SPECIFICATION NO.
PW22-0105F

Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement

Project No. THE-00043
THE-00044
THE-00047
CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

REQUEST FOR BIDS, SPECIAL PROVISIONS, BID PROPOSAL AND CONTRACT

FOR

SPECIFICATION NO.
PW22-0105F

Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement

PROJECT NO. THE-00043
THE-00044
THE-00047

Wallace M. Mosher, P.E
Senior Project Manager
COLLINS ENGINEERS, INC.
134 Pleasant Street
Portsmouth, NH 03801

Darius Thompson, Project Manager
Engineering Division
Public Works Department
Room 544, Tacoma Municipal Building
Tacoma, Washington 98421-2711
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NOTE: ALL BIDDERS MUST HAVE A COPY OF THE SPECIFICATIONS AND THE BID SUBMITTAL PACKAGE

REQUEST FOR BIDS

SPECIAL REMINDER TO ALL BIDDERS

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REQUEST FOR BIDS PW22-0105F
Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, April 19, 2022

Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time.

For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, bids@cityoftacoma.org, as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals.

Submittal Delivery: Sealed submittals will be received as follows:

<table>
<thead>
<tr>
<th>By Email:</th>
<th><a href="mailto:bids@cityoftacoma.org">bids@cityoftacoma.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum file size: 35 MB. Multiple emails may be sent for each submittal</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By Carrier:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible, please include a flash drive of your full submittal.</td>
</tr>
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</table>

| City of Tacoma Procurement & Payables Division |
| Tacoma Public Utilities |
| 3628 S 35th Street |
| Tacoma, WA 98409 |

<table>
<thead>
<tr>
<th>In Person:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible, please include a flash drive of your full submittal.</td>
</tr>
</tbody>
</table>

| City of Tacoma Procurement & Payables Division |
| Tacoma Public Utilities Administration Building North |
| Guard House (east side of main building) |
| 3628 S 35th Street |
| Tacoma, WA 98409 |

<table>
<thead>
<tr>
<th>By Mail:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible, please include a flash drive of your full submittal.</td>
</tr>
</tbody>
</table>

| City of Tacoma Procurement & Payables Division |
| Tacoma Public Utilities |
| PO Box 11007 |
| Tacoma, WA 98411-0007 |

Bid Opening: Held virtually each Tuesday at 11AM. Attend via this link or call 1 (253) 215 8782. Submittals in response to a RFB will be recorded as received. As soon as possible on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

Solicitation Documents: An electronic copy of the complete solicitation documents may be viewed and obtained at the City’s plan distribution service provider, ARC, 632 Broadway, Tacoma, WA, or by going to http://www.e-arc.com/location/tacoma. Prospective bidders will be required to pay reproduction costs. A list of vendors registered for this solicitation is also available at their website.

Pre-Proposal Meeting: A pre-bid conference will be held onsite at the Municipal Dock located at 1025 Dock Street, Tacoma, Washington, 98402 at 10:00 am on April 7, 2022 to answer questions regarding the Equity In Contracting (EIC) Program and Local Employment and Apprenticeship Training Program (LEAP) requirements included in the contract. Prospective bidders are urged to attend.
**Project Scope:** This project will install a sheet pile walls at three sites along the Thea Foss Waterway: Municipal Dock, Site 10, and Site 12.

**Estimate:** $3,000,000 to $4,000,000

**Paid Sick Leave:** The City of Tacoma requires all employers to provide paid sick leave as set forth in Title 18 of the Tacoma Municipal Code. For more information, visit our Minimum Employment Standards Paid Sick Leave webpage.

**Americans with Disabilities Act (ADA Information):** The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing Gail Himes at ghimes@cityoftacoma.org, or by calling her collect at 253-591-5785.

**Title VI Information:** “The City of Tacoma” in accordance with provisions of Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. sections 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration of award.

**Additional Information:** Requests for information regarding the specifications may be obtained by contacting Doreen Klaaskate, Senior Buyer by email to dklaaskate@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.
SPECIAL REMINDER TO ALL BIDDERS

HEALTH & SAFETY: Be sure to comply with all City of Tacoma health and safety requirements.

PLEASE NOTE: Be sure you have complied with all specifications and requirements and have signed all required documents.

YOUR ATTENTION IS PARTICULARLY CALLED to the following forms, which must be executed in full before the bid is submitted:

1. **BID PROPOSAL**: The unit prices bid must be shown in the space provided. Check your computations for omissions and errors.

2. **SIGNATURE PAGE**: To be filled in and executed by a duly authorized officer or representative of the bidding entity. If the bidder is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

3. **BID BOND**: The Bid Bond must be executed by the person legally authorized to sign the bid, and must be properly signed by the representatives of the surety company unless the bid is accompanied by a certified check. If Bid Bond is furnished, the form furnished by the City must be followed; no variations from the language thereof will be accepted. The amount of the Bid Bond must be not less than 5% of the total amount bid.

4. **CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES**: Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2017).

5. **STATE RESPONSIBILITY AND RECIPROCAL BID PREFERENCE INFORMATION**: Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2010).

6. **LIST OF SUBCONTRACTOR CATEGORIES OF WORK**: Bidder shall list all subcontractor(s) proposed to perform 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.

    **FAILURE TO LIST SUBCONTRACTORS WILL RESULT IN THE BID BEING NON-RESPONSIVE AND THEREFORE VOID.**

7. **EQUITY IN CONTRACTING (EIC) UTILIZATION FORM**

Bidders shall complete the Equity in Contracting (EIC) Utilization Form in accordance with Chapter 1.07 of the City of Tacoma Municipal Code (TMC). This form shall be fully and accurately completed and returned with submission of the Bid and will be used to determine if the Bidder is in compliance with EIC regulations.
As part of the City of Tacoma's (City) ongoing work to address past disparities and to increase the City's contracting with and utilization of historically underutilized businesses, the EIC Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women's Business Enterprise and approved by the EIC Program. The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City. The EIC Program requirements are contained in TMC 1.07.

See Part III City of Tacoma – Equity in Contracting Program for additional information.

**POST AWARD FORMS EXECUTED UPON AWARD:**

A. CONTRACT: Must be executed by the successful bidder.

B. PAYMENT BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.

C. PERFORMANCE BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.

D. CERTIFICATE OF INSURANCE: Shall be submitted with all required endorsements.

E. LEAP UTILIZATION PLAN: Shall be submitted at the Pre-Construction Meeting.

F. GENERAL RELEASE.

**CODE OF ETHICS:** The successful bidder agrees that its violation of the City’s Code of Ethics contained in TMC Chapter 1.46 shall constitute a breach of the contract subjecting the contract to termination.

**LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP):**

The Local Employment and Apprenticeship Training Program (LEAP) has been adopted to counteract economic and social ills, which accompany high rates of unemployment within the City of Tacoma. The Tacoma City Council established the mandatory LEAP program for public works contracts pursuant to Ordinance No. 28520. The primary goal is to provide an opportunity for City of Tacoma residents and Tacoma Public Utilities ratepayers to enter apprenticeship programs, acquire skills, and perform work that will provide living wages.

LEAP Goals:

1. Local Employment Utilization Goal – Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by residents of the City of Tacoma or economically distressed areas of the Tacoma Public Utilities service area.

2. Apprentice Utilization Goal - Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by apprentices who reside in the Tacoma Public Utilities service area.
NOTE: The two goals can be satisfied concurrently if the prime contractor utilizes individuals who simultaneously meet the requirements of both goals, such as an apprentice who resides in an economically distressed area of the Tacoma Public Utilities service area.
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).
5. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW and must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.

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.

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 Equity in Contracting and Local Employment and Apprenticeship Training 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 – The Bidder shall demonstrate to the satisfaction of the City of Tacoma that the Bidder and their Subcontractors are qualified to perform the work under this Contract and therefore are a responsible Bidder. To be responsible, the Bidder, including the General Contractor and their subcontractors must demonstrate an appropriate level of experience, technical competence and successful past performance of work. The information in the Statement of Qualifications Form will assist the City of Tacoma in making such determination.

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 via email to bids@cityoftacoma.org no later than 5:00 p.m. Pacific Time, three days prior to the submittal deadline. 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.

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 $500,000 and by Contracts and Awards Board for contracts greater than $500,000.
PART I

BID PROPOSAL AND CONTRACT FORMS
BID PROPOSAL

SPECIFICATION NO. PW22-0105F

Foss Waterways Site 10, 12 and Municipal Dock Bulkhead Replacement

The undersigned hereby certifies that he/she has examined the location and construction details of work as outlined on the Plans and Specifications for Project No. Municipal Dock:THE-00044-Site 12:THE-00043, Site 10: THE-00047 and has read and thoroughly understands the Plans and Specifications and contract governing the work embraced in this improvement and the method by which payment will be made for said work, and hereby proposes to undertake and complete the work embraced in this improvement in accordance with said Plans, Specifications and contract and at the following schedule of rates and prices:

NOTE: 1. Unit prices of all items, all extensions and total amount of bid should be shown. Show unit prices in figures only.
   2. The notations below the item numbers refer to the specification section where information may be found regarding each contract item. These notations are intended only as a guide and are not warranted to refer to all specification sections where information may be found.

SCHEDULE A: Municipal Dock Bulkhead Replacement:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
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<tbody>
<tr>
<td>MD-1. 1-07</td>
<td>Project Red Line Drawings, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
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<tr>
<td>MD2. 1-09</td>
<td>SPCC Plan, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
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<tr>
<td>MD3. 1-10</td>
<td>Type B Progress Schedule, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>MD-4. Plans</td>
<td>Mobilization, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>MD-5. Plans</td>
<td>Demolition, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>MD-6. Plans</td>
<td>Remove, Store and Reset, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>MD-7. 8-02</td>
<td>Landscaping, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>MD-8. Plans</td>
<td>Concrete, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
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<tr>
<td>MD-9.</td>
<td>HMA CL. 1/2 PG 58-22, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>MD-10.</td>
<td>Earthwork, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>MD-11.</td>
<td>Steel Sheet Piles, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>MD-12.</td>
<td>Potholing, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>MD-13.</td>
<td>Stabilize Headwall, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>MD-14.</td>
<td>Excavation, per cubic yard</td>
<td>50 CY</td>
<td>$ __________</td>
<td>$ __________</td>
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<tr>
<td>MD-15.</td>
<td>Crushed Surfacing Top Course, per cubic yard</td>
<td>50 CY</td>
<td>$ __________</td>
<td>$ __________</td>
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<tr>
<td>MD-16.</td>
<td>French Drain, per linear feet</td>
<td>296 LF</td>
<td>$ __________</td>
<td>$ __________</td>
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Municipal Dock Bulkhead Replacement Total (Items MD1-MD16) $ __________ (1)

**SCHEDULE B: Site 10 Bulkhead Replacement:**

<table>
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<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
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<tbody>
<tr>
<td>S10-1.</td>
<td>Project Red Line</td>
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<td>S10-2.</td>
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<td>Lump Sum</td>
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<td>S10-3.</td>
<td>Type B Progress</td>
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Contractor's Name: _____________________________
Specification No. PW22-0105F
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<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
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<td>Mobilization, per lump sum</td>
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<td>Plans</td>
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</tr>
<tr>
<td>S10-5.</td>
<td>Demolition, per lump sum</td>
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<td>LS Lump Sum</td>
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</tr>
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<td></td>
<td>Plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S10-6.</td>
<td>Remove, Store and Reset, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
</tr>
<tr>
<td></td>
<td>Plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S10-7.</td>
<td>Landscaping, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<tr>
<td>8-02</td>
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<tr>
<td>S10-8.</td>
<td>Concrete, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td></td>
<td>Plans</td>
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<tr>
<td>S10-9.</td>
<td>HMA CL. 1/2 PG 58-22, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td>Plans</td>
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<tr>
<td>S10-10.</td>
<td>Earthwork, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<tr>
<td></td>
<td>Plans</td>
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<tr>
<td>S10-11.</td>
<td>Steel Sheet Piles, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<tr>
<td>8-12</td>
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<tr>
<td>S10-12.</td>
<td>Utility Penetrations, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td>Plans</td>
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<tr>
<td>S10-13.</td>
<td>Utilities, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td></td>
<td>Plans</td>
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<td></td>
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<tr>
<td>S10-14.</td>
<td>Potholing, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td></td>
<td>Plans</td>
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<tr>
<td>S10-15.</td>
<td>Stabilize Headwall, per lump sum</td>
<td>1</td>
<td>LS Lump Sum</td>
<td>$ ___________</td>
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<td>S10-16.</td>
<td>Paint, per linear feet</td>
<td>220</td>
<td>LF</td>
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<tr>
<td>S10-17.</td>
<td>Excavation, per cubic yard</td>
<td>50</td>
<td>CY</td>
<td>$ ___________</td>
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<td>Plans</td>
<td></td>
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<tr>
<td>S10-18.</td>
<td>Crushed Surfacing Top Course, per cubic yard</td>
<td>50</td>
<td>CY</td>
<td>$ ___________</td>
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<td>Plans</td>
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<tr>
<td>S10-19.</td>
<td>French Drain, per linear feet</td>
<td>790</td>
<td>LF</td>
<td>$ ___________</td>
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<td></td>
<td>Plans</td>
<td></td>
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</table>

**Site 10 Bulkhead Replacement Total (Items S10-1-S10-19) $ ___________ (2)**
### SCHEDULE C: Site 12 Bulkhead Replacement:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
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<tbody>
<tr>
<td>S12-1. 1-07</td>
<td>Project Red Line Drawings, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>S12-2. 1-09</td>
<td>SPCC Plan, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<tr>
<td>S10-3. 1-10</td>
<td>Type B Progress Schedule, per lump sum</td>
<td>1 LS</td>
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<td>S12-4. Plans</td>
<td>Mobilization, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<td>S12-5. Plans</td>
<td>Demolition, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<tr>
<td>S12-6. Plans</td>
<td>Remove, Store andReset, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<td>S12-7. 2-02</td>
<td>Landscaping, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<td>S12-8. Plans</td>
<td>Concrete, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>S12-9. Plans</td>
<td>HMA CL. 1/2 PG 58-22, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<td>S12-10. Plans</td>
<td>Earthwork, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>S12-11. 2-14</td>
<td>Steel Sheet Piles, per lump sum</td>
<td>1 LS</td>
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<td>S12-12. 8-04</td>
<td>Utility Penetrations, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
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<tr>
<td>S12-13. 8-12</td>
<td>Utilities, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
</tr>
<tr>
<td>S12-14. 8-12</td>
<td>Potholing, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
</tr>
<tr>
<td>S12-15. 8-12</td>
<td>Stabilize Headwall, per lump sum</td>
<td>1 LS</td>
<td>Lump Sum</td>
<td>$ __________</td>
</tr>
<tr>
<td>S12-16. 8-12</td>
<td>Excavation, per cubic yard</td>
<td>50 CY</td>
<td>$ __________</td>
<td>$ __________</td>
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<td>Item</td>
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<td>Price</td>
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<tr>
<td>S12-17</td>
<td>Crushed Surfacing Top Course, per cubic yard</td>
<td>50</td>
<td>CY</td>
<td>$ _______ $ _______</td>
</tr>
<tr>
<td>S12-18</td>
<td>French Drain, linear feet</td>
<td>375</td>
<td>LF</td>
<td>$ _______ $ _______</td>
</tr>
</tbody>
</table>

Site 12 Bulkhead Replacement Total (Items S12-1-S12-18) $ _______________(3)

TOTAL BID (1)+(2)+(3) $ ________________

---

**Proposal for Incorporating Recycled Materials into the Project**

In compliance with a new law that went into effect January 1, 2016 (SHB1695), the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1)E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: _____________________________ percent.

*Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-02.6 of the Special Provisions. Regardless, the Bidder’s stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials actually incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.*

Bidder: _____________________________
Signature of Authorized Official: _____________________________
Date: ______
SIGNATURE PAGE
CITY OF TACOMA
PUBLIC WORKS ENGINEERING

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

REQUEST FOR BIDS SPECIFICATION NO. PW22-0105F
Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement

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

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

Non-Collusion Declaration

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

Bidder/Proposer’s Registered Name

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

Address

Printed Name and Title

City, State, Zip

(Area Code) Telephone Number / Fax Number

Authorized Signatory E-Mail Address

State Business License Number

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

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

State Contractor’s License Number

(See Ch. 18.27, R.C.W.)

E-Mail Address for Communications

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

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.
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:

_________________________________________________________   ___________________________________________________________

_________________________________________________________   ___________________________________________________________

_________________________________________________________   ___________________________________________________________

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_________________________________________________________   ___________________________________________________________

_______________, 20_____

Received return of deposit in the sum of $ _________________________________

_________________________________________________________
Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (March 29, 2022), that the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

Bidder

Signature of Authorized Official*

Printed Name

Title

Date                     City                     State

Check One:
Individual ☐            Partnership ☐    Joint Venture ☐    Corporation ☐

State of Incorporation, or if not a corporation, the state where business entity was formed:

If a co-partnership, give firm name under which business is transacted:

* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.
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 nor 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 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: ______________

Have you completed the training required by RCW
39.04.350, or are you on the list of exempt businesses
maintained by the Department of Labor and Industries?

☐ Yes  ☐ No

Revised: 07/20/2007, 04/12/2012, 06/21/2019
# List of Subcontractor Categories of Work

**Project Name**

Subcontractor(s) that are proposed to perform the work of heating, ventilation and air conditioning, and/or plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. **This information must be submitted with the bid proposal or within one hour of the published bid submittal time via email to bids@cityoftacoma.org.**

Subcontractor(s) that are proposed to perform the work of structural steel installation and/or rebar installation must be listed below. **This information must be submitted with the bid proposal or within forty-eight hours of the published bid submittal time via email to bids@cityoftacoma.org.**

Failure to list subcontractors or naming more than one subcontractor to perform the same work will result in your bid being non-responsive. Contractors self-performing must list themselves below. The work to be performed is to be listed below the subcontractor(s) name.

<table>
<thead>
<tr>
<th>Subcontractor Name</th>
<th>Work to be Performed</th>
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<tbody>
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<th>Subcontractor Name</th>
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STATEMENT OF QUALIFICATIONS FOR
SEAWALL INSTALLATION WORK

This form shall be completed in its entirety and submitted with the Bid. **Failure to submit and meet the requirements as stated in Special Provisions Sections 1-02.1(1) and Qualifications of 8-01.3(1)C of the Special Provisions shall be grounds for rejection of the bid.** The Engineer will be the sole judge in determining if the minimum experience requirements are met.

The SOQ for the Seawall Specialist, Operator and/or Contractor shall have successfully:
1. Installed on three or more similar projects within the Pacific Northwest around bodies of water or inland within the past five years with verifiable contact information.
2. Trained and operation of equipment around bodies of water or inland on Seawall installation projects.
3. Demonstrated preparation of a Seawall installation under the direct supervision of a Professional Engineer.

**Seawall Specialist, Operator, and/or Contractor:**

Name(s): _____________________________________________________________

Company: ____________________________________________________________

Address: _____________________________________________________________

Phone: _______________________________________________________________

List three or more projects within the last five years in the Pacific Northwest. Use additional sheets, if necessary.

**#1 Project Name:** ____________________________________________
Description of Seawall System: ________________________________________
Owner: ____________________________________________________________
Contact Person: _____________________________________________________
Equipment Used: ____________________________________________________
Seawall Duration: ____________________________________________________
Project Location (Address): ____________________________________________
Completion Date: ____________________________________________________

**#2 Project Name:** ____________________________________________
Description of Seawall System: ________________________________________
Owner: ____________________________________________________________
Contact Person: _____________________________________________________
Equipment Used: ____________________________________________________
Seawall Duration: ____________________________________________________
Project Location (Address): ____________________________________________
Completion Date: ____________________________________________________
#3 Project Name: __________________________________________
Description of Seawall System: __________________________________________
Owner: __________________________
Contact Person: ______________________
Equipment Used: ______________________
Seawall Duration: ______________________
Project Location (Address): __________________________________________
Completion Date: __________________________________________

#4 Project Name: __________________________________________
Description of Seawall System: __________________________________________
Owner: __________________________
Contact Person: ______________________
Equipment Used: ______________________
Seawall Duration: ______________________
Project Location (Address): __________________________________________
Completion Date: __________________________________________

#5 Project Name: __________________________________________
Description of Seawall System: __________________________________________
Owner: __________________________
Contact Person: ______________________
Equipment Used: ______________________
Seawall Duration: ______________________
Project Location (Address): __________________________________________
Completion Date: __________________________________________
EIC REQUIREMENT FORM

EQUITY IN CONTRACTING REQUIREMENTS & PROCEDURES:

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

City of Tacoma – EIC Utilization Form

IMPORTANT NOTE:

It is the bidder’s responsibility to ensure that the subcontractor(s) listed on the EIC Utilization Form are currently certified by the State of Washington’s Office of Minority and Women Business Enterprises (OMWBE) at the time of bid opening. This may be verified by contacting the EIC Office at 253-591-5630 between 8 AM and 5 PM, Monday through Friday or the OMWBE Office at (866) 208-1064. Please refer to the City of Tacoma EIC code.

Equity in Contracting Requirements

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<td>5%</td>
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</tbody>
</table>

A list of EIC-eligible companies is available on the following web site addresses:

www.omwbe.diversitycompliance.com*

MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE EIC UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 1.07

CCD/SBE: PW22-0105F
Date of Record: 03/08/2022

*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.
**EQUITY IN CONTRACTING UTILIZATION FORM**

This form is to document only the contractors, subcontractors, which are intended to be used to meet the stated EIC requirements for the contract awarded from this solicitation. This information will be used to determine contract award. Additional forms may be used if needed.

- You must include this form with your bid submittal in order for your bid to be responsive.
- Prime contractors are required to solicit bids from Certified Businesses approved by the Washington State Office of Minority & Women’s Business Enterprises (OMWBE).
- It is the prime contractor’s responsibility to check the certification status of the firms intended to be utilized prior to the submittal deadline.

**Bidder’s Name:**

**Address:**

**City/State/Zip:**

Spec. No. _________________  Base Bid * $ _________________

Complete company names and phone numbers are required to verify your usage of qualifying firms.

<table>
<thead>
<tr>
<th>Company Name and Certification Number(s)</th>
<th>MBE, WBE, or SBE (Write all that apply)</th>
<th>NAICS code(s)</th>
<th>Contractor Bid Amount (100%)</th>
<th>Material Supplier Bid Amount (20%)</th>
<th>Estimated MBE Usage Dollar Amount</th>
<th>Estimated WBE Usage Dollar Amount</th>
<th>Estimated SBE Usage Dollar Amount</th>
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**i.** MBE Utilization %

**j.** WBE Utilization %

**k.** SBE Utilization %

By signing and submitting this form the bidder certifies that the Certified Businesses listed will be used on this project including all applicable change orders.

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

CCD/SBE/FORMS revised March 2022
INSTRUCTIONS FOR COMPLETING
EIC UTILIZATION FORM

The purpose of these instructions is to assist bidders in properly completing the EIC Utilization Form.

This form when submitted with your bid provides information to the City of Tacoma to accurately review and evaluate your proposed EIC usage.

1. * Base Bid is the prime contractor’s bid, plus any alternates, additives and deductive selected by the City. Also, please refer to Items #10-12 below.

2. Column “a” – List all Certified Businesses that you will be awarding a contract to if you are the successful bidder.

3. Column "b" – Identify if this firm is being utilized as an MBE, WBE, or SBE. (Firms may count towards multiple requirements)

4. Column "c" – List the appropriate NAICS code for the scope of work, services, or materials/supplies for each contractor.

5. Column “d” – The bid amount must be indicated for Certified Businesses listed EIC that you plan on doing business with. This quote is the price that you and the contractor have negotiated prior to bid opening.

6. Column “e” – The bid amount must be indicated for Certified Businesses listed EIC that you plan on doing business with. This quote is the price that you and the material supplier have negotiated prior to bid opening.

8. Column “f” – Estimated MBE Usage Dollar Amount: For all MBE firms used, multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

9. Column “g” – Estimated WBE Usage Dollar Amount: For all WBE firms used, multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

10. Column “h” – Estimated SBE Usage Dollar Amount: For all MBE, WBE, or SBE firms used, multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

11. Block “i” – The percent of actual MBE utilization calculated on the Base Bid only. (Divide the sum of Estimated MBE Usage Dollar Amount (Column “f”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “f” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

12. Block “j” – The percent of actual WBE utilization calculated on the Base Bid only. (Divide the sum of Estimated WBE Usage Dollar Amount (Column “g”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “g” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)
13. Block “k” – The percent of actual SBE utilization calculated on the Base Bid only. (Divide the sum of Estimated SBE Usage Dollar Amount (Column “h”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “h” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

It is the prime contractor’s responsibility to check the status of Certified Businesses prior to bid opening. Call the EIC Office at 253-591-5630 for additional information.
This Contract is made and entered into effective this _____ day of Choose an item. 20 , ("Effective Date") by and between the City of Tacoma, a Municipal Corporation of the State of Washington ("City"), and ("Contractor").

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

I. Contractor shall fully execute and diligently and completely perform all work and provide all services and deliverables described herein and in the items listed below each of which are fully incorporated herein and which collectively are referred to as "Contract Documents":

1. Specification No. and together with all authorized addenda.
2. Contractor’s submittal (or specifically described portions thereof) dated submitted in response to Specification No. and .
3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel etc.) or any other additional items mutually intended to be binding upon the parties.

In the event of a conflict or inconsistency between the terms and conditions contained in this document entitled Contract and any terms and conditions contained in the above referenced Contract Documents the following order of precedence applies with the first listed item being the most controlling and the last listed item the least controlling:

1. Contract
2. List remaining Contract Documents in applicable controlling order.

II. The total price to be paid by City for Contracts full and complete performance hereunder may not exceed: , plus applicable sales tax.

III. Contractor agrees to accept as full payment hereunder the amounts specified herein and in Contract Documents, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified. Except as may be otherwise provided herein or in Contract Documents 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 and providing the services and deliverables required by this Contract.

IV. Contractor acknowledges, and by signing this Contract agrees, that the Indemnification provisions set forth in the controlling Contract Documents, including the Industrial Insurance immunity waiver (if applicable), are totally and fully part of this Contract and, within the context of the competitive bidding laws, have been mutually negotiated by the Parties hereto.

V. Contractor and for its heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the requirements contained herein and in Contract Documents.

VI. It is further provided that no liability shall attach to City by reason of entering into this Contract, except as expressly provided herein.

IN WITNESS WHEREOF, the Parties hereto have accepted and executed, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:  CONTRACTOR:

By: ___________________________  By: ___________________________

Enter title of dept or div staff w/ auth to sign for this $ amt  Signature

By: ___________________________

Choose an item.

Printed Name

Form No. SPEC-120A  Revised: 06/28/2018
By: ____________________________

Director of Finance

Title

APPROVED AS TO FORM:

By: ____________________________

City Attorney

Sample
PAYMENT BOND
TO THE CITY OF TACOMA

Resolution No.

That we, the undersigned, ____________________________________________
as principal, and ____________________________________________
as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of, $ ___________________________, for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

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

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 contract, providing for

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</tr>
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(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28, including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in any way affect its obligation on this bond, and waivers notice of any changes, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the City, and where required, the Contractor, in accordance with RCW 39.08.030.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.

If any claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the City as a result of such suit. Venue for any action arising out of or in connection with this bond shall be in Pierce County, WA.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of “Surety Companies Acceptable in Federal Bonds” as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.
One original bond shall be executed, and be signed by the parties’ duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

__________________________________________
By: _______________________________________

Surety:

__________________________________________
By: _______________________________________

By: _______________________________________

Agent's Name: ______________________________

Agent's Address: ____________________________
That we, the undersigned, as principal, and as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of $__________ , for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

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

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 contract, providing for

Spec No.

Spec Title: ____________________________

Contract No.: ____________________________

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

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory performance bond shall become null and void, if and when the principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal’s obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increase.

If the City shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment, shall pay all costs and attorney’s fees incurred by the City in enforcement of its rights hereunder. Venue for any action arising out of in connection with this bond shall be in Pierce County, Washington.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of “Surety Companies Acceptable in Federal Bonds” as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

One original bond shall be executed, and signed by the parties’ duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

By: ____________________________

Surety:

By: ____________________________

Agent’s Name: ____________________________

Agent’s Address: ____________________________
GENERAL RELEASE TO THE CITY OF TACOMA

The undersigned, named as the contractor for _______________ Project / Spec. # ________ between _______________ and the City of Tacoma, (Themselves or Itself) dated __________________________, 20__, hereby releases the City of Tacoma, its departmental officers and agents from any and all claim or claims whatsoever in any manner whatsoever at any time whatsoever arising out of and/or in connection with and/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 ______________________
PART III

SPECIAL PROVISIONS
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INTRODUCTION TO THE SPECIAL PROVISIONS
(*****)

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2020 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013  APWA GSP)
(April 1, 2013  WSDOT GSP)
(May 1, 2013  Tacoma GSP)

Also incorporated into the Contract Documents by reference are:
3. City of Tacoma Standard Plans
4. City of Tacoma Traffic Control Handbook

Contractor shall obtain copies of these publications, at Contractor’s own expense.

A pre-bid conference will be held onsite at the Municipal Dock located at 1025 Dock Street, Tacoma, Washington, 98402 at 10:00 am on April 7, 2022 to answer questions regarding the Equity In Contracting (EIC) Program and Local Employment and Apprenticeship Training Program (LEAP) requirements included in the contract. Prospective bidders are urged to attend.

DESCRIPTION OF WORK
(*****)

This Contract shall generally consist of installation of a sheet pile walls at three sites along the Thea Foss Waterway: Municipal Dock, Site 10, and Site 12.
1-01 DEFINITIONS AND TERMS

1-01.3 Definitions
(January 4, 2016  APWA GSP)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

**Bid Opening Date**
The date on which the Contracting Agency publicly opens and reads the Bids.

**Award Date**
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

**Contract Execution Date**
The date the Contracting Agency officially binds the Agency to the Contract.

**Notice to Proceed Date**
The date stated in the Notice to Proceed on which the Contract time begins.

**Substantial Completion Date**
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

**Physical Completion Date**
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

**Completion Date**
The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

**Final Acceptance Date**
The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.
All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references to “final contract voucher certification” shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

**Additive**
A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

**Alternate**
One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

**Business Day**
A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

**Contract Bond**
The definition in the Standard Specifications for “Contract Bond” applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

**Contract Documents**
See definition for “Contract”.

**Contract Time**
The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

**Notice of Award**
The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency’s acceptance of the Bid Proposal.

**Notice to Proceed**
The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

**Traffic**
Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

*This section is supplemented with the following:*
(April 15, 2020 Tacoma GSP)

All references to the acronym UDBE” shall be revised to read “DBE/EIC”.
All references in the Standard Specifications to the term “Proposal Bond” shall be revised to read “Bid Bond.”

**Base Bid**
The summation of Bid Item amounts (extensions) in the Bid Forms, excluding Additives, Alternates, Deductives, Force Accounts, and taxes collected separately pursuant to Section 1-07.2.

**Calendar Day**
The time period of 24 hours measured from midnight to the next midnight, including weekends and holidays.

**Change Order**
A written order to the Contractor, issued by the Contracting Agency after execution of the contract, authorizing an addition, deletion, or other revision in the Work, within the scope of the Contract Documents, and establishing the basis of payment and time adjustments, if any, for the Work affected by the change.

**Day**
Unless otherwise specified, a calendar day.

**Deductive**
A supplemental unit of work or group of Bid Items, identified separately in the Bid, which may, at the discretion of the Contract Agency, be deducted from the Base Bid should the Contract Agency choose not to Award the total Base Bid.

**Grand Total Price**
The Grand Total Price of the Contract will include the Base Bid, Additives, Alternates, Deductives, Force Accounts, and taxes collected separately pursuant to Section 1-07.2.

**Standard Specifications**
Divisions One through Nine of the specified edition of the WSDOT “Standard Specifications for Road, Bridge, and Municipal Construction.”

END OF SECTION
1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders
Delete this section and replace it with the following:

1-02.1 Qualifications of Bidder
(January 24, 2011 APWA GSP)

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) and statement of qualifications for seawall installation work to be considered a responsible bidder and qualified to be awarded a public works project.

1-02.2 Plans and Specifications
(June 27, 2011 APWA GSP)
Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

<table>
<thead>
<tr>
<th>To Prime Contractor</th>
<th>No. of Sets</th>
<th>Basis of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced plans (11&quot; x 17&quot;)</td>
<td>6</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Contract Provisions</td>
<td>6</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Large plans (e.g., 22&quot; x 34&quot;)</td>
<td>2</td>
<td>Furnished only upon request.</td>
</tr>
</tbody>
</table>

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor’s own expense.

1-02.4(1) General
(August 15, 2016 APWA GSP Option B)

The first sentence of the last paragraph is revised to read:

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business 6 business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.
1.02.4(2) Subsurface Information
(March 8, 2013 APWA GSP)
The second sentence in the first paragraph is revised to read:
The Summary of Geotechnical Conditions and the boring logs, if and when included in
the plans sheet for the project, shall be considered as part of the Contract.

1.02.5 Proposal Forms
(July 31, 2017 APWA GSP)
Delete this section and replace it with the following:
The Proposal Form will identify the project and its location and describe the work. It will
also list estimated quantities, units of measurement, the items of work, and the materials
to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal
form that call for, but are not limited to, unit prices; extensions; summations; the total bid
amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment
of addenda; the bidder’s name, address, telephone number, and signature; the bidder’s
UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor’s
Registration Number; and a Business License Number, if applicable. Bids shall be
completed by typing or shall be printed in ink by hand, preferably in black ink. The
required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates
and additives, if such be to the advantage of the Contracting Agency. The bidder shall
bid on all alternates and additives set forth in the Proposal Form unless otherwise
specified.

1.02.6 Preparation of Proposal
(July 11, 2018 APWA GSP)
Supplement the second paragraph with the following:
4. If a minimum bid amount has been established for any item, the unit or lump
   sum price must equal or exceed the minimum amount stated.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be
   initialed by the signer of the bid.

Delete the last two paragraphs, and replace them with the following:
If no Subcontractor is listed, the Bidder acknowledges that it does not intend to use any
Subcontractor to perform those items of work.

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law
Compliance form, provided by the Contracting Agency. Failure to return this certification
as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for
Award. A Contractor Certification of Wage Law Compliance form is included in the
Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a
vice president (or other corporate officer accompanied by evidence of authority to sign).
A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

*The fourth paragraph is revised to read:*  
(October 18, 2013 Tacoma GSP)

The bidder shall submit the following completed forms:
- City of Tacoma – Equity in Contracting Utilization Form

*Add the following new section:*

1-02.6(1) Recycled Materials Proposal  
(January 4, 2016 APWA GSP)

The Bidder shall submit with the Bid, its proposal for incorporating recycled materials into the project, using the form provided in the Contract Provisions.

1-02.7 Bid Deposit  
(March 1, 2021 Tacoma GSP)

*Delete this section and replace it with the following:*

A deposit of at least 5 percent of the total Bid shall accompany each Bid. This deposit may be cash, certified check, cashier’s check, or a proposal bond (Surety bond). Any proposal bond shall be on the Contracting Agency’s form and shall be signed by the Bidder and the Surety. A proposal bond shall not be conditioned in any way to modify the minimum 5 percent required. The Surety shall: (1) be registered with the Washington State Insurance Commissioner, and (2) appear on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner.

The failure to furnish a Bid deposit of a minimum of 5 percent shall make the Bid nonresponsive and shall cause the Bid to be rejected by the Contracting Agency.

If submitting your bid electronically, a scanned version of the original bid bond or cashier’s check shall accompany your electronic bid submittal. The original bid bond or cashier’s check shall be sent to the Contracting Agency and received by the Contracting Agency within 7 calendar days of the bid opening or the bidder may be deemed non-responsive.

*Original bid bonds or cashier’s check will be delivered to:*

City of Tacoma Procurement & Payables Division  
Tacoma Public Utilities  
P.O. Box 11007  
Tacoma, WA 98411-0007
If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

1-02.9 Delivery of Proposal
(******)

*Delete this section and replace it with the following:*

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

Electronic Proposals shall be submitted to the City via email to bids@cityoftacoma.org, with the Project Name as stated in the Call for Bids noted on the subject line of the email, or as otherwise required in the Bid Documents, to ensure proper handling and delivery. All electronic documents shall be in PDF format.

The Bidder shall submit to the Contracting Agency a signed “Certification of Compliance with Wage Payment Statutes” document where the Bidder under penalty of perjury verifies that the Bidder is in compliance with responsible bidder criteria in RCW 39.04.350 subsection (1) (g), as required per Section 1-02.14. The “Certification of Compliance with Wage Payment Statutes” document shall be received with the Bid Proposal.

1-02.10 Withdrawing, Revising, or Supplementing Proposal
(******)

*Delete this section and replace it with the following:*

After submitting an electronic Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

A. The Bidder submits a written request signed by an authorized person and emails it to bids@cityoftacoma.org, and

B. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and

C. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

The Bidder’s written request to revise or supplement a Bid Proposal must be accompanied by the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.12 Public Opening of Proposals
(March 1, 2021 Tacoma GSP)

Proposals will be opened and publicly read via webcast at the time indicated in the call for Bids unless the Bid opening has been delayed or canceled.
This public bid opening will be held via webinar. Please use the link below or on the Request for Bids page to join the webinar:

https://us02web.zoom.us/j/83250498294

Preliminary and final bid results are posted at www.TacomaPurchasing.org.

1-02.13 Irregular Proposals
(October 1, 2020 APWA GSP)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
   c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
   d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
   e. A price per unit cannot be determined from the Bid Proposal;
   f. The Proposal form is not properly executed;
   g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
   h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
   i. The Bidder fails to submit written confirmation from each DBE firm listed on the Bidder’s completed DBE Utilization Certification that they are in agreement with the bidder’s DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
   j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
   k. The Bidder fails to submit a DBE Bid Item Breakdown form, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
   l. The Bidder fails to submit DBE Trucking Credit Forms, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
   m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
   n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
   a. The Proposal does not include a unit price for every Bid item;
b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;

c. Receipt of Addenda is not acknowledged;

d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or

e. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders
(October 18, 2013 Tacoma GSP)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if:
1. the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or
2. evidence of collusion exists with any other Bidder or potential Bidder. Participants in collusion will be restricted from submitting further bids; or
3. the Bidder, in the opinion of the Contracting Agency, is not qualified for the work or to the full extent of the bid, or to the extent that the bid exceeds the authorized prequalification amount as may have been determined by a prequalification of the Bidder; or
4. an unsatisfactory performance record exists based on past or current Contracting Agency work or for work done for others, as judged from the standpoint of conduct of the work; workmanship; or progress; affirmative action; equal employment opportunity practices; termination for cause; or Disadvantaged Business Enterprise, Minority Business Enterprise, or Women's Business Enterprise utilization; or
5. there is uncompleted work (Contracting Agency or otherwise) which in the opinion of the Contracting Agency might hinder or prevent the prompt completion of the work bid upon; or
6. the Bidder failed to settle bills for labor or materials on past or current contracts, unless there are extenuating circumstances acceptable to the Contracting Agency; or
7. the Bidder has failed to complete a written public contract or has been convicted of a crime arising from a previous public contract, unless there are extenuating circumstances acceptable to the Contracting Agency; or
8. the Bidder is unable, financially or otherwise, to perform the work, in the opinion of the Contracting Agency; or
9. there are any other reasons deemed proper by the Contracting Agency; or
10. the Bidder fails to meet the Project-specific supplemental bidder responsibility criteria listed in the Special Reminder; or
11. The bidder fails to meet the EIC requirements as described in Section 1-02.6.

As evidence that the Bidder meets the bidder responsibility criteria above, the apparent two lowest Bidders must submit to the Contracting Agency within 24 hours of the bid submittal deadline, documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with all applicable responsibility criteria, including all documentation specifically listed in the supplemental criteria. The Contracting Agency
reserves the right to request such documentation from other Bidders as well, and to request further documentation as needed to assess bidder responsibility.

The basis for evaluation of Bidder compliance with these supplemental criteria shall be any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) which any reasonable owner would rely on for determining such compliance, including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from owners for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within 24 hours of receipt of the Contracting Agency’s determination by presenting its appeal to the Contracting Agency. The Contracting Agency will consider the appeal before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the final determination.

1-02.15 Pre Award Information
(August 14, 2013 APWA GSP)

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

END OF SECTION
1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids
(January 23, 2006 APWA GSP)
Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder’s unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.1(1) Identical Bid Totals
(January 4, 2016 APWA GSP)
Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked “Winner” and the other(s) marked “unsuccessful”. The slips will be folded to make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked “Winner” will be determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

1-03.2 Award of Contract
(March 27, 2003 Tacoma GSP)
All references to 45 calendar days shall be revised to read 60 calendar days.

1-03.3 Execution of Contract
(October 1, 2005 APWA GSP)
Revise this section to read:

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.
Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(July 23, 2015 APWA GSP)
Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of
the authority of the individual signing the bond(s) to bind the corporation (i.e.,
corporate resolution, power of attorney, or a letter to such effect signed by the
president or vice president).

Add the following new section:

1-03.5 Failure to Execute Contract
(April 15, 2020 Tacoma GSP)
The first sentence is revised to read:

Failure to return the insurance certification and bond with the signed contract as required
in Section 1-03.3, or failure to provide Equity In Contracting (EIC) information if required
in the contract, or failure or refusal to sign the Contract, or failure to register as a
contractor in the state of Washington shall result in forfeiture of the bid bond or deposit
of this Bidder

END OF SECTION
1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(March 13, 2012  APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Amendments to the Standard Specifications,
6. Standard Specifications,
7. Contracting Agency’s Standard Plans or Details (if any), and
8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

END OF SECTION
1-05 CONTROL OF WORK

1-05.3 Working Drawings
(January 13, 2011 Tacoma GSP)
This section is deleted in its entirety and replaced with the following:

1-05.3 Submittals

The Contractor shall not install materials or equipment, which require submittals, until reviewed by the Contracting Agency.

The Contractor shall submit four (4) copies to the Engineer of all submittals required by the Contract Documents, unless otherwise required in these Special Provisions. This includes, but is not limited to:

- Shop Drawings/Plans
- Product Data
- Samples
- Reports
- Material Submittals (Ref. 1-06)
- Progress Schedules (Ref. 1-08.3)
- Guarantees/Warranties (Ref. 1-05.10)

The Engineer will return one (1) copy to the Contractor.

1-05.3(1) Submittal Schedule

In conformance with section 1-08.3, the progress schedule shall be submitted and reviewed prior to commencing any work.

No claim will be allowed for damages or extension of time resulting from rejection of a submittal or the requirement of resubmittals as outlined by this section.

The Engineer’s review will be completed as quickly as possible, but may require up to ten (10) working days from the date the submittals or resubmittals are received until they are sent to the Contractor. If more than ten (10) working days are required for the Engineer’s review of any individual submittal or resubmittal, an extension of time will be considered in accordance with Section 1-08.8.

1-05.3(2) Submittal Procedures

Contractor submittals shall be in accordance with the following:

The Contractor shall thoroughly review each submittal for dimensions, quantities, and details of the material or item shown. The Contractor shall review each submittal and note any errors, omissions, or deviations with the Contract Documents. The Contractor shall accept full responsibility for the completeness of each submittal.

Each submittal shall have a unique number assigned to it, and the transmittals shall be sequentially numbered. The numbering of resubmittals shall meet the requirements of
Section 1-05.3(4). On each page, indicate the page number, and total number of pages in each submittal.

Each submittal shall indicate the intended use of the item in the work. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and data shall be indicated on all drawings and other descriptive data.

Each submittal should be transmitted with the “Submittal Transmittal Form” found at the end of this section. Upon request, an electronic copy of the Submittal Transmittal Form will be made available to the Contractor.

In lieu of utilizing the Submittal Transmittal Form, the Contractor may display the following information on each submittal, in a clear space on the front of the submittal:

- Project Name: Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement
- Project Specification Number: PW22-0105F
- Submittal Date
- Description of Submittal
- Sequential, unique submittal number.
- Related Specification Section and/or plan sheet
- The following statement: “This document has been detail-checked for accuracy of content and for compliance with the Contract documents. The information contained herein has been fully coordinated with all involved Subcontractors.”
- Printed or typed name and signature of Contractor.

When submitting product data, the Contractor shall modify drawings to delete any information not applicable to the project and add information that is applicable to the project. The Contractor shall mark copies of printed material to clearly identify the pertinent materials, products or models.

Samples submitted shall be of sufficient size and quantity to clearly illustrate functional characteristics of product or material and full range of colors available. Field samples and mock-ups, where required, shall be erected at the project site where directed by the Engineer.

The Contractor shall notify the Engineer, in writing at time of submission, of deviations in submittals from requirements of the Contract documents.

The City shall not be responsible for delays in reviewing submittals not submitted in accordance with these specifications.

1-05.3(3) Engineer’s Review of Submittals

The Engineer’s review of drawings and data submitted by the Contractor will cover only general conformity with the Contract drawings and specifications. The Engineer’s review of submittals shall not relieve the Contractor from responsibility for errors, omissions, deviations, or responsibility for compliance with the Contract documents.
Review of a separate item does not constitute review of an assembly in which the item functions.

When the submittal or resubmittal is marked “REVIEWED”, or “REVIEWED WITH COMMENTS”, no additional copies need to be furnished. The Contractor shall comply with any comments on the return submittal.

1-05.3(4) Resubmittals

When a submittal is marked “AMEND AND RESUBMIT” or “REJECTED, SEE REMARKS,” the Contractor shall make the corrections as noted and instructed by the Engineer and resubmit four (4) copies. The Contractor shall not install material or equipment that has received a review status of “AMEND AND RESUBMIT” or REJECTED, SEE REMARKS”.

When corrected copies are resubmitted, the Contractor shall in writing direct specific attention to all revisions and shall list separately any revision made other than those called for by the Engineer on previous submittals. Resubmittals shall bear the number of the original submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

The Contractor shall revise returned submittals as required and resubmit until final review is obtained.

The Contractor shall verify that all exceptions previously noted by the Engineer have been accounted for.

1-05.3(5) Submittal Requirements by Section

The following is a summary of submittal requirements. This summary is not inclusive of all submittal requirements. The Contractor shall review each individual section in the applicable provisions or specifications, as noted below, for specific requirements.

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<td>Stormwater Pollution Prevention Plan (SWPPP)</td>
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</table>
1-05.4 Conformity With and Deviations from Plans and Stakes

Add the following two new sub-sections:

1-05.4(1) Roadway and Utility Surveys
(October 1, 2005 APWA GSP)

The Engineer shall furnish to the Contractor one time only all principal lines, grades, and measurements the Engineer deems necessary for completion of the work. These shall generally consist of one initial set of:

1. Slope stakes for establishing grading;
2. Curb grade stakes;
3. Centerline finish grade stakes for pavement sections wider than 25 feet; and
4. Offset points to establish line and grade for underground utilities such as water, sewers, and storm drains.

On alley construction projects with minor grade changes, the Engineer shall provide only offset hubs on one side of the alley to establish the alignment and grade.

1-05.4(2) Bridge and Structure Surveys
(October 1, 2005 APWA GSP)

For all structural work such as bridges and retaining walls, the Contractor shall retain as a part of Contractor’s organization an experienced team of surveyors.

The Contractor shall provide all surveys required to complete the structure, except the following primary survey control which will be provided by the Engineer:

1. Centerline or offsets to centerline of the structure.
2. Stations of abutments and pier centerlines.
3. A sufficient number of bench marks for levels to enable the Contractor to set grades at reasonably short distances.
4. Monuments and control points as shown in the Plans.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

- Stationing: +.01 foot
- Alignment: +.01 foot (between successive points)
- Superstructure Elevations: +.01 foot (from plan elevations)
- Substructure Elevations: +.05 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.
1-05.7 Removal of Defective and Unauthorized Work  
(October 1, 2005 APWA GSP)  
Supplement this section with the following:  

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remediing defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor’s unauthorized work.

No adjustment in Contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency’s rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency’s right to pursue any other avenue for additional remedy or damages with respect to the Contractor’s failure to perform the work as required.

1-05.11 Final Inspection  
Delete this section and replace it with the following:  

1-05.11 Final Inspections and Operational Testing  
(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date  
When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor’s request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.
If, after this inspection, the Engineer concurs with the Contractor that the work is
substantially complete and ready for its intended use, the Engineer, by written notice to
the Contractor, will set the Substantial Completion Date. If, after this inspection the
Engineer does not consider the work substantially complete and ready for its intended
use, the Engineer will, by written notice, so notify the Contractor giving the reasons
therefore.

Upon receipt of written notice concurring in or denying substantial completion, whichever
is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized
interruption, the work necessary to reach Substantial and Physical Completion. The
Contractor shall provide the Engineer with a revised schedule indicating when the
Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial
Completion Date and the Contractor considers the work physically complete and ready
for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final
inspection, the Contractor by written notice, shall request the Engineer to schedule a
final inspection. The Engineer will set a date for final inspection. The Engineer and the
Contractor will then make a final inspection and the Engineer will notify the Contractor in
writing of all particulars in which the final inspection reveals the work incomplete or
unacceptable. The Contractor shall immediately take such corrective measures as are
necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously,
diligently, and without interruption until physical completion of the listed deficiencies.
This process will continue until the Engineer is satisfied the listed deficiencies have been
corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the
written notice listing the deficiencies, the Engineer may, upon written notice to the
Contractor, take whatever steps are necessary to correct those deficiencies pursuant to
Section 1-05.7.

The Contractor will not be allowed an extension of Contract time because of a delay in
the performance of the work attributable to the exercise of the Engineer’s right
hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the
Contracting Agency, in writing, of the date upon which the work was considered
physically complete. That date shall constitute the Physical Completion Date of the
Contract, but shall not imply acceptance of the work or that all the obligations of the
Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a
complete and operable system. Therefore when the work involves the installation of
machinery or other mechanical equipment; street lighting, electrical distribution or signal
systems; irrigation systems; buildings; or other similar work it may be desirable for the
Engineer to have the Contractor operate and test the work for a period of time after final
inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit Contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer’s guaranties or warranties furnished under the terms of the Contract.

Add the following new section:

1-05.12(1) One-Year Guarantee
(March 8, 2013 APWA GSP)

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency’s written notice of a defect, and shall complete such work within the time stated in the Contracting Agency’s notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency’s own forces or another Contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor’s work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

1-05.13 Superintendents, Labor and Equipment of Contractor
(August 14, 2013 APWA GSP)

Delete the sixth and seventh paragraphs of this section.
1-05.15 Method of Serving Notices
(March 25, 2009 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the Contract includes power and water as a pay item.
## SUBMITTAL TRANSMITTAL FORM

Foss Waterways Site 10, 12, and Municipal Dock Bulkhead Replacement
Specification No. PW22-0105F

ATTN: Construction Division Date: ____________________

Submittal Number ______________

Specification Number ______________ Bid Item No. ___________

Submittal Description __________________________________________

We are sending you:

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Transmitted: ☐ Submittals (Product Data) for information only.
☐ Submittals for review and comment.

Remarks: __________________________________________
___________________________________________
___________________________________________
___________________________________________

Certify Either A or B:

☐ A. This document has been detail-checked for accuracy of content and for compliance with the Contract documents (no exceptions). The information contained herein has been fully coordinated with all involved Subcontractors.

☐ B. This document has been detail-checked for accuracy of content and for compliance with the Contract documents except for the attached deviations. The information contained herein has been fully coordinated with all involved Subcontractors.

Certified By: ________________________________
Signature

END OF SECTION
1-06 CONTROL OF MATERIAL

1-06.1 Approval of Materials Prior To Use
(S September 15, 2010 Tacoma GSP)

The first sentence is revised to read:

All materials and equipment shall be submitted for review in accordance with section 1-05.3 of these special provisions.

For aggregates, the Contractor shall notify the Engineer of all proposed aggregates. The Contractor shall use the Aggregate Source Approval (ASA) Database.

All equipment, materials, and articles incorporated into the permanent Work:

1. Shall be new, unless the Special Provisions or Standard Specifications permit otherwise;

2. Shall meet the requirements of the Contract and be approved by the Engineer;

3. May be inspected or tested at any time during their preparation and use; and

4. Shall not be used in the Work if they become unfit after being previously approved.

1-06.1(1) Qualified Products List (QPL)

This section is revised in its entirety to read:

QPL’s are not accepted by the City.

1-06.1(2) Request for Approval of Material (RAM)

This section is deleted in its entirety.

1-06.6 Recycled Materials
(January 4, 2016 APWA GSP)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor’s report shall be provided on DOT form 350-075 Recycled Materials Reporting.

END OF SECTION
1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed
(October 1, 2005 APWA GSP)
Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor’s care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor’s care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor’s plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor’s performance does not, and shall not, be intended to include review and adequacy of the Contractor’s safety measures in, on, or near the project site.

1-07.2 State Taxes
(January 6, 2015 TACOMA GSP)
Supplement this section with the following:

Washington State Department of Revenue Rules 170 and 171 shall apply as shown in the Proposal and per Section 1-07.2 of the WSDOT and APWA Standard Specifications for Road, Bridge, and Municipal Construction.

1-07.2 State Taxes
(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.
The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.
1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.4 Sanitation

1-07.4(2) Health Hazards

Section 1-07.4(2) is supplemented with the following:

(May 13, 2020)

COVID-19 Health and Safety Plan (CHSP)

The Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP). The CHSP shall be prepared and submitted as a Type 2 Working Drawing prior to beginning physical Work. The CHSP shall be based on the most current State and Federal requirements. If the State or Federal requirements are revised, the CHSP shall be updated as necessary to conform to the current requirements.

The Contractor shall update and resubmit the CHSP as the work progresses and new activities appear on the look ahead schedule required under Section 1-08.3(2)D. If the conditions change on the project, or a particular activity, the Contractor shall update and resubmit the CHSP. Work on any activity shall cease if conditions prevent full compliance with the CHSP.

The CHSP shall address the health and safety of all people associated with the project including State workers in the field, Contractor personnel, consultants, project staff, subcontractors, suppliers and anyone on the project site, staging areas, or yards.

COVID-19 Health and Safety Plan (CHSP) Inspection

The Contractor shall grant full and unrestricted access to the Engineer for CHSP Inspections. The Engineer (or designee) will conduct periodic compliance inspections on the project site, staging areas, or yards to verify that any ongoing work activity is following the CHSP plan. If the Engineer becomes aware of a noncompliance incident either through a site inspection or other means, the Contractor will be notified immediately (within 1 hour). The Contractor shall immediately remedy the noncompliance incident or suspend all or part of the associated work activity. The Contractor shall satisfy the Engineer that the noncompliance incident has been corrected before the suspension will end.

1-07.5 Environmental Regulations

Section 1-07.5 is supplemented with the following:

The City of Tacoma has obtained the City of Tacoma Shoreline Permit, the Army Corp of Engineers Permit and the Hydraulic Project Approval (permit thru the Department of Fish and Wildlife). The contractor must have these permits posted onsite at each location prior to working in the waterway.
1-07.9 Wages

1-07.9(5) Required Documents
(March 1, 2004 Tacoma GSP)
The first sentence of the third paragraph is revised to read:
Weekly certified payrolls shall be submitted for the Contractor and all lower tier subcontractors or agents.

This section is supplemented with the following:
Where fringe benefits are paid in cash, certified payrolls shall include the fringe benefit dollar amount paid to each employee for each employee classification.
Where fringe benefits are paid into approved plans, funds, or programs, the amount of the fringe benefits shall be identified in the “Benefit Distribution” section of the Certified Payroll Affirmation form.

1-07.15(1) Spill Prevention, Control and Countermeasures Plan
(February 9, 2011 Tacoma GSP)
This section is revised to read:
The Contractor shall prepare a project-specific spill prevention, control, and countermeasures plan (SPCC Plan) that will be used for the duration of the project. The Contractor shall submit the plan to the Project Engineer no later than the date of the preconstruction conference. No on-site construction activities may commence until the Contracting Agency accepts an SPCC Plan for the project.
The SPCC Plan shall address all fuels, petroleum products, hazardous materials, and other materials as defined in Chapter 447 of the WSDOT Environmental Procedures Manual (M 31-11). Occupational safety and health requirements that may pertain to SPCC Plan implementation are contained in, but not limited to, WAC 296-824 and WAC 296-843.

Implementation Requirements
The SPCC Plan shall be updated by the Contractor throughout project construction so that the written plan reflects actual site conditions and practices. The Contractor shall update the SPCC Plan at least annually and maintain a copy of the updated SPCC Plan on the project site. All project employees shall be trained in spill prevention and containment, and they shall know where the SPCC Plan and spill response kits are located and have immediate access to them.

If hazardous materials are encountered or spilled during construction, the Contractor shall do everything possible to control and contain the material until appropriate measures can be taken. The Contractor shall supply and maintain spill response kits of appropriate size within close proximity to hazardous materials and equipment.
The Contractor shall implement the spill prevention measures identified in the SPCC Plan before performing any of the following:

1. Placing materials or equipment in staging or storage areas.
2. Refueling, washing, or maintaining equipment.

### SPCC Plan Element Requirements

The SPCC Plan shall set forth the following information in the following order:

1. **Responsible Personnel**
   Identify the name(s), title(s), and contact information, including a 24/7 emergency contact number, for the personnel responsible for implementing and updating the plan, including all spill responders.

2. **Spill Reporting**
   List the names and telephone numbers of the Federal, State, and local agencies the Contractor shall notify in the event of a spill. The City of Tacoma contact will be the Wastewater Treatment Plant Operations number at 253.591.5595 and the City Source Control Spill Response number at 253.502.2222.

3. **Project and Site Information**
   Describe the following items:
   - A. The project Work.
   - B. The site location and boundaries.
   - C. The drainage pathways from the site, including both stormwater and sanitary conveyance pathways.
   - D. Nearby waterways and sensitive areas and their distances from the site.

4. **Potential Spill Sources**
   Describe each of the following for all potentially hazardous materials brought or generated on-site (including materials used for equipment operation, refueling, maintenance, or cleaning):
   - A. Name of material and its intended use.
   - B. Estimated maximum amount on-site at any one time.
   - C. Location(s) (including any equipment used below the ordinary high water line) where the material will be staged, used, and stored and the distance(s) from nearby waterways and sensitive areas.
   - D. Decontamination location and procedure for equipment that comes into contact with the material.
   - E. Disposal procedures.
   - F. Include a Material Safety Data Sheet (MSDS) for each potentially hazardous material.

5. **Pre-Existing Contamination**
   Describe any pre-existing contamination and contaminant sources (such as buried pipes or tanks) in the project area that are described in the Contract documents. Identify equipment and work practices that will be used to prevent the release of contamination.

6. **Spill Prevention and Response Training**
   Describe how and when all personnel (including refueling Contractors and Subcontractors) will be trained in spill prevention, containment, and response in accordance with the Plan. Describe how and when all spill responders will be trained in accordance with WAC 296-824.
7. **Spill Prevention**
   Describe the following items:

   A. Spill response kit contents and location(s).
   B. Security measures for potential spill sources.
   C. Secondary containment practices and structures for all containers to handle the maximum volume of potential spill of hazardous materials.
   D. Methods used to prevent stormwater from contacting hazardous materials.
   E. Site inspection procedures and frequency.
   F. Equipment and structure maintenance practices.
   G. Daily inspection and cleanup procedures that ensure all equipment used below the ordinary high water line is free of all external petroleum-based products.
   H. Refueling procedures for equipment that cannot be moved from below the ordinary high water line.

8. **Spill Response**
   Outline the response procedures the Contractor will follow for each scenario listed below. Include a description of the actions the Contractor shall take and the specific on-site spill response equipment that shall be used to assess the spill, secure the area, contain and eliminate the spill source, and clean up and dispose of spilled and contaminated material.

   Response procedures shall be outlined in the Spill Response section and shall include notification to the City of Tacoma Wastewater Treatment Plant Operations number at 253.591.5595 and the City Source Control Spill Response number at 253.502.2222.

   A. A spill of each type of hazardous material at each location identified in 4, above.
   B. Stormwater that has come into contact with hazardous materials.
   C. Drainage pathways from the site, including both stormwater and sanitary conveyance pathways.
   D. A release or spill of any unknown pre-existing contamination and contaminant sources (such as buried pipes or tanks) encountered during project Work.
   E. A spill occurring during Work with equipment used below the ordinary high water line.

   If the Contractor will use a Subcontractor for spill response, provide contact information for the Subcontractor under item 1 (above), identify when the Subcontractor will be used, and describe actions the Contractor shall take while waiting for the Subcontractor to respond.

9. **Project Site Map**
   Provide a map showing the following items:

   A. Site location and boundaries.
   B. Site access roads.
   C. Drainage pathways from the site.
   D. Nearby waterways and sensitive areas.
E. Hazardous materials, equipment, and decontamination areas identified in 4, above.

F. Pre-existing contamination or contaminant sources described in 5, above.

G. Spill prevention and response equipment described in 7 and 8, above.

10. Spill Report Forms

Provide a copy of the spill report form(s) that the Contractor will use in the event of a release or spill.

Payment

Payment will be made in accordance with Section 1-04.1 for the following Bid item when it is included in the Proposal:

“SPCC Plan,” lump sum.

When the written SPCC Plan is accepted by the Contracting Agency, the Contractor shall receive 50-percent of the lump sum Contract price for the plan.

The remaining 50-percent of the lump sum price will be paid after the materials and equipment called for in the plan are mobilized to the project.

The lump sum payment for “SPCC Plan” shall be full pay for:

1. All costs associated with creating the accepted SPCC Plan.

2. All costs associated with providing and maintaining the on-site spill prevention equipment described in the accepted SPCC Plan.

3. All costs associated with providing and maintaining the on-site standby spill response equipment and materials described in the accepted SPCC Plan.

4. All costs associated with implementing the spill prevention measures identified in the accepted SPCC Plan.

5. All costs associated with updating the SPCC Plan as required by this Specification.

As to other costs associated with releases or spills, the Contractor may request payment as provided for in the Contract. No payment shall be made if the release or spill was caused by or resulted from the Contractor’s operations, negligence, or omissions.

1-07.16 Protection and Restoration of Property

1-07.16(1) Private/Public Property

(January 13, 2011 Tacoma GSP)

This section is supplemented with the following:

Stockpiling in City of Tacoma right-of-way or on existing or new improvements shall not occur unless approved by the Engineer. All stockpile sites shall be restored to as good or better condition.
The Contractor shall contact all property owners and tenants in the vicinity of this project, via newsletter/mailing, a minimum of one (1) week prior to start of construction. The Contractor shall submit a draft of the property owner notification prior to posting/mailing.

The newsletter/mailing shall advise the owners and tenants of the construction schedule and indicate the Contractor's name, contact person, and telephone numbers.

1-07.17 Utilities and Similar Facilities

(*.*)

The first paragraph is supplemented with the following:

Public and private utilities or their Contractors will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocations, replacement, or construction will be done within the time for performance of this project. The Contractor shall coordinate their work with such adjustment, relocation, or replacement of utility work. This may require the Contractor to phase their work in a manner that will allow for the utility work.

The Contractor shall coordinate their work with all utilities and other organizations, which have to adjust or revise their facilities within the project area. These may include, but are not limited to:

- City of Tacoma Light Division, Contact: Kevin Kelley, phone: (253) 502-8229
- City of Tacoma Water Division, Contact: Kimberly Baard, phone: (253) 396-3317
- City of Tacoma Traffic Division, Signal/Streetlight Shop, phone: (253) 591-5287
- Rainier Connect, Contact: Brian Munson, phone: (253) 312-2819; Brian.Munson@Rainierconnect.net
- Puget Sound Energy, Contact: Mike Klapperich, Electric, phone: (253) 313-3790 OR Amber Uhls, Gas, phone: (253) 476-6137
- CenturyLink, Contact: Eric Charity, phone: (206) 733-8871
- Comcast, Contact: Todd Gallant, phone: (253) 878-4955
- AT&T Broadband Information Services, Contact: Dan McGeough, phone: (425) 896-9830
- Level 3 Communications, Level3NetworkRelocations@Level3.com
- One-Number Locator Service "One Call System" telephone 1-800-424-5555
- Verizon, Contact: David Lacombe, phone: (206) 305-5366
- MCI Metro Utility, Contact: Brad Landis, phone: (425) 229-3123
- T-Mobile, Contact: Steven Schauer, Phone: (360) 402-7725; steven.schauer@t-mobile.com

If the Contractor plans to excavate or trench within ten (10) feet of any utility pole or other electric or water utility structure owned by the City of Tacoma, the Contractor shall contact the City of Tacoma, Department of Public Utilities, Field Coordinator, telephone number 502-8044, and arrange for an inspection before proceeding. The Contractor shall perform, at the Contractor's expense, such additional work as is required to protect the pole or structure from subsidence. The Contractor may be directed to suspend work at the site of any such excavation until such utility structures are adequately protected.
Garbage, recycling, and yard waste pick up within the project limits is on check City of Tacoma website.

1-07.18 Public Liability and Property Damage Insurance
Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance
(* *****)

See attached, “City of Tacoma, Insurance Requirements for Contracts” included in Part III of these specifications.

1-07.23 Public Convenience and Safety

1-07.23(1) Construction Under Traffic
(May 2, 2017 APWA GSP)

Revise the third sentence of the second paragraph to read:

Accessibility to existing or temporary pedestrian push buttons shall not be impaired; if approved by the Contracting Agency activating pedestrian recall timing or other accommodation may be allowed during construction.

1-07.23(1) Construction under Traffic
(March 1, 2004 Tacoma GSP)
This section is supplemented with the following:

The following special traffic requirements shall be adhered to during all phases of construction:

Dock Street shall remain fully open to vehicular and pedestrian traffic at all times.

EXCEPTION:

To minimize the disruption to access to adjacent properties, and to Pierce Transit operations, the lane closure area shall be limited to that area of active work and necessary for appropriate lane closure tapers. The Contractor shall stage work to maintain access to and egress from all properties at all times.

A safe pedestrian access shall be provided at all times through the project area. All lane closures shall be coordinated with the adjacent businesses, other contractors working within the project vicinity, local transit agencies and the City.

Where, in the opinion of the Engineer, parking is a hazard to through traffic or to the construction work, parking may be restricted either entirely or during the time when it creates a hazard. Signs for restricting parking shall be approved by the City and placed by the Contractor. The Contractor shall be responsible for and shall maintain all such signs. The replacement of signs restricting parking shall be as approved by the Engineer.
The Contractor shall notify all property owners and tenants of detours, street and alley closures, or other restrictions that may interfere with their access. Notification shall be at least twenty-four (24) hours in advance for residential property, and at least forty-eight (48) hours in advance for commercial property.

Emergency traffic, such as police, fire, and disaster units, shall be provided access at all times. In addition, the Contractor shall coordinate Contractor activities with all disposal firms and transit bus service that may be operating in the project area.

If street closures or lane restrictions, not provided for in the Specifications, are allowed subsequent to award of the contract, an equitable adjustment of the Contract amount shall be negotiated.

It is the intent of the Contract to effectively prevent the deposition of debris on streets in areas of public traffic or where such debris may be transported into a drainage system. When construction operations are such that debris from the work is deposited on the streets, the Contractor shall, at a minimum, remove on a daily basis any deposits or debris which may accumulate on the roadway surface. Should daily removal be insufficient to keep the streets clean, the Contractor shall perform removal operations on a more frequent basis. If the Engineer determines that a more frequent cleaning is impractical or if the Contractor fails to keep the streets free from deposits and debris resulting from the work, the Contractor shall, upon order of the Engineer, provide facilities for and remove all deposits from the tires or between wheels before trucks or other equipment will be allowed to travel over paved streets. Should the Contractor fail or refuse to clean the streets in question, or the trucks or equipment in question, the Engineer may order the work suspended at the Contractor’s risk until compliance with Contractor’s obligations is assured, or the Engineer may order the streets in question cleaned by others and such costs incurred by the City in achieving compliance with these contract requirements, including cleaning of the streets, shall be deducted from moneys due or to become due the Contractor on monthly estimate. The Contractor shall have no claim for delay or additional costs should the Engineer choose to suspend the Contractor’s work until compliance is achieved.

1-07.23(2) Construction and Maintenance of Detours
(April 1, 2018 Tacoma GSP)
This section is supplemented with the following:

Detour signing during any allowed road closures shall be in accordance with Detour Plans, when included in the Contract Documents. When plans are not included in the Contract Documents, the Contractor shall submit plans for detours in accordance with the “Manual on Uniform Traffic Control Devices (MUTCD)”. In addition, where the Contractor believes an alternate plan will safely and adequately maintain vehicular and pedestrian traffic, the Contractor may submit alternate plans to those for traffic control and detours required by MUTCD or contract documents. Such alternate plans must comply with the MUTCD and shall be in writing and submitted to the Engineer at least fifteen (15) days in advance of their intended use. In general, detouring of arterial traffic must be accomplished on streets designated as City Arterials. Detouring of arterial traffic on non-arterial streets will not be allowed. The acceptance of any alternate plan shall be entirely at the discretion of the Engineer and the Contractor shall have no claim by reason of a plan being rejected or modified, nor shall there be any additional payment by reason of using a substitute plan.
The Contractor shall notify the Engineer three (3) working days in advance of implementation of any street closures/detours allowed under the Contract. Advance notice signing shall be placed a minimum of three (3) working days prior to implementation of any street closure/detour.

A minimum of three (3) working days prior to any street closure, the Contractor shall notify all entities below:

- Tacoma Fire Dept. (253-591-5775)
- Tacoma Police Dept. (253-591-5932)
- LESA Communications Center (253-798-4721 - Opt.#2)
- Tacoma Public Schools Transportation Office (253-571-1853)
- Pierce Transit (253-581-8001)
- Tacoma Environmental Services Solid Waste (253-591-5544)
- Tacoma Public Works Engineering Division (253-591-5500)
- Tacoma Public Works Streets and Grounds (253-591-5495)

1-07.24 Rights of Way
(July 23, 2015  APWA GSP)

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor’s construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor’s attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.
The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

END OF SECTION
1-08 PROSECUTION AND PROGRESS

Add the following new section:
1-08.0 Preliminary Matters
(May 25, 2006 APWA GSP)

1-08.0(1) Preconstruction Conference
(October 10, 2008 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:
1-08.0(2) Hours of Work
(March 3, 2008 Tacoma GSP)

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Engineer no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 9:00 p.m. and 7:00 a.m. during weekdays and between the hours of 9:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency’s noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor’s operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.
Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non Federal aid projects; considering the work performed on Saturdays and holidays as working days with regards to the contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; personnel from the Contracting Agency’s material testing lab; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

Add the following new section:

1-08.0(3) Reimbursement for Overtime Work of Contracting Agency Employees (September 29, 2009 Tacoma GSP)

Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than an 8-hour work shift on a regular working day, as defined in the Standard Specifications, such work shall be considered as overtime work. On all such overtime work, city staff may be required at the discretion of the Engineer. In such case, the Contracting Agency may deduct from amounts due or to become due to the Contractor for the costs in excess of the straight-time costs for employees of the Contracting Agency required to work overtime hours.

The Contractor by these specifications does hereby authorize the Engineer to deduct such costs from the amount due or to become due to the Contractor.

1-08.1 Subcontracting

(******)

Delete the eighth paragraph, beginning with “The Contractor shall not use businesses…”.

Delete the ninth paragraph, beginning with “On all projects, the Contractor shall certify…”.

Add the following new section:

1-08.1 (2) Subcontracting – Equity In Contracting

(******)

Contractor shall follow the Equity in Contracting Program included in Part III, which shall be considered part of the Contract.
1-08.3(2)A Type A Progress Schedule
(March 13, 2012 APWA GSP)

Revise this section to read:

The Contractor shall submit 6 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work
(July 23, 2015 APWA GSP)

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

1-08.5 Time for Completion
(March 16, 2016 Tacoma GSP)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date. Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to
ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor’s obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
   a. Certified Payrolls (per Section 1-07.9(5)).
   b. Material Acceptance Certification Documents
   c. Reports of Amounts Credited as EIC Participation, as required by the Contract Provisions.
   d. Final Contract Voucher Certification
   e. Copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and all Subcontractors
   f. Property owner releases per Section 1-07.24

This section is supplemented with the following:
(March 1, 2004 Tacoma GSP)

This project shall be physically completed within 120 working days.

1-08.6 Suspension of Work

Section 1-08.6 is supplemented with the following

(January 2, 2018)

The Contract will be suspended effectively the date of the notice to proceed following the preconstruction meeting for the Contracting Agency to obtain necessary steel sheet piles.

Timing Limitations:

The Contract time may be suspended for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, place purchase orders for all materials deemed critical by the Contracting Agency for physical completion of the contract. The Contractor shall provide copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.
The Contractor shall show procurement of the materials listed below as activities in the Progress Schedule. If the approved Progress Schedule indicates that the materials procurement are critical activities, and if the Contractor has provided documentation that purchase orders are placed for the critical materials within the prescribed 21 calendar days, then contract time will be suspended upon physical completion of all critical work except that work dependent upon the below listed critical materials:

<table>
<thead>
<tr>
<th>Corresponding Bid Item #</th>
<th>Equipment</th>
<th>Manufacturer/Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD-11, S10-11, S12-11</td>
<td>Steel Sheet Piles</td>
<td>Any</td>
</tr>
</tbody>
</table>

Charging of contract time will begin upon delivery of the critical materials to the Contractor, the Contractor obtaining the Environmental Regulation permits from the Contracting Agency, and meeting the timing limitations.

All costs resulting from the Suspension of Work defined in these Specifications shall be at the Contractor’s expense. This includes, and is not limited to, any material cost increases for construction sequencing from this Suspension of Work.

1-08.9 Liquidated Damages
(August 14, 2013 APWA GSP)
Revise the fourth paragraph to read:

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

END OF SECTION
1-09.2(1) General Requirements for Weighing Equipment
(July 23, 2015 APWA GSP, Option 1)

Revise the third paragraph to read:

Scale Operations – “Contractor-provided scale operations” are defined as operations
where a scale is set up by the Contractor specifically for the project and most, if not all,
material weighed on the scale is utilized for Contract Work. In this situation, the
Contractor shall provide, set up, and maintain the scales necessary to perform this
Work. The Contracting Agency will provide a person to operate the project scale, write
tickets, perform scale checks and prepare reports.

1-09.2(1) General Requirements for Weighing Equipment
(July 23, 2015 APWA GSP, Option 2)

Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day’s hauling operations are
provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027,
Scaleman’s Daily Report, unless the printed ticket contains the same information
that is on the Scaleman’s Daily Report Form. The scale operator must provide
AM and/or PM tare weights for each truck on the printed ticket.

1-09.6 Force Account
(October 10, 2008 APWA GSP)

Supplement this Section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for
all items to be paid per force account, only to provide a common proposal for Bidders.
All such dollar amounts are to become a part of Contractor's total bid. However, the
Contracting Agency does not warrant expressly or by implication, that the actual amount
of work will correspond with those estimates. Payment will be made on the basis of the
amount of work actually authorized by Engineer.

(January 13, 2011 Tacoma GSP)

Item #3 of this Section is supplemented with the following:

The Contractor shall submit a comprehensive summary list of all equipment anticipated
to be used on the project and their associated AGC/WSDOT Equipment Rental Rates.
The list shall include the contractor’s equipment number, make, model, year, operation
rate, standby rate, applicable attachments and any other applicable information
necessary to determine the applicable rates in accordance with this section. In addition,
the contractor shall submit an Equipment Watch rate sheet (www.equipmentwatch.com)
for each piece of equipment in the summary list. Access to the Equipment Watch web
site is available at the City’s Construction Management Office.
1-09.9 Payments
(March 13, 2012 APWA GSP)

Delete the first four paragraphs and replace them with the following:

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction Conference, to enable the Project Engineer to determine the Work performed on a monthly basis. A breakdown is not required for lump sum items that include a basis for incremental payments as part of the respective Specification. Absent a lump sum breakdown, the Project Engineer will make a determination based on information available. The Project Engineer’s determination of the cost of work shall be final.

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work completed multiplied by the unit price.

2. Lump Sum Items in the Bid Form — based on the approved Contractor’s lump sum breakdown for that item, or absent such a breakdown, based on the Engineer’s determination.

3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.

4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;

2. The amount of progress payments previously made; and

3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.
This section is supplemented with the following:

(January 6, 2015 Tacoma GSP)

Breakdowns of all lump sum items shall be provided for all lump sum items and shall include all costs for labor, equipment, materials, and taxes (as applicable) associated with the lump sum item. Washington State Department of Revenue Rules 170 and 171 apply to lump sum items per Section 1-07.2 of the WSDOT State Amendments to the Standard Specifications.

Stockpiled Material - The point of acceptance of stockpiled material for payment and quality shall be at the time of incorporation into the contract.

1-09.9(1) Retainage

(May 10, 2006 Tacoma GSP)
The fourth paragraph is supplemented with the following:

6. A “General Release to the City of Tacoma” is on file with the Contracting Agency.
7. A release has been obtained from the City of Tacoma’s City Clerk’s Office.

1-09.13(3)A Administration of Arbitration

(October 1, 2005 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency’s headquarters are located. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the contract as a basis for decisions.

END OF SECTION
1. TEMPORARY TRAFFIC CONTROL

1.10 Description

(July 22, 2019 Tacoma GSP)

The first sentence of the fourth paragraph is revised to read:

The Contractor shall keep lanes, on-ramps, and off-ramps open to traffic at all times except when Work requires closure(s) that have been requested and approved in accordance with section 1-10.2(2).

The third sentence of the fourth paragraph is revised to read:

Approved lane and ramp closures shall be for the minimum time required to complete the Work.

This section is supplemented with the following:

Only uniformed off-duty police officers shall be used to control traffic when it is necessary to override or provide traffic control at signalized intersections. Off-duty City of Tacoma Police Department officers are preferred within the jurisdiction of the Tacoma PD, and the Contractor shall grant the Tacoma PD the “first right of refusal” by contacting the Tacoma PD first as stated below.

The City will make all necessary temporary adjustments to existing traffic signals and traffic signal activators.

Existing signs shall not be removed until the Contractor has provided for temporary measures sufficient to safeguard and direct traffic after existing signs have been removed. Preservation of temporary traffic control and street name signs shall be the sole responsibility of the Contractor.

As the work progresses and permits, temporarily relocated and/or removed traffic signs shall be reset in their permanent location. Permanent signs and other traffic control devices damaged or lost by the Contractor shall be replaced or repaired at the Contractor’s expense.

Traffic Control Management

1.10.2(1) General

(January 3, 2017)

Section 1-10.2(1) is supplemented with the following:

Only training with WSDOT TCS card and WSDOT training curriculum is recognized in the State of Washington. The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
Section 1-10.3 is supplemented with the following:

Signalized Intersections
(August 15, 2019 Tacoma GSP)

When construction operations are such that an existing traffic signal is required to be overridden to allow for traffic control measures, only a uniformed off-duty police officer shall override the signal.

All off-duty officers shall be commissioned within the State of Washington.

Tacoma Police Department officers shall be the first choice for traffic control that overrides any traffic signal within the jurisdiction of the City of Tacoma PD. The Contractor shall first contact Tacoma Police Department, Special Events Sergeant, to schedule police officers for the specified traffic control duty.

The Contractor shall request officers at least 48 hours in advance for scheduling, unless an exception is approved by the Engineer.

The Contractor shall immediately notify the Engineer in writing if Tacoma PD cannot supply officers for the requested date(s). The Contractor shall include the written response from Tacoma PD and state the preference to either postpone the affected Work or request officers from other State of Washington jurisdictions. Using officers from other jurisdictions must be approved by the Engineer.

The Contractor will not be compensated for any off-duty officers from other jurisdictions performing traffic control without prior approval from the Engineer, and the Contracting Agency may stop work in accordance with Section 1-08.6, “Suspension of Work”.
1-10.3(3)A Construction Signs
(January 11, 2006 Tacoma GSP)
The fifth paragraph is revised to read:

Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the
Engineer deems to be unacceptable while their use is required on the project shall be
replaced by the Contractor at their expense.

1-10.3(3)C Portable Changeable Message Sign
(August 4, 2010 Tacoma GSP)
This section is supplemented with the following:

Portable Changeable Message Signs shall be required on arterials streets where
construction occurs for durations longer than seven (7) calendar days. Signs shall be
solar charged and programmable. Signs shall be provided a minimum of seven (7)
calendar days prior to construction and remain through the duration of the construction
on the arterial street. Signs shall be provided on each end of the arterial street
construction zone notifying oncoming traffic of the construction conditions. All costs
associated with providing and maintain the signs for the required duration shall be
included in the proposal item, “Project Temporary Traffic Control”, per lump sum

1-10.4(2) Item Bids with Lump Sum for Incidentals
(January 11, 2006 Tacoma GSP)
This section is supplemented with the following:

No unit of measure will apply to the position of traffic control manager and it will be
considered included in other unit contract prices in the Bid Proposal.

1-10.5(2) Item Bids with Lump Sum for Incidentals
(January 11, 2006 Tacoma GSP)
This section is supplemented with the following:

END OF SECTION
2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP
(March 17, 2016 Tacoma GSP)

2-01.1 Description
The first sentence of the first paragraph is revised to read:

The Contractor shall clear, grub, and cleanup those areas contained within the “Clearing & Grubbing” limits indicated on the Plans.

This section is supplemented with the following:

Trees, stumps, shrubs, and brush located outside the Clearing & Grubbing limits shall be considered as part of “Clearing and Grubbing” when identified for removal on the Plans.

2-01.2 Disposal of Usable Material and Debris
The second paragraph is revised to read:

The Contractor shall dispose of all debris in accordance with Section 2-01.2(2).

2-01.3(1) Clearing
This section is revised to read:

1. Fell trees only within the area to be cleared.
2. Close-cut parallel to the slope of the ground all stumps to be left in the cleared area outside the slope stakes.
3. Close cut all stumps that will be buried by fills 5-feet or less in depth.
4. Follow these requirements for all stumps that will be buried by fills deeper than 5-feet from the top, side, or end surface of the embankment or any structure and are in a location that will not be terraced as described in Section 2-03.3(14):
   a. Close-cut stumps under 18-inches in diameter.
   b. Trim stumps that exceed 18-inches in diameter to no more than 12-inches above original ground level.
5. Leave standing any trees or native growth indicated by the Engineer.
6. Trim all trees to be left standing to the height specified by the Engineer, with a minimum height of eight (8) feet above sidewalk and fourteen (14) feet above the roadway surface. Neatly cut all limbs close to the tree trunk.
7. Thin clumps of native growth as the Engineer may direct.
8. Protect, by fencing if necessary, all trees or native growth from any damage caused by construction operations.

2-01.3(2) Grubbing
Item e is revised to read:

Upon which embankments will be placed, except stumps may be close-cut or trimmed as allowed in Section 2-01.3(1) item 4.

END OF SECTION
2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS
(December 9, 2005 Tacoma GSP)

2-02.3(3) Removal of Pavement, Sidewalks, and Curbs
This section is deleted.

Section 2-02.3 is supplemented with the following:

2-02.3(4) Removal of Piezometers

The Contractor shall abandon all borings with piezometers installed as part of the
geotechnical investigations for this project. The locations of the piezometers are listed in
the Geotechnical Data Report and shown on the Plans.

The borings with piezometers shall be abandoned in accordance with Department of

2-02.4 Measurement
This section is supplemented with the following:

Borings with piezometers to be abandoned will be measured per each.

2-02.5 Payment
This section is supplemented with the following:

“Abandon Piezometer”, at per each.

The unit Contract price for “Abandon Piezometer” shall be full payment for all labor,
equipment, materials, and permitting necessary to abandon the piezometers in
accordance with these Special Provisions.

END OF SECTION
2-03 ROADWAY EXCAVATION AND EMBANKMENT
(August 14, 2019 Tacoma GSP)

2-03.1 Description
*The last sentence of the first paragraph is deleted.*

2-03.3 Construction Requirements
*This section is supplemented with the following:*

Material excavated in areas labeled on the Plans as contaminated shall be hauled to LRI Landfill, located at 30919 Meridian Street East, Graham, WA or an approved licensed solid waste disposal facility.

2-03.3(5) Slope Treatment
*This section is deleted.*

2-03.3(19) Removal of Pavement, Sidewalks, Curbs, and Gutters
*This section is deleted.*

2-03.5 Payment
*This section is supplemented with the following:*


The unit Contract price per cubic yard for “Roadway Excavation of Contaminated Material, Incl. Haul” shall be full compensation for all costs incurred for excavating, loading, placing, disposal and haul to LRI or other approved facility.

END OF SECTION
2-06  SUBGRADE PREPARATION

(September 20, 2018 Tacoma GSP)

2-06.3 Construction Requirements

This section is supplemented with the following:

Subgrade Repair for Subgrade Not Constructed Under Same Contract

Upon removal of pavement, the Contractor and City Inspector shall walk the subgrade surface to determine and delineate any subgrade areas that need to be repaired. Any subgrade areas that require repair, from the initial walkthrough, shall be determined solely by the City Inspector. Any initial subgrade repairs shall be paid for according to Section 2-06.5(2). Subgrade repair shall be performed in accordance with Section 2-06 and immediately after it has been determined and delineated. In order to minimize damage to the subgrade, the Contractor is encouraged to minimize pavement removal during the work.

Subgrade Maintenance and Protection

Immediately after the contractor constructs the subgrade or completes initial subgrade repair to the City’s satisfaction, the contractor shall maintain and protect the subgrade. Any defects or damage of the subgrade thereafter shall be repaired or replaced according to Section 2-06, at the Contractor’s expense before placement of any succeeding courses or pavement. Maintenance and protection of the subgrade shall be the responsibility of the Contractor. The Contractor shall be required to take precautionary measures to prevent damage by heavy loads or equipment, as well as from inclement weather.

The Contractor and City Inspector should walk the exposed subgrade on a daily basis to determine if there is damage to the subgrade. Any Subgrade areas that require repair according to this section shall be determined solely by the City Inspector.

2-06.5 Measurement and Payment

This section is supplemented with the following:

Subgrade Maintenance and Protection shall be paid by lump sum and shall apply to all subgrade.

“Subgrade Maintenance and Protection”, per lump sum

The lump sum price for “Subgrade Maintenance and Protection” shall be full pay for all material, labor, and equipment for implementation of subgrade maintenance and protection, as determined by the City Inspector.

If the contractor fails to protect the subgrade so that additional subgrade repairs are required as determined by the City Inspector, then the city shall not owe payment for these additional subgrade repairs in accordance with Section 2-06.3.

2-06.5(2) Subgrade Not Constructed Under Same Contract

Item 5 under this section is deleted.

END OF SECTION
2-07 WATERING
(August 3, 2009 Tacoma GSP)

2-07.3 Construction Requirements
The last sentence of the first paragraph is revised to read:
The Engineer may direct that the Contractor apply water during non-working hours such as evenings, weekends, or recognized holidays.

Section 2-07.3 is supplemented with the following:

2-07.3(1) Water Supplied from Hydrants

There is no guarantee that all fire hydrants will be available for use for cleaning, lining, or any other construction activities associated with this project. Prior to construction activities, it shall be the Contractor’s responsibility to verify which hydrants will be available by contacting Tacoma Water. The Contractor shall use only those hydrants designated by Tacoma Water.

Water supplied from hydrants governed by Tacoma Water shall be used in strict compliance with the “Operating Procedures for the use of Water Division Hydrants” available at the Tacoma Water Permit Counter.

The Contractor shall obtain a Hydrant Permit prior to start of work by contacting the Water Permit Counter at (253) 502-8247, 2nd floor, Tacoma Public Utilities, Administrative Building, 3628 South 35th Street, Tacoma, WA 98409. A copy of the approved Hydrant Permit shall be submitted to the Engineer.

Contractor personnel shall be in possession of a valid Tacoma Public Utilities Hydrant Certification Card prior to obtaining a permit. If necessary, contractor personnel shall undergo training to receive the required certification. Contact the Water Permit Counter to set up training as necessary.

END OF SECTION
2-09  STRUCTURE EXCAVATION
(March 17, 2016 Tacoma GSP)

2-09.4 Measurement
This section is supplemented with the following:

Longitudinal Limits. For all storm and sanitary sewers, the longitudinal measurement will be from center of manhole to center of manhole or to the inside face of catch basins and similar type structures.

The fourth paragraph is revised to read:

There will be no specific unit of measure for the excavation required for manholes, catch basins, grate inlets, and drop inlets.

2-09.5 Payment
The pay item for “Structure Excavation Class B” is supplemented with the following:

“Structure Excavation Class B”, per cubic yard.

The unit Contract price for “Structure Excavation Class B” shall be full payment for all excavation, removal of water; storing, protecting and re-handling of suitable backfill material; backfilling of the trench, compaction of backfill, and all other work necessary for the construction of the sewer trench.

END OF SECTION
2-13 VEGETATION REMOVAL
(March 17, 2003 Tacoma GSP)

2-13.1 Description

This Work shall consist of the removal and disposal of vegetation identified on the Plans.

2-13.2 Definition of Vegetation

A “tree” is defined as any self-supporting, woody perennial plant having a main stem (trunk) and which normally attains a height of at least ten (10) feet at maturity, usually with one (1) main stem or trunk and many branches.

A “shrub” is defined as any woody perennial plant which normally attains a height of less than ten (10) feet at maturity and which can be construed to have some landscape value.

“Brush” is defined as any perennial vegetation which normally attains a height of ten (10) feet or less at maturity, which is not maintained as part of a landscape feature, which is “volunteer” growth or which exists in a naturalized state. Examples include but are not limited to stands of blackberries and scotch broom.

2-13.3 Construction Requirements

All stumps not identified for removal shall be close-cut parallel to the slope of the ground.

All stumps identified for stump grinding shall be ground to eight inches below final grade.

Disposal of all debris shall be in accordance with Section 2-01.2(2).

2-13.4 Measurement

Trees shall be classified by the measured circumference at a point four and one-half (4-½) feet above average ground level. Trees that have several stems at the four and one-half (4-½) foot height will be considered a tree clump. The largest diameter single stem will be measured and will dictate the class rating. Only the largest, single stem in the clump will be utilized for measurement and payment.

Stumps shall be classified by the measured circumference at the highest point of the stump above the average ground level or a point four and one-half (4-1/2) feet above the average ground level, which ever is less.

Trees and stumps will be classified as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 0</td>
<td>Less than 12 inches</td>
</tr>
<tr>
<td>Class I</td>
<td>12 inches up to but not including 36 inches</td>
</tr>
<tr>
<td>Class II</td>
<td>36 inches up to but not including 72 inches</td>
</tr>
<tr>
<td>Class III</td>
<td>72 inches up to but not including 127 inches</td>
</tr>
<tr>
<td>Class IV</td>
<td>127 inches or more (Tree height greater than 30 feet)</td>
</tr>
<tr>
<td>Class V</td>
<td>127 inches or more (Tree height of 30 feet or less)</td>
</tr>
</tbody>
</table>
Trees, stumps, and stump grinding will be measured per each for each class.

Shrubs will be measured per each.

Brush will be measured per square yard.

2-13.5 Payment

Payment will be made in accordance with Section 1-04.1.

“Remove Tree, Class __”, per each

“Remove Stump, Class __”, per each

“Stump Grinding, Class __”, per each

“Remove Shrub”, per each

“Remove Brush”, per square yard

The unit Contract price shall be full pay to remove and dispose of the vegetative matter.

The unit Contract price for “Remove Tree, Class 0” and “Remove Tree, Class I” shall include the removal of the stump.

END OF SECTION
2-14 PAVEMENT REMOVAL
(March 17, 2003 Tacoma GSP)

2-14.1 Description

The Work described in this section includes the removal and disposal of pavement surfaces identified on the Plans or as marked in the field.

2-14.2 Pavement Classification

Removal of pavement will be according to type and class based on composition and thickness, as defined below:

Type I: Pavement removal where all or portions of the existing pavement is being removed in conjunction with street construction or any other removal not described below for Type II or Type III.

Type II: Pavement removal required for the placing of utilities at greater and varying depths, such as sewers.

Type III: Pavement removal required for narrow and shallow utility cuts in order to install light cables, conduits and similar shallow utilities.

Class A2: Class A2 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness of two inches or less.

Class A4: Class A4 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness between two inches and four inches.

Class A8: Class A8 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness between four inches and eight inches.

Class C6: Class C6 pavement removal shall apply to all non-reinforced cement concrete pavements or slabs having an average thickness of six inches or less. After the curbs and pavement have been constructed, the Contractor may be required to remove additional sidewalk necessary to provide proper connections and grades, as determined by the Engineer.

Class C12: Class C12 pavement removal shall apply to all non-reinforced cement concrete pavements or slabs having an average thickness of between 6 inches and 12 inches.

Class CA: Class CA pavement removal shall apply to all pavements that have a wearing surface of asphalt concrete upon a cement concrete
pavement or, cement concrete base, and for which the total combined thickness of the pavement averages between six inches and twelve inches.

**Class H** Class H pavement removal shall apply to early type pavement of a cement concrete base with a brick or cobblestone surface and potentially an additional layer of asphalt concrete pavement for which the total combined thickness of the pavement averages between ten inches and twenty inches.

### 2-14.3 Construction Requirements

All final meetlines shall be sawcut.

Where monolithic cement concrete pavement and curb are being removed, the curb removal shall be considered as pavement removal, and the measurement for payment will be to the back of the curb.

The removal of existing street improvements shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

In the event a pavement averages more than the maximum thickness specified for its class, an additional payment will be made to cover the extra thickness removed by a proportional conversion into additional square yards.

### 2-14.4 Measurement

Pavement removal will be measured per square yard.

Type I pavement removal will be measured in its original position through the use of survey techniques.

### 2-14.5 Payment

Payment will be made in accordance with Section 1-04.1.

"Remove Existing Pavement, Type ___Class___", per square yard

All costs associated with saw cutting meet lines shall be included in the unit Contract price for pavement removal.

**END OF SECTION**
2-15  CURB AND CURB AND GUTTER REMOVAL
(March 17, 2003 Tacoma GSP)

2-15.1 Description
The Work described in this section includes the complete removal and disposal of curbs and curb and gutter identified on the Plans or as marked in the field.

2-15.2 Curb Classification
Removal of curb and/or curb and gutter will be based on composition, as defined below:

**Integral Curb** - Integral curb shall consist of curb that is constructed monolithic with the adjacent cement concrete pavement.

**Curb** - Curb may consist of cement concrete curb, granite curb, or any other combination of rigid material that extends below the pavement surface elevation.

**Extruded/Precast Curb** - Extruded or precast curb may consist of asphalt or concrete extruded or precast curb that is installed on a pavement surface.

**Curb and Gutter** - Curb and gutter may be cement concrete, or a cement concrete curb with a brick gutter on a cement concrete base, or other combination of rigid material.

2-15.3 Construction Requirements
Integral curb removal shall consist of the removal of the curb and the integral base section under the curb. The removal shall be accomplished by sawcutting along the face of the curb.

The removal of the curb and/or curb and gutter shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

2-15.4 Measurement
Curb and curb and gutter removal will be measured per linear foot.

2-15.5 Payment
Payment will be made in accordance with Section 1-04.1.

“Remove Integral Curb”, per linear foot

“Remove Curb”, per linear foot

“Remove Extruded/Precast Curb”, per linear foot

“Remove Curb and Gutter”, per linear foot

All costs associated with saw cutting necessary for the removal of curb and/or curb and gutter shall be included in the unit Contract price for removal.

END OF SECTION
2-16 REMOVAL OF CATCH BASINS, MANHOLES, CURB INLETS, ETC.
(March 17, 2003 Tacoma GSP)

2-16.1 Description
The Work described in this section includes the complete removal and disposal of catch basins, manholes, and curb inlets as identified on the Plans.

2-16.2 Vacant

2-16.3 Construction Requirements
Where the structures are removed, the excavation shall be backfilled with native material if deemed suitable by the Engineer or imported backfill material.

Material determined by the Engineer to be unsuitable at the time of excavation shall be removed and replaced with imported backfill material. Payment will be made at the unit contract price of the item in the proposal, or as extra work under Section 1-04.4 if not included as an item in the proposal.

All pipe openings shall be plugged in accordance with 7-08.3(4).

The removal of the structures shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

2-16.4 Measurement
The removal of catch basins, manholes, and curb inlets will be measured per each.

2-16.5 Payment
Payment will be made in accordance with Section 1-04.1.

“Remove Catch Basin”, per each
“Remove Manhole”, per each
“Remove Curb Inlet”, per each

All costs associated with the placement and compaction of the backfill material shall be included in the unit Contract price for removal.

END OF SECTION
3-04 ACCEPTANCE OF AGGREGATE  
(April 1, 2012 Tacoma GSP)

3-04.1 Description  
The first and third paragraphs are deleted.  
The fourth paragraph is revised to read:
Nonstatistical evaluation will be used for the acceptance of aggregate materials.

3-04.3(1) General  
The first sentence is revised to read:
For the purpose of acceptance sampling and testing, all test results obtained for a 
material type will be evaluated collectively.

3-04.3(4) Testing Results  
This section is replaced with the following:
The results of all acceptance testing will be provided by the City’s Project Engineer 
within 3 working day of testing.

3-04.3(6) Statistical Evaluation  
This section is deleted:

END OF SECTION
4-04.5 Payment

This section is supplemented with the following:

All costs for labor, equipment, and materials required to furnish, place, and compact the crushed surfacing top course for all asphalt concrete approaches and non-paved approaches shall be included in the unit Contract price for “Crushed Surfacing Top Course”, per ton.

END OF SECTION
Supplement Division 4 with the following new section:

4-06 ASPHALT TREATED BASE (ATB)
(June 16, 2016 Tacoma GSP)

4-06.1 Description
Asphalt treated base (ATB) consists of a compacted course of base material which has been weatherproofed and stabilized by treatment with an asphalt binder.

The Work shall consist of one or more courses of asphalt treated base placed on the Subgrade in accordance with these Specifications and in conformity with the lines, grades, thicknesses, and typical cross-sections shown in the Plans or as staked.

4-06.2 Materials
Materials shall meet the requirements of the following sections:

- Asphalt 9-02.1
- Anti-Stripping Additive 9-02.4
- Aggregates 9-03.6

The grade of paving asphalt shall be as required in the Contract.

4-06.3 Construction Requirements

4-06.3(1) Asphalt Mixing Plant
Asphalt mixing plants for asphalt treated base shall meet the following requirements:

Heating
The plant shall be capable of heating the aggregates to the required temperature.

Proportioning
The mixing plant shall be capable of proportioning: the aggregates to meet the Specifications, and the asphalt binder will be introduced at the rate specified in the approved mix design. If the aggregates are supplied in two or more sizes, means shall be provided for proportioning or blending the different sizes of aggregates to produce material meeting the Specification requirements.

Recycled asphalt pavement (RAP) may be used in the production of ATB. If utilized, the amount of RAP shall not exceed 30 percent of the total weight of the ATB. The final gradation and asphalt binder content will conform to the approved Job Mix Formula (JMF). ATB will be evaluated under Commercial Evaluation as shown in section 9-03.8(7). Va limits under 9-03.8(7) are excluded from ATB evaluation criteria.

Mixing
The mixer shall be capable of producing a uniform mixture of uniformly coated aggregates meeting the requirements of these Specifications.
4-06.3(2) Preparation of Aggregates

Aggregates for asphalt treated base shall be stockpiled before use in accordance with the requirements of Section 3-02.

The aggregates shall be heated as required by the Engineer.

4-06.3(2)A Mix Design

The mix design requirements for asphalt treated base shall be as described in Section 9-03.6(3). N\text{design} will be 100 gyrations for all ATB design applications. The asphalt binder shall be PG 64-22 unless specifically altered in the project specifications. The proposed mix design will be submitted for review on WSDOT Form 350-042 with included notes applicable to the ATB design evaluation.

4-06.3(3) Vacant

4-06.3(4) Mixing

The asphalt treated base shall be mixed in accordance with the requirements of Section 5-04.3(8).

4-06.3(5) Hauling Equipment

Hauling equipment for asphalt treated base shall conform to the requirements of Section 5-04.3(2).

4-06.3(6) Spreading and Finishing

Asphalt treated base shall be spread with a spreading machine equipped with a stationary, vibratory, or oscillating screed or cut-off device, subject to the approval of the Engineer. Approval of the equipment shall be based on a job demonstration that the finished product will meet all requirements of the Specifications. Automatic controls will not be required. Unless otherwise directed by the Engineer, the nominal compacted depth of any ATB layer shall not exceed 0.40 feet. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

The internal temperature of the ATB mixture at the time compaction is achieved shall be a minimum of 185°F. Rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F.

4-06.3(6)A Subgrade Protection Course

Unless otherwise specified by the Engineer, the Contractor shall place the asphalt treated base as a protection for the prepared Subgrade on all sections of individual Roadways which are to receive asphalt treated base as soon as 10,000 square yards of Subgrade is completed. This requirement shall not be limited to contiguous areas on the project.
The surface of the Subgrade protection layer when constructed on a grading project shall conform to grade and smoothness requirements that apply to the Subgrade upon which it is placed.

4-06.3(6)B Finish Course

The final surface course of the asphalt treated base, excluding Shoulders, shall not deviate at any point more than \(\frac{3}{8}\) inch from the bottom of a 10-foot straightedge laid in any direction on the surface on either side of the Roadway crown. Failure to meet this requirement shall necessitate sufficient surface correction to achieve the required tolerance, as approved by the Engineer, at no expense to the Contracting Agency.

When portland cement concrete pavement is placed on an asphalt base, the surface tolerance of the asphalt base shall be such that no elevation lies more than 0.05 feet below nor 0.00 feet above the plan grade minus the specified plan depth of portland cement concrete pavement. Prior to placing the portland cement concrete pavement, any such irregularities shall be brought to the required tolerance by grinding or other means approved by the Engineer, at no expense to the Contracting Agency.

4-06.3(7) Density

The asphalt treated base shall be compacted to a density of not less than 80\% percent of the maximum theoretical density established for the mix by WSDOT FOP for AASHTO T 209. The density of the base shall be determined by means of tests on cores taken from the Roadway or with the nuclear gauge in accordance with Section 5-04.3(10)B. The frequency of these tests shall be at the discretion of the Engineer, but in no case shall it be less than one control lot for each normal day’s production. The use of equipment which results in damage to the materials or produces substandard workmanship will not be permitted.

4-06.3(8) Anti-Stripping Additive

An anti-stripping additive shall be added to the asphalt binder material in accordance with Section 9-02.4 in the amount designated in a WSDOT mix design/anti-strip evaluation report for a dense graded hot mix asphalt design from the same gravel source within the last 24 months or as evaluated separately by an accredited lab using current WSDOT test methods (AASHTO T324 – Hamburg or WSDOT TM T718 – Modified Lottman). Alternately, the ATB may be evaluated for anti-strip additive using ASTM D3625 (Standard Practice for Effect of Water on Bituminous-Coated Aggregate Using Boiling Water) by an accredited lab. The anti-stripping additive required will be the minimum amount necessary to achieve a passing evaluation.

4-06.4 Measurement

Asphalt treated base including paving asphalt will be measured by the ton.

No specific unit of measure will apply to Anti-Stripping Additive, which shall be included in the measurements for the HMA items that are included in the Bid Proposal.
4-06.5 Payment

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items that are included in the Proposal:

“Asphalt Treated Base, PG __”, per ton.

The unit Contract price per ton for “Asphalt Treated Base, PG ___” shall be full payment for all costs incurred to carry out the requirements of Section 4-06 in accordance with the Contract, including coring and testing, and shall include anti-stripping additive.

END OF SECTION
5-01.3 Construction Requirements

5-01.3(4)A General

The first sentence is revised to read:

Curing, cold weather Work, concrete pavement construction in adjacent lanes, and protection of pavement shall meet the requirements of Section 5-05.3(13).

Section 5-01 is supplemented with the following:

5-01.3(4)I Cold Weather Work

The following additional requirements for placing concrete shall be in effect from November 1 to April 1:

- The Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later than 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no concrete shall be placed until the ground is completely thawed. At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

END OF SECTION
5-02 BITUMINOUS SURFACE TREATMENT
(March 3, 2008 Tacoma GSP)

5-02.3(1) Equipment
The third sentence of the third paragraph is revised to read:

Each roller shall not weigh less than 8-tons and shall be capable of providing constant contact pressure.

END OF SECTION
The title of this section is revised to read:

5-04 HOT MIX ASPHALT
(April 1, 2018 Tacoma GSP)

This Section is revised according to the following overriding provisions:

Nonstatistical or test point evaluation shall be the method for HMA compaction acceptance for all HMA pavement, except where visual or commercial evaluation is specified. Visual evaluation shall be considered synonymous with commercial evaluation. The Contracting Agency will not be required to perform any acceptance by statistical evaluation.

All references to “statistical” are revised to read “nonstatistical”, and “nonstatistical” evaluation shall be considered synonymous with “test point” evaluation. Thus, all Specifications for test procedures, methods, construction requirements, and requirements for evaluation and acceptance shall apply to the Work with the following exceptions:

- The Contracting Agency shall not be required to perform statistical analysis of any acceptance test results.
- Quantities for sublots and lots shall be as determined by the Engineer. If test results are found not to be within specification requirements, additional testing as needed to determine a CPF may be performed.
- The Contracting Agency shall not be required to make price adjustments based on pay factors and composite pay factors.

5-04.2 Materials

5-04.2(1) How to Get an HMA Mix Design on the QPL
(April 1, 2018 Tacoma GSP)
For Subsection 5-04.2(1) the term “Contracting Agency” is revised to read “WSDOT”.

5-04.2(2) Mix Design – Obtaining Project Approval
(April 1, 2018 Tacoma GSP)
This section is revised to read:

The Contactor shall submit each HMA mix design to the Contracting Agency on WSDOT Form 350-042. The Contractor shall provide a mix design based upon 3 million ESAL’s.

No paving shall begin prior to the HMA mix design acceptance by the Engineer for the Job Mix Formula (JMF) that will be used for the same paving. The Contracting Agency will evaluate HMA mix design submittals according to Visual Evaluation per Table 1. The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Project Engineer and must be made in accordance with Section 9-03.8(7).
Mix designs for HMA shall have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2) and 9-03.8(6). The Contractor shall determine anti-strip additive requirements for the HMA and submit laboratory test data for anti-stripping and rutting in accordance with the following options:

- Hamburg Wheel track Test and Section 9-03.8(2), or
- Tensile Strength Ratio (TSR) Test per AASHTO T 283, or
- Previous WSDOT Lab mix design verification test data and stripping evaluation, per the Engineer’s discretion and as stated below.

With the HMA mix design submittal the Contractor shall provide one of the following mix design verification certifications for Contracting Agency review:

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.**
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

**The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC’s) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO resource proficiency sample program.

At the discretion of the Engineer, the Contracting Agency may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

For the use of Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL’s) appropriate for the required use. Commercial HMA can be accepted by a Contractor certificate of compliance letter stating the material meets the HMA requirements defined in the Contract.

5-04.2(2)B Using HMA Additives (April 1, 2018 Tacoma GSP)

This section is revised to read:

The Contractor may, at the Contractor’s discretion, elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature in the production of High RAP/Any RAS mixtures.
Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(2) Paving Under Traffic
(April 1, 2018 Tacoma GSP)
The second paragraph is supplemented with the following:

No traffic shall be allowed on any newly placed pavement without the approval of the Engineer.

5-04.3(3)C Pavers
(April 1, 2018 Tacoma GSP)
The second paragraph is deleted.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle
(April 1, 2018 Tacoma GSP)
The first paragraph is revised to read:

A Material Transfer Device/Vehicle (MTD/V) shall not be used unless specific paving areas are specified below. A MTD/V shall only be used according to this special provision for the following paving areas:

5-04.3(4)C Pavement Repair
(April 1, 2018 Tacoma GSP)
This section is revised to read:

Pavement repair shall be in accordance with the City of Tacoma Right-of-Way Restoration Policy found at:

Pavement repair consists of asphalt concrete saw-cutting, removing asphalt concrete pavement, removing crushed surfacing and subgrade, and installing Construction Geotextile for Separation, placing crushed surfacing top course over the Construction Geotextile, and HMA in accordance with the Contract or as directed by the Engineer.

Pavement repair excavation may also be performed by the use of a milling machine of a type that has operated successfully on work comparable with that to be done under the Contract and shall be approved by the Engineer prior to use. If a milling machine is used for excavation, the excavation shall be as directed by the Engineer.

In all types of excavation, after the removal of the asphalt, the base material will be evaluated by the Engineer to determine if it is suitable. If the base is determined not to be suitable, the Contractor shall remove the base material and restore the sub-grade in accordance with Section 2-06 and the Plans, regardless of the method used for excavation.
Estimated plan quantities for pavement repair are approximate and are provided for bidding purposes only. The actual dimensions to be used will be verified by the Engineer at the time of construction. Contrary to Section 1-04.6, no changes to the unit prices bid for the various items will be permitted due to any increase or decrease in the amount of pavement repair.

Payment for pavement repair shall be by the unit Bid prices according to the Contract for all materials, labor, and equipment required to complete the pavement repair. Items not included in the Proposal shall be paid for according to Section 1-04.1(2).

5-04.3(6) Mixing
(Aug 1, 2020 Tacoma GSP)
The first paragraph is revised to read:

The asphalt supplier shall add any recycling agent and anti-stripping additive to the liquid asphalt binder prior to shipment to the asphalt mixing plant, when the mix design includes these additives. The Contractor shall submit the anti-stripping additive amount and the manufacturer’s certification, together with the HMA mix design submittal in accordance with Section 5-04.2. Paving shall not begin before the anti-stripping additive submittal is accepted by the Engineer.

5-04.3(8) Aggregate Acceptance prior to Incorporation in HMA
(Aug 1, 2020 Tacoma GSP)
This section is revised to read:

Sample aggregate in accordance with Section 3-04 prior to being incorporated into HMA. The Contracting Agency shall evaluate the aggregate according to Special Provision 3-04. Aggregate contributed from RAP or RAS shall not be evaluated under Section 3-04.

The combined aggregate bulk specific gravity (Gsb) blend as shown on the HMA Mix Design report or evaluation report per Special Provision 5-04.2(2) will be used for VMA calculations. The Contracting Agency shall not be required to perform a Gsb test.

5-04.3(9) HMA Mixture Acceptance
(April 1, 2018 Tacoma GSP)
The first paragraph is revised to read:

The Contracting Agency will evaluate the HMA mixture by nonstatistical or visual evaluation as determined from the criteria in Table 7 or as determined by the Engineer.

5-04.3(9)A Test Sections
(April 1, 2018 Tacoma GSP)
The first paragraph is revised to read:

At the start of paving, if requested by the Contractor, a compaction test section shall be constructed as directed by the Engineer to determine the compactibility of the mix design. Compactibility shall be based on the ability of the mix to attain the specified minimum density (91 percent of the maximum density determined by WSDOT SOP 729, and FOP for AASHTO T 209).
Following determination of compactibility, the Contractor is responsible for the control of
the compaction effort. If the Contractor does not request a test section, the mix will be
considered compactible. See also Section 5-04.3(10)C2.

The Contractor shall also construct a test section when requested by the Engineer. Test
sections that are in complete compliance with the requirements of Section 5-04 can be
incorporated into the Work, and shall be included in the quantities for related Bid Items;
otherwise, the Contractor shall remove the defective pavement in failed test sections as
determined by the Engineer and at no cost to the Contracting Agency. The Contracting
Agency will only pay for HMA pavement that is accepted and incorporated into the
project at the discretion of the Engineer. See also Section 5-04.3(10)C2.

The second paragraph is revised to read:

The purpose of a test section is to determine whether or not the Contractor’s mix design
and production processes will produce HMA meeting the Contract requirements related
to mixture. Construct HMA mixture test sections at the beginning of paving, using at
least 100 tons and a maximum of 800 tons or as specified by the Engineer. Each test
section shall be constructed in one continuous operation.

5-04.3(9)B Mixture Acceptance – Statistical Evaluation
(April 1, 2018 Tacoma GSP)
The title of this section is revised to read:
5-04.3(9)B Mixture Acceptance – Nonstatistical Evaluation

5-04.3(9)B1 Mixture Statistical Evaluation – Lots and Sublots
(April 1, 2018 Tacoma GSP)
The title of this section is revised to read:
5-04.3(9)B1 Mixture Nonstatistical Evaluation – Lots and Sublots
This section is revised to read:

For HMA in a structural application, sampling and testing for total project quantities less
than 400 tons is at the discretion of the engineer. For HMA used in a structural
application and with a total project quantity less than 800 tons but more than 400 tons, a
minimum of one acceptance test shall be performed:
   i. If test results are found to be within specification requirements, additional
testing will be at the engineer’s discretion.
   ii. If test results are found not to be within specification requirements,
additional testing as needed to determine a CPF shall be performed.
   iii. For a mixture lot in progress with a mixture CPF less than 0.75, a new
mixture lot will begin at the Contractor’s request after the Engineer is
satisfied that material conforming to the Specifications can be produced.
      See also Section 5-04.3(11)F.
   iv. If, before completing a mixture lot, the Contractor requests a change to
the JMF which is approved by the Engineer, the mixture produced in that
lot after the approved change will be evaluated on the basis of the
changed JMF, and the mixture produced in that lot before the approved
change will be evaluated on the basis of the unchanged JMF; however,
the mixture before and after the change will be evaluated in the same lot.
Acceptance of subsequent mixture lots will be evaluated on the basis of
the changed JMF.
5-04.3(9)E Mixture Acceptance – Notification of Acceptance Test Results
(Aug 1, 2020 Tacoma GSP)
This section is revised to read:

The Contracting Agency will endeavor to provide written notification (via email to the Contractor’s designee) of acceptance test results within 24 hours of the sample being made available to the Contracting Agency. However, the Contractor agrees:

1. Quality control, defined as the system used by the Contractor to monitor, assess, and adjust its production processes to ensure that the final HMA mixture will meet the specified level of quality, is the sole responsibility of the Contractor.

2. The Contractor has no right to rely on any testing performed by the Contracting Agency, nor does the Contractor have any right to rely on timely notification by the Contracting Agency of the Contracting Agency’s test results (or statistical analysis thereof), for any part of quality control and/or for making changes or correction to any aspect of the HMA mixture.

3. The Contractor shall make no claim for untimely notification by the Contracting Agency of the Contracting Agency’s test results (or statistical analysis thereof).

5-04.3(10)B HMA Compaction - Cyclic Density
(April 1, 2018 Tacoma GSP)
This section is deleted.

5-04.3(10)C1 HMA Compaction Statistical Evaluation – Lots and Sublots
(April 1, 2018 Tacoma GSP)
This section is deleted.

5-04.3(10)C2 HMA Compaction Statistical Evaluation – Acceptance Testing
(April 1, 2018 Tacoma GSP)
The title of this section is revised to read:
5-04.3(10)C2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing
The second paragraph is revised to read:

Compaction tests will be performed at a minimum of 5 various locations, as determined by the Engineer, for each 400 tons placed. The locations will be determined by the stratified random sampling procedure conforming to WSDOT Test Method T 716. For an area in progress with a CPF less than 0.75, a new compaction sequence will begin at the Contractor’s request after the Project Engineer is satisfied that material conforming to the Specifications can be produced. The Compaction Test Procedures will be provided to the Contractor by the Contracting Agency at the Pre-Construction Conference or a Pre-Paving Meeting, prior to the placement of HMA material on site.

This section is supplemented with the following:

Cores may be used as an addition to the nuclear density gauge tests. When cores are taken by the Engineer at the request of the Contractor, the request shall be made by
noon of the first working day following placement of the mix. The Engineer shall be reimbursed for the coring expenses.

The Engineer will inform the Contractor of field compaction test results as work is being performed. Formal Test Report(s) will be provided to the Contractor within 3 Working Days.

HMA for preleveling shall be compacted to the satisfaction of the Engineer.

5-04.4 Measurement
(April 1, 2018 Tacoma GSP)

The first paragraph is revised to read:

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, blending sand, mineral filler, anti-stripping additive, or any other component of the mixture; and the measurement shall include asphalt wedge curbs and thickened edges in accordance with the Plans or as directed by the Engineer. If the Contractor elects to remove and replace mix as allowed in Section 5-04.3(11), the material removed will not be measured.

The second paragraph is revised to read:

No specific unit of measure will apply to roadway cores, which shall be included in the measurements for the HMA items that are included in the Proposal.

This section is supplemented with the following:

HMA for Approach Cl. ___ PG 58H-22 shall be measured per square yard of finished driveway and approach.

No specific unit of measure will apply to anti-stripping additive, which shall be included in the measurements for the HMA items that are included in the Proposal.

5-04.5 Payment
(April 1, 2018 Tacoma GSP)

Pay items for “Job Mix Compliance Price Adjustment” and “Compaction Price Adjustment” are deleted.

The following pay items for HMA are revised to read:

“HMA Cl. ___ PG ___”, per ton.

“HMA for ___ Cl. ___ PG ___”, per ton.

The unit Contract price per ton for “HMA Cl. ___ PG ___” and “HMA for ___ Cl. ___ PG ___” shall be full payment for all costs incurred to carry out the requirements of Section 5-04, including coring and testing, and shall include anti-stripping additive, asphalt wedge curbs, thickened edges, curb drains, and connection to existing drains in accordance with the Contract. Any costs that are already included in other Bid items in the Proposal shall not be included in the unit Contract prices per ton for these HMA Bid items.
The pay item “HMA for Approach Cl. _PG__” is revised to read:

“HMA for Approach Cl. __PG 58H-22”, per square yard.

The unit Contract price per square yard for “HMA for Approach Cl. __PG 58H-22” shall be full payment for all costs incurred to carry out the requirements of Section 5-04, including anti-stripping additive; and shall include asphalt wedge curbs, thickened edges, curb drains, and connection to existing drains in accordance with the Contract. Any costs that are already included in other Bid items in the Proposal shall not be included in the unit Contract price per square yard for this HMA Bid item. The Contractor shall also include all costs associated with excavating for driveways and approach, including haul and disposal in the unit Contract price per square yard for “HMA for Approach Cl. __ PG 58H-22”, regardless of the depth.

This section is supplemented with the following:

“HMA Cl. __ PG __ for Pavement Patch”, per ton.

The unit Contract price for pavement patch shall be full pay for all labor, equipment, and materials required to complete the patching of the street, including joints, where required, and removal of temporary base.

“Cold Plant Mix for Temporary Pavement Patch”, per ton.

The unit Contract price for “Cold Plant Mix for Temporary Pavement Patch” shall be full pay for all labor, equipment, and materials required to furnish and install; maintain; and remove and dispose of the temporary patch.

Temporary pavement patches placed between October 1st and March 31st shall be HMA Cl. ½” PG 58H-22.

END OF SECTION
5-05 CEMENT CONCRETE PAVEMENT
(October 14, 2020 Tacoma GSP)

5-05.1 Description
This section is supplemented with the following:

All concrete pavement restoration shall be performed in accordance with the City of Tacoma’s Right-of-Way Restoration Policy found at www.govME.org.

5-05.3 Construction Requirements

5-05.3(1) Concrete Mix Design for Paving
This section is supplemented with the following:

The submittal for the concrete mix design shall provide the following: the date, the amount of materials (i.e. cement, sand, aggregates, water), the type and amount of each admixture, and the designated 28-day compressive strength specific to the mix design being submitted. The design compressive strength shall be a minimum of 4000 psi.

5-05.3(4) Acceptance of Portland Cement Concrete Pavement
This section is supplemented with the following:

Acceptance of concrete will be on a non-statistical acceptance only.

The first, second, third and fourth paragraphs are deleted.

5-05.3(8) Joints
The second paragraph is revised to read:

The Contractor shall submit a concrete panel jointing plan in accordance with the Plans and these Specifications. When a concrete panel jointing plan is included in the Plans, the Contractor may adopt or submit a revised jointing plan in accordance with Standard Plans and the Specifications at the Contractor’s own expense. The Contractor’s jointing plan shall be approved in writing by the Engineer before the start of concrete paving.

When new pavement abuts existing pavement, the locations of the joints in the new pavement shall match with the joints in the existing pavement unless otherwise approved by the Engineer.

5-05.3(11) Finishing
The third paragraph is revised to read:

In advance of curing operations, the pavement shall receive an initial texturing followed by final finishing. Initial texturing shall be performed with a burlap drag or broom device, creating striations in the same orientation as the final finish. The concrete roadway surface shall be finished with a *** transverse tining / longitudinal tining / heavy broom finish ***. Where integral concrete curbs are constructed, the roadway surface finish shall end 12 inches from the flowline.
The fourth paragraph is revised to read:

Burlap drags, brooms and tine devices may be installed on self-propelled equipment having external alignment control. When texturing the pavement with burlap, the area of burlap in contact with the pavement shall be maintained constant at all times. Broom and tine devices shall be provided with positive elevation control. Downward pressure on pavement surface shall be maintained at all times during texturing so as to achieve uniform texturing without measurable variations in pavement profile. If self-propelled texturing machines are used, these shall be operated so that travel speed during texturing is maintained constant. Failure of the texturing equipment to perform according to this section shall constitute cause for stopping placement of concrete until the equipment deficiency or malfunction is corrected.

The fifth paragraph is revised to read:

The surface finish shall be as shown per Plans and in accordance with these Special Provisions. The Engineer may specify either transverse tining, or longitudinal tining, or a heavy broom finish for any part of the project. Transverse tining is the standard concrete finish.

The seventh paragraph is revised to read:

Test Panel:
At the start of concrete pavement construction, the Contractor shall first finish a textured concrete test panel and the Engineer shall give approval of the achieved finish according to this section prior to further concrete pavement construction. If the test panel is rejected by the Engineer, the Contractor shall remove and replace the test panel at no additional cost to the Contracting Agency. The Contractor can designate one of the project panels as a test panel or create a sacrificial test panel on site of at least four feet by eight feet.

Project panels not meeting the characteristics of the test panel shall be removed and replaced at no additional cost to the Contracting Agency.

The eighth through tenth paragraphs are deleted.

5-05.3(12) Surface Smoothness
The section is revised to read:

The Contractor shall measure surface smoothness with a 10-foot straightedge as directed by the Engineer. The finished grade surface shall not vary more than 1/8 inch from the bottom edge of a 10-foot straightedge placed on the surface parallel to the centerline. Perpendicular to the centerline, the finished grade surface shall not vary more than ¼ inch from the bottom edge of a 10-foot straightedge laid across any lane.

The completed surface shall be of uniform texture, smooth, shall conform to Plans as to crown and grade, and shall be free from defects of all kinds. Corrective work shall be as directed by the Engineer; and the Contractor shall complete corrective work at no additional expense, including traffic control, to the City of Tacoma.
The following additional requirements for placing concrete shall be in effect from

5-05.3(14) Cold Weather Work
This section is supplemented with the following:

The following additional requirements for placing concrete shall be in effect from
November 1 to April 1:
- Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later than 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no concrete shall be placed until the ground is completely thawed. At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

5-05.4 Measurement
This section is revised to read:

Measurement for cement concrete pavement and concrete base pavement shall be by the square yard for the pavement completed and accepted according to Section 5-05 and the Plans, including the area underneath curbs. No deduction will be made for castings in pavement.

Cement Concrete Pavement for Pavement Patches will be measured by the square yard.

Epoxy-Coated Tie Bars with Drill Hole that are drilled into existing cement concrete pavement will be measured per each tie bar installed according to the Plans and Section 5-05.

Dowel Bar Retrofit shall be measured per each retrofitted dowel bar installed into an existing concrete pavement edge according to the Plans and Section 5-05.

5-05.5 Payment
This section is revised to read:

Payment will be made in accordance with Section 1-04.1.

“Cement Conc. Pavement, ___-Inch Section”, per square yard.

The unit Contract price per square yard for “Cement Conc. Pavement, ___-Inch Section” shall be full payment for all costs incurred to carry out the requirements of Section 5-05 and the Plans, and shall include furnishing and installing epoxy coated dowel bars and tie bars except as specified for “Dowel Bar Retrofit” and “Epoxy-Coated Tie Bar with Drill Hole” in this section.

Tie bars that are drilled into existing cement concrete pavement that is not constructed under the Contract will be paid for under the item “Epoxy-Coated Tie Bar with Drill Hole” when included in the Proposal.
Dowell bars that are retrofitted into an existing concrete pavement that is not constructed under the Contract will be paid for under the Bid item “Dowel Bar Retrofit” when included in the Proposal.

“Epoxy-Coated Tie Bar with Drill Hole”, per each.

The unit Contract price per each for “Epoxy-Coated Tie Bar with Drill Hole” shall be full payment for all equipment, tools, materials, and labor to drill holes, furnish and install tie-bars, epoxy-bonding agent, grout according to Section 5-05 and the Plans.

“Dowel Bar Retrofit”, per each.

The unit Contract price per each for “Dowel Bar Retrofit” shall be full payment for all equipment, tools, materials, and labor to drill holes, furnish dowel bars, furnish and install parting compound, and to construct the dowel bar retrofits according to Section 5-05 and the Plans.

“Cement Conc. Base Pavement, ___-Inch Section”, per square yard.

The unit Contract price per square yard for “Cement Conc. Base Pavement, ___-Inch Section” shall be full payment for all costs incurred to carry out the requirements of Section 5-05 and the Plans, and shall include all costs associated with the furnishing and installing of all necessary dowel bars and tie bars except as specified for “Dowel Bar Retrofit” and “Epoxy-Coated Tie Bar with Drill Hole” in this section.

“Cement Conc. Pavement for Pavement Patch, ___-Inch Section”, per square yard.

The unit Contract price for “Cement Conc. Pavement for Pavement Patch, ___-Inch Section” shall be full payment for all costs incurred to carry out the requirements of Section 5-05 and the Plans, and shall include all costs associated with the furnishing and installing of all necessary dowel bars and tie bars except as specified for “Dowel Bar Retrofit” and “Epoxy-Coated Tie Bar with Drill Hole” in this section.

END OF SECTION
6-02.3(2)B Commercial Concrete

This section is supplemented with the following:

Where concrete Class 3000 is specified for driveways, the Contractor may use commercial concrete.

END OF SECTION
6-05.2 Materials
This section is supplemented with the following:

Steel Sheet Piling ASTM A 572 or ASTM A588, Grade 50.

6-05.3(1) Piling Terms
This section is supplemented with the following:

Steel Sheet Piles – as shown on the contract drawings.

Section 6-05 is supplemented with the following:

6-05.3(16) Vibration Control And Monitoring

The Contractor shall be required to comply with the vibration limits established herein. The vibration limits shall be incorporated in the Contractor's Vibration Plan, as required. The Contractor shall provide for monitoring of the vibrations produced as a result of the construction activities and shall provide Pre-Construction Condition surveys of structures. The Contractor shall cooperate in adjusting the Vibration Plan and procedures to maintain the vibration limits specified herein and to minimize vibration-related claims and complaints.

6-05.3(16)A Seismologist or Vibration Consultant

The Contractor shall retain an independent seismologist or vibration consultant to monitor, record, analyze, and report the seismic vibrations being caused by sheet pile driving activities. The name and résumé of qualifications of the seismologist or vibration consultant shall be submitted to the Engineer for approval. No pile driving shall take place until such approval is given.

6-05.3(16)B Seismologist or Vibration Consultant Qualifications

The seismologist or vibration consultant shall be experienced in the subject of vibrations emanating from construction activities. The seismologist or vibration consultant shall be qualified to thoroughly analyze seismic parameters of the energy source, the energy transmission path, the recording site, and the ground motion spectra.

6-05.3(16)C Seismologist or Vibration Consultant Duties

The seismologist or vibration consultant shall direct and instruct the Contractor in its operations to control vibrations within acceptable levels. The seismologist or vibration consultant shall be in charge of making the preliminary survey and, unless otherwise permitted in writing, shall be present at the site of the pile driving during all pile driving. The seismologist or vibration consultant shall provide and use all necessary equipment to observe and record vibrations to ascertain that acceptable levels of vibrations are not exceeded. The seismologist or vibration consultant shall monitor, report findings, and submit recommendations on a daily basis to the Engineer. The seismologist or vibration consultant shall determine the level of observed vibrations attributed to the project's pile...
driving activities and their subsequent effect on surrounding structures. The seismologist or vibration consultant shall make recommendations for vibration limits to protect sensitive equipment and manufacturing processes if limits have not been predetermined. Written justification shall be provided for all recommendations.

6-05.3(16)D Pre-Construction Condition Survey

The seismologist or vibration consultant shall conduct a pre-construction condition survey of all existing structures and conditions on the site, adjacent to the site, or in the vicinity of the site. This survey shall extend to such structures or conditions as may be affected by the Contractor's construction operations.

The pre-construction condition survey shall consist of a written description of the interior and exterior condition of each of the structures examined. Descriptions shall locate any existing cracks, damage, or other defects and shall include such information so as to make it possible to determine the effect, if any, of the construction operations on the defect. Particular note shall be made of evident structural faults and deficiencies, or recent repairs. Where significant cracks or damage exist, or for defects too complicated to document in words only, sketches and photographs shall be taken or a good quality videotape survey with appropriate audio description of locations, conditions, and defects shall be performed to supplement the written description. Pictures and sketches shall be provided with a scale where practical. Prior to the start of work, a copy of the pre-construction condition survey shall be submitted to the Engineer for review.

The seismologist or vibration consultant shall give written notice to the owner of the property concerned, tenants of the property, and any representative of local authorities required to be present at the pre-construction survey. The notice shall state the dates on which surveys are to be made. Copies of all notices shall be provided to the Engineer.

6-05.3(16)E Report Of Monitoring Results

In the event vibrations caused by the Contractor's operations approach the established limits for this project, the Engineer may require the Contractor to modify the pile driving operations to reduce the vibrations. If the ground vibration caused by the Contractor's pile driving operation attain or surpass the established limits, the operations shall cease. Vibration shall not be resumed until measures have been taken to reduce, to the satisfaction of the Engineer, the produced vibrations and/or air concussions below the established limits. The seismologist or vibration consultant should assist the Contractor in the design of the Contractor's pile driving to eliminate the problems and to avoid liability claims.

6-05.3(16)F Post-Driving Condition Survey

Upon completion of all pile driving work, the seismologist or vibration consultant shall conduct a post-construction condition survey of any properties, structures, and conditions for which complaints of damage have been received or damage claims have been filed. Notice shall be given to all interested parties so that they may be present during the final examination. Records of the final examination shall be distributed the same as the original pre-construction condition survey.
6-05.3(16)G Monitoring Locations

At a minimum, one seismograph shall be located at the nearest structure or as directed by the Engineer.

6-05.3(16)H Ground Vibration Limits

The ground vibration limits herein are based on published USBM RI8507 criteria.

The maximum peak particle velocity (PPV) of ground vibration, at any of the monitoring locations, in any of the three mutually perpendicular components of particle velocity, for above-ground, residential structures shall be limited based upon the frequency of the driving vibration as shown in the following graph:

![Graph showing USBM alternative blasting level criteria adapted from RI 8507, 1980](image)

The maximum PPV of ground vibrations, in any of the three mutually perpendicular components of particle velocity, for non-residential structures shall not exceed 2.0 in/s.

The maximum PPV of ground vibrations, in any of the three mutually perpendicular components of particle velocity, for underground utilities shall not exceed 2.0 in/s. Buried pipelines and other utilities owned by private utility companies are sometimes subject to lower limiting values imposed by the owner. The Contractor shall verify the maximum allowable PPV of ground vibrations allowed by the individual utilities. If lower limits are required, a special provision describing the limits or conditions required will be included in the proposal. The Vibration Plan shall be modified accordingly to avoid damage to such utility lines.

Deteriorated structures or utilities, structures housing computers or other sensitive equipment, and manufacturing processes that are sensitive to vibrations may require lower PPV limits than stated in this specification. If lower limits are required, a special provision describing the limits or conditions required will be included in the proposal.
The Contractor shall not conduct pile driving operations within 20 ft. of newly placed concrete (less than 14 days) without the written approval of the Engineer. For pile driving greater than 20 ft. away from new concrete, the following PPV ground vibration limits apply:

<table>
<thead>
<tr>
<th>Age of Concrete</th>
<th>Maximum PPV, in/s</th>
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<tbody>
<tr>
<td>Less than 3 days</td>
<td>No driving</td>
</tr>
<tr>
<td>After 3 days</td>
<td>1.0 in/sec</td>
</tr>
<tr>
<td>After 5 days</td>
<td>1.8 in/sec</td>
</tr>
<tr>
<td>After 7 days</td>
<td>2.0 in/sec</td>
</tr>
</tbody>
</table>

6-05.3(16)H  Vibration Monitoring Instrumentation

All vibration monitoring instrumentation proposed for use on the project by the Contractor shall comply with the following requirements:

1. Measure, display, and provide a permanent record on a strip chart of particle velocity components.
2. Measure the three mutually perpendicular components of particle velocity in directions vertical, radial, and perpendicular to the vibration source and produce a real time graphical depiction of the particle velocities recorded for each individual axis for the duration of the event. Additionally, the seismograph(s) shall produce a numeric record of the peak particle velocities and principle frequencies of the vibration recorded for each axis during the event.
3. Have a velocity frequency response of 2 Hz to 150 Hz, and be capable of measuring PPV of up to 10 in/s.
4. All seismographs used on the project shall display the date of the most recent calibration.
5. Calibration must have been performed within the last 12 months and must be performed to a standard traceable to the National Institute of Standards and Technology.
6. All instruments and their use shall fully conform to standards published by the Vibration Section of the International Society of Explosive Engineers (ISEE). Seismograph sensors shall be placed so good contact with the ground is achieved and weighted down with sandbags if necessary.

6-05.4 Measurement
This section is supplemented with the following:
Measurement for driving steel sheet piles complete in place (type) pile will be by the total linear footage of piles driven as measured along the construction baseline.

6-05.5 Payment
This section is supplemented with the following:
The cost of all vibration control and monitoring, pre-construction condition surveys, post-construction surveys, pile driving precautions, and other protective measures necessary to prevent damage and the subsequent creation of claims in connection with pile driving shall be included with the measurement for driving the steel sheet piles.
7-02 CULVERTS
(April 1, 2012 Tacoma GSP)

7-02.2 Materials
This section is supplemented with the following:

All culvert pipe shall have a smooth interior wall.

END OF SECTION
This section is deleted. The requirements of Section 7-17 shall apply to storm sewers.
7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS
(March 23, 2010 Tacoma GSP)

7-05.1 Description
This section is supplemented with the following:

All references to sanitary sewers shall be construed to also mean storm sewers.

7-05.3 Construction Requirements
The first sentence of the eleventh paragraph is revised to read:

A flexible pipe-to-manhole connector shall be used in all connections of rigid and thermoplastic pipes to new precast concrete manholes to provide a watertight joint between the pipe and the manhole, unless otherwise directed by the Engineer. The connector shall be “Kor-N-Seal” with “Wedge Korband” (Type I or II as required for pipe diameter), manufactured by NPC, Inc., Milford, New Hampshire, or Engineer approved equal. The connectors shall be installed in accordance with the manufacturer’s recommendations.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade
This section is revised to read:

7-05.3(1) Adjusting Utility Structures to Grade
Where shown in the Plans or where directed by the Engineer, utility structures shall be adjusted to grade as staked or as otherwise designated by the Engineer.

The materials and methods of construction shall conform to the requirements specified in Section 7-05.3 and Standard Plan No. SU-25. The finished structure shall conform to the requirements of the standard plan for the specific structure.

7-05.3(3) Connections to Existing Manholes
The first sentence is revised to read:

The Contractor shall inspect the existing manholes in the field to verify invert elevations and the scope of work necessary to make the connection(s) prior to construction.

7-05.4 Measurement
The sixth paragraph is revised to read:

Connections to existing structures will be measured per each.

This section is supplemented with the following:

Reconnecting existing sewer pipes to new manhole structures will be measured per each.

Manholes with Cast-in-Place Base will be measured per each.
Catch Basin Type 2 __ in excess of 10 feet in height will be measured per linear foot for each additional foot of height over 10 feet. Measurement will be the distance from the flow line of the outlet pipe to the top of the manhole ring measured to the nearest foot.

7-05.5 Payment
The first paragraph is supplemented with the following:

The unit Contract price for “Manhole____” shall be full pay for all work required to furnish and install the new manhole to finished grade, including, but not limited to, excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s), channeling, covers, frames, ladders, steps, and handholds, as applicable per Standard Plans.

The unit Contract price for “Catch Basin____” shall be full pay for all work required to furnish and install the new catch basin to finished grade, including, but not limited to, excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s), frame, cover, as applicable per Standard Plans.

The pay item for “Drop Manhole Connection” is revised to read:

“Drop Manhole Connection, ___-Inch Diam.”, per each.

The pay item for “Connection to Drainage Structure” is revised to read:

“Connect New Sewer Pipe ___-In. Diam. to Existing Structure”, per each

This section is supplemented with the following:

“Reconnect Existing Sewer Pipe, ___-In. Diam., to New Structure”, per each.

The unit Contract price per each shall be full pay for all labor, equipment and materials necessary to reconnect the existing sewer pipe to the new structure as specified in Section 7-05.3.

"Adjust Existing Catch Basin, Furnish New Frame and Grate", per each

The unit Contract price per each for “Adjust Existing Catch Basin, Furnish New Frame and Grate” shall be full pay for all costs associated with adjusting the frame and grate to finished grade, including but not limited to, excavating, furnish and place backfill, furnishing and installing the new frame and grate, compacting, surfacing, and restoration.

"Adjust Existing Manhole, Furnish New Frame and Cover", per each

The unit Contract price per each for “Adjust Existing Manhole, Furnish New Frame and Cover” shall be full pay for all costs associated with adjusting the frame and cover to finished grade, including but not limited to, excavating, furnish and place backfill, furnishing and installing the new frame and cover, compacting, surfacing, and restoration.

“Adjust Existing Valve Chamber to Grade”, per each
The unit Contract price per each for “Adjust Existing Valve Chamber to Grade” shall be full pay for all costs associated with the adjusting the valve chamber to finished grade, including but not limited to, excavating, furnish and place backfill, compacting, surfacing, and restoration.

“Manhole ___-In. Diam. Type ___, with Cast-in-Place Base”, per each.

The unit Contract price per each for “Manhole ___-In. Diam. Type ___, with Cast-in-Place Base” shall be full pay for all labor, equipment and materials required to furnish, excavate for, furnish and place backfill, compact, and install to finished grade the new manhole with a cast-in-place base, including, but not limited to, insuring proper support of existing main, channeling, connection of new pipe, covers, frames, ladders, steps, and handholds, as applicable per Standard Plans

“Catch Basin Type 2 Additional Height, ___ In. Diam.”, per linear foot.

END OF SECTION
7-07 CLEANING EXISTING DRAINAGE STRUCTURES
(March 23, 2010 Tacoma GSP)

7-07.3 Construction Requirements

Item three of paragraph two is revised to read:

3. If sediment and water from structures does not meet the conditions described in 1 or 2 above, the Contractor shall collect and dispose of all water used and all debris generated in cleaning operations. No cleaning water or debris shall be flushed downstream beyond the limits of the work.

END OF SECTION
7-08 GENERAL PIPE INSTALLATION REQUIREMENTS
(September 20, 2018 Tacoma GSP)

7-08.3 Construction Requirements

This section is supplemented with the following:

Material excavated in areas labeled on the Plans as contaminated shall be hauled to LRI Landfill, located at 30919 Meridian Street East, Graham, WA or an approved licensed solid waste disposal facility per Section 2-17 and 7-17 of these Specifications.

7-08.3(1)A Trenches
The tenth paragraph of this section is deleted. All dewatering requirements are found in section 8-01.3(1)C.

7-08.3(1)C Bedding the Pipe
This section is supplemented with the following:

Pipe bedding for sanitary and storm sewers shall be in accordance with City of Tacoma Standard Plan No. SU-16.

7-08.3(2)F Plugs and Connections
This section is supplemented with the following:

Rigid Couplings, manufactured by Romac Industries, Inc., or Engineer approved equal, shall be used at any pipe joint in which bell and spigot or fused joints are not used. Flexible couplings are not permitted, except for side sewer installation.

7-08.3(2)G Jointing of Dissimilar Pipe
This section is revised to read:

Dissimilar pipe shall be joined by use of rigid couplings manufactured by Romac Industries, Inc., or Engineer approved equal, except for side sewer installation.

7-08.3(3) Backfilling
The second paragraph is revised to read:

Pipe zone bedding and trench backfill shall be in accordance with City of Tacoma Standard Plan No. SU-16. (Pipe zone backfill shall meet the requirements of Section 9-03.9(3) for Crushed Surfacing Top Course. Backfill above pipe zone and extra excavation area backfill material shall meet the requirements of Section 9-03.12(2), Gravel Backfill for Walls.) Recycled concrete shall not be used for pipe zone bedding, pipe zone backfill, backfill above pipe zone, and extra excavation area backfill.

The fourth paragraph is revised to read:

Backfill above the pipe zone shall be accomplished in such a manner that the pipe will not be shifted out of position nor damaged by impact or overloading. If pipe is being placed in a new embankment, backfill above the pipe zone shall be placed in accordance with Section 2-03.3(14)C. If pipe is being placed under existing paved areas, or roadways, backfill above the pipe zone shall be placed in horizontal layers no more
than 12-inches thick and compacted to 95-percent maximum density. If pipe is being placed in non-traffic areas, backfill above the pipe zone shall be placed in horizontal layers no more than 12-inches thick and compacted to 85-percent maximum density. All compaction shall be in accordance with the Compaction Control Test of Section 2-03.3(14)D. Material excavated from the trench shall be used for backfill above the pipe zone, except that organic material, frozen lumps, wood, rocks, or pavement chunks larger than 6-inches in maximum dimension shall not be used. Material determined by the Engineer to be unsuitable for backfill at the time of excavation shall be removed and replaced with imported backfill material meeting the requirements of Section 9-03.12(2). Material determined to be suitable for backfill at the time of excavation shall be stockpiled and used for backfill material. If the stockpiled material becomes unsuitable, the Contractor shall furnish suitable material in an amount equal to that, which became unsuitable, at no expense to the Contracting Agency.

Section 7-08.3 is supplemented with the following:

7-08.3(5) Temporary Bypass Pumping

It shall be the Contractor’s responsibility to maintain operation of the existing storm and/or sanitary sewer systems throughout the duration of the project without any interruption of sewer service. The Contractor shall divert all flows around each segment of the pipe designated for replacement. This diversion shall consist of redirecting flow from an upstream manhole and pumping it to a manhole downstream of the replacement operation. After the pipe replacement work is completed and accepted by the City, flow shall be returned to the reconstructed storm or sanitary sewer. The area affected by the bypass operation shall be fully restored.

Bypass pumping shall be scheduled for continuous operation with back-up equipment available at all times for periods of maintenance and refueling or failure of the primary bypass pump(s) or diversion system. If the Contractor’s operation requires bypass pumping at night, he/she must provide monitoring personnel at all times to ensure the system remains functional.

Bypass pumping shall be done in such a manner as not to damage private or public property, or create a nuisance or public menace. The pumped sewage or stormwater shall be in enclosed hoses or pipes that are adequately protected from traffic, and shall be redirected into the appropriate sewer system. The discharge of storm water to private property, city streets, sidewalks, sanitary sewer, or any location other than an approved storm sewer is prohibited. The discharge of sewage to private property, city streets, sidewalks, storm sewer, or any location other than an approved sanitary sewer is prohibited. The Contractor shall be liable for all cleanup, damages, and resultant fines should the Contractor’s operation cause any backups, overflows, or property damage. The Contractor’s bypass operation shall be sized to handle, at a minimum, the full pipe capacity in each subject line removed from service. If flow conditions are greater than full pipe, the Contractor may elect to wait for flow conditions to subside prior to removing the subject line from service. Working days may be adjusted per Specification 1-08.5. Once the Contractor removes a section of line from service he/she is responsible to bypass any and all flow in the system during construction, even in the event the system surcharges and exceeds the full pipe capacity, until the line is returned to service.
The City’s estimates of gravity flows in the existing sewers assuming full pipe are as follows:

A. ###-Inch Diameter Storm Sewer: ### gpm  (### cfs)
B. ###-Inch Diameter Sanitary Sewer: ### gpm  (### cfs)

The Contractor shall submit a Bypass Pumping Plan in accordance with Section 1-05. The Contractor’s plan for bypass pumping shall be reviewed by the City before the Contractor will be allowed to commence bypass pumping. The review of the bypassing system and equipment by the Engineer shall in no way relieve the Contractor of his responsibility and public liability.

The Contractor shall use hard pipe to bypass sewers 12-inches in diameter or greater. The Contractor shall not block any driveways or intersections, but shall bury the pipe to allow continuous access through intersections and driveways.

The Contractor may use lay-flat hose to bypass storm and sanitary sewers that are less than 12 inches in diameter. The Contractor shall ensure that sewage spills do not occur with the use of lay flat hoses. If sewage spills occur, the Contractor will be required to use hard pipe for all sanitary sewers.

**7-08.3(6) Abandon Existing Pipe**

If construction of the new sewer pipe does not result in the removal of the existing pipe due to differing alignments, then the existing pipe shall be abandoned in place as shown in the Plans. The Contractor shall plug all pipe branches, stubs, or other open ends of the pipe to be abandoned and fill with CDF. The Contractor shall submit a Pipe Abandonment Plan in accordance with Section 1-05.3 describing the proposed methods for filling the pipes with CDF, specifically addressing how the pipes will be filled in a manner that will prevent air pockets from being left in the abandoned pipe. The CDF mix design shall meet the requirements of Section 2-09.3(1)E.

If the pipes to be abandoned are removed and disposed of during construction of the new sewers, all costs for the removal and disposal shall be included in the unit contract price for “Structure Excavation, Class B,” at per cubic yard.

**7-08.4 Measurement**

*This section is supplemented with the following:*

No specific measurement shall apply to the lump sum item “Temporary ____ Sewer Bypass”.

No specific measurement shall apply to the lump sum item “Temporary ____ Sewer Bypass Plan”.

Abandonment of existing sewer pipes will be measured by the cubic yard of CDF necessary to fill the existing pipes.
7-08.5 Payment

This section is supplemented with the following:

“Temporary ___ Sewer Bypass”, per lump sum.

The lump sum Contract prices for “Temporary ___ Sewer Bypass” shall be full payment for labor, equipment, and materials, including but not limited to, personnel, fuel, monitoring, power, pumps, piping, barricades, emergency stand-by equipment, trenching, surface restoration costs, and all other work necessary to maintain uninterrupted storm and sanitary sewer services by bypassing the applicable sewer system flows.

“Temporary ___ Sewer Bypass Plan”, per lump sum

The lump sum Contract price for “Temporary ___ Sewer Bypass Plan” shall be full pay for all costs, including but not limited to, preparing, submitting, revising, and resubmitting revisions for the Temporary Bypass Plan.

“CDF for Pipe Abandonment”, per cubic yard.

The unit Contract price for “CDF for Pipe Abandonment” shall be full payment for all labor, materials, and equipment necessary to abandon the sewer pipes.

END OF SECTION
7-17  SANITARY SEWERS
(March 4, 2014 Tacoma GSP)

7-17.1 Description
This section is supplemented with the following:

All references to sanitary sewer shall also mean storm sewers.

7-17.2 Materials
The first paragraph is revised to read:

Pipe materials used for storm and sanitary sewers shall be as shown on plans. All references to PVC shall mean Solid Wall PVC Sewer Pipe. Profile Wall PVC will not be permitted.

This section is supplemented with the following:

Polyvinyl Chloride (PVC) Pressure Pipe (4-inches and over) 9-30.1(5)A

7-17.3 Construction Requirements
This section is supplemented with the following:

Material excavated in areas labeled on the Plans as contaminated shall be hauled to LRI Landfill, located at 30919 Meridian Street East, Graham, WA or an approved licensed solid waste disposal facility per Section 2-17 of these Specifications.

7-17.3(2)A General
The first paragraph is revised to read:

Sewers and appurtenances shall be cleaned and tested after backfilling by either exfiltration or low-pressure air method at the option of the Contractor, except where the ground water table is such that the Engineer may require the infiltration test.

7-17.3(2)H Television Inspection
The first sentence is revised to read:

The Contracting Agency will video inspect all sanitary and storm sewers prior to paving where paving occurs over sewers, or prior to final acceptance.

7-17.4 Measurement
This section is supplemented with the following:

Removal and replacement of unsuitable, contaminated and non-contaminated, backfill material will be determined by the cubic yard in place, based on a neat line measurement per this Section and Section 2-09. Any removal and replacement of unsuitable material outside neat line measurement shall be incidental to the Bid item.

Horizontal Limits: The horizontal limits shall be as defined in Section 2-09.4.

Longitudinal Limits: The longitudinal limits shall be as defined in Section 2-09.4.
**Lower Limits:** The lower limits shall be the top of the pipe zone as shown on Standard Plan No. SU-16.

**Upper Limits:** The upper limits shall be the subgrade elevation of the proposed roadway section or pavement patch section.

All costs associated with the disposal of material located above the upper limits shall be included in the unit contract price for other items of work, unless a proposal item is included for this specific item of work.

Pipe zone limits are as defined in Standard Plan SU-16.

**7-17.5 Payment**

The first paragraph is supplemented with the following:

“PVC Storm Sewer Pipe ___In. Diam.”, per linear foot.

The second paragraph is revised to read:

The unit Contract price per linear foot for sewer pipe of the kind and size specified shall be full pay for the furnishing, hauling, and assembling in place the complete installation, including but not limited to, disposal of material excavated within the pipe zone, furnishing and installing pipe bedding and backfill material within the pipe zone, and all wyes, tees, special fitting, joint materials, and other appurtenances necessary for the completion of the installation to the required line and grade, unless proposal items are included for these specific items of work.

The pay item “Removal and Replacement of Unsuitable Material” is revised to read:

“Removal and Replacement of Unsuitable Material”, per cubic yard.

The unit Contract price per cubic yard for “Removal and Replacement of Unsuitable Material” shall be full pay for all work required to haul and dispose of the unsuitable material as specified in Section 7-08.3(1A) and the furnishing of suitable backfill material as specified in Section 7-08.3(3).

For the purpose of providing a common proposal for bidders, the proposal quantity for “Removal and Replacement of Unsuitable Material” is based on removal and replacement of all backfill material.

This section is supplemented with the following:


The unit Contract price per cubic yard for “Removal and Replacement of Unsuitable Contaminated Material, Incl. Haul” shall be full pay for all work required to haul to LRI or other approved facility, disposal of the unsuitable material as specified in Section 7-08.3(1A), including disposal fees, and the furnishing of suitable backfill material as specified in Section 7-08.3(3).
“Pipe Zone Contaminated Material Haul and Disposal”, per cubic yard.

The unit Contract price per cubic yard for “Pipe Zone Contaminated Material Haul and Disposal” shall be full pay for all work required to haul and dispose of the pipe zone material as defined on Standard Plan SU-16, including disposal fees.

END OF SECTION
7-18 SIDE SEWERS
(March 4, 2014 Tacoma GSP)

7-18.1 Description
This section is supplemented with the following:

The Contractor shall remove and replace existing side sewers as defined on the Plans and reconnect the existing side sewer. The location of the side sewer at the main is estimated based on a TV inspection of the main and may vary in either direction. The actual location at the point of reconnection is unknown.

7-18.3(1) General
This section is supplemented with the following:

The Contractor shall use solid wall PVC pipe meeting the requirements of Section 9-05.12(1) for all side sewers located 10 feet or more from a water service. If the side sewer is located within 10 feet of a water service, the Contractor shall use solid wall PVC pressure pipe meeting the requirements of Section 9-30.1(5)A. If the side sewer crosses above a water main, the side sewer shall be encased per the Department of Ecology Criteria for Sewage Works Design (Orange Book) Section C1-9.1.4A. Any encasement of side sewers shall be paid for under force account per Section 1-09.6.

7-18.4 Measurement
This section is supplemented with the following:

Measurement for payment shall be by the linear foot of pipe installed, and shall be along the pipe invert, through tees, wyes and other fittings, from the centerline of the main to the centerline of the cleanout.

7-18.5 Payment
The second paragraph is revised to read:

The unit Contract price per linear foot for sewer pipe of the various kind and size specified shall be full pay for furnishing, hauling and assembling in place the completed installation including all wyes, tees, special fittings, joint materials, bedding material, and end pipe marker, and any other items necessary for the completion of the installation, unless Proposal items are included for these specific items of Work.
7-19 SEWER CLEANOUTS
(May 13, 2009 Tacoma GSP)

7-19.3 Construction Requirements
The third sentence of the first paragraph is deleted.
The fourth sentence of the third paragraph is deleted.

7-19.5 Payment
The third paragraph is revised to read:
The unit Contract price for “Sewer Cleanout” shall be full pay for furnishing and placing
the wye, pipe, pipe bends, pipe plug, castings, and collar as specified herein and as
shown on Standard Plan SU-24.

END OF SECTION
8-01  EROSION CONTROL AND WATER POLLUTION CONTROL
(April 1, 2018 Tacoma GSP)

8-01.1 Description
This section is supplemented with the following:

The City of Tacoma Stormwater Management Manual is available on the City’s website at www.cityoftacoma.org/stormwatermanual.

8-01.3(1) General
This section is supplemented with the following:

8-01.3(1)A Submittals
This section is revised to read:

The Contractor shall prepare and implement a project-specific Construction Stormwater Pollution Prevention Plan (SWPPP) in accordance with the City of Tacoma Stormwater Management Manual (SWMM), Volume 2. The SWPPP is a document that describes the potential for pollution problems on a construction site and explains and illustrates the measures to be taken on the construction site to control those problems.

The Construction SWPPP shall be prepared as a stand-alone document consisting of two sections: Section 1) Construction SWPPP Narrative and Section 2) Temporary Erosion and Sediment Control (TESC) Plans.

The Contracting Agency has prepared the Construction Stormwater Pollution Prevention Plan Checklist to aid the Contractor in development of the SWPPP. This checklist provides the Contractor with a tool to determine if all the major items are included in the Construction SWPPP and on the TESC Plans and can be found in Volume 2, Chapter 2 of the SWMM. Contractors are encouraged to complete and submit this checklist with the Construction SWPPP.

The Department of Ecology has prepared a SWPPP template that can be used for projects in the City of Tacoma. The template can be found on Ecology’s website at: http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html. The Contractor developing the SWPPP must ensure that all references are appropriate for the City of Tacoma.

The SWPPP is considered a “living” document that shall be revised to account for additional erosion control/pollution prevention BMPs as they become necessary and are implemented in the field during project construction. A copy of the most current SWPPP and TESC Plan shall remain on-site at all times and an additional copy shall be forwarded to the Engineer. At the Contractor’s preference, revisions to the SWPPP and TESC Plan may be forwarded to the Engineer rather than submitting a complete document. Revisions to the SWPPP and TESC Plan may be kept on-site in a file along with the original SWPPP document.

The Contractor shall provide Stormwater Pollution Prevention Plan inspection reports or forms per 8-01.3(1) B to the Project Engineer no later than the end of the next working day following the inspection.
8-01.3(1)B Erosion and Sediment Control (ESC) Lead

This section is revised to read:

The Contractor shall identify the ESC Lead at the Preconstruction Meeting and the contact information for the ESC Lead shall be added to the Stormwater Pollution Prevention Plan (SWPPP) Report and the Temporary Erosion and Sediment Control (TESC) Plan Sheet. The ESC Lead shall maintain, for the life of the contract, a current Certified Erosion and Sediment Control Lead (CESCL) certificate or maintain a current Certified Professional in Erosion and Sediment Control (CPESC) certificate from a course approved by the Washington State Department of Ecology. The CESCL or CPESC shall be listed on the Emergency Contact List required under Section 1-05.13(1).

The CESCL or CPESC shall direct implementation of the measures identified in the SWPPP and as shown on the TESC plan. Implementation shall include, but is not limited to the following:

1. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the SWPPP and as shown on the TESC plan. Damaged or inadequate BMPs shall be corrected as needed to assure continued performance of their intended function in accordance with BMP specifications and Permit requirements.

2. Performing monitoring as required by the NPDES Construction Stormwater General Permit.

3. Inspecting all on-site erosion and sediment control BMPs at least once every calendar week and within 24 hours of any discharge from the site. A SWPPP Inspection report or form shall be prepared for each inspection and shall be included in the SWPPP file. A copy of each SWPPP Inspection report or form shall be submitted to the Engineer no later than the end of the next working day following the inspection. The report or form shall include, but not be limited to the following:

   a. When, where, and how BMPs were installed, maintained, modified, and removed.

   b. Observations of BMP effectiveness and proper placement.

   c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal SWPPP inadequacies.

   d. Approximate amount of precipitation since last inspection and when last inspection was performed.

4. Updating and maintaining a SWPPP file on site that includes, but is not limited to the following:

   a. SWPPP Inspection Reports or Forms.

   b. SWPPP narrative.

   c. National Pollutant Discharge Elimination System Construction Stormwater General Permit (Notice of Intent).

   d. All documentation and correspondence related to the NPDES Construction Stormwater General Permit.

   e. Other applicable permits.

Upon request, the file shall be provided to the Engineer for review.
8-01.3(1)C Water Management

This section is revised to read:

General. The Contractor is responsible for keeping excavations free from standing water during construction and disposing of the water in a manner that will not cause pollution, injury to public or private property, or cause a nuisance to the public. Groundwater flowing toward, into, or within excavations shall be controlled to prevent sloughing of excavation walls, boils, uplift, and heave in the excavation, and to eliminate interference with orderly progress of construction. The control of groundwater shall be such that softening of the bottom of excavations, or formation of “quick” conditions or “boils” during excavation, shall not occur. The Contractor is responsible for all foundation material required due to lack of dewatering efforts.

Dewatering Requirements. The Contractor shall design, construct, and operate a dewatering system in accordance with this Section and the SAD Authorization. The Contractor shall have competent workers available at all times for the continuous and successful operation of the dewatering and monitoring system.

Dewatering Plan. The Contractor shall submit a dewatering plan to the Engineer for review in accordance with Section 1-05.3 prior to the start of construction. Review of the dewatering plan submitted by the Contractor shall not relieve the Contractor from full responsibility for adequate design and performance of the system. The Contractor shall be solely responsible for the proper design, installation, operation and maintenance of the dewatering system. The Contractor shall be liable for any damages caused by system failure.

The dewatering plan shall include the following components:

1. System Components – Describe the method and equipment proposed for dewatering the excavation. The Contractor shall have on hand sufficient pumping equipment and machinery in good working condition for all emergencies, including power outage and flooding.

2. Treatment Method – Describe how dewatering water that is to be discharged to the City’s sanitary sewer system will be treated to meet the applicable discharge limits of the Special Approved Discharge Authorization and Tacoma Municipal Code 12.08. Provide applicable calculations.

3. Point of Discharge – Describe the point of discharge of the dewatering water. Any discharges to private property will require written documentation from the property owner that this point of discharge is permitted. The Contractor shall provide all proposed points of discharge as part of the Special Approved Discharge Authorization Application.

4. Maintenance Plan – Describe how the designed system will be maintained over the course of the project.

5. Monitoring Plan – Describe how discharge will be monitored to ensure compliance with all discharge requirements.

6. Special Approved Discharge (SAD) Authorization Application – The Contractor shall apply for a SAD Authorization as part of the dewatering plan. No discharge of dewatering water to the City’s sewer systems will be permitted without obtaining this authorization. The City Construction
Manager will provide the SAD authorization application to the Contractor after award of the contract.

Requirements for Dewatering Water Discharge to the Storm Sewer System.
Dewatering water will not be permitted to be discharged into the stormwater system on this project.

Requirements for Dewatering Water Discharge to the Sanitary Sewer System.
Prior to discharge of dewatering water to the City’s sanitary sewer system, sediment control BMPs must be employed. Groundwater discharges to the sanitary sewer system shall have 225 mg/L or less of Total Suspended Solids (TSS). TSS analysis may be completed by the City Lab with a three-day turnaround, or by a third party laboratory at no additional cost to the City.

In addition to the TSS Requirements, the water shall contain no visible oil sheen or chemical odors. If the Contractor encounters any signs of oil within the soil or dewatering water, including any sheen on the water, and/or any chemical odor in the water or soils, the Engineer and Source Control shall be notified immediately and all discharges to the sanitary sewer system shall be stopped immediately.

In the presence of oil sheens and/or chemical odors, the Contractor shall test the dewatering water prior to discharge for contaminants referenced in the Special Approved Discharge Authorization and Tacoma Municipal Code 12.08.020. All discharges to the City’s sanitary sewer system shall not exceed the limits of the Special Approved Discharge Authorization or TMC 12.08.020, whichever is most stringent.

The Contractor shall control the flow of water into the downstream system to ensure that the capacity of the City’s sanitary sewer system is not exceeded as a result of the additional flows caused by the dewatering water. The Contractor shall contact the Engineer to request pipe capacity information for the Contractor’s proposed discharge points.

The Contractor shall measure and record in gallons the total quantity of dewatering water discharged to the sanitary sewer system. This can be done by metering the flow or calculating batch discharges based on the volume of tanks used. In accordance with the SAD Authorization, the Contractor shall report the discharge quantities with the associated test results to Source Control.

8-01.3(2) Seeding, Fertilizing, and Mulching

8-01.3(2)A1 Seeding
The first paragraph is supplemented with the following:
The depth of cultivation shall be 6 inches.

8-01.3(7) Stabilized Construction Entrance
The third paragraph is revised to read:
When the contract requires a wheel wash in conjunction with the stabilized entrance, the details for the wheel wash and the method for containing and treating the sediment-laden runoff shall be included as part of the SWPPP and TESC Plan.
8-01.3(8) Street Cleaning
The third paragraph is revised to read:

Street washing with water shall not be permitted.

8-01.3(9)D Inlet Protection
Replace the third paragraph of this section with the following:

When the depth of accumulated sediment and debris reaches approximately 1/3 the height of an internal device or 1/3 the height of the external device (or less when so specified by the manufacturer), or as designated by the Engineer, the sediment and debris shall be removed and disposed of per SWMM BMP C220 or as specified on the Plans or within the SWPPP.

The section is supplemented with the following:

Only bag-type filters are allowed for use in the public right of way.

8-01.3(10) Wattles
The fifth and sixth sentences are revised to read:

On gradually sloped or clay-type soils trenches shall be 3 to 5 inches deep. On loose soils, in high rainfall areas, or on steep slopes, trenches shall be 3 to 5 inches deep, or 1/2 to 2/3 the thickness of the wattle.

8-01.4 Measurement
The third paragraph is revised to read:

Check dams will be measured by the linear foot along the ground line of the completed check dam. No additional measurement will be made for check dams that are required to be rehabilitated or replaced due to wear.

This section is supplemented with the following:

No specific unit of measurement shall apply to the lump sum item “Stormwater Pollution Prevention Plan (SWPPP)”.

Add the following new sections:

8-01.4(1) Lump Sum Bid for Project (No Unit Items)

When the bid Proposal contains the item “Erosion/Water Pollution Control”, there will be no measurement of unit items for Work defined by Section 8-01.4 except as described in Section 8-01.4(2). Also, except as described in Section 8-01.4(2), all of Sections 8-01.4 and 8-01.5 are deleted.

8-01.4(2) Reinstating Unit Items with Lump Sum Erosion/Water Pollution Control

The Contract Provisions may establish the project as lump sum, in accordance with section 8-01.4(1) and also include one or more of the items included above in section 8-01.4. When that occurs, the corresponding measurement provision in Section 8-01.4 is not deleted and the Work under that item will be measured as specified.
The bid proposal contains the item “Erosion/Water Pollution Control,” lump sum and the additional erosion control items listed below. The provisions of Section 8-01.4(1), Section 8-01.4(2), and Section 8-01.5(2) shall apply.

“ESC Lead,” per Day

“Inlet Protection,” per each

No specific unit of measurement shall apply to the lump sum item “Stormwater Pollution Prevention Plan (SWPPP)”.

8-01.5 Payment

The pay item “Erosion/Water Pollution Control”, by force account as provided in Section 1-09.6 is revised to read:

Installation, maintenance, and removal of erosion and water pollution control devices including removal and disposal of sediment, stabilization and rehabilitation of soil disturbed by these activities and any additional Work deemed necessary by the Engineer to control erosion and water pollution will be paid by force account in accordance with Section 1-09.6. Directing implementation by ESC Lead of the measures identified in the SWPPP, shown on the TESC plan, and all other work as included in Section 8-01.3(1)B shall be paid by force account as provided in Section 1-09.6.

This section is supplemented with the following:

Where removal of erosion control BMPs is directed by the Engineer according to 8-01.3(16) or according to these specification and the plans, removal shall be included in the lump sum or unit cost for these respective BMPs.

“Erosion Control”, per lump sum. The lump sum contract price for “Erosion Control” shall be full pay for all cost for labor, equipment, and materials to perform all work associated with erosion control. Work shall include, but shall not be limited to, furnishing, purchase and delivery or required materials, installation and maintenance of temporary erosion and sediment control measures, and all costs incurred by the Contractor in performing the Contract Work defined in Section 8-01, except for unit bid items in Section 8-01 when these are included in the bid proposal. It is the Contractor’s responsibility to maintain, repair, and replace any and all erosion control measures as required to maintain compliance with the NPDES Construction Stormwater General Permit and Tacoma Municipal Code 12.08 for the entire duration of the Project.

“Stormwater Pollution Prevention Plan (SWPPP)”, per lump sum. The lump sum contract price for “Stormwater Pollution Prevention Plan (SWPPP)” shall be full pay for all costs, including but not limited to, preparing, submitting, revising, and resubmitting revisions for the Stormwater Pollution Prevention Plan.

“Temporary Erosion and Sediment Control BMP Maintenance”, Force Account or Lump Sum. Any maintenance necessary due to stormwater events shall be paid by force account. Any other maintenance needed shall be considered for the contractor’s benefit and be paid by lump sum.
Add the following new sections:

8-01.5(1) Lump Sum Bid for Project (No Unit Items)

“Erosion/Water Pollution Control”, per lump sum

The lump sum contract price for “Erosion/Water Pollution Control” shall be full compensation for all costs incurred by the Contractor in performing the Contract Work defined in Section 8-01, except for costs compensated by Bid Proposal items inserted through Contract Provisions as described in Section 8-01.5(2)

Where removal of erosion control BMPs is directed by the engineer according to 8-01.3(16) or according to these specifications and the plans, removal shall be included in the lump sum or unit cost for these respective BMPs.

8-01.5(2) Reinstating Unit Items with Lump Sum Erosion/Water Pollution Control

The Contract Provisions may establish the project as lump sum, in accordance with section 8-01.4(1) and also reinstate the measurement of one or more of the items described in section 8-01.4. When that occurs, the corresponding payment provision in Section 8-01.5 is not deleted and the Work under that item will be paid as specified.

This section is supplemented with the following:

“ESC Lead,” per Day

“Inlet Protection,” per each

“Stormwater Pollution Prevention Plan (SWPPP)”, per lump sum

The lump sum contract price for “Stormwater Pollution Prevention Plan (SWPPP)” shall be full pay for all costs, including but not limited to, preparing, submitting, revising, and resubmitting revisions for the Stormwater Pollution Prevention Plan.

END OF SECTION
8-02  ROADSIDE RESTORATION
(April 1, 2018 Tacoma GSP)

8-02.3 Construction Requirements

8-02.3(5) Planting Area Preparation
This section is supplemented with the following:

All grades shall be maintained in the areas to be planted in a true and even condition. The contractor shall be careful not to disturb any of the existing or cut slopes. Where final grades have not been established, the areas shall be finish graded and all surfaces left in an even and compacted condition. The finished grade shall be such that after planting, the grade shall be flush with adjoining surfaces; positive drainage shall also be maintained.

8-02.3(6) Soil Amendments
This section is supplemented with the following:

Recycled/compost material in accordance with Section 9-14.4(8) shall be blended with the specified topsoil at a ratio of 1/1 by volume.

8-02.3(9) Pruning, Staking, Guying and Wrapping
This section is supplemented with the following:

Crossed or rubbing branches shall be removed providing the natural shape of the tree is preserved. Under no circumstances shall pruning be done prior to inspection and approval of plants by the Engineer. All cuts shall be made flush with the parent stem leaving no stubs. Pruning cuts shall be made in a manner to favor the earliest possible covering of the wound by callus growth. Cuts that produce large wounds and weaken the tree will not be acceptable.

Top growth removal to compensate for root loss shall not exceed one-third (1/3) of the top growth unless otherwise specified or directed by the Engineer. Cuts created 3/4 inch in diameter shall be treated with an approved tree wound dressing. All pruning shall produce a clean cut without bruising or tearing the bark and shall be in living wood where the wood can properly heal over.

Evergreens shall not be pruned, except to remove injured branches. The use of pole shears and/or hedge shears for pruning deciduous and evergreen trees will not be permitted. All trimmings and other debris left over from the planting operations shall be collected and disposed of off the site.

All evergreen trees and deciduous trees over 15 feet in height shall be guyed with three wires or cables.

All deciduous and evergreen trees shall be staked the same day of planting.
8-02.3(10) Fertilizers

This section is supplemented with the following:

Fertilizer shall be supplied and applied in the form and rates indicated below:

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<th>Type of Fertilizer</th>
<th>Application Rate</th>
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8-02.3(11) Bark or Wood Chip Mulch

The third sentence of the first paragraph is revised to read:

Mulch shall be feathered to plant material trunks, stems, canes, or root collars, and level with the top of junction and valve boxes, curbs and pavement edges.

This section is supplemented with the following:

Bark or wood chip mulch in accordance with Section 9-14.4(3) shall be applied to a depth of 6 inches at the location indicated on the Plans or as directed by the Engineer.

8-02.3(13) Plant Establishment

This section is revised to read:

The Contractor shall maintain the planting areas and all plants planted within the project limits to ensure the resumption and continued growth of the planted material until physical completion of the contract.

Maintenance shall include, but not be limited to, labor and materials necessary for removal of foreign, dead, or rejected plant material, maintaining a weed-free condition, and the replacement of all unsatisfactory plant material planted under the contract.

Planting dates for replacement plant material will be approved by the Engineer.

The Contractor shall meet with the Engineer for the purpose of joint inspection of the project once installation has been completed and thereafter on a periodic “as needed” basis as determined by the Engineer, until the physical completion date of the contract.

All conditions unsatisfactory to the Engineer shall be corrected by the Contractor within a ten-day period immediately following the inspection. Failure to comply with corrective steps as outlined by the Engineer shall constitute justification of the Contracting Agency to take corrective steps and to deduct all costs thereof from any monies due the Contractor.

The Contractor shall replace all plants stolen or damaged by the acts of others until the physical completion date of the contract.
8-02.3(14) Plant Replacement

This section is revised to read:

The Contractor shall provide the Contracting Agency a one (1) year non pro-rated, full labor and materials warranty for all planted material. The warranty shall cause the Contractor to remove and replace all rejected plant material during the warranty period. The warranty period shall begin at the date of physical completion of the contract and end one calendar year from that date.

The Contractor shall be responsible for growing or providing enough plants for replacement of all plant material rejected during the warranty period. All rejected plant material shall be replaced at dates approved by the Engineer.

All replacement plants shall be of the same species and quality as the plants they replace. Plants may vary in size reflecting one season of growth should the Contractor elect to hold plant material under nursery conditions for an additional year to serve as replacement plants.

Replacement plants will be subject to the original warranty provision as stated above.

8-02.3(16) Lawn Installation

The third paragraph is supplemented with the following:

Where no irrigation system is to be installed, the lawn shall be placed during the following period only:

March 1st – June 30th
September 1st - October 25

The fifth paragraph is supplemented with the following:

Topsoil shall be tilled to a depth of 6 inches.

The sixth paragraph is supplemented with the following:

On sloped areas, the sod strips shall be laid perpendicular to the flow of water.

8-02.3(16)B Lawn Establishment

This section is supplemented with the following:

Lawn that is replaced shall be of the same mixture and grade as the surviving lawn.

8-02.4 Measurement

The first paragraph is revised to read:

Topsoil, mulch and soil amendments will be measured by the cubic yard in the haul conveyance at the point of delivery.

The seventh paragraph is revised to read:

Compost will be measured by the cubic yard in the haul conveyance at the point of delivery.
This section is supplemented with the following:

Irrigation water used to establish vegetation will be considered included in the cost of plants.

8-02.5 Payment
The pay item for “Plant Selection” is revised to read

“Plant Selection ___”, per each.

Payment for “Plant Selection ___” shall be full pay for all materials, labor, tools, equipment and supplies necessary for weed control within planting areas, planting area preparation, fine grading, planting, cultivating, and clean-up for the particular items called for in the Plans until the physical completion date of the contract. A one (1) year plant warranty shall be included in the unit contract price.

Paragraphs 7 through 18, pertaining to partial payment, are deleted.

The pay unit of square yards will be used in lieu of acres.

The following pay items are revised to read:

“Topsoil Type __”, per cubic yard

The unit contract price per cubic yard for “Topsoil Type __” shall be full pay for providing the source of material for Topsoil Type A and C, for pre-excavation weed control, excavating, loading, hauling, intermediate windrowing, stockpiling, weed control on stockpiles or windrows, and removal, placing, spreading, processing, cultivating, and compacting topsoil Type A, Type B, and Type C.

“Fine Compost”, per cubic yard

“Medium Compost”, per cubic yard

“Coarse Compost”, per cubic yard

The unit contract price per cubic yard for “__ Compost” shall be full pay for furnishing and spreading the compost onto the existing soil.

“Soil Amendment”, per cubic yard

The unit contract price per cubic yard for “Soil Amendment” shall be full pay for furnishing and incorporating the soil amendment into the existing soil.

“Bark or Wood Chip Mulch”, per cubic yard

The unit contract price per cubic yard for “Bark of Wood Chip Mulch” shall be full pay for furnishing and spreading the compost onto the existing soil.

END OF SECTION
8-03 IRRIGATION SYSTEM
(April 1, 2018 Tacoma GSP)

8-03.3 Construction Requirements
The third paragraph is supplemented with the following:
All electrical work from the electrical source to the controller junction box must be
completed by a licensed electrical contractor

8-03.3(5) Installation
The first sentence of the second paragraph is revised to read:
Final position of turf heads shall be level or ½ inch below finished grade measured from
the top of the sprinkler.

The fourth paragraph is revised to read:
Final position of valve boxes, capped sleeves, and quick coupler valves shall be level
with the finished grade or mulch.

This section is supplemented with the following:
The Contractor shall advise the Engineer at least 24 hours before pressure tests are to
be conducted.

A zone diagram shall be posted in the controller to facilitate the selection of the valves to
be operated.

END OF SECTION
8-04 CURBS, GUTTERS, AND SPILLWAYS
(April 1, 2018 Tacoma GSP)

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways
The first paragraph is revised to read:

Cement concrete curb, curb and gutters, gutters, and spillways shall be constructed
with air entrained concrete Class 3000 conforming to the requirements of Section 6-02.

Section 8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways is supplemented with
the following:

8-04.3(1)C Integral Cement Concrete Curb

When integral curb is being constructed with the pavement, fresh concrete for the
integral curb shall be placed at such time as will enable the top section of the curb to be
consolidated, finished, and bonded to the pavement slab while the concrete is plastic.

Where curb is not being placed integral with the pavement slab, reinforcing steel dowels
shall be placed in the base section for the curb in accordance with the standard drawing.

Section 8-04.3 Construction Requirements is supplemented with the following:

8-04.3(6) Cold Weather Work

The following additional requirements for placing concrete shall be in effect from
November 1 to April 1:

- The Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later than 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no
  concrete shall be placed until the ground is completely thawed. At that time, the
  forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-04.5 Payment
This section is supplemented with the following:

“Integral Cement Conc. Traffic Curb”, per linear foot
“Extruded Curb Type _______”, per linear foot.

END OF SECTION
8-06  CEMENT CONCRETE DRIVEWAY ENTRANCES
(April 1, 2018 Tacoma GSP)

8-06.3 Construction Requirements
The first paragraph is revised to read:
Cement concrete driveway approaches shall be constructed with air entrained concrete
Class 3000 conforming to the requirements of Section 6-02 or Portland Cement
Concrete Pavement conforming to the requirements of Section 5-05.

This section is supplemented with the following sub-section:

8-06.3(1) Cold Weather Work
The following additional requirements for placing concrete shall be in effect from
November 1 to April 1:

• The Engineer shall be notified at least 24 hours prior to placement of concrete.
• All concrete placement shall be completed no later than 2:00 p.m. each day.
• Where forms have been placed and the subgrade has been subjected to frost, no
  concrete shall be placed until the ground is completely thawed. At that time, the
  forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-06.5 Payment
The third paragraph is revised to read:
Excavation required for the construction of the driveway entrance shall be paid for under
the unit Contract price for “Roadway Excavation, Incl. Haul” when included in the
Proposal. Otherwise, the Contractor shall include all costs associated with excavating,
including haul and disposal, regardless of the depth in the unit Contract price for
“Cement Conc. Driveway Entrance Type__”.

END OF SECTION
8-13  MONUMENT CASES
(March 17, 2003 Tacoma GSP)

This section is revised to read:

8-13 MONUMENTS

8-13.1 Description

This Work shall consist of constructing monuments in accordance with the Standard Plan and these Specifications, in conformity with the lines and locations shown in the Plans or as staked by the Engineer.

8-13.2 Materials

Concrete shall be Class 3000 in accordance with the requirements of Section 6-02. ‘Ready Mix’ bag concrete shall not be used.

Bronze markers will be supplied by the Contracting Agency on City funded projects.

8-13.3 Construction Requirements

The Contractor shall construct the poured monument in accordance with the City of Tacoma Standard Plan SU-01.

8-13.4 Measurement

Measurement of the poured monument will be per each.

8-13.5 Payment

Payment will be made in accordance with Section 1-04.1.

“Poured Monument”, per each.

The unit Contract price per each for “Poured Monument” shall be full pay for all labor, equipment, and materials required to furnish and install the monument, including the removal of existing monuments and necessary pavement removal to accommodate the installation in accordance with the standard plan and specifications.

END OF SECTION
8-14 CEMENT CONCRETE SIDEWALKS
(March 23, 2010 Tacoma GSP)

8-14.3 Construction Requirements

8-14.3(3) Placing and Finishing Concrete
The fourth paragraph is revised to read:

Curb ramps shall be of the type specified in the Plans. The detectable warning pattern shall have the truncated dome shape shown in the Standard Plans.

8-14.3(4) Curing
The second sentence is revised to read:

Curing shall be in accordance with Section 5-05.3(13).

Section 8-14 is supplemented with the following:

8-14.3(20) Cold Weather Work
The following additional requirements for placing concrete shall be in effect from November 1 to April 1:

- The Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later than 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no concrete shall be placed until the ground is completely thawed. At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-14.3(21) Thickened Edge for Sidewalk
Thickened edge shall be constructed in accordance with the standard plan.

8-14.5 Payment
The pay item “Cement Conc. Sidewalk” is supplemented with the following:

All additional costs related to the construction of thickened edges shall be included in the unit contract cost for “Cement Conc. Sidewalk”.

The sixth paragraph is revised to read:

Excavation required for the construction of the sidewalk shall be paid for under the unit contract price for “Roadway Excavation, Incl. Haul” when included in the proposal. Otherwise, the Contractor shall include all costs associated with excavating, including haul and disposal, regardless of the depth in the unit contract price for “Cement Conc. Sidewalk” and/or “Cement Conc. Curb Ramp Type ___”.

END OF SECTION
8-20  ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL
(August 14, 2019 GSP)

8-20.1(3) Permitting and Inspections
The third paragraph is revised to read:

All new services require a Tacoma Public Utilities Permit and inspection by Tacoma Power. All work on the load side of the service will be inspected by the Signal and Streetlight Shop Inspector.

8-20.2 Materials
This section is supplemented with the following:

The Contractor shall warranty all electrical and mechanical equipment described in this section for satisfactory in service operation for one year following project acceptance. Warranty shall include troubleshooting, labor, materials and all other costs to bring the equipment to a satisfactory level of service. Normal maintenance is not included in the warranty.

8-20.2(1) Equipment List and Drawings
This section is revised to read:

Within 20 days following execution of the Contract, the Contractor shall submit to the Engineer a completed "Request for Approval of Material" that describes the material proposed for use to fulfill the Plans and Specifications.

The Contractor shall submit Type 2 Working Drawings consisting of supplemental data, sample articles, or both, of the material proposed for use. Supplemental data includes such items as catalog cuts, product Specifications, shop drawings, wiring diagrams, etc.

The Contractor shall submit Type 2 Working Drawings consisting of the following information for each different type of luminaire required on the Contract:

1. Isocandela diagrams showing vertical light distribution, vertical control limits, and lateral light distribution classification.
2. Details showing the lamp socket positions with respect to lamp and refractor for each light distribution type. This requires that the Contracting Agency know what the light pattern available are and the light distribution.

Additional submittals for proposed alternate LED Roadway Luminaires shall be in conformance with section 9-29.10.

The Contractor shall submit for approval Type 3E Working Drawings in accordance with Section 1-05.3 for each type of light standard and each type of signal standard called for on this project.

The Engineer’s acceptance of any submitted documentation shall in no way relieve the Contractor from compliance with the safety and performance requirements as specified herein.
Submittals required shall include but not be limited to the following:

1. A Type 2 Working Drawing consisting of a material staging plan, should the Contractor propose Contracting Agency-owned property for staging areas.

2. A Type 2 Working Drawing consisting of a cable vault installation plan showing the exact proposed installation location by Roadway station, offset and the scheduled sequence for each cable vault installation.

3. A Type 2E Working Drawing consisting of a pit plan, for each boring pit, depicting the protection of traffic and pedestrians, pit dimensions, shoring, bracing, struts, walers, sheet piles, conduit skids, and means of attachment, casing type, and casing size.

4. A Type 2E Working Drawing consisting of a boring plan depicting the boring system and entire support system.

8-20.3 Construction Requirements

8-20.3(1) General

This section is supplemented with the following:

The Contractor shall call 24 hours prior for inspection before covering any underground conduit, prior to installing any detection loops, or placing concrete for foundations. For inspections, notify Traffic Signal/Streetlighting at (253) 591-5287.

Work shall be sequenced such that after the new signal is placed in operation, the Contractor shall remove any equipment not required for the operation of the new signal. The Contractor shall remove the old vehicle and pedestrian signal heads immediately after the new system is operational.

For new signals, the contractor shall provide a Portable Message Change Sign in each direction and operate the PMCS for one week before, and one week after activating the new signal. This work shall be paid for in accordance with Section 1-10.

Uniformed police officers shall be provided by the Contractor to direct traffic at any time the signal is not in normal operation. This work shall be paid for in accordance with Section 1-10.

The following existing and temporary equipment shall be deconstructed/removed by the Contractor and delivered to the City of Tacoma Signal/Streetlight Shop located at 3401A South Orchard Street. Care shall be exercised in removing and salvaging the equipment. Any equipment damaged during removal, hauling, and stockpiling shall be repaired or replaced by the Contractor at no expense to the City.

- All signal heads and mounting hardware
- Flashing beacons, and flasher control panel
- Steel poles, mast arms, and hardware
- Aluminum poles, mast arms, and hardware
- Controller cabinets and all internal hardware and wiring
- Vehicle detection systems, including video, microwave, and infrared systems, and associated hardware
- All Opticom equipment or other preemption and priority equipment.
- LED luminaries, LED retrofit kits, and LED lamps
- Ornamental/Decorative fixtures and poles/posts
- Pedestrian signals, poles, and pushbuttons.
- Signs, brackets, and hardware
- Locking junction box security lids, security bolts, and all other wire theft
deterrent security hardware

All other equipment shall be removed of and disposed of by the Contractor, including but
not limited to the following:
- Wood poles
- All wiring outside of the controller cabinet
- Loops
- Non-LED cobra-head fixtures

**8-20.3(4) Foundations**

*This section is supplemented with the following:*

Breakaway Base Connection brackets for pedestrian pushbutton poles (Type PPB) shall
be installed with the flanges parallel to the traveled way, as shown on WSDOT standard
plan J-20.15-03.

Anchor bolts for streetlight standards and for strain poles shall extend a minimum of two
threads and a maximum of six threads above the top heavy-hex-nut. A minimum of three
threads shall remain between bottom of the leveling hex-nut and the top of the
foundation.

Foundations shall be excavated using an auger and poured against undisturbed material
unless otherwise approved by the Engineer. Vacuum excavation should be used where
there is a possibility of conflict with utilities or other facilities.

Forming the foundation with galvanized culvert pipe or similar forming methods will only
be allowed when soil conditions or other factors make this method of construction
necessary and is approved by the Engineer. Biodegradable forming tubes shall be fully
removed from the cured concrete prior to backfilling. When using culvert or tubes, the
following backfill requirements will apply. The area between the form and undisturbed
material shall be filled with CDF. For lightly loaded installations and only with the
approval of the Engineer, Crushed Surfacing Top Course meeting the requirements of
Section 9-03.9(3) may be used. Placement shall be in accordance with Section 2-
09.3(1)E and shall be backfilled and compacted in the presence of the Engineer.

**8-20.3(5) Conduit**

**8-20.3(5)A General**

*This section is supplemented with the following:*

As soon as the mandrel has been pulled through, both ends of the conduit shall be
sealed in an approved manner. Location wire, in conformance with 9-29, shall be
installed in all empty conduits. At least three (3) feet of the location wire shall be neatly
coiled and secured to the conduit in the same manner as is shown in Washington State
Department of Transportation Standard Plan J-28.70-01, Details A and B.
8-20.3(5)B Conduit Type

This section is supplemented with the following:

Conduit under driveways and other vehicular access ways shall be Schedule 80 high-density polyethylene (HDPE), Schedule 80 PVC, or rigid metal conduit (RMC).

Conduit installed in a joint trench, with power, and that is installed a minimum of 36-inches from finished grade may utilize Schedule 40 PVC in lieu of Schedule 80 PVC. This allowance shall not be construed to permit the use of dissimilar materials in a single run.

Pole riser conduit material types shall be in accordance with applicable City of Tacoma standard plans.

8-20.3(5)D Conduit Placement

This Section is supplemented with the following:

Conduit terminating in pole foundations shall extend to 3 inches below the handhole.

Conduit terminating in controller foundations shall terminate 1 inch above the foundation.

8-20.3(5)E1 Open Trenching

Subsection 5 is revised to read:

5. Trenches located within the paved roadway shall be backfilled with 3 inches of sand over the conduit, followed by material meeting the requirements of Section 9-03.12(3). Compaction shall be in conformance with Section 2-09.3(1)E. All street cuts shall be repaired in accordance with the standard plans.

This section is supplemented with the following new Subsections:

7. Where multiple conduit are installed in the same trench, the trench shall be of sufficient width to accommodate all conduit, with a minimum 3-inch separation between each conduit, and a minimum clearance of 1-inch on the sides of the trench. When conduit is laid horizontal to one another, the conduit shall be laid at the same elevation, parallel with one another. When conduit is laid vertically in the same trench, conduit spacers shall be used to maintain the 3-inch separation. Spacers shall be installed in accordance with the manufacturer’s recommendations for conduit of that size and type. Additional spacers shall be required where the supported conduit is sagging more than 20% of the nominal diameter of the conduit.

8. In all conduit trenches, metallic, detectible, utility warning tape shall be placed at twelve (12) inches below final grade.

8-20.3(6) Junction Boxes, Cable Vaults, and Pull boxes

This section is supplemented with the following:

Unless otherwise specified in the plans, or as otherwise directed by the engineer, all junction boxes exposed to vehicular traffic shall be Heavy-Duty. Field adjustment of junction boxes, which cause junction boxes to be installed within an intersection radius
and within four feet of the curb face may be required to be Heavy-Duty. Final placement and type of all junction boxes within an intersection shall be as directed by the Engineer.

Adjacent junction boxes shall be separated by a minimum of three-inches.

Concrete meeting the requirements of 6-02.3(2)B shall be placed surrounding all junction boxes except as otherwise provided for below. Concrete shall be flush with the top of the junction box and the adjacent improvements. Concrete shall be cast in place. Junction boxes shall be secured with the concrete border as follows:

1. When the junction box is located within a concrete or asphalt section and is located a minimum of 12-inches from the edge of the section, a concrete border will not be required.

2. Where junction boxes are located within 12-inches from the edge of the concrete or asphalt section, the junction box shall be secured on all sides with a minimum 12-inch wide, 6-inch deep concrete section. Concrete shall be finished in the same manner as the adjacent concrete where applicable.

3. Where junction boxes are located within a planter strip, a landscaped area, or other non-hardened surface, the junction box shall be bordered on all sides with a minimum 6-inch wide, 12-inch deep concrete section flush with the top of the junction box.

**8-20.3(7) Messenger Cable, Fittings**

The second paragraph of this section is deleted.

This section is supplemented with the following:

Cable ties shall be used to neatly secure the signal cable to the span wire at 10-inch centers and shall be tightened at top. Excess tie material shall be completely cut off. The signal control cable shall be below the span wire and shall be straight with no twisting or spiraling.

A minimum 5% sag shall be provided in the span wire when fully loaded with all vehicular signal heads, unless otherwise directed by the Engineer.

**8-20.3(8) Wiring**

The third paragraph is revised to read:

All splices in underground illumination circuits, induction loop circuits, and magnetometer circuits shall be installed at junction boxes. The only splice allowed in an induction loop circuit shall be the shielded cable to loop wire splice. The only splice allowed in a magnetometer circuit shall be the probe lead-in cable to the magnetometer cable splice.

Induction loop splices and magnetometer splices shall be heat shrink type with moisture blocking material, sized for the conductors. Magnetometer and induction loop splices shall be soldered. The end of the sheathing shall be sealed with a heat shrink insulator.

The fourth paragraph is revised to read:
Signal wiring shall be in conformance with the following:

1. All termination for traffic signal control systems shall be in accordance with City of Tacoma Standard Plan TS-15.
2. All signal wiring shall be 5-conductor or 2-conductor 14 gauge stranded copper wire unless otherwise shown in the plans.
3. For 5-section and bimodal heads, 2-5c-14 gauge conductors shall be utilized.
4. 5c wire shall not be split between high voltage and low voltage. Where a pedestrian head and a pedestrian push button share a common pole, a separate 2c shall be pulled in for the push button.
5. A single 5c may be split between two pedestrian heads on a common pole with a jumper across the neutral.
6. Opticom and detection wiring shall be per manufacturer’s recommendations.

All wiring entering the cabinet shall be gathered across the conduits to the right front of the cabinet, neatly tied, and circle the base of the cabinet counterclockwise as further described below:

1. Communication cables shall circle the base of the cabinet, counterclockwise from front right, one full circle, and around to the back of the right panel. Cables shall follow up the back of the right panel and terminate on the terminal strip identified by the Engineer. Unless otherwise directed by the Engineer, cable outer jacket sheathing shall be removed from a point two (2) inches below the terminal strip. Cables shall be uniform in length, with sufficient slack to reach any terminal on the terminal strip. Individual wire slack shall be neatly looped back and tied. A bolt/flanged nut alligator jaw shield bond connector shall be utilized.

2. Power service conductors shall circle the base of the cabinet, counterclockwise from front right, one full circle, and back around to the front right of the base.

3. Detection cables shall circle the base of the cabinet, counterclockwise from front right, to the back of the left panel. Cables shall follow up the back of the left panel and terminate as directed in the field.

4. Signal vehicle and pedestrian head shall circle the base of the cabinet, counterclockwise from front right, to back left. Cable outer jacket sheathing shall be removed from the point that the conductor reaches the back left of the cabinet to the ends of the conductors. All vehicle and pedestrian conductors in the cabinets shall be uniform in length, with sufficient slack to reach any terminal on the load bay. Individual wire slack shall be neatly looped back and tied.

5. Push button conductors shall circle the base of the cabinet, counterclockwise from front right, to front left. Cable outer jacket sheathing shall be removed from the point that the conductor reaches the front left of the cabinet to the ends of the conductors. All push button conductors in the cabinets shall be uniform in length, with sufficient slack to reach any terminal on the terminal strip. Individual wire slack shall be neatly looped back and tied.

*The fourth paragraph is revised to read:*
Signal wiring shall be in conformance with the following:

1. All termination for traffic signal control systems shall be in accordance with City of Tacoma Standard Plan TS-15.
2. All signal wiring shall be 5-conductor or 2-conductor 14 gauge stranded copper wire unless otherwise shown in the plans.
3. For 5-section and bimodal heads, 2-5c-14 gauge conductors shall be utilized.
4. 5c wire shall not be split between high voltage and low voltage. Where a pedestrian head and a pedestrian push button share a common pole, a separate 2c shall be pulled in for the push button.
5. A single 5c may be split between two pedestrian heads on a common pole with a jumper across the neutral.
6. Opticom and detection wiring shall be per manufacturer's recommendations.

Field wiring of the cabinet shall be done by City of Tacoma Signal Electricians after all wiring has been pulled into the cabinet and properly labeled with a temporary label consisting of white electricians tape with permanent marker. The Contractor shall provide a detailed description/key of all temporary labeling. The cabinet and labeling shall be inspected by the Signal/Streetlight inspector prior to cabinet wiring. The Contractor shall allow five working days for City Electricians to field wire the cabinet after the inspection is complete. Improper or incorrect labeling requiring additional effort by the City may result in additional time required by City forces to wire the cabinet.

The fifth paragraph is revised to read:

Splices and taps on underground and overhead circuits shall be made with solderless crimp connectors, installed with an approved tool designed for the purpose, to securely join the wires both mechanically and electrically. Splices and taps will be sealed in accordance with this section.

The seventh paragraph is revised to read:

Aerial illumination splices shall be taped with thermoplastic electrical insulating tape equivalent to the original wire insulation rating and thickness. It shall be well lapped over the original insulation.

The eighth paragraph is revised to read:

All splices in junction boxes and handholes shall be taped and sealed with an electrical coating. Tape splice insulation shall consist of thermoplastic electrical insulating tape equivalent to the original wire insulation rating and thickness. It shall be well lapped over the original insulation and moisture resistant electrical coating shall be applied and allowed to dry. Two layers of thermoplastic tape will then be applied, followed by a second layer of moisture resistant electrical coating.

The ninth paragraph is revised to read:

Illumination cable in light standards shall be #10 AWG USE or “Pole and Bracket” cable, as specified in Section 9-29.3(2)D of the Standard Specifications.
The tenth paragraph is revised to read:
Fifteen (15) feet of slack cable shall be provided at the controller end of all cables terminating in the controller cabinet. A minimum of three (3) feet of slack cable shall be left at all strain poles and junction boxes.

8-20.3(10) Service, Transformer, and Intelligent Transportation System (ITS) Cabinets
The second, third, and fifth paragraphs are deleted.

8-20.3(13) Illumination Systems

8-20.3(13)A Light Standards
The sixth, seventh, and eighth paragraphs (regarding pole identification numbers) are deleted.

This section is supplemented with the following:

Conventional Base installation shall conform to the following:

The light standards shall be assembled and mounted complete on foundations perfectly straight and in good alignment. Proper leveling of the standards shall be accomplished by means of four leveling nuts that are to be employed with the anchor bolts. Standards shall be plumb within 1/50-inch per foot.

Luminaires shall be securely attached to the mast arm in a straight and level position. The luminaires shall be installed at a specified number of degrees from level if directed by the Engineer. After the poles are plumbed, grout shall be neatly placed between the pole base and the concrete. The Contractor shall form a 1/2-inch diameter weep hole in the grout. The nuts and bolts required for this foundation shall be furnished by the Contractor.

All above grade signal and streetlight infrastructure, including streetlight standards, traffic signal poles, push-button poles, cabinets, and enclosures, shall not be installed closer than three (3) feet from face of curb to the nearest part of the pole or structure and no closer than five (5) feet from fire hydrants and utility poles.

8-20.3(13)C Luminaires
This section is supplemented with the following:

All luminaires supplied by the project shall be identified with a green “H-1” label on the bottom of the luminaire. H-1 labels can be obtained at the Signal and Streetlight shop or through the Signal and Streetlight Inspector.

8-20.3(14) Signal Systems

8-20.3(14)A Signal Controllers
This section is revised to read:

The fully wired control cabinet, the controller, the MMU, and detection hardware for the cabinet shall be delivered to the City of Tacoma Traffic Signal Shop for configuration, programming, testing, and certification prior to installation. At the Contractor’s request,
the City will off load the equipment. The Contractor shall notify the City 24 hours in
advance of the equipment delivery.

A minimum of two weeks shall be required for the City to configure and test the cabinet
and controller for each intersection. If multiple cabinets and controllers are delivered, the
Contractor shall identify the sequence for configuration and allow one additional week for
each additional cabinet and controller delivered.

The Contractor shall be responsible for transporting the controller cabinet from the
Signal/Streetlight Shop site to the jobsite, and for installation of the cabinet and all field
wiring. Field wiring shall be performed in accordance with 8-20.3(8) and as directed by
City of Tacoma Signal and Streetlight personnel in the field.

8-20.3(14)B Signal Heads
This section is supplemented with the following:

For span wire installation, the red indications shall be leveled to within 1 inch for each
direction as approved by the City. The height to the bottom of the lowest head shall be
17 feet, plus or minus 3 inches. Height to the bottom of the lowest four-section or five-
section head shall be a minimum of 16 feet-3 inches, plus or minus 3 inches.

For span wire installation, the signal stem (drop pipe) shall be 1 to 3 feet long unless
otherwise approved by the Engineer.

8-20.3(14)C Induction Loop Vehicle Detectors
Subsections 2, 4, 9, and 10 are deleted.

Section 8-20.3(14) is supplemented with the following new section:
8-20.3(14)F Thermal, Microwave, and LED Optical Vehicle Detection

A representative from the City of Tacoma Signal and Streetlight operations shop shall be
on site during all work within the signal cabinet. The Contractor shall notify the Engineer
two working days in advance of work within the cabinet.

The Contractor shall install and test the detection system in accordance with the
manufacturer’s recommendations and these special provisions. Detection units shall be
mounted and all cabling shall be in accordance with the manufacture’s
recommendations. The installation shall include all field equipment as well as all
equipment required in the controller cabinet.

Detection unit locations as shown on the plans are approximate. Detection units shall be
mounted at a sufficient height to prevent occlusion from cross traffic. Detection units
shall be field adjusted as directed by the Engineer and equipment manufacturer for
maximum coverage. A factory-certified representative of the equipment manufacturer
shall inspect and provide a written verification that the installation has been performed in
accordance with the manufacturers requirements.

The factory-certified representative of the equipment manufacturer shall supervise all
testing of the equipment and shall provide written documentation showing acceptance of
the testing and verification that the system is a complete, fully functional system.
All equipment shall be warranted against manufacturing defects in materials and workmanship for a period of 3 years from the date of signal turn-on.

8-20.3(17)B “As Built” Plans

This section is supplemented with the following:

These drawings shall show the routing of all underground conduits. The locations of the conduit shall be dimensioned with a precision and accuracy of 1 foot.

8-20.4 Measurement

This section is revised to read:

8-20.5 Payment

This section is supplemented with the following:

END OF SECTION
8-22 PAVEMENT MARKING
(April 1, 2018 Tacoma GSP)

8-22.1 Description
This section is supplemented with the following:

Chevrons
A “Chevron” shall be provided on speed humps for each approach. For a street width
less than 28 feet, the “Chevron” shall start at the edge of roadway (gutter line). For a
street width greater than 28 feet, the “Chevron” shall start at the center of the roadway.
Refer to details specified within the plans. Chevrons shall be provided along bike lane
buffers at locations specified on the plans or as directed by the Engineer.

Green Durable Product
Green Durable Product shall be provided at locations identified on the plans such as
“Bike Box” and “Bike Transition Lane” locations and as directed by the Engineer. Refer
to details specified within these plans and specifications. The product shall be a durable,
color stable, non-slip surface.

Sharrow Pavement Marking
Sharrow pavement marking shall be provided at locations identified in the plans. Refer to
City of Tacoma Standard Plan CH-11 and/or other details specified within these plans
and specifications. The product shall be a durable, color stable, non-slip surface.

8-22.2 Materials
This section is supplemented with the following:

All legends and arrows including “Plastic Arrow”, “Plastic Sharrow Symbol”, and “Plastic
Letter” markings shall be a Preformed retro-reflective thermoplastic pavement marking
material incorporating a pre-applied bead coating that can be adhered to asphalt,
concrete and Portland Cement Concrete pavements by means of heat fusion. All “Plastic
Chevron”, “Plastic Crosswalk Line”, and “Plastic Stop Line” shall be hot applied
thermoplastic. The applied markings shall be very durable, oil and grease impervious,
and provide immediate and continuing retro-reflectivity meeting the requirements of
Section 9-34.3(2).

“Green Durable Product” materials shall meet the requirements of section 9-34.3(4) for
MMA.

Materials used for curb paint shall be the same as for pavement marking paint per
Section 9-34.2.

8-22.3 Construction Requirements

8-22.3(3)E Installation
This section is supplemented with the following for applying Type B material:

Effective Performance Life: When properly applied, in accordance with manufacturer’s
instructions, the preformed marking materials shall be neat and durable. The markings
shall remain skid resistant and show no lifting, shrinkage, tearing, roll back, or other
signs of poor adhesion.
Packaging: The flexible preformed marking material, for use as transverse or bike symbols as well as legends, shall be available in flat form material up to a maximum of 2 foot width by 4 foot length. The material shall be packed in suitable cartons clearly labeled for ease of identifying the contents. Packaging shall not use plastic liners within to separate material from itself. Product packaging shall identify part number and mil thickness.

Material Replacement Provisions: Any properly applied preformed marking materials that shall smear or soften independent of pavement movement or condition within a period of one year from date of application shall be replaced by the supplier.

Installation: The preformed marking materials shall be applied in accordance with the manufacturer’s recommendations on clean and dry surfaces. New Portland concrete cement surfaces must be sandblasted to entirely remove curing compound. Marking configuration shall be in accordance with the “Manual on Uniform Traffic Control Devices,” where applicable.

New Surfaces: Preformed marking materials specified for newly paved asphalt road surfaces shall be capable of being applied as the original permanent marking on the day the surface is paved.

Fusion: The preformed marking materials shall be fusible to the pavement by means of a propane torch recommended by the manufacturer.

Technical Services: The supplier shall provide technical services as may be required.

8-22.3(3)F Application Thickness
The Section is supplemented with the following:

Green Durable Product: Approximately 4.2 Gallon mixture of Green colored MMA, hardwearing aggregate, and catalyst should cover 70-75 SF at 90 mils thickness.

8-22.3(4) Tolerances for Lines
The allowable tolerance for “Length of Line” is revised to read:

Length of Line: The longitudinal accumulative error within a 32-foot length of skip stripe shall not exceed plus or minus 1 inch.

8-22.4 Measurement
The last sentence of the sixth paragraph is revised to read:

Crosswalk lines will be measured by the linear foot of marking installed.

This section is supplemented with the following:

Green Durable Products will be measured by the square foot of marking area installed.

Painted curb will be measured by the linear foot of curb line as “Painted Curb.”

Plastic Sharrow Symbols will be measured by each typical sharrow symbol installed.
8-22.5 Payment

This section is supplemented with the following:

“Painted Crosswalk Line”, per linear foot.

“Plastic Crosswalk Line”, per linear foot.

“Painted Curb”, per linear foot.

“Green Durable Product”, per square foot.

“Plastic Sharrow Symbol”, per each.

“Remove Paint Line”, per linear foot.

“Remove Traffic Marking,” per each.

END OF SECTION
8-27 SEGMENTAL CONCRETE RETAINING WALL
(September 20, 2018 Tacoma GSP)

8-27.1 Description

Work shall consist of furnishing all materials, labor, equipment, and supervision necessary to install a segmental retaining wall system in accordance with these specifications and in with the lines, grades, design and dimensions shown on the plans.

8-27.1(1) Certification

A. Contractor shall submit a notarized Manufacturer’s certification, prior to start of work, that the segmental concrete units meet the requirements of section 8-27.2 of these Special Provisions.

B. Contractor shall submit a notarized certification, prior to start of work, that the segmental concrete units have been successfully utilized on a minimum of five (5) similar projects, i.e., height, soil fill types, erection tolerances, etc.

8-27.1(2) Delivery, Storage, and Handling

A. The Contractor shall inspect the materials upon delivery to assure that proper type and grade material has been received.

B. The Contractor shall store and handle materials in accordance with manufacturer’s recommendations.

C. The Contractor shall protect the materials from damage. Damaged material shall not be incorporated into the segmental retaining wall.

8-27.2 Material

8-27.2(1) Segmental Concrete Retaining Wall Units

A. Segmental concrete units shall conform to the following architectural requirements:

* Unit height of 7.75-8.0-inches;

* Unit width to height ratio shall be equal to 2.25-2.50, nominal;

* Unit depth > 11-inches;

* Face area per unit = 0.95-1.0 square foot, nominal;

* Face color - Grey;

* Face finish - Beveled Sculptured Rock face;

* Bond configuration - running with bonds nominally located at midpoint of vertically adjacent units, in both straight and curved alignments.
B. Segmental concrete cap units shall conform to the following architectural requirements:

* Cap Unit Heights shall be 4 inches
* Face Color - Grey
* Face Finish - Beveled Sculptured Rock face

C. Segmental concrete units shall conform to the following constructability requirements:

* vertical setback = ½” minimum;
* alignment mechanism -pins, alignment plugs, two per unit minimum; or shear connectors (for built-in mechanical concrete interlocking segmental units)
* curves - minimum concave and convex radius of 4.0 feet.

D. Segmental concrete units shall conform to the following material requirements.


2. Aggregates - Aggregates shall conform to the following specifications, as applicable.

3. Normal Weight Aggregates - ASTM C 33

4. Lightweight Aggregates - ASTM C 331

5. Other Constituents - Air-entraining agents, coloring pigments, integral water repellents, finely ground silica, and other constituents shall be previously established as suitable for use in segmental concrete retaining wall units and shall conform to applicable ASTM Standards or, shall be shown by test or experience to be not detrimental to the durability of the segmental concrete units or any material customarily used in retaining wall construction.

8-27.2(2) Cap Adhesive

Cap adhesive shall meet the requirements of the segmental unit manufacture.

8-27.2(3) Perforated Drain Pipe

Perforated pipe shall be perforated PVC meeting AASHTO M 278, 6-inch to 8-inch diameter.

8-27.2(4) Base Leveling Pad Material

Base material for the leveling pad shall be crushed surfacing top course.
8-27.2(5) Geogrid Reinforcement

Geogrid reinforcement shall be Miragrid 3xT or engineered approved equal. The engineer does not anticipate the need for Geogrid.

8-27.2(6) Backfill for over-excavation class A

Backfill material shall be suitable excavated native soil, except when the Engineer determines it to be unsuitable it shall be replaced with Gravel Borrow.

8-27.2(7) Drainage Zone Wall Backfill

Backfill in the 12-inch width drainage zone behind blocks and in concrete block cavities shall be “Gravel Backfill for Drywells” according to Section 9-03.12(5). Additional backfill can consist of suitable native material and Gravel Borrow.

8-27.3 Construction Requirements

8-27.3(1) Subgrade Preparation

A. Fill zone area shall be cleared and grubbed, removing top soils, brush, sod, or other organic or deleterious materials.

B. Contractor shall excavate to the lines and grades shown on the construction drawings.

C. Subgrade shall be approved by Project Engineer.

D. Subgrade soils shall be proof rolled or probe rod before construction proceeds. Subgrade materials not meeting Engineers approval shall be removed and replaced. Replacement material shall meet the criteria of Section 9-03.12(2) of Standard Specifications.

E. Excavation required for the wall footing shall be paid at unit contract price for “Structure Excavation Cl. A Incl. Haul”, per cubic yard.

8-27.3(2) Base Leveling Pad

A. Leveling pad material shall be placed to the lines and grades and thickness as shown on the construction drawings.

B. Base leveling pad material shall be Crushed Surfacing Top Course and compacted to a minimum of 95% standard or 90% modified Proctor.

C. Leveling pad shall be prepared to insure full contact to the base surface of the segmental concrete units.
8-27.3(3) Segmental Concrete Unit Installation

A. First course of units shall be placed on the leveling pad, and alignment and level checked. Pins, plastic clips or molded surfaces of segmental concrete units shall be used for alignment control.

B. Connecting pins or shear connectors shall be installed and voids in and/or around block units shall be filled with compacted Gravel Backfill for Drywells or Crushed Surfacing Top Course.

C. Excessive material shall be swept from top of units before installing next horizontal row of concrete blocks. Each horizontal block row shall be completely filled before proceeding to next level.

D. Units shall be laid in straight, convex, or concave manner so adjoining unit pin holes or shear connectors are 12-inches or less on center. Units shall be installed so only front face of units shall be visible upon completion of wall.

E. Maximum stacked vertical height of wall units, prior to wall drain fill and backfill placement and compaction, shall not exceed the unit depth dimension.

F. Cap units shall be glued to underlying units with an adhesive recommended by the segmental unit manufacturer.

8-27.3(4) Structural Geogrid Installation

A. Geogrid material shall be as specified in the plans and oriented with the highest strength axis perpendicular to the wall alignment.

B. Geogrid reinforcement shall be placed at elevations(s) and to extent(s) indicated in the contract drawings.

C. Geogrid reinforcement shall be attached firmly between units over the connecting pins or shear connectors and laid horizontally on compacted backfill. Place next course of segmental concrete wall units over geogrid. Geogrid shall be pulled taut, and anchored before backfill placement on geogrid.

D. Geogrid reinforcement shall be continuous throughout their embedment length(s). Geogrid shall not be spliced.

E. Geogrid overlaps shall be in accordance with manufacture’s recommendations.

8-27.3(5) Wall Backfill Placement

A. Wall backfill shall be placed, spread, and compacted so development of slack in any geogrid is minimized.
B. Wall backfill shall be placed and compacted in lifts not to exceed 6-inches where hand compaction is used, or 12-inches where heavy compaction equipment is used.

C. Wall backfill shall be compacted to 95 percent of maximum dry density (MDD) as determined by ASTM-1557. Moisture content of backfill material before and during compaction shall be uniformly distributed throughout each layer and shall be within 2 percentage points of optimum.

D. Only lightweight hand-operated compaction equipment shall be allowed within 2-feet of tail of concrete units.

E. Tracked construction equipment shall not be operated directly upon any geogrid reinforcement or within 3-feet of concrete units. Minimum fill thickness of 6-inches is required before operation of tracked vehicles over any geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing fill and damaging geogrid.

F. Rubber-tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 mph. Sudden braking and sharp turning shall be avoided.

G. At the end of each day’s operation, last lift of wall backfill shall be sloped away from wall units to direct surface runoff away from wall face. Surface runoff from adjacent areas shall not be allowed to enter wall construction site.

8-27.3(6) Perforated Drain Pipe Placement

Drainage collection pipes shall be installed to maintain gravity flow of water as shown on the plans. The drainage collection pipe shall tie into a nearby catch basin or curb drain if possible or daylight along a slope at an elevation lower than the lowest point of the pipe within the aggregate drain. The drain pipe shall not shed water across any nearby sidewalk.

8-27.3(7) Cap Block Placement

A. The cap block unit shall be bonded to the SRW units below using cap adhesive described in Section 8-27.2(3).

B. Straight and angled sided caps shall be utilized to eliminate the gap between units.

8-27.3(8) Fence Installation Top of Wall

All fences indicated on plans to be installed on top of the wall shall be installed in the center void of the segmental retaining wall unit. Embedment shall be a minimum of 24-inches in depth. Embedment depth shall be measured from the top of the top unit not including the cap unit. The voids of the units for which the posts pass through and the voids of the adjacent units shall be filled with class 3000 concrete. The contractor shall
provide a separation membrane during construction to insure that backfill material does not enter the area to be filled with concrete.

8-27.3(9) Structure Excavation

Structure Excavation for the wall footing shall be according to Structure Excavation Class A, Section 2-09.3(3).

8-27.3(10) Shoring or Extra Excavation

Shoring or Extra Excavation shall be according to Shoring or Extra Excavation Class A, Section 2-09.3(3).

8-27.4 Measurement

“Shoring or Extra Excavation Cl. A,” per lump sum shall be measured in accordance with Section 2-09.4 of the Standard Specifications.

“Structure Excavation Class A Incl. Haul,” per cubic yard shall be measured in accordance with Section 2-09.4.

Measurement of “Segmental Concrete Block Wall”, per square foot, shall be total square footage of wall face area measured from the top of the base leveling pad to the top of the wall.

8-27.5 Payment

Payment will be made in accordance with section 1-04.1, for each of the following bid items that are included in the proposal.

“Segmental Concrete Block Wall”, per square foot

The unit Contract price for “Segmental Concrete Block Wall”, per square foot, shall be full pay for all labor, equipment, and materials required to furnish and install all wall blocks in accordance with contract plans and specifications, including perforated drain pipe and filter fabric, Drainage Zone Wall Backfill, and Base Leveling Pad constructed in place according to the plans and these specifications.

“Shoring or Extra Excavation Cl. A,” per lump sum shall be paid in accordance with Section 2-09.5.

“Structure Excavation Class A Incl. Haul”, per cubic yard shall be paid in accordance with Section 2-09.5.

“Gravel Borrow Incl. Haul”, per ton shall be paid in accordance with Section 2-03.5.

Any Geogrid installation will be included in the unit price per square foot for “Segmental Concrete Block Wall.”

END OF SECTION
8-30 CEMENT CONCRETE STAIRWAY AND HAND RAILING
(March 17, 2003 Tacoma GSP)

8-30.1 Description

This work shall consist of constructing cement concrete stairways, and hand railings in accordance with details shown in the Standard Plans and these Specifications and in conformity to lines and grades shown in the Plans or as established by the Engineer.

8-30.2 Materials

Materials shall meet the requirements of the following sections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Cement</td>
<td>9-01</td>
</tr>
<tr>
<td>Aggregates</td>
<td>9-03</td>
</tr>
<tr>
<td>Premolded Joint Filler</td>
<td>9-04.1</td>
</tr>
<tr>
<td>Concrete Curing Materials and Admixtures</td>
<td>9-23</td>
</tr>
<tr>
<td>Reinforcing Bars</td>
<td>9-07</td>
</tr>
<tr>
<td>Paint</td>
<td>9-08</td>
</tr>
</tbody>
</table>

The concrete shall be air-entrained concrete Class 3000 in accordance with the requirements of Section 6-02.

Steel pipe hand railing shall be fabricated from standard weight steel pipe conforming to ASTM Designation A 120.

Wrought iron hand railing shall be fabricated from material conforming to ASTM A207-63T.

8-30.3 Construction Requirements

8-30.3(1) Excavation

Excavation shall be made to the required depth and to a width that will permit the installation and bracing of the forms. The foundation shall be shaped and compacted to a firm even surface conforming to the section shown in the Standard Plan. All soft and yielding material shall be removed and replaced with acceptable material.

8-30.3(2) Forms

Forms shall be of wood or metal and shall extend for the full depth of the concrete. All forms shall be straight, free from warp, and of sufficient strength to resist the pressure of the concrete without warping. Bracing and staking of forms shall be such that the forms remain in both horizontal and vertical alignment until their removal. After the forms have been set to line and grade, the foundation shall be brought to the required grade and thoroughly wetted approximately 12 hours before placing the concrete.

8-30.3(3) Placing andFinishing of Concrete

Front and side edging of stair treads shall be to a radius of 1/2 inch.
Landings for stairways shall be marked as specified for concrete sidewalks except that
transverse and longitudinal markings shall be modified as necessary to result in uniform
size of squares in each landing. Where gutters are along the side of stairways, the gutter
portion of stairway landings shall be smooth finished without markings to conform with
the stairway gutter.

8-30.3(4) Cold Weather Work

The following additional requirements for placing concrete shall be in effect from
November 1 to April 1:
- The Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later that 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no
  concrete shall be placed until the ground is completely thawed. At that time, the
  forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-30.3(5) Curing

Cement concrete stairways shall be cured for a minimum of 72 hours in accordance with
Section 5-05.3(13).

8-30.3(6) Hand Rail

Hand rails for cement concrete stairways shall be constructed at the locations shown on
the Plans. The railing may be placed either completely assembled at the time when
stairway concrete is placed, or recesses may be provided in the concrete for grouting in
the railing posts after the concrete has been placed, finished and cured.

The installed railing shall be in true alignment, proper grade, and all posts plumb.

Welds shall be made by experienced welders and each weld shall be ground and buffed
to a smooth surface.

8-30.3(6)A Hand Rail Painting

Painting shall meet the requirements of Section 6-07 of the Standard Specifications.

Paint shall be as follows:
- Primer shall meet requirements outlined in Section 9.08, “Formula A-6-68- Zinc
  Dust Zinc Oxide Primer,” of the Standard Specifications.
- Finish coat shall meet requirements outlined in Section 9.08, “Formula D-4-57 -

8-30.4 Measurement

Measurement of cement concrete stairway and hand rail will be in accordance with City
of Tacoma Standard Plan SU-10.
8-30.5 Payment

“Cement Conc. Stairway”, per linear foot.

The unit Contract price per linear foot for “Cement Conc. Stairway” shall be full pay for all labor, equipment, and materials required for clearing and grubbing; excavation; subgrade preparation; construction of forms; furnishing and placing reinforcing steel; furnishing and placing of concrete in accordance with the plans and specifications.

“____ Hand Rail”, per linear foot.

The unit Contract price per linear foot for “____ Hand Rail” shall be full pay for all labor, equipment, and materials, required to construct and complete the railing in accordance with the plan and specification.

END OF SECTION
8-32    ARTIFICIAL TURF
(September 20, 2018 Tacoma GSP)

8-32.1 Description
This Work shall consist of furnishing and installing artificial turf. The Work shall also
include preparing the sub-grade, replacing unsuitable foundation material, and
constructing an aggregate base.

8-32.2 Materials
Report product material properties according to ASTM – American Society for Testing
and Materials:
1. F1551 - Standard Test Methods for Comprehensive Characterization of Synthetic
   Turf Paying Surfaces and Materials
2. DIN 18-035 – Standard Test Method for Water Permeability
3. F2765 – Lead Content (less than 50ppm)
5. D5848 – Standard Test Method for Mass per Unit Area of Pile Yarn Floor
   Covering
   Fabrics   (Grab Test)

8-32.2(1) Composition and Physical Properties
The artificial turf shall consist of rigid monofilament fibers tufted into a primary backing
with a secondary backing attached. Artificial turf materials shall consist of the following:
1. Synthetic grass made of ridged monofilament polyethylene fibers tufted into a
   fibrous, non-perforated, porous backing.
2. Infill: Graded dust-free silica sand as approved by the manufacturer (tan, brown,
   dark green, or black) that partially covers the synthetic grass.
3. Nailing board to nail down turf edges: synthetic rot-proof material such as TREX
   decking boards or equivalent.
4. Glue, thread, seaming fabric and other materials used to install and mark the
   synthetic grass.
5. Primary Backing shall be a double-layered polypropylene fabric with UV
   inhibitors.
6. Secondary Backing shall consist of an application of porous, heat-activated
   urethane to permanently lock the fiber tufts in place.
7. Perforated artificial turf (with punched holes) is unacceptable.
8. Artificial turf with attached scrim in lieu of porous, heat activated urethane
   backing is unacceptable.
9. Glue for seaming of the artificial turf shall be as recommended by the synthetic
   turf manufacturer.
The installed artificial grass ridged monofilament field turf shall have the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Denier</td>
<td>10,500 g/9000m or greater</td>
<td>ASTM D1577</td>
</tr>
<tr>
<td>Pile Height</td>
<td>1.5” to 2”</td>
<td>ASTM D5823</td>
</tr>
<tr>
<td>Turf/Machine Gauge</td>
<td>3/8” on Centers</td>
<td>ASTM D5793</td>
</tr>
<tr>
<td>Face/Pile Yarn Weight</td>
<td>55 oz/SY or greater</td>
<td>ASTM D5848</td>
</tr>
<tr>
<td>Primary Backing</td>
<td>7 oz/SY or greater</td>
<td>ASTM D5848</td>
</tr>
<tr>
<td>Total Fabric Weight</td>
<td>80 oz/SY or greater</td>
<td>ASTM D5848</td>
</tr>
<tr>
<td>Water Permeability</td>
<td>20 inch/hour or greater</td>
<td>ASTM F1551-DIN18-035</td>
</tr>
<tr>
<td>Total Infill</td>
<td>2.5 to 3 lbs/SF</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Fibers shall be low friction and UV-resistant, measuring not less than 1.5 inches high.

8-32.2(2) Color

The artificial grass color shall be Olive Green or equivalent, blending some hues of brown-green with medium green for a natural appearance. Un-natural singular hues of green are not acceptable. The Contractor shall submit color samples of the artificial turf for approval and selection by the Engineer.

8-32.2(3) Material Approval and Sample(s)

The material approval process shall be in accordance with Section 1-06. Prior to approval by the Engineer, the Contractor shall provide a material sample of the artificial grass fabricated onto the backing materials, approximately 12"x12", and in accordance with Section 1-06.2. The sample(s) shall be of the desired color described above.

8-32.3 Construction Requirements

The Contractor shall coordinate the installation of artificial turf with other work to prevent deterioration of the installed system. The Contractor shall prepare an aggregate base to provide a smooth unyielding foundation for the installation of the artificial turf.

8-32.3(1) Aggregate Base

The sub-grade shall be graded and prepared in accordance with Section 2-06. Any unsuitable subgrade shall be replaced with Gravel Borrow as approved by the Engineer. A Crushed Surfacing Top Course layer shall be fine graded and compacted according to the plans and Sections 4-04, 2-03.3, and 9-03.9(3); except that the crushed rock surfacing shall be compacted at 90% of the standard maximum density.

The finished grade tolerance of the aggregate base shall not exceed ¼ inch over 10 feet, and shall not exceed ¼ inch from design grade. The finished grade surface of the aggregate base shall be up to ½ inch lower at the edge than any adjacent concrete walking surface. Prior to artificial turf installation, the contractor shall verify that all aggregate base leveling is complete, and shall examine the surface to receive the artificial turf. The Contractor shall not proceed with turf installation until the crushed surfacing grade is within these tolerances and is compliant with the synthetic turf manufacturer’s recommendations, and the Engineer gives approval to proceed with turf installation.
installation. At the Engineer’s request, the Contractor shall test the aggregate base for water permeability and positive drainage.

When the Contractor achieves the specified compaction and finished grade and has verified it is within tolerances and satisfactory for installation, the Contractor shall notify the Engineer in writing and request approval to proceed.

8-32.3(2) Concrete Border

A concrete border shall be constructed according to the Plans AND, in addition, a 4-inch minimum width rectangular concrete collar shall be constructed around any valves, manhole lids and utility vaults even if not shown on the Plans. The concrete border shall be constructed on a 6-inch thickness CSTC foundation that extends 6 inches on each side of the concrete border. The concrete border construction shall conform to Section 6-02 for Portland Cement Concrete, Class 3000 psi. The Contractor shall construct the concrete border before installation of the artificial turf and nailing board. The top of a concrete border that is part of a walking surface shall be up to ½” maximum above the finished grade of the aggregate base.

8-32.3(3) Nailing Board

The Contractor shall install a nailing board along the face of the concrete border and utility collars according to the plans and per manufacturer’s instructions. The nailing board shall be shaped to fit snug to the face of the concrete border. Concrete collars around utility lids and covers shall be rectangular and of adequate depth and thickness, so that the nailing board can be installed.

8-32.3(4) Submittals

Prior to artificial turf installation the Contractor shall provide the following submittals, which shall be subject to review and approval by the Engineer before installation can begin:

- Deliver an approximately 12”x12” sample according to Section 8-32.2 above.
- The Contractor shall prepare installation shop drawings, based on the approved as-built aggregate base finished grade.
- Provide a sample copy of insured, non-prorated warranty and insurance policy information.
- Submit manufacturer’s instructions for installation.
- Submit manufacturer’s instructions for maintenance of the synthetic turf system, including painting and markings.
- Submit manufacturer’s certification that products and materials comply with these specifications.
- Before payment for the installation, the Contractor shall submit a product warranty registered with approved manufacturer naming the Contracting Agency as the owner.
- Installer certifications.
8-32.3(5) Delivery, Storage, and Handling

Product components shall be delivered to the site with labels intact and legible. Protect delivered materials from damage during delivery, storage, handling and installation. Inspect all delivered materials and products to ensure these are in good condition. Comply with manufacturer’s recommendations.

8-32.3(6) Artificial Turf Installation

Only manufacturer certified trained technicians, skilled in the installation of synthetic turf systems shall undertake any cutting, sewing, gluing, shearing, and top dressing or brushing operations, under the direct supervision of the approved installer supervisors. The installer must be certified prior to bid. The designated Supervisory personnel on the project must be certified in writing by the synthetic turf manufacturer, for the installation of the manufacturer’s product, including gluing seams and proper installation of the Infill mixture.

Sequence the installation in order to prevent deterioration of the installed system by other work at the site, such as landscaping and concrete work.

The installation of the synthetic turf shall be performed according to the submitted shop drawings, these specifications and according to the plans. In addition, the Contractor shall follow the manufacturer’s instructions and procedures for turf installation and placing infill materials.

Synthetic turf carpet rolls shall be installed directly over the finished grade of the aggregate base. The Contractor shall take extreme care not to disturb the aggregate base surface. Any loose crushed rock, gouges, furrows, holes, or otherwise disturbed aggregate base shall be repaired and compacted again according to 8-30.3(1).

Seams shall be flat, tight, and permanent with no separation or fraying. The synthetic turf carpet shall lay flat without bubbles or ridges, and the edges shall be secured to the nailing board per manufacturer’s instructions, except at a minimum with 1” heavy duty SST staples no more than 12” on centers. The edges shall follow precisely along the face of the concrete border without gaps.

Infill material shall fill the voids between the fibers, so that the fibers stay vertical and non-directional. The target infill depth shall be 0.03 ft.

8-32.4 Measurement

Concrete borders shall be measured per linear foot along the installed face, at the artificial turf border.

Concrete collars around utility lids and covers shall be included in other bid items.

Aggregate base material shall be measured by the ton, and according to Section 4-04.4.

Artificial turf shall be measured by the square yard of installed turf.
8-32.5 Payment

“Concrete Border”, per linear foot.

The unit Contract price per linear foot for “Concrete Border” shall be full compensation to form, pour, finish, and cure the concrete border in place, according to the Plans and the Specifications.

The price for concrete collars around utility adjustments within the artificial turf area shall be included in other bid items.

“Artificial Turf”, per square yard.

The unit Contract price per square yard for “Artificial Turf” shall be full compensation for all labor, materials, and equipment to furnish and install nailing boards; to place, compact and fine grade the aggregate base; to furnish and install the artificial turf onto the finished grade of the aggregate base, and nail down edges according to the Specifications.

Payment for aggregate base shall be according to Section 4-04.5 for the material used.

END OF SECTION
9-03 AGGREGATES
(September 20, 2018 Tacoma GSP)

9-03.1 Aggregates for Portland Cement Concrete

9-03.1(1) General Requirements
(June 16, 2016 Tacoma GSP)
The seventh paragraph is deleted

9-03.6 Vacant
(Jun 16, 2016 Tacoma GSP)
This section, including the title, is revised to read:

9-03.6 Aggregates for Asphalt Treated Base (ATB)

9-03.6(1) General Requirements

Aggregates for asphalt treated base shall be manufactured from ledge rock, talus, or gravel, in accordance with the provisions of Section 3-01 that meet the following test requirements:

Los Angeles Wear, 500 Rev. 30% max.
Degradation Factor 15 min.

9-03.6(2) Grading

Aggregates for asphalt treated base shall meet the following requirements for grading:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;</td>
<td>100</td>
</tr>
<tr>
<td>½&quot;</td>
<td>56-100</td>
</tr>
<tr>
<td>No. 4</td>
<td>32-72</td>
</tr>
<tr>
<td>No. 10</td>
<td>22-57</td>
</tr>
<tr>
<td>No. 40</td>
<td>8-32</td>
</tr>
<tr>
<td>No. 200</td>
<td>2.0-9.0</td>
</tr>
</tbody>
</table>

All percentages are by weight.

9-03.6(3) Test Requirements

When the aggregates are combined within the limits set forth in Section 9-03.6(2) and mixed in the laboratory with the designated grade of asphalt, the mixture shall be capable of meeting the following test values:

% of Theoretical Maximum Specific Gravity (GMM) (approximate)  93@
100 gyrations
AASHTO T324, WSDOT TM T718 or ASTM D3625 Pass
(Acceptable anti-strip evaluation tests)
The sand equivalent value of the mineral aggregate for asphalt treated base (ATB) shall not be less than 35.

9-03.8 Aggregates for Hot Mix Asphalt
(March 9, 2016 APWA GSP)

Supplement section 9-03.8 with the following:

Aggregates for Porous Hot Mix Asphalt/Porous Warm Mix Asphalt (PHMA/PWMA)

General Requirements

Aggregates for Porous Hot Mix Asphalt (PHMA) or Porous Warm Mix Asphalt (PWMA) shall be manufactured from ledge rock, talus, or gravel, in accordance with the provisions of Section 3-01 that meet the following test requirements:

Los Angeles Wear, 500 Rev. 30% max.
Degradation Factor 15 min.

Grading

Aggregates for PHMA/PWMA shall meet the following requirements for grading:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾&quot; square</td>
<td>100</td>
</tr>
<tr>
<td>½&quot; square</td>
<td>90 - 100</td>
</tr>
<tr>
<td>⅜&quot; square</td>
<td>55 - 90</td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td>10 - 40</td>
</tr>
<tr>
<td>U.S. No. 8</td>
<td>0 - 20</td>
</tr>
<tr>
<td>U.S. No. 40</td>
<td>0 - 13</td>
</tr>
<tr>
<td>U.S. No. 200</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

* All percentages are by weight.

The aggregate for PHMA/PWMA shall consist of crushed stone with a percent fracture greater than 90% on two faces on the No. 4 sieve and above, and shall be tested in accordance with the field operating procedures for AASHTO T 335.

9-03.12 Gravel Backfill

Add the following new Section:

9-03.12(10) Pea Gravel
(September 20, 2018 Tacoma GSP)

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾&quot; square</td>
<td>100</td>
</tr>
<tr>
<td>⅜&quot; square</td>
<td>95-100</td>
</tr>
<tr>
<td>U.S. No. 8</td>
<td>0 - 10</td>
</tr>
<tr>
<td>U.S. No. 200</td>
<td>0 - 3</td>
</tr>
</tbody>
</table>

Sand Equivalent 35 Minimum

* All percentages are by weight
9-03.21 Recycled Material

9-03.21(1) General Requirements
(Jun 16, 2016 Tacoma GSP)

This section is supplemented with the following:

Recycled materials will only be permitted upon approval of the Engineer. Recycled concrete shall not be permitted for use as pipe zone backfill, backfill above pipe zone, and extra excavation area backfill material.

END OF SECTION
9-07 REINFORCING STEEL
(March 23, 2010 Tacoma GSP)

9-07.5(2) Corrosion Resistant Dowel Bars (For Cement Concrete Pavement)
This section is supplemented with the following:

Dowel bars for all streets shall be corrosion resistant.

END OF SECTION
9-08  PAINTS AND RELATED MATERIALS
(March 23, 2010 Tacoma GSP)
The following section is added:

9-08.20 Painting Surfaces Systems
The surfaces shall be painted in accordance with the type materials and exposures as identified in this section. The Contractor shall provide the Engineer with a paint mil.

9-08.20(1) Steel

A. Exposed/outside exposure (non-galvanized)
   1. Primer Coat: Section 9-08.1(2)C (2.5-mils)
   2. Intermediate Coat: Section 9-08.1(2)G (3.5-mils)
   3. Top Coat: Section 9-08.1(2)H (1.0-mils)

B. Exposed/Interior exposure (non-galvanized)
   1. Primer Coat: Section 9-08.1(2)C (2.5-mils)
   2. Intermediate Coat: Section 9-08.1(2)G (3.5-mils)
   3. Top Coat: Section 9-08.1(2)H (1.0-mils)

C. Unexposed/interior & exterior (non-galvanized)
   1. Primer Coat: Section 9-08.1(2)C (2.5-mils)

D. Exposed/interior & outside exposure (galvanized)
   1. Primer Coat: Section 9-08.1(2)E (2.5-mils)
   2. Top Coat: Section 9-08.1(2)H (1.0-mils)

E. Powder Coating and Galvanize Coating shall be applied where indicated in the contract documents. All other surfaces to be coated per Section 6-07.3.

F. Painting shall be applied in accordance with Section 6-07.3.

9-08.20(2) Concrete

A. Exposed/outside exposure
   1. 1st Cost: Section 9-08.3 (3.0-mils)

B. Exposed/Interior exposure
   1. 1st Cost: Section 9-08.1(3) (2.0-mils)
   2. 2nd Cost: Section 9-08.1(3) (1.0-mils)

C. Surface to be painted where indicated on contract plans

D. Colors to be selected by the Project Engineer

9-08.20(3) Wood

All surfaces to be coated where and in accordance with contract documents as indicated.

END OF SECTION
9-28 SIGNING MATERIALS AND FABRICATION
(April 1, 2012 Tacoma GSP)

9-28.1 General

The second sentence of the first paragraph is hereby revised to read:

Permanent signs which measure 36 inches or less on a side and are to be mounted on a single post shall be constructed of single 0.080-inch aluminum panels.

The third sentence of the first paragraph is hereby revised to read:

Sign overlay panels shall be 0.050-inch aluminum panels.

9-28.9 Fiberglass Reinforced Plastic Signs

This section is deleted in its entirety.

END OF SECTION
9-29 ILLUMINATION, SIGNALS, ELECTRICAL
(August 14, 2019 Tacoma GSP)

9-29.1(6) Detectable Underground Warning Tape
This section is supplemented with the following:

For electrical circuits detectable underground warning tape shall be high visibility red, with continuous legend of “Caution Electric Line Buried Below” or equal. The warning tape shall be polyethylene with a metallic backing. The polyethylene shall be a minimum 3 inches wide, 4 mils thick.

9-29.2 Junction Boxes, Cable Vaults and Pull Boxes

Unless otherwise specified, all junction boxes containing illumination and signal control cable shall be Type 1, Standard Duty with alternate 2 locking lid per state standard plan J-40.10-02.

Unless otherwise specified, all junction boxes containing interconnect cabling shall be Type 2, Standard Duty with alternate 2 locking lid per state standard plan J-40.10-02.

9-29.2(4) Cover Markings
The second paragraph of this section is revised to read:

Covers shall be marked or embossed with “LT” for boxes containing illumination circuits. Covers shall be marked or embossed with “TS” for boxes containing traffic signal circuits

9-29.3 Fiber Optic Cable, Electrical Conductors, and Cable
This section is supplemented with the following:

Where not otherwise specified, all wiring shall meet standard of the industry for the application employed. Wiring shall be consistent with manufacturers’ recommendations and meet all applicable codes.

9-29.3(2)A Single Conductor

9-29.3(2)A1 Single Conductor Current Carrying
This section is supplementing with the following:

Service connections shall be stranded copper size AWG #6 USE unless otherwise shown in the plans. Black conductor insulation shall be used for the service and the neutral conductor shall be white. Color tape marking shall not be acceptable for the neutral conductor.

9-29.3(2)A2 Grounding Electrode Conductor
This section is supplemented with the following:

Grounding electrode conductor shall be minimum #8 AWG unless otherwise shown in the plans. When the ground is pulled through a conduit, the wire shall be insulated. Color tape marking shall not be acceptable for marking the ground.
9-29.3(2)A3 Equipment Grounding and Bonding Conductors

This section is supplemented with the following:

Equipment grounding shall be minimum #8 AWG unless otherwise shown in the plans. When the ground is pulled through a conduit, the wire shall be insulated. Color tape marking shall not be acceptable for marking the ground.

9-29.3(2)B Multi-Conductor Cable

This section is supplemented with the following:

Two-conductor through 10-conductor unshielded signal control cable, shall have stranded copper conductors, size AWG 14, and shall conform to International Municipal Signal Association (IMSA) signal cable 20-1.

9-29.3(2)F Detector Loop Wire

This section is revised to read:

The loop wire shall be IMSA 51-7, #14 AWG, encased in an orange colored HDPE jacket. Shielded loop lead-in wire shall be #18 stranded tinned-copper, twisted pair, 2 conductor cable with polyethylene insulation, conductors cabled, and shall have aluminum-polyester foil-shield furnished in 100% coverage, stranded tinned-copper drain wire and an overall chrome-vinyl jacket.

9-29.3(2)I Twisted Pair Communication Cable

This section is revised to read:

The cable for interconnect for underground installation shall be IMSA 40-2 #19 AWG 6 twisted pair, shielded, PE outer jacket or IMSA 40-4 #19 AWG 6 twisted pair, figure 8, shielded, PE outer jacket for overhead installation.

9-29.4 Messenger Cable, Fittings

This section is supplemented with the following:

Messenger cable shall be 5/16-inch, seven-wire strand messenger cables conforming to ASTM A 475, extra-high strength grade, 11,200 lbs. min. breaking strength, Class B galvanized.

All guy eye anchor rods shall be double-hub type.

Weatherheads shall be clamp-on type PVC. Where used for signal or flashing beacon conductors, the center of the wire entrance shall be cut or machined out to a large diameter to accommodate entry of multi-conductors. All edges shall be smoothed to avoid chaffing.

All miscellaneous nuts, bolts, washers and fittings shall be stainless steel or brass unless otherwise noted.

All metal line hardware shall be hot-dipped galvanized in conformance with the requirements of ASTM Designation A-153. All eyebolts shall be thimble eye design cast or welded to form a solid eye.
5-strand, class B galvanized steel, pretwisted guy strand dead ends, high strength cable
conforming to ASTM Designation A-475, shall be utilized at all span wire terminations.
1/2" rope wire thimbles shall be required where span wire connects to all poles or bull
rings, except where thimble eye bolts are used. Span wire shall normally be installed
directly pole to pole, unless otherwise directed or specified.

Strain insulators shall be installed where connecting to wood poles. Where span wire is
connected to a steel or concrete pole, insulators shall not be installed. Strain insulators
shall be wet process, porcelain, conforming to EEI-NEMA Class 54-2 standards for
12,000-pound ultimate strength and shall be installed 9 feet from the pole.

9-29.6 Light and Signal Standards
This section is supplemented with the following:

All light and signal standards shall be fixed base.

The head of the handhold security bolt shall be flush with the face of plate. The face
plate of the handhole shall be flush with pole.

9-29.6(3) Timber Light Standards, Timber Strain Poles, Timber Service Supports
This section is supplemented with the following:

All timber poles shall be Class II unless otherwise specified.

Mast arms for wood poles shall be “tapered elliptical” or “tapered truss” style, of a size
sufficient to be used with a luminaire weight of 48 pounds with an EPA of 1.1 square
feet. Arms shall have 2-3/8 inches O.D. x 8-inch long slip fitter for mounting luminaire.

9-29.6(5) Foundation Hardware
This section is supplemented with the following:

All pedestrian pushbutton poles (Type PPB) shall be installed utilizing a Breakaway
Base Connection system in conformance with WSDOT standard plan J-20.15-03.
Bracket shall be sized to accommodate a standard push button pole with an outside
diameter of 3.5-inches. Anchor bolt receivers shall be installed at 2-3/4-inch by 7-15/16
inch on center.

Section 9-29.6 is supplemented with the following new section:

9-29.6(6) City of Tacoma Universal Pole

Unless otherwise specified, light standards and strain poles shall be in conformance with
the following City of Tacoma standard design.

Strength
Each pole and mast arm shall have adequate strength for the designated luminaire with
1.8 safety factor for maximum combined stresses using 90 mph isolach (117 mph gusts)
per AASHTO specifications for structure supports for highway luminaires. Design shall
be based on total loading of 50 pounds and EPA of 2.0 square feet.
Standard Bolt Spacing
30 Foot poles -- Baseplate shall accommodate 1 inch anchor bolts. The bolt circle shall be between 11 inches and 13 inches.
40 Foot Poles -- Baseplate shall accommodate 1 inch anchor bolts. The bolt circle shall be between 12.5 inches and 14.5 inches.

9-29.6(6)A Steel Strain Poles
Each pole shall be of tapered round or octagonal construction.
CLASS 1 POLE: Design for dead load tensions up to 1500 pounds
CLASS 2 POLE: Design for dead load tensions up to 2600 pounds
Class 1 poles shall have a minimum base diameter of 12-inches for octagonal poles and 12-1/4-inches for round poles. Poles shall have a minimum wall thickness of 0.3125-inches. Anchor bolts shall be 1-1/2-inch by 60-inches and shall have a spacing of 11-5/16-inches on center, on the square. It is the responsibility of the pole manufacturer to maintain proper clearance between the pole shaft and nuts for the anchor bolts.
Class 2 poles shall have a minimum base diameter of 13-1/2-inches for octagonal poles and 14-inches for round poles. Poles shall have a minimum wall thickness of 0.375-inches. Anchor bolts shall be 2-inch by 66-inches and shall have a spacing of 12-3/4-inches on center, on the square. It is the responsibility of the pole manufacturer to maintain proper clearance between the pole shaft and nuts for the anchor bolts.
Poles shall be of single-ply construction. Multiple-ply poles shall not be allowed.
Each pole shall be of tapered round or octagonal construction. Pole taper shall be in the range of 0.13 to 0.14 in/ft.
A base plate and top casting shall be securely attached to each pole. The attachment of the base plate to the pole shall be a welded connection sufficient to develop the full strength of the pole. The base plate shall have four (4) holes which will sufficiently accommodate the specified anchor bolts for the pole class.
Pole shall be of sufficient strength to allow for the span wire to be installed to sag an amount equal to 5% of the span length.
The maximum acceptable deflection, at 30 feet above the base, is 5 inches. The specified deflection shall be at a loading condition of 1,500 pounds horizontal pull at 30 feet above the base for Class 1 Poles. For Class 2 Poles, the loading condition shall be 2,600 pounds horizontal pull at 30 feet above the base.
Structural material shall be zinc-coated by a "hot-dip" process in accordance with ASTM A123 and the final coating shall measure 0.0039 inch or more in thickness as determined by a magnetic thickness gauge. All tapped holes shall be chased after galvanizing. Hardware shall be coated in accordance with ASTM A307.
The finished pole shall be reasonably straight and free from injurious defects. If galvanizing is damaged, the maximum area to be repaired is defined in accordance with ASTM A123 Section 4.6. The maximum area to be repaired in the field shall be
determined in advance by the Engineer. Repair areas damaged during construction, handling, transport or installation by one of the approved methods in accordance with ASTM A780 whenever damage exceeds 3/16 inches in width. Minimum thickness for repair shall measure 0.0039 inches.

The company shall furnish the purchaser with template prints showing spacing and size of holes in base for the anchor rods.

The material shall carry the manufacturer’s standard guarantee against any defect in material or workmanship for a minimum period of one year following the date of installation. The Contractor shall submit mil test reports for all steel used in the manufacturing of strain poles and pedestals.

The Contractor shall submit a Certificate of Compliance with ASTM Standards and Specifications for galvanizing. The certificate, signed by the galvanizer, shall detail galvanizing process and testing procedure to determine that galvanizing meets minimum thickness specified.

The contractor shall submit welder certification. Welders must be certified to AWS standards.

Each pole shall include the following:

1. One (1) rain-tight pole cap.
2. One (1) 4-inch by 6-1/2-inch handhole at base end with cover plate opposite to mast arm.
3. Anchor bolts shall be hot dipped galvanized steel with two (2) galvanized nuts and two (2) washers for each bolt. Only 12-inches of threaded end of the bolts must be galvanized. 1-1/2-inch diameter bolts shall have 8-inches of top thread and 2-inch diameter bolts shall have 10-inches of top thread.
4. Anchor bolts shall have threaded bottom ends to receive an anchor plate and nut. The nut shall be tack-welded to the anchor plate. Anchor plates for 1-1/2-inch diameter anchor bolts shall be 4-inch square by 1-inch thick. Anchor plates for 2-inch diameter anchor bolts shall be 6-inch square by 1-inch thick.
5. One (1) adjustable strain clamp to be mountable between 26 to 28 feet above the base. Clamp shall provide facility to attach span wire at four-quarter points.
6. Provisions for mounting a mast arm of specified length. All poles shall be supplied with one mast arm mounting flange. The centerline of the flange shall be approximately 6 inches below the top of 38-foot poles and 24 inches below the top of 30-foot poles. The flanges shall conform with the detail drawing included in the Special Provisions. Poles ordered without mast arms but with provisions for a later addition of a mast arm shall be provided with a metal cover and gasket to protect the opening being provided. The cover shall be bolted to the pole using the holes provided for fastening the mast arm.
7. One (1) two-inch coupling to receive clamp-on type aluminum weatherhead positioned at 27 feet, and no more than 45° from the location of the mast arm, unless otherwise specified.
8. One (1) 1-1/4-inch coupling for wire inlet located directly opposite the mast arm.
9. One (1) grounding lug-hole in lip of handhole for 1/2-NC brass bolt.
9-29.6(6)B Luminaire Mast Arms

Each mast arm shall have sufficient strength with a 1.8 safety factor to support a 70-pound luminaire on an 18-foot mast arm per the latest AASHTO Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

Material and workmanship shall conform to the best commercial standards of the industry.

The mast arm and its fastening shall be constructed of steel conforming to Section 9-29.6

Each mast arm shall support a ballast-in-head luminaire and shall provide a luminaire mounting height of approximately two (2) feet above the strain pole mounting flange.

The mast arm shall provide a horizontal extension from the center of the pole to the center of the luminaire as shown in the Plans.

The mast arm shall be of tapered construction. The luminaire end of the mast arm shall not exceed 2.375 inches O.D. for a minimum distance of 8 inches. The outside arm diameter at the pole flange shall not exceed 5.88 inches.

The mast arm shall be capable of being fastened to the mast arm mounting flange dimensioned in the detail drawing. All mounting bolt heads shall clear the weld.

9-29.10 Luminaires

This section is supplemented with the following:

Unless otherwise shown in the plans all new luminaires shall be Light Emitting Diode (LED) fixtures conforming to these specifications.

Luminaires shall be provided with utility labels. Utility labels shall show actual total system wattage for LED luminaires.

All LED Luminaires shall conform to the following minimum criteria:

- UL Listed
- A Qualified Product on one of the following fixture lists:
  - Energy Star
  - Design Lights Consortium
  - Lighting Design Lab
- Warranty: 10 Year Minimum including power driver and LED chips.
- Input Voltage: 120-277V
- Color Rendering Index (CRI): 70 Minimum
- Correlated Color Temperature (CCT):
  - 3000K for Residential Streets
  - 4000K for Arterial Streets
- Calculated Lumen Maintenance Factor (LMF): 100,000 hours or more (L70 at 25°C/77°F) in accordance with IESNA TM-21-11 and IESNA LM-80-08
- Surge suppression protection: 10kV (IEEE/ANSI C62.41.2)
9-29.10(1) Conventional Roadway Luminaries
This section is supplemented with the following:

Photometrics
Unless otherwise specified, the light distribution shall be IES Type III, medium, cutoff.

Photometric Performance:
Flat lens luminaires shall have a total downward utilization greater than 65%.
Drop lens luminaires shall have a total downward utilization greater than 70%.

Photometric performance shall be verified with photometric report from an independent testing laboratory. Report should be submitted with the bid when requested. Failure to supply report within ten (10) working days of bid opening may be cause, at the City of Tacoma’s discretion, for the bid to be considered non-responsive.

Ballasts
Ballasts shall be suitable for operation on 240 volt circuits unless otherwise stated.

150 watt luminaires shall be 55 volt design.

Each luminaire shall have fuses and fuseholders for each power conductor above ground potential. Fuses shall be 10.3mm x 38.1 mm (13/32” x 1.5”). Fuses shall be slow blow type (carry 110%, open at 135% within 1 hour, carry 200% for minimum of 10 seconds). Luminaires 250 Watts and below shall have 5 amp fuses. Luminaires above 250 watts shall have 10 amp fuses.

Luminaires shall have receptacle for ANSI standard twistlock photoelectric controls. For 240 volt luminaires the photocell shall be wired for 240 volts.

This section is supplemented with the following new section:
9-29.10(1)A LED Roadway Luminaires

Each luminaire shall have LED compatible fuses (in conformance with the manufacturer’s recommendations) and fuseholders for each power conductor above ground potential. Fuses shall be located in the fixture head. Fuses shall be 10.3mm x 38.1 mm (13/32” x 1.5”). Fuses shall be slow blow type (carry 110%, open at 135% within 1 hour, carry 200% for minimum of 10 seconds). Luminaires 250 Watts and below shall have 5 amp fuses. Luminaires above 250 watts shall have 10 amp fuses.

LED Roadway Luminaire housings shall be grey/silver and fabricated of aluminum. The power-door shall be fabricated from either aluminum or a UV resistant polymer. Power-door access shall be tool-less.

LED Roadway Luminaires shall be equipped with a 7-pin NEMA Photocell Receptacle.

Where specific luminaires are called out in the project documents, as the basis of the lighting design, the specified luminaires may be provided in accordance with the requirements of Sections 8-20 and 9-29. An alternate product may be provided for the LED Roadway Luminaire provided that the luminaire meets all the conditions of this section and meets the following conditions:
• LED Roadway Luminaires shall be one of the following products:
  o Beta/Cree – XSP Series or LEDway Series
  o Leotek – Green Cobra Series
  o GE – Evolve Series
  o American Electric Lighting/Holophane – Autobahn Series

• The total system wattage shall not exceed the total system wattage specified.

• A full electrical and photometric design shall be provided for review by the City. Submittals shall be Type 3E and stamped and signed by a licensed Professional Engineer. The alternate product selected shall meet or exceed the designed product. Contact the City of Tacoma Traffic Engineering Section for a list of design assumptions and criteria utilized in the lighting design.

• BUG Ratings for LED Roadway Luminaires shall be in conformance with Chapter 5 – Section 3.1 (Table 5-1) of the City of Tacoma Design Right of Way Design Manual

9-29.11 Control Equipment

9-29.11(2) Photoelectric Controls
This section is revised to read:

The photoelectric control shall be the twistlock type and the light sensitive element shall be a solid state photo diode. The control shall be designed to turn on at 2.6 foot-candles (+/- 20%) and turn off at 2.6 foot-candles (+/- 20%). The lighting control shall not drift by more than 1 per cent over a 10-year period.

The output control relay shall be electro-mechanical. The time delay for both turn on and turn off shall be a minimum of one second and maximum of 5 seconds. The output relay shall be rated 1000 watts incandescent or 15 amps inductive load. The contacts shall be normally closed.

The lighting control shall have a built in metal oxide varistor (MOV) rated a minimum of 160 joules for lightning and transient protection. The control shall also have secondary zener diode and transient filter. The relay shall be suitable for operation on 240 volt, 60 hertz electrical circuits.

Dimensions shall conform to ANSI specifications for twistlock photocells.

9-29.12 Electrical Splice Materials

9-29.12(1) Illumination Circuit Splices
This section is revised to read:

Splices and taps shall be made with solderless crimp connectors on underground and overhead circuits to securely join the wires both mechanically and electrically. Splices shall be sealed in accordance with 8-20.3(8).

Thermoplastic Electrical Insulating Tape

Electrical tape shall be made by the same manufacturer and compatible with the electrical coating utilized to form a complete system that both insulates and protects the splice. Electrical tape shall be based on polyvinyl chloride (PVC) and/or its copolymers.
and have a rubber–based, pressure–sensitive adhesive. The tape shall have a voltage rating of 600V (UL510). The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as “Flame Retardant, Cold and Weather Resistant.” The tape shall be resistant to abrasion, moisture, alkalies, acids, corrosion, and varying weather conditions, including ultraviolet exposure. The tape must be applicable at temperatures ranging from 0°F through 100°F (–18°C through 38°C) without loss of physical properties. The tape shall have an operating temperature up to 220°F (105°C). The tape shall be classified for use in outdoor environments. The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds. The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 120°F (50°C).

Moisture Resistant Electrical Coating
Electrical Coating shall be made by the same manufacturer and compatible with the vinyl electrical tape utilized to form a complete system that both insulates and protects the splice. Electrical Coating shall seal and bond the tape and be suitable for direct burial, direct water immersion, and above ground applications. Electrical coating shall be flexible when dry. Electrical coating shall consist of the solvents Acetone, Methyl Ethyl Ketone and Toluene and shall contain synthetic rubber and resin solids.

9-29.12(2) Traffic Signal Splice Material
This section is revised to read:
Induction loop splices and magnetometer splices shall include an uninsulated barrel-type crimped connector capable of being soldered. The insulating material shall be a heat shrink type meeting requirements of 9-29.12(1)A.

9-29.13 Control Cabinet Assemblies
This section is revised to read:
The Traffic Controller Cabinet Assembly shall be completely wired and tested to the 2003 NEMA TS2 Traffic Controller Assemblies Specification with NTCIP Requirements Version 02.06, as amended by these specifications.

Cabinets shall be compatible with both Siemens M50 and M60 series controllers.

The following submittals will be required for the review and approval by the City prior to fabrication and wiring:

1. Proposed cabinet layout diagram including shelving/rack locations. In addition, detailed diagrams shall be provided for the left side, right side, and back panels. Drawings shall be clearly labeled and dimensioned.

2. Proposed cabinet wiring diagram shall be submitted for the review and approval by the City. Wiring of cabinets shall not commence prior to City approval of the cabinet wiring plan.

All submittal comments shall be incorporated into a final set of prints and each cabinet shall be furnished to three (3) complete sets of cabinet prints. All cabinet wiring, and layout shall come on (1) E1 size sheet, multiple pages shall not be allowed. Upon request (1) CDROM or USB flash drive with AutoCAD v2008 cabinet drawing for the cabinet wiring.
9-29.13(1) Traffic Control Cabinets
Each Traffic Controller Cabinet shall meet the following general operating requirements:

1. The wired cabinet facility shall use the latest technology applicable meeting the requirements identified by these specifications.

2. The cabinet shall be designed for 16 channel operation. Load switch(s) 1-8 shall be vehicle phases 1-8; load switch(s) 9-12 shall be pedestrian phases 2, 4, 6, 8; load switch(s) 13-16 shall be overlaps A, B, C, & D; these load switch sockets shall be configured in this manor without rewiring the back side of the load-bay. BIU load switch drivers 1-16 shall be wired to appropriate load switch socket.

3. The cabinet shall be wired for (32) channels of detection and (4) channels of Opticom™ preemption.

4. The use of PC boards shall not be allowed except in detector racks and SDLC interface panels. With the exception of detection racks, the use of plug and play modules shall not be allowed

5. All cabinet 120VAC wires shall be 18AWG or greater, including controller “A” and MMU “A & B” cables.

6. All welds shall be free from burrs, cracks, blowholes or other irregularities.

7. The cabinet shall be UL listed.

9-29.13(1)A Cabinet Enclosures
All Cabinet enclosures shall meet the following requirements:

1. Controller cabinets that are not designated in the project plans and specifications as UPS Controller Cabinets shall be sized in accordance with NEMA P44 Controller Cabinet standards.

2. The cabinet shall meet NEMA 3R rating for enclosures.

3. The cabinet shall be fabricated from 0.125” minimum thickness 5052 H32 ASTM B209 aluminum alloy and be of clean cut design and appearance. The Cabinet shall be supplied with a natural mill finish inside and out, unless otherwise specified.

4. All exterior seams shall be manufactured with a neatly formed continuous weld construction.

5. All external fasteners shall be stainless steel. Interior cabinet welds shall be continuous for all lap and butt welds. Intermittent welds or silicone adhesive shall not be accepted in place of a weld for weather-tight penetrations. Pop rivets shall not be allowed on any external surface.

6. The cabinet shall be designed for mounting on a concrete pad with anchor bolts and typical flanges inside the cabinet. The cabinet base shall have continuously welded interior mounting reinforcement plates with the same anchor bolt-hole pattern as the footprint dimensions.

7. Unless otherwise approved by the Engineer, there shall be a minimum ten (10) inch vertical clearance above the front half portion of the base area to provide a clearance for conduit and cable entering the cabinet.

8. The cabinet shall be double-flanged where it contacts cabinet doors.
9. The top of the cabinet shall be sloped down 1” towards the rear to facilitate water runoff. The roof shall be sloped at a 90° angle at the front of the cabinet. Lesser slope angles are not allowed.

10. The cabinet shall be equipped with “C” channel rails welded to the interior of the cabinet such that panels may be mounted to the interior of the cabinet without drilling through the outer cabinet. The “C” channel rails shall be sufficient in strength to accommodate planned and reasonably anticipated future equipment needs. At a minimum, the cabinet shall have (2) welded on the back wall, and (4) welded on each side wall with (2) pairs on 8-inch centers. The side and back wall C channel rails shall run the entire usable height of the cabinet walls.

11. The cabinet shall come with lifting ears affixed to the upper exterior of the cabinet. The lifting ears shall utilize only one bolt such that the ears can be reoriented.

9-29.13(1)A1  Cabinet Enclosures for UPS Systems
Controller cabinets that are designated in the project plans and specifications as UPS Controller Cabinets shall be 70” high x 44” width x 25.5” depth (nominal dimensions) and meet the footprint dimensions as specified in Section 7.3, table 7-1 of NEMA TS2 standards for a Type P cabinet.

UPS Controller Cabinet enclosures shall meet all applicable requirements of Section 9-29.13(1)A and shall meet the following additional requirements:

1. The controller cabinet shall have (2) separate compartments. A Main compartment and a Battery Backup System (BBS) compartment.

2. The main compartment shall be accessible from the front door and shall house the cabinet load facilities and electronics. The Battery Backup System (BBS) compartment shall be accessible from the side door and shall contain the UPS system batteries.

3. The cabinet shall be designed such that when the UPS system inverter and ATS assembly are mounted in the BBS compartment, they shall be fully accessible when the front door is open.

9-29.13(1)B  Cabinet Doors and Locks
Cabinet Doors and Locks shall conform to the following:

1. A hinged door shall be provided on the front of the cabinet permitting complete access to the cabinet and the equipment to be contained therein.

2. Cabinet doors shall be mounted with single continuous stainless steel piano hinges that run the length of the door. The hinges shall be attached via stainless steel tamper resistant bolts.

3. Closed-cell, neoprene gaskets shall be bonded to the inside of cabinet doors. The gaskets shall cover all areas where the doors contact the double flanged cabinet housing exterior and be thick enough to provide a watertight seal.

4. Bearing rollers shall be applied to ends of door latches to discourage metal-on-metal surfaces from rubbing.

5. All lock assemblies shall be positioned such that the door handle does not cause interference with the key when opening the door.
6. A complete set of keys shall be supplied providing access to all doors, including the front cabinet door, the cabinet side door (where applicable), the police door and the generator receptacle door.

The front cabinet door shall meet the following additional requirements:
1. The front door of the cabinet shall be equipped with a universal lock bracket and lock that operates with a traffic industry conventional #2 key.
2. A stiffener plate shall be welded to the inside of the front door to prevent flexing.
3. The front door shall have a two-position, three-point door stop that accommodates open-angles at 90°, 125°, and 150°.
4. The front door handle shall be ¾” round stock stainless steel bar. Door handle mechanisms shall be interchangeable and field replaceable.

A side door on UPS Controller Cabinets shall be provided for accessing the BBS compartment. The cabinet side door shall meet the following additional requirements:
1. The side door shall be one piece construction without any recessed compartments.
2. The side door shall have a three-position, two-point door stop that accommodates open-angles at roughly 80°, 100°, and 120°.
3. The side door shall use a recessed hexagonal socket in lieu of a door handle.

9-29.13(1)C Recessed Compartments

The front door shall contain (2) flush mount locking recessed compartments. The upper compartment shall house a police door and the lower compartment shall house a generator bypass receptacle.

1. The welds for the police compartment and the generator receptacle compartment shall be done on the outside of the front door.
2. The police door compartment shall come with a conventional police lock.
3. The generator bypass receptacle compartment shall have an integrated door slide mechanism that allows the door to be closed and locked after a generator has been connected to the internal receptacle.
4. The generator bypass receptacle compartment shall be equipped with a universal lock bracket and a standard traffic signal Corbin #2 tumbler series lock.
5. The locking generator bypass compartment will be used to connect a generator for operating the cabinet during loss of service line power. The generator compartment shall be capable of being closed and locked while a generator is connected. The mechanism for allowing generator cable access, while the compartment is closed, shall be an integral part of the generator bypass door, via a sliding panel that will normally be in the closed position.

9-29.13(1)D Cabinet Ventilation

Cabinet ventilation shall be provided as follows:
1. A louvered air entrance shall be located at the bottom of the front cabinet door.
2. For UPS Cabinets, a louvered air entrance shall also be provided at the bottom of the side cabinet door.

3. Louvered air entrances shall satisfy NEMA rod entry test requirements for 3R ventilated enclosures. The baffle panel that holds the fan assemblies shall be sealed on the interior of the cabinet.

4. The cabinet shall come with (2) three-stage, multi-ply progressive density polyester, disposable air filter; and the filter performance shall conform to listed UL 900 Class 2 and shall conform to ASHRAE Standard 52.1. The filter shall be secured to entrance on main door by two (2) horizontally-mounted restraints.

5. The cabinet shall be provided with two (2) finger safe fans mounted on the right and left sides of the cabinet plenum, and shall be thermostatically controlled. Fans shall have a rating of 100 CFM and the thermostat setting to allow variable turn-on between 90 degrees and 140 degrees Fahrenheit. The fan motor shall use ball-bearings. This unit shall be fitted with an electrical noise suppressor. The safe touch thermostat and power terminal block(s) shall be din rail mounted on the cabinet plenum.

9-29.13(1)E  Cabinet Shelving

Cabinet Shelving shall be provided as follows:

1. The cabinet shall have two (2) aluminum 0.75-inch shelves that span the width of the cabinet. Shelves shall be double beveled 10” deep and reinforced with welded V channel, fabricated from 5052-H32 0.125-inch thick aluminum with double flanged edges rolled front to back. Slotted holes shall be inserted every 7” for the purpose of tying off wire bundles.

2. A slide-out computer shelf 16” length by 12” width by 2” depth shall be installed underneath the bottom equipment shelf. The shelf shall be mounted just left of center so that controller cables will not interfere with the operation of the shelf when equipment is installed. The computer shelf shall have a hinged cover that opens from the front and shall be powder-coated black. The computer shelf shall be fully retractable under the bottom equipment shelf. When fully extended, the computer shelf shall hold a minimum of 50lbs and shall automatically secure in place, mechanically, with a tool-less release mechanism.

3. For UPS Controller Cabinets, the BBS compartment shall come with (1) 14.25” x 7.75” flanged shelf designed to hold the batteries. In the UPS configuration, the main cabinet shall come with a third shelf that runs the entire width of the cabinet above the BBS compartment.

9-29.13(2)  Wiring

All wiring within the cabinet shall be neat and firm. All cabinet wire shall be amply rated for the function intended and shall include the use of terminal and suitable identification labels.

Connectors and harnesses shall be provided as defined in the latest NEMA TS 2 standard. Connector A & B shall be supplied for the monitor unit. In addition to the TS 2 10-pin connector, the cabinet shall also be wired with a standard 55-pin NEMA TS 1 Connector A.
Wire for harnesses shall conform to MIL-W-16878E Type B, and shall be rated to 600 volt, 105 degree Celsius. Wire shall be 22 gage, 19 strand. Wires shall be connected to the heads in the form of crimp-pinned connections. Solder lugs shall not be allowed. Connectors shall conform to MIL-C-26482 Series 1. Cables shall be covered with nylon expandable sleeving. Spiral wrap shall not be used. Termination points of the harnesses shall be accessible to the technician without requiring the back panel to be dropped. Unused harness wires shall be tied to the furthest location on the front of the back panel and shall be capped off.

Wires other than harnesses for the monitor and controller shall be THHN, rated at 600 volt, 105 degree Celsius, and shall be a minimum of 22 AWG.

Non insulated connectors shall be utilized for all connections to the Detector Input Terminal Strip.

9-29.13(3) Electrical Design

9-29.13(3)A  Load Bay
The design of the load-bay shall conform to NEMA TS2 Section 5, Terminals and Facilities, unless modified herein. The load bay shall be the termination point for the controller unit (CU) 10-pin TS2 MSA cable, The CU 55-pin TS1 MSA cable, and the (MMU) MSA & B cables. The terminal facilities layout shall be arranged in a manner that allows all equipment in the cabinet and all screw terminals to be readily accessible by maintenance personnel.

The load bay shall be fully wired and meet the following requirements:

1. The load bay assembly shall be constructed of smooth finished aluminum, sufficient in size for the intended purpose, and with a minimum nominal thickness of 0.125 inches (1/8 inch). The load bay assembly shall be mounted between 7-inches and 9-inches above the bottom of the cabinet.

2. The load bay assembly (panel) shall be hinged and capable of folding down to allow full access to all wiring and connectors on the back side of the load bay. The panel shall be constructed, and wiring shall have sufficient slack, such that folding down the back panel shall not interfere with the operation of the traffic signal while in service.

   (1) All wire shall enter the lower edge of the panel to facilitate folding down back panel. The controller (CU) and malfunction management (MMU) cables shall be routed through the back of the load-bay so that they will not be subject to damage during load-bay roll down.

   (2) All solder terminals shall be accessible when the load-bay is folded down.

   (3) The assembly shall be able to fold down without requiring other components, cables or switches to be removed.

   (4) The load bay shall be designed so that all other cabinet screw terminals are accessible without removing cabinet electronics.

   (5) The panel shall be able to be fully secured when in its upright position.
(6) The top of the load-bay panel shall attach directly to “C” channel spring nuts without the use of standoffs and spacers.

(7) The load bay shall be balanced such that it will not roll down when the spring nuts are removed, even when fully loaded with load switches, flashers and flash transfer relays.

3. The load-bay facility shall be wired for 16 channels.

(1) Load switch(s) 1-8 shall be vehicle phases 1-8
(2) Load switch(s) 9-12 shall be pedestrian phases 2, 4, 6, & 8
(3) Load switches 13-16 shall be overlaps A, B, C & D
(4) Load switches 1-8 & 13-16 shall be routed through a flash transfer relay.

4. The following sockets will be provided:

(1) Minimum sixteen (16) load switch sockets for NEMA load switches.
(2) Six (6) flash transfer relay sockets.
(3) One (1) flasher socket.

5. Install 2K-ohm, 12 watt load resistors as indicated below. The resistors should be installed to allow good air circulation. All load resistors shall be easily accessible from the back of the load bay.

(1) Install on green and yellow outputs of sockets 1, 3, 5, and 7
(2) Install on yellow outputs of sockets 9, 10, 11, and 12
(3) Install on green and yellow outputs of sockets 13, 14, 15, and 16

6. All load switches and flasher shall be supported by a bracket extending at least ½ the length of the load switch.

7. Controller Unit (CU) Wiring: Wiring for the 10-pin TS2 MSA cable and the 55-pin TS1 MSA cable shall be soldered to backside of a load bay screw-type terminal strip. All controller pins functions shall be terminated.

8. Malfunction Monitoring Unit (MMU) Wiring: MMU MSA & B cables shall be soldered to backside of a screw-type terminal strip. All MMU pin functions shall be terminated.

9. Relays:

(1) All 24 VDC relays shall have the same base socket, but it shall be different from the 115VAC relays.
(2) All 115VAC relays shall have the same base socket, but it shall be different from the 24VDC relays. (not applicable to flash transfer relays)
(3) The load bay shall have a relay that drops +24VDC to load switches when the cabinet is in flash.
10. The load bay shall have terminals to access the flash circuits 1 and 2.

11. There shall be a wire between the pedestrian yellow field terminals and another terminal on the load bay. The MMU channel 9-12 yellows shall terminate next to said pedestrian yellows terminal.

12. The load-bay shall be silkscreened on both sides. Silkscreen shall be numbers and functions on the front side, and numbers only on the back side.

13. Field wiring terminations shall be per channel across the bottom of the load-bay. Each channel shall have 3 terminations corresponding to the appropriate vehicle phase Green, Yellow and Red. Default wiring shall be left to right vehicle phases 1-8, pedestrian phases 2, 4, 6, 8 and overlap channels A, B, C, and D following the order of the load switches. Field terminals shall be #10 screw terminal and be rated for 600V.

14. System shall be wired to flash all vehicle channels. Flash programming shall be either red, yellow or no flash simply by changing wires on the front of the load-bay. WIG/WAG flashing operation shall alternate between the used vehicle phases as follows:

   (1) WIG: Phases 1, 4, 5, 8, OLA, & OLD
   (2) WAG: Phases 2, 3, 6, 7, OLB, & OLC

15. The intersection shall be capable of being placed on flashing operation by the conflict monitor, remote input, internal controller time clock and door switch. Remote and internal controller time clock flash shall be in accordance with MUTCD flash. Conflict flash shall be all-red.

16. All spare circuits shall be wired and terminated on a terminal strip and shown on the wiring diagram.

17. All cable wires shall be terminated. No tie-off of unused terminals will be allowed.

All wiring shall conform to NEMA TS2 Standards. Load bay wiring shall conform to the following colors and minimum wire sizes:

<table>
<thead>
<tr>
<th>Term</th>
<th>Wire Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle green load switch output</td>
<td>14 gauge brown</td>
</tr>
<tr>
<td>Vehicle yellow load switch output</td>
<td>14 gauge yellow</td>
</tr>
<tr>
<td>Vehicle red load switch output</td>
<td>14 gauge red</td>
</tr>
<tr>
<td>Pedestrian Don't Walk switch</td>
<td>14 gauge orange</td>
</tr>
<tr>
<td>Pedestrian Walk switch</td>
<td>14 gauge blue</td>
</tr>
<tr>
<td>Pedestrian Clearance load switch</td>
<td>14 gauge yellow</td>
</tr>
<tr>
<td>Vehicle green load switch input</td>
<td>22 gauge brown</td>
</tr>
<tr>
<td>Vehicle yellow load switch input</td>
<td>22 gauge yellow</td>
</tr>
<tr>
<td>Vehicle red load switch input</td>
<td>22 gauge red</td>
</tr>
<tr>
<td>Pedestrian Don't Walk input</td>
<td>22 gauge orange</td>
</tr>
<tr>
<td>Pedestrian Walk input</td>
<td>22 gauge blue</td>
</tr>
<tr>
<td>Pedestrian Clearance input</td>
<td>22 gauge yellow</td>
</tr>
<tr>
<td>Logic Ground</td>
<td>18 gauge white with red tracer</td>
</tr>
<tr>
<td>+24V DC</td>
<td>18 gauge red with white tracer</td>
</tr>
<tr>
<td>+12V DC</td>
<td>18 gauge pink</td>
</tr>
<tr>
<td>AC+ Line</td>
<td>14 gauge black</td>
</tr>
</tbody>
</table>
AC- Line     14 gauge white
Earth Ground     16 gauge green
AC line (load bay)    12/14 gauge black
AC neutral (load bay)    12/14 gauge white

Controller A Cables – AC+   18 gauge black
Controller A Cables – AC-   18 gauge white
Controller A Cables – Earth Ground  18 gauge green
Controller A Cables – All other cables 22 gauge blue

MMU A & B Cables – AC+   18 gauge black
MMU A & B Cables – AC-   18 gauge white
MMU A & B Cables – Earth Ground  18 gauge green
MMU A & B Cables – Start Delay Relay
  Common 18 gauge black
  Normally Open 18 gauge black
  Normally Closed 18 gauge black
MMU A & B Cables – All other cables 22 gauge orange

The field terminal blocks shall have a screw Type No. 10 post capable of accepting no
less than 3 No. 12 AWG wires fitted with spade connectors. Four (4) 12-position terminal
blocks shall be provided in a single row across the bottom of the main panel. Spade lugs
from internal cabinet wiring are not allowed on field terminal screws. There shall be a
second row of four (4) 12-position terminal blocks with screw type #10 above the field
terminal blocks. These blocks shall operate the flash program. It shall be changeable
from the front of the load-bay. All load switches, flasher, and flash transfer relay sockets
shall be marked and mounted with screws. Rivets and clip-mounting is unacceptable.

The terminal block above the Pedestrian field blocks shall be tied to the Don't Walks and
Walks with orange and blue 14AWG wire. This shall provide termination for pushbutton
control wires without utilizing field terminals.

The power terminal blocks shall have a screw Type No. 10 post capable of accepting no
less than 3 No. 12 AWG wires fitted with spade connectors. One (1) 12-position terminal
blocks shall be provided vertically on the right side of the load bay. The placement of the
power terminal block on any other panel shall not be allowed.

Wire size 16 AWG or smaller at solder joints shall be hooked or looped around the
eyelet or terminal block post prior to soldering to ensure circuit integrity. All wires shall
have lugs or terminal fittings when not soldered. Lap joint/tack on soldering is not
acceptable. All soldered connections shall be made with 60/40 solder and non-corrosive,
non-conductive flux. All wiring shall be run neatly and shall use mechanical clamps and
conductors shall not be spliced between terminations. Cables shall be sleeved in braided
nylon mesh and wires shall not be exposed.

All wires terminated behind the main panel or on the back side of other panels shall be
SOLDERED. No pressure or solder-less connectors shall be used. Printed circuit boards
shall not be allowed.
9-29.13(3)B Side Panels

Side panels shall be mounted on “C” channels as specified herein. All panels shall be smooth finished aluminum sufficient in size and thickness for the intended purpose and anticipated equipment required. Side panels shall be no smaller than 16 gauge and no larger than 12 gauge. Side panels shall be mounted no closer than 13” from the rear of the cabinet and no closer than 2” from bottom of cabinet.

The Back Left (BKLT) side panel(s) shall contain the following:
1. BKLT/PSIP – Power Supply Interface Panel
   a. 12-position, double row, high barrier block with #8/32 slotted brass screws
   b. See Section 9-29.13(3)B1 for additional requirements
2. BKLT/SDLC – SDLC Interface Panel
   a. 10-port SDLC terminal
   b. See Section 9-29.13(3)B2 for additional requirements
3. Additional blank panels are not required for vacant space in the back left of the cabinet.

The Front Left (FRLT) side panel(s) shall contain the following:
1. FRLT/VDIP – Video Detection Interface Panel
   a. See Section 9-29.13(3)B3 for requirements
2. FRLT/DP – Detection Panel
   a. Vehicle Detection: 64-position, double row, high barrier block with #8/32 slotted brass screws
   b. Emergency Vehicle Preemption: 8-position, double row, high barrier block with #8/32 slotted brass screws
   c. Pedestrian Detection: 8-position, double row, high barrier block with #8/32 slotted brass screws
   d. Pedestrian Returns: Two (2) 8-position, single row, high barrier block, with #8/32 slotted brass screws
   e. Isolated Neutral Buss: 24-position, solid copper bar with #10/32 slotted brass screws.
   f. Ground Buss: 16-position (minimum), standard copper grounding buss bar suitable for #14 through #4 cu.
   g. See Section 9-29.13(3)B4 for additional requirements
3. Blank aluminum spare panels shall be installed in the available space on the front left side of the cabinet.

The Back Right (BKRT) side panel(s) shall contain the following:
1. BKRT/PS - Power strip convenience outlets as identified by these specifications. Reference 9-29.13(3)C and 9-29.13(3)B5.
2. Additional blank panels are not required for vacant space in the back right side of the cabinet.

The Front Right (FRRT) side panel(s) shall contain the following:
1. FRRT/PP - Power Panel
   a. See Section 9-29.13(3)B5 for additional requirements
2. FRRT/CIP - Communication Interface Panel
   a. See Section 9-29.13(3)B6 for additional requirements
3. Blank aluminum spare panels shall be installed in the available space on the front right side of the cabinet.
9-29.13(3)B1  Power Supply Interface Panel
The power supply interface panel shall be mounted on the upper back left wall of the
cabinet above the top shelf. The power supply interface panel shall include terminations
for all the cabinet power supply inputs and outputs. It shall have a protective plastic
cover.

9-29.13(3)B2  SDLC Interface Panel
All SDLC cables shall be terminated on both ends, securely terminated to the SDLC
interface panel with screw type connection and professionally routed in the cabinet
interior to easily reach the controller, malfunction management unit, BIUs. All SDLC
connectors shall be fully populated with 15 pins each. SDLC cables shall be tie wrapped
in a neat and orderly way.

9-29.13(3)B3  Video Detection Interface Panel
The video detection interface panel shall be the single point interface for video power
and coax cabling. The panel shall have (6) individual 1 amp circuit breakers so that
individual cameras can be replaced in the field without disrupting the entire video
detection system, a (10) position terminal block with #8/32 screws to provide termination
for 120VAC and camera 120AC line and copper neutral and ground buss bars with
raised slotted & torque style screws.

A coax surge arrester shall be installed for each coax based video detection camera
identified in the project plans and specifications. The coax surge arrester shall meet or
exceed the manufacturer’s recommendations for the cameras installed. Surge arrestors
are not required to be installed in the cabinet when a coax based detection system is not
identified in the plans and specifications.

9-29.13(3)B4  Detection Panel
The detection panel shall be mounted on the left side of the main cabinet compartment
below the bottom shelf. The detection panel shall support (32) channels of vehicle
detection, (4) channels of emergency vehicle preemption, (4) channels or pedestrian
detection with (2) terminal screws per channel and (8) pedestrian returns on a single
panel. The pedestrian call terminal block shall be (2) single row terminals. They shall be
connected by removable buss bars. The loop wires shall be a 22AWG twisted pair. One
of the twisted pair wires of all colors shall have a white tracer and land on the second
position terminal of each loop. The emergency preempt wires shall be color coded as
follows. +24VDC orange, preempt inputs yellow and ground blue. The auxiliary vehicle
preemption shall be white with a yellow tracer.

The panel shall also include a (24) position solid copper neutral buss bar with pan head
slotted screws and a (16) position minimum solid copper ground buss bar with raised
slotted & torque style screws. They shall be mounted horizontally at the bottom of the
panel.

9-29.13(3)B5  Power Panel
The power panel shall handle all the power distribution and protection for the cabinet
and shall be mounted in the bottom right side of the cabinet. All equipment shall be
mounted on an appropriately sized silkscreened aluminum panel and include at a
minimum the following equipment:
1. A 30-amp main breaker shall be supplied. This breaker shall supply power to the load bay, load switches, controller, MMU, power supply, detector racks, power strip and auxiliary panels.

2. A 15-amp auxiliary breaker shall supply power to the fan, cabinet lights and GFI.

3. A 60-amp, 125 VAC radio interference line filter.

4. Power panel shall include a two-stage, electrically isolated transient voltage suppressor capable of dissipating a high energy surge of 20KA (8x20 microsecond pulses) while clamping the output voltage to 340 volts or less. Isolation shall be provided between the neutral and ground connections. Power to all cabinet electronics equipment and power strip shall come through this surge suppression circuit. There shall be a 2-position terminal block with slotted #10/32 slotted brass screws on the power panel, between the power strip mounted in the cabinet and the transient voltage suppressor for easy replacement.

5. A normally open, solid state relay rated for 50-amp minimum for the load switch power. (No Mercury Contactors shall be allowed.)

6. One see-through Plexiglas cover on stand-offs to protect maintenance personnel from AC line voltages. This shall be removable by loosening screws but without removing screws.

7. One (1) 24-position solid copper neutral buss bar with slotted #10/32 slotted brass screws

8. Minimum 24-position, standard solid copper ground buss bars with raised slotted & torque style screw heads suitable for #14 through #4 cu.

9. Two MOVs shall be terminated on the 120AC in field terminal. One tied between line and ground, the other between neutral and ground.

10. Line side AC Power Terminal, 3-position, double row. Power Terminal shall be a dead-front type rated at a minimum of 300V, 50 amp and suitable for #6 cu.

11. The neutral buss bar, the ground buss bar, and the line side power terminal shall be installed at the bottom of the power panel. The buss bars shall be installed horizontally and the terminal shall be installed with the same orientation such that the wires coming into the cabinet can be easily connected from the bottom of the cabinet.

All circuit breakers shall be Siemens, Square D, GE, Eaton/Cutler Hammer, or Engineer approved equal.

9-29.13(3)B6 Communication Interface Panel

There shall be (2) 12-position, double row, high barrier terminal blocks, with #6/32 slotted brass screws on the left bottom side of the spare panel on the right side wall of the cabinet.

9-29.13(3)B7 Fiberoptic Termination Panel

The cabinet shall come with a 12 port wall mounted fiberoptic termination panel suitable for an outdoor enclosure. Dimensions shall be 10-inches wide, 5.12-inches high and 3.25-inches deep. Capacity shall be two plates, up to 48 fibers. Material shall be heavy gauge steel.
Two coupler plate connectors shall be provided meeting the following requirements:

- Connector family shall be single-mode SC
- Fibers per connector shall be Duplex
- Connector Type/Polish shall be APC
- Material shall be Metal
- Number of Couplers shall be 6 each.

Panel shall come with appropriate compatible splice trays, and cable clamps.

9-29.13(3)C Convenience Outlets
The cabinet shall be wired with (1) 120 VAC convenience outlet with a ground fault interrupter (GFI) and (1) 120 VAC power strip without ground fault interrupters. The ground fault outlet (GFI) shall be mounted on the right side of the main compartment or near the power panel. The power strip shall be near the top shelf of the main compartment in the upper left corner of the cabinet and the wiring shall be neatly secured. No outlets shall be mounted on the door. The non-GFI power strip shall be on a separate circuit from the GFI outlet, and provide a minimum of six (6) outlets. The power strip shall be fed through the transient voltage suppressor located on the cabinet power panel. There shall be a 2-position terminal block on the power panel, between the power strip and the transient voltage suppressor for easy replacement.

9-29.13(3)D Cabinet Illumination
Two LED light strips shall be provided for cabinet illumination. One shall be mounted to the top front of the cabinet interior, and shall be rated at a minimum of 475 lumens. A second LED light to illuminate the load bay area and shall be mounted below the rollout drawer (computer shelf), and shall be rated at a minimum of 240 lumens. The light shall be attached so that it remains stationary when the drawer is extended. A door switch shall be wired so as to allow both lights to operate only when the door is open.

9-29.13(3)E Generator Bypass Compartment and Cable
Inside the generator compartment there shall be a silkscreened panel housing:

1. 30A / 125V flanged inlet receptacle capable of accepting a standard 30 amp generator plug. The receptacle shall be appropriate for an extra heavy duty industrial application meeting the following requirements:
   a. Backwired terminations for ease of installation
   b. NEMA L5-30P
   c. Listed to UL 498
   d. Fed Spec: W-C-596
   e. Certified to CSA C22.2 No. 42
   f. Housing/Flange: Nylon
   g. Terminal Retainer: Clear Polycarbonate
   h. Blades: Brass
   i. Terminal Screws: #10-32 Brass (Phillips / Slotted / Robertson)
   j. Terminal Clamp: Cold Rolled Steel – nickel plated
   k. Assembly Screws: Steel - nickel plated
   l. Mounting Screw: Nickel plated brass
   m. Electrical: Current Interrupting Certified for current interrupting at full rated current
   n. Dielectric Voltage: Withstands 2,000V minimum
2. A 50A, 2 pole, 4 contact cam switch with split 120VAC line and neutral feeds. The switch shall be a break before make type.

3. (2) LED lamps with sockets. One LED shall be illuminated when the cabinet has service line power available and the other when the cabinet has generator power available. All LED’s shall be field replaceable without putting the intersection in flash and shall carry a 5 year manufacturer warranty.

All wiring to the generator bypass compartment shall be contained in a single cable bundle. The cable shall connect to the backside of the electrical components and shall only be accessible from the inside of the cabinet front door. All electrical components on the inside of the front door that carry AC voltage shall be covered by a see-through plexiglass cover. The generator bypass cable shall terminate at the same power panel location as service line voltage.

9-29.13(3)F Police Panel

Behind the police panel door there shall be switches for use by emergency personnel. The wiring for these switches shall be accessible when the auxiliary panel is open.

The following switches shall be included:

1. Flash Switch: There shall be a switch for the police that puts the cabinet into flashing operations. The switch shall have two positions, “Auto” (up) and “Flash” (down). The “Auto” position shall allow normal signal operation. The “Flash” position shall immediately cause all signal displays to flash as programmed for emergency flash and apply stop time to the controller. When the police flash switch is returned to “Auto”, the controller shall restart except when the MMU has commanded flash operation. The effect shall be to disable the police panel switch when the MMU has detected a malfunction and all controller and MMU indications shall be available to the technician regardless of the position of the police flash switch. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

2. Signals On/Off Switch: There shall be a switch that renders the field signal displays electrically dead while maintaining controller operation for purpose of monitoring controller operations. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

9-29.13(3)G Auxiliary Switch Panel

The cabinet shall include an auxiliary switch panel mounted to the interior side of the police panel compartment on the cabinet front door. The panel shall be secured to the police panel compartment by (2) Philips head screws and shall be hinged at the bottom to allow access to the soldered side of the switches. Both sides of the panel shall be
silkscreened. All of the switches shall be protected by a hinged see-through Plexiglas cover.

The following switches shall be included:

1. **Controller ON/OFF Switch**: There shall be a switch that renders the controller and load-switching devices electrically dead while maintaining flashing operations for purpose of changing the controller or load-switching devices. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

2. **Signals ON/OFF Switch**: There shall be a switch that renders the field signal displays electrically dead while maintaining controller operation for purpose of monitoring controller operations. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

3. **Stop Time Switch**: There shall be a 3-position switch labeled “Normal” (up), “Off” (center), and “On” (down). With the switch in the “Normal” position, a stop timing command shall be applied to the controller by the police flash switch or the MMU (Malfunction Management Unit). When the switch is in its “Off” position, stop timing commands shall be removed from the controller. The “On” position shall cause the controller to stop time. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

4. **Technician Flash Switch**: There shall be a switch that places the field signal displays in flashing operation while the controller continues to operate. This flash shall have no effect on the operation of the controller or MMU. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

5. **Light Switch**: There shall be a switch that turns cabinet lighting off with the main door open. The switch shall be a general-purpose bat style toggle switch with 0.688-inch long bat.

**9-29.13(4) Auxiliary Equipment**

**9-29.13(4)A Traffic Signal Controller**

Traffic Signal Controller shall be a Siemens Controller, EPAC M62 with an ATC Communications Module. The CPU operating system shall be Linux. The Contractor shall contact the City of Tacoma Traffic Signal Shop at 253-491-5287 to obtain the current firmware version to be utilized.

**9-29.13(4)B Malfunction Management Unit (MMU)**

The cabinet shall come with a Malfunction Management Unit (MMU). The cabinet shall come with a (MMU) that meets all the requirements of NEMA TS2-2003 while remaining downward compatible with NEMA TS1. It shall have (2) high contrast LCD displays and an internal diagnostic wizard. It shall come with a 10/100 Ethernet port. It shall come with software to run flashing yellow arrow operation. The MMU shall be an Eberle Design, Inc. (EDI) model MMU2-16LEip. Contractor shall provide a compatible TS2 program card onboard memory.
9-29.13(4)C Load Switches
Modular solid state relay cube-type load switching assemblies, in accordance with the
latest NEMA TS 2 Standards, shall be used for opening and closing signal light circuits
and shall be jack-mounted external to the controller unit. Indicator lights shall be
connected to input circuits. Load switches shall be rated at fifteen (15) amps per circuit.
Each cabinet shall contain twelve (12) load switches.

9-29.13(4)D NEMA Flasher
The flasher shall be solid state, two circuit with a minimum current rating of fifteen (15)
amps per circuit. The flasher shall be cube type and have LED indications.

9-29.13(4)E Flasher Transfer Relay
The cabinet shall come with (6) 120V NEMA heavy duty flash transfer relays designed
for use in traffic signal cabinets. Flash transfer relays shall meet the following
requirements:
- Contacts
  - Configuration: DPDT
  - Materials: 3/8" Silver Cadmium Oxide
  - Contact Ratings: Tungsten Load Rating 20 Amps at 120 VAC (2.4
    KW)
- Coils
  - Nominal Input Voltage: 110/120 VAC 50/60 Hz
  - Nominal Coil Power: 7.0 VA
  - Coil Resistance: 970 Ohms +/-10%
  - Coil Insulation: Molded class F
  - Insulation Resistance: 100 Megaohms minimum
- Operation:
  - Pull-In voltage: ≤ 75% of nominal voltage
  - Drop-Out voltage: ≥ 30% of nominal voltage
  - Operate Time: 20 ms. approx.
  - Release Time: 20 ms. approx.
  - Operating Temperature: Ambient: -40°C to +65°C
- Expected Life:
  - Electrical: 200,000 operations min. @ rated load
  - Mechanical: 5,000,000 operations min. @ no load
- Dielectric Strength:
  - Across Open Contacts: 1200 VRMS
  - Contacts to Coil: 2200 VRMS
  - Contacts to Frame: 2200 VRMS
  - Pole to Pole: 2200 VRMS
- Mechanical Data:
  - Operating Position: Any
  - Mounting: NEMA 8 pin socket
  - Terminals: 0.250” x 0.055” (6.35 mm x 1.40 mm)
  - Insulation Material: Thermoplastic 94V-2 rating
  - Cover Material: Clear Polycarbonate 94V-2 Rating
  - Cover Protection Category: 40 IP rating
- Expected Life:
  - Electrical at Rated Load (Min.) 100,000 Operations
  - Mechanical Life 10,000,000 Operations
Dielectric Strength:

- Between Contacts: 1200 VRMS, 60 Hz
- Between Other Elements 2200 VRMS, 60 Hz

9-29.13(4)F Loop Detector Card Rack

Two (2) fully wired 8-position card racks, shall be installed. Detector racks shall be capable of using both two channel and four channel detection devices. One of the card racks shall also have the additional capacity and be fully wired for an Opticom Model 760 Card. Racks shall be secured to the detector shelf as far to the right as possible within the cabinet in such a manner as to afford easy access for maintenance, without interfering with access to any of the ports. The racks shall accommodate 4.5 inch high, 6.875 inch long, 1.12 inch wide two channel, two output per channel detector modules. Connectors shall be 44 contacts (22 each side) spaced on 0.156” centers. Each rack shall be provided with a bus interface unit (BIU). These shall meet all the requirements of NEMA TS-2 1988 standards. In addition, all BIUs shall provide separate front panel indicator LED’s for DC power status and SDLC Port 1 transmit and receive status.

The (BIU)’s shall be Eberle Design, Inc. model BIU-700, Econolite model BIU-64, Reno A&E model BIU/2, or Engineer approved equal.

The loop cabling shall be connected via a 37 pin DB connector using spring clips. The Opticom cable shall be connected via a 24 pin connector using locking latches. The power cable shall be a 6 pin connector. All power wires shall be 18AWG. The addressing of detector racks shall be accomplished via dipswitches mounted to the PCB. There shall be the capability to turn off the TS2 status to the BIU for the uses of TS1 detector equipment via dipswitches mounted to the PCB. There shall be a 34 pin connector using locking latches that breaks the output from the detector to the input of the BIU, there shall also be +24VDC and logic ground on this connector. All racks shall have space at the bottom front for labeling. All racks shall be designed for horizontal stacking. Separate racks for detection and preemption are not allowed.

9-29.13(4)G Detector Power Supply

The cabinet shall come with a shelf mounted cabinet power supply meeting at minimum NEMA TS 2-2003 (R2008) standards. It shall be a heavy duty device that provides +12VDC at 5 Amps / +24VDC at 3 Amps / 12VAC at 0.25 Amp, and line frequency reference at 50 mA. The power supply shall provide a separate front panel indicator LED for each of the four outputs. Front panel banana jack test points for 12VDC, 24VDC, and logic ground shall also be provided. The power supply shall provide 5A of power and be able to cover the load of four (4) complete detector racks.

9-29.13(4)H Ethernet over Copper Switch

Ethernet over Copper Switch shall be Actelis ML 684D with two SFP-LC ports, unless otherwise specified. A standard 110 VAC power adapter, a DSL-Octal Cable 2xRJ45, and a minimum 6’ Ethernet patch cable shall be provided with each. Two (2) SFP Optics 100Base-FX SM, 1310NM, 15KM, LC fiber optic units shall be provided with each Switch.

9-29.13(4)I Uninterruptable Power System (UPS)

The cabinet shall come with a complete uninterruptable power system (UPS), also referred to as a Batter Backup System (BBS). The UPS shall include at a minimum a UPS module with SNMP, ATS assembly, batteries, battery heater mats, battery cables
and a battery management system. All other ancillary equipment for a complete functioning UPS system shall be included.

The key UPS system components are identified in the subsection below.

9-29.13(4)I1 UPS Module
The cabinet shall come with (1) FXM 1100W uninterruptible power supply or approved equivalent that supplies clean reliable power control and management. It shall have Automatic Voltage Regulation (AVR), an Ethernet SNMP interface and a control and power connection panel that is rotatable for viewing in any vertical or horizontal orientation. It shall have nominal dimensions of 5.22” x 15.5” x 8.75” and come with mounting brackets. The UPS module shall be an Alpha model 017-201-23 or approved equivalent.

9-29.13(4)I2 UATS/UGTS Assembly
The cabinet shall come with (1) universal automatic transfer switch and universal generator transfer switch connected between the UPS module and the batteries. It shall have surge protection, have dimensions of 3.25” x 15.5” x 6.00” and come with mounting brackets. The ATS module shall be an Alpha model 020-168-25 or approved equivalent.

9-29.13(4)I3 UPS Batteries
The cabinet shall come with (4) high performance Absorbed Glass Mat (AGM) AlphaCell™ batteries with 112Ah runtime. The BBS batteries shall be Alpha model 240XTV or equivalent.

9-29.13(4)I4 UPS Battery Harness
The cabinet shall come with (1) battery cable (10) foot long wired for (4) batteries. The battery harness shall be Alpha model 740-678-27 or equivalent.

9-29.13(4)I5 Battery Management System
The cabinet shall come with AlphaGuard™ battery charge management system Alpha model 012-306-21 or approved equivalent.

9-29.15 Flashing Beacon Control
This section is renamed and replaced with the following:
9-29.15 Pedestrian Activated Crosswalk Beacons

Crosswalk beacons shall be with two flashing beacons, unless otherwise specified, independently aimable, with wireless control of the other beacons at the pedestrian crossing. Unit shall be one integral assembly which includes the two beacons, control circuitry and inter-beacon radio communications hardware and software. Indicator heads shall be green unless otherwise specified. All circuitry and batteries shall be contained within the indicator heads. A separate post mounted controller box shall not be acceptable.

Beacons shall have 8 inch amber faces and meet MUTCD and ITE specifications for the intended application. Flashing modes shall include MUTCD specification ½ second on, ½ second off and high visibility strobe pattern. Variations shall include synchronized or wig-wag (alternating). Flashing duration shall be variable from 5 seconds to 60 seconds. Beacons shall have inputs for activation by pedestrian pushbuttons and wirelessly transmitting the activation to the other beacons at the pedestrian crossing.

Beacon shall incorporate inter-beacon radio communication via spread spectrum radio using ISM 902-928 Mhz. Unit shall include minimum of 8 unique addresses for multiple units in close proximity. Communication shall have a minimum range of 300 feet.

Units shall have separate solar panels and batteries for each individual beacon. Solar panels shall be minimum 4 watt per beacon. Batteries shall be commercially available minimum 25 AH. Fully charged units shall have capacity for one month of continuous operation based on 300 20-second LED flash cycles per day.

Mounting shall be compatible with the specified pole. Contractor shall be responsible for coordinating the mounting interface between the pole and crosswalk beacon assembly.

9-29.16 Vehicular Signal Heads, Displays, and Housing

9-29.16(2)B Signal Housing

The second paragraph is supplemented with the following:

The door shall open a minimum of 160 degrees.

The third paragraph is supplemented with the following:

The sections shall be held firmly together by corrosion-resistant hardware in such a manner that additional sections may be added easily.

The fourth paragraph is supplemented with the following:

The terminal strip for a standard three-section head shall be a minimum five-position, ten-terminal, barrier-type strip with No. 8 screw-type fasteners. To one side of each terminal shall be attached the white, red, yellow and green signal section leads, leaving the opposite terminal for field wires. Multi-section heads shall be provided with a terminal strip located in the yellow (center) section. Lead shall be No. 18 AWG type with 1/32-inch wall, 105-1/4 centigrade thermoplastic insulation.
9-29.16(3) Polycarbonate Traffic Signal Heads
This section is deleted.

9-29.17 Signal Head Mounting Brackets and Fittings
This section is revised to read:
Vehicle and pedestrian signal heads shall be as detailed in the standard plans.
Span wire vehicle signal hanger hardware shall consist of span wire clamp, balance adjuster, wire entrance fitting and vehicle head locking device.

A. Construction
1. Bronze hangers are required.
2. The minimum size of pins shall be 5/8-inch diameter. Pins shall be stainless steel.
3. The minimum size of the ‘J’ or ‘U’ cable clamps is 1/2-inch diameter. Cable clamp bolts shall be stainless steel. Clamping insert shall be used.
4. The cable saddle shall be at least 9 inches long.
5. All cotter pins shall be brass and washers shall be stainless steel.
6. All hardware shall be of stainless steel, bronze or brass materials.
7. Signal stem shall be locked with a square headed set screw 1/4-inch minimum in diameter.
8. Wire entrance shall be a minimum of 1-1/4-inch diameter and shall have a female threaded base for nipple.
9. The balance adjuster directional lock shall be of the clamping type with 1/2-inch through bolt for locking. No set screw or lock nut acceptable.
10. All stems shall be secured to signal head with proper lock fitting.

Vehicle signal heads attached to a mast arm shall use a type M mounting bracket as detailed in the standard plans and in accordance with Section 8-20.3(14)B and Section 9-29.17.

9-29.18 Vehicle Detector
This section is supplemented with the following:
Unless otherwise specified in the contract plans, the vehicle detection system provided shall be a Gridsmart detection system with the performance and pedestrian modules included.

9-29.18(3) Gridsmart Detection System
The Gridsmart system provided shall provide all necessary components required in order to fully install, setup, test, operate and maintain a fully functional detection system, including, but not limited to, the following components:

1. Gridsmart Power over Ethernet Bell Camera(s)
2. GS2 Gridsmart Processor with the following Modules:
   (1) Performance Module
   (2) Pedestrian Module
3. Mounting Hardware
4. Connection Cables

Unless otherwise identified in the project plans, one Bell Camera is required for each intersection. Additional cameras may be required, and will be identified in the project plans when two or more major arterials intersect, or where sight lines require additional cameras. Changes to the intersection layout, or camera locations may require additional cameras for proper functionality. Field adjustments to the camera location shall not be permitted without approval from the Engineer.

All mounting hardware and cabling shall meet the manufacturer’s recommendations, unless otherwise specified herein.

9-29.19 Pedestrian Push Buttons

This section is supplemented with the following:

Pushbutton systems shall be fully compliant with Accessible Pedestrian System requirements as defined by the American with Disabilities Act. Pushbutton systems shall be two wire systems (four wire systems shall not be permitted).

Unless otherwise specified, the pedestrian push button central control unit shall be Polara shelf mount control unit capable of communication through a SDLC cable (Polara Model iCCU-S).

Push buttons stations shall be Polara - iN2 series with the following options:

1. 9x12 Front Plate Adapter
2. 9x12 Faceplate compliant with MUTCD R10-3b
3. No braille on Face Plate
4. Custom Messages
5. Black Button Cover

Extenders may be required for locations where the APS buttons are not within an acceptable reach. Extenders or adapters may be required to accommodate the size of the faceplates for locations where two pushbuttons are mounted to the same pole.

9-29.20 Pedestrian Signals

This section is supplemented with the following:

All pedestrian signals housings shall be die-cast aluminum.

The Vacant Section 9-29.22 is replaced with the following:

9-29.24 Service Cabinets

This section is supplemented with the following:

Service cabinets shall be pole mounted, exterior NEMA 3R Rated with a bolt on HUB for top entry. Cabinet shall be a maximum 10 inches wide, 14 inches high, and 5 inches deep.

Load Center shall have between 100 and 150 Amps, with capacity for 6 spaces and 12 circuits, or 8 spaces and 16 circuits as required by Code.
Service panels shall be Square D – QO Series

9-29.24(2) Electrical Circuit Breakers and Contactors

The first paragraph is supplemented with the following:

Mercury relays shall not be accepted. Contactors shall be one of the following brands:
1. Square D
2. Siemens
3. Eaton/Cutler Hammer
4. Engineer Approved Equal

The second paragraph is deleted.

The third sentence of the third paragraph is deleted.

The third paragraph is supplemented with the following:

All service panel breakers shall be one of the following brands/series
1. Square D – QO Series
2. Siemens – Type BL
3. Eaton/Cutler Hammer – Quick Lag Type BA
4. Engineer approved Equal

All surface mount breakers shall be one of the following Brands/Series:
1. Square D (Type QOU)
2. Siemens
3. Eaton/Cutler Hammer
4. General Electric
5. Engineer approved Equal

END OF SECTION

END OF SPECIAL PROVISIONS
APPENDIX A

CITY OF TACOMA

AND

WSDOT STANDARD PLANS
NOTES:

1. Concrete base shall be poured in place. Hand mixed concrete is prohibited. Concrete base need not be formed.

2. Notice to surveyors: any monument set in the City of Tacoma must bear the land surveyor number of the surveyor setting the monument. Monuments set as part of an approved plat are exempt.

3. The surveyor is to supply the City of Tacoma with a copy of the calculations used to determine all monument positions before the monuments are set.

4. Brass marker for City of Tacoma funded projects will be supplied by the City, all other brass markers to be supplied by the contractor.

5. Monument must be magnetically locatable.

6. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.
NOTES:
1. This detail shall be used in unpaved areas only.
2. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.
NOTES:

A. When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The height of the curb shall be 6", unless otherwise shown on plans.

B. Flush with gutter pan at curb ramp entrance or 3/4" vertical lip at driveway entrance.

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with 3/8" crushed surfacing top course.

CITY OF TACOMA
CEMENT CONCRETE CURB AND GUTTER

STANDARD PLAN NO. SU-03
NOTE:

B Flush with gutter pan at curb ramp entrance or 3⁄4" vertical lip at driveway entrance.

NOTEs:

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and 3⁄8" expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with 5⁄8" crushed surfacing top course.

CITY OF TACOMA
CEMENT CONCRETE CURB AND GUTTER AND ASPHALT WEDGE CURB

REVIEWS:

DCS
PUBLIC WORKS

GMS
ENVIRONMENTAL SERVICES

TACOMA POWER

TACOMA WATER

APPROVED FOR PUBLICATION

CITY ENGINEER

DATE

STANDARD PLAN NO.

SU-03A
NOTES:
1. Sidewalks shall be designed and constructed in accordance with 2010 AIA Standards, 28 CFR, Part 35 and as supplemented by the Public Right of Way Accessibility Guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%.
2. When placing walk adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for walk.
3. Staking is required where no curb is present.
4. Thickened edge shall be constructed using cement concrete on all radii. All other locations shall be backfilled and compacted.
5. Combination walk shall be 7' min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non-arterial streets. Dimensions are from back of curb to back of walk. See contract plans for width and placement of sidewalk.
6. All expansion joints shall be full depth with 3/8" premolded joint filler.
7. All joints shall be cleaned and edged. External edges shall be 3/8" radius. Internal joints shall be 1/2" radius.
8. All soft and yielding foundation material shall be removed and replaced with crushed surfacing top course (CSTC) per Section 9-03.9(3) of the WSDOT Standard Specifications.
9. All sidewalk shall be replaced to the nearest expansion or contraction joint. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
10. For sidewalks within the North Slope Historical District area use Standard Plan HD-NS03. See Standard Plan HD-NS01 for North Slope Historic District site map.

TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

4" SHINER AROUND 15' PANEL 3/8" EXPANSION JOINT

3/8" EXPANSION JOINT TO MATCH CURB JOINTS NOT TO EXCEED 15'

2" X 1/2" DEEP WESTERN GROOVER CONTRACTION JOINT (TYP.)

TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

HEAVY BROOM FINISH, (TYP.)

CEMENT CONCRETE TRAFFIC CURB & GUTTER SEE STANDARD PLAN NO. SU-03 OR AS SPECIFIED IN PLANS

SECTION DETAIL A-A

SECTION DETAIL B-B

CITY OF TACOMA
CEMENT CONCRETE SIDEWALK
STANDARD PLAN NO. SU-04
GENERAL NOTES:
1. Provide a separate directional curb ramp for each marked or unmarked crosswalk. Directional curb ramps are preferred over 45 degree ramps. Curb ramp location shall be placed within the width of the associated crosswalk, or as shown on the Contract Plans. The curb ramp centerline shall be parallel to the direction of the crossing. Forty-five (45) degree curb ramps shall be installed only after approval by the City's ADA Coordinator or the Street Operations Division Manager.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush and perpendicular to the direction of travel. There shall be no vertical discontinuity between the base of curb ramp and gutter line.
3. Do not place grates, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or turning space. Placement on or in front of ramp flares is allowed.
5. A thickened edge shall be constructed to full depth of adjacent curb along entire curb radius.
6. For sidewalk and curb ramps within the North Slope Historical District area see North Slope Historic District Site Map, HD-NS01. Apply Lamp Black 1/lb. per cubic yard of cement concrete or as required for discoloration in accordance with ASTM D209-81 Standard Specifications for Lamp Black pigment.
7. The running slope of a curb ramp shall not exceed 8.3% but does not require the ramp length to exceed 15 feet to avoid chasing the slope indefinitely when connecting to steep grades.
8. Curb ramp, turning space and flares shall receive a broom finish, see WSDOT Standard Specifications 8-14.
9. Return curbs, (pedestrian curbs), may only be used with landscaping or railing. Return curbs, (pedestrian curbs), shall not be used to prevent pedestrians from crossing streets.
10. All curb ramp designs shall be stamped by a Washington State licensed Professional Engineer. If meeting the current design standards is not possible, curb ramps shall be constructed to the maximum extent feasible as indicated by the Engineer's note on the stamped drawings. Rationale supporting the design variance shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance.
11. Pedestrian traffic should be aligned to the receiving curb ramp. The existing curb ramps shall be evaluated using criteria in the City's Curb Ramp Installation Matrix.
12. Consult the City's Curb Ramp Installation Matrix and the Right Of Way Restoration Policy for additional requirements.
13. Conduit for APS equipment shall be installed during curb ramp construction at all signalized intersections and at intersections where signalization is anticipated within the next 5 years. Coordinate with Public Works - Engineering, Traffic Section.
14. A Pedestrian Accessibility Control Plan shall be developed in conjunction with each project-specific Temporary Traffic Control Plan for all work in the ROW.
15. Pedestrian traffic shall NOT be directed behind the stop bar.
16. Curb ramp alignment should be consistent with crosswalk alignment.
17. Curb ramp shall be 5' minimum in width.
18. Catch basins shall be located upstream of curb ramps outside of flare/wing for new construction or when performing storm sewer upgrades.
19. For constructability purposes, the City recommends designing to less than the maximum allowable slopes.
**NOTES:**
See Standard Plan SU-05 for referenced notes

**LEGEND**
- SLOPE IN EITHER DIRECTION

**SECTION DETAIL A-A**
- CEMENT CONCRETE PEDESTRIAN CURB, PERMITTED ADJACENT TO LANDSCAPING, TAPER CURB, SEE NOTE 4
- GRADE BREAK
- 2.0% MAX.
- 5'-0" MIN.
- SEE CONTRACT PLANS OR MATCH NEAREST JOINT
- 15'-0" MAX., SEE NOTE 7
- GRADE BREAK
- COUNTER SLOPE 5.0% MAX.
- GRADE BREAK
- TOP OF ROADWAY
- DETECTABLE WARNING SURFACE, SEE STANDARD PLAN SU-05G
- GRADE BREAK
- 8.3% MAX.
- 2.0% MAX.

**SECTION DETAIL B-B**
- LARGE TRANSITION CURVE
- GRADE BREAK
- 8.3% MAX.
- 2.0% MAX.

**PLAN VIEW**
 WITH PLANTER STRIP/LANDSCAPING

**ISOMETRIC VIEW**

**CITY OF TACOMA**

**COMBINATION CURB RAMP**

**STANDARD PLAN NO.** SU-05C
NOTES
1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares).
2. The rows of truncated domes in a Detectable Warning Surface shall be parallel with the direction of wheelchair travel.
4. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
5. Detectable Warning Surfaces shall be either cast-in-place from Armor Tile, ADA Solutions, or an approved equal or surface applied from Vanguard or an approved equal. No detectable warning fasteners such as glue, bolts, or screws are allowed. Surface applied detectable warning surfaces may be used only when the curb ramp has associated features to deter vehicles from driving over the ramp area. Examples of such features include pedestrian curbing, utility/signal/streetlight poles, and fire hydrants.
6. Detectable warning surface shall be yellow and shall match SAE AMS Standard 595, Color 33538.

![Diagram of Detectable Warning Surface and Truncated Dome Details](image_url)

**TRUNCATED DOME DETAILS**
TRUNCATED DOME SPACING

<table>
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<th>MIN.</th>
<th>MAX.</th>
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</tr>
<tr>
<td>E</td>
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**SECTION DETAIL A-A**
TRUNCATED DOME

**DETECTABLE WARNING SURFACE DETAIL**

- **DIRECTION OF TRAVEL**
- **CURB RAMP, TURNING SPACE, PASS-THROUGH OR WALKWAY**
- **DETECTABLE WARNING SURFACE**
- **2'-0" MIN. ALL APPLICATIONS**
- **Curb and Gutter**
- **Ramp or Turning Space**
- **Flush with Gutter**

**MATCH TO WIDTH OF CURB RAMP, TURNING SPACE, PASS-THROUGH OR WALKWAY**

**PLACE AT BACK OF CURB LINE, UNLESS OTHERWISE NOTED**

**SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. THIS CONCRETE BORDER SHALL NOT EXCEED 2 INCHES.**

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**RVDR**
PUBLIC WORKS
TACOMA POWER

**REVIEWED BY**
ENVIRONMENTAL SERVICES
TACOMA WATER

**APPROVED FOR PUBLICATION**

**CITY OF TACOMA**

**DETECTABLE WARNING SURFACE DETAILS**

**CITY ENGINEER**
**DATE**

**STANDARD PLAN NO.**
SU-05G

**kurtis.kingsolver**
04/19/2021
**NOTES**

1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares).
2. The edge of the Detectable Warning Surface shall be placed along the back of the curb line unless otherwise noted.
3. The Detectable Warning Surface shall be within 2" (max.) of the edge of the ramp.
4. The rows of truncated domes in the Detectable Warning Surface shall be parallel with the direction of travel.
6. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
7. See Standard Plan SU-05G for Detectable Warning Surface Details.
NOTES

1. The clearance between the face of curb and any obstruction, except mail boxes, shall be a minimum of 1'-6" and shall be in accordance with applicable standards. The front of a mail box shall be 6" to 8" from the face of curb.

2. Sidewalk cafes, artwork, poles, ramps, etc., may not reduce the width of the sidewalk to less than 5' for residential streets and 7' for arterial streets and commercial areas, excluding the curb width.

3. All obstructions shall meet requirements for cane detection. See City of Tacoma Design Manual Chapter 12.

4. The following criteria shall only be used in rare circumstance when an obstruction cannot be relocated and does not allow the minimum required sidewalk width:
   a) If the sidewalk is new or replacement construction and the sidewalk cannot meet the minimum clearance requirements due to an existing obstruction then a maximum extent feasible (MEF) justification is required and shall be included in the Plans. Rational supporting the MEF shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance. The MEF shall be submitted and approved by the City's Traffic Section prior to construction.
   b) When placing a new obstruction in an existing sidewalk and the minimum clearance requirements cannot be met, a variance shall be submitted and approved by the City's Traffic Section prior to construction.

5. See Tacoma's Design Manual Chapter 8, Pedestrian Facilities, for additional information on Pedestrian Access Routes (PARs).
NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07A.

STANDARD CONCRETE SECTION DETAIL A-A

NTS

REVIEWED BY

DENISE SWENSON
PUBLIC WORKS

ENVIRONMENTAL SERVICES

N/A

TACOMA POWER

TACOMA WATER

APPROVED FOR PUBLICATION

CITY OF TACOMA
CEMENT CONCRETE DRIVEWAY
ENTRANCE AND ACCESS
TYPE 2

N/A

CITY ENGINEER

8/19/17

DATE

STANDARD PLAN NO. SU-08
1. All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-15B for any streets exempt from this policy.

2. Temporary Surface Restoration:
   - Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   - Residencials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 6-05.3(8)B for concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density.
   - Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.
   - Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.

   Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.
   - Streets and courts 20 feet or less in width and all alleys are considered one-lane streets. Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.
   - Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer.

9. Transverse construction joints terminate at the edge of the 2' cut back.

10. HMA pavement shall not be placed over CDF until approved by the City.

---

### TABLE 1

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<thead>
<tr>
<th>Description</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterials, Industrial Areas &amp; Roads with Bus Traffic</td>
<td>MATCH EXISTING +1&quot;, OR 4&quot;, WHICHEVER IS GREATER</td>
<td>6&quot;</td>
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<tr>
<td>Residencial and Alleys</td>
<td>MATCH EXISTING +1&quot;, OR 3&quot;, WHICHEVER IS GREATER</td>
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</tr>
</tbody>
</table>

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CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

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[Signature]

DATE

12 Jun 2009

TYPICAL PAVEMENT RESTORATION FOR ASPHALT CONCRETE/OIL MAT PAVEMENT

STANDARD PLAN NO. SU-15A
NOTES:
1. Provide uniform support under barrel and provide pockets in bedding for pipe bells.
2. Hand tamp under haunches.
3. Trench width shall be as specified in Section 2-09.4 of the WSDOT Standard Specifications.
4. Pipe zone backfill and backfill above pipe zone shall meet the material requirements of WSDOT Standard Specification Section 9-03.12(2) for gravel backfill for walls.
5. All trenches shall be compacted in accordance with SU-28.
6. Pipe zone bedding shall meet the material requirements of WSDOT Standard Specification Section 9-03.9(3) for crushed surfacing top course.

DCS
PUBLIC WORKS
N/A
TACOMA POWER

GMS
ENVIRONMENTAL SERVICES
N/A
TACOMA WATER

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CITY OF TACOMA
PIPE ZONE BEDDING AND BACKFILL FOR SANITARY AND STORM SEWERS

STANDARD PLAN NO.
SU-16
NOTE:
As an acceptable alternate to rebar, wire mesh having a minimum area of 0.12 square inches per foot may be used for adjustment sections.
NOTES:
1. Covers shall have the word "SANITARY" in 2 inch raised letters when used with sanitary sewer installations, or "STORM" when installed with storm sewers. All covers shall have the words "CITY OF TACOMA" in 1-1/2 inch raised letters and the words "CONFINED SPACE" in 1-inch raised letters.
2. Lids must be interchangeable, any lid shall fit any and all frames.
3. Frame and cover shall be designed for H-20 loading.
4. Frame shall be grey-iron conforming to the requirements of AASHTO M 105, grade 30B.
5. Covers shall be ductile iron conforming to ASTM A 536, grade 80-55-06.
6. Per WSDOT Standard Specification 9-05.15, metal castings shall not be dipped, painted, welded, plugged, or repaired.
PROGRESSION OF WORK

PRIOR TO EXCAVATING OR RESURFACING:
Contractor shall:
- Remove frame and risers to a depth 8-inches below subgrade.
- Install steel protective plate in accordance with Detail A.
- Reference the location of the utility structure.

CONSTRUCTION OF SURFACING:
- Gravel surfacing:
  - Install base materials and gravel over protective steel plate.
- Asphalt surfacing:
  - Install base materials and asphalt over protective steel plate.
- Concrete surfacing:
  - Adjust frame and grate to final grade prior to placing concrete surfacing.

UPON COMPLETION OF SURFACING:
- The asphalt concrete pavement or gravel surfacing shall be removed in a neat circle in accordance with Detail B.
- The location of the asphalt or gravel removal shall be based upon the reference location established by the Contractor.
- Crushed surfacing and base materials shall be removed and disposed of to allow the removal of the steel protective plate.
- The structure shall be adjusted to finish grade utilizing the same methods of construction as specified for new construction in Section 7-05.
- For hot mix asphalt, the area shall then be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the finished pavement surface. 24-hours after placing the concrete, HMA pavement CL. 3/8" PG 64-22 shall be placed in accordance with Standard Plan No. SU-15.
- For non-paved surfaces, the area shall be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the top of the casting and then backfilled with crushed surfacing top course and compacted.

NOTE:
- All general provisions, construction and warranty requirements of the Right of Way Restoration Policy will be followed.
ABBREVIATIONS

F.C...... FACE OF CURB
C.G...... CURB GRADE
F.L...... FLOW LINE
F.WALL... FACE OF WALL
SH.GR.... SHOULDER GRADE
C.B....... CATCH BASIN
M.H....... MAN HOLE
L.H....... LAMP HOLE
S.G....... SUBGRADE
B.G....... BALLAST GRADE
C.R.R.GR. CRUSHED ROCK GRADE
P.C....... POINT OF CURVATURE
P.T....... POINT OF TANGENCY
V.C....... VERTICAL CURVE
E.P....... EDGE OF PAVING

* DESIGNATES DISTANCE FROM GUARD STAKE TO GRADE OR LINE HUB.
  (OPTIONAL)

STAKES SHALL HAVE STATIONS ON BACK SIDE

LINE POINTS

GUTTER GRADE
GRADE POINTS

LINE & GRADE POINTS
FOR WALKS - WHICHEVER SIDE IS STAKED

ALLEY SLABS

WALKS

SIDE OR BACK

LINE & GRADE POINT

LINE POINT

SEWERS

WALLS

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

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STANDARD PROCEDURE
FOR MARKING
CONSTRUCTION STAKES

CITY ENGINEER
DATE

STANDARD PLAN NO.  SU-26
EXISTING SURFACES SHALL BE PREPARED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 5-04.3(5) A PRIOR TO PLACING ANY NEW PAVEMENT SURFACES

NOTES:
1. The existing pavement shall be cut full depth with an eight inch diameter core drill. The subbase material shall be removed using a vacuum excavator, keeping the excavation as minimal as possible.
2. Backfill the excavation with a six inch cushion of crushed rock over the utility then place the remaining void with CDF or compacted CSTC.
3. For asphalt concrete streets, repair the cored pavement section with HMA Class 1/2" PG 64-22 and seal the joint.
4. For cement concrete pavement streets, replace the cored section with Class 6000 cement concrete.
5. If excavation is larger than 8" core, restoration shall comply with the Right of Way Restoration Policy.
<table>
<thead>
<tr>
<th>DEPTH</th>
<th>TESTING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURFACE (BELOW HMA)</td>
<td>N/A 1 TEST EVERY 150 LINEAR FEET OF TRENCH OR MINIMUM 2 PER TRENCH</td>
</tr>
<tr>
<td></td>
<td>1 TEST FOR 150 SQUARE FEET FOR ISOLATED PATCHES</td>
</tr>
<tr>
<td>1 TO 4 FEET (OR MIN 18 IN. ABOVE PIPE)</td>
<td>1 EVERY 12 INCHES  SAME AS FOR SURFACE</td>
</tr>
<tr>
<td>&gt; 4 FEET TO BOTTOM OF TRENCH</td>
<td>NO SPECIFIC REQUIREMENT - MAY BE REQUIRED BY COT INSPECTOR FOR VERIFICATION OF COMPACTION</td>
</tr>
</tbody>
</table>

A. TESTING SHALL BE PERFORMED BY A CERTIFIED INDEPENDENT TESTING LABORATORY OR A CERTIFIED TESTOR AS APPROVED BY THE CITY'S CONSTRUCTION DIVISION. THE COST OF TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. TESTS SHALL BE COMPLETED AND REPORTS IDENTIFYING THE PROJECT NUMBER SUBMITTED TO THE CONSTRUCTION DIVISION WITHIN 48 HOURS OF TESTS.

B. ONLY ONE COMPACTION TEST WILL BE REQUIRED FOR MULTIPLE TRENCHES WITHIN A 150 SF AREA PROVIDED COMPACTION PROCEDURES ARE THE SAME.

C. EACH LIFT SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY, AS VERIFIED BY COMPACTION TESTING. BEFORE PROCEEDING TO THE NEXT LIFT. COT INSPECTOR MAY REQUIRE EXCAVATION AND REMOVAL OF SOIL WHERE COMPACTION IS IN QUESTION.

NOTES:

1. Compact backfill material in max. 12 in. lifts. Compact backfill material to 95% max. modified proctor density (ASTM 1557) except directly over pipe, hand tamp only.

2. Native backfill will require laboratory testing to determine max. modified proctor density. Imported backfill will require submittal of proctor test results from supplier.

3. See WSDOT Standard Specification Section 2-09.3(1)E for material requirements on "Controlled Density Fill" (CDF). CDF may be used for trenches less than 24 in. wide or as approved by the City Engineer. CDF shall be vibrated/compacted.
NOTES:
1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
2. No mesh reinforcement to be used for pervious sidewalks.
3. Storm pipe shall be per the City Stormwater Management Manual Volume 3 for pipes within the right-of-way.
NOTES:
1. The intent of this design is to facilitate the compaction of hot mix asphalt pavement adjacent to a drainage structure.
2. The centerline of the drainage structure may differ from the centerline of the frame and grate.
NOTES:
1. Surface mounting of sign posts, especially within traffic islands or medians, is only allowable with special authorization from the city's traffic engineering group. (Exception: Surface mounting of flexible post object markers within islands or medians is permitted).
2. If finished ground line is a hard surface, then compacted native backfill material shall be concrete with the top of foundation being smooth, dense, and uniform to finished ground line.

SIGN SUPPORT DETAIL
FOR STEEL SIGN POST

BASE PLATE DETAIL FOR
STEEL SIGN POST SURFACE MOUNTING
(SEE NOTE 1)
NOTES:
Class 3000 cement concrete shall be placed, 1 1/2" min. below the finished pavement surface.

24-hours after placing the cement collar, HMA Class 3/8" PG 64-22 shall be placed in accordance with Standard Plan SU-15.

If the valve chamber being adjusted belongs to Tacoma Water, the Contractor shall contact Tacoma Water, Operations, at 253-502-8742 for final inspection.
NOTES:
1. The contractor will provide necessary control points required during preliminary spotting for striping, stop lines, legends, crosswalks, traffic arrows, and signs. Crosswalk bars typically align with lane lines and mid-lane, placed to avoid wheel path. Crosswalk bars shall be parallel to the lanes' direction of travel.
2. Partial length crosswalk bars are not allowed. A single bar, as opposed to the double bar pattern may be used when space is limited adjacent to gutter, curb or intersecting crosswalk.
3. Typical stop line width is 12".
4. Stop line placement may require adjustment to account for signal detection equipment.
NOTES:

1. The Contractor will provide necessary control points for striping, stop lines, legends, crosswalks, traffic arrows, and signs. City inspection required before striping or associated sign installation begins.

2. Use of RPMs as shown correspond with paint striping. If striping consists of thermoplastic or similar then Type 1Y/RPMs are omitted.

3. RPMs shall not be placed over longitudinal or transverse joints of the pavement surface.

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DES
PUBLIC WORKS
TACOMA POWER

NA
ENVIRONMENTAL SERVICES
TACOMA WATER

CITY OF TACOMA
LONGITUDINAL PAVEMENT MARKINGS
STANDARD PLAN NO. CH-03A
NOTE:
1. The Contractor will provide necessary control points for striping, stop lines, legends, crosswalks, traffic arrows, and signs. City inspection required before striping or associated sign installation begins.

DOTTED EXTENSION LINE (4" - 8")

VARIES

8' REPEATING INTERVAL

EDGE LINE (4”) (WHEN ADJACENT TO PARKING)

BIKE LANE SKIP LINE (6")

BIKE LANE LINE (6")

LONGITUDINAL PAVEMENT MARKINGS

STANDARD PLAN NO.  CH-03B
NOTES:
1. Contractor will provide necessary control points to assist in preliminary spotting for striping, stop line, legends, crosswalks, traffic arrows, and associated signs.
2. If storage length is 100 feet or greater, then a second arrow, (without "only"), to be placed at 22 feet from stop line to near edge of the arrow.
3. Use of RPMs as shown correspond with paint striping. If striping consists of thermoplastic (or similar) then type 1Y/W-RPMs are omitted.
NOTES:
1. Contractor will provide necessary control points to assist in preliminary spotting for stripe, stop line, legends, crosswalks, traffic arrows, and associated signs.
2. Typical letter width is 11\(\frac{3}{4}\)\".
3. Typical letter spacing is 8\".
4. Letter stroke is 3\(\frac{1}{2}\)\".
5. Refer to WSDOT M24.40-02 for more specific traffic arrow dimensions.
6. Arrows shown may be mirrored about their centerline as applicable to design.
THE PREFERRED METHOD OF SIGN INSTALLATION IS BEHIND THE SIDEWALK OR IN THE PLANTING STRIP TO MAINTAIN AN UNOBSTRUCTED WALKWAY. A SQUARE 12 GAUGE STEEL TUBE WITH ANCHOR SHALL BE INSTALLED A MIN. OF 18" FROM FACE OF CURB WITH SIGN FLAG NO CLOSER THAN 18"-24" FROM FACE OF CURB.

TYPICAL NEAR SIDE STOP

20' MIN. NO PARKING
(30' FROM STOP SIGNS)

TYPICAL FAR SIDE STOP

4' MIN. FROM TREE TRUNK

POLE INSERTED IN-GROUND, BEHIND SIDEWALK
OR NEXT TO CURB

5' X 8' MIN. LANDING AREA OR HARD SURFACE

NOTES:

1. All bus stop signs shall be installed in the Right-of-Way.
2. A bus stop sign, shelter or bench shall be a minimum of 15' from a fire hydrant, 4' away from surrounding tree trunks, and min. 5' from all utility poles.
NOTES:

1. Typical radius.
2. A larger radius is recommended for stops immediately after a right hand turn.
3. For articulated buses, add 20'.
B&B OR CONTAINERIZED SHRUB (TYP)

SET ALL PLANTS AT NURSERY LEVEL

3"-4" (SETTLED) ARBORIST WOOD CHIP MULCH DEPTH, TAPERED AT TRUNK

REMOVE ALL WIRE, STRINGS, CONTAINERS AND BURLAP MATERIAL FROM ROOT BALL

FINISH GRADE

REUSED AND AMENDED SITE SOIL. SEE STD PLAN NO. LS-12 SOIL AMENDMENT AND DEPTH

UNDISTURBED SUBGRADE (PROVIDES FIRM BASE SO ROOTBALL WILL NOT SINK)

MIN WIDTH OF PIT = 2 TIMES ROOTBALL DIAMETER
ZONE A (CRITICAL ROOT ZONE)
The Critical Root Zone is the area under a tree measuring 1 foot of radius per 1 inch of diameter at breast height (DBH) from the trunk outwards and 24 inches in depth. For example: for a 10 inch dbh tree, the Critical Root Zone is located at least 10 feet out from the trunk and 24 inches deep.

RESTRICTIONS
1. No disturbance allowed without site-specific inspection and approval of methods to minimize root damage.
2. If roots larger than 2” IN DIA. are encountered, inspection and approval is required before proceeding trenching/excavation work.
3. Tunneling is required to install lines 3'-0" below grade or deeper.

ZONE C (FEEDER ROOT ZONE)
The Feeder Root Zone is the area under a tree measuring 2 feet of radius per 1 inch of DBH from the trunk outwards and 24 inches in depth. For example: for a ten inch diameter tree, The Critical Root Zone is located at least 20 feet out from the trunk and 24 inches deep.

RESTRICTIONS
1. Operation of heavy equipment and/or stockpiling of materials subject to approval. *Surface protection measures required
2. Trenching permitted as follows:
   - Excavation by hand or with a hand-driven trencher may be required
   - Minimize trench width to the extent possible
   - No disturbance permitted within ZONE A
   - Maintain 2/3 or more of ZONE C in an undisturbed condition
3. Tunneling may be required for trenches deeper than 3'-0"

ZONE B (DRIP LINE)
The Drip Line is the area below the tree in which the boundary is designated by the edge of the tree's crown.

RESTRICTIONS
1. Operation of heavy equipment and/or stockpiling of materials subject to approval. *Surface protection measures required
2. Trenching permitted as follows:
   - Excavation by hand or with a hand-driven trencher may be required
   - Minimize trench width to the extent possible
   - No disturbance permitted within ZONE A
   - Maintain 2/3 or more of ZONE B in an undisturbed condition
3. Tunneling may be required for trenches deeper than 3'-0"

*SURFACE PROTECTION MEASURES
1. Wood chip mulch layer, 6”-12” depth; or
2. 4” wood chip mulch layer under 3/4” plywood; or
3. 4” gravel over staked geotextile fabric
4. 4” wood chip mulch layer under steel plates;
5. 4” wood chip mulch layer under logging road mats

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER

TREE PROTECTION DURING CONSTRUCTION

STANDARD PLAN NO. LS-08
**TREE PROTECTION ZONE (TPZ)**

The Tree Protection Zone is an arborist defined area surrounding the trunk intended to protect the roots and soil to ensure future tree health and safety.

The location of the Tree Protection Zone is at the edge of the Critical Root Zone OR Drip Line, whichever is greater, or area as defined by the project's arborist.

For Critical Root Zone and Drip Line measurements see TREE PROTECTION DURING CONSTRUCTION STANDARD PLAN NO. LS-08.

**TREE PROTECTION FENCING**

1. Erect readily visible six-foot (6'-0") high chain link fencing at the edge of the Tree Protection Zone, and at the boundary of any open space tracts or conservation easements that abut the construction site except where, due to space restrictions, a specific distance is specified by the project's arborist.

2. Fencing shall be secured 6 foot metal posts with movable footings located above ground. Metal posts shall not be more than 10 feet apart.

3. Fencing shall be flush with the initial undisturbed grade.

4. Signs shall be attached to the fencing stating that the tree is designated for protection and the area inside the fencing is a TPZ, which is not to be disturbed unless prior approval has been obtained from the city and/or the project's arborist.

5. Maintain the fencing in place until the city authorizes removal or a final certificate of occupancy is issued, whichever occurs first.

6. Ensure that any landscaping done in the TPZ, subsequent to the removal of the fencing, shall be accomplished with light machinery or hand labor.

7. No construction activity shall occur within the TPZ, including but not limited to:
   - Dumping or storage of materials such as building supplies, soil, waste items, and
   - Storage of vehicles or equipment
NOTES:

1. Tree protection requirements included in this standard detail are for trees which are directly adjacent to paved surfaces which will be retained through construction.

2. Required protection measures for trees other than those in tree wells and planting strips are contained in the TYPICAL TREE PROTECTION FENCING STANDARD PLAN NO. LS-09.

3. Reusable temporary tree and landscape protection fencing can be substituted for chain link fencing in tree wells and planting strips (SEE REUSABLE TREE PROTECTION FENCING FOR PAVED AREAS STANDARD PLAN NO. LS-11).

4. Consider traffic turning visibility and pedestrian visibility when selecting fence height; typically shorter fencing around tree pits between sidewalk and roadway is desired.

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CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

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TREE PROTECTION FENCING FOR TREES IN PAVED AREAS

STANDARD PLAN NO. LS-10

[Signatures and dates]
NOTES

1. This frame is designed to accommodate 20" (in) x 24" (in) grates or covers as shown on Standard Plans B-30.20, B-30.30, B-30.40, and B-30.50.

2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

3. Refer to Standard Specification Section 9-05.15 and 9-05.15(2) for additional requirements.

RECTANGULAR FRAME (REVERSIBLE)

FRAME CAST INTO PRECAST
ADJUSTMENT SECTION - SEE
STANDARD PLAN B-30.00 FOR
ADJUSTMENT SECTION DETAILS

FLANGE UPWARD

ISOMETRIC VIEW
SHOWING THE VARIATIONS

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.R. 5/8" (in.) - 11 NC x 2" (in.)) Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

2. Refer to Standard Specification Section 9-06.15 and 9-06.15(2) for additional requirements.

3. For frame details, see Standard Plan B-30.10.

RECTANGULAR VANED GRATE

STANDARD PLAN B-30.30-03

SEE NOTE 1
NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

2. Refer to Standard Specification Section 9-05.15, and 9-05.16(3) for additional requirements.

3. For frame details, see Standard Plan B-30.10.

RECTANGULAR BI-DIRECTIONAL VANED GRATE
STANDARD PLAN B-30.40-03

APPROVED FOR PUBLICATION
ASSEMBLY NOTES

1. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented, manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are shown on this plan only to illustrate how the parts are assembled.

2. Do not tighten any single Slip Plate Bolt to the recommended torque before prelightening the other bolts. Progressively tighten the three Slip Plate Bolts in 10 ft-lb increments, alternately, to a final torque of 40 ft-lbs on each.

3. Slip Base assembly and all other materials shall meet the requirements of Standard Specification Sections 9-06 and 9-28.

STEEL SIGN SUPPORT TYPES SB-1A, SB-2A & SB-3A - 8" (IN)
ASSEMBLY NOTES

1. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented, manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are shown on this plan only to illustrate how the parts are assembled.

2. Do not tighten any single Slip Plate Bolt to the recommended torque before pretightening the other bolts. Progressively tighten the three Slip Plate Bolts in 10 ft-lb increments, alternately, to a final torque of 40 ft-lbs on each.

3. Slip Base assembly and all other materials shall meet the requirements of Standard Specification Sections 5-06 and 5-28.
3. Top of concrete foundation shall be smooth, dense, and uniform to finished ground line.
4. Field drill posts to accept angle and cold galvanized holes.
ASSEMBLY NOTES
1. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented, manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are shown on this plan only to illustrate how the parts are assembled.
2. Do not tighten any single Slip Plate Bolt to the recommended torque before prelightening the other bolts. Progressively tighten the three Slip Plate Bolts in 10 ft-lbs increments, alternately, to a final torque of 40 ft-lbs on each.
3. Use only Slip Base manufacturer supplied hardware that meets the requirements of Standard Specification Sections 9-08 and 9-28.
ASSEMBLY NOTES

1. Dimensions for the parts used to assemble the base connections are intentionally not shown. Base connections are patented, manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are shown on this plan only to illustrate how the parts are assembled.

2. Do not tighten any single Slip Plate Bolt to the recommended torque before pretightening the other bolts. Progressively tighten the three Slip Plate Bolts in 10 ft-lb increments, alternately, to a final torque of 40 ft-lbs on each.

3. Use only Slip Base manufacturer supplied hardware that meets the requirements of Standard Specification Sections 9-06 and 9-28.

STEEL SIGN SUPPORT TYPE SB-1B & SB-3B - 10" (IN)
(Unibase)
NOTES

1. Mounting brackets with steel straps shall be a stainless steel band and buckle system product or an approved equal. Mounting brackets shall be universal channel clamps; steel straps shall be 3/4" (in) wide and 0.030" (in) thick.

2. All signs installed on mast arms or standards (poles) require windbeams. All signs shall be installed with horizontal edges level. A skewed windbeam is required only when the sign is mounted within 12" (in) of the mast arm base (see detail "A").

3. The street name sign shall be a maximum of 36 square feet and the sign height is a maximum of 3' (ft). Signs larger than 26 square feet require a special design mast arm and signal pole.

SIGN INSTALLATION ON SIGNAL AND LIGHT STANDARDS
STANDARD PLAN G-30.10-04
SHEET 1 OF 2 SHEETS
APPROVED FOR PUBLICATION
Carputo, JFF
Jan 22 2013 7:31 AM
WASCO ENGINEERING
Washington State Department of Transportation

MAST ARM-MOUNTED STREET NAME SIGNS

VIEW - LOOKING FROM BACK

1'-0" MIN.
2'-6" MAX.

X = MORE THAN 4'-0" BUT NOT MORE THAN 8'-0"

ALUMINUM WINDBEAM (TPC)

M AST ARM BASE

BACK OF SIGN PANEL

LEVEL

VIEW - LOOKING FROM BACK

1'-0" MIN.
2'-6" MAX.

X = 4'-0" OR LESS

ALUMINUM WINDBEAM (TPC)

M AST ARM BASE

BACK OF SIGN PANEL

LEVEL
**SIGN INSTALLATION ON SIGNAL OR LIGHT STANDARD**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>3’-0&quot;</td>
<td>2’-8&quot;</td>
<td>1’-0&quot;</td>
<td>9&quot;</td>
</tr>
<tr>
<td>3’-0&quot;</td>
<td>2’-8&quot;</td>
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<td>2’-6&quot;</td>
<td>1’-3&quot;</td>
<td>9&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**
Any Lane Use Sign greater than 7.5 sq ft requires a Special Design Mast Arm and Signal Pole.

**MAST ARM-MOUNTED LANE USE SIGNS**
NOTES

1. Mounting brackets with steel straps shall be a stainless steel band and buckle system product or an approved equal. Mounting brackets shall be one bolt, burred leg; steel straps shall be 3/4" (in) wide and 0.33" (in) thick.

2. Sign braces are required for sign widths of 48" (in) or greater. For sign widths of 36" (in) or less, sign braces are only required when specified in the contract.

3. Sign braces are typically necessary on large sign panels that are expected to high winds, traffic generated wind buffeting, or when snow thrown from plows might impact the sign.

4. A nylon washer shall be placed between the sign and the steel washer of the sign face has Type II, IV, VII or IX sheeting.

5. Signs 48" (in) or greater can be pinned together back to back.

6. For signs installed back to back on a single post, no bracing is required.
SIGN BRACE DIMENSIONS

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>YIELD</th>
<th>DIAMOND-SHAPED</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1/3 SIGN WIDTH - 1 3/4&quot;</td>
<td>1/2 SIGN WIDTH - 2 1/4&quot;</td>
<td>1/2 SIGN WIDTH - 1&quot;</td>
</tr>
</tbody>
</table>

NOTE
1. For sign installations on round steel posts, see Standard Plan G-30.10, sheet 2 of 2.

SIGN BRACE DETAIL

DIAMOND-SHAPED SIGN

NO PASSING ZONE SIGN BRACE DETAIL

SIGN BRACE PLACEMENT

STANDARD PLAN G-50.10-03

Nisbet, John

SHEET 3 OF 3 SHEETS

APPROVED FOR PUBLICATION

Washington State Department of Transportation
1. Post shall have sufficient strength and durability to support the fence through the life of the project.
NOTES
1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with Standard Specifications Section 0-01.3.0 and 8-01.3.0.
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.
NOTES
1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will serve.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).
NOTE
1. For Hot Mix Asphalt Paving projects—"DO NOT PASS" and "PASS WITH CARE" signs shall be included for passing zones.
1. For sign installation details, see Standard Plan G-series.
2. Where it is impractical to locate a sign with the lateral offset, a minimum of 2' (608 mm) offset may be used. A 2' (608 mm) lateral offset may be used in business, commercial or residential areas.
3. The “V” height for signs, with an area of more than 50 square feet and two or more sign supports, is 7 feet in both rural and urban areas.

### HEIGHT V

<table>
<thead>
<tr>
<th>Height</th>
<th>To Bottom of Sign</th>
<th>To Bottom of Supplemental Plaque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>5' Minimum</td>
<td>4' Minimum</td>
</tr>
<tr>
<td>Urban</td>
<td>7' Minimum</td>
<td>6' Minimum</td>
</tr>
</tbody>
</table>

![Sign Installation Diagrams](sign_installation_1.png)

![Sign Installation Diagram](sign_installation_2.png)

![Sign Installation Diagram](sign_installation_3.png)

![Sign Installation Diagram](sign_installation_4.png)

![Sign Installation Diagram](sign_installation_5.png)

![Sign Installation Diagram](sign_installation_6.png)

![Sign Installation Diagram](sign_installation_7.png)

![Sign Installation Diagram](sign_installation_8.png)
APPENDIX B

Permits:

(HPA, Shoreline Permit, Army Corp of Engineers Permit)
Project Name: Foss Site 10, Site 12 and Municipal Dock Upland Sheet Pile Walls Installation

Project Description: The project proposes to install sheet pile walls approximately 3 to 8 feet landward of the existing headwalls and landward of the OHWM. Existing pavement will be removed from the proposed sheet pile wall locations at all three sites. At Sites 10 and 12, erosion control best management practices (BMPs) will be installed landward of the headwall. At Municipal Dock, loose debris (concrete and asphalt) above mean high water (MHW) (elevation +11 feet mean lower low water [MLLW]) will be removed from the top of the slope without excavating the slope. The remaining portion of the existing concrete headwall in the central portion of the Municipal Dock Site will be removed and loose erodible soil above the high tide line (HTL) (+13.5 feet MLLW) will be sloped back through grading to prevent loose soils from sloughing down the slope during sheet pile wall installation. This soil may be removed from the slope and stockpiled during sheet pile wall installation and replaced upon completion of installation of the wall. BMPs will be installed at or above the OHWM at the Municipal Dock Site.

PROVISIONS

AUTHORIZED WORK TIMES

1. TIMING LIMITATION: All work is landward of the Ordinary High Water Line, this work can occur at any time of year.

2. APPROVED PLANS: Work must be accomplished per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "JARPA Drawings.pdf", uploaded to APPS on November 4, 2021, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.

NOTIFICATION

3. NOTIFICATION: You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work. The notification must include the permittee's name, project location, starting date, and the hydraulic Project Approval permit number.

4. FISH KILL/WATER QUALITY PROBLEM NOTIFICATION: If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS AND EQUIPMENT
5. Establish the staging area (used for activities such as equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants like petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

6. Clearly mark boundaries to establish the limit of work associated with site access and construction.

7. Limit the removal of native bankline vegetation to the minimum amount needed to construct the project.

8. Confine the use of equipment to specific access and work corridor shown in the approved plans.

9. Check equipment daily for leaks and complete any required repairs before using the equipment in or near the water.

10. Lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols are recommended for use in equipment operated in or near water.

11. Do not operate motorized equipment on the beach below the ordinary high water line.

12. Do not stockpile construction material waterward of the ordinary high water line.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

13. Prevent contaminants from the project, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.

14. Use tarps or other methods to prevent treated wood, sawdust, trimmings, drill shavings and other debris from contacting the bed or waters of the state.

CONSTRUCTION MATERIALS

15. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over any exposed wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.

16. Do not use wood treated with oil-type preservative (creosote, pentachlorophenol) in any hydraulic project. Wood treated with waterborne preservative chemicals (ACZA, ACQ) may be used if the Western Wood Preservers Institute has approved the waterborne chemical for use in the aquatic environment. The manufacturer must follow the Western Wood Preservers Institute guidelines and the best management practices to minimize the preservative migrating from treated wood into aquatic environments. To minimize leaching, wood treated with a preservative by someone other than a manufacturer must follow the field treating guidelines. These guidelines and best management practices are available at www.wwpinstitute.org.

SHEETPILE

17. Install the new sheet pile walls landward of the existing headwalls and the Ordinary High Water Line as shown in the approved plans.

DEMOBILIZATION/CLEANUP

18. Replace riparian vegetation during the first dormant season (late fall through late winter) after project completion. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Failure to achieve the eighty percent survival in year three will require you to submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.

19. Remove all debris or deleterious material resulting from construction from the beach area or bed and prevent from entering waters of the state.
APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.
MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at http://wdfw.wa.gov/licensing/hpa/. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.
A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist  elizabeth.bockstiegel@dfw.wa.gov
Liz Bockstiegel  360-480-2908

for Director
WDFW
City of Tacoma
Attn. Darius Thompson
747 Market Street
Room 544
Tacoma, WA 98402

RE: Shoreline Substantial Development Permit Exemption and SEPA Exemption
File No. LU21-0241
535 Dock Street, Foss Site 10, Site 12 and Municipal Dock Upland Sheet Pile Walls
Shoreline Exemption

Dear Mr. Thompson:

You have requested an exemption from a Shoreline Substantial Development Permit for repair and replacement. Existing pavement, loose debris, vegetation, and the remaining portion of the existing headwall will be removed at all sites. At Site 10 and 12, erosion control BMPS will be installed landward of the headwall. At the Municipal Dock site, the slope will be graded to prevent erosion during work. Sheet pile walls approximately 3 to 8 feet landward of the existing headwalls and landward of the Ordinary High Water Mark (OHWM) will be installed at all three sites. A site plan included as an attachment shows the location of the proposed work.

The following is a detailed description of the work proposed:

1. Existing pavement will be removed from the proposed sheet pile wall locations at the three sites.
2. At Sites 10 and 12, erosion control best management practices (BMPs) will be installed landward of the headwall.
3. At Municipal Dock, loose debris (concrete and asphalt) above mean high water (MHW) (elevation +11 feet mean lower low water [MLLW]) will be removed from the top of the slope without excavating the slope. The remaining portion of the existing headwall in the central portion of the Municipal Dock Site will be removed and loose erodible soil above the high tide line (HTL) (elevation +13.5 feet MLLW) will be sloped back through grading, where needed, to prevent loose soils from sloughing down the slope during sheet pile wall installation.
4. This soil may be removed from the slope and stockpiled during sheet pile wall installation and replaced upon completion of installation of the wall. BMPs will be installed at or above the OHWM at the Municipal Dock Site.
5. Sheet pile walls approximately 3 to 8 feet landward of the existing headwalls and landward of the Ordinary High Water Mark (OHWM) will be installed.

The *Tacoma Shoreline Master Program* (*TSMP*) designates the site as an “aquatic” environment and provides policy guidance for environmental protection. The proposed activities are consistent with the policies of the *TSMP*. 
The site is within the “S-13” Shoreline District – Marine Waters of the State. The intent of the “S-13” Shoreline District is to maintain these water bodies for the use by the public for navigation, commerce and recreation purposes and to manage in-water structures in a consistent manner throughout the City’s shorelines.

Pursuant to WAC 197-11-800, subsection (3) and the City of Tacoma’s SEPA Procedures, this proposed action is categorically exempt from the Threshold Determination and Environmental Impact Statement requirements of SEPA.

The site is also located within a Fish and Wildlife Habitat Conservation Area (FWHCA). The site has been reviewed by Karla Kluge, Senior Environmental Specialist. Ms. Kluge concludes that the proposed project is not likely to cause substantial adverse impacts to the shoreline. Her technical memorandum is included as an attachment.

Based on the above findings, the requested exemption to the City’s Shoreline Substantial Development Permit requirement is consistent with the policies of the SMA, the policies and implementing regulations of the TSMP and with the criteria set forth in the WAC and RCW for the authorization of such permits.

The following are conditional requirements:

1. The applicant shall comply with mitigation proposal contained in the Critical Area Report and will provide the City an As-Built report upon planting the three sites. Upon approval of the As-Built the applicant may then progress into the monitoring period.
2. The applicant shall provide vegetative monitoring for a period of 5 years for the three sites and provide monitoring reports in Years 1, 2 and 5 to the City Planning and Development Department. All trees shall be healthy and vigorous in all years of monitoring. Replacements shall be provided each year for any tree that does not survive. Invasive species shall be kept to less than 10% during the monitoring period.
3. The applicant shall provide a copy of the approved Hydraulic Permit Approval (HPA) to the City prior to the issuance of building permits.
4. The applicant shall provide a copy of an USACE approval or concurrence that no permit needed to the City prior to the issuance of building permits.
5. All Best Management Practices and Conservation Measures shall be employed as described within the project materials.

The applicant is advised of the following:

1. This permit is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Modifications to this proposal and future activities or development within the regulated buffers may be subject to further review and additional permits as required in accordance with the Tacoma Municipal Code.
2. The applicant must obtain other approvals prior to construction as required by other local, state and federal agencies. The City of Tacoma is not the only reviewing agency with jurisdiction over the project area. The Army Corps of Engineers and State Department of Fish and Wildlife have requirements regarding work within regulated waters that may be applicable to the project.

We are issuing this letter of exemption per the provisions of TMC Section 13.10 to comply with the requirements of WAC 173-27-050 and WAC 173-27-040. Should you have any further questions or requests please do not hesitate to contact Kristina Haycock, Associate Planner, at 253-591-5845.
Sincerely,

Kristina Haycock

Kristina Haycock
Associate Planner

Attachments: Site Plan and Critical Areas Technical Memorandum

cc: City of Tacoma, darius.thompson@cityoftacoma.org
    GeoEngineers, Inc, smahugh@geoengineers.com
    Planning and Development Services, Peter Huffman, Reuben McKnight, Karla Kluge
    Washington Department of Ecology, Alex Callender, acal461@ecy.wa.gov
    Washington Department of Fish and Wildlife, Matthew Curtis, 600 Capitol Way N., Olympia, WA 98501-1091
    U.S. Army Corps of Engineers, Attn: Regulatory Branch, CENWS-OD-RG ATTN: Jessica Winkler, P.O. Box C-3755, Seattle, WA 98124
    U.S. Fish & Wildlife Service, Attn: Judy Lantor, 510 Desmond Drive SE #102, Lacey, WA 98503

File: Planning and Development Services Department, File No. LU21-0241
**Part 1–Project Identification**

1. **Project Name** (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help]

   Sites 10, 12 and Municipal Dock Upland Sheet Pile Wall Installation Project

**Part 2–Applicant**

The person and/or organization responsible for the project. [help]

2a. **Name** (Last, First, Middle)

   Thompson, Darius

2b. **Organization** (If applicable)

   City of Tacoma

2c. **Mailing Address** (Street or PO Box)

   747 Market Street, Room 544

2d. **City, State, Zip**

   Tacoma, Washington 98402

2e. **Phone (1)**  

   253.573.2410

2f. **Phone (2)**  

   253.606.5469

2g. **Fax**

   253.591.5181

2h. **E-mail**

   darius.thompson@cityoftacoma.org

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1. Additional forms may be required for the following permits:
   - If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
   - If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at [http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx](http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx).
   - Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.


For other help, contact the Governor’s Office for Regulatory Innovation and Assistance at (800) 917-0043 or [help@oria.wa.gov](mailto:help@oria.wa.gov).
Part 3–Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.)

3a. Name (Last, First, Middle)
Mahugh, Shawn

3b. Organization (If applicable)
GeoEngineers, Inc.

3c. Mailing Address (Street or PO Box)
1101 Fawcett Avenue, Suite 200

3d. City, State, Zip
Tacoma, Washington 98402

3e. Phone (1)
3f. Phone (2)
3g. Fax
3h. E-mail
360.621.1304 253.722.2444 253.383.4923 smahugh@geoengineers.com

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both upland and aquatic ownership because the upland owners may not own the adjacent aquatic land.

☒ Same as applicant. (Skip to Part 5.)
☐ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
☐ There are multiple upland property owners. Complete the section below and fill out JARPA Attachment A for each additional property owner.
☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete JARPA Attachment E to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)

4b. Organization (If applicable)

4c. Mailing Address (Street or PO Box)

4d. City, State, Zip

4e. Phone (1)
4f. Phone (2)
4g. Fax
4h. E-mail
Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [help]

☒ There are multiple project locations (e.g. linear projects). Complete the section below and use JARPA Attachment B for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]

☐ Private
☐ Federal
☒ Publicly owned (state, county, city, special districts like schools, ports, etc.) City of Tacoma
☐ Tribal
☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]

1025 Dock Street (Municipal Dock)

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

Tacoma, Washington 98402

5d. County [help]

Pierce

5e. Provide the section, township, and range for the project location. [help]

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<thead>
<tr>
<th>¼ Section</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW</td>
<td>4</td>
<td>20N</td>
<td>3E</td>
</tr>
</tbody>
</table>

5f. Provide the latitude and longitude of the project location. [help]

• Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)

47.254273° N Lat / -122.434966° W Long

5g. List the tax parcel number(s) for the project location. [help]

• The local county assessor’s office can provide this information.

8950002101 and 8950002103

5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

<table>
<thead>
<tr>
<th>Name</th>
<th>Mailing Address</th>
<th>Tax Parcel # (if known)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tacoma</td>
<td>747 Market Street, RM 737</td>
<td>8950001974, 8950001972, 8950002182, and 8950002184</td>
</tr>
<tr>
<td></td>
<td>Tacoma, Washington 98402-3701</td>
<td></td>
</tr>
<tr>
<td>BNSF Railway Company</td>
<td>PO Box 961089</td>
<td>8950002110</td>
</tr>
<tr>
<td></td>
<td>Fort Worth, Texas 76161-0089</td>
<td></td>
</tr>
</tbody>
</table>

5i. List all wetlands on or adjacent to the project location. [help]

N/A

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

Foss Waterway
Part 6–Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]

The project proposes to install sheet pile walls approximately 3 to 8 feet landward of the existing headwalls and landward of the OHWM. Existing pavement will be removed from the proposed sheet pile wall locations at all three sites. At Sites 10 and 12, erosion control best management practices (BMPs) will be installed landward of the headwall. At Municipal Dock, loose debris (concrete and asphalt) above mean high water (MHW) (elevation +11 feet mean lower low water [MLLW]) will be removed from the top of the slope without excavating the slope. The remaining portion of the existing concrete headwall in the central portion of the Municipal Dock Site will be removed and loose erodible soil above the high tide line (HTL) (+13.5 feet MLLW) will be sloped back through grading to prevent loose soils from sloughing down the slope during sheet pile wall installation. This soil may be removed from the slope and stockpiled during sheet pile wall installation and replaced upon completion of installation of the wall. BMPs will be installed at or above the OHWM at the Municipal Dock Site.

6b. Describe the purpose of the project and why you want or need to perform it. [help]

The primary purpose of the project is to stabilize the upland sites and prevent further decline of the currently established upland conditions at the sites. The proposed sheet pile walls will accommodate safe public access and encourage future development of the sites.

6c. Indicate the project category. (Check all that apply) [help]

☐ Commercial ☐ Residential ☒ Institutional ☐ Transportation ☒ Recreational
☒ Maintenance ☐ Environmental Enhancement
6d. Indicate the major elements of your project. (Check all that apply) [help]

☐ Aquaculture  ☐ Culvert  ☐ Float  ☐ Retaining Wall (upland)
☐ Bank Stabilization  ☐ Dam / Weir  ☐ Floating Home  ☐ Road
☐ Boat House  ☐ Dike / Levee / Jetty  ☐ Geotechnical Survey  ☐ Scientific Measurement Device
☐ Boat Launch  ☐ Ditch  ☐ Land Clearing  ☐ Stairs
☐ Boat Lift  ☐ Dock / Pier  ☐ Marina / Moorage  ☐ Stormwater facility
☐ Bridge  ☐ Dredging  ☐ Mining  ☐ Swimming Pool
☐ Bulkhead  ☐ Fence  ☐ Outfall Structure  ☐ Utility Line
☐ Buoy  ☐ Ferry Terminal  ☐ Piling/Dolphin
☐ Channel Modification  ☐ Fishway  ☐ Raft

☐ Other:

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [help]

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

The sites will be prepped by removing paved surfaces using concrete saw and excavators or similar equipment. At Municipal Dock an excavator will also be used to remove loose concrete and asphalt debris above MHW, the remaining portions of the concrete headwall in the central portion of the site and loose soil above HTL. A crane will be used to install the sheet pile walls using a vibratory hammer when possible. An impact hammer will be used when necessary to advance the sheet piles to the required embedment. Paving equipment will be used to replace pavement landward of the installed sheet pile walls.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [help]

- If the project will be constructed in phases or stages, use JARPA Attachment D to list the start and end dates of each phase or stage.

Start Date: January 2022  End Date: October 2022  ☑ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

$5,480,000

6h. Will any portion of the project receive federal funding? [help]

- If yes, list each agency providing funds.

☐ Yes  ☑ No  ☐ Don’t know

Part 7–Wetlands: Impacts and Mitigation

☐ Check here if there are wetlands or wetland buffers on or adjacent to the project area. (If there are none, skip to Part 8.) [help]

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]

☐ Not applicable
### Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, “waterbodies” refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.)

---

#### Activity (fill, drain, excavate, flood, etc.)

<table>
<thead>
<tr>
<th>Wetland Name&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Wetland type and rating category&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Impact area (sq. ft. or Acres)</th>
<th>Duration of impact&lt;sup&gt;3&lt;/sup&gt;</th>
<th>Proposed mitigation type&lt;sup&gt;4&lt;/sup&gt;</th>
<th>Wetland mitigation area (sq. ft. or acres)</th>
</tr>
</thead>
</table>

<sup>1</sup>If no official name for the wetland exists, create a unique name (such as “Wetland 1”). The name should be consistent with other project documents, such as a wetland delineation report.

<sup>2</sup>Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

<sup>3</sup>Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter “permanent” if applicable.

<sup>4</sup>Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

---

### 7b. Will the project impact wetlands? [help]

- ☐ Yes  ☐ No  ☐ Don’t know  

### 7c. Will the project impact wetland buffers? [help]

- ☐ Yes  ☐ No  ☐ Don’t know  

### 7d. Has a wetland delineation report been prepared? [help]

- ☐ Yes  ☐ No  ☐ Don’t know

- If Yes, submit the report, including data sheets, with the JARPA package.

### 7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [help]

- ☐ Yes  ☐ No  ☐ Don’t know

- If Yes, submit the wetland rating forms and figures with the JARPA package.

### 7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]

- ☐ Yes  ☐ No  ☐ Don’t know

- If Yes, submit the plan with the JARPA package and answer 7g.

- If No, or Not applicable, explain below why a mitigation plan should not be required.

### 7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [help]

### 7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [help]

<table>
<thead>
<tr>
<th>Activity (fill, drain, excavate, flood, etc.)</th>
<th>Wetland Name&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Wetland type and rating category&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Impact area (sq. ft. or Acres)</th>
<th>Duration of impact&lt;sup&gt;3&lt;/sup&gt;</th>
<th>Proposed mitigation type&lt;sup&gt;4&lt;/sup&gt;</th>
<th>Wetland mitigation area (sq. ft. or acres)</th>
</tr>
</thead>
</table>

---

### 7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [help]

### 7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [help]
8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment.

☐ Not applicable

The proposed sheet pile walls will avoid impacts to the marine environment of the Foss Waterway by installing the walls upland of the existing headwalls. Impacts to the shoreline buffer will be minimized by locating the wall at Site 12 in a currently paved area, at Municipal Dock in an area of asphalt and erosion control grasses and at Site 10 by locating the majority of the wall in currently paved areas. Approximately 100 feet of landscaped shoreline will be impacted at Site 10 including four large American sycamore (*Platanus occidentalis*) trees. Impacts to these trees are unavoidable due to the large crown and associated root masses of these trees.

The project will address known regulatory requirements governing the construction activities by prescribing BMPs to be implemented during project activities. The following BMPs are planned to be implemented during construction. Additional BMPs may be prescribed by regulatory agencies and stakeholders during the permitting process.

- Contractors will be required to prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan consistent with Washington State Department of Ecology (Ecology) regulations.
- Contractor personnel will be equipped with appropriate spill response materials including oil-absorbent pads and booms.
- A containment barrier will be installed at or above the OHWM to prevent soil or debris from entering waters of the state.
- Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, sediment, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into surface water.
- Construction debris shall be collected and disposed upland at a disposal site.
- Equipment will be inspected daily for drips or leaks to prevent spills or releases to surface water.
- In the event of an unexpected release of a hazardous substance during project actions, notification will be provided to the United States Coast Guard (USCG) National Response Center at 1-800-424-8802 and the Washington State Emergency Management Division at 1-800-258-5990 within one hour of discovery.
- An emergency spill containment kit must be located on site along with a pollution prevention plan detailing planned fueling, materials storage and equipment storage. Waste storage areas must be prepared to address prevention and cleanup of accidental spills.
- All construction-related debris will be cleaned up daily. Proper conservation measures will be taken to ensure that debris will not contaminate surface waters.
- Routine inspections of the BMP control measures will be conducted daily during construction to ensure the effectiveness of the measures and to determine the need for maintenance or additional control measures.
- Fueling areas will be distinctly identified and established outside of sensitive areas, but within the construction area. These areas will be equipped with spill prevention and control devices.
- If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs or water quality problems develop (including equipment leaks or spills), immediate notification shall be made to Ecology at 1.800.258.5990 and the Washington Department of Fish and Wildlife (WDFW) Area Habitat Biologist listed in the Hydraulic Project Approval (HPA).

8b. Will your project impact a waterbody or the area around a waterbody?  [help]

☑ Yes  ☐ No
8c. Have you prepared a mitigation plan to compensate for the project’s adverse impacts to non-wetland waterbodies? [help]
- If Yes, submit the plan with the JARPA package and answer 8d.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

☒ Yes  ☐ No  ☐ Don’t know

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.
- If you already completed 7g you do not need to restate your answer here. [help]

Proposed mitigation includes the revegetation of 1,200 square feet (SF) of impacted non-native shoreline trees with 1,200 SF of native shoreline trees and shrubs including shore pine (*Pinus contorta*) and oceanspray (*Holodiscus discolor*) and native grasses at Site 10. Temporary alteration of up to 1,250 SF of erosion control grasses at the Municipal Dock Site will be restored with native grass species. An additional 1,200 SF of existing asphalt pavement and concrete headwall waterward of the proposed sheet pile wall will be removed and replaced with native grass species and 12 oceanspray to provide a measurable and sustainable ecological improvement. No impacts to the marine environment or shoreline buffer habitat are proposed for Site 12; however, approximately 900 SF of Himalayan blackberry will be removed from the shoreline and native grass species and four oceanspray will be installed where possible to provide a measurable and sustainable ecological improvement.

8e. Summarize impact(s) to each waterbody in the table below. [help]

<table>
<thead>
<tr>
<th>Activity (clear, dredge, fill, pile drive, etc.)</th>
<th>Waterbody name</th>
<th>Impact location</th>
<th>Duration of impact</th>
<th>Amount of material (cubic yards) to be placed in or removed from waterbody</th>
<th>Area (sq. ft. or linear ft.) of waterbody directly affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debris removal (pluck material without grading)</td>
<td>Foss Waterway</td>
<td>Between MHW and HTL</td>
<td>1 week</td>
<td>Up to 35 CY</td>
<td>Up to 480 SF</td>
</tr>
<tr>
<td>Concrete headwall removal</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>80 CY</td>
<td>360 SF</td>
</tr>
<tr>
<td>Grass removal and regrading</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>126 CY</td>
<td>1,450 SF</td>
</tr>
<tr>
<td>Asphalt removal</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>50 CY</td>
<td>4,050 SF</td>
</tr>
<tr>
<td>Sheet pile wall installation</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>4 weeks</td>
<td>N/A</td>
<td>325 LF</td>
</tr>
<tr>
<td>Revegetation (native erosion control grasses)</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>49 CY</td>
<td>2,650 SF</td>
</tr>
<tr>
<td>Replace asphalt</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>N/A</td>
<td>2,850 SF</td>
</tr>
</tbody>
</table>

<p>| Site 10                                        |                |                 |                   |                                                                          |                                                          |
| Impervious surface removal                     | Foss Waterway  | Adjacent        | 1 week            | 34 CY                                                                   | 2,700 SF                                                 |
| Landscaping removal                            | Foss Waterway  | Adjacent        | 1 week            | 23 CY                                                                   | 1,200 SF                                                 |
| Sheet pile wall installation and backfill      | Foss Waterway  | Adjacent        | 5 weeks           | N/A                                                                     | 470 LF                                                   |
| Revegetation (native species)                  | Foss Waterway  | Adjacent        | 1 week            | N/A                                                                     | 1,200 SF                                                 |</p>
<table>
<thead>
<tr>
<th>Replace asphalt</th>
<th>Foss Waterway</th>
<th>Adjacent</th>
<th>1 week</th>
<th>N/A</th>
<th>2,700 SF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site 12</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impervious surface removal</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>44 CY</td>
<td>3,500 SF</td>
</tr>
<tr>
<td>Sheet pile wall installation</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>4 weeks</td>
<td>N/A</td>
<td>435 LF</td>
</tr>
<tr>
<td>Replace asphalt</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>N/A</td>
<td>3,500 SF</td>
</tr>
<tr>
<td>Invasive species removal</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>N/A</td>
<td>900 SF</td>
</tr>
<tr>
<td>Revegetation (native erosion control grasses)</td>
<td>Foss Waterway</td>
<td>Adjacent</td>
<td>1 week</td>
<td>N/A</td>
<td>Up to 900 SF</td>
</tr>
</tbody>
</table>

1. If no official name for the waterbody exists, create a unique name (such as “Stream 1”) The name should be consistent with other documents provided.
2. Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.
3. Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter “permanent” if applicable.

8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [help]

No fill will be placed in the waterbody

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]

No excavation or dredging will occur in the Foss Waterway. Loose debris (concrete and asphalt) will be removed between MHW and HTL/OHWM without excavating at Municipal Dock. The remaining portion of the existing headwall in the central portion of the Municipal Dock Site and loose soil will be excavated above HTL/OHWM. Debris will be disposed offsite and loose soil will be stockpiled and reused as backfill.

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Contact Name</th>
<th>Phone</th>
<th>Most Recent Date of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>USACE</td>
<td>Dan Krenz</td>
<td>206.316.3153</td>
<td>2/19/2021</td>
</tr>
<tr>
<td>WDFW</td>
<td>Liz Bockstiegel</td>
<td>360.480.2908</td>
<td>2/22/2021</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>Karla Kluge</td>
<td>253.591.5773</td>
<td>8/4/2021</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>Shirley Schultz</td>
<td>253.591.5121</td>
<td>8/4/2021</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>Kristina Haycock</td>
<td>253.244.1930</td>
<td>6/30/2021</td>
</tr>
</tbody>
</table>

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology’s 303(d) List? [help]

- **If Yes**, list the parameter(s) below.
- If you don’t know, use Washington Department of Ecology’s Water Quality Assessment tools at: http://www.ecy.wa.gov/programs/wq/303d/

☒ Yes  ☐ No
The Foss Waterway/Inner Commencement Bay 303(d) listings include one Category 5 listing for Polychlorinated Biphenyls (PCBs) and 45 Category one listing including Dichlorobenzene, Diphenyl hydrazine, Trichlorophenol, Dichlorophenol, Dinitrophenol, Dinitro toluene, Dichlorobenzene, DDD, DDE, DDT, Aldrin, Endosulfan I, Anthracene, Endosulfan II, Bis(2-chloroethyl)ether, Bis(2-chloroisopropyl)ether, Bis(2-ethylhexyl)phthalate, Chlorodane, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Endosulfan Sulfate, Endrin, Endrin Aldehyde, Fluoranthene, Fluorene, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Isophorone, Mercury, N-Nitroso diphenylamine, Pentachlorophenol, Phenol, Pyrene, Alpha-BHC, Beta-BHC, Total Chlordane, Dieldrin, and Hexachlorocyclohexane (Lindane) and one Category 4B listing for sediment bioassay that exceeds the Sediment Management Standards CSL bioassay criterion.

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]
   • Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

<table>
<thead>
<tr>
<th>HUC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17110019</td>
<td>Puget Sound</td>
</tr>
</tbody>
</table>

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]
   • Go to http://www.ecy.wa.gov/water/wria/index.html to find the WRIA #.

<table>
<thead>
<tr>
<th>WRIA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Puyallup / White</td>
</tr>
</tbody>
</table>

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help]
   • Go to http://www.ecy.wa.gov/programs/wq/swqs/criteria.html for the standards.

☒ Yes ☐ No ☐ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]
   • If you don’t know, contact the local planning department.

☐ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☒ Other: Downtown Waterfront

9g. What is the Washington Department of Natural Resources Water Type? [help]
   • Go to http://www.dnr.wa.gov/forest-practices-water-typing for the Forest Practices Water Typing System.

☒ Shoreline ☐ Fish ☐ Non-Fish Perennial ☐ Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology’s most current stormwater manual? [help]
   • If No, provide the name of the manual your project is designed to meet.

☒ Yes ☐ No

Name of manual: __________________________

9i. Does the project site have known contaminated sediment? [help]
   • If Yes, please describe below.

☒ Yes ☐ No

Category 4B listing for sediment bioassay that exceeds the Sediment Management Standards CSL bioassay criterion.

9j. If you know what the property was used for in the past, describe below. [help]

The western shoreline of the Foss Waterway, including Sites 10, 12 and Municipal Dock, was used for multiple industrial businesses in the past.
9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]

- If Yes, attach it to your JARPA package.

☐ Yes ☒ No

9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]

Bull trout (*Salvelinus confluentus*), Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*), Puget Sound steelhead (*O. mykiss*), Southern resident killer whale (*Orcinus orca*), Marbled murrelet (*Brachyramphus marmoratus*), Bocaccio (*Sebastes paucispinis*) and Yelloweye rockfish (*Sebastes ruberrimus*) may occur in the project vicinity.

9m. Name each species or habitat on the Washington Department of Fish and Wildlife’s Priority Habitats and Species List that might be affected by the proposed work. [help]

Priority Habitat and Species (PHS) data identifies the northern end of Foss Waterway is designated as Estuarine Zone and Dungeness crab (*Cancer magister*) are mapped to occur approximately 700 feet north of Site 12 in Commencement Bay. The Puyallup River is located less than 1 mile east of the site and supports Chinook, coho (*O. kisutch*), pink (*O. gorbuscha*), sockeye (*O. nerka*) and chum (*O. keta*) salmon as well as steelhead, cutthroat (*O. clarkii*) and bull trout. The nearest documented forage fish spawning area is a surf smelt (*Hypomesus pretiosus*) spawning area located 1,200 feet northeast of Site 12.

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Governor’s Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on agency addresses for completed JARPA.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]

- For more information about SEPA, go to [www.ecy.wa.gov/programs/sea/sepa/e-review.html](http://www.ecy.wa.gov/programs/sea/sepa/e-review.html).

☐ A copy of the SEPA determination or letter of exemption is included with this application.

☐ A SEPA determination is pending with _______________(lead agency). The expected decision date is ______________.

☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]

☒ This project is exempt (choose type of exemption below).

- Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?
  WAC 197-11-800(3)

☐ Other: ________________

☐ SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [help]

**LOCAL GOVERNMENT**

Local Government Shoreline permits:

- ☐ Substantial Development  ☐ Conditional Use  ☐ Variance
- ☒ Shoreline Exemption Type (explain): TSMP 2.3.3.2 Maintenance and Repair

Other City/County permits:
<table>
<thead>
<tr>
<th>Washington Department of Fish and Wildlife:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒ Hydraulic Project Approval (HPA)</td>
</tr>
<tr>
<td>☐ Fish Habitat Enhancement Exemption – [Attach Exemption Form]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Washington Department of Natural Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Aquatic Use Authorization</td>
</tr>
<tr>
<td>Complete [JARPA Attachment E] and submit a check for $25 payable to the Washington Department of Natural Resources.</td>
</tr>
<tr>
<td>Do not send cash.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Washington Department of Ecology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Section 401 Water Quality Certification</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Department of the Army permits (U.S. Army Corps of Engineers):</td>
</tr>
<tr>
<td>☐ Section 404 (discharges into waters of the U.S.)</td>
</tr>
<tr>
<td>☐ Section 10 (work in navigable waters)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>United States Coast Guard permits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ General Bridge Act Permit</td>
</tr>
<tr>
<td>☐ Private Aids to Navigation (for non-bridge projects)</td>
</tr>
</tbody>
</table>
Part 11–Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [help]

11a. Applicant Signature (required) [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. DJT (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. DJT (initial)

Darius Thompson  
Applicant Printed Name  

Darius Thompson  
Applicant Signature  
11/4/2021  
Date

11b. Authorized Agent Signature [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Shawn M. Mahugh  
Authorized Agent Printed Name  

[Signature]  
Authorized Agent Signature  
November 3, 2021  
Date

11c. Property Owner Signature (if not applicant) [help]

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name  

Property Owner Signature  

Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor’s Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 07/2017
WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA)

Attachment B: For additional project location(s)

Use this attachment only if you have more than one project location. Use a separate form for each additional location.

Use black or blue ink to enter answers in white spaces below.

1. Indicate the type of ownership of the property. (Check all that apply.)
   - ☐ Private
   - ☐ Federal
   - ☒ Publicly owned (state, county, city, special districts like schools, ports, etc.)
   - ☐ Tribal
   - ☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

2. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 16)
   801 Dock Street (Site 10)

3. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.)
   Tacoma, Washington 98402

4. County
   Pierce

5. Provide the section, township, and range for the project location.

<table>
<thead>
<tr>
<th>¼ Section</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW</td>
<td>4</td>
<td>20N</td>
<td>3E</td>
</tr>
</tbody>
</table>

6. Provide the latitude and longitude of the project location.
   - Example: 47.03922 N lat. / -122.89142 W long (Use decimal degrees - NAD 83)
   - 47.255353° N Lat / -122.435301° W Long

7. List the tax parcel number(s) for the project location.
   - The local county assessor’s office can provide this information.
   - 8950002082 and 8950002184
8. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

<table>
<thead>
<tr>
<th>Name</th>
<th>Mailing Address</th>
<th>Tax Parcel # (if known)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tacoma</td>
<td>747 Market Street, RM 737</td>
<td>8950002101and</td>
</tr>
<tr>
<td></td>
<td>Tacoma, Washington 98402-3701</td>
<td>8950002182</td>
</tr>
<tr>
<td>BNSF Railway Company</td>
<td>PO Box 961089</td>
<td>8950002110</td>
</tr>
<tr>
<td></td>
<td>Fort Worth, Texas 76161-0089</td>
<td></td>
</tr>
</tbody>
</table>

9. List all wetlands on or adjacent to the project location. [help]

None

10. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

Foss Waterway

11. Is any part of the project area within a 100-year flood plain? [help]

☒ Yes ☐ No ☐ Don’t know

12. Briefly describe the vegetation and habitat conditions on the property. [help]

The southern end of the site contains mature American sycamore trees (*Platanus occidentalis*). The intertidal habitat is armored with riprap and concrete. The remaining portions of the Site 10 shoreline are sparsely vegetated and include several sword fern (*Polystichum munitum*) and American dunegrass (*Leymus mollis*) clumps occupying less than 1 percent of the marine shoreline buffer. No aquatic vegetation was observed at the site.

13. Describe how the property is currently used. [help]

Site uses include parking, marina storage and commercial facilities.

14. Describe how the adjacent properties are currently used. [help]

Additional marina facilities are located north of Site 10, Municipal Dock is located to the south, the BNSF railroad is located to the west and the marina is located to the east in Foss Waterway.

15. Describe the structures (above and below ground) on the property, including their purpose(s). [help]

Three storage buildings are used by marina tenants and the northernmost building is used as mixed commercial use. Two ramps lead from Site 10 to the Marina. An existing headwall is located between the upland portion of the site and Foss Waterway. Relict concrete footings from previous esplanades are located in the intertidal zone.

16. Provide driving directions from the closest highway to the project location, and attach a map. [help]

From I-5 take the I-705 N exit toward city center. Take the Schuster Pkwy exit from I-705. Turn right onto Dock Street. Site will be on your left.
WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA)

Attachment B:
For additional project location(s)

Use this attachment only if you have more than one project location.

Use a separate form for each additional location.

Use black or blue ink to enter answers in white spaces below.

1. Indicate the type of ownership of the property. (Check all that apply.)
   - ☐ Private
   - ☐ Federal
   - ☒ Publicly owned (state, county, city, special districts like schools, ports, etc.)
   - ☐ Tribal
   - ☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

2. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 16)
   635 Dock Street (Site 12)

3. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town)
   Tacoma, Washington 98402

4. County
   Pierce

5. Provide the section, township, and range for the project location.

<table>
<thead>
<tr>
<th>¼ Section</th>
<th>Section</th>
<th>Township</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW</td>
<td>33</td>
<td>21N</td>
<td>3E</td>
</tr>
</tbody>
</table>

6. Provide the latitude and longitude of the project location.
   - Example: 47.03922 N lat / -122.89142 W long (Use decimal degrees - NAD 83)
   - 47.258734° N Lat / -122.437685° W Long

7. List the tax parcel number(s) for the project location.
   - The local county assessor’s office can provide this information.
   - 8950002155, and 8950002172
8. **Contact information for all adjoining property owners.**  (If you need more space, use JARPA Attachment C.) [help]

<table>
<thead>
<tr>
<th>Name</th>
<th>Mailing Address</th>
<th>Tax Parcel # (if known)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tacoma</td>
<td>747 Market Street, RM 737</td>
<td>8950002154, 8950002153, 8950002182, and 8950002184</td>
</tr>
<tr>
<td></td>
<td>Tacoma, Washington 98402-3701</td>
<td></td>
</tr>
<tr>
<td>BNSF Railway Company</td>
<td>PO Box 961089</td>
<td>8950002122</td>
</tr>
<tr>
<td></td>
<td>Fort Worth, Texas 76161-0089</td>
<td></td>
</tr>
<tr>
<td>Port of Tacoma</td>
<td>PO BOX 1837</td>
<td>8950002121</td>
</tr>
<tr>
<td></td>
<td>Tacoma, Washington 98401-1837</td>
<td></td>
</tr>
</tbody>
</table>

9. **List all wetlands on or adjacent to the project location.** [help]

N/A

10. **List all waterbodies (other than wetlands) on or adjacent to the project location.** [help]

Foss Waterway

11. **Is any part of the project area within a 100-year flood plain?** [help]

☐ Yes  ☐ No  ☐ Don’t know

12. **Briefly describe the vegetation and habitat conditions on the property.** [help]

Marine shoreline vegetation at Site 12 is dominated by invasive Himalayan blackberry (*Rubus armeniacus*), which covers approximately 80 percent of the available shoreline area. One introduced butterfly bush (*Buddleja davidii*) is located at the southern end of the Site 12 project area. One big leaf maple (*Acer macrophyllum*) and one non-native maple (*Acer ssp.*) are also located along the shoreline at Site 12. No aquatic vegetation was observed at the site.

13. **Describe how the property is currently used.** [help]

The site is currently used as parking for adjacent facilities and water access.

14. **Describe how the adjacent properties are currently used.** [help]

Mixed use commercial facilities are located to the north, the maritime museum is located to the south and dock street and the BNSF Railway Company railroad are located to the west of the site. A transient moorage float is located west of the site in Foss Waterway.

15. **Describe the structures (above and below ground) on the property, including their purpose(s).** [help]

A concrete headwall is located between the parking area and Foss Waterway. Relict concrete monoliths are present in the intertidal habitat of Foss Waterway at Site 12.

16. **Provide driving directions from the closest highway to the project location, and attach a map.** [help]

From I-5 take the I-705 N exit toward city center. Take the Schuster Pkwy exit from I-705. Turn right onto Dock Street. Site will be on your left.

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If you require this document in another format, contact the Governor’s Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-013 rev. 10/2016
CITY OF TACOMA
SITE 10, SITE 12 AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Lat/Long: 47.2550°N, -122.4355°W

Reference Number: In: FOSS WATERWAY
Near/At: TACOMA
State: WA

Applicant: CITY OF TACOMA
Adjacent Property Owners: CITY OF TACOMA

Location Map

Plan North

Not to Scale
DEBRIS CONTAINMENT NOTES:

1. CONTRACTORS MUST PREPARE AND IMPLEMENT A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN CONSISTENT WITH WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) REGULATIONS.

2. CONTRACTOR PERSONNEL SHALL BE EQUIPPED WITH APPROPRIATE SPILL RESPONSE MATERIALS INCLUDING OIL-ABSORBENT PADS AND BOOMS.

3. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENT, SEDIMENT LADEN WATER, CHEMICALS OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO SURFACE WATERS.

4. REPLACE WITH CONTAINMENT BMP AT OR ABOVE THE ORDINARY HIGH WATER MARK.

5. EQUIPMENT SHALL BE INSPECTED DAILY FOR DRIPS OR LEAKS TO PREVENT SPILLS OR RELEASES TO SURFACE WATERS.

6. IN THE EVENT OF AN UNEXPECTED RELEASE OF A HAZARDOUS SUBSTANCE DURING PROJECT ACTIONS, NOTIFY THE UNITED STATES COAST GUARD (USCG) NATIONAL RESPONSE CENTER AT 1.800.424.8802 AND THE WASHINGTON STATE EMERGENCY MANAGEMENT DIVISION AT 1.800.258.5990 WITHIN 1 HOUR OF DISCOVERY.

7. AN EMERGENCY SPILL CONTAINMENT KIT MUST BE LOCATED ON SITE ALONG WITH A POLLUTION PREVENTION PLAN DETAILING PLANNED FUELING, MATERIALS STORAGE, AND EQUIPMENT STORAGE. WASTE STORAGE AREAS MUST BE PREPARED TO ADDRESS PREVENTION AND CLEANUP OF ACCIDENTAL SPILLS.

8. ALL CONSTRUCTION-RELATED DEBRIS MUST BE CLEANED UP DAILY. PROPER CONSERVATION MEASURES SHALL BE TAKEN TO ENSURE THAT DEBRIS WILL NOT CONTAMINATE SURFACE WATERS.

9. ROUTINE INSPECTIONS OF THE BMP CONTROL MEASURES SHALL BE CONDUCTED DAILY DURING CONSTRUCTION TO ENSURE THE EFFECTIVENESS OF THE MEASURES AND TO DETERMINE THE NEED FOR MAINTENANCE OR ADDITIONAL CONTROL MEASURES.

10. FUELING AREAS MUST BE DISTINCTLY IDENTIFIED AND ESTABLISHED OUTSIDE OF SENSITIVE AREAS, BUT WITHIN THE CONSTRUCTION AREA. THESE AREAS MUST BE EQUIPPED WITH SPILL PREVENTION AND CONTROL DEVICES.

11. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), IMMEDIATELY NOTIFY ECOLOGY AT 1.800.258.5990 AND THE WDFW AREA HABITAT BIOLOGIST LISTED IN THE HYDRAULIC PROJECT APPROVAL (HPA).
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 4 of 13 Date: AUGUST 2021

Adjacent Property Owners:
CITY OF TACOMA

Application:
Sheet: 13
Date: AUGUST 2021

Datum:
WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Reference Number:
In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA
295'± MUNI DOCK

PROPOSED SSP
RETURN WALL
(SEE NOTE)

REMOVE CONCRETE
AND REPLACE WITH
BITUMINOUS PAVEMENT
AS REQUIRED (±450 SF)

CONCRETE BENT CAP TO
REMAIN (TYP)

APPROXIMATE
HTL EL 13.5'±

APPROXIMATE
OHWM

APPROXIMATE
MHW EL 11.0'±

CONCRETE PILE CAP
TO REMAIN (TYP)

EXISTING RIPRAP TYPICAL
FULL LENGTH OF WHARF TO
REMAIN

PAVED PARKING AREA
9'-4"±

REMOVE AND REPLACE
EXISTING FENCE AS REQUIRED

CONCRETE MONOLITH/
PEDESTAL FOUNDATION
TO REMAIN (TYP)

FOSS WATERWAY

295'± MUNI DOCK

APPROXIMATE
OHWM

APPROXIMATE
MHW EL 11.0'±

APPROXIMATE
HTL EL 13.5'±

CONCRETE PILE CAP TO
REMAIN (TYP)

REPLANT DISTURBED AREA
WITH NATIVE SHRUBS AND
GRASS SEED, AND COIR
MATTING (±800 SF)

REMOVE ASPHALT AND
HEADWALL, PULL SLOPE BACK,
AND PLANT AREA WITH NATIVE
SHRUBS AND GRASS SEED, AND
COIR MATTING (±1,850 SF TOTAL,
±1,200 SF ASPHALT REMOVAL)

TEST W/.control cap
N 702337.43
E 110067.32

REPLANT DISTURBED AREA
WITH NATIVE SHRUBS AND
GRASS SEED, AND COIR
MATTING AS REQUIRED

PEEL DISCONTINUITY
OF EXISTING WEATHERING
SHELL

EXISTING TIMBER
HEADWALL TO
REMAIN

CONCRETE BENT CAP TO
REMAIN (TYP)

REPLANT DISTURBED AREA
WITH NATIVE SHRUBS AND
GRASS SEED, AND COIR
MATTING AS REQUIRED

EXISTING RIPRAP TYPICAL
FULL LENGTH OF WHARF TO
REMAIN

NOTES:
1. TOP OF SSP RETURN WALL SHALL MATCH ELEVATION OF SSP ALONG WATERWAY (EL. 21.65')
2. EXISTING UTILITIES PENETRATING THROUGH EXISTING HEADWALL SHALL BE CUT AND SLEEVED
AS REQUIRED TO FACILITATE SSP INSTALLATION.
3. IT IS THE CONTRACTOR’S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN
THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS
COMPLETED.
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Adjacent Property Owners:
CITY OF TACOMA

Applicant: CITY OF TACOMA
Reference Number: 6

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION
Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 6 of 13 Date: AUGUST 2021

PROPOSED MUNI DOCK SECTION
SCALE : 1" = 16'

WATER DATUMS

APPROXIMATE HIGH TIDE LINE (HTL) 13.50'
MEAN HIGHER HIGH WATER (MHHW) 11.85'
MEAN HIGH WATER (MHW) 11.00'
MEAN SEA LEVEL (MSL) 6.85'
MEAN LOW WATER (MLW) 2.85'
MEAN LOWER LOW WATER (MLLW) 0.00'
LOWEST OBSERVED WATER LEVEL (11/28/07) -4.71'

REFERENCE:
NOAA STATION: TACOMA, WASHINGTON #8441484

NOTE:
ELEVATIONS REFERENCE TO MLLW UNLESS OTHERWISE NOTED

NOTES:
1. PROTECT EXISTING CONCRETE PEDESTAL FOUNDATIONS AND TIMBER HEADWALL DURING SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W

Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Adjacent Property Owners:
CITY OF TACOMA

Applicant:
CITY OF TACOMA

Scale: 1" = 30'

Remove and replace bituminous pavement as required (±2,700 SF)

APPROXIMATE
OHWM EL. 16.0ft

APPROXIMATE
HTL EL. 13.5ft

Existing riprap to remain

Concrete headwall to remain (Typ.)

Concrete monolith/pedestal foundation to remain (Typ.)

Concrete headwall to remain (Typ.)

Concrete monolith/peDESTAL FOUNDATION TO REMAIN (TYP)

Remove and replace bituminous pavement as required (±2,700 SF)

Approximate OHWM EL. 16.0±

Approximate MHW EL. 11.0±

Approximate HTL EL. 13.5±

Notes:
1. Existing utilities penetrating through existing headwall shall be cut and sleeved as required to facilitate SSP installation.
2. It is the contractor's responsibility to provide shoring as required to maintain the stability of the existing structure until construction of the proposed SSP is completed.

CITY OF TACOMA
7576 WEST VICTORY RD
BOISE, ID 83709
Phone: 208-254-1266

In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA

Sheet: 7 of 13 Date: AUGUST 2021
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVENTMENT STABILIZATION

Lat/Long: 47.2550\degree N, -122.4355\degree W

Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Sheet: 8 of 13 Date: AUGUST 2021

WATER DATUMS

APPROXIMATE HIGH TIDE LINE (HTL) 13.50'  
MEAN HIGHEST HIGH WATER (MHHW) 11.60'  
MEAN HIGH WATER (MHW) 11.00'  
MEAN SEA LEVEL (MSL) 8.85'  
MEAN LOW WATER (MLW) 2.85'  
MEAN LOWER LOW WATER (MLLW) 0.00'  
LOWEST OBSERVED WATER LEVEL (11/26/07) -4.71'

NOTE: ELEVATIONS REFERENCE TO MLLW UNLESS OTHERWISE NOTED

PROPOSED SITE 10 SECTION
SCALE: 1" = 16'

NOTES:
1. PROTECT EXISTING CONCRETE PEDESTAL FOUNDATIONS AND HEADWALL DURING SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.
SITE 12 WORK PLAN
SCALE: NTS

Applicant: CITY OF TACOMA
Reference Number: 
Adjacent Property Owners: CITY OF TACOMA

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION
Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 10 of 13 Date: AUGUST 2021

In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA
SITE 12 PROPOSED PLAN

SCALE: 1" = 20'

NOTES:
1. EXISTING UTILITIES PENETRATING THROUGH EXISTING HEADWALL SHALL BE CUT AND SLEEVED AS REQUIRED TO FACILITATE SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W

Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Sheet: 11 of 13 Date: AUGUST 2021

CITY OF TACOMA

Application: CITY OF TACOMA

Reference Number:

Adjacent Property Owners:
CITY OF TACOMA

In:
FOSS WATERWAY

Near/At:
TACOMA

County:
PIERCE

State:
WA
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVEGETATION STABILIZATION

Lat/Long: 47.2550° N, -122.4355° W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 12 of 13 Date: AUGUST 2021

NOTES:
1. EXISTING UTILITIES PENETRATING THROUGH EXISTING HEADWALL SHALL BE CUT AND SLEEVED AS REQUIRED TO FACILITATE SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550° N, -122.4355° W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Sheet: 13 of 13  Date: AUGUST 2021
CITY OF TACOMA
SITE 10, SITE 12 AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Reference Number: In: FOSS WATERWAY
Adjacent Property Owners: Near/At: TACOMA
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION
State: WA

Applicant: CITY OF TACOMA
Sheet: 1 of 13 Date: AUGUST 2021

Collins Engineers
7575 West Victory Rd
Boise, ID 83709
Phone: 208-254-1266
DEBRIS CONTAINMENT NOTES:

1. CONTRACTORS MUST PREPARE AND IMPLEMENT A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN CONSISTENT WITH WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) REGULATIONS.

2. CONTRACTOR PERSONNEL SHALL BE EQUIPPED WITH APPROPRIATE SPILL RESPONSE MATERIALS INCLUDING OIL-ABSORBENT PADS AND BOOMS.

3. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENT, SEDIMENT LADEN WATER, CHEMICALS OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO SURFACE WATER.

4. REPLACE WITH CONTAINMENT BMP AT OR ABOVE THE ORDINARY HIGH WATER MARK.

5. EQUIPMENT SHALL BE INSPECTED DAILY FOR DRIPS OR LEAKS TO PREVENT SPILLS OR RELEASES TO SURFACE WATER.

6. IN THE EVENT OF AN UNEXPECTED RELEASE OF A HAZARDOUS SUBSTANCE DURING PROJECT ACTIONS, NOTIFY THE UNITED STATES COAST GUARD (USCG) NATIONAL RESPONSE CENTER AT 1.800.424.8802 AND THE WASHINGTON STATE EMERGENCY MANAGEMENT DIVISION AT 1.800.258.5990 WITHIN 1 HOUR OF DISCOVERY.

7. AN EMERGENCY SPILL CONTAINMENT KIT MUST BE LOCATED ON SITE ALONG WITH A POLLUTION PREVENTION PLAN DETAILING PLANNED FUELING, MATERIALS STORAGE, AND EQUIPMENT STORAGE. WASTE STORAGE AREAS MUST BE PREPARED TO ADDRESS PREVENTION AND CLEANUP OF ACCIDENTAL SPILLS.

8. ALL CONSTRUCTION-RELATED DEBRIS MUST BE CLEANED UP DAILY. PROPER CONSERVATION MEASURES SHALL BE TAKEN TO ENSURE THAT DEBRIS WILL NOT CONTAMINATE SURFACE WATERS.

9. ROUTINE INSPECTIONS OF THE BMP CONTROL MEASURES SHALL BE CONDUCTED DAILY DURING CONSTRUCTION TO ENSURE THE EFFECTIVENESS OF THE MEASURES AND TO DETERMINE THE NEED FOR MAINTENANCE OR ADDITIONAL CONTROL MEASURES.

10. FUELING AREAS MUST BE DISTINCTLY IDENTIFIED AND ESTABLISHED OUTSIDE OF SENSITIVE AREAS, BUT WITHIN THE CONSTRUCTION AREA. THESE AREAS MUST BE EQUIPPED WITH SPILL PREVENTION AND CONTROL DEVICES.

11. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), IMMEDIATELY NOTIFY ECOLOGY AT 1.800.258.5990 AND THE WDFW AREA HABITAT BIOLOGIST LISTED IN THE HYDRAULIC PROJECT APPROVAL (HPA).
295'± MUNI DOCK

Site: 10

NOTES:
1. TOP OF SSP RETURN WALL SHALL MATCH ELEVATION OF SSP ALONG WATERWAY (EL 21.65').
2. EXISTING UTILITIES PENETRATING THROUGH EXISTING HEADWALL SHALL BE CUT AND SLEEVED AS REQUIRED TO FACILITATE SSP INSTALLATION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.

MUNI DOCK PROPOSED PLAN
SCALE : 1" = 50'

Applicant: CITY OF TACOMA
Reference Number: 706397-43
Adjacent Property Owners:
CITY OF TACOMA

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION
Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal= NAD83
Vertical = MLLW
Sheet: 5 of 13 Date: AUGUST 2021

Collins Engineers
7576 West Victory Road
Boise, ID 83709
Phone: 208-254-1266

In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA
Datum:
WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Adjacent Property Owners:
CITY OF TACOMA

Applicant:
CITY OF TACOMA

Sheet:
of 13

Date:
AUGUST 2021

Lat/Long:
47.2550°N, -122.4355°W

Reference Number:
In:
FOSS WATERWAY

Near/At:
TACOMA

County:
Pierce

State:
WA

PROPOSED MUNI DOCK SECTION

SCALE : 1" = 16'

NOTES:
1. PROTECT EXISTING CONCRETE PEDESTAL FOUNDATIONS AND TIMBER HEADWALL DURING SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.

EXISTING CONCRETE PILE CAP AND BEAM TO REMAIN

EXISTING CONCRETE PEDESTAL FOUNDATION TO REMAIN

EXISTING CONCRETE MONOLITH/PEDESTAL FOUNDATION TO REMAIN

EXISTING CONCRETE BENT CAP AND BEAMS TO REMAIN

EXISTING RIPRAP TO REMAIN

EXISTING CONCRETE HEADWALL (EXISTING TIMBER HEADWALL TO REMAIN)

TOP OF RIPRAP EL. -16.0'

EXISTING CONCRETE PEDESTAL FOUNDATION TO REMAIN

PROPOSED 2"x2" CONCRETE PILE CAP

PROPOSED BITUMINOUS pavemen

PROPOSED 5"x2.5" CANTILEVER SSP

EXISTING BITUMINOUS PAVEMENT TO REMAIN

PROPOSED 2'x2' CONCRETE PILE CAP

PROPOSED BITUMINOUS PAVEMENT

PROPOSED 5"x2.5" CANTILEVER SSP

EXISTING BITUMINOUS PAVEMENT TO REMAIN

SCALE IN FEET

0 8 16

SCALE IN FEET

0 8 16

REFERENCE:
NOAA STATION: TACOMA, WASHINGTON #0448484

NOTE:
ELEVATIONS REFERENCE TO MLLW UNLESS OTHERWISE NOTED

WATER DATUMS

APPROXIMATE HIGH TIDE LINE (HTL) 13.55'
MEAN HIGH WATER (MHW) 11.85'
MEAN HIGH WATER (MHHW) 11.00'
MEAN SEA LEVEL (MSL) 6.85'
MEAN LOW WATER (MLW) 2.85'
MEAN LOW WATER (MLLW) 0.00'
LOWEST OBSERVED WATER LEVEL (11/20/07) -4.71'

9" (TYP)

TIP EL 29.0'

MLLW EL 0.0'

MLW EL 11.0'

MHW EL 11.0'

HTL EL 13.5'

EXITING CONCRETE BENT CAP AND BEAMS TO REMAIN

EXISTING RIPRAP TO REMAIN

EXISTING CONCRETE PILE CAP AND BEAM TO REMAIN

T/BENT EL 20.0'

PROPOSED 5"x2.5" CANTILEVER SSP
Datum:
WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Adjacent Property Owners:
CITY OF TACOMA

Applicant:
Sheet: of 13
Date: AUGUST 2021

Lat/Long:
47.2550°N, -122.4355°W

Reference Number:
In:
FOSS WATERWAY
Near/At:
TACOMA
County:
PIERCE
State:
WA

EXISTING TOP OF HEADWALL EL 21'±
EXISTING CONCRETE PEDESTAL FOUNDATION TO REMAIN
EXISTING RIPRAPP TO REMAIN
HNL EL 13.8'±
MHW EL 11.0'±
MLLW EL 0.0'±
HTL EL 11.0'±

PROPOSED 2 x 2' CONCRETE PILE CAP
PROPOSED BITUMINOUS PAVEMENT
PROPOSED 5C22S CANTILEVER SSP

NOTES:
1. PROTECT EXISTING CONCRETE PEDESTAL FOUNDATIONS AND HEADWALL DURING SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.

PROPOSED SITE 10 SECTION
SCALE: 1" = 16'

WATER DATUMS
APPROXIMATE HIGH TIDE LINE (HNL) 13.50'
MEAN HIGHER HIGH WATER (MHHW) 11.80'
MEAN HIGH WATER (MHW) 11.00'
MEAN SEA LEVEL (MSL) 8.85'
MEAN LOW WATER (MLW) 2.85'
MEAN LOWER LOW WATER (MLLW) 0.00'
LOWEST OBSERVED WATER LEVEL (11/26/07) -4.71'

REFERENCE
NOAA STATION: TACOMA, WASHINGTON #8446484

NOTE:
ELEVATIONS REFERENCE TO MLLW UNLESS OTHERWISE NOTED

0 8 16 SCALE IN FEET

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVERTMENT STABILIZATION

COLLINS ENGINEERS
7576 WEST VICTORY RD
BOISE, ID 83709
Phone: 208-254-1266

Applicant: CITY OF TACOMA
Reference Number:
Adjacent Property Owners:
CITY OF TACOMA

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 8 of 13 Date: AUGUST 2021
Application by the City of Tacoma for Site 10, Site 12, and Municipal Dock Revetment Stabilization.

**Datum:** WA State Plane North

Horizontal=NAD83

Vertical=MLLW

**Adjacent Property Owners:**

CITY OF TACOMA

**Applicant:** CITY OF TACOMA

**Lat/Long:** 47.2550°N, -122.4355°W

**Reference Number:** In: FOSS WATERWAY

**Near/At:** TACOMA

**County:** PIERCE

**State:** WA

**Date:** AUGUST 2021
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 10 of 13 Date: AUGUST 2021
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK
REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W

Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW

Sheet: 11 of 13   Date: AUGUST 2021
CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION
Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 12 of 13  Date: AUGUST 2021

Applicant: CITY OF TACOMA
Reference Number: TPN 8950002155
Adjacent Property Owners: CITY OF TACOMA

Notes:
1. Existing utilities penetrating through existing headwall shall be cut and sleeved as required to facilitate SSP installation.
2. It is the contractor's responsibility to provide shoring as required to maintain the stability of the existing structure until construction of the proposed SSP is completed.

COLLINS ENGINEERS
7576 WEST VICTORY RD
BOISE, ID 83709
Phone: 208-254-1266
In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA
NOTE:
1. PROTECT EXISTING CONCRETE PEDESTAL FOUNDATIONS AND HEADWALL DURING SSP INSTALLATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SHORING AS REQUIRED TO MAINTAIN THE STABILITY OF THE EXISTING STRUCTURE UNTIL CONSTRUCTION OF THE PROPOSED SSP IS COMPLETED.

EXISTING HEADWALL TO REMAIN
MLLW EL 0.0' ±

EXISTING RIPRAP TO REMAIN

EXISTING CONCRETE PEDESTAL FOUNDATION TO REMAIN

H TL EL 13.0' ±

MHW EL 11.0' ±

MLLW EL 0.0' ±

EXISTING TOP OF HEADWALL EL 20.2'

TP EL 29.8'

WATER DATUMS
APPROXIMATE HIGH TIDE LINE (HTL) 13.50'
MEAN HIGHER HIGH WATER (MHHW) 11.80'
MEAN HIGH WATER (MHW) 11.00'
MEAN SEA LEVEL (MSL) 8.85'
MEAN LOW WATER (MLW) 2.85'
MEAN LOWER LOW WATER (MLLW) 0.00'
LOWEST OBSERVED WATER LEVEL (11/26/07) -4.71'

REFERENCE
NOAA STATION: TACOMA, WASHINGTON 8446484

NOTE:
ELEVATIONS REFERENCE TO MLLW UNLESS OTHERWISE NOTED

SITE 12 PROPOSED SECTION
SCALE: 1" = 10'

EXISTING BITUMINOUS PAVEMENT TO REMAIN

PROPOSED 2'x2' CONCRETE PILE CAP
PROPOSED BITUMINOUS PAVEMENT
PROPOSED BC225 CANTILEVER SSP

PROPOSED SCZ25 CANTILEVER SSP

REFERENCES

TABLE:

CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 13 of 13 Date: AUGUST 2021

Adjacent Property Owners:
CITY OF TACOMA

In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA

Applicant: CITY OF TACOMA
Reference Number:

Application: CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 13 of 13 Date: AUGUST 2021

Adjacent Property Owners:
CITY OF TACOMA

In: FOSS WATERWAY
Near/At: TACOMA
County: PIERCE
State: WA

Collins Engineers
7576 West Victory Road
Boise, ID 83709
Phone: 208-254-1266

Band: CITY OF TACOMA
SITE 10, SITE 12, AND MUNICIPAL DOCK REVETMENT STABILIZATION

Lat/Long: 47.2550°N, -122.4355°W
Datum: WA State Plane North
Horizontal=NAD83
Vertical=MLLW
Sheet: 13 of 13 Date: AUGUST 2021
Dear Mr. Thompson:

We have received your application for a Department of the Army (DA) permit to install sheet pile walls and remove debris at three locations (Municipal Dock, Site 10, and Site 12) in the Thea Foss Waterway at Tacoma, Washington, as depicted on the enclosed drawings dated August 2021. We have reviewed the information you provided to us pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act (RHA). We have determined that no action by the U.S. Army Corps of Engineers (Corps) is required for the proposed work described in your application and drawings.

Under Section 10 of the Rivers and Harbors Act of 1899, a Section 10 DA permit is normally required for work or structures in or affecting navigable waters of the U.S. The Thea Foss Waterway is a navigable water of the U.S. Because work will occur landward of mean high water, a Section 10 DA permit is not required.

Under Section 404 of the Clean Water Act, a DA permit is normally required for the discharge of dredged or fill material (e.g., fill, excavation, or mechanized land clearing) into waters of the U.S., including wetlands and navigable waters of the U.S. For more information, see the enclosed Clean Water Act Extracts and Definitions. The Thea Foss Waterway is a water of the U.S. However, because the installation of the sheet pile walls (including associated backfill) will occur landward of the high tide at this location, a Section 404 DA permit is not required.

While a DA permit is not required, local, State, and other Federal requirements may still apply. For assistance in determining other permit requirements for the proposed project, we recommend you contact the Washington State Office of Regulatory
Assistance via the internet at www.ora.wa.gov. A copy of this letter will be furnished to Mr. Shawn Mahugh at smahugh@geoengineers.com. If you have any questions, please contact Mr. Daniel Krenz at daniel.a.krenz@usace.army.mil or (206) 316-3153.

Sincerely,

[Signature]

Jacalen Printz, Chief
Regulatory Branch

Enclosure
EXTRACTS from the Clean Water Act:

1. SECTION 301 (33 U.S.C. 1311)
   The discharge of any pollutant by any person shall be unlawful except as in compliance with various sections of the Clean Water Act, including Section 404.

2. SECTION 309 (33 U.S.C. 1319)
   This section provides that any person who negligently violates the provisions of the Clean Water Act may be punished by a criminal penalty of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both. Any person who knowingly violates this Act may be punished by a criminal penalty of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or by both. This section also provides that any person who violates the provision of this Act may be subject to a civil penalty up to $53,484 per day for each violation.

3. SECTION 404 (33 U.S.C. 1344)
   (a) The Secretary of the Army, acting through the Chief of Engineers, may issue permits, after notice and opportunity for public hearings, for the discharge of dredged or fill material into the navigable waters at specified disposal sites.

   (b) Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary of the Army (1) through the application of guidelines developed by the Administrator of the Environmental Protection Agency (Administrator), in conjunction with the Secretary of the Army, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section 403(c), and (2) in any case where such guidelines under clause (1) alone would prohibit the specification of a site, through the application additionally of the economic impacts of the site on navigation and anchorage.

   (c) The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary of the Army. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.
EXTRACTS from the Rivers and Harbors Act of March 3, 1899:

1. SECTION 10
   The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same. (30 Stat. 1151; 33 U.S.C. 403)

2. SECTION 12
   This section states that every person and every corporation that shall violate any of the provisions of Sections 9, 10, and 11 of this Act, or any rule or regulations made by the Secretary of the Army in pursuance of the provisions of Section 11, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding $2,500 nor less than $500, or by imprisonment (in the case of a natural person) not exceeding one year, or by both such punishments, in the discretion of the court. And further, the removal of any structures or parts of structures erected in violation of the provisions of the said sections may be enforced by the injunction of any district court exercising jurisdiction in any district in which such structures may exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States. (30 Stat. 1151; 33 U.S.C. 406)

   The Alternative Fine Statute (18 U.S.C. 3571) increased the amount of fines the government may impose for criminal violations of Section 10. An individual who has been found guilty of a Class A misdemeanor that does not result in death may be fined up to $100,000 (18 U.S.C. 3571(b)(5)), and an organization that has been found guilty of a Class A misdemeanor that does not result in death may be fined up to $200,000 (18 U.S.C. 3571(c)(5)).
DEFINITIONS from the U.S. Army Corps of Engineers Regulatory Program:

The term “wetlands” means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. (33 C.F.R. 328.3)

The term “adjacent” means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by manmade dikes or barriers, natural river berms, beach dunes, and the like are “adjacent wetlands.” (33 C.F.R. 328.3)

The term “ordinary high water mark” means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area. (33 C.F.R. 328.3)

The term “high tide line” means the line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm. (33 C.F.R. 328.3)

The term “mean high water” in coastal areas means the average high water of the tides. Where precise determination of the actual location of the line becomes necessary, it must be established by survey with reference to the available tidal datum, preferably averaged over a period of 18.6 years. Less precise methods, such as observation of the “apparent shoreline” which is determined by reference to physical markings, lines of vegetation, or changes in type of vegetation, may be used only where an estimate is needed of the line reached by the mean high water. (33 C.F.R. 329.12)

The term “navigable waters of the United States” means those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. (33 C.F.R. 329.4)

The term “discharge of dredged material” means any addition of dredged material into, including redeposit or dredged material other than incidental fallback within, the waters of the United States. The term includes, runoff from a contained land or water disposal area, and any addition, including redeposit, of dredged or excavated material. The term dredged material means material that is excavated or dredged from waters of the United States. (33 C.F.R. 323.2)
The term "discharge of fill material" means the addition of fill material into waters of the United States. The term generally includes placement of fill necessary for the construction of any structure or infrastructure requiring rock, sand, dirt, or other materials for its construction. Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of the waters with dry land or changing the bottom elevation of any portion of the waters. (33 C.F.R. 323.2)

The term "structure" means, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction. (33 C.F.R. 322.2)

The term "work" means, without limitation, any dredging or disposal of dredged material, excavation, filling, or other modification of a navigable water of the United States. (33 C.F.R. 322.2)
PART III

CITY OF TACOMA

EQUITY IN CONTRACTING PROGRAM
CITY OF TACOMA EQUITY IN CONTRACTING (EIC) AND LEAP PROGRAMS

Bidders Special Instructions

As part of the City of Tacoma's ongoing work to address past disparities and to increase the City’s contracting with and utilization of historically underutilized businesses, the Equity in Contracting (EIC) Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women’s Business Enterprise (OMWBE) and approved by the Equity in Contracting Program (“Certified Businesses”). The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City of Tacoma.

The EIC Program requirements are contained in Tacoma Municipal Code Chapter 1.07.

Contractors bidding on City of Tacoma projects are required to meet the stated EIC requirements. Bids will be evaluated on an individual basis to determine EIC compliance. **A contractor who fails to meet the stated EIC requirements will be considered non-responsible.** Bidders are also subject to the City’s Equal Employment Opportunity policies prohibiting discrimination.

The stated EIC requirements may be met by the contractor or by identified subcontractors. All EIC Requirements may be met by using MBEs, WBEs, DBEs or SBEs from the OMWBE certified list ([OMWBE website](http://www.owmbe.com)). It is the bidder’s responsibility to ensure that their firm or identified subcontractors are certified by OMWBE and approved by the City of Tacoma EIC Program at the time of bid submittal. Business certification may be verified by contacting the EIC Office*.

*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office* if you have any questions.

The Equity in Contracting (EIC) forms included in these bid documents must be fully completed (including attachments) and included with bid submittals. Failure to include the required forms will result in the submittal being rejected as nonresponsive.

Post-Award Important Information
For all contracts that have requirements related to the EIC and LEAP policies, the City of Tacoma is utilizing two cloud-based software systems:

- **B2Gnow** - Contractors and subcontractors must report payment information in the B2Gnow System on a monthly basis. The EIC Staff will monitor/audit that retainage is paid by the prime contractor to the subcontractor(s) within 10 [working] days after the subcontractors’ work is satisfactorily completed. This will be monitored/audited using the B2Gnow System.

- **LCP Tracker** - This system must be used for submitting certified payroll(s) for both EIC and LEAP compliance.
Both systems are monitored/audited by EIC and LEAP staff to ensure contract compliance, proactively identify potential issues and track contract progress.

**EIC & LEAP STAFF Contact Information**

- For questions regarding Certifications, EIC Compliance and B2GNow support, contact EIC Staff:
  - Malika Godo at (253) 591-5630, or via email at mgodo@cityoftacoma.org
  - Gary Lizama at (253) 591-5826, or via email at glizama@cityoftacoma.org

- For questions in regards to LEAP compliance and LCP Tracker support, contact LEAP Staff:
  - Deborah Trevorrow at (253) 591-5590, or via email at dtrevorrow@cityoftacoma.org
EIC REQUIREMENT FORM

EQUITY IN CONTRACTING REQUIREMENTS & PROCEDURES:

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

City of Tacoma – EIC Utilization Form

IMPORTANT NOTE:

It is the bidder’s responsibility to ensure that the subcontractor(s) listed on the EIC Utilization Form are currently certified by the State of Washington’s Office of Minority and Women Business Enterprises (OMWBE) at the time of bid opening. This may be verified by contacting the EIC Office at 253-591-5630 between 8 AM and 5 PM, Monday through Friday or the OMWBE Office at (866) 208-1064. Please refer to the City of Tacoma EIC code.

<table>
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<tr>
<th>Equity in Contracting Requirements</th>
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A list of EIC-eligible companies is available on the following web site addresses:

[www.omwbe.diversitycompliance.com](http://www.omwbe.diversitycompliance.com)*

MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE EIC UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 1.07

CCD/SBE: PW22-0105F
Date of Record: 03/08/2022

*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.
EQUITY IN CONTRACTING UTILIZATION FORM

This form is to document only the contractors, subcontractors, which are intended to be used to meet the stated EIC requirements for the contract awarded from this solicitation. This information will be used to determine contract award. Additional forms may be used if needed.

- You must include this form with your bid submittal in order for your bid to be responsive.
- Prime contractors are required to solicit bids from Certified Businesses approved by the Washington State Office of Minority & Women’s Business Enterprises (OMWBE).
- It is the prime contractor’s responsibility to check the certification status of the firms intended to be utilized prior to the submittal deadline.

Bidder’s Name: ____________________________
Address: ____________________________ City/State/Zip: ____________________________

Spec. No. ____________________________ Base Bid * $ ____________________________

Complete company names and phone numbers are required to verify your usage of qualifying firms.

<table>
<thead>
<tr>
<th>a. Company Name and Certification Number(s)</th>
<th>b. MBE, WBE, or SBE (Write all that apply)</th>
<th>c. NAICS code(s)</th>
<th>d. Contractor Bid Amount (100%)</th>
<th>e. Material Supplier Bid Amount (20%)</th>
<th>f. Estimated MBE Usage Dollar Amount</th>
<th>g. Estimated WBE Usage Dollar Amount</th>
<th>h. Estimated SBE Usage Dollar Amount</th>
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i. MBE Utilization %

j. WBE Utilization %

k. SBE Utilization %

By signing and submitting this form the bidder certifies that the Certified Businesses listed will be used on this project including all applicable change orders.

Type or Print Name of Responsible Officer / Title ____________________________ Signature of Responsible Officer ____________________________ Date ____________________________

CCD/SBE/FORMS revised March 2022
INSTRUCTIONS FOR COMPLETING
EIC UTILIZATION FORM

The purpose of these instructions is to assist bidders in properly completing the EIC Utilization Form.

This form when submitted with your bid provides information to the City of Tacoma to accurately review and evaluate your proposed EIC usage.

1. * Base Bid is the prime contractor’s bid, plus any alternates, additives and deductive selected by the City. Also, please refer to Items #10-12 below.

2. Column “a” – List all Certified Businesses that you will be awarding a contract to if you are the successful bidder.

3. Column "b" – Identify if this firm is being utilized as an MBE, WBE, or SBE. (Firms may count towards multiple requirements)

4. Column "c" – List the appropriate NAICS code for the scope of work, services, or materials/supplies for each contractor.

5. Column “d” – The bid amount must be indicated for Certified Businesses listed EIC that you plan on doing business with. This quote is the price that you and the contractor have negotiated prior to bid opening.

6. Column “e” – The bid amount must be indicated for Certified Businesses listed EIC that you plan on doing business with. This quote is the price that you and the material supplier have negotiated prior to bid opening.

7. Column "f" – Estimated MBE Usage Dollar Amount: For all MBE firms used, multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

8. Column “g” – Estimated WBE Usage Dollar Amount: For all WBE firms used, multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

9. Column “h” – Estimated SBE Usage Dollar Amount: For all MBE, WBE, or SBE firms used, Multiply the amount in Column “d” by 1.0 plus the amount in Column “e” by 0.20. Insert the total amount in this column.

10. Block “i” – The percent of actual MBE utilization calculated on the Base Bid only. (Divide the sum of Estimated MBE Usage Dollar Amount (Column “f”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “f” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

11. Block “j” – The percent of actual WBE utilization calculated on the Base Bid only. (Divide the sum of Estimated WBE Usage Dollar Amount (Column “g”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “g” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)
13. Block “k” – The percent of actual SBE utilization calculated on the Base Bid only. (Divide the sum of Estimated SBE Usage Dollar Amount (Column “h”) by your Base Bid (*) then multiply by 100 to get a percentage: $ amounts from column “h” divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

It is the prime contractor’s responsibility to check the status of Certified Businesses prior to bid opening. Call the EIC Office at 253-591-5630 for additional information.
PART IV

LOCAL EMPLOYMENT
AND
APPRENTICESHIP
TRAINING PROGRAM (LEAP)

REGULATIONS
FOR
PUBLIC WORKS CONTRACTS
LEAP

Documents and Submittal Schedule

In the attached packet, you will find the LEAP forms that are required to be submitted by the Prime and Sub Contractors.

- **LEAP Abbreviated Program Requirements**: brief overview of LEAP Program requirements
- **Prime Contractor LEAP Utilization Plan**: to be submitted at the Pre-Construction Meeting *(Required by Prime Contractor Only)*
- **LEAP Employee Verification Form**: to be submitted on an ongoing basis for each qualified LEAP employee
- **LEAP Weekly Payroll Report**: must be attached and filled out to the front of each certified payroll
- **Tacoma Public Utilities Service Area Map, Economically Distressed ZIP Codes Map**: for your reference on LEAP-qualified zoning areas

In addition, the City of Tacoma will also require from the Prime Contractor and all its Subcontractors:

- **Weekly Certified Payrolls**: to be submitted via LCP Tracker weekly, biweekly or monthly with the LEAP Payroll Report attached as scheduled by the Prime
- **Statement of Intent to Pay Prevailing Wages**: to be submitted prior to commencing work
- **Affidavit of Wages Paid**: to be submitted upon completion of each contractor’s work
- **Document Verification**: provide required information when requested from LEAP Office

Please submit above documents as instructed by the LEAP Coordinator.

If you have any questions or request further information, please feel free to contact the City of Tacoma’s LEAP Program at (253) 591-5590 or email dtrevorrow@cityoftacoma.org

01/2022  DT
LEAP
LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM
ABBREVIATED PROGRAM REQUIREMENTS

LEAP is a mandatory City of Tacoma program adopted to provide employment opportunities for City of Tacoma residents and residents of Economically Distressed Areas of the Tacoma Public Utilities Service Area. It requires Contractors performing qualifying public works projects or service contracts to ensure that 15 percent of the total labor hours worked on the project are performed by LEAP-Qualified Pierce County apprentices approved by the Washington State Apprenticeship Council (SAC), youth, veterans, residents of Tacoma, residents of surrounding Economically Distressed Areas, and/or TPU Service Areas. Compliance may be met through any combination LEAP-Qualified employees. The Prime Contractor shall be solely responsible for meeting the LEAP Utilization Goal requirements.

Prime Contractors may obtain further information by contacting the City of Tacoma’s LEAP Coordinator, Deborah Trevorrow, at (253) 591-5590, or e-mail leap@cityoftacoma.org. The LEAP Coordinator can assist contractors in the recruitment of qualified entry-level workers to work on City of Tacoma Public Works projects. The LEAP Office is in the Tacoma Municipal Building, 747 Market Street, Rm 900.

LEAP PROGRAM REQUIREMENTS:
1. LOCAL EMPLOYMENT GOAL: The Contractor is required to ensure that 15 percent of the total Labor Hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed ZIP Codes for the following projects:
   a) Civil Projects over $250,000
   b) Building Projects over $750,000

2. APPRENTICE GOAL: The Contractor is required to ensure that 15 percent of the total Labor Hours worked on any project over $1,000,000 are performed by Apprentices who are residents of the Tacoma Public Utilities Service Area. This is in addition to the Local Employment Goal.

3. SUBCONTRACTOR NOTIFICATION: Prime Contractors shall notify all Subcontractors of the LEAP Program requirement. Subcontractor labor hours may be utilized towards achievement of the LUG. Owner/Operator hours may be used for the Local Employment Goal.

4. FAILURE TO MEET LEAP UTILIZATION GOAL: Contractors shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the extent the Contractor met its goal. The amount per hour that shall be assessed shall be as follows:
   - 100% achievement $0.00 penalty
   - 99% to 90% achievement $2.00 penalty
   - 89% to 75% achievement $3.50 penalty
   - 74% to 50% achievement $5.00 penalty
   - 49% to 1% achievement $7.50 penalty
   - 0% achievement $10.00 penalty

*Penalty may be waived in the best interests of the City of Tacoma.
LEAP DOCUMENT SUBMITTALS**:

1. **PRIME CONTRACTOR LEAP UTILIZATION PLAN (PCLUP):** The Contractor is required to provide the PCLUP at the Pre-Construction meeting showing the goals to be achieved for the project. The Contractor must identify in the PCLUP the estimated labor hours to be worked on the project by trade/craft persons.

2. **LEAP EMPLOYEE VERIFICATION FORM:** The Contractor must provide the LEAP Office with a form for every person whom the contractor thinks will assist with attaining credit towards meeting the LUG with at least one piece of verifying documentation. The LEAP Office staff will respond regarding whether or not the employee is LEAP-Qualified.

3. **LEAP WEEKLY PAYROLL REPORT:** The Prime and Subcontractors must complete and attach this form to the front of each weekly certified payroll when submitting payrolls in LCP Tracker.

4. **WEEKLY CERTIFIED PAYROLL:** The Prime and Subcontractors must submit weekly Certified Payrolls that include, employee name, address, social security number, craft/trade, class, hours worked on this job, rate of pay, and gross wages paid including benefits for this job.

5. **DEPARTMENT OF LABOR & INDUSTRIES (L&I):** The Prime must enter the project in the L&I project site and notify the LEAP Office when this has been completed.

**WITHHOLDING PROGRESS PAYMENTS:** The LEAP Coordinator may withhold progress payments for failure to follow the above-outlined procedures.
CHAPTER 1.90
LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM

Sections:
1.90.010 Purpose.
1.90.020 Scope.
1.90.030 Definitions.
1.90.040 LEAP goals.
1.90.050 Repealed.
1.90.060 Effect of program on prime contractor/subcontractor relationship.
1.90.070 Apprentice utilization requirements – Bidding and contractual documents.
1.90.080 Enforcement.
1.90.090 Compliance with applicable law.
1.90.100 Review and reporting.
1.90.105 Authority
1.90.110 Interpretation.

1.90.010 Purpose.

The purpose of this Chapter is to establish a means of providing for the development of a trained and capable workforce possessing the skills necessary to fully participate in the construction trades.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.020 Scope.

The provisions of this Chapter shall apply to all Public Works or Improvements funded in whole or in part with City funds or funds which the City expends or administers in accordance with the terms of a grant.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.030 Definitions.

As used in this chapter, 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 $750,000.00, 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 $250,000.00 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 to construct a Public Work or Improvement.

F. “Director” shall mean the Director of Community and Economic Development, or the Director’s Designee.

G. “Economically Distressed ZIP Codes” shall mean ZIP codes in the Tacoma Public Utilities Service Area that meet two out of three (2/3) of the thresholds of:

1. High concentrations of residents living under 200% of the federal poverty line in terms of persons per acre (69th percentile)
2. High concentrations of unemployed people in terms of persons per acre (45th percentile)
3. High concentrations of people 25 years or older without a college degree in terms of persons per acre (75th percentile)

Said thresholds shall be updated within 30 days following any Prevailing Wage updates issued by the Washington State Labor and Industry. All updates are to be published on the first business day in August and in February of each calendar year.
H. “Electrical Utility” and “Water Utility” shall mean, respectively, 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, and the Water Division of the Department of Public Utilities of the City of Tacoma.

I. “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.

J. “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.

K. “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.

L. “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).

M. “LEAP Coordinator” shall mean the City of Tacoma staff member who administers LEAP.

N. “LEAP Program” or “Program” shall mean the City of Tacoma’s Local Employment and Apprenticeship Training Program, as described in this chapter.

O. “LEAP Regulations” or “Regulations” shall mean the rules and practices established in this document.

P. “LEAP Utilization Plan” shall mean the document submitted by the Contractor to the LEAP Coordinator which outlines how the associated goals will be met on the project.

Q. “Priority Hire Resident” shall mean any resident within the Economically Distressed ZIP Codes.

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

S. “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.

T. “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. “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.

V. “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.

W. “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.”

X. “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.

Y. “Tacoma Public Utilities” means the City of Tacoma, Department of Public Utilities.

Z. “Tacoma Public Utilities Service Area” shall mean every ZIP code listed by Tacoma Public Utilities as an area that either receives services or maintains infrastructure to provide services.

AA. Washington State Labor and Industry Prevailing Wage shall mean the hourly wage, usual benefits and overtime, paid in the largest city in each county, to the majority of workers, laborers, and mechanics. Prevailing wages are established, by the Department of Labor & Industries, for each trade and occupation employed in the performance of public work. They are established separately for each county, and are reflective of local wage conditions.
1.90.040 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 at least 15 percent of the total Labor Hours actually worked on the Project are performed by persons having their residence within the boundaries of the City of Tacoma or Economically Distressed ZIP Codes, whether or not any such person is an Apprentice.

   a. The thresholds for this section shall be $250,000.00 for Civil Projects and $750,000.00 for Building Projects.

2. Fifteen percent (15%) of the Total Labor Hours on contracts above one-million dollars ($1,000,000.00) shall have work performed by Apprentices who are residents of the Tacoma Public Utilities Service Area consistent with RCW 39.04.320(1)(a), subject to waiver based on exceptions as specified in RCW 39.04.320(2)(a), (b), and (c).

3. Labor Hours performed by non-residents of the State of Washington will be deducted from a project’s total Labor Hours for purposes of determining compliance with the requirements of this chapter.

4. 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. 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:

<table>
<thead>
<tr>
<th>Percent of Goal Met</th>
<th>Assessment per unmet hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>90% - 99%</td>
<td>$ 2.00</td>
</tr>
<tr>
<td>75% to 89%</td>
<td>$ 3.50</td>
</tr>
<tr>
<td>50% to 74%</td>
<td>$ 5.00</td>
</tr>
<tr>
<td>1% to 49%</td>
<td>$ 7.50</td>
</tr>
<tr>
<td>0%</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

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 Director to be in the best interests of the City, which determination shall be made after consultation with the LEAP Coordinator.

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. The policies and regulations adopted by the City Manager and Director of Utilities pursuant to this chapter shall address issues pertaining to a Contractor’s existing workforce. Contributions need not be made for Labor Hours that have been adjusted in accordance with Section 1.90.040(E).

C. 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.

D. 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.

E. 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.

F. 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.

G. Utilization - Projects Outside Tacoma Public Utilities Service Area.

Civil Projects or Building Projects that are constructed primarily for the benefit or use by Tacoma Public Utilities, which are wholly situated outside the retail service area of the Tacoma Public Utilities Service Area, and for which the estimated cost is less than $1,000,000.00 are exempt from the requirements of this chapter. Projects wholly situated outside the Tacoma Public Utilities Service Area, and for which the estimated cost is more than $1,000,000.00, shall be exempt from 15% utilization goal specified in subsection A1. of this section. The 15% utilization goal specified in subsection A2. of this section may be met if project work is performed by Apprentices who are enrolled in a course of training specific to a particular construction trade or craft, provided such training has been approved by the Washington State Apprenticeship and Training Council in accordance with Chapter 49.04, RCW.

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.

(Ord. 28520 Ex. A; passed Jul. 17, 2018; Ord. 28147 Ex. B; passed May 7, 2013; Ord. 27815 Ex. A; passed Jun. 30, 2009; Ord. 27368 § 2; passed Jun. 21, 2005; Ord. 26992 § 1; passed Oct. 15, 2002; Ord. 26698 § 2; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.050   Repealed by Ord. 27368. Good faith efforts.

(Ord. 27368 § 3; passed Jun. 21, 2005; Ord. 26998 § 3; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.060   Effect of program on prime contractor/service provider - subcontractor relationship.

The LEAP Program shall not be construed so as to modify or interfere with any relationship between any Contractor or Service Provider and Subcontractor. The LEAP Program shall not grant the City any authority to control the manner or method of accomplishing any construction work that is additional to any authority retained by the City in a Public Works contract.

(Ord. 26698 § 4; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.070   Apprentice utilization requirements – Bidding and contractual documents.

All packages of bid documents for every Building Project and every Civil Project shall incorporate provisions satisfactory to the City Attorney so as to allow enforcement of the provisions contained in this Chapter. Such contractual provisions may include liquidated damages, calculated to reimburse the City for the Contractor’s breach of these performance requirements, which shall be published with the City’s call for bids.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.080   Enforcement.

A. The Director shall review the Contractor’s or Service Provider’s and all Subcontractor’s employment practices during the performance of the work 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 Contractor, Service Provider, or Subcontractors shall not deny to the City the right to interview its employees, provided that the Director shall make reasonable efforts to coordinate employee interviews with employers.

B. Any knowing failure or refusal to cooperate in compliance monitoring may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

C. The making of any material misrepresentation may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

D. Any action by the City, its officers and employees, under the provisions of this Chapter may be reviewed by the Board of Contracts and Awards, upon written application of the party so affected. Application shall be made within twenty (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 City Council or Public Utility Board, as appropriate, and thereafter if desired, to the Superior Court of Pierce County, Washington, within fifteen (15) days of the previous decision.

(Ord. 26698 § 5; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.090   Compliance with applicable law.

Nothing in this Chapter shall excuse a Prime Contractor, Service Provider, or Subcontractor from complying with all relevant federal, state, and local laws.

(Ord. 26698 § 6; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.100   Review and reporting.

The City Manager and Director of Utilities shall review the Program on or before January 1, 2000, and every two (2) years thereafter, and shall report to the City Council and Public Utility Board the Manager’s and Director’s findings, conclusions, and recommendations as to the continued need for the Program, and any revisions thereto that should be considered by the Council and Board.
(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.105 Authority.
The City Manager and the Director of Utilities shall have authority to jointly adopt policies and regulations consistent with this chapter to implement the LEAP program.
(Ord. 26698 § 7; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.110 Interpretation.
This Chapter shall not be interpreted or construed so as to conflict with any state or federal law, nor shall this Chapter be enforced such that enforcement results in the violation of any applicable judicial order.
(Ord. 26301 § 1; passed Oct. 6, 1998)
LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

LEAP REQUIREMENTS & PROCEDURES:

The LEAP office enforces post-award mandatory requirements. 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 Weekly Payroll Report.** This form is to be completed and submitted with each certified payroll.

The City of Tacoma’s LEAP office enforces two mandatory requirements on City projects based on certain monetary thresholds.

Local Employment Utilization Goal - the Prime Contractor performing a qualifying public works project must ensure that 15 percent of the total labor hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed Zip Codes whether or not any such person is an apprentice.

Apprenticeship Utilization Goal – for contracts above one-million dollars, the Prime Contractor performing a qualifying public works project must ensure that 15 percent of the total labor hours worked on the project are performed by Apprentices who are residents of the City of Tacoma or Tacoma Public Utilities Service Area. The accompanying LEAP Regulations, forms, and maps are included in these specifications.

*Exceptions: If the project is located outside of the retail service area of the Tacoma Public Utilities Service Area, then Apprentices may come from the county in which the work is performed.

This project is above $1 million and is thusly subject to the:

1. 15% Local Employment Utilization Goal
2. 15% Apprentice Utilization Goal

LEAP staff can assist contractors in the recruitment, screening and selection of qualified City of Tacoma residents, Economically Distressed Area residents, and Apprentices. Contractors may obtain further information by contacting the City’s LEAP Office at (253) 316-3057 or (253) 591-5590. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, WA 98402. www.cityoftacoma.org/leap
## PRIME CONTRACTOR
### LEAP UTILIZATION PLAN

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

### Part A

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<th>Contractor:</th>
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<td>Project Description:</td>
<td>Notes:</td>
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### Part B

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<th>Trade or Craft</th>
<th>City of Tacoma Resident</th>
<th>Economic Distressed Area Resident</th>
<th>Tacoma Public Utilities Service Area Apprentice Resident</th>
<th>WA State Apprentice <em>(Contracts outside of TPU Service Area Only)</em></th>
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**Totals**

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### Part C

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

**Part C**
**Description of how the Contractor plans to ensure fulfillment of the LEAP Utilization Requirement:** This section is to be completed by the Prime Contractor. Please describe how you plan to satisfy the LEAP Utilization Requirement on this project. Provide a summary of your outreach and recruitment procedures to hire LEAP Qualified Employees to work on this project.
No Work Performed (NWP) Report

Prime/Sub Contractor: ___________________________________________________________

Specification Number: ___________________________________________________________

Project Description: _____________________________________________________________

Payroll Week Ending Date: __________________________           Payroll Number: __________

NO WORK PERFORMED

I, the undersigned, do hereby certify under penalty of perjury, that the information contained herein is true and correct.

_________________________         ______________________       __________
Signature of Responsible Officer     Title              Date
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

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): __________

Youth 18 – 24?  Age: _______  Veteran?  Copy of DD-214: _______

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

LEAP qualified employee categories: (check all that apply and provide evidence for each check)

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

_____ b. Resident within Economically Distressed ZIP Codes of the Tacoma Public Utilities Service Area

_____ c. WA State Approved Apprentice living in Tacoma Public Utilities Service Area

_____ d. WA State Approved Apprentice *(Only valid for contracts where 100% of work is performed outside of Pierce County)*

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

_____ 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: ___________________________________________________
# Tacoma Public Utilities Infrastructure and Service Area (Apprentice Utilization)

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PART V

STATE PREVAILING WAGE RATES AND GENERAL REQUIREMENTS
PREVAILING WAGE RATES

This project requires prevailing wages under 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 Pierce County.

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: https://secure.lni.wa.gov/wagelookup/

REQUIRED FILINGS

The contractor and all subcontractors covered under 39.12 RCW shall submit to the Department of Labor and Industries (L&I) for work provided under this contract:

1. A Statement of Intent to Pay Prevailing Wages must be filed with and approved by L&I upon award of contract.

2. An Affidavit of Wages Paid must be filed with and approved by L&I upon job completion.

Payments cannot be released by the City until verification of these filings are received by the engineer. Additional information regarding these filings can be obtained by calling the Department of Labor & Industries, Prevailing Wage at 360-902-5335, https://www.lni.wa.gov/ or by visiting their MY L&I account.
The Contractor (Contractor) shall maintain at least the minimum insurance set forth below. By requiring such minimum insurance, the City of Tacoma shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.

1. GENERAL REQUIREMENTS

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

1.1. City of Tacoma reserves the right to approve or reject the insurance provided based upon the insurer, terms and coverage, the Certificate of Insurance, and/or endorsements.

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

1.3. Contractor shall keep this insurance in force during the entire term of the Contract and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.

1.4. Insurance policies required under this Contract that name “City of Tacoma” as Additional Insured shall:

1.4.1. Be considered primary and non-contributory for all claims.

1.4.2. Contain a “Separation of Insured provision and a “Waiver of Subrogation” clause in favor of City of Tacoma.

1.5. Section 1.4 above does not apply to contracts for purchasing supplies only.

1.6. Verification of coverage shall include:

1.6.1. An ACORD certificate or equivalent.

1.6.2. Copies of all endorsements naming the City of Tacoma as additional insured and showing the policy number.

1.6.3. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

1.7. Liability insurance policies, with the exception of Professional Liability and Workers’ Compensation, shall name the City of Tacoma and its officers, elected officials, employees, agents, and authorized volunteers as additional insured.

1.7.1. No specific person or department should be identified as the additional insured.

1.7.2. All references on certificates of insurance and endorsements shall be listed as “City of Tacoma”.

1.7.3. The City of Tacoma shall be additional insured for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20
1.8. Contractor shall provide a Certificate of Insurance for each policy of insurance meeting the requirements set forth herein when Contractor provides the signed Contract for the work to City of Tacoma. Contractor shall provide copies of any applicable Additional Insured, Waiver of Subrogation, and Primary and Non-contributory endorsements. Contract or Permit number and the City Department must be shown on the Certificate of Insurance.

1.9. Insurance limits shown below may be written with an excess policy that follows the form of an underlying primary liability policy or an excess policy providing the required limit.

1.10. Liability insurance policies shall be written on an “occurrence” form, except for Professional Liability/Errors and Omissions, Pollution Liability, and Cyber/Privacy and Security.

1.11. If coverage is approved and purchased on a “Claims-Made” basis, Contractor warrants continuation of coverage, either through policy renewals or by the purchase of an extended reporting period endorsement as set forth below.

1.12. The insurance must be written by companies licensed or authorized in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best's Key Rating Guide www.ambest.com.

1.13. Contractor shall provide City of Tacoma notice of any cancellation or non-renewal of this required insurance within Thirty (30) calendar days.

1.14. Contractor shall not allow any insurance to be cancelled or lapse during any term of this Contract, otherwise it shall constitute a material breach of the Contract, upon which City of Tacoma may, after giving Five (5) business day notice to Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith; with any sums so expended to be repaid to City of Tacoma by Contractor upon demand, or at the sole discretion of City of Tacoma, offset against funds due Contractor from City of Tacoma.

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

1.16. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services has changed.
1.17. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made by City of Tacoma to Contractor.

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

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

1.20. If Contractor is a State of Washington or local government and is self-insured for any of the above insurance requirements, a certification of self-insurance shall be attached hereto and be incorporated by reference and shall constitute compliance with this Section.

2. CONTRACTOR

As used herein, "Contractor" shall be the Supplier(s) entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

3. SUBCONTRACTORS

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage. Contractor shall provide evidence of such insurance upon City of Tacoma's request.

4. REQUIRED INSURANCE AND LIMITS

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

4.1 Commercial General Liability Insurance

Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) annual aggregate. The Commercial General Liability Insurance policy shall be written on an Insurance Services Office form CG 00 01 04 13 or its equivalent. Products and Completed Operations shall be maintained for a period of three years following Substantial Completion of the Work related to performing construction services.

This policy shall include product liability especially when a Contract solely is for purchasing supplies. The Commercial General Liability policy shall be endorsed to include:

4.2 A per project aggregate policy limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

4.3 Commercial (Business) Automobile Liability Insurance

Contractor shall maintain Commercial Automobile Liability policy with limits not less than One Million Dollars ($1,000,000) each accident for bodily injury and property damage and bodily injury and property damage coverage for owned (if any), non-owned, hired, or leased vehicles. Commercial Automobile Liability Insurance shall be written using ISO form CA 00 01 or
equivalent. Contractor must also maintain an MCS 90 endorsement or equivalent and a CA 99 48 endorsement or equivalent if “Pollutants” are to be transported.

4.4  **Workers’ Compensation**

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

4.4.2  **Longshore and Harbor Workers’ Compensation Act**

Contractor shall provide proof of insurance coverage in compliance with the statutory requirements of the U.S. Longshore and Harbor Workers’ Compensation Act (administered by the U.S. Department of Labor). Contractor shall ascertain if such insurance is required and, if required, shall maintain insurance in compliance with this Act. Contractor is responsible for all civil and criminal liability arising from failure to maintain such coverage.

4.5  **Employers’ Liability Insurance**

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

4.6  **Excess or Umbrella Liability Insurance**

Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Three Million Dollars ($3,000,000) per occurrence and in the aggregate. This coverage shall apply, at a minimum, in excess of primary underlying Commercial General Liability, Employer’s Liability, Pollution Liability, Marine General Liability, Protection and Indemnity, and Automobile Liability if required herein.

4.7  **Pollution Liability Insurance**

Contractor shall maintain a Pollution Liability or Environmental Liability Insurance providing coverage, including investigation and defense costs, for bodily injury and property damage, including loss of use of damaged property or of property that has been physically damaged or destroyed.

Such coverage shall provide both on-site and off-site cleanup costs and cover gradual and sudden pollution, and include in its scope of coverage the City of Tacoma damage claims for loss arising out of Contractor’s work with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) aggregate. This policy shall include Environmental Resource Damage coverage and Hazardous Substance Removal. If such coverage is provided on a “claims-made” basis, the following additional conditions must be met:

4.7.1  The policy must contain no retroactive date, or the retroactive date must precede the commencement date of this Contract.

4.7.2  The extended reporting period (tail) must be purchased to cover a minimum of Six (6) years beyond completion of work.

4.8  **Other Insurance**

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