work and labor made necessary by alterations or additions to the plans or by other reasons for which no price is provided in this Contract, shall not be valid unless the Contractor and Engineer administering the Contract have agreed upon a price prior to commencing extra work, and the agreement has been signed by the Contractor and approved by the Superintendent or his/her designee, and approved by the performance bond surety.

C. Extra Work - No Agreed Price

If it is impracticable to fix an increase in price definitely in advance, the order may fix a maximum price which shall not under any circumstances, be exceeded, and subject to such limitation, such alteration, modification, or extra shall be paid for at the actual necessary cost as determined by the City of Tacoma, which cost (including an allowance for profit) shall be determined as the sum of the following items (1) to (7) inclusive:

- (1) Labor, computed at regular wage scale, including premium on compensation insurance and charge for social security taxes, and other taxes, pertaining to labor; no charge for premium pay shall be allowed unless authorized by the Engineer administering the Contract;
- (2) The proportionate cost of premiums on comprehensive general liability and other insurance applicable to the extra work involved and required under this Contract;
- (3) Material, including sales taxes pertaining to materials;
- (4) Plant and equipment rental, to be agreed upon in writing before the work is begun; no charge for the cost of repairs to plant or equipment will be allowed;
- (5) Superintendence, general expense and profit computed at 20 percent of the total of paragraphs (1) to (4) inclusive;
- (6) The proportionate cost of premiums on bond required by this Contract, computed by 1 1/2 percent of the total of paragraphs (1) to (5) inclusive.
- (7) The City of Tacoma reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon.

Whenever any extra work is in progress, for which the definite price has not been agreed on in advance, the Contractor shall each day, report to the Engineer the amount and cost of the labor and material used, and any other expense incurred in such extra work on the preceding day, and no claim for compensation for such extra work will be allowed unless such report shall have been made.

The above-described methods of determining the payment for work and materials shall not apply to the performance of any work or the furnishing of any material, which, in the judgment of the Engineer administering the Contract, may properly be classified under items for which prices are established in the Contract.

D. Claims for Extra Work

If the Contractor claims that any instructions by drawings or otherwise, involve extra cost under this Contract, he/she shall give the City of Tacoma written notice thereof within 30 days after receipt of such instruction, and in any event before proceeding to execute the work, except in an emergency endangering life or property, and the procedures governing the same shall be as provided for immediately above in this paragraph. The method in these paragraphs is the only method available to the Contractor for payment of claims for extra work performed under the terms of this Contract.

3.11 CLEANING UP

The Contractor shall at all times, at his/her own expense, keep the premises free from accumulation of waste materials or debris caused by any workers or the work, at the completion of the work the Contractor shall remove all his waste materials from and about the site and all his/her equipment, sanitary facilities and surplus materials. In the case of dispute, the City of Tacoma may remove the debris and charge the cost to the Contractor as the City of Tacoma shall determine to be just. All material that is deposited or placed elsewhere than in places designated or approved by the Engineer administering the Contract will not be paid for and the Contractor may be required to remove such material and deposit or place it where directed.

3.12 PROGRESS PAYMENT

Progress payments will be made up to the amount of ninety-five percent (95%) of the actual work completed as shall be determined by the Engineer administering the Contract.

The Contractor may request that an escrow account be established as permitted by law, in which event the Contractor will earn interest on the retained funds.

When the time for construction, services and/or installation will exceed thirty (30) days, the Contractor may request, by invoice, to be paid a progress payment based on percentage of work completed. The Engineer will review and approve the progress payment request on a monthly basis.

3.13 FINAL PAYMENT

The final payment of five percent (5%) of the Contract price shall be approved on final acceptance of the work under this Contract by the Superintendent or his/her designee. Also, before final payment is made, the Contractor shall be required to:

A. Provide a certificate from the Washington State Department of Revenue that all taxes due from the Contractor have been paid or are collectible in accordance with the provisions of Chapter 60.28 and Title 82 of the Revised Code of Washington;

B. Provide the General Release to the City of Tacoma on the form set forth in these Contract documents;

C. Provide a release of any outstanding liens that have been otherwise filed against any monies held or retained by the City of Tacoma;

D. File with the City Director of Finance, and with the Director of the Washington State Department of Labor and Industries, on the state form to be provided, an affidavit of wages paid;

E. File with the City Director of Finance, on the state form to be provided, a statement from the State of Washington, Department of Labor and Industries, certifying that the prevailing wage requirements have been satisfied.

F. File with the City Director of Finance, on the state form to be provided, a statement of release from the Public Works Contracts Division of the State of Washington, Department of Labor and Industries, verifying that all industrial insurance and medical aid premiums have been paid.

If there is a fee assessed to the City for any certificate, release or other form required by law, the contractor agrees that the fee amount may be passed on to the Contractor and deducted from the monies paid to the Contractor.

3.14 FAILURE TO COMPLETE THE WORK ON TIME

Should the completion of the work required under the Contract be delayed beyond the expiration of the period herein set for the completion of said work, or such extension of said period as may be allowed by reason of unavoidable delays, there shall be deducted from the total Contract price of work, for each calendar day by which such completion shall be delayed beyond said period of such extension thereof the sum of \$300 or a sum of money as set forth hereinafter in these Specifications, as the amount of such deduction per calendar day.

Said sum shall be considered not as a penalty, but as liquidated damages which the City will suffer by reason of the failure of the Contractor to perform and complete the work within the period herein fixed or such extensions of said period as may be allowed by reason of unavoidable delays.

Any money due or to become due the Contractor may be retained by the City to cover said liquidated damages, and should such money not be sufficient to cover such damages, the City shall have the right to recover the balance from the Contractor or his/her Sureties.

The filing of any bid for the work herein contemplated shall constitute acknowledgment by the Respondent that he/she understands, agrees and has ascertained that the City will actually suffer damages to the amount hereinabove fixed for each and every calendar day during which the completion of the work herein required shall be delayed beyond the expiration of the period herein fixed for such completion or such extension of said period as may be allowed by reason of unavoidable delays.

3.15 CITY RESERVES RIGHT TO USE FACILITIES PRIOR TO ACCEPTANCE

The City of Tacoma hereby reserves the right to use the facilities herein contracted prior to final acceptance under this Contract. The use of said facilities, as mentioned herein, shall not be construed as a waiver or relinquishment of any rights that the City of Tacoma has under this Contract.

3.16 LIST OF SUBCONTRACTORS

~~Bid proposals for construction, alteration or repair of any building or other public works that may exceed \$1,000,000 including tax shall satisfy the following requirement: Respondent shall submit as part of the bid,~~

the names of the subcontractors, with whom the respondent, if awarded the contract, will subcontract performance of the work of heating, ventilation and air conditioning, plumbing as described in chapter 18.106 RCW, and electrical as described in chapter 19.28 RCW, or to name itself for the work. The respondent shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the respondent must indicate which subcontractor will be used for which alternate. Failure to comply with this provision or the naming of two or more subcontractors to perform the same work shall require the City (pursuant to state law RCW 39.30.060) to determine that respondent's bid is nonresponsive, therefore, the bid will be rejected.

SPECIFICATION NO. PG16-0091
TACOMA POWER
ANNUAL RE-ROOFING CONTRACT

These Special and Technical Specifications have been prepared under the direction of a licensed Professional Engineer, registered in the State of Washington

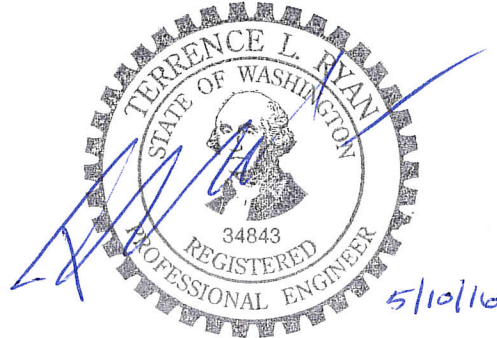


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DIVISION 1 - SPECIAL PROVISIONS

SECTION 01010 - SUMMARY OF WORK

1.1 PROJECT DESCRIPTION

This project includes the construction of furnishing all labor, tools, transportation, equipment and materials for routine and emergency call-out roofing repair and future re-roofing projects for Tacoma Power Facilities and Hydroelectric projects. The contract shall be for 2016 and 2017 with two one-year renewal options (2018 and 2019). The option years are to be awarded one (1) year at a time. The intent and purpose of this contract is to provide an on-call, licensed and bonded roofing contractor to perform construction and maintenance services to Tacoma Power.

The contractor shall supply all materials required to complete the work required by this contract in excess of those materials to be supplied by Tacoma Power as listed in Section 01040 – Project Coordination.

In all cases, the City's contract is with one (1) general contractor and it is the general contractor's responsibility to ensure all work required to provide a complete and operational facility is included in their bid. When possible, the City has attempted to reference work which should be coordinated with various trades, but it is the contractor's responsibility to coordinate and schedule work of all subcontractors, trades, and suppliers to assure the proper and timely prosecution and completion of all items of work.

Major components of work under this contract include, but are not limited to, the following list:

A. CONCEPT OF SCHEDULE

Work to be done (except for emergency repair) will be sent to the Contractor in the form of a Task Authorization (TA) attached as Appendix No. A. In some cases a site visit may be required and will be coordinated by the project manager. The Contractor will meet the designated contact on site to review the project prior to submitting their estimate attached as Appendix No. B.

Man hours and cost plus material will only be used when there are no other applicable Bid items available. Man hours and cost plus material shall not be used to supplement work needed to complete other bid items. All tasks shall be identified and totaled to determine the cost of work.

Upon acceptance of the estimate, the project manager will issue a Notice to Proceed to the Contractor for that task in writing (e-mail correspondence shall be considered acceptable). The amount of the approved estimate will be full and complete payment for the work.

Emergency repair work needed for immediate security or integrity of roofs will not require an estimate. Up to 32 man hours of onsite work may be ordered without an initial estimate and will be at a strict time and materials rate.

While the Contractor may have input into materials used and applicable bid items, the final design, material used and applicable bid items shall be as approved and/or directed by the city.

1.2 PROJECT LOCATION

These projects are located at any and/or all of the Tacoma Power Facilities. See attached area maps attached as Appendix No. B. These projects may be located in Pierce, Lewis, Thurston, Mason, and Grays Harbor Counties, Washington.

1.3 SITE SHOWING

The Contractor will be responsible for examining the site(s) and to have compared the site(s) with this specification and be satisfied as to the facilities and difficulties attending the execution of the proposed contract (such as uncertainty of weather, floods, nature and condition of materials to be handled and all other conditions, special work conditions including work schedules, obstacles and contingencies) before the delivery of their proposal.

No allowance will be subsequently made by the City on behalf of the bidder by reason of any error or neglect on the bidder's part, for such uncertainties as aforesaid.

By submitting an estimate in response to an issued task authorization, the Contractor represents that they have inspected in detail the project site and has become familiar with all the physical and local conditions affecting the project and/or the project site. Any information provided by the City to the Contractor, relating to existing conditions on, under, or to the project and/or site including, but not limited to information pertaining to hazardous material abatement and other conditions affecting the project site, represents only the opinion of the City as to the location, character, or quantity of such conditions and is provided only for the convenience of the Contractor.

The Contractor shall draw their own conclusions from such information and make such tests, review and analyses as the Contractor deems necessary to understand such conditions and to prepare their proposal.

The City assumes no responsibility whatsoever with respect to the sufficiency or accuracy of such information and there is no guarantee, either expressed or implied, that the conditions indicated or otherwise found by the Contractor as a result of any examination or exploration are representative of those existing throughout the work and/or project site.

The Contractor shall carefully study and compare the contract documents with each other and shall at once report to the City errors, inconsistencies or omissions discovered. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the contract documents without such notice to the City, the Contractor shall assume the risk and responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the contract documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the City at once.

1.4 COMMENCEMENT, PROSECUTION AND COMPLETION

The Contractor will be required to complete the contract documents and to provide a surety bond within ten (10) calendar days after the award of the contract. The Contractor may be asked to begin work outlined in the contract within ten (10) calendar days after the date of notification to commence work. Notification to commence work will be in writing (E-mail will be accepted).

Specific tasks shall begin within ten (10) days of notice to proceed for each task (Except for emergency repair). In some cases the Contractor may be required to complete work within a certain timeframe. IN some cases the contractor may be required to complete work within a certain timeframe. If the Contractor fails to complete the work within the timeframe designated at the start of the project, the City may choose to assess liquidated damages in accordance with Section 3.14 of the General Provisions.

1.5 SPECIFICATION FORMAT

This specification is written and formatted for use with Public Works specifications and is numbered to be consistent with other specifications, including Construction Specifications Institute (CSI) format, as modified by the City. It is not intended to indicate what work is to be accomplished by various subcontractors on the project. In all cases, the City's contract is with one (1) general contractor and it is the general contractor's responsibility to insure all work required to provide a complete and operational facility is included in their bid.

When possible, the City has tried to reference work which should be included with various trades, but it is the contractor's responsibility to ensure all work is properly coordinated. The numbering system in the Special Provisions Section reflects standard provisions written by the City and assigned constant numbers. Thus, gaps will appear when specific sections are not used.

1.6 CONTRACT WORK TIMES

Contract work times shall be Monday through Friday, 7 a.m. to 3:30 p.m., excluding holidays, described in Section 2.13 of the General Provisions or as otherwise approved by the City.

If the Contractor elects to work on a Saturday, Sunday, holiday or longer than the designated contract work times, such work shall be considered overtime work. On all such overtime work, a City engineer or their inspector must be present. The Contractor shall reimburse the City for the full amount of the costs for City employees who must work any such overtime hours. It shall be the engineer's decision as to when an inspector is required. For the purpose of estimation of reimbursement of City employee's overtime, the bidder shall budget \$50.00 per hour.

However, if the City orders work to be performed on overtime, all City employees' overtime costs will be at no expense to the Contractor. The City will not require reimbursement for overtime hours worked by the City for inspection as detailed in the General Provisions if the conditions of this paragraph are met to the satisfaction of the engineer.

1.7 QUALIFICATION OF CONTRACTORS

A. QUALIFIED CONTRACTORS

Only contractors with management, employees, and staff experienced in the type of work required by this specification, and with a record of successful completion of projects of similar scope, complexity, and overall cost will be considered. The Contractor must be Kemper, Malarkey, and Sika Sarnafil qualified or employ subcontractors that are qualified. The bidder must complete the Contractor's Record of Prior Contracts form attached to this specification at the time of submitting their bid. The City will be the sole judge of the bidder's ability to meet the requirements of this paragraph. Bidders past work will be judged in complexity of job, time of completion, organization, and other factors that may indicate the abilities of the Contractor.

If subcontractors are required on a project, the Contractor shall submit to the engineer within ten (10) calendar days following the issuance of a notice to proceed for each project, a list of all subcontractors, including each subcontractor's address, telephone number, and contact person to be used on this project.

After completion of the project, an evaluation prepared on the form titled "Generation Contractor Performance Review" which is attached will be completed for the general and all subcontractors on this project. This form will be used to determine the adequacy of the work performed on this project including supervisor, quality of work, and adequate manpower and equipment, and the ability for the general or subcontractor to perform work for Tacoma Power in the future.

Any exception taken by any contractor to the comments on the form should be directed to the engineer within thirty (30) days of receipt. Failure to adequately respond to a poor evaluation within this time frame will be cause for rejection of future bids. The completed evaluation form will be shared with the Contractor and subcontractors, but will be kept confidential by the City.

B. QUALIFIED SUPERINTENDENT

The Contractor shall employ a competent superintendent as referenced in Section 01040 – Project Coordination, Paragraph 1.15 – Superintendent.

1.8 SPECIFICATIONS AND DRAWINGS

Drawings will be issued as needed for each project that requires them throughout the duration of the project.

Attachments:

Appendix A	Sample Documents
	- Task Authorization Sheet
	- Project Estimate
Appendix B	Location Maps
	- TPU Complex Area Map
	- Tacoma Power Service Area
	- Cowlitz Project Area Map
	- Cushman Project Area Map
	- Nisqually Project Area Map
	- Wynoochee Project Area Map

A maximum of two (2) sets of specifications will be furnished to the successful bidder for construction purposes.

On any project that for which drawings are issued, the Contractor shall keep on the job site a full-size copy of the drawings and the specifications, and shall, at all times, give the engineer access thereto.

1.9 EVALUATION OF BIDS

The award of this contract will not be based on cost alone as other factors and features are equally important. The contract will be awarded to the lowest responsive and responsible bidder complying with the specifications; provided such bid is reasonable and it is in the best interests of the City to accept.

The City, however, reserves the right to reject any and all bids and to waive any informalities in bids received. The City reserves the right to let the contract to the lowest responsive and responsible bidder whose bid will be most advantageous to the City, price and any other factors considered.

All other elements or factors, whether or not specifically provided for in this contract, which would affect the final cost to and the benefits to be derived by the City will be considered in determining the award of the contract. In addition, the bid evaluation factors set forth in City Code Section 1.06.262 may be considered by the City. The conclusive award decision will be based on the best interests of the City. The engineer's decision as to which contractor best meets the City's need will be final.

In addition to General Provisions Section 1.08, the following factors will be used in bid evaluation:

- A. Warranty
- B. Experience of the company in completing at least three (3) projects of similar scope, complexity and overall cost.
- C. Proposal prices.
- D. Past record with the City (including satisfying safety requirements).
- E. Bidder's responsibility based on, but not limited to:
 - 1. Ability, capacity, organization, technical qualifications and skill to perform the contract or produce the services required.
 - 2. Contractor's construction record including references, judgment, stability, adequacy of equipment proposed to be furnished.
 - 3. Quality of performance of previous contracts or services

During the term of this contract, other City of Tacoma Departments/Divisions shall have the right to enter into additional service contracts or issue purchase orders based on the unit prices and/or service rates stated in this contract. An exception taken specifically to this provision at time of submittal shall not constitute a material deviation in the bidding process.

1.10 LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

LEAP is a mandatory City of Tacoma program that requires the prime contractor or service provider performing a qualifying public works project or service contract to ensure that 15-percent of the total labor hours worked on the project are performed by apprentices approved by the Washington State Apprenticeship Council (SAC) and/or residents of Tacoma. Compliance may be met through any combination of utilizing residents of Tacoma or SAC apprentices. The mission of LEAP is to provide an opportunity for City of Tacoma and Empowerment Zone/Enterprise Community residents to enter apprenticeship programs, acquire skills and perform work which will provide family-wage jobs.

LEAP Program Dollar Thresholds: LEAP applies to Public Works "civil" projects greater than \$250,000; "building" projects greater than \$750,000.; and "service" contracts on a case-by-case basis.

Required Submittals: The prime contractor or service provider must complete and provide the following reports: Prime Contractor LEAP Utilization Plan, LEAP Employee Verification Form, and LEAP Weekly Payroll Report. The Prime Contractor LEAP Utilization Plan must be submitted at the pre-construction meeting.

LEAP can assist contractors in the recruitment, screening and selection of qualified City of Tacoma applicants interested in a career in the building and construction trade occupations or other career pathways. Residents can be screened and provided with education, training and support services that lead to employment with your company.

Contractors may obtain further information by contacting the City's LEAP Office at 253-594-7933 or e-mail Peter Guzman at pguzman@cityoftacoma.org. The LEAP Office is located in the City's Community & Economic Development Department, Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, Washington 98402.

1.11 PREVAILING WAGES

In addition to the requirements of Section 3.09(B) of the General Provisions, the contractor shall be required to post on the job site a copy of the intent form to pay prevailing wages.

As identified in the General Provisions, the contractor shall comply with the law regarding prevailing wages. These rules apply to any contractor who does business with the City, including owner/operators.

A Statement of Intent to Pay Prevailing Wages **MUST** be filed with the Washington Department of Labor & Industries upon award of contract. An Affidavit of Wages Paid **MUST** be filed with the Washington Department of Labor & Industries upon job completion.

Payments cannot be released by the City until certification of these filings are received by the engineer. Additional information regarding these submittals can be obtained by calling the Department of Labor & Industries, Prevailing Wage at 360-902-5335, or by visiting their web site at:

<http://www.lni.wa.gov/tradeslicensing/prevailingwage/default.asp>

Sample documents are provided for your reference but only original forms can be submitted to the Department of Labor and Industries.

Prevailing wage rates shall be updated to the newest rates at a minimum of each 12 month contract and/or renewal period.

1.12 PERFORMANCE (SURETY) BOND OR RETAINAGE

As identified in the General Provisions 2.01 Contractor's Responsibility, the Contractor has two options when awarded a contract.

A. PERFORMANCE AND RETAINAGE BOND

A 5-percent retainage bond may be provided in lieu of the City withholding five-percent retainage. If a retainage bond is not obtained, the City will withhold 5-percent retainage until the end of the contract. If a retainage bond is provided, the City form must be used.

Contractor shall provide notice of intent to provide retainage bond ten (10) days prior to first invoice. The City may elect to allow submission of retainage bond after the first payment at its discretion.

A performance bond in the amount of 25-percent of the total amount of the Proposal is required. Since the work contained within the proposal is unknown at this time, it is recommended that the contractor include the bond costs in their proposal unit costs.

B. PROPOSAL WORK

Work shall be performed on a job-by-job basis and shall be priced according to the bid submitted in the Proposal. A site showing may be held for each job as deemed necessary by the contractor and project manager. The Project Estimate Form and shall be used to submit a cost estimate to the engineer for approval.

After the contractor's cost estimate has been approved by the engineer, the contractor will be required to submit any additional required contract documents within ten (10) calendar days after notice to proceed. Upon completion of the documents, the contractor shall be available to perform the work.

The contractor shall be notified by telephone for work assignments and shall begin work within ten (10) days of notification. The City will strive to give more time than this when possible and may also have some flexibility on when certain projects are accomplished. The contractor shall list in the proposal their response time which, in no case, will be less than specified herein.

All work as specified by the engineer shall be completed in a timely manner.

Once work is started at a specific location, the superintendent shall not be replaced by another superintendent. Work at a specific location is considered to be started after the initial site visit.

The crew size and configuration shall be as approved by Tacoma Power based on the scope of work and safety considerations.

Work will be assigned using the Task Authorization (TA) form found in Appendix A. Form attached with site maps.

1.13 PRICE ESCALATION/DE-ESCALATION CLAUSE

The City intends this contract to be a two (2) year contract for 2016_/2017 as stated in Section 01010 of the Special Provisions with an option to renew for two (2) additional one (1) year renewal options. The price guarantee shall be for an initial period of two (2) years with the price increases for option years as stated herein. Renewal years will be done at contractor's and City's mutual agreement but shall be initiated by the contractor.

Effective January 1, 2018, the price for each job minus cost plus material and force account will be increased by an amount equal to 90-percent of the increase in the Consumer Price Index for Urban Wage Earners and clerical Workers (CPU-W), Seattle-Tacoma area.

Example of time measurement would be:

For the effective increase of costs for the year 2018, the increase would be measured by 90-percent of the increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPU-W) from June 2016 to June 2017.

Submittal prices will establish a base against which vendors may request price adjustments at the time of contract renewal.

The City may consider price adjustments when presented in advance, under the following conditions:

1. The contractor will be required to submit all proposed price Escalation/De-escalation requests in writing to Mr. Jayson Lelli. Mail requests to Tacoma Public Utilities 3628 South 35th Street, Tacoma, WA 98409. Proposed price adjustments will be accepted at the time of each contract renewal period only. All price adjustments are subject to written approval by the City.
2. Any proposed adjustment must be beyond the control of the Contractor and supported by written documentation due to changes in the prevailing wage rates for Pierce County for the appropriate positions. The effective date for any proposed escalation will coincide with the Washington State Prevailing Wage Rates for public works contracts for Pierce County.
3. Price adjustments due to changes in material costs must be documented with industry standard rate increases and supported by written documentation from the manufacturer or wholesale distributor, indicating new higher cost adjustments in effect. Price adjustments due to changes in the cost of materials will only be accepted at the time of each contract renewal. Increase in material costs may be decreased as well as increased, based on market cost of raw material.

4. No upward adjustment will be made for vendor profit margin.
5. In the event that the City and Contractor cannot agree on an adjustment request, the City may terminate the contract.

In addition to the above, increase requests may be evaluated against various market conditions, including but not limited to, CPU-W & Bureau of Labor Statistics Producer Price Index information, for the comparable period, state/federal regulations affecting production costs of the materials, volatile commodity market conditions or minimum wage adjustments.

END OF SECTION

SECTION 01025 - MEASUREMENT AND PAYMENT

1.1 ADMINISTRATION

A. AUTHORITY

The City inspector or engineer in coordination with the contractor shall make all measurements and determine all quantities and amounts of work done for progress payments under the contract.

Roofing measurements and payments of bid items shall be for actual roof surface covered and not for material used. Lineal measurements shall be rounded to the nearest tenth of a foot and coverage shall be rounded to the next square foot.

Modify Section 2.14 of the General Provisions as follows.

Invoices shall be mailed to the attention of:

Beth Jones

Tacoma Power
Generation/Plant Engineering
3628 South 35th Street
Tacoma, Washington 98409

NOTE: All questions regarding contract status or payments should be directed to the project engineer.

B. BILLING PLAN FOR PROPOSAL WORK

Each roofing project shall have a Task Authorization (TA) filled out by the project manager (See Appendix A attached). The contractor will respond to the TA by submitting a project estimate sheet (See Appendix A attached) except for emergency work. The total price of the work shall as shown on the project estimate sheet. The only addition of costs shall be the difference between estimated costs for material and actual costs of materials purchased using the cost plus bid item, and change orders approved in writing due to a change in the scope of work. Once the job is complete, the contractor shall submit a one-time invoice. All receipts for items to be reimbursed under the cost plus bid item shall be attached to the invoice before payment will be approved.

C. CONTRACT PRICE

The lump sum and unit bid prices shall be full and complete compensation for the contract work stated, together with all appurtenances incidental thereto, including materials, equipment, tools, and all costs to the contractor for completing the contract in accordance with the plans, specifications, and instructions of the engineer.

All work not specifically described or mentioned in these specifications, but are required to be constructed to achieve complete and operable systems, structures or amenities shall be considered incidental items of work, not separately compensable, and its price included in items of work specified in the specifications.

The mobilization rate shall account for all pre-construction activities including time spent prior to construction to coordinate the job (including all onsite meetings) and any costs associated with mobilization/demobilization of crew, and equipment pertinent materials to the job site.

D. NON-PAYMENT FOR REJECTED OR SURPLUS PRODUCTS

Payment will not be made for any of the following:

1. Products wasted or disposed of in a manner that is not acceptable

2. Products determined as unacceptable before or after placement
3. Products not completely unloaded from the transporting vehicle
4. Products placed beyond the lines and levels of the required work
5. Products remaining on hand after completion of the work
6. Loading, hauling and disposing of rejected products

1.2 PROPOSAL ITEMS

1. MISCELLANEOUS ROOF REPAIRS AND DEMOLITION

A. MEASUREMENT

Miscellaneous roof repairs and demolition shall be measured by the man hour (MH) required to complete the miscellaneous roof repairs and/or demolition.

B. PAYMENT

The man hour (MH) contract price for miscellaneous roof repairs and demolition shall be full compensation for all costs associated with this Bid Item including labor, equipment, tools and materials required to repair existing roofs, including removal or demolition of existing roofs as ordered by the engineer or inspector. A man hour estimate will be made and approved prior to starting work. Materials, equipment, demolition, and disposal costs with this Bid Item shall be furnished by the contractor using cost plus Bid Item 25 method.

NOTE: Materials and man hours used under this bid item shall be attached to the invoice. For Mobilization and Demobilization costs to the Hydro projects, see Bid Items 20 through 23.

2. INSTALL MALARKEY LEGACY (#273 WITH 3M SCOTCHGUARD AND ALGAE RESISTANT) ROOFING SYSTEM

A. MEASUREMENT

The work under this Bid Item will be measured by the square (SQ) for asphalt shingle installation.

B. PAYMENT

Payment will be per square (SQ) to install shingles as ordered for reroofing, roof repair or new installation, including two (2) layers of 15# felt or one (1) layer of 30# felt shall be full compensation for all costs associated with this Bid Item including labor, equipment, tools and materials required to install asphalt shingles.

NOTE: Roof penetrations, fascia board and flashing and disposal, will be ordered under Bid Item 25 or force account as needed.

3. POWER WASHING OF ROOFS PRIOR TO APPLICATION OF NEW COATING SYSTEMS

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) for all work required to clean, sweep, and/or power wash a roof including cleaning gutters and downspouts and do a visual inspection to prepare a roof for a new coating system.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to power wash a roof or by other pre-approved means prepare a roof to receive a new coating system.

4. INSTALL 165 FLEECE WITH TYPE BR OR V210 RESIN, INCLUDING ROOF PREPARATION

A. MEASUREMENT

The work under this bid will be measured by the square foot (SF) to install 165 fleece with type BR, V210, or 2K-PUR resin on an existing roof or repair, as a reroof, or as a new roof. Work under this Bid Item shall include one (1) layer only of fleece.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install 165 fleece with appropriate resin.

NOTE: Requirements for flashing will be ordered using Bid Item 7 for Kemper Flashing. Repair on an existing roof where the total repair is less than 50 square feet will be paid using man hours (MH) and Bid Item 25, materials cost plus. This Bid Item will primarily be ordered for application on vertical surfaces and low traffic areas as recommended by the manufacturer.

5. INSTALL D PRIMER (ONE COAT) BASE COAT

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to install D primer base coat.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install D primer base coat.

6. TOP COATING WITH HSS WDG 535 SILICONE ROOF COATING SYSTEM

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install top coating with HSS WDG 535 Silicone Roof Coating System.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install HSS WDG 535 Silicone Roof Coating System.

NOTE: Coating shall be applied at a rate of two (2) gallons/square and a thickness of 25-30 mils to achieve a ten-year warranty.

7. INSTALL 165 FLEECE WITH BR, V210, OR 2K-PUR RESIN AS FLASHING

A. MEASUREMENT

The work under this Bid Item will be measured by the lineal foot (LF) to furnish and install one (1) layer of 165 fleece and BR, V210, or 2K-PUR resin complete as flashing. Flashing shall be a minimum of 10-inches wide.

B. PAYMENT

Payment will be per lineal foot (LF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install 165 fleece with BR resin as flashing.

NOTE: Flashing may be ordered for use with a new Kemper surface or as part of a repair on an existing Kemper roof or as flashing on a modified built-up roof.

8. INSTALL MALARKEY TORCHABLE ROOFING SYSTEM

A. MEASUREMENT

The work under this Bid Item will be measured by the square (SQ) to furnish and install either/or Malarkey 159 APP base sheet or 162 APP cap sheet membrane roofing system.

B. PAYMENT

Payment will be by the square (SQ) and shall be full compensation for all labor, materials, equipment, and tools required to install Malarkey 159 APP base sheet or 162 APP cap sheet membrane roofing systems.

9. INSTALL A MODIFIED ASPHALT SEBS BUILT-UP ROOF

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install SEBS (System M4-XX-BBD-S) built-up roof on a new roof or existing roof as a repair, or as a reroof.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install a modified asphalt SEBS built-up roof system.

NOTE: Requirements for flashing will be ordered under Bid Item 25. Removal of existing material will be done under Bid Item 1 for Miscellaneous Roof Repairs and Demolition.

10. INSTALL HOT ASPHALT BUILT-UP ROOF

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install (System M4-XX-BBD-H) a hot asphalt built-up roof on a new roof or existing roof as repair, or as a reroof.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install a hot asphalt built-up roof system.

NOTE: Requirements for flashing will be ordered under Bid Item 25, Cost Plus. Removal of existing material will be done under Bid Item 1 for Miscellaneous Roof Repair and Demolition.

11. INSTALL RESIDENTIAL GRADE CONTINUOUS GUTTERS AND DOWNSPOUTS

A. MEASUREMENT

The work under this Bid Item will be measured by the linear foot (LF) to furnish and install residential grade continuous gutters and downspouts. Work includes all attachment hardware, removal and disposal of existing gutters and downspouts and all other requirements not listed herein as a Bid Item.

B. PAYMENT

Payment will be per linear foot (LF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install continuous gutters and downspouts.

NOTE: Work under this Bid Item includes the addition or replacement of existing gutters and downspouts as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. The option to add gutter leaf and debris guards will be ordered under bid item 25, cost plus.

12. INSTALL 30# FIBER BASE SHEET SBS FIBERGLASS

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install 30# fiber base. Work includes all attachment hardware, asphalt, and all other requirements not listed herein as a bit item. (To be used over insulation when installing Kemper roofing system.)

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install 30# fiber base as ordered.

NOTE: Work under this Bid Item includes the addition or replacement of existing roofs on structures as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. This item is not to be used with Malarkey system two (2) ply and cap sheet.

13. REPLACE ROTTEN PLYWOOD ROOF DECKING

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to remove and replace rotten or damaged plywood wood decking as ordered. Thickness of the replacement plywood shall match existing. Minimum order shall be 32 square feet.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to remove and replace rotten or damaged plywood decking.

NOTE: This Bid Item includes disposal of waste material.

14. INSTALL PREFORMED METAL ROOF SYSTEMS

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install a preformed metal roof. Work includes vented ridge, eave, rake flashing, and pipe penetration flashing. Work also includes attachment hardware, sealant, one (1) layer 30# felt and all other requirements not mentioned herein as a Bid Item. Mechanical curbs will be paid under force account.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install a preformed metal roof.

NOTE: Work under this Bid Item includes the addition or replacement of decking to structures as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. Removal of an existing material will be ordered under Bid Item 25.

15. INSTALL BLANKET INSULATION UNDER NEW METAL ROOF DECKING

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install blanket insulation under new metal roof decking as ordered. Work includes all attachment hardware, sealant, and all other requirements not mentioned herein as a Bid Item. Material will be furnished using the cost plus Bid Item.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install blanket insulation under new metal roofing.

NOTE: Work under this Bid Item includes the addition or replacement of insulation to structures as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. Removal of an existing material will be ordered under Bid Item 1 and further removal of waste materials, ordered under Bid Item 25.

16. INSTALL ROOF INSULATION BOARD 4-INCHES THICK

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install roof insulation board. Work includes all attachment hardware, sealant, and all other requirements not mentioned herein as a Bid Item.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to install roof insulation board.

NOTE: Work under this Bid Item includes the addition or replacement of insulation to structures as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. Removal of an existing material will be ordered under Bid Item 1 and further removal of waste materials, ordered under Bid Item 25.

17. INSTALL ADDITIONAL TAPERED ROOF INSULATION BOARD TO ACHIEVE SLOPE

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) for the installation of additional roof insulation board to achieve adequate slope.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required for the installation of additional roof insulation board to achieve adequate slope.

NOTE: Work under this Bid Item includes the addition or replacement of insulation to structures as ordered. Drawings will be included with the delivery order for roofing requirements not yet identified. Removal of an existing material will be ordered under Bid Item 1 and further removal of waste materials, ordered under Bid Item 25.

18. INSTALL SELF-ADHERING ICE-WATER SHIELD UNDERLAYMENT

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install self-adhering ice / water shield underlayment for waterproofing purposes and to prevent moisture intrusion as ordered.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install self-adhering ice-water shield underlayment.

19. SIKA SARNAFIL PVC MEMBRANE OVERLAY ROOF SYSTEM

A. MEASUREMENT

The work under this Bid Item will be measured by the square foot (SF) to furnish and install 60 mil Sika Sarnafil PVC membrane overlay roof system on an existing roof as a repair, or as a new roof overlay.

B. PAYMENT

Payment will be per square foot (SF) and shall be full compensation for all labor, materials, equipment, and tools required to furnish and install 60 mil Sika Sarnafil PVC membrane overlay roof system per the manufacturers recommendations (reference section 07545).

20. MOBILIZATION/DEMobilIZATION AT THE CUSHMAN HYDROELECTRIC PROJECT

A. MEASUREMENT

Mobilization/Demobilization for any roofing project at the Cushman Hydroelectric Project (See Cushman Project Area Map Appendix B) shall be measured per each (EA) for each different job request. Measurement shall be as specified in Section 01025, Paragraph 1.1.C. There will be only one (1) mobilization payment per project

B. PAYMENT

The per each (EA) contract price Mobilization/Demobilization for the Cushman Hydroelectric Project shall be full compensation for all labor, materials, equipment, and tools required to mobilize/demobilize for any roofing repairs or installations. Mobilization/Demobilization shall be considered one (1) Bid Item.

This Bid Item includes all transportation costs of materials, equipment, and tools to and from the job site, all travel for laborers, management, inspection, mobilization/demobilization to the job site, preparation of work areas, demobilization including cleanup and site restoration.

21. MOBILIZATION/DEMobilIZATION AT THE COWLITZ HYDROELECTRIC PROJECT

A. MEASUREMENT

Mobilization/Demobilization for any roofing project at the Cowlitz Hydroelectric Project (See Cowlitz Project Area Map Appendix B) shall be measured per each (EA) for each different job request. Measurements shall be as specified in Section 01025, Paragraph 1.1.C. There will be only one (1) mobilization payment per project.

B. PAYMENT

The per each (EA) contract price Mobilization/Demobilization for the Cowlitz Hydroelectric Project shall be full compensation for all labor, materials, equipment, and tools required to mobilize/demobilize for any roofing repairs or installations. Mobilization/Demobilization shall be considered one (1) Bid Item.

This Bid Item includes all transportation costs of materials, equipment, and tools to and from the job site, all travel for laborers, management, inspection, mobilization/demobilization to the job site, preparation of work areas, demobilization including cleanup and site restoration.

22. MOBILIZATION/DEMOBILIZATION AT THE NISQUALLY POWER PROJECT

A. MEASUREMENT

Mobilization/Demobilization for any roofing project at the Nisqually Hydroelectric Project (See Nisqually Project Area Map Appendix B) shall be measured per each (EA) for each different job request. Measurements shall be as specified in Section 01025, Paragraph 1.1.C. There will be only one (1) mobilization payment per project.

B. PAYMENT

The per each (EA) contract price Mobilization/Demobilization for the Nisqually Hydroelectric Project shall be full compensation for all labor, materials, equipment, and tools required to mobilize/demobilize for any roofing repairs or installations. Mobilization/Demobilization shall be considered one (1) Bid Item.

This Bid Item includes all transportation costs of materials, equipment, and tools to and from the job site, all travel for laborers, management, inspection, mobilization/demobilization to the job site, preparation of work areas, demobilization including cleanup and site restoration.

23. MOBILIZATION/DEMOBILIZATION AT THE WYNOOCHEE POWER PROJECT

A. MEASUREMENT

Mobilization/Demobilization for any roofing project at the Wynoochee Hydroelectric Project (See Wynoochee Project Area Map Appendix B) shall be measured per each (EA) for each different job request. Measurements shall be as specified in Section 01025, Paragraph 1.1.C. There will be only one (1) mobilization payment per project.

B. PAYMENT

The per each (EA) contract price Mobilization/Demobilization for the Wynoochee Hydroelectric Project shall be full compensation for all labor, materials, equipment, and tools required to mobilize/demobilize for any roofing repairs or installations. Mobilization/Demobilization shall be considered one (1) Bid Item.

This Bid Item includes all transportation costs of materials, equipment, and tools to and from the job site, all travel for laborers, management, inspection, mobilization/demobilization to the job site, preparation of work areas, demobilization including cleanup and site restoration.

24. FORCE ACCOUNT, PER LUMP SUM

A. MEASUREMENT

Measurement will be made for Force Account in accordance with Section 1-09.6 of the latest edition of the Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation as modified by Force Account Work in the Special Provisions or on negotiated lump sum or unit price change orders added to the contract.

B. PAYMENT

Payment shall be made for change order items added to the contract which shall be treated as a deduction to the force account remaining available.

25. FURNISH ROOFING SUPPLIES, MATERIALS, DISPOSAL COSTS, AND SPECIAL EQUIPMENT RENTAL AT COST PLUS

FOR MATERIALS

A. MEASUREMENT

The City will reimburse invoice cost plus 'percent mark-up' for Contractor-supplied materials. For the purpose of this provision, "Materials" shall include those items incorporated into the work, supplies used during the work and items consumed required to support other Bid Items, but not specially listed under those items. Before work is started, the Engineer may require the Contractor to obtain multiple quotations for the materials to be utilized and select the vendor with prices and terms most advantageous to the City. The cost plus percentage for materials furnished under this Bid Item shall include all coordination, transportation, man hours, and material research required to identify material types, and processing all invoices to the City for payment.

B. PAYMENT

The unit price of cost plus percent mark-up shall be full compensation to Furnish Materials at Cost Plus as shown on the plans and specifications and as listed in the proposal. The contractor must provide supporting documentation or actual invoices when submitting materials for payment.

FOR DISPOSAL COSTS

A. MEASUREMENT

Compensation for disposal costs shall be made on the basis of an invoice from the providing entity. For the purpose of this provision 'Disposal Costs' shall be those services utilized to support other Bid Items but not specifically listed under those items. The Engineer may require the Contractor to obtain multiple quotations for disposal costs and select the vendor with prices and terms most advantages to the City. The cost plus percentage for disposal costs under this Bid Item shall include all coordination, transportation, man hours, and research required and processing all invoices to the City for payment.

B. PAYMENT

The unit price of cost plus percent mark-up shall be full compensation for Disposal Costs at Cost Plus as shown on the plans and specifications and as listed in the proposal. The contractor must provide supporting documentation or actual invoices when submitting disposal costs for payment.

FOR SPECIAL EQUIPMENT

A. MEASUREMENT

The City will reimburse the Contractor for the cost of special equipment utilized in the Work. The work under this Bid Item will include providing all equipment required to support other Bid Items, but not specifically listed under those items. The Engineer may require the Contractor to obtain multiple quotations for equipment costs and select the vendor with prices and terms most advantages to the City. Cost plus a percentage for equipment furnished under this Bid Item shall include all coordination, transportation, man hours and equipment research needed to identify equipment types, and processing all invoices to the City for payment.

B. PAYMENT

Payment will be by the cost of the equipment plus a stated percent mark-up and payment shall be full compensation for all costs associated with this Bid Item as listed in the proposal. The contractor must provide supporting documentation or actual invoices when submitting equipment for payment.

1.3 FORCE ACCOUNT WORK

This section supersedes Section 3.10, Paragraph C of the General Provisions.

In certain circumstances, the contractor may be required to perform additional work. Where the work to be performed is determined to be extra and not attributed to the contractor's negligence, carelessness, or failure to install permanent controls, it shall be paid in accordance with the unit contract price or by force account.

Such additional work not covered by contract items will be paid for on a force account basis in accordance with Section 1-09.6 of the Standard Specifications or as a negotiated change order with lump sum or unit price items. For the purpose of providing a common proposal for all bidders and for that purpose only, the City has estimated the potential cost of force account work, and has entered the amount in the bid proposal to become a part of the total bid by the contractor. However, there is no guarantee that there will be any force account work.

1.4 NON-PAYMENT FOR REJECTED OR SURPLUS PRODUCTS OR WORK

Payment will not be made for work rejected by the City. Products or work not meeting contract requirements shall be replaced by the contractor at no expense to the City, regardless of the impact to work, schedule or cost.

1.5 AS-BUILTS

If drawings are issued and as-built drawings deemed necessary by the project manager during the contract period, the final payment of this contract will not be released until complete "AS-BUILT" plans are received and approved by the engineer.

END OF SECTION

SECTION 01040 - PROJECT COORDINATION

1.1 PROJECT ENGINEER/LEAD

The project engineer/lead shall be herein referenced as engineer in these specifications.

Construction management for this project with whom the contractor shall coordinate all their activities will be Mr. Jayson Lelli once the notice to commence work is issued. Any changes to these specifications or plans shall be approved by this engineer prior to commencing any work.

Bidder inquiries, regarding technical specifications or for general purchasing provisions, contact Mr. Joe Parris, Purchasing, at jparris@cityoftacoma.org.

1.2 MEETINGS

A. PRE-BID MEETING

No pre-bid meeting will be held for this project. It has been determined that this specification provides sufficient information to bidders so that they may accurately provide pricing on the requested proposal items. If additional information is required regarding: Technical Specifications or for General Purchasing Provisions, contact Mr. Joe Paris at jparris@cityoftacoma.org. Small Business Enterprise (SBE) requirements, contact the SBE office at 253-591-5224, or Local Employment and Apprenticeship Program (LEAP) requirements, contact the LEAP office at 253-594-7933.

B. PRE-CONSTRUCTION MEETING

Due to the on call maintenance and repair nature of this contract, pre-construction meetings will be held on a project specific basis as deemed necessary by the selected contractor and project engineer. These meetings will be held for the sole purpose of the contractor to familiarize themselves with each project so that they may submit and accurate estimate for approval prior to commencing work on each project.

1.3 PERMITS

The contractor shall apply for, obtain, and pay for all necessary permits during the term of the contract. Reimbursement for the actual permit fee will be made under the Force Account Item or paid by the City directly to the agency as applicable.

1.4 COORDINATION WITH OTHERS

A. OPERATION OF EXISTING FACILITIES

The facilities or portions of facilities within the project limits must be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained by the City in advance, portions of the existing facilities may be taken out of service for short periods.

It is possible that other contractors or the City will be working in the project area during the time of construction. It shall be the responsibility of this contractor to coordinate its work with all other agencies and/or contractors within the project area.

The contractor shall also be responsible to minimize disruptions to access road within the transmission line. Directions of the engineer and/or inspector shall be followed at all times.

The contractor shall also be responsible to minimize disruptions to building occupants during working hours 6:30 a.m. to 6:00 p.m., Monday through Friday.

Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

Existing transmission lines, distribution lines, and utility lines will be encountered during the course of this project. These service systems will remain energized and functional during construction except as otherwise provided for in these specifications. Additional coordination will be required for the City to provide a safety watch while working in these areas.

All construction activities shall be coordinated daily with the engineer or their designated representative. Changes to the schedule that will impact on dates shown as milestones on the schedule shall be coordinated with the engineer on a daily basis.

The City will be using this facility for ongoing daily operations.

The contractor shall become familiar with the ongoing operations and include all coordination required as part of the bid. The contractor shall follow all requirements of the City and do all coordination as part of the required work.

Work crews will be required to check in an obtained temporary contractor access control badge from the security office when working at the TPU complex.

1.5 DIVISION OF WORK

A. MATERIAL FURNISHED AND INSTALLED BY CONTRACTOR

The contractor shall furnish and pay for all necessary materials (except City-furnished) and shall provide all labor, tools, equipment and superintendent, and perform all work incidental to the completion of the project as contemplated by this contract in accordance with the plans, specifications, and instructions of the engineer.

Each subcontractor shall furnish and install all materials and equipment unless otherwise specified.

Requests for use of alternate materials shall be submitted prior to bid opening in accordance with Section 01300, Paragraph 1.4 – “Or Equal” Clause or Substitutions.

B. CITY-FURNISHED MATERIAL INSTALLED BY CONTRACTOR

All material received by the contractor shall become their responsibility and the contractor shall be liable for any materials lost or damaged after receipt.

1.6 LIMITATION OF CONTRACTOR'S WORK AREA/OR CONTRACTOR'S USE OF PREMISES

A. CITY OCCUPANCY

All project and/or their surrounding areas will be occupied/used by the City for on-going daily operations. If required, the City will designate areas to be kept clear during all phases of construction.

B. WORK BY OTHERS AND WORK BY CITY

The contractor shall coordinate all activities with the City during the construction period and shall comply with all security and access control requirements.

C. CONTRACTOR'S USE OF PREMISES

All requests for use of areas not designated for use by the contractor shall be made in writing to the engineer for approval at least four (4) days in advance of the need. The engineer shall approve those areas for use prior to use by the contractor.

All staging and work areas shall be submitted with bids for approval by the engineer.

E. CONTRACTOR REQUIREMENTS FOR SUBSTATION WORK.

Work done inside substation will require additional accommodations and coordination. Including, but not limited to the presence of a safety watch and potential work clearances near powerlines. The Contractor will provide a minimum of four (4) business days' notice when planning to work in these areas.

1.7 HAZARDOUS MATERIALS

If the Contractor or project engineer determines that an area is suspect to contain hazardous materials, the City will test these areas of work to be disturbed during construction. The City will bear all costs for the testing, removal, and disposal of the hazardous materials and the Contractor will not be held responsible for any delays that result from this work. The contractor is required to follow all local, state, and federal laws pertaining to the disturbance, removal, handling, storing, transporting, and disposal of all materials deemed hazardous by law.

All work shall be performed by workers certified by Washington State Department of Labor and Industries as having successfully completed a state approved training course. All work shall be in accordance with EPA Title 40 CFR.

1.8 CONTRACT CHANGES

The City has developed four (4) forms to facilitate and track communications with the contractor. These are the **Request for Information (RFI)**, **Engineering Change Directive (ECD)**, **Proposal Request (PR)**, and **Change Order Proposal (COP)**. These forms are included at the end of the Special Provisions.

The **Request for Information (RFI)** shall be used by the contractor whenever written direction conflicts with plans, insufficient or unconstructable detail is shown, or any other issue which should be documented arises. The City may also use the form to inquire on contractor's methods, schedule or other issues not warranting more formal letter correspondence. The contractor shall maintain the numbering system and, as such, any issued by the City will be unnumbered until delivered to the contractor.

The **Engineering Change Directive (ECD)** shall be used by the City to transmit new or revised drawings, issue additions or modifications to the contract or furnish any other direction which should be documented. Directives are effective immediately. Should the contractor believe that such Directive should result in either a change in cost or time for the project, they shall notify the engineer prior to commencing such work and, if possible, submit a **Change Order Proposal** prior to the start of such work, but in no case, less than seven (7) days from receipt of said Directive.

In the event the City does not receive a **Change Order Proposal** from the contractor within seven (7) calendar days of the contractor's receipt of a Directive from the City, the contractor shall have no claim for extra cost or time or impacts attributable to the work required by the Directive. (Directives are numbered by the City.) Once the City and the contractor have established a price for the changes required by the Directive or any other request by the City for a change in the work, and a **Change Order Proposal** issues reflecting the agreed upon price, it is agreed and understood that the price reflected by the **Change Order Proposal** shall include all direct costs, indirect costs, and the contractor's estimate of impacts to its work, including but not limited to delay impacts, and shall represent a full and final settlement of all issues pertaining to the work required by the Directive, and work performed by the contractor up to the date of the **Change Order Proposal**.

The **Proposal Request (PR)** shall be used by the City to request pricing on a possible change in plans or additional work. The PR may also be used to request credits for deletion or changes in scope of work. The contractor shall respond to such requests with a **Change Order Proposal** within seven (7) days from receipt of said Request unless more time has been agreed to. Requests are numbered by the City.

The **Change Order Proposal (COP)** shall be used by the contractor to respond to City issued Proposal Requests, Engineering Change Directives or when the contractor believes that changed conditions or omitted, but necessary, work items exist. The COP may be used for requested changes in cost or time of the contract. COPs shall be numbered by the contractor, and, in the case of revision or resubmission of the same basic COP, the number shall be hyphenated with the letter "B", "C", etc.

1.9 DIFFERING SITE CONDITION

Differing site conditions shall be administered in accordance with Sections 1.04.5, 1.04.7, and 1.09.11 of the Standard Specifications except as stipulated in these Special and General Provisions. Contractor shall have no claim for additional costs or work, if it fails to submit a written RFI to the City immediately upon encountering any differing site condition, conflicts in the plans, specifications, or constructability issues.

The contractor shall promptly, and before conditions are disturbed, notify the engineer or their field representative of problems with subsurface conditions at the site, problems or conflicts in the plans or specifications or problems on constructability. A written **Request for Information (RFI)** shall be submitted by the contractor when such problems and direction are required.

The engineer shall promptly investigate the conditions, and if agreed upon with the contractor, adjustment shall be made on the appropriate details in writing to facilitate construction. The response may be on the **RFI** or may necessitate an **Engineering Change Directive (ECD)** or **Proposal Request (PR)**. No claim by the contractor under this differing site condition shall be allowed except as agreed upon in writing with the engineer.

Whenever possible, should the City desire extra work to be performed a **Proposal Request (PR)** shall be sent to the contractor.

Whenever possible, the contractor shall submit in advance and in writing, a **Change Order Proposal (COP)** for changes in the scope of work and/or contract amount. This proposal shall be either accepted or rejected in writing by the project engineer prior to work commencing. When no agreement can be reached, the City may order extra work on force account.

When time is short, the contractor shall notify the City extra work is required or the City shall notify the contractor that extra work is needed and at a minimum, the engineer shall issue a handwritten **Engineering Change Directive**. In such cases, said handwritten **Directive** will not be considered as agreement that such work is extra. Within seven (7) days, the contractor shall submit a written **Change Order Proposal** for changes in the scope of work and/or contract amount.

1.10 CITY OCCUPANCY

The City reserves the right to use or to occupy any substantially completed part of the project, and to use equipment installed under the contract prior to the date of final acceptance. Such use of occupancy shall not constitute acceptance of the work, or any part thereof.

During construction, normal operations will be ongoing at all project sites.

The contractors work shall not cause interruption of electrical, lighting, and HVAC for adjacent areas and quadrants for the duration of the project, unless deemed necessary and agreed to by the project engineer prior to the interruption of service.

The contractor shall take special care that the use of Kemper Roof System, and (other highly volatile or odorous fume products) will be done after 6:00 p.m. unless otherwise agreed to by the project engineer.

Removal of demolition material, transportation of new construction material, and work involving rotor hammers or other noisy equipment shall be done as to not inconvenience the tenants of the areas adjacent to the project areas. If this work proves to be a disturbance to the adjacent work areas than the work will be required to be done after normal business hours or one weekends at no additional cost to the City.

The contractor will cooperate with the City to minimize conflict and to facilitate the City's operations.

The contractor will schedule the work to accommodate this requirement.

1.11 SUPERINTENDENT

The contractor shall employ a competent superintendent (foreman) who shall be present at the project site at all times during the entire progress of the work. The superintendent shall be on site even when only a subcontractor is working, unless otherwise approved by the engineer. The foreman shall be satisfactory to the contractor, and shall have full authority to act on their behalf.

If plans are provided for a project, it will be the foreman's responsibility to have a set of plans and specifications on the project site during the progress of the work. The foreman shall mark or record on the plans all changes made during construction. Such "AS-BUILT" plans shall be available to the engineer at all times and shall be delivered to the engineer upon completion of the work.

On larger projects, the superintendent initially assigned to the project by the general contractor shall remain superintendent for the duration of that project. If the superintendent is replaced, all work shall stop until an additional preconstruction meeting with the City is held. This work stoppage will be at the contractor's expense. The completion date shall remain unchanged, regardless of any work stoppage.

1.12 CLEAN UP

In addition to Section 3.11 - Cleaning Up of the General Provisions

A. DAILY

The contractor and the City inspector will walk the site daily and as required to determine the clean up and restoration required.

All areas shall be left safe, clean and free of debris.

Surplus, tools, temporary structures, dirt and rubbish shall be removed and disposed of by the contractor, and the construction site shall be left clean to the satisfaction of the engineer.

Clean up is considered incidental to the project and no payment will be allowed.

Collect waste daily and when containers are full, legally dispose of waste off site.

Clean-up of any area impacted by the construction shall be done weekly or as directed/instructed by the engineer.

END OF SECTION



CHANGE ORDER PROPOSAL (COP) GENERATION SECTION

Project Name: _____

Date: _____

Specification No: _____ Contract No. _____

COP No. _____
(Numbered By Contractor)

Contractor Name: _____

Ref No. _____
(Prop Request or Eng Change Dir.)

TITLE:

Scope of Change Order/Work: _____ (Attach City Proposal Request when applicable)

☐ Sketch Attached

☐ Drawing Attached

☐ Additional Pages Attached

Cost/Credit \$ _____

Time Extension Request _____

Submitted by: _____

Contractor

The change order includes all contractor(s) labor, material, overhead, profit and all direct and/or indirect costs associated with the change in the scope of work.

☐ Approved

☐ Disapproved

☐ Resubmit

Comment:

Tacoma Power

Date _____

Prior to any extra work or within seven (7) days of discovery of any claim, the contractor shall submit a written proposal for changes in the scope of work and/or contract amount using this **Change Order Proposal**.



ENGINEERING CHANGE DIRECTIVE (ECD) GENERATION SECTION

ECD NO:

(Numbered By City)

Date: _____

Project Title: _____

Contract No. _____

Specification No: _____

Contractor Name _____

Ref. No: _____

(RFI, etc.)

TITLE:

You are directed to make the following modification(s) in the scope of work of this contract.

☐ Sketch Attached ☐ Drawing Attached ☐ Additional Pages Included

This document becomes effective upon receipt by the contractor, with signature of a representative of the City. The contractor shall then commence with the modification(s) listed above. Signature by the contractor signifies agreement that the proposed modifications will not, may, or will result in a claim for changes in contract sum or time.

Signed By: _____ Signed By: _____

Tacoma Power

Date

Contractor (Check Box Below)

Date

This construction change directive: ☐ will not; ☐ may; ☐ will; result in a claim supported by filing of a **Change Order Proposal** prior to any extra work, but not later than seven (7) days.



REQUEST FOR INFORMATION (RFI) GENERATION SECTION

(Form Used By Contractor To Clarify Work Directed By City OR
By City When Information Needed From Contractor/Contract)

Date: _____

RFI NO:

(Numbered By Contractor)

Project Title: _____

Specification No: _____

Ref. No: _____

(If Available, ECD, etc.)

ARCHITECT:

OWNER:

Tacoma Power
3628 South 35th Street
Tacoma WA 98409

CONTRACTOR:

SUBJECT:

☐ Architectural ☐ Civil ☐ Structural ☐ Mechanical ☐ Electrical ☐ Other

Request/Recommended Solution: _____

☐ Attachments

Date Required
For Response:

Initiated By:
(Name)

(General
Contractor)

Response: _____

☐ Attachments

Response Date:

Response By:
(Name)

(Firm)

*NOTE: Prior to any extra work or within seven (7) days of discovery of any claim,
the contractor shall submit a written proposal for changes in the Scope of Work
and/or contract amount using the **Change Order Proposal**.*

City Approval:

The Owner (Tacoma Power) reviewed the foregoing request and finds the response to be in order.

Reviewed By: _____

Project Engineer

Date: _____

Copies: ☐ Owner ☐ Consultants ☐ File ☐ _____ ☐ _____



PROPOSAL REQUEST (PR) GENERATION SECTION

Project Name: _____

Date: _____

Specification No: _____

Contract No. _____

Proposal Request No. _____
(Numbered By City)

Contractor Name: _____

Ref. No. _____
(If Applicable)

Please submit a breakdown of the proposed costs for modification(s) to the contract sum and/or contract time associated with the proposed changes in the scope of work and to the contract documents described below.

This is not a change order or a notice to proceed with the work described below.

TITLE:

Description of proposed changes:

☐ Sketch Attached

☐ Drawing Attached

☐ Additional Pages Attached

Submitted by:

Information Provided by:

Tacoma Power

Contractor

Date

Date

The proposal shall include all contractor(s) labor, material, overhead, profit and all direct and/or indirect costs associated with the change in scope of work.

SECTION 01300 - SUBMITTALS AND SHOP DRAWINGS

1.1 SUBMITTALS REQUIRED/REQUESTED WITH BID

In addition to the items listed in the Bidders Checklist, the bidders **shall** submit with their bid package the following information. This information will be used for evaluation purposes.

1. Experience and success of the company completing at least three (3) projects of similar scope, complexity, and overall cost. A detailed list of comparable projects with current list of contacts shall be submitted with the bids.
2. The general contractor's proposal will contain a roofing guarantee which will include the following:
 - a. All manufacturer's materials used, if properly applied, for asphalt tab, and metal roofing systems shall last for a period not less than twenty (20) years from the date of acceptance of work by the City. However specific warranty periods shall be as specified in each material specification section.
 - b. All labor and materials used shall guarantee a leak-free roof for a period not less than two (2) years from the date of acceptance of work by the City.
3. Certification that the bidder is Kemper Malarkey and Sika Sarnafil qualified per section 01010, paragraph 1.7 – Summary of Work in lieu of the bidder being certified for these roofing applications they may designate a qualified subcontractor to do this work. Submittal of this designated subcontractor along with their certifications to do this work will be required with the general contractor's proposal.

1.2 DOCUMENTS REQUIRED AFTER AWARD OF CONTRACT

- A. Work Hazard Analysis Report as required in Paragraph 3.06(B) of the General Provisions.
- C. If the general contractor intends on using a subcontractor, a list of Subcontractors, including each subcontractor's address, telephone number, and contact person to be used on this project.

1.3 SUBMITTALS AND SHOP DRAWINGS DURING CONSTRUCTION

Submittals and shop drawings submitted to the City as specified herein are intended to show compliance with the contract documents. Signatures, corrections or comments made on submittals do not relieve the contractor from compliance with requirements of the drawings and specifications. Neither does acceptance or approval of submittals by signature add to or delete from any contract requirements resulting from these specifications regardless of the wording of the submittals. Submittals will not be reviewed or approved when the term "By Others" is used. Submittals are reviewed or approved for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating their work with that of other contractors and agencies, and performing their work in a safe and satisfactory manner. Piece-mealing of submittals will not be accepted.

A. SUBMITTALS PROCEDURES

1. Submittal Requirements: Submit as specified under individual sections. Submittals not requested will not be recognized or processed.

2. Transmittal Form: Accompany each submittal with transmittal letter, in triplicate. Transmittal form will be supplied by the engineer.
3. Submittal Numbering: Sequentially number transmittal forms in order submitted. Add alphabetic suffix to original submittal number of re-submittals.
4. Submittal Identification: Include project, contractor, subcontractor or supplier, pertinent drawing and detail number, specification section number, manufacturer, fabrication, product, material, and, as appropriate
5. Contractor shall review submittals for adequate installation interface for all work prior to submitting them to the City.
6. Schedule of Submittals: Deliver to engineer, promptly, to meet critical path, and lead times as required to expedite the project.
7. Turn-Around Time: Allow from time of receipt ten (10) working days for each submittal and each re-submittal to be reviewed by the engineer.
8. Coordination and Consolidation of Submittals: Submit related items, sections or trades under one (1) submittal package for each unit of work or system where possible.
9. Deviations on Submittals: Identify deviations, including products and systems, not conforming with contract documents.
10. Product and System Limitations: Indicate conditions which may be detrimental to successful performance or completion of work.
11. Substitutions to Specified Items: Submit for approval in accordance with Section 1.4 "Or Equal" Clause or Substitution. Do not indicate or otherwise imply substitutions to specified items, except as approved.
12. Re-Submittal Requirements: Revise initial submittal as directed and re-submit. Following procedures specified for the initial submittal. Make any corrections or changes in the submittals required by the engineer. Revise and make any further re-submittals until no exceptions are taken. Identify changes on re-submittal made since previous submittal.

C. SHOP DRAWINGS

1. Number and format: Submit one (1) full size hard copy drawing and accompanying digital file in its native format, i.e. CAD, PDF, or other digital document.
2. Submittal Procedure: Submit for engineer's review in accordance with submittal procedures specified in this section. After approved drawings are return, the contractor shall reproduce and distribute copies to subcontractors and other entities, as applicable.
3. Maximum Sheet Size: 24-inches by 36-inches or other allowable sizes of 8-1/2-inches by 11-inches or 11-inches by 17-inches.
5. Presentation: Hand drafted or computer generated, delineated to present information in a clear and thorough manner. Freehand drawings not approved. CAD drawings.
7. Engineer Changes to Submittals which affect Contract Sum or Contract Time: Do not distribute to being work related to submittal. Notify engineer immediately.

D. PRODUCT DATA

1. Number of Copies: Submit two (2) copies to be retained by the engineer.

2. Submittal Procedures: Submit for engineer review in accordance with submittal procedures specified in this section. After review, distribute to subcontractors and other applicable entities. Maintain one (1) copy for project record documents to be delivered to engineer at project completion.
3. Identification: Mark each copy to identify specific products, models, options, tolerances, dimensions, and other pertinent data.
4. Manufacturer's Standard Data: Modify drawings and diagrams to delete inapplicable information. Supplement to provide pertinent information unique to project.

E. ELECTRONIC FILES OF WARRANTIES FROM MANUFACTURERS:

1. Electronic warranties must be submitted in .PDF and compatible with the latest version of Adobe Professional.
2. Manuals should be scanned at 300 DPI.
3. Color originals should be scanned to color images if possible.
4. All .PDF files should be scanned at using Optical Character Recognition (OCR)
5. Warranties must be submitted as a single .PDF file; addendums and attachments (may or may not include drawings) should not be submitted separately, or in different file formats.
6. Warranties comprised of several sections or chapters should be bookmarked by the manufacturer.
7. If a manufacturer wished to include security settings (so that their documents are "read-only"), that is acceptable provided that Tacoma Power can view and print from the file.

F. SAMPLES

1. Quantity or Number: Submit one (1) each to be retained by engineer, except as otherwise specified by individual specification sections. Submit additional as required by contractor for distribution.
2. Submittal Procedure: Submit for engineer's review in accordance with submittal procedures specified in this section. After review, distribute to applicable entities.
3. Size and Completeness: As specified by individual sections. When not specified, submit samples of sufficient size and completeness to clearly illustrate product.
4. Identification: Label each sample with project title and complete product identification, including manufacturer, model number, descriptive name, supplier, and as applicable to sample identification.
5. Functional Characteristics: Include parts, attachments, and components as applicable. Coordinate with interfacing work.
6. Aesthetic Characteristics: As required for selection of colors, finishes, patterns, and as required or requested to finalize selection process. Furnish full range of manufacturer's custom and standard selections. Where selection is specified, submit as required to show conformance to contract documents.

G. COLOR SAMPLES

The contractor shall submit color samples for each project as required by the project engineer.

1.4 "OR EQUAL" CLAUSE OR SUBSTITUTIONS

A. GENERAL

When the engineer approves a substitution, it is with the understanding that the contractor guarantees the substituted article to be equal to, or better than, the article specified. The engineer will judge the suitability, reliability, and service availability of a proposed substitute. To be considered by the engineer, the request for substitution shall be accompanied with complete physical and technical data, manufacturer's catalogue data, photographs, samples, and the address of the nearest authorized service representative, as applicable.

The decision of the engineer on "OR EQUALS" shall be final.

The requirements of General Provision 2.15 - Approved Equals also apply.

B. PRIOR TO BID OPENING

Substitution approvals will be considered prior to the bid opening if the bidder submits their request for substitution not less than ten (10) working days prior to the date set for bid opening. All substitution requests shall be submitted using the "Substitution Request Form" included in the bid packet and shall be sent to the individual as noted at the top of the form. Substitution requests not received by the named individual will not be evaluated and not allowed as a substitution prior to bidding. Submit all requests and product data in triplicate.

Saturday, Sunday and holidays listed in Paragraph 2.13 of the General Provisions are excluded from the calculation of ten (10) days. An addendum listing such approvals may/will be issued prior to bidding.

Bidders who do not receive prior written approvals of "OR EQUAL" by Mr. Jason Lelli must base their bids on the items specified.

B. AFTER BID OPENING

Proposed substitution and deviation requests shall be reviewed during the time of submittal review.

Substitution and deviation requests will be received and considered only when one or more of following conditions are satisfied:

1. The specified product or method of construction cannot be provided within the contract period and the contractor submittal is submitted within time frame allowed.
2. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
3. The specified product or method of construction cannot be provided in a manner that is compatible with other materials.
4. A substantial advantage is offered to the Owner, in terms of cost, time, or other considerations of merit.
5. The product as specified includes the statement, "or equal" and one of the above conditions governs
6. The engineer's decision on all substitution or deviation requests shall be final.

END OF SECTION

SECTION 01400 - QUALITY CONTROL

1.1 REFERENCE STANDARDS

Reference to standards, specifications, manuals or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest Standard Specification manual, code, or laws or regulations in effect at the time of opening of bids (or on the effective date of the agreement if there were no bids), except as may be otherwise specifically stated. However, no provision of any referenced standard, specification, manual, or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of City, contractor, or engineer, or employees from those set forth in the contract documents.

Any part of the work not specifically covered by these specifications shall be performed in accordance with the applicable section of the latest Edition of the "Standard Specifications for Road, Bridge and Municipal Construction" as prepared by the Washington State Department of Transportation and the Washington State Department of Public Works Association (APWA) as amended by the latest APWA Amendment No. 1 and the latest City of Tacoma Amendment No. 1.

These specifications will herein be referred to as the Standard Specifications.

1.2 INSPECTION, TESTING AND CERTIFICATION

A. INSPECTION

Construction inspection and testing for the City will be performed by Mr. Jayson Lelli at 253-396-3066, or others as the City may designate and as the construction situation may dictate. The City inspector will be responsible for insuring that the contractor is complying with the contract plans and specifications.

1. The City will inspect all roofing projects and the contractor shall be responsible for notifying the engineer in advance of all activities. Work performed when the engineer is not notified shall be subject to removal and replacement at the engineer's direction.
2. Pre-final Inspection: Contractor shall notify the engineer in writing when all work or portions of work are complete and ready for inspection. If deficiencies are found in the quality of work, the engineer will make a "punchlist" and forward the results to the contractor who shall promptly correct any deficiencies noted.
3. Final Inspection: Contractor shall notify the engineer in writing when all punchlist deficiencies have been completed. The engineer will promptly conduct a final inspection. The contractor will promptly correct any further deficiencies noted.

C. PERMIT INSPECTIONS

The contractor shall comply with the requirements of all permits. It shall be the contractor's responsibility to contact the permitting authority and schedule all required inspections. The contractor shall notify the Tacoma power inspector of all scheduled inspections.

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.1 UTILITIES

A. ELECTRIC SERVICE

The City will furnish without charge to the contractor 120 volt single phase power at the project site if available or at a location specified by the engineer for the contractor's use. The contractor will furnish and maintain all necessary extension cords and adapters in accordance with the applicable rules and regulations. No metering will be required.

If an application of material requires it the contractor will provide temporary heat for curing or drying of work, and for protection of construction from adverse effects of low temperatures. Use of gasoline-burning heaters and open-flame heaters is not permitted.

B. TELEPHONE SERVICE

The City will not provide telephone service for the contractor except for emergency purposes. Mobile telephone service is available at most of the project sites. The contractor may be permitted to use the City phone at Wynoochee on an as-needed basis.

C. WATER

The City will furnish water for use by the contractor at the project site if available or at a location specified by the City engineer. The contractor shall furnish all hoses and connectors as necessary to extend water to the job site.

D. SANITARY FACILITIES

If public rest rooms are not available at the project site the contractor may use the private rest rooms if available. Coordinate use of these rest rooms with the project manager to ensure they are kept clean. Should the contractor fail to maintain the rest rooms or no rest rooms are available, the contractor will be required to furnish sani-cans at their own expense.

1.2 STORAGE AREA

A. STORAGE AREA

If required, the City will provide an open storage area to the contractor at the project site. The contractor will restore the storage area to its original condition at the end of the job. The contractor will provide security, as necessary, to safeguard its materials and machinery during construction.

1.3 ROADWAY AND TRAFFIC CONTROL

A. TRAFFIC COORDINATION

All traffic controls on this project shall adhere to the latest edition of the "Manual on Uniform Traffic Control Devices." Adequate access shall be provided for local and emergency vehicular traffic through the project area at all times.

B. TRAFFIC SIGNS AND SIGNALS

The contractor shall be responsible for all temporary signing or barricades placed at the job site to control traffic and protect the public from construction areas.

The supply, placement, and maintenance of all traffic controls shall be the responsibility of the contractor and shall be in accordance with the "Manual on Uniform Traffic Control Devices."

1.4 SECURITY AND ACCESS

A. GENERAL

This section includes

1. Security program
2. Entry control
3. Restriction and operational control

B. SECURITY PROGRAM

Contractor shall comply with Tacoma Power's security policies and procedures and take adequate precaution to protect Tacoma Power's property and employees.

C. ENTRY CONTROL

1. Procedures for the entry and exit of contractor's personnel and materials shall be pre-determined for each project.
2. Temporary access control badges are required and will be issued when the contractor is performing work at the TPU complex.

D. RESTRICTIONS AND OPERATIONAL CONTROL

1. Access for Materials: Every effort shall be made to limit impact on areas adjacent to the project site when delivering materials. Elevators shall only be used by the contractor for transport to and from the work area, if available, freight elevators maybe used for delivery of material.
2. Contractor Operations: Access shall be restricted to the immediate work area and access route identified to be used during construction. Contractor shall confine personnel to the immediate work vicinity while on site.
3. Emergency Site Access during Construction: Fire lanes must remain open during construction and delivery of materials.

1.5 SAFETY

In addition to Paragraph 3.06 "Safety" of the General Provisions, the contractor shall:

A. WORK HAZARD ANALYSIS

The contractor and their subcontractors shall thoroughly review the scope of work of the proposed project. The contractor will be responsible to indicate a work hazard analysis on the form of "Contractor's Work Hazard Analysis Report" attached with the proposal; i.e., any known or potential safety issues or phases of construction that may require specific safety procedures as identified by WISHA or OSHA regulations, and/or prudent construction practices; i.e., shoring, fall protection, scaffolding, hazardous materials, asbestos removal, etc.

This report shall be completed and submitted to the engineer within ten (10) days of contract award. A copy of this report will be forwarded to the City Safety Officer for review. A copy of this report shall be maintained at the work site (accessible to the supervisor).

The City will review the submitted report and may require the contractor to clarify their safety procedures submitted or detail their procedures for ensuring safe working conditions for other working conditions not listed in the original submitted report; and/or explain how the procedures meet current safety regulations. In no case, may the contractor commence work until the Job Hazard Analysis Report has been reviewed and approved by the engineer.

B. WORKING CLEARANCES

The City will provide a representative to unlock and lock substation gates for the contractor during each working day and will remain onsite to serve as a safety watch while the contractor is in the substation.

Prior to commencing work, the City will instruct all workers, who may be present during a substation project, as to the safety requirements of working in an energized yard. After the class, all personnel will be required to sign a form stating that they understand the requirements of working in an energized yard. No workers, other than those who attended the safety class, will be allowed to work in the substation.

B. WORK REQUIRING AN OUTAGE ON BUSES OR LINES

The successful bidder shall maintain and enforce safety rules and regulations that are applicable to this type of work. If the nature of work demands a planned outage of a line and/or bus, the contractor project manager will determine the requirement. Planned outages and working clearances will be obtained and held by the City construction and maintenance (C&M) work coordinator.

The contractor shall make all attempts to submit their request for a planned outage to the project manager who will coordinate the outage with the C & M work coordinator ten (10) days prior to scheduling any work. Due to the nature of work in this contract and the dependency on weather to perform this work, a minimum of four (4) days may be granted when requesting a work clearance.

1.6 PROTECTION OF ADJACENT AREAS DURING CONSTRUCTION

The contractor shall take any measures, including but not limited to the ones listed below, to protect adjacent areas from the affects of construction.

Installing temporary walls or barriers to completely divide or separate the work area from ongoing Tacoma Power operations. Visqueen or plastic shall be a minimum of 8 mil thick and shall form a continuous barrier sufficient to stop all construction dust and residue. Temporary walls of plywood may require sound deadening in some areas.

Other work and barrier requirements as directed by the engineer to provide separation between the contractor's work area and ongoing Tacoma Power operations.

1.7 DUST CONTROL

The contractor shall take reasonable measures to prevent unnecessary dust. Dusty materials in piles or in transit shall be covered when practicable to prevent blowing.

Buildings or operating facilities which may be affected adversely by dust shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

1.8 POLLUTION CONTROL

Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substances will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

The contractor shall maintain oil absorption pads on the actual job site whenever any equipment is present to immediately catch and contain any oil and/or fuel leaks.

Nothing in this specification or contract shall be deemed to warrant to the contractor the quality, quantity or usefulness of the property designated for demolition, not designated as salvage, or designated to become the property of the contractor.

END OF SECTION

SECTION 01550 - ASBESTOS REMOVAL

PART 1 GENERAL

1.1 SECTION INCLUDES

This work in this section includes all work that will require disturbance and/or complete removal of asbestos-bearing materials.

The City has performed an analysis on a variety of areas of the project described in this specification. The City maintains these analyses and has them available upon request. It is anticipated that work done using this contract may encounter areas that contain asbestos. All work requiring the removal and/or disturbance of asbestos-bearing materials will be handled through a separate contract with the City.

1.2 TEST RESULTS

A list of asbestos containing materials including the type of asbestos and concentration has been identified by Tacoma Power and is available upon request.

1.3 CODES, LAWS AND REGULATIONS

All laws, codes and regulations shall be followed for disturbance and/or removal of asbestos, including, but not limited to the following:

- A. Washington State Department of Labor and Industries (Worker Training) Chapter 59.26 RCW
- B. Environmental Protection Agency (EPA) - Title 40 Code Federal Regulations (CFR), Parts 61.20-61.25, Subparts A and B, National Emission Standard for Asbestos, Asbestos Stripping Work Practices and Disposal of Asbestos Stripping Work Practices and Disposal of Asbestos Work.
- C. Occupational Safety and Health Administration (OSHA) Regulation 1910.1001, Asbestos, Title 29 CFR, and in particular 1910.1001(f), Monitoring, and Subpart 1, Personal Protective Equipment.
- D. Washington Industrial Safety and Health Administration (WISHA) Regulation WAC 296-62 and subsection 296-62-07517, Asbestos.
- E. American National Standards Institute (ANSI) Standard Z88.1-1969 "American National Standards Practice Respirator Protection", latest edition, and ANSI Standard 29.2, "Certification of Compliance for Asbestos Removal Equipment"
- F. Local Health Department, all current regulations.
- G. International Building Code (IBC), current regulations as applicable.
- H. National Institute for Occupational Safety and Health (NIOSH), 30 CFR, Part II, Respirators.
- I. Regulations Issued by the Washington State Department of Ecology.
- J. Regulations Issued by the Local Air Pollution Control Agency.

1.4 SUBMITTALS

The contractor shall submit an RFI to the project manager requesting further investigation when areas are encountered that are suspect to contain asbestos materials.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 GENERAL

- A. All asbestos work shall be performed by workers certified by Washington State Department of Labor and Industries as having successfully completed a state approved training course, conforming to Chapter 59.26 RCW.
- B. The contractor shall follow all requirements of the above codes and regulations to protect all people who may enter the area during abatement.
- C. All requirements of the local Health Department shall be followed at all times.
- D. All requirements of regulations issued by the Washington State Department of Ecology shall be followed at all times.
- E. The contractor shall furnish, and require use of, respiratory equipment and special protective clothing for employees exposed to asbestos-bearing materials.
- H. Contractor shall coordinate the project according to the submitted schedule and at the direction of the project engineer to avoid unnecessary impact on ongoing activities.

END OF SECTION

SECTION 01600 - MATERIAL AND EQUIPMENT

1.1 QUALITY OF WORKMANSHIP AND MATERIAL

A. WORKMANSHIP

The contractor shall employ only competent, skillful, and orderly persons to do the work. If, in the engineer's opinion, a person is incompetent, disorderly or otherwise unsatisfactory, the engineer shall notify the contractor, in writing, of same. The contractor shall immediately discharge such personnel from the work and shall not again employ those person(s) on said contract again. Work shall conform to the highest industry standards.

See General Provisions, Paragraph 3.08 - Contractor - Supervision and Character of Employees for additional requirements.

B. MATERIALS

Materials shall be delivered to the project site in the manufacturer's original containers, bundles or packages unopened with the seals unbroken and the labels intact. Each type of material shall be of the same make and quality throughout. Manufactured articles, materials and equipment shall be installed in accordance with each manufacturer's written directions, unless otherwise specified.

All materials and equipment to be provided under this contract shall conform to the latest edition of the applicable codes, but in no case shall be contrary to the laws of the State of Washington and/or Federal Government.

The equipment supplied shall meet appropriate ANSI, OSHA, WISHA, and all Federal, state, and local standards for the type of equipment provided for its intended use.

Deliver, store and handle products according to manufacturer's written instructions, using means and methods that will prevent damage, deterioration, and loss, including theft.

1. Schedule delivery to minimize long-term storage and to prevent overcrowding construction spaces.
2. Deliver with labels and written instructions for handling, storing, protecting, and installing.
3. Inspect products at time of delivery for compliance with the contract documents and to ensure items are undamaged and properly protected.
4. Store heavy items in a manner that will not endanger supporting construction.
5. Store products subject to damage on platforms or pallets, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required.
6. Membrane materials shall be set on ends only, with the salvage end up. Discard rolls which may have been flattened, creased or otherwise damaged. Place materials on pallets or dunnage. Palletized materials shall not be stacked.
7. Roof loaded materials shall be protected from weather as described in technical provisions.

1.2 SALVAGEABLE AND NONSALVAGEABLE MATERIAL

A. SALVAGE TO TACOMA PUBLIC UTILITIES

Contractor shall carefully remove in a manner to prevent damage to all materials and equipment specified or indicated to be salvaged and reused or to remain property of the City. The contractor shall store and protect salvaged items specified or indicated to be reused in the work.

Any items damaged in removal, storage or handling through carelessness or improper procedures shall be replaced by the contractor in kind or with new items.

All materials considered salvageable by the engineer's representative shall be accumulated and tightly packaged in a container suitable for the type of materials being salvaged. Salvaged materials not reused on this job shall be returned to Tacoma Power Warehouse, 3628 South 35th Street (rear), Tacoma, Washington, between the hours of 9:00 A.M. and 2:00 P.M., Monday through Friday.

B. PROPERTY OF CONTRACTOR

Demolition, not indicated for salvage, becomes property of contractor. Removed from site at contractor's expense to a legal waste site obtained by the contractor

Materials deemed to be non-salvageable by the engineer's representative shall be disposed by the contractor to a legal dump site obtained by him/her. All costs to dispose of non-salvageable materials shall be the contractor's responsibility.

The contractor may, if approved by the City, furnish and install new items in lieu of those specified or indicated to be salvaged and reused, in which case such removed items will become the contractor's property. Existing materials and equipment removed by the contractor shall not be reused in the work except where so specified or indicated.

END OF SECTION

SECTION 01700 - CONTRACT CLOSEOUT

1.1 DOCUMENTS REQUIRED UPON COMPLETION OF WORK

A. CLOSE OUT PROCEDURES

The contractor shall notify the engineer in writing when identified tasks are complete and ready for inspection. The engineer will make the inspection, forward the results of same to the contractor, who shall promptly correct any deficiencies noted.

The contractor shall notify the engineer in writing when all punchlist deficiencies have been completed. The engineer will promptly conduct a final inspection. The contractor will promptly correct any deficiencies noted.

It is possible that other contractors or the City will be working in the project area during the time of construction. It shall be the responsibility of this contractor to coordinate their work with all other agencies and/or contractors within the project area.

B. FINAL DOCUMENTATION

Upon completion of the work and before final payment is made, the contractor shall deliver to the engineer, in addition to such other items specified in these specifications, the following documents:

1. "AS-BUILT" Drawings (If used during the term of the contract)

"AS-BUILT" drawings of new or revised existing work, shown in red ink, provided by the general contractor and all other subcontractors, including all addendum's, change orders, deviations, changes, elevations, and dimensions of their work from the construction documents, updated during the construction.

Two (2) copies of all shop and construction drawings used for the project, the final record drawings ("AS-BUILT" to reflect the actual installation) including one (1) reproducible set of all design drawings and AutoCAD files, if applicable.

NOTE: The final payment for this contract will not be released until "AS-BUILT" drawings are received and approved by the engineer.

3. All Guarantees and/or Agreements

- a. All guarantees, warranties, and/or agreements for such equipment and materials as carry such guarantees.
- b. The contractor shall submit to the City at the completion of each project per the attached a "Roofing Contractor's Warranty" for each structure, guaranteeing the roof for a period of two (2) years. Any defect or leak that occurs during a two (2) year period shall be promptly remedied by the contractor at no expense to the City. Roofing manufacturer shall supply twenty (20) year warrantee.
- c. Kemper Roofing System Installations: The contractor shall provide a standard no cost warranty, the City will purchase additional warranty as they deem necessary. The contractor is required to register the roof installation with Kemper.
- d. Sika Sarnafil PVC Membrane Roofing System: The contractor shall supply the City with standard Sika Sarnafil warranty information upon the completion of the installation.
- e. Malarkey Modified SBS Roofing Systems: The contractor shall supply the City with standard Malarkey warranty information upon completion of the installation.

- f. WDG Silicone Membrane Coating: The contractor shall supply the City with the standard WDG warranty information upon completion of the installation.
- 4. Final Clean Up
 - a. Leave the work area perfectly clean and ready for occupancy.
 - b. Removal of all temporary facilities and contractor equipment.
 - c. Clean the site. Sweep paved areas and walkways. Remove stains, spills, and foreign deposits. Rake any disturbed grounds to a smooth, even textured surface.

All surfaces disturbed shall be restored to a condition equal to that before the work began.

Surplus conduit material, tools, temporary structures, dirt and rubbish shall be removed and disposed of by the contractor, and the project area shall be left clean to the satisfaction of the engineer.

Clean up is considered incidental to the project and no measurement and payment will be allowed.

END OF SECTION

TECHNICAL PROVISIONS

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 07312 - ASPHALT SHINGLES

PART 1 GENERAL

1.1 SCOPE OF WORK

The work covered in this section of the specification consists of furnishing all asphalt shingles and other required materials, labor, equipment, services, and roofing accessories to reroof or repair Tacoma Power roofs.

1.2 QUALITY CONTROL

- A. All applicable requirements of the Malarkey Specification Manual are hereby incorporated by this reference. Any conflicts or ambiguities between this specification section, the manual, and any other documents pertaining to this contract should be brought to the attention of the engineer before the proposal is submitted. In the event that such questions are not resolved before proposal submission, the roofing contractor will be considered to have based his/her proposal on the more stringent method.

B. PRIMARY ROOFING MATERIALS MANUFACTURER REQUIREMENTS

- 1. Manufacturer shall have been engaged in the production of roofing and waterproofing materials for twenty (20) years in North America.
- 2. Manufacturer shall be an associate member in good standing of the National Roofing Contractor's Association.

1.3 SUBMITTALS

- A. Submittals shall be prepared and submitted as required in Section 01300, Paragraph 1.3 of the Special Provisions and include copies of the applicable Malarkey specification sheet, drawings of flashing details, and materials data sheets on all materials not furnished by Malarkey. The exact specification to be used and any modifications to the details shall be clearly marked on the submittals.
- B. Submit a sample copy of the roofing contractor's two (2) year warranty which shall cover any and all defects in workmanship and materials. The warranty may exclude physical damage caused by acts of God, any activity by anyone other than the roofing contractor's employees, or failure of the building's structural components.
- C. Submit a sample copy of the Malarkey unlimited warranty providing for fifty (50) years coverage for the shingle.
- D. Prior to the award of the contract, the roofing contractor shall furnish satisfactory evidence of his status as a qualified applicator, a list of successfully completed projects of similar scope, and such financial information as requested.
- E. Prior to ordering products, submit manufacturer's standard color samples for engineer's selection.

PART 2 PRODUCTS

2.1 MALARKEY #273 LEGACY SBS MODIFIED LAMINATED SHINGLES WITH SCOTCHGARD ALGAE RESISTANT ROOFING SYSTEM

A. PRODUCT DESCRIPTION

#273 Legacy SBS modified laminated shingles are used whenever increased flexibility, architectural design, tensile strength and tear resistant shingles are desired. These SBS rubber modified asphalt shingles shall be designed for a 5-5/8-inch exposure.

B. COMPOSITION AND MATERIALS

#273 Legacy SBS modified laminated shingles are mineral surfaced and self sealing, made with SBS rubber modified asphalt coating and fire retardant fillers on a Malarkey polyglass fiber mat, and feature the exclusive design of "The Zone."

C. TECHNICAL DATA

#273 Legacy are available in nine (9) standard colors, with the Scotchguard Algae Resistant Roofing system from 3M.

Typical Average Properties:

Approximate Weight	275 lbs. (124.74 kg) per square
Dimensions	13-1/4-inches (\pm 1/8-inch) x 40-inch (\pm 1/4-inch) (.33m x 1.02m)
Exposure 5-5/8-inches	5-5/8-inch (142.9mm)
Shingles per Square	64 Shingles (4 bundles/square)
Granule Adhesion	0.5 gram loss
Fire Rating	Class A
Warranty	50 year limited warranty 110 mph (177kph) limited wind warranty
Algae Resistance	Legacy sku #273 features a 20-year Scotchguard Warranty

The Legacy shall meet or exceed UL2218 Class 4 Impact Resistance, ASTM D3462, ASTM D3018.90 Type 1, ASTM D3161.97 Type 1, Class "F" (110 mph; 177kph), ASTM E108.91 Class A; and CAN/CSA A123.5 m90. ICC ER-5300

D. WARRANTY

Legacy shingles carry a 50-year limited warranty and a 110 mph (177kph) limited wind warranty. Documents may be obtained from your roofer, local distribution center or Malarkey Roofing Company. Deviations from recommended application procedures may affect warranty coverage.

E. TECHNICAL SERVICES

Malarkey Roofing Company has technical assistance available. Call 800-545-1191.

2.2 RELATED ROOFING PRODUCTS

- A. Asphalt Primer No. 706 or approved equal conforming to ASTM D41
- B. Plastic Roof Cement No. 703 or approved equal conforming to ASTM D4586.

2.3 FASTENERS

Galvanized roofing nails: New construction 1-1/4-inch; reroofing 1-3/4-inch long with a 3/8-inch head. Exposed eaves and soffits may require shorter nails to prevent penetration of the decking, or as determined at the preconstruction meeting for each roofing project.

2.4 SHEET METAL REQUIREMENTS

- A. Drip edges: galvanized steel, minimum 26 gauge; aluminum, minimum .025; copper, 12 oz. Brake shape materials shall be fabricated to conform to SMACNA standards.
- B. Metal flashing jacks shall be 26 gauge minimum galvanized steel. Flanges shall be 6-inches wide and sleeves shall be a minimum of 6-inches high.
- C. Cast iron and ABS plumbing pipe jacks shall be fabricated of 3-pound, 14.7 kg per square meter minimum lead. A separate lead cap shall be furnished for pipes with diameters less than 2-inches or when the lead does not continuously carry up and into the pipes 3/4-inch minimum.
- D. Electrical conduit jacks shall be fabricated of 3 pound 14.7 kg per square meter lead. Jacks shall be a minimum of 4-inches tall with a 6-inch wide flange.

PART 3 EXECUTION

3.1 DELIVERY, STORAGE AND HANDLING

- A. All materials delivered to the job site shall be new, dry, and undamaged. Containers shall be unopened and undamaged. All manufacturers' labels shall be intact and contain the product and manufacturers' names, run code of manufacture and testing laboratory stamp(s).
- B. Underlayment materials shall be stored on ends only. Discard rolls which may have been flattened, creased or otherwise damaged. Place materials on pallets or dunnage. Palletized materials shall not be stacked.
- C. Cover underlayment rolls with weatherproof materials secured to prevent materials from becoming exposed to moisture. Coverings shall be vented or the material placed on a ground cover to prevent condensation on the underside of the cover.
- D. Materials stored on the roof surface shall be dispersed to avoid concentrated loading, with any larger concentrations set over major structural members.

3.2 CONDITION

The surface of the deck must be broom clean, dry, properly secured and free of defects.

3.3 ENVIRONMENTAL REQUIREMENTS

Application of roofing materials shall not be performed when weather conditions interfere with good roofing practices. Materials shall not be placed on damp surfaces or in the presence of rain or snow. Any roofing felts applied under such conditions to protect installed insulation or building surfaces shall be removed before application of the roof system continues and may not be incorporated into the finished roof.

3.4 UNDERLAYMENT AND EDGING

- A. Apply one (1) layer of ASTM #15 felt slopes 4-inches in 12-inches or greater laid parallel to eaves, lapping a minimum 2-inches on sides and 6-inches on ends. Apply two (2) plies #15 felt slopes 2-inches in 12-inches up to 4-inches in 12-inches lapped 19-inches. Nail only sufficiently to hold sheets into place.

1. In regions where an accumulation of snow or regular freezing conditions may cause ice or snow build-up at overhangs, one of the following waterproof underlayments shall be installed to a point that is a minimum of 24-inches inside the exterior walls. Apply self-adhering modified bitumen membrane. Apply ASTM #15 asphalt felt lapping each course 19-inches and sealing the overlap with hot asphalt applied at the rate of 20 pounds per square or plastic cement applied at the rate of 4 gallons per square.
- B. Prior to applying shingles to the valley the installer must determine the method in which the shingles are to be applied. Closed cut or woven valleys should have a reinforcement of a minimum 78 lb. granule surfaced cap sheet laid parallel to the slope, up the center of the valley, secured 12-inches on center along both edges. Apply shingles on one (1) entire face, carrying each course up through the valley onto the adjoining face 12-inches minimum. Secure each shingle no closer than 6-inches to the center of the valley. Open valleys shall use valley metal a minimum of 18-inches wide, of corrosion resistant, rigid sheet metal, pressed tight into the valley and secured 12-inches on center along both edges. As shingles are applied, trim nearly approximately 2-inches back from center of valley.

C. PIPE FLASHING

Apply a cant of roofing cement around the pipe, sealing it to the felt prior to installing the metal pipe flashing. Install and secure the metal jack so that the bottom flange laps over onto the shingles. Side and top flanges shall have shingles lapping onto the flange. Shingles that lap onto metal shall be laid into a bed of roof cement. A bead of urethane sealant shall be applied where the pipe penetrates the cone of the jack.

D. METAL EDGING

Metal edging shall be minimum 26 gauge rigid, corrosion resistant metal with no rise. Install the edging onto the underlayment, secured by galvanized roofing nails 4-inches on center. Metal edge with a 1/2-inch overhanging drip built into the face is acceptable

3.5 APPLICATION OF SHINGLES

A. STARTER COURSES

1. Starter Strip

Cut 7-inches off the left hand side of the shingle, then cutting parallel to the long dimension of the shingle, trim the tabs off the shingle. Set the cut edge out with a maximum 1/2-inch overhang. Secure with four (4) to six (6) nails per shingle, placing fasteners at or below sealing strip, but not through sealant material. Malarkey strongly recommends six (6) nails if fasteners do not penetrate decking, such as at exposed eaves and soffits.

2. First Course

Starting at the lower left hand side at the edge, apply the first course using full length shingles laid directly over the starter course. The lower edge of the first course will be flush with those of the starter course.

3. Second Course

Cut 5-5/8-inch from the left hand side of the shingle. Lay the shingle along the left edge and gauge the exposure of the bottom shingle edge at 5-5/8-inch from the bottom edge of the first course.

4. Third and Succeeding Courses

Following the same procedure as second course, apply each new course with an additional increment of 5-5/8-inch removed from the left side. For example, second course 5-5/8-inch; third course 11-1/4-inch; fourth course 16-7/8-inch; fifth course 22-1/2-inch; etc. This pattern will continue until the eighth course which will start again with a full length shingle.

5. Other layout patterns such as “brick” patterns are acceptable. Contact Malarkey for further details.

3.6 FASTENERS

- A. Secure shingles with six (6) nails per shingle and tab each shingle tab with a spot of roof cement if the shingles do not self tab. Nails shall be placed 1-inch, 10-inches, and 14-inches in from both ends, and approximately 6-1/2-inches up from the butt edge.
- B. Staples may not be used.

3.7 SPECIAL CONDITIONS

A. SPECIAL CONDITIONS MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER

Install a total of six (6) fasteners per shingle. The two (2) additional fasteners are to be spaced so that two (2) fasteners are located approximately 2-inches on each side of each the center cutouts.

B. PRECAUTIONS

Legacy shingles require dry storage or plastic covered storage and protection from the weather until applied. Do not use on roofs where the slope is less than 2-inches. For slopes 2-inches to 4-inches, additional deck protection is recommended. Legacy shingles have a factory applied self-sealing strip that activates in warm weather. When applied in cold weather or windy location, hand sealing is recommended but not required if sealant activates. Contact Malarkey for further conditions and instructions.

3.8 HIP AND RIDGE

- A. Make shingles for hips and ridges by taking a three-tab shingle and cut the shingle into thirds. Cutting at a slight inward angle at the cutouts and ends to give the top half of the shingle a slight tapered appearance. Apply shingles by centering over the hip or ridge and securing each piece with one (1) nail on each side. Place nails 6-1/2-inches from the butt edge. This will conceal the nails as each succeeding course is laid. Start the application of the ridge so that prevailing winds flow over the lap and not against the exposed edge of the ridge shingles. Manufactured hip and ridge shingles of the same product color are available for all types of shingles and may be used rather than field-cut shingles.

B. CHIMNEY FLASHING

1. Flash around chimneys using corrosion resistant metal flashings and step flashings that extend under shingles a minimum of 4-inches and up the chimney a minimum of 6-inches. A prefabricated metal cover or a layer of #350 cap sheet set in plastic roof cement shall be used at the top side of the chimney to waterproof saddle.

2. Install step flashing with a separate counterflashing. Install counterflashing by raking or cutting the mortar from the appropriate joints. Install the shingles and step flashings simultaneously proceeding up the slope. Embed shingles in roof cement where they contact metal flashing. Secure counterflashing with appropriate fasteners or lead wedges and caulk the joint along the top.

3.9 REMOVAL OF EXISTING ROOF SYSTEMS AND INSPECTION AND PREPARATION OF SURFACES

- A. No work shall be performed that will reduce the degree of protection from weather by the existing roof. Removed areas of the roof shall have either new roofing or weather-right temporary roofing applied to provide continuous protection for the building.
- B. The roofing contractor shall comply with all safety and security requirements and all applicable federal, state, local and city regulations, laws, and ordinances.
- C. The roofing contractor shall provide coverings to protect building and ground surfaces in all areas in which work is being performed. The type of covering will be appropriate to the type of work being performed and the surfaces to be protected in that location. Protection requirements shall include those surfaces over or past which materials or debris are being transported.
- D. All existing roofing and flashing materials shall be removed to expose substrates to which materials are to be applied. Surfaces to receive roofing shall be inspected before the application of any roofing materials. Decks and surface conditions shall conform to the shingle general requirements.
- E. The roofing system shall not be installed over existing decking or substrate components which are deteriorated in such a way as to constitute any hazard to the performance of the new roof covering.
- F. The surface of the deck must be broom clean, dry, properly secured and free of defects.
- G. The methods used to remove the existing materials shall not cause preventable damage to the other building components. When removal will permit excessive dust or debris to enter habitable spaces within the building, interior protection against such debris should be provided (See Bid Item 1B). All nails shall be removed from the substrate surface.
- H. Removed materials shall be conveyed to ground collection points by means of containers or enclosed chutes. Ground collection points shall be cleaned regularly throughout the day of any spilled debris.
- I. Deteriorated surfaces to receive roofing or flashing shall be either repaired or replaced by others or by the roofing contractor at the prices stipulated in other contract documents. All deck repairs will be performed on a time and material basis as approved by the engineer.

END OF SECTION

SECTION 07411

PREFORMED (MANUFACTURED) ROOF PANELS

PART 1 GENERAL

1.1 SECTION INCLUDES

The work includes, but is not necessarily limited to, furnishing and installation of all preformed metal roofing, and accessories as indicated on the drawings and specified herein.

1.2 PERFORMANCE REQUIREMENTS

A. TESTING AND CERTIFICATION

Testing and certification to be determined at time of order.

1. Wind Uplift: UL 580 test, Class 90 rated per Construction #364 minimum 24 gauge panels when installed over 5/8-inch plywood, with roof panel fastener clips spaced 2 foot – 0 inches on center maximum.

NOTE: UL certification does not indicate panel suitability for actual project conditions. Design Span® is tested in a structural condition for maximum uplift exposure. However, AEP Span promotes the application of Design Span® over a solid substrate. See Section 1.04, Item D.1 for actual project uplift conditions.

NOTE: UL 580 rating is for 12-inch, 17-inch, and 18-inch width panels only.

1. Air Infiltration: Panel to meet the following standard when in accordance with ASTM E1680-95.
 - a. With factory-applied continuous sealant 0.05 cfm/lineal foot of panel seam at 1.57 psf positive pressure, and 0.07 cfm/lineal foot of panel seam at 1.57 psf negative pressure.
2. Water Penetration: Panel to meet the following standard when tested in accordance with ASTM E1646-95.
 - a. With factory-applied continuous sealant, no leakage at 6.24 psf.

1.3 SUBMITTALS

- A. Submittals shall be prepared and submitted as required in Section 01300, Paragraph 1.3 of the Special Provisions and include copies of the applicable Manufacturer's specification sheet, drawings of flashing details, and materials data sheets on all materials not furnished by Manufacturer. The exact specification to be used and any modifications to the details shall be clearly marked on the submittals.
 1. Submit manufacturer's technical product data, installation instructions and recommendations for each type of roofing required. Include data substantiating that materials comply with requirements.
 2. Prior to ordering products, submit manufacturer's standard color samples for engineer's selection.
 3. Prior to starting work, submit one (1) 12-inch long panel samples showing shape and a representative color chip for engineer's approval.
 4. Submit a sample copy of the manufacturer's unlimited warranty.

C. SHOP DRAWINGS

1. Submit complete shop drawings detailing all perimeter flashings and joints in accordance with the manufacturer's standard recommendations.
2. Describe all proposed details that deviate from what is shown on the plans.
3. Details must allow for expansion and contraction.

D. DESIGN CRITERIA

1. Drag Loading: The roof panel manufacturer shall provide an attachment schedule calculations to resist drag loads induced by a snow load of 100 psf.

1.4 QUALITY ASSURANCE

A. INSTALLER'S QUALIFICATIONS

1. Installer must be approved by the panel manufacturer in writing prior to work commencing.
2. Installer shall meet the following requirements:
 - a. Successfully applied five (5) metal roofs of comparable size and complexity which reflects a quality weathertight installation.
 - b. Have been in business for a minimum period of five (5) years in the region where the work will be performed.

B. MANUFACTURER'S QUALIFICATIONS

1. Manufacturer shall have a minimum of ten (10) years' experience supplying metal roofing to the region where the work is to be done.
2. Comply with current independent testing and certification as specified.
3. The roof panel manufacturer must also subscribe to Underwriters Laboratories (UL) "Follow-Up Service" assuring continuing product compliance with UL requirements. Shipment packaging of panels and attachment clips must bear UL classification markings.
4. Panel manufactures without full supporting literature; Flashings & Details Guides, Guide Specifications and Technical Support, shall not be considered equal to the specified product.

C. REGULATORY AGENCY REQUIREMENTS

Comply with IBC and local building code requirements if more restrictive than those specified herein.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect against damage and discoloration.
- B. Handle panels with non-marring slings.
- C. Do not bend panels.
- D. Store panels above ground, with one (1) end elevated for drainage.
- E. Protect panels against standing water and condensation between adjacent surfaces.
- F. If panels become wet, immediately separate sheets, wipe dry with clean cloth, and allow to air dry.

- G. Painted panels shall be shipped with a protective plastic sheeting or a strippable film coating between all panels.
 - a. Remove any strippable film coating prior to installation.
 - b. In any case, do not allow the strippable film coating to remain on the panels in extreme heat, cold, or direct sunlight or other UV source.

1.6 PROJECT CONDITIONS

- A. Examine the conditions and substrates in which metal roofing work is to be installed. Substrate shall be installed level, flat and true to avoid panel stresses and distortion.
- B. Field measurements shall be taken prior to fabrication of panels.
- C. Proceed with roofing installation only after satisfactory conditions are met.

1.7 WARRANTY

A. MANUFACTURER'S PRODUCT WARRANTY

Manufacturer's standard coating performance warranty, as available for specified installation and environmental conditions.

B. CONTRACTOR'S WARRANTY

Warrant panels, flashings, sealants, fasteners and accessories against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for two (2) years following project Substantial Completion Date. **NOTE:** This warranty modifies the standard warranty in General Provisions 2.08A.

C. MANUFACTURER'S WATER TIGHTNESS WARRANTY

Contact AEP-Span sales department for water tightness warranty information.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. ASC Profiles, Inc.

2110 Enterprise Boulevard, West Sacramento, CA 95691	800-726-2727 916-372-6851 Fax: 916-372-7606
10905 Beech Avenue, Fontana, CA 92337	909-823-0401
2141 Milwaukee Way, Tacoma, WA 98421	253-383-4955
5100 East Grand Avenue, Dallas, TX 75223	214-827-1740

B. PANEL DESIGNATION

Design Span®

C. ALTERNATES

Approval of substitute systems is required prior to bid. The engineer will be the sole judge of what qualifies as an "equal" system. To be approved as an equal system, submit or respond to all items in Section 07411 – Preformed (Manufactured) Metal Roofs, Paragraphs 1.2 – Performance Requirements, 1.3 – Submittals, and 1.4 – Quality Assurance of this specification. All submittals must be received by Tacoma Power a minimum of ten (10) working days prior to bid opening.

2.2 MATERIALS

A. PANELS

1. Base Metal (to be determined at time of order):
 - a. Material – Steel conforming to:
ASTM A792 minimum yield 40,000 psi, thickness 24 gauge.
Steel conforming to ASTM A653 (formerly ASTM A446), G-90 galvanized, minimum yield 70,000 psi, thickness 24 gauge.
 - b. Protective Coating (To be determined at time of order):
Conform to ASTM A792, AZ50 (Zincalume®).
Conform to ASTM A924 (formerly ASTM A525) G-90 galvanized.
Copper conforming to ASTM B370 16 oz. or 20 oz. standard.
2. Exterior Finish (To be determined at time of order):
 - a. DuraTech® 5000 (polyvinylidene fluoride), full 70-percent Kynar® 500/hylar 5000® consisting of a baked-on 0.2 mil corrosion resistant primer and a baked – on 0.8 mil finish coat for a total of 1.0mil dry film thickness, with a specular gloss of 10-15 percent when tested in accordance with ASTM D523-89 at 60 degrees.
 - b. ZACTique® II treatment, providing a darker weathered appearance. ZACTique® II has a specular gloss of 10-15 percent when tested in accordance with ASTM D523-890 at 60 degrees.
 - c. Zincalume® Plus protective coating.
 - d. DuraTech® mx metallic finish, consisting of baked-on acrylic primer (0.2 mil) and a baked-on polyvinylidene fluoride finish coat (0.8 mil) totaling a nominal 1.0 mil dry film thickness, with a specular gloss of 20-35 percent when tested in accordance with ASTM D523-89 at 60 degrees.
3. Interior Finish:
 - a. Primer Coat Material:
Corrosion-resistant primer, primer coat dry film thickness: 0.15 mils
 - b. Finish coat material:
Polyester paint; finish coat dry film thickness: 0.35 mils
 - c. Color: Off-white
4. Color:
 - a. Manufacturer's standard selection of not less than 20 colors.
5. Factory-Applied Seam Sealant:
 - a. cold-applied, non-skinning, ACRYL-R®.
6. Configuration:
 - a. Standing Seam: Roof panels shall consist of integral self-locking standing seams 1-3/4 inch high spaced 12-inches or 17-inches on center.
 - b. Batten Seam: Roof panels shall consist of integral self-locking standing seams 1-3/4 inch high spaced 12-inches or 17-inches on center. Snap-on batten clip (24-inch O.C.) with continuous snap-on batten (1-7/8 inch width x 1-7/8 inch high).

B. ACCESSORIES

1. Fastener Clip: UL 90 rated, 18 gauge, G-90 galvanized steel, 40 ksi yield strength, 3-1/2 inch long triple fastener type.
2. Fasteners: Per manufacture's recommendations.
3. Sealant:
 - a. Gunnable Grade Caulking: Single component polyurethane caulk.
 - b. Tape Sealant: Butyl
4. Bearing Plate: 22 gauge, 4-inch x 6-inch Zincalume® coated steel bearing plate.

C. FLASHING

Material, gauge and finish to match panels. Do not use lead or copper.

D. FABRICATION

1. Unless otherwise shown on drawings or specified herein, fabricate panels in continuous one-piece lengths and fabricate flashings and accessories in longest practical lengths.
2. Roofing panels shall be factory formed. Field formed panels are not acceptable.
3. Panels shall be factory correctively leveled.

PART 3 EXECUTION

3.1 EXAMINATION

A. EXISTING CONDITIONS

1. Verify that members to receive panels are complete, accurately sized and located, in true plane, secure and otherwise properly prepared.
2. Prior to starting work, notify general contractor about any defects requiring correction.
3. Do not start work until conditions are satisfactory.

3.2 PREPARATION

A. FIELD MEASUREMENTS

1. Verify prior to fabrication.
2. If field measurements differ from drawing dimensions, notify engineer prior to fabrication.

B. PROTECTION

1. Treat, or isolate with protective material, and contacting surfaces of dissimilar materials to prevent electrolytic corrosion.
2. Require workers who will be walking on roofing panels to wear clean, soft-soled work shoes that will not pick up stones or other abrasive material which could cause damage or discoloration.
3. Protect work of other trades against damage and discoloration.

C. SURFACE PREPARATION

Clean and dry surfaces prior to applying sealant.

3.3 INSTALLATION

A. PANELS

1. Follow roof panel manufacturer's directions.
2. Install panel seams vertically.
3. Lap panels away from prevailing wind direction.
4. Do not stretch or compress panel side-lap.
5. Secure panels without warp or deflection.
6. Fully engage interlocking seams.
7. Remove strippable protective film, if used, immediately preceding panel installation.

B. ALLOWABLE ERECTION TOLERANCE

Maximum Alignment Variation: ¼-inch in 40 feet

C. FLASHING

1. Follow manufacturer's directions and engineer approved shop drawings.
2. Install flashings to allow for thermal movement.
3. Remove strippable protective film, if used, immediately preceding flashing installation.

D. CUTTING AND FITTING

1. Neat, square and true. Torch cutting is prohibited.
2. Openings 6-inches and larger in any direction: Shop fabricate and reinforce to maintain original load capacity.
3. Debur cut edge where necessary to saw-cut panels.

3.4 CLEANUP AND CLOSE-OUT

A. PANEL DAMAGE AND FINISH SCRATCHES

1. Do not apply touch-up paint to damaged paint areas that involve minor scratches.
2. Panels or flashings that have sever paint and/or substrate damage shall be replaced as directed by the engineer or City representative.

NOTE: AEP Span does not recommend touch-up painting of damaged surfaces (minor scratches, etc.) due to fading and weathering differences of the touch-up points in comparison to factory applied paint systems.

B. CLEANING AND REPAIRING

1. At completion of each day's work and at work completion, sweep panels, flashings and gutters clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.
2. Remove debris from project site upon work completion or sooner, if directed.

END OF SECTION

SECTION 07505 - MEMBRANE ROOFING

PART 1 GENERAL

1.1 SCOPE OF WORK

The work covered in this section of the specification consists of furnishing all materials, labor, equipment, services, tools and roofing accessories to install Malarkey 159 APP (Atactic Polypropylene) roofing membrane suitable for use as a smooth surface base/interplay sheet application using torching procedure. It requires an approved cap sheet membrane, which shall be Malarkey 162 APP.

1.2 QUALITY CONTROL

- A. All applicable requirements of the Malarkey Specification Manual are hereby incorporated by this reference. Any conflicts or ambiguities between this specification section, the manual, and any other documents pertaining to this contract should be brought to the attention of the engineer before the proposal is submitted. In the event that such questions are not resolved before proposal submission, the roofing contractor will be considered to have based his proposal on the more stringent method.

C. PRIMARY ROOFING MATERIALS MANUFACTURER REQUIREMENTS

- 1. Manufacturer shall have been engaged in the production of roofing and waterproofing materials for twenty (20) years in North America.
- 2. Manufacturer shall be an associate member in good standing of the National Roofing Contractor's Association.

1.3 SUBMITTALS

- A. Submittals shall be prepared and submitted as required in Section 01300, Paragraph 1.3 of the Special Provisions and include copies of the applicable Malarkey specification sheet, drawings of flashing details, and materials data sheets on all materials not furnished by Malarkey. The exact specification to be used and any modifications to the details shall be clearly marked on the submittals.
- B. Submit a sample copy of the roofing contractor's-two (2) year warranty which shall cover any and all defects in workmanship and materials. The warranty may exclude physical damage caused by acts of God, any activity by anyone other than the roofing contractor's employees, or failure of the building's structural components.
- C. Submit a sample copy of the Malarkey's limited or unlimited twelve (12) year warranty package, as well as their optional twenty (20) year warranty that may be purchased by the City for an additional cost.
- D. Prior to the award of the contract, the roofing contractor shall furnish satisfactory evidence of his/her status as a qualified applicator, a list of successful completed projects of similar scope, and such financial information as requested.

1.4 WARRANTY

- A. A list containing the names of the roofing contractor's service manager, superintendent, and project manager shall be furnished which will also contain contact telephone numbers and the roofing contractor's current mailing address.

PART 2 PRODUCTS

2.1 MALARKEY 159 APP (TORCHABLE BASE SHEET)

A. PRODUCT DESCRIPTION

For use on all applicable fire-rated roofs when coated with an approved surfacing and appropriate underlaying sheets or insulations. Installation may be made using a simple propane torch, knife and trowel over any acceptable roof substrate. This high performance base sheet may be used over various combustible and non-combustible decks which requires an approved cap sheet membrane, which shall be Malarkey 162 APP.

B. COMPOSITION AND MATERIALS

159 APP roofing membranes have been specially compounded with high-quality asphalt and APP modifier and is reinforced with rugged fiberglass mat.

C. TECHNICAL DATA

Typical Average Properties:

Nominal Weight per Roll	90 lbs. (40.9 kg)	
Dimensions	39-3/8-inches wide X 63.3-inches long (1 m wide X 19.91 m long)	
Thickness	2 mm	
Softening Point	150° C (302° F)	
Flexibility	Pass @ -15° C	
Breaking Strength @ 77° F-in.	MD: 75 lbs. *F/in.	XM: 60 lbs. *F/in.
Elongation at Break @ 77° F	MD: 3%	XM: 3%

The above results per ASTM D 5147-97, ASTM D 6509 type I. Listed by UL & WH.

D. WARRANTIES

Malarkey offers various warranties to meet specific requirements. The warranty package includes 42~~20~~-year limited and unlimited coverage. Contact Malarkey Roofing Company for details or additional warranty options.

E. TECHNICAL SERVICES

Malarkey Roofing Company has technical assistance available. Call 800-545-1191.

2.2 MALARKEY 162 APP (TORCHABLE CAP SHEET)

A. PRODUCT DESCRIPTION

For use on all roofs when coated with an approved surfacing and appropriate underlaying sheets or insulations. Installation may be made using a simple propane torch, knife and trowel over any acceptable roof substrate.

B. COMPOSITION AND MATERIALS

162 APP roofing membranes have been specially compounded with high-quality asphalt and APP modifier and is reinforced with rugged polyester mat.

C. TECHNICAL DATA

Typical Average Properties, (1) square roll:

Nominal Weight per Roll	105 lbs. (47.7 kg)	
Dimensions	39-3/8" wide x 32'-8" long (1 m wide x 10 m long)	
Thickness	4.5 mm	
Softening Point	151° C (305° F)	
Flexibility	Pass @ -15° C (5° F)	
Breaking Strength @ 77° F-in.	MD: 100 lbs. *F/in.	XM: 70 lbs. *F/in.
Elongation at Break @ 77° F	MD: 50%	XM: 55%
Colors:	White, Tan (Other colors available upon request)	

The above results per ASTM D 5147-97, ASTM D 6222 type I. Listed by UL & WH.

D. WARRANTIES

Malarkey offers various warranties to meet specific requirements. The warranty package includes 5, 10, and 12 year limited and unlimited coverage. Contact Malarkey Roofing Company for details or additional warranty options.

E. TECHNICAL SERVICES

Malarkey Roofing Company has technical assistance available. Call 800-545-1191.

PART 3 EXECUTION

3.1 DELIVERY, STORAGE AND HANDLING

- A. All materials delivered to the job site shall be new, dry, and undamaged. Containers shall be unopened and undamaged. All manufacturers' labels shall be intact and contain the product and manufacturers' names, run code of manufacture and testing laboratory stamp(s).
- B. Underlayment materials shall be stored on ends only. Discard rolls which may have been flattened, creased or otherwise damaged. Place materials on pallets or dunnage. Palletized materials shall not be stacked.
- C. Cover underlayment rolls with weatherproof materials secured to prevent materials from becoming exposed to moisture. Coverings shall be vented or the material placed on a ground cover to prevent condensation on the underside of the cover.
- D. Materials stored on the roof surface shall be dispersed to avoid concentrated loading, with any larger concentrations set over major structural members.

3.2 CONDITION

The surface of the deck must be broom clean, dry, properly secured and free of defects.

3.3 ENVIRONMENTAL REQUIREMENTS

Application of roofing materials shall not be performed when weather conditions interfere with good roofing practices. Materials shall not be placed on damp surfaces or in the presence of rain or snow. Any roofing felts applied under such conditions to protect installed insulation or building surfaces shall be removed before application of the roof system continues and may not be incorporated into the finished roof.

END OF SECTION

SECTION 07537

MODIFIED BUILT-UP ASPHALT ROOFING

PART 1 GENERAL

1.1 SCOPE OF WORK

The work covered in this section of the specification consists of furnishing all materials, equipment, and labor to install a modified built-up SBS Malarkey high performance roofing system on a reroof or on a new roof deck including demolition of existing roof if required.

1.2 SYSTEM DESCRIPTION

A. MODIFIED SBS SYSTEM

Malarkey M4-XX-BBD-S system consisting of one (1) layer of an asphalt saturated fiberboard over existing roof with one (1) layer of Premium 1 fiberglass SBS base sheet No. 501 to fiberboard with No. 950 SBS modified asphalt at the rate of 30-35 pounds per square, two (2) layers of Premium 1 fiberglass SBS base sheets No. 501 with No. 950 SEBS modified asphalt at the rate of 30-35 pounds per square, and one (1) layer of Panoply SBS mineral surface #650 cap sheet with No. 950 SEBS modified asphalt at the rate of 30-35 pounds per square.

B. TYPE 3 HOT ASPHALT ROOF

Malarkey M4-XX-BBD-H system consisting of one (1) layer of an asphalt saturated fiberboard over existing roof with one (1) layer of Premium 1 fiberglass SBS base sheet No. 501 to fiberboard with hot Type 3 asphalt at the rate of 30-35 pounds per square, two (2) layers of Premium 1 fiberglass SBS base sheets No. 501 with No. 950 SEBS modified asphalt at the rate of 30-35 pounds per square, and one (1) layer of Panoply SBS mineral surface #650 cap sheet with hot Type 3 asphalt at the rate of 30 pounds per square.

1.3 QUALITY CONTROL

- A. All applicable requirements of the Malarkey Specification Manual are hereby incorporated by this reference. Any conflicts or ambiguities between this specification section, the manual, and any other documents pertaining to this project should be brought to the attention of Malarkey and the project engineer before the proposal is submitted. In the event that such questions are not resolved before proposal submission, the roofing contractor will be considered to have based his proposal on the more stringent method.

B. CONTRACTOR REQUIREMENTS

1. The roofing contractor or subcontractor for the work of this section shall be approved by Malarkey as an approved applicator prior to submitting his bid.
2. Prior to the award of the contract, the roofing contractor or subcontractor shall furnish to the City satisfactory evidence of his status as an approved applicator, a list of successfully completed projects of similar scope, and such financial information as requested.

C. PRIMARY ROOFING MATERIALS MANUFACTURER REQUIREMENTS

1. Manufacturer shall have been engaged in the production of roofing and waterproofing materials for twenty (20) years in North America.
2. Manufacturer shall be an associate member in good standing of the National Roofing Contractor's Association.
3. Manufacturer may make available a technical representative who will monitor the procedures used by the contractor to assure adherence to manufacturer's recommended application procedures.
4. Manufacturer shall advise the roofing contractor or subcontractor of any materials, detail of the work, or work methods that do not comply with these specifications and any accompanying drawings. If corrections are not completed, Malarkey shall notify the project engineer of the items which do not comply.

1.4 SUBMITTALS

- A. Submittals shall be prepared and submitted as required in Section 01300, Paragraph 1.3 of the Special Provisions and include copies of the applicable Malarkey specification sheet, drawings of flashing details, and materials data sheets on all materials not furnished by Malarkey.
- B. Submit a sample copy of the roofing contractor or subcontractor's two (2) year warranty which shall cover any and all defects in workmanship and materials. The warranty may exclude physical damage caused by acts of God, any activity by anyone other than the roofing contractor or subcontractor's employees, or failure of the roof due to building's structural components.
- C. Submit a sample copy of the Malarkey unlimited warranty providing for twenty (20) years coverage for the selected roofing system.
- D. Prior to the award of the contract, the roofing contractor shall furnish satisfactory evidence of his/her status as a qualified applicator, a list of successfully completed projects of similar scope, and such financial information as requested.

1.5 PROJECT MEETINGS

A. PRECONSTRUCTION MEETING

Prior to the start of the roof installation and after completion of the deck substrate, the roofing contractor or subcontractor shall require a meeting to review the work to be done. The meeting will be held at the job location, and will include a tour of the roof.

B. FINAL INSPECTION

1. Following the completion of the work, a final inspection shall be scheduled with the engineer.
2. Any uncompleted work shall be noted on a punch list. All items on the punch list shall be completed before final payment.

1.6 WARRANTY

- A. Upon project completion and acceptance by the project engineer and Malarkey, executed copies of the submitted Malarkey and roofing contractor's warranties shall be furnished promptly.
- B. A list containing the names of the roofing contractor or subcontractor's service manager, superintendent, and project manager shall be furnished which will also contain contact telephone numbers and the roofing contractor's current mailing address.

PART 2 PRODUCTS

2.1 MALARKEY ROOFING MATERIALS

- A. Roofing system shall be Malarkey specification number M4-XX-BBD-S.
- B. Base Sheet: No 501 - one (1) each
- C. Interply Felts: No. 501 - two (2) each
- D. Cap Sheet: No. 650
- E. Asphalt: ASTM D312, SEBS - Comply with Malarkey manual general requirements D.2
- F. Hot Type 3 Asphalt
- G. Base Flashing: No. 650 Panoply®
- H. Vapor Retarder/Attachment Sheet: No. 501

2.2 RELATED ROOFING PRODUCTS

- A. Asphalt Primer No. 706 or approved equal conforming to ASTM D41
- B. Plastic Roof Cement No. 703 or approved equal conforming to ASTM D4586.

2.3 SHEET METAL REQUIREMENTS

- A. Gravel Stops, Drip Edges, Copings: Galvanized steel, minimum 24 gauge. Brake shape materials shall be fabricated to conform to SMACNA standards.
- B. Flanges to be built into roofing systems shall be a minimum of 3-1/2-inches wide. Vertical faces of edging shall extend a minimum of 1-1/2-inches below wood blocking, and shall have a 1/2-inch hemmed drip if the total face dimension exceeds 2-inches. If the face dimension exceeds 4-inches, the face shall be secured with waterproofed individual fasteners or continuous clip strips as directed by the engineer.
- C. Metal flashing jacks shall be 24 gauge minimum galvanized steel. Flanges shall be 6-inches wide and sleeves shall be a minimum of 6-inches high.
- D. Cast iron and ABS plumbing pipe jacks shall be fabricated of 3-pound, 15 kg per square meter minimum lead. A separate lead cap shall be furnished for pipes with diameters less than 2-inches or when the lead does not continuously carry up and into the pipes
3/4-inch minimum.
- E. Electrical conduit jacks shall be fabricated of 3 pound 15 kg per square meter lead. Jacks shall be a minimum of 4-inches tall with a 6-inch wide flange.
- F. Flashing sheets for roof drains shall be a minimum of 30-inches by 30-inches cut from 4 pound lead.

2.4 WOOD BLOCKING, CURBS, NAILERS AND INSULATION STOPS

- A. Lumber: Southern Pine, Douglas Fir or Hemlock. Materials shall be free from warping in excess of 1/2-inch per eight (8) lineal feet and visible deterioration. Nailers and insulation stops shall be 4-inch minimum nominal width.
- B. Wood Preservative Treatment AWPB-LP-2 chromated copper arsenate.

PART 3 EXECUTION

3.1 SITE CONDITIONS

- A. The roofing contractor or subcontractor shall comply with all reasonably applicable requirements of the City's safety and security requirements and with all applicable federal, state, local and City regulations, law and ordinances.
- B. The roofing contractor or subcontractor shall provide coverings to protect building and ground surfaces in all areas in which work is being performed. The type of covering will be appropriate to the type of work being performed and the surfaces to be protected in that location. Protection requirements shall include those surfaces over or past which materials, including pumped adhesives, are being transported.
- C. The surface of the deck must be broom clean, dry, properly secured and free of defects.

3.2 ENVIRONMENTAL REQUIREMENTS

- A. Application of roofing materials shall not be performed when weather conditions interfere with good roofing practices. Materials shall not be stored or applied on damp surfaces or in the presence of rain or snow. Any roofing felts applied under such conditions to protect installed insulation or building surfaces shall be removed before application of the roof system continues and may not be incorporated into the finished roof.
- B. Generally, the ambient temperature shall be 40° F minimum and rising during the application of adhered plies. For specific requirements for cold weather roofing, see "Cold Weather Application" instructions.
- C. Installed materials shall be protected from repetitive traffic with plywood or other rigid materials. Unfinished perimeters of the roof system shall be sealed with temporary water cutoffs. Felts used in constructing temporary cutoffs shall be removed before the application of finished assemblies.

3.3 APPLICATION EQUIPMENT

- A. Equipment used to heat adhesive materials shall be equipped with accurate, easily readable thermometers. The roofing contractor or subcontractor shall have on site a hand-held thermometer with a minimum 12-inch probe or other sensing device to check the accuracy of the equipment thermometers.
- B. Equipment used on the roof, such as felt layers, shall be in good repair and maintained as needed to properly apply the system. Such accessories as chain spreaders and valves shall be capable of performing the function for which they are intended. Tires shall be periodically cleaned of residue to prevent uneven tension on felts being applied.
- C. Equipment loads shall be adjusted as necessary to prevent overloading of the structure or damage to materials already placed.
- D. Fire extinguishers and all safety-related equipment shall be provided, used, and maintained to comply with all applicable OSA requirements and local codes and ordinances.

3.4 APPLICATION OF ROOFING MATERIALS

- A. Application shall commence at the low points of the roof surface. Locations shall be sequenced to avoid or minimize traffic over newly roofed areas.

- B. Mopping asphalt shall be heated and transported to and across the roof by means required to maintain the EVT, plus or minus 25°F, at the time of application. Asphalt shall not be heated above the flash point printed on the cartons. Any asphalt heated above the finished blowing temperature may be ordered to be removed from the job site. Replacement shall be verified as required by the project engineer.
- C. Application of all components of the roof system, including side and end laps, shall comply with the "General Requirements" section of the Malarkey Specification Manual just as if reproduced in their entirety within this specification section.
- D. The type of base sheet, interply sheets, cap sheet, coatings, and surfacings shall be as required by the specification number identified in Paragraph 2.1 of this section.
- E. The base sheet shall be laid so water flows over or parallel to the laps with 2-inch side and 6-inch (15 cm) end laps, and fastened to the deck using the appropriate type fastener as described in Products 2.0 (mopped to the roof insulation with a continuous mopping of hot asphalt applied at a nominal rate of 32 pounds per square. The base sheet shall be specific to the system number specified. It shall be laid free of wrinkles and buckles.
- F. Prior to the application of interply felts, all valleys and waterways shall receive an extra layer of Malarkey Premium 1™ Fiberglass SBS Base Sheet No. 501 which shall be at least a full width sheet and shall extend at least 12-inches up the inclines out of the valleys.

G. INTERPLY FELTS

The number of interply felts and laps shall be as required by the specification number. Multiple interplies shall be shingled in as a complete operation. They may not be laid and lapped as individual layers. The width of starter sheets and exposures shall be as shown in Malarkey Specification Manual.

The interply felts shall be fully embedded onto a continuous nominal 32 pounds per square mopping of asphalt so that felt does not touch felt, with the asphalt applied not more than 6-feet ahead of the roll. Interply felts and asphalt may be applied by a mechanical felt layer which dispenses both simultaneously or by hand mopping and rolling. The use of rotary or back coating type felt layers or "flying-in" more than 12-feet to start a new roll are prohibited. Hand mops shall flow asphalt onto the surface and shall not be scrubbed. Brooming shall be used as needed to ensure complete embedment of interply felts.

Plies shall be laid free of buckles and fishmouths. End laps shall be not less than 6-inches and each course shall be offset from the preceding course by a minimum of 12-inches. If any buckles or fishmouths develop, they must be cut and covered with 12-inch wide patches, containing one (1) more ply than the number of interplies cut, with each ply of the patch 6-inches wider than the ply below and set in a continuous mopping of asphalt. Excessive buckling and patching may be cause for rejection of the entire assembly.

Steep (2-inches in 12-inches or greater slope) and barrel-type roofs: All roofing plies shall be laid in the same direction as the slope by the strapping method. They shall extend from 18-inches on the opposite slope or centerline of the roof, to the eave or change in roof slope. This will result in the ridge or crown of the roof receiving double assemblies of the interply felts for a distance of 18-inches on either side of the ridge or centerline. Interply felt shall be nailed 12-inches o.c. at ridges and under the lap on nailable decks and 12-inches o.c. to all wood insulation stops.

3.5 APPLICATION OF ROOF INSULATION

- A. The roof insulation shall be installed to comply with the Malarkey Specification Manual.

B. WET INSULATION

Built-up roofing shall not be applied over wet insulation. Roof insulation which has become wet in storage shall not be installed until completely dry. New insulation which has become wet after installation shall be removed and replaced with dry insulation. Existing wet roof insulation will be removed and paid for under Bid Item 25.

3.6 VAPOR RETARDER (ATTACHMENT SHEET)

The vapor retarder or attachment sheet shall be Malarkey Premium 1™ SBS Base Sheet No. 501 fastened with a continuous mopping at the nominal rate of 32 pounds per square.

3.7 APPLICATION OF CAP SHEET

- A. The roof surface shall be clean, free of dust, dirt or moisture when cap sheet is applied.
- B. If any surface oxidation has occurred on the installed interply or base sheets, the surface shall be primed with asphaltic primer applied at the rate of approximately 1/3 gallon per square.
- C. Complete the installation of all base sheets, interplies, metal accessories and base flashing reinforcements before beginning installation of the cap sheet.
- D. Cut cap sheet into lengths 1/3 of the total roll length or not to exceed 16-feet. Lay the sheet parallel to the underlying roofing and lapped so that the flow of water is over or parallel to, but never against the laps. Cap sheet shall be laid with side laps 4-inches for modified cap sheets and end laps of 6-inches. Embed the cap sheet in hot asphalt applied at a nominal rate of SEBS asphalt only 32 pounds per square.
- E. The cap sheet shall be applied free of buckles, wrinkles, blisters, fishmouths or voids of any type between the sheet and the mopping asphalt.
- F. Embed loose granules into exposed hot asphalt at side and end laps while asphalt is still hot.
- G. On slopes 1-inch or greater, the underlying sheet of all cap sheet end laps shall be nailed to wood insulation stops with two (2) rows of nails 3-inches apart on centers staggered.

3.8 FLASHING ASSEMBLIES

- A. Flashing at intersections of roof surfaces and vertical surfaces, at roof mounted equipment, and penetrations will conform to the details shown in the "Flashing Details" section.
- B. Install cant strips at the intersection of the roof and all vertical surfaces. Set cant strips (on top of roof insulation in a continuous mopping of hot asphalt) (nailing to wood deck and vertical wood surfaces).
- C. Extend all built-up roofing interplies approximately 2-inches above all cants and cut off evenly. Prime walls with asphaltic primer and permit to dry.
- D. Prime all metal surfaces in contact with mopping asphalt with asphaltic primer and permit to dry. Set all metal flanges in a continuous application of plastic cement.

END OF SECTION

SECTION 07540 FLUID-APPLIED WATERPROOFING (FAW)

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

Work of this section includes all requirements for installing Fluid-Applied Waterproofing Membrane (F-A-W) as manufactured by Kemper Systems, Inc. Area to be covered will be indicated on drawings supplied with the delivery order. Only contractors who have been trained by the F-A-W manufacturer will be allowed to apply this membrane. No roofing or flashing shall be applied under conditions that will jeopardize the quality or appearance of the work.

1.2 SECTION INCLUDES

- A. Preparation of existing roof to accept the Kemper System
- B. Coat base sheet with system primer
- C. Cold-curing, cold-mixed, unsaturated polyester resin membrane, required flashing, and all related accessories as shown on drawings and as specified herein
- D. Ultra-violet (UV) light requirements for membrane/flashing cure for concealed application
- E. Traffic/protective surfacing of primer/kiln-dried sand (PU-S) or kiln-dried sand embedded into membrane layer of unsaturated polyester
- F. Twenty (20) year warranty requirements
- G. Insulation and insulation related item
- H. Roof drains

1.3 QUALITY ASSURANCE

A. REFERENCES

Some products and execution are specified in this section by reference to published specifications or standards of the following (with respective abbreviations used).

American Society for Testing and Materials	ASTM
Federal Specifications	FS
Factory Mutual Engineering	FM
Asphalt Roofing Manufacturers Association	ARMA
National Roofing Contractors Association	NRCA
Midwest Roofing Contractors Association	MRCA

B. REGULATORY AGENCIES

1. Underwriters' Laboratory (UL)

Products and assemblies in the work of this section shall meet construction requirements of UL Class A.

2. Work Place Safety

- a. OSHA Safety and Health Standards (29 CFR 1926/1910), current edition.
- b. National Safety Council

- c. National Institute for Occupational Safety & Health.

C. CONTRACTOR

1. In case contractor is not an approved applicator of the membrane manufacturer, contractor shall arrange for pre-job and job-site training at his expense. Training in material handling, application, and safety shall be conducted by technical personnel and the membrane manufacturer. Membrane manufacturer shall verify training and subsequent acceptance of the contractor through written certification in the form of an approved applicator agreement.

1.4 SUBMITTALS

A. GENERAL

All submittals shall be provided prior to work in accordance with Section 01300, Paragraph 1.3 of the Special Provisions and as specified herein.

B. LIST OF MATERIALS

Submit complete list of materials proposed for use on the project for work of this section. List shall designate specific manufacturer and product designation, along with specific quality reference (for instance, FM listing, ASTM Specification No.).

C. PRODUCT DATA

1. Complete list of all items proposed to be furnished and installed under this section.
List shall designate specific manufacturer and product designation along with specific quality reference (i.e., ASTM Specification No.).
2. Manufacturer's data required to demonstrate compliance with the specified requirements.
3. Material Safety Data Information (MSDS). Indicate compliance with local, state, and national VOC regulations/requirements.

D. MANUFACTURER'S DATA FOR USE IN CONSTRUCTION ADMINISTRATION

Submit membrane manufacturer's printed instructions and recommended methods for installation of waterproofing membrane and related flashing. These documents, when approved by the project engineer along with the requirements specified herein, shall become the basis for evaluating installation procedures used on the work.

E. SAMPLES

1. Submit samples (in duplicate) of the following:
 - a. Fluid-applied membrane composite (minimum 8-inches x 12-inches). Thickness of sample to represent applied thickness as specified.
 - b. Membrane reinforcement fleece.
 - c. Fluid applied membrane composite (minimum 8-inches x 12-inches) with finish coat.
2. Quality Control Templates
 - a. Prepare and clean a 2-foot x 2-foot area of each substrate material type in the presence of technical representative of membrane manufacturer.
 - b. Sample areas shall be used to field determine required methods and tools to obtain substrate preparation required by membrane manufacturer.
 - c. Sample areas shall be maintained for quality control for the entire project.

F. SHOP DRAWINGS

1. Use of contract drawings reproduced for shop drawings is prohibited.
2. Only shop drawings that have been stamped "approved by contractor" will be accepted for review.
3. Show complete waterproof layout and orientation of reinforcing fleece. Show all required flashing layouts and types.
4. Show details of field-cutting required for elements projecting above roof (such as drains, pipe supports, curbs, etc.).
5. Show nailers and blocking required to be furnished for securing work of this section.
6. Show all required fastening types, spacing, and layout.
7. Submit details of proposed long-term and short-term water cut-offs to be installed at conclusion of each day's work for each type of substrate.
8. Documents identified within the QUALITY CONTROL COMPLIANCE manual of the membrane manufacturer. Submit copies of daily job logs on a weekly basis. Originals to remain on job site for duration of membrane installation work.

G. APPLICATION FOR MANUFACTURER'S WARRANTY

Contractor shall submit completed manufacturer's quality control compliance documentation and application form for roof warranty. The submittal shall contain all technical information applicable to the project, including deck types, roof slopes, surface preparation/treatment and/or insulation assemblies (with method of attachment and fastener types). The application for warranty form must bear the acceptance signature of the membrane manufacturer.

H. CERTIFICATION (PRIOR TO COMMENCEMENT OF WORK)

1. Submit written statement of membrane manufacturer that contractor has experience in the application of specified roof system, and that contractor is approved by membrane manufacturer. Membrane manufacturer shall certify that the contractor has satisfactorily applied the roofing system specified under membrane manufacturer's supervision. Statement shall be on the membrane manufacturer's letterhead and shall be signed by an officer of the corporation.
2. Copy of firm applicator certificate indicating successful completion of technical and field application training.

I. CERTIFICATION (DURING/SUBSEQUENT TO WORK)

1. Copy of daily job log (weekly basis).
2. Copy of installation inspection report by authorized quality control personnel of membrane manufacturer.
3. Copies of certifications and valid/current photo ID badges for each individual who will be installing or working with membrane materials.
4. Certificate of compliance from membrane manufacturer jointly signed by contractor stating installation of work of this section was in accordance with contract documents and in accordance with manufacturers' specifications. Certificate shall be on company letterhead and shall be signed by officers of the companies.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Coordinate storage locations with the project engineer.
- B. Materials shall be delivered to site in original tightly-sealed or unopened containers/packages with each container/package bearing label of manufacturer. All materials shall be labeled as to size, type physical, and performance characteristics and agency approvals.
- C. Storage and handling of materials shall be strictly in accordance with the following instructions.
 - 1. Waterproofing materials shall be supplied dry and shall be kept dry at all times prior to application.

Materials indicating moisture content above equilibrium shall be rejected as unacceptable. Ensure adequate ventilation to prevent condensation.

- 2. Roll goods shall be stored horizontally on clean, dry surfaces on platforms. Rolls with damaged ends shall not be used. Flattened rolls shall not be used.
 - 3. Store solvent-bearing emulsion, additives, inhibitors, or adhesive materials in accordance with requirements of local fire authority based on MSDS. Exercise appropriate precautions against fire and hazard to health. After partial use of solvent-bearing materials and emulsions, replace lids promptly and tightly to prevent escape of solvents.
 - 4. All resin, primer, inhibitor and activator containers, including bulk, shall be clearly identified as to type, use limitation (pot life), disposal, partial use and other pertinent material safety data.
 - 5. Store resin/bulk resin and other components in designated location in accordance with manufacturer's temperature recommendations and local fire protection requirements. Designate separate storage areas/locations for resin away from other membrane components or additives.
 - 6. Observe EPA and /or local disposal requirements.
- D. Materials shall not be stored in quantities that will exceed design loads, damage substrate materials, hinder installation or drainage, or be more than can be used each day.

E. SUPPLEMENTAL STORAGE/HANDLING REQUIREMENTS

Solvents, adhesives, and primers used in the application of membrane systems may be flammable and/or toxic. Provide any and all crew members with appropriate safety data information and training as provided by the membrane manufacturer. Provide each crew member with appropriate training as it relates to the specific chemical compound he or she may be expected to deal with. Each crew member shall be fully aware of first-aid measures to be undertaken in case of accidents, etc. Provide MSDS sheets for all materials brought on site. Comply with requirements of OSHA, NIOSH and/or governing local authority.

1.6 PROTECTION

- A. Building walls shall be protected adequately (with tarps or other suitable material) from soil, stains, or spills at all hoisting points. Contractor shall be responsible for preventing damage from any operation under this contract. Any such damage shall be repaired at contractor's expense to City's satisfaction or be restored to original condition.

- B. Provide barricades, retaining ropes, safety elements (active/passive) and any appropriate signage required by OSHA/NSC and/or the project engineer.

C. REJECTION OF DAMAGED WORK

- 1. Contractor, jointly with the project engineer and material manufacturer's representative, shall examine completed sections of work.
- 2. Damaged components and improper work will be rejected.
- 3. Replace damaged components or improper work with new materials. Replacement will be at contractor's expense to the City's satisfaction.

1.7 ENVIRONMENTAL CONDITIONS

- A. No application of materials shall commence nor proceed during inclement weather.
- B. All surfaces to be joined shall be completely dry and free of condensation, dew, frost or other forms of moisture.
- C. Prior to and during installation of materials, all dirt, dust, grease, oil, and debris shall be removed from surfaces either by vacuuming, sweeping, blowing with compressed air, or similar methods.
- D. Do not commence with installation of membrane or flashing when air temperature is below 40° F (5°C) and falling unless approved in writing by the project engineer and manufacturer of waterproofing materials.

1.8 MANUFACTURER'S REPRESENTATIVE

- A. Contractor shall require the presence of a technical representative of the manufacturer to provide field instruction and supervision prior to and during the work as required by the manufacturer for a warranted job.
- B. In addition, project engineer may require the presence of the technical representative of the manufacturer as necessitated by the work progress or as specified herein.
- C. The technical representative shall be employed by the manufacturer or be a trained, qualified consultant.

1.9 WARRANTY AND MAINTENANCE

Work of this section is part of the total systems warranty. The system if successfully installed will qualify for a twenty (20) year NDL warranty. **NOTE:** This warranty requirement modifies the General Provisions 2.08A.

PART 2 PRODUCTS

2.1 WATERPROOFING MEMBRANE COMPONENTS

A. ACCEPTABLE MANUFACTURERS

Products of the following manufacturers that retain physical property values listed in Part 2 of the section will be acceptable for use on the project when approved (in writing) by the project engineer.

- 1. Kemper Systems, Inc.

B. WATERPROOFING MEMBRANE

- 1. Resin Components:
 - a. Chemically Curing Two-Component Resin (Type BR)

Waterproof membrane shall be a composite of two (2) component, unsaturated polyester resin and fleece reinforcement. Polyester resin shall be chemically curing and UL-rated for Class A construction. Material shall consist of two (2) component resin and catalyst powder:

- b. Black formulation resin with catalyst (requires mixing).
- c. White formulation resin without catalyst, pre-mixed. Add and mix temperature additives as required/specified or needed.

2. PHYSICAL PROPERTIES

Membrane composite, as installed, shall meet or exceed the following properties:

PARAMETERS	TEST METHOD	VALUE
Thickness		0.080-inch per ply
Color		Translucent
Tensile Strength	ASTM D-412	@ 32°F - 2031 psi @ 73°F - 1218 psi @ 149°F - 479 psi
Flatwise Tensile		
Strength (after aging)	ASTM C-297/ICBO	---
Elongation	ASTM D-412	@ 32°F - 69.4% @ 73°F - 62.3% @ 149°F - 47.7%
Bond Strength	ASTM D-413	Concrete - 432 psi Aluminum - 583 psi Steel - 555 psi PVC/GRP - 711 psi Bitumen Felts - 610 psi
Bond Integrity		Thermal Shock - unaffected
Water Absorption		Less than 1% by vol.
Water Vapor Permeability	ASTM E-96	45.48 grains/SF/24 hr.
Accelerated Weathering	ASTM D-822	500 hr – No Affect
Fire Resistance (Components and Assembly)	ASTM E-108/UL 790	Class A

3. Membrane composite, when installed, shall not crack at any temperature above 20°F, nor display viscosity at temperatures up to 180°F as to cause material damage.
4. The finished membrane shall be free of any defects, including but not limited to holes, cracks, tears, protrusions, indentations, exposed reinforcement, etc.

C. FLASHING

1. Resin Components:

a. Chemically Curing Two-Component Resin:

Waterproof membrane shall be two (2) component, unsaturated polyester resin, fleece-reinforced composite. Polyester resin shall be chemically curing and UL-rated for Class A construction. Material shall consist of two (2) component resin and catalyst powder:

- b. Black formulation resin with catalyst (requires mixing).
- c. White formulation resin without catalyst, pre-mixed. Add and mix temperature additives as required/specified or needed.

2. PHYSICAL PROPERTIES

Reference Item 2.1.B.2.

D. REINFORCEMENT FLEECE

Non-woven, needle-punched polyester fleece, uniform in thickness and compatible with polyester resin Grade 200 for a dry thickness of 0.080-inch. Fleece shall be UL-rated for Class A construction. For flashings, non-woven, needle-punched polyester fleece, uniform in thickness and compatible with polyester resin Grade 165 for a dry thickness of 0.0700-inch. Fleece shall be UL-rated for Class A construction.

E. PRIMER

Two-component, solvent-free, high solids polyurethane resin for use in improving adhesion of membrane to substrate surfaces. Monitor application rate and adjust depending on substrate absorbency. Use primer at ambient temperatures above 45°F and rising only.

Pot life: - 25 minutes.

F. INHIBITOR

Additive specifically designed to slow resin catalyzation process at ambient temperatures above 80°F. Do not use inhibitor at ambient temperatures of 70°F or less. Inhibitor to be used with white resin prior to mixing of multi-component resin.

Observe EPA and/or local disposal requirements.

G. COLD ACTIVATOR

Additive specifically designed to increase resin catalyzation process at ambient temperatures below 50°F. Cold activator to be used with white resin prior to mixing of multi-component resin.

H. MINERAL SURFACING: (IF SPECIFIED)

1. Kiln-Dried Silica Sand

Sand shall be washed, kiln dried and dust free.

2. Protective or Traffic Surfacing

Size Specification: 0.7 - 1.2 mm

Embedment: 2-component PUR primer or UP-resin

I. AUXILIARY ITEMS

1. Talcum Powder - Supplied by membrane manufacturer.

2. BSFR Primer - Supplied by membrane manufacturer

J. TOOLS, ACCESSORIES, AND CLEANERS

Supplied and/or approved by manufacturer for product installation.

K. ARTIFICIAL UV-LIGHT EXPOSURE (FOR CONCEALED APPLICATIONS)

UV-B light source in strict accordance with written instructions of membrane manufacturer.

Assure that personnel working at/around light source wear protective clothes and eyewear.

L. BACKER ROD

1. Expanded, closed-cell polyethylene foam designed for use with cold-applied joint sealants.
2. One of the following:
 - a. "Ethafoam SB" as manufactured by Dow Chemical Company.
 - b. "Sonafoam" as manufactured by Sonneborn Building Products Division, Contect, Inc.
 - c. "Expand-O-Foam" as manufactured by Williams Products, Inc.
 - d. "Hercules Backer Rod" as manufactured by Hercules, Inc., Middletown, Delaware 19709.

2.2 INSULATION

Roof insulation shall be "Fes-Core", isocyanurate composite roof insulation 2-1/2-inches thick as manufactured by Manville, or engineer approved equal.

Tapered roof insulation shall be tapered fesco board 2-inches thick, sloped as shown on the plans and as manufactured by Manville, or engineer approved equal.

2.3 CANT STRIP

Cant strip shall be "Fes-Cant" plus fiber cant strip, installed where shown on the plans, as manufactured by Manville, or engineer approved equal.

2.4 TILE BACKER BOARD

1/2-inch as manufactured by Durock or engineer approved equal

2.5 SCREWS AND METAL PLATES

Screws and metal plates shall be "Vectra Fast" as manufactured by Manville, or engineer approved equal. Screws shall be No. 12 hexhead, 4-3/8-inches long.

2.6 ASPHALT

All mopping grade asphalt shall comply with ASTM D312. The type of asphalt used will be determined by the scope of the deck and climatic conditions at the time of installation.

2.7 ROOF DRAINS

Roof drains shall be as manufactured by Josam or engineer approved equal.

PART 3 EXECUTION

3.1 PREPARATION OF SUBSTRATE

- A. Any substrate to receive membrane materials shall be clean, dry free of loose or weak material, oil grease, contaminants, abrupt changes in level, and free of projections which would damage membrane materials. Level substrate materials in accordance with the requirements of the membrane manufacturer. Flashing surfaces shall be free of all previous membrane materials residue. Prime all substrate surfaces in accordance with the written instructions of the membrane manufacturer.
- B. Do not start work until surfaces to be covered are suitable to receive work of this section. Determine moisture content of structural deck. Make provisions for drying/venting in case the moisture content is at 4-percent or higher. Do not apply primer over structural deck with a moisture content of 4% or higher.

Where structural deck requires drying/venting, adjust removal schedule to accommodate drying/venting periods.

- C. Before installation of any membrane materials, membrane manufacturer, contractor and the project engineer together shall inspect substrate condition and/or insulation installation to determine its fitness to receive membrane system. Any condition making it unsuitable shall be corrected prior to commencing work.

3.2 INSTALLATION

A. GENERAL REQUIREMENTS FOR INSTALLATION OF MEMBRANE MATERIALS

1. Installation of membrane shall be accomplished in such a way that each area will be complete at the end of each day of work. All membrane edges and flashing shall be protected against water entry at all times. in accordance with the membrane manufacturer's printed instructions. Cut-offs and temporary protection shall be completely removed prior to resumption of work.
2. Follow membrane manufacturer's printed recommendations for cold and hot weather application.
3. CAUTION

a. OSHA Regulations:

OSHA Regulations CFR 1926/1910 (current issue) for use and handling of polyester resins, catalysts (organic peroxide) must be observed. It is mandatory that contractor is familiar with these regulations.

b. Technical representation of membrane manufacturer:

It is mandatory that contractor have a technical representative present at the time of commencement of membrane installation. Technical representative to remain on site as required to assure that contractor is adequately trained in the use and application of membrane components and auxiliary materials.

4. Protect all areas where membrane has been installed. Do not work off installed membrane during application of remaining work before forty-eight (48) hours of curing. Movement of materials and equipment across installed membrane is not acceptable. If movement is necessary, provide complete protection of affected areas.
5. Two-part polyester resins contain a photo-curing additive for proper surface during. Therefore, exposure to natural UV light is necessary.

For concealed and/or interior applications where exposure to natural UV light cannot be obtained, positive ventilation and exposure to UV radiation are required. Maintain constant ventilation and/or air exhaust during application of primer and membrane. Maintain UV radiation exposure in strict accordance with written instructions of membrane manufacturer.

B. PRIMER APPLICATION

1. Primer consists of Components A and B. Pour entire contents of Component B into container of Component A.
2. Utilize a spiral mixer or a clean mixing paddle for two (2) minutes until swirl-free and bubble-free. DO NOT AERATE. Once mixed, primer has pot life of approximately twenty-five (25) minutes.

3. Do not thin primer. Determine required primer coverage for each substrate material/condition and apply in strict accordance with written instructions of the manufacturer.
4. Apply primer direct in one step utilizing a brush or paint roller. Do not allow ponding.
5. Allow primer to cure for a minimum of twelve (12) hours and a maximum of five (5) days will require the application of a re-coat. Primer requires minimum cure of eight (8) hours prior to exposure to moisture.
6. For waterproofing operations requiring removal of the existing waterproof membrane system, application of the primer may be used as temporary waterproofing prior to application of the waterproof membrane and specified overburden/surfacing.

Primer may be used as temporary waterproofing only with written approval of the manufacturer, and project-specific preparation (crack/joint preparation, leveling, etc.). Multiple applications and surfacing with broadcast of kiln-dried sand may be required. Observe application and exposure limitation of primer.

C. MIXING OF RESIN COMPONENTS

1. Prepare black resin first, as white resin is pre-mixed:
 - a. Use spiral mixer to thoroughly mix pre-measured amount of catalyst powder in sealed plastic bag or plastic container) into pail of black resin.
 - b. Allow catalyst to dissolve for a minimum of twenty (20) minutes (under optimum conditions 68°F). For colder temperatures, more time will be required; consult manufacture's technical representative for time allowances for specific temperatures.
 - c. After catalyst has dissolved, stir mixture again prior to use.

NOTE: Never pre-mix more black resin than can be used in one day's work.

2. No mixing of the white resin is needed; stir resin prior to combining with the black resin.
3. Combine the black and white resins:
 - a. In a 1:1 ratio, mix the black resin (prepared with catalyst) and the stirred white resin into a third canister or pail. Make sure this third container has not been contaminated by any foreign matter.
 - b. Quickly and thoroughly mix the two (2) resins together without aerating until a uniform grey color results.
 - c. If temperatures are above 80°F or below 50°F, utilize activators and inhibitors to maintain catalyzation process as required by the membrane manufacturer.
 - d. Always mix only what can be used in a twenty (20) minute period.
 - e. If the mixing ratio is correct, the mix will produce a grey color.
 - f. If the color is not grey, the ratio needs to be corrected by adding more of the lacking component (i.e., add more white resin if mixture is too dark, add more black resin if too light, etc.). Proper mix is equal amounts of resin components.
 - g. For best results, first measure and mark the mixing container
4. Application of Resins
 - a. Once the mix is ready, apply liberally to the prepared surface with a roller using a broad, even stroke.

- b. Cover one (1) working area at a time, between 30 - 50 sq. ft.
- c. Brushes and rollers will remain supple and usable if they are kept moving in liquid resin. If allowed to sit, they will harden quickly as resin begins to cure. Rollers must be discarded once they stiffen. Brushes may be discarded or cleaned with acetone-based solvent. If solvent is used, the tool must air dry for twenty-four (24) hours before being reused for mixing and/or application. To minimize cleaning, wipe handle with clean, dry cloth every fifteen (15) to twenty (20) minutes and schedule work to avoid stopping.
- d. Roll out dry polyester fleece onto the liquid resin mix, making sure the SMOOTH SIDE IS FACING UP (natural unrolling procedure).
- e. The fleece will begin to rapidly saturate with the liquid resin mix.
- f. Roll the fleece with a medium nap roller to eliminate air bubbles, wrinkles, etc.
- g. Apply additional liquid resin mix on top of fleece until fully saturated and continue to work resin. The correct amount of resin will leave no whiteness in fleece and there will be a slightly fibrous surface texture. However, allow no ponding or excessive build-up of the resin. The coating should be smooth and uniform.

Consult manufacturer for rate of application on flat, horizontal, and sloped surfaces.

Prevent contact between mixed/unmixed resin, new membrane or old (remaining) membrane. IF ANY UNMIXED RESIN contacts membrane surface, remove immediately and thoroughly with a cloth rag.

D. CATALYZATION ADDITIVES

1. Inhibitor Additive (Application temperature above 80°F)

Mix and use in strict accordance with written instructions of membrane manufacturer.

2. Cold Activator Additive (Application temperature above 50°F)

Mix and use in strict accordance with written instructions of membrane manufacturer.

3. Mixing Temperatures

Consider and observe effects of wind chill on chemical/exothermic reactions.

E. FLASHING SYSTEM (FLUID APPLIED WATERPROOFING)

1. Install membrane flashing system in accordance with the requirements/recommendations of the membrane manufacturer and as depicted on enclosed drawings. Provide system with base flashing, penetration flashing, counter flashing and all other flashings required for a complete watertight system.
2. Provide reinforcement fleece with resin at perimeter, around mechanical equipment curbs, vents and other protrusions through waterproof membrane.
3. Use manufacturer's printed instructions and recommendations for installation of flashing except where specifically noted otherwise.
4. Flashings shall extend a minimum of 8-inches above finished membrane level and a minimum of 6-inches onto horizontal deck surface or as specified on enclosed drawings.
5. Metal counter flashing shall lap base flashing a minimum of 3-inches.
6. Fleece junctions shall overlap each other a minimum of 2-inches.
7. Prime walls, curbs, etc. with 2-component polyurethane resin primer. Follow manufacturer's written instructions for primer cure.

8. Work wet membrane to avoid any openings or lifting at corners, junctions, and transitions.
9. BSFR Primer requires thorough mixing before application.
Prevent contact between mixed/unmixed resin, new membrane or old (remaining) membrane. IF ANY UNMIXED RESIN contacts membrane surface, remove immediately and thoroughly with a cloth rag.

3.3 FINISHES

A. TALCUM POWDER

In case finishes are not required/specified, apply talcum powder to eliminate residual tackiness of membrane. Apply talcum powder a minimum of twelve (12) hours after completion of the membrane installation. Apply talcum powder in accordance with written instructions of membrane manufacturer.

B. KILN-DRIED SAND SURFACING (PU-S)

Where specified, provide and install kiln-dried silica sand or other approved mineral aggregate to achieve non-skid surfaces.

Broadcast specified and approved mineral aggregate into fresh application of Primer D (application rate 0.8 - 1.0 Gal/100 sf). Obtain uniform and full coverage.

Immediately after broadcasting, back roll with a dry roller using pressure of the roller.

Sweep surfaces with a stiff bristle broom to remove loose/unembedded mineral aggregate. Rebroadcast clean mineral aggregate as required to provide full embedment and coverage of membrane.

After completion of mineral aggregate broadcasting, eliminate any traffic for a minimum of three (3) days.

Remove excessive sand particles with vacuum.

C. KILN-DRIED SAND TRAFFIC SURFACING (UP-ST)

Where specified, provide and install kiln-dried silica sand, or other approved mineral aggregate, with dry roller or to achieve traffic surfacing.

Broadcast approved mineral aggregate into supplemental, fresh application of Primer D applied over clean, UP-R membrane. Obtain full and uniform coverage.

Immediately after broadcasting, back roll with a dry roller using pressure of the roller.

Sweep surfaces with a stiff bristle broom to remove loose/unembedded mineral aggregate. Rebroadcast clean mineral aggregate as required to provide full embedment and coverage of membrane.

After completion of mineral aggregate broadcasting, eliminate any traffic for a minimum of three (3) days.

Where specified install additional layer of BR membrane with broadcast sand in the uncured membrane.

3.4 INSULATION

Roof insulation shall be placed on metal roof deck with long side perpendicular to flute openings.

Fasten insulation to metal deck with mechanical fasteners at 12-inches on center maximum, parallel with the deck flute and at every other transverse flute.

Tapered insulation shall be applied on top of roof insulation in a solid mopping of hot asphalt.

3.5 CANTS

Cants shall be a minimum of 4-inches in horizontal and 4-inches in vertical dimensions.

The face of the cant shall have an incline of not more than 45 degrees with the roof plane.

Cants shall be set in a solid mopping of hot asphalt.

3.6 BASE SHEET

Base sheet shall be applied over all insulation prior to the Kemperol roof installation. Base sheet material shall extend up all vertical surfaces a minimum of 2-inches.

Base sheet shall be set in a solid mopping of hot asphalt.

3.7 TILE BACKER BOARD

Tile backer board shall be installed on the sides and on top of parapet walls as shown on the plans.

Prior to placing roofing system over tile backer board, prime entire surface with Kemperol D Primer per manufacturer's guidelines.

Attach tile backer board to walls and light gauge metal framing as shown on the plans.

3.8 PROTECTION

The contractor shall protect system from all trades during and after completion. Any damage to the system shall be repaired prior to acceptance.

3.9 CLEANUP

The contractor shall remove all masking, protection, equipment, materials, and debris from the work and storage areas and leave those areas in an undamaged and acceptable condition.

3.10 QUALITY CONTROL INSPECTIONS

A. INSPECTION BY CONTRACTOR

Prior to and during application, inspections shall be made by a member of management of the contractor who has been thoroughly trained by the manufacturer. Contractor quality control inspections shall be in addition to any inspections which may be made by the project engineer and the membrane manufacturer. Inspections by quality control inspector shall be performed at intervals and frequency as required to assure application of the membrane systems in strict accordance with the manufacturer's written instructions and as specified herein.

B. INSPECTION BY MANUFACTURER

1. Prior to and during application, inspections shall be made by a representative of the membrane manufacturer who has been thoroughly trained and certified for quality control. Representative of membrane manufacturer shall exhibit his quality control identified badge at all times during the inspection.
2. Inspections shall be made at such times and frequency as required to determine that:
 - a. Substrate surface is acceptable for waterproofing membrane prior to installation.
 - b. Materials, equipment, and application methods are in accordance with the manufacturer's written instructions.

- c. Completed work is in accordance with contract document.
- 3. Final inspection shall be made by manufacturer's technical representative prior to issuance of warranty. Manufacturer's technical representative shall review contractor's inspection reports, daily membrane samples and daily job log reports and determine that all installation deficiencies have been satisfactorily corrected and are in conformance with manufacturer's technical representative shall be corrected in strict conformance with manufacturer's requirements before issuance of warranty.

3.11 FIELD QUALITY CONTROL

- A. Testing for conformance with requirements for contract documents may be employed by the City.
- B. TESTING PROCEDURES
 - 1. Check substrate for moisture and physical condition to determine suitability to receive materials.
 - 2. Determine moisture content of materials.
 - 3. Monitor quantities of installed materials. Monitor application of resin mixture, reinforcing fleece, insulation and flashing.
 - 4. Inspect flashings at deck openings and at perimeters.
 - 5. Test membrane for specified physical properties.

3.12 COMPLETION

A. CORRECTION OF WORK

Work of this section that does not conform to specified requirements including tolerances, slopes and finishes shall be corrected and/or replaced as directed by the project engineer at contractor's expense without extension of time. Therefore, contractor shall also be responsible for cost of correction to any work affected by or resulting from corrections to work of this section.

- B. Site cleanup, including both interior and exterior building areas that have been affected by construction, shall be restored to pre-construction condition.

All landscaped areas affected by construction activities shall be raked clean, seeded, or restored to pre-construction condition.

- C. All warranties as required in Part 1 of this section shall be submitted for approval prior to final payment.

3.13 POWER WASHING OF EXISTING ROOFS

Power washing of roofs prior to application of a new coating shall be as required by the engineer. All material shall be removed and the roof shall be ready for a new application of Kemper D Primer or other material as ordered. When water is not available for power washing or power washing is not environmentally acceptable as determined by the City inspector or project lead, the roof preparation may be ordered by force account or the hourly rate.

END OF SECTION

SECTION 07545 – SIKA SARNAFIL PVC MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

The work to be performed under this section includes the procurement and installation of the Sika Sarnafil PVC Membrane, fully adhered with feltback roofing system to be applied to the Tacoma Power Utilities Complex Warehouse upper ~~and lower~~ roof areas, as shown on the drawings and specified herein.

1.2 CODE REQUIREMENTS

- A. System shall be designed to meet minimum wind design requirements of the most recent version of ASCE 7.
- B. Factory Mutual Research Corporation (FM) – Norwood, MA
 - 1. Class 1-60 (required for most situations)
- C. Underwriters Laboratories, Inc.
 - 1. Class A assembly

1.3 QUALITY ASSURANCE

- A. This roofing system shall be applied only by a Roofing Applicator authorized by Sika Sarnafil prior to bid (Sika Sarnafil "Applicator").
- B. Upon completion of the installation and the delivery to Sika Sarnafil by the applicator of certification that all work has been done in strict accordance with the contract specifications and Sika Sarnafil's requirements, a Sika Sarnafil Technical Service Representative will review the installed roof system wherever a Standard or System warranty has been specified.
- C. There shall be no deviation made from the Project Specification or the approved shop drawings without prior written approval by Tacoma Power, Tacoma Power's Representative and Sika Sarnafil.
- D. All work pertaining to the installation of Sarnafil membrane and flashings shall only be completed by Applicator personnel trained and authorized by Sika Sarnafil in those procedures.

1.4 SUBMITTALS

- A. Submit in accordance with section 01300, Paragraph 1.3 – Submittal and Shop Drawings.

B. PRODUCT DATA

- 1. Submit manufacturer's technical product data, installation instructions and recommendations.
- 2. Include data substantiating that materials comply with requirements.

C. SHOP DRAWINGS

- 1. Show roof layout with details at each change of condition.
- 2. Provide specification sheets for each layer of the membrane.
- 3. Provide flashing details.

D. WARRANTY

- 1. Sample copy of Sika Sarnafil's warranty.

2. Sample copy of Applicator's two (2) year warranty which shall cover any and all defects in workmanship and materials. The warranty may exclude physical damage caused by acts of God, any activity by anyone other than the roofing contractor's employees, or failure of the buildings structural components.
3. Prior to ordering products, submit manufacturer's standard color samples for engineer's selection.

****CONTACT SIKA SARNAFIL FOR EXACT WARRANTY TERMS AND CONDITIONS****

E. PRE-CONSTRUCTION CONFERENCE

Contactor shall schedule a pre-construction conference with Manufacturer and necessary parties at the jobsite to review and discuss project conditions as it relates to the integrity of the waterproofing assembly.

F. APPLICATOR EXPERIENCE

1. Submit applicator resume verifying the following:
 - a. Certification or license by the membrane manufacturer as a locally based, authorized applicator of the product the installer intends to use, for a minimum of five (5) years.
 - b. List of at least three (3) projects, satisfactorily completed within the past five (5) years, of similar scope and complexity to this project. Previous experience submittal shall correspond to specific membrane system proposed for use by applicator.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All products delivered to the job site shall be in the original unopened containers or wrappings bearing all seals and approvals.
- B. Handle all materials to prevent damage. Place all materials on pallets and fully protect from moisture.
- C. Membrane rolls shall be stored lying down on pallets and fully protected from the weather with clean canvas tarpaulins. Unvented polyethylene tarpaulins are not accepted due to the accumulation of moisture beneath the tarpaulin in certain weather conditions that may affect the ease of membrane weldability.
- D. As a general rule all adhesives shall be stored at temperatures between 40 degree F (5 degree C) and 80 degree F (27 degree C). Read instructions contained on adhesive canister for specific storage instructions.
- E. All flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow precautions outlined on containers or supplied by material manufacturer/supplier.
- F. All materials which are determined to be damaged by Tacoma Power's Representative or Sika Sarnafil are to be removed from the job site and replaced at no cost to Tacoma Power.

1.6 JOB CONDITIONS

- A. Sika Sarnafil materials may be installed under certain adverse weather conditions but only after consultation with Sika Sarnafil, as installation time and system integrity may be affected.

- B. Only as much of the new roofing as can be made weathertight each day, including all flashing and detail work, shall be installed. All seams shall be heat welded before leaving the job site that day.
- C. All work shall be scheduled and executed without exposing the interior building areas to the effects of inclement weather. The existing building and its contents shall be protected against all risks.
- D. All surfaces to receive new insulation, membrane or flashings shall be dry. Should surface moisture occur, the Applicator shall provide the necessary equipment to dry the surface prior to the application.
- E. All new and temporary construction, including equipment and accessories, shall be secured in such a manner as to preclude wind blow-off and subsequent roof or equipment damage.
- F. Uninterrupted waterstops shall be installed at the end of each day's work and shall be completely removed before proceeding with the next day's work. Waterstops shall not emit dangerous or unsafe fumes and shall not remain in contact with the finished roof as the installation progresses. Contaminated membrane shall be replaced at no cost to Tacoma Power.
- G. The Applicator is cautioned that certain Sarnafil membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials. Such materials shall not remain in contact with Sarnafil membranes. The Applicator shall consult Sika Sarnafil regarding compatibility, precautions and recommendations.
- H. Arrange work sequence to avoid use of newly constructed roofing as a walking surface or for equipment movement and storage. Where such access is absolutely required, the Applicator shall provide all necessary protection and barriers to segregate the work area and to prevent damage to adjacent areas. A substantial protection layer consisting of plywood over Sarnafelt or plywood over insulation board shall be provided for all new and existing roof areas that receive rooftop traffic during construction.
- I. Prior to and during application, all dirt, debris and dust shall be removed from surfaces by vacuuming, sweeping, blowing with compressed air or similar methods.
- J. The Applicator shall follow all safety regulations as required by OSHA and any other applicable authority having jurisdiction.
- K. All roofing, insulation, flashings and metal work removed during construction shall be immediately taken off site to a legal dumping area authorized to receive such materials. Hazardous materials, such as materials containing asbestos, are to be removed and disposed of in strict accordance with applicable City, State and Federal requirements.
- L. All new roofing waste material (i.e., scrap roof membrane, empty cans of adhesive) shall be immediately removed from the site by the Applicator and properly transported to a legal dumping area authorized to receive such material.
- M. The Applicator shall take precautions that storage and application of materials and equipment does not overload the roof deck or building structure.
- N. Installation of a Sarnafil membrane over coal tar pitch or a resaturated roof requires special consideration to protect the Sarnafil membrane from volatile fumes and materials. Consult Sika Sarnafil for precautions prior to bid.

- O. Flammable adhesives and deck primers shall not be stored and not be used in the vicinity of open flames, sparks and excessive heat.
- P. All rooftop contamination that is anticipated or that is occurring shall be reported to Sika Sarnafil to determine the corrective steps to be taken.
- Q. The Applicator shall verify that all roof drain lines are functioning correctly (not clogged or blocked) before starting work. Applicator shall report any such blockages in writing (letter copy to Sika Sarnafil) to Tacoma Power's Representative for corrective action prior to the installation of the Sika Sarnafil roof system.
- R. Applicator shall immediately stop work if any unusual or concealed condition is discovered and shall immediately notify Tacoma Power of such condition in writing for correction at Tacoma Power's expense (letter copy to Sika Sarnafil).
- S. Site cleanup, including both interior and exterior building areas that have been affected by construction, shall be completed to Tacoma Power's satisfaction.
- T. All landscaped areas damaged by construction activities shall be repaired at no cost to Tacoma Power.
- U. The Applicator shall conduct fastener pullout tests in accordance with the latest version of the SPRI/ANSI Fastener Pullout Standard to verify condition of the deck/substrate and to confirm expected pullout values.
- V. The Sarnafil membrane shall not be installed under the following conditions without consulting Sika Sarnafil's Technical Dept. for precautionary steps:
 - 1. The roof assembly permits interior air to pressurize the membrane underside.
 - 2. Any exterior wall has 10 percent or more of the surface area comprised of opening doors or windows.
 - 3. The wall/deck intersection permits air entry into the wall flashing area.
- W. Precautions shall be taken when using Sarnacol adhesives at or near rooftop vents or air intakes. Adhesive odors could enter the building. Coordinate the operation of vents and air intakes in such a manner as to avoid the intake of adhesive odor while ventilating the building. Keep lids on unused cans at all times.
- X. Protective wear shall be worn when using solvents or adhesives or as required by job conditions.
- Y. Sarnafil membranes are slippery when wet or covered with snow, frost, or ice. Working on surfaces under these conditions is hazardous. Appropriate safety measures must be implemented prior to working on such surfaces. Always follow OSHA and other relevant fall protection standards when working on roofs.

1.7 WARRANTIES

- A. Sika Sarnafil Twenty (20) Year System Warranty: Upon successful completion of work to Sika Sarnafil's satisfaction and receipt of final payment, the Sika Sarnafil
- B. Tacoma Power's Responsibility: Tacoma Power shall notify both Sika Sarnafil and the Applicator of any leaks as they occur during the time period when both warranties are in effect.

1.8 WARRANTY DURATIONS

Sika Sarnafil Warranty shall be in effect for a Twenty (20) year period.

PART 2 PRODUCTS

2.1 GENERAL

- A. The components of the Sarnafil Adhered roof system are to be products of Sika Sarnafil as indicated on the Detail Drawings and specified in the Contract Documents.
- B. Components to be used that are other than those supplied or manufactured by Sika Sarnafil may be submitted for review and acceptance by Sika Sarnafil.
 - 1. Sika Sarnafil's acceptance of any other product is only for a determination of compatibility with Sika Sarnafil products and not for inclusion in the Sika Sarnafil warranty.
 - 2. The specifications, installation instructions, limitations, and restrictions of the respective manufacturers must be reviewed by the Tacoma Power's Representative for acceptability for the intended use with Sika Sarnafil products.
- C. Condensation or moisture migration into the roof system must be controlled so that it does not compromise the performance of the insulation and other components of the assembly.
 - 1. Moisture vapor tends to migrate from warmer to cooler areas. Air/vapor retarders are used to inhibit or block the flow of warm moist air into the roof system. To determine if an air/vapor barrier is necessary, a design professional with experience with air handling and moisture control should be consulted.
 - 2. Special consideration should be given to construction related moisture. An example is the significant amount of moisture generated when concrete floor slabs are poured after the roof has been installed.
 - 3. Sika Sarnafil is not responsible for damage to the insulation when exposed to construction related moisture.

2.2 MEMBRANE

- A. Sarnafil G410 Feltback fiberglass reinforced membrane with a lacquer coating.
- B. Membrane shall conform to ASTM D4434 (latest version), "Standard for Polyvinyl Chloride Sheet Roofing". Classification: Type II, Grade I.
 - 1. Sarnafil G410-15 feltback, 60 mil (1.5 mm), thermoplastic membrane with fiberglass reinforcement and a factory applied 9 oz. felt backing.
- C. Color of Membrane
 - 1. EnergySmart Light Gray, initial solar reflectance of 0.51, emittance of 0.84, and solar reflective index (SRI) of 58 (ENERGY STAR listed) will be the default color for this membrane applications. If so requested the project engineer may choose to select one of Sika Sarnafil's other standard colors. .

2.3 FLASHING MATERIALS

A. WALL/CURB FLASHING

Sarnafil G410-15 60 mil (1.5 mm) Membrane: A fiberglass reinforced membrane adhered to approved substrate using Sarnacol adhesive. Consult Product Data Sheets for adhesive options and additional information.

- 1. Sarnafil G459 Membrane: An asphalt-resistant, fiberglass reinforced membrane adhered to approved substrate using Sarnacol adhesive. Consult Product Data Sheet for adhesive rates and additional information.

2. Sarnaclad: A PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. Sarnaclad is a 24 gauge, G90 galvanized metal sheet with a 20 mil (0.5 mm) unsupported Sarnafil membrane laminated on one side. The dimensions of Sarnaclad are 4 ft x 8 ft (1.2 m x 2.4 m) or 4 ft x 10 ft (1.2 m x 3.0 m). Consult Product Data Sheet for additional information.

B. PERIMETER EDGE FLASHING

1. Sarnaclad: A PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. Sarnaclad is a 24 gauge, G90 galvanized metal sheet with a 20 mil (0.5 mm) unsupported Sarnafil membrane laminated on one side. The dimensions of Sarnaclad are 4 ft x 8 ft (1.2 m x 2.4 m) or 4 ft x 10 ft (1.2 m x 3.0 m). Consult Product Data Sheet for additional information.
2. Non-Typical Edge: Project-specific perimeter edge detail reviewed and accepted for one-time use by Sika Sarnafil's Technical Department. Consult Regional Technical Manager prior to job start for review and consideration for acceptance.

C. MISCELLANEOUS FLASHING

1. Sarnareglet: A heavy-duty, extruded aluminum flashing termination reglet used at walls and large curbs. Sarnareglet is produced from 6063-T5, 0.10 inch to 0.12 inch (2.5 mm to 3.0 mm) thick extruded aluminum. Sarnareglet has a 2-1/4 inch (57 mm) deep profile, and is provided in 10 foot (3 m) lengths.

Use prefabricated Sarnareglet mitered inside and outside corners where walls intersect. Consult Product Data Sheet for additional information.
2. Sarnastack: A prefabricated vent pipe flashing made from 0.048 inch (48 mil/1.2 mm) thick Sarnafil G410 membrane. Available in five different sizes. Consult Product Data Sheet for sizes and additional information.
3. Sarnacorners – Universal: Prefabricated outside and inside flashing corners made of 0.060 inch (60 mil/1.5 mm) thick membrane that are heat-welded to membrane or Sarnaclad base flashings. Available in one size which accommodate both inside and outside corners. Can be cut into one inside or one outside corner. Consult Product Data Sheet for additional information.
4. Open Post Flashing: Prefabricated post flashing, 0.048 inch (48 mil/1.2 mm) thick, with an open seam used to flash obstructed rooftop conduits and pipes 1/2 to 1-1/4 inch (12.7-31.8 mm) in diameter. Available in 2 sizes; 1/2 to 3/4 inch (12.7-19 mm) and 3/4 to 1-1/4 inch (19-31.8 mm) diameter. Open Post Flashings are heat welded in place and terminated at the top of the penetration completing the pipe penetration detail.
5. Sikaflex-1a Sealant: A proprietary sealant used at flashing terminations. Consult Product Data Sheet for additional information.
6. Sarnacol 2170 Adhesive: A solvent-based reactivating-type adhesive used to attach membrane to flashing substrate. Consult Product Data Sheets for additional information.

2.4 ATTACHMENT COMPONENTS

A. MEMBRANE ADHESIVE

1. Sarnacol 2170 Adhesive: A solvent-based reactivating-type adhesive used to attach the membrane to the substrate, either horizontally or vertically. Consult Product Data Sheets for additional information. Application rates are as follows:

SARNACOL 2170 APPLICATION RATES FOR FELTBACK MEMBRANE					
	Adhesive Rates - Gallons per 100 Square Feet (Liters per Meter ²)				Approximate Sq. Ft./Pail (meter ²)
	Substrate (1 st coat)		Substrate (2 nd coat)	Total	
Isocyanurate Paper Facer	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
Smooth Plywood	1.00 (0.41)	+	1.00 (0.41)	= 2.00 (0.81)	250 (23.23)
Metal	0.75 (0.31)	+	1.00 (0.41)	= 1.75 (0.71)	285 (26.48)
Concrete Deck	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
Concrete Wall	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
Masonry Wall	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
Cellular Concrete	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
GP DensDeck	1.25 (0.51)	+	1.00 (0.41)	= 2.25 (0.92)	222 (20.62)
GP DensDeck Prime GP DensDeck DuraGuard	1.00 (0.41)	+	1.00 (0.41)	= 2.00 (0.81)	250 (23.23)

SARNACOL 2170 APPLICATION RATES FOR MEMBRANE FLASHINGS USING SARNAFELT					
	Adhesive Rates - Gallons per 100 Square Feet (Liters per Meter ²)				Approximate Sq. Ft./Pail (meter ²)
	Substrate (1 st coat)		Substrate (2 nd coat)	Total	
Smooth Plywood	1.00 (0.41)	+	1.00 (0.41) + 0.50 (0.20)	= 2.50 (1.02)	200 (18.58)
Concrete Wall	1.00 (0.41)	+	1.00 (0.41) + 0.50 (0.20)	= 2.50 (1.02)	200 (18.58)
Masonry Wall	1.00 (0.41)	+	1.00 (0.41) + 0.50 (0.20)	= 2.50 (1.02)	200 (18.58)
Granular Bitumen	1.00 (0.41)	+	1.00 (0.41) + 0.50 (0.20)	= 2.50 (1.02)	200 (18.58)
Smooth Aged Bitumen	1.00 (0.41)	+	1.00 (0.41) + 0.50 (0.20)	= 2.50 (1.02)	200 (18.58)

NOTES:

- Due to an increase in viscosity when outdoor temperatures during installation are below 40 degree F (5 degree C), add 1/2 gallon per 100 square feet (0.2 l per m²) to rate for estimating purposes. Do not install when air temperature is within 5 degree F of dew point. Solvent evaporation time increases significantly when temperatures

- drop. Ensure first layer of Sarnacol 2170 is fully dry before second layer is applied to the back of the membrane for proper reactivation.
- Use a water-filled, foam-covered lawn roller to consistently and evenly press the membrane into the adhesive layer.
 - Contact Sarnafil representative for appropriate adhesive application rate.

B. SARNAFASTENER-XP

1. #15, heavy-duty, corrosion-resistant fastener used with Sarnaplate to attach insulation or with Sarnastop and Sarnabar to attach Sarnafil G410 roof membrane to steel or 1/2-3/4 inch wood roof decks.
2. Sarnafastener-XP has a shank diameter of approximately 0.21 inch (5.3 mm) and the thread diameter is approximately 0.26 inch (6.6 mm).
3. The driving head has a diameter of approximately 0.435 inch (11 mm) with a #3 Phillips recess for positive engagement.
4. Consult Product Data Sheet for additional information.

C. SARNAFASTENER-CD10

1. A nail-in, corrosion-resistant fastener used with Sarnaplate-HD/CD to attach insulation to normal weight concrete roof deck.
2. Sarnafastener-CD10 has a shank diameter of 0.215 inch (5.5 mm), a split diameter of 0.265/0.275 inch (6.7/7.0 mm) and a flat head with a 0.435 inch (11 mm) diameter.
3. Consult Product Data Sheet for additional information.

D. SARNASTOP

1. An extruded aluminum, low profile bar used with certain Sarnafasteners to attach to the roof deck or to walls/curbs at terminations, penetrations and at incline changes of the substrate.
2. Sarnastop is a 1 inch (25 mm) wide, flat aluminum bar 1/8 inch (3 mm) thick that has predrilled holes every 6 inches (152 mm) on center.
3. Consult Product Data Sheet for additional information.

2.5 MISCELLANEOUS ACCESSORIES

A. ALUMINUM TAPE

A 2-inch (50 mm) wide pressure-sensitive aluminum tape used as a separation layer between small areas of asphalt contamination and the membrane and as a bond-breaker under the coverstrip at Sarnaclad joints.

B. MULTI-PURPOSE TAPE

A high performance sealant tape used with metal flashings as a preventive measure against air and wind blown moisture entry.

C. SARNAMATIC 641MC OR 661

220 volt, self-propelled, hot-air welding machine used to seal Sarnafil membrane seams.

D. SARNASOLV

1. A high quality solvent cleaner used for the general cleaning of residual asphalt, scuff marks, etc., from the membrane surface.

2. Sarnasolv is also used daily to clean seam areas prior to hot-air welding in tear off or dirty conditions or if the membrane is not welded the same day it is unrolled.
3. Consult Product Data Sheet for additional information.

2.6 SEALANTS AND PITCH POCKET FILLERS

Sarnafil Sikaflex-1a Sealant (for termination details)

2.7 MISCELLANEOUS FASTENERS AND ANCHORS

- A. All fasteners, anchors, nails, straps, bars, etc. shall be post-galvanized steel, aluminum or stainless steel.
- B. Mixing metal types and methods of contact shall be assembled in such a manner as to avoid galvanic corrosion.
- C. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins.
- D. All concrete fasteners and anchors shall have a minimum embedment of 1-1/4 inch (32 mm) and shall be approved for such use by the fastener manufacturer.
- E. All miscellaneous wood fasteners and anchors used for flashings shall have a minimum embedment of 1 inch (25 mm) and shall be approved for such use by the fastener manufacturer.

PART 3 EXECUTION

3.1 PRE-CONSTRUCTION CONFERENCE

- A. The Applicator, Owner's Representative/Designer and Manufacturer(s) shall attend a pre-construction conference for each project.
- B. The meeting shall discuss all aspects of the project including but not limited to:
 1. Safety
 2. Set up
 3. Construction schedule
 4. Contract conditions
 5. Coordination of the work

3.2 SUBSTRATE CONDITION

- A. Applicator shall be responsible for acceptance or provision of proper substrate to receive new roofing materials.
- B. Applicator shall verify that the work done under related sections meets the following conditions:
 1. Contractor to supply new compression rings on all roof drains.
 2. Roof curbs, nailers, equipment supports, vents and other roof penetrations are properly secured and prepared to receive new roofing materials.
 3. All surfaces are smooth and free of dirt, debris and incompatible materials.
 4. All roof surfaces shall be free of water, ice and snow.

3.3 SUBSTRATE PREPARATION

- A. The roof deck and existing roof construction must be structurally sound to provide support for the new roof system.
 - 1. The Applicator shall load materials on the rooftop in such a manner as to eliminate risk of deck overload due to concentrated weight.
 - 2. Tacoma Power's Representative shall ensure that the roof deck is secured to the structural framing according to local building code and in such a manner as to resist all anticipated wind loads in that location.
- B. Applicator shall pressure wash existing roof surface before new roof overlay installation.

3.4 SUBSTRATE INSPECTION

- A. A dry, clean and smooth substrate shall be prepared to receive the Sarnafil Adhered roof system.
- B. The Applicator shall inspect the substrate for defects such as excessive surface roughness, contamination, structural inadequacy, or any other condition that will adversely affect the quality of work.
- C. The substrate shall be clean, smooth, dry, free of flaws, sharp edges, loose and foreign material, oil and grease. Roofing shall not start until all defects have been corrected.
- D. All roof surfaces shall be free of water, ice and snow.
- E. Sarnafil shall be applied over compatible and accepted substrates only.

3.5 INSTALLATION OF SARNAFIL MEMBRANE

The surface of the insulation or substrate shall be inspected prior to installation of the Sarnafil roof membrane. The substrate shall be clean, dry, free from debris and smooth with no surface roughness or contamination. Broken, delaminated, wet or damaged insulation boards shall be removed and replaced.

A. SARNACOL 2170 ADHESIVE

- 1. Over the properly installed and prepared substrate surface, Sarnacol 2170 adhesive shall be applied using solvent-resistant 3/4 inch (19 mm) nap paint rollers. The adhesive shall be applied to the substrate at a rate according to Sika Sarnafil requirements. No adhesive is applied to the back of the G410 feltback membrane. The adhesive shall be applied in smooth, even coats with no gaps, globs, puddles or similar inconsistencies. Only an area which can be completely covered in the same day's operations shall be coated with adhesive. The first layer of adhesive shall be allowed to dry completely prior to installing a second layer of 2170 and the membrane.
- 2. The G410 feltback roof membrane is unrolled immediately into a second layer of wet adhesive. Adjacent to that first installed roll of membrane, another second layer of wet adhesive is applied and the second roll of membrane is immediately unrolled into it, overlapping the first roll by 3 inches (75 mm). This process is repeated throughout the roof area. Immediately after application into adhesive, each roll shall be pressed firmly in place with a water-filled, foam-covered lawn roller by frequent rolling in two directions. Do not allow the second application of adhesive to dry at all!
- 3. Weld G410 coverstrips at all G410 feltback seams that do not have a factory selvage edge.

NOTES:

- The Applicator shall count the amount of pails of adhesive used per area per day to verify conformance to the specified adhesive rate.
- No adhesive shall be applied in seam areas. All membrane shall be applied in the same manner

B. SARNACOL 2142S ADHESIVE

1. Over the properly installed and prepared substrate, Sarnacol 2142S adhesive shall be poured out of the pail and spread using solvent resistant 3/4 inch (19 mm) nap paint rollers with a sturdy frame. The 2142S adhesive shall be applied at a rate according to Sika Sarnafil requirements. No adhesive is applied to the back of the G410 feltback membrane. Do not allow adhesive to skin-over or surface-dry prior to installation of G410 feltback membrane.
2. The G410 feltback roof membrane is unrolled immediately into the wet 2142S adhesive. Adjacent rolls overlap previous rolls by 3 inches (75 mm). This process is repeated throughout the roof area.

Immediately after application into adhesive, each roll shall be pressed firmly into place with a water-filled, foam-covered lawn roller by frequent rolling in two directions. Do not allow adhesive to skin-over or surface-dry prior to installation of G410 feltback membrane.

3. Weld G410 coverstrips at all G410 feltback seams that do not have a factory salvage edge.

NOTES:

- Sarnacol 2142S shall not be used if temperatures below 40°F (5°C) are expected during application or subsequent curing time.
- No adhesive shall be applied in seam areas. All membrane shall be applied in the same manner.
- Sarnacol 2142S shall not be used on vertical surfaces or sloped surfaces greater than a 2 inch (50 mm) rise per 1 horizontal foot (0.3 m).

3.6 HOT-AIR WELDING OF SEAM OVERLAPS

A. GENERAL

1. All seams shall be hot-air welded. Seam overlaps should be 3 inches (75 mm) wide when automatic machine-welding and 4 inches (100 mm) wide when hand-welding, except for certain details.
2. Welding equipment shall be provided by or approved by Sika Sarnafil. All mechanics intending to use the equipment shall have successfully completed a training course provided by a Sika Sarnafil Technical Service Representative prior to welding.
3. All membrane to be welded shall be clean and dry.

B. HAND-WELDING

Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.

1. The back edge of the seam shall be welded with a narrow but continuous weld to prevent loss of hot air during the final welding.

2. The nozzle shall be inserted into the seam at a 45 degree angle to the edge of the membrane. Once the proper welding temperature has been reached and the membrane begins to "flow", the hand roller is positioned perpendicular to the nozzle and rolled lightly. For straight seams, the 1-1/2 inch (40 mm) wide nozzle is recommended for use. For corners and compound connections, the 3/4 inch (20 mm) wide nozzle shall be used.

C. MACHINE WELDING

1. Machine welded seams are achieved by the use of Sika Sarnafil's automatic welding equipment. When using this equipment, Sika Sarnafil's instructions shall be followed and local codes for electric supply, grounding and over current protection observed. Dedicated circuit house power or a dedicated portable generator is recommended. No other equipment shall be operated simultaneously off the generator.
2. Metal tracks may be used over the deck membrane and under the machine welder to minimize or eliminate wrinkles.

D. QUALITY CONTROL OF WELDED SEAMS

- 1 The Applicator shall check all welded seams for continuity using a rounded screwdriver. Visible evidence that welding is proceeding correctly is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of dark gray material from the underside of the top membrane. On-site evaluation of welded seams shall be made daily by the Applicator at locations as directed by the Tacoma Power's Representative or Sika Sarnafil's representative. One inch (25 mm) wide cross-section samples of welded seams shall be taken at least three times a day. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the Applicator at no extra cost to Tacoma Power.

3.7 MEMBRANE FLASHINGS

All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Sarnafil. Approval shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Applicator's expense. Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.

A. SARNACOL ADHESIVE FOR MEMBRANE FLASHINGS

1. Over the properly installed and prepared flashing substrate, Sarnacol adhesive shall be applied according to instructions found on the Product Data Sheet. The Sarnacol adhesive shall be applied in smooth, even coats with no gaps, globs or similar inconsistencies. Only an area which can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.
2. No adhesive shall be applied in seam areas that are to be welded. All panels of membrane shall be applied in the same manner, overlapping the edges of the panels as required by welding techniques.

- B. Install Sarnastop/Sarnabar/Sarnacord according to the Detail Drawings with approved fasteners into the structural deck at the base of parapets, walls and curbs. Sarnastop is required by Sika Sarnafil at the base of all tapered edge strips and at transitions, peaks, and valleys according to Sika Sarnafil's details.
- C. Sika Sarnafil's requirements and recommendations and the specifications shall be followed. All material submittals shall have been accepted by Sika Sarnafil prior to installation.
- D. All flashings shall extend a minimum of 8 inches (0.2 m) above roofing level unless otherwise accepted in writing by the Owner's Representative and Sika Sarnafil Technical Department.
- E. All flashing membranes shall be consistently adhered to substrates. All interior and exterior corners and miters shall be cut and hot-air welded into place. No bitumen shall be in contact with the Sarnafil membrane.
- F. All flashing membranes shall be mechanically fastened along the counter-flashed top edge with Sarnastop at 6 to 8 inches (0.15 to 0.20 m) on center.
- G. Sarnafil flashings shall be terminated according to Sika Sarnafil recommended details.
- H. All flashings that exceed 30 inches (0.75 m) in height shall receive additional securement. Consult Sika Sarnafil Technical Department for securement methods.

3.8 METAL FLASHINGS

- A. Metal details, fabrication practices and installation methods shall conform to the applicable requirements of the following:
 - 1. Factory Mutual Loss Prevention Data Sheet 1-49 (latest issue).
 - 2. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - latest issue.
- B. Metal, other than that provided by Sika Sarnafil, is not covered under the Sika Sarnafil warranty.
- C. Complete all metal work in conjunction with roofing and flashings so that a watertight condition exists daily.
- D. Metal shall be installed to provide adequate resistance to bending to allow for normal thermal expansion and contraction.
- E. Metal joints shall be watertight.
- F. Metal flashings shall be securely fastened into solid wood blocking. Fasteners shall penetrate the wood nailer a minimum of 1 inch (25 mm).
- G. Airtight and continuous metal hook strips are required behind metal fascias. Hook strips are to be fastened 12 inches (0.3 m) on center into the wood nailer or masonry wall.
- H. Counter flashings shall overlap base flashings at least 4 inches (100 mm).
- I. Hook strips shall extend past wood nailers over wall surfaces by 1-1/2 inch (38 mm) minimum and shall be securely sealed from air entry.

3.9 SARNACLAD METAL FLASHINGS/EDGE METAL

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses.

1. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Sarnafil.
 2. Acceptance shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.
- B. Sarnaclad metal flashings shall be formed and installed per the Detail Drawings.
1. All metal flashings shall be fastened into solid wood nailers with two rows of post galvanized flat head annular ring nails, 4 inches (100 mm) on center staggered. Fasteners shall penetrate the nailer a minimum of 1 inch (25 mm).
 2. Metal shall be installed to provide adequate resistance to bending and allow for normal thermal expansion and contraction.
- C. Adjacent sheets of Sarnaclad shall be spaced 1/4 inch (6 mm) apart.
1. The joint shall be covered with 2 inch (50 mm) wide aluminum tape.
 2. A 4 inch minimum (100 mm) wide strip of Sarnafil flashing membrane shall be hot-air welded over the joint.
 3. Exercise caution at perimeter of roof.

3.10 EDGE GRIP

- A. Position the roof membrane over edge of roof and down outside face of wall covering wood nailer(s) completely. Allow 1/2 inch (13 mm) of excess membrane to extend down past the wood nailer. Hot-air weld all seams making sure there are no voids in welds.
- B. Apply a 3/8 inch (10 mm) continuous bead of Sikaflex – 1a sealant to the clean bottom of formed retainer. Install formed retainer from right to left as seen from rooftop. Overlap joints of straight run sections a minimum of 1 inch (25 mm) and corner sections a minimum of 5 inches (127 mm). Field cut sections as necessary.
- C. Fasten formed retainer into side of nailer 12 inches (0.3 m) on center. Use fasteners provided with Edge Grip system; 1-1/2 inch (38 mm) hex head stainless steel fasteners with neoprene washers.
- D. Fasteners shall provide a minimum 240 lbs. (109 kg) pull-out resistance; suitable for the substrates to which being installed.
- E. Install concealed joint splice plates intersecting sections of snap-on fascia cover joints.
- F. Position snap-on fascia cover so that it's top engages the formed retainer top. Rotate downward engaging bottoms of snap-on fascia cover and formed retainer. Allow 1/4 inch (6 mm) gap between snap-on fascia sections for thermal expansion. Field cut where necessary.

3.11 TEMPORARY CUT-OFF

All flashings shall be installed concurrently with the roof membrane in order to maintain a watertight condition as the work progresses. All temporary waterstops shall be constructed to provide a 100 percent watertight seal. The stagger of the insulation joints shall be made even by installing partial panels of insulation. The new membrane shall be carried into the waterstop. Waterstop shall be sealed to the deck or substrate so that water will not be allowed to travel under the new or existing roofing.

The edge of the membrane shall be sealed in a continuous heavy application of sealant as described in Section 2.6. When work resumes, the contaminated membrane shall be cut out. All sealant, contaminated membrane, insulation fillers, etc. shall be removed from the work area and properly disposed of off site. None of these materials shall be used in the new work.

If inclement weather occurs while a temporary waterstop is in place, the Applicator shall provide the labor necessary to monitor the situation to maintain a watertight condition.

If any water is allowed to enter under the newly-completed roofing, the affected area shall be removed and replaced at the Applicator's expense.

3.12 COMPLETION

Prior to demobilization from the site, the work shall be reviewed by the Owner's Representative and the Applicator. All defects noted and non-compliances with the Specifications or the recommendations of Sika Sarnafil shall be itemized in a punch list. These items must be corrected immediately by the Applicator to the satisfaction of the Owner's Representative and Sika Sarnafil prior to demobilization.

All Warranties referenced in this Specification shall have been submitted and have been accepted at time of contract award.

3.13 DETAILS

Refer to the Sika Sarnafil Typical System Details section for additional details.

Sika Sarnafil has attempted to obtain information from the manufacturers of other products often used in conjunction with Sika Sarnafil products with respect to the characteristics of such products, as well as their compatibility with Sika Sarnafil's products. In as much as these other products as supplied in the field are subject to possible variation in their productions, and in as much as their specifications and performance characteristics are subject to change without notification by the manufacturers, Sika Sarnafil expressly excludes from its warranty any responsibility for the performance or quality of the products of others used in conjunction with Sika Sarnafil products. Sika Sarnafil provides this specification as a guide only in technical support to architects or roof designers/specifiers. Sika Sarnafil assumes no liability for error in design of or for misuse of this guide specification. The roof designer, engineer, architect or Applicator must verify suitability of the specification and details.

END OF SECTION

SECTION 07620 – SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SUMMARY

Section includes, but is not limited to furnishing and installation of all preformed metal gutters, downspouts, and accessories as required during the term of this contract.

1.2 REFERENCES

- A. ASTM A 653/A 653M: Standard Specification for Steel Sheets, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process; 2000
- B. NRCA (national Roofing Contractors Association), current edition
- C. SMACNA (Sheet Metal and Air Conditioning Contractors' National Association) Architectural Sheet Metal Manual, Fifth Edition, 1993

1.3 SUBMITTALS

A. PRODUCT DATA

Submit manufacturer's product data for the following:

- 1. Technical Product Data
- 2. Installation Instructions
- 3. Recommendation for Each Type of Gutter
- 4. Color Samples

B. SAMPLES

Upon request the contractor shall submit the manufacturer's standard color samples for the project engineer's selection for each project.

C. SHOP DRAWINGS

Upon request and prior to fabrication the contractor shall submit complete shop drawings including:

- 1. Material: thickness, weight, finish, and dimensions of Parts
- 2. Details for forming including profiles, shapes, and seams.
- 3. Details for fastening, joining, supporting, and anchoring; including: fasteners, clips, cleats, and attachments to adjoining work necessary to accommodate thermal expansion and contraction.
- 4. Downspout sections and details of bends, hangers and connections to gutter outlet tube and storm drainage system.

D. GUARANTEE

- 1. The manufacturer shall provide a limited coating performance warranty, for the life of the product, as available for the specified installation and environmental conditions.

2. The contractor shall guarantee the gutters, downspouts, flashing, sealants, and accessories against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for a period of two (2) years following the project substantial completion date. The contractor will correct any item that is defective or improperly installed at no cost to the owner for that two (2) year period.

1.4 QUALITY ASSURANCE

- A. Installer shall meet the following:
 1. Successfully applied metal gutter and downspout systems of comparable size and complexity, which reflect a quality installation.
 2. Have been in business for a minimum period of three (3) years in the region where the work will take place.
- B. Manufacturer shall have a minimum of three (3) years' experience supplying metal gutter and downspout systems to the region where the work is to be done.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect against damage and discoloration.
- B. When hoisting, handle gutters and downspouts with non-marring slings.
- C. Do not bend gutters or downspouts.
- D. Store gutters and downspouts above ground, with one end elevated for drainage in a manner to prevent bending, warping, twisting, and surface damage.
- E. Protect gutters and downspouts against standing water and condensation between adjacent surfaces.
- F. Do not store gutters and downspouts in contact with other materials that might cause staining, denting, or other surface damage.

1.6 COORDINATION

- A. Coordinate installation of gutters and downspouts with interfacing and adjoining construction to provide a leak proof, secure, and non-corrosive installation. Installation shall be level, flat, and true to avoid material stresses and distortion.

PART 2 – PRODUCTS

2.1 CONTINUOUS GUTTERS

- A. Base Materials shall be prefinished G-40 galvanized steel sheet in 24 gauge, 26 gauge, or 28 gauge as directed in ASTM specification A653.

B. FINISH

1. Exterior finish shall be Dura Coat / polyester resin.
 2. Interior Finish shall be polyester resin.
 3. The manufacturer shall supply a selection of no less than twenty (20) colors.
- C. Flashing shall have the material gauge and finish to match the gutters.

D. FABRICATION

Fabricate gutters:

1. To match existing or designated cross section for each project as closely as possible. Complete with end pieces, expansion joints, outlet tubes, and other accessories as required.
2. In the longest practical lengths.
3. To provide watertight end closures.
4. To provide a watertight drain outlet tube at each downspout location similar to SMACNA figure 1-33D; seal lap joint watertight and attach securely to gutter with a minimum of 6 solid head rivets.
5. To leave expansion space at gutter ends to allow for unrestrained movement of gutter due to thermal expansion and contraction.

2.2 DOWNSPOUTS

- A. Base Materials shall be prefinished G-40 galvanized steel sheet in 26 gauge, or 28 gauge as directed in ASTM specification A653.

B. FINISH

1. Exterior finish shall be Dura Coat / polyester resin.
 2. Interior Finish shall be polyester resin.
 3. The manufacturer shall supply a selection of no less than twenty (20) colors.
- C. Flashing shall have the material gauge and finish match the downspouts.

D. FABRICATION

Fabricate downspouts:

1. To match existing or designated cross section for each project as closely as possible complete with mitered elbows and other accessories as required.
2. In the longest practical lengths.
3. To provide watertight joints.
4. To leave expansion space at joints to allow for unrestrained movement due to thermal expansion and contraction.

PART 3 – EXECUTION

4.1 EXAMINATION

- A. Examine substrate areas, and conditions to verify actual locations, dimensions and other conditions affecting the performance of work.
- B. Verify that the substrate is sound, dry, smooth, clean, securely anchored, and properly prepared.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

4.2 GENERAL INSTALLATION

A. GENERAL

1. Anchor all materials securely in place, with provisions for thermal and structural movement, without warp or deflection.
 2. All cuts shall be neat, square, and true, torch or saw cutting of sheet metal is not permitted.
 3. Comply with manufacturer's instructions for assembly and installation of all materials.
- B. Metal Protection

Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.

C. EXPANSION PROVISIONS

Provide for thermal expansion and contraction

1. Space movement joints at a minimum of 10 feet with no joints allowed within 24-inches of corner or intersection.
2. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with elastomeric sealant concealed within joints.

D. FASTENERS

Fasteners shall be:

1. Sized so that they will penetrate the substrate not less than 1-1/4 inches for nails and not less than 3/4 inches for wood screws.
2. Stainless steel, galvanized or pre-painted, and metallic coated.
3. Install fasteners to comply with the manufacturer's recommendations.

E. JOINT SEALANT

1. Seal joints with elastomeric sealant as required for watertight construction.
2. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant.
3. Form joints to completely conceal sealant.
4. When ambient temperature at the time of installation is moderate, between 40°F and 70°F, set joint members for 50 percent movement either way. Adjust setting proportionately for installation at higher ambient temperatures.
5. Do not install sealant type joints at temperatures below 40°F.
6. Prepare joints and apply sealants to comply with the manufacturer's recommendations.

4.3 ROOF DRAINAGE SYSTEM INSTALLATION

A. GENERAL

1. Install sheet metal roof drainage items to produce a complete roof drainage system according to SMACNA recommendations and as indicated.
2. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

B. HANGING GUTTERS

1. Comply with manufacturer's instructions for assembly and installation of gutters.
2. Provide leaf screens at each downspout outlet similar to SMACNA Figure 1-24D fabricated from 0.063 inch diameter stainless steel wire.
3. Join sections with lapped joints sealed with elastomeric sealant.
4. Provide for thermal expansion by installing gutters with expansion joints, not to exceed 50 feet apart. Install expansion joint caps.
5. Attach gutters at eave of fascia to firmly anchored gutter brackets or straps spaced not more than 36 inches apart.
6. Provide end closures and seal watertight with sealant.
7. Slope gutters to downspouts
8. Fasten gutter spacers to front and back of gutter.
9. Loosely lock straps to front gutter bead and anchor to roof deck.
10. Anchor and loosely lock back edge of gutter to continuous cleat, eave or apron flashing.

11. Anchor back or gutter that extends onto roof deck with cleats spaced not more than 24 inches apart.
12. Anchor gutter with spikes and ferrules spaced not more than 24 inches apart.
13. Install continuous gutter screens on gutters with non-corrosive fasteners, removable for cleaning gutters.

C. DOWNSPOUTS

1. Comply with manufacturer's instructions for assembly and installation of downspouts.
2. Join sections with 1-1/2 inch telescoping joints.
3. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches o.c. in between.
4. Provide elbows at base of downspout to direct water away from building.
5. If applicable, connect downspouts to underground drainage system.

4.4 CLEANING AND PROTECTION

A. GUTTER DAMAGE AND REPAIRING

1. Touch-up paint should be applied to damaged paint areas that involve minor scratches or abrasions.
2. Panels or sections that have severe paint and/or substrate damage shall be replaced as directed by the project engineer.

B. CLEANING

1. At completion of each day's work, sweep the gutters, and flashings clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.
2. Remove temporary protective coverings and strippable films as materials are installed.
3. Remove debris from project site upon work completion or sooner if directed.
4. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
5. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing.

END OF SECTION

APPENDIX A – Sample Documents

PROJECT LOCATION:

Date: _____
 Contract Title: On-Call Roofing Contract
 Contractor: _____

Specification No: _____
 Contract No: _____

ITEM #	DESCRIPTION	QTY.	UNIT	UNIT COST	EXTENDED COST
1	Miscellaneous Roof Repairs and Demolition		MH		
2	Install Malarkey Legacy (#273) Shingles		SQ		
3	Power Wash Roofs Prior to New Coating Systems Application		SF		
4	Install Kemper 165 Fleece With Type BR Resin or V210, Including Roof Preparation		SF		
5	Install D Primer (One Coat) Base Coat		SF		
6	Apply WDG HSS 535 Roof Coating as a Top Coat		SF		
7	Install 165 Fleece with BR V210 or 2K-PUR Resin as a Flashing		LF		
8	Install Malarkey Torchable Roofing System:				
a	159 APP Torchable Base Coat		SQ		
b	Malarkey 162 Torchable Cap Sheet		SQ		
9	Install a Modified Asphalt SEBS Built-Up Roof		SF		
10	Install Hot Asphalt Built-Up Roof		SF		
11	Install Residential Grade Continuous Gutters and Downspouts		LF		
12	Install 30# Fiber Base Sheet SBS Fiberglass		SF		
13	Replace Rotten or Damaged Plywood Decking		SF		
14	Install Pre-Formed Metal Roof Systems Including Metal Roof Items (CAP, Drip Edge, Fascia)		SF		
15	Install Blanket Insulation Under New Metal Roof		SF		
16	Install Roof Insulation Four (4) Inches Thick		SF		
17	Install Additional Tapered Roof Insulation Board to Achieve Slope		SF		
18	Install Self-Adhering Ice/Water Shield Underlayment		SF		
19	Install Sika Sarnafil PVC Membrane Overlay Roof System		SF		
20	Mobilization and Demobilization for Cushman Hydroelectric Project		EA		
21	Mobilization and Demobilization for Cowlitz Hydroelectric Project		EA		
22	Mobilization and Demobilization for Nisqually Hydroelectric Project		EA		
23	Mobilization and Demobilization for Wynoochee Hydroelectric Project		EA		
24	Force Account (\$10,000)		LS		
25	Cost Plus Items:				
a	Roofing Supplies / Materials		LS		
b	Disposal Costs		LS		
c	Special Equipment Rental		LS		

SUB TOTAL: _____

EXHIBIT A-1
Formal Task Authorization
Complete and return to Contract Services Group

Task No. _____

Vendor and Contract Information

Consultant Name:

Contract No:

The Professional Services Contract shall be in full force and effect for this Task Authorization. The scope, schedule and cost for this task is as listed below or as attached and referenced herein. The Contractor shall review and agree to all task specific information listed.

Task Specific Information

Title:

Location:

Objective:

Description:

Maximum Billable Value:

Assumptions/Conditions:

Authorized Start Date:

Required End Date:

The Contractor shall sign and return form to the Project Manager and shall have received the fully executed Formal Task Authorization form prior to start of work.

Authorized Signatures

Consultant

Date

Project Manager

Date

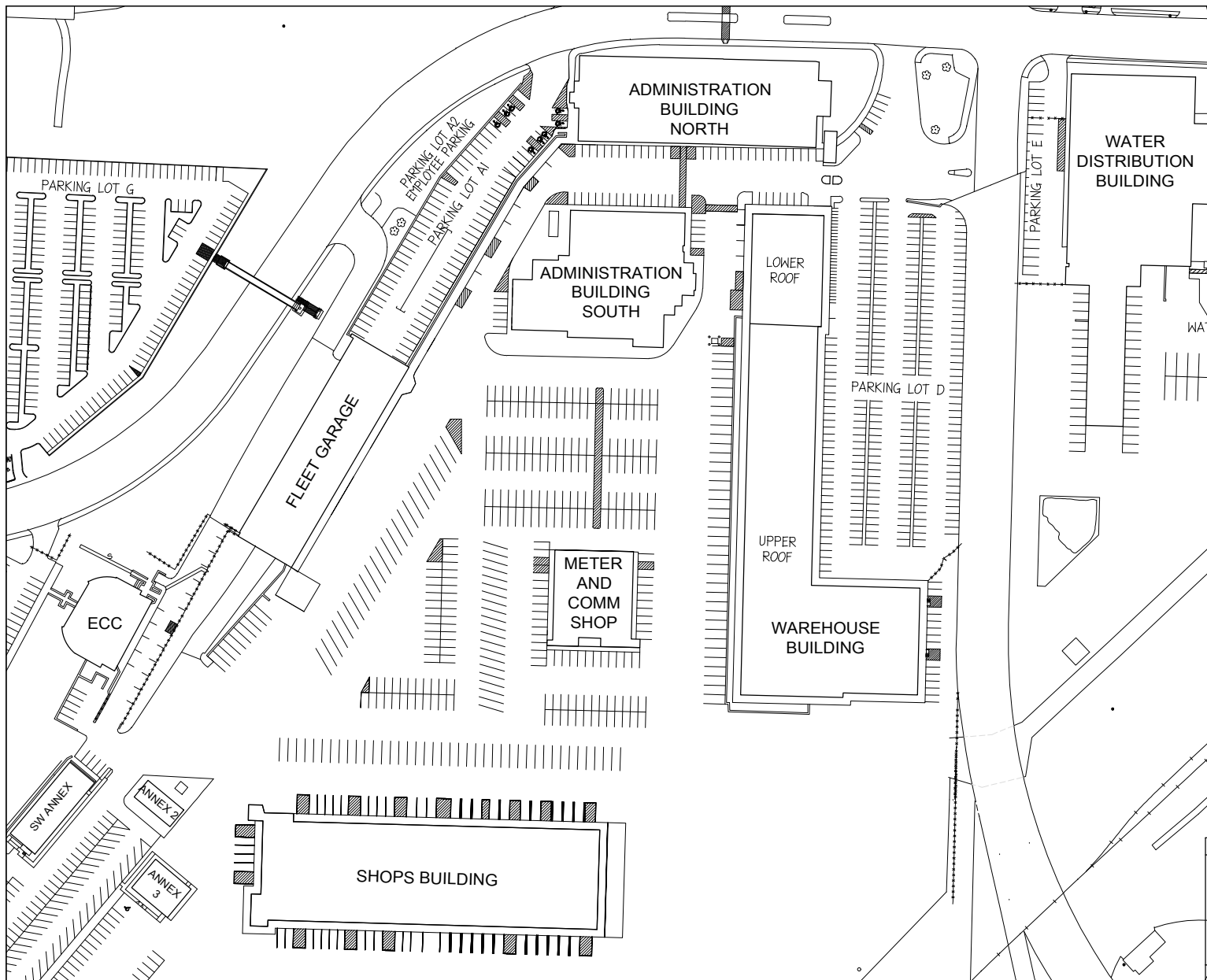
Assistant Generation Manager

Date

Copies: Contract File
Contract Services Group
Project Manager

APPENDIX B – Location Maps

- **TPU Complex Area Map**
- **Tacoma Power Service Area Map**
- **Cowlitz Project Area Map**
- **Cushman Project Area Map**
- **Nisqually Project Area Map**
- **Wynoochee Project Area Map**



**DIRECTIONS TO TACOMA PUBLIC UTILITIES, UTILITY CENTER,
FROM SEATTLE - SEA-TAC INTERNATIONAL AIRPORT-**

DRIVE SOUTH ON I-5 TO TACOMA. TAKE STATE ROUTE 16 EXIT OFF I-5 JUST PAST THE TACOMA DOME. AND CONTINUE WEST APPROXIMATELY (1) MILE TO THE UNION AVE. EXIT. TURN LEFT ONTO UNION AVE. AND HEAD SOUTH TO STOP LIGHT AT CENTER ST. & UNION AVE. INTERSECTION. CONTINUE SOUTH ON UNION AVE. APPROXIMATELY (2) BLOCKS TO THE BOTTOM OF THE HILL AND TAKE A RIGHT ON SOUTH 35TH ST. TO THE ADMINISTRATION BUILDING.

FROM BREMERTON AND VICINITY-

DRIVE EAST ON STATE ROUTE 16 TO TACOMA. EXIT STATE ROUTE 16 AT UNION AVE. EXIT. CONTINUE SOUTH ON UNION AVE. TO STOP LIGHT AT INTERSECTION OF UNION AVE. AND CENTER ST. CONTINUE HEADING SOUTH ON UNION AVE. APPROXIMATELY (2) BLOCKS TO THE BOTTOM OF THE HILL. TAKE A RIGHT ON SOUTH 35TH ST. TO THE ADMINISTRATION BUILDING.

FROM OLYMPIA-

DRIVE NORTH ON I-5 TO TACOMA. TAKE STATE ROUTE 16 (BREMERTON/GIG HARBOR) EXIT OFF I-5 AND CONTINUE WEST APPROXIMATELY (1) MILE TO THE UNION AVE. EXIT. TURN LEFT ONTO UNION AVE. & HEAD SOUTH ON UNION AVE. APPROXIMATELY (2) BLOCKS TO THE BOTTOM OF THE HILL. TAKE A RIGHT ON SOUTH 35TH ST. TO THE ADMINISTRATION BUILDING.



TACOMA PUBLIC UTILITIES - LIGHT DIVISION
ADMINISTRATION BUILDING
3628 SOUTH 35TH STREET
TACOMA, WASHINGTON, 98409

SCOPE OF APPROVAL
ORIGINAL DRAWING

NO.	DATE	REVISION DESCRIPTION	DRAWN	CHECKED	SHRIMP

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION

**TPU FACILITIES
UTILITIES COMPLEX
AREA MAP**

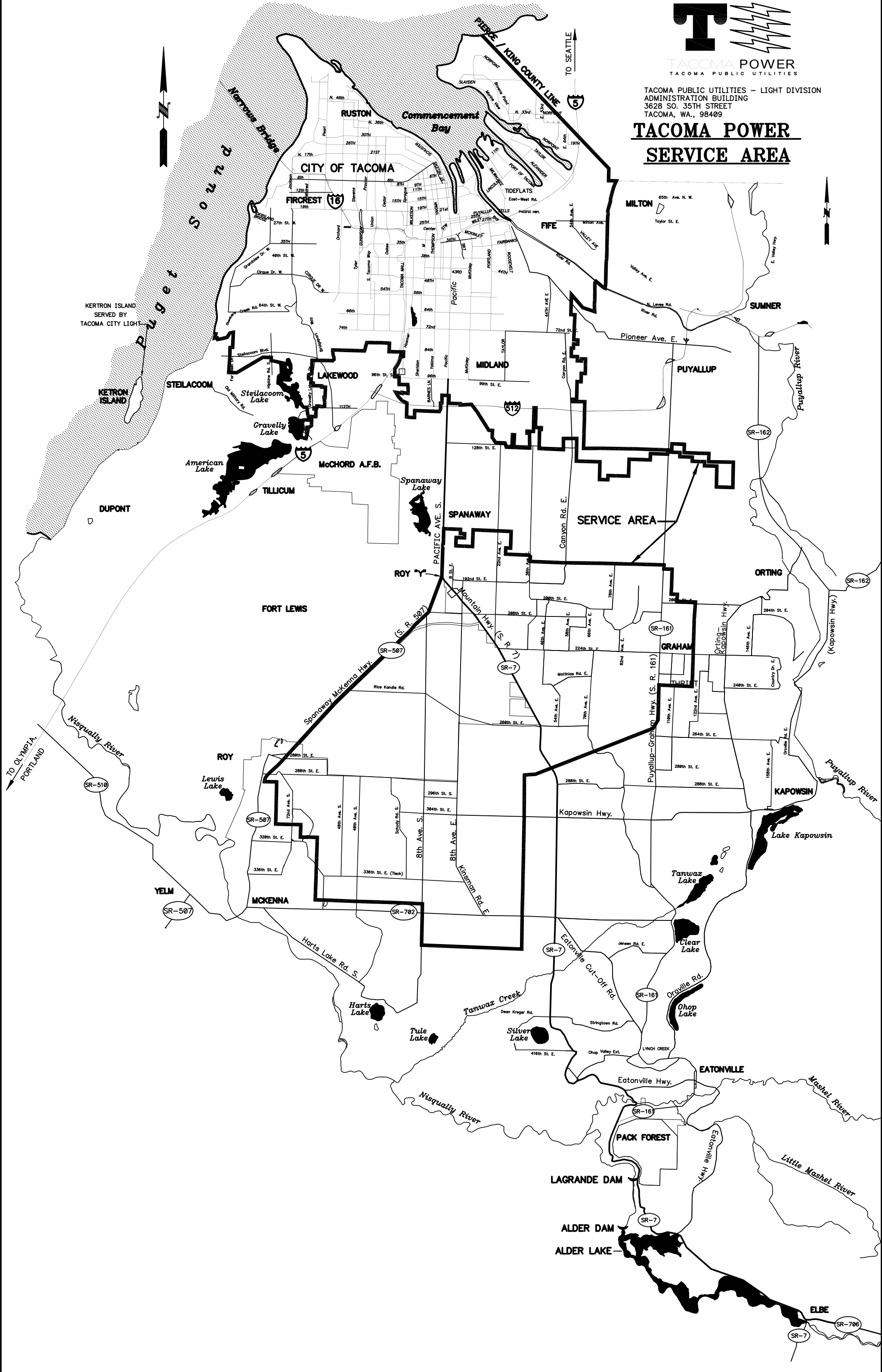
DESIGNED	FIELD BOOK
APPROVED	2/8/2016 1" = 60'
DATE	SCALE
SUPERVISING ENGINEER	DRAWING NO.
APPROVED	SKETCH
DATE	SHEET OF

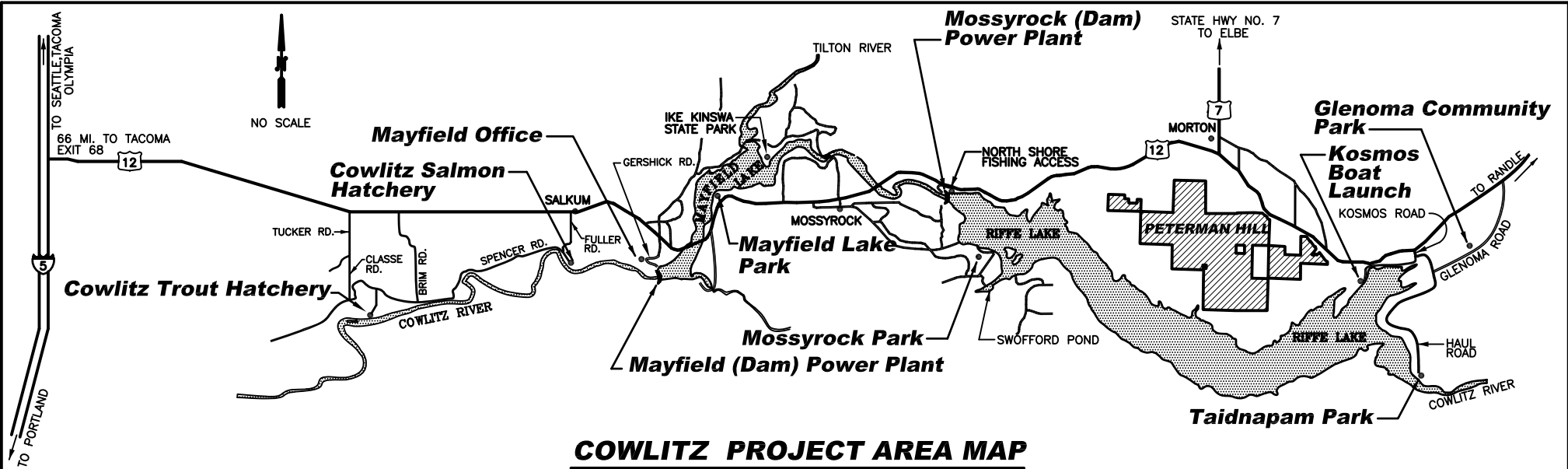
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CHECKED: []
REV. NO.: 0



TACOMA PUBLIC UTILITIES - LIGHT DIVISION
ADMINISTRATION BUILDING
3628 SO. 35TH STREET
TACOMA, WA., 98409

TACOMA POWER SERVICE AREA





DIRECTIONS-

COWLITZ TROUT HATCHERY

TO HATCHERY FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE 7 MI., TURN RIGHT ONTO TUCKER RD. (GROCERY STORE WILL BE ON THE LEFT). FOLLOW TUCKER RD. 1.5 MI., VEER LEFT ONTO CLASSE RD. AT "T" TURN LEFT ONTO SPENCER RD. FOLLOW SPENCER RD. 2 MI. AND TURN RIGHT ONTO COWLITZ GAME FISH HATCHERY DRIVEWAY. FOLLOW DRIVEWAY .75 MI.

COWLITZ SALMON HATCHERY

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE 12 MI., TURN RIGHT ONTO FULLER RD. FOLLOW FULLER RD. TO "T". TURN LEFT AND TRAVEL 1.1 MI. CONTINUE DOWNHILL TO SALMON HATCHERY.

GLENOMA COMMUNITY PARK

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE APPROXIMATELY 40 MI. AND TAKE A RIGHT TURN ON KOSMOS ROAD AND FIRST LEFT ONTO IMPROVED DIRT ROAD (CHAMPION HAUL ROAD). FOLLOW CHAMPION HAUL ROAD APPROXIMATELY 3/4 MILE TO FIRST LEFT, GLENOMA ROAD. TRAVEL APPROXIMATELY 1/2 MILE TO PARK.

KOSMOS BOAT LAUNCH

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE APPROXIMATELY 40 MI. AND TAKE A RIGHT TURN ON KOSMOS ROAD AND FOLLOW SIGNS TO THE BOAT LAUNCH.

MAYFIELD LAKE PARK

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE EAST APPROXIMATELY 19 MI., TURN LEFT ONTO BEACH ROAD (APPROX. 1 MILE PAST MAYFIELD LAKE BRIDGE). TRAVEL 1/2 MILE TO PARK.

MAYFIELD OFFICE BUILDING, DAM & POWERHOUSE

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE 14 MI., TURN RIGHT JUST BEFORE SMALL STORE ONTO GERSHICK RD. FOLLOW GERSHICK RD. TO CYCLONE FENCE/GATE. PASS THROUGH GATE AND FOLLOW ONE-LANE ROAD TO MAYFIELD OFFICE ON THE LEFT. TO REACH THE POWERHOUSE, CONTINUE DOWN HILL TO THE END OF THE ROAD.

MOSSYROCK PARK

MOSSYROCK PARK IS LOCATED ABOUT 90 MILES SOUTH OF TACOMA IN LEWIS COUNTY NEAR THE TOWN OF MOSSYROCK. FROM TACOMA TAKE I-5 SOUTH TO STATE ROUTE 12 (EXIT 68 "MORTON"). TURN LEFT EASTBOUND ON STATE ROUTE 12 FOR APPROXIMATELY 21 MILES. TURN RIGHT AT LIGHT ON WILLIAMS STREET. CONTINUE ON WILLIAMS STREET TO THE TOWN OF MOSSYROCK. WHEN YOU REACH THE "T", TURN LEFT ONTO EAST STATE STREET AND GO FOR 3 MILES TO MOSSYROCK PARK ENTRANCE.

MOSSYROCK POWERHOUSE

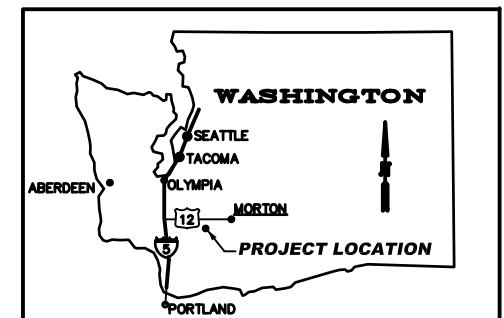
FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE APPROXIMATELY 21 MI. TO WILLIAMS ST. (TRAFFIC LIGHT) AND TURN RIGHT. CONTINUE ON WILLIAMS ST. FOR 0.4 MILE TO STATE STREET. TURN LEFT (EAST) ON EAST STATE ST. FOR 2.9 MILES TO YOUNG ROAD. TURN LEFT (NORTH) ON YOUNG ROAD FOR .9 MILE AND TURN RIGHT AT MOSSYROCK DAM VIEW POINT SIGN. GO .5 MILE AND TURN LEFT ON ONION ROCK LANE GO 1.3 MILES TO DAM/POWERHOUSE.

TAIDNAPAM PARK

FROM TACOMA, TAKE I-5 SOUTH, DRIVE 66 MI. TO EXIT 68, "MORTON". TURN LEFT ONTO HWY. 12 EAST, DRIVE APPROXIMATELY 40 MI. AND TAKE A RIGHT TURN ON KOSMOS ROAD AND FIRST LEFT ONTO IMPROVED DIRT ROAD (CHAMPION HAUL ROAD). FOLLOW CHAMPION HAUL ROAD APPROXIMATELY 4 MILES TO TAIDNAPAM PARK ENTRANCE.



Cowlitz River Project
T A C O M A P O W E R



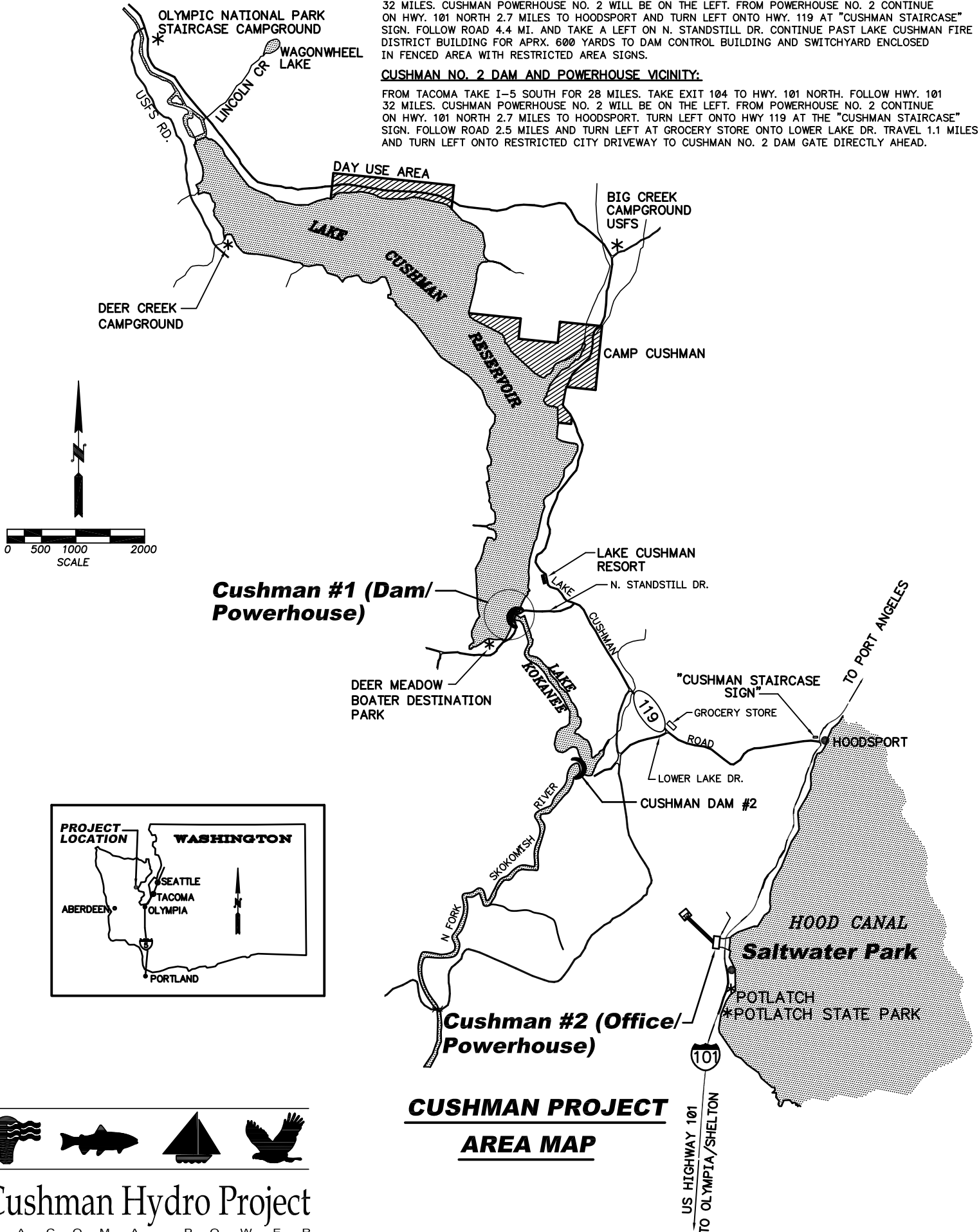
DIRECTIONS-

CUSHMAN NO. 1 DAM AND POWERHOUSE VICINITY:

FROM TACOMA TAKE I-5 SOUTH FOR 28 MILES. TAKE EXIT 104 TO HWY. 101 NORTH. FOLLOW HWY. 101 32 MILES. CUSHMAN POWERHOUSE NO. 2 WILL BE ON THE LEFT. FROM POWERHOUSE NO. 2 CONTINUE ON HWY. 101 NORTH 2.7 MILES TO HOODSPORT AND TURN LEFT ONTO HWY. 119 AT "CUSHMAN STAIRCASE" SIGN. FOLLOW ROAD 4.4 MI. AND TAKE A LEFT ON N. STANDSTILL DR. CONTINUE PAST LAKE CUSHMAN FIRE DISTRICT BUILDING FOR APRX. 600 YARDS TO DAM CONTROL BUILDING AND SWITCHYARD ENCLOSED IN FENCED AREA WITH RESTRICTED AREA SIGNS.

CUSHMAN NO. 2 DAM AND POWERHOUSE VICINITY:

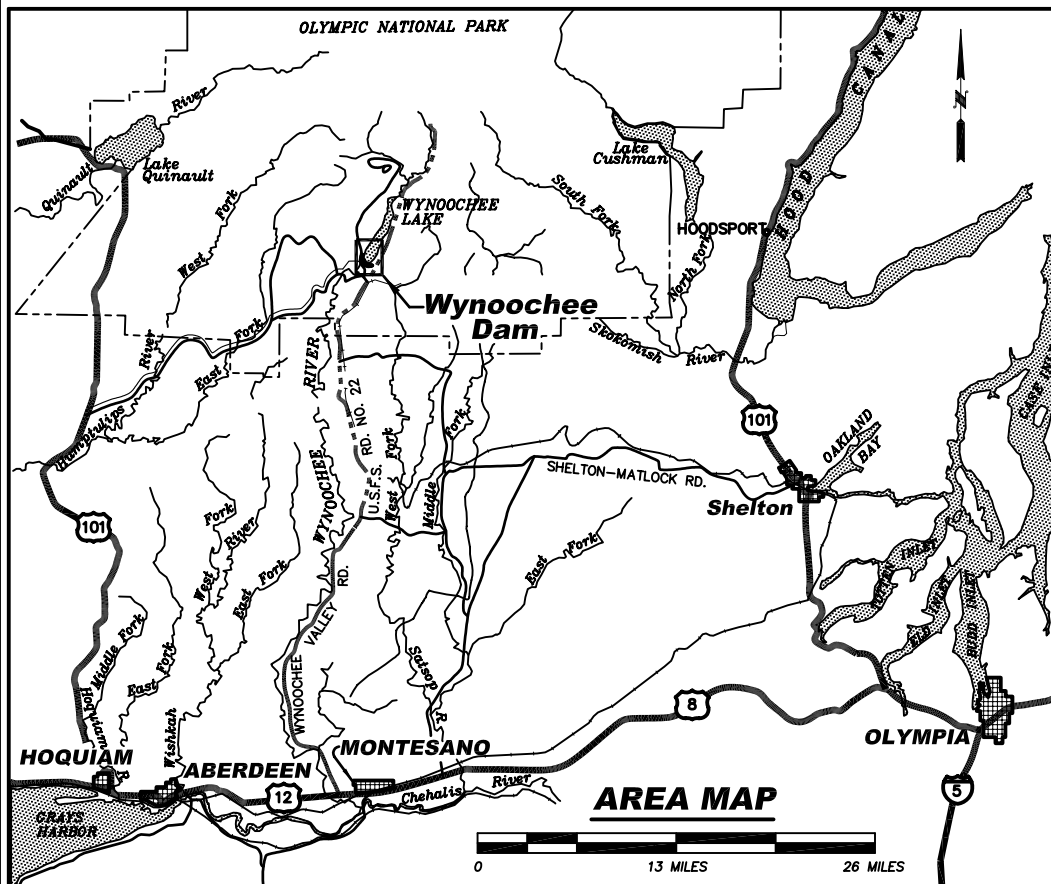
FROM TACOMA TAKE I-5 SOUTH FOR 28 MILES. TAKE EXIT 104 TO HWY. 101 NORTH. FOLLOW HWY. 101 32 MILES. CUSHMAN POWERHOUSE NO. 2 WILL BE ON THE LEFT. FROM POWERHOUSE NO. 2 CONTINUE ON HWY. 101 NORTH 2.7 MILES TO HOODSPORT. TURN LEFT ONTO HWY 119 AT THE "CUSHMAN STAIRCASE" SIGN. FOLLOW ROAD 2.5 MILES AND TURN LEFT AT GROCERY STORE ONTO LOWER LAKE DR. TRAVEL 1.1 MILES AND TURN LEFT ONTO RESTRICTED CITY DRIVEWAY TO CUSHMAN NO. 2 DAM GATE DIRECTLY AHEAD.



CUSHMAN PROJECT AREA MAP



Cushman Hydro Project
T A C O M A P O W E R



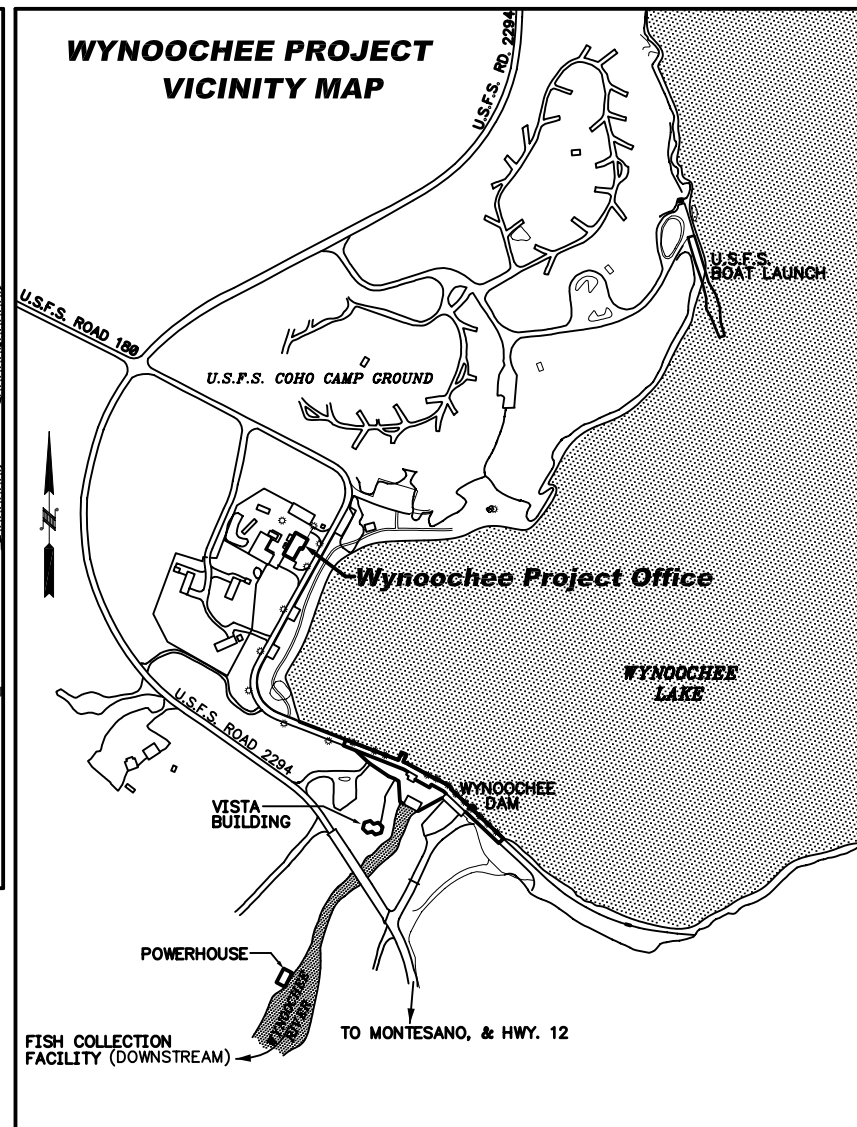
DIRECTIONS

FROM TACOMA, TRAVEL SOUTH ON I-5 TO OLYMPIA. TAKE THE HWY. 8 (OCEAN BEACHES) EXIT AND TRAVEL WEST APPROXIMATELY 45 MILES (JUST PAST MONTESANO). TURN RIGHT AT THE DEVONSHIRE ROAD EXIT ONTO WYNOOCHEE VALLEY ROAD AND TRAVEL APPROXIMATELY 36 MILES TO THE WYNOOCHEE PROJECT.



Wynoochee River Project

T A C O M A P O W E R



NISQUALLY PROJECT AREA MAP

DIRECTIONS-

PROJECT OFFICE
LAGRANDE DAM AND
POWERHOUSE

FROM TACOMA AREA DRIVE SOUTH ON I-5 TO STATE HWY. 512 EAST AND FOLLOW FOR 2.1 MILES TO PACIFIC AVE./MT. RANIER EXIT. TURN RIGHT ON PACIFIC AVE. (HWY. 7) AND CONTINUE SOUTH 5.1 MILES PAST THE "ROY Y". CONTINUE ON HWY. 7 FOR 21.1 MILES AND TURN RIGHT INTO DRIVEWAY OF LAGRANDE HYDROELECTRIC PLANT, AND PROJECT OFFICE.

FROM TACOMA AREA DRIVE SOUTH ON I-5 TO STATE HWY. 512 EAST AND FOLLOW FOR 2.1 MILES TO PACIFIC AVE./MT. RANIER EXIT. TURN RIGHT ON PACIFIC AVE. (HWY. 7) AND CONTINUE SOUTH 5.1 MILES PAST THE "ROY Y". CONTINUE ON HWY. 7 FOR 26 MILES AND TURN RIGHT ON ALDER LAKE DAM ROAD EAST. CONTINUE TO ALDER LAKE PARK AND ALDER DAM. TRAVEL 2 MILES PAST ALDER LAKE CAMPGROUND ON HWY. 7 TO SUNNY BEACH POINT ON THE RIGHT AND 5 MILES PAST SUNNY BEACH POINT TO ROCKY POINT CAMPGROUND ON THE RIGHT.

PROJECT OFFICE

LaGRANDE DAM

ALDER LAKE PARK
ALDER DAM
ALDER POWERHOUSE
SUNNY BEACH POINT
ROCKY POINT CAMPGROUND

TO ALDER POWERHOUSE

ALDER DAM

ALDER LAKE PARK

SUNNY BEACH POINT

ROCKY POINT CAMPGROUND

NO SCALE



STATE MAP



Nisqually River Project
T A C O M A P O W E R

PLEASANT VALLEY ROAD

ELBE
NISQUALLY RIVER
TO MORTON, MAYFIELD

TO EATONVILLE

TO TACOMA
TO EATONVILLE



STATEMENT OF INTENT TO PAY PREVAILING WAGES

Public Works Contract
\$40.00 Filing Fee Required

- This form must be typed or printed in ink.
- Fill in all blanks or the form will be returned for correction ([see instructions](#)).
- Please allow a **minimum** of 10 working days for processing.
- Once approved, your form will be posted online at <https://fortress.wa.gov/lni/pwipub/SearchFor.asp>

Intent ID # (Assigned by L&I) _____

Your Company Information			Awarding Agency Information		
Company Name			Project Name		Contract Number
Address			Awarding Agency		
City			Awarding Agency Address		
State		Zip+4	City		State
Contractor Registration Number		UBI Number	Awarding Agency Contact Name		Phone Number
Industrial Insurance Account Number			County Where Work Will Be Performed		City Where Work Will Be Performed
Email Address (required for notification of approval)		Phone Number			
Additional Details			Contract Details		
Your Expected Job Start Date (mm/dd/yyyy)			Bid Due Date (Prime Contractor's)		Award Date (Prime Contractor's)
Job Site Address/Directions			Indicate Total Dollar Amount of Your Contract (including sales tax) or time and materials, if applicable.		
			\$		
ARRA Funds			Weatherization or Energy Efficient Funds		
Does this project utilize American Recovery and Reinvestment Act (ARRA) funds? <input type="checkbox"/> Yes <input type="checkbox"/> No			Does this project utilize any weatherization or energy efficiency upgrade funds (ARRA or otherwise)? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Prime Contractor Information			Hiring Contractor Information		
Prime Contractor			Hiring Contractor		
Contractor Registration Number		UBI Number	Contractor Registration Number		UBI Number
Employment Information					
Do you intend to use subcontractors?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Will employees perform work on this project?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Will ALL work be subcontracted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Do you intend to use apprentice employees?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of Owner/Operators who own at least 30% of the company who will perform work on the project: <input type="checkbox"/> None (0) <input type="checkbox"/> One (1) <input type="checkbox"/> Two (2) <input type="checkbox"/> Three (3)					
Crafts/Trades/Occupations – (Do not list apprentices they are listed on the Affidavit of Wages Paid only.) If an employee works in more than one craft, ensure that all hours worked in each craft are reported below. For additional craft/trades/occupations please use Addendum A.			Number of Workers	Rate of Hourly Pay	Rate of Hourly Usual ("Fringe") Benefits

Signature Block

I hereby certify that I have read and understand the instructions to this form. That the information, including any addendums, are correct and that all workers I employ on this Public Works Project will be paid no less than the Prevailing Wage Rate(s) as determined by the Industrial Statistician of the Department of Labor and Industries.			
Name:	Title:	Signature:	Date:
For L&I Use Only			
APPROVED:	Department of Labor and Industries	Check Number:	<input type="checkbox"/> \$40 or \$
		Received:	
By	Industrial Statistician		



AFFIDAVIT OF WAGES PAID

Public Works Contract
\$40.00 Filing Fee Required

- This form must be typed or printed in ink.
- Fill in all blanks or the form will be returned for correction ([see instructions](#)).
- Please allow a **minimum** of 10 working days for processing.
- Once approved, your form will be posted online at <https://fortress.wa.gov/lni/pwipub/SearchFor.asp>

Affidavit ID # (Assigned by L&I) _____

Your Company Information		
Your Company Name		
Your Address		
City	State	Zip+4
Your Contractor Registration Number	Your UBI Number	
Your Industrial Insurance Account Number		
Your Email Address (required for notification of approval)	Your Phone Number	
Additional Details		
Your Job Start Date (mm/dd/yyyy)	Your Date Work Completed (mm/dd/yyyy)	
Job Site Address/Directions	Intent ID # (Six Digit Number)	
ARRA Funds		
Does this project utilize American Recovery and Reinvestment Act (ARRA) funds? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Prime Contractor Information		
Prime Contractor		
Contractor Registration Number	UBI Number	
Employment Information		
Did you use subcontractors?	<input type="checkbox"/> Yes (Addendum B Required)	<input type="checkbox"/> No
Was ALL work subcontracted?	<input type="checkbox"/> Yes (Addendum B Required)	<input type="checkbox"/> No
Number of Owner/Operators who own at least 30% of the company who performed work on the project: <input type="checkbox"/> None (0) <input type="checkbox"/> One (1) <input type="checkbox"/> Two (2) <input type="checkbox"/> Three (3)		
Crafts/Trades/Occupations and Apprentices – For Apprentices enter the name, registration number, trade, dates worked on project, stage of progression, wage and fringe for each apprentice. For additional craft/trades/occupations please use Addendum A.		

Awarding Agency Information	
Project Name	Contract Number
Awarding Agency	
Awarding Agency Address	
City	State Zip+4
Awarding Agency Contact Name	Phone Number
County Where Work Was Performed	City Where Work Was Performed
Contract Details	
Bid Due Date (Prime Contractor's)	Award Date (Prime Contractor's)
Indicate Total Dollar Amount of Your Contract (including sales tax).	\$
Weatherization or Energy Efficient Funds	
Does this project utilize any weatherization or energy efficiency upgrade funds (ARRA or otherwise)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Hiring Contractor Information	
Hiring Contractor	
Contractor Registration Number	UBI Number
Number of Workers	

Signature Block

I hereby certify that I have read and understand the instructions to this form. That the information, including any addendums, are correct and that all workers I employed on this Public Works Project were paid no less than the Prevailing Wage Rate(s) as determined by the Industrial Statistician of the Department of Labor and Industries.

Name:	Title:	Signature:	Date:
For L&I Use Only			
APPROVED:	Department of Labor and Industries	Check Number:	<input type="checkbox"/> \$40 or \$
By	Industrial Statistician	Received:	

PREVAILING WAGE RATES

This project requires prevailing wages under chapter 39.12 RCW. Any worker, laborer, or mechanic employed in the performance of any part of the work shall be paid not less than the applicable prevailing rate of wage.

The project site is located in Grays Harbor, King, Lewis, Mason, Pierce and Thurston Counties.

The effective date for prevailing wages on this project will be the **submittal deadline** with these exceptions:

- a. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
- b. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
- c. Janitorial contracts follow WAC 296-127-023.

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation.

Look up prevailing rates of pay, benefits, and overtime codes from this link: <http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp>

REQUIRED DOCUMENTS

The Contractor shall submit to the City the following Department of Labor and Industries (L&I) forms for itself and for each firm covered under [39.12 RCW](#) that provided work and materials for the Contract:

1. A copy of an approved Statement of Intent to Pay Prevailing Wages, L&I form number [F700-029-000](#). The City will make no payment under this Contract for the Work performed until this statement has been approved by L&I and a copy of the approved form has been submitted to the City.
2. A copy of an approved Affidavit of Prevailing Wages Paid, L&I form number [F700-007-000](#). The Contracting Agency will not grant completion or release retainage held under chapter 60.28 RCW until all approved Affidavit of Wages paid for Contractor and all Subcontractors have been received by the City.